TRUE SOLUTION | INKA® FIXING SYSTEMS

FIXING SYSTEMS PRODUCTS CATALOGUE

FM APPROVED

UL LISTED

ISO 9001

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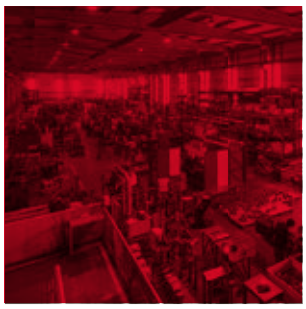
FIXING SYSTEMS
PRODUCTS CATALOGUE

INKA at a Glance

INKA is a leading manufacturer of Strut Systems, Pipe Hangers and Supports, offering full-service engineering assistance for its entire product line. With a customer-oriented approach, INKA excels at collaboraring with clients, routinely custom-designing solutions to meet their exacting requirements.

Highly accredited, INKA is certified as FM Approved, UL Listed, TSEK, ISO 9001, ISO 14001, ISO 45001, IATF 16949 and GOST, among many others.

Based in Istanbul, INKA's industry-leading components are sought by contractors in more than 30 countries around the world.



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1- INSTALLATION SYSTEMS

Pipe Hangers & Supports

IS1-1
Std. Pipe Clamp
With Rubber Profile

IS1-2
Std. Pipe Clamp
Without Rubber Profile

IS1-3
Std. Pipe Clamp With
Rubber Profile & Combi
Nut (M8/M10)

IS1-4
Std. Pipe Clamp Without
Rubber Profile & Combi
Nut (M8/M10)

IS1-5
Std. Pipe Clamp With
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(Welded Wood Screw)

IS1-6
Std. Pipe Clamp Without
Rubber Profile
(Welded Wood Screw)

IS1-7
Heavy Duty Pipe
Clamp With Rubber
Profile & Nut

IS1-8
Heavy Duty Pipe
Clamp Without
Rubber Profile & Nut

IS1-9
Heavy Duty Pipe
Clamp With Rubber
Profile (Without Nut)

IS1-10
Heavy Duty Pipe
Clamp Without Rubber
Profile (Without Nut)

IS1-11
Heavy Duty Pipe Clamp
With Rubber Profile
(Bracket Type)

IS1-12
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Without Rubber Profile
(Bracket Type)

IS1-13
PVC Clamp

IS1-14
Standard Pipe Clamp
With Rubber Profile
(Stainless Steel)

IS1-15
Standard Pipe
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Profile(Stainless Steel)

IS1-16
Silent Clamp

1- INSTALLATION SYSTEMS

Pipe Hangers & Supports

IS1-M1A
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IS1-M1B
Adjustable Clevis Hanger “M Series”

IS1-M1S
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IS1-M4
Steel Pipe Clamp

IS1-M5
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IS1-M7
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IS1-M8
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IS1-M10
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IS1-M24
U-Bolt

IS1-M26A
Std. Pipe Strap

IS1-M26B
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Pipe Stanchion Saddle

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1- INSTALLATION SYSTEMS

Pipe Hangers & Supports

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Adjustable Pipe
Saddle Support

IS1-M42
Heavy Duty
Riser Clamp

IS1-M65
Offset Clamp

Sliders, Guides, Pipe Rollers, Protection Shields & Saddles

IS2-1
Light Duty
Sliding Shoe

IS2-1
Slide Guide

IS2-1
Heavy Duty
Slide Guide

IS2-4
Medium Duty Quick
Sliding Support

IS2-4
Heavy Duty Quick
Sliding Support

IS2-6
Medium Duty Slider
(Weld or Bolt on Profile)

IS2-6
Heavy Duty Slider
(Weld or Bolt on Profile)

IS2-7
Medium Duty Slider
(Mount on G Profile)

IS2-7
Heavy Duty Slider
(Mount on G Profile)

IS2-8
Medium Duty Slider
(Mount on Square Profile)

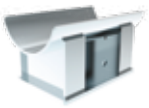
IS2-8
Heavy Duty Slider
(Mount on Square Profile)

1- INSTALLATION SYSTEMS

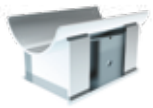
Sliders, Guides, Pipe Rollers, Protection Shields & Saddles

IS2-M35
Sliding Guided
Support - Normal

IS2-M35A
Sliding Guided
Support - Heavy



IS2-M35B
Anchor
Support - Normal



IS2-M35C
Anchor
Support - Heavy

IS2-M41
Single
Pipe Roller

IS2-M43
Adjustable
Roller Hanger

IS2-9
Double Cylinder
Roller Support

IS2-M44
Roller Stand

IS2-M44A
Roller Chair

IS2-M46
Adjustable
Roller Stand

IS2-M39
Pipe Covering
Protection Saddle

IS2-M40
Insulation
Protection Shield

Insulation Inserts

IS3-2
Polyisocyanurate
Insulation Blocks (PIR)

IS3-3
Calcium Silicate
Insulation Blocks

IS3-M62
Rubber
Support Insert

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1- INSTALLATION SYSTEMS

Building Attachments

IS4-1
Pressure Plate
with Square Bolt

IS4-1
Plate Lug

IS4-2
C - Type Wide
Beam Clamp

IS4-2
Steel
Beam Clamp

IS4-3
Beam Clamp
with Swivel

IS4-3
Clamping
Plate

IS4-M21
Center
Beam Clamp

IS4-M22
Welded Beam
Attachment

IS4-M22
Top Beam
Clamp

IS4-M27
Side Beam
Clamp

IS4-M27
Light Welded
Steel Bracket

IS4-M32
Medium Welded
Steel Bracket

IS4-M33
Heavy Welded
Steel Bracket

1- INSTALLATION SYSTEMS

Hanger - Rod Attachments

IS5-1
Threaded Rod

IS5-2
Extension Nut

IS5-2
Height Adjuster

IS5-3
Base Plate
with Nut

IS5-3
Base Plate
with Sleeve

IS5-M13
Steel Turnbuckle

IS5-13
Swivel Turnbuckle

IS5-M16
Malleable
Iron Socket

IS5-M17
Steel Weldless
Eyenut

IS5-4
Eye Bolts

IS5-4
Screw Adaptor

Fixing & Connection Accessories

IS6-1
Hex Bolt

IS6-2
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IS6-3
Plain Washer

IS6-4
Special Washer

IS6-4
Spring
Lock Washer

IS6-5
EPDM Rubber

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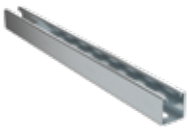
2- MODULAR SUPPORT SYSTEMS

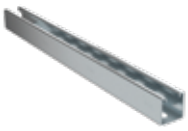
G Profiles, Brackets & Accessories

SSG-1
IPG4121 - G Profile



SSG-1
IPG4141 - G Profile

SSG-1
IPG4160 - G Profile



SSG-2
Technical Data
for G Profile

SSG-3
IPGD4121
Double G Profile

SSG-3
IPGD4141
Double G Profile

SSG-3
IPGD4160
Double G Profile

SSG-4
Technical Data for
Double G Profile

SSG-5A
Single Profile
Bracket 41x41 Strut

SSG-5A
Single Profile
Bracket 41x60 Strut

SSG-5B
Double
Profile Bracket

SSG-5B
U Profile Bracket
41x41 Strut

SSG-6
41x21 Cover

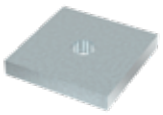
SSG-6
41x41 Cover

SSG-6
41x60 Cover

SSG-6
G Profile Rubber

2- MODULAR SUPPORT SYSTEMS

G Profiles, Brackets & Accessories



SSG-8A
Square Washer

SSG-8A
Square Washer
with Profile Guide

SSG-8A
FBLFD285
2- Hole Spice Plate

SSG-8A
IFBLFD281
2- Hole Splice Plate

SSG-8B
IFBLFD21275
2- Hole Swivel Plate

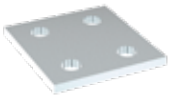
SSG-8B
IFBLFD3135
3- Hole Splice Plate

SSG-8B
IFBLFD3122
3- Hole Splice Plate

SSG-8B
IFBLFD31775
3- Hole Swivel Plate

SSG-8B
IFBLFD4185
4- Hole Splice Plate

SSG-8B
IFBLFD5235
5- Hole Splice Plate



SSG-8C
IFBLFD48581
4- Hole Splice Plate

SSG-8C
IFBLFD3L875
3- Hole Corner Plate

SSG-8C
IFBLFD4L875
4- Hole Corner Plate

SSG-8C
IFBLFD4T875
4- Hole Tee Plate

SSG-8C
IFBLFD5X135
5- Hole Cross Plate

SSG-8C
IFBLFD3V875
3- Hole Corner
Connector Plate

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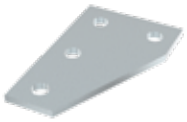
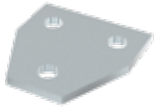
2- MODULAR SUPPORT SYSTEMS

G Profiles, Brackets & Accessories



SSG-8D
IFBLFD4V875
4- Hole Corner
Connector Plate

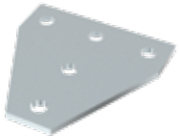
SSG-8D
IFBLFD5V1375
5- Hole Corner
Connector Plate



SSG-8D
IFBLFD3A85
3- Hole Tee
Gusset Plate

SSG-8D
IFBLFD4A135
4- Hole Tee
Gusset Plate

SSG-8D
IFBLFD4A90
4- Hole Tee
Gusset Plate



SSG-8D
IFBLFD5A135
5- Hole Tee
Gusset Plate

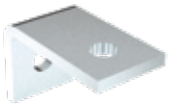
SSG-8E
IFBLFD6A235
6- Hole Tee
Gusset Plate

SSG-8E
IFBLFD6I85
6- Hole Cross
Gusset Plate

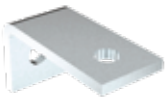
SSG-8E
IFBLFD7I135
7- Hole Cross
Gusset Plate

SSG-9A
IFBL90D24157
2- Hole Corner Angle

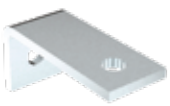
SSG-9A
IFBL90D24750
2- Hole Corner Angle



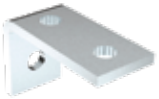
SSG-9A
IFBL90D24775
2- Hole Corner Plate



SSG-9A
IFBL90D24789
2- Hole Corner Angle



SSG-9A
IFBL90D247100
2- Hole Corner Angle



SSG-9A
IFBL90D35590
3- Hole Corner Angle

SSG-9B
IFBL90D341105
3- Hole Corner
Angle

2- MODULAR SUPPORT SYSTEMS

G Profiles, Brackets & Accessories

SSG-9B
IFBL90D347100
3- Hole Corner Angle

SSG-9B
IFBL90D35095
3- Hole Corner Plate

SSG-9B
IFBL90D490105
4- Hole Corner Angle

SSG-9B
IFBL90D495100
4- Hole Corner Angle

SSG-9B
IFBL90D483105
4- Hole Corner Angle

SSG-9B
IFBL90DH490105
4- Hole Corner Angle

SSG-9C
IFBL90D3R4984
3- Hole Offset Bent
Angle (Right)

SSG-9C
IFBL90D3L4984
3- Hole Offset Bent
Angle (Left)

SSG-9C
IFBL90D3T122
3- Hole Offset
Bent Tee

SSG-9C
IFBL90D4T135
4- Hole Offset
Bent Tee

SSG-9C
IFBL90D4TR52
4- Hole Offset
Bent Angle (Right)

SSG-9C
IFBL90D4TL52
4- Hole Offset
Bent Angle (Left)

SSG-9D
IFBL90D5X135
5- Hole Offset
Bent Tee

SSG-9D
IFBL90D6W103
Universal
Shelf Bracket

SSG-9D
IFBL90D4VR41
4- Hole Corner
Gusset (Right)

SSG-9D
IFBL90D4VL41
4- Hole Corner
Gusset (Left)

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2- MODULAR SUPPORT SYSTEMS

G Profiles, Brackets & Accessories

SSG-9D
IFBL90D4VR47
4- Hole Corner
Gusset (Right)

SSG-9D
IFBL90D4VL47
4- Hole Corner
Gusset (Left)

SSG-9E
IFBL90D3A90
3- Hole Gusseted
Shelf Angle

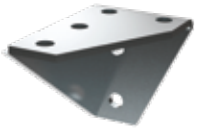
SSG-9E
IFBL90D4A90
4- Hole Gusseted
Shelf Angle

SSG-9E
IFBL90D5A47
5- Hole Gusseted
Shelf Angle

SSG-9E
IFBL90D5A41
5- Hole Gusseted
Shelf Angle

SSG-9E
IFBL90D4I55
4- Hole Joint
Corner Connector

SSG-9E
IFBL90D5I102
5- Hole Joint
Corner Connector



SSG-9F
IFBL90D6CR106
6- Hole Gussetted
Corner Connector (Right)

SSG-9F
IFBL90D6CL106
6- Hole Gussetted
Corner Connector (Left)

SSG-9F
IFBL90D1S50
1- Hole Adjustable
Corner Angle

SSG-9F
IFBL90D1S41
1- Hole Adjustable
Corner Angle

SSG-9F
IFBL90D2S65
2- Hole Adjustable
Corner Angle

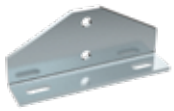
SSG-9F
IFBL90D1S124
1- Hole Adjustable
Corner Angle

SSG-9G
IFBL90D1AS90
1- Hole Adjustable
Corner Angle

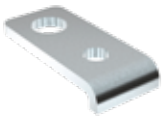
SSG-9G
IFBL90D2AS165
2- Hole Adjustable
Corner Angle

2- MODULAR SUPPORT SYSTEMS

G Profiles, Brackets & Accessories



SSG-9G
IFBL90D2AS220
2- Hole Adjustable
Corner Angle



SSG-9G
IFBL90D2M
2- Hole Connector
Hanger

SSG-9G
IFBL90D1M8
1- Hole M8
Corner Angle

SSG-9G
IFBL90D4D5585
2- Hole Corner Angle

SSG-10A
IBSMF1
1- Hole Hinged Joint

SSG-10A
IBSMF2
2- Hole Hinged Joint

SSG-10A
IBSMF3M10
1- Hole Joint

SSG-10A
IFBLACD2
2- Hole Closed
Angle Connector

SSG-10A
IFBLACD4
4- Hole Closed
Angle Connector

SSG-10B
IFBLAOD4
4- Hole Open
Angle Connector

SSG-10B
IFBLAOD2
2- Hole Open
Angle Connector

SSG-11
IFBLB45
2- Hole 45°
Knee Brace

SSG-11
IFBLB
2- Hole 45° Pipe
Knee Brace

SSG-12A
IFBLCD1
1- Hole U Washer

SSG-12A
IFBLCD290
2- Hole Splice
Clevis For IPG4121

SSG-12A
IFBLCD3135
3- Hole Splice
Clevis For IPG4121

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2- MODULAR SUPPORT SYSTEMS

G Profiles, Brackets & Accessories

SSG-12A
IFBLCD4185
4- Hole Splice
Clevis For IPG4121

SSG-12B
IFBLCD2D90
2- Hole Splice
Clevis

SSG-12B
IFBLCD3D135
3- Hole Splice
Clevis

SSG-12B
IFBLCD4D185
4- Hole Splice
Clevis

SSG-13A
IFBLU
3- Hole U Support

SSG-13A
IFBLUD682
6- Hole U Support

SSG-13A
IFBLUD841
8- Hole U Support

SSG-13A
IFBLUD1082
10- Hole U Support

SSG-13B
IFBLUD1282
12- Hole U Support

SSG-13B
IFBLUD1S
1- Hole U Support

SSG-13B
IFBLUD482
4- Hole U Support

SSG-13B
IFBLUD2
2- Hole Clevis

SSG-13C
IFBLUD341
3- Hole Suspension
Clevis

SSG-13C
IFBLZD341
3- Hole Sheat
Corner Connection

SSG-14A
IFBLWD3R41
3- Hole Corner
Connector

SSG-14A
IFBLWD3L41
3-Hole Corner
Connector

2- MODULAR SUPPORT SYSTEMS

G Profiles, Brackets & Accessories

SSG-14A
IFBLWD4R41
4- Hole Corner
Connector

SSG-14A
IFBLWD4L41
4- Hole Corner
Connector

SSG-14A
IFBLWD5R41
5- Hole Corner
Connector

SSG-14A
IFBLWD5L41
5- Hole Corner
Connector

SSG-14B
IFBLWD6R41
6- Hole Corner
Connector

SSG-14B
IFBLWD6L41
6- Hole Corner
Connector

SSG-14B
IFBLWD4RL41
4- Hole Double
Corner Connector

SSG-14B
IFBLWD6RL41
6- Hole Double
Corner Connector

SSG-14B
IFBLWD8RL41
8- Hole Double
Corner Connector

SSG-14B
IFBLWD5H41
5- Hole Double
Wing Connector

SSG-14C
IFBLWD8H41
8- Hole Double
Wing Connector

SSG-14C
IFBLWD10H41
10- Hole Double
Wing Connector

SSG-14C
IFBLWD6HV41
6- Hole Triple
Wing Connector

SSG-14C
IFBLWD9HV41
9- Hole Triple
Wing Connector

SSG-14C
IFBLWD12HV41
12- Hole Triple
Wing Connector

SSG-15A
IFBLPD43
4x3 Hole Post Base
41x41 Strut

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2- MODULAR SUPPORT SYSTEMS

G Profiles, Brackets & Accessories

SSG-15A
IFBLPD43
4x3 Hole Post Base
41x41 Strut

SSG-15A
IFBLPOD23
2x3 Hole Post
Base 41x41 Strut

SSG-15A
IFBLPKD23
2x3 Hole Post
Base 41x41 Strut

SSG-15A
IFBLPD46
4x6 Hole Post
Base 41x41 Strut

SSG-15A
IFBLPD4645
4x6 Hole Post
Base 41x41 Strut

SSG-15B
IFBLPOD26
2x6 Hole Post
Base 41x41 Strut

SSG-15B
IFBLPKD26
2x6 Hole Post
Base 41x41 Strut

SSG-15B
IFBLPDD44
4x4 Hole Post
Base 41x41D Strut

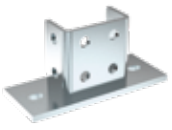
SSG-15B
IFBLPDD4445
4x4 Hole Post
Base 41x41D Strut

SSG-15B
IFBLPODD24
2x4 Hole Post
Base 41x41D Strut

SSG-15B
IFBLPKDD24
2x4 Hole Post
Base 41x41D Strut

SSG-15C
IFBLPDD48
4x8 Hole Post
Base 41x41D Strut

SSG-15C
IFBLPDD4845
4x8 Hole Post
Base 41x41D Strut



SSG-15C
IFBLPODD28
2x8 Hole Post
Base 41x41D Strut

SSG-15C
IFBLPKDD28
2x8 Hole Post
Base 41x41D Strut

SSG-15C
IFBLPD22
2x2 Hole Post
Bases 41x21 Strut

2- MODULAR SUPPORT SYSTEMS

G Profiles, Brackets & Accessories

SSG-15C
IFBLPY22
2x2 Hole Post
Bases 41x21 Strut

SSG-15C
IFBLPD4D4
4x4 Hole Post
Bases 41x60D Strut

SSG-16-17
ISGC
G Profile
Nut

SSG-16-17
ISGPI
G Profile
Nut with Washer

SSG-16-17
ISOY
Spring Nut

C Profile Systems

SSC-1
IPC2718
C Profile

SSC-1
IPC3020
C Profile

SSC-1
IPC2830
C Profile

SSC-1
IPC3840
C Profile

SSC-2
Technical Data
For C Profiles

SSC-3
IPCPWR3521
Power
C Profile

SSC-4
Technical Data
For Power
C Profiles

SSC-5
C Profile
Console

SSC-6
Corner Bracket

SSC-6
IWKD
U Bracket Console

SSC-7
C Profile
Cover

SSC-7
ZLIC
C Profile Rubber

SSC-8
IFKK
Assembly Bracket

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2- MODULAR SUPPORT SYSTEMS

C Profile Systems

SSC-8
IFBL
90° Connecting Plate

SSC-11A
IFBL135
135° Connector

SSC-11A
IFBL90D2
90° Hole Connector

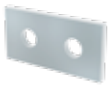
SSC-11A
IFBL90D3
90° Hole Connector

SSC-11A
IFBL90D4
90° Hole Connector

SSC-11B
IFBLD2
Hole Flat Connector

SSC-11B
IFBLD3
Hole Flat Connector

SSC-11B
IFBLD4
Hole Flat Connector



SSC-11B
IFBLDD
Threaded Hole
Flat Connector

SSC-11C
IFBLC
T Connector
Type A

SSC-11C
IFBLT
T Connector
Type B

SSC-11C
IFBLDL
Flat “L” Connector

SSC-11C
IFBLDT
Flat “T” Connector

SSC-12
ICH
Hammerhead Bolt

SSC-13C
ISC
C Profile Nut

SSC-13C
IVPP
Profile Washer

SSC-14
Corner Bracket
Technical Data

2- MODULAR SUPPORT SYSTEMS

L Profile Systems

SSL-1
IPL3030
L Profile

SSL-1
IPL3040
L Profile

SSL-1
IPL4040
L Profile

SSL-1
IPL4050
L Profile

SSL-2
Technical Data
for L Profile

SSL-3
L Profile Console

U Profile Systems

SSU-1
IPU3030
U Profile

SSU-1
IPU3040
U Profile

SSU-1
IPU4040
U Profile

SSU-1
IPU4050
U Profile

SSU-2
Technical Data
U Profile

SSU-3
IWKU
U Profile Console

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2- MODULAR SUPPORT SYSTEMS

Heavy Duty Profile Systems

SP-1
IPKD
Square Profile
(Vertical)

SP-1
IPK
Square Profile
(Horizontal)

SP-2
Technical Data
For Square Profiles

SP-3
IWPK
Square
Profile Console

SP-4
IFPKDA
Horizontal Profile
Connection Plate

SP-4
IFPKDAH
Horizontal Profile
Connection Plate
(Heavy)

SP-4
IFPKDK
Corner Connecting
Plate

SP-5
IFPKDKH
Corner Connecting
Plate (Heavy)

SP-5
IFPKDO
Middle Connecting
Plate

SP-5
IFPKDOH
Middle Connecting
Plate (Heavy)

SP-6
IFPKDT
T Connecting Plate

SP-6
IFPKDTB
Holder

SP-7
IFPKDCTS
Double Bolt
Holder with Nut

SP-7
IFPKDCT
Double Bolt
Holder without Nut

SP-8-9
ZCKBP
Square Neck Bolt

SP-8-9
ICTK
T Bolt

SP-8-9
IPKT
Cover

SP-10-11
IFPKZPK
Rectangle
Washer

SP-10-11
IFPKZPK
Square
Washer

2- MODULAR SUPPORT SYSTEMS

Heavy Duty Profile Systems

SP-10-11
IFPKK Angle

SP-12-13
IFPKC
Pressure Plate
(Square Profile)

SP-12-13
IFPKDM
Vertical Hinge

SP-12-13
IFPKYM
Horizontal Hinge

SP-14
IFPKRB
Rod Connection
Bracket

SP-15
IFPKTB
Wall Connection
Plate

3- VENTILATION SYSTEMS

Ventilation Systems

VS-1
IFFL
Ventilation
Flange Profile

VS-1
IFFLC
Ventilation Duct
Angle Piece

VS-2
IFHM02
Ventilation Clamp

VS-2
IFMAVR
VR Hanging Part

VS-3
IFMAVT
VT Hanging Part

VS-3
IFMAL
L Hanging Part

VS-4
IFMAZ
Z Hanging Part

VS-4
ZLIP
Neoprene Seal

VS-5
9KV
Easy Screw

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4- ANCHOR & FIXING SYSTEMS

Anchor & Fixing Systems

AS-1
IDGM
Sleeve Anchor

AS-2
IDCE
Draw-in Anchor

AS-3
IDCA
Drop-in Anchor

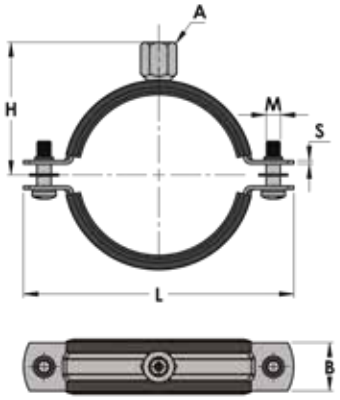
AS-4
IDKL
Monoclip Anchor

AS-5
IDPL
Plastic Anchor

INSTALLATION SYSTEMS

PIPE HANGERS & SUPPORTS

Std. Pipe Clamp With Rubber Profile



Size Range
1/8" through 2"

Material
• Carbon Steel
• EPDM Rubber Lining for noise reduction level up to 15dB acc. to DIN4109, vibration reduction and partial compensation of thermal expansion.

Service
Used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.

Installation
• Easy and safe assembly through Philips combi side screws.
• Side screws are protected against loss during assembly with the help of plastic washers.

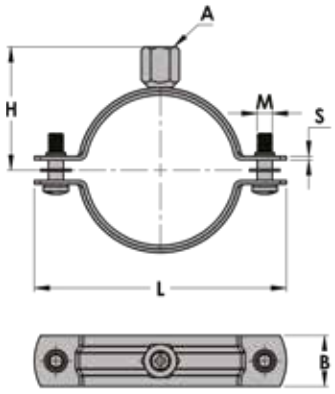
Ordering
Specify pipe size, figure number and name.

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Note: See the page IS6-5 for the details of EPDM Rubber Lining.

Code No	Size		Clamping Range	S x B	A	H	L	M	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
	Inch	DN	mm	mm		mm	mm					
IKIS006	⅛"	(6)	8-11	1,5 x 20	M8	21,5	50,5	M5	3,9	1,3	100	4,3
IKIS008	¼"	(8)	11-15	1,5 x 20	M8	24,0	54,5	M5	3,9	1,3	100	4,8
IKIS010	⅜"	(10)	16-20	1,5 x 20	M8	26,0	58,5	M5	3,9	1,3	100	5,2
IKIS015	½"	(15)	20-24	1,5 x 20	M8	28,0	62,5	M5	3,9	1,3	100	5,7
IKIS020	¾"	(20)	25-28	1,5 x 20	M8	31,0	68,5	M5	3,9	1,3	100	6,0
IKIS025	1"	(25)	32-35	1,5 x 20	M8	34,5	76,0	M5	3,9	1,3	100	7,0
IKIS032	1 ¼"	(32)	39-46	1,5 x 20	M8	39,0	91,5	M6	4,8	1,6	50	4,4
IKIS040	1 ½"	(40)	48-53	1,5 x 20	M8	42,5	99,0	M6	4,8	1,6	50	4,8
IKIS047	54-58	-	54-58	1,5 x 20	M8	45,5	105,0	M6	4,8	1,6	50	5,2
IKIS050	2"	(50)	59-66	1,5 x 20	M8	49,0	112,0	M6	4,8	1,6	50	5,6



Std. Pipe Clamp Without Rubber Profile

Size Range
1/8" through 2"

Material
• Carbon Steel

Service
Used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.

Installation
Easy and safe assembly through Philips combi side screws. Side screws are protected against loss during assembly with the help of plastic washers.

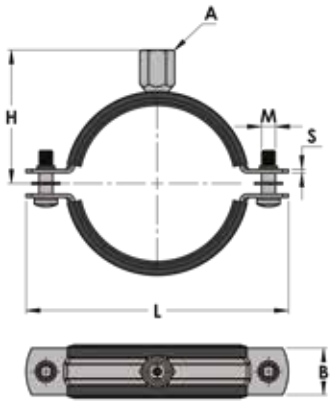
Ordering
Specify pipe size, figure number and name.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Size		Clamping Range	S x B	A	H	L	M	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
	Inch	DN	mm	mm		mm	mm					
IKIL010	⅜"	(10)	16-19	1,5 x 20	M8	22,8	50,5	M5	3,9	1,3	150	5,7
IKIL015	1/2"	(15)	18-23	1,5 x 20	M8	24,0	54,5	M5	3,9	1,3	100	4,0
IKIL017	24-26	-	24-26	1,5 x 20	M8	26,0	58,5	M5	3,9	1,3	100	4,3
IKIL020	¾"	(20)	27-31	1,5 x 20	M8	28,0	62,5	M5	3,9	1,3	100	4,7
IKIL025	1"	(25)	32-37	1,5 x 20	M8	31,0	68,5	M5	3,9	1,3	100	5,2
IKIL032	1 ¼"	(32)	39-44	1,5 x 20	M8	34,5	76,0	M5	3,9	1,3	100	5,9
IKIL040	1 ½"	(40)	46-54	1,5 x 20	M8	39,0	91,5	M6	4,8	1,6	50	3,6
IKIL050	2"	(50)	54-61	1,5 x 20	M8	42,5	99,0	M6	4,8	1,6	50	3,9

Std. Pipe Clamp With Rubber Profile & Combi Nut (M8/M10)



Size Range
1/8" through 10"

Material
• Carbon Steel
• EPDM Rubber Lining for noise reduction level up to 15dB acc. to DIN4109, vibration reduction and partial compensation of thermal expansion.

Service
Used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.
Hanging type is M8 / M10 combi nut.

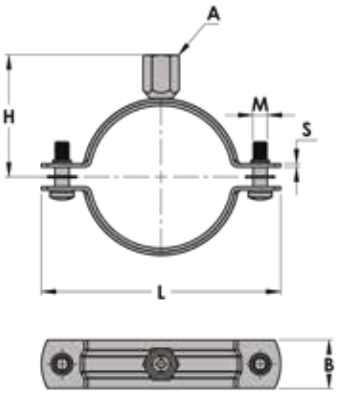
Installation
Easy and safe assembly through Philips combi side screws. Side screws are protected against loss during assembly with the help of plastic washers.

Ordering
Specify pipe size, figure number and name.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Note: See the page IS6-5 for the details of EPDM Rubber Lining.
Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Size		Clamping Range	S x B	A	H	L	M	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
	Inch	DN	mm	mm		mm	mm					
IKKS006	1/8"	(6)	8-11	1,5 x 20	M8 / M10	29,5	50,5	M5	3,9	1,3	100	4,9
IKKS008	1/4"	(8)	11-15	1,5 x 20	M8 / M10	32,0	54,5	M5	3,9	1,3	100	5,3
IKKS010	3/8"	(10)	16-20	1,5 x 20	M8 / M10	34,0	58,5	M5	3,9	1,3	100	5,7
IKKS015	1/2"	(15)	20-24	1,5 x 20	M8 / M10	36,0	62,5	M5	3,9	1,3	100	6,2
IKKS020	3/4"	(20)	25-28	1,5 x 20	M8 / M10	39,0	68,5	M5	3,9	1,3	100	6,7
IKKS025	1"	(25)	32-35	1,5 x 20	M8 / M10	42,5	76,0	M5	3,9	1,3	100	7,5
IKKS032	1 1/4"	(32)	39-46	1,5 x 20	M8 / M10	47,0	91,5	M6	4,8	1,6	50	4,6
IKKS040	1 1/2"	(40)	48-53	1,5 x 20	M8 / M10	50,5	99,0	M6	4,8	1,6	50	5,1
IKKS047	54-58	-	54-58	1,5 x 20	M8 / M10	53,5	105,0	M6	4,8	1,6	50	5,5
IKKS050	2"	(50)	59-66	1,5 x 20	M8 / M10	57,0	112,0	M6	4,8	1,6	50	5,9
IKKS055	67-73	-	67-73	2 x 25	M8 / M10	62,0	125,0	M6	6,9	2,3	25	4,9
IKKS065	2 1/2"	(65)	74-80	2 x 25	M8 / M10	66,0	134,0	M6	6,9	2,3	25	5,3
IKKS072	81-87	-	81-87	2 x 25	M8 / M10	70,0	141,0	M6	6,9	2,3	25	5,5
IKKS080	3"	(80)	87-94	2 x 25	M8 / M10	71,5	146,5	M6	6,9	2,3	25	5,7
IKKS085	0	-	95-98	2 x 25	M8 / M10	75,5	151,0	M6	6,9	2,3	25	6,8
IKKS089	99-108	-	99-108	2 x 25	M8 / M10	79,5	159,5	M6	6,9	2,3	25	7,3
IKKS100	4"	(100)	110-116	2,5 x 25	M8 / M10	85,0	173,0	M6	7,8	2,6	25	7,8
IKKS112	120-128	-	120-128	2,5 x 25	M8 / M10	91,5	186,0	M6	7,8	2,6	25	8,3
IKKS118	129-134	-	129-134	2,5 x 25	M8 / M10	94,5	192,0	M6	7,8	2,6	25	8,6
IKKS125	5"	(125)	135-143	2,5 x 25	M8 / M10	98,0	203,0	M6	7,8	2,6	25	9,0
IKKS134	149-161	-	149-161	2,5 x 25	M8 / M10	106,0	215,0	M6	7,8	2,6	25	9,5
IKKS150	6"	(150)	162-170	2,5 x 25	M8 / M10	110,5	229,0	M6	7,8	2,6	25	10,0
IKKS185	198-207	-	198-207	2,5 x 25	M8 / M10	131,0	264,0	M6	7,8	2,6	25	10,3
IKKS200	8"	(200)	207-219	2,5 x 25	M8 / M10	138,0	280,7	M6	7,8	2,6	20	10,5
IKKS245	250	-	250	2,5 x 25	M8 / M10	150,5	309,0	M6	7,8	2,6	20	11,6
IKKS250	10"	(250)	273	2,5 x 25	M8 / M10	162,0	332,0	M6	7,8	2,6	20	12,5



Std. Pipe Clamp Without Rubber Profile & Combi Nut (M8/M10)

Size Range
3/8" through 10"

Material
• Carbon Steel

Service
Used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.
Hanging type is M8 / M10 combi nut.

Installation
Easy and safe assembly through Philips combi side screws.
Side screws are protected against loss during assembly with the help of plastic washers.

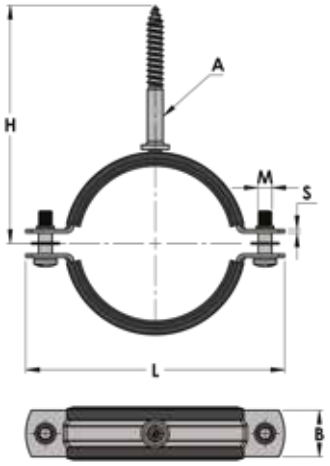
Ordering
Specify pipe size, figure number and name.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Size		Clamping Range	S x B	A	H	L	M	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
	Inch	DN	mm									
IKKL010	3/8"	(10)	16-19	1,5 x 20	M8 / M10	29,5	50,5	M5	3,9	1,3	100	4,3
IKKL015	1/2"	(15)	18-23	1,5 x 20	M8 / M10	32,0	54,5	M5	3,9	1,3	100	4,5
IKKL017	24-26	-	24-26	1,5 x 20	M8 / M10	34,0	58,5	M5	3,9	1,3	100	4,8
IKKL020	3/4"	(20)	27-31	1,5 x 20	M8 / M10	36,0	62,5	M5	3,9	1,3	100	5,2
IKKL025	1"	(25)	32-37	1,5 x 20	M8 / M10	39,0	68,5	M5	3,9	1,3	100	5,7
IKKL032	1 1/4"	(32)	39-44	1,5 x 20	M8 / M10	42,5	76,0	M5	3,9	1,3	100	6,5
IKKL040	1 1/2"	(40)	46-54	1,5 x 20	M8 / M10	47,0	91,5	M6	4,8	1,6	50	3,8
IKKL050	2"	(50)	54-61	1,5 x 20	M8 / M10	50,5	99,0	M6	4,8	1,6	50	4,1
IKKL053	62-67	-	62-67	1,5 x 20	M8 / M10	53,5	105,0	M6	4,8	1,6	50	4,4
IKKL055	68-74	-	68-74	1,5 x 20	M8 / M10	57,0	112,0	M6	4,8	1,6	50	4,7
IKKL065	2 1/2"	-	75-82	2 x 25	M8 / M10	62,0	125,0	M6	6,9	2,3	25	3,8
IKKL080	3"	(80)	83-89	2 x 25	M8 / M10	66,0	134,0	M6	6,9	2,3	25	4,1
IKKL085	90-98	-	90-98	2 x 25	M8 / M10	70,0	141,0	M6	6,9	2,3	25	4,3
IKKL087	94-102	-	94-102	2 x 25	M8 / M10	71,5	146,5	M6	6,9	2,3	25	4,5
IKKL092	104-109	-	104-109	2 x 25	M8 / M10	75,5	151,0	M6	6,9	2,3	25	4,8
IKKL100	4"	(100)	110-117	2 x 25	M8 / M10	79,5	159,5	M6	6,9	2,3	25	5,1
IKKL108	118-127	-	118-127	2,5 x 25	M8 / M10	85,0	173,0	M6	7,8	2,6	25	7,5
IKKL120	129-136	-	129-136	2,5 x 25	M8 / M10	91,5	186,0	M6	7,8	2,6	25	8,1
IKKL125	5"	(125)	137-143	2,5 x 25	M8 / M10	94,5	192,0	M6	7,8	2,6	25	8,3
IKKL133	144-153	-	144-153	2,5 x 25	M8 / M10	98,0	203,0	M6	7,8	2,6	25	8,6
IKKL150	6"	(150)	159-167	2,5 x 25	M8 / M10	106,0	215,0	M6	7,8	2,6	25	9,3
IKKL160	168-179	-	168-179	2,5 x 25	M8 / M10	110,5	229,0	M6	7,8	2,6	25	9,9
IKKL210	218-226	-	218-226	2,5 x 25	M8 / M10	138,0	280,7	M6	7,8	2,6	20	12,1
IKKL245	250	-	250	2,5 x 25	M8 / M10	146,0	300,0	M6	7,8	2,6	20	8,8
IKKL250	10"	(250)	273	2,5 x 25	M8 / M10	157,5	323,0	M6	7,8	2,6	20	9,5

Std. Pipe Clamp With Rubber Profile (Welded Wood Screw)



Size Range
1/8" through 2 1/2"

Material
• Carbon Steel
• EPDM Rubber Lining for noise reduction level up to 15dB acc. to DIN4109, vibration reduction and partial compensation of thermal expansion.

Service
Used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.
Nylon plug should be used for fixing.

Installation
Easy and safe assembly through Philips combi side screws.
Side screws are protected against loss during assembly with the help of plastic washers.

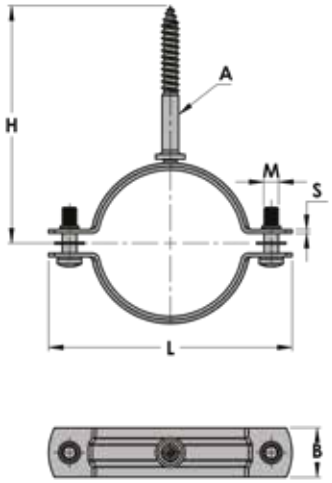
Ordering
Specify pipe size, figure number and name.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Note: See the page IS6-5 for the details of EPDM Rubber Lining.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Size		Clamping Range	S x B	A	H	L	M	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
	Inch	DN	mm	mm		mm	mm					
IKIT006	1/8"	(6)	8-11	1,5 x 20	Ø7 Wood Screw	73,5	50,5	M5	3,9	1,3	100	4,7
IKIT008	1/4"	(8)	11-15	1,5 x 20		76,0	54,5	M5	3,9	1,3	100	5,1
IKIT010	3/8"	(10)	16-20	1,5 x 20		78,0	58,5	M5	3,9	1,3	100	5,6
IKIT015	1/2"	(15)	20-24	1,5 x 20		80,0	62,5	M5	3,9	1,3	100	6,0
IKIT020	3/4"	(20)	25-28	1,5 x 20		83,0	68,5	M5	3,9	1,3	100	6,6
IKIT025	1"	(25)	32-35	1,5 x 20		86,5	76,0	M5	3,9	1,3	75	5,4
IKIT032	1 1/4"	(32)	39-46	1,5 x 20		91,0	91,5	M6	4,8	1,6	50	4,3
IKIT040	1 1/2"	(40)	48-53	1,5 x 20		91,5	99,0	M6	4,8	1,6	50	5,0
IKIT047	54-58	-	54-58	1,5 x 20		97,5	105,0	M6	4,8	1,6	50	5,4
IKIT050	2"	(50)	59-66	1,5 x 20		101,0	112,0	M6	4,8	1,6	50	5,8
IKIT055	67-73	-	67-73	2 x 25		106,0	125,0	M6	6,9	2,3	50	10,0
IKIT065	2 1/2"	(65)	74-80	2 x 25		110,0	134,0	M6	6,9	2,3	50	10,8



Std. Pipe Clamp Without Rubber Profile (Welded Wood Screw)

Size Range
1/8" through 3"

Material
• Carbon Steel

Service
Used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.
Nylon plug should be used for fixing.

Installation
Easy and safe assembly through Philips combi side screws.
Side screws are protected against loss during assembly with the help of plastic washers.

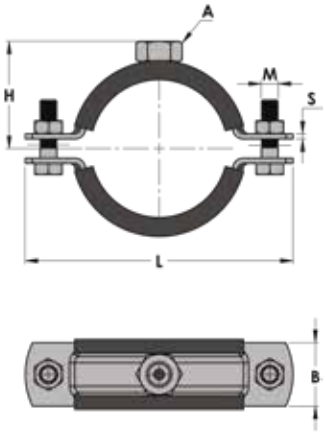
Ordering
Specify pipe size, figure number and name.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Size		Clamping Range	S x B	A	H	L	M	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
	Inch	DN	mm	mm		mm	mm					
IKTL015	1/2"	(15)	18-23	1,5 x 20	Ø7 Wood Screw	76,0	54,5	M5	3,9	1,3	100	4,3
IKTL017	24-26	-	24-26	1,5 x 20		78,0	58,5	M5	3,9	1,3	100	4,7
IKTL020	3/4"	(20)	27-31	1,5 x 20		80,0	62,5	M5	3,9	1,3	100	5,0
IKTL025	1"	(25)	32-37	1,5 x 20		83,0	68,5	M5	3,9	1,3	100	5,6
IKTL032	1 1/4"	(32)	39-44	1,5 x 20		86,5	76,0	M5	3,9	1,3	75	4,7
IKTL040	1 1/2"	(25)	46-54	1,5 x 20		91,0	91,5	M6	4,8	1,6	50	3,7
IKTL050	2"	(50)	54-61	1,5 x 20		91,5	99,0	M6	4,8	1,6	50	4,0
IKTL053	62-67	-	62-67	1,5 x 20		97,5	105,0	M6	4,8	1,6	50	4,3
IKTL055	68-74	-	68-74	1,5 x 20		101,0	112,0	M6	4,8	1,6	50	4,6
IKTL065	2 1/2"	(65)	75-82	2 x 25		106,0	125,0	M6	6,9	2,3	50	7,6
IKTL080	3"	(80)	83-89	2 x 25		110,0	134,0	M6	6,9	2,3	50	8,2

Heavy Duty Pipe Clamp With Rubber Profile & Nut



Size Range
1/2" through 20"

Material
• Carbon Steel
• EPDM Rubber Lining for noise reduction level up to 15dB acc. to DIN4109, vibration reduction and partial compensation of thermal expansion.

Service
Heavy duty pipe clamps used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.

Installation
Easy and safe assembly through hex head bolt and nut.

Ordering
Specify pipe size, figure number, name and finish.

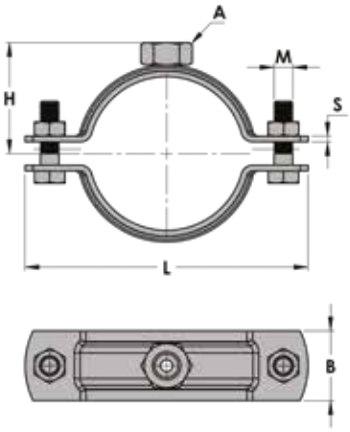
Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: See the page IS6-5 for the details of EPDM Rubber Lining.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		Clamping Range	S x B	A	H	L	M	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
		Inch	DN	mm	mm		mm	mm					
IKA12015	IKA12015H	1/2"	(15)	20-24	2,5 x 30	M12	32,0	84,0	M8	11,0	2,8	50	10,5
IKA12020	IKA12020H	3/4"	(20)	25-30	2,5 x 30	M12	35,0	90,0	M8	11,0	2,8	50	11,0
IKA12025	IKA12025H	1"	(25)	32-38	2,5 x 30	M12	39,0	98,0	M8	11,0	2,8	50	11,5
IKA12032	IKA12032H	1 1/4"	(32)	39-46	2,5 x 30	M12	43,0	106,0	M8	11,0	2,8	50	11,8
IKA12040	IKA12040H	1 1/2"	(40)	48-53	2,5 x 30	M12	47,0	114,0	M8	11,0	2,8	50	13,8
IKA12047	IKA12047H	54-58	-	54-58	2,5 x 30	M12	50,0	120,5	M8	11,0	2,8	50	14,9
IKA12050	IKA12050H	2"	(50)	59-66	2,5 x 30	M12	53,0	127,0	M8	11,0	2,8	50	16,0
IKA12055	IKA12055H	67-73	-	67-73	3 x 30	M12	58,0	140,0	M10	15,0	3,8	25	8,4
IKA12065	IKA12065H	2 1/2"	(65)	74-80	3 x 30	M12	62,0	147,5	M10	15,0	3,8	25	9,0
IKA12072	IKA12072H	80-87	-	80-87	3 x 30	M12	66,0	156,5	M10	15,0	3,8	25	9,5
IKA12080	IKA12080H	3"	(80)	87-94	3 x 30	M12	67,5	160,5	M10	15,0	3,8	25	9,8
IKA12085	IKA12085H	95	-	95-98	3 x 30	M12	71,5	167,5	M10	15,0	3,8	25	10,3
IKA12089	IKA12089H	99-108	-	99-108	3 x 30	M12	75,5	176,5	M10	15,0	3,8	25	10,5
IKA12100	IKA12100H	4"	(100)	108-116	3 x 30	M12	80,0	183,5	M10	15,0	3,8	25	11,0
IKA12112	IKA12112H	120-129	-	120-129	3 x 30	M12	86,5	198,0	M10	15,0	3,8	25	12,0
IKA16118	IKA16118H	129-135	-	129-135	4 x 40	M16	95,5	222,0	M12	24,0	6,0	15	15,3
IKA16125	IKA16125H	5"	(125)	135-143	4 x 40	M16	99,0	225,5	M12	24,0	6,0	15	15,7
IKA16150	IKA16150H	6"	(150)	162-168	4 x 40	M16	106,5	252,0	M12	24,0	6,0	10	10,9
IKA16200	IKA16200H	8"	(200)	206-220	4 x 40	M16	133,0	312,0	M12	24,0	6,0	10	13,5
IKA16250	IKA16250H	10"	(250)	260-274	4 x 40	M16	160,5	365,0	M12	24,0	6,0	10	15,7
**IKA16300	**IKA16300H	12"	(300)	320-332	5 x 50	M16	186,0	421,0	M16	35,1	11,7	5	13,9
**IKA16350	**IKA16350H	14"	(350)	351-363	5 x 50	M16	201,5	453,0	M16	35,1	11,7	5	15,0
**IKA16400	**IKA16400H	16"	(400)	403-415	5 x 50	M16	227,5	504,5	M16	35,1	11,7	5	16,8
**IKA16450	**IKA16450H	18"	(450)	453-465	7 X 70	M16	244,5	564,2	M16	35,1	11,7	2	11,4
**IKA16500	**IKA16500H	20"	(500)	510-522	7 X 70	M16	273,5	621,5	M16	35,1	11,7	2	12,4

** The clamps marked are made wilthout section from



Heavy Duty Pipe Clamp Without Rubber Profile & Nut

Size Range
3/4" through 20"

Material
• Carbon Steel

Service
Heavy duty pipe clamps used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.

Installation
Easy and safe assembly through hex head bolt and nut.

Ordering
Specify pipe size, figure number, name and finish.

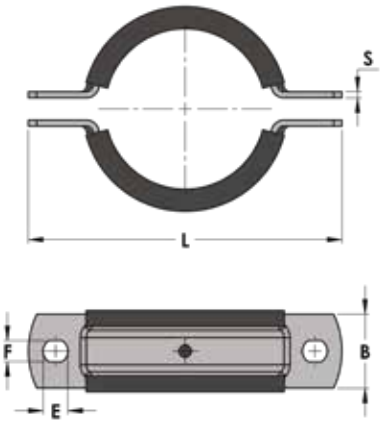
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		Clamping Range	S x B	A	H	L	M	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
		Inch	DN	mm	mm		mm	mm					
IKB12020	IKB12020H	3/4"	(20)	27-31	2,5 x 30	M12	32,0	84,0	M8	11,0	2,8	50	9,8
IKB12025	IKB12025H	1"	(25)	32-37	2,5 x 30	M12	35,0	90,0	M8	11,0	2,8	50	10,0
IKB12032	IKB12032H	1 1/4"	(32)	39-46	2,5 x 30	M12	39,0	98,0	M8	11,0	2,8	50	10,5
IKB12040	IKB12040H	1 1/2"	(40)	47-54	2,5 x 30	M12	43,0	106,0	M8	11,0	2,8	50	10,8
IKB12050	IKB12050H	2"	(50)	54-61	2,5 x 30	M12	47,0	114,5	M8	11,0	2,8	50	12,5
IKB12053	IKB12053H	60-67	-	60-67	2,5 x 30	M12	50,0	120,5	M8	11,0	2,8	50	13,5
IKB12055	IKB12055H	68-74	-	68-74	2,5 x 30	M12	53,0	127,0	M8	11,0	2,8	50	14,5
IKB12065	IKB12065H	2 1/2"	(65)	75-81	3 x 30	M12	58,0	140,0	M10	15,0	3,8	25	7,4
IKB12080	IKB12080H	3"	(80)	83-92	3 x 30	M12	62,0	147,5	M10	15,0	3,8	25	8,0
IKB12085	IKB12085H	90-98	-	90-98	3 x 30	M12	66,0	156,5	M10	15,0	3,8	25	8,3
IKB12087	IKB12087H	94-104	-	94-104	3 x 30	M12	67,5	160,5	M10	15,0	3,8	25	8,5
IKB12092	IKB12092H	104-110	-	104-110	3 x 30	M12	71,5	167,5	M10	15,0	3,8	25	8,8
IKB12100	IKB12100H	4"	(100)	110-119	3 x 30	M12	75,5	176,5	M10	15,0	3,8	25	9,0
IKB12108	IKB12108H	117-126	-	117-126	3 x 30	M12	80,0	183,5	M10	15,0	3,8	25	9,3
IKB12120	IKB12120H	129-140	-	129-140	3 x 30	M12	86,5	198,0	M10	15,0	3,8	25	10,0
IKB16125	IKB16125H	5"	(125)	138-143	4 x 40	M16	95,5	222,0	M12	24,0	6,0	10	9,2
IKB16133	IKB16133H	144-154	-	144-154	4 x 40	M16	99,0	225,5	M12	24,0	6,0	10	9,5
IKB16165	IKB16165H	169-177	-	169-177	4 x 40	M16	106,5	252,0	M12	24,0	6,0	10	9,7
IKB16210	IKB16210H	218-230	-	218-230	4 x 40	M16	133,0	312,0	M12	24,0	6,0	10	11,8
IKB16275	IKB16275H	270-283	-	270-283	4 x 40	M16	160,5	365,0	M12	24,0	6,0	10	13,8
**IKB16315	**IKB16315H	12"	(300)	313-323	5 x 50	M16	186,0	421,0	M16	35,1	11,7	5	13,9
**IKB16348	**IKB16348H	14"	(350)	347-357	5 x 50	M16	201,5	453,0	M16	35,1	11,7	5	15,0
**IKB16399	**IKB16399H	16"	(400)	397-408	5 x 50	M16	227,5	504,5	M16	35,1	11,7	5	16,8
**IKB16450	**IKB16450H	18"	(450)	457-467	7 X 70	M16	244,5	564,2	M16	35,1	11,7	2	11,4
**IKB16500	**IKB16500H	20"	(500)	494-510	7 X 70	M16	273,5	621,5	M16	35,1	11,7	2	12,4

** The clamps marked are made wilthout section from

Heavy Duty Pipe Clamp With Rubber Profile (Without Nut)



Size Range
1/2" through 20"

Material
• Carbon Steel
• EPDM Rubber Lining for noise reduction level up to 15dB acc. to DIN4109, vibration reduction and partial compensation of thermal expansion.

Service
Heavy duty pipe clamps used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.

Installation
Without hanging nut, assembly through threaded rods and nuts suitable to the application and loads, with height adjustment ability.

Ordering
Specify pipe size, figure number, name and finish.
Threaded rods and nuts should be ordered separately.
Packaging: Unassembled

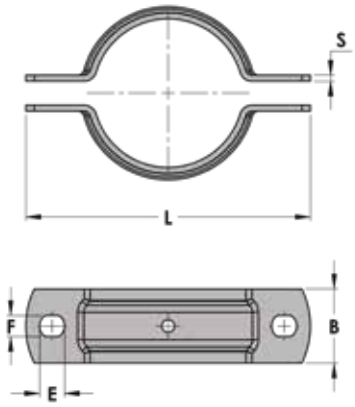
Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: See the page IS6-5 for the details of EPDM Rubber Lining.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		Clamping Range	L	S x B	ØE	F	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
		Inch	DN	mm	mm	mm						
IKA1015	IKA1015H	1/2"	(15)	20-24	84,0	2,5 x 30	10	8,5	11,0	2,8	50	10,2
IKA1020	IKA1020H	3/4"	(20)	25-30	90,0	2,5 x 30	10	8,5	11,0	2,8	50	10,7
IKA1025	IKA1025H	1"	(25)	32-38	98,0	2,5 x 30	10	8,5	11,0	2,8	50	11,2
IKA1032	IKA1032H	1 1/4"	(32)	39-46	106,0	2,5 x 30	10	8,5	11,0	2,8	50	11,5
IKA1040	IKA1040H	1 1/2"	(40)	48-53	114,5	2,5 x 30	10	8,5	11,0	2,8	50	13,5
IKA1047	IKA1047H	54-58	-	54-58	120,5	2,5 x 30	10	8,5	11,0	2,8	50	14,6
IKA1050	IKA1050H	2"	(50)	59-66	127,0	2,5 x 30	10	8,5	11,0	2,8	50	15,7
IKA1055	IKA1055H	67-73	-	67-73	143,5	3 x 30	12	10,5	15,0	3,8	25	8,0
IKA1065	IKA1065H	2 1/2"	(65)	74-80	152,0	3 x 30	12	10,5	15,0	3,8	25	8,7
IKA1072	IKA1072H	80-87	-	80-87	160,0	3 x 30	12	10,5	15,0	3,8	25	9,3
IKA1080	IKA1080H	3"	(80)	87-94	163,0	3 x 30	12	10,5	15,0	3,8	25	9,4
IKA1085	IKA1085H	95	-	95-98	171,0	3 x 30	12	10,5	15,0	3,8	25	10,1
IKA1089	IKA1089H	99-108	-	99-108	179,0	3 x 30	12	10,5	15,0	3,8	25	10,3
IKA1100	IKA1100H	4"	(100)	108-116	188,0	3 x 30	12	10,5	15,0	3,8	25	10,6
IKA1112	IKA1112H	120-129	-	120-129	201,0	3 x 30	12	10,5	15,0	3,8	25	12,7
IKA1118	IKA1118H	129-135	-	129-135	226,5	4 x 40	14	12,5	24,0	6,0	15	15,1
IKA1125	IKA1125H	5"	(125)	135-143	233,5	4 x 40	14	12,5	24,0	6,0	15	15,5
IKA1150	IKA1150H	6"	(150)	162-168	256,5	4 x 40	14	12,5	24,0	6,0	15	15,7
IKA1200	IKA1200H	8"	(200)	206-220	316,0	4 x 40	14	12,5	24,0	6,0	10	13,3
IKA1250	IKA1250H	10"	(250)	260-274	365,0	4 x 40	14	12,5	24,0	6,0	10	15,5
**IKA1300	**IKA1300H	12"	(300)	320-332	421,0	5 x 50	Ø17	-	35,1	11,7	5	13,9
**IKA1350	**IKA1350H	14"	(350)	351-363	453,0	5 x 50	Ø17	-	35,1	11,7	5	15,0
**IKA1400	**IKA1400H	16"	(400)	403-415	504,5	5 x 50	Ø17	-	35,1	11,7	5	16,8
**IKA1450	**IKA1450H	18"	(450)	453-465	564,2	7 X 70	Ø17	-	35,1	11,7	2	11,4
**IKA1500	**IKA1500H	20"	(500)	510-522	621,5	7 X 70	Ø17	-	35,1	11,7	2	12,4

** The clamps marked are made wilthout section from



Heavy Duty Pipe Clamp Without Rubber Profile & Nut

Size Range
3/4" through 20"

Material
• Carbon Steel

Service
Heavy duty pipe clamps used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.

Installation
Without hanging nut, assembly through threaded rods and nuts suitable to the application and loads, with height adjustment ability.

Ordering
Specify pipe size, figure number, name and finish.
Threaded rods and nuts should be ordered separately.
Packaging: Unassembled

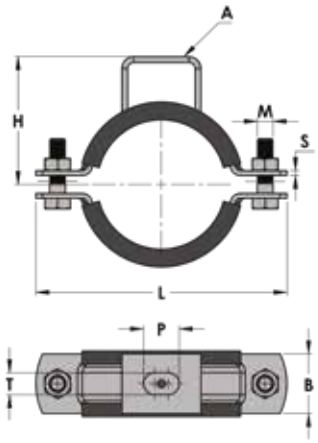
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		Clamping Range	L	S x B	ØE	F	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
		Inch	DN	mm	mm	mm						
IKB1020	IKB1020H	3/4"	(20)	27-31	84,0	2,5 x 30	10	8,5	11,0	2,75	50	9,5
IKB1025	IKB1025H	1"	(25)	32-37	90,0	2,5 x 30	10	8,5	11,0	2,75	50	9,7
IKB1032	IKB1032H	1 1/4"	(32)	39-46	98,0	2,5 x 30	10	8,5	11,0	2,75	50	10,2
IKB1040	IKB1040H	1 1/2"	(40)	47-54	106,0	2,5 x 30	10	8,5	11,0	2,75	50	10,5
IKB1050	IKB1050H	2"	(50)	54-61	114,5	2,5 x 30	10	8,5	11,0	2,75	50	12,2
IKB1053	IKB1053H	60-67	-	60-67	120,5	2,5 x 30	10	8,5	11,0	2,75	50	13,2
IKB1055	IKB1055H	68-74	-	68-74	127,0	2,5 x 30	10	8,5	11,0	2,75	50	14,2
IKB1065	IKB1065H	2 1/2"	(65)	75-81	140,0	3 x 30	12	10,5	15,0	3,75	25	7,3
IKB1080	IKB1080H	3"	(80)	83-92	147,5	3 x 30	12	10,5	15,0	3,75	25	7,9
IKB1085	IKB1085H	90-98	-	90-98	156,5	3 x 30	12	10,5	15,0	3,75	25	8,2
IKB1087	IKB1087H	94-104	-	94-104	160,5	3 x 30	12	10,5	15,0	3,75	25	8,5
IKB1092	IKB1092H	104-110	-	104-110	167,5	3 x 30	12	10,5	15,0	3,75	25	8,4
IKB1100	IKB1100H	4"	(100)	110-119	176,5	3 x 30	12	10,5	15,0	3,75	25	8,9
IKB1108	IKB1108H	117-126	-	117-126	183,5	3 x 30	12	10,5	15,0	3,75	25	9,1
IKB1120	IKB1120H	129-140	-	129-140	198,0	3 x 30	12	10,5	15,0	3,75	25	9,9
IKB1125	IKB1125H	5"	(125)	138-143	222,0	4 x 40	14	12,5	24,0	6,0	10	9,0
IKB1133	IKB1133H	144-154	-	144-154	225,5	4 x 40	14	12,5	24,0	6,0	10	9,4
IKB1160	IKB1160H	169-177	-	169-177	252,0	4 x 40	14	12,5	24,0	6,0	10	9,6
IKB1210	IKB1210H	218-230	-	218-230	312,0	4 x 40	14	12,5	24,0	6,0	10	11,7
IKB1275	IKB1275H	270-283	-	270-283	365,0	4 x 40	14	12,5	24,0	6,0	10	13,6
**IKB1315	**IKB1315H	12"	(300)	313-323	421,0	5 x 50	17	-	35,1	11,7	5	13,9
**IKB1348	**IKB1348H	14"	(350)	347-357	453,0	5 x 50	17	-	35,1	11,7	5	15,0
**IKB1399	**IKB1399H	16"	(400)	397-408	504,5	5 x 50	17	-	35,1	11,7	5	16,8
**IKB1450	**IKB1450H	18"	(450)	457-467	564,2	7 X 70	17	-	35,1	11,7	2	11,4
**IKB1500	**IKB1500H	20"	(500)	494-510	621,5	7 X 70	17	-	35,1	11,7	2	12,4

** The clamps marked are made wilthout section from

Heavy Duty Pipe Clamp With Rubber Profile (Bracket Type)



Size Range
1/2" through 20"

Material
• Carbon Steel
• EPDM Rubber Lining for noise reduction level up to 15dB acc. to DIN4109, vibration reduction and partial compensation of thermal expansion.

Service
Heavy duty pipe clamps used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.

Installation
Easy and safe assembly through hex head bolt and nut.

Ordering
Specify pipe size, figure number, name and finish.

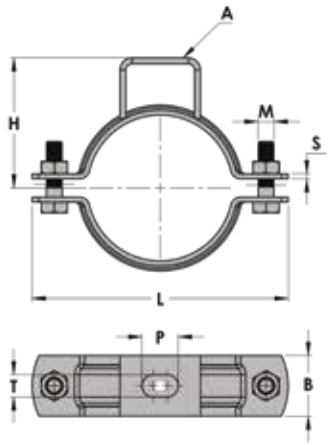
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: See the page IS6-5 for the details of EPDM Rubber Lining.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		Clamping Range	S x B	A	H	L	PxT	M	Breaking Load kN	Max Recom. Load kN	Qty/ Box	Weight per Box (kg)
		Inch	DN	mm	mm		mm	mm	mm					
IKAK015	IKAK015H	1/2"	(15)	20-24	2,5 x 30	3 x 30	37,0	84,0	18x11	M8	11,0	2,8	50	10,8
IKAK020	IKAK020H	3/4"	(20)	25-30	2,5 x 30	3 x 30	42,0	90,0	18x11	M8	11,0	2,8	50	12,0
IKAK025	IKAK025H	1"	(25)	32-38	2,5 x 30	3 x 30	48,0	98,0	18x11	M8	11,0	2,8	50	12,5
IKAK032	IKAK032H	1 1/4"	(32)	39-46	2,5 x 30	3 x 30	53,0	106,0	18x11	M8	11,0	2,8	50	13,3
IKAK040	IKAK040H	1 1/2"	(40)	48-53	2,5 x 30	3 x 30	57,5	114,5	18x11	M8	11,0	2,8	50	14,1
IKAK047	IKAK047H	54-58	-	54-58	2,5 x 30	3 x 30	61,0	120,5	18x11	M8	11,0	2,8	50	15,3
IKAK050	IKAK050H	2"	(50)	59-66	2,5 x 30	3 x 30	64,0	127,0	18x11	M8	11,0	2,8	50	15,8
IKAK055	IKAK055H	67-73	-	67-73	3 x 30	3 x 30	70,0	140,0	18x11	M10	15,0	3,8	25	9,3
IKAK065	IKAK065H	2 1/2"	(65)	74-80	3 x 30	3 x 30	74,0	147,0	18x11	M10	15,0	3,8	25	10,4
IKAK072	IKAK072H	80-87	-	80-87	3 x 30	3 x 30	78,0	156,0	18x11	M10	15,0	3,8	25	10,8
IKAK080	IKAK080H	3"	(80)	87-94	3 x 30	3 x 30	80,0	160,0	18x11	M10	15,0	3,8	25	11,1
IKAK085	IKAK085H	95	-	95-98	3 x 30	3 x 30	84,0	167,0	18x11	M10	15,0	3,8	25	11,5
IKAK089	IKAK089H	99-108	-	99-108	3 x 30	3 x 30	88,0	176,0	18x11	M10	15,0	3,8	25	12,2
IKAK100	IKAK100H	4"	(100)	108-116	3 x 30	3 x 30	93,0	183,0	18x11	M10	15,0	3,8	25	12,1
IKAK112	IKAK112H	120-129	-	120-129	3 x 30	3 x 30	99,5	198,0	18x11	M10	15,0	3,8	25	13,1
IKAK118	IKAK118H	129-135	-	129-135	4 x 40	4 x 40	118,0	222,0	24x12,5	M12	24,0	6,0	10	7,8
IKAK125	IKAK125H	5"	(125)	135-143	4 x 40	4 x 40	121,0	225,5	24x12,5	M12	24,0	6,0	10	10,6
IKAK150	IKAK150H	6"	(150)	162-168	4 x 40	4 x 40	133,0	252,0	24x12,5	M12	24,0	6,0	10	11,9
IKAK200	IKAK200H	8"	(200)	206-220	4 x 40	4 x 40	164,0	312,0	24x12,5	M12	24,0	6,0	10	14,4
IKAK250	IKAK250H	10"	(250)	260-274	4 x 40	4 x 40	187,0	365,0	24x12,5	M12	24,0	6,0	10	16,1
**IKAK300	**IKAK300H	12"	(300)	320-332	5 x 50	5 x 50	193,0	421,0	16,5x19,5	M16	35,1	11,7	5	14,1
**IKAK350	**IKAK350H	14"	(350)	351-363	5 x 50	5 x 50	208,5	453,0	16,5x19,5	M16	35,1	11,7	5	15,0
**IKAK400	**IKAK400H	16"	(400)	403-415	5 x 50	5 x 50	234,5	504,5	16,5x19,5	M16	35,1	11,7	5	16,7
**IKAK450	**IKAK450H	18"	(450)	453-465	7 X 70	7 x 70	251,5	564,2	Ø23	M16	35,1	11,7	2	11,1
**IKAK500	**IKAK500H	20"	(500)	510-522	7 X 70	7 x 70	282,5	621,5	Ø23	M16	35,1	11,7	2	12,5

** The clamps marked are made wilthout section from



Heavy Duty Pipe Clamp Without Rubber Profile (Bracket Type)

Size Range
3/4" through 20"

Material
• Carbon Steel

Service
Heavy duty pipe clamps used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.

Installation
Easy and safe assembly through hex head bolt and nut.

Ordering
Specify pipe size, figure number, name and finish.

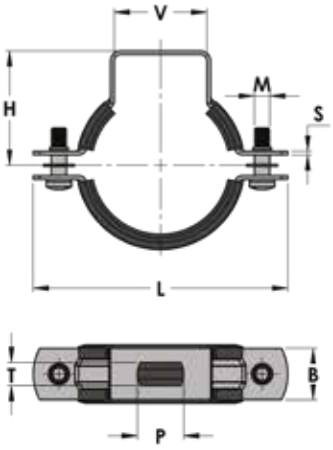
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		Clamping Range	S x B	A	H	L	P x T	M	Breaking Load kN	Max Recom. Load kN	Qty/ Box	Weight per Box (kg)
		Inch	DN	mm	mm		mm	mm	mm					
IKBK020	IKBK020H	3/4"	(20)	27-31	2,5 x 30	3 x 30	37,0	84,0	18x11	M8	11,0	2,8	50	10,3
IKBK025	IKBK025H	1"	(25)	32-37	2,5 x 30	3 x 30	42,0	90,0	18x11	M8	11,0	2,8	50	11,5
IKBK032	IKBK032H	1 1/4"	(32)	39-46	2,5 x 30	3 x 30	48,0	98,0	18x11	M8	11,0	2,8	50	12,0
IKBK040	IKBK040H	1 1/2"	(40)	47-54	2,5 x 30	3 x 30	53,0	106,0	18x11	M8	11,0	2,8	50	12,8
IKBK050	IKBK050H	2"	(50)	54-61	2,5 x 30	3 x 30	57,5	114,5	18x11	M8	11,0	2,8	50	13,5
IKBK053	IKBK053H	60-67	-	60-67	2,5 x 30	3 x 30	61,0	120,5	18x11	M8	11,0	2,8	50	15,0
IKBK055	IKBK055H	68-74	-	68-74	2,5 x 30	3 x 30	64,0	127,0	18x11	M8	11,0	2,8	50	15,2
IKBK065	IKBK065H	2 1/2"	(65)	75-81	3 x 30	3 x 30	70,0	140,0	18x11	M10	15,0	3,8	25	8,8
IKBK080	IKBK080H	3"	(80)	83-92	3 x 30	3 x 30	74,0	147,0	18x11	M10	15,0	3,8	25	9,5
IKBK085	IKBK085H	90-98	-	90-98	3 x 30	3 x 30	78,0	156,0	18x11	M10	15,0	3,8	25	10,2
IKBK087	IKBK087H	94-104	-	94-104	3 x 30	3 x 30	80,0	160,0	18x11	M10	15,0	3,8	25	10,5
IKBK092	IKBK092H	104-110	-	104-110	3 x 30	3 x 30	84,0	167,0	18x11	M10	15,0	3,8	25	11,0
IKBK100	IKBK100H	4"	(100)	110-119	3 x 30	3 x 30	88,0	176,0	18x11	M10	15,0	3,8	25	11,5
IKBK108	IKBK108H	117-126	-	117-126	3 x 30	3 x 30	93,0	183,0	18x11	M10	15,0	3,8	25	11,8
IKBK120	IKBK120H	129-140	-	129-140	3 x 30	3 x 30	99,5	198,0	18x11	M10	15,0	3,8	25	12,5
IKBK125	IKBK125H	5"	(125)	138-143	4 x 40	4 x 40	118,0	222,0	24x12,5	M12	24,0	6,0	10	7,5
IKBK133	IKBK133H	144-154	-	144-154	4 x 40	4 x 40	121,0	225,5	24x12,5	M12	24,0	6,0	10	10,0
IKBK165	IKBK165H	169-177	-	169-177	4 x 40	4 x 40	133,0	252,0	24x12,5	M12	24,0	6,0	10	11,5
IKBK210	IKBK210H	218-230	-	218-230	4 x 40	4 x 40	164,0	312,0	24x12,5	M12	24,0	6,0	10	13,8
IKBK275	IKBK275H	270-283	-	270-283	4 x 40	4 x 40	187,0	365,0	24x12,5	M12	24,0	6,0	10	15,5
**IKBK315	**IKBK315H	12"	(300)	313-323	5 x 50	5 x 50	193,0	421,0	16,5x19,5	M16	35,1	11,7	5	13,5
**IKBK348	**IKBK348H	14"	(350)	347-357	5 x 50	5 x 50	208,5	453,0	16,5x19,5	M16	35,1	11,7	5	14,5
**IKBK399	**IKBK399H	16"	(400)	397-408	5 x 50	5 x 50	234,5	504,5	16,5x19,5	M16	35,1	11,7	5	16,0
**IKBK450	**IKBK450H	18"	(450)	457-467	7 x 70	7 x 70	251,5	564,2	Ø23	M16	35,1	11,7	2	10,5
**IKBK500	**IKBK500H	20"	(500)	494-510	7 x 70	7 x 70	282,5	621,5	Ø23	M16	35,1	11,7	2	12,0

** The clamps marked are made wilthout section from

PVC Clamp



Size Range
2" through 8"

Material
• Carbon Steel
• EPDM Rubber Lining for noise reduction level up to 15dB acc. to DIN4109, vibration reduction and partial compensation of thermal expansion.

Service
Used for mounting of PVC pipes to the walls (vertical/horizontal), ceilings and floors.

Installation
• Easy and safe assembly through Philips combi side screws.
• Side screws are protected against loss during assembly with the help of plastic washers.

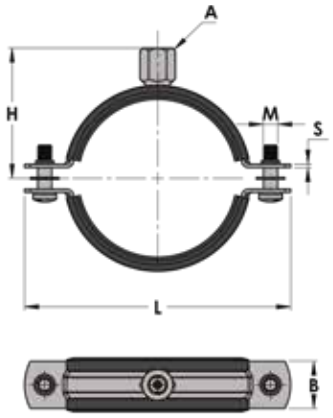
Ordering
Specify pipe size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Note: See the page IS6-5 for the details of EPDM Rubber Lining.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Size		Clamping Range	S x B	L	H	V	T	P	M	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
	Inch	DN	mm	mm	mm	mm	mm	mm	mm					
IKPV050	2"	(50)	48-53	1,5 x 20	99,0	44,5	36,0	9,0	18	M6	1,2	0,4	100	101,8
IKPV075	-	(75)	74-80	2 x 25	134,0	59,0	36,0	9,0	18	M6	1,2	0,4	70	9,7
IKPV100	4"	(100)	99-108	2 x 25	159,5	77,5	36,0	9,0	18	M6	2,0	0,7	50	9,1
IKPV125	5"	(125)	120-128	2,5 x 25	186,0	84,0	36,0	12,5	20	M6	2,0	0,7	50	14,9
IKPV150	6"	(150)	149-161	2,5 x 25	215,0	103,0	36,0	12,5	20	M6	2,0	0,7	40	14,2
IKPV200	8"	(200)	198-207	2,5 x 25	264,0	131,0	36,0	12,5	20	M6	2,0	0,7	25	12,6



Standard Pipe Clamp With Rubber Profile (Stainless Steel)

Size Range
1/8" through 8"

Material
- Stainless Steel acc. to EN 1.4301 A2
- EPDM Rubber Lining for noise reduction level up to 15dB acc. to DIN4109, vibration reduction and partial compensation of thermal expansion.

Service
Used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.

Installation
- Easy and safe assembly through Philips combi side screws.
- Side screws are protected against loss during assembly with the help of plastic washers.

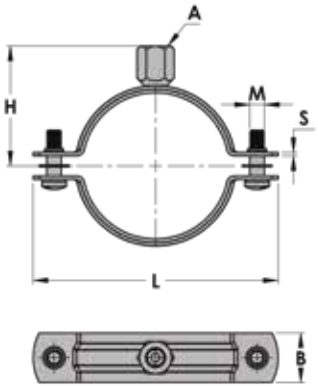
Ordering
Specify pipe size, figure number, name.

Note: See the page IS6-5 for the details of EPDM Rubber Lining.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Size		Clamping Range	S x B	A	H	L	M	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
	Inch	DN	mm	mm		mm	mm					
IKISR006	1/8"	(6)	8-11	1,5 x 20	M8	21,5	50,5	M5	6,6	2,2	100	4,3
IKISR008	1/4"	(8)	11-15	1,5 x 20	M8	24,0	54,5	M5	6,6	2,2	100	4,8
IKISR010	3/8"	(10)	16-20	1,5 x 20	M8	26,0	58,5	M5	6,6	2,2	100	5,2
IKISR015	1/2"	(15)	20-24	1,5 x 20	M8	28,0	62,5	M5	6,6	2,2	100	5,7
IKISR020	3/4"	(20)	25-28	1,5 x 20	M8	31,0	68,5	M5	6,6	2,2	100	6,0
IKISR025	1"	(25)	32-35	1,5 x 20	M8	34,5	76,0	M5	6,6	2,2	100	7,0
IKISR032	1 1/4"	(32)	39-46	1,5 x 20	M8	39,0	91,5	M6	7,6	2,7	50	4,4
IKISR040	1 1/2"	(40)	48-53	1,5 x 20	M8	42,5	99,0	M6	7,6	2,7	50	4,8
IKISR047	54-58	-	54-58	1,5 x 20	M8	45,5	105,0	M6	7,6	2,7	50	5,2
IKISR050	2"	(50)	59-66	1,5 x 20	M8	49,0	112,0	M6	7,6	2,7	50	5,6
IKISR055	67-73	-	67-73	2 x 25	M10	54,0	125,0	M6	11,7	3,9	25	4,9
IKISR065	2 1/2"	(65)	74-80	2 x 25	M10	58,0	134,0	M6	11,7	3,9	25	5,3
IKISR072	81-87	-	81-87	2 x 25	M10	62,0	141,0	M6	11,7	3,9	25	5,5
IKISR080	3"	(80)	87-94	2 x 25	M10	63,5	146,5	M6	11,7	3,9	25	5,8
IKISR085	95	-	95-98	2 x 25	M10	67,5	151,0	M6	11,7	3,9	25	6,8
IKISR089	99-108	-	99-108	2 x 25	M10	71,5	159,5	M6	11,7	3,9	25	7,3
IKISR100	4"	(100)	110-116	2,5 x 25	M10	77,0	173,0	M6	13,2	4,4	25	7,8
IKISR112	120-128	-	120-128	2,5 x 25	M10	83,5	186,0	M6	13,2	4,4	25	8,3
IKISR118	129-134	-	129-134	2,5 x 25	M10	86,5	192,0	M6	13,2	4,4	25	8,6
IKISR125	5"	(125)	135-143	2,5 x 25	M10	90,0	203,0	M6	13,2	4,4	25	9,0
IKISR134	149-161	-	149-161	2,5 x 25	M10	98,0	215,0	M6	13,2	4,4	25	9,5
IKISR150	6"	(150)	162-170	2,5 x 25	M10	102,5	229,0	M6	13,2	4,4	25	10,0
IKISR200	8"	(200)	207-219	2,5 x 25	M10	130,0	280,7	M6	13,2	4,4	20	10,5

Standard Pipe Clamp Without Rubber Profile (Stainless Steel)



Size Range
1/8" through 8"

Material
• Stainless Steel acc. to EN 1.4301 A2

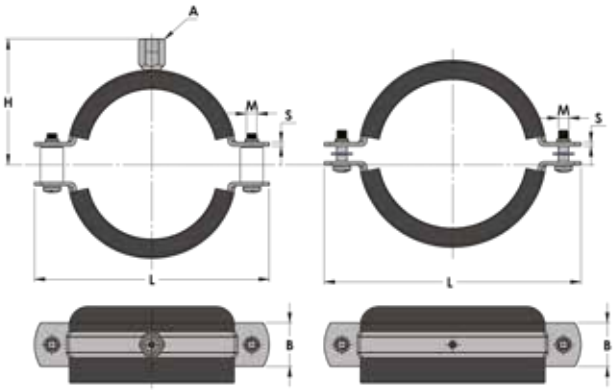
Service
Used for mounting of pipes to the walls (vertical/horizontal), ceilings and floors.

Installation
• Easy and safe assembly through Philips combi side screws.
• Side screws are protected against loss during assembly with the help of plastic washers.

Ordering
Specify pipe size, figure number, name.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Size		Clamping Range	S x B	A	H	L	M	Breaking Load kN	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
	Inch	DN	mm	mm		mm	mm					
IKILR015	1/2"	(15)	18-23	1,5 x 20	M8	24,0	54,5	M5	6,6	2,2	100	4,0
IKILR017	24-26	-	24-26	1,5 x 20	M8	26,0	58,5	M5	6,6	2,2	100	4,3
IKILR020	3/4"	(20)	27-31	1,5 x 20	M8	28,0	62,5	M5	6,6	2,2	100	4,7
IKILR025	1"	(25)	32-37	1,5 x 20	M8	31,0	68,5	M5	6,6	2,2	100	5,2
IKILR032	1 1/4"	(32)	39-44	1,5 x 20	M8	34,5	76,0	M5	6,6	2,2	100	5,9
IKILR040	1 1/2"	(40)	46-54	1,5 x 20	M8	39,0	91,5	M6	7,6	2,7	50	3,6
IKILR050	2"	(50)	54-61	1,5 x 20	M8	42,5	99,0	M6	7,6	2,7	50	3,9
IKILR053	62-67	-	62-67	1,5 x 20	M8	45,5	105,0	M6	7,6	2,7	50	4,2
IKILR055	68-74	-	68-74	1,5 x 20	M8	49,0	112,0	M6	7,6	2,7	50	4,5
IKILR065	2 1/2"	(65)	75-82	2 x 25	M10	54,0	125,0	M6	11,7	3,9	25	3,7
IKILR080	3"	(80)	83-89	2 x 25	M10	58,0	134,0	M6	11,7	3,9	25	4,0
IKILR085	90-98	-	90-98	2 x 25	M10	62,0	141,0	M6	11,7	3,9	25	4,3
IKILR087	94-102	-	94-102	2 X 25	M10	63,5	146,5	M6	11,7	3,9	25	4,5
IKILR092	104-109	-	104-109	2 x 25	M10	67,5	151,0	M6	11,7	3,9	25	4,7
IKILR100	4"	(100)	110-117	2 x 25	M10	71,5	159,5	M6	11,7	3,9	25	5,1
IKILR108	118-127	-	118-127	2,5 x 25	M10	77,0	173,0	M6	13,2	4,4	25	7,5
IKILR120	129-136	-	129-136	2,5 x 25	M10	83,5	186,0	M6	13,2	4,4	25	8,0
IKILR125	5"	(125)	137-143	2,5 x 25	M10	86,5	192,0	M6	13,2	4,4	25	8,3
IKILR133	144-153	-	144-153	2,5 x 25	M10	90,0	203,0	M6	13,2	4,4	25	8,6
IKILR150	6"	(150)	159-167	2,5 x 25	M10	98,0	215,0	M6	13,2	4,4	25	9,3
IKILR160	168-179	-	168-179	2,5 x 25	M10	102,5	229,0	M6	13,2	4,4	25	9,8
IKILR210	218-226	-	218-226	2,5 x 25	M10	130,0	280,7	M6	13,2	4,4	20	12,1



Silent Clamp

Size Range
1 1/4" through 198-207

Material
• Carbon Steel
• EPDM Rubber Lining for noise reduction level up to 15dB acc. to DIN4109, vibration reduction and partial compensation of thermal expansion.

Service
Use for mounting of pipes to the walls (vertical/horizontal) ceilings and floors.

Installation
• Easy and safe assembly through Philips combi side screws.
• Side screws are protected against loss during assembly with the help of plastic washers.

Ordering
Specify pipe size, figure number, name.

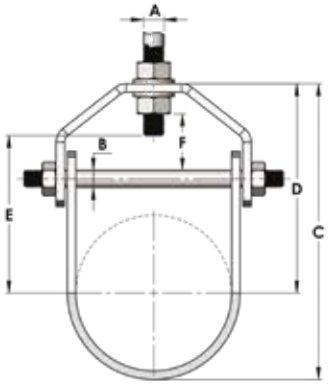
Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Note: See the page IS6-5 for the details of EPDM Rubber Lining.

Code No	Size		Clamping Range	S x B	A	H	L	M
	Inch	DN	mm	mm		mm	mm	
IKSSK032	1 ¼"	(32)	39-46	1,5 x 20	M8/10	47,0	91,5	M6
IKSSK040	1½"	(40)	48-53	1,5 x 20	M8/10	50,5	99,0	M6
IKSSK065	2½"	(65)	74-80	2 x 25	M8/10	66,0	134,0	M6
IKSSK080	3"	(80)	87-94	2 x 25	M8/10	71,5	146,5	M6
IKSSK100	4"	(100)	110-116	2,5 x 25	M8/10	85,0	173,0	M6
IKSSK112	4½"	(115)	120-128	2,5 x 25	M8/10	91,5	186,0	M6
IKSSK125	5"	(125)	135-143	2,5 x 25	M8/10	98,0	203,0	M6
IKSSK134	-	-	149-161	2,5 x 25	M8/10	106,0	215,0	M6
IKSSK185	-	-	198-207	2,5 x 25	M8/10	131,0	281,0	M6

Measuring Range	Home Area [dB(A)]			
Flow rate	0,5	1	2	4
INKA Silent Clamp	18	21	23	25
Std. PVC Clamp	24	26	29	32

Std. Adjustable Clevis Hanger



LISTED FM APPROVED

Size Range
½" through 36"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed for suspension of insulated or non-insulated stationary pipes.

Installation
• Vertical adjustments are possible once the pipe is in place.
• The lower nut is used to adjust the pipeline to the required elevation.
• The top nut is used to prevent loosening due to the vibration.
• The top nut should be tightened after adjustment.
• The top nut must securely be tightened to assure proper performance of hanger after adjustment.

Ordering
Specify pipe size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
• Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 1
• Complies with NFPA-13 Standard for the Installation of Sprinkler Systems.

Certificaton
FM Approval and UL listed

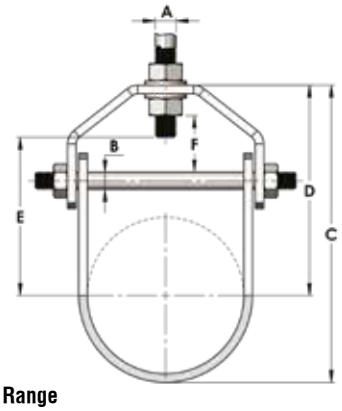
Note: For sizes 14" and larger a spacer sleeve is added over the cross bolt.

Note: EPDM Rubber Lining (For details: See the catalogue page no: IS6-5) can be supplied separately upon request.

Note: The certifications of the products are valid without any lining on them.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size			Max. Selected	Size of Steel		A	B	C	D	E	F	Max Recom. Load kN	Weight per 100 pcs (kg)	Certification
		Inch	DN	OD	OD mm	Upper	Lower			mm	mm	mm	mm			
IEKCHL015	IEKCHL015H	½"	(15)	21,3	25	3x25	3x25	M10	M6	66,0	50,0	35,0	10,0	2,7	14	UL
IEKCHL020	IEKCHL020H	¾"	(20)	26,9	31	3x25	3x25	M10	M6	76,0	57,0	42,0	12,0	2,7	16	FM/UL
IEKCHL025	IEKCHL025H	1"	(25)	33,7	38	3x25	3x25	M10	M6	85,0	62,5	47,0	15,0	2,7	18	FM/UL
IEKCHL032	IEKCHL032H	1 ¼"	(32)	42,4	46	3x25	3x25	M10	M6	99,0	72,5	57,0	21,0	2,7	20	FM/UL
IEKCHL040	IEKCHL040H	1 ½"	(40)	48,3	52	3x25	3x25	M10	M8	109,0	79,5	61,0	23,0	2,7	24	FM/UL
IEKCHL050	IEKCHL050H	2"	(50)	60,3	64	3x25	3x25	M10	M8	136,0	100,5	82,0	38,0	2,7	28	FM/UL
IEKCHL065	IEKCHL065H	2 ½"	(65)	76,1	80	5x30	5x30	M12	M10	162,0	116,5	93,0	41,0	5,0	66	FM/UL
IEKCHL080	IEKCHL080H	3"	(80)	88,9	93	5x30	5x30	M12	M10	172,0	120,0	96,0	38,0	5,0	71	FM/UL
IEKCHL090	IEKCHL090H	3 ½"	(90)	101,6	106	5x30	5x30	M12	M10	187,0	128,5	105,0	38,0	5,0	77	FM/UL
IEKCHL100	IEKCHL100H	4"	(100)	114,3	119	6x30	5x30	M16	M10	205,0	140,0	115,0	43,0	6,3	90	FM/UL
IEKCHL112	IEKCHL112H				128	6x30	5x30	M16	M10	220,0	150,0	111,0	37,0	6,3	94	-
IEKCHL125	IEKCHL125H	5"	(125)	139,7	141	6x30	5x30	M16	M12	232,0	155,5	117,0	42,0	6,3	108	FM/UL
IEKCHL134	IEKCHL134H				154	6x30	5x30	M16	M12	256,0	173,0	134,0	42,0	6,3	115	-
IEKCHL150	IEKCHL150H	6"	(150)	168,3	170	6x40	5x40	M20	M12	264,5	173,5	128,5	37,0	8,6	156	FM/UL
IEKCHL185	IEKCHL185H				200	6x50	5x50	M20	M16	302,0	196,0	151,0	40,0	8,6	254	-
IEKCHL200	IEKCHL200H	8"	(200)	219,1	220	6x50	5x50	M20	M16	328,0	211,5	166,0	43,0	8,9	269	UL
IEKCHL224	IEKCHL224H				252	10x50	6x50	M20	M20	376,0	243,0	194,0	49,0	16,0	434	-
IEKCHL250	IEKCHL250H	10"	(250)	273,0	274	10x50	6x50	M20	M20	400,0	256,0	207,0	49,0	16,0	463	UL
IEKCHL280	IEKCHL280H				294	10x50	6x50	M20	M20	426,0	272,0	207,0	49,0	16,0	492	-
IEKCHL285	IEKCHL285H				308	10x50	6x50	M20	M20	441,0	280,0	231,0	58,0	16,0	507	-
IEKCHL295	IEKCHL295H				314	10x50	6x50	M20	M20	450,0	286,0	237,0	58,0	16,0	514	-
IEKCHL298	IEKCHL298H				326	10x50	6x50	M20	M20	457,0	287,0	238,0	58,0	16,0	582	-



Std. Adjustable Clevis Hanger

UL LISTED FM APPROVED

Size Range
½" through 36"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed for suspension of insulated or non-insulated stationary pipes.

Installation
Vertical adjustments are possible once the pipe is in place. The lower nut is used to adjust the pipeline to the required elevation. The top nut is used to prevent loosening due to the vibration.
The top nut should be tightened after adjustment. The top nut must securely be tightened to assure proper performance of hanger after adjustment.

Ordering
Specify pipe size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
• Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 1
• Complies with NFPA-13 Standard for the Installation of Sprinkler Systems.

Certificaton
FM Approval and UL listed

Note: For sizes 14" and larger a spacer sleeve is added over the cross bolt.

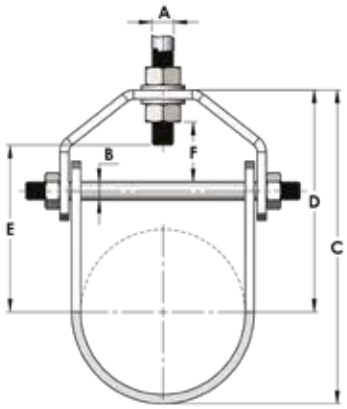
Note: EPDM Rubber Lining (For details: See the catalogue page no: IS6-5) can be supplied separately upon request.

Note: The certifications of the products are valid without any lining on them.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size			Max. Selected	Size of Steel		A	B	C	D	E	F	Max Recom. Load kN	Weight per 100 pcs (kg)	Certification
		Inch	DN	OD	OD mm	Upper	Lower			mm	mm	mm	mm			
IEKCHL300	IEKCHL300H	12"	(300)	323,9	324	10x50	6x50	M20	M20	470,0	300,5	251,0	58,0	16,9	533	UL
IEKCHL350	IEKCHL350H	14"	(350)	355,6	357	12x60	6x60	M24	M24	517,0	331,5	272,0	68,0	18,7	788	-
IEKCHL360	IEKCHL360H				376	12x60	6x60	M24	M24	535,5	340,5	281,0	70,0	18,7	818	-
IEKCHL372	IEKCHL372H				386	12x60	6x60	M24	M24	555,0	355,0	296,0	71,0	18,7	841	-
IEKCHL400	IEKCHL400H	16"	(400)	406,4	408	12x70	6x70	M24	M24	560,5	349,5	298,0	66,0	20,5	980	-
IEKCHL416	IEKCHL416H				430	12x70	6x70	M24	M24	596,0	373,5	314,0	86,0	20,5	1031	-
IEKCHL444	IEKCHL444H				444	12x70	6x70	M24	M24	625,0	395,0	336,0	90,0	20,5	1089	-
IEKCHL450	IEKCHL450H	18"	(450)	457,2	458	12x70	6x70	M24	M30	654,5	418,0	359,0	98,0	21,3	1263	-
IEKCHL474	IEKCHL474H				488	12x70	6x70	M24	M30	680	429	370	96	21,3	1324	-
IEKCHL500	IEKCHL500H	20''	(500)	508,0	509	20x80	10x80	M30	M30	720,5	455,0	380,0	98,0	21,3	2283	-
IEKCHL520	IEKCHL520H				540	20x80	10x80	M30	M30	750	469	394	99	21,3	2383	-
IEKCHL560	IEKCHL560H				580	20x80	10x80	M30	M30	802	501	426	105,5	21,3	2535	-
IEKCHL600	IEKCHL600H	24''	(600)	609,1	611	20x80	10x80	M30	M30	828,5	512	437	104	21,3	2627	-
IEKCHL620	IEKCHL620H				640	20x80	10x80	M30	M30	866	535	460	112	21,3	2733	-
IEKCHL650	IEKCHL650H				674	20x80	10x80	M30	M30	901	553	477	116	21,3	2856	-
IEKCHL685	IEKCHL685H				710	20x80	10x80	M30	M30	956	590	515	125	21,3	2990	-
IEKCHL750	IEKCHL750H	30''	(750)	762,0	763	25x80	10x80	M30	M30	1004	612	537	128	26,7	3485	-
IEKCHL780	IEKCHL780H				814	25x80	10x80	M30	M30	1069,5	652	576	133	26,7	3680	-
IEKCHL820	IEKCHL820H				850	25x80	10x80	M30	M30	1100	664	589	133	26,7	3810	-
IEKCHL860	IEKCHL860H				880	25x80	10x80	M30	M30	1134	683	608	133	26,7	3920	-
IEKCHL900	IEKCHL900H	36''	(900)	914,4	916	25x80	10x80	M30	M30	1170	701	626	141	-	4050	-
IEKCHL970	IEKCHL970H				1000	25x80	12x80	M30	M30	1283	770	695	165	-	4740	-
IEKCHL1008	IEKCHL1008H				1040	25x80	12x80	M30	M30	1323	790	715	165	-	4890	-
IEKCHL1040	IEKCHL1040H				1080	25x80	12x80	M30	M30	1363	810	738	165	-	5045	-

Adjustable Clevis Hanger "M Series"



LISTED

Size Range
½" through 10"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed as an economical product for suspension of insulated steel pipes, plastic pipes, copper pipes, glass or fiberglass reinforced pipes.

Installation
• Vertical adjustments are possible once the pipe is in place.
• The lower nut is used to adjust the pipeline to the required elevation.
• The top nut is used to prevent loosening due to the vibration.
• The top nut should be tightened after adjustment.
• The top nut must securely be tightened to assure proper performance of hanger after adjustment.

Ordering
Specify pipe size, figure number, name and finish.

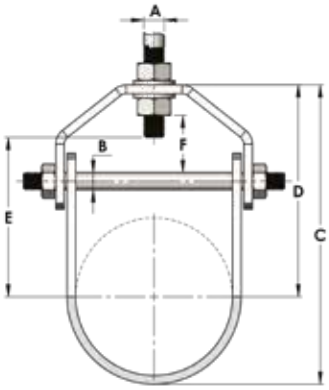
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 1

Certificaton
UL listed

Note: EPDM Rubber Lining (For details: See the catalogue page no: IS6-5) can be supplied separately upon request.
Note: The certifications of the products are valid without any lining on them.
Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size			Max. Selected	Size of Steel		A	B	C	D	E	F	Max Load kN	Weight per 100 pcs (kg)	Certification
		Inch	DN	OD	OD mm	Upper	Lower			mm	mm	mm	mm			
IEKCHLM015	IEKCHLM015H	½"	(15)	21,3	24,0	2x20	2x20	M10	M6	66,0	51,5	30,0	13,0	0,7	8,2	UL
IEKCHLM020	IEKCHLM020H	¾"	(20)	26,9	29,0	2x20	2x20	M10	M6	71,0	54,0	33,0	13,0	0,7	8,7	UL
IEKCHLM025	IEKCHLM025H	1"	(25)	33,7	35,0	2x20	2x20	M10	M6	78,0	58,0	37,0	14,0	1,1	9,5	UL
IEKCHLM026	IEKCHLM026H				41,0	2x20	2x20	M10	M6	84,0	61,0	40,0	14,0	1,1	10,3	UL
IEKCHLM032	IEKCHLM032H	1 ¼"	(32)	42,4	45,0	2x20	2x20	M10	M6	88,0	63,0	42,0	14,0	1,1	10,9	UL
IEKCHLM040	IEKCHLM040H	1 ½"	(40)	48,3	51,0	2x20	2x20	M10	M8	102,0	74,0	53,0	20,0	1,1	14,3	UL
IEKCHLM041	IEKCHLM041H				55,0	2x20	2x20	M10	M8	106,0	76,0	55,0	20,0	1,1	14,8	UL
IEKCHLM050	IEKCHLM050H	2"	(50)	60,3	63,0	2x20	2x20	M10	M8	121,0	87,0	66,0	27,0	1,1	16,5	UL
IEKCHLM051	IEKCHLM051H				69,0	2x20	2x20	M10	M8	127,0	90,0	69,0	27,0	1,1	17,2	UL
IEKCHLM065	IEKCHLM065H	2 ½"	(65)	73,0	75,0	3x25	3x25	M12	M10	142,0	101,0	73,0	29,0	1,6	34,9	UL
IEKCHLM066	IEKCHLM066H				80,0	3x25	3x25	M12	M10	151,0	107,0	80,0	31,0	1,6	36,5	UL
IEKCHLM070	IEKCHLM070H				86,0	3x25	3x25	M12	M10	157,0	110,0	83,0	31,0	1,6	38,2	UL
IEKCHLM080	IEKCHLM080H	3"	(80)	88,9	91,0	3x25	3x25	M12	M10	170,0	121,0	94,0	39,0	1,6	39,9	UL
IEKCHLM081	IEKCHLM081H				96,0	3x25	3x25	M12	M10	175,0	123,0	96,0	39,0	1,6	41,3	UL
IEKCHLM085	IEKCHLM085H				101,0	3x25	3x25	M12	M10	181,0	127,0	100,0	40,0	1,6	42,3	UL
IEKCHLM090	IEKCHLM090H	3 ½"	(90)	101,6	104,0	3x25	3x25	M12	M10	185,0	129,0	102,0	41,0	1,8	43,0	UL
IEKCHLM091	IEKCHLM091H				111,0	3x25	3x25	M12	M10	192,0	133,0	106,0	41,0	1,8	45,2	UL
IEKCHLM100	IEKCHLM100H	4"	(100)	114,3	117,0	5x25	3x25	M12	M10	205,0	143,0	114,0	43,0	2,2	57,3	UL
IEKCHLM101	IEKCHLM101H				122,0	5x25	3x25	M12	M10	210,0	145,0	116,0	43,0	2,2	58,3	UL
IEKCHLM108	IEKCHLM108H				127,0	5x30	3x30	M16	M12	220,0	153,0	115,0	39,0	2,2	76,2	UL



Adjustable Clevis Hanger "M Series"

UL LISTED

Size Range
½" through 10"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed as an economical product for suspension of insulated steel pipes, plastic pipes, copper pipes, glass or fiberglass reinforced pipes.

Installation
• Vertical adjustments are possible once the pipe is in place.
• The lower nut is used to adjust the pipeline to the required elevation.
• The top nut is used to prevent loosening due to the vibration.
• The top nut should be tightened after adjustment.
• The top nut must securely be tightened to assure proper performance of hanger after adjustment.

Ordering
Specify pipe size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 1

Certificaton
UL listed

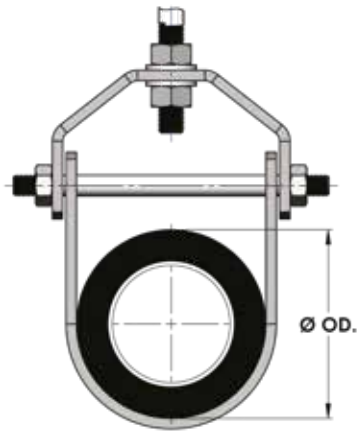
Note: EPDM Rubber Lining (For details: See the catalogue page no: IS6-5) can be supplied separately upon request.

Note: The certifications of the products are valid without any lining on them.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size			Max. Selected	Size of Steel		A	B	C	D	E	F	Max Load kN	Weight per 100 pcs (kg)	Certification
		Inch	DN	OD	OD mm	Upper	Lower			mm	mm	mm	mm			
IEKCHLM112	IEKCHLM112H				134,0	5x30	3x30	M16	M12	227,0	156,0	119,0	39,0	2,2	78,0	UL
IEKCHLM124	IEKCHLM124H				140,0	5x30	3x30	M16	M12	233,0	159,0	122,0	39,0	2,2	81,0	UL
IEKCHLM125	IEKCHLM125H	5"	(125)	139,7	145,0	5x30	3x30	M16	M12	238,0	162,0	124,0	39,0	2,7	82,3	UL
IEKCHLM126	IEKCHLM126H				152,0	5x30	3x30	M16	M12	245,0	165,0	128,0	39,0	2,7	85,1	UL
IEKCHLM130	IEKCHLM130H				158,0	5x30	3x30	M16	M12	251,0	168,0	131,0	39,0	2,7	86,7	UL
IEKCHLM148	IEKCHLM148H				165,0	5x30	3x30	M16	M12	258,0	172,0	134,0	39,0	2,7	90,0	UL
IEKCHLM150	IEKCHLM150H	6"	(150)	168,3	173,0	5x30	5x30	M16	M12	269,0	177,0	139,0	40,0	3,6	118,0	UL
IEKCHLM151	IEKCHLM151H				179,0	5x30	5x30	M16	M12	275,0	180,0	142,0	40,0	3,6	121,2	UL
IEKCHLM160	IEKCHLM160H				186,0	5x30	5x30	M16	M12	283,0	184,0	147,0	41,0	3,6	124,1	UL
IEKCHLM174	IEKCHLM174H				194,0	5x30	5x30	M16	M12	292,0	189,0	152,0	42,0	3,6	128,8	UL
IEKCHLM180	IEKCHLM180H				203,0	5x30	5x30	M16	M12	303,0	196,0	158,0	44,0	3,6	133,5	UL
IEKCHLM190	IEKCHLM190H				210,0	5x40	5x40	M20	M16	321,0	210,0	166,0	43,0	5,3	206,8	UL
IEKCHLM195	IEKCHLM195H				219,0	5x40	5x40	M20	M16	332,0	217,0	173,0	45,0	5,3	214,3	UL
IEKCHLM200	IEKCHLM200H	8"	(200)	219,1	224,0	5x40	5x40	M20	M16	338,0	221,0	177,0	47,0	5,3	217,3	UL
IEKCHLM201	IEKCHLM201H				232,0	5x40	5x40	M20	M16	346,0	225,0	181,0	47,0	5,3	224,0	UL
IEKCHLM220	IEKCHLM220H				244,0	5x40	5x40	M20	M16	359,0	232,0	188,0	48,0	5,3	232,1	UL
IEKCHLM226	IEKCHLM226H				252,0	5x40	5x40	M20	M16	368,0	237,0	193,0	49,0	5,3	236,6	UL
IEKCHLM240	IEKCHLM240H				261,0	6x40	6x40	M20	M20	383,0	246,0	201,0	49,0	6,8	324,4	UL
IEKCHLM245	IEKCHLM245H				272,0	6x40	6x40	M20	M20	397,0	254,0	209,0	51,0	6,8	334,5	UL
IEKCHLM250	IEKCHLM250H	10"	(250)	273,0	279,0	6x40	6x40	M20	M20	404,0	258,0	213,0	51,0	6,8	339,0	UL

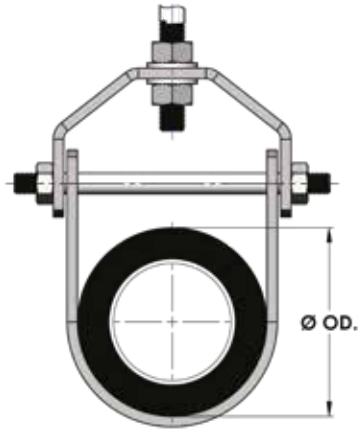
Selection Table Of Clevis Hangers For Insulated Pipes



Selection
Select the Pipe Size, Thickness of Insulation and the Code for Clevis Hanger.

Insulation Options
- Polyisocyanurate Insulation Blocks
  For details: See the catalogue page no. IS3-2
- Calcium Silicate
  For details: See the catalogue page no. IS3-3
- Rubber Support Inserts (RSI)
  For details: See the catalogue page no. IS3-M62

Size			Total OD (mm)	Code No	Total OD (mm)	Code No	Total OD (mm)	Code No	Total OD (mm)	Code No
Inch	DN	OD	T=13		T=19		T=25		T=32	
½”	(15)	21,3	47,3	IEKCHLM040	59,3	IEKCHLM050	71,3	IEKCHLM065	85,3	IEKCHLM070
¾”	(20)	26,9	52,9	IEKCHLM041	64,9	IEKCHLM051	76,9	IEKCHLM066	90,9	IEKCHLM080
1”	(25)	33,7	59,7	IEKCHLM050	71,7	IEKCHLM065	83,7	IEKCHLM070	97,7	IEKCHLM085
1 ¼”	(32)	42,4	68,4	IEKCHLM051	80,4	IEKCHLM066	92,4	IEKCHLM081	106,4	IEKCHLM091
1 ½”	(40)	48,3	74,3	IEKCHLM065	86,3	IEKCHLM070	98,3	IEKCHLM085	112,3	IEKCHLM100
2”	(50)	60,3	86,3	IEKCHLM070	98,3	IEKCHLM085	110,3	IEKCHLM091	124,3	IEKCHLM108
2 ½”	(65)	73,0	99,0	IEKCHLM085	111,0	IEKCHLM091	123,0	IEKCHLM108	137,0	IEKCHLM124
2 ½”	(65)	76,1	102,1	IEKCHLM090	114,1	IEKCHLM100	126,1	IEKCHLM108	140,1	IEKCHLM124
3”	(80)	88,9	114,9	IEKCHLM100	126,9	IEKCHLM108	138,9	IEKCHLM124	152,9	IEKCHLM126
3 ½”	(90)	101,6	127,6	IEKCHLM112	139,6	IEKCHLM124	151,6	IEKCHLM126	165,6	IEKCHLM148
4”	(100)	114,3	140,3	IEKCHLM124	152,3	IEKCHLM126	164,3	IEKCHLM148	178,3	IEKCHLM151
5”	(125)	139,7	165,7	IEKCHLM150	177,7	IEKCHLM151	189,7	IEKCHLM174	203,7	IEKCHLM180
5”	(125)	141,3	167,3	IEKCHLM150	179,3	IEKCHLM151	191,3	IEKCHLM174	205,3	IEKCHLM190
6”	(150)	165,1	191,1	IEKCHLM174	203,1	IEKCHLM180	215,1	IEKCHLM195	229,1	IEKCHLM201
6”	(150)	168,3	194,3	IEKCHLM174	206,3	IEKCHLM190	218,3	IEKCHLM195	232,3	IEKCHLM201
8”	(200)	219,1	245,1	IEKCHLM226	257,1	IEKCHLM240	269,1	IEKCHLM245	283,1	IEKCHLM280
10”	(250)	273,0	299,0	IEKCHL285	311,0	IEKCHL295	323,0	IEKCHL300	337,0	IEKCHL350
12”	(300)	323,9	349,9	IEKCHL350	361,9	IEKCHL360	373,9	IEKCHL360	387,9	IEKCHL400
14”	(350)	355,6	381,6	IEKCHL372	393,6	IEKCHL400	405,6	IEKCHL400	419,6	IEKCHL416
16”	(400)	406,4	432,4	IEKCHL444	444,4	IEKCHL444	456,4	IEKCHL450	470,4	IEKCHL474
18”	(450)	457,2	483,2	IEKCHL474	495,2	IEKCHL500	507,2	IEKCHL500	521,2	IEKCHL520
20”	(500)	508,0	534,0	IEKCHL520	546,0	IEKCHL560	558,0	IEKCHL560	572,0	IEKCHL560
24”	(600)	609,1	635,1	IEKCHL620	647,1	IEKCHL650	659,1	IEKCHL650	673,1	IEKCHL650
30”	(750)	762,0	788,0	IEKCHL780	800,0	IEKCHL780	812,0	IEKCHL780	826,0	IEKCHL820
36”	(900)	914,4	940,4	IEKCHL970	952,4	IEKCHL970	964,4	IEKCHL970	978,4	IEKCHL970



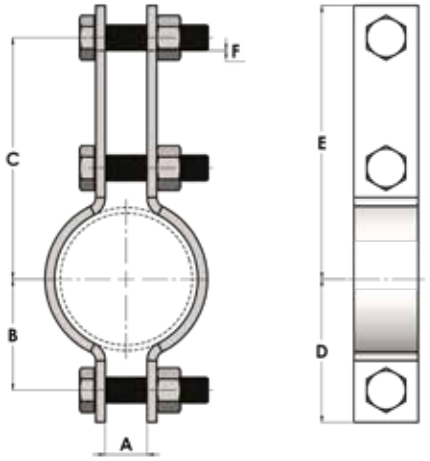
Selection Table Of Clevis Hangers For Insulated Pipes

Selection
Select the Pipe Size, Thickness of Insulation and the Code for Clevis Hanger.

Insulation Options
- Polyisocyanurate Insulation Blocks
  For details: See the catalogue page no. IS3-2
- Calcium Silicate
  For details: See the catalogue page no. IS3-3
- Rubber Support Inserts (RSI)
  For details: See the catalogue page no. IS3-M62

Size			Total OD (mm)	Code No	Total OD (mm)	Code No	Total OD (mm)	Code No	Total OD (mm)	Code No
Inch	DN	OD	T=38		T=50		T=65		T=75	
½”	(15)	21,3	97,3	IEKCHLM085	121,3	IEKCHLM101	151,3	IEKCHLM126	171,3	IEKCHLM150
¾”	(20)	26,9	102,9	IEKCHLM090	126,9	IEKCHLM108	156,9	IEKCHLM130	176,9	IEKCHLM151
1”	(25)	33,7	109,7	IEKCHLM091	133,7	IEKCHLM112	163,7	IEKCHLM148	183,7	IEKCHLM160
1 ¼”	(32)	42,4	118,4	IEKCHLM101	142,4	IEKCHLM125	172,4	IEKCHLM150	192,4	IEKCHLM174
1 ½”	(40)	48,3	124,3	IEKCHLM108	148,3	IEKCHLM126	178,3	IEKCHLM151	198,3	IEKCHLM180
2”	(50)	60,3	136,3	IEKCHLM124	160,3	IEKCHLM148	190,3	IEKCHLM174	210,3	IEKCHLM190
2 ½”	(65)	73,0	149,0	IEKCHLM126	173,0	IEKCHLM150	203,0	IEKCHLM180	223,0	IEKCHLM200
2 ½”	(65)	76,1	152,1	IEKCHLM126	176,1	IEKCHLM151	206,1	IEKCHLM190	226,1	IEKCHLM201
3”	(80)	88,9	164,9	IEKCHLM148	188,9	IEKCHLM174	218,9	IEKCHLM195	238,9	IEKCHLM220
3 ½”	(90)	101,6	177,6	IEKCHLM151	201,6	IEKCHLM180	231,6	IEKCHLM201	251,6	IEKCHLM226
4”	(100)	114,3	190,3	IEKCHLM174	214,3	IEKCHLM195	244,3	IEKCHLM220	264,3	IEKCHLM245
5”	(125)	139,7	215,7	IEKCHLM195	239,7	IEKCHLM220	269,7	IEKCHLM245	289,7	IEKCHL280
5”	(125)	141,3	217,3	IEKCHLM195	241,3	IEKCHLM220	271,3	IEKCHLM245	291,3	IEKCHL280
6”	(150)	165,1	241,1	IEKCHLM220	265,1	IEKCHLM245	295,1	IEKCHL285	315,1	IEKCHL300
6”	(150)	168,3	244,3	IEKCHLM220	268,3	IEKCHLM245	298,3	IEKCHL285	318,3	IEKCHL300
8”	(200)	219,1	295,1	IEKCHL285	319,1	IEKCHL298	349,1	IEKCHL350	369,1	IEKCHL360
10”	(250)	273,0	349,0	IEKCHL350	373,0	IEKCHL360	403,0	IEKCHL400	423,0	IEKCHL416
12”	(300)	323,9	399,9	IEKCHL400	423,9	IEKCHL416	453,9	IEKCHL450	473,9	IEKCHL474
14”	(350)	355,6	431,6	IEKCHL444	455,6	IEKCHL450	485,6	IEKCHL474	505,6	IEKCHL500
16”	(400)	406,4	482,4	IEKCHL474	506,4	IEKCHL500	536,4	IEKCHL520	556,4	IEKCHL560
18”	(450)	457,2	533,2	IEKCHL520	557,2	IEKCHL560	587,2	IEKCHL600	607,2	IEKCHL600
20”	(500)	508,0	584,0	IEKCHL600	608,0	IEKCHL600	638,0	IEKCHL620	658,0	IEKCHL650
24”	(600)	609,1	685,1	IEKCHL685	709,1	IEKCHL685	739,1	IEKCHL750	759,1	IEKCHL750
30”	(750)	762,0	838,0	IEKCHL820	862,0	IEKCHL860	892,0	IEKCHL900	912,0	IEKCHL900
36”	(900)	914,4	990,4	IEKCHL970	1014,4	IEKCHL1008	1044,4	IEKCHL1040	1064,4	IEKCHL1040

Double Bolt Pipe Clamp



Size Range
½" through 36"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed for suspension of insulated pipe lines requiring clamp flexibility and to 100 mm of insulation.

Installation
The spacer on the top inner bolt provides uniform space for the connecting eye rod or weldness eye nut.

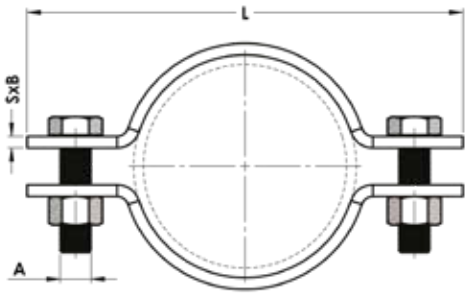
Ordering
Specify pipe size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 3

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		A	B	C	D	E	F	Max Recom. Load kN	Weight per 100 pcs (kg)
		Inch	DN	mm	mm	mm	mm	mm			
IEKDBPC015	IEKDBPC015H	½"	(15)	8	27	60	43	76	M10	4,0	41,3
IEKDBPC020	IEKDBPC020H	¾"	(20)	16	27	60	43	76	M10	4,0	43,0
IEKDBPC025	IEKDBPC025H	1"	(25)	16	33	65	49	81	M10	4,0	46,0
IEKDBPC032	IEKDBPC032H	1 ¼"	(32)	16	38	70	54	86	M10	4,0	49,2
IEKDBPC040	IEKDBPC040H	1 ½"	(40)	26	46	105	66	125	M16	6,5	128,9
IEKDBPC050	IEKDBPC050H	2"	(50)	26	53	130	73	150	M16	6,5	142,5
IEKDBPC065	IEKDBPC065H	2 ½"	(65)	26	63	135	83	155	M16	6,5	150,7
IEKDBPC080	IEKDBPC080H	3"	(80)	26	69	150	89	170	M16	6,5	160,9
IEKDBPC090	IEKDBPC090H	3 ½"	(90)	26	76	160	96	180	M16	6,5	169,5
IEKDBPC100	IEKDBPC100H	4"	(100)	26	91	165	116	190	M20	10,5	356,5
IEKDBPC125	IEKDBPC125H	5"	(125)	26	105	180	130	205	M20	10,5	387,3
IEKDBPC150	IEKDBPC150H	6"	(150)	37	122	215	153	246	M22	12,5	629,9
IEKDBPC200	IEKDBPC200H	8"	(200)	37	150	244	181	275	M22	12,5	721,1
IEKDBPC250	IEKDBPC250H	10"	(250)	37	183	266	214	297	M24	14,0	984,8
IEKDBPC300	IEKDBPC300H	12"	(300)	37	210	290	241	321	M24	14,0	1087,6
IEKDBPC350	IEKDBPC350H	14"	(350)	51	238	320	278	360	M30	18,5	1918,9
IEKDBPC400	IEKDBPC400H	16"	(400)	51	265	350	305	390	M30	18,5	2089,7
IEKDBPC450	IEKDBPC450H	18"	(450)	51	292	375	332	415	M30	18,5	2248,5
IEKDBPC500	IEKDBPC500H	20"	(500)	51	330	420	375	465	M36	19,5	3235,8
IEKDBPC600	IEKDBPC600H	24"	(600)	51	382	472	427	517	M36	19,5	3637,8
IEKDBPC750	IEKDBPC750H	30"	(750)	64	468	595	523	650	M36	33,0	6518,6
IEKDBPC900	IEKDBPC900H	36"	(900)	70	570	730	640	800	M42	46,0	10048,2



Steel Pipe Clamp

Size Range
½" through 36"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to suspend cold and hot pipes where little or no insulation is required.

Installation
Normally used with weldless eye nut or eye rod.

Ordering
Specify pipe size, figure number, name and finish.

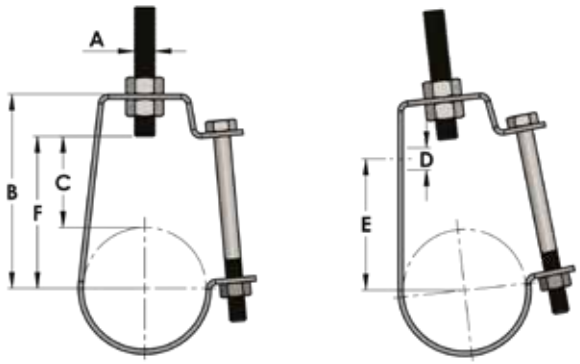
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 4

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		S x B	A	L	Max Recom. Load kN	Weight per 100 pcs (kg)
IEKSPC015	IEKSPC015H	½"	(15)	3x25	M8	78,0	2,2	13,6
IEKSPC020	IEKSPC020H	¾"	(20)	3x25	M8	84,0	2,2	14,8
IEKSPC025	IEKSPC025H	1"	(25)	3x25	M8	96,0	2,2	16,6
IEKSPC032	IEKSPC032H	1 ¼"	(32)	3x25	M8	100,0	2,2	17,4
IEKSPC040	IEKSPC040H	1 ½"	(40)	6x25	M8	110,0	3,5	33,1
IEKSPC050	IEKSPC050H	2"	(50)	6x25	M12	140,0	4,6	50,0
IEKSPC065	IEKSPC065H	2 ½"	(65)	6x25	M12	164,0	4,6	57,4
IEKSPC080	IEKSPC080H	3"	(80)	6x25	M12	180,0	4,6	62,6
IEKSPC090	IEKSPC090H	3 ½"	(90)	6x25	M12	194,0	4,6	67,4
IEKSPC100	IEKSPC100H	4"	(100)	6x40	M16	225,0	4,6	104,3
IEKSPC125	IEKSPC125H	5"	(125)	6x40	M16	255,0	4,6	115,9
IEKSPC150	IEKSPC150H	6"	(150)	10x40	M16	298,0	7,2	285,2
IEKSPC200	IEKSPC200H	8"	(200)	10x40	M16	356,0	7,2	337,2
IEKSPC250	IEKSPC250H	10"	(250)	12x50	M24	434,0	11,0	620,4
IEKSPC300	IEKSPC300H	12"	(300)	12x50	M24	486,0	11,0	695,4
IEKSPC350	IEKSPC350H	14"	(350)	12x60	M24	530,0	11,0	956,1
IEKSPC400	IEKSPC400H	16"	(400)	12x60	M24	580,0	11,0	1051,5
IEKSPC450	IEKSPC450H	18"	(450)	16x70	M24	660,0	13,6	1516,6
IEKSPC500	IEKSPC500H	20"	(500)	16x70	M24	718,0	13,6	1652,7
IEKSPC600	IEKSPC600H	24"	(600)	16x80	M30	858,0	13,6	2348,9
IEKSPC750	IEKSPC750H	30"	(750)	20x100	M36	1070,0	15,6	4805,0
IEKSPC900	IEKSPC900H	36"	(900)	25x125	M48	1280,0	18,8	9130,0

J-Hanger



Size Range
½" through 10"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to suspend non-insulated stationary pipes.
Side hole allows for wall mounting.

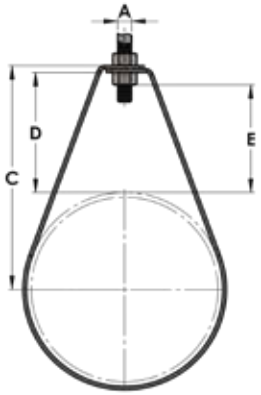
Ordering
Specify pipe size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 5

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size			A	B	C	D	E	F	Max Recom. Load kN	Weight per 100 pcs (kg)
		Inch	DN	OD		mm	mm	mm	mm	mm		
IEJH015	IEJH015H	½"	(15)	21,3	M10	67,0	45,0	11,0	38,0	50,0	1,8	6,5
IEJH020	IEJH020H	¾"	(20)	26,9	M10	73,0	48,0	11,0	43,0	54,0	1,8	7,0
IEJH025	IEJH025H	1"	(25)	33,7	M10	75,0	50,0	11,0	46,0	60,0	1,8	7,4
IEJH032	IEJH032H	1 ¼"	(32)	42,4	M10	83,0	51,0	11,0	53,0	65,0	1,8	9,2
IEJH040	IEJH040H	1 ½"	(40)	48,3	M10	90,0	56,0	11,0	62,0	75,0	1,8	9,8
IEJH050	IEJH050H	2"	(50)	60,3	M10	94,0	60,0	11,0	65,0	80,0	1,8	10,8
IEJH065	IEJH065H	2 ½"	(65)	76,1	M12	113,0	62,0	14,0	81,0	95,0	3,0	12,3
IEJH080	IEJH080H	3"	(80)	88,9	M12	122,0	65,0	14,0	89,0	105,0	3,0	13,9
IEJH090	IEJH090H	3 ½"	(90)	101,6	M12	130,0	67,0	14,0	95,0	110,0	3,0	23,4
IEJH100	IEJH100H	4"	(100)	114,3	M16	155,0	81,0	14,0	118,0	130,0	3,0	26,7
IEJH125	IEJH125H	5"	(125)	139,7	M16	172,0	83,0	14,0	130,0	145,0	3,0	31,2
IEJH150	IEJH150H	6"	(150)	168,3	M18	197,0	90,0	14,0	148,0	165,0	3,0	36,1
IEJH200	IEJH200H	8"	(200)	219,1	M20	234,0	95,0	14,0	176,0	205,0	4,0	44,5
IEJH250	IEJH250H	10"	(250)	273,0	M20	274,0	100,0	14,0	190,0	230,0	4,0	55,7



Adjustable Steel Band Hanger

UL LISTED FM APPROVED

Size Range
¾" through 10"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to suspend non-insulated stationary pipes and Sprinkler system installation.

Installation
• Vertical adjustments are possible once the pipe is in place.
• The lower nut is used to adjust the pipeline to the required elevation.
• The top nut must securely be tightened to assure proper performance of hanger after adjustment.

Ordering
Specify pipe size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
• Complies with Manufacturer's Standardization Society MSS SP-58 & MSS SP-69 - Type 7
• Complies with NFPA-13 Standard for the Installation of Sprinkler Systems.

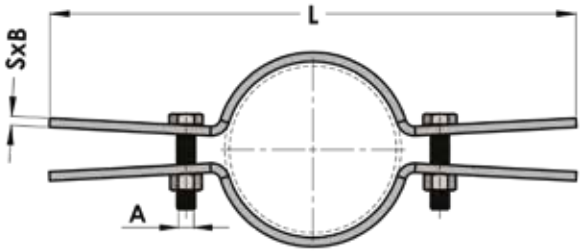
Cerlificaton
FM Approval and UL listed.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		Size of Steel	A	C	D	E	Max Recom. Load kN	Weight per 100 pcs (kg)	Certification
		Inch	DN	Upper		mm	mm	mm			
IEKSP020	IEKSP020H	¾"	(20)	1,5X25	M10	54,5	36,5	28,5	1,7	6,2	FM/UL
IEKSP025	IEKSP025H	1"	(25)	1,5X25	M10	63,5	42,5	34,5	1,7	6,9	FM/UL
IEKSP032	IEKSP032H	1 ¼"	(32)	1,5X25	M10	70,5	44,5	36,5	1,7	7,8	FM/UL
IEKSP040	IEKSP040H	1 ½"	(40)	1,5X25	M10	75,5	46,5	38,5	1,7	8,4	FM/UL
IEKSP050	IEKSP050H	2"	(50)	1,5X25	M10	83,5	47,5	39,5	1,7	9,6	FM/UL
IEKSP065	IEKSP065H	2 ½"	(65)	2,5X25	M10	100,5	56,5	48,5	2,6	18,8	FM/UL
IEKSP080	IEKSP080H	3"	(80)	2,5X25	M10	117,5	66,5	58,5	2,6	21,7	FM/UL
IEKSP100	IEKSP100H	4"	(100)	2,5X25	M10	143,5	80,5	72,5	4,4	26,1	FM/UL
IEKSP125	IEKSP125H	5"	(125)	3X30	M12	175,0	98,0	88,0	5,5	45,8	FM/UL
IEKSP150	IEKSP150H	6"	(150)	3X30	M12	196,0	105,0	95,0	5,5	53,7	FM/UL
IEKSP200	IEKSP200H	8"	(200)	3X40	M16	262,0	145,0	132,0	5,5	90,7	FM/UL
IEKSP250	IEKSP250H	10"	(250)	3X40	M16	357,5	214,0	201,0	5,5	116,3	FM/UL

Riser Clamp

LISTED



Size Range
½" through 30"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to support or hold the vertical pipe runs. The load is transmitted to the structure by the ears on each side.

Installation
• Clamp is fitted and bolted preferably below a coupling or welded lugs on steel pipe.
• Clamp is designed for standard steel pipe O.D. and this must be considered in sizing the riser for other types of piping.

Ordering
Specify pipe size, figure number, name and finish.

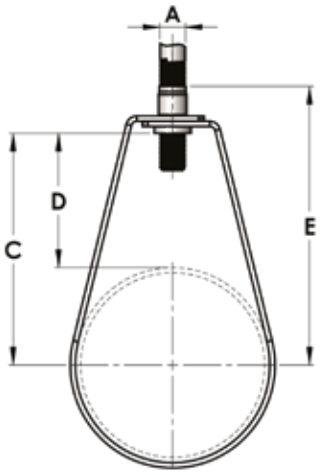
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 8

Cerlificaton
UL listed.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		SxB	A	L	Max Recom. Load kN	Weight per 100 pcs (kg)	Certification
		Inch	mm	mm		mm			
IEKRC015	IEKRC015H	½"	(15)	5X30	M10	222,0	1,0	61,0	UL
IEKRC020	IEKRC020H	¾"	(20)	5X30	M10	226,0	1,0	62,0	UL
IEKRC025	IEKRC025H	1"	(25)	5X30	M10	234,0	1,0	65,0	UL
IEKRC032	IEKRC032H	1 ¼"	(32)	6X30	M12	242,0	1,0	85,0	UL
IEKRC040	IEKRC040H	1 ½"	(40)	6X30	M12	248,0	1,0	88,0	UL
IEKRC050	IEKRC050H	2"	(50)	6X30	M12	260,0	1,0	93,0	UL
IEKRC065	IEKRC065H	2 ½"	(65)	6X30	M12	276,0	1,7	101,0	UL
IEKRC080	IEKRC080H	3"	(80)	6X30	M12	288,0	2,3	107,0	UL
IEKRC090	IEKRC090H	3 ½"	(90)	6X40	M12	332,0	3,0	156,0	UL
IEKRC100	IEKRC100H	4"	(100)	6X40	M12	344,0	3,5	164,0	UL
IEKRC125	IEKRC125H	5"	(125)	6X50	M12	369,0	5,0	220,0	UL
IEKRC134	IEKRC134H	-	(158)	6X50	M12	386,0	6,0	230,0	-
IEKRC150	IEKRC150H	6"	(150)	6X50	M12	398,0	7,0	246,0	UL
IEKRC185	IEKRC185H	-	(192)	10X50	M16	454,0	9,5	250,0	-
IEKRC200	IEKRC200H	8"	(200)	10X50	M16	480,0	11,0	498,0	UL
IEKRC250	IEKRC250H	10"	(250)	10X50	M16	533,0	11,0	573,0	UL
IEKRC300	IEKRC300H	12"	(300)	12X60	M16	584,0	12,0	896,0	UL
IEKRC350	IEKRC350H	14"	(350)	12X60	M16	616,0	12,0	956,0	-
IEKRC400	IEKRC400H	16"	(400)	16X60	M20	667,0	13,0	1408,0	-
IEKRC450	IEKRC450H	18"	(450)	16X60	M20	717,0	13,0	1534,0	-
IEKRC500	IEKRC500H	20"	(500)	16X60	M20	769,0	13,0	1704,0	-
IEKRC600	IEKRC600H	24"	(600)	16X75	M20	870,0	13,0	2428,0	-
IEKRC750	IEKRC750H	30"	(750)	16X75	M20	1023,0	13,0	2949,0	-



Adjustable Swivel Ring Steel Band Hanger

UL LISTED FM APPROVED

Size Range
¾" through 10"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to suspend non-insulated stationary pipes and Sprinkler system installation.

Installation
• Vertical adjustments are possible once the pipe is in place.
• The swivel nut is knurled to provide a gripping surface when adjusting the pipe elevation.

Ordering
Specify pipe size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

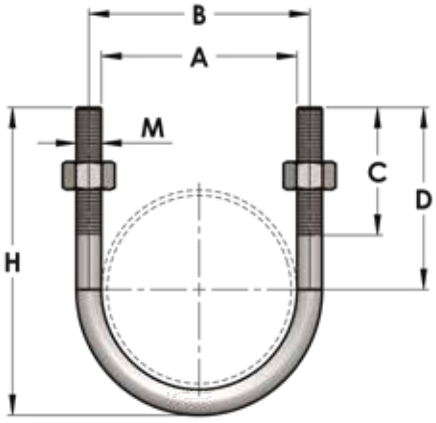
Approvals
•Complies with Manufacturer's Standardization Society MSS SP-58 & MSS SP-69- Type 10
•Complies with NFPA-13 Standard for the Installation of Sprinkler Systems.

Cerlificaton
FM Approval and UL listed.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		Size of Steel	A	C	D	E	Max Recom. Load kN	Weight per 100 pcs (kg)	Certification
		Inch	DN	Upper		mm	mm	mm			
IEKSS020	IEKSS020H	¾"	(20)	1,5x25	M10	48,3	33,3	70,3	1,7	7,0	FM/UL
IEKSS025	IEKSS025H	1"	(25)	1,5X25	M10	57,3	39,3	79,3	1,7	7,8	FM/UL
IEKSS032	IEKSS032H	1 ¼"	(32)	1,5X25	M10	64,3	41,3	86,3	1,7	8,7	FM/UL
IEKSS040	IEKSS040H	1 ½"	(40)	1,5X25	M10	69,3	43,3	91,3	1,7	9,3	FM/UL
IEKSS050	IEKSS050H	2"	(50)	1,5X25	M10	77,3	44,3	99,3	1,7	10,5	FM/UL
IEKSS065	IEKSS065H	2 ½"	(65)	2,5X25	M10	92,3	53,3	114,3	2,6	19,5	FM/UL
IEKSS080	IEKSS080H	3"	(80)	2,5X25	M10	109,3	63,3	131,3	2,6	22,4	FM/UL
IEKSS100	IEKSS100H	4"	(100)	2,5X25	M10	135,3	77,3	157,3	4,4	27,0	FM/UL
IEKSS125	IEKSS125H	5"	(125)	3X30	M12	165,0	94,0	202,0	5,5	47,5	FM/UL
IEKSS150	IEKSS150H	6"	(150)	3X30	M12	186,0	101,0	223,0	5,5	54,0	FM/UL
IEKSS200	IEKSS200H	8"	(200)	3X40	M16	251,0	140,0	288,0	5,5	92,8	FM/UL
IEKSS250	IEKSS250H	10"	(250)	3X40	M16	346,5	209,0	378,5	5,5	119,2	FM/UL

U-Bolt



Size Range
½" through 36"

Material
• Carbon Steel acc. to the
MSS SP 58-TABLE A2/A2M

Service
Designed to support or guide the pipe runs. Supplied with two nuts.

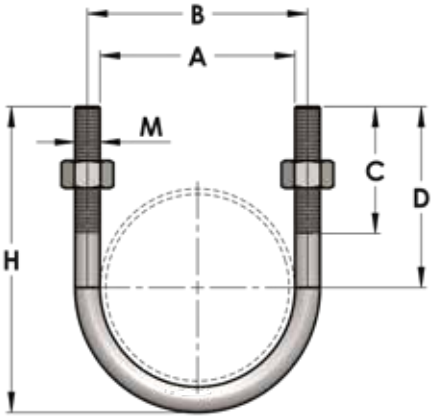
Ordering
Specify pipe size, x rod size, figure number, name.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 24

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)
Note: Extra nuts can be supplied separately upon request.

Code No	Code No for HDG	Size		A	B	C	D	H	M	Max Recom. Load kN	Weight per 100 pcs (kg)
		Inch	DN	mm	mm	mm	mm	mm			
IRUB06023A	IRUB06023AH	1/2"	15	23,0	29	30	32,5	50,0	M6	2,2	2,4
IRUB06030A	IRUB06030AH	3/4"	20	30,0	36	30	39,0	60,0	M6	2,2	3,0
IRUB06036A	IRUB06036AH	1"	25	36,0	42,0	40,0	46,0	70,0	M6	2,2	3,5
IRUB08036A	IRUB08036AH			36,0	44,0	40,0	44,0	70,0	M8	4,0	6,2
IRUB06046A	IRUB06046AH	1 1/4"	32	46,0	52,0	40,0	51,0	80,0	M6	2,2	4,1
IRUB10046A	IRUB10046AH			46,0	56,0	40,0	52,0	85,0	M10	5,4	11,8
IRUB08052A	IRUB08052AH	1 1/2"	40	52,0	60,0	40,0	56,0	90,0	M8	4,0	8,1
IRUB10052A	IRUB10052AH			52,0	62,0	50,0	59,0	95,0	M10	5,4	13,2
IRUB08064A	IRUB08064AH	2"	50	64,0	72,0	40,0	60,0	100,0	M8	4,0	9,1
IRUB10064A	IRUB10064AH			64,0	74,0	50,0	63,0	105,0	M10	5,4	14,9
IRUB08074A	IRUB08074AH	2 1/2"	65	74,0	82,0	50,0	75,0	120,0	M8	4,0	10,9
IRUB10078A	IRUB10078AH			78,0	86,0	50,0	73,0	120,0	M10	5,4	19,2
IRUB12078A	IRUB12078AH			78,0	90,0	65,0	79,0	130,0	M12	10,0	26,4
IRUB10086A	IRUB10086AH			86,0	96,0	55,0	77,0	130,0	M10	5,4	18,7
IRUB10094A	IRUB10094AH	3"	80	94,0	104,0	55,0	83,0	140,0	M10	5,4	20,2
IRUB12094A	IRUB12094AH			94,0	106,0	65,0	86,0	145,0	M12	10,0	29,9
IRUB10106A	IRUB10106AH	3 1/2"	90	106,0	116,0	60,0	87,0	150,0	M10	5,4	21,8
IRUB12106A	IRUB12106AH			106,0	118,0	65,0	95,0	160,0	M12	10,0	33,1
IRUB10118A	IRUB10118AH	4"	100	118,0	128,0	60,0	96,0	165,0	M10	5,4	24,1
IRUB12118A	IRUB12118AH			118,0	130,0	70,0	104,0	175,0	M12	10,0	36,4
IRUB12128A	IRUB12128AH			128,0	140,0	70,0	104,0	180,0	M12	10,0	37,8
IRUB12140A	IRUB12140AH			140,0	152,0	70,0	108,0	190,0	M12	10,0	40,1
IRUB12146A	IRUB12146AH	5"	125	146,0	158,0	70,0	115,0	200,0	M12	10,0	42,2
IRUB12154A	IRUB12154AH			154,0	166,0	70,0	121,0	210,0	M12	10,0	44,4
IRUB12168A	IRUB12168AH			168,0	180,0	70,0	124,0	220,0	M12	10,0	46,8



U-Bolt

Size Range
½" through 36"

Material
• Carbon Steel acc. to the
MSS SP 58-TABLE A2/A2M

Service
Designed to support or guide the pipe runs. Supplied with two nuts.

Ordering
Specify pipe size, x rod size, figure number, name.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

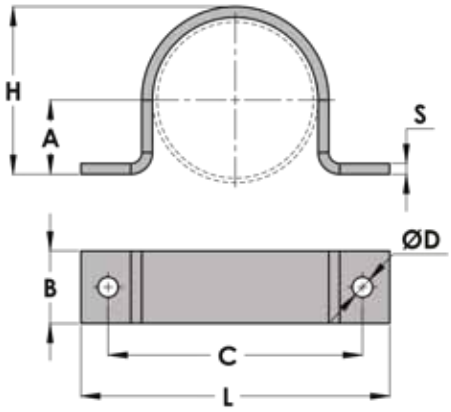
Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 24

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)
Note: Extra nuts can be supplied separately upon request.

Code No	Code No for HDG	Size		A	B	C	D	H	M	Max Recom. Load kN	Weight per 100 pcs (kg)
		Inch	DN	mm	mm	mm	mm	mm			
IRUB16172A	IRUB16172AH	6"	150	172,0	188,0	90,0	138,0	240,0	M16	16,3	89,7
IRUB12176A	IRUB12176AH			176,0	188,0	70,0	130,0	230,0	M12	10,0	49,0
IRUB12192A	IRUB12192AH			192,0	204,0	70,0	137,0	245,0	M12	10,0	52,5
IRUB12224A	IRUB12224AH	8"	200	224,0	236,0	70,0	151,0	275,0	M12	10,0	59,4
IRUB16224A	IRUB16224AH			224,0	240,0	90,0	167,0	295,0	M16	16,3	111,6
IRUB16248A	IRUB16248AH			248,0	264,0	90,0	180,0	320,0	M16	16,3	121,6
IRUB16278A	IRUB16278AH	10"	250	278,0	294,0	90,0	195,0	350,0	M16	16,3	133,7
IRUB20278A	IRUB20278AH			278,0	298,0	105,0	201,0	360,0	M20	24,5	213,4
IRUB16294A	IRUB16294AH			294,0	310,0	90,0	202,0	365,0	M16	16,3	139,8
IRUB16329A	IRUB16329AH	12"	300	329,0	345,0	90,0	219,0	400,0	M16	16,3	153,9
IRUB20329A	IRUB20329AH			329,0	349,0	110,0	225,0	410,0	M20	24,5	245,0
IRUB16360A	IRUB16360AH	14"	350	360,0	376,0	90,0	234,0	430,0	M16	16,3	166,1
IRUB22360A	IRUB22360AH			360,0	382,0	110,0	248,0	450,0	M22	34,1	325,1
IRUB16378A	IRUB16378AH			378,0	394,0	90,0	245,0	450,0	M16	16,3	174,0
IRUB16415A	IRUB16415AH	16"	400	415,0	431,0	90,0	262,0	485,0	M16	16,3	188,3
IRUB24415A	IRUB24415AH			415,0	439,0	130,0	278,5	510,0	M24	44,5	440,1
IRUB20440A	IRUB20440AH			440,0	460,0	110,0	280,0	520,0	M20	24,5	314,4
IRUB20464A	IRUB20464AH	18"	450	464,0	484,0	110,0	293,0	545,0	M20	24,5	330,0
IRUB24464A	IRUB24464AH			464,0	488,0	130,0	304,0	560,0	M24	44,5	485,3
IRUB20515A	IRUB20515AH	20''	500	515,0	535,0	110,0	318,0	595,0	M20	24,5	361,7
IRUB24515A	IRUB24515AH			515,0	539,0	130,0	329,0	610,0	M24	44,5	530,8
IRUB20562A	IRUB20562AH			562,0	582,0	110,0	344,0	645,0	M20	24,5	392,7
IRUB24615A	IRUB24615AH	24''	650	615,0	639,0	130,0	384,0	715,0	M24	44,5	625,1
IRUB24767A	IRUB24767AH	30''	750	767,5	792,0	140,0	462,0	870,0	M24	44,5	765,2
IRUB24920A	IRUB24920AH	36''	900	920,0	944,0	140,0	536,0	1020,0	M24	44,5	901,7

Std. Pipe Strap

FM APPROVED



Size Range
½" through 12"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed for pipes not subject to expansion or contraction.

Ordering
Specify pipe size, figure number, name and finish.

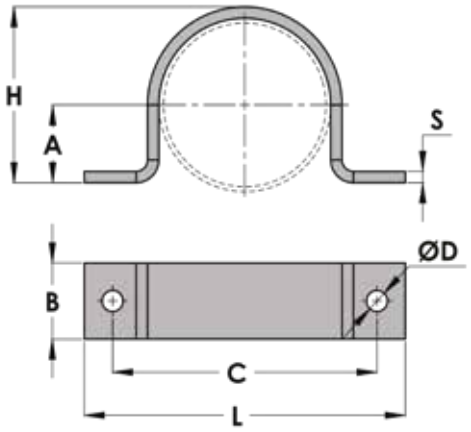
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 -Type 26

Cerlificaton
FM Approval

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		S x B	A	C	ØD	H	L	Max Recom. Load kN	Weight per 100 pcs (kg)	Certification
		Inch	DN									
IEKSPS015	IEKSPS015H	½"	(15)	3 x 40	7,0	56,0	9,0	22,0	80,0	1,8	9,3	-
IEKSPS020	IEKSPS020H	¾"	(20)	3 x 40	9,5	62,0	9,0	27,5	86,0	1,8	10,6	FM
IEKSPS025	IEKSPS025H	1"	(25)	3 x 40	13,0	68,0	9,0	34,0	92,0	1,8	12,2	FM
IEKSPS032	IEKSPS032H	1 ¼"	(32)	3 x 40	17,5	77,0	9,0	43,0	101,0	1,8	14,3	FM
IEKSPS040	IEKSPS040H	1 ½"	(40)	3 x 40	20,5	83,0	9,0	49,0	107,0	1,8	15,8	FM
IEKSPS050	IEKSPS050H	2"	(50)	6 x 40	26,5	112,0	11,0	64,0	142,0	1,8	40,3	FM
IEKSPS065	IEKSPS065H	2 ½"	(65)	6 x 40	34,0	128,0	11,0	79,5	158,0	2,7	48,0	FM
IEKSPS080	IEKSPS080H	3"	(80)	6 x 40	41,0	140,0	11,0	92,5	170,0	2,7	54,0	FM
IEKSPS090	IEKSPS090H	3 ½"	(90)	6 x 40	47,0	153,0	11,0	105,0	183,0	2,7	60,2	FM
IEKSPS100	IEKSPS100H	4"	(100)	6 x 40	53,5	171,0	13,0	118,0	207,0	3,2	68,0	FM
IEKSPS125	IEKSPS125H	5"	(125)	6 x 40	66,0	196,0	13,0	143,0	232,0	3,2	80,2	FM
IEKSPS150	IEKSPS150H	6"	(150)	6 x 40	81,0	224,0	13,0	172,0	260,0	3,2	93,9	FM
IEKSPS200	IEKSPS200H	8"	(200)	6 x 40	106,0	275,0	13,0	222,5	311,0	4,0	118,4	FM
IEKSPS250	IEKSPS250H	10"	(250)	6 x 40	132,5	330,0	13,0	276,5	366,0	4,5	144,5	FM
IEKSPS300	IEKSPS300H	12"	(300)	6 x 40	158,5	380,0	13,0	327,5	416,0	4,5	168,8	FM



Pipe Strap "M Series"

Size Range
½" through 20"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed as an economical product for pipes not subject to expansion or contraction.

Ordering
Specify pipe size, figure number, name and finish.

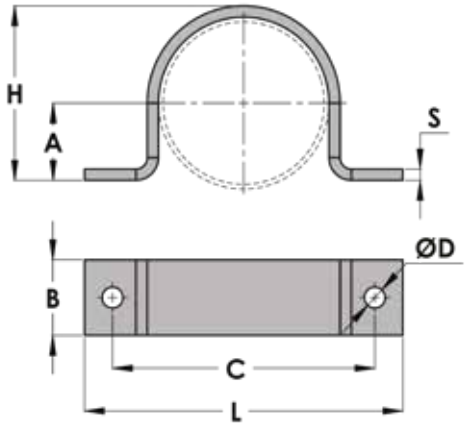
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 -Type 26

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size			S x B	A	C	ØD	H	L	Max Recom. Load kN	Weight per 100 pcs (kg)
		Inch	DN	OD								
IEKSPSM015	IEKSPSM015H	½"	(15)	21,3	2 x 25	9,0	55,0	9,0	22,0	80,0	1,0	3,9
IEKSPSM020	IEKSPSM020H	¾"	(20)	26,9	2 x 25	12,0	61,0	9,0	28,0	86,0	1,0	4,5
IEKSPSM025	IEKSPSM025H	1"	(25)	33,7	2 x 25	15,0	67,0	9,0	34,0	92,0	1,0	5,1
IEKSPSM032	IEKSPSM032H	1 ¼"	(32)	42,4	2 x 25	19,5	76,0	9,0	43,0	101,0	1,0	6,1
IEKSPSM040	IEKSPSM040H	1 ½"	(40)	48,3	2 x 25	22,5	82,0	9,0	49,0	107,0	1,0	6,7
IEKSPSM045	IEKSPSM045H			53,3	2 x 25	25,0	87,0	9,0	54,0	112,0	1,0	7,2
IEKSPSM050	IEKSPSM050H	2"	(50)	60,3	2 x 25	28,5	94,0	9,0	61,0	119,0	1,0	7,9
IEKSPSM055	IEKSPSM055H			67,3	2 x 25	32,0	101,0	9,0	68,0	126,0	1,0	8,9
IEKSPSM060	IEKSPSM060H			73,0	2 x 25	35,0	107,0	9,0	74,0	132,0	1,0	9,5
IEKSPSM065	IEKSPSM065H	2 ½"	(65)	76,1	3 x 25	35,5	119,0	11,0	77,0	149,0	1,6	14,6
IEKSPSM070	IEKSPSM070H			83,0	3 x 25	39,0	126,0	11,0	84,0	156,0	1,6	15,7
IEKSPSM080	IEKSPSM080H	3"	(80)	88,9	3 x 25	42,0	132,0	11,0	90,0	162,0	1,6	16,6
IEKSPSM085	IEKSPSM085H			93,9	3 x 25	44,5	137,0	11,0	95,0	167,0	1,6	17,3
IEKSPSM088	IEKSPSM088H			98,0	3 x 25	46,5	141,0	11,0	99,0	171,0	1,6	17,9
IEKSPSM090	IEKSPSM090H	3 ½"	(90)	101,6	3 x 25	48,0	144,0	11,0	102,0	174,0	1,6	18,4
IEKSPSM095	IEKSPSM095H			110,0	3 x 25	52,5	153,0	11,0	111,0	183,0	1,6	19,7
IEKSPSM100	IEKSPSM100H	4"	(100)	114,3	3 x 25	54,5	157,0	11,0	115,0	187,0	1,6	20,3
IEKSPSM104	IEKSPSM104H			120,0	3 x 25	57,5	163,0	11,0	121,0	193,0	1,6	21,2
IEKSPSM108	IEKSPSM108H			123,0	3 x 25	59,0	166,0	11,0	124,0	196,0	1,6	21,7
IEKSPSM110	IEKSPSM110H			127,3	3 x 25	61,0	170,0	11,0	128,0	200,0	1,6	22,3
IEKSPSM115	IEKSPSM115H			135,0	3 x 25	65,0	178,0	11,0	136,0	208,0	1,6	23,5
IEKSPSM125	IEKSPSM125H	5"	(125)	139,7	3 x 25	67,0	182,0	11,0	140,0	212,0	1,6	24,1
IEKSPSM140	IEKSPSM140H			143,0	3 x 25	69,0	186,0	11,0	144,0	216,0	1,6	24,7

Pipe Strap "M Series"



Size Range
½" through 20"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

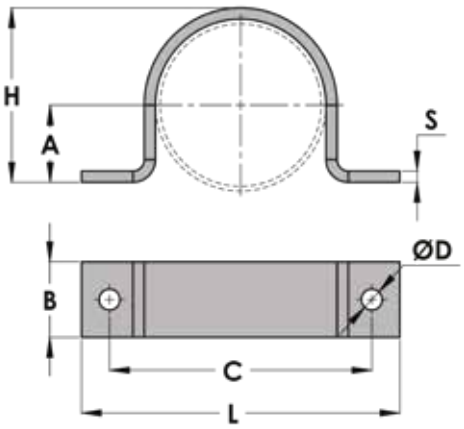
Service
Designed as an economical product for pipes not subject to expansion or contraction.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 -Type 26

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size			S x B	A	C	ØD	H	L	Max Recom. Load kN	Weight per 100 pcs (kg)
		Inch	DN	OD								
IEKSPSM144	IEKSPSM144H			148,0	3 x 25	71,5	191,0	11,0	149,0	221,0	1,6	25,4
IEKSPSM145	IEKSPSM145H			152,0	3 x 25	73,5	195,0	11,0	153,0	225,0	1,6	26,1
IEKSPSM147	IEKSPSM147H			160,0	3 x 25	77,5	203,0	11,0	161,0	233,0	1,6	27,3
IEKSPSM149	IEKSPSM149H			164,0	3 x 25	79,5	207,0	11,0	165,0	237,0	1,6	27,9
IEKSPSM150	IEKSPSM150H	6"	(150)	168,3	3 x 25	81,5	211,0	11,0	169,0	241,0	1,6	28,5
IEKSPSM165	IEKSPSM165H			173,0	3 x 25	84,0	216,0	11,0	174,0	246,0	1,6	29,2
IEKSPSM172	IEKSPSM172H			177,0	3 x 25	86,0	220,0	11,0	178,0	250,0	1,6	29,8
IEKSPSM178	IEKSPSM178H			181,3	3 x 40	88,0	224,0	11,0	182,0	254,0	2,2	48,9
IEKSPSM180	IEKSPSM180H			190,0	3 x 40	92,5	233,0	11,0	191,0	263,0	2,2	51,1
IEKSPSM190	IEKSPSM190H			193,3	3 x 40	94,0	236,0	11,0	194,0	266,0	2,2	51,8
IEKSPSM192	IEKSPSM192H			201,0	3 x 40	98,0	244,0	11,0	202,0	274,0	2,2	53,7
IEKSPSM195	IEKSPSM195H			208,0	3 x 40	101,5	251,0	11,0	209,0	281,0	2,2	55,4
IEKSPSM200	IEKSPSM200H	8"	(200)	219,1	3 x 40	107,0	262,0	11,0	220,0	292,0	2,2	58,1
IEKSPSM228	IEKSPSM228H			233,1	5 x 40	112,0	283,0	13,0	234,0	322,0	2,5	101,7
IEKSPSM240	IEKSPSM240H			245,1	5 x 40	118,0	295,0	13,0	246,0	334,0	2,5	108,1
IEKSPSM245	IEKSPSM245H			257,1	5 x 40	124,0	307,0	13,0	258,0	346,0	2,5	112,9
IEKSPSM248	IEKSPSM248H			264,0	5 x 40	127,5	314,0	13,0	265,0	353,0	2,5	115,7
IEKSPSM250	IEKSPSM250H	10"	(250)	273,0	5 x 40	132,0	323,0	13,0	274,0	362,0	2,5	119,3
IEKSPSM276	IEKSPSM276H			285,0	5 x 40	138,0	335,0	13,0	286,0	374,0	2,5	124,2
IEKSPSM292	IEKSPSM292H			297,0	5 x 40	144,0	347,0	13,0	298,0	386,0	2,5	129,0
IEKSPSM295	IEKSPSM295H			311,0	5 x 40	151,0	361,0	13,0	312,0	400,0	2,5	134,6
IEKSPSM300	IEKSPSM300H	12"	(300)	323,9	5 x 40	157,5	374,0	13,0	325,0	413,0	2,5	139,8
IEKSPSM334	IEKSPSM334H			339,9	5 x 50	165,5	403,0	17,0	341,0	453,0	3,0	187,0



Pipe Strap "M Series"

Size Range
½" through 20"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed as an economical product for pipes not subject to expansion or contraction.

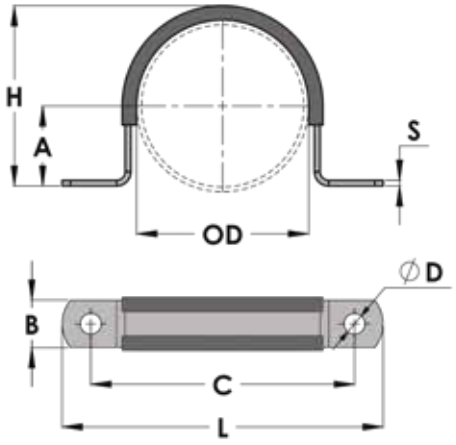
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 -Type 26

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size			S x B	A	C	ØD	H	L	Max Recom. Load kN	Weight per 100 pcs (kg)
		Inch	DN	OD								
IEKSPSM348	IEKSPSM348H			353,9	5 x 50	172,5	417,0	17,0	355,0	467,0	3,0	194,0
IEKSPSM350	IEKSPSM350H	14"	(350)	355,6	5 x 50	173,0	418,0	17,0	356,0	468,0	3,0	194,5
IEKSPSM360	IEKSPSM360H			365,9	5 x 50	178,5	429,0	17,0	367,0	479,0	3,0	200,0
IEKSPSM370	IEKSPSM370H			375,9	5 x 50	183,5	439,0	17,0	377,0	489,0	3,0	205,0
IEKSPSM384	IEKSPSM384H			389,9	5 x 50	190,5	453,0	17,0	391,0	503,0	3,0	212,0
IEKSPSM395	IEKSPSM395H			405,9	5 x 50	198,5	469,0	17,0	407,0	519,0	3,0	220,1
IEKSPSM400	IEKSPSM400H	16"	(400)	406,4	5 x 50	198,5	469,0	17,0	407,0	519,0	3,0	220,1
IEKSPSM418	IEKSPSM418H			423,9	5 x 50	207,5	487,0	17,0	425,0	537,0	3,0	229,1
IEKSPSM425	IEKSPSM425H			436,0	5 x 50	213,5	499,0	17,0	437,0	549,0	3,0	235,1
IEKSPSM445	IEKSPSM445H			455,9	5 x 50	223,5	519,0	17,0	457,0	569,0	3,0	245,1
IEKSPSM450	IEKSPSM450H	18"	(450)	457,2	5 x 50	224,0	520,0	17,0	458,0	570,0	3,0	245,6
IEKSPSM468	IEKSPSM468H			473,9	5 x 50	232,5	537,0	17,0	475,0	587,0	3,0	254,1
IEKSPSM475	IEKSPSM475H			485,0	5 x 50	238,0	548,0	17,0	486,0	598,0	3,0	259,7
IEKSPSM500	IEKSPSM500H	20"	(500)	508,0	5 x 50	249,5	571,0	17,0	509,0	621,0	3,0	271,2

Pipe Strap with Rubber Profile "M Series"



Size Range
½" through 12"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M
• Rubber Lining: EPDM Lining with noise reduction level up to 15dB acc. to DIN 4109

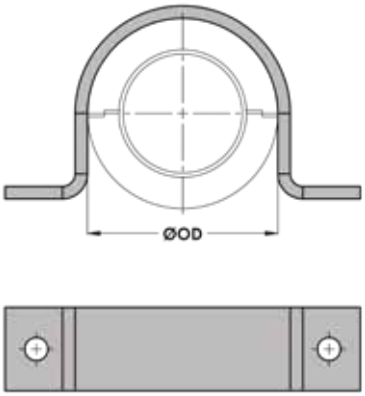
Service
Designed for support of pipes running close to walls or ceilings and not subject to expansion or contraction.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: See the page IS6-5 for the details of EPDM Rubber Lining

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size			S x B	A	C	ØD	H	L	Max. Recom. Load	Weight per 100 pcs (kg)
		Inch	DN	OD								
IEKSPSMR015	IEKSPSMR015H	½"	(15)	21,3	2 x 25	8,0	59,0	9,0	24,0	84,0	1,0	4,1
IEKSPSMR020	IEKSPSMR020H	¾"	(20)	26,9	2 x 25	11,0	65,0	9,0	30,0	90,0	1,0	4,7
IEKSPSMR025	IEKSPSMR025H	1"	(25)	33,7	2 x 25	13,5	71,0	9,0	35,5	96,0	1,0	5,3
IEKSPSMR032	IEKSPSMR032H	1 ¼"	(32)	42,4	2 x 25	18,0	80,0	9,0	44,5	105,0	1,0	6,3
IEKSPSMR040	IEKSPSMR040H	1 ½"	(40)	48,3	2 x 25	21,5	86,0	9,0	51,0	111,0	1,0	6,9
IEKSPSMR050	IEKSPSMR050H	2"	(50)	60,3	2 x 25	27,0	98,0	9,0	62,5	123,0	1,0	8,2
IEKSPSMR065	IEKSPSMR065H	2 ½"	(65)	76,1	3 x 25	35,5	125,0	11,0	81,5	155,0	1,6	14,9
IEKSPSMR080	IEKSPSMR080H	3"	(80)	88,9	3 x 25	41,0	138,0	11,0	93,5	168,0	1,6	16,9
IEKSPSMR090	IEKSPSMR090H	3 ½"	(90)	101,6	3 x 25	47,0	150,0	11,0	106,0	180,0	1,6	18,8
IEKSPSMR100	IEKSPSMR100H	4"	(100)	114,3	3 x 25	54,0	163,0	11,0	119,0	193,0	1,6	20,7
IEKSPSMR125	IEKSPSMR125H	5"	(125)	139,7	3 x 25	67,0	190,0	11,0	146,0	220,0	1,6	24,5
IEKSPSMR150	IEKSPSMR150H	6"	(150)	168,3	3 x 25	82,0	219,0	11,0	175,5	249,0	1,6	29,0
IEKSPSMR200	IEKSPSMR200H	8"	(200)	219,1	3 x 40	107,5	270,0	11,0	226,5	300,0	2,2	58,6
IEKSPSMR250	IEKSPSMR250H	10"	(250)	273,0	5 x 40	132,5	331,0	13,0	280,5	370,0	2,5	119,8
IEKSPSMR300	IEKSPSMR300H	12"	(300)	323,9	5 x 40	156,0	384,0	13,0	331,0	423,0	2,5	140,4



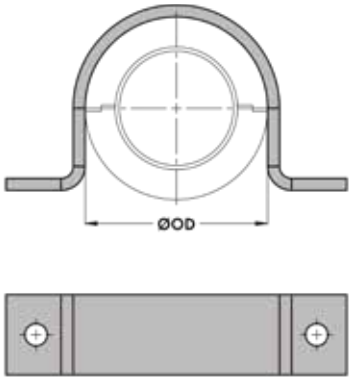
Selection Table Of Pipe Strap For Insulated Pipes

Selection
Select the Pipe Size, Thickness of Insulation and the Code for Pipe Strap.

Insulation Options
- Polyisocyanurate Insulation Blocks
  For details: See the catalogue page no. IS3-2
- Calcium Silicate
  For details: See the catalogue page no. IS3-3
- Rubber Support Inserts (RSI)
  For details: See the catalogue page no. IS3-M62

Size			Insulation Thickness (mm)	Code No	Insulation Thickness (mm)	Code No	Insulation Thickness (mm)	Code No	Insulation Thickness (mm)	Code No
Inch	DN	OD	T=13		T=19		T=25		T=32	
½"	(15)	21,3	47,3	IEKSPSM040	59,3	IEKSPSM050	71,3	IEKSPSM060	85,3	IEKSPSM080
¾"	(20)	26,9	52,9	IEKSPSM045	64,9	IEKSPSM055	76,9	IEKSPSM065	90,9	IEKSPSM085
1"	(25)	33,7	59,7	IEKSPSM050	71,7	IEKSPSM060	83,7	IEKSPSM070	97,7	IEKSPSM088
1 ¼"	(32)	42,4	68,4	IEKSPSM055	80,4	IEKSPSM070	92,4	IEKSPSM085	106,4	IEKSPSM095
1 ½"	(40)	48,3	74,3	IEKSPSM060	86,3	IEKSPSM080	98,3	IEKSPSM088	112,3	IEKSPSM100
2"	(50)	60,3	86,3	IEKSPSM080	98,3	IEKSPSM088	110,3	IEKSPSM095	124,3	IEKSPSM108
2 ½"	(65)	73,0	99,0	IEKSPSM088	111,0	IEKSPSM95	123,0	IEKSPSM108	137,0	IEKSPSM125
2 ½"	(65)	76,1	102,1	IEKSPSM090	114,1	IEKSPSM100	126,1	IEKSPSM110	140,1	IEKSPSM125
3"	(80)	88,9	114,9	IEKSPSM100	126,9	IEKSPSM110	138,9	IEKSPSM125	152,9	IEKSPSM145
3 ½"	(90)	101,6	127,6	IEKSPSM110	139,6	IEKSPSM125	151,6	IEKSPSM145	165,6	IEKSPSM150
4"	(100)	114,3	140,3	IEKSPSM125	152,3	IEKSPSM145	164,3	IEKSPSM149	178,3	IEKSPSM172
5"	(125)	139,7	165,7	IEKSPSM149	177,7	IEKSPSM172	189,7	IEKSPSM180	203,7	IEKSPSM195
5"	(125)	141,3	167,3	IEKSPSM150	179,3	IEKSPSM178	191,3	IEKSPSM180	205,3	IEKSPSM195
6"	(150)	165,1	191,1	IEKSPSM180	203,1	IEKSPSM195	215,1	IEKSPSM200	229,1	IEKSPSM228
6"	(150)	168,3	194,3	IEKSPSM190	206,3	IEKSPSM195	218,3	IEKSPSM200	232,3	IEKSPSM228
8"	(200)	219,1	245,1	IEKSPSM240	257,1	IEKSPSM245	269,1	IEKSPSM250	283,1	IEKSPSM276
10"	(250)	273,0	299,0	IEKSPSM295	311,0	IEKSPSM295	323,0	IEKSPSM300	337,0	IEKSPSM334
12"	(300)	323,9	349,9	IEKSPSM348	361,9	IEKSPSM360	373,9	IEKSPSM370	387,9	IEKSPSM384
14"	(350)	355,6	381,6	IEKSPSM384	393,6	IEKSPSM395	405,6	IEKSPSM395	419,6	IEKSPSM418
16"	(400)	406,4	432,4	IEKSPSM425	444,4	IEKSPSM445	456,4	IEKSPSM450	470,4	IEKSPSM468

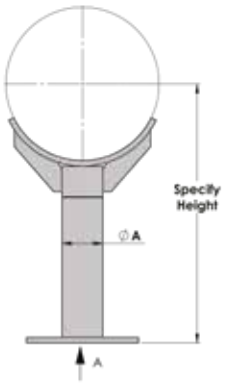
Selection Table Of Pipe Strap For Insulated Pipes

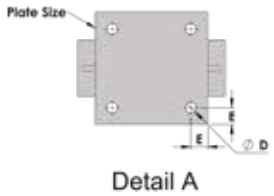


Selection
Select the Pipe Size, Thickness of Insulation and the Code for Pipe Strap.

Insulation Options
- Polyisocyanurate Insulation Blocks
  For details: See the catalogue page no. IS3-2
- Calcium Silicate
  For details: See the catalogue page no. IS3-3
- Rubber Support Inserts (RSI)
  For details: See the catalogue page no. IS3-M62

Size			Insulation Thickness (mm)	Code No	Insulation Thickness (mm)	Code No	Insulation Thickness (mm)	Code No	Insulation Thickness (mm)	Code No
Inch	DN	OD	T=38		T=50		T=65		T=75	
½"	(15)	21,3	97,3	IEKSPSM088	121,3	IEKSPSM104	151,3	IEKSPSM145	171,3	IEKSPSM165
¾"	(20)	26,9	102,9	IEKSPSM090	126,9	IEKSPSM110	156,9	IEKSPSM147	176,9	IEKSPSM172
1"	(25)	33,7	109,7	IEKSPSM095	133,7	IEKSPSM115	163,7	IEKSPSM149	183,7	IEKSPSM180
1 ¼"	(32)	42,4	118,4	IEKSPSM104	142,4	IEKSPSM140	172,4	IEKSPSM165	192,4	IEKSPSM190
1 ½"	(40)	48,3	124,3	IEKSPSM108	148,3	IEKSPSM144	178,3	IEKSPSM172	198,3	IEKSPSM192
2"	(50)	60,3	136,3	IEKSPSM115	160,3	IEKSPSM147	190,3	IEKSPSM180	210,3	IEKSPSM200
2 ½"	(65)	73,0	149,0	IEKSPSM144	173,0	IEKSPSM165	203,0	IEKSPSM195	223,0	IEKSPSM228
2 ½"	(65)	76,1	152,1	IEKSPSM145	176,1	IEKSPSM172	206,1	IEKSPSM195	226,1	IEKSPSM228
3"	(80)	88,9	164,9	IEKSPSM149	188,9	IEKSPSM180	218,9	IEKSPSM200	238,9	IEKSPSM240
3 ½"	(90)	101,6	177,6	IEKSPSM172	201,6	IEKSPSM192	231,6	IEKSPSM228	251,6	IEKSPSM245
4"	(100)	114,3	190,3	IEKSPSM180	214,3	IEKSPSM200	244,3	IEKSPSM240	264,3	IEKSPSM248
5"	(125)	139,7	215,7	IEKSPSM200	239,7	IEKSPSM240	269,7	IEKSPSM250	289,7	IEKSPSM292
5"	(125)	141,3	217,3	IEKSPSM200	241,3	IEKSPSM240	271,3	IEKSPSM250	291,3	IEKSPSM292
6"	(150)	165,1	241,1	IEKSPSM240	265,1	IEKSPSM250	295,1	IEKSPSM292	315,1	IEKSPSM300
6"	(150)	168,3	244,3	IEKSPSM240	268,3	IEKSPSM250	298,3	IEKSPSM292	318,3	IEKSPSM300
8"	(200)	219,1	295,1	IEKSPSM292	319,1	IEKSPSM300	349,1	IEKSPSM348	369,1	IEKSPSM370
10"	(250)	273,0	349,0	IEKSPSM348	373,0	IEKSPSM370	403,0	IEKSPSM395	423,0	IEKSPSM418
12"	(300)	323,9	399,9	IEKSPSM395	423,9	IEKSPSM418	453,9	IEKSPSM445	473,9	IEKSPSM468
14"	(350)	355,6	431,6	IEKSPSM425	455,6	IEKSPSM450	485,6	IEKSPSM475	505,6	IEKSPSM500
16"	(400)	406,4	482,4	IEKSPSM475	506,4	IEKSPSM500	536,4		556,4	





Detail A

Pipe Saddle Support

Size Range
1" through 36"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to support horizontal pipe from floor stanchion

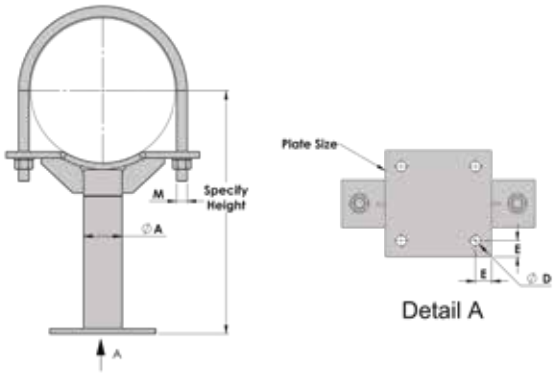
Ordering
Specify size to be supported, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 36

Code No	Code No for HDG	Size		ØA	ØD	E	Plate Size
		Inch	DN	mm	mm	mm	mm
IEPSSP025	IEPSSP025H	1''	(25)	21,3	14,0	25,0	6x150x150
IEPSSP032	IEPSSP032H	1 ¼''	(32)	21,3	14,0	25,0	6x150x150
IEPSSP040	IEPSSP040H	1 ½''	(40)	21,3	14,0	25,0	6x150x150
IEPSSP050	IEPSSP050H	2''	(50)	21,3	14,0	25,0	6x150x150
IEPSSP065	IEPSSP065H	2 ½''	(65)	48,3	14,0	25,0	10x150x150
IEPSSP080	IEPSSP080H	3''	(80)	48,3	14,0	25,0	10x150x150
IEPSSP090	IEPSSP090H	3 ½''	(90)	48,3	14,0	25,0	10x150x150
IEPSSP100	IEPSSP100H	4''	(100)	73,0	20,0	30,0	10x200x200
IEPSSP125	IEPSSP125H	5''	(125)	73,0	20,0	30,0	10x200x200
IEPSSP150	IEPSSP150H	6''	(150)	73,0	20,0	30,0	10x200x200
IEPSSP200	IEPSSP200H	8''	(200)	73,0	20,0	30,0	10x200x200
IEPSSP250	IEPSSP250H	10''	(250)	73,0	20,0	30,0	10x200x200
IEPSSP300	IEPSSP300H	12''	(300)	73,0	20,0	30,0	10x200x200
IEPSSP350	IEPSSP350H	14''	(350)	88,9	26,0	40,0	12x300x300
IEPSSP400	IEPSSP400H	16''	(400)	88,9	26,0	40,0	12x300x300
IEPSSP450	IEPSSP450H	18''	(450)	114,3	26,0	40,0	12x300x300
IEPSSP500	IEPSSP500H	20''	(500)	114,3	26,0	40,0	12x300x300
IEPSSP600	IEPSSP600H	24''	(600)	114,3	26,0	40,0	12x300x300
IEPSSP750	IEPSSP750H	30''	(750)	114,3	26,0	40,0	12x300x300
IEPSSP900	IEPSSP900H	36''	(900)	114,3	26,0	40,0	12x300x300

Pipe Stanchion Saddle



Size Range
¾" through 36"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

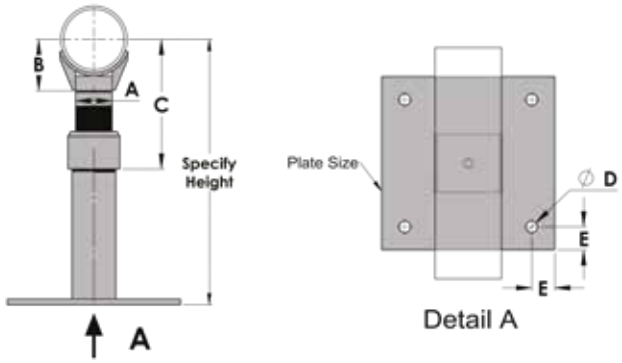
Service
Designed to support horizontal pipe from floor stanchion.

Ordering
Specify size to be supported, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 37

Code No	Code No for HDG	Size		ØA	ØD	E	M	Plate Size
		Inch	DN	mm	mm	mm	mm	mm
IEPSSU020	IEPSSU020H	¾''	(20)	21,3	14,0	25,0	M6	6x150x150
IEPSSU025	IEPSSU025H	1''	(25)	21,3	14,0	25,0	M6	6x150x150
IEPSSU032	IEPSSU032H	1 ¼''	(32)	21,3	14,0	25,0	M10	6x150x150
IEPSSU040	IEPSSU040H	1 ½''	(40)	21,3	14,0	25,0	M10	6x150x150
IEPSSU050	IEPSSU050H	2''	(50)	21,3	14,0	25,0	M10	6x150x150
IEPSSU065	IEPSSU065H	2 ½''	(65)	48,3	14,0	25,0	M12	10x150x150
IEPSSU080	IEPSSU080H	3''	(80)	48,3	14,0	25,0	M12	10x150x150
IEPSSU090	IEPSSU090H	3 ½''	(90)	48,3	14,0	25,0	M12	10x150x150
IEPSSU100	IEPSSU100H	4''	(100)	73,0	20,0	30,0	M12	10x200x200
IEPSSU125	IEPSSU125H	5''	(125)	73,0	20,0	30,0	M12	10x200x200
IEPSSU150	IEPSSU150H	6''	(150)	73,0	20,0	30,0	M16	10x200x200
IEPSSU200	IEPSSU200H	8''	(200)	73,0	20,0	30,0	M16	10x200x200
IEPSSU250	IEPSSU250H	10''	(250)	73,0	20,0	30,0	M20	10x200x200
IEPSSU300	IEPSSU300H	12''	(300)	73,0	20,0	30,0	M20	10x200x200
IEPSSU350	IEPSSU350H	14''	(350)	88,9	26,0	40,0	M20	12x300x300
IEPSSU400	IEPSSU400H	16''	(400)	88,9	26,0	40,0	M20	12x300x300
IEPSSU450	IEPSSU450H	18''	(450)	114,3	26,0	40,0	M24	12x300x300
IEPSSU500	IEPSSU500H	20''	(500)	114,3	26,0	40,0	M24	12x300x300
IEPSSU600	IEPSSU600H	24''	(600)	114,3	26,0	40,0	M24	12x300x300
IEPSSU750	IEPSSU750H	30''	(750)	114,3	26,0	40,0	M24	12x300x300
IEPSSU900	IEPSSU900H	36''	(900)	114,3	26,0	40,0	M24	12x300x300



Adjustable Pipe Saddle Support

Size Range
¾" through 36"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Stanchion type support where vertical adjustment of stationary pipe is required.

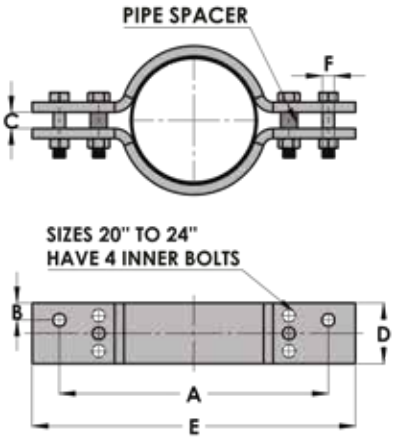
Ordering
Specify size to be supported, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 38

Code No	Code No for HDG	Size		A	B	C Min.	C Max.	ØD	E	Plate Size	Weight per 100 pcs (kg)
		Inch	DN	mm	mm	mm	mm	mm	mm	mm	
IEPSS025	IEPSS025H	1"	(25)	20,0	50,0	145,0	258,0	14,0	25,0	6x150x150	380,1
IEPSS032	IEPSS032H	1 ¼"	(32)	20,0	55,0	148,0	263,0	14,0	25,0	6x150x150	394,6
IEPSS040	IEPSS040H	1 ½"	(40)	20,0	60,0	154,0	267,0	14,0	25,0	6x150x150	397,8
IEPSS050	IEPSS050H	2"	(50)	20,0	62,0	157,0	272,0	14,0	25,0	6x150x150	400,5
IEPSS065	IEPSS065H	2 ½"	(65)	39,0	65,0	160,0	275,0	20,0	35,0	10x200x200	948,5
IEPSS080	IEPSS080H	3"	(80)	39,0	73,0	170,0	284,0	20,0	35,0	10x200x200	952,6
IEPSS090	IEPSS090H	3 ½"	(90)	39,0	80,0	175,0	290,0	20,0	35,0	10x200x200	958,0
IEPSS100	IEPSS100H	4"	(100)	64,0	90,0	184,0	300,0	20,0	40,0	10x300x300	1672,8
IEPSS125	IEPSS125H	5"	(125)	64,0	105,0	200,0	312,0	20,0	40,0	10x300x300	1680,5
IEPSS150	IEPSS150H	6"	(150)	64,0	120,0	215,0	330,0	20,0	40,0	10x300x300	1749,9
IEPSS200	IEPSS200H	8"	(200)	64,0	165,0	260,0	375,0	20,0	40,0	10x300x300	1868,8
IEPSS250	IEPSS250H	10"	(250)	64,0	192,0	288,0	400,0	20,0	40,0	10x300x300	1922,3
IEPSS300	IEPSS300H	12"	(300)	64,0	215,0	308,0	425,0	20,0	40,0	10x300x300	1992,1
IEPSS350	IEPSS350H	14"	(350)	80,0	273,0	370,0	485,0	24,0	40,0	12x300x300	2834,0
IEPSS400	IEPSS400H	16"	(400)	80,0	300,0	395,0	508,0	24,0	40,0	12x300x300	2908,0
IEPSS450	IEPSS450H	18"	(450)	100,0	345,0	440,0	553,0	29,0	40,0	12x460x460	5599,2
IEPSS500	IEPSS500H	20''	(500)	100,0	368,0	465,0	580,0	29,0	40,0	12x460x460	5698,9
IEPSS600	IEPSS600H	24''	(600)	100,0	450,0	545,0	660,0	29,0	40,0	12x460x460	6210,6
IEPSS750	IEPSS750H	30''	(750)	100,0	530,0	625,0	740,0	29,0	40,0	12x460x460	7788,2
IEPSS900	IEPSS900H	36''	(900)	100,0	610,0	710,0	825,0	29,0	40,0	12x460x460	8356,5

Heavy Duty Riser Clamp



Size Range
2" through 24"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to designed for pipe lines where horizontal movement may take place due to expansion and contraction. Vertical adjustments are possible once the pipe is in place.The lower nut is used to adjust the pipeline to the required elevation.

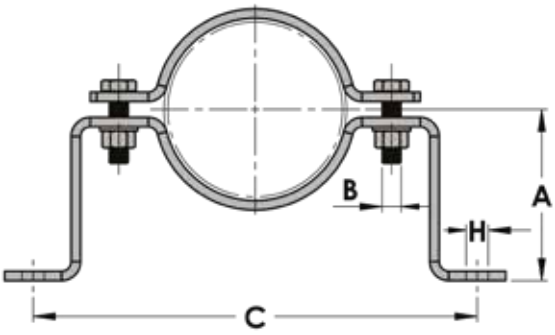
Ordering
Specify pipe size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 42

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Pipe Size		A	B	C	D	E	F	Max. Recom. Load kN	Weight Per 1 pcs (kg)
		Inch	DN	mm	mm	mm	mm	mm			
IEKHDRC050	IEKHDRC050H	2"	50	458,0	32,5	19,0	65,0	559,0	M12	4,0	7,3
IEKHDRC065	IEKHDRC065H	2 ½"	65	508,0	32,5	19,0	65,0	610,0	M12	4,0	8,0
IEKHDRC080	IEKHDRC080H	3"	80	508,0	37,5	19,0	75,0	610,0	M16	6,7	12,5
IEKHDRC100	IEKHDRC100H	4"	100	560,0	40,0	19,0	80,0	660,0	M20	9,8	18,5
IEKHDRC125	IEKHDRC125H	5"	125	560,0	50,0	19,0	100,0	660,0	M20	9,8	23,2
IEKHDRC150	IEKHDRC150H	6"	150	610,0	35,0	26,0	100,0	711,0	M22	13,0	25,6
IEKHDRC200	IEKHDRC200H	8"	200	686,0	35,0	26,0	125,0	788,0	M22	13,0	35,6
IEKHDRC250	IEKHDRC250H	10"	250	762,0	40,0	38,0	155,0	915,0	M30	24,0	65,5
IEKHDRC300	IEKHDRC300H	12"	300	813,0	45,0	45,0	180,0	965,0	M36	34,5	83,3
IEKHDRC350	IEKHDRC350H	14"	350	864,0	45,0	45,0	180,0	1016,0	M36	34,5	88,0
IEKHDRC400	IEKHDRC400H	16"	400	914,0	50,0	51,0	200,0	1067,0	M36	40,0	121,8
IEKHDRC450	IEKHDRC450H	18"	450	991,0	50,0	51,0	230,0	1143,0	M36	40,0	150,1
IEKHDRC500	IEKHDRC500H	20"	500	1067,0	67,0	64,0	240,0	1283,0	M48	60,0	249,6
IEKHDRC600	IEKHDRC600H	24"	600	1143,0	67,0	64,0	260,0	1359,0	M48	60,0	289,1



Offset Clamp

Size Range
½" through 12"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to be used in the clamping of pipe lines at a fixed distance away from the floor or wall.

Ordering
Specify pipe size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		A	B	C	H	Max. Recom. Load kN	Weight per 100 pcs (kg)
		Inch	DN	mm		mm	mm		
IEOPC015	IEOPC015H	½''	15	62,0	M10	150,0	11,0	0,9	50,9
IEOPC020	IEOPC020H	¾''	20	63,0	M10	150,0	11,0	0,9	51,9
IEOPC025	IEOPC025H	1''	25	66,0	M10	160,0	11,0	0,9	54,7
IEOPC032	IEOPC032H	1 ¼''	32	69,0	M10	170,0	11,0	0,9	59,5
IEOPC040	IEOPC040H	1 ½''	40	76,0	M10	170,0	11,0	0,9	62,3
IEOPC050	IEOPC050H	2''	50	81,0	M10	190,0	11,0	1,9	81,1
IEOPC065	IEOPC065H	2 ½''	65	87,0	M10	220,0	11,0	1,9	91,9
IEOPC080	IEOPC080H	3''	80	95,0	M10	240,0	11,0	1,9	101,9
IEOPC090	IEOPC090H	3 ½''	90	101,0	M10	250,0	11,0	1,9	108,6
IEOPC100	IEOPC100H	4''	100	108,0	M12	280,0	14,0	2,7	161,6
IEOPC125	IEOPC125H	5''	125	120,0	M12	310,0	14,0	2,7	182,8
IEOPC150	IEOPC150H	6''	150	135,0	M12	360,0	14,0	3,8	330,3
IEOPC200	IEOPC200H	8''	200	160,0	M12	420,0	14,0	3,8	399,2
IEOPC250	IEOPC250H	10''	250	190,0	M16	520,0	21,0	4,0	638,5
IEOPC300	IEOPC300H	12''	300	215,0	M16	600,0	21,0	5,3	879,6

SLIDERS, GUIDES, PIPE ROLLERS, PROTECTION SHIELDS & SADDLES

Light Duty Sliding Shoe

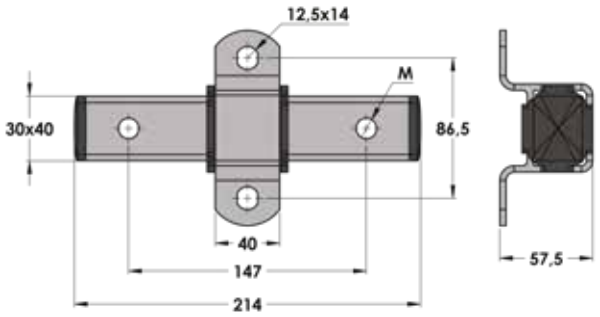
Size Range
M8 through M10

Material
• Plastic

Service
Compensation length only by profile length.
Piper can either be suspended or supported from below.
Can also be used for vertical pipes.

Code No	Thread Size	Suitable For Profile (mm)	A	B	Recommended Load (kN)	Quantity / Box	Weight / Box (Kg)
IWKMP12182760	M8	27 x 18 x 1,2	60	0,25	1	200	5,3
IWKMP203840875	M8	38 x 40 x 2	75	0,9	1	150	7,7
IWKMP2038401075	M10	38 x 40 x 2	75	0,25	1	150	7,5
IWKMP203840152	M10	38 x 40 x 2	152	0,9	1	100	10,3

Slide Guide



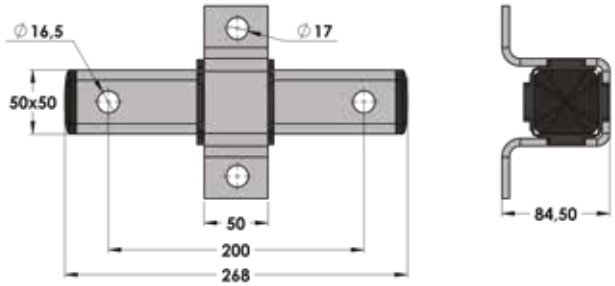
Material
• Carbon Steel

Service
It is used in industrial establishments for the compensation of the thermal expansion that is caused by temperature differences.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	Slide Guide Size	Slide Bracket Size	M	Qty/Box	Weight per Box (kg)
	mm	mm	mm		
IWKM203040200	30 x 40 x 2	40 x 46,5 x 4	12,5	25	20,6

Heavy Duty Slide Guide



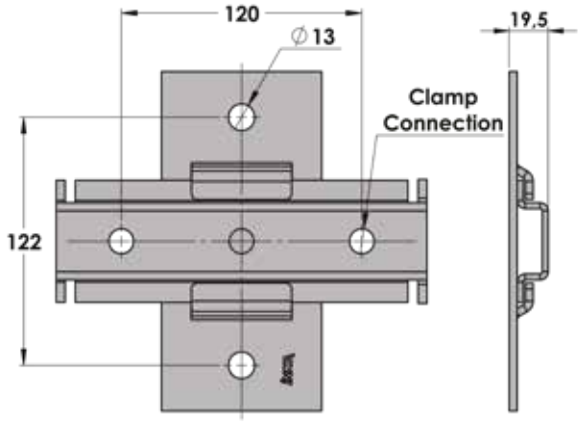
Material
• Carbon Steel

Service
It is used in industrial establishments for the compensation of the thermal expansion that is caused by temperature differences.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	Slide Guide Size	Slide Bracket Size	Qty/Box	Weight per Box (kg)
	mm	mm		
IWKM405050250	50 x 50 x 4	50 x 56,5 x 6	10	22,6

Medium Duty Quick Sliding Support



Material
• Carbon Steel

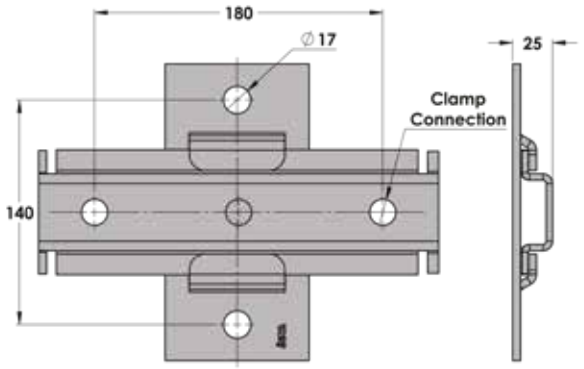
Service
It is used in industrial establishments for the compensation of the thermal expansion that is caused by temperature differences.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Clamp	Clamp Connection	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
IWKMQMD10	1/2'' - 3"	M10	1,30	20	16,0
IWKMQMD12	1/2'' - 3"	M12	1,30	20	16,0

Heavy Duty Quick Sliding Support



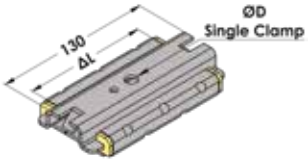
Material
• Carbon Steel

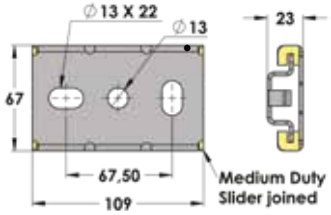
Service
It is used in industrial establishments for the compensation of the thermal expansion that is caused by temperature differences.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

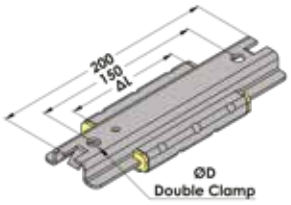
Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Clamp	Clamp Connection	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
IWKMQHD12	4'' - 10"	M12	10	15	7,6
IWKMQHD16	4'' - 10"	M16	10	15	7,6





Medium Duty Slider (Weld or Bolt on Profile)



Material
- Carbon Steel
- Plastic >PA-6 GF30<

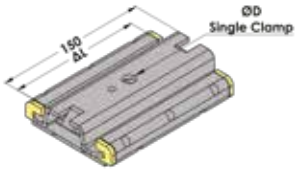
Service
Medium duty sliders designed for compensation movements of pipe systems. To be used with Inka heavy duty pipe support system and various Inka clamps.

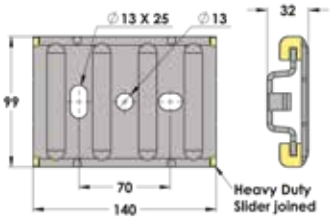
Slider allows sound absorbation with glass fiber reinforced Polyamid slider parts.

Selectable with various connections as M10/M12

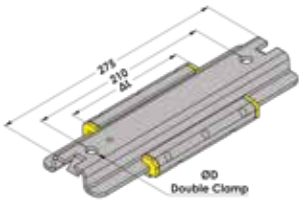
Finish
- Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Slider Code	Description	ØD (mm)	L (mm)	Fmax Floor Mount (kN)	Fmax Ceiling Mount (kN)
IWKM1208510	Medium Duty Slider joined by M10 Bolt to Single Clamp	10,2	±40	1,2	0,6
IWKM1208512	Medium Duty Slider joined by M12 Bolt to Single Clamp	12,2			
IWKM1214010	Medium Duty Slider joined by M10 Bolts to Double Clamps	10,2	±70		
IWKM1214012	Medium Duty Slider joined by M12 Bolts to Double Clamps	12,2			





Heavy Duty Slider (Weld or Bolt on Profile)



Material
- Carbon Steel
- Plastic >PA-6 GF30<

Service
Heavy duty sliders designed for compensation movements of pipe systems. To be used with Inka heavy duty pipe support system and various Inka clamps.

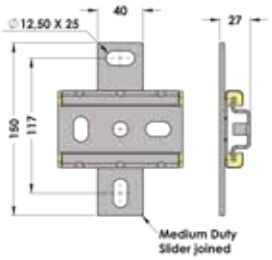
Slider allows sound absorbation with glass fiber reinforced Polyamid slider parts.

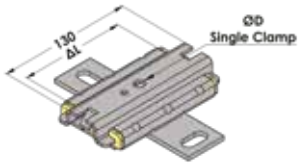
Selectable with various connections as M12/M16

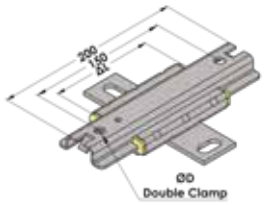
Finish
- Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Slider Code	Description	ØD (mm)	L (mm)	Fmax Floor Mount (kN)	Fmax Ceiling Mount (kN)
IWKM509010012	Heavy Duty Slider joined by M12 Bolt to Single Clamp	12,2	±50	9,0	5,0
IWKM509010016	Heavy Duty Slider joined by M16 Bolt to Single Clamp	16,2			
IWKM509024512	Heavy Duty Slider joined by M12 Bolts to Double Clamps	12,2	±65		
IWKM509024516	Heavy Duty Slider joined by M16 Bolts to Double Clamps	16,2			

Medium Duty Slider (Mount on G Profile)







Material
- Carbon Steel
- Plastic >PA-6 GF30<

Service
Medium duty sliders designed for compensation movements of pipe systems. To be used with Inka Square Profile and heavy duty pipe support system and various Inka clamps.

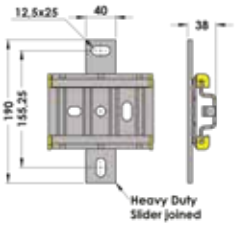
Slider allows sound absorbation with glass fiber reinforced Polyamid slider parts.

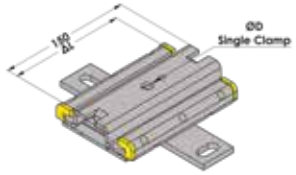
Selectable with various connections as M10/M12

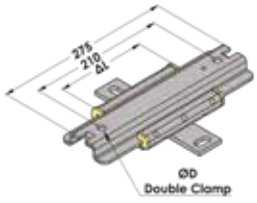
Finish
- Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Slider Code	Description	ØD (mm)	L (mm)	Fmax Floor Mount (kN)	Fmax Ceiling Mount (kN)
IWKML1208510	Medium Duty Slider joined by M10 Bolt to Single Clamp	10,2	±40	1,2	0,6
IWKML1208512	Medium Duty Slider joined by M12 Bolt to Single Clamp	12,2			
IWKML1214010	Medium Duty Slider joined by M10 Bolts to Double Clamps	10,2	±70		
IWKML1214012	Medium Duty Slider joined by M12 Bolts to Double Clamps	12,2			

Heavy Duty Slider (Mount on G Profile)







Material
- Carbon Steel
- Plastic >PA-6 GF30<

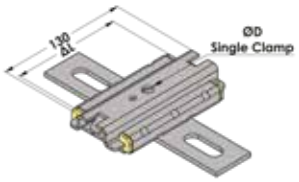
Service
Heavy duty sliders designed for compensation movements of pipe systems. To be used with Inka Square Profile and heavy duty pipe support system and various Inka clamps.

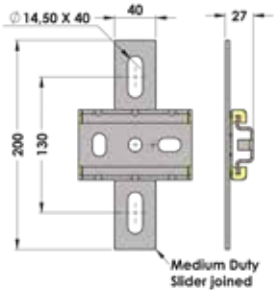
Slider allows sound absorbation with glass fiber reinforced Polyamid slider parts.

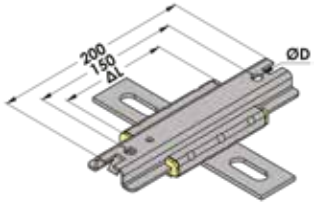
Selectable with various connections as M12/M16

Finish
- Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Slider Code	Description	ØD (mm)	L (mm)	Fmax Floor Mount (kN)	Fmax Ceiling Mount (kN)
IWKML509010012	Heavy Duty Slider joined by M12 Bolt to Single Clamp	12,2	±50	9,0	5,0
IWKML509010016	Heavy Duty Slider joined by M16 Bolt to Single Clamp	16,2			
IWKML509024512	Heavy Duty Slider joined by M12 Bolts to Double Clamps	12,2	±65		
IWKML509024516	Heavy Duty Slider joined by M16 Bolts to Double Clamps	16,2			







Medium Duty Slider (Mount on Square Profile)

Material
- Carbon Steel
- Plastic >PA-6 GF30<

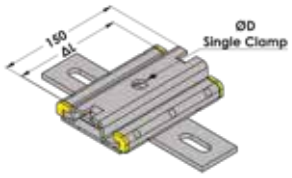
Service
Medium duty sliders designed for compensation movements of pipe systems. To be used with Inka Square Profile and heavy duty pipe support system and various Inka clamps.

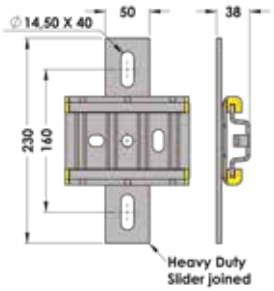
Slider allows sound absorbation with glass fiber reinforced Polyamid slider parts.

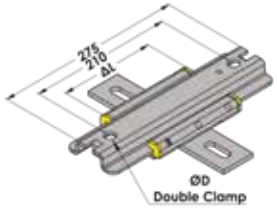
Selectable with various connections as M10/M12

Finish
- Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Slider Code	Description	ØD (mm)	L (mm)	Fmax Floor Mount (kN)	Fmax Ceiling Mount (kN)
IWKMLK1208510	Medium Duty Slider joined by M10 Bolt to Single Clamp	10,2	±40	1,2	0,6
IWKMLK1208512	Medium Duty Slider joined by M12 Bolt to Single Clamp	12,2			
IWKMLK1214010	Medium Duty Slider joined by M10 Bolts to Double Clamps	10,2	±70		
IWKMLK1214012	Medium Duty Slider joined by M12 Bolts to Double Clamps	12,2			







Heavy Duty Slider (Mount on Square Profile)

Material
- Carbon Steel
- Plastic >PA-6 GF30<

Service
Heavy duty sliders designed for compensation movements of pipe systems. To be used with Inka Square Profile and heavy duty pipe support system and various Inka clamps.

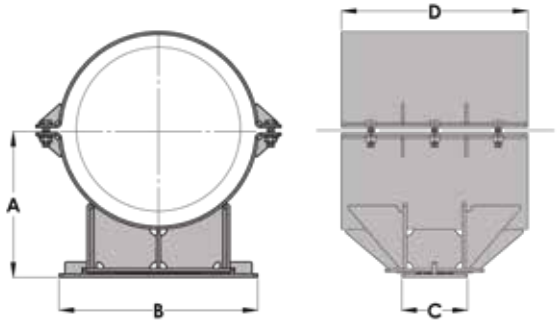
Slider allows sound absorbation with glass fiber reinforced Polyamid slider parts.

Selectable with various connections as M12/M16

Finish
- Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Slider Code	Description	ØD (mm)	L (mm)	Fmax Floor Mount (kN)	Fmax Ceiling Mount (kN)
IWKMLK509010012	Heavy Duty Slider joined by M12 Bolt to Single Clamp	12,2	±50	9,0	5,0
IWKMLK509010016	Heavy Duty Slider joined by M16 Bolt to Single Clamp	16,2			
IWKMLK509024512	Heavy Duty Slider joined by M12 Bolts to Double Clamps	12,2	±65		
IWKMLK509024516	Heavy Duty Slider joined by M16 Bolts to Double Clamps	16,2			

Sliding Guided Support - Normal



Material
- Carbon Steel acc. to the MSS SP 58-Table A2/A2M
- Sling Bear is PTFE

Welding
Welding acc. to EN 3834-2 / ASME Section IX, AWS D1.1

Service
Designed to insulated or non-insulated stationary pipe allowing horizontal movements.

Installation
Specify pipe size, figure number, name and finish.

Finish
- Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
- Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

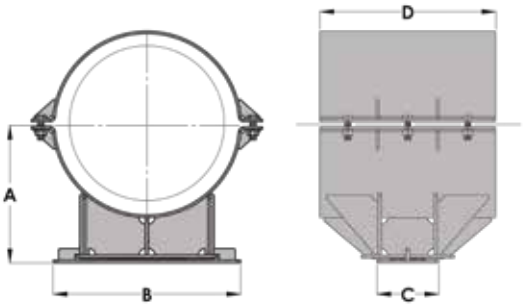
Approvals
Complies with Manufacturer's standardization society
MSS SP 58 & SP 69 - Type 35

Note: Special size can be designed to meet project requirements.

Note: Anchor holes may be drilled for assembling on concrete. Base plate will be resized according to selected anchor.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size	A	B	C	D	Vertical Force	Axial Force	Lateral Force
			mm	mm	mm	mm	kN	kN	kN
IEFGSN050	IEFGSN050H	50	317,0	435,0	160,0	160,0	1,3	0,4	0,4
IEFGSN065	IEFGSN065H	65	323,5	450,0	160,0	160,0	1,9	0,6	0,6
IEFGSN080	IEFGSN080H	80	331,0	460,0	160,0	160,0	2,5	0,8	0,8
IEFGSN100	IEFGSN100H	100	344,0	490,0	160,0	160,0	4,0	1,2	1,2
IEFGSN125	IEFGSN125H	125	358,0	515,0	160,0	160,0	6,1	1,8	1,8
IEFGSN150	IEFGSN150H	150	371,0	540,0	160,0	160,0	8,4	2,5	2,5
IEFGSN200	IEFGSN200H	200	397,0	590,0	180,0	220,0	14,0	4,2	4,2
IEFGSN250	IEFGSN250H	250	425,5	640,0	210,0	590,0	23,2	7,0	7,0
IEFGSN300	IEFGSN300H	300	451,0	690,0	220,0	590,0	31,4	9,4	9,4
IEFGSN350	IEFGSN350H	350	467,0	740,0	220,0	590,0	39,1	11,7	11,7
IEFGSN400	IEFGSN400H	400	494,0	790,0	230,0	590,0	51,6	15,5	15,5
IEFGSN450	IEFGSN450H	450	519,5	845,0	260,0	590,0	64,2	19,3	19,3
IEFGSN500	IEFGSN500H	500	545,0	895,0	260,0	590,0	81,3	24,3	24,3
IEFGSN550	IEFGSN550H	550	572,5	945,0	300,0	590,0	97,9	29,3	29,3
IEFGSN600	IEFGSN600H	600	598,0	995,0	300,0	590,0	117,7	35,3	35,3
IEFGSN650	IEFGSN650H	650	625,0	1045,0	300,0	590,0	136,7	41,0	41,0
IEFGSN700	IEFGSN700H	700	650,5	1095,0	300,0	590,0	157,9	47,3	47,3
IEFGSN750	IEFGSN750H	750	676,0	1150,0	300,0	590,0	177,5	53,3	53,3
IEFGSN800	IEFGSN800H	800	701,5	1200,0	300,0	590,0	202,0	60,6	60,6
IEFGSN850	IEFGSN850H	850	727,0	1250,0	300,0	590,0	224,0	67,2	67,2
IEFGSN900	IEFGSN900H	900	752,0	1300,0	300,0	590,0	251,8	75,5	75,5



Sliding Guided Support - Heavy

Material
- Carbon Steel acc. to the MSS SP 58-Table A2/A2M
- Sling Bear is PTFE

Welding
Welding acc. to EN 3834-2 / ASME Section IX, AWS D1.1

Service
Designed to insulated or non-insulated stationary pipe allowing horizontal movements.

Installation
Specify pipe size, figure number, name and finish.

Finish
- Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
- Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's standardization society
MSS SP 58 & SP 69 - Type 35

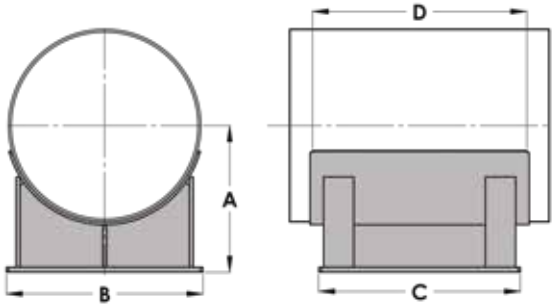
Note: Special size can be designed to meet project requirements.

Note: Anchor holes may be drilled for assembling on concrete. Base plate will be resized according to selected anchor.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size	A	B	C	D	Vertical Force	Axial Force	Lateral Force
			mm	mm	mm	mm	kN	kN	kN
IEFGSH050	IEFGSH050H	50	317,0	435,0	160,0	160,0	2,0	0,6	0,6
IEFGSH065	IEFGSH065H	65	323,5	450,0	160,0	160,0	3,0	0,9	0,9
IEFGSH080	IEFGSH080H	80	331,0	460,0	160,0	160,0	4,0	1,2	1,2
IEFGSH100	IEFGSH100H	100	344,0	490,0	160,0	160,0	6,4	1,9	1,9
IEFGSH125	IEFGSH125H	125	358,0	515,0	160,0	160,0	9,8	2,9	2,9
IEFGSH150	IEFGSH150H	150	371,0	540,0	160,0	160,0	13,4	4,0	4,0
IEFGSH200	IEFGSH200H	200	397,0	590,0	180,0	220,0	22,5	6,8	6,8
IEFGSH250	IEFGSH250H	250	425,5	640,0	210,0	590,0	37,1	11,1	11,1
IEFGSH300	IEFGSH300H	300	451,0	690,0	220,0	590,0	50,2	15,1	15,1
IEFGSH350	IEFGSH350H	350	467,0	740,0	220,0	590,0	62,6	18,7	18,7
IEFGSH400	IEFGSH400H	400	494,0	790,0	230,0	590,0	82,6	24,8	24,8
IEFGSH450	IEFGSH450H	450	519,5	845,0	260,0	590,0	102,7	30,8	30,8
IEFGSH500	IEFGSH500H	500	545,0	895,0	260,0	590,0	130,0	39,0	39,0
IEFGSH550	IEFGSH550H	550	572,5	945,0	300,0	590,0	156,6	47,0	47,0
IEFGSH600	IEFGSH600H	600	598,0	995,0	300,0	590,0	188,3	56,5	56,5
IEFGSH650	IEFGSH650H	650	625,0	1045,0	300,0	590,0	218,8	65,6	65,6
IEFGSH700	IEFGSH700H	700	650,5	1095,0	300,0	590,0	252,7	75,8	75,8
IEFGSH750	IEFGSH750H	750	676,0	1150,0	300,0	590,0	284,0	85,2	85,2
IEFGSH800	IEFGSH800H	800	701,5	1200,0	300,0	590,0	323,2	97,0	97,0
IEFGSH850	IEFGSH850H	850	727,0	1250,0	300,0	590,0	358,0	107,4	107,4
IEFGSH900	IEFGSH900H	900	752,0	1300,0	300,0	590,0	402,9	120,9	120,9

Anchor Support - Normal



Material
• Carbon Steel acc. to the MSS SP 58-Table A2/A2M

Welding
Welding acc. to EN 3834-2 / ASME Section IX, AWS D1.1

Service
Designed to support pipes and restrict freedom of movement by anchoring to concrete.

Installation
Specify pipe size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

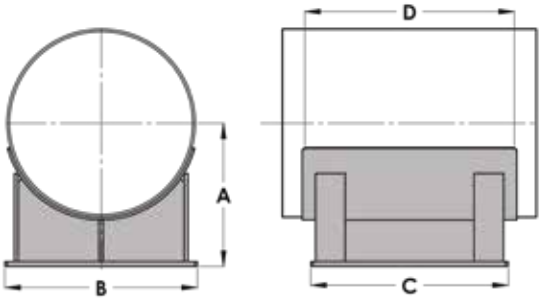
Approvals
Complies with Manufacturer's standardization society
MSS SP 58 & SP 69 - Type 35

Note: Special size can be designed to meet project requirements.

Note: Anchor holes may be drilled for assembling on concrete. Base plate will be resized according to selected anchor.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size	A	B	C	D	Vertical Force	Axial Force	Lateral Force
			mm	mm	mm	mm	kN	kN	kN
IEFASN050	IEFASN050H	50	230,0	70,0	270,0	230,0	1,3	1,3	0,4
IEFASN065	IEFASN065H	65	236,5	85,0	270,0	230,0	1,9	1,9	0,6
IEFASN080	IEFASN080H	80	244,5	95,0	270,0	230,0	2,5	2,5	0,8
IEFASN100	IEFASN100H	100	257,0	120,0	270,0	230,0	4,0	4,0	1,2
IEFASN125	IEFASN125H	125	271,0	145,0	270,0	230,0	6,1	6,1	1,8
IEFASN150	IEFASN150H	150	284,0	170,0	270,0	230,0	8,4	8,4	2,5
IEFASN200	IEFASN200H	200	309,5	225,0	270,0	230,0	14,0	14,0	4,2
IEFASN250	IEFASN250H	250	336,5	275,0	900,0	1000,0	23,2	23,2	7,0
IEFASN300	IEFASN300H	300	362,0	325,0	900,0	1000,0	31,4	31,4	9,4
IEFASN350	IEFASN350H	350	378,0	375,0	900,0	1000,0	39,1	39,1	11,7
IEFASN400	IEFASN400H	400	403,0	425,0	900,0	1000,0	51,6	51,6	15,5
IEFASN450	IEFASN450H	450	428,5	475,0	900,0	1000,0	64,2	64,2	19,3
IEFASN500	IEFASN500H	500	454,0	530,0	900,0	1000,0	81,3	81,3	24,9
IEFASN550	IEFASN550H	550	479,5	580,0	900,0	1000,0	97,9	97,9	29,4
IEFASN600	IEFASN600H	600	505,0	630,0	900,0	1000,0	117,7	117,7	35,3
IEFASN650	IEFASN650H	650	530,0	680,0	900,0	1000,0	136,7	136,7	41,0
IEFASN700	IEFASN700H	700	555,5	730,0	900,0	1000,0	157,9	157,9	47,4
IEFASN750	IEFASN750H	750	581,0	780,0	900,0	1000,0	177,5	177,5	53,3
IEFASN800	IEFASN800H	800	606,5	835,0	900,0	1000,0	202,0	202,0	60,0
IEFASN850	IEFASN850H	850	632,0	885,0	900,0	1000,0	224,2	224,2	67,3
IEFASN900	IEFASN900H	900	657,0	935,0	900,0	1000,0	251,8	251,8	75,6



Anchor Support - Heavy

Material
• Carbon Steel acc. to the MSS SP 58-Table A2/A2M

Welding
Welding acc. to EN 3834-2 / ASME Section IX, AWS D1.1

Service
Designed to support pipes and restrict freedom of movement by anchoring to concrete.

Installation
Specify pipe size, figure number, name and finish.

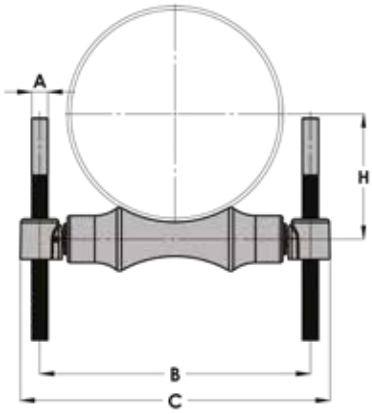
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's standardization society
MSS SP 58 & SP 69 - Type 35

Note: Special size can be designed to meet project requirements.
Note: Anchor holes may be drilled for assembling on concrete. Base plate will be resized according to selected anchor.
Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size	A	B	C	D	Vertical Force	Axial Force	Lateral Force
			mm	mm	mm	mm	kN	kN	kN
IEFASH050	IEFASH050H	50	230,0	70,0	270,0	230,0	2,0	2,0	0,6
IEFASH065	IEFASH065H	65	236,5	85,0	270,0	230,0	3,0	3,0	0,9
IEFASH080	IEFASH080H	80	244,5	95,0	270,0	230,0	4,0	4,0	1,2
IEFASH100	IEFASH100H	100	257,0	120,0	270,0	230,0	6,4	6,4	1,9
IEFASH125	IEFASH125H	125	271,0	145,0	270,0	230,0	9,8	9,8	3,0
IEFASH150	IEFASH150H	150	284,0	170,0	270,0	230,0	13,4	13,4	4,0
IEFASH200	IEFASH200H	200	309,5	225,0	270,0	230,0	22,5	22,5	6,8
IEFASH250	IEFASH250H	250	336,5	275,0	900,0	1000,0	37,1	37,1	11,1
IEFASH300	IEFASH300H	300	362,0	325,0	900,0	1000,0	50,2	50,2	15,0
IEFASH350	IEFASH350H	350	378,0	375,0	900,0	1000,0	62,6	62,6	18,8
IEFASH400	IEFASH400H	400	403,0	425,0	900,0	1000,0	82,6	82,6	24,8
IEFASH450	IEFASH450H	450	428,5	475,0	900,0	1000,0	102,7	102,7	30,8
IEFASH500	IEFASH500H	500	454,0	530,0	900,0	1000,0	130,0	130,0	39,0
IEFASH550	IEFASH550H	550	479,5	580,0	900,0	1000,0	156,6	156,6	47,0
IEFASH600	IEFASH600H	600	505,0	630,0	900,0	1000,0	188,3	188,3	56,5
IEFASH650	IEFASH650H	650	530,0	680,0	900,0	1000,0	218,8	218,8	65,6
IEFASH700	IEFASH700H	700	555,5	730,0	900,0	1000,0	252,7	252,7	75,8
IEFASH750	IEFASH750H	750	581,0	780,0	900,0	1000,0	284,0	284,0	85,2
IEFASH800	IEFASH800H	800	606,5	835,0	900,0	1000,0	323,2	323,2	96,7
IEFASH850	IEFASH850H	850	632,0	885,0	900,0	1000,0	358,7	358,7	107,6
IEFASH900	IEFASH900H	900	657,0	935,0	900,0	1000,0	402,9	402,9	120,9

Single Pipe Roller



Size Range
1" through 30"

Material
- Steel Axle with Cast Iron Roller / Malleable Sockets (8" and above)
- Steel Axle with Solid Steel Rollers / Malleable Sockets (6" and below)

Service
Designed to support pipes where axial movements are allowed, and vertical adjustments are required. This combination can also be used over the pipes as a guide. Hanger Rod and Nuts not included.

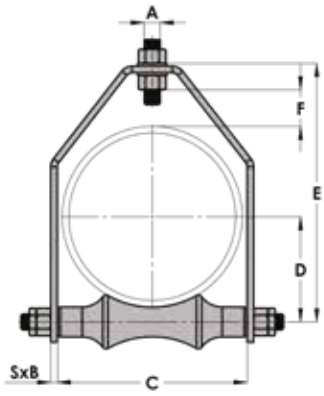
Ordering
Specify pipe size, figure number, name and finish.

Finish
- Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
- Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 41

Note: Special size can be designed to meet project requirements.
Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Pipe Size		A	B	C	H	Max. Recom. Load kN	Weight per 100 pcs (kg)
		Inch	mm		mm	mm	mm		
IEFPRS025	IEFPRS025H	1"	(25)	M10	75,0	95,0	26,5	2,7	34,0
IEFPRS032	IEFPRS032H	1 ¼"	(32)	M10	85,0	105,0	30,5	2,7	37,0
IEFPRS040	IEFPRS040H	1 ½"	(40)	M10	90,0	110,0	33,5	2,7	38,0
IEFPRS050	IEFPRS050H	2"	(50)	M10	102,0	122,0	38,5	2,7	39,0
IEFPRS065	IEFPRS065H	2 ½"	(65)	M12	124,0	154,0	49,0	2,9	80,0
IEFPRS080	IEFPRS080H	3"	(80)	M12	140,0	170,0	55,5	3,1	85,0
IEFPRS090	IEFPRS090H	3 ½"	(90)	M12	156,0	186,0	63,5	3,3	95,0
IEFPRS100	IEFPRS100H	4"	(100)	M16	175,0	215,0	69,5	3,3	147,0
IEFPRS125	IEFPRS125H	5"	(125)	M16	205,0	254,0	84,5	3,3	220,0
IEFPRS150	IEFPRS150H	6"	(150)	M20	245,0	303,0	100,0	4,8	345,0
IEFPRSD200	IEFPRSD200H	8"	(200)	M24	300,0	358,0	129,5	6,0	455,0
IEFPRSD250	IEFPRSD250H	10"	(250)	M24	356,0	414,0	159,0	7,7	587,0
IEFPRSD300	IEFPRSD300H	12"	(300)	M24	402,0	460,0	187,5	10,7	810,0
IEFPRSD350	IEFPRSD350H	14"	(350)	M24	458,0	540,0	209,0	14,0	1460,0
IEFPRSD400	IEFPRSD400H	16"	(400)	M30	508,0	590,0	234,5	17,7	1715,0
IEFPRSD450	IEFPRSD450H	18"	(450)	M30	559,0	641,0	263,0	18,7	1900,0
IEFPRSD500	IEFPRSD500H	20"	(500)	M30	610,0	692,0	291,5	20,3	2350,0
IEFPRSD600	IEFPRSD600H	24"	(600)	M39	735,0	825,0	350,0	27,5	3150,0
IEFPRSD750	IEFPRSD750H	30"	(750)	M39	900,0	990,0	438,5	32,5	4400,0



Adjustable Roller Hanger

Size Range
2" through 24"

Material
- Steel Axle with Cast Iron Roller / Malleable Sockets (8" and above)
- Steel Axle with Solid Steel Rollers / Malleable Sockets (6" and below)

Service
Designed for pipe lines where horizontal movement may take place due to expansion and contraction. Vertical adjustments are possible once the pipe is in place.The lower nut is used to adjust the pipeline to the required elevation.

Ordering
Specify pipe size, figure number, name and finish.

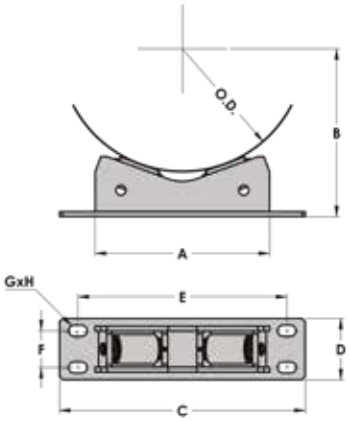
Finish
- Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
- Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

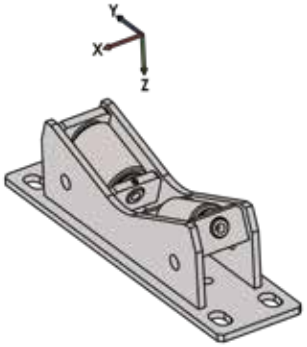
Approvals
Complies with Manufacturer's Standardization Society MSS SP-58 & MSS SP-69 - Type 43

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		A	SxB	C	D	E	F	Max. Recom. Load kN	Weight per 100 pcs (kg)
		Inch	mm			mm	mm	mm	mm		
IEFRH050	IEFRH050H	2"	(50)	M12	5x25	70,5	39,0	119,5	31,7	0,7	52,0
IEFRH065	IEFRH065H	2 ½"	(65)	M12	5x25	83,5	49,0	145,5	40,2	1,0	73,0
IEFRH080	IEFRH080H	3"	(80)	M12	6x30	99,5	55,5	161,5	42,2	1,4	100,0
IEFRH090	IEFRH090H	3 ½"	(90)	M12	6x30	112,0	63,5	177,5	39,2	1,7	120,0
IEFRH100	IEFRH100H	4"	(100)	M16	6x40	124,5	70,0	191,5	40,2	2,0	150,0
IEFRH125	IEFRH125H	5"	(125)	M16	10x45	154,0	84,5	232,0	46,5	3,0	310,0
IEFRH150	IEFRH150H	6"	(150)	M20	10x50	181,0	101,0	262,0	45,0	3,5	430,0
IEFRHD200	IEFRHD200H	8"	(200)	M20	10x60	231,5	130,0	323,5	52,5	3,5	690,0
IEFRHD250	IEFRHD250H	10"	(250)	M24	10x60	285,5	158,8	383,5	52,8	4,3	890,0
IEFRHD300	IEFRHD300H	12"	(300)	M24	12x60	338,0	187,5	443,5	56,5	5,3	1300,0
IEFRHD350	IEFRHD350H	14"	(350)	M24	12x60	370,0	209,3	478,5	53,7	5,3	1680,0
IEFRHD400	IEFRHD400H	16"	(400)	M24	12x60	421,0	234,8	528,5	52,7	5,3	1980,0
IEFRHD450	IEFRHD450H	18"	(450)	M30	12x75	471,5	263,5	602,5	68,4	6,2	2470,0
IEFRHD500	IEFRHD500H	20"	(500)	M30	16x75	522,5	291,7	659,5	68,2	7,0	3510,0
IEFRHD600	IEFRHD600H	24"	(600)	M30	16x75	624,0	350,5	799,5	98,4	8,0	4400,0

Double Cylinder Roller Support





Size Range
8” through 56”

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to support pipes where axial movements are allowed.
Used where vertical adjustments are not necessary.

Ordering
Specify figure number, name and finish.

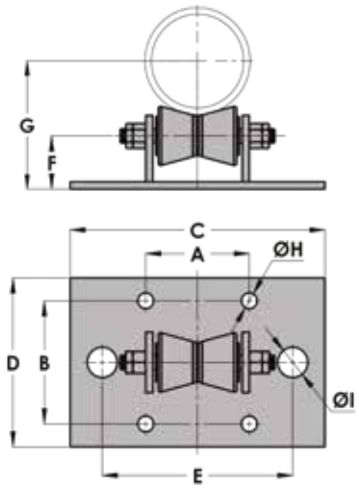
Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: The given dimensions are subject to change according to requirements

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	O.D.	A	B	C	D	E	F	GxH	Max. Recom. Load kN			Weight per 100 pcs (kg)
										Fx	Fy	Fz	kg
IEFRSH200	IEFRSH200H	200-340	215	164-238	320	90	266	56	14x30	-	3,1	9	470,00
IEFRSH300	IEFRSH300H	320-490	284	228-319	400	100	340	60	18x30	-	8,3	24	750,00
IEFRSH400	IEFRSH400H	380-540	314	261-346	434	100	370	60	18x30	-	9,9	29	820,00
IEFRSH600	IEFRSH600H	530-800	424	349-493	580	130	500	75	22x40	-	16,7	47	2070,00
IEFRSH750	IEFRSH750H	750-1000	510	476-609	675	150	595	95	22x40	-	30,9	95	3285,00
IEFRSH900	IEFRSH900H	1000-1440	682	595-829	850	165	770	110	22x40	-	40,7	145	5000,00

Roller Stand



Size Range
2" through 42"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to support pipes where axial movements are allowed.
Used where vertical adjustments are not necessary.

Ordering
Specify pipe roll size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

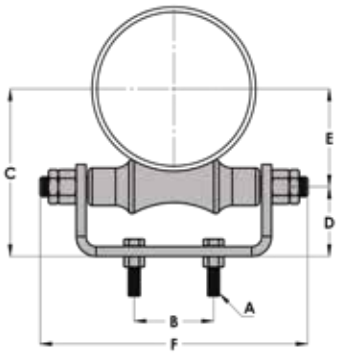
Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 44

Note: Special size can be designed to meet project requirements.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Pipe Size		A	B	C	D	E	F	G	ØH	ØI	Max. Recom. Load kN	Weight per 100 pcs (kg)
		Inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
IEFRS050	IEFRS050H	2''	50	87,0	102,0	214,0	140,0	160,0	44,0	91,0	13,0	25,0	1,7	240,0
		2½''	65	87,0	102,0	214,0	140,0	160,0	44,0	99,0	13,0	25,0	1,7	240,0
		3''	80	87,0	102,0	214,0	140,0	160,0	44,0	106,0	13,0	25,0	1,7	240,0
		3½''	90	87,0	102,0	214,0	140,0	160,0	44,0	112,0	13,0	25,0	1,7	240,0
IEFRS100	IEFRS100H	4''	100	119,0	108,0	252,0	152,0	200,0	51,0	126,0	13,0	25,0	4,2	320,0
		5''	125	119,0	108,0	252,0	152,0	200,0	51,0	139,0	13,0	25,0	4,2	320,0
		6''	150	119,0	108,0	252,0	152,0	200,0	51,0	153,0	13,0	25,0	4,2	320,0
IEFRS200	IEFRS200H	8''	200	178,0	127,0	216,0	203,0	102,0	86,0	221,0	17,0	25,0	9,4	870,0
		10"	250	178,0	127,0	216,0	203,0	102,0	86,0	249,0	17,0	25,0	9,4	870,0
IEFRS300	IEFRS300H	12''	300	230,0	152,0	281,0	203,0	146,0	95,0	287,0	17,0	25,0	13,7	1490,0
		14"	350	230,0	152,0	281,0	203,0	146,0	95,0	303,0	17,0	25,0	13,7	1490,0
IEFRS400	IEFRS400H	16''	400	260,0	165,0	330,0	229,0	175,0	108,0	346,0	21,0	25,0	22,0	2130,0
		18''	450	260,0	165,0	330,0	229,0	175,0	108,0	373,0	21,0	25,0	22,0	2130,0
		20"	500	260,0	165,0	330,0	229,0	175,0	108,0	399,0	21,0	25,0	22,0	2130,0
IEFRS600	IEFRS600H	24''	600	289,0	165,0	340,0	229,0	190,0	111,0	456,0	21,0	25,0	27,0	2580,0
IEFRS750	IEFRS750H	30"	750	362,0	203,0	432,0	279,0	254,0	130,0	554,0	25,0	25,0	33,4	3970,0
IEFRS900	IEFRS900H	36"	900	432,0	229,0	508,0	305,0	304,0	146,0	651,0	32,0	25,0	53,4	7000,0
		42"	1050	432,0	229,0	508,0	305,0	304,0	146,0	730,0	32,0	25,0	53,4	7000,0

Roller Chair



Size Range
2” through 24”

Material
- Steel Axle with Cast Iron Roller / Malleable Sockets (8” and above)
- Steel Axle with Solid Steel Rollers / Malleable Sockets (6” and below)

Service
Designed to support pipes where axial movements are allowed. Used where vertical adjustments are not necessary.

Ordering
Specify pipe roll size, figure number, name and finish.

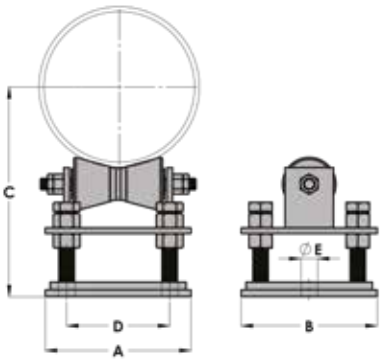
Finish
- Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
- Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer’s Standardization Society MSS SP-58 & MSS SP-69 - Type 44

Note: Special size can be designed to meet project requirements.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		A	B	C	D	E	F	Max. Recom. Load kN	Weight per 100 pcs (kg)
		Inch	mm		mm	mm	mm	mm	mm		
IEFRC050	IEFRC050H	2”	(50)	M10	32,0	78,0	38,0	40,0	120,0	1,3	45,0
IEFRC065	IEFRC065H	2 ½”	(65)	M10	32,0	90,0	41,0	49,0	140,0	2,7	65,0
IEFRC080	IEFRC080H	3”	(80)	M10	50,0	100,0	45,0	56,0	155,0	2,7	74,0
IEFRC090	IEFRC090H	3 ½”	(90)	M12	50,0	114,0	51,0	64,0	175,0	2,7	127,0
IEFRC100	IEFRC100H	4”	(100)	M12	50,0	129,0	59,0	70,0	190,0	3,1	143,0
IEFRC125	IEFRC125H	5”	(125)	M12	76,0	151,0	64,0	86,0	235,0	3,1	204,0
IEFRC150	IEFRC150H	6”	(150)	M12	80,0	171,0	70,0	101,0	275,0	4,4	305,0
IEFRCD200	IEFRCD200H	8”	(200)	M12	86,0	207,0	76,0	130,0	340,0	5,8	486,0
IEFRCD250	IEFRCD250H	10”	(250)	M12	130,0	252,0	92,0	160,0	395,0	7,6	697,0
IEFRCD300	IEFRCD300H	12”	(300)	M12	140,0	294,0	105,0	190,0	450,0	10,2	950,0
IEFRCD350	IEFRCD350H	14”	(350)	M16	165,0	332,0	121,0	210,0	500,0	13,8	1395,0
IEFRCD400	IEFRCD400H	16”	(400)	M16	203,0	365,0	127,0	235,0	555,0	17,4	1800,0
IEFRCD450	IEFRCD450H	18”	(450)	M16	230,0	397,0	134,0	264,0	600,0	18,7	2050,0
IEFRCD500	IEFRCD500H	20”	(500)	M20	254,0	438,0	145,0	292,0	680,0	20,0	2750,0
IEFRCD600	IEFRCD600H	24”	(600)	M20	305,0	530,0	178,0	350,0	780,0	26,7	3750,0



Adjustable Roller Stand

Size Range
2" through 42"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed for support of pipe with longitudinal movement and vertical adjustment are required.

Ordering
Specify pipe roll size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

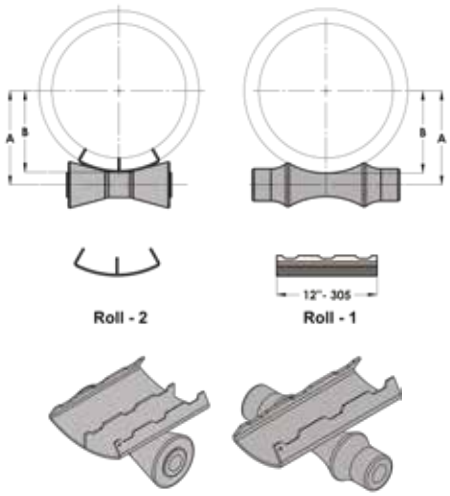
Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 46

Note: Special size can be designed to meet project requirements.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Pipe Size		A	B	D	ØE	C Min.	C Max.	Max. Recom. Load kN	Weight per 100 pcs (Kg)
		Inch	mm	mm	mm	mm	mm	mm	mm		
IEFARSS050	IEFARSS050H	2''	50	125,0	140,0	81,0	17,0	120,0	145,0	1,7	435,00
		2½''	65	125,0	140,0	81,0	17,0	127,0	153,0		
		3''	80	125,0	140,0	81,0	17,0	134,0	160,0		
		3½''	90	125,0	140,0	81,0	17,0	141,0	166,0		
IEFARSS100	IEFARSS100H	4''	100	150,0	140,0	106,0	17,0	157,0	190,0	4,2	569,00
		5''	125	150,0	140,0	106,0	17,0	170,0	204,0		
		6''	150	150,0	140,0	106,0	17,0	184,0	219,0		
IEFARSS200	IEFARSS200H	8''	200	220,0	190,0	168,0	21,0	257,0	300,0	9,4	1457,00
		10"	250	220,0	190,0	168,0	21,0	284,0	328,0		
IEFARSS300	IEFARSS300H	12''	300	275,0	215,0	220,0	25,0	326,0	360,0	13,7	2378,00
		14"	350	275,0	215,0	220,0	25,0	342,0	377,0		
IEFARSS400	IEFARSS400H	16''	400	310,0	230,0	246,0	25,0	390,0	443,0	22	3585,00
		18''	450	310,0	230,0	246,0	25,0	417,0	469,0		
		20"	500	310,0	230,0	246,0	25,0	443,0	495,0		
IEFARSS600	IEFARSS600H	24''	600	335,0	230,0	271,0	25,0	500,0	552,0	27,2	4169,00
IEFARSS750	IEFARSS750H	30"	750	420,0	285,0	335,0	25,0	620,0	678,0	33,4	8209,00
IEFARSS900	IEFARSS900H	36"	900	490,0	320,0	403,0	25,0	718,0	746,0	53	12215,00
		42"	1050	490,0	320,0	403,0	25,0	798,0	825,0		

Pipe Covering Protection Saddle



Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

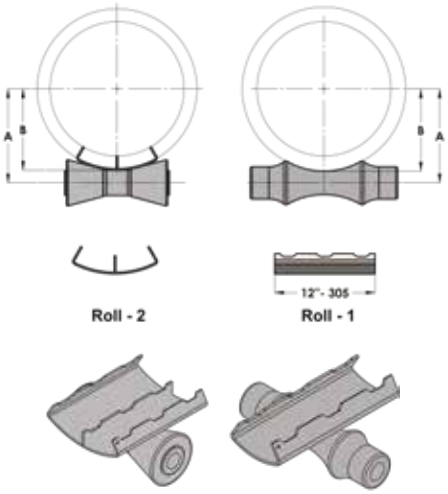
Service
Designed to protect insulation from crushing. Saddles are 12" (305 mm) long. Center rib is furnished on all saddle sizes 12" (300 mm) and above.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & SP-69 - Type 39

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Pipe Size		Actual Covering Thickness	Max. Recom. Load kN	Saddle With Roll 1			Saddle With Roll 2			Weight per 100 pcs (kg)
		Inch	mm			Roll Code	A	B	Roll Code	A	B	
IEFPS020025	IEFPS020025H	¾"	20	25	5,3	IEFSM01080	53,0	41,9	IEFSM02050	59,7	41,9	60,0
IEFPS020038	IEFPS020038H			38	5,3	IEFSM01100	67,5	54,9	IEFSM02100	72,7	54,9	89,0
IEFPS020050	IEFPS020050H			50	5,3	IEFSM01125	81,5	66,9	IEFSM02100	85,2	66,9	115,0
IEFPS025025	IEFPS025025H	1''	25	25	5,3	IEFSM01090	57,9	45,3	IEFSM02050	63,2	45,3	63,0
IEFPS025038	IEFPS025038H			38	5,3	IEFSM01100	70,9	58,3	IEFSM02100	76,3	58,3	91,0
IEFPS025050	IEFPS025050H			50	5,3	IEFSM01125	84,9	70,3	IEFSM02100	88,7	70,3	117,0
IEFPS032025	IEFPS032025H	1¼''	32	25	5,3	IEFSM01090	62,2	49,7	IEFSM02050	67,7	49,7	65,0
IEFPS032038	IEFPS032038H			38	5,3	IEFSM01125	77,2	62,7	IEFSM02100	80,8	62,7	93,0
IEFPS032050	IEFPS032050H			50	5,3	IEFSM01150	90,7	74,7	IEFSM02100	93,2	74,7	121,0
IEFPS032065	IEFPS032065H			65	5,3	IEFSM01200	109,7	89,7	IEFSM02100	108,7	89,7	153,0
IEFPS040025	IEFPS040025H	1½''	40	25	5,3	IEFSM01100	65,2	52,6	IEFSM02100	70,4	52,6	67,0
IEFPS040038	IEFPS040038H			38	5,3	IEFSM01125	80,2	65,6	IEFSM02100	83,8	65,6	97,0
IEFPS040050	IEFPS040050H			50	8,0	IEFSM01150	93,6	77,6	IEFSM02100	96,2	77,6	122,0
IEFPS040065	IEFPS040065H			65	8,0	IEFSM01200	112,7	92,6	IEFSM02200	118,2	92,6	154,0
IEFPS050025	IEFPS050025H	2''	50	25	5,3	IEFSM01100	71,2	58,6	IEFSM02100	76,6	58,6	72,0
IEFPS050038	IEFPS050038H			38	5,3	IEFSM01125	86,2	71,6	IEFSM02100	90,0	71,6	100,0
IEFPS050050	IEFPS050050H			50	8,0	IEFSM01150	99,7	83,6	IEFSM02100	102,4	83,6	126,0
IEFPS050065	IEFPS050065H			65	8,0	IEFSM01200	118,7	98,6	IEFSM02200	124,4	98,6	160,0
IEFPS050075	IEFPS050075H			75	8,0	IEFSM01200	128,7	108,6	IEFSM02200	134,7	108,6	181,0



Pipe Covering Protection Saddle

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to protect insulation from crushing. Saddles are 12" (305 mm) long. Center rib is furnished on all saddle sizes 12" (300 mm) and above.

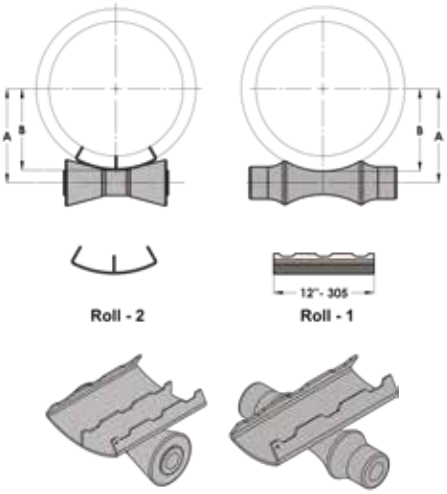
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & SP-69 - Type 39

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Pipe Size		Actual Covering Thickness	Max. Recom. Load kN	Saddle With Roll 1			Saddle With Roll 2			Weight per 100 pcs (kg)
		Inch	mm			Roll Code	A	B	Roll Code	A	B	
IEFPS065025	IEFPS065025H	2½''	65	25	5,3	IEFSM01125	81,1	66,5	IEFSM02100	84,7	66,5	79,0
IEFPS065038	IEFPS065038H			38	5,3	IEFSM01150	95,6	79,5	IEFSM02100	98,2	79,5	106,0
IEFPS065050	IEFPS065050H			50	8,0	IEFSM01200	111,6	91,5	IEFSM02100	110,6	91,5	132,0
IEFPS065065	IEFPS065065H			65	8,0	IEFSM01200	126,6	106,5	IEFSM02200	132,6	106,5	166,0
IEFPS065075	IEFPS065075H			75	8,0	IEFSM01250	138,8	116,5	IEFSM02200	142,9	116,5	188,0
IEFPS080025	IEFPS080025H	3''	80	25	5,3	IEFSM01150	89,0	72,9	IEFSM02100	91,4	72,9	82,0
IEFPS080038	IEFPS080038H			38	5,3	IEFSM01150	102,0	85,9	IEFSM02100	104,8	85,9	112,0
IEFPS080050	IEFPS080050H			50	8,0	IEFSM01200	118,0	97,9	IEFSM02200	123,7	97,9	138,0
IEFPS080065	IEFPS080065H			65	8,0	IEFSM01250	135,2	113,0	IEFSM02200	139,2	113,0	169,0
IEFPS080075	IEFPS080075H			75	8,0	IEFSM01250	145,2	122,9	IEFSM02200	149,5	122,9	191,0
IEFPS080100	IEFPS080100H			100	8,0	IEFSM01300	173,5	147,9	IEFSM02300	177,7	147,9	247,0
IEFPS090025	IEFPS090025H	3 ½"	90	25	5,3	IEFSM01150	95,3	79,3	IEFSM02100	97,9	79,3	88,0
IEFPS090038	IEFPS090038H			38	5,3	IEFSM01200	112,3	92,3	IEFSM02100	111,4	92,3	116,0
IEFPS090050	IEFPS090050H			50	8,0	IEFSM01200	124,3	104,3	IEFSM02200	130,2	104,3	141,0
IEFPS090065	IEFPS090065H			65	8,0	IEFSM01250	141,6	119,3	IEFSM02200	145,8	119,3	175,0
IEFPS090075	IEFPS090075H			75	8,0	IEFSM01250	151,6	129,3	IEFSM02200	156,1	129,3	197,0
IEFPS090100	IEFPS090100H			100	8,0	IEFSM01300	179,8	154,3	IEFSM02300	184,3	154,3	250,0
IEFPS100025	IEFPS100025H	4''	100	25	5,3	IEFSM01150	101,7	85,6	IEFSM02100	104,5	85,6	93,0
IEFPS100038	IEFPS100038H			38	5,3	IEFSM01200	118,7	98,6	IEFSM02200	124,4	98,6	121,0
IEFPS100050	IEFPS100050H			50	8,0	IEFSM01200	130,7	110,6	IEFSM02200	136,8	110,6	147,0
IEFPS100065	IEFPS100065H			65	8,0	IEFSM01250	147,9	125,6	IEFSM02200	152,3	125,6	180,0
IEFPS100075	IEFPS100075H			75	8,0	IEFSM01250	157,9	135,7	IEFSM02200	162,7	135,7	202,0
IEFPS100100	IEFPS100100H			100	8,0	IEFSM01300	186,2	160,7	IEFSM02300	190,9	160,7	257,0

Pipe Covering Protection Saddle



Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

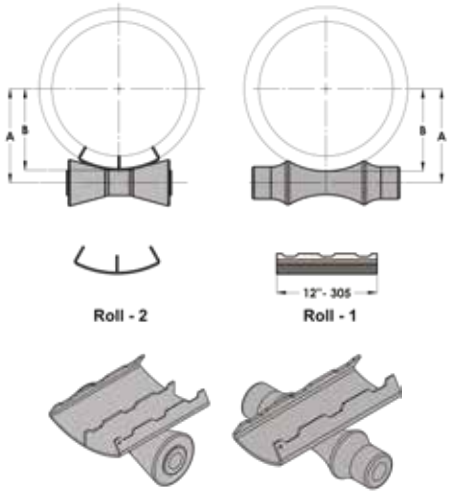
Service
Designed to protect insulation from crushing. Saddles are 12" (305 mm) long. Center rib is furnished on all saddle sizes 12" (300 mm) and above.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & SP-69 - Type 39

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Pipe Size		Actual Covering Thickness	Max. Recom. Load kN	Saddle With Roll 1			Saddle With Roll 2			Weight per 100 pcs (kg)
		Inch	mm			Roll Code	A	B	Roll Code	A	B	
IEFPS125025	IEFPS125025H	5"	125	25	5,3	IEFSM01200	118,4	98,3	IEFSM02200	124,1	98,3	102,0
IEFPS125038	IEFPS125038H			38	5,3	IEFSM01200	131,4	111,3	IEFSM02200	137,5	111,3	130,0
IEFPS125050	IEFPS125050H			50	8,0	IEFSM01250	145,6	123,4	IEFSM02200	149,9	123,4	156,0
IEFPS125065	IEFPS125065H			65	8,0	IEFSM01250	160,6	138,3	IEFSM02200	165,5	138,3	189,0
IEFPS125075	IEFPS125075H			75	8,0	IEFSM01300	173,9	148,3	IEFSM02300	178,1	148,3	211,0
IEFPS125100	IEFPS125100H			100	8,0	IEFSM01350	204,7	173,3	IEFSM02300	204,0	173,3	264,0
IEFPS150025	IEFPS150025H	6"	150	25	8,0	IEFSM01250	137,4	115,2	IEFSM02200	141,5	115,2	187,0
IEFPS150038	IEFPS150038H			38	8,0	IEFSM01250	150,4	128,2	IEFSM02200	154,9	128,2	236,0
IEFPS150050	IEFPS150050H			50	8,0	IEFSM01300	165,7	140,2	IEFSM02200	167,3	140,2	279,0
IEFPS150065	IEFPS150065H			65	8,0	IEFSM01300	180,7	155,2	IEFSM02300	185,2	155,2	332,0
IEFPS150075	IEFPS150075H			75	8,0	IEFSM01350	196,5	165,1	IEFSM02300	195,5	165,1	372,0
IEFPS150100	IEFPS150100H			100	8,0	IEFSM01400	221,5	190,1	IEFSM02400	225,3	190,1	461,0
IEFPS200025	IEFPS200025H	8"	200	25	8,0	IEFSM01300	166,1	140,6	IEFSM02200	167,8	140,6	220,0
IEFPS200038	IEFPS200038H			38	8,0	IEFSM01300	179,1	153,5	IEFSM02300	183,5	153,5	266,0
IEFPS200050	IEFPS200050H			50	8,0	IEFSM01350	196,9	165,5	IEFSM02300	195,9	165,5	312,0
IEFPS200065	IEFPS200065H			65	8,0	IEFSM01400	211,9	180,5	IEFSM02300	211,5	180,5	368,0
IEFPS200075	IEFPS200075H			75	8,0	IEFSM01400	221,9	190,5	IEFSM02400	225,7	190,5	402,0
IEFPS200100	IEFPS200100H			100	8,0	IEFSM01450	250,1	215,5	IEFSM02400	251,6	215,5	491,0



Pipe Covering Protection Saddle

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to protect insulation from crushing. Saddles are 12" (305 mm) long. Center rib is furnished on all saddle sizes 12" (300 mm) and above.

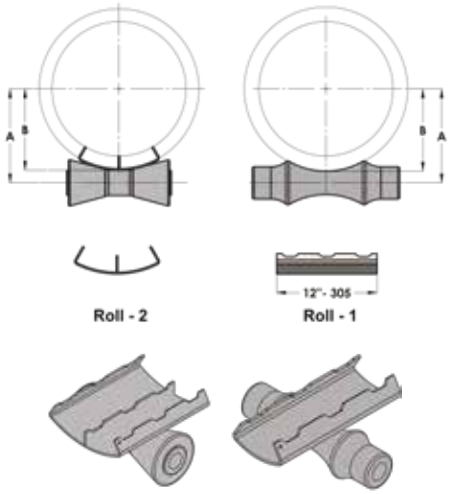
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & SP-69 - Type 39

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Pipe Size		Actual Covering Thickness	Max. Recom. Load kN	Saddle With Roll 1			Saddle With Roll 2			Weight per 100 pcs (kg)
		Inch	mm			Roll Code	A	B	Roll Code	A	B	
IEFPS250025	IEFPS250025H	10"	250	25	8,0	IEFSM01350	198,8	167,5	IEFSM02300	198,0	167,5	255,0
IEFPS250038	IEFPS250038H			38	8,0	IEFSM01400	211,8	180,5	IEFSM02300	211,4	180,5	304,0
IEFPS250050	IEFPS250050H			50	8,0	IEFSM01400	223,8	192,5	IEFSM02400	227,7	192,5	344,0
IEFPS250065	IEFPS250065H			65	8,0	IEFSM01450	242,0	207,5	IEFSM02400	243,3	207,5	400,0
IEFPS250075	IEFPS250075H			75	8,0	IEFSM01450	252,0	217,5	IEFSM02400	253,6	217,5	439,0
IEFPS250100	IEFPS250100H			100	8,0	IEFSM01500	280,2	242,5	IEFSM02400	279,5	242,5	529,0
IEFPS300025	IEFPS300025H	12'	300	25	22,3	IEFSM01400	224,3	193,0	IEFSM02400	228,2	193,0	310,0
IEFPS300038	IEFPS300038H			38	22,3	IEFSM01450	240,5	206,0	IEFSM02400	241,7	206,0	380,0
IEFPS300050	IEFPS300050H			50	22,3	IEFSM01450	252,5	218,0	IEFSM02400	254,1	218,0	440,0
IEFPS300065	IEFPS300065H			65	22,3	IEFSM01500	270,7	233,0	IEFSM02400	269,7	233,0	500,0
IEFPS300075	IEFPS300075H			75	22,3	IEFSM01500	280,7	243,0	IEFSM02400	280,0	243,0	550,0
IEFPS300100	IEFPS300100H			100	22,3	IEFSM01600	313,5	268,0	IEFSM02600	307,5	268,0	670,0
IEFPS350025	IEFPS350025H	14''	350	25	22,3	IEFSM01450	243,3	208,8	IEFSM02400	244,6	208,8	330,0
IEFPS350038	IEFPS350038H			38	22,2	IEFSM01450	256,3	221,8	IEFSM02400	258,1	221,8	400,0
IEFPS350050	IEFPS350050H			50	22,2	IEFSM01500	271,5	233,8	IEFSM02400	270,5	233,8	450,0
IEFPS350065	IEFPS350065H			65	22,2	IEFSM01500	286,5	248,8	IEFSM02400	286,0	248,8	520,0
IEFPS350075	IEFPS350075H			75	22,2	IEFSM01600	304,3	258,8	IEFSM02400	296,4	258,8	580,0
IEFPS350100	IEFPS350100H			100	22,2	IEFSM01600	329,3	283,8	IEFSM02600	323,8	283,8	690,0

Pipe Covering Protection Saddle



Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

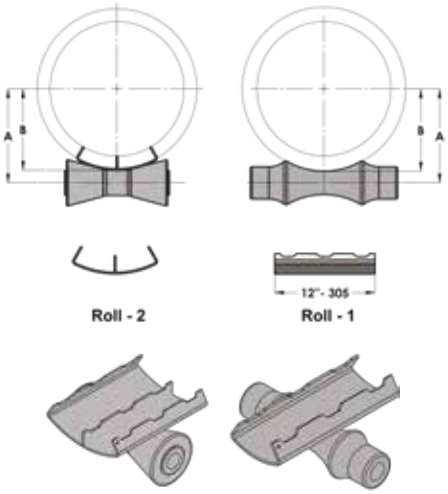
Service
Designed to protect insulation from crushing. Saddles are 12" (305 mm) long. Center rib is furnished on all saddle sizes 12" (300 mm) and above.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & SP-69 - Type 39

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Pipe Size		Actual Covering Thickness	Max. Recom. Load kN	Saddle With Roll 1			Saddle With Roll 2			Weight per 100 pcs (kg)
		Inch	mm			Roll Code	A	B	Roll Code	A	B	
IEFPS400025	IEFPS400025H	16''	400	25	22,3	IEFSM01500	271,9	234,2	IEFSM02400	270,9	234,2	360,0
IEFPS400038	IEFPS400038H			38	22,3	IEFSM01500	284,9	247,2	IEFSM02400	284,4	247,2	430,0
IEFPS400050	IEFPS400050H			50	22,3	IEFSM01600	304,7	259,2	IEFSM02400	296,8	259,2	490,0
IEFPS400065	IEFPS400065H			65	32,1	IEFSM01600	319,7	274,2	IEFSM02600	313,9	274,2	550,0
IEFPS400075	IEFPS400075H			75	32,1	IEFSM01600	329,7	284,2	IEFSM02600	324,2	284,2	610,0
IEFPS400100	IEFPS400100H			100	32,1	IEFSM01750	366,4	309,2	IEFSM02600	350,1	309,2	720,0
IEFPS450025	IEFPS450025H	18''	450	25	22,1	IEFSM01600	305,1	259,6	IEFSM02400	297,2	259,6	400,0
IEFPS450038	IEFPS450038H			38	22,2	IEFSM01600	318,1	272,6	IEFSM02600	312,2	272,6	460,0
IEFPS450050	IEFPS450050H			50	32,1	IEFSM01600	330,1	284,6	IEFSM02600	324,7	284,6	520,0
IEFPS450065	IEFPS450065H			65	32,1	IEFSM01600	345,1	299,6	IEFSM02600	340,2	299,6	590,0
IEFPS450075	IEFPS450075H			75	32,1	IEFSM01750	366,9	309,6	IEFSM02600	350,5	309,6	640,0
IEFPS450100	IEFPS450100H			100	32,1	IEFSM01750	391,9	334,6	IEFSM02600	376,4	334,6	750,0
IEFPS500025	IEFPS500025H	20"	500	25	32,2	IEFSM01600	330,5	285,0	IEFSM02600	325,1	285,0	427,0
IEFPS500038	IEFPS500038H			38	32,1	IEFSM01600	343,5	298,0	IEFSM02600	338,5	298,0	492,0
IEFPS500050	IEFPS500050H			50	32,1	IEFSM01750	367,2	310,0	IEFSM02600	351,0	310,0	546,0
IEFPS500065	IEFPS500065H			65	32,1	IEFSM01750	382,3	325,0	IEFSM02600	366,5	325,0	620,0
IEFPS500075	IEFPS500075H			75	32,1	IEFSM01750	392,2	335,0	IEFSM02600	376,8	335,0	665,0
IEFPS500100	IEFPS500100H			100	32,1	IEFSM01750	418,2	361,0	IEFSM02750	403,8	361,0	785,0



Pipe Covering Protection Saddle

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

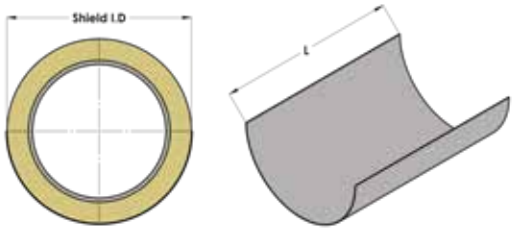
Service
Designed to protect insulation from crushing. Saddles are 12" (305 mm) long. Center rib is furnished on all saddle sizes 12" (300 mm) and above.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & SP-69 - Type 39

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Pipe Size		Actual Covering Thickness	Max. Recom. Load kN	Saddle With Roll 1			Saddle With Roll 2			Weight per 100 pcs (kg)
		Inch	mm			Roll Code	A	B	Roll Code	A	B	
IEFPS600025	IEFPS600025H	24"	600	25	32,1	IEFSM01750	392,8	335,6	IEFSM02600	377,4	335,6	487,0
IEFPS600038	IEFPS600038H			38	32,1	IEFSM01750	405,8	348,6	IEFSM02750	390,9	348,6	550,0
IEFPS600050	IEFPS600050H			50	32,1	IEFSM01750	417,8	360,5	IEFSM02750	403,3	360,5	607,0
IEFPS600065	IEFPS600065H			65	32,1	IEFSM01750	432,8	375,5	IEFSM02750	418,8	375,5	683,0
IEFPS600075	IEFPS600075H			75	32,1	IEFSM01750	443,8	386,5	IEFSM02750	430,2	386,5	728,0
IEFPS600100	IEFPS600100H			100	32,1	IEFSM01750	468,8	411,6	IEFSM02750	456,1	411,6	848,0
IEFPS750038	IEFPS750038H	30''	750	38	32,1	IEFSM01750	483,2	426,0	IEFSM02750	471,0	426,0	645,0
IEFPS750050	IEFPS750050H			50	32,1	IEFSM01750	495,2	438,0	IEFSM02750	483,5	438,0	702,0
IEFPS750065	IEFPS750065H			65	32,1	IEFSM01750	510,2	453,0	IEFSM02900	501,2	453,0	775,0
IEFPS750075	IEFPS750075H			75	32,1	IEFSM01750	520,3	463,0	IEFSM02900	511,5	463,0	823,0
IEFPS750100	IEFPS750100H			100	32,1	IEFSM01750	545,2	488,0	IEFSM02900	537,4	488,0	943,0
IEFPS900038	IEFPS900038H	36''	900	38	32,1	IEFSM01750	559,4	502,2	IEFSM02900	552,1	502,2	740,0
IEFPS900050	IEFPS900050H			50	32,1	IEFSM01750	571,4	514,2	IEFSM02900	564,6	514,2	797,0
IEFPS900065	IEFPS900065H			65	32,1	IEFSM01750	586,4	529,2	IEFSM02900	580,1	529,2	870,0
IEFPS900075	IEFPS900075H			75	32,1	IEFSM01750	596,4	539,2	IEFSM02900	590,4	539,2	918,0
IEFPS900100	IEFPS900100H			100	32,1	IEFSM01750	621,4	564,2	IEFSM021200	623,0	564,2	1038,0



Insulation Protection Shield

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

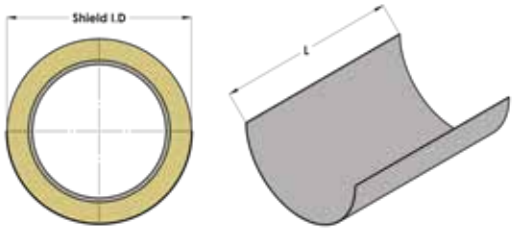
Service
Designed to protect insulation from crushing at the support points.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & SP-69 - Type 40

Note: Protection shield thickness listed are for use with band type hangers only. For point loading, increase shield thickness and length. When shields are used with rollers, shield thickness shall be adjusted accordingly and shield lengths shall be increased to keep rolling point of contact within the middle one-third of the shield length. For compressive strengths other than 15 psi (103 kPa), shield dimensions may be adjusted accordingly.

Code	Code No for HDG	I.D	Thickness	L	Weight per 1 pcs (kg)
		(mm)	(mm)	(mm)	
IEFIPS04912305	IEFIPS04912305H	49,0	1,2	305,0	0,23
IEFIPS06112305	IEFIPS06112305H	61,0	1,2	305,0	0,28
IEFIPS07512305	IEFIPS07512305H	75,0	1,2	305,0	0,34
IEFIPS08912305	IEFIPS08912305H	89,0	1,2	305,0	0,41
IEFIPS10312305	IEFIPS10312305H	103,0	1,2	305,0	0,47
IEFIPS11512305	IEFIPS11512305H	115,0	1,2	305,0	0,52
IEFIPS12812305	IEFIPS12812305H	128,0	1,2	305,0	0,58
IEFIPS14312305	IEFIPS14312305H	143,0	1,2	305,0	0,65
IEFIPS16915305	IEFIPS16915305H	169,0	1,5	305,0	0,96
IEFIPS19215305	IEFIPS19215305H	192,0	1,5	305,0	1,09
IEFIPS19215457	IEFIPS19215457H	192,0	1,5	457,0	1,63
IEFIPS22015305	IEFIPS22015305H	220,0	1,5	305,0	1,25
IEFIPS22015457	IEFIPS22015457H	220,0	1,5	457,0	1,87
IEFIPS24515457	IEFIPS24515457H	245,0	1,5	457,0	2,08
IEFIPS27415457	IEFIPS27415457H	274,0	1,5	457,0	2,32
IEFIPS29920610	IEFIPS29920610H	299,0	2,0	610,0	4,52
IEFIPS32520610	IEFIPS32520610H	325,0	2,0	610,0	4,91
IEFIPS35620610	IEFIPS35620610H	356,0	2,0	610,0	5,38
IEFIPS37520610	IEFIPS37520610H	375,0	2,0	610,0	5,66
IEFIPS40720610	IEFIPS40720610H	407,0	2,0	610,0	6,14
IEFIPS43220610	IEFIPS43220610H	432,0	2,0	610,0	6,52
IEFIPS45825610	IEFIPS45825610H	458,0	2,5	610,0	8,64
IEFIPS48325610	IEFIPS48325610H	483,0	2,5	610,0	9,11
IEFIPS50825610	IEFIPS50825610H	508,0	2,5	610,0	9,58
IEFIPS53425610	IEFIPS53425610H	534,0	2,5	610,0	10,07
IEFIPS55925610	IEFIPS55925610H	559,0	2,5	610,0	10,54
IEFIPS58525610	IEFIPS58525610H	585,0	2,5	610,0	11,03
IEFIPS61025610	IEFIPS61025610H	610,0	2,5	610,0	11,50
IEFIPS66125610	IEFIPS66125610H	661,0	2,5	610,0	12,46
IEFIPS68625610	IEFIPS68625610H	686,0	2,5	610,0	12,93
IEFIPS71225610	IEFIPS71225610H	712,0	2,5	610,0	13,42



Insulation Protection Shield

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed to protect insulation from crushing at the support points.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

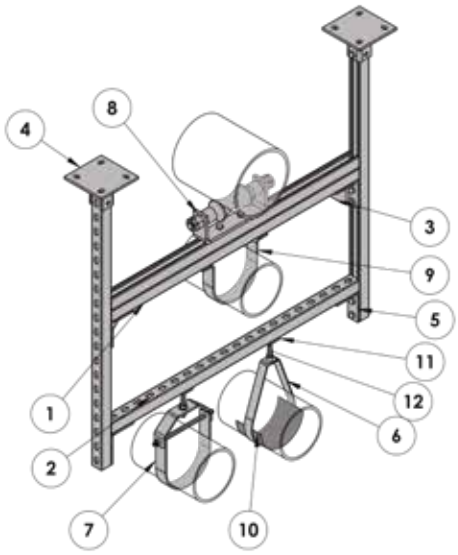
Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & SP-69 - Type 40

Note: Protection shield thickness listed are for use with band type hangers only. For point loading, increase shield thickness and length. When shields are used with rollers, shield thickness shall be adjusted accordingly and shield lengths shall be increased to keep rolling point of contact within the middle one-third of the shield length. For compressive strengths other than 15 psi (103 kPa), shield dimensions may be adjusted accordingly.

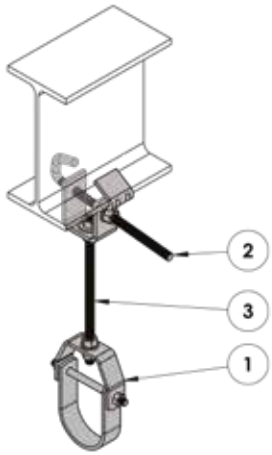
Size			Insulation Thickness					
Inch	DN	OD	T:13mm	T:19mm	T:25mm	T:32mm	T:38mm	T:50mm
½"	(15)	21,30	IEFIPS04912305	IEFIPS06112305	IEFIPS07512305	IEFIPS08912305	IEFIPS10312305	IEFIPS12812305
3/4"	(20)	26,90	IEFIPS06112305	IEFIPS07512305	IEFIPS08912305	IEFIPS10312305	IEFIPS11512305	IEFIPS14312305
1"	(25)	33,70						
1 ¼"	(32)	42,40	IEFIPS07512305	IEFIPS08912305	IEFIPS10312305	IEFIPS11512305	IEFIPS12812305	IEFIPS16915305
1 ½"	(40)	48,30						
2"	(50)	60,30	IEFIPS08912305	IEFIPS10312305	IEFIPS11512305	IEFIPS12812305	IEFIPS14312305	
2 ½"	(65)	73,00	IEFIPS10312305	IEFIPS11512305	IEFIPS12812305	IEFIPS14312305	IEFIPS16915305	IEFIPS19215305
3"	(80)	88,90	IEFIPS11512305	IEFIPS12812305	IEFIPS14312305	IEFIPS16915305		
3 1/2"	(90)	101,60	IEFIPS12812305	IEFIPS14312305	IEFIPS16915305		IEFIPS19215305	IEFIPS22015305
4"	(100)	114,30	IEFIPS14312305	IEFIPS16915305		IEFIPS19215305		
5"	(125)	141,30		IEFIPS19215305	IEFIPS19215457	IEFIPS22015457	IEFIPS22015457	IEFIPS24515457
6"	(150)	168,30		IEFIPS22015305	IEFIPS22015457	IEFIPS24515457	IEFIPS24515457	IEFIPS27415457
8"	(200)	219,10			IEFIPS27415457	IEFIPS29920610	IEFIPS29920610	IEFIPS32520610
10"	(250)	273,00			IEFIPS32520610	IEFIPS35620610	IEFIPS35620610	IEFIPS37520610
12"	(300)	323,90			IEFIPS37520610	IEFIPS40720610	IEFIPS40720610	IEFIPS43220610
14"	(350)	355,60			IEFIPS40720610		IEFIPS43220610	IEFIPS45825610
16"	(400)	406,40			IEFIPS45825610		IEFIPS48325610	IEFIPS50825610
18"	(450)	457,00			IEFIPS50825610		IEFIPS53425610	IEFIPS55925610
20"	(500)	508,00			IEFIPS55925610		IEFIPS58525610	IEFIPS61025610
24"	(600)	610,00			IEFIPS66125610		IEFIPS68625610	IEFIPS71225610

Application Cases

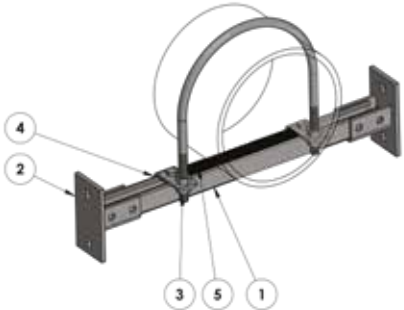
Item No.	Description	Code
1	41x41x2 G Double Profile	IPGD4141202000
2	41x41x2 G Profile	IPG4141202000
3	Universal Shelf Bracket	IFBL90D6W103
4	4x6-Hole Post Bases 41x41 Strut	IFBLPD46
5	4-Hole Corner Angle	IFBL90D490105
6	Adjustable Swivel Ring Steel Band Hanger	IEKSS...
7	Std. Adjustable Clevis Hanger	IEKCHL...
8	Adjuctable Roller Stand	IEFRCD...
9	Std. Pipe Strap	IEKSPS...
10	Insulation Protection Shield	IEFIPS...
11	Square Washer With Channel Guide	IFBLFGD113
12	Threaded Rod M12	IRRT122000
13	Hex Nut M12	ZSS0012
14	G Profile Nut	ISGC12
15	Plain Washer M12	ZPS0012



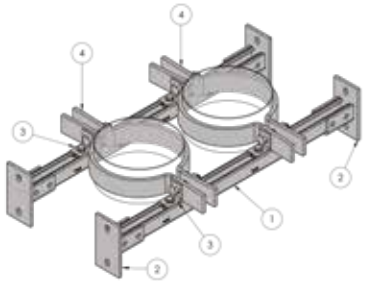
Item No.	Description	Code
1	Std. Adjustable Clevis Hanger	IEKCHL...
2	Side Beam Clamp	IEFABCM..
3	Threaded Rod M12	IRRT122000
4	Plain Washer M12	ZPS0012
5	Hex Nut M12	ZSS0012



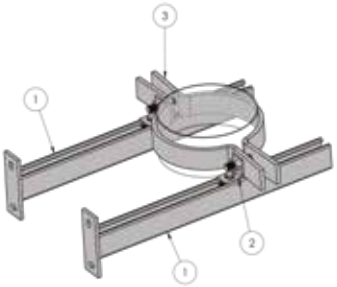
Item No.	Description	Code
1	41x41x2 G Profile	IPG4141202000
2	2x6-Hole Post Bases 41x41 Strut	IFBLPOD26
3	U-Bolt	IRUB...A
4	2-Hole Connector Hanger	IFBL90D2M16
5	G Profile Rubber	ZLIG01
6	Hex Bolt M12	ZCC1230
7	G Profile Nut	ISGC12



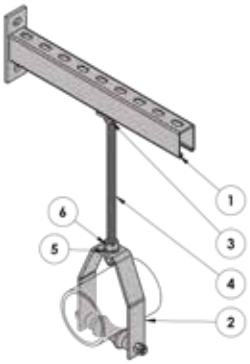
Application Cases



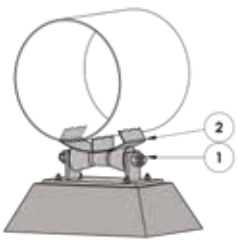
No	Description	Code
1	41x41x2,5 G Profile	IPG414125…
2	2x6 - Hole Post Bases 41x41 Strut	IFBLPOD26
3	90° Connecting Plate	IFBLF90…
4	Riser Clamp	IEKRC…



No	Description	Code
1	Single Profile Bracket 41x60 Strut	IWKG60600
2	90° Connecting Plate	IFBLF90…
3	Riser Clamp	IEKRC…

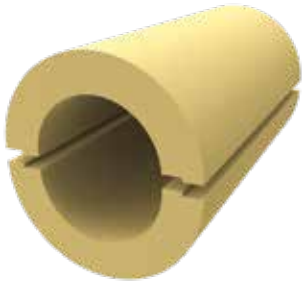


No	Description	Code	Qty.
1	Profile Bracket 41x60 Strut	IWKG60450	1
2	Adjustable Roller Hanger	IEFRHD..	1
3	Square Washer With Channel Guide	IFBLFGD113	1
4	Threaded Rod M12	IRRT12	1
5	Plain Washer M12	ZPS0012	2
6	Hex Nut M12	ZSS0012	3



No	Description	Code	Qty.
1	Roller Stand	IEFRS....	1
2	Pipe Covering Protection Saddle	IEFPS...	1

INSULATION INSERTS



Polyisocyanurate Insulation Blocks (PIR)

Material
PIR (Polyisocyanurate) is a similar material to PUR. Both PUR and PIR are manufactured from the two components isocyanate and polyol. PIR has superior thermal resistance and dimensional stability. PIR is an improvement of previously used PUR boards (polyurethane).

Service
- PIR (Polyisocyanurate) is suitable for all pipeworks of temperatures -150°C to +130°C
- It has low density but high insulating properties
- This product has the lowest thermal permeability compared to other insulation materials
- Prevents the thermal losses in hot or cold pipework
- Long life insulating material
- Easy to application

Material
Complies with ASTM C 591

Technical Properties
- Density;

80 kg/m³ acc. to ASTM C 591
120 kg/m³ acc. to ASTM C 591
200 kg/m³ acc. to ASTM C 591
- Temperature resistance -150°C to +130°C
- Compressive Strength;

min 600 kPa acc. to ASTM C 591 for Density 80 kg/m³
min 1200 kPa acc. to ASTM C 591 for Density 120 kg/m³
min 1750 kPa acc. to ASTM C 591 for Density 200 kg/m³
- Thermal Conductivity at 93°C;

max 0,039 W/(m*K) acc. to ASTM C 591 for Density 80 kg/m³
max 0,044 W/(m*K) acc. to ASTM C 591 for Density 120 kg/m³
max 0,044 W/(m*K) acc. to ASTM C 591 for Density 200 kg/m³
- Surface Burning Characteristics;

Flame spread index max 25 acc. to ASTM E 84
Smoke developed index max 450 acc. to ASTM E 84

AA-BBBB-CC-DD-EEE

Special Item	
Yes	99
No	-

Vapour Barrier	
Yes	IFITB
No	IFITA

Pipe Size	
Nominal (Inch)	between 1/2" 36" (DN15-DN900)
Pipe OD(mm)	Ø10-Ø900

Insulation Thickness (mm)	
Standard thickness	13mm 20mm 30mm 40mm 50mm
Special thickness	between 10mm-100mm

Insulation Length (mm)	
Standard length	50mm 100mm 200mm 250mm 500mm
Special length	between 50mm-600mm

	AA	BBBB	CC	DD	EEE	Code	Description
Examples		IFITB	015	20	050	IFITB01520050	1/2" - 20x50mm Polyisocyanurate Insulation Block w/Vapour Barrier
		IFITA	100	40	100	IFITA10040100	4" - 40x100mm Polyisocyanurate Insulation Block w/o Vapour Barrier
		IFITB	200	50	500	IFITB20050500	8" - 50x500mm Polyisocyanurate Insulation Block w/Vapour Barrier
		IFITB	065	30	050	IFITB06530050	2 1/2" - 30x50mm Polyisocyanurate Insulation Block w/Vapour Barrier
		IFITB	150	50	250	IFITB15050250	6" - 50x250mm Polyisocyanurate Insulation Block w/Vapour Barrier
	99	IFITB	040	32	060	99IFITB04032060	1 1/2" - 32x60mm Polyisocyanurate Insulation Block w/Vapour Barrier
	99	IFITB	067	19	050	99IFITB06719050	Ø67 - 19x50mm Polyisocyanurate Insulation Block w/Vapour Barrier
	99	IFITB	029	13	050	99IFITB02913050	Ø29 - 13x50mm Polyisocyanurate Insulation Block w/Vapour Barrier
	99	IFITB	051	25	060	99IFITB05125060	Ø51 - 25x60mm Polyisocyanurate Insulation Block w/Vapour Barrier
	99	IFITB	300	65	200	99IFITB30065200	12" - 65x200mm Polyisocyanurate Insulation Block w/Vapour Barrier
	99	IFITB	500	75	300	99IFITB50075300	20" - 75x300mm Polyisocyanurate Insulation Block w/Vapour Barrier
	99	IFITB	400	100	250	99IFITB400100250	16" - 100x250mm Polyisocyanurate Insulation Block w/Vapour Barrier
	99	IFITB	900	80	550	99IFITB90080550	36" - 80x550mm Polyisocyanurate Insulation Block w/Vapour Barrier
	99	IFITB	600	90	600	99IFITB60090600	24" - 90x600mm Polyisocyanurate Insulation Block w/Vapour Barrier

Calcium Silicate Insulation Blocks

Material
• Calcium Silicate

Service
Designed for a maximum service temperature of 1000°C. This allows for use in a wide range of piping applications as a sound and thermal insulation.
Calcium Silicate's;
• Light weight
• Very low thermal conductivity
• Excellent mechanical strength provides a top insulation throughout the temperature range.

Technical Properties
• Density max 240 kg/m³ acc. to ASTM C 533
• Temperature resistance ≤ 1000°C
• Compressive Strength min 690 kPa acc. to ASTM C 533
• Thermal Conductivity at 200°C max 0,087 W/(m*K) acc. to ASTM C 533
• Non-combustibility acc. to EN 13501-1 A2-s1, d0

Material
Complies with ASTM C 533 Type 1

AA-BBBB-CC-DD-EEE-FF

Special Item	
Yes	99
No	-

Calcium Silicate Insulation Block
IFITCS

Pipe Size	
Nominal (Inch)	between 1/2" 36" (DN15-DN900)
Pipe OD(mm)	Ø10-Ø900

Insulation Thickness (mm)	
Standard thickness	13mm 20mm 30mm 40mm 50mm
Special thickness	between 10mm-100mm

Insulation Length (mm)	
Standard length	50mm 100mm 200mm 250mm 500mm
Special length	between 50mm-600mm

Vapour Barrier	
Yes	VB
No	-

	AA	BBBB	CC	DD	EEE	FF	Code	Description
Examples		IFITCS	015	20	050		IFITCS01520050	1/2" - 20x50mm Calcium Silicate Insulation Block w/o Vapour Barrier
		IFITCS	100	40	100	VB	IFITCS10040100VB	4" - 40x100mm Calcium Silicate Insulation Block w/ Vapour Barrier
	99	IFITCS	200	50	500	VB	99IFITCS20050500VB	8" - 50x500mm Calcium Silicate Insulation Block w/Vapour Barrier
		IFITCS	065	30	050	VB	IFITCS06530050VB	2 1/2" - 30x50mm Calcium Silicate Insulation Block w/Vapour Barrier
	99	IFITB	150	50	250	VB	99IFITCS15050250VB	6" - 50x250mm Calcium Silicate Insulation Block w/Vapour Barrier

Rubber Support Insert

Material
- EPDM 90 Sh.A

Service
Designed for compensate high bearing forces especially for long span distances. Produced by moulding of reinforced EPDM with the hardness of max. 90 Shore A. Insulation blocks are narrowed with advantage of strenght material.

Technical Properties
Density: 1200 kg/m3-1400 kg/m³

Temperature Resistance: -40 °C to 125 °C

Compressive Strenght: 350 kg/cm²

Thermal Conductivity: 0.16 W/m.K

Size			Code	Width W (mm)	Total OD with 13 mm RSI (mm)	Code	Width W (mm)	Total OD with 19 mm RSI (mm)	Code	Width W (mm)	Total OD with 25 mm RSI (mm)
Inch	DN	OD	T=13 mm			T=19 mm			T=25 mm		
½"	(15)	21,3	IFITR01513025	25	47,3	IFITR01519025	25	59,3	IFITR01525025	25	71,3
3/4"	(20)	26,9	IFITR02013025	25	52,9	IFITR02019025	25	64,9	IFITR02025025	25	76,9
1"	(25)	33,7	IFITR02513025	25	59,7	IFITR02519025	25	71,7	IFITR02525025	25	83,7
1 ¼"	(32)	42,4	IFITR03213025	25	68,4	IFITR03219025	25	80,4	IFITR03225025	25	92,4
1 ½"	(40)	48,3	IFITR04013025	25	74,3	IFITR04019025	25	86,3	IFITR04025025	25	98,3
2"	(50)	60,3	IFITR05013025	25	86,3	IFITR05019025	25	98,3	IFITR05025025	25	110,3
2 ½"	(65)	73,0	IFITR06513038	38	99,0	IFITR06519038	38	111,0	IFITR06525038	38	123,0
3"	(80)	88,9	IFITR08013038	38	114,9	IFITR08019038	38	126,9	IFITR08025038	38	138,9
4"	(100)	114,3	IFITR10013038	38	140,3	IFITR10019038	38	152,3	IFITR10025038	38	164,3
5"	(125)	141,3							IFITR12525040	40	191,3
6"	(150)	168,3							IFITR15025050	50	218,3
8"	(200)	219,1							IFITR20025050	50	269,1
10"	(250)	273,0							IFITR25025050	50	323,0
12"	(300)	323,9							IFITR30025075	75	373,9
14"	(350)	355,6							IFITR35025075	75	405,6
16"	(400)	405,6							IFITR40025075	75	455,6

Rubber Support Insert

Material
- EPDM 90 Sh.A

Service
Designed for compensate high bearing forces especially for long span distances. Produced by moulding of reinforced EPDM with the hardness of max. 90 Shore A. Insulation blocks are narrowed with advantage of strenght material.

Technical Properties
Density: 1200 kg/m3-1400 kg/m³

Temperature Resistance: -40 °C to 125 °C

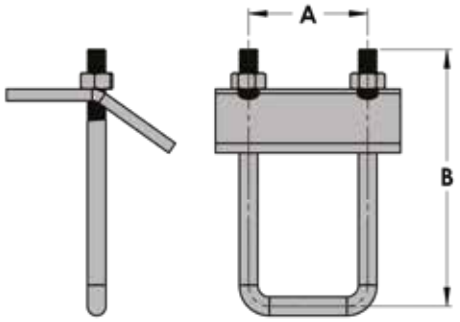
Compressive Strenght: 350 kg/cm²

Thermal Conductivity: 0.16 W/m.K

Size			Code	Width W (mm)	Total OD with 32 mm RSI (mm)	Code	Width W (mm)	Total OD with 38 mm RSI (mm)	Code	Width W (mm)	Total OD with 50 mm RSI (mm)
Inch	DN	OD	T=32 mm			T=38 mm			T=50 mm		
½"	(15)	21,3				IFITR01538025	25	97,3	IFITR01550030	30	121,3
3/4"	(20)	26,9				IFITR02038025	25	102,9	IFITR02050030	30	126,9
1"	(25)	33,7				IFITR02538025	25	109,7	IFITR02550030	30	133,7
1 ¼"	(32)	42,4				IFITR03238030	30	118,4	IFITR03250030	30	142,4
1 ½"	(40)	48,3				IFITR04038030	30	124,3	IFITR04050030	30	148,3
2"	(50)	60,3	IFITR05032025	25	124,3	IFITR05038030	30	136,3	IFITR05050030	30	160,3
2 ½"	(65)	73,0	IFITR06532038	38	137,0	IFITR06538038	38	149,0	IFITR06550038	38	173,0
3"	(80)	88,9	IFITR08032038	38	152,9	IFITR08038038	38	164,9	IFITR08050040	40	188,9
4"	(100)	114,3	IFITR10032038	38	178,3	IFITR10038040	40	190,3	IFITR10050040	40	214,3
5"	(125)	141,3	IFITR12532040	40	205,3	IFITR12538040	40	217,3	IFITR12550040	40	241,3
6"	(150)	168,3	IFITR15032050	50	232,3	IFITR15038050	50	244,3	IFITR15050050	50	268,3
8"	(200)	219,1	IFITR20032050	50	283,1	IFITR20038050	50	295,1	IFITR20050050	50	319,1
10"	(250)	273,0	IFITR25032050	50	337,0	IFITR25038050	50	349,0	IFITR25050075	75	373,0
12"	(300)	323,9				IFITR30038075	75	399,9	IFITR30050075	75	423,9
14"	(350)	355,6				**IFITR35038075**	**75**	**431,6**	IFITR35050075	75	455,6
16"	(400)	405,6				**IFITR40038075**	**75**	**481,6**	IFITR40050075	75	505,6
18"	(450)	457,2							IFITR45050100	100	557,2
20"	(500)	508,0							IFITR50050100	100	608,0
24"	(600)	609,1							IFITR60050100	100	709,1
30"	(750)	762,0							IFITR75050100	100	862,0
36"	(900)	914,4							IFITR90050100	100	1.014,4
40"	(1.000)	1016,0							IFITR100050100	100	1.116,0

BUILDING ATTACHMENTS

Pressure Plate With Square Bolt



Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

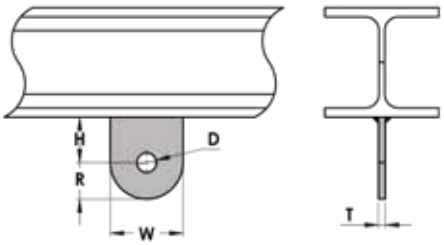
Service
It is used for fixing profiles to structural steel.
No drilling and welding necessary. It is very easy to adjust the position of the profile. Supplied as preassembled.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size	A	B	Suitable Profile	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
			mm	mm	mm			
IFMFC0889	IFMFC0889H	M8	51,5	89,0	38 / 40	5,4	20	5,6
IFMFC08109	IFMFC08109H	M8	51,5	109,0	40 / 60	5,9	20	5,9

Plate Lug



Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed for attaching to steel beams if flexibility at beam is required.

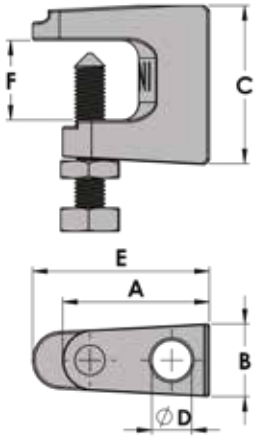
Ordering
Specify rod size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 57

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Short - HDG	Long	Long - HDG	ØD	H	H	R	T	W	Max. Recom. Load kN
Short				mm	Short	Long	mm	mm	mm	
IEFSWLS006	IEFSWLS006H	IEFSWLL006	IEFSWLL006H	17,0	40,0	76,0	32,0	6,0	64,0	6,0
IEFSWLS009	IEFSWLS009H	IEFSWLL009	IEFSWLL009H	21,0	40,0	76,0	32,0	6,0	64,0	9,5
IEFSWLS014	IEFSWLS014H	IEFSWLL014	IEFSWLL014H	24,0	40,0	76,0	32,0	10,0	64,0	14,0
IEFSWLS019	IEFSWLS019H	IEFSWLL019	IEFSWLL019H	29,0	50,0	76,0	32,0	10,0	64,0	19,0
IEFSWLS026	IEFSWLS026H	IEFSWLL026	IEFSWLL026H	32,0	50,0	76,0	38,0	12,0	76,0	26,0
IEFSWLS033	IEFSWLS033H	IEFSWLL033	IEFSWLL033H	35,0	76,0	102,0	38,0	12,0	76,0	33,0
IEFSWLS042	IEFSWLS042H	IEFSWLL042	IEFSWLL042H	38,0	76,0	102,0	50,0	15,0	100,0	42,0
IEFSWLS061	IEFSWLS061H	IEFSWLL061	IEFSWLL061H	45,0	76,0	115,0	65,0	20,0	130,0	61,0
IEFSWLS082	IEFSWLS082H	IEFSWLL082	IEFSWLL082H	51,0	76,0	115,0	65,0	20,0	130,0	82,0
IEFSWLS109	IEFSWLS109H	IEFSWLL109	IEFSWLL109H	60,0	102,0	115,0	75,0	20,0	150,0	109,0



C-Type Wide Beam Clamp

FM APPROVED

Size Range
M8 through M12

Material
• Cast Malleable Steel

Service
For attaching hanger rod to the top or bottom flange of a beam.
Back hole allows rod height adjustment.

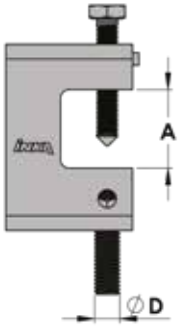
Ordering
Specify rod size, figure number, name and finish.

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 19

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M -
EN ISO 1461/EN ISO 10684

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size	Set-Screw Torque	A	B	C	ØD	E	F	Max Load kN (Top)	Max Load kN (Bottom)	Weight per 100 pcs (kg)	Certification
		Inch	Nm	mm	mm	mm	mm	mm	mm				
903867231	903867231H	¼ M8	15	35,0	19,0	35,0	9,0	38,0	18,0	2,5	1,2	8,0	-
90386720F	90386720FH	⅜ M10	15	41,0	21,0	45,0	11,0	50,0	23,0	3,95	2,5	14,7	FM
90386721	90386721H	½ M12	15	48,0	24,0	54,0	13,0	58,0	26,0	5,95	3,5	21,6	FM



Steel Beam Clamp

Size Range
Max. 37 mm Beam Profile Section

Material
• Carbon Steel

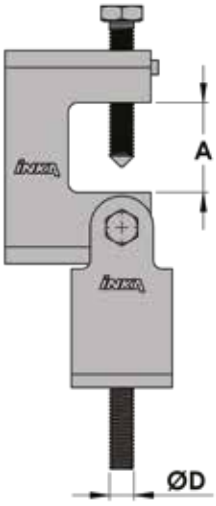
Service
Designed for attaching hangers on angular or sloped beams.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M -
EN ISO 1461/EN ISO 10684

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code	Code No for HDG	ØD	A	Max. Recom. Load kN	Qty/Box	Weight per Box (kg)
IFPCM01	IFPCM01H	M10 / M12	37	4,8	25	9,5

Beam Clamp with Swivel



Size Range
Max. 37 mm Beam Profile Section

Material
• Carbon Steel

Service
Designed for attaching hangers on angular or sloped beams.
Beam Clamp with Swivel allows more flexibility for attaching hanger equipments.

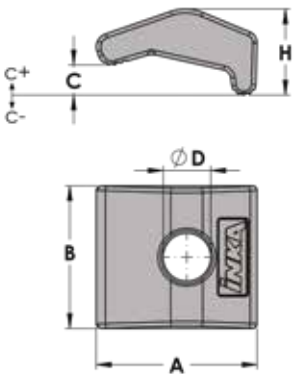
Ordering
Specify rod size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code	Code No for HDG	ØD	A	Max. Recom. Load kN	Qty/Box	Weight per Box (kg)
IFPCMD01	IFPCMD01H	M10/M12	37	4,75	25	14,0

Clamping Plate



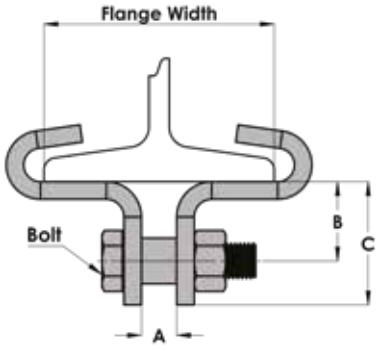
Size Range
M10 through M24

Material
• Wrought iron

Service
Designed for attaching hangers on angular or sloped beams.

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	Code No for HDG	A	B	C	ØD	H	C		Weight per 100 pcs (kg)
							+	-	
ZPPINK10	ZPPINK10H	36,0	32,0	16,0	11,0	20,0	10,0	6,0	8,5
ZPPINK12	ZPPINK12H	43,0	38,0	19,0	13,0	23,0	14,0	6,0	12,7
ZPPINK16	ZPPINK16H	57,0	50,0	25,0	17,0	30,0	17,0	7,0	26,0
ZPPINK20	ZPPINK20H	71,0	63,0	31,0	21,0	38,0	23,0	11,0	55,7
ZPPINK24	ZPPINK24H	86,0	76,0	38,0	25,0	43,0	23,0	10,0	9,3



Center Beam Clamp

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Clamp centers the load on beam to prevent distortion.

Installation
Designed to center the load under the beam flanges.

Ordering
Figure number, width of flange, name and finish

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

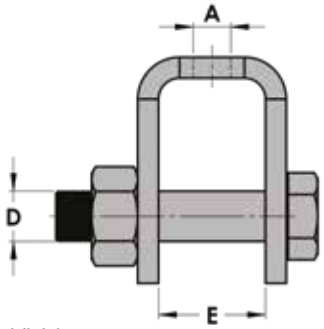
Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 21

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Bolt Size	A	B	C	Max Recom. Load (kN)
			mm	mm	mm	
IEFBC001	IEFBC001H	M12	13,0	35,0	55,0	4,0
IEFBC002	IEFBC002H	M16	16,0	40,0	60,0	5,0
IEFBC003	IEFBC003H	M20	20,0	45,0	70,0	6,0

Flange Width (mm)	Max Flange Thickness (mm)	Weight per 100 pcs (kg)		
		IEFBC001	IEFBC002	IEFBC003
76,0	11,0	45,0	76,0	130,0
100,0	13,0	51,0	85,0	142,0
125,0	16,0	57,0	93,0	156,0
150,0	19,0	64,0	103,0	171,0
175,0	22,0	70,0	114,0	189,0
200,0	22,0	77,0	125,0	204,0
225,0	25,0	87,0	140,0	230,0
250,0	25,0	91,0	146,0	239,0
280,0	25,0	95,0	153,0	251,0
300,0	32,0	104,0	167,0	273,0

Welded Beam Attachment



Size Range
3/8" through 2"

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Clamp centers the load on beam to prevent distortion.

Installation
• Designed for attaching hanger rod to the bottom of structral steel where heavy loads and large hanger rod sizes are required.
• Can be welded in place in either the upright or inverted position.

Ordering
Specify rod size, figure number, name and finish.

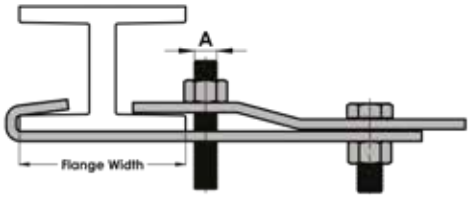
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 22

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		E	D	A	Max Recom. Load kN
		Inch	mm	mm			
IEFWBA10	IEFWBA10H	⅜"	10,0	32,0	M12	M10	3,0
IEFWBA15	IEFWBA15H	½"	15,0	32,0	M16	M12	6,0
IEFWBA16	IEFWBA16H	⅝"	16,0	32,0	M20	M16	9,5
IEFWBA20	IEFWBA20H	¾"	20,0	41,0	M22	M20	14,0
IEFWBA22	IEFWBA22H	⅞"	22,0	51,0	M24	M22	19,5
IEFWBA26	IEFWBA26H	1"	26,0	51,0	M30	M24	25,0
IEFWBA30	IEFWBA30H	1 ⅛"	30,0	70,0	M33	M30	33,0
IEFWBA32	IEFWBA32H	1 ¼"	32,0	77,0	M36	M33	42,0
IEFWBA39	IEFWBA39H	1 ½"	39,0	90,0	M42	M39	61,0
IEFWBA44	IEFWBA44H	1 ¾"	44,0	95,0	M48	M45	82,0
IEFWBA50	IEFWBA50H	2"	50,0	95,0	M60	M52	109,0

Top Beam Clamp



Size Range
76mm through 228mm

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed for top of beams if hanger rod is required tangent to flange edge. Eliminating drilling holes in structural members.

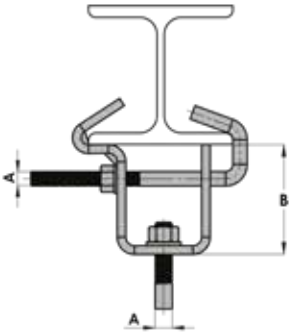
Ordering
Specify rod size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 - Type 25

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Flange Width - W (mm)		Flange Thickness Max. (mm)	Bolt	Max Recom. Load kN
		Min.	Max.	Max.	A	
IEFSBC001	IEFSBC001H	76,0	230,0	12,7	M10	1,3
IEFSBC002	IEFSBC002H	76,0	230,0	17,5	M12	2,2
IEFSBC003	IEFSBC003H	76,0	230,0	19,0	M16	3,1
IEFSBC004	IEFSBC004H	76,0	230,0	23,8	M16	3,6
IEFSBC005	IEFSBC005H	76,0	230,0	26,0	M16	5,1



Side Beam Clamp

Size Range
M10 through M16

Material
• Carbon Steel acc. to the MSS SP 58-TABLE A2/A2M

Service
Designed for bottom of I-Beams if hanger rod is required tangent to flange edge. Eliminating drilling holes in structural members.

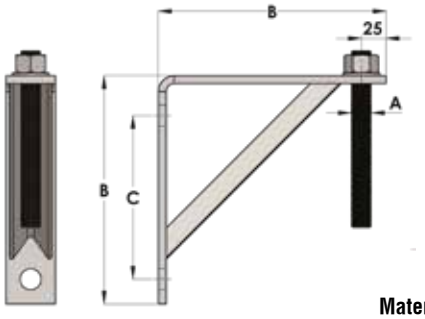
Ordering
Specify rod size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society MSS SP-58 & MSS SP-69 - Type 27

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size	Flange Width - W (mm)		A	B	Max Recom. Load kN
			Min.	Max.		mm	
IEFABCM10	IEFABCM10H	M10	89,0	203,0	M10	66,0	1,3
IEFABCM12	IEFABCM12H	M12	89,0	203,0	M12	66,0	3,0
IEFABCM16	IEFABCM16H	M16	89,0	203,0	M16	66,0	4,3



Light Welded Steel Bracket

Material
• Carbon Steel acc. to the MSP SP 58-TABLE A2/A2M

Welding
Welding acc. to EN 3834-2 / ASME Section IX, AWS D1.1

Service
Designed to suspend hanger rod for support of light loads under 3,3 kN from a wall or structure.

Installation
Size and thickness of the back plate is governed by the load to be carried and the nature and conditions of the wall. Back plates furnished upon request.

Ordering
Specify bracket, figure number, name and finish

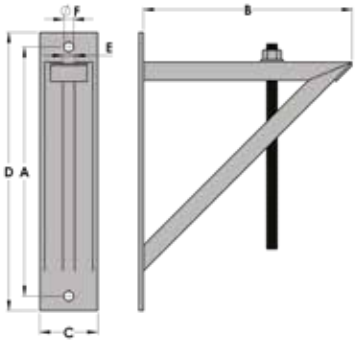
Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society MSS SP-58 & MSS SP-69 - Type 31

Note: Special size can be designed to meet project requirements.
Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	A	B	C	Max Recom. Load kN
		mm	mm	mm	
IELWSB230	IELWSB230H	20,5	230,0	165,0	3,4
IELWSB330	IELWSB330H	20,5	330,0	266,0	3,4
IELWSB485	IELWSB485H	20,5	485,0	419,0	3,4

Medium Welded Steel Bracket



Material
• Carbon Steel acc. to the MSP SP 58-TABLE A2/A2M

Welding
Welding acc. to EN 3834-2 / ASME Section IX, AWS D1.1

Service
Designed to suspend hanger rod for support of medium loads under 6,8 kN from a wall or structure.

Installation
Size and thickness of the back plate is governed by the load to be carried and the nature and conditions of the wall. Back plates furnished upon request.

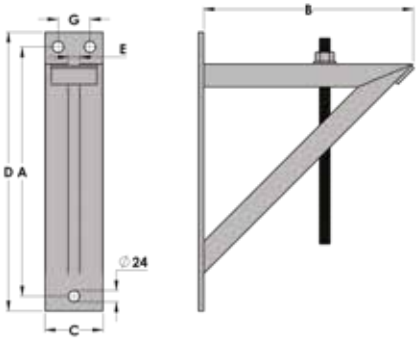
Ordering
Specify bracket, figure number, name and finish.

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941
• Hot Dipped Galvanized (HDG) acc. to ASTM A 153/123M

Approvals
Complies with Manufacturer's Standardization Society MSS SP-58 & MSS SP-69-Type 32

Note: Special size can be designed to meet project requirements.
Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	A	B	C	D	E	ØF	Max Recom. Load kN
		mm	mm	mm	mm	mm	mm	
IEMWSB230	IELWSB230H	390,0	305,0	102,0	458,0	25,5	21,0	6,7
IEMWSB330	IELWSB330H	545,0	458,0	127,0	610,0	25,5	21,0	6,7
IEMWSB485	IELWSB485H	700,0	610,0	127,0	760,0	25,5	21,0	6,7



Heavy Welded Steel Bracket

Material
• Carbon Steel acc. to the MSP SP 58-TABLE A2/A2M

Welding
Welding acc. to EN 3834-2 / ASME Section IX, AWS D1.1

Service
Designed to suspend hanger rod for support of heavy loads under 13,6 kN from a wall or structure.

Installation
Size and thickness of the back plate is governed by the load to be carried and the nature and conditions of the wall. Back plates furnished upon request.

Ordering
Specify bracket, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

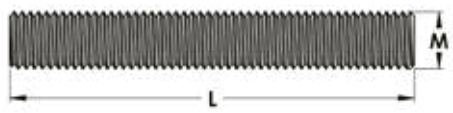
Approvals
Heavy Welded Steel Bracket: Complies with Manufacturer's Standardization Society MSS SP-58 & MSS SP-69 - Type 33

Note: Special size can be designed to meet project requirements.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	A	B	C	D	E	ØF	G	Max Recom. Load kN
		mm	mm	mm	mm	mm	mm	mm	
IEHWSB305	IEHWSB305H	390,0	305,0	102,0	458,0	25,5	21,0	-	13,4
IEHWSB458	IEHWSB458H	545,0	458,0	127,0	610,0	25,5	24,0	70,0	13,4
IEHWSB610	IEHWSB610H	700,0	610,0	127,0	760,0	25,5	27,0	64,0	13,4
IEHWSB760	IEHWSB760H	845,0	760,0	127,0	915,0	25,5	27,0	64,0	13,4
IEHWSB915	IEHWSB915H	990,0	915,0	152,0	1065,0	25,5	27,0	90,0	13,4
IEHWSB1065	IEHWSB1065H	1170,0	1065,0	152,0	1270,0	25,5	27,0	90,0	13,4

HANGER-ROD ATTACHMENTS



Threaded Rod

Size Range
M8 through M30

Material
• Carbon Steel and Alloy Steel

Manufacturing Specification
• ASME B18.31.4M
• EN 898-1

Mechanical Properties
Bolts, screws and studs with specified property classes - Coarse thread and fine pitch thread (ISO 898-1:2009)

Property Class
• 5.6, 8.8 (Carbon Steel)
IRRT Code is for Grade 5.6 property class

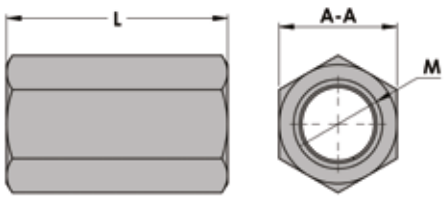
Dimensional Specification
DIN 13-20 Thread Sizes

Coating
• Electro galvanisation acc. to ASTM B633/ ASTM F 1941 - EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684
Hot Dipped Galvanized is valid only with the mentioned codes below.

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Road Size (M)	L (mm)	Max Recom. Load kN	Weight per 1 pcs (kg)
IRRT061000	IRRT061000H	M6	1000	1,0	0,17
IRRT062000		M6	2000	1,0	0,34
IRRT063000		M6	3000	1,0	0,51
IRRT081000	IRRT081000H	M8	1000	3,0	0,31
IRRT082000		M8	2000	3,0	0,62
IRRT083000		M8	3000	3,0	0,93
IRRT101000	IRRT101000H	M10	1000	4,6	0,50
IRRT102000		M10	2000	4,6	1,00
IRRT103000		M10	3000	4,6	1,50
IRRT121000	IRRT121000H	M12	1000	6,7	0,71
IRRT122000		M12	2000	6,7	1,42
IRRT123000		M12	3000	6,7	2,13
IRRT141000	IRRT141000H	M14	1000	9,0	0,97
IRRT142000		M14	2000	9,0	1,94
IRRT143000		M14	3000	9,0	2,91
IRRT161000	IRRT161000H	M16	1000	12,5	1,30
IRRT162000		M16	2000	12,5	2,60
IRRT163000		M16	3000	12,5	3,90
IRRT181000	IRRT181000H	M18	1000	18,0	1,61
IRRT182000		M18	2000	18,0	3,22
IRRT183000		M18	3000	18,0	4,83
IRRT201000	IRRT201000H	M20	1000	19,6	2,04
IRRT202000		M20	2000	19,6	4,08
IRRT203000		M20	3000	19,6	6,12
IRRT241000	IRRT241000H	M24	1000	28,2	2,94
IRRT242000		M24	2000	28,2	5,87
IRRT301000	IRRT301000H	M30	1000	40,4	4,67

Extension Nut



Material
• Carbon Steel

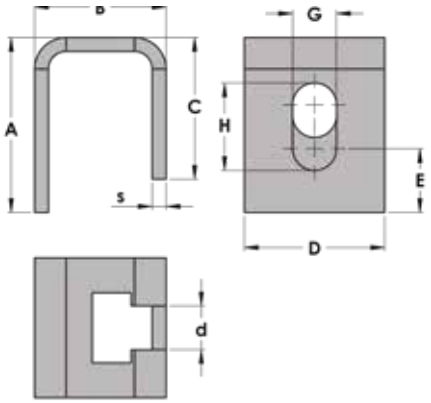
Service
It is used for connecting threaded components to each other.

Installation
Effective thread length should at least be equal to thread diameter. Jam nut is necessary for safety.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	Code No for HDG	Size	A	L	M	Qty/Box	Weight per Box (kg)
		mm	mm	mm			
ISUA08025	ISUA08025H	M8 x 25	13,0	25,0	M8	300	5,6
ISUA10030	ISUA10030H	M10 x 30	17,0	30,0	M10	250	10,2
ISUA12040	ISUA12040H	M12 x 40	17,0	35,0	M12	250	11,5
ISUA16050	ISUA16050H	M16 x 50	24,0	50,0	M16	100	12,3

Height Adjuster



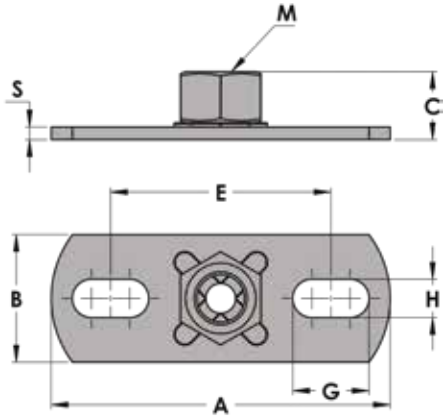
Material
• Carbon Steel

Ordering
Used for hanging light loads from the ceiling

Installation
Used with threaded rods (M8, M10, M12) enabling hight adjustment.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	Code No for HDG	Size (mm)	A	B	C	D	d	E	G	H	s	Qty/Box	Weight per Box (kg)
			mm	mm	mm	mm	mm	mm	mm	mm	mm		
IFKA12	IFKA12H	M12	50,0	40,0	40,0	40,0	13,0	18,0	13,0	25,0	4,0	100	11,7



Base Plate With Nut

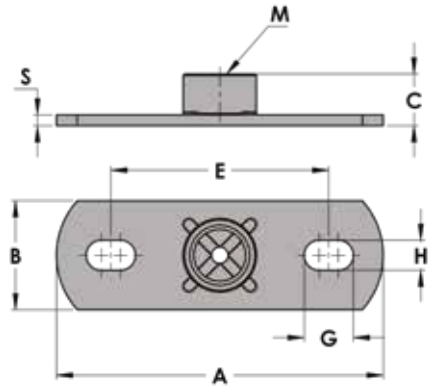
Material
• Carbon Steel

Service
Baseplates are used for fastening of heavy duty pipe clamps to ceilings, floors and walls

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Base Plate Size	M/Nut Size	A	B	C	G	H	E	s	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
		mm	mm	mm	mm	mm	mm	mm	mm	mm			
IGL208	IGL208H	3 x 30 x 80	M8	80,0	30,0	15,0	18,0	9,0	52,0	3,0	2,2	50	2,7
IGL210	IGL210H	3 x 30 x 80	M10	80,0	30,0	16,0	18,0	9,0	52,0	3,0	2,2	50	3,1
IGL212	IGL212H	3 x 30 x 80	M12	80,0	30,0	18,0	18,0	9,0	52,0	3,0	2,2	50	3,4
IGS208	IGS208H	4 x 40 x 120	M8	120,0	40,0	16,0	18,0	11,0	80,0	4,0	3,0	50	7,0
IGS210	IGS210H	4 x 40 x 120	M10	120,0	40,0	17,0	18,0	11,0	80,0	4,0	3,0	50	7,4
IGS212	IGS212H	4 x 40 x 120	M12	120,0	40,0	18,0	18,0	11,0	80,0	4,0	3,0	50	7,7
IGS216	IGS216H	4 x 40 x 120	M16	120,0	40,0	22,0	18,0	11,0	80,0	4,0	3,0	50	8,7



Base Plate With Sleeve

Material
• Carbon Steel

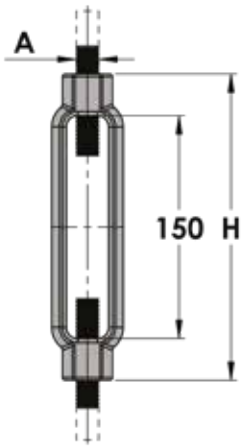
Service
Baseplates are used for fastening of heavy duty pipe clamps to ceilings, floors and walls

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Base Plate Size	M / Sleeve Size	A	B	C	G	H	E	s	Max Recom. Load kN	Qty/Box	Weight per Box (kg)
		mm	inch	mm	mm	mm	mm	mm	mm	mm			
IGS2M15	IGS2M15H	4 x 40 x 120	1/2''	120,0	40,0	19,0	18,0	11,0	80,0	4,0	5,0	50	8,3
IGS2M20	IGS2M20H	4 x 40 x 120	3/4''	120,0	40,0	21,0	18,0	11,0	80,0	4,0	5,0	50	8,6
IGS2M25	IGS2M25H	4 x 40 x 120	1'	120,0	40,0	25,0	18,0	11,0	80,0	4,0	5,0	50	11,6

Steel Turnbuckle



Size Range
3/8" through 2 ½"

Material
• Forged Steel

Service
Designed for adjustment up to 150 mm for heavy loads.

Ordering
Specify rod size, figure number, name and finish.

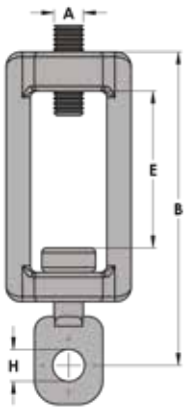
Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society MSS SP-58 & MSS SP-69 - Type 13

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		A	H	Max Load kN 650°F (343°C)	Max Load kN 750°F (399°C)	Weight per 100 pcs (kg)
		Inch	DN		mm			
IEST010	IEST010H	3/8"	(10)	M10	185,0	3,2	2,5	19,9
IEST015	IEST015H	1/2"	(15)	M12	190,0	6,0	4,7	31,1
IEST016	IEST016H	5/8"	(16)	M16	198,0	9,6	7,5	47,6
IEST020	IEST020H	3/4"	(20)	M20	210,0	14,3	11,2	68,5
IEST022	IEST022H	7/8"	(22)	M22	218,0	19,9	15,6	84,1
IEST025	IEST025H	1"	(25)	M24	228,0	26,2	20,5	122,5
IEST032	IEST032H	1¼"	(32)	M30	234,0	42,2	33,0	204,4
IEST040	IEST040H	1½"	(40)	M36	248,0	61,4	48,0	298,7
IEST042	IEST042H	1¾"	(42)	M42	265,0	82,7	64,7	494,4
IEST050	IEST050H	2"	(50)	M48	280,0	109,4	86,0	682,5
IEST056	IEST050H	2¼"	(56)	M56	325,0	143,7	112,5	928,4
IEST065	IEST065H	2½"	(65)	M64	340,0	177,0	138,5	1250,7

Swivel Turnbuckle



Size Range
¼" through ¾"

Material
• Forged Steel

Service
Designed to provide an adjustable threaded connection for hanger rods.

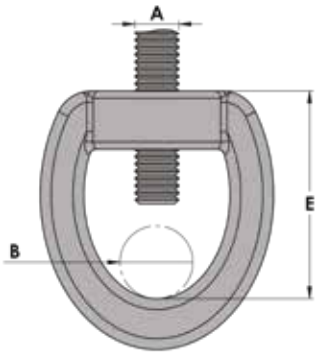
Ordering
Specify rod size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society MSS SP-58 & MSS SP-69 - Type 15

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size	A	B	E	H	Max. Recom Load kN	Weight per 100 pcs (kg)
		Inch		mm	mm	mm		
IETBA006	IETBA006H	1/4"	M6	64,0	32,0	6,5	1,0	4,0
IETBA010	IETBA010H	3/8"	M10	98,0	48,0	10,5	3,2	13,1
IETBA012	IETBA012H	1/2"	M12	98,0	48,0	10,5	3,2	12,9
IETBA016	IETBA016H	5/8"	M16	124,0	60,0	14,0	3,2	33,7
IETBA020	IETBA020H	3/4"	M20	124,0	60,0	14,0	3,8	32,7



Malleable Iron Socket

Size Range
¼" through 7 /8"

Material
• Carbon Steel

Service
Use for mounting of pipes to the walls (vertical/horizontal) ceilings and floors.

Lining for noise reduction level up to 15 dB acc. to DIN4109, vibration reduction and partial compensation of thermal expansion.

Ordering
Specify rod tapping size, figure number, name and finish.

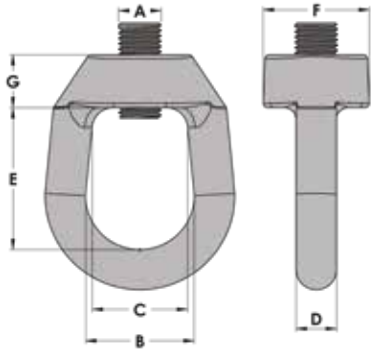
Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society MSS SP-58 & MSS SP-69 -Type 16

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		A	B	E	Max Recom. Load kN	Weight per 100 pcs (kg)
		Inch	DN		mm	mm		
IEEYS008	IEEYS008H	1/4'''	(8)	M6	6,5	28,5	1,1	4,5
IEEYS010	IEEYS010H	3/8''	(10)	M10	6,5	35,0	2,7	7,9
IEEYS015	IEEYS015H	1/2''	(15)	M12	6,5	40,0	4,5	11,3
IEEYS016	IEEYS016H	5/8''	-	M16	10,5	45,0	6,2	17,1
IEEYS020	IEEYS020H	3/4''	(20)	M20	12,5	52,0	9,8	23,6
IEEYS022	IEEYS022H	7/8''	-	M22	12,5	60,0	10,2	35,7

Steel Weldless Eyenut



Size Range
3/8" through 2 ½"

Material
• Forged Steel

Service
Designed to use on high temperature piping installations.

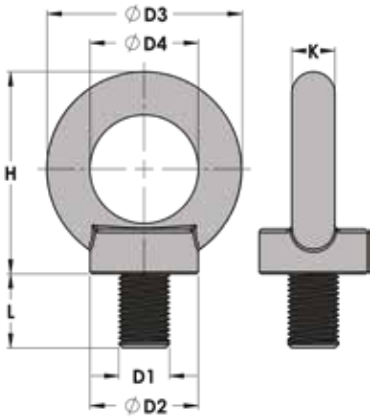
Ordering
Specify rod size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Approvals
Complies with Manufacturer's Standardization Society
MSS SP-58 & MSS SP-69 -Type 17

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	Size		A	B	C	D	E	F	G	Max Load kN 650°F (343°C)	Max Load kN 750°F (399°C)	Weight per 100 pcs (kg)
		Inch	DN		mm	mm	mm	mm	mm	mm			
IEWEN010	IEWEN010H	⅜"	(10)	M10	38,0	30,0	13,0	51,0	35,0	17,0	3,2	2,5	28,0
IEWEN015	IEWEN015H	½"	(15)	M12	38,0	30,0	13,0	51,0	35,0	17,0	6,0	4,7	27,0
IEWEN016	IEWEN016H	5/8"	(16)	M16	38,0	30,0	13,0	51,0	35,0	17,0	9,6	7,2	26,0
IEWEN020	IEWEN020H	¾"	(20)	M20	38,0	30,0	13,0	51,0	35,0	17,0	12,0	11,2	25,0
IEWEN022	IEWEN022H	7/8"	(22)	M22	51,0	43,0	19,0	67,0	50,0	25,0	19,9	15,0	81,0
IEWEN025	IEWEN025H	1"	(25)	M24	51,0	43,0	19,0	67,0	50,0	25,0	26,2	20,1	80,0
IEWEN032	IEWEN032H	1¼"	(32)	M30	63,5	46,0	25,0	86,0	60,0	32,0	2,5	33,1	176,0
IEWEN040	IEWEN040H	1½"	(40)	M36	63,5	46,0	25,0	86,0	60,0	32,0	4,7	48,1	169,0
IEWEN042	IEWEN042H	1¾"	(42)	M42	102,0	102,0	38,0	160,0	102,0	57,0	7,2	64,8	748,0
IEWEN050	IEWEN050H	2"	(50)	M48	102,0	102,0	38,0	160,0	102,0	57,0	11,2	85,7	732,0
IEWEN056	IEWEN050H	2¼"	(56)	M56	102,0	102,0	38,0	160,0	102,0	57,0	15,0	112,5	708,0
IEWEN065	IEWEN065H	2½"	(65)	M64	102,0	102,0	38,0	160,0	102,0	57,0	20,1	138,6	699,0



Eye Bolts

Size Range
M8 through M64

Material
• Forged Steel

Ordering
Specify rod size, figure number, name and finish.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Note: The load data published includes a safety factor. (Safety factor= Ratio of ultimate load to the design load.)

Code No	Code No for HDG	D1	D2	D3	D4	H	K	L	Max. Load (kN) - One Bolts	Max. Load (kN) - Two Bolts	Weight per 100 pcs (kg)
			mm	mm	mm	mm	mm	mm			
IEEB008	IEEB008H	M8	20,0	36,0	20,0	36,0	8,0	15,0	1,0	1,3	4,9
IEEB010	IEEB010H	M10	25,0	45,0	25,0	45,0	10,0	18,0	1,6	2,2	9,9
IEEB012	IEEB012H	M12	30,0	54,0	30,0	53,0	12,0	22,0	2,3	3,3	16,6
IEEB016	IEEB016H	M16	35,0	63,0	35,0	62,0	14,0	27,0	5,0	6,8	27,8
IEEB020	IEEB020H	M20	40,0	72,0	40,0	71,0	16,0	30,0	8,0	11,7	42,7
IEEB024	IEEB024H	M24	50,0	90,0	50,0	80,0	20,0	36,0	12,5	17,5	82,3
IEEB030	IEEB030H	M30	65,0	108,0	60,0	110,0	24,0	45,0	25,0	31,5	152,7
IEEB036	IEEB036H	M36	75,0	125,0	70,0	130,0	28,0	55,0	37,0	45,0	246,1
IEEB042	IEEB042H	M42	85,0	145,0	80,0	150,0	32,0	65,0	50,0	68,0	366,9
IEEB048	IEEB048H	M48	100,0	165,0	90,0	170,0	38,0	70,0	60,0	84,0	581,8
IEEB056	IEEB056H	M56	110,0	185,0	100,0	190,0	42,0	80,0	85,0	110,0	799,8
IEEB064	IEEB064H	M64	120,0	210,0	110,0	210,0	48,0	90,0	125,0	155,0	1137,5

Screw Adaptor

Size Range
M8-M10

Material
• Carbon Steel

Service
Screw adapter with wood and metric thread

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	M	A	Quantity / Pack	Weight/Box (kg)
		mm		
ICTA08080	M8	80,0	250	7,5
ICTA08100	M8	100,0	250	8,8
ICTA08120	M8	120,0	250	10,1
ICTA10100	M10	100,0	250	10,3
ICTA10120	M10	120,0	250	12,3

FIXING & CONNECTION ACCESSORIES

Hex Bolt

Material
• Carbon Steel and Alloy Steel
• Stainless Steel

Manufacturing Specification
• ASME B18.2.1
• ISO 4017
• DIN 933

Mechanical Properties
• Bolts, screws and studs with specified property classes – Coarse thread and fine pitch thread (ISO 898-1:2009)

• Mechanical properties of corrosion-resistant stainless steel fasteners - Part 1: Bolts, screws and studs (ISO 3506- 1:2009) (Stainless Steel)

Property Class
• 6.8, 8.8 (Carbon Steel)
• A2-70, A4-80 (Stainless Steel)

Dimensional Specification
• DIN 933, ISO 4017 for full threaded
• DIN 931 for full semi-threaded

Coating
• Electro galvanisation acc. to ASTM B633/ ASTM F 1941, EN ISO 4042
• Hot Dipped Galvanized acc. to ASTM A153 / A123, EN ISO 1461, EN ISO 10684

AA-BBB-CC-DDD-E-F

Special Item	
Yes	99
No	-

Property Class	
6.8	ZCD
8.8	ZCC
A2-70	ZCP
A4-80	ZCCP

Size (M)
Between M6-M36

Length
Between 10 mm-300 mm

Coating	
Electro-galvanized/ Stainless Steel	-
HDG	H
Delta Protect	D

Packaged	
Yes	P
No	-

	AA	BBB	CC	DDD	E	F	Code	Description
Examples		ZCD	08	25		P	ZCD0825P	M8*25 Hex Bolt 6.8 DIN933
		ZCC	16	70		P	ZCC1670P	M16*70 Hex Bolt 8.8 DIN933
	99	ZCC	24	300		P	99ZCC24300P	M24*300 Hex Bolt 8.8 DIN933
	99	ZCCP	24	140		P	99ZCCP24140P	M24x140 A4 Stainless Steel Hex Bolt DIN933
		ZCD	10	40	H	P	ZCD1040HP	M10*40 Hex Bolt 6.8 DIN933 - HDG
		ZCP	16	100		P	ZCP16100P	M16x100 A2 Stainless Steel Hex Bolt DIN933
		ZCD	20	120		P	ZCD20120P	M20*120 Hex Bolt 6.8 DIN931

Hex Nut

Material
• Carbon Steel and Alloy Steel
• Stainless Steel

Manufacturing Specification
• ASME B18.2.1
• ISO 4032
• DIN 934

Mechanical Properties
• Nuts with specified property classes – Coarse thread and fine pitch thread (ISO 898-2:2012)

• Mechanical properties of corrosion-resistant stainless steel fasteners-Part 2: Nuts (ISO 3506-2:2009) (Stainless Steel)

Property Class
• Grade 6, Grade 8 (Carbon Steel)
• A2, A4 (Stainless Steel)

Dimensional Specification
• DIN 934 Hexagon nuts
• ISO 4032 Hexagon nuts
• ISO 4035 Hexagon thin nuts

Coating
• Electro galvanisation acc. to ASTM B633/ ASTM F 1941, EN ISO 4042
• Hot Dipped Galvanized acc. to ASTM A153 / A123, EN ISO 1461, EN ISO 10684

AA-BBB-CCC-B-D-E

Special Item	
Yes	99
No	-

Property Class	
6.8	ZSS
8.8	ZSS….2
A2-70	ZSSP
A4-80	ZSSP2

Size (M)
Between M6-M36

Coating	
Electro-galvanized (6)	1
Electro-galvanized (8)	-
Stainless Steel	-
HDG	H

Packaged	
Yes	P
No	-

	AA	BBB	CCC	B	D	E	Code	Description
Examples		ZSS	0008		1	P	ZSS00081P	M8 Hex Nut DIN934
		ZSS	0024		H	P	ZSS0024HP	M24 Hex Nut DIN934 - HDG
		ZSSP	024			P	ZSSP024P	M24 A2 Stainless Steel Hex Nut
		ZSSP2	012			P	ZSSP2012P	M12 A4 Stainless Steel Hex Nut
		ZSS	0030		H	P	ZSS0030HP	M30 Hex Nut DIN934 - HDG
		ZSS	0010	2		P	ZSS00102P	M10 Hex Nut (Grade 8)
		ZSS	0020	2	H	P	ZSS00202HP	M20 Hex Nut (Grade 8) - HDG

Plain Washer

Material
• Carbon Steel and Alloy Steel
• Stainless Steel

Manufacturing Specification
• ASME B18.22M
• DIN 125 (ISO 7089)

Mechanical Properties
• Plain washers – Normal series, Product grade A (ISO 7089:2000)
• DIN 125 Product grade A washers

Property Class
• Grade A (Carbon Steel)
• A2, A4 (Stainless Steel)

Dimensional Specification
• DIN 125 (ISO 7089:2000)

Coating
• Electro galvanisation acc. to ASTM B633/ ASTM F 1941, EN ISO 4042
• Hot Dipped Galvanized acc. to ASTM A153 / A123, EN ISO 1461, EN ISO 10684

AA-BBB-CCC-D-E

Special Item	
Yes	99
No	-

Property Class	
Grade A	ZPS
A2-70	ZPSP
A4-80	ZPSP2

Size (M)
Between M6-M36

Coating	
Electro-galvanized	1
Stainless Steel	-
HDG	H

Packaged	
Yes	P
No	-

	AA	BBB	CCC	D	E	Code	Description
Examples		ZPS	0008	1	P	ZPS00081P	M8 Plain Washer DIN125
		ZPS	0024	H	P	ZPS0024HP	M24 Plain Washer DIN125 - HDG
		ZPSP	024		P	ZPSP024P	M24 A2 Stainless Steel Plain Washer
		ZPSP2	016		P	ZPSP2016P	M16 A4 Stainless Steel Plain Washer
		ZPS	0016	H	P	ZPS0016HP	M16 Plain Washer DIN125 - HDG
		ZPS	0030	H	P	ZPS0030HP	M30 Plain Washer DIN125 - HDG
		ZPS	0006	1	P	ZPS00061P	M6 Plain Washer DIN125

Special Washer

Material
- Carbon Steel and Alloy Steel
- Stainless Steel

Property Class
- Grade 6, Grade 8 (Carbon Steel)
- A2, A4 (Stainless Steel)

Coating
- Electro galvanisation acc. to ASTM B633/ ASTM F 1941, EN ISO 4042
- Hot Dipped Galvanized acc. to ASTM A153 / A123, EN ISO 1461, EN ISO 10684

AA-BBBB-CC-D-E

Special Item	
Yes	99
No	-

Thickness	
2 mm	ZPXN3
3 mm	ZPXN2

Size (M)
Between M6-M36

Coating	
Electro-galvanized	-
HDG	H

Packaged	
Yes	P
No	-

	AA	BBBB	CC	D	E	Code	Description
Examples		ZPXN2	08		P	ZPXN208P	M8 Special Washer (3 mm)
		ZPXN2	12	H	P	ZPXN212HP	M12 Special Washer (3 mm) - HDG
		ZPXN3	10		P	ZPXN310P	M10 Special Washer (2 mm)

Spring Lock Washer

Material
- Carbon Steel and Alloy Steel
- Stainless Steel

Property Class
- ASME B18.21.1
- DIN 127

Mechanical Properties
- DIN 127 Product grade A washers

Property Class
- Grade A (Carbon Steel)
- A2, A4 (Stainless Steel)

Dimensional Specification
- DIN 127

Coating
- Electro galvanization acc. to ASTM B633/ ASTM F 1941, EN ISO 4042
- Hot Dipped Galvanized acc. to ASTM A153 / A123, EN ISO 1461, EN ISO 10684

AA-BBB-CCC-D-E

Special Item	
Yes	99
No	-

Property Class	
Grade A	ZPSYR
A2-70	ZPSYRP
A4-80	ZPSYRP2

Size (M)
Between M6-M36

Coating	
Electro-galvanized	-
Stainless Steel	-
HDG	H

Packaged	
Yes	P
No	-

	AA	BBB	CCC	D	E	Code	Description
Examples		ZPSYR	008		P	ZPSYR008P	M8 Spring Lock Washer
		ZPSYR	012	H	P	ZPSYR012HP	M12 Spring Lock Washer - HDG
		ZPSYRP	016		P	ZPSYRP016P	M16 A2 Stainless Steel Spring Lock Washer
		ZPSYRP2	010		P	ZPSYRP2010P	M10 A4 Stainless Steel Spring Lock Washer

EPDM Rubber

Technical Specifications

For the reduction of noise & vibration and preventing abrasion caused by metal to metal friction in pipe lines and air ducts systems, some kind of insulator is needed, and EPDM is the ideal product.

- Perfect sound insulation material. Noise reduction level up to 15 dB according to DIN 4109
- Prevents friction noises caused by thermal expansion
- Vibration reduction ability and partial compensation of thermal expansion
- The EPDM lining is held in position by side lips

Total Resistant Against

Water, diluted acids, caustic solutions, water based solutions and ozone

Limited Resistant Against

Grease, mineral oils, animal and vegetables oils, and acetone

Not Resistant Against

Hot oil and grease, fuel oil, alphatic and aromatic carbohydrates.

Physical Properties

Rubber Quality		EPDM, Color Black
Hardness	Shore-A	45 / +5 ; -0
Temperature resistance	°C	-40 / +120
Elongation at rupture	%	> 400
Tensile Strength	N/mm2	> 6
Resilience	%	> 40

Code No	Size	Box	Roll Weight
	mm		Kg
ZLI020	1,5x20	20m/Roller	2

Code No	Size	Box	Roll Weight
	mm		Kg
ZLI025	3x25	20m/Roller	2,3

Code No	Size	Box	Roll Weight
	mm		Kg
ZLI030	3x30	20m/Roller	3

Code No	Size	Box	Roll Weight
	mm		Kg
ZLI040	4x40	20m/Roller	3,5

Code No	Size	Box	Roll Weight
	mm		Kg
ZLI050	5x50	20m/Roller	4

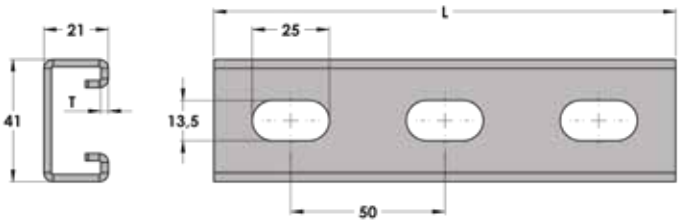
MODULAR SUPPORT SYSTEMS

STRUT SYSTEMS

G PROFILES, BRACKETS & ACCESSORIES

G Profile

IPG4121 - G Profile

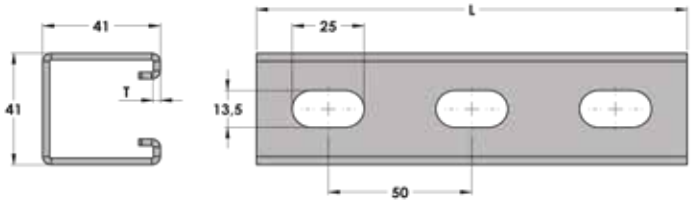


Material & Finish
Pre-galvanized
Material: S250GD (1.0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z275

Hot Dipped Galvanized
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025
Finish: Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 2 mm & 2,5 mm
Available Length (L): 2 m, 3 m & 6 m

IPG4141 - G Profile

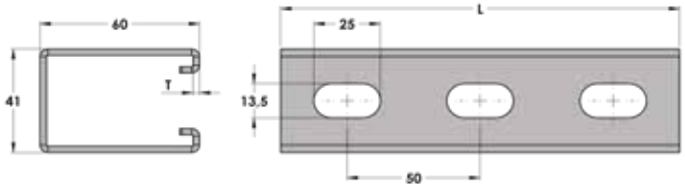


Material & Finish
Pre-galvanized
Material: S250GD (1.0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z275

Hot Dipped Galvanized
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025
Finish: Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 2 mm & 2,5 mm
Available Length (L): 2 m, 3 m & 6 m

IPG4160 - G Profile

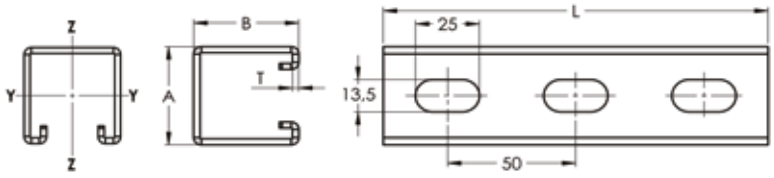


Material & Finish
Pre-galvanized
Material: S250GD (1.0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z275

Hot Dipped Galvanized
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025
Finish: Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 2,5 mm & 3 mm
Available Length (L): 2 m, 3 m & 6 m

Technical Data for G Profiles



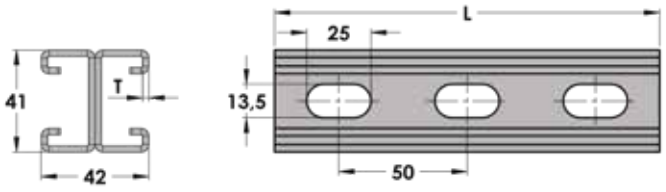
Code No	Fy [N/mm²]	Size [mm]	A [mm]	B [mm]	T [mm]	L [mm]	Weight (2000 mm) [kg]	Moment of Inertia		Section Modulus		Profile Weight	Profile Cross Section
								I_Y [cm⁴]	I_Z [cm⁴]	W_Y [cm³]	W_Z [cm³]	[kg/m]	[cm²]
IPG4121202000	250	41x21x2	41	21	2	2000	2,9	9610	46350	880	2260	1,47	1,93
IPG4121252000	250	41x21x2,5	41	21	2,5	2000	3,5	11394	56100	1041	2736	1,77	2,33
IPG4141202000	250	41x41x2	41	41	2	2000	4,14	53200	76800	2565	3745	2,05	2,73
IPG4141252000	250	41x41x2,5	41	41	2,5	2000	5,08	63660	93530	3104	4560	2,49	3,33
IPG4160252000	250	41x60x2,5	41	60	2,5	2000	6,52	166855	126735	5496	6185	3,26	4,3
IPG4160302000	250	41x60x3	41	60	3	2000	7,66	194245	147530	6377	7197	3,86	5,09

F (N)											
		N					Maximum Load (N)				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPG412120…	41x21x2,0	2175,0	630,0	270,0	100,0	21,0	1090,0	315,0	130,0	65,0	13,0
IPG412125…	41x21x2,5	2585,0	750,0	315,0	120,0	24,0	1295,0	370,0	156,0	77,0	15,0
IPG414120…	41x41x2,0	6750,0	3400,0	1665,0	740,0	270,0	3400,0	1700,0	816,0	446,0	175,0
IPG414125…	41x41x2,5	7700,0	3850,0	1890,0	840,0	300,0	3880,0	1930,0	920,0	500,0	196,0
IPG416025…	41x60x2,5	13675,0	6850,0	4995,0	2300,0	930,0	6878,0	3405,0	2273,0	1355,0	568,0
IPG416030…	41x60x3,0	15800,0	7920,0	5805,0	2660,0	1080,0	7978,0	3975,0	2636,0	1582,0	662,0

F (N)											
		N					Maximum Load (N)				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPG412120…	41x21x2,0	823,0	212,0	90,0	38,0	7,0	545,0	132,0	55,0	27,0	5,0
IPG412125…	41x21x2,5	974,0	250,0	106,0	45,0	8,0	647,0	155,0	65,0	32,0	5,0
IPG414120…	41x41x2,0	2560,0	1253,0	552,0	262,0	103,0	1700,0	781,0	342,0	187,0	73,0
IPG414125…	41x41x2,5	2911,0	1423,0	627,0	296,0	115,0	1940,0	887,0	386,0	211,0	83,0
IPG416025…	41x60x2,5	5157,0	2570,0	1654,0	799,0	334,0	3438,0	1714,0	1030,0	569,0	239,0
IPG416030…	41x60x3,0	5984,0	2965,0	1920,0	930,0	388,0	3989,0	1988,0	1196,0	664,0	278,0

Double G Profile

IPGD4121 - Double G Profile



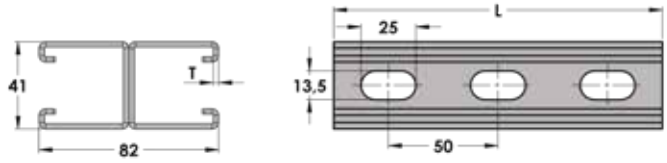
Material & Finish
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 -
EN ISO 2081/EN ISO 4042

Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M -
EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 2 mm & 2,5 mm
Available Length (L): 2 m, 3 m & 6 m

IPGD4141 - Double G Profile



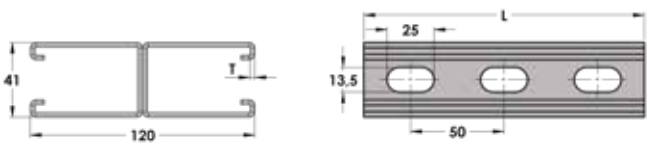
Material & Finish
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 -
EN ISO 2081/EN ISO 4042

Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M -
EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 2 mm & 2,5 mm
Available Length (L): 2 m, 3 m & 6 m

IPGD4160 - Double G Profile



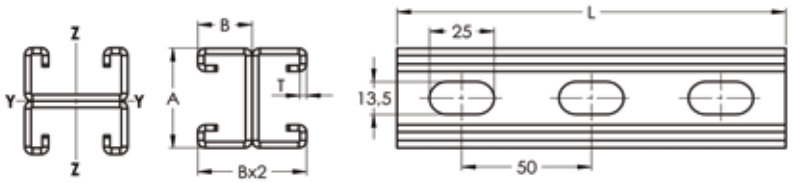
Material & Finish
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 -
EN ISO 2081/EN ISO 4042

Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M -
EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 2,5 mm & 3 mm
Available Length (L): 2 m, 3 m & 6 m

Technical Data for Double G Profiles

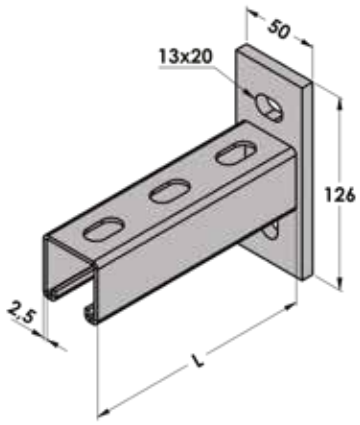


Code No	Fy [N/mm²]	Size [mm]	A [mm]	B [mm]	T [mm]	L [mm]	Weight (2000 mm) [kg]	Moment of Inertia		Section Modulus		Profile Weight	Profile Cross Section
								I_Y [cm⁴]	I_Z [cm⁴]	W_Y [cm³]	W_Z [cm³]	[kg/m]	[cm²]
IPGD4121202000	250	41x21x2	41	21	2	2000	5,80	54784	93276	2609	4550	2,94	3,86
IPGD4121252000	250	41x21x2,5	41	21	2,5	2000	7,00	65099	111917	3100	5459	3,53	4,66
IPGD4141202000	250	41x41x2	41	41	2	2000	8,28	315308	154170	7690	7520	4,1	5,46
IPGD4141252000	250	41x41x2,5	41	41	2,5	2000	10,16	381008	186133	9293	9080	4,98	6,66
IPGD4160252000	250	41x60x2,5	41	60	2,5	2000	13,04	1045102	254651	17418	12422	6,52	8,6
IPGD4160302000	250	41x60x3	41	60	3	2000	15,32	1220960	295781	20349	14428	7,72	10,18

F (N)											
		N					Maximum Load (N)				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPGD412120…	41x21x2,0	7685,0	3850,0	1920,0	860,0	300,0	3880,0	1928,0	940,0	505,0	186,0
IPGD412125…	41x21x2,5	9295,0	4650,0	2310,0	1040,0	360,0	4680,0	2328,0	1136,0	611,0	224,0
IPGD414120…	41x41x2,0	21770,0	10820,0	8130,0	4960,0	2040,0	10915,0	5448,0	3603,0	2690,0	1254,0
IPGD414125…	41x41x2,5	26550,0	13230,0	9945,0	6080,0	2520,0	13368,0	6660,0	4411,0	3290,0	1534,0
IPGD416025…	41x60x2,5	49190,0	24550,0	18300,0	16640,0	7020,0	24723,0	12345,0	8197,0	6119,0	4030,0
IPGD416030…	41x60x3,0	55050,0	27500,0	20550,0	18720,0	7890,0	27675,0	13822,0	9181,0	6856,0	4510,0

F (N)											
		N					Maximum Load (N)				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPGD412120…	41x21x2,0	2910,0	1445,0	637,0	298,0	109,0	1938,0	906,0	532,0	213,0	78,0
IPGD412125…	41x21x2,5	3510,0	1745,0	770,0	360,0	131,0	2342,0	1095,0	643,0	257,0	94,0
IPGD414120…	41x41x2,0	8186,0	4085,0	2709,0	1723,0	737,0	5463,0	2721,0	1800,0	1235,0	528,0
IPGD414125…	41x41x2,5	10025,0	4995,0	3318,0	2105,0	900,0	6682,0	3330,0	2205,0	1511,0	646,0
IPGD416025…	41x60x2,5	18547,0	9260,0	6157,0	4584,0	2510,0	12370,0	6174,0	4095,0	3060,0	1802,0
IPGD416030…	41x60x3,0	20765,0	10369,0	6887,0	5130,0	2824,0	13855,0	6912,0	4590,0	3425,0	2028,0

Brackets



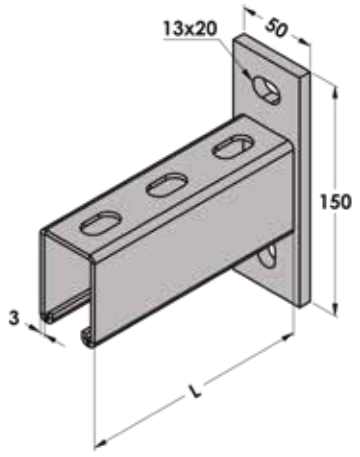
IWKG
Single Profile Bracket 41x41 Strut

Material & Finish
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	L (mm)	q	F	F	F F	F F F	Weight kg/pcs
		N	N	N	N	N	
IWKG150	150	6457,0	6472,0	3236,0	3236,0	2152,0	0,7
IWKG250	250	3870,0	3880,0	1940,0	1940,0	1290,0	1,0
IWKG300	300	3222,0	3231,0	1615,0	1615,0	1074,0	1,2
IWKG400	400	2410,0	2420,0	1210,0	1210,0	803,0	1,4
IWKG500	500	1928,0	1932,0	966,0	966,0	642,0	1,6
IWKG600	600	1595,0	1606,0	732,0	802,0	531,0	1,9
IWKG750	750	1250,0	1278,0	465,0	636,0	426,0	2,3



IWKG60
Single Profile Bracket 41x60 Strut

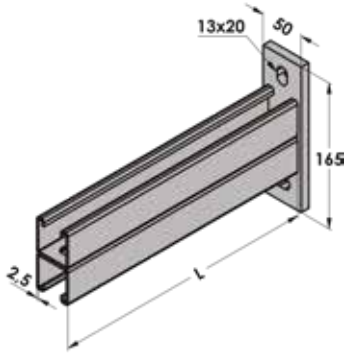
Material & Finish
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	L (mm)	q	F	F	F F	F F F	Weight kg/pcs
		N	N	N	N	N	
IWKG60150	150	13270,0	13250,0	6625,0	6625,0	4423,0	1,0
IWKG60250	250	7959,0	7950,0	3975,0	3975,0	2653,0	1,4
IWKG60300	300	6631,0	6625,0	3312,0	3312,0	2210,0	1,6
IWKG60350	350	5681,0	5680,0	2840,0	2840,0	1893,0	1,8
IWKG60400	400	4969,0	4960,0	2480,0	2480,0	1656,0	2,0
IWKG60450	450	4410,0	4421,0	2210,0	2210,0	1470,0	2,2
IWKG60600	600	3305,0	3306,0	1653,0	1653,0	1101,0	2,8

Brackets



IWKDG
Double Profile Bracket

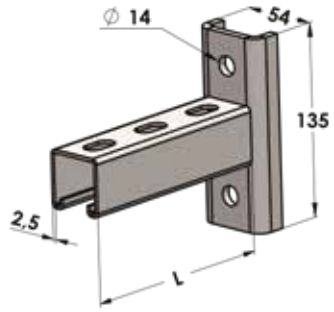
Material & Finish
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	L (mm)	q	F	F	F F	F F F	Weight kg/pcs
		N	N	N	N	N	
IWKDG300	300	11130,0	11130,0	5565,0	5565,0	3710,0	2,2
IWKDG450	450	7405,0	7400,0	3700,0	3700,0	2468,0	3,0
IWKDG600	600	5538,0	5540,0	2770,0	2770,0	1846,0	3,7
IWKDG750	750	4414,0	4420,0	2210,0	2210,0	1471,0	4,5
IWKDG900	900	3663,0	3664,0	1832,0	1832,0	1221,0	5,2

IWKGU
U Profile Bracket 41x41 Strut



Material & Finish
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

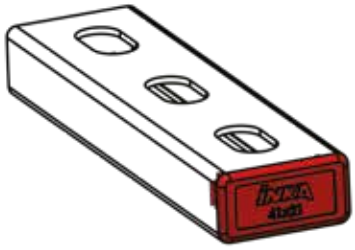
Note: A minimum order may apply on the Product.

No	L (mm)	Weight kg/pcs
IWKGU150	150,0	0,9
IWKGU300	300,0	1,3
IWKGU450	450,0	1,6
IWKGU600	600,0	2,0

Cover & G Profile Rubber

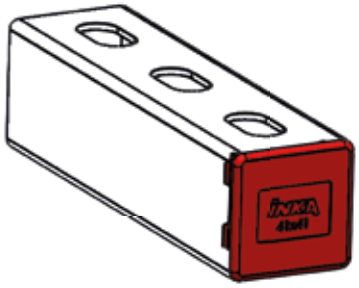
IPGT2141
41x21 Cover

Weight: 0,4 kg/100pcs.



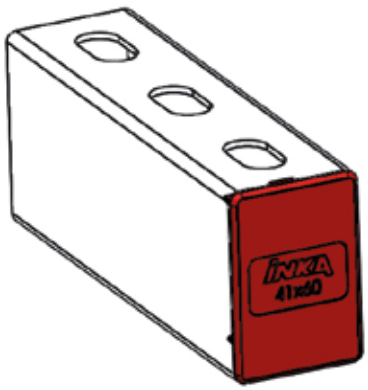
IPGT4141
41x41 Cover

Weight: 0,7 kg/100pcs.

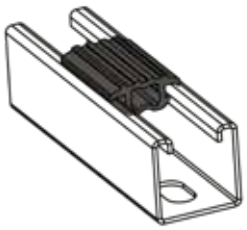


IPGT4160
41x60 Cover

Weight: 1,1 kg/100pcs.



ZLIG01
G Profile Rubber

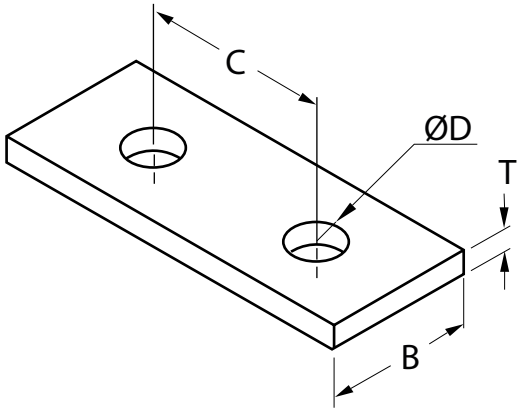


Rubber Quality		EPDM, Color black Etilen-Probien-Dien-Caoutchouc
Hardness	Shore - A	45 / +5; -0
Temperature resistance	°C	-40 / +120
Elongation at rupture	%	> 400
Tensile strength	N / mm²	> 6
Resilience	%	> 40

Fittings Design Data

Dimensions

The following dimensions apply to all fittings except as noted:



Material & Finish
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

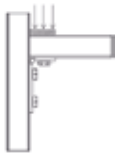
Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684
(The related code finishes with "H")

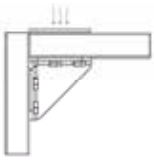
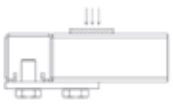
FITTINGS GENERAL TABLE			
B	**C**	**ØD**	**T**
40mm	50mm	14mm	6mm

Recommended Bolt Torque

Bolt Size	**M8**	**M10**	**M12**
Nm	15	26	45

Design Load Data

	90° Fittings					
						
Profile Thickness	**kN**	**kN**	**kN**	**kN**	**kN**	**kN**
2,5 mm	6.60	4.40	8.85	6.60	6.60	4.40
2,0 mm	4.40	2.85	6.65	5.10	4.40	2.85

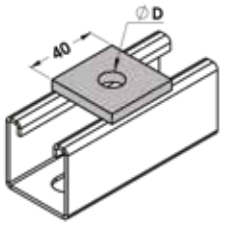
	90° Fittings				Angle Fittings	
						
Profile Thickness	**kN**	**kN**	**kN**	**kN**	**kN**	**kN**
2,5 mm	11.10	8.85	13.30	11.10	4.40	4.40
2,0 mm	8.85	7.30	8.85	7.30	3.55	3.55

- The load data published includes a safety factor of 2,5. (Safety factor = Ratio of ultimate load to the design load)
- The above load values are calculated with using M12 G Profile Nut. (Code: ISGC12 , Catalogue page no: SSG 16-17)
- Both ends of profiles supported.

Flat Plate Fittings

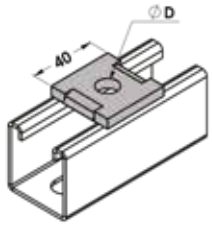
IFBLFD1
Square Washer

Note: A minimum order may apply on the Product.



Code No	ØD (mm)	Weight kg/100pcs
IFBLFD109	9,0	7,0
IFBLFD111	11,0	7,0
IFBLFD113	13,0	7,0

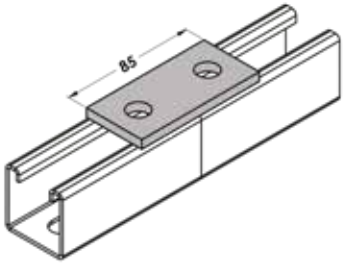
IFBLFGD1
Square Washer with Profile Guide



Code No	ØD (mm)	Weight kg/100pcs
IFBLFGD109	9,0	7,0
IFBLFGD111	11,0	7,0
IFBLFGD113	13,0	7,0

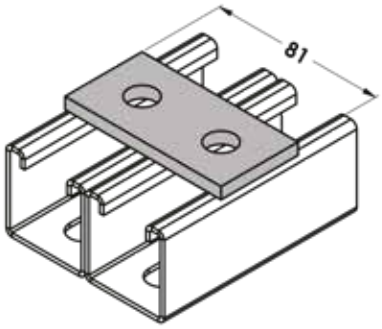
IFBLFD285
2-Hole Splice Plate

Weight: 15 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBLFD281
2-Hole Splice Plate

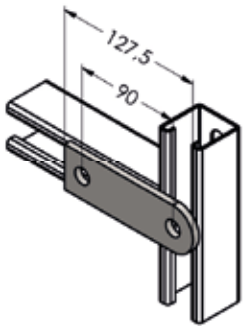
Weight: 14 kg/100 pcs.



Flat Plate Fittings

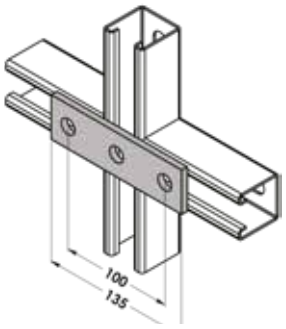
IFBLFD21275
2 - Hole Swivel Plate

Weight: 22 kg/100 pcs.
Note: A minimum order may apply on the Product.



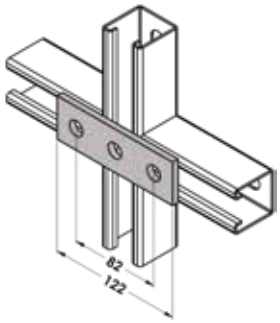
IFBLFD3135
3- Hole Splice Plate

Weight: 23 kg/100 pcs.



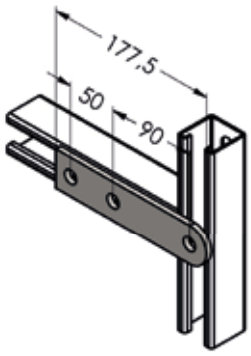
IFBLFD3122
3 - Hole Splice Plate

Weight: 21 kg/100 pcs.
Note: A minimum order may apply on the Product.



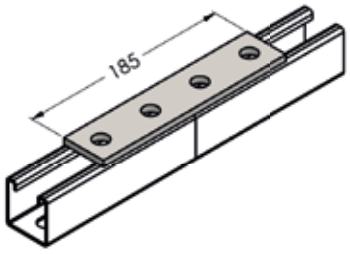
IFBLFD31775
3 - Hole Swivel Plate

Weight: 30 kg/100 pcs.



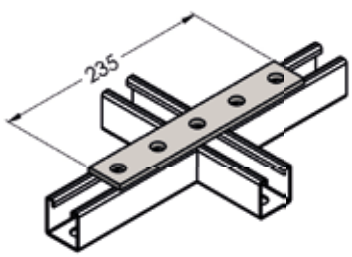
IFBLFD4185
4 - Hole Splice Plate

Weight: 32 kg/100 pcs.



IFBLFD5235
5 - Hole Splice Plate

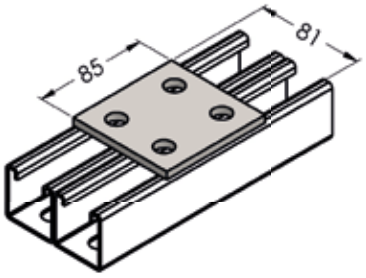
Weight: 40 kg/100 pcs.
Note: A minimum order may apply on the Product.



Flat Plate Fittings

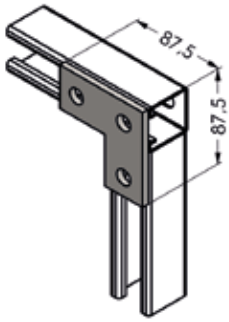
IFBLFD48581
4- Hole Splice Plate

Weight: 29 kg/100 pcs.
Note: A minimum order may apply on the Product.



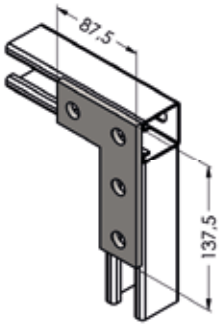
IFBLFD3L875
3- Hole Corner Plate

Weight: 23 kg/100 pcs.
Note: A minimum order may apply on the Product.



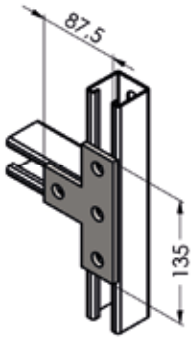
IFBLFD4L875
4- Hole Corner Plate

Weight: 32 kg/100 pcs.



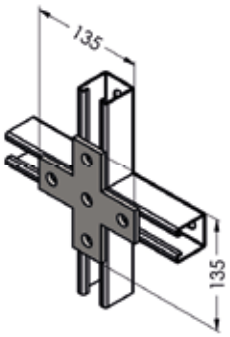
IFBLFD4T875
4- Hole Tee Plate

Weight: 31 kg/100 pcs.



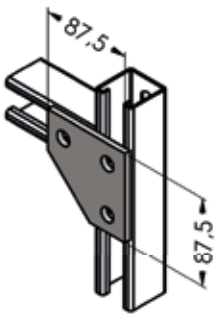
IFBLFD5X135
5- Hole Cross Plate

Weight: 39 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBLFD3V875
3- Hole Corner Connector Plate

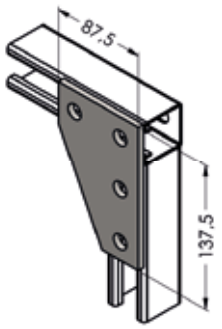
Weight: 28 kg/100 pcs



Flat Plate Fittings

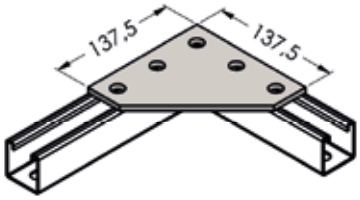
IFBLFD4V875
4- Hole Corner Connector Plate

Weight: 43 kg/100 pcs.
Note: A minimum order may apply on the Product.



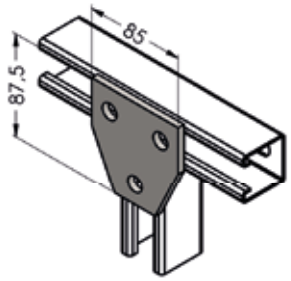
IFBLFD5V1375
5- Hole Corner Connector Plate

Weight: 63 kg/100 pcs.
Note: A minimum order may apply on the Product.



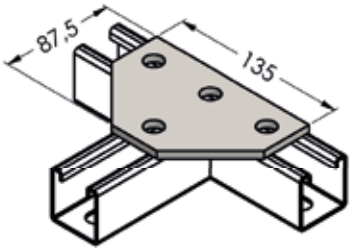
IFBLFD3A85
3- Hole Tee Gusset Plate

Weight: 28 kg/100 pcs.
Note: A minimum order may apply on the Product.



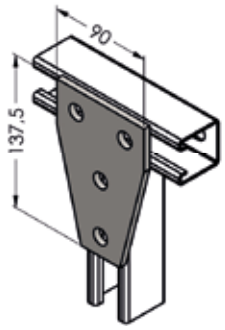
IFBLFD4A135
4- Hole Tee Gusset Plate

Weight: 42 kg/100 pcs.
Note: A minimum order may apply on the Product.



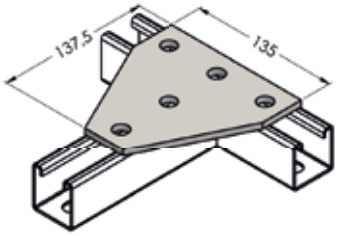
IFBLFD4A90
4- Hole Tee Gusset Plate

Weight: 44 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBLFD5A135
5- Hole Tee Gusset Plate

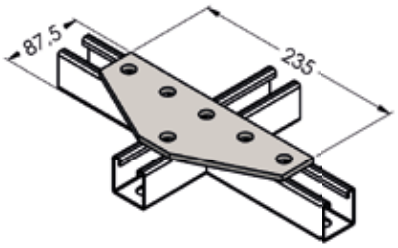
Weight: 62 kg/100 pcs.
Note: A minimum order may apply on the Product.



Flat Plate Fittings

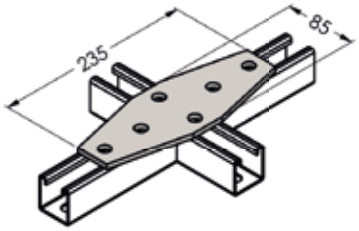
IFBLFD6A235
6- Hole Tee Gusset Plate

Weight: 70 kg/100 pcs.
Note: A minimum order may apply on the Product.



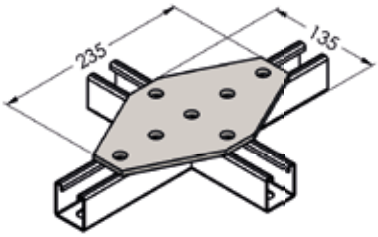
IFBLFD6I85
6- Hole Cross Gusset Plate

Weight: 69 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBLFD7I135
7- Hole Cross Gusset Plate

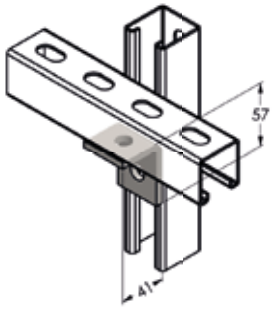
Weight: 100 kg/100 pcs.
Note: A minimum order may apply on the Product.



90⁰ Angle Fittings

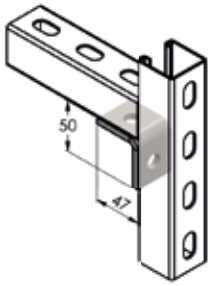
IFBL90D24157
2- Hole Corner Angle

Weight: 15 kg/100 pcs.
Note: A minimum order may apply on the Product.



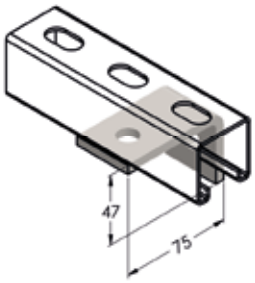
IFBL90D24750
2- Hole Corner Angle

Weight: 15 kg/100 pcs



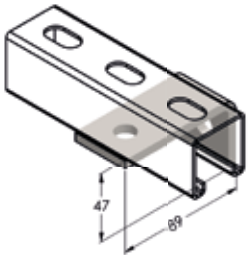
IFBL90D24775
2- Hole Corner Plate

Weight: 20 kg/100 pcs.
Note: A minimum order may apply on the Product.



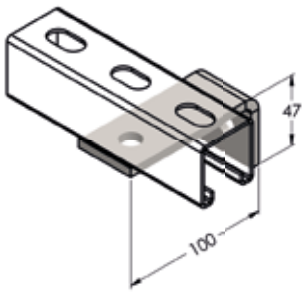
IFBL90D24789
2- Hole Corner Angle

Weight: 22 kg/100 pcs



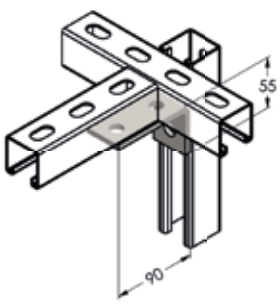
IFBL90D247100
2- Hole Corner Angle

Weight: 24 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBL90D35590
3- Hole Corner Angle

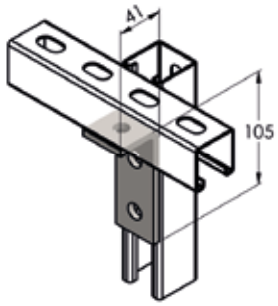
Weight: 23 kg/100 pcs.
Note: A minimum order may apply on the Product.



90⁰ Angle Fittings

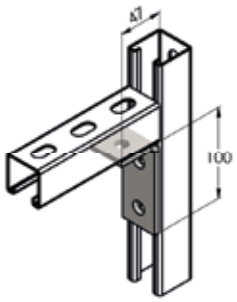
IFBL90D341105
3- Hole Corner Angle

Weight: 23 kg/100 pcs.
Note: A minimum order may apply on the Product.



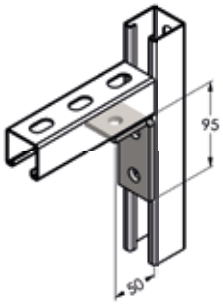
IFBL90D347100
3- Hole Corner Angle

Weight: 24 kg/100 pcs.



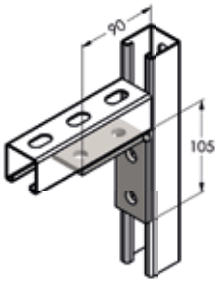
IFBL90D35095
3- Hole Corner Plate

Weight: 23 kg/100 pcs.
Note: A minimum order may apply on the Product.



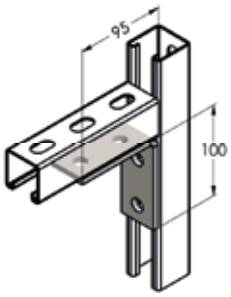
IFBL90D490105
4- Hole Corner Angle

Weight: 32 kg/100 pcs.



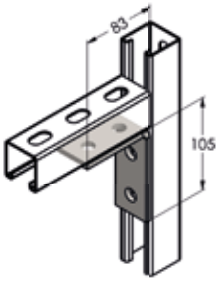
IFBL90D495100
4- Hole Corner Angle

Weight: 32 kg/100 pcs.
Note: A minimum order may apply on the Product.



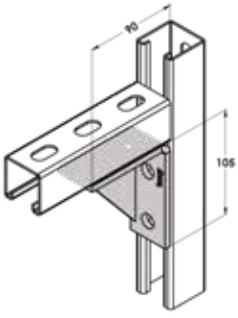
IFBL90D483105
4- Hole Corner Angle

Weight: 31 kg/100 pcs.



IFBL90DH490105
4-Hole Corner Angle (Heavy)

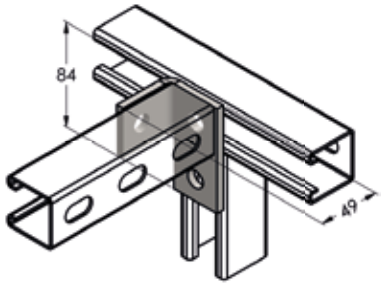
Weight: 41,5 kg/100 pcs.



90⁰ Angle Fittings

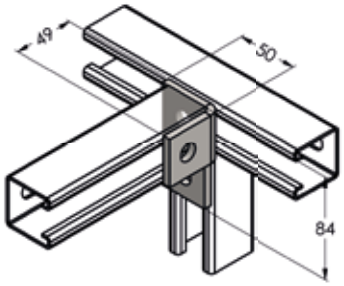
IFBL90D3R4984
3- Hole Offset Bent Angle (Right)

Weight: 23 kg/100 pcs.
Note: A minimum order may apply on the Product.



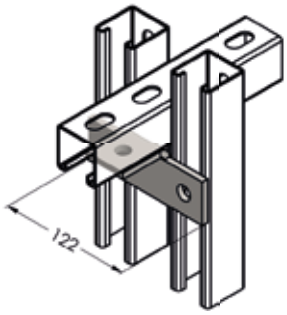
IFBL90D3L4984
3- Hole Offset Bent Angle (Left)

Weight: 23 kg/100 pcs.
Note: A minimum order may apply on the Product.



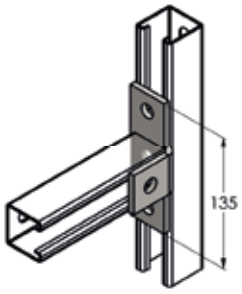
IFBL90D3T122
3- Hole Offset Bent Tee

Weight: 30 kg/100 pcs.
Note: A minimum order may apply on the Product.



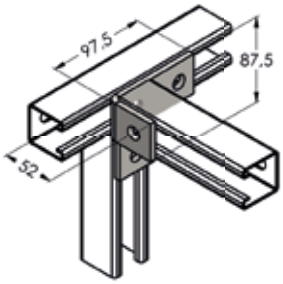
IFBL90D4T135
4- Hole Offset Bent Tee

Weight: 32 kg/100 pcs.
Note: A minimum order may apply on the Product.



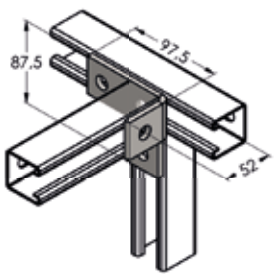
IFBL90D4TR52
4- Hole Offset Bent Angle (Right)

Weight: 32 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBL90D4TL52
4- Hole Offset Bent Angle (Left)

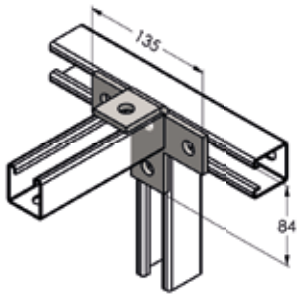
Weight: 32 kg/100 pcs.
Note: A minimum order may apply on the Product.



90⁰ Angle Fittings

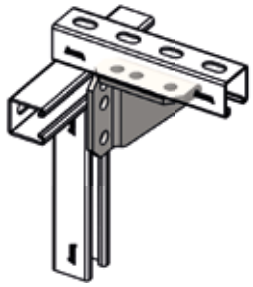
IFBL90D5X135
5- Hole Offset Bent Tee

Weight: 40 kg/100 pcs.
Note: A minimum order may apply on the Product.



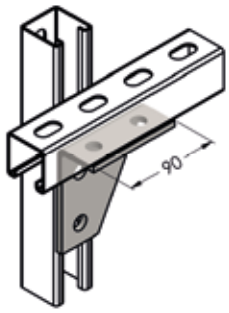
IFBL90D6W103
Universal Shelf Bracket

Weight: 60 kg/100pcs.



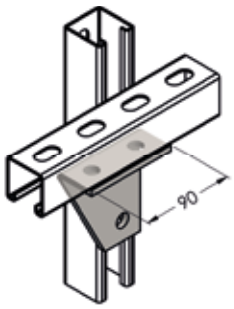
IFBL90D4VR41
4- Hole Corner Gusset (Right)

Weight: 42 kg/100 pcs.
Note: A minimum order may apply on the Product.



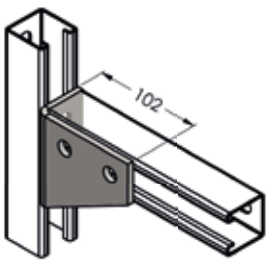
IFBL90D4VL41
4- Hole Corner Gusset (Left)

Weight: 42 kg/100 pcs.
Note: A minimum order may apply on the Product.



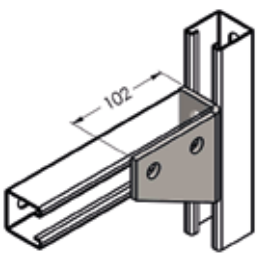
IFBL90D4VR47
4- Hole Corner Gusset (Right)

Weight: 44 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBL90D4VL47
4- Hole Corner Gusset (Left)

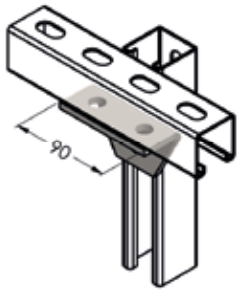
Weight: 44 kg/100 pcs.
Note: A minimum order may apply on the Product.



90⁰ Angle Fittings

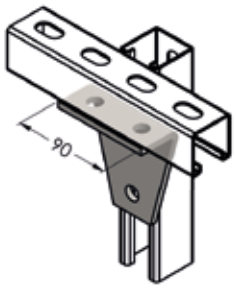
IFBL90D3A90
3- Hole Gussetted Shelf Angle

Weight: 29 kg/100 pcs.
Note: A minimum order may apply on the Product.



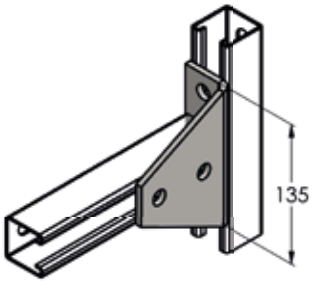
IFBL90D4A90
4- Hole Gussetted Shelf Angle

Weight: 42 kg/100 pcs.
Note: A minimum order may apply on the Product.



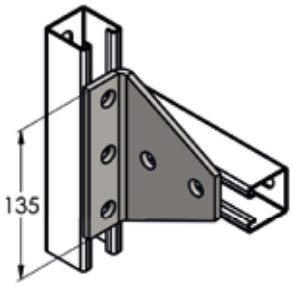
IFBL90D5A47
5- Hole Gussetted Shelf Angle

Weight: 63 kg/100 pcs.
Note: A minimum order may apply on the Product.



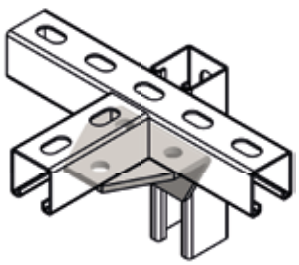
IFBL90D5A41
5- Hole Gussetted Shelf Angle

Weight: 60 kg/100 pcs.
Note: A minimum order may apply on the Product.



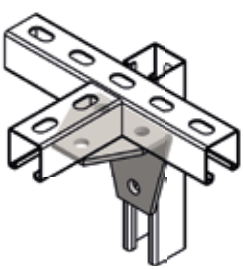
IFBL90D4I55
4- Hole Joint Corner Connector

Weight: 42 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBL90D5I102
5- Hole Joint Corner Connector

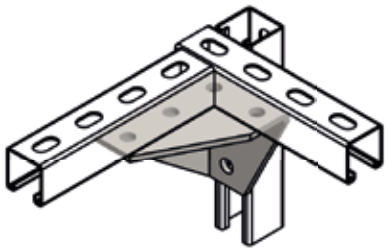
Weight: 56 kg/100 pcs.
Note: A minimum order may apply on the Product.



90⁰ Angle Fittings

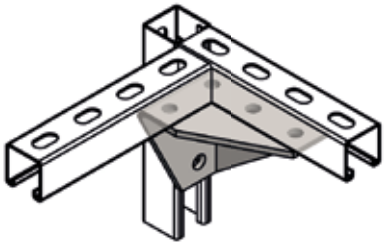
IFBL90D6CR106
6- Hole Gussetted Corner Connector (Right)

Weight: 102 kg/100 pcs.
Note: A minimum order may apply on the Product.



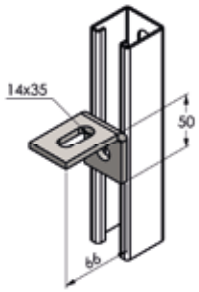
IFBL90D6CL106
6- Hole Gussetted Corner Connector (Left)

Weight: 102 kg/100 pcs.
Note: A minimum order may apply on the Product



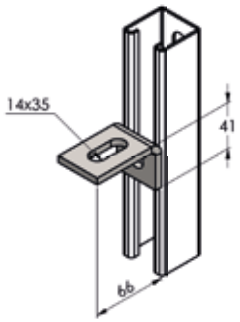
IFBL90D1S50
1- Hole Adjustable Corner Angle

Weight: 17 kg/100 pcs.
Note: A minimum order may apply on the Product



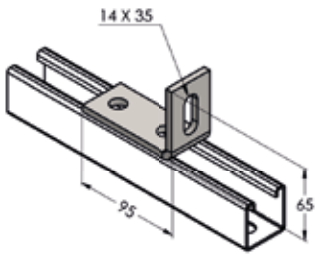
IFBL90D1S41
1- Hole Adjustable Corner Angle

Weight: 16 kg/100 pcs.
Note: A minimum order may apply on the Product



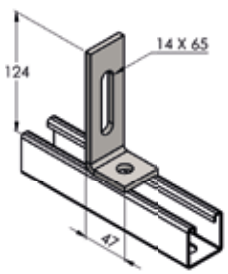
IFBL90D2S65
2- Hole Adjustable Corner Angle

Weight: 25 kg/100 pcs.
Note: A minimum order may apply on the Product



IFBL90D1S124
1- Hole Adjustable Corner Angle

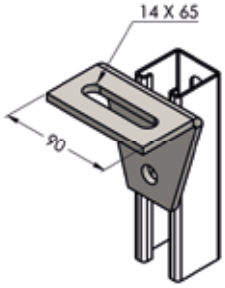
Weight: 26 kg/100 pcs.
Note: A minimum order may apply on the Product



90⁰ Angle Fittings

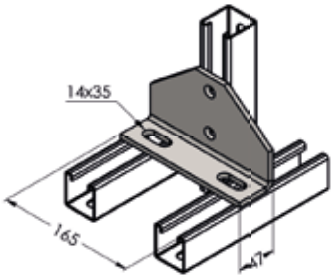
IFBL90D1AS90
1- Hole Adjustable Corner Angle

Weight: 43 kg/100 pcs.
Note: A minimum order may apply on the Product



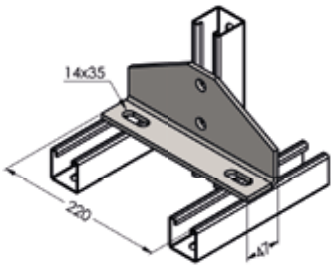
IFBL90D2AS165
2- Hole Adjustable Corner Angle

Weight: 83 kg/100 pcs.
Note: A minimum order may apply on the Product

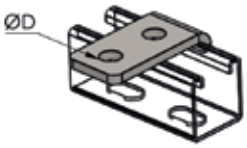


IFBL90D2AS220
2- Hole Adjustable Corner Angle

Weight: 111 kg/pcs.
Note: A minimum order may apply on the Product



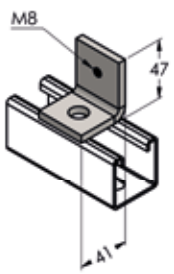
IFBL90D2M
2- Hole Connector Hanger



Code No	D	Weight kg/100pcs
IFBL90D2M08	9	16
IFBL90D2M10	11	16
IFBL90D2M12	14	16
IFBL90D2M16	17	16
IFBL90D2M20	21	18

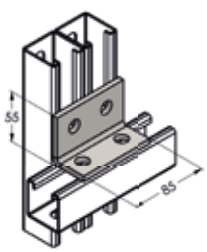
IFBL90D1M8
1- Hole M8 Corner Angle

Weight: 14 kg/100 pcs.
Note: A minimum order may apply on the Product



IFBL90D4D5585
4- Hole Corner Angle

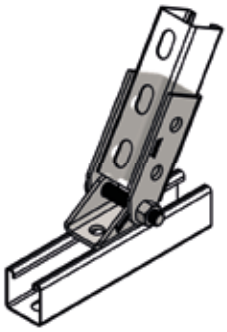
Weight: 31 kg/100 pcs.
Note: A minimum order may apply on the Product



90⁰ Angle Fittings

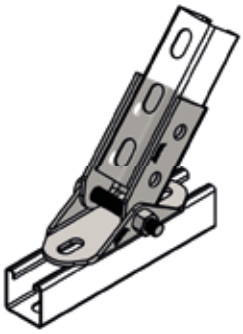
IBSMF1
1- Hole Hinged Joint

Weight: 61 kg/100 pcs.



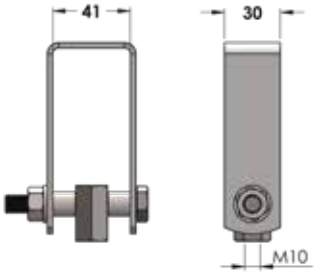
IBSMF2
2- Hole Hinged Joint

Weight: 78 kg/100 pcs.



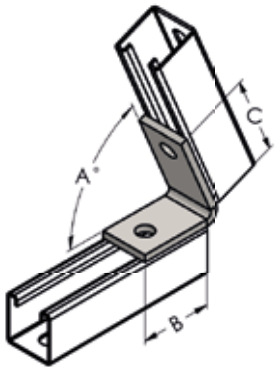
IBSMF3M10
1- Hole Joint

Weight: 28 kg/100 pcs.



IFBLACD2
2- Hole Closed Angle Connector

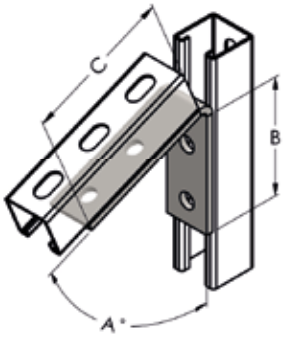
Code No	A (°)	B (mm)	C (mm)	Weight kg/100pcs
IFBLACD237	37,5	65,0	80,0	25,0
IFBLACD245	45,0	65,0	90,0	27,0
IFBLACD252	52,5	65,0	80,0	26,0
IFBLACD260	60,0	65,0	80,0	26,0
IFBLACD267	67,5	65,0	80,0	26,0
IFBLACD275	75,0	65,0	80,0	26,0
IFBLACD282	82,5	65,0	80,0	26,0



IFBLACD4
4- Hole Closed Angle Connector

Note: A minimum order may apply on the Product.

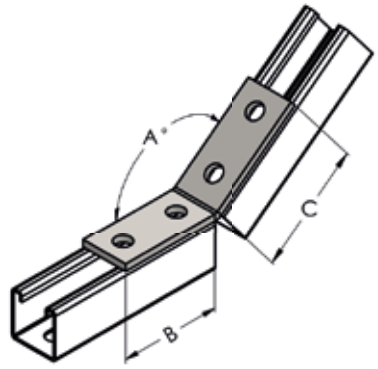
Code No	A (°)	B (mm)	C (mm)	Weight kg/100pcs
IFBLACD437	37,5	110,0	125,0	40,0
IFBLACD445	45,0	110,0	125,0	41,0
IFBLACD452	52,5	110,0	125,0	41,0
IFBLACD460	60,0	110,0	125,0	41,0
IFBLACD467	67,5	110,0	125,0	41,0
IFBLACD475	75,0	110,0	125,0	41,0
IFBLACD482	82,5	110,0	125,0	42,0



Angle Fittings

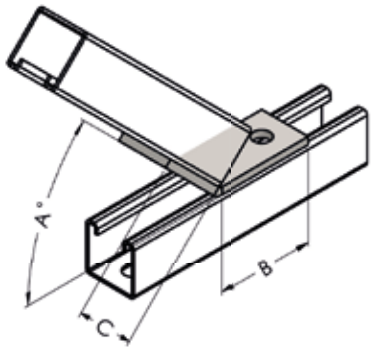
IFBLAOD4
4- Hole Open Angle Connector

Note: A minimum order may apply on the Product.



Code No	A (°)	B (mm)	C (mm)	Weight kg/100pcs
IFBLAOD407	7,5	90,0	95,0	32,0
IFBLAOD415	15,0	85,0	90,0	30,0
IFBLAOD422	22,5	85,0	90,0	30,0
IFBLAOD430	30,0	85,0	90,0	30,0
IFBLAOD437	37,5	85,0	90,0	30,0
IFBLAOD445	45,0	85,0	90,0	30,0
IFBLAOD452	52,5	85,0	90,0	30,0
IFBLAOD460	60,0	85,0	90,0	30,0
IFBLAOD467	67,5	85,0	90,0	30,0
IFBLAOD475	75,0	85,0	90,0	30,0
IFBLAOD482	82,5	85,0	90,0	30,0

IFBLAOD2
2- Hole Open Angle Connector

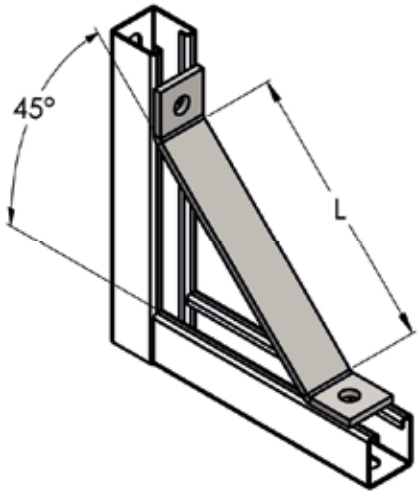


No	A (°)	B (mm)	C (mm)	Weight kg/100pcs
IFBLAOD207	7,5	52,0	83,0	24,0
IFBLAOD215	15,0	52,0	83,0	24,0
IFBLAOD222	22,5	52,0	83,0	24,0
IFBLAOD230	30,0	52,0	83,0	24,0
IFBLAOD237	37,5	83,0	60,0	26,0
IFBLAOD245	45,0	76,0	60,0	24,0
IFBLAOD252	52,5	83,0	60,0	26,0
IFBLAOD260	60,0	83,0	60,0	26,0
IFBLAOD267	67,5	83,0	60,0	26,0
IFBLAOD275	75,0	83,0	60,0	26,0
IFBLAOD282	82,5	83,0	60,0	26,0

Braces

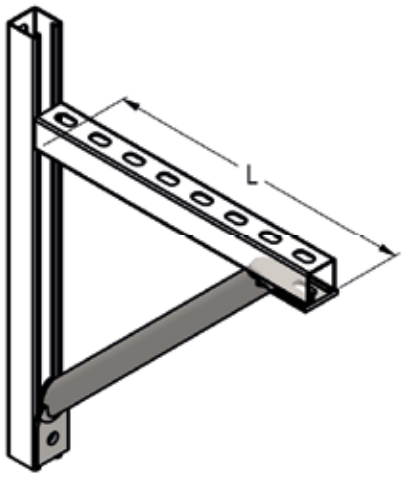
IFBLB45
2- Hole 45° Knee Brace

Note: A minimum order may apply on the Product.



Code No	L (mm)	Weight kg/100pcs
IFBLB45200	200,0	50,0
IFBLB45300	300,0	69,0
IFBLB45400	400,0	88,0
IFBLB45500	500,0	106,0
IFBLB45600	600,0	125,0
IFBLB45900	900,0	181,0

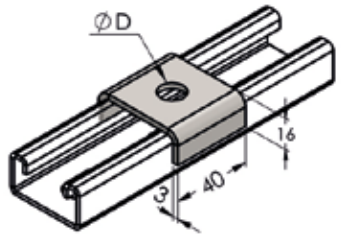
IFBLB
2- Hole 45° Pipe Knee Brace



Code No	L (mm)	Weight kg/100pcs
IFBLB400	400,0	137,0
IFBLB500	500,0	169,0
IFBLB600	600,0	201,0
IFBLB700	700,0	233,0
IFBLB800	800,0	264,0
IFBLB900	900,0	296,0
IFBLB1000	1000,0	328,0
IFBLB1150	1150,0	376,0
IFBLB1350	1350,0	440,0
IFBLB1550	1550,0	504,0
IFBLB1800	1800,0	583,0

Clevis Fittings

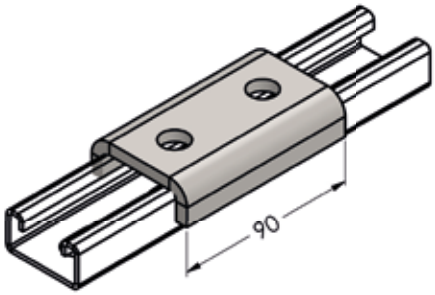
IFBLCD1
1- Hole U Washer



Code No	QD (mm)	Weight kg/100pcs
IFBLCD108	9,0	6,0
IFBLCD110	11,0	6,0
IFBLCD112	13,0	6,0

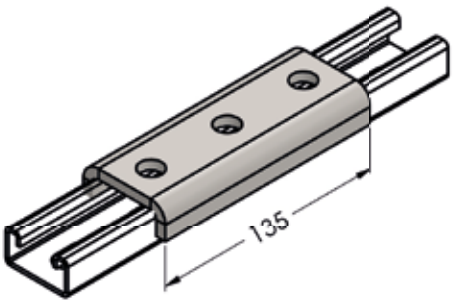
IFBLCD290
2- Hole Splice Clevis For IPG4121

Weight: 31 kg/100 pcs.
Note: A minimum order may apply on the Product.



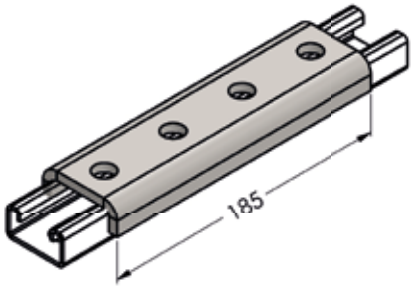
IFBLCD3135
3- Hole Splice Clevis For IPG4121

Weight: 46 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBLCD4185
4- Hole Splice Clevis For IPG4121

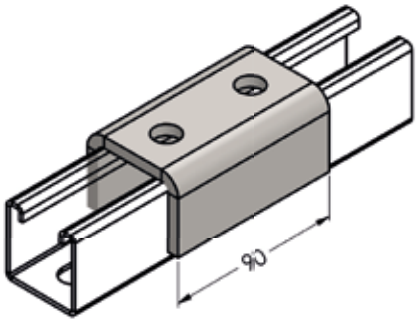
Weight: 63 kg/100 pcs.
Note: A minimum order may apply on the Product.



Clevis Fittings

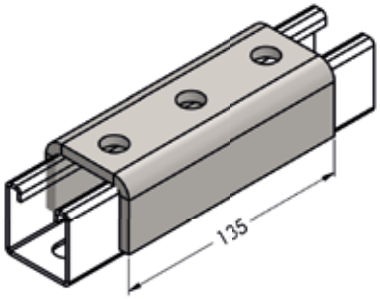
IFBLCD2D90
2- Hole Splice Clevis

Weight: 48 kg/100 pcs.
Note: A minimum order may apply on the Product.



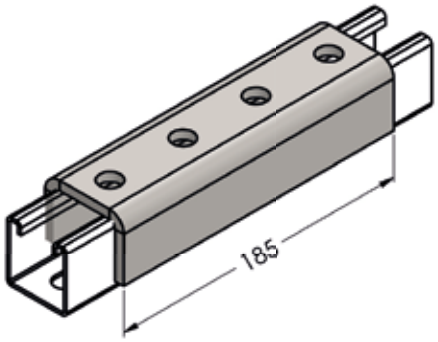
IFBLCD3D135
3- Hole Splice Clevis

Weight: 72 kg/100 pcs.
Note: A minimum order may apply on the Product.



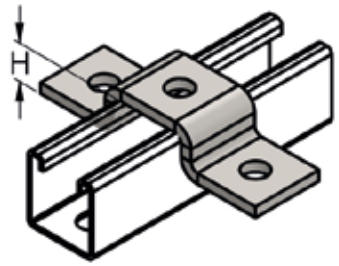
IFBLCD4D185
4- Hole Splice Clevis

Weight: 99 kg/100 pcs.



U&Z Shape Fittings

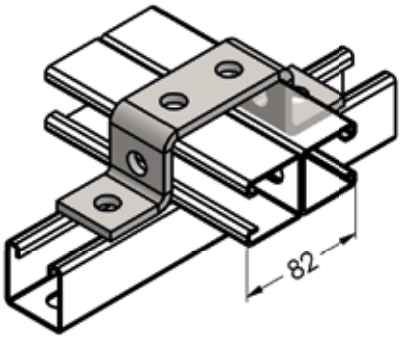
IFBLU
3- Hole U Support



Code No	H (mm)	Weight kg/100pcs
IFBLU21	21,0	29,0
IFBLU41	41,0	36,0
IFBLU60	60,0	43,0
IFBLU82	82,0	52,0

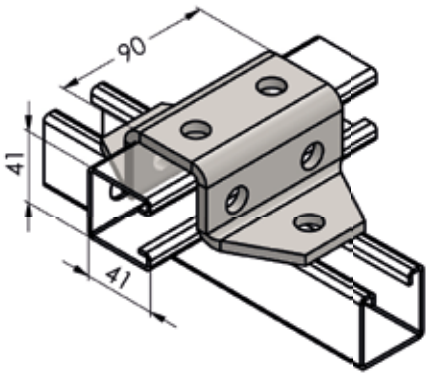
IFBLUD682
6- Hole U Support

Weight: 42 kg/100 pcs.
Note: A minimum order may apply on the Product.



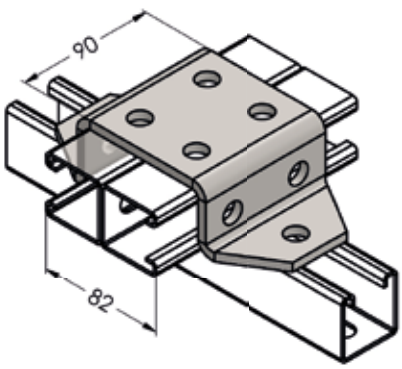
IFBLUD841
8- Hole U Support

Weight: 70 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBLUD1082
10- Hole U Support

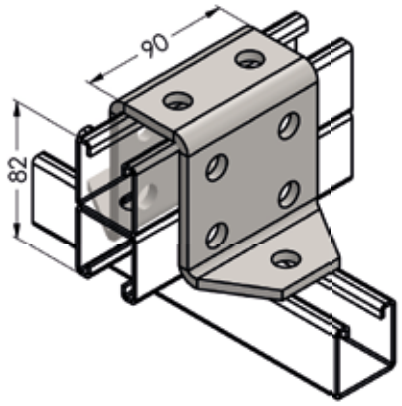
Weight: 87 kg/100 pcs.
Note: A minimum order may apply on the Product.



U&Z Shape Fittings

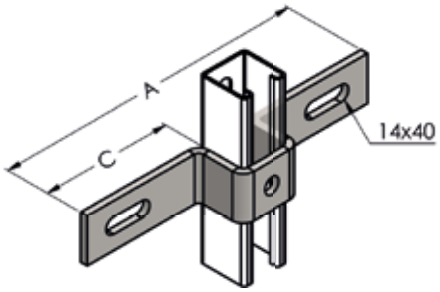
IFBLUD1282
12- Hole U Support

Weight: 103 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBLUD1S
1- Hole U Support

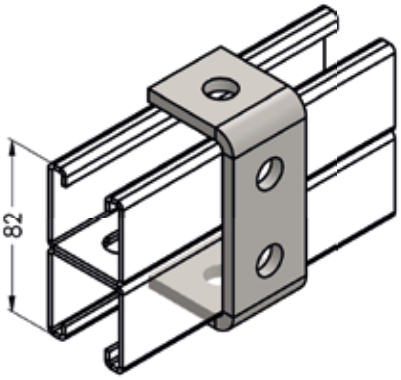
Note: A minimum order may apply on the Product.



Code No	A (mm)	C (mm)	Weight kg/100pcs
IFBLUD1S185	185,0	72,0	42,0
IFBLUD1S210	210,0	84,5	47,0
IFBLUD1S260	260,0	109,0	56,0

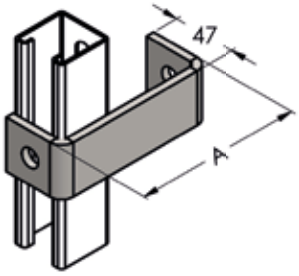
IFBLUD482
4- Hole U Support

Weight: 29 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBLUD2
2- Hole Clevis

Note: A minimum order may apply on the Product.

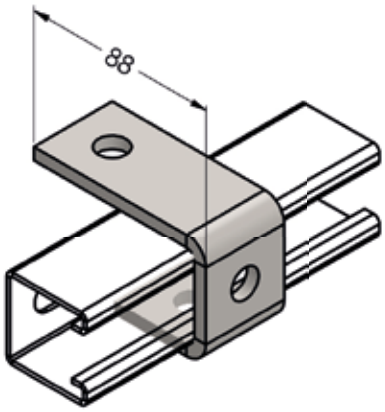


Code No	A (mm)	Weight kg/100pcs
IFBLUD2100	100,0	32,0
IFBLUD2125	125,0	36,0
IFBLUD2150	150,0	41,0
IFBLUD2175	175,0	46,0
IFBLUD2200	200,0	50,0

U&Z Shape Fittings

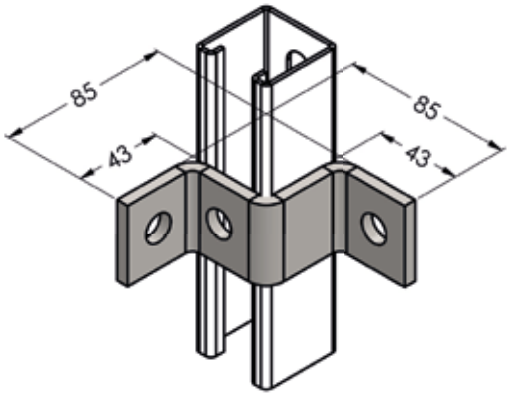
IFBLUD341
3- Hole Suspension Clevis

Weight: 30 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBLZD341
3- Hole Sheat Corner Connection

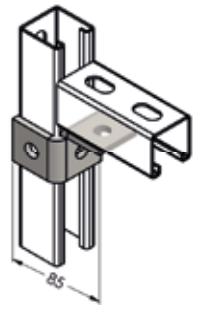
Weight: 27 kg/100 pcs.
Note: A minimum order may apply on the Product.



Wing Fittings

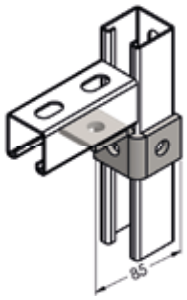
IFBLWD3R41
3- Hole Corner Connector

Weight: 22 kg/100 pcs.



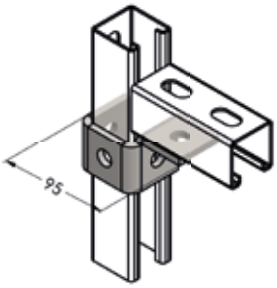
IFBLWD3L41
3- Hole Corner Connector

Weight: 22 kg/100 pcs.



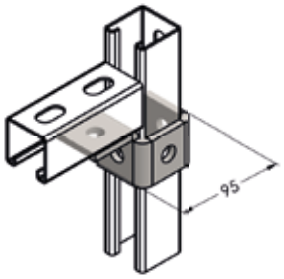
IFBLWD4R41
4- Hole Corner Connector

Weight: 30 kg/100 pcs.



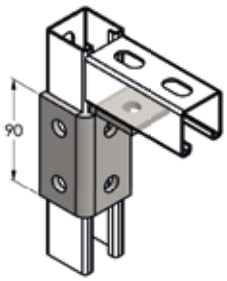
IFBLWD4L41
4- Hole Corner Connector

Weight: 30 kg/100 pcs.



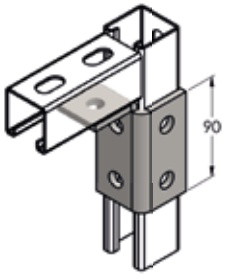
IFBLWD5R41
5- Hole Corner Connector

Weight: 41 kg/100 pcs.
Note: A minimum order may apply on the Product.



IFBLWD5L41
5- Hole Corner Connector

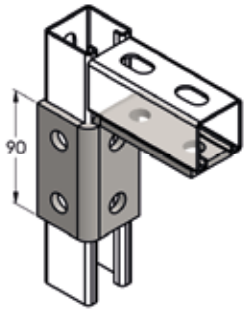
Weight: 41 kg/100 pcs.
Note: A minimum order may apply on the Product.



Wing Fittings

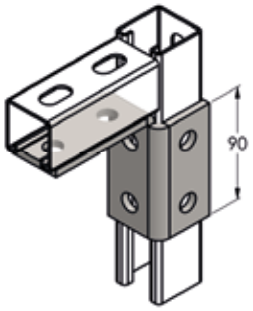
IFBLWD6R41
6- Hole Corner Connector

Weight: 49 kg/100 pcs.
Note: A minimum order may apply on the Product.



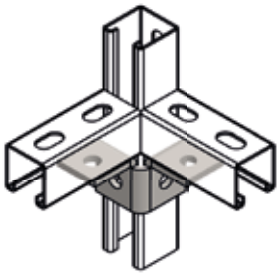
IFBLWD6L41
6- Hole Corner Connector

Weight: 49 kg/100 pcs.
Note: A minimum order may apply on the Product.



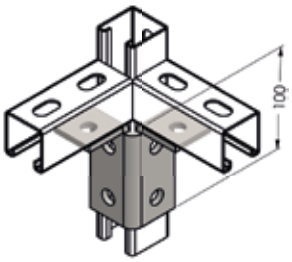
IFBLWD4RL41
4- Hole Double Corner Connector

Weight: 31 kg/100 pcs.
Note: A minimum order may apply on the Product.



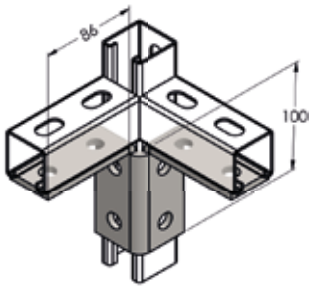
IFBLWD6RL41
6- Hole Double Corner Connector

Weight: 50 kg/100 pcs.



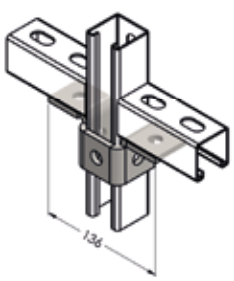
IFBLWD8RL41
8- Hole Double Corner Connector

Weight: 66 kg/100 pcs.



IFBLWD5H41
5- Hole Double Wing Connector

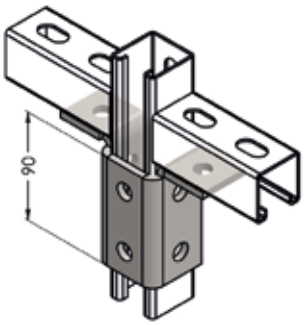
Weight: 38 kg/100 pcs.
Note: A minimum order may apply on the Product.



Wing Fittings

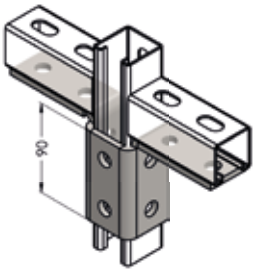
IFBLWD8H41
8- Hole Double Wing Connector

Weight: 67 kg/100 pcs.



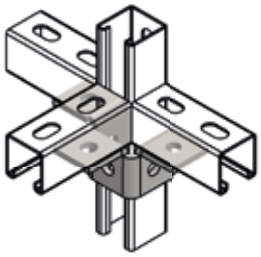
IFBLWD10H41
10- Hole Double Wing Connector

Weight: 83 kg/100 pcs.



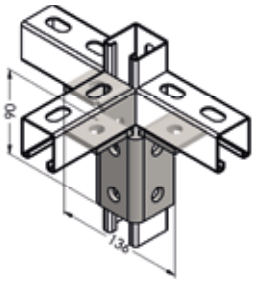
IFBLWD6HV41
6- Hole Triple Wing Connector

Weight: 46 kg/100 pcs.



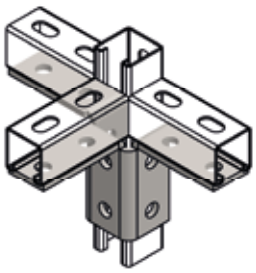
IFBLWD9HV41
9- Hole Triple Wing Connector

Weight: 75 kg/100 pcs.



IFBLWD12HV41
12- Hole Triple Wing Connector

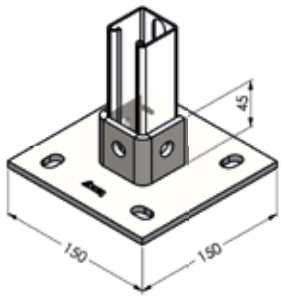
Weight: 101 kg/100 pcs.
Note: A minimum order may apply on the Product.



Post Bases

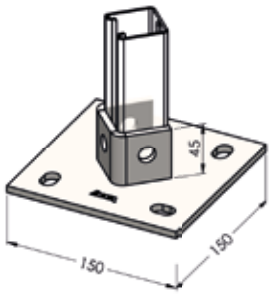
IFBLPD43
4x3 - Hole Post Base 41x41 Strut

Weight: 1,3 kg/pcs.
Note: A minimum order may apply on the Product.



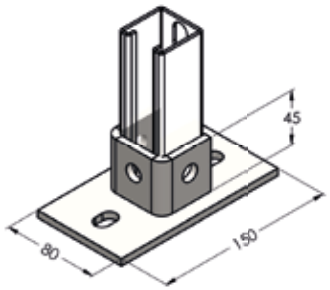
IFBLPD4345
4x3 - Hole Post Base 41x41 Strut

Weight: 1,3 kg/pcs.
Note: A minimum order may apply on the Product.



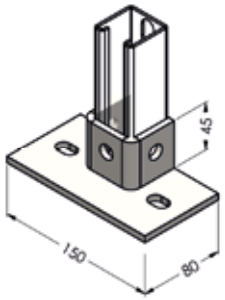
IFBLPOD23
2x3 - Hole Post Base 41x41 Strut

Weight: 0,8 kg/pcs.
Note: A minimum order may apply on the Product.



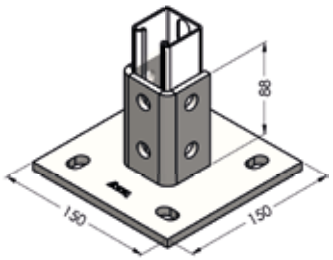
IFBLPKD23
2x3 - Hole Post Base 41x41 Strut

Weight: 0,8 kg/pcs.
Note: A minimum order may apply on the Product.



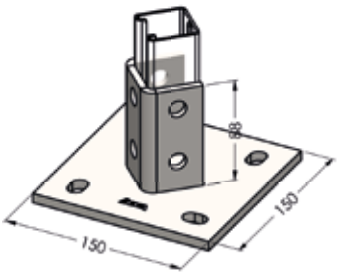
IFBLPD46
4x6 - Hole Post Base 41x41 Strut

Weight: 1,9 kg/pcs.



IFBLPD4645
4x6 - Hole Post Base 41x41 Strut

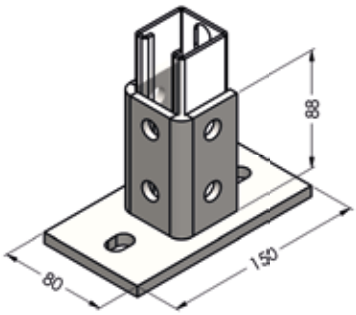
Weight: 1,9 kg/pcs.
Note: A minimum order may apply on the Product.



Post Bases

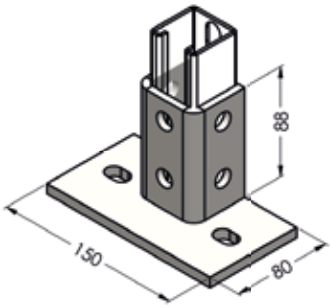
IFBLPOD26
2x6 - Hole Post Base 41x41 Strut

Weight: 1,2 kg/pcs.



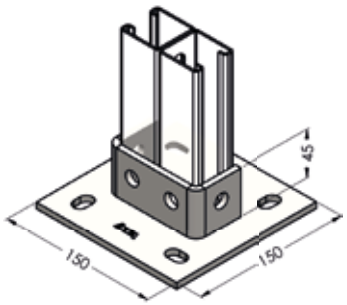
IFBLPKD26
2x6 - Hole Post Base 41x41 Strut

Weight: 1,2 kg/pcs.



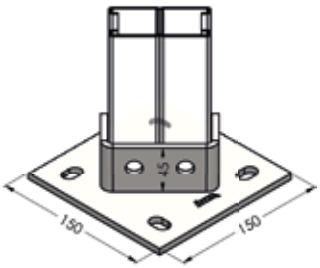
IFBLPDD44
4x4 - Hole Post Base 41x41D Strut

Weight: 1,4 kg/pcs.
Note: A minimum order may apply on the Product.



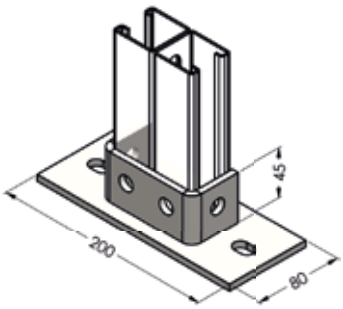
IFBLPDD4445
4x4 - Hole Post Base 41x41D Strut

Weight: 1,4 kg/pcs.
Note: A minimum order may apply on the Product.



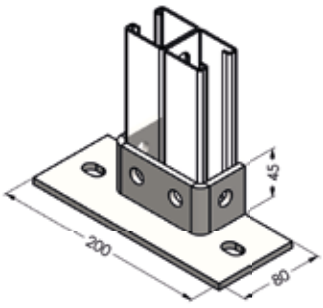
IFBLPODD24
2x4 - Hole Post Base 41x41D Strut

Weight: 1,1 kg/pcs.
Note: A minimum order may apply on the Product.



IFBLPKDD24
2x4 - Hole Post Base 41x41D Strut

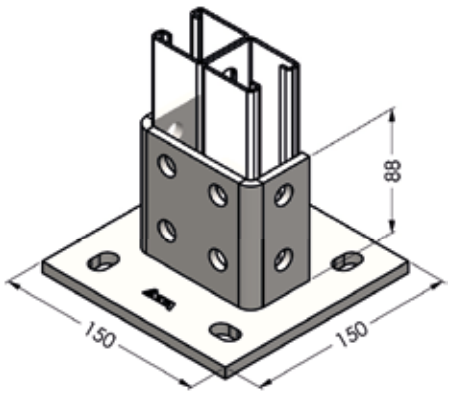
Weight: 1,1 kg/pcs.
Note: A minimum order may apply on the Product.



Post Bases

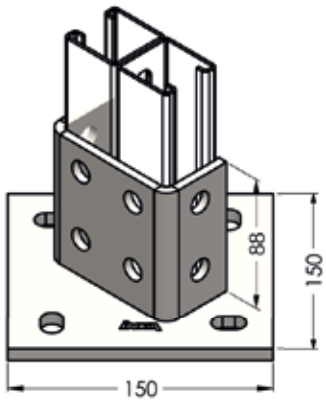
IFBLPDD48
4x8 - Hole Post Base 41x41D Strut

Weight: 2 kg/pcs.



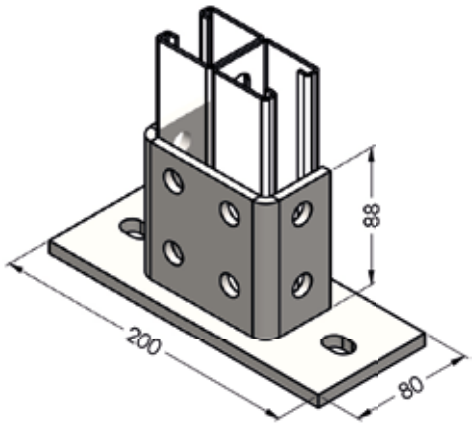
IFBLPDD4845
4x8 - Hole Post Base 41x41D Strut

Weight: 2 kg/pcs.
Note: A minimum order may apply on the Product.



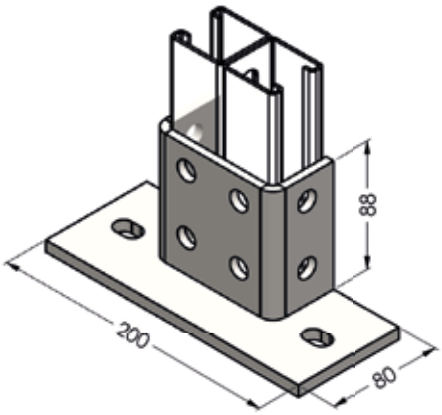
IFBLPODD28
2x8 - Hole Post Base 41x41D Strut

Weight: 1,6 kg/pcs.
Note: A minimum order may apply on the Product.



IFBLPKDD28
2x8 - Hole Post Base 41x41D Strut

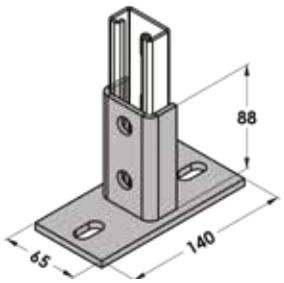
Weight: 1,6 kg/pcs.
Note: A minimum order may apply on the Product.



Post Bases

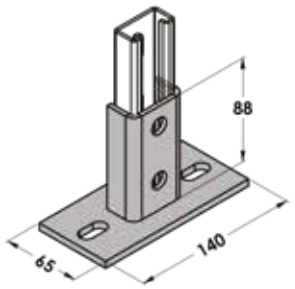
IFBLPD22
2x2-Hole Post Bases 41x21 Strut

Weight: 0,64 kg/pcs.



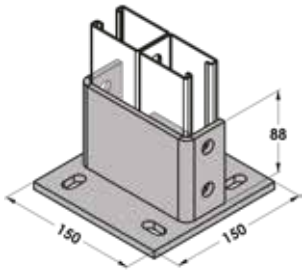
IFBLPY22
2x2-Hole Post Bases 41x21 Strut

Weight: 0,64 kg/pcs.



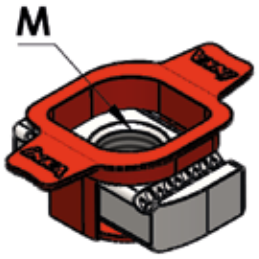
IFBLPD4D4
4x4-Hole Post Bases 41x60D Strut

Weight: 2,18 kg/pcs.



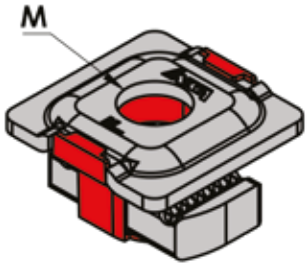
G Profile Nut
ISGC

Code No	M	Weight kg/100pcs
ISGC08	M8	4,1
ISGC10	M10	3,9
ISGC12	M12	3,8



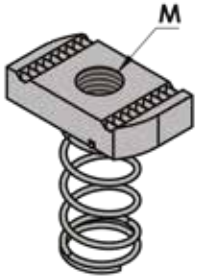
G Profile Nut with Washer
ISGPI

Code No	ØD (mm)	M	Weight kg/100pcs
ISGPI08	8,5	M8	7,4
ISGPI10	10,5	M10	7,1
ISGPI12	13,5	M12	6,8



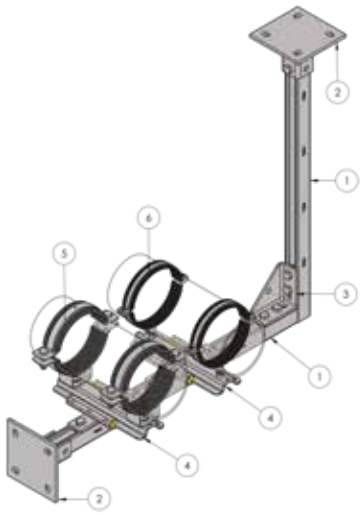
Spring Nut
ISOY

Code No	M	Weight kg/100pcs
ISOY08	M8	4,0
ISOY10	M10	3,9
ISOY12	M12	3,8



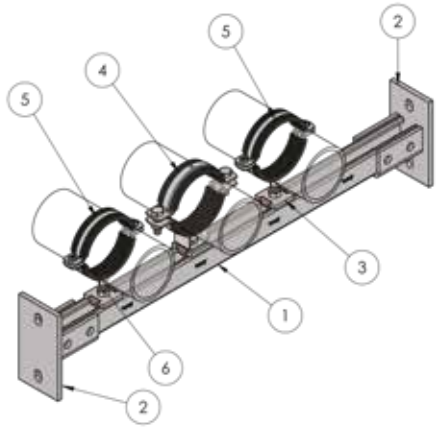
Application Cases for G Profiles

Type 1



Item No.	Description	Code
1	41x41x2 G Profile	IPG414120…
2	4x6 - Hole Post Bases 41x41 Strut	IFBLPD46
3	Universal Shelf Bracket	IFBL90D6W103
4	Heavy Duty Slider Joined By M12 Bolts To Double Clamps	IWKML509024512
5	Heavy Duty Pipe Clamp With Rubber Profile	IKAK…
6	Std. Pipe Clamp With Rubber Profile & Combi Nut	IKKS…

Type 2

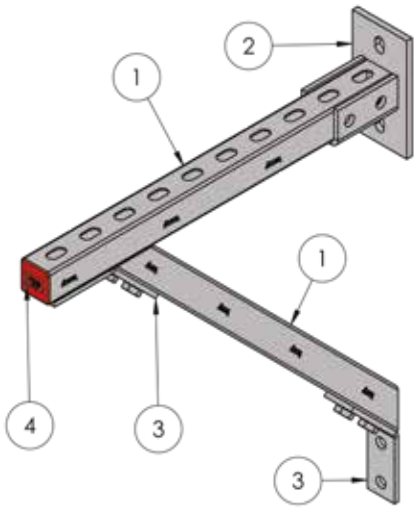


Item No.	Description	Code
1	41x41x2 G Profile	IPG414120…
2	2x6 - Hole Post Bases 41x41 Strut	IFBLP0D26
3	Square Washer With Profile Guide	IFBLFGD1…
4	Heavy Duty Pipe Clamp With Rubber Profile	IKAK…
5	Std. Pipe Clamp With Rubber Profile & Combi Nut	IKKS..
6	Threaded Rod	IRRT…

Application Cases for G Profiles

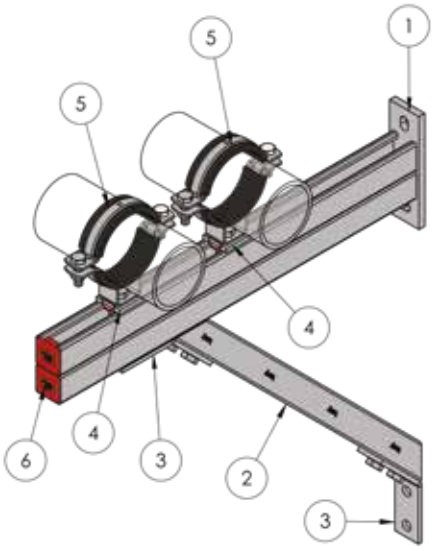
Type 3

Item No.	Description	Code
1	41x41x2 G Profile	IPG414120…
2	2x6 - Hole Post Bases 41x41 Strut	IFBLPOD26
3	2 - Hole Open Angle Connector	IFBLAOD445
4	41x41 Cover	IPGT4141

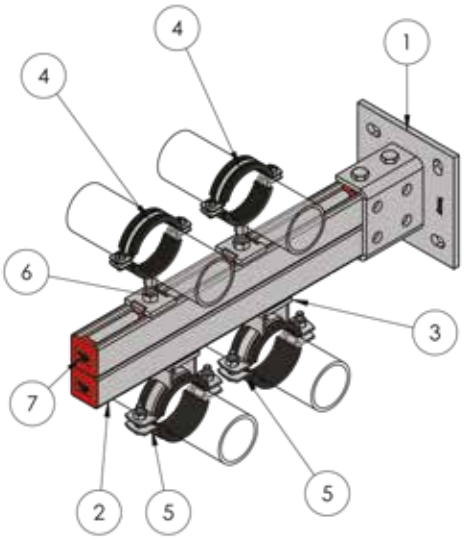


Type 4

Item No.	Description	Code
1	Double Profile Bracket	IWKDG600
2	41x41x2,5 G Profile	IPG414125…
3	2- Hole Open Angle Connector	IFBLAOD445
4	Square Washer With Profile Guide	IFBLFGD1…
5	Heavy Duty Pipe Clamp With Rubber Profile	IKAK…
6	41x41 Cover	IPGT4141

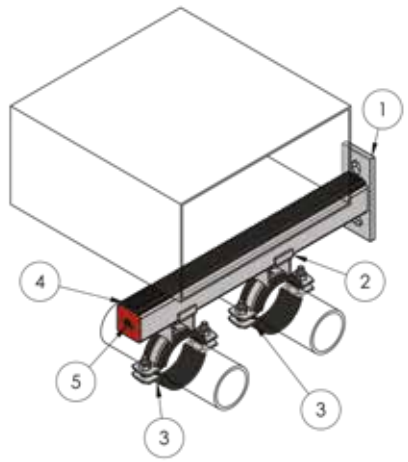


Application Cases for G Profiles



Type 5

Item No.	Description	Code
1	4x8 - Hole Post Bases 41x41D Strut	IFBLPDD48
2	41x41x2 G Double Profile	IPGD414120…
3	Square Washer With Profile Guide	IFBLFGD1…
4	Std. Pipe Clamp With Rubber Profile & Combi Nut	IKKS…
5	Heavy Duty Pipe Clamp With Rubber Profile	IKAK..
6	Threaded Rod	IRRT10…
7	41x41 Cover	IPGT4141

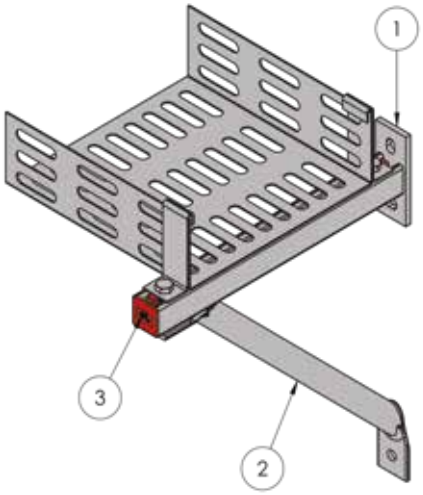


Type 6

Item No.	Description	Code
1	Single Profile Bracket 41x41 Strut	IWKG400
2	1- Hole U Washer	IFBLCD110
3	Heavy Duty Pipe Clamp With Rubber Profile	IKAK..
4	G Profile Rubber	ZLIG
5	41x41 Cover	IPGT4141

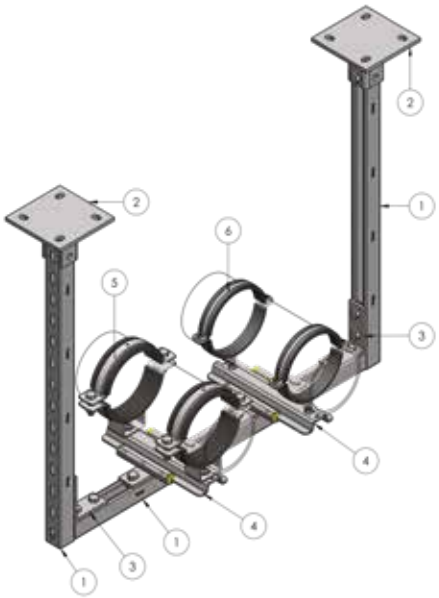
Application Cases for G Profiles

Type 7



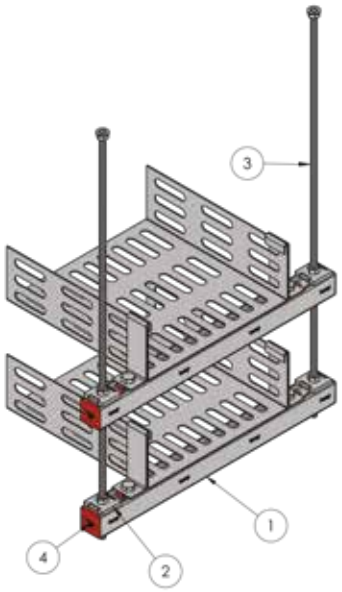
Item No.	Description	Code
1	Single Profile Bracket 41x41 Strut	IWKG400
2	2- Hole 45° Pipe Knee Brace	IFBLB400
3	41x41 Cover	IPGT4141

Type 8



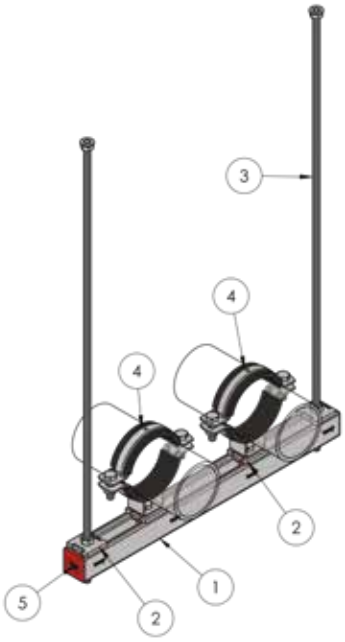
Item No.	Description	Code
1	41x41x2 G Profile	IPG414120…
2	4x6 - Hole Post Bases 41x41 Strut	IFBLPD46
3	4- Hole Corner Angle	IFBL90D490105
4	Heavy Duty Slider Joined By M12 Bolts To Double Clamps	IWKML509024512
5	Heavy Duty Pipe Clamp With Rubber Profile	IKAK…
6	Std. Pipe Clamp With Rubber Profile & Combi Nut	IKKS…
7	41x41 Cover	IPGT4141

Application Cases for G Profiles



Type 9

Item No.	Description	Code
1	41x41x2 G Profile	IPG414120…
2	Square Washer With Profile Guide	IFBLFGD1…
3	Threaded Rod	IRRT10…
4	41x41 Cover	IPGT4141



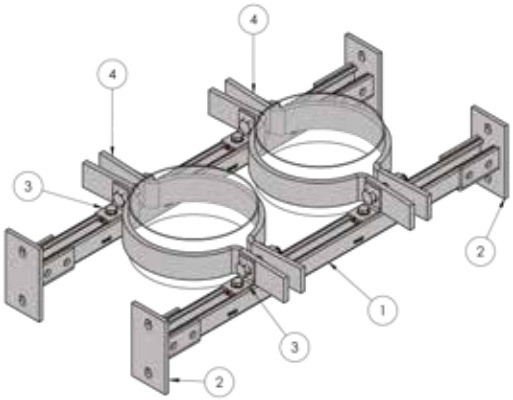
Type 10

Item No.	Description	Code
1	41x41x2,5 G Profile	IPG414125…
2	Square Washer With Profile Guide	IFBLFGD1…
3	Threaded Rod	IRRT08…
4	Heavy Duty Pipe Clamp With Rubber Profile	IKAK…
5	41x41 Cover	IPGT4141

Application Cases for G Profiles

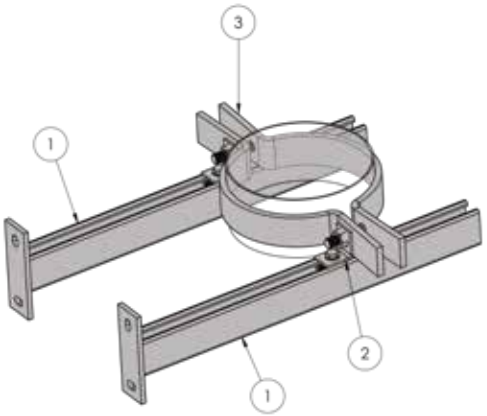
Type 11

Item No.	Description	Code
1	41x41x2,5 G Profile	IPG414125…
2	2x6 - Hole Post Bases 41x41 Strut	IFBLPOD26
3	90° Connecting Plate	IFBLF90…
4	Riser Clamp	IEKRC…

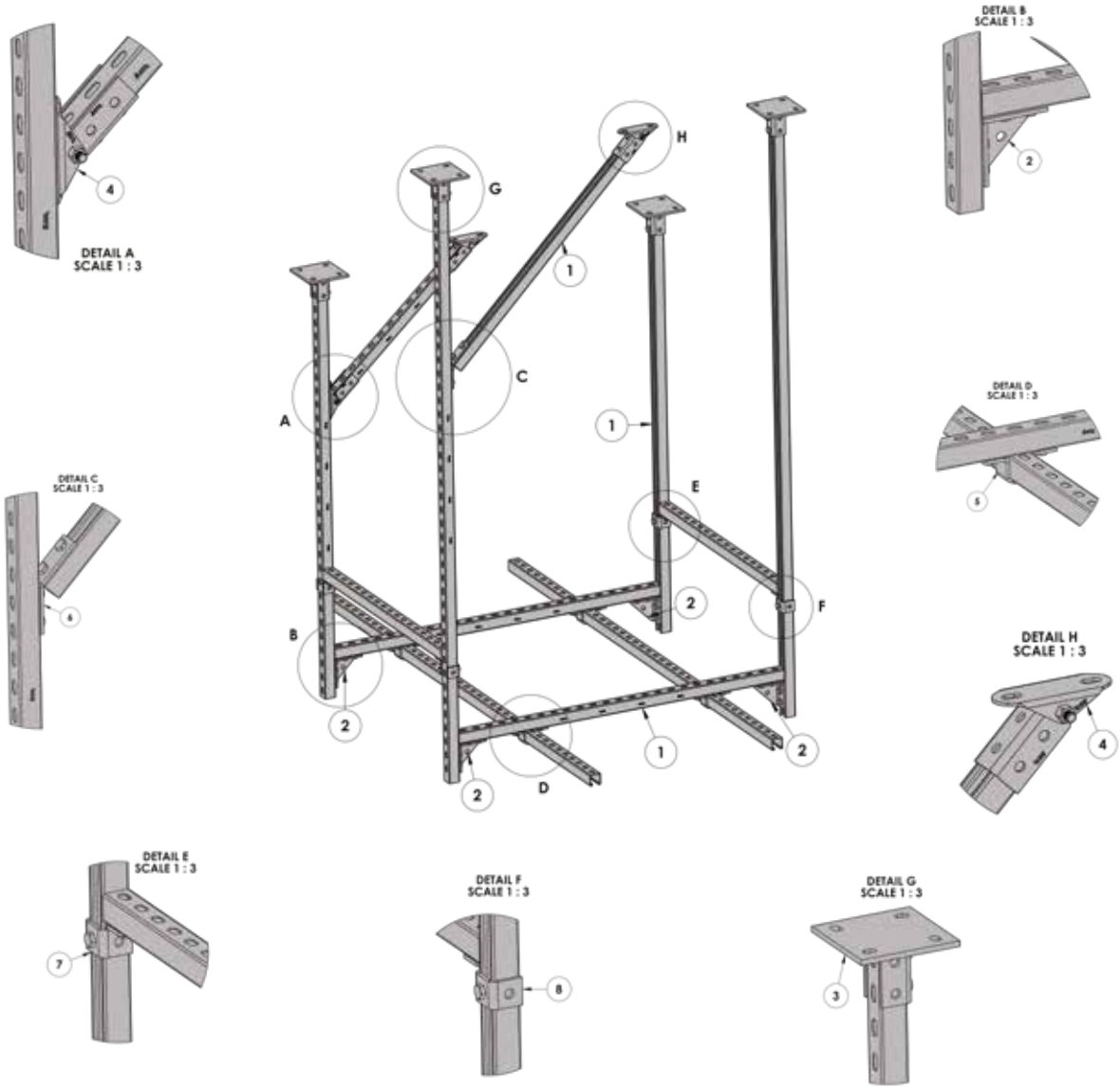


Type 12

Item No.	Description	Code
1	Single Profile Bracket 41x60 Strut	IWKG60600
2	90° Connecting Plate	IFBLF90…
3	Riser Clamp	IEKRC…



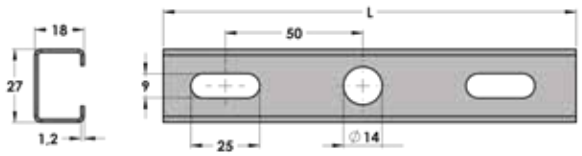
Application Cases for G Profiles



Item No.	Description	Code
1	41x41x2,5 G Profile	IPG414125…
2	Universal Shelf Bracket	IFBL90D6W103
3	4x6-Hole Post Bases 41x41 Strut	IFBLPD46
4	2- Hole Hinged Joint	IBSMF2
5	3- Hole U Support	IFBLU41
6	2- Hole Open Angle Connector	IFBLAOD445
7	3- Hole Corner Connector	IFBLWD3L41
8	3- Hole Corner Connector	IFBLWD3R41

C PROFILE SYSTEMS

IPC2718 - C Profile



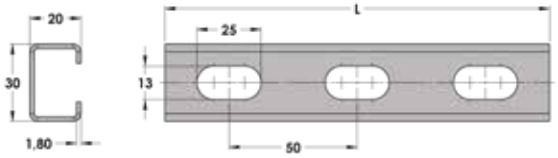
Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z275

Hot Dipped Galvanized
Material: DC01
Carbon steel acc. to DIN EN 10130

Finish:
Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 1,2 mm
Available Length (L): 2 m, 3 m & 6 m

IPC3020 - C Profile



Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z275

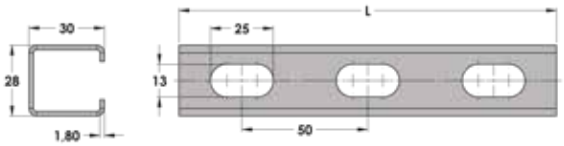
Hot Dipped Galvanized
Material: S235
Carbon steel acc. to DIN EN 10025-2

Finish:
Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTMA 123/123M EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 1,8 mm
Available Length (L): 2 m, 3 m & 6 m

Note: A minimum order may apply on the Product

IPC2830 - C Profile



Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z275

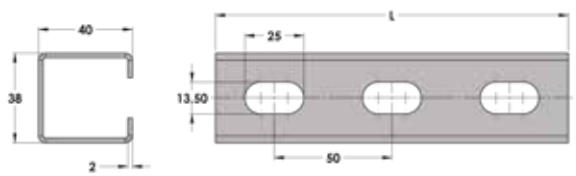
Hot Dipped Galvanized
Material: S235
Carbon steel acc. to DIN EN 10025-2

Finish:
Hot Dipped Galvanized (HDG) acc. to ASTMA 153/153M - ASTMA 123/123M EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 1,8 mm
Available Length (L): 2 m, 3 m & 6 m

Note: A minimum order may apply on the Product

IPC3840 - C Profile



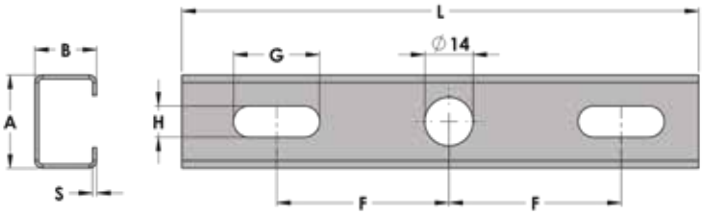
Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z275

Hot Dipped Galvanized
Material: S235
Carbon steel acc. to DIN EN 10025-2

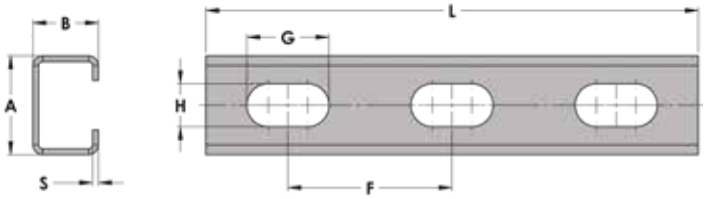
Finish:
Hot Dipped Galvanized (HDG) acc. to ASTMA 153/153M - ASTMA 123/123M EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 2 mm
Available Length (L : 2 m, 3 m & 6 m

Technical Data for C Profiles



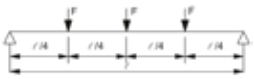
(For 27x18 C Profile)



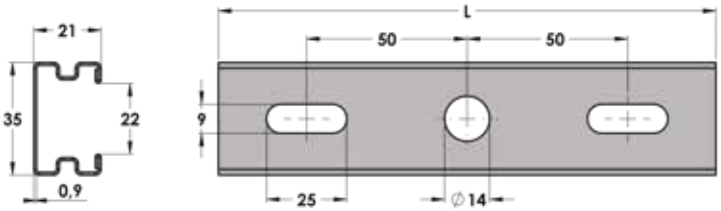
(For 30x20, 28x30 and 38x40 C Profiles)

Code No	Size	A	B	S	G	H	F	L	Weight (2000 mm) [kg]
	mm	mm	mm	mm	mm	mm	mm	mm	
IPC2718122000	27 x 18 x 1,2	27,0	18,0	1,2	25,0	9,0	50,0	2000,0	1,2
IPC3020182000	30 x 20 x 1,8	30,0	20,0	1,8	25,0	13,5	50,0	2000,0	2,00
IPC2830182000	28 x 30 x 1,8	28,0	30,0	1,8	25,0	13,5	50,0	2000,0	2,40
IPC3840202000	38 x 40 x 2	38,0	40,0	2,0	25,0	13,5	50,0	2000,0	3,80

F (N)											
		N					Maximum Load (N)				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPC271812...	27x18x1,2	793,0	205,0	87,0	51,0	4,0	398,0	102,0	42,0	20,0	2,0
IPC302018...	30x20x1,8	1437,0	389,0	168,0	102,0	12,0	722,0	194,0	81,0	40,0	6,0
IPC283018...	28x30x1,8	2472,0	1010,0	446,0	293,0	63,0	1238,0	502,0	217,0	115,0	35,0
IPC384020...	38x40x2	5735,0	2865,0	1405,0	956,0	240,0	2870,0	1432,0	688,0	376,0	141,0

F (N)											
		N					Maximum Load (N)				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPC271812...	27x18x1,2	298,0	69,0	18,0	11,0	1,0	198,0	43,0	17,0	8,0	1,0
IPC302018...	30x20x1,8	540,0	131,0	35,0	23,0	4,0	360,0	81,0	34,0	16,0	3,0
IPC283018...	28x30x1,8	927,0	340,0	96,0	67,0	22,0	618,0	212,0	91,0	48,0	16,0
IPC384020...	38x40x2	2150,0	1056,0	307,0	336,0	85,0	1435,0	659,0	290,0	158,0	61,0

IPCPWR3521- Power C Profile



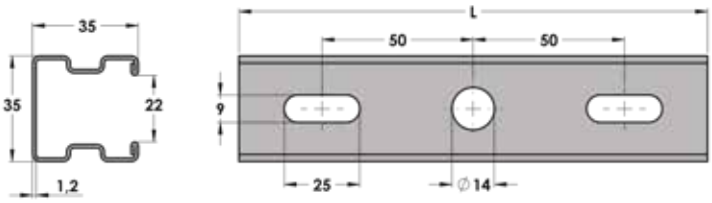
Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z275

Hot Dipped Galvanized
Material: DD11
Carbon steel acc. to DIN EN 10111
Finish: Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M
EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 0,9 mm
Available Length (L): 2 m

Note: A minimum order may apply on the Product

IPCPWR3535- Power C Profile



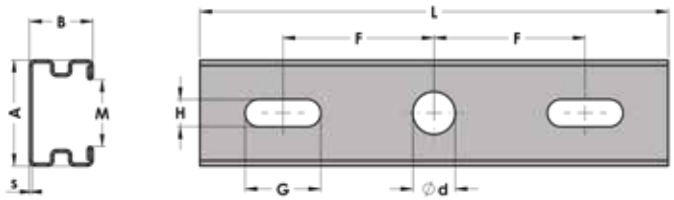
Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z275

Hot Dipped Galvanized
Material: DD11
Carbon steel acc. to DIN EN 10111
Finish: Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M
EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 1,2 mm
Available Length (L): 2 m

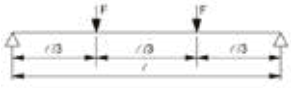
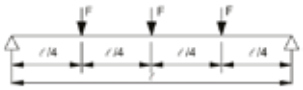
Note: A minimum order may apply on the Product

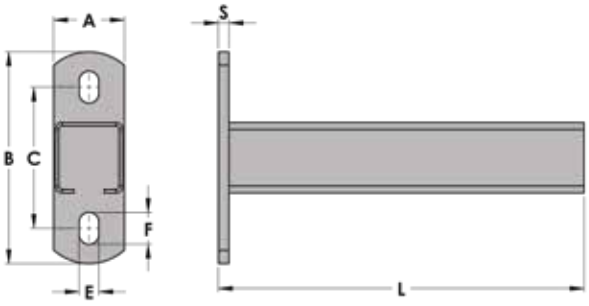
Technical Data for Power C Profiles



Code No	Size	A	B	S	M	G x H	Ød	F	L
	mm	mm	mm	mm	mm	mm	mm	mm	mm
IPCPWR3521092000	35 x 21 x 0,9	35,0	21,0	0,9	22,0	9x25	14,0	50,0	2000,0
IPCPWR3535122000	35 x 35 x 1,2	35,0	35,0	1,2	22,0	9x25	14,0	50,0	2000,0

F (N)											
		N					Maximum Load (N)				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPCPWR352109...	35x21x0,9	1130,0	316,0	137,0	84,0	11,0	566,0	158,0	66,0	33,00	5,0
IPCPWR353512...	35x35x1,2	3040,0	1421,0	630,0	423,0	99,0	1524,0	705,0	308,0	166,0	57,0

F (N)											
		N					Maximum Load (N)				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPCPWR352109...	35x21x0,9	425,0	107,0	29,0	19,0	4,0	283,0	66,0	28,0	13,0	2,0
IPCPWR353512...	35x35x1,2	1140,0	477,0	137,0	97,0	35,0	761,0	297,0	130,0	70,0	25,0



C Profile Console

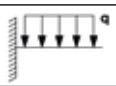
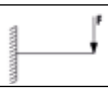
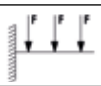
Material
• Carbon Steel

Service
Multi purpose hanging and fixing element. Provides fast and easy assemble of air ducts, heating and piping systems. It is economical and strong.
Provides easy and safe assembly.

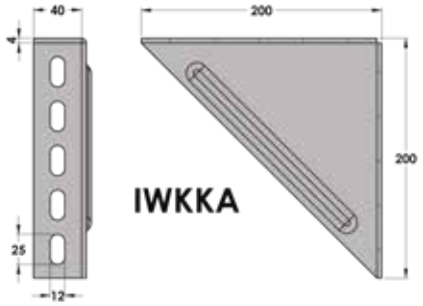
M8, M10 and M12 bolts, threaded rods and hammer head rods can be used as fasteners.

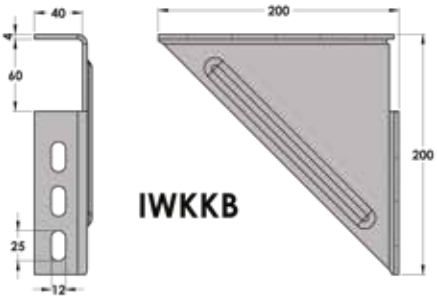
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M -
EN ISO 1461/EN ISO 10684

Code No	Code No for HDG	Profile Size	Profile Length	Profile Slot Size	Distance Between Two Profile Slots	Fixing Plate Size (S x A x B)	Distance Between Fixing Plates Holes (C)	Fixing Plate Siot Size (E x F)
		mm	mm	mm	mm	mm	mm	mm
IWKC203840200	IWKC203840200H	38 x 40 x 2	206	13,5 x 25	50	6 x 40 x 120	80	11 x 18
IWKC203840300	IWKC203840300H	38 x 40 x 2	306	13,5 x 25	50	6 x 40 x 120	80	11 x 18
IWKC203840400	IWKC203840400H	38 x 40 x 2	406	13,5 x 25	50	6 x 40 x 120	80	11 x 18
IWKC203840500	IWKC203840500H	38 x 40 x 2	506	13,5 x 25	50	6 x 40 x 120	80	11 x 18

Code No	Code No for HDG	L (mm)					
			N	N	N	N	N
IWKC203840200	IWKC203840200H	200	3597,0	3596,0	1798,0	1800,0	1199,0
IWKC203840300	IWKC203840300H	300	2395,0	2395,0	1196,0	1198,0	798,0
IWKC203840400	IWKC203840400H	400	1795,0	1793,0	896,0	897,0	593,0
IWKC203840500	IWKC203840500H	500	1432,0	1431,0	715,0	716,0	477,0

Corner Bracket





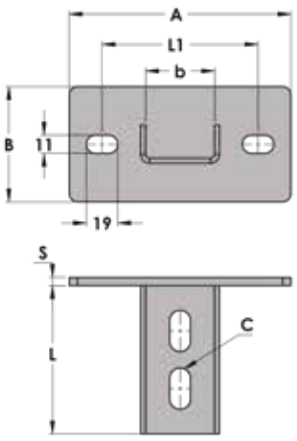
Material
• Carbon Steel

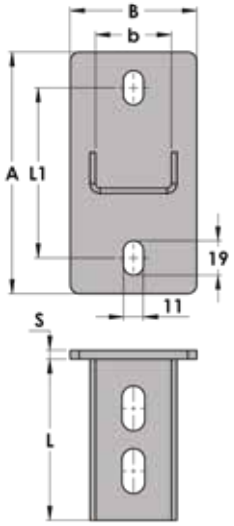
Service
Multi purpose hanging and fixing element. There are different assembly possibilities, either can be used single or double and with U.C and L profiles. Provides fast and easy assembly. Can easily be used on ceiling, walls and profies.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M -
EN ISO 1461/EN ISO 10684

Code No	Code No for HDG	Profile Size	Type	Quantity / Box	Weight / Box
		mm	mm		Kg
IWKKA40200200	IWKKA40200200H	200 x 200 x 4	A	15	15,3
IWKKB40200200	IWKKB40200200H	200 x 200 x 4	B	15	13,8

U Bracket Console



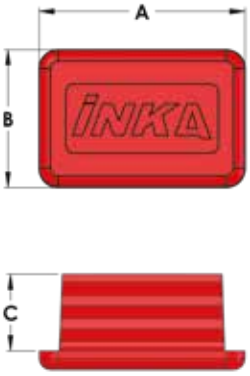


Material
• Carbon Steel

Service
The ideal assembly element for narrow places like profiles. Position adjustment is possible with slot holes of the fixing plate. Welded construction enables high load carrying capacity.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	Suitable Profile	A	B	b	S	L	L1	C	Quantity / Box	Weight / Box (kg)
	mm	mm	mm	mm	mm	mm	mm	mm		
IWKD1827	27/18	120,0	50,0	30,0	5,0	70,0	80,0	11x19	10	4,5
IWKD4038	38/40 - 40/60	135,0	70,0	42,0	5,0	90,0	95,0	12,5x25	10	6,0
IWKY1827	27/18	120,0	50,0	30,0	5,0	70,0	80,0	11x19	10	4,5
IWKY4038	38/40 - 40/60	135,0	70,0	42,0	5,0	90,0	95,0	12,5x25	10	6,0

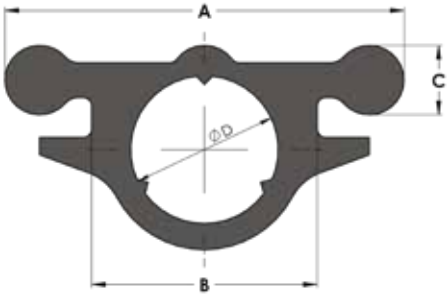


Covers

Material
• PP

Code No	Size (mm)	A	B	C	Qty/Box	Weight per Box (kg)
		mm	mm	mm		
IPCT1827	27 x 18 x1,2	27,0	18,0	10,0	1000	2,0
IPCT3020	30 x 20 x1,8	30,0	20,0	10,0	1000	4,0
IPCT2830	28 x 30 x 1,8	28,0	30,0	10,0	1000	4,0
IPCT3840	38 x 40 x 2	38,0	40,0	10,0	1000	5,0

C Profile Rubber

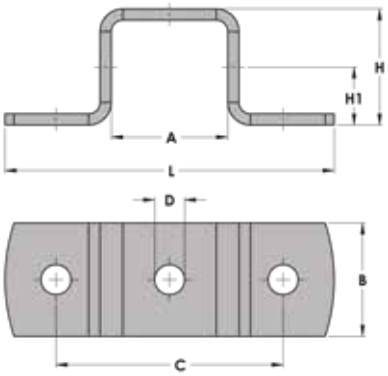


Material
• EPDM

Rubber Quality		EPDM, Color black Etilen-Probien-Dien-Caoutchouc
Hardness	Shore - A	45 / +5; -0
Temperature resistance	°C	-40 / +120
Elongation at rupture	%	> 400
Tensile strength	N / mm²	> 6
Resilience	%	> 40

Code No	Suitable Profile	A	B	C	ØD	Box	Roll Weight
	mm	mm	mm	mm	mm		Kg
ZLIC01	18/27	23,0	13,0	4,0	8,5	20m/Roller	2,5
ZLIC02	38/40 40/60	28,0	16,0	5,0	10,5	20m/Roller	3,0
ZLIC03	38/22 38/35	33,0	21,0	5,0	10,5	20m/Roller	4,1

Assembly Bracket



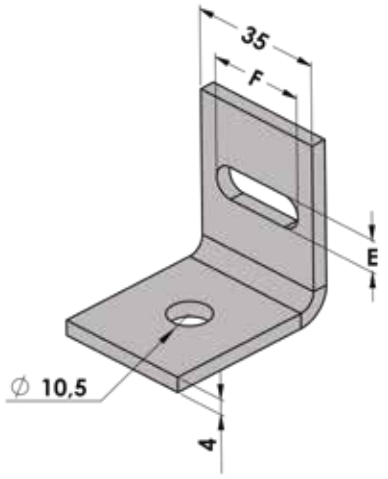
Material
• Carbon Steel

Service
The ideal assembly element for narrow places like profiles. Position adjustment is possible with slot holes of the fixing plate. Welded construction enables high load carrying capacity.

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	Size (mm)	A	H	B	C	D	L	H1	Quantity / Box	Weight / Box
		mm	mm	mm	mm	mm	mm	mm		Kg
IFKK182730	18 / 27	30,0	31,0	25,0	80,0	ø 9,0	100,0	15	25	2,5
IFKK384041	38 / 40	41,0	41,0	40,0	88,0	ø 10,5	116,0	18	25	5,2
IFKK406041	40 / 60	41,0	64,0	40,0	80,0	ø10,5	110,0	-	25	6,5

90° Connecting Plate



Material
• Carbon Steel

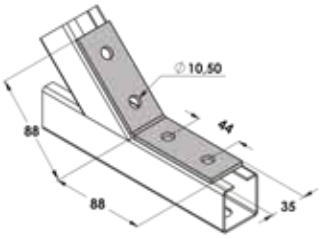
Service
Designed for supporting vertical connection of clamps. Shell be use with console.

Finish
• Electro-Galvanization acc. to ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	M	E	F	Quantity / Box	Weight / Box (Kg)
		mm	mm		
IFBL9008	M8	8,5	25,5	100	8,0
IFBL9010	M10	10,5	23,5	100	8,0
IFBL9012	M12	12,5	21,5	100	8,0
IFBL9016	M16	16,5	19,5	100	8,0

Profile Assembly Accessories

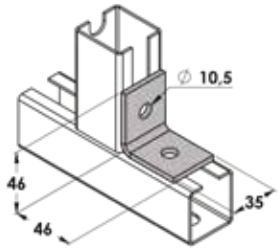
135° Connector



Code	Quantity/Box	Weight/Box
	-	Kg
IFBL135	100	18,0

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

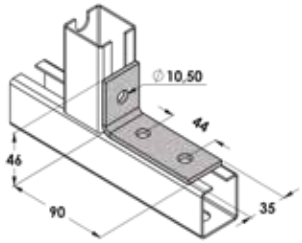
90° 2 Hole Connector



Code	Quantity/Box	Weight/Box
	-	Kg
IFBL90D2	100	8,0

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

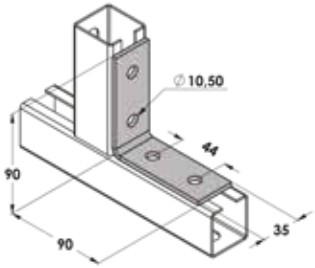
90° 3 Hole Connector



Code	Quantity/Box	Weight/Box
	-	Kg
IFBL90D3	100	13,4

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

90° 4 Hole Connector



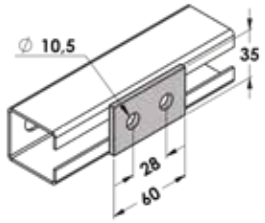
Code	Quantity/Box	Weight/Box
	-	Kg
IFBL90D4	100	18,0

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Profile Assembly Accessories

2 Hole Flat Connector

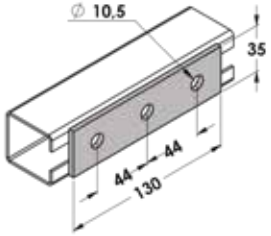
Code	Quantity/Box	Weight/Box
	-	Kg
IFBLD2	100	6



Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

3 Hole Flat Connector

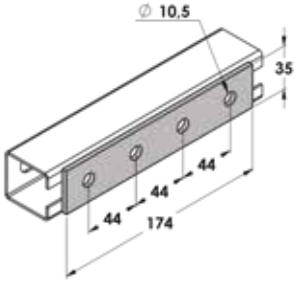
Code	Quantity/Box	Weight/Box
	-	Kg
IFBLD3	100	13,4



Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

4 Hole Flat Connector

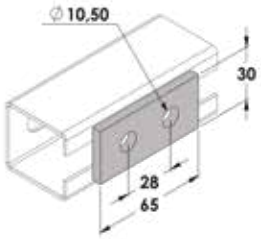
Code	Quantity/Box	Weight/Box
	-	Kg
IFBLD4	100	18,0



Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

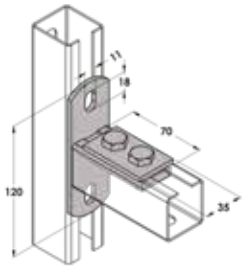
Threaded 2 Hole Flat Connector

Code	Quantity/Box	Weight/Box
	-	Kg
IFBLDD	100	7,0



Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

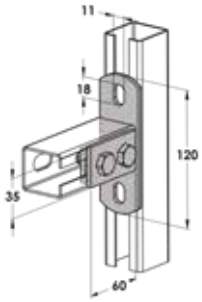
Profile Assembly Accessories



T Connector Type A

Code	Quantity/Box	Weight/Box
	-	Kg
IFBLC	50	17,9

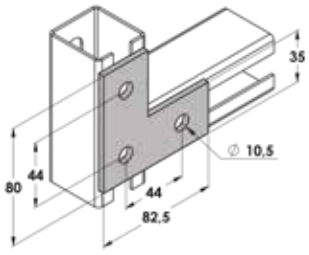
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042



T Connector Type B

Code	Quantity/Box	Weight/Box
	-	Kg
IFBLT	50	14,0

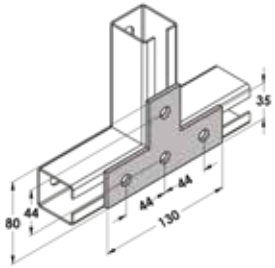
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042



Flat “L” Connector

Code	Quantity/Box	Weight/Box
	-	Kg
IFBLDL	100	13,0

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

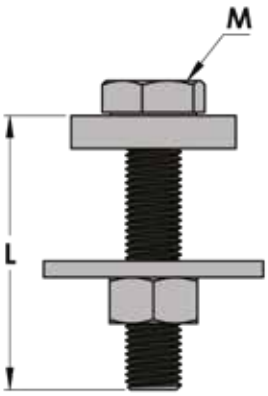


Flat “T” Connector

Code	Quantity/Box	Weight/Box
	-	Kg
IFBLDT	100	18,1

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Hammerhead Bolt



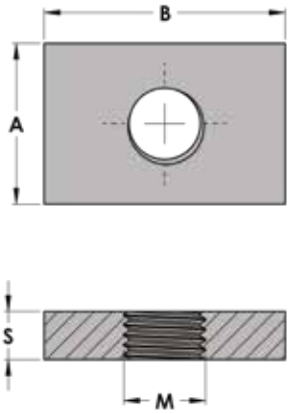
Material
• Carbon Steel

Service
It is used for direct fastening of pipe clamps to C profiles

Ordering
Supplied as complete set with nut and washer

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	Code No for HDG	Size (mm)	Size (mm)	Length - L	Qty / Pack	Weight per Box (kg)
				mm	mm	
ICH06020	ICH06020H	18 / 27	M6	20,0	100	6,9
ICH08030	ICH08030H	18 / 27 - 38 / 40 - 40 / 60	M8	30,0	100	7,4
ICH08040	ICH08040H	18 / 27 - 38 / 40 - 40 / 60	M8	40,0	100	7,9
ICH08050	ICH08050H	18 / 27 - 38 / 40 - 40 / 60	M8	50,0	100	8,0
ICH10030	ICH10030H	18 / 27 - 38 / 40 - 40 / 60	M10	30,0	100	8,5
ICH10035	ICH10035H	18 / 27 - 38 / 40 - 40 / 60	M10	35,0	100	8,8
ICH10040	ICH10040H	18 / 27 - 38 / 40 - 40 / 60	M10	40,0	100	9,1
ICH10050	ICH10050H	18 / 27 - 38 / 40 - 40 / 60	M10	50,0	100	9,6



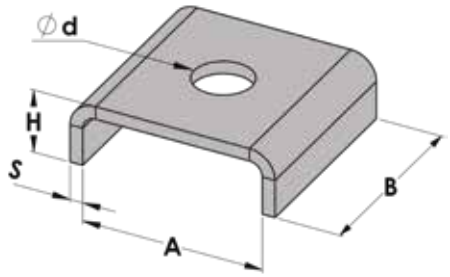
C Profile Nut

Material
• Carbon Steel

Service
Used with bolts, threaded rods, washers and nuts to fasten various elements on C profiles

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	Code No for HDG	M	Hole Size (mm)	A	B	S	Qty/Box	Weight per Box (kg)
				mm	mm	mm		
ISC08	ISC08H	M8	6,8	20,0	30,0	6,0	250	6,1
ISC10	ISC10H	M10	8,5	20,0	30,0	6,0	250	5,9
ISC12	ISC12H	M12	10,2	20,0	30,0	6,0	250	5,8



Profile Washer

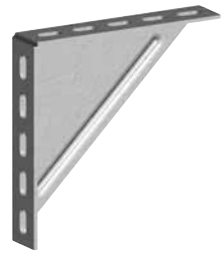
Material
• Carbon Steel

Service
Suitable for assembly to C profiles

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

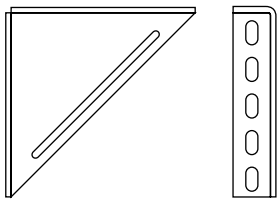
Code No	Code No for HDG	Suitable Profile	A	H	B	S	Ø d	Qty/Box	Weight per Box (kg)
		mm	mm	mm	mm	mm	mm		
IVPP082718	IVPP082718H	27 / 18	28,0	10,0	30,0	2,0	9,0	500	6,2
IVPP083840	IVPP083840H	38 / 40	39,0	12,0	30,0	3,0	9,0	400	10,5
IVPP103840	IVPP103840H	38 / 40	39,0	12,0	30,0	3,0	11,0	400	10,5
IVPP123840	IVPP123840H	38 / 40	39,0	12,0	30,0	3,0	13,0	400	10,4
IVPP084060	IVPP084060H	40 / 60	41,0	16,0	30,0	3,0	9,0	250	11,4
IVPP104060	IVPP104060H	40 / 60	41,0	16,0	30,0	3,0	11,0	250	11,4
IVPP124060	IVPP124060H	40 / 60	41,0	16,0	30,0	3,0	13,0	250	11,3

Corner Bracket Technical Data



Safe working loads for corner bracket

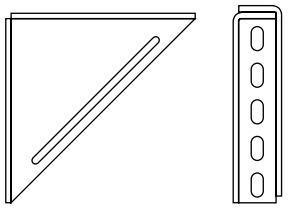
Equal sided corner bracket



4 mm

L=180 mm	L=140 mm	L=100 mm	L= 80 mm
1.9 kN	3.4 kN	5.0 kN	6.9 kN

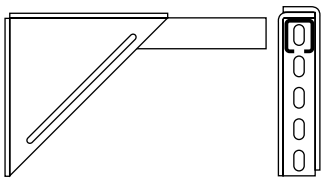
Equal sided corner bracket mounted in pairs



4 mm

L=180 mm	L=140 mm
4.3 kN	3.9 kN

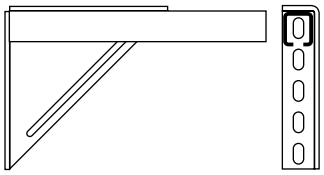
Equal sided corner bracket in pairs supported by channel profile 38 / 40



4 mm

L=180 mm	L= 350mm	L= 470 mm
4.3 kN	1.4 kN	1.15 kN

Equal sided corner bracket supported by channel profile 38 / 40

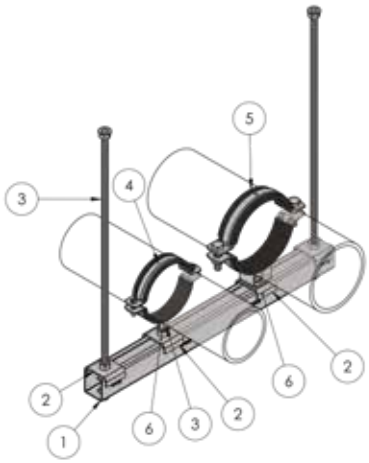


4 mm

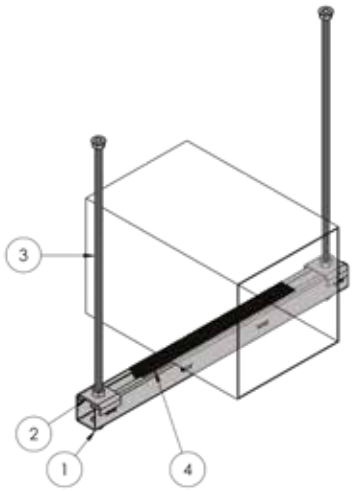
L=330 mm
1.3 kN

The values given above are calculated for allowable stress on the steel dem.=100N/mm² ant the maximum deflection L/150

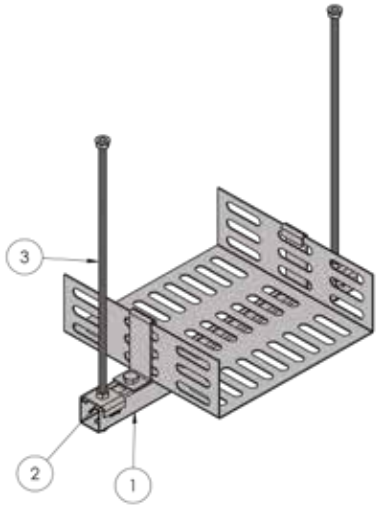
Application Cases for C Profiles



NO	DESCRIPTION	CODE
1	38x40x2 C Profile	IPC384020..
2	Profile Washer	IVPP…
3	Threaded Rod	IRRT…
4	Std. Pipe Clamp With Rubber Profile&Combi Nut	IKKS…
5	Heavy Duty Pipe Clamp With Rubber Profile	IKAK…
6	C Profile Nut	ISC…



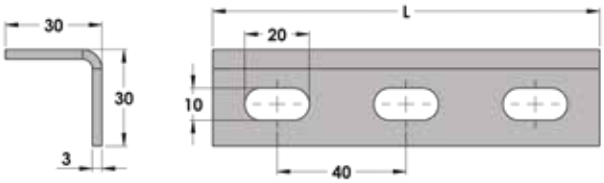
NO	DESCRIPTION	CODE
1	38x40x2 C Profile	IPC384020..
2	Profile Washer	IVPP…
3	Threaded Rod	IRRT…
4	C Profile Rubber	ZLIC..



NO	DESCRIPTION	CODE
1	38x40x2 C Profile	IPC384020..
2	Profile Washer	IVPP…
3	Threaded Rod	IRRT…

L PROFILE SYSTEMS

IPL3030 - L Profile



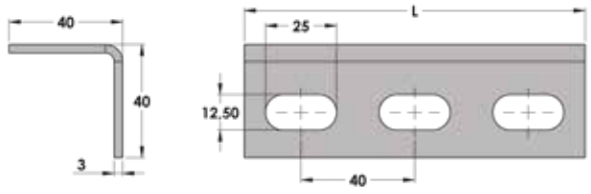
Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z100

Hot Dipped Galvanized
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTMA 123/123M
EN ISO 1461/EN ISO 1084

Ordering
Available Thickness (T): 3 mm
Available Length (L): 2 m & 3 m

IPL3040 - L Profile



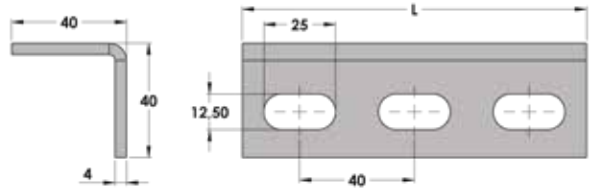
Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z100

Hot Dipped Galvanized
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTMA 123/123M
EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 3 mm
Available Length (L): 2 m & 3 m

IPL4040 - L Profile



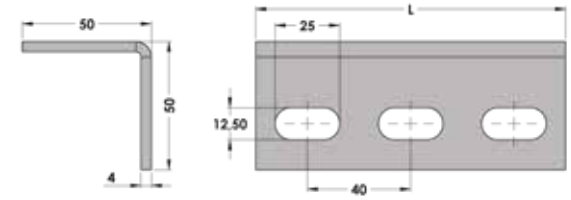
Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z100

Hot Dipped Galvanized
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTMA 123/123M
EN ISO 1461/EN ISO 10684

Ordering
Available Thickness (T): 4 mm
Available Length (L): 2 m & 3 m

IPL4050 - L Profile



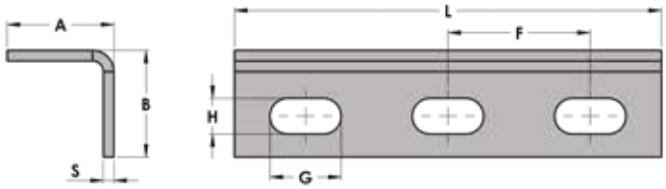
Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z100

Hot Dipped Galvanized
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

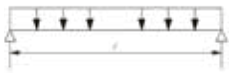
Finish: Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTMA 123/123M
EN ISO 1461/EN ISO 10684

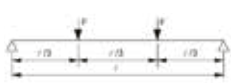
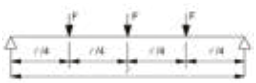
Ordering
Available Thickness (T): 4 mm
Available Length (L): 2 m & 3 m

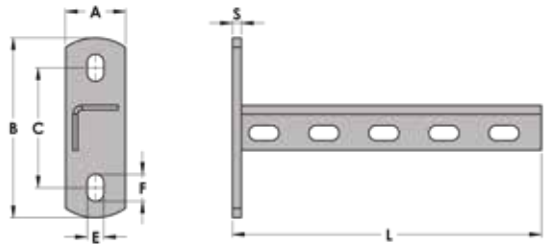
Technical Data for L Profile



Code No	Size	A	B	S	G	H	F	L	Radius	Weight (2000 mm) [kg]
	mm	mm	mm	mm	mm	mm	mm	mm		
IPL3030302000	30 x 30 x 3	30,0	30,0	3,0	20,0	10,0	40,0	2000,0	6,0	2,2
IPL3040402000	40 x 40 x 3	40,0	40,0	3,0	25,0	12,5	40,0	2000,0	6,0	2,9
IPL4040402000	40 x 40 x 4	40,0	40,0	4,0	25,0	12,5	40,0	2000,0	6,0	3,8
IPL4050502000	50 x 50 x 4	50,0	50,0	4,0	25,0	12,5	40,0	2000,0	6,0	5,0

F (N)											
		Maximum Load (N)					N				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPL303030...	30x30x3	1055,0	480,0	270,0	120,0	30,0	531,0	242,0	103,0	53,0	15,0
IPL304040...	40x40x3	1865,0	860,0	570,0	280,0	90,0	936,0	429,0	254,0	135,0	45,0
IPL404040...	40x40x4	2340,0	1090,0	750,0	340,0	120,0	1175,0	545,0	313,0	166,0	54,0
IPL405050...	50x50x4	3910,0	1830,0	1260,0	740,0	300,0	1960,0	918,0	572,0	345,0	120,0

F (N)											
		Maximum Load (N)					N				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPL303030...	30x30x3	393,0	164,0	70,0	32,0	8,0	262,0	102,0	43,0	22,0	5,0
IPL304040...	40x40x3	693,0	315,0	172,0	82,0	28,0	461,0	209,0	107,0	56,0	19,0
IPL404040...	40x40x4	872,0	403,0	212,0	100,0	33,0	581,0	268,0	131,0	69,0	23,0
IPL405050...	50x50x4	1463,0	677,0	422,0	210,0	78,0	975,0	450,0	268,0	144,0	53,0



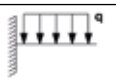
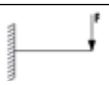
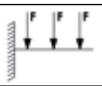
L Profile Console

Material
• Carbon Steel

Service
Multi purpose hanging and fixing element. Provides fast and easy assemble of air ducts, heating and piping systems. It is economical and strong. Provides easy and safe assembly. M8, M10 and M12 bolts, threaded rods and hammer head rods can be used as fasteners. It is preferred for lighter loads compared to C and U profiles.

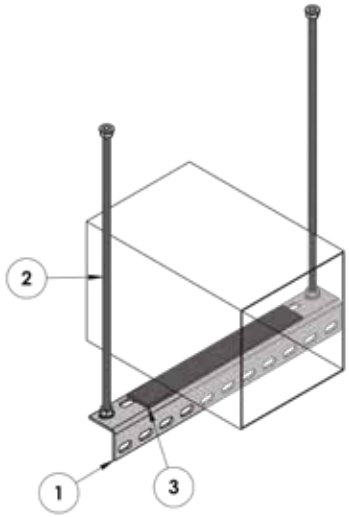
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M -
EN ISO 1461/EN ISO 10684

Code No	Code No for HDG	Profile Size	Profile Length	Profile Slot Size	Distance Between Two Profile Slots	Fixing Plate Size (S x A x B)	Distance Between Fixing Plates Holes (C)	Fixing Plate Siot Size (E x F)
		mm	mm	mm	mm	mm	mm	mm
IWKL303030200	IWKL303030200H	30 x 30 x 30 x 3	206	10 x 20	40	6 x 40 x 120	80	11 x 18
IWKL303030300	IWKL303030300H	30 x 30 x 30 x 3	306	10 x 20	40	6 x 40 x 120	80	11 x 18
IWKL303030400	IWKL303030400H	30 x 30 x 30 x 3	406	10 x 20	40	6 x 40 x 120	80	11 x 18
IWKL303030500	IWKL303030500H	30 x 30 x 30 x 3	506	10 x 20	40	6 x 40 x 120	80	11 x 18

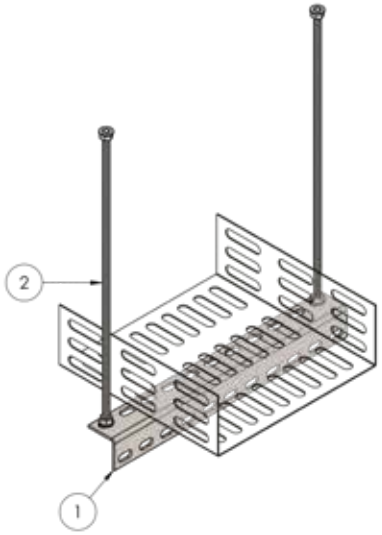
Code No	Code No for HDG	L (mm)					
			N	N	N	N	N
IWKL303030200	IWKL303030200H	200	682,0	682,0	341,0	341,0	277,0
IWKL303030300	IWKL303030300H	300	454,0	454,0	227,0	229,0	151,0
IWKL303030400	IWKL303030400H	400	339,0	339,0	169,0	169,0	113,0
IWKL303030500	IWKL303030500H	500	270,0	270,0	120,0	134,0	88,0

Application Cases for L Profiles

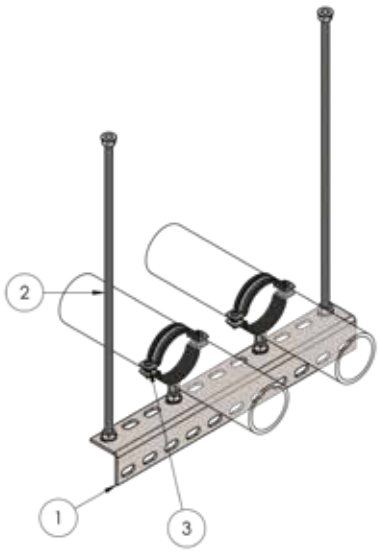
NO	DESCRIPTION	CODE
1	50x50x4 L Profile	IPL505040...
2	Threaded Rod	IRRT…
3	Neoprene Seal	ZLIP…



NO	DESCRIPTION	CODE
1	50x50x4 L Profile	IPL505040...
3	Threaded Rod M10	IRRT102000



NO	DESCRIPTION	CODE
1	50x50x4 L Profile	IPL505040...
2	Threaded Rod	IRRT102000
3	Std. Pipe Clamp With Rubber Profile & Combi Nut	IKKS...



U PROFILE SYSTEMS

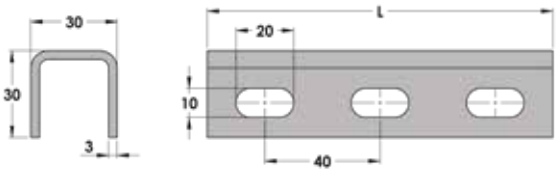
IPU303030 - U Profile

Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z100

Hot Dipped Galvanized
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTMA 123/123M
EN ISO 1461/EN ISO 10684

Ordering
Available Length (L): 2 m, 3 m
Available Thickness (T): 3 mm



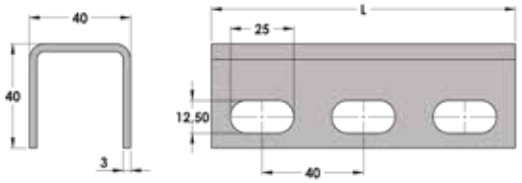
IPU304040- U Profile

Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z100

Hot Dipped Galvanized
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTMA 123/123M
EN ISO 1461/EN ISO 10684

Ordering
Available Length (L): 2 m, 3 m
Available Thickness (T): 3 mm



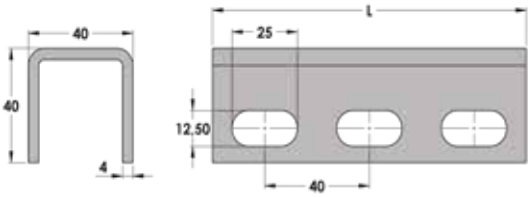
IPU404040 - U Profile

Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z100

Hot Dipped Galvanized
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTMA 123/123M
EN ISO 1461/EN ISO 10684

Ordering
Available Length (L): 2 m, 3 m
Available Thickness (T): 4 mm



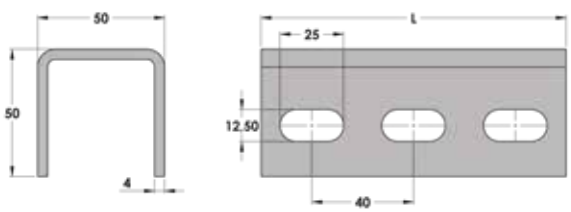
IPU405050 - U Profile

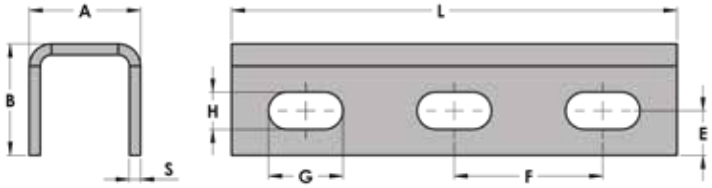
Material & Finish
Pre-galvanized
Material: S250GD (1,0242)
Pre-galvanized acc. to DIN EN 10346
Coating designation: Z100

Hot Dipped Galvanized
Material: S235JR (1.0038)
Carbon steel acc. to DIN EN 10025

Finish: Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTMA 123/123M
EN ISO 1461/EN ISO 10684

Ordering
Available Length (L): 2 m, 3 m
Available Thickness (T): 4 mm





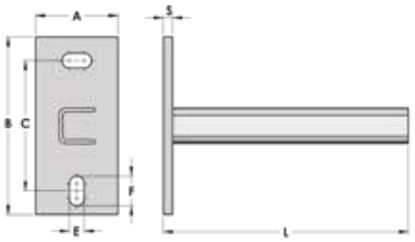
Technical Data for U Profile

Code No	Size	A	B	s	E	G	H	F	L	Radius	Weight (2000 mm) [kg]
	mm	mm	mm	mm	mm	mm	mm	mm	mm		
IPU3030302000	30 x 30 x 3	30,0	30,0	3,0	12,0	20,0	10,0	40,0	2000,0	6,0	3,1
IPU3040402000	40 x 40 x 3	40,0	40,0	3,0	17,0	25,0	12,5	40,0	2000,0	6,0	4,2
IPU4040402000	40 x 40 x 4	40,0	40,0	4,0	15,0	25,0	12,5	40,0	2000,0	6,0	5,5
IPU4050502000	50 x 50 x 4	50,0	50,0	4,0	20,0	25,0	12,5	40,0	2000,0	7,0	7,3

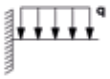
F (N)											
		Maximum Load (N)					N				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPU303030...	30x30x3	3900,0	1950,0	1067,0	499,0	215,0	1952,0	779,0	338,0	183,0	67,0
IPU304040...	40x40x3	7840,0	3930,0	2858,0	1337,0	577,0	3932,0	1965,0	920,0	507,0	206,0
IPU404040...	40x40x4	9800,0	4870,0	3574,0	1671,0	722,0	4912,0	2455,0	1150,0	633,0	254,0
IPU405050...	50x50x4	17745,0	8910,0	6660,0	3785,0	1635,0	8910,0	4456,0	2616,0	1456,0	608,0

F (N)											
		Maximum Load (N)					N				
		L (mm)					L (mm)				
Code No	Size (mm)	500	1000	1500	2000	3000	500	1000	1500	2000	3000
IPU303030...	30x30x3	1450,0	525,0	230,0	107,0	39,0	976,0	327,0	143,0	77,0	28,0
IPU304040...	40x40x3	2917,0	1405,0	624,0	297,0	120,0	1962,0	877,0	388,0	214,0	86,0
IPU404040...	40x40x4	3650,0	1758,0	780,0	372,0	149,0	2454,0	1097,0	485,0	267,0	107,0
IPU405050...	50x50x4	6621,0	3338,0	1767,0	855,0	357,0	4446,0	2226,0	1102,0	613,0	257,0

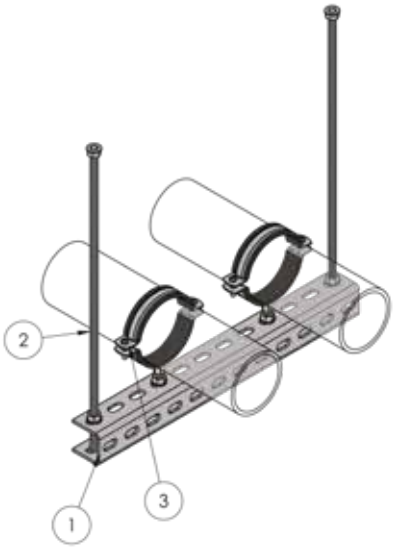
U Profile Console



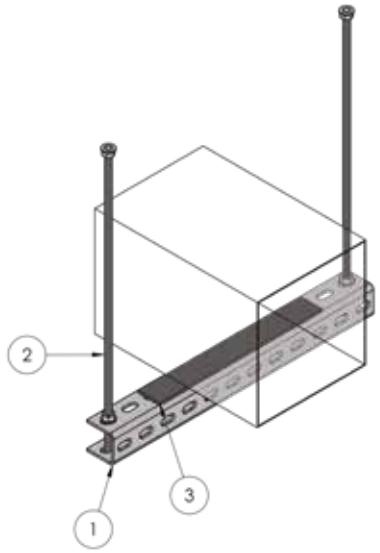
Code No	Profile Size	Profile Length	Profile Slot Size	Fixing Plate Size (S x A x B)	Distance Between Fixing Plates Holes (C)	Fixing Plate Siot Size (E x F)
	mm	mm	mm	mm	mm	mm
IWKU303030200	30 x 30 x 30 x 3	208	10 x 20	8 x 70 x 150	110	12,5 x 25
IWKU303030300	30 x 30 x 30 x 3	308	10 x 20	8 x 70 x 150	110	12,5 x 25
IWKU303030400	30 x 30 x 30 x 3	408	10 x 20	8 x 70 x 150	110	12,5 x 25
IWKU303030500	30 x 30 x 30 x 3	508	10 x 20	8 x 70 x 150	110	12,5 x 25

Code No	L (mm)					
		N	N	N	N	N
IWKU303030200	200	2452,0	2453,0	1226,0	1266,0	817,0
IWKU303030300	300	1633,0	1633,0	816,0	816,0	544,0
IWKU303030400	400	1222,0	1222,0	611,0	611,0	407,0
IWKU303030500	500	976,0	976,0	391,0	487,0	325,0

Application Cases for U Profiles

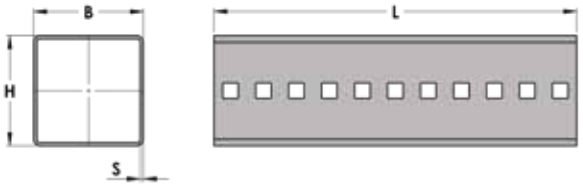


NO	DESCRIPTION	CODE
1	50x50x4 U Profile	IPU505040...
2	Threaded Rod	IRRT…
3	Std. Pipe Clamp With Rubber Profile&Combi Nut	IKKS…



NO	DESCRIPTION	CODE
1	50x50x4 U Profile	IPU505040...
2	Threaded Rod	IRRT…
3	Neoprene Seal	ZLIP…

HEAVY DUTY PROFILE SYSTEMS
(SQUARE PROFILE SYSTEMS)



Square Profile (Vertical)

Material
- S235JR (1.0038)
- Carbon Steel acc. to EN 100025-2

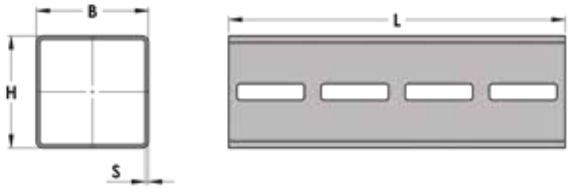
Finish
- Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Service
Square Profile allows 15 mm steps connections in the vertical direction for wall or ceiling heavy duty pipe support systems.

Ordering
Available Thickness (T): 3 mm & 4 mm
Available Length (L): 6 m

Code	HxBxS	L (mm)	Weight (kg/m)
IPKD100100306000H	100x100x3	6000	8,3
IPKD100100406000H	100x100x4		11,0
IPKD100120306000H*	100x120x3		9,3
IPKD100120406000H	100x120x4		12,0

*A minimum order may apply on the Product



Square Profile (Horizontal)

Material
- S235JR (1.0038)
- Carbon Steel acc. to EN 100025-2

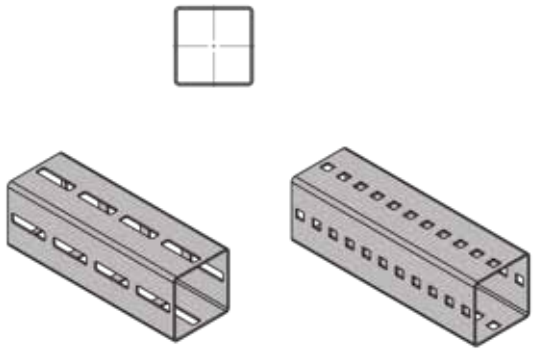
Finish
- Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

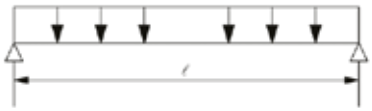
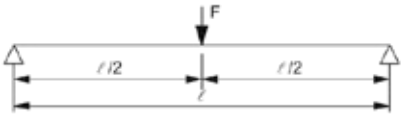
Service
Square Profile allows endless connections in the horizontal direction for wall or ceiling heavy duty pipe support systems.

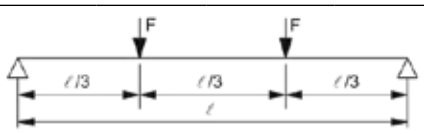
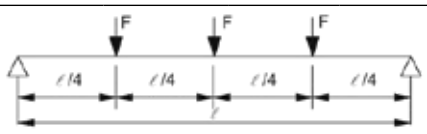
Ordering
Available Thickness (T): 3 mm & 4 mm
Available Length (L): 6 m

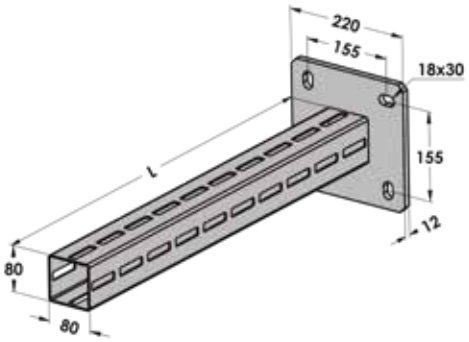
Code	HxBxS	L (mm)	Weight (kg/m)
IPK100100306000H	100x100x3	6000	8,0
IPK100100406000H	100x100x4		10,5
IPK100120306000H	100x120x3		8,8
IPK100120406000H	100x120x4		11,5

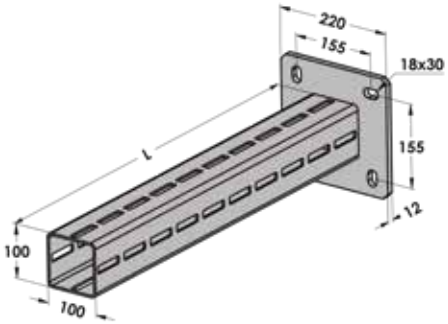
Technical Data For Square Profiles

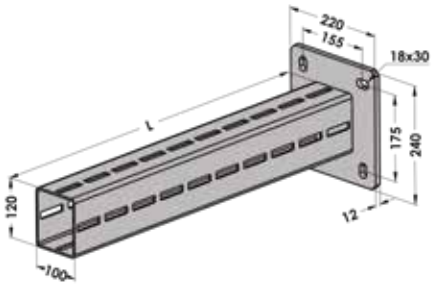


F [N]									
		F (N)				F (N)			
Code No	Size [mm]	L=1000	L=2000	L=3000	L=6000	L=1000	L=2000	L=3000	L=6000
IPK10010030...	100x100x3	31600	12600	6900	1980	16800	6600	3700	1100
IPK10010040...	100x100x4	43600	18000	10200	3000	22900	9300	5400	1800
IPK10012030...	100x120x3	39300	15800	9000	2700	20700	8300	4700	1500
IPK10012040...	100x120x4	53500	22400	12900	4200	28000	11200	6800	2300

F [N]									
		F (N)				F (N)			
Code No	Size [mm]	L=1000	L=2000	L=3000	L=6000	L=1000	L=2000	L=3000	L=6000
IPK10010030...	100x100x3	11500	4700	2600	700	7700	3100	1700	500
IPK10010040...	100x100x4	15900	6700	3900	1200	10600	4500	2600	800
IPK10012030...	100x120x3	14300	5900	3300	1000	9500	3900	2200	600
IPK10012040...	100x120x4	19600	8400	4900	1600	13000	5600	3200	1000







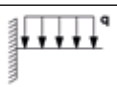
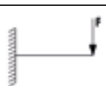
Square Profile Console

Material
- S235JR (1.0038)
- Carbon Steel acc. to EN 100025-2

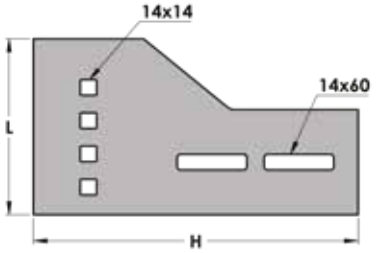
Finish
- Hot Dipped Galvanized (HDG) acc. to ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Welding

Welding acc. to EN 3834-2 / ASME Section IX, AWS D1.1

Code No	L				Weight kg/pcs
	mm	kN	kN	kN	
IWPK080080750H	750	8,0	6,0	3,0	8,1
IWPK100100750H	750	20,5	15,3	7,6	11,9
IWPK100100975H	975	12,0	11,7	5,8	14,2
IWPK1001001425H	1425	5,6	8,0	4,0	18,7
IWPK100120750H	750	26,5	20,0	9,9	13,3
IWPK100120975H	975	15,0	15,2	7,5	15,9
IWPK1001201425H	1425	7,3	10,3	5,2	21,0

Horizontal Profile Connection Plate



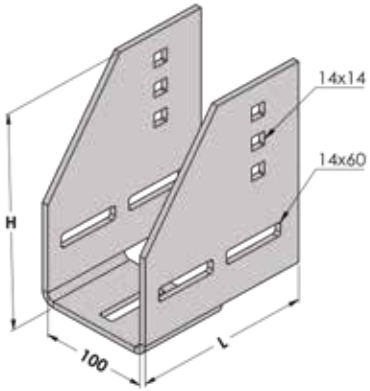
Material & Finish
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Service
Square Profile allows 15mm steps connections in the vertical direction for wall or ceiling heavy duty pipe support systems.

Code No	LxHxS	Weight (kg/pcs)
IFPKDA100120H	159 x 280 x 6	1,5

Horizontal Profile Connection Plate (Heavy)



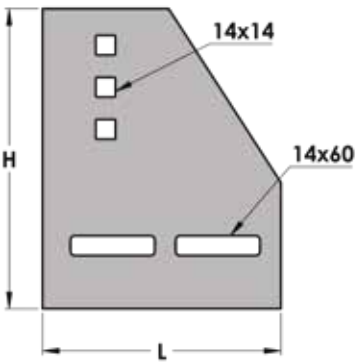
Material & Finish
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Service
Square Profile allows 15 mm steps connections in the vertical direction for wall or ceiling heavy duty pipe support systems.

Code No	LxHxS	Weight (kg/pcs)
IFPKDAH100H	214 x 170 x 6	3,0
IFPKDAH120H	234 x 170 x 6	3,4

Corner Connecting Plate



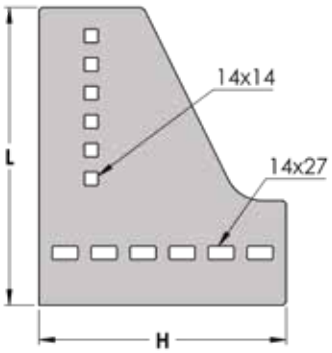
Material & Finish
• S235JR

Finish
• Hot Dipped Galvanized. (HDG) acc. to ASTM A 153/123
Electro Galvanized acc. to ASTM B 633/ASTM F 1941

Service
Corner connection plate, designed for realize the horizontal and vertical connections of square profile. Corner connection plate allows adjusting for both directions.

Code No	LxHxS	Weight (kg/pcs)
IFPKDK100H	170 x 214 x 6	1,3
IFPKDK120H	170 x 235 x 6	1,5

Corner Connecting Plate (Heavy)



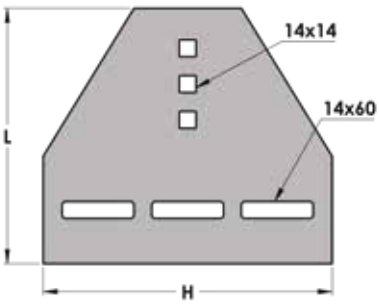
Material & Finish
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Service
Corner connection plate, designed for realize the horizontal and vertical connections of square profile. Corner connection plate allows adjusting for both directions.

Code No	LxHxS	Weight (kg/pcs)
IFPKDKH100H	295 x 260 x 6	2,3
IFPKDKH120H	313 x 260 x 7	3,2

Middle Connecting Plate



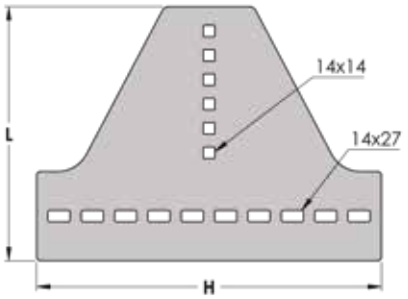
Material & Finish
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Service
Middle connection plate allows horizontal and vertical connections for square profile with adjusting both direction.

Code No	LxHxS	Weight (kg/pcs)
IFPKDO100H	214 x 242 x 6	1,8
IFPKDO120H	236 x 242 x 6	2,1

Middle Connecting Plate (Heavy)



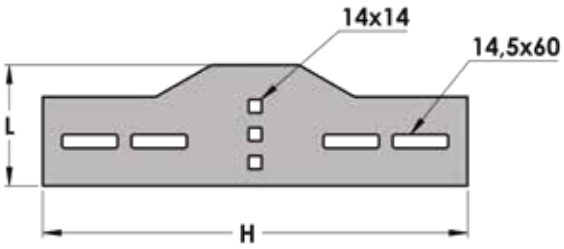
Material & Finish
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Service
Middle connection plate allows horizontal and vertical connections for square profile with adjusting both direction.

Code No	LxHxS	Weight (kg/pcs)
IFPKDOH100H	295 x 424 x 6	3,4
IFPKDOH120H	313 x 424 x 7	4,7

T Connecting Plate



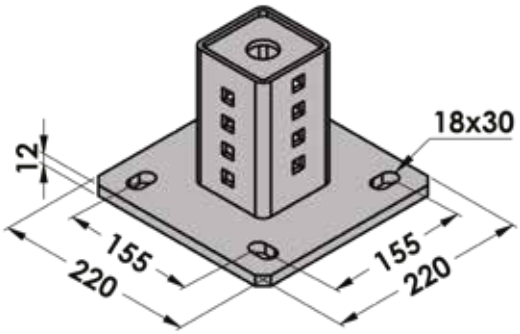
Material & Finish
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Service
T connection plate allows horizontal and vertical connections for square profile with adjusting both direction.

Code No	LxHxS	Weight (kg/pcs)
IFPKDT100120H	129x460x6	2,1

Holder



Material
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

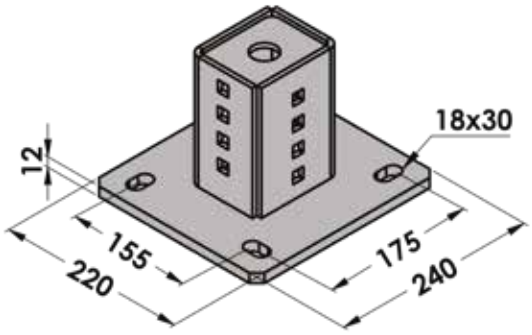
Service
Profile Holder allows vertical connections of square profile for ground or ceiling connections heavy duty pipe support systems.

Code No	Size	Weight (kg/pcs)
IFPKDTB100H	100x100	6,3

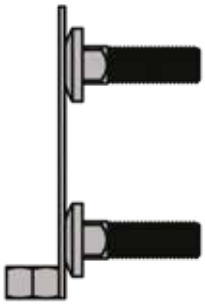
Material
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Service
Profile Holder allows vertical connections of square profile for ground or ceiling connections heavy duty pipe support systems.



Code No	Size	Weight (kg/pcs)
IFPKDTB120H	100x120	7,6



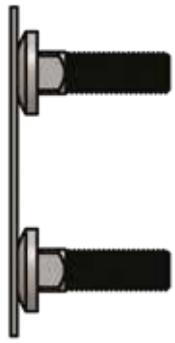
Double Bolt Holder with Nut

Material
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Service
Double bolt holder allows easy fastening for connection parts.
Designed for long inner profile fastening distances.

Code No	Weight (kg/pcs)
IFPKDCTS100120H	0,17



Double Bolt Holder without Nut

Material
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Service
Double bolt holder allows easy fastening for connection parts.
Designed for multi bolt connection. Easy to fasten nuts in one operation.

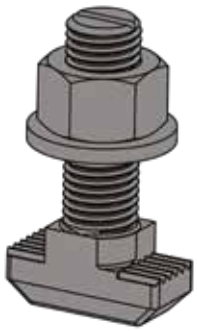
Code No	Weight (kg/pcs)
IFPKDCT100120H	0,16

Square Neck Bolt

Material
• Carbon Steel - Grade 8.8 acc. to EN 898-1
Finish
• Geomet Coating

Code No	Bolt	Weight 100 pcs (kg)
ZCKBP1240GP	M12x40	6,0
ZCKBP12120GP	M12x120	13,0
ZCKBP12140GP	M12x140	15,0

T Bolt



Material
• Carbon Steel - Grade 8.8 acc. to EN 898-1

Finish
• Geomet Coating

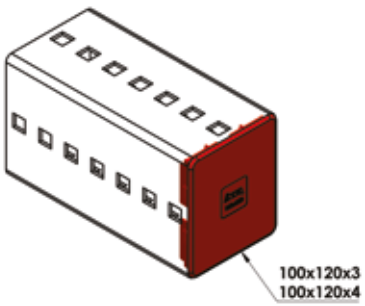
Service
T head bolts allows easy fastening for horizontal connection parts of pipe supports systems. Possible to see bolt direction with mark on it.

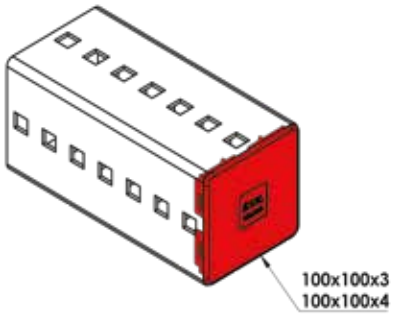
Code No	Bolt	Weight 100 pcs (kg)
ICTK1240GP	M12x40	11,0

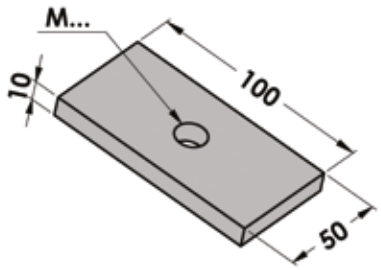
Cover

Material
• PP

Code No
• IPKT10010030
• IPKT10012030





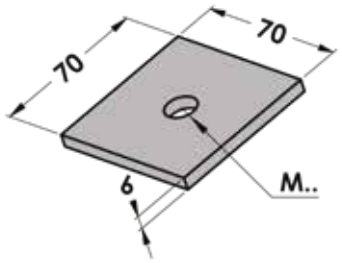


Rectangle Washer

Material
• Carbon Steel - Grade S235JR acc. to EN 10025-2

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	M	Weight 100 pcs (kg)
IFPKZPK1050100M08H	8	38
IFPKZPK1050100M10H	10	38
IFPKZPK1050100M12H	12	38
IFPKZPK1050100M16H	16	38
IFPKZPK1050100M20H	20	38

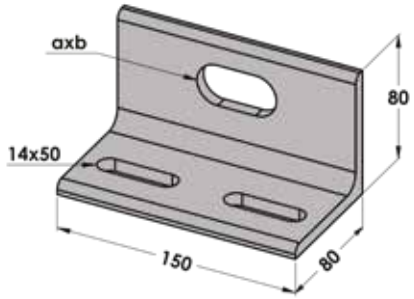


Square Washer

Material
• Carbon Steel - Grade S235JR acc.to EN 10025-2

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	M	Weight 100 pcs (kg)
IFPKZPK067070M08H	8	22
IFPKZPK067070M10H	10	22
IFPKZPK067070M12H	12	22
IFPKZPK067070M16H	16	22
IFPKZPK067070M20H	20	22



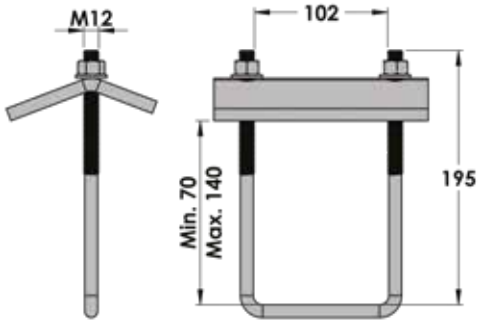
Angle

Material
• Carbon Steel - Grade S235JR acc. to EN 10025-2

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	axb	Weight (kg/pcs)
IFPKK8080M10H	12x60	1,3
IFPKK8080M12H	14x60	1,3
IFPKK8080M16H	18x60	1,3
IFPKK8080M20H	22x60	1,3
IFPKK8080M24H	26x60	1,2

Pressure Plate (Square Profile)



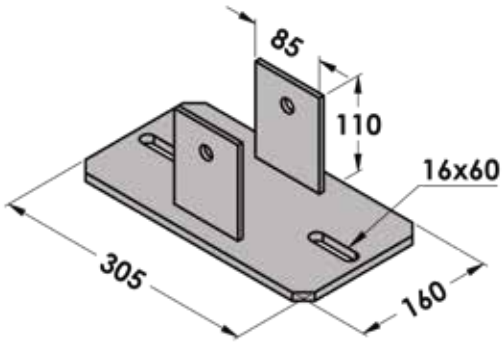
Material
• S235JR

Service
It is used for fixing square profiles to structural steels.
No drilling and welding necessary. It is very easy to
adjust the position of the profile. Supplied as preassembled.

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	Size	Square Profile	Quantity / Box	Weight / Box (kg)
		mm		
IFPKC100H	M12	100x100 / 100X120	20	38

Vertical Hinge

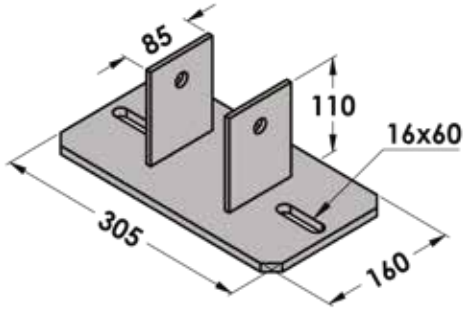


Material
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	Weight (kg/pcs)
IFPKDM100H	4,5

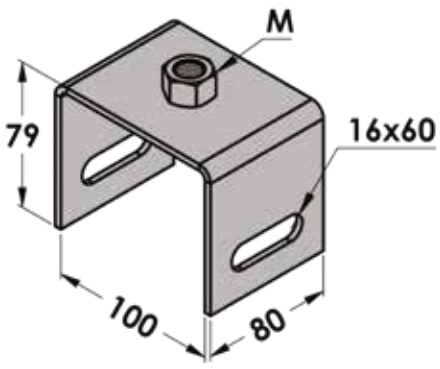
Horizontal Hinge



Material
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	Weight (kg/pcs)
IFPKYM100H	4,5



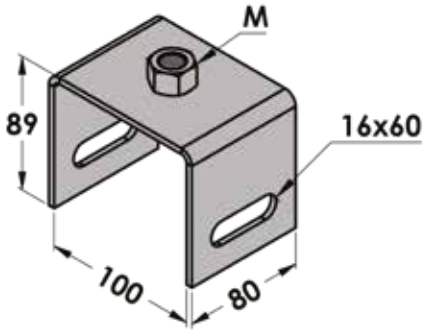
Rod Connection Bracket

Material
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	M	Weight (kg/pcs)
IFPKRB100M10H	M10	0,600
IFPKRB100M12H	M12	0,606
IFPKRB100M16H	M16	0,629
IFPKRB100M20H	M20	0,66

Rod Connection Bracket

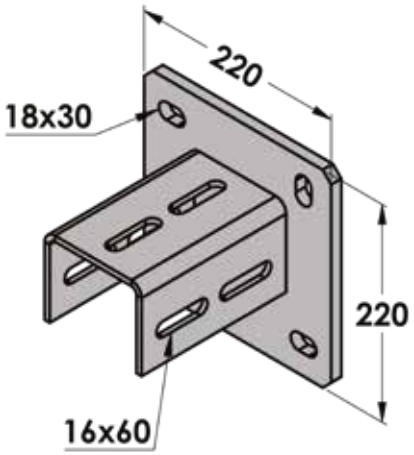


Material
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Code No	M	Weight (kg/pcs)
IFPKRB120M10H	M10	0,650
IFPKRB120M12H	M12	0,656
IFPKRB120M16H	M16	0,679
IFPKRB120M20H	M20	0,7

Wall Connection Plate



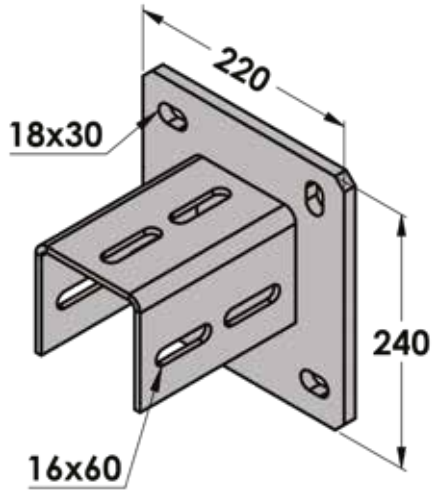
Material
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

Service
Profile Holder allows horizontal connections of square profile for wall connections heavy duty pipe support systems.

Code No	Size	Weight (kg/pcs)
IFPKTB100100H	100x100	6,3

Wall Connection Plate



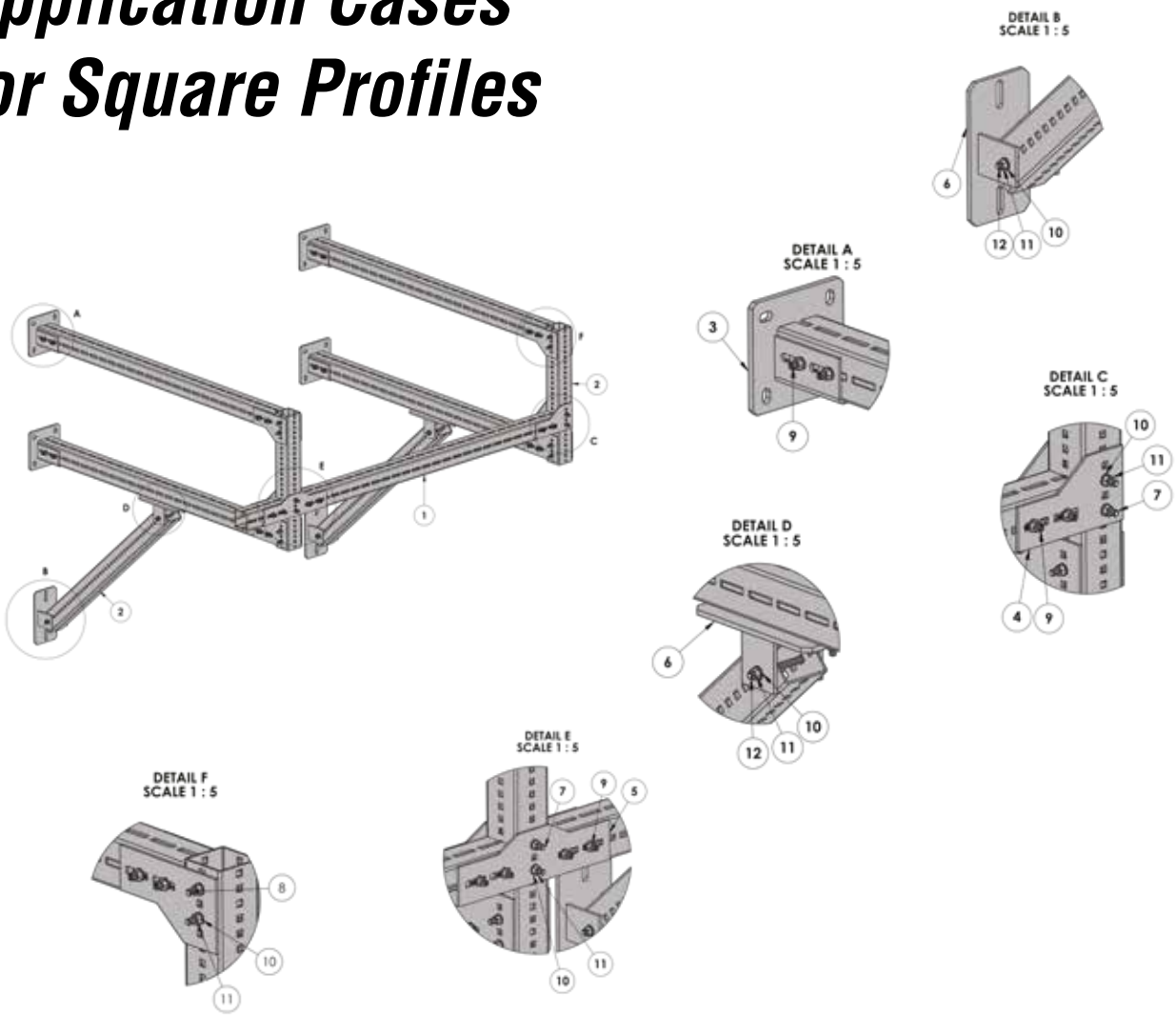
Material
• S235JR

Finish
• Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

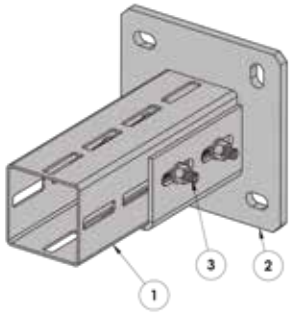
Service
Profile Holder allows horizontal connections of square profile for wall connections heavy duty pipe support systems.

Code No	Size	Weight (kg/pcs)
IFPKTB120100H	100x120	7,0

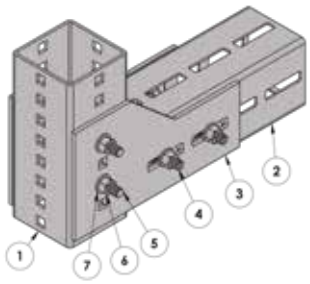
Application Cases for Square Profiles



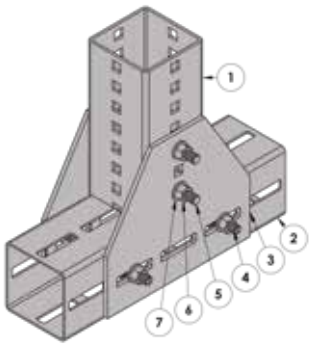
Item No.	Description	Code	Qty.
1	100x100 Suare Profile (Horizontal)	IPK100100406000	5
2	100x100 Square Profile (Vertical)	IPKD100100406000	2
3	100x100 Wall Connection Plate	IFPKTB100100	4
4	Horizontal Profile Connection Plate	IFPKDA100120	10
5	T Connection Plate	IFPKDT100120	2
6	Horizontal Hinge	IFPKYM100H	4
7	Double Bolt Holder With Nut	IFPKDCTS100120	4
8	DIN 603 (8.8) Square Neck Bolt	ZCKBP1240GP	16
9	T Bolt	ICTK1240GP	48
10	Plain Washer M12	ZPS0012	32
11	Hex Nut M12	ZSS0012	32
12	Threaded Rod M12	IRRT12...	4



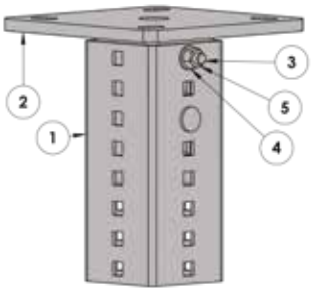
Item No.	Description	Code	Qty.
1	100x100x3 Square Profile (Horizontal)	IPK100100306000	1
2	100x100 Wall Connection Plate	IFPKTB100100	1
3	Profile T Lock	ICTK1240GP	4



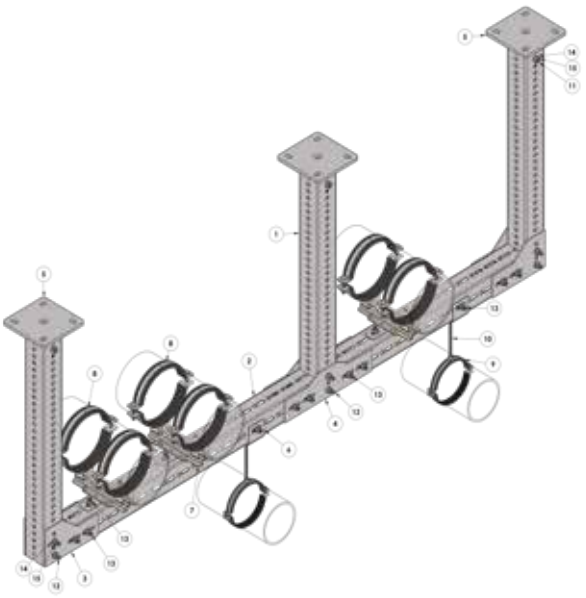
Item No.	Description	Code	Qty.
1	100x100 Square Profile (Vertical)	IPKD100100406000	1
2	100x100 Square Profile (Horizontal)	IPK100100306000	1
3	Corners Plate 5 Connection	IFPKDA100120	2
4	Profile T Lock	ICTK1240GP	4
5	Din 603 (8.8) Square Neck Bolt	ZCKBP1240GP	4
6	Hex Nut M12	ZSS0012	4
7	Plain Washer M12	ZPS0012	4



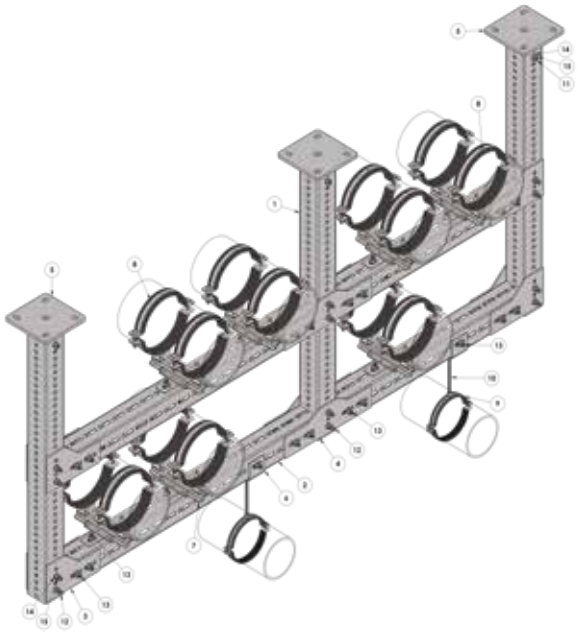
Item No.	Description	Code	Qty.
1	100x100 Square Profile (Vertical)	IPKD100100406000	1
2	100x100 Square Profile (Horizontal)	IPK100100306000	1
3	Cross Fixing Plate	IFPKDO100	2
4	Profile T Lock	ICTK1240GP	4
5	Din 603 (8.8) Square Neck Bolt	ZCKBP1240GP	4
6	Hex Nut M12	ZSS0012	4
7	Plain Washer M12	ZPS0012	4



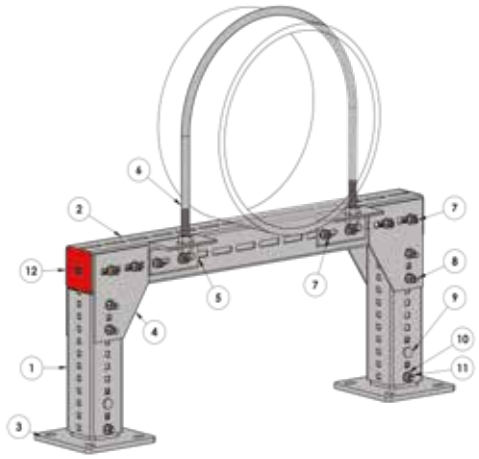
Item No.	Description	Code	Qty.
1	100x100 Square Profile (Vertical)	IPKD100100406000	1
2	100x100 Ceiling Connection Plate	IFPKDTB100	1
3	Din 603 (8.8) Square Neck Bolt	ZCKBP12120GP	2
4	Plain Washer M12	ZPS0012	2
5	Hex Nut M12	ZSS0012	2



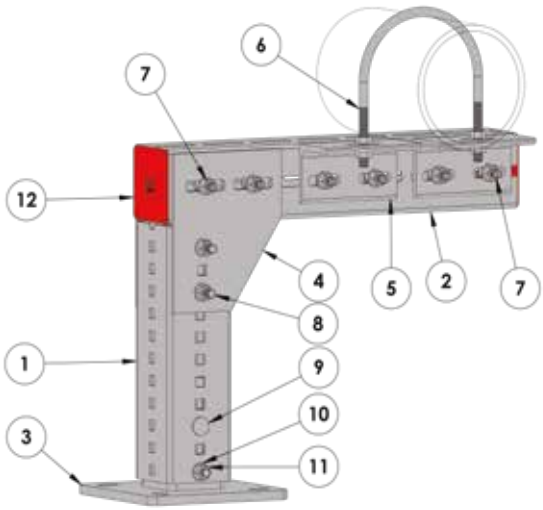
Item No.	Description	Code	Qty.
1	100x100 Square Profile (Vertical)	IPKD100100306000	3
2	100x100 Square Profile (Horizontal)	IPK100100306000	1
3	Corners Plate 5 Connection	IFPKDA100120	4
4	T Connection Plate	IFPKDT100120	2
5	100x100 Ceiling Connection Plate	IFPKDTB100	3
6	100x100 Rod Connection Bracket	IFPKRB100M10	2
7	Heavy Duty Slider (Mount on Square Profile)	IWKMLK5090245...	3
8	Heavy Duty Pipe Clamp With Rubber Profile	IKAK200	6
9	Std. Pipe Clamp With Rubber Profile & Combi Nut	IKKS150	2
10	Threaded Rod M10	IRRT102000	2
11	Din 603 (8.8) Square Neck Bolt	ZCKBP12120GP	6
12	Din 603 (8.8) Square Neck Bolt	ZCKBP1240GP	12
13	Profile T Lock	ICTK1240GP	26
14	Plain Washer M12	ZPS0012	24
15	Hex Nut M12	ZSS0012	24
16	Hex Bolt M12	ZCC1230	6
17	100x100x3 Square Profile (Horizontal)	IPK100100306000	1



Item No.	Description	Code	Qty.
1	100x100 Square Profile (Vertical)	IPKD100100306000	3
2	100x100 Square Profile (Horizontal)	IPK100100306000	2
3	Corners Plate 5 Connection	IFPKDA100120	8
4	T Connection Plate	IFPKDT100120	4
5	100x100 Ceiling Connection Plate	IFPKDTB100	3
6	100x100 Rod Connection Bracket	IFPKRB100M10	2
7	Heavy Duty Slider (Mount on Square Profile)	IWKMLK5090245...	7
8	Heavy Duty Pipe Clamp With Rubber Profile	IKAK200	14
9	Std. Pipe Clamp With Rubber Profile & Combi Nut	IKKS150	2
10	Threaded Rod M10	IRRT102000	2
11	Din 603 (8.8) Square Neck Bolt	ZCKBP12120GP	6
12	Din 603 (8.8) Square Neck Bolt	ZCKBP1240GP	24
13	Profile T Lock	ICTK1240GP	50
14	Plain Washer M12	ZPS0012	40
15	Hex Nut M12	ZSS0012	40
16	Hex Bolt M12	ZCC1230	10
17	100x100x3 Square Profile (Horizontal)	IPK100100306000	2



Item No.	Description	Code	Qty.
1	100x100 Square Profile (Vertical)	IPKD100100406000	0,69m
2	100x100 Square Profile (Horizontal)	IPK100100406000	1,05m
3	100x100 Ceiling Connection Plate	IFKDTB100	2
4	Corner Connecting Plate	IFPKDK100	4
5	80x80 Angle	IFPKK8080M20	2
6	U-Bolt	IRUB20510A	1
7	Profile T Lock	ICTK1240GP	12
8	Din 603 (8.8) Square Neck Bolt	ZCKBP1240GP	8
9	Din 603 (8.8) Square Neck Bolt	ZCKBP12120GP	4
10	Plain Washer M12	ZPS0012	12
11	Hex Nut M12	ZSS0012	12
12	100x100 Cover	IPKT10010030	2



Item No.	Description	Code	Qty.
1	100x100 Square Profile (Vertical)	IPKD100100406000	1
2	100x100 Square Profile (Horizontal)	IPK100100406000	1
3	100x100 Ceiling Connection Plate	IFKDTB100	1
4	Corner Connecting Plate	IFPKDK100	2
5	80x80 Angle	IFPKK8080M20	2
6	U-Bolt	IRUB12168A	1
7	Profile T Lock	ICTK1240GP	8
8	Din 603 (8.8) Square Neck Bolt	ZCKBP1240GP	4
9	Din 603 (8.8) Square Neck Bolt	ZCKBP12120GP	2
10	Plain Washer M12	ZPS0012	6
11	Hex Nut M12	ZSS0012	6
12	100x100 Cover	IPKT10010030	2

VENTILATION SYSTEMS

VENTILATION SYSTEMS

Ventilation Flange Profile

Size Range
20 mm & 30 mm

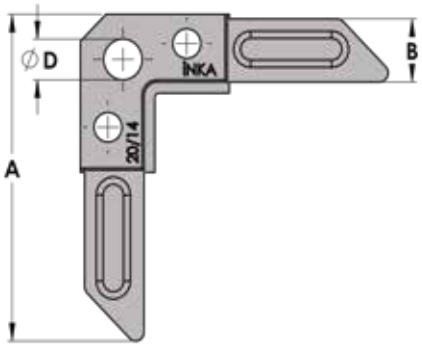
Material & Finish
- Pre-galvanized
- *Material:* DX51D
- *Coating designation:* Z200

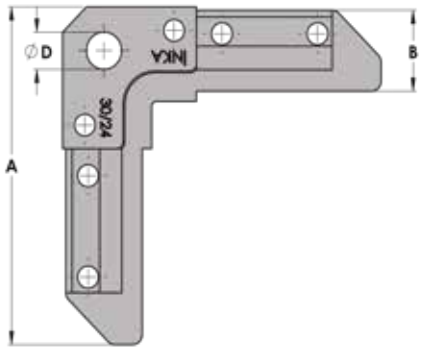
Service
Flange profiles cut in to desired lenghts and assembledias frame use for air ventilation system assembly.
Flange is used produced in our facility by rollforming method Galvanized sheet is used as raw materials.

Ordering
Available Length (L): 4 m

Code No	Size	A	B	C	L
IFFL020	20/14	27,0	20,0	10,0	4000,0
IFFL030	30/14	27,0	30,0	10,0	4000,0

Ventilation Duct Angle Piece





Material
- S235JR

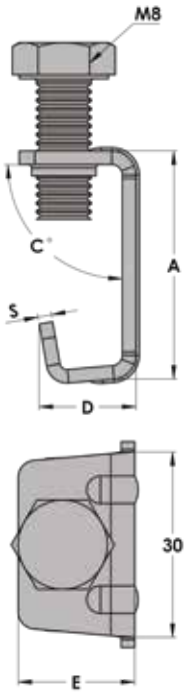
Service
Angle piece that is mounted to the flanges of rectangular air ducts, to enable their assembly to each other from the corners.

The fixing bolt must be the same dimension with the ventilation clamp bolts, to accomplish the loading values in the catalogue.

Finish
- Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	A	B	Ø D	Qty / Box	Weight per Box (kg)
	mm	mm	mm		
IFFLC2014	71,0	18,0	9,0	500	13,0
IFFLC3024	105,0	27,0	11,0	200	15,0

Ventilation Clamp



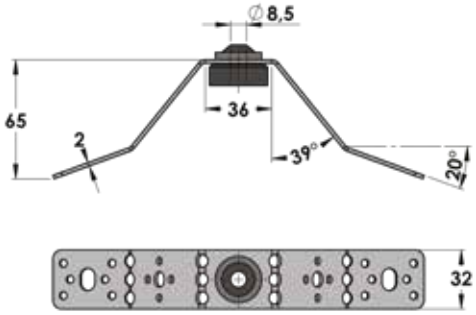
Material
• Carbon Steel

Service
The most ideal and economic element for assembling air ducts to each other from the flange. Easy clamping of profiles with the help of bolt screws. It has a rigit construction for high load carryig capacity. The clamp bolt must be the same dimensions with the flange bolts, to accomplish the loading values in the catalogue.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	S	A	C°	D	E	Qty / Box	Weight per Box (Kg)
IFHM02	2	28	95	13	20,5	150	5,4

VR Hanging Part



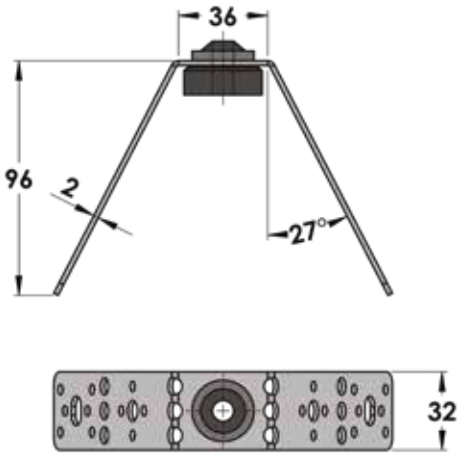
Material
• Carbon Steel

Service
Fixing elements for easy and simple assembly of circular air ducts. Height adjustment is possible with Inka threaded rod. Can be mounted to the ceiling directly. Fixed with rivets to circular air ducts EPDM protection nozzle to prevent friction between rods and mounted objects. Vibration reduction Noise reduction level up to 18 dB.

Ordering
Threaded rods, anchors and nuts should be ordered separately.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	Max. Recom. Load Kn	Qty/Box	Weight per Box (kg)
IFMAVR	230	75	9,4



VT Hanging Part

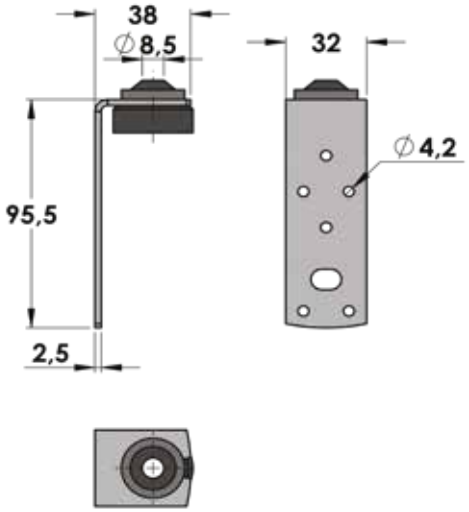
Material
• Carbon Steel

Service
Fixing elements for easy and simple assembly of circular air ducts. Height adjustment is possible with Inka threaded rod. Can be mounted to the ceiling directly. Fixed with rivets to circular air ducts. EPDM protection nozzle to prevent friction between rods and mounted objects. Vibration reduction. Noise reduction level up to 18 dB.

Ordering
Threaded rods, anchors and nuts should be ordered separately.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	Max. Recom. Load kN	Qty/Box	Weight per Box (kg)
IFMAVT	75	9,35	230,0



L Hanging Part

Material
Carbon Steel

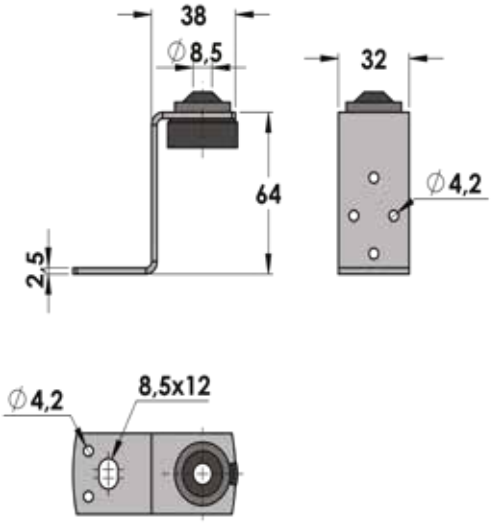
Service
Fixing elements for easy and simple assembly of air ducts.
Allow height adjustment with inka rods.
Can be mounted to the ceiling directly.
Must be fixed with rivets to air ducts.
EPDM protection nozzle to prevent friction between rods and mounted objects.
Vibration reduction.
Noise reduction level up to 18 dB.

Ordering
Rods, anchors and nuts should be ordered seperately.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	Max. Recom. Load kN	Qty/Box	Weight per Box (kg)
IFMAL	230	100	9,5

Z Hanging Part



Material
• Carbon Steel

Service
Fixing elements for easy and simple assembly of air ducts.
Allow height adjustment with inka rods. Can be mounted to the ceiling directly. Must be fixed with rivets to air ducts.
EPDM protection nozzle to prevent friction between rods and mounted objects. Vibration reduction.
Noise reduction level up to 18 dB.

Ordering
Rods, anchors and nuts should be ordered separately.

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Code No	Max. Recom. Load kN	Qty/Box	Weight per Box (kg)
IFMAZ	230	100	9,5

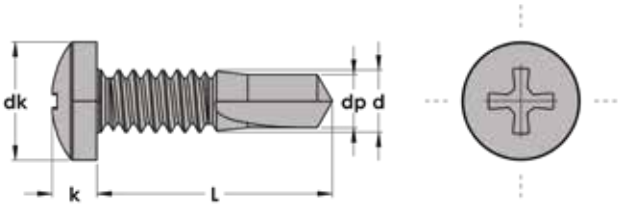
Neoprene Seal

Material
• Eva Foam

Service
Used in the connection places of the air canals in order to provide impermeability.
Temperature resistance -20°C to +100°C
Density: 70 kg/m^3 (± 10 kg/m^3)

Code No	Size	Material	Thickness (mm)	Width	Roll Length
	mm		mm		m
ZLIP515	5x15	EPDM	5,0	15,0	10,0
ZLIP520	5x20	EPDM	5,0	20,0	10,0
ZLIP525	5x25	EPDM	5,0	25,0	10,0
ZLIP530	5x30	EPDM	5,0	30,0	10,0

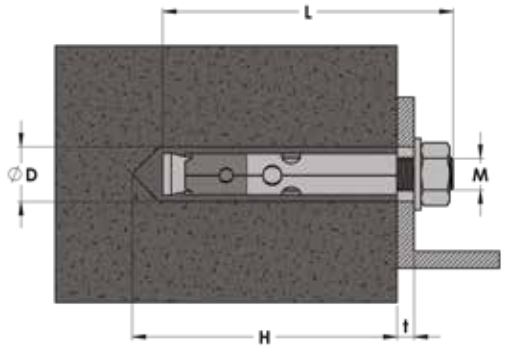
Easy Screw

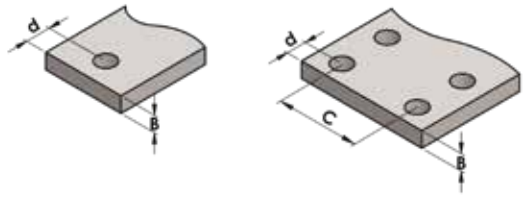


Size d	ST2.9	ST3.5	ST3.9	ST4.2	ST4.8
P (pitch)	1,1	1,3	1,3	1,4	1,6
dk	5,6	6,9	7,5	8,2	9,5
k	2,2	2,6	2,8	3,0	3,5
dp	4,5	5,0	6,0	7,0	8,0
h	1,0	2,0	2,0	2,0	2,0

Code No	Diameter Ø (mm)	Size mm	Drill Capacity	Vertical Force In Drilling	Drilling Speed rpm
9KV3913	3,9	ST3,9 x 13 mm	2,8	150 (~15)	1800-2500
9KV3916		ST3,9 x 16 mm			
9KV3919		ST3,9 x 19 mm			
9KV3922		ST3,9 x 22 mm			
9KV3925		ST3,9 x 25 mm			
9KV3932		ST3,9 x 32 mm			
9KV4219	4,2	ST4,2 x 19 mm	2,8	250 (~25,5)	1800-2500
9KV4222		ST4,2 x 22 mm			
9KV4225		ST4,2 x 25 mm			
9KV4232		ST4,2 x 32 mm			
9KV4238		ST4,2 x 38 mm			
9KV4245		ST4,2 x 45 mm			
9KV4255		ST4,2 x 55 mm			
9KV4816	4,8	ST4,8 x 16 mm	3,6	250 (~25,5)	1800-2500
9KV4819		ST4,8 x 19 mm			
9KV4832		ST4,8 x 32 mm			
9KV4838		ST4,8 x 38 mm			
9KV4850		ST4,8 x 50 mm			
9KV6350	6,3	ST6,3 x 50 mm	5.3	350(~35.5)	1000-1800

ANCHOR & FIXING SYSTEMS





Sleeve Anchor

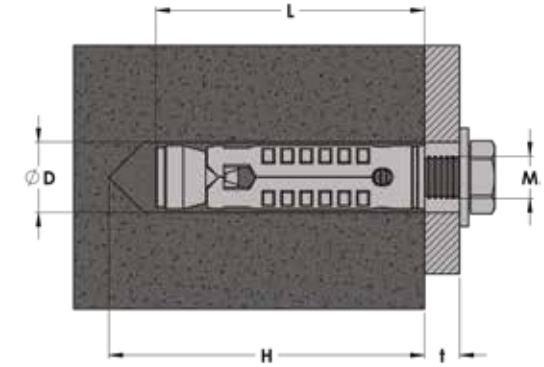
Service
Economic and fast means of anchoring for medium load and low quality concrete.
The sleeve which easily expands even in short holes and light loads insures safe anchoring and fastening properties.
Suitable for fastening of vibrating elements.

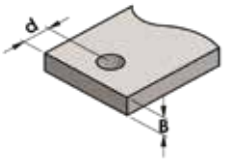
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

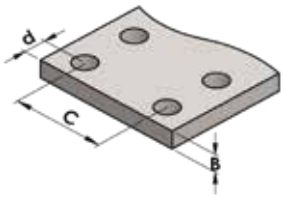
Size	M6	M8	M10	M12
Max. Permissible load for singe anchor (kN)	1,5	2,0	3,0	5,0
Permissible bending moment at proper edge and axial spacing (Nm)	3,2	5,2	12,9	25,7

Code No	M	L	Ø D	H	t (Max.)	Distance Between Anchor	Distance from Edge	Fastenable Thickness	Qty/Box	Weight Per Box (kg)
		mm	mm	mm	mm	c mm	d mm	e mm		
IDGM06050	M6	46,0	8,0	55,0	8,0	130,0	90,0	100,0	800	12,6
IDGM06065	M6	65,0	8,0	75,0	30,0	130,0	90,0	100,0	600	12,6
IDGM08055	M8	55,0	10,0	65,0	10,0	160,0	100,0	120,0	400	12,4
IDGM08075	M8	75,0	10,0	80,0	35,0	160,0	100,0	120,0	300	12,7
IDGM08100	M8	100,0	10,0	110,0	40,0	160,0	100,0	120,0	200	13,4
IDGM10070	M10	70,0	12,0	80,0	15,0	200,0	125,0	140,0	200	12,2
IDGM10085	M10	85,0	12,0	95,0	40,0	200,0	125,0	140,0	200	14,6
IDGM10110	M10	110,0	12,0	120,0	60,0	200,0	125,0	140,0	100	9,2
IDGM12075	M12	75,0	16,0	85,0	15,0	220,0	140,0	160,0	150	15,3
IDGM12090	M12	90,0	16,0	100,0	50,0	220,0	140,0	160,0	100	12,0
IDGM12110	M12	110,0	16,0	120,0	70,0	220,0	140,0	160,0	100	14,1

Draw-in Anchor







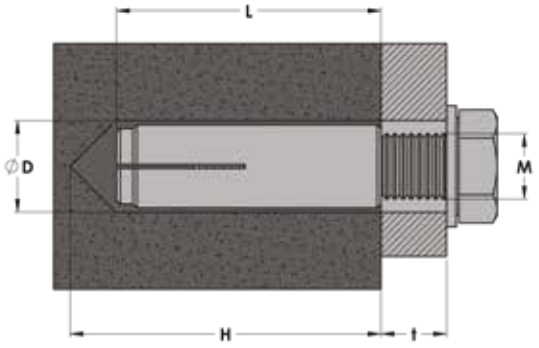
Service
Can be used with standart hex bolt or stud
The extending tongues prevent co-rotation during installation.

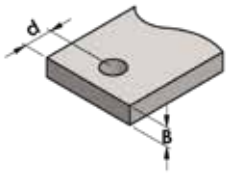
Ordering
Bolt length, l = L + t
Stud length, l = L + t + thickness of washer & nut

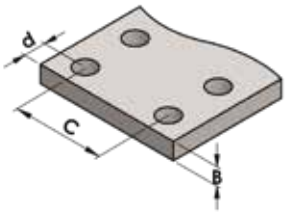
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Size	M6	M8	M10	M12	M16
Max. permissible load for singe anchor (kN) bolt material 5.6	0,8	3,5	5,0	7,4	8,4
Permissible bending moment at proper edge and axial spacing (Nm) bolt material 5.6	5,1	12,5	24,9	43,7	85,0

Code No	M	L	Ø D	H	t (Max)	Distance Between Anchor	Distance from Edge	Fastenable Thickness	Qty/Box	Weight Per Box (kg)
		mm	mm	mm	mm	c mm	d mm	e mm		Kg
IDCES06	M6	45,0	10,0	50,0	7,0	260,0	130,0	160,0	1800	11,2
IDCES08	M8 (S)	57,0	12,0	60,0	9,0	300,0	150,0	200,0	1200	8,1
IDCES10	M10 (S)	63,0	15,0	70,0	11,0	360,0	180,0	200,0	600	7,8
IDCES12	M12 (S)	75,0	18,0	85,0	13,5	460,0	250,0	240,0	300	10,7
IDCE16	M16	90,0	24,0	110,0	17,5	520,0	250,0	320,0	100	10,0







Drop-in Anchor

Service
An economical steel anchor that fastens safely and quickly and requires short hole in the concrete substrate. Conical plug provides uniform expansion and safe holding.

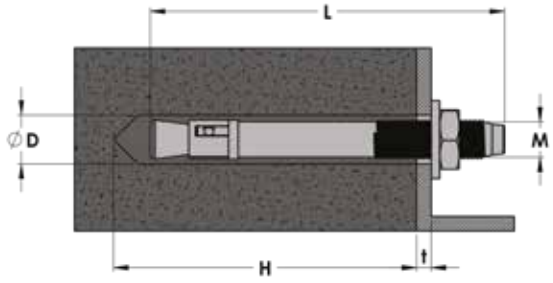
Ordering
Bolt length should be chosen according to the table.

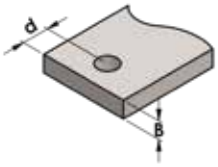
Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

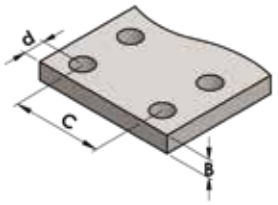
Size	M6	M8	M10	M12	M16	M20
Max. permissible load for singe anchor (kN) bolt material 5.6	1	1,8	3,6	5,7	7,4	11,3
Permissible bending moment at proper edge and axial spacing (Nm) bolt material 5.6	2,5	6,2	12,5	21,8	55,8	108,2
Threading length (min.) V mm	6	8	10	12	16	20
Threading length (max.) V mm	10	12	15	18	20	30
Length of the bolt to be used cb mm	V+t	V+t	V+t	V+t	V+t	V+t

Code No	M	L	Ø D	H	t (Max)	Distance Between Anchor	Distance from Edge	Fastenable Thickness	Qty/Box	Weight per Box (kg)
		mm	mm	mm	mm	c mm	d mm	e mm		
IDCA06	M6	25,0	8,0	25,0	11,0	200,0	100,0	160,0	2400	16,0
IDCA08	M8	30,0	10,0	30,0	13,0	240,0	120,0	160,0	1200	14,4
IDCA10	M10	40,0	12,0	40,0	17,0	320,0	160,0	200,0	800	17,9
IDCA12	M12	50,0	15,0	50,0	18,0	400,0	200,0	200,0	400	18,8
IDCA16	M16	65,0	20,0	65,0	21,0	520,0	260,0	240,0	200	22,0
IDCA20	M20	80,0	25,0	80,0	30,0	640,0	320,0	320,0	100	19,0

Monoclip Anchor







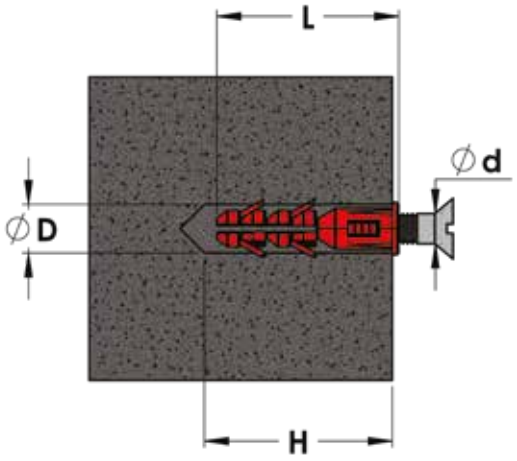
Service
Provides fast and easy setting
Drill hole diameter=bolt diameter
Suitable for anchoring at ceilings
Suitable for fixing metal profiles, consoles and etc.

Ordering
Upon request can be manufactured stainless steel material (A2 & A4)

Finish
• Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

Size	M8	M10	M12	M16
Max. permissible load for singe anchor (kN)	1,4	2,3	3,2	5,8
Permissible bending moment at proper edge and axial spacing (Nm)	11,7	23,4	34,9	88,8

Code No	M	L	Ø D	H	hv	t (Max)	Distance Between Anchor	Distance from Edge	Fastenable Thickness	Qty/Box	Weight per Box (kg)
		mm	mm	mm	mm	mm	c mm	d mm	e mm		
IDKL08075	M8	75,0	8,0	60,0	45,0	9,0	260,0	130,0	100,0	400	12,6
IDKL08120	M8	120,0	8,0	105,0	65,0	9,0	260,0	130,0	100,0	150	6,5
IDKL10090	M10	90,0	10,0	80,0	55,0	12,0	300,0	150,0	120,0	200	11,6
IDKL10120	M10	120,0	10,0	110,0	55,0	12,0	300,0	150,0	120,0	150	11,6
IDKL12110	M12	110,0	12,0	100,0	65,0	14,0	360,0	180,0	140,0	120	13,1
IDKL16145	M16	145,0	16,0	130,0	85,0	18,0	460,0	230,0	160,0	50	12,3



Plastic Anchor

Service
It is plastic anchor that can withstand high pullout loads because of its special profile and provides safe and easy fastening. Because of the high plastic quality; no breaking, bending and cracking during setting.

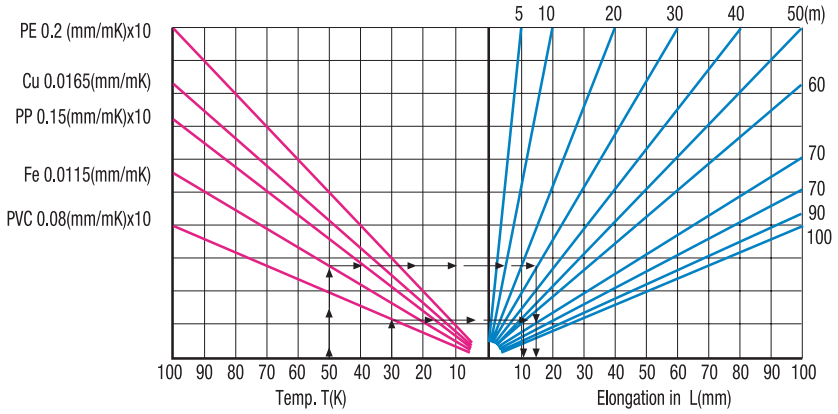
Ordering
The screw sizes should be suitable to the plastic anchor size. For a safe application, correct drill size should be chosen.

Code No	Size No	Color	L	Ø D	H	Ød	Qty/Box	Weight per Box (kg)
		mm	mm	mm	mm	mm		
IDPL06	M6	GREY	30,0	6,0	40,0	3,5 - 5,0	1000	0,6
IDPL07	M7	GREEN	35,0	7,0	45,0	4,0 - 5,5	1000	0,8
IDPL08	M8	BLUE	40,0	8,0	50,0	4,5 - 6,0	1000	1,2
IDPL10	M10	RED	45,0	10,0	55,0	6,0 - 8,0	1000	1,7
IDPL12	M12	GREY	55,0	12,0	65,0	8,0 - 10,0	500	1,5

TECHNICAL DATA

Expansion Diagrams for Various Types of Pipes

Expansion diagrams for various type of pipes. With increase in temperature, all metal and plastic pipes expand. To eliminate high tension forces to build up, the value of elongation should be known and the necessary precautions should be taken. For this purpose, please refer following diagram.

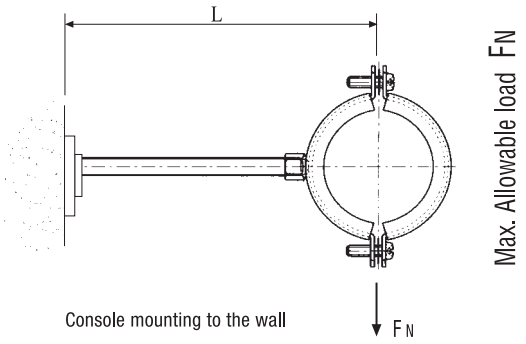


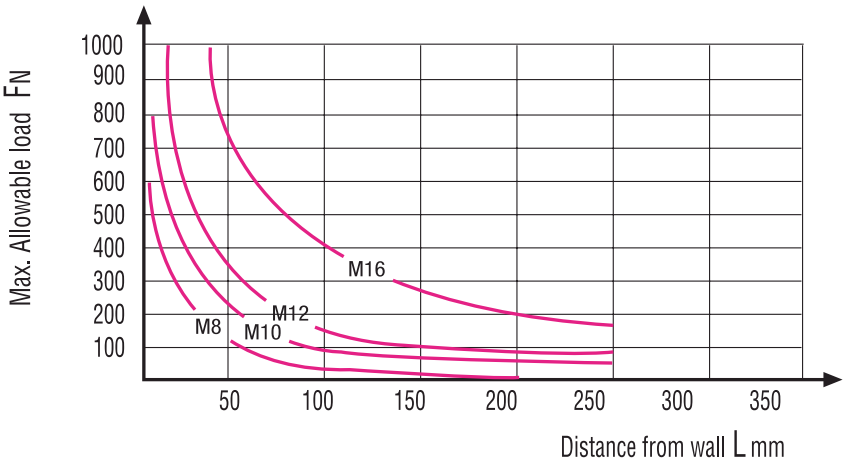
$\Delta L = \alpha L \Delta T$
L: Length of pipe (mm)
ΔL= Elongation (mm)
ΔT= Difference in temp. (K)
α: Thermal expansion coefficient (mm/mK)

ATTENTION : For plastic pipes (PE, PP, PVC) the elongation value from the diagram, should be multiplied by ten.

Example 1:		Example 2:	
Steel pipe (FE)	L = 30 m	Plastic pipe	L =40 m
Temp Difference	ΔT= 50°C	Temp. Difference	ΔT= 30°C
Elongation in	ΔL= 16 mm	Elongation in	ΔL= 9x10= 90 mm

Allowable loads for wall mounted threaded rods in relation to thread size and distance from wall





Size	L (mm)					
	50	100	150	200	250	300
M8	80	40	18			
M10	160	85	60	35	20	10
M12	300	150	90	50	35	25
M16	700	380	250	175	120	90

Pipe Dimensions, Weight and Clamping Ranges

Threaded Tube DIN EN 10255 [as a replacement for DIN 2440]						
Nominal Diameter DN	Nominal Diameter (inch)	Outside Diameter (mm)	Wall Thickness (mm)	Pipe Weight (kg/m)	Water filled Pipe Weight (kg/m)	Maximum Span (m)
8	1/4''	13,5	2,35	0,65	0,71	1,5
10	3/8''	17,2	2,35	0,86	0,98	2,25
15	1/2''	21,3	2,65	1,22	1,42	2,75
20	3/4''	26,9	2,65	1,58	1,95	3
25	1''	33,7	3,25	2,44	3,02	3,5
32	1 1/4''	42,4	3,25	3,14	4,15	3,75
40	1 1/2''	48,3	3,25	3,61	4,98	4,25
50	2''	60,3	3,65	5,1	7,31	4,75
65	2 1/2''	76,1	3,65	6,52	10,24	5,5
80	3''	88,9	4,05	8,47	13,6	6
100	4''	114,3	4,5	12,19	20,89	6
125	5''	139,7	4,85	16,13	29,4	6
150	6''	165,1	4,85	19,17	38,13	6

Steel Pipes DIN EN 10220, seamless (as a replacement for DIN 2448)						
Nominal Diameter DN	Nominal Diameter (inch)	Outside Diameter (mm)	Wall Thickness (mm)	Pipe Weight (kg/m)	Water filled Pipe Weight (kg/m)	Maximum Span (m)
15	1/2''	20,0	1,8	0,80	1,00	2,25
15	1/2''	21,3	2,0	1,00	1,20	2,75
15	1/2''	22,0	2,0	1,00	1,20	2,75
20	3/4''	25,0	2,0	1,10	1,50	3
20	3/4''	25,4	2,0	1,20	1,50	3
20	3/4''	26,9	2,3	1,40	1,80	3
25	1''	30,0	2,3	1,60	2,10	3
25	1''	31,8	2,6	1,90	2,40	3,25
25	1''	32,0	2,6	1,90	2,40	4,25
32	1 1/4''	33,7	2,6	2,00	2,60	3,5
32	1 1/4''	35,0	2,3	1,90	2,60	3,5
32	1 1/4''	38,0	2,6	2,30	3,10	3,65
32	1 1/4''	40,0	2,6	2,40	3,30	3,65
32	1 1/4''	42,4	2,6	2,60	3,60	3,7
40	1 1/2''	44,5	2,6	2,70	3,90	3,75
40	1 1/2''	48,3	2,6	2,90	4,40	4,25
50	2''	51,0	2,6	3,10	4,80	4,4
50	2''	54,0	2,6	3,30	5,20	4,4
50	2''	57,0	2,9	3,90	5,90	4,6
50	2''	60,3	2,9	4,10	6,40	4,75
65	2 1/2''	63,5	2,9	4,30	6,90	4,75
65	2 1/2''	70,0	2,9	4,80	8,00	5
65	2 1/2''	73,0	2,9	5,00	8,60	5
65	2 1/2''	76,1	2,9	5,20	9,10	5,5
80	3''	82,5	3,2	6,30	10,80	5,75
80	3''	88,9	3,2	6,80	12,10	6
80	3''	101,6	3,6	8,70	15,70	6
100	4''	108,0	3,6	9,30	17,20	6
100	4''	114,3	3,6	9,80	18,80	6
100	4''	127,0	4,0	12,10	23,30	6
125	5''	133,0	4,0	12,70	25,00	6
125	5''	139,7	4,0	13,40	27,00	6
125	5''	141,3	4,0	13,50	27,50	6
125	5''	152,4	4,5	16,40	32,60	6
150	6''	159,0	4,5	17,10	34,80	6
150	6''	168,3	4,5	18,2	38,1	6
150	6''	177,8	5	21,3	43,4	6
200	8"	193,7	5,4	25,1	51,3	6
200	8"	219,1	6,3	33,1	66,6	6
200	8"	244,5	6,3	37	79,2	6
250	10"	273	6,3	41,4	94,7	6
300	12"	323,9	7,1	55,5	130,8	6
350	14"	355,6	8	68,6	159,2	6
400	16"	406,4	8,8	86,3	205	6
400	16"	457	10	110,2	260,2	6
500	20"	508	11	134,8	320,3	6
500	20"	559	12,5	168,5	392,4	6
600	24"	610	12,5	184,2	453	6

Pipe Dimensions, Weight and Clamping Ranges

Steel Pipes DIN EN 10220, welded [as a replacement for DIN 2458]

Nominal Diameter DN	Nominal Diameter [inch]	Outside Diameter [mm]	Wall Thickness [mm]	Pipe Weight [kg/m]	Water filled Pipe Weight [kg/m]	Maximum Span [m]
15	1/2''	20,0	1,8	0,80	1,00	2,25
15	1/2''	21,3	2,0	1,00	1,20	2,75
15	1/2''	22,0	2,0	1,00	1,20	2,75
20	3/4''	25,0	2,0	1,10	1,50	3
20	3/4''	25,4	2,0	1,20	1,50	3
20	3/4''	26,9	2,3	1,40	1,80	3
25	1''	30,0	2,3	1,60	2,10	3
25	1''	31,8	2,6	1,90	2,40	3,25
25	1''	32,0	2,6	1,90	2,40	4,25
32	1 1/4''	33,7	2,6	2,00	2,60	3,5
32	1 1/4''	35,0	2,3	1,90	2,60	3,5
32	1 1/4''	38,0	2,6	2,30	3,10	3,65
32	1 1/4''	40,0	2,6	2,40	3,30	3,65
32	1 1/4''	42,4	2,6	2,60	3,60	3,7
40	1 1/2''	44,5	2,6	2,70	3,90	3,75
40	1 1/2''	48,3	2,6	2,90	4,40	4,25
50	2''	51,0	2,6	3,10	4,80	4,4
50	2''	54,0	2,6	3,30	5,20	4,4
50	2''	57,0	2,9	3,90	5,90	4,6
50	2''	60,3	2,9	4,10	6,40	4,75
65	2 1/2''	63,5	2,9	4,30	6,90	4,75
65	2 1/2''	70,0	2,9	4,80	8,00	5
65	2 1/2''	73,0	2,9	5,00	8,60	5
65	2 1/2''	76,1	2,9	5,20	9,10	5,5
80	3''	82,5	3,2	6,30	10,80	5,75
80	3''	88,9	3,2	6,80	12,10	6
80	3''	101,6	3,6	8,70	15,70	6
100	4''	108,0	3,6	9,30	17,20	6
100	4''	114,3	3,6	9,80	18,80	6
100	4''	127,0	4,0	12,10	23,30	6
125	5''	133,0	4,0	12,70	25,00	6
125	5''	139,7	4,0	13,40	27,00	6
125	5''	141,3	4,0	13,50	27,50	6
125	5''	152,4	4,5	16,40	32,60	6
150	6''	159,0	4,5	17,10	34,80	6
150	6''	168,3	4,5	18,2	38,1	6
150	6''	177,8	5	21,3	43,4	6
200	8"	193,7	5,4	25,1	51,3	6
200	8"	219,1	6,3	33,1	66,6	6
200	8"	244,5	6,3	37	79,2	6
250	10"	273	6,3	41,4	94,7	6
300	12"	323,9	7,1	55,5	130,8	6
350	14"	355,6	8	68,6	159,2	6
400	16"	406,4	8,8	86,3	205	6
400	16"	457	10	110,2	260,2	6
500	20"	508	11	134,8	320,3	6
500	20"	559	12,5	168,5	392,4	6
600	24"	610	12,5	184,2	453	6

Copper Pipes DIN EN 1057 [as a replacement for DIN 1786]

Nominal Diameter DN	Nominal Diameter (inch)	Outside Diameter (mm)	Wall Thickness (mm)	Pipe Weight (kg/m)	Water filled Pipe Weight (kg/m)	Maximum Span (m)
8	1/4"	10,0	1,0	0,25	0,30	1
10	3/8"	12,0	1,0	0,31	0,39	1,25
12	3/8"	15,0	1,0	0,39	0,53	1,25
15	1/2''	18,0	1,0	0,48	0,68	1,5
20	3/4''	22,0	1,0	0,59	0,91	2
25	1''	28,0	2,0	1,12	1,61	2,25
32	1 1/4''	35,0	2,0	1,41	2,22	2,75
40	1 1/2''	42,0	2,0	1,71	2,90	3
50	2''	54,0	2,0	2,93	4,89	3,5
60		64,0	2,0	3,49	6,32	4
65	2 1/2''	76,0	2,0	4,17	8,25	4,25
80	3''	89,0	2,0	4,89	10,55	4,75
100	4''	108,0	3,0	7,42	15,76	5
125	5''	133,0	3,0	10,98	23,65	5
150	6''	159,0	3,0	13,17	31,56	5
200	8"	219,0	3,0	18,24	53,87	5
250	10"	267,0	3,0	22,29	75,80	5

Pipe Dimensions, Weight and Clamping Ranges

Drain Pipes SML DIN 19522						
Nominal Diameter DN	Nominal Diameter [inch]	Outside Diameter [mm]	Wall Thickness [mm]	Pipe Weight [kg/m]	Water filled Pipe Weight [kg/m]	Maximum Span [m]
40	40	48	3,0	3,07	4,46	1,5
50	50	58	3,5	4,34	6,39	1,5
70	70	78	3,5	5,94	9,90	1,5
80	80	83	3,5	6,34	10,87	1,5
100	100	110	3,5	8,49	16,82	1,5
125	125	135	4,0	11,93	24,60	1,5
150	150	160	4,0	14,21	32,36	1,5
200	200	210	5,0	23,35	54,76	1,5
250	250	274	5,5	33,64	87,96	1,5
300	300	326	6,0	43,73	121,17	1,5
400	400	429	8,1	77,65	211,49	1,5
500	500	532	9,0	107,21	314,71	1,5
600	600	635	9,9	140,95	438,20	1,5

Drain Pipes PVC hard DIN 8062, series 3						
Nominal Diameter DN	Nominal Diameter [inch]	Outside Diameter [mm]	Wall Thickness [mm]	Pipe Weight [kg/m]	Water filled Pipe Weight [kg/m]	Maximum Span [m]
DN40	1 1/2''	50	1,8	0,40	2,09	0,5
DN50	2''	63	1,9	0,53	3,29	0,6
DN70	2 1/2''	75	2,2	0,73	4,65	0,8
DN80	3''	90	2,7	1,08	6,70	0,9
DN100	4''	110	3,2	1,57	10,00	1,2
DN125	5''	125	3,7	2,06	12,92	1,3
DN150	6''	160	4,7	3,35	21,16	1,8
Ø180	-	180	5,3	4,25	26,78	2
Ø200	-	200	5,9	5,25	33,07	2,2
Ø225	-	225	6,6	6,61	41,84	2,3
Ø250	-	250	7,3	8,13	51,65	2,4
Ø280	-	280	8,2	10,22	64,80	2,5
Ø315	-	315	9,2	12,90	82,00	2,6

Pressure Pipes PN16 PVC hard DIN 8062, series 5						
Nominal Diameter DN	Nominal Diameter [inch]	Outside Diameter [mm]	Wall Thickness [mm]	Pipe Weight [kg/m]	Water filled Pipe Weight [kg/m]	Maximum Span [m]
DN6	1/4"	14	1,2	0,11	0,17	1,07
DN10	3/8"	17	1,5	0,14	0,26	1,22
DN15	1/2"	21	1,9	0,20	0,40	1,37
DN20	3/4"	27	2,4	0,30	0,60	1,37
DN25	1"	33	3,0	0,40	0,90	1,52
DN32	1 1/4"	42	3,7	0,60	1,50	1,68
DN40	1 1/2"	48	4,7	0,70	2,00	1,68
DN50	2"	60	5,6	0,90	3,00	1,68
DN65	2 1/2"	73	6,7	1,50	4,51	1,98
DN80	3"	89	8,2	2,00	6,70	2,13
DN90	3 1/2"	102	10,4	2,40	8,70	2,13
DN100	4"	114	11,9	2,80	11,00	2,13
DN125	5"	141	13,4	4,10	17,00	2,29
DN150	6"	168	14,9	4,90	23,00	2,44
DN200	8"	219	16,7	7,80	39,90	2,59
DN250	10"	273	18,6	11,10	61,80	2,74
DN300	12"	324	20,8	14,90	87,00	3,20

Which Clamp to Which Pipe

Clamp Size		Water Pipe Cast Iron (SML)		Water Pipe Hard PVC (DIN 1953)		PE Plastic Pipe (DIN 19535)	
Size (inch)	Clamping Range (mm)	Nominal Diameter	Diameter (inch)	Nominal Diameter	Diameter (inch)	Size (inch)	Clamping Range (mm)
1/4''	12/15	-	-	-	-	-	-
3/8''	16/20	-	-	-	-	-	-
1/2''	20/24	-	-	-	-	-	-
3/4''	25/30	-	-	-	-	-	-
1''	32/38	-	-	-	-	30	32
1 1/4''	39/46	-	-	-	-	-	40
1 1/2''	48/53	40	48	40	50	40	50
-	-	-	-	-	-	-	-
-	54/58	50	58	-	-	50	56
2''	59/66	-	-	50	63	-	63
-	-	-	-	-	-	-	-
-	67/73	-	-	-	-	-	-
2 1/2''	74/80	70	78	70	75	70	75
-	80/87	80	83	-	-	-	-
3''	87/94	-	-	80	90	80	90
-	95	-	-	-	-	-	-
-	99/108	100	110	100	110	100	110
4''	108/116	-	-	-	-	-	-
-	120/129	-	-	125	125	125	125
-	129/135	125	135	-	-	-	-
5''	135/143	-	-	-	140	-	-
-	149/161	-	-	-	-	-	-
6''	162/170	150	160	150	160	150	160
-	-	200	210	200	210	-	-
-	-	-	-	-	-	200	200
8''	216/222	-	-	250	250	250	250
-	-	-	-	-	-	-	-
10''	267/273	250	274	280	280	-	-
-	297/303	-	-	-	-	-	-
-	-	300	326	300	315	300	315
12''	320/330	-	-	-	-	-	-
14''	354/362	-	-	-	-	-	-
-	366/374	-	-	-	-	-	-
16''	404/412	-	-	400	400	-	-
-	415/422	-	-	-	-	-	-
-	-	400	429	-	-	-	-
20''	506/512	-	-	-	-	-	-
-	519/525	-	-	-	-	-	-
-	608/614	-	-	-	-	-	-
-	658/665	-	-	-	-	-	-
-	-	500	532	-	-	-	-
-	-	600	635	-	-	-	-

INKA FIXING SYSTEMS / TRUE SOLUTION

Which Clamp to Which Pipe

Clamp Size		Steel Pipe (DIN 2440)			Steel Pipe (DIN 2448)		Copper Pipe (DIN1786)		Stainless Steel DIN 17440	
Size (inch)	Clamping Range (mm)	Nominal Diameter	Diameter (inch)	Diameter (inch)	Nominal Diameter	Diameter (inch)	Nominal Diameter	Diameter (inch)	Nominal Diameter	Diameter (inch)
-	-	-	-	-	-	10,2	-	10	-	-
-	-	-	-	-	-	13,5	-	-	-	-
1/4''	12/15	8	1/4''	13,5	-	16	12 / 15	12 / 15	-	15
3/8''	16/20	10	3/8''	17,2	10	17,2	18	18	-	-
-	-	-	-	-	-	20	-	-	-	-
1/2''	20/24	15	1/2''	21,3	15	21,3	22	22	15	18/21,3
-	-	-	-	-	-	25	-	-	-	-
3/4''	25/30	20	3/4''	26,9	20	26,9	28	28	20	22/26,9/28
-	-	-	-	-	-	30	-	-	-	-
-	-	-	-	-	-	31,8	-	-	-	-
1''	32/38	25	1''	33,7	25	33,7	35	35	25	33,7/35
1 1/4''	39/46	32	1 1/4''	42,4	32	42,4	42	42	32	42,4
-	-	-	-	-	-	44,5	-	-	-	-
-	-	40	1 1/2''	48,3	40	48,3	-	-	40	48,3
-	-	-	-	-	46	51	54	54	-	54
-	54/58	-	-	-	50	57	-	-	-	-
-	-	50	2''	60,3	50	60,3	-	-	-	-
-	-	-	-	-	57	63,5	64	64	-	-
-	67/73	-	-	-	-	70	-	-	-	-
2 1/2''	74/80	65	2 1/2''	76,1	65	76,1	76,1	76,1	65	76,1
-	80/87	-	-	-	76	82,5	-	-	-	-
3''	87/94	80	3''	88,9	80	88,9	88,9	88,9	80	88,9
-	-	-	-	-	94	101,6	-	-	-	-
-	99/108	-	-	-	100	108	108	108	-	108
4''	-	100	4''	114,3	100	114,3	-	-	-	114,3
-	-	-	-	-	-	127	-	-	-	-
-	129/135	-	-	-	125	133	133	133	-	133
5''	135/143	125	5''	139,7	125	139,7	-	-	125	139,7
-	-	-	-	-	-	152,4	-	-	-	-
-	149/161	-	-	-	150	159	159	159	-	159
-	-	150	6''	165,1	-	-	160	160	-	168,3
-	-	-	-	-	-	168,3	-	-	-	-
-	-	-	-	-	-	177,8	-	-	-	-
-	-	-	-	-	-	193,7	-	-		-
-	-	-	-	-	200	219	219	219	-	-
8''	-	-	-	-	-	244,5	-	-	-	219,1
-	-	-	-	-	-	-	267	267	-	-
10''	-	-	-	-	-	-	-	-	-	273
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
12''	320/330	-	-	-	300	323,9	-	-	-	323,9
14''	354/362	-	-	-	350	355,6	-	-	-	355,6
-	-	-	-	-	-	-	-	-	-	-
16''	404/412	-	-	-	400	406,4	-	-	-	406,4
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	450	457	-	-	-	-
20''	506/512	-	-	-	500	508	-	-	-	508
-	-	-	-	-	-	559	-	-	-	-
-	608/614	-	-	-	600	610	-	-	-	609,6

HANGER AND SUPPORT SYSTEMS TECHNICAL SPECIFICATION

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Annex-1 Pipe Hanger Spacings

1 - GENERAL SPECIFICATIONS

1.1. SUMMARY: This section includes hangers and supports for plumbing systems.

2 - GENERAL SPECIFICATIONS, STANDARDS AND REGULATIONS

2.1. DESIGN

- **ASME B31.1 :** High Pressure Piping Design Principles
- **ASME B31.3 :** Process Piping Installation Design Principle

- **ASME B31.9 :** Building Services Piping Installation Design Principles
- **NFPA 13 :** Standard for the Installation of Sprinkler Systems
- **SMACNA :** Sheet Metal and Air Conditioning Contractors' National Association Standards
- **DIN EN 13480-1/BS EN 13480-1 :** Metallic industrial piping - Part 1: General
- **DIN EN 13480-2/BS EN 13480-2 :** Metallic industrial piping - Part 2: Materials
- **DIN EN 13480-3/BS EN 13480-3 :** Metallic industrial piping - Part 3: Design and calculation
- **DIN EN 13480-4/BS EN 13480-4 :** Metallic industrial piping - Part 4: Fabrication and installation
- **DIN EN 13480-5/BS EN 13480-5 :** Metallic industrial piping - Part 5: Inspection and testing
- **FM :** (Factory Mutual) Pipe Hanger Components for Automatic Sprinkler Systems (FM Approval Standard)
- **UL :** (Underwriters Laboratories) Fire Fighting (UL Approval Standard)

2.2. QUALITY ASSURANCE

- **ISO 9001:2015 :** Quality Management Systems – Requirements
- **IATF 16949:2016 :** Quality Management Systems - Requirements for Automotive Production and Relevant Services Parts Organizations
- **ISO 14001:2015 :** Environmental Management Systems - Requirements with guidance for use
- **ISO 45001 / OHSAS 18001:** Occupational Health and Safety Management Systems - Requirements
- **EN ISO 3834-2 :** Quality requirements for fusion welding of metallic materials - Part 2: Comprehensive quality requirements

2.3. MATERIAL

- **EN 10025-2 :** Hot rolled structural steel products - Part 1: General technical delivery conditions
- **EN 10130 :** Cold rolled low carbon flat products for cold forming - Technical delivery conditions
- **EN 10111 :** Continuously hot-rolled low carbon steel sheet and strip for cold forming - Technical delivery conditions
- **EN 10088-2 :** Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes
- **EN 10346 :** Continuously hot-dip coated steel flat products - Technical delivery conditions
- **ISO 4017/DIN 933 :** Hexagon Head Cap Screws - Product Grades A and B
- **ISO 4032/DIN 934 :** Hexagon nuts, Style 1- Product Grades A and B
- **MSS SP 58 :** TABLE A2M / A2: Materials and Allowable Stresses

2.4. WELDING

- **EN ISO 3834-2 :** Quality requirements for fusion welding of metallic materials - Part 2: Comprehensive quality requirements
- **EN ISO 9606-1 :** Qualification testing of welders — Fusion welding — Part 1: Steels
- **EN ISO 14732 :** Welding personnel — Qualification testing of welding operators and weld setters for mechanized and automatic welding of metallic materials
- **EN ISO 14731 :** Welding coordination - Tasks and responsibilities
- **EN ISO 15609-1 :** Specification and qualification of welding procedures for metallic materials - Welding procedure specification - Part 1: Arc welding
- **EN ISO 15614-1 :** Specification and qualification of welding procedures for metallic materials - Welding procedure test - Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys
- **EN ISO 9712 :** Non-destructive testing – Qualification and certification of NDT personnel – General principles
- **EN ISO 17637 :** Non-destructive testing of welds - Visual testing of fusion-welded joints
- **EN ISO 5817 :** Welding. Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded). Quality levels for imperfections
- **EN ISO 3452-1 :** Non-destructive testing - Penetrant testing - Part 1: General principles (ISO 3452-1:2013)
- **EN ISO 23277 :** Non-destructive testing of welds - Penetrant testing of welds - Acceptance levels
- **ASME SECTION IX:** Welding, Brazing and Fusing Qualifications
- **AWS D1.1 :** Structural Source Code / Steel

2.5. COATING

- **ISO 1461 :** Hot dip galvanized coatings on fabricated iron and steel articles - specification and test methods
- **ASTM A153/A153M :** Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
- **ASTM A123/A123M :** Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
- **ASTM B633 :** Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel
- **ISO 2081 :** Metallic and other inorganic coatings - Electroplated coatings of zinc with supplementary treatments on iron or steel
- **DIN 50961 :** Electroplated coatings - Zinc coatings on iron or steel - Terms, testing and corrosion resistance
- **ISO 4042 :** Fasteners - Electroplated coatings
- **EN 10684 :** Fasteners - Hot dip galvanized coatings

2.6. FABRICATION

- **MSS SP 58 :** Pipe Hangers and Supports - Materials, Design, Manufacture, Selection, Application, and Installation
- **MSS SP 69 :** Pipe Hangers and Supports - Selection and Application
- **MSS SP 89 :** Pipe Hangers and Supports - Fabrication and Installation Practices
- **BS 3974 Part 1 :** Pipe Hangers, Sliding and Roller Type Supports
- **BS 3974 Part 2 :** Pipe Clamps, Cages, Cantilevers and Attachments to Beams
- **ISO 2768-1 :** General Tolerances - Part 1: Tolerances for Linear and Angular Dimensions Without Individual Tolerance Indications
- **DIN 6930-2 :** Stamped Steel Parts - Part 2: General Tolerances
- **ISO 3302-1 :** Rubber - Tolerances for Products - Part 1: Dimensional Tolerances
- **EN 877:** Cast Iron Pipes and Fittings, Their Joints and Accessories for the Evacuation of Water from Buildings - Requirements, Test Methods and Quality Assurance
- **EN ISO 9227 :** Corrosion Tests in Artificial Atmospheres - Salt Spray Tests
- **EN 898-1 :** Mechanical Properties of Fasteners Made of Carbon Steel and Alloy Steel: - Part 1: Bolts, Screws and Studs with Specified Property Classes - Coarse Thread and Fine Pitch Thread
- **EN 898-2 :** Mechanical properties of fasteners made of carbon steel and alloy steel - Part 2: Nuts with specified property classes - Coarse thread and fine pitch thread

3 - PERFORMANCE CRITERIA

3.1. Supported systems must be designed in line with system requirements and applicable standards.

3.1.1. Description of Supported Systems: These are systems such as all kinds of pipes, ventilation ducts, cable trays, equipment and fittings that will be fixed to the structural elements of the building within the scope of electrical and mechanical systems of the building.

3.2. Hangers and supports must be made of materials that will not cause galvanic corrosion.

3.3. Hangers and supports must be coated in accordance with EN ISO 12944 and ISO 9223 standards, in accordance with environmental and weather conditions.

3.4. Engineering Responsibility: Shop-drawings for pipe hangers and supports, their design and calculations must be done by a qualified professional engineer.

3.4.1. Description of Professional Engineer: The engineer in question must have experience in material selection, design and project design within the scope of hanger and support systems applications.

4 - SPECIAL DESIGN CRITERIA

4.1. Hanger and Support Systems requiring special design: Special design must be made for the pipe systems stated below.

4.1.1. Pipes with a minimum temperature difference of 10°C between operating and installation temperatures

4.1.2. Pipes containing dangerous (corrosive or flammable) liquids according to ASME B31.1 or EN 13480 standards.

4.1.3. Pipes with a pressure fluid higher than 2 bars.

4.2. Piping systems must be evaluated and analyzed according to thermal expansion and/or contraction, operating pressure and temperature, hydropneumatic tests and load conditions in the project site conditions

4.3. Pipe stress analysis should be done with approved/certified pipe stress analysis software (e.g. CAESARII, Bentley AUTO PIPE, CAEPIPE, Rohr2, Start-Prof) and approved by a pipe stress analysis engineer with more than 5 years of experience in pipe design or analysis

4.4. Hanger and support systems that require special design must be designed after the pipe stress analysis has been carried out.

4.4.1. Design loads to be used for the design of hanger and support systems must be taken from the pipe stress analysis.

4.4.2. Hanger and support systems design must be done with simulation software that applies 2D Beam Structure or 3D finite element analysis.

4.4.3. The design and analysis of hanger and support systems must comply with AISC, MSS SP-58, MSS SP-69, Eurocode 3 or similar international standards.

4.4.4. Documents to be submitted for the hangers and supports designed:

4.4.4.1. Inputs and references used in calculations

4.4.4.2. Load tables (Pipe stress analysis project outputs or spreadsheets)

4.4.4.3. Structural steel analysis report

4.4.4.4. Finite element analysis report

4.4.4.5. Fitting / bolt calculation report

4.4.4.6. Detailed technical drawings

5 - QUALITY ASSURANCE

5.1. Raw Material Certificates

Relevant test reports and certificates showing the mechanical properties of the materials to be used in the manufacture of hanger and support systems to be used in the projects must be obtained from suppliers and presented to the customer on the request of the customer.

The manufacturer must provide the raw material analysis certificates according to EN 10204 of the steel raw material for all the products to be used in the project, when the customer requests. 2.2 or 3.1 certificates according to EN 10204 must be provided on the request of the customer.

5.2. Material Testing Process

The manufacturer must verify the performance of all hangers and supports to be used in the project with factory tests. If requested, reports of these tests must be submitted to the customer.

If requested by the customer, third party audit must be available for the products.

5.3. Welding

Processes, devices (welding robots etc.) and operators shall be specified according to ASME Boiler and Pressure Vessel Standard Part IX and/or EN 3834-2 standard.

Welders and welding operators shall be certified according to EN 9606-1 or EN 14732

Welding procedures shall be specified according to EN ISO 15614-1.

Welding specifications shall be prepared according to EN ISO 15609-1 and production shall be made according to these specifications.

5.4. Material Test Reports and Certification

Certifications related to the products must be presented to the customer. TSE, TSEK documents or other certification documents must be available upon request.

FM and UL documents must be presented to the customer in products related to Fire Systems.

6 - DOCUMENTS TO BE SUBMITTED FOR APPROVAL

6.1. Product Information

6.1.1. Hangers and Supports

6.1.1.1. Pipe Clamps

6.1.1.2. Sliding Supports, Roller Pipe Supports, Cover Plates

6.1.1.3. Insulation Mounts

6.1.1.4. Steel Clamps

6.1.1.5. Rods and other fittings

6.1.2. Modular Support Systems

6.1.2.1. Perforated Profile Systems and fittings

6.1.2.2. Square Profile Systems and fittings

6.2. Shop-drawings: Stamped and signed, containing strength calculations, showing fabrication and installation details, prepared by the professional engineer of the manufacturer:

6.3. Product Certificates

6.4. Welding Certificates

6.5. Calculation reports

7 - SUBMITTALS

7.1. Product Specifications: Product specifications for all types of hangers and support materials must be submitted for approval.

7.2. Product Information

7.2.1. Hanger And Supports

7.2.2. Hanger And Supports

7.1.2. Full details of hangers and supports intended to be used must be provided. A special support system can be used, provided that it is approved in advance. Where two or more pipes are to be sustained with a single support, the spacing between the supports must be adjusted according to the pipe with a short hanger spacing.

7.1.3. Pipe Hanger Spacings: see Annex-1

7.3. Pipe Clamps

- All sheets used as raw materials in the production of pipe clamps must be material certified, their chemical composition and physical properties must be guaranteed by the manufacturer and these certificates must be delivered to the customer when requested.
- The production of pipe clamps must be traceble and the manufacturer must be able to examine all production steps and materials used retrospectively if necessary.
- The brand logo and, if any, the product certificates must be clearly readable on the body of the pipe clamps
- Measurement and/or clamping range information must be clearly readable on the body of the pipe clamps (The clamping range information must be specified in the pipe clamps to show the use with and without rubber).
- Sheet thickness and other dimensional values used for pipe clamps must be included in the manufacturer's catalog.
- The strength values for pipe clamps specified in the manufacturer's catalog must be tested with minimum 3-fold loads, and this must be clearly stated in the product catalog.
- The test values for pipe clamps specified in the manufacturer's catalog must be approved by an independent laboratory or organization and these reports must be delivered to the customer when requested
- Pipe clamps to be used in fire fighting installations must be produced in accordance with the details given in the latest version of NFPA 13 standard and in accordance with MSS (Manufacturer's Standardization Society) standard.
- Pipe clamps to be used in fire fighting installation must have FM and UL certificates.
- Nuts welded to the pipe clamps must be centered using the projection welding method (Middle Frequency Direct Current System).
- The EPDM rubber used in pipe clamps must not deteriorate at 100°C for 24 hours and must have 100% ozone resistance according to DIN 53517 standard. It must also provide sound insulation up to 15 dB in accordance with the DIN 4109 standard.
- Pipe clamps must have a polyethylene washer on the side connecting bolts to ensure that the bolts do not fall off during installation (This applies to pipe clamps that do not contain nuts on the side connection.)
- Electrogalvanized coating for pipe clamps: This must comply with ISO 2081 or ASTM B 633 standard and with Cr+3 free eco-friendly method.
- Hot dip coating for pipe clamps: This must comply with ISO 1461 or ASTM A153 standard

7.4. Sliding Supports

- Sliding supports for horizontal pipelines should be designed primarily for pipes mounted on the floor or overhead The sliding supports must transmit their frictional force in the direction of the pipe axis. Therefore, the need for lateral support should be taken into account at each support position during installation. The fittings between guide ways and the pipe clamp must be designed to meet the bending moments.
- Under operating conditions, the slide plate will rotate around the middle position. The direction and distance of the sliding movement must be taken into account during installation
- The guideway supports must be aligned with the pipe axis and/or direction of movement.
- All sheets used as raw materials in the manufacture of sliding supports must be material certified, their chemical composition and physical properties must be guaranteed by the manufacturer and these certificates must be delivered to the customer when requested.
- The production of sliding supports must be traceable and the manufacturer must be able to examine all production stages and materials used retrospectively if necessary.
- All the measurements required for the mounting of sliding supports and the recommended payloads according to the installation method must be included in the manufacturer's catalog.
- In order to reduce the friction coefficient in sliding supports, cushioning materials with low friction coefficient must be used to provide the necessary strength and prevent contact with the metal.
- Sliding supports must be produced in different models in accordance with the type of construction elements (reinforced concrete, steel construction, etc.) and the type of installation (mounted on the floor or overhead).

7.5. Insulation Mounts

- In general, qualified insulation mounts shall be used to prevent the formation of a thermal bridge between the clamp and the pipe in heating cooling lines and insulated domestic water lines.
- Polyurethane isolation mounts shall be made of closed cell polyurethane rigid foam, with 80 kg/m^3 minimum specific gravity, 0.030 W/Mk heat transmission coefficient, thermal resistance range from 150^{o}C to + 130^{o}C and minimum 75 N/cm^2 compressive strength according to ASTM D 1621 standard.
- Polyurethane insulation mounts shall have excellent physical properties and shall be in B1 non-flammability class according to DIN4102 Standard.
- Self-vapor barrier insulation mounts shall be used in order to prevent sweating in cold lines.

- In cases where the polyurethane compressive strength is not sufficient, cover plate shall be used to prevent damage to the insulation mounts. The thickness of the cover plate shall be determined according to MSS SP-58. There is no need to use cover plate in polyurethane insulation mounts for diameters between DN15 (1/2'') - DN32 (1 1/4''). The sizing of the cover plate in diameters of DN40 (1 ½'') and above shall be determined in accordance with the resistance calculations to be made by the authorized engineer of the manufacturer according to the insulation thicknesses to be used.
- The isolation mount length shall be 50 mm longer than the cover plate as per the MSS SP-58 Standard in order to prevent vapor diffusion in cold lines.
- The density of the polyurethane insulation mount shall be at least 80 kg/m^3 for diameters of DN200 and below, and at least 120 kg/m^3 for DN250 and above.

7.6. Rods and Other Fittings

7.6.1. Rods

- If the threaded rods to be produced according to EN 898-1 standards will be used inside the building, they shall be coated against corrosion with Cr+3 free eco-friendly method with a minimum of 5 µm in the same production facility with electrogalvanizing method in accordance with ISO 2081 or ASTM B 633 standard.
- If the products are used in outdoor spaces outside the building, they must be coated by hot-dip galvanization method (HDG) according to DIN EN ISO 10684 or ASTM A153 standard.
- Threaded rods shall be produced in the quality range of 4.6 to 8.8.
- Geomet coating option shall be available if requested.

7.6.2. Nuts and Bolts

7.6.2.1. Standard Nuts and Bolts

- Nuts produced according to ISO 4032-DIN 934 standard shall have the mechanical properties specified in EN 898-2 standard.
- If they will be used inside the building, they shall be coated against corrosion with Cr+3 free eco-friendly method with a minimum of 8 µm in the same production facility with electrogalvanizing method in accordance with ISO 4042 or ASTM B 633 standard.
- If the products are used in outdoor spaces outside the building, they must be coated by hot-dip galvanization method (HDG) according to DIN EN ISO 10684 or ASTM A153 standard.

• Bolts produced according to ISO 4017-DIN 933 standard shall have the mechanical properties specified in EN 898-1 standard.
• If they will be used inside the building, they shall be coated with Cr+3 free eco-friendly method with a minimum of 5 µm in the same production facility with electrogalvanizing method in accordance with ISO 4042 or ASTM B 633 standard.
• In addition, if the products are used in outdoor spaces outside the building, they must be coated by hot-dip galvanization method (HDG) according to DIN EN ISO 10684 or ASTM A153 standard.

7.6.2.2. Special Fasteners

7.6.2.2.1. T-Head Bolts

• T-head bolts are used for the connection of clamps, sliding supports, corner pieces and fittings to the square profiles. T-head bolts provide easy and safe mounting of clamps and articulation components to square profiles with slots.
• T-head bolts must be specially manufactured to work in harmony with the slots in the profiles and allow easy installation.
• Unless otherwise stated, (8.8) grade bolts shall be used. The threaded pieces must be covered with geomet, and the washers to be used for application must be coated by hot-dip galvanization method (HDG) to comply with DIN EN ISO 10684 or ASTM A153 standard

7.6.2.3. Square Neck Bolts

• Square neck bolts are used to mount fittings on vertical (square perforated) square profiles. They provide a shape connection between the fittings and the vertical square profiles, allowing larger loads to be carried vertically.
• Unless otherwise stated, (8.8) quality bolts in accordance with DIN 603 norm shall be used
• The threaded pieces must be covered with geomet, and the washers to be used for application must be coated by hot-dip galvanization method (HDG) to comply with DIN EN ISO 10684 or ASTM A153 standard.

7.7. Perforated Profile Systems and Fittings

7.7.1. Perforated Profiles

- Perforated profiles to be used in the hangers and consoles to be manufactured to carry the pipes and ventilation ducts and equipment of these materials shall be produced by cold forming method in pre-galvanized sheet material in accordance with the EN 10346 standard.
- The manufacturer must be able to produce in U, L, C and G profile forms.
- The supplier shall be able to also offer coating with hot-dip galvanizing method in accordance with ISO 1461 or ASTM A153 standards, if needed.
- The perforations on the profile shall provide easy mounting, be compatible with other products and fittings of the manufacturer and shall be burr-free.
- The strength values of the profiles, safe bearing capacities recommended in different sizes and loading conditions shall be specified in the catalog.
- The calculation report, which shows that the consoles designed with perforated profiles, can safely carry the loads calculated for the system to be carried, which has 3-dimensional calculation capability and stress and deflection controls, selected channel types and sizes, shall be prepared and submitted for approval by the manufacturer.

7.7.2. Profile Fittings

- The profile fittings to be used for mounting perforated profiles to each other, to the reinforced concrete structure and/or to a fixed point must be made of sheet metal material in accordance with EN 10111 and 10130 standards by cold forming method and/or welded manufacturing.
- They shall be coated with 8-10 µm thick electrogalvanizing method in accordance with ISO 2081 or ASTM B 633 standards against corrosion. The supplier shall be able to also offer coating with hot-dip galvanizing method in accordance with ISO 1461 or ASTM A153 standards, if needed.
- The perforations on the profile fittings shall provide easy mounting, be compatible with other products and fittings of the manufacturer and shall be burr-free.
- The safe bearing capacities of the fittings according to mounting types and profile wall thicknesses shall be specified in the catalog.

7.8. Square Profile Systems and Fittings

7.8.1. Square Profile Systems

- Square Profiles must be made of sheet metal in accordance with EN 10025-2 standard by cold forming method.
- Hot dip galvanized coating in accordance with TS EN ISO 1461 shall be applied against corrosion.
- The perforations on the profile fittings shall provide easy mounting, be compatible with other products and fittings of the manufacturer and shall be burr-free.
- The strength values of the profiles, safe bearing capacities recommended in different sizes and loading conditions shall be specified in the catalog.
- The calculation report, which shows that the consoles designed with square profiles can safely carry the loads calculated for the system to be carried, which has 3-dimensional calculation capability and stress and deflection controls, selected channel types and sizes, shall be prepared and submitted for approval by the manufacturer.

7.8.2. Square Profile Fittings

- The profile fittings to be used for mounting square profiles to each other, to the reinforced concrete structure and/or to a fixed point must be made of sheet metal material in accordance with EN 10111 and 10130 standards by cold forming method and/or welded manufacturing.
- The supplier shall apply coating with hot-dip galvanizing method in accordance with ISO 1461 or ASTM A153 standards against corrosion.
- The perforations on the profile fittings shall provide easy mounting, be compatible with other products and fittings of the manufacturer and shall be burr-free.

Heating-Cooling Installation Pipe Hanger Spacings						Domestic Water Installation Pipe Hanger Spacings					Extinguishing Installation Pipe Hanger Spacings				
Pipe Nominal Diameter	Pipe Outer Diameter (mm)	Pipe Type	Pipe Water-Filled Weight [kg/m]	Hanger Spacing (DIN 1998) L [m]	Min. Rod Diameter	Pipe Nominal Diameter	Pipe Type*	Pipe Water-Filled Weight [kg/m]	Hanger Spacing* L [m]	Min. Rod Diameter	Pipe Nominal Diameter	Pipe Type*		Hanger Spacing* L [m]	Min. Rod Diameter (NFPA)
DN15	21.3	Black Steel Pipe DIN 2440	1.47	2.0	M8	Ø20	PPRC pipe	0.307	0.6	M8	DN25	Black Steel Pipe ASME/ANSI B36.10M (Sch40)	3.0	3.66	M10
DN20	26.9	Black Steel Pipe DIN 2440	2.02	2.3	M8	Ø25	PPRC pipe	0.482	0.8	M8	DN32	Black Steel Pipe ASME/ANSI B36.10M (Sch40)	4.3	3.66	M10
DN25	33.7	Black Steel Pipe DIN 2440	3.13	2.6	M8	Ø32	PPRC pipe	0.781	0.9	M8	DN40	Black Steel Pipe ASME/ANSI B36.10M (Sch40)	5.3	4.57	M10
DN32	44.5	Black Steel Pipe DIN 2440	4.30	2.6	M8	Ø40	PPRC pipe	1.215	1.0	M8	DN50	Black Steel Pipe ASME/ANSI B36.10M (Sch40)	7.5	4.57	M10
DN40	48.3	Black Steel Pipe DIN 2440	5.15	2.6	M8	Ø50	PPRC pipe	1.891	1.2	M8	DN65	Black Steel Pipe ASME/ANSI B36.10M (Sch40)	11.7	4.57	M10
DN50	51.0	Black Steel Pipe DIN 2440	6.93	2.6	M8	Ø63	PPRC pipe	3.005	1.4	M8	DN80	BlackSteel Pipe ASME/ANSI B36.10M (Sch40)	15.9	4.57	M10
	57.0		7.33	2.9		Ø75	PPRC pipe	4.253	1.5	M8	DN100	BlackSteel Pipe ASME/ANSI B36.10M (Sch40)	24.2	4.57	M10
DN65	60.3	Black Steel Pipe DIN 2440	10.52	2.9	M8	Ø90	PPRC pipe	6.117	1.6	M8	DN125	BlackSteel Pipe ASME/ANSI B36.10M (Sch40)	34.6	4.57	M12
	63.5			2.9		Ø110	PPRC pipe	9.131	1.8	M8	DN150	BlackSteel Pipe ASME/ANSI B36.10M (Sch40)	46.8	4.57	M12
	76.1			2.9							DN200	BlackSteel Pipe ASME/ANSI B36.10M (Sch40)	74.6	4.57	M16
DN80	82.5	Black Steel Pipe DIN 2440	13.98	3.2	M10										
	88.9			3.2											
DN100	101.6	Black Steel Pipe DIN 2440	21.30	3.6	M10										
	108.0			3.6											
	114.3			3.6											
DN125	127.0	Black Steel Pipe DIN 2440	30.17	4.0	M10										
	133.0			4.0											
	139.7			4.0											
DN150	152.4	Black Steel Pipe DIN 2440	39.06	4.5	M10										
	159.0			4.5											
	168.3			4.5											
DN200	177.8	Black Steel Pipe DIN 2440	64.73	5.0	M12										
	193.7			5.6											
	219.1			6.3											

Technical Data

PART 1 - GENERAL

1.1 - SUMMARY

A. Contractor shall provide all Labour, Materials, Contractor's Equipment and Plant to fully execute the requirements to furnish, deliver, and install the works as described in the Drawings and Specification, or implied therefrom, and in accor dance with the Contract. It is the intent of this Specification that the work performed pursuant hereto be complete and acceptable in every respect for its intended purpose. Nothing in this specification section shall limit the scope of work as required by the Contract.

1.2 - REFERENCES

DESIGN SPECIFICATIONS :

A- ASME B31.1 : Power Piping Design

B- ASME B31.3 : Process Piping Design

C- ASME B31.9 : Building Services Piping

D- NFPA 13 : Standard for the Installation of Sprinkler Systems.

E- DIN EN 13480-1/BS EN 13480-1 : Process Piping Design Part 1: Materials

F- DIN EN 13480-2/BS EN 13480-2 : Part 2: Materials

G- DIN EN 13480-3/BS EN 13480-3 : Part 3: Design and Calculation

H- DIN EN 13480-4/BS EN 13480-4 : Part 4: Fabrication and installation

I- DIN EN 13480-5/BS EN 13480-5 : Part 5: Inspection and testing

J- DIN EN 13480-6/BS EN 13480-6 : Part 6: Additional requirements for buried piping

K- DIN EN 13480-7/BS EN 13480-7 : Part 7: Guidance on the use of conformity assessment procedures

L- DIN EN 13480-8/BS EN 13480-8 : Additional requirements for aluminium and aluminium alloy piping

M- Factory Mutual FM Approval Standard for Pipe Hanger Components for Automatic Sprinkler System

N- UL : Pipe Hanger Equipment for Protection Service

MANUFACTURING SPECIFICATIONS :

A- MSS SP 58 : Pipe Hangers and Supports, Materials, Design, Manufacture, Selection, Application, Installation

B- MSS SP 69 : Pipe Hangers and Supports – Selection and Application

C- MSS SP 89 : Pipe Hangers and Supports – Fabrication and Installation Practices

D- BS 3974 Part 1 : Pipe Hangers, slider and roller type supports

E- BS 3974 Part 2 : Pipe Clamps, cages, cantilevers and attachments to beams

MATERIAL SPECIFICATIONS :

A- MSS SP 58 : TABLE A2M/A2 : Materials and Allowable Stresses

WELDING SPECIFICATIONS :

A- ASME SECTION IV : ASME BOILER AND PRESSURE VESSEL CODE Qualification Standard for welding and brazing procedures, welders, brazers and welding and brazing operators

B- AWS D1.1 : Structural Welding Code/Steel

COATING SPECIFICATIONS:

A- Electro-Galvanization acc. to
ASTM B 633/ASTM F 1941 - EN ISO 2081/EN ISO 4042

B- Hot Dipped Galvanized (HDG) acc. to
ASTM A153/153M - ASTM A123/123M - EN ISO 1461/EN ISO 10684

1.3 - QUALITY ASSURANCE

A- Welding: Qualify processes and operators according to ASME Boiler and Pressure Vessel Code: Section IX, “Welding and Brazing Qualifications.”

B- NFPA Compliance: Comply with NFPA 13 for hangers and supports used as components of fire protec tion system. Include listing and labeling by UL Listed or FM Approval.

C- Engineering Responsibility: Design and preparation of Shop Drawings and calculations for each multiple pipe support, trapeze, and seismic restraint by a qualified professional engineer.

1. Professional Engineer Qualifications: A professional engineer who is legally registered and qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of hangers, supports, and seismic restraints that are similar to those indicated for the Project in material, design, and extent.

D- MSS (Manufacturers Standardization Society) Compliance: Comply with the latest revision of MSS Stan dards specified herein.

E- Manufacturer that employ a Quality Management System complying with the program described in ISO 9001-2015, ISO 14001-2015, OHSAS 18001-2007 and ISO 16949:2009.

F- Steel pipe hangers and supports shall have the manufacturer’s name and applicable size stamped in the part itself for identification.

1.4 - SUBMITTALS

A. Product Data: For each type of Horizontal Piping Hangers and Supports, Vertical Pipe Supports, Hanger-Rod Attachments, Building Attachments, Saddles and Shields and Thermal Hanger Shield Inserts indicated.

PART 2 - PRODUCTS

2.1 - MANUFACTURER

A. Subject to compliance with requirements, provide products by INKA Fixing Systems, Istanbul-Turkey.

2.2 - HORIZONTAL PIPING HANGERS AND SUPPORTS

A. Select size of hangers and supports to exactly fit pipe size for bare piping, and around piping insulation with saddle or shield for insulated piping. Unless otherwise indicated, install the following types:

1) INKA Clevis Hanger (MSS Type 1): For suspension of non-insulated or insulated stationary pipes, DN15 to DN750.

2) INKA Double Bolt Pipe Clamp (MSS Type 3): For suspension of pipes, DN20 to DN600, requiring damp flexibility and up to 4 pipes, DN20 to DN600, requiring damp flexibility and up to 4 inches (100 mm) of insulation.

3) INKA Steel Pipe Clamps (MSS Type 4): For suspension of cold and hot pipes, DN15 to DN600, if little or no insulation is required.

4) INKA J-Hanger (MSS Type 5): For suspension of pipes DN 15 to DN 100, to allow off-center closure for hanger installation before pipe erection.

5) INKA Adjustable Steel Band Hanger (Sprinkler Installation Clamp) (MSS Type 7): For suspension of non-insulated stationary pipes and sprinkler systems, DN15 to DN250.

6) INKA Adjustable Swivel-Ring Band Hangers (MSS Type 10): For suspension of non-insulated stationary pipes, DN15 to DN250.

7) INKA U-Bolt (MSS Type 24): For support of heavy pipes, DN15 to DN750.

8) INKA Pipe Strap (MSS Type 26): For support of pipes not subject to expansion or contraction.

9) INKA Pipe Slide & Slide Plate (MSS Type-35): Designed to support insulated, or non-insulated stationery pipes allowing horizontal movements.

10) INKA Pipe Saddle Support (MSS Type-36): For support of pipes DN 100 to DN 900, with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate.

11) INKA Pipe Stanchion Saddle (MSS Type-37): For support of pipes DN 100 to DN 900, with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate, and with U-bolt to retain pipe.

12) INKA Adjustable Pipe Saddle Support (MSS Type-38): For stanchion-type support for pipes DN 65 to DN 900 if vertical adjustment is required, with steel-pipe base stanchion support and cast-iron floor flange.

13) INKA Single Pipe Rolls (MSS Type 41): For suspension of pipes, DN25 to DN750, from 2 rods if longitudinal movement caused by expansion and contraction might occur.

14) INKA Adjustable Roller Hangers (MSS Type 43): For suspension of pipes, DN65 to DN500, from single rod if horizontal movement caused by expansion and contraction might occur.

15) INKA Pipe Roll Complete (MSS Type 44): For support of pipes, DN50 to DN1050, if longitudinal movement caused by expansion and contraction might occur but vertical adjustment is not necessary.

16) INKA Pipe Roll and Plate (MSS Type 45): For support of pipes, DN50 to DN600, if small horizontal movement caused by expansion and contraction might occur and vertical adjustment is not necessary.

17) INKA Adjustable Pipe Roll and Base Units (MSS Type 46): For support of pipes, DN50 to DN750, if vertical and lateral adjustment during installation might be required in addition to expansion and contraction.

2.3 - VERTICAL PIPE SUPPORTS

A. Select size of vertical piping clamps to exactly fit pipe size of bare pipe. Unless otherwise indicated, install one of the following.

1) INKA Riser Clamp (MSS Type 8): For support of pipe risers, DN20 to DN500.

2) INKA Heavy Duty Riser Clamp (MSS Type 42): For support of pipe risers, DN20 to DN500, if longer ends are required for riser.

2.4 - HANGER-ROD ATTACHMENTS

A. Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1) INKA Steel Turnbuckle (MSS Type 13): For adjustment up to 150 mm for heavy loads.

2) INKA Swivel Turnbuckle (MSS Type 15): For use with MSS Type 11, split pipe rings.

3) INKA Malleable Iron Socket (MSS Type 16): For attaching hanger rods to various types of building attachments.

4) INKA Steel Weldless Eyenut (MSS Type 17): For 120 to 450 deg F (49 to 232 deg C) piping installations.

2.5 - BUILDING ATTACHMENTS

A. INKA Top Beam C-Clamp (MSS Type 19): For use under roof installations with bar-joist construction, to attach to top flange of structural shape.

B. INKA Center-Beam Clamps (MSS Type 21): For attaching to center of bottom flange of beams.

C. INKA Welded Beam Attachment (MSS Type 22): For attaching to bottom of beams if loads are considerable and rod sizes are large.

D. INKA Top Beam Clamp (MSS Type 25): For top of beams if hanger rod is required tangent to flange edge

E. INKA Side Beam Clamps (MSS Type 27): For bottom of steel I-beams.

F. Welded-Steel Brackets: For support of pipes from below, or for suspending from above by using clip and rod. Use one of the following for indicated loads:

1) INKA Light Welded Steel Bracket (MSS Type 31): 750 lb (340 kg).

2) INKA Medium Welded Steel Bracket (MSS Type 32): 1500 lb (680 kg).

3) INKA Heavy Welded Steel Bracket (MSS Type 33): 3000 lb (1360 kg).

G. INKA Plate Lugs (MSS Type 57): For attaching to steel beams if flexibility at beam is required.

2.6 - SADDLES AND SHIELDS

A. INKA Pipe-Covering Protection Saddles (MSS Type 39): To fill interior voids with insulation that matches adjoining insulation.

B. INKA Protection Shield (MSS Type 40): To prevent crushing insulation.

2.7 - THERMAL HANGER SHIELD INSERTS

A. Insulation Insert material for cold piping;

1) INKA Calcium Silicate: Water-repellent treated, ASTM C 533, Type I calcium silicate with 690 kPa min. compressive strength.

2) INKA Polyisocyanurate Insulation Block: ASTM C 591, Type VI, Grade 1 Polyisocyanurate (PIR) with 862-kPa (125-psig) minimum compressive strength.

B. Insulation Insert material for hot piping;

1) INKA Calcium Silicate: Water-repellent treated, ASTM C 533, Type I calcium silicate with 690 kPa min. compressive strength.

2) INKA Polyisocyanurate Insulation Block: ASTM C 591, Type VI, Grade 1 Polyisocyanurate (PIR) with 862-kPa (125-psig) minimum compressive strength. For applications up to 100 °C.

C. For Trapeze or Clamped System: Insert and shield cover entire circumference of pipe.

D. For Clevis or Band Hanger: Insert and shield cover lower 180 degrees of pipe.

PART 3 – HANGER AND SUPPORT INSTALLATION

A. Steel Pipe Hanger Installation: Comply with MSS SP-69 and MSS SP-89. Install hangers, supports, clamps, and attachments as required to properly support piping from building structure.

B. Trapeze Pipe Hanger Installation: Comply with MSS SP-69 and MSS SP-89. Arrange for grouping of parallel runs of horizontal piping and support together on field-fabricated trapeze pipe hangers.

1) Pipes of Various Sizes: Support together and space trapezes for smallest pipe size or install intermediate supports for smaller diameter pipes as specified above for individual pipe hangers.

2) Field fabricate from ASTM A 36/A 36M, steel shapes selected for loads being supported. Weld steel according to AWS D1.1

C. Metal Framing System Installation: Arrange for grouping of parallel runs of piping and support together on field-assembled metal framing systems.

D. Thermal-Hanger Shield Installation: Install in pipe hanger or shield for insulated piping.

E. Fastener System Installation:

1) Install powder-actuated fasteners for use in lightweight concrete or concrete slabs less than 100 mm thick in concrete after concrete is placed and completely cured. Use operators that are licensed by powder-actuated tool manufacturer. Install fasteners according to powder-actuated tool manufacturer's operating manual.

2) Install INKA anchors in concrete after concrete is placed and completely cured.

F. Pipe Stand Installation: Assemble components and mount on smooth surface. Do not penetrate membrane.

G. Install hangers and supports complete with necessary inserts, bolts, rods, nuts, washers, and other accessories.

H. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends and similar units.

I. Install lateral bracing with pipe hangers and supports to prevent swaying.

J. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, DN65 and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.

K. Load Distribution: Install hangers and supports so piping live and dead loads and stresses from movement will no be transmitted to connected equipment.

L. Pipe Slopes: Install hangers and supports to provide indicated pipe slopes and so maximum pipe deflections allowed by ASME B31.9 (for building services piping) are not exceeded.

M. Insulated Piping: Comply with the following;

1) Attach clamps and spacers to piping.

a) Piping Operating above Ambient Air Temperature: Clamp may project through insulation.

b) Piping Operating below Ambient Air Temperature: Use thermal-hanger shield insert with clamp sized to match OD of insert.

c) Do not exceed pipe stress limits according to ASME B31.1 for power piping and ASME B31.9 for building services piping.

2) Install MSS SP-58, Type 39, protection saddles if insulation without vapour barrier is indicated. Fill interior voids with insulation that matches adjoining insulation.

3) Install MSS SP-58 & SP-69Type 40, protective shields on storm water, domestic cold and hot water piping with vapour barrier. Shields shall span an arc of 180 degrees.

4) Shield Dimensions for Pipe: Not less than the following

a) DN 8 to DN 90: 305 mm long and 1.22 mm thick.

b) DN 100: 305 mm long and 1.52 mm thick.

c) DN 125 and DN 150: 457 mm long and 1.52 mm thick.

d) DN 200 to DN 350: 610 mm long and 1.91 mm thick.

e) DN 400 to DN 600: 610 mm long and 2.67 mm thick.

5) Insert Material: Length at least as long as protective shield.

6) Thermal-Hanger Shields: Install with insulation same thickness as piping insulation.

PART 4 – METAL FABRICATIONS

A. Cut, drill, and fit miscellaneous metal fabrications for trapeze pipe hangers and equipment supports.

B. Fit exposed connections together to form hairline joints. Field weld connections that cannot be shop welded because of shipping size limitations.

C. Field Welding: Comply with AWS D1.1 procedures for shielded metal arc welding, appearance and quality of welds, and methods used in correcting welding work, and with the following:

1) Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.

2) Obtain fusion without undercut or overlap.

3) Remove welding flux immediately.

4) Finish welds at exposed connections so no roughness shows after finishing and contours of welded surfaces match adjacent contours.

PART 5 – SCHEDULE

Maximum Horizontal Pipe Hanger and Support Spacing													
Nominal Pipe orTube Size										Acc. to NFPA 13			
		Steel Pipe				Copper Pipe				Steel Pipe		Copper Tube	
		Water Service		Vapor Service		Water Service		Vapor Service					
NPS	DN	ft	mt	ft	mt	ft	mt	ft	mt	ft	mt	ft	mt
1/4”	8					5	1.5	5	1.5				
3/8”	10	7	2.1	8	2.4	5	1.5	6	1.8				
1/2”	15	7	2.1	8	2.4	5	1.5	6	1.8				
3/4”	20	7	2.1	9	2.7	5	1.5	7	2.1			8	2.44
1”	25	7	2.1	9	2.7	6	1.8	8	2.4	12	3.66	8	2.44
1 1/4”	32	7	2.1	9	2.7	7	2.1	9	2.7	12	3.66	10	3.05
1 1/2”	40	9	2.7	12	3.7	8	2.4	10	3.0	15	4.57	10	3.05
2”	50	10	3.0	13	4.0	8	2.4	11	3.4	15	4.57	12	3.66
2 1/2”	65	11	3.4	14	4.3	9	2.7	13	4.0	15	4.57	12	3.66
3”	80	12	3.7	15	4.6	10	3.0	14	4.3	15	4.57	12	3.66
3 1/2”	90	13	4.0	16	4.9	11	3.4	15	4.6	15	4.57	15	4.57
4”	100	14	4.3	17	5.2	12	3.7	16	4.9	15	4.57	15	4.57
5”	125	16	4.9	19	5.8	13	4.0	18	5.5	15	4.57	15	4.57
6”	150	17	5.2	21	6.4	14	4.3	20	6.1	15	4.57	15	4.57
8”	200	19	5.8	24	7.3	16	4.9	23	7.0	15	4.57	15	4.57
10”	250	22	6.7	26	7.9	18	5.5	25	7.6				
12”	300	23	7.0	30	9.1	19	5.8	28	8.5				
14”	350	25	7.6	32	9.8								
16”	400	27	8.2	35	10.7								
18”	450	28	8.5	37	11.3								
20”	500	30	9.1	39	11.9								
24”	600	32	9.8	42	12.8								
30”	750	33	10.1	44	13.4								

REFERENCES

REFERENCES FROM TURKEY

PROJECT NAME	PROJECT TYPE	CITY	COUNTRY
ESENBOĞA INTERNATIONAL AIRPORT	AIRPORT	ANKARA	TURKEY
BODRUM AIRPORT	AIRPORT	BODRUM	TURKEY
SABİHA GÖKCEN INT. AIRPORT	AIRPORT	İSTANBUL	TURKEY
ATATÜRK INT. AIRPORT	AIRPORT	İSTANBUL	TURKEY
ADNAN MENDERES AIRPORT	AIRPORT	İZMİR	TURKEY
DALAMAN AIRPORT	AIRPORT	MUĞLA	TURKEY
ISTANBUL INT. AIRPORT	AIRPORT	İSTANBUL	TURKEY
TÜRK TELEKOM ANKARA	BUSINESS CENTER	ANKARA	TURKEY
PARAGON TOWER ANKARA	BUSINESS CENTER	ANKARA	TURKEY
PALLADIUM TOWER	BUSINESS CENTER	İSTANBUL	TURKEY
GARANTİ BANK TECHNOLOGY CENTER	BUSINESS CENTER	İSTANBUL	TURKEY
AND OFFICE	BUSINESS CENTER	İSTANBUL	TURKEY
FORD ARGE	BUSINESS CENTER	İSTANBUL	TURKEY
LCW HEADQUARTERS	BUSINESS CENTER	İSTANBUL	TURKEY
SARPHAN FİNANSPARK	BUSINESS CENTER	İSTANBUL	TURKEY
KAPİTAL MASLAK	BUSINESS CENTER	İSTANBUL	TURKEY
TEKNOPARK KURTKÖY	BUSINESS CENTER	İSTANBUL	TURKEY
NİDA KULE GÖZTEPE	BUSINESS CENTER	İSTANBUL	TURKEY
KRİSTAL KULE	BUSINESS CENTER	İSTANBUL	TURKEY
KUYUMCU KENT2	BUSINESS CENTER	İSTANBUL	TURKEY
KUVEYTTÜRK	BUSINESS CENTER	KOCAELİ	TURKEY
HALK BANKASI OPERATION CENTER	BUSINESS CENTER	KOCAELİ	TURKEY
BİKUR PLAZA	BUSINESS CENTER	İSTANBUL	TURKEY
FERKO SIGNATURE	BUSINESS CENTER	İSTANBUL	TURKEY
PROVINCIAL INSTITUTIONS ATAŞEHİR	BUSINESS CENTER	İSTANBUL	TURKEY
ATAŞEHİR MYC OFFICE	BUSINESS CENTER	İSTANBUL	TURKEY
ŞİŞECAM TUZLA	BUSINESS CENTER	İSTANBUL	TURKEY
PRIMA OFFICE	BUSINESS CENTER	İSTANBUL	TURKEY
SEBA OFFICE BOULEVARD	BUSINESS CENTER	İSTANBUL	TURKEY
PİRELLİ ÖZDİLEK	BUSINESS CENTER	İSTANBUL	TURKEY
JPA MASLAK	BUSINESS CENTER	İSTANBUL	TURKEY
YDA CENTER	BUSINESS CENTER	ANKARA	TURKEY
CEPA OFFICE	BUSINESS CENTER	ANKARA	TURKEY
ABDÜLKADİR ÖZCAN BUSINESS CENTER	BUSINESS CENTER	ANKARA	TURKEY
İŞ BANK DATA CENTER	DATA CENTER	İSTANBUL	TURKEY
ANKARA - POLATLI - TURKCELL DATA CENTER	DATA CENTER	ANKARA	TURKEY
PİLSA PLASTICS	FACTORY	ADANA	TURKEY
TRAKTÖR FACTORY ADAPAZARI	FACTORY	ADAPAZARI	TURKEY
MAYA TEKSTILE	FACTORY	ADAPAZARI	TURKEY
GOODYEAR ADAPAZARI	FACTORY	ADAPAZARI	TURKEY
BOLU GÖYNÜK THERMAL REACTOR	FACTORY	BOLU	TURKEY
MODERN PACKING	FACTORY	ÇORLU	TURKEY
MODERN KARTON	FACTORY	ÇORLU	TURKEY
İZOCAM ESKİŞEHİR	FACTORY	ESKİŞEHİR	TURKEY
SERRA SÜNGER	FACTORY	ESKİŞEHİR	TURKEY
DİVAN TAŞDELEN PRODUCTION FACILITY	FACTORY	İSTANBUL	TURKEY
EVYAP	FACTORY	İSTANBUL	TURKEY
LİGNA DEKOR	FACTORY	İSTANBUL	TURKEY
PHILSA TORBALI	FACTORY	İZMİR	TURKEY
PLASTFAY FACTORY	FACTORY	KOCAELİ	TURKEY
SIEMENS GEBZE	FACTORY	KOCAELİ	TURKEY

PROJECT NAME	PROJECT TYPE	CITY	COUNTRY
ASSAN HANİL	FACTORY	KOCAELİ	TURKEY
İZOCAM DİLOVASI	FACTORY	KOCAELİ	TURKEY
PİRELLİ KOCAELİ	FACTORY	KOCAELİ	TURKEY
İNDESİT WHITE GOODS FACTORY	FACTORY	MANİSA	TURKEY
VIESSMANN MANİSA	FACTORY	MANİSA	TURKEY
PARSAN FACTORY	FACTORY	KOCAELİ	TURKEY
ERİKLİ WATER FACTORY	FACTORY	BURSA	TURKEY
LARESSA BEDDING FACTORY	FACTORY	ANKARA	TURKEY
MİRANLI TEKSTILE	FACTORY	BURSA	TURKEY
UNILEVER	FACTORY	KONYA	TURKEY
BETEK BOYA	FACTORY	KOCAELİ	TURKEY
ASSAN İSPAK FACTORY	FACTORY	KOCAELİ	TURKEY
OMEGA MOTOR	FACTORY	İSTANBUL	TURKEY
İNAN MACHINE	FACTORY	ÇERKEZKÖY	TURKEY
ISPARTA COCA COLA FACTORY	FACTORY	ISPARTA	TURKEY
BOLU ARÇELİK FIRE	FACTORY	BOLU	TURKEY
ANKARA ARÇELİK FIRE	FACTORY	ANKARA	TURKEY
TAİ 320 BUILDING	FACTORY	ANKARA	TURKEY
HENKEL HASANOĞLAN FIRE	FACTORY	ANKARA	TURKEY
TAİ B23 PAINT OUTBUILDING	FACTORY	ANKARA	TURKEY
BOSCH VALEO - FACTORY	FACTORY	BURSA	TURKEY
SANOVEL FOOD - SUNSET FACTORY	FACTORY	KIRLARELİ	TURKEY
KASTAMONU INTEGRATED SPRINKLER SYSTEM PROJECTS	FACTORY	KOCAELİ	TURKEY
ÜLKER FOOD FACTORY SPRINKLER SYSTEMS RENOVATION	FACTORY	KOCAELİ	TURKEY
MEY ALAŞEHİR BEVERAGE FACTORY	FACTORY	MANİSA	TURKEY
KUZULUK - KADİFETEKS FABRICS FACTORY	FACTORY	ADAPAZARI	TURKEY
BRİSA BRİDGESTONE TIRE PRODUCTION FACILITY PROJECT	FACTORY	AKSARAY	TURKEY
MEY İÇKİ KARAMAN WATER EXTINGUISHING	FACTORY	KONYA	TURKEY
NOBEL - MEDICINE FACTORY	FACTORY	DÜZCE	TURKEY
SIEMENS GEBZE FACTORY	FACTORY	KOCAELİ	TURKEY
KÜBRA TEXTILE	FACTORY	MALATYA	TURKEY
ÇERKEZKÖY KALE KİLİT FACTORY	FACTORY	TEKİRDAĞ	TURKEY
TURKISH Do&Co SAW RESTORATION	FACTORY	İSTANBUL	TURKEY
ADANA - SASA FIBER FACTORY	FACTORY	ADANA	TURKEY
ANKARA-TAI ÖZGÜN HELIPORT PROJECT (B910-B165-B959-B911-B961-LC97 BUILDINGS)	FACTORY	ANKARA	TURKEY
İSTANBUL - EYÜP TURKUAZ MEDIA CENTER	FACTORY	İSTANBUL	TURKEY
ÇERKEZKÖY ARÇELİK FACTORY	FACTORY	TEKİRDAĞ	TURKEY
SABİHA GÖKÇEN INT. AIRPORT- HABOM	HANGAR	İSTANBUL	TURKEY
ANTALYA ONCOLOGY HOSPITAL	HOSPITAL	ANTALYA	TURKEY
ADANA ENTEGRE HOSPITAL	HOSPITAL	ADANA	TURKEY
KARTAL LÜTFİ KIRDAR HOSPITAL	HOSPITAL	İSTANBUL	TURKEY
ELAZIĞ ENTEGRE HOSPITAL	HOSPITAL	İSTANBUL	TURKEY
ANKARA-BİLKENT ENTEGRE HEALTH CAMPUSS	HOSPITAL	ANKARA	TURKEY
ADANA ENTEGRE HOSPITAL	HOSPITAL	ADANA	TURKEY
ISPARTA CITY HOSPITAL	HOSPITAL	ISPARTA	TURKEY
PROF HALİS ŞİMŞEK HEALTH CARE	HOSPITAL	ANKARA	TURKEY
MANİSA PUBLIC HOSPITAL	HOSPITAL	MANİSA	TURKEY
İZMİR KENT HOSPITAL	HOSPITAL	İZMİR	TURKEY
ANKARA-DİA HIGH-SECURITY FORENSIC PSYCHIATRIC HOSPITAL	HOSPITAL	ANKARA	TURKEY
ANKARA-ETLİK INTEGRATED HEALTH CARE CAMPUSS PROJECT	HOSPITAL	ANKARA	TURKEY
ESKİŞEHİR CITY HOSPITAL	HOSPITAL	ESKİŞEHİR	TURKEY

PROJECT NAME	PROJECT TYPE	CITY	COUNTRY
DİYARBAKIR - PRIVATE HOSPITAL	HOSPITAL	DİYARBAKIR	TURKEY
BURSA RÖNESANS CITY HOSPITAL	HOSPITAL	BURSA	TURKEY
İKİTELLİ RÖNESANS CITY HOSPITAL	HOSPITAL	İSTANBUL	TURKEY
ADANA RAMADA	HOTEL	ADANA	TURKEY
ADANA SHERATON	HOTEL	ADANA	TURKEY
RAMADA OTEL ADANA	HOTEL	ADANA	TURKEY
ÖZALTIN GLORYA OTEL	HOTEL	ANTALYA	TURKEY
TINANIC BELEK	HOTEL	ANTALYA	TURKEY
MARDAN PALAS	HOTEL	ANTALYA	TURKEY
CLUP ALİBEY HOTEL	HOTEL	ANTALYA	TURKEY
BURSA HILTON	HOTEL	BURSA	TURKEY
ÇORLU HİLTON	HOTEL	ÇORLU	TURKEY
DİYARBAKIR NOV HOTEL	HOTEL	DİYARBAKIR	TURKEY
NOV HOTEL GAZİANTEP	HOTEL	GAZİANTEP	TURKEY
ERSA HOTEL	HOTEL	İSTANBUL	TURKEY
MARRİOT HOTEL ŞİŞLİ	HOTEL	İSTANBUL	TURKEY
MAÇKA HOTEL	HOTEL	İSTANBUL	TURKEY
BOMONTİ HİLTON	HOTEL	İSTANBUL	TURKEY
TARABYA HOTEL	HOTEL	İSTANBUL	TURKEY
CROWN PLAZA ÜMRANİYE	HOTEL	İSTANBUL	TURKEY
RADİSSON BLU ŞİŞLİ	HOTEL	İSTANBUL	TURKEY
POLAT HOTEL KAĞITHANE	HOTEL	İSTANBUL	TURKEY
POLAT HOTEL BALMUMCU	HOTEL	İSTANBUL	TURKEY
KEMPINSKY İSTANBUL	HOTEL	İSTANBUL	TURKEY
MARRİOT HOTEL ASIA	HOTEL	İSTANBUL	TURKEY
MARRİOT HOTEL İKİTELLİ	HOTEL	İSTANBUL	TURKEY
RADİSSON BLU KURTKÖY	HOTEL	İSTANBUL	TURKEY
DİVAN ASYA	HOTEL	İSTANBUL	TURKEY
GEBZE RAMADA HOTEL	HOTEL	KOCAELİ	TURKEY
BODRUM CARESSE	HOTEL	MUĞLA	TURKEY
SWİSS HOTEL BODRUM	HOTEL	MUĞLA	TURKEY
DEDEMAN ZONGULDAK	HOTEL	ZONGULDAK	TURKEY
KASTAMONU SHERATON	HOTEL	KASTAMONU	TURKEY
ÜMRANİYE HİLTON	HOTEL	İSTANBUL	TURKEY
KİDAN HOTEL	HOTEL	İSTANBUL	TURKEY
AREL HOTEL	HOTEL	İSTANBUL	TURKEY
RADİSSON PARK İNN ATAŞEHİR	HOTEL	İSTANBUL	TURKEY
HİLTON PRUVA	HOTEL	İSTANBUL	TURKEY
BAŞİSKELE HİLTON HOTEL AND BUREAU RESIDENCE PROJECT	HOTEL	KOCAELİ	TURKEY
NABA HOTEL	HOTEL	İSTANBUL	TURKEY
ADIYAMAN - HILTON	HOTEL	ADIYAMAN	TURKEY
HARMONY TOWER	HOUSING	BURSA	TURKEY
SPİNE TOWER	HOUSING	İSTANBUL	TURKEY
BATIŞEHİR	HOUSING	İSTANBUL	TURKEY
TEPE NARLIFE BUILDING SITE	HOUSING	İSTANBUL	TURKEY
GARANTİ KOZA	HOUSING	İSTANBUL	TURKEY
VİAPORT VENEZİA	HOUSING	İSTANBUL	TURKEY
DUMANKAYA RİTİM	HOUSING	İSTANBUL	TURKEY
UBK	HOUSING	İSTANBUL	TURKEY
FUAYE	HOUSING	İSTANBUL	TURKEY
ÇAMLICA MESA	HOUSING	İSTANBUL	TURKEY
YALI ATAKÖY	HOUSING	İSTANBUL	TURKEY

PROJECT NAME	PROJECT TYPE	CITY	COUNTRY
MAİ RESIDENCE	HOUSING	İSTANBUL	TURKEY
SKYLAND İSTANBUL	HOUSING	İSTANBUL	TURKEY
SURYAPI METROGARDEN	HOUSING	İSTANBUL	TURKEY
MASHATTAN	HOUSING	İSTANBUL	TURKEY
EGEBOYU İSTANBUL	HOUSING	İSTANBUL	TURKEY
PORT REZIDANS İZMİR	HOUSING	İZMİR	TURKEY
NUROL PARK	HOUSING	İSTANBUL	TURKEY
NİDA KULE ATAŞEHİR	HOUSING	İSTANBUL	TURKEY
MASLAK 1453	HOUSING	İSTANBUL	TURKEY
TAŞYAPI ALTUNİZADE	HOUSING	İSTANBUL	TURKEY
SEMBOL ESENYURT	HOUSING	İSTANBUL	TURKEY
PARK MOZAIC HOUSING	HOUSING	ANKARA	TURKEY
MANZARA ADALAR KARTAL	HOUSING	İSTANBUL	TURKEY
NUROL LIFE	HOUSING	İSTANBUL	TURKEY
VADİ İSTANBUL	HOUSING	İSTANBUL	TURKEY
PRUVA 34	HOUSING	İSTANBUL	TURKEY
TRİ-G	HOUSING	İSTANBUL	TURKEY
KARAT 34	HOUSING	İSTANBUL	TURKEY
PARK MAVERA	HOUSING	İSTANBUL	TURKEY
MANDARINS ACIBADEM	HOUSING	İSTANBUL	TURKEY
YOO İSTANBUL	HOUSING	İSTANBUL	TURKEY
SİNPAŞ BOMONTİ QUEEN	HOUSING	İSTANBUL	TURKEY
SEA PEARL ATAKÖY	HOUSING	İSTANBUL	TURKEY
TARLABAŞI 360	HOUSING	İSTANBUL	TURKEY
NOW BOMONTİ	HOUSING	İSTANBUL	TURKEY
EVVEL İSTANBUL	HOUSING	İSTANBUL	TURKEY
TEPE MESA MOZAIC	HOUSING	ANKARA	TURKEY
CEPA HOUSING	HOUSING	ANKARA	TURKEY
KOORDİNAT ÇAYYOLU	HOUSING	ANKARA	TURKEY
İNİSTANBUL	HOUSING	İSTANBUL	TURKEY
5 LEVENT HOUSING PROJECT	HOUSING	İSTANBUL	TURKEY
ZEKERİYAKÖY (SİYAHKALEM) VILLAGE HOUSING PROJECT	HOUSING	İSTANBUL	TURKEY
NG HOTEL AND CONGRESS CENTER	HOUSING	İSTANBUL	TURKEY
İSTMARİNA	HOUSING	İSTANBUL	TURKEY
ANKARA - BAŞKENT BAŞKENT EMLAK KONUT	HOUSING	ANKARA	TURKEY
ADIM İSTANBUL	HOUSING	İSTANBUL	TURKEY
BAŞAKŞEHİR - NİDAPARK	HOUSING	İSTANBUL	TURKEY
FOLKART TOWERS	HOUSING-BUSINESS CENTER	İZMİR	TURKEY
ONE TOWER	HOUSING-MALL	ANKARA	TURKEY
ZORLU LEVENT	HOUSING-MALL	İSTANBUL	TURKEY
EGE PERLA	HOUSING-MALL	İZMİR	TURKEY
EMAAR SQUARE	HOUSING-MALL-HOTEL-BUSINESS CENTER	İSTANBUL	TURKEY
EMAAR SQUARE	HOUSING-MALL-HOTEL-BUSINESS CENTER	İSTANBUL	TURKEY
METROPOL İSTANBUL	HOUSING-MALL-HOTEL-BUSINESS CENTER	İSTANBUL	TURKEY
İSTANBUL - TANAP NAURAL GAS PROJECT	INFRASTRUCTURE	ESKİŞEHİR	TURKEY
İSTANBUL MARMARAY STATIONS	INFRASTRUCTURE	İSTANBUL	TURKEY
ADA ADAPAZARI SHOPPING MALL	MALL	ADAPAZARI	TURKEY
DOLPHIN ANKARA	MALL	ANKARA	TURKEY
DOLUNAY ANKARA	MALL	ANKARA	TURKEY
KIPA BOLU	MALL	BOLU	TURKEY
OZDILEK SHOPPING MALL	MALL	BURSA	TURKEY

PROJECT NAME	PROJECT TYPE	CITY	COUNTRY
KENT MEYDANI	MALL	BURSA	TURKEY
ANATOLIUM	MALL	BURSA	TURKEY
IKEA BURSA	MALL	BURSA	TURKEY
NEO ESKİŞEHİR	MALL	ESKİŞEHİR	TURKEY
FORUM ANTEP	MALL	GAZİANTEP	TURKEY
SULTANBEYLİ SHOPPING MALL	MALL	İSTANBUL	TURKEY
CANPARK SHOPPING MALL	MALL	İSTANBUL	TURKEY
ÖZDİLEK PARK	MALL	İSTANBUL	TURKEY
NOVADA SHOPPING MALL	MALL	İSTANBUL	TURKEY
MALTEPE PARK	MALL	İSTANBUL	TURKEY
MARMARA FORUM	MALL	İSTANBUL	TURKEY
VIALAND ENTERTAINMENT CENTER	MALL	İSTANBUL	TURKEY
AKBATI SHOPPING MALL	MALL	İSTANBUL	TURKEY
212 SHOPPING MALL	MALL	İSTANBUL	TURKEY
BUYAKA SHOPPING MALL	MALL	İSTANBUL	TURKEY
VİAPORT SHOPPING MALL	MALL	İSTANBUL	TURKEY
KANYON SHOPPING MALL	MALL	İSTANBUL	TURKEY
METROPORT SHOPPING MALL	MALL	İSTANBUL	TURKEY
İSTİNYE PARK	MALL	İSTANBUL	TURKEY
FORUM BAYRAMPAŞA	MALL	İSTANBUL	TURKEY
NEO MARİN SHOPPING MALL	MALL	İSTANBUL	TURKEY
PENDORYA SHOPPING MALL	MALL	İSTANBUL	TURKEY
METRO GROSS MARKET KAĞITHANE	MALL	İSTANBUL	TURKEY
AGORA İZMİR	MALL	İZMİR	TURKEY
KAYSERİ FORUM	MALL	KAYSERİ	TURKEY
FORUM MERSİN SHOPPING MALL	MALL	MERSİN	TURKEY
FETHİYE ERASTA SHOPPING MALL	MALL	MUĞLA	TURKEY
ŞANLIURFA SHOPPING MALL	MALL	ŞANLIURFA	TURKEY
TEKİRA SHOPPING MALL	MALL	TEKİRDAĞ	TURKEY
ÖZDİLEK SHOPPING MALL YALOVA	MALL	YALOVA	TURKEY
MAVİ BAHÇE SHOPPING MALL	MALL	İZMİR	TURKEY
VADİ İSTANBUL	MALL	İSTANBUL	TURKEY
YOZGAT SHOPPING MALL	MALL	YOZGAT	TURKEY
ŞANLIURFA SHOPPING MALL	MALL	ŞANLI URFA	TURKEY
ATAKULE	MALL	ANKARA	TURKEY
ERASTA SHOPPING MALL	MALL	EDİRNE	TURKEY
CAPİTOL SHOPPING MALL RENEVATION	MALL	İSTANBUL	TURKEY
ADANA - BURDA 01 SHOPPING MALL	MALL	ADANA	TURKEY
MALATYA KÜRECİK RADAR BASE	MILITARY BASE	MALATYA	TURKEY
MİT MASLAK	MILITARY BASE	İSTANBUL	TURKEY
KALE ANKARA	MILITARY BASE	ANKARA	TURKEY
MALATYA - 7. MAIN JET BASE	MILITARY BASE	MALATYA	TURKEY
KOÇ CONTEMPORARY MUSEUM PROJECT	MUSEUM	İSTANBUL	TURKEY
MASLAK 42	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
PİYALEPAŞA	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
ANATOLIUM	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
ENDÜLÜS SHOPPING MALL AND STORY PARK	OFFICE -HOUSING - MALL	BURSA	TURKEY
NİLÜFER MARKA REZIDANCE, HOME OFFİCE AND SHOPPING MALL	OFFICE -HOUSING - MALL	BURSA	TURKEY
RÖNESANS CEVİZLİ MIXED PROJECT	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
RÖNESANS KÜÇÜKYALI SHOPPING MALL AND HOTEL PROJECT - HILLSIDE	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
GÖZTEPE BAŞARI HOLDİNG HEADQUARTER	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY

PROJECT NAME	PROJECT TYPE	CITY	COUNTRY
YASSI ADA HOTEL SİVRİ ADA CONGRESS CENTER	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
KAYAŞEHİR - NİDAPARK	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
MY NEW WORK	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
OPTİMUM AVM (GÜRSON MÜHENDİSLİK)	OFFICE -HOUSING - MALL	İZMİR	TURKEY
EUROPE HOUSING BAŞAKŞEHİR - KAYAŞEHİR	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
ATAŞEHİR HALK GYO FINANCE CENTER YDA	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
VAKIFLAR HEADQUARYERS RÖNESANS	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
İSTANBUL - CEVİZLİ İKEA	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
İSTANBUL - İSTANBUL TOWER LEVENT OFFICE PROJECT	OFFICE -HOUSING - MALL	İSTANBUL	TURKEY
TBMM BUILDING	OFFICIAL BUILDING	ANKARA	TURKEY
TRT STUDIOS ANKARA	OFFICIAL BUILDING	ANKARA	TURKEY
THE CENTRAL BANK ANKARA	OFFICIAL BUILDING	ANKARA	TURKEY
MERİNOS BURSA	OFFICIAL BUILDING	BURSA	TURKEY
NATIONAL ARCHIVE	OFFICIAL BUILDING	İSTANBUL	TURKEY
U.S EMBASSY	OFFICIAL BUILDING	İSTANBUL	TURKEY
TRT STUDIOS İSTANBUL	OFFICIAL BUILDING	İSTANBUL	TURKEY
SANTRAL İSTANBUL	OFFICIAL BUILDING	İSTANBUL	TURKEY
BORSA İSTANBUL	OFFICIAL BUILDING	İSTANBUL	TURKEY
CENAL POWER PLANT	POWER PLANT	ÇANAKKALE	TURKEY
İZMİR ALİAĞA RAVAGO ALOSBİ PRODUCTION AND STORAGE FACILITY	PRODUCTION FACILITY	İZMİR	TURKEY
ANKARA DİA HEALTH MINISTRY BUILDING	PUBLIC BUILDING	ANKARA	TURKEY
ANKARA - POLICE SPECIAL FORCES	PUBLIC BUILDING	ANKARA	TURKEY
KÜTAHYA - KÜTAHYA MUNICIPALITY NEW SERVICE BUILDING	PUBLIC BUILDING	KÜTAHYA	TURKEY
ANKARA SUBWAY	RAIL SYSTEMS	ANKARA	TURKEY
İSTANBUL SUBWAY	RAIL SYSTEMS	İSTANBUL	TURKEY
ÜSKÜDAR ÇEKMEKÖY SUBWAY	RAIL SYSTEMS	İSTANBUL	TURKEY
TÜPRAŞ	REFINERY	KOCAELİ	TURKEY
BTC CRUDE OIL PIPELINE	REFINERY	ADANA	TURKEY
İZMİT STADIUM	STADIUM	KOCAELİ	TURKEY
TÜRK TELEKOM ARENA	STADIUM	İSTANBUL	TURKEY
DSİ ÇORLU WASTE WATER TREATMENT PLANT	SUBSTRUCTURE	TEKİRDAĞ	TURKEY
İMAM HATİP SUBWAY PROJECT	SUBWAY	İSTANBUL	TURKEY
IHLAMURKUYU SUBWAY POJECT	SUBWAY	İSTANBUL	TURKEY
İSTANBUL - KABATAŞ / MAHMUTBEY SUBWAY LINE	SUBWAY	İSTANBUL	TURKEY
İSTANBUL-ANKARA FAST TRAIN TUNNEL PROJECT	TUNNEL	ANKARA	TURKEY
İSTANBUL AVRASYA TUNNEL	TUNNEL	İSTANBUL	TURKEY
İPEK UNIVERSITY	UNIVERSITY	ANKARA	TURKEY
PİRİ REİS UNIVERSITY	UNIVERSITY	İSTANBUL	TURKEY
SÜLEYMAN ŞAH UNIVERSITY	UNIVERSITY	İSTANBUL	TURKEY
ÖZYEĞİN UNIVERSITY	UNIVERSITY	İSTANBUL	TURKEY
SABANCI UNIVERSITY	UNIVERSITY	İSTANBUL	TURKEY
ŞEHİR UNIVERSITY	UNIVERSITY	İSTANBUL	TURKEY
EKOL LOGISTICS	WAREHOUSE	İSTANBUL	TURKEY
AKDERE LOGISTICS	WAREHOUSE	İSTANBUL	TURKEY
DEFACTO WAREHOUSE	WAREHOUSE	İSTANBUL	TURKEY
EFESAN PORT	WAREHOUSE	KOCAELİ	TURKEY
HOROZ LOGISTICS	WAREHOUSE	KOCAELİ	TURKEY
SELÇUK PHARMACY WAREHOUSE GEBZE	WAREHOUSE	KOCAELİ	TURKEY
HAYATİ BEN HABİP	WAREHOUSE	KOCAELİ	TURKEY

PROJECT NAME	PROJECT TYPE	CITY	COUNTRY
MERCAN LOGISTICS	WAREHOUSE	KOCAELİ	TURKEY
HEPSİ BURADA LOJISTIC WAREHOUSE	WAREHOUSE	KOCAELİ	TURKEY
AGCO PRODUCTION STORAGE FACILITY PROJECT	WAREHOUSE	KOCAELİ	TURKEY
TAİ HR BUILDING	WORK PLACE	ANKARA	TURKEY
İŞBANKASI 3th TOWER RENEVATION	WORK PLACE	İSTANBUL	TURKEY
BORUSAN OTO-KAVACIK	WORK PLACE	İSTANBUL	TURKEY
BORUSAN AUTOMOTIVE	WORK PLACE	İSTANBUL	TURKEY

REFERENCES FROM OTHER COUNTRIES

PROJECT NAME	PROJECT TYPE	CITY	COUNTRY
ABU DHABI INTERNATIONAL AIRPORT EXPANSION	AIRPORT	ABU DHABI	U.A.E.
ERBIL AIRPORT	AIRPORT	ERBIL	IRAQ
CAIRO INTERNATIONAL AIRPORT TERMINAL 2	AIRPORT	CAIRO	EGYPT
SOFIA INTERNATIONAL AIRPORT	AIRPORT	SOFIA	BULGARIA
KING ABDUL AZIZ INTERNATIONAL AIRPORT PROJECT (KAIA)	AIRPORT	JEDDAH	SAUDI ARABIA
KING ABDUL AZIZ INTERNATIONAL AIRPORT – MAINTENANCE HANGARS	AIRPORT	JEDDAH	SAUDI ARABIA
KING KHALID AIRPORT TERMINAL 5	AIRPORT	RIYADH	SAUDI ARABIA
PRINCE MOHAMED BIN ABDUL AZIZ AIRPORT	AIRPORT	MADINAH	SAUDI ARABIA
NEW DOHA INTERNATIONAL AIRPORT (NDIA) - CP77	AIRPORT	DOHA	QATAR
HEYDAR ALIYEV INTERNATIONAL AIRPORT	AIRPORT	BAKU	AZERBAIJAN
KUWAIT INTERNATIONAL AIRPORT - TERMINAL 2	AIRPORT	FARWANIYAH	KUWAIT
NORTH EAST CAR PARK	CAR PARK	DOHA	QATAR
AL NAJAF TEACHING HOSPITAL	HOSPITAL	NAJAF	IRAQ
SECURITY FORCES MEDICAL CENTER (CFMC)	HOSPITAL	RIYADH	SAUDI ARABIA
SANG NATIONAL GUARD HOSPITALS	HOSPITAL	JEDDAH	SAUDI ARABIA
SANG NATIONAL GUARD HOSPITALS	HOSPITAL	TAIF	SAUDI ARABIA
SANG NATIONAL GUARD HOSPITALS	HOSPITAL	RIYADH	SAUDI ARABIA
SANG NATIONAL GUARD HOSPITALS	HOSPITAL	QASSIM	SAUDI ARABIA
KING FAISAL SPECIALIST HOSPITAL AND RESEARCH CENTER	HOSPITAL	JEDDAH	SAUDI ARABIA
AGHA KHAN HOSPITAL	HOSPITAL	KARACHI	PAKISTAN
GETZ PHARMA HOSPITAL	HOSPITAL	KARACHI	PAKISTAN
THE CHAMPION HOSPITAL	HOSPITAL	SABAH AL SALEM	KUWAIT
FARWANIYAH HOSPITAL	HOSPITAL	FARWANIYAH	KUWAIT
AL AMIRI HOSPITAL	HOSPITAL	KUWAIT CITY	KUWAIT
AL SALAM HOSPITAL	HOSPITAL	SALMIYA	KUWAIT
ADDAN HOSPITAL	HOSPITAL	ADDAN	KUWAIT
KIDNEY TRANSPLANT CENTRE	HOSPITAL	ZAHRA	KUWAIT
DENTAL CLINIC FOR KOC	HOSPITAL	AHMADI	KUWAIT
NEW JAHRA HOSPITAL	HOSPITAL	JAHRA	KUWAIT
AL MASSIRA HOTEL	HOTEL	TRIPOLI	LIBYA
DREAM HOTEL	HOTEL	DOHA	QATAR
JW MARRIOTT HOTEL	HOTEL	DOHA	QATAR
LE MIRAGE HOTEL	HOTEL	DOHA	QATAR
ST. REGIS HOTEL	HOTEL	DOHA	QATAR
SILHOUETTE TOWER	HOTEL	DOHA	QATAR
RADISSON BLU IVERIA HOTEL	HOTEL	TBILISI	GEORGIA
TASHKENT CITY HILTON HOTEL AND CONVENTION CENTER	HOTEL	TASHKENT	UZBEKISTAN
MARRIOT HOTEL	HOTEL	TBILISI	GEORGIA
HYUNDAI NISHAT MOTOR FAISALABAD	INDUSTRIAL	FAISALABAD	PAKISTAN
QATALUM QATAR	INDUSTRIAL	DOHA	QATAR
MEW SUBSTATIONS	INDUSTRIAL	ABU FATIRA	KUWAIT
SAMAWA 750 MW COMBINED CYCLE POWER PLANT	INDUSTRIAL	SAMAWA	IRAQ
DHI QAR 750 MW COMBINED CYCLE POWER PLANT	INDUSTRIAL	DHI QAR	IRAQ
ORANGERIE AND FOODHALL	MALL	DOHA	QATAR
OLİVE	MALL	BEIRUT	LEBANON
LAGOON MALL	MALL	DOHA	QATAR
AL WAAB MALL	MALL	DOHA	QATAR
AVENUES PHASE 4	MALL	AL RAI	KUWAIT
SKOPJE EAST GATE MALL	MALL	SKOPJE	MACEDONIA
THIRD SAUDI EXPANSION OF THE HOLLY MOSQUE & SURROUNDING AREAS	MOSQUE	MAKKAH	SAUDI ARABIA
THE CUSTODIAN OF THE TWO HOLLY MOSQUES FOR MATAF EXTENSION	MOSQUE	MAKKAH	SAUDI ARABIA
PROPHET'S MOSQUE EXPANSION	MOSQUE	MADINAH	SAUDI ARABIA

PROJECT NAME	PROJECT TYPE	CITY	COUNTRY
FIT OUT WORKS FOR QP DISTRICT	OFFICE	DOHA	QATAR
BURJ AL MANA	OFFICE	DOHA	QATAR
QATAR FOUNDATION - TECH 4 BUILDING AT QSTP	OFFICE	DOHA	QATAR
OFFICE TOWER MARINA COM 20	OFFICE	DOHA	QATAR
QATAR FOUNDATION RESEARCH AND DEVELOPMENT COMPLEX	OFFICE	DOHA	QATAR
SUPREME EDUCATION COUNCIL	OFFICE	DOHA	QATAR
LUSAIL OFFICE TOWER	OFFICE	DOHA	QATAR
SAMRYA BUSINESS TOWER	OFFICE	DOHA	QATAR
AL SEAL TOWER	OFFICE	DOHA	QATAR
DOHA HIGH RISE BUILDING	OFFICE	DOHA	QATAR
AL ASMAKH TOWER	OFFICE	DOHA	QATAR
SOCAR TOWER	OFFICE	BAKU	AZERBAIJAN
BEST SHOWROOM	OFFICE	SHUWAIKH	KUWAIT
EUREKA SHOWROOM	OFFICE	SHUWAIKH	KUWAIT
"PROJECT CENTRE DES AFFAIRES COMMERCIALES ET OPÉRATIONNELLES DE LA COMPAGNIE AIR-ALGÉRIE/EPE-SPA"	OFFICE	ALGER	ALGERIA
AL TADAMON TOWER	OFFICE & RESIDENCE	TRIPOLI	LIBYA
MOZOON TOWERS	OFFICE & RESIDENCE	DOHA	QATAR
INNOVATION CENTER FOR BOROUGE	OFFICIAL BUILDING	ABU DHABI	U.A.E.
MILITARY HEADQUARTER	OFFICIAL BUILDING	AMMAN	JORDAN
AMERICAN EMBASSY OF MALI	OFFICIAL BUILDING	BAMACO	MALI
AMERICAN EMBASSY OF IRAQ	OFFICIAL BUILDING	ERBIL	IRAQ
AMERICAN EMBASSY OF PAKISTAN	OFFICIAL BUILDING	ISLAMABAD	PAKISTAN
AMERICAN EMBASSY OF UGANDA	OFFICIAL BUILDING	KAMPALA	UGANDA
AMERICAN EMBASSY OF AFGHANISTAN	OFFICIAL BUILDING	KABUL	AFGHANISTAN
AMERICAN EMBASSY OF PAPUA NEW GUINEA	OFFICIAL BUILDING	PORT MORESBY	PAPUA NEW GUINEA
AMERICAN EMBASSY OF SIERRA LEONE	OFFICIAL BUILDING	FREETOWN	SIERRA LEONE
AMERICAN EMBASSY OF FINLAND	OFFICIAL BUILDING	HELSINKI	FINLAND
AMERICAN EMBASSY OF RUSSIA	OFFICIAL BUILDING	MOSCOW	RUSSIA
AMERICAN EMBASSY OF BANGLADESH	OFFICIAL BUILDING	DHAKA	BANGLADESH
NEW ADMINISTRATIVE CAPITAL PROJECT - MINISTERIAL BUILDINGS	OFFICIAL BUILDING	CAIRO	EGYPT
NEW ADMINISTRATIVE CAPITAL PROJECT - PARLIMAN BUILDING	OFFICIAL BUILDING	CAIRO	EGYPT
AMERICAN MILITARY BASE PACKAGE 3 DORMITORY AT LSA	OFFICIAL BUILDING	MAFRAQ	JORDAN
SABIC JUBAIL MAIN BUILDING & GLOBAL DATA CENTER PROJECT	OFFICIAL BUILDING	JUBAIL	SAUDI ARABIA
BATH ISLAND PROPERTY	OFFICIAL BUILDING	KARACHI	PAKISTAN
UAE CONSULATE	OFFICIAL BUILDING	KARACHI	PAKISTAN
NEW NAVAL BASE PROJECT	OFFICIAL BUILDING	DOHA	QATAR
CLINIC BUILDING FOR DUHAILIYAT CAMP	OFFICIAL BUILDING	DOHA	QATAR
COAST GUARD BASE BUILDING	OFFICIAL BUILDING	DOHA	QATAR
ABM MILITARY COLLEGE	OFFICIAL BUILDING	DOHA	QATAR
MEEZA DATA CENTRES MV 2 & 3	OFFICIAL BUILDING	DOHA	QATAR
HABIB METRO BANK	OFFICIAL BUILDING	KARACHI	PAKISTAN
ECO BANK PAN AFRICA CENTER	OFFICIAL BUILDING	LAGOS	NIGERIA
KAZMA CAMP	OFFICIAL BUILDING	AL SEBEYAH	KUWAIT
PALACE OF JUSTICE	OFFICIAL BUILDING	KUWAIT CITY	KUWAIT
CRIMINAL INVISTIGATION BUILDING	OFFICIAL BUILDING	SULAIBIYA	KUWAIT
GTB TRAINING CENTER	OFFICIAL BUILDING	LAGOS	NIGERIA
CERCLE MILITAIRE OUARGLA	OFFICIAL BUILDING	OUARGLA	ALGERIA
NEW RAYYAN PALACE	PALACE	DOHA	QATAR
AL BIDDA PARK	PARK	DOHA	QATAR
DOHA PORT REDEVELOPMENT	PORT	DOHA	QATAR
DOHA METRO : GOLD LINE	RAILWAY	DOHA	QATAR
INDUSTRIAL AREA BUS STATION	RAILWAY	DOHA	QATAR

PROJECT NAME	PROJECT TYPE	CITY	COUNTRY
AMMAN BUS RAPID TRANSIT (BRT) SYSTEM/SWUAYLEH TERMINAL	RAILWAY	AMMAN	JORDAN
RIYADH METRO PROJECT ELEVATED STATIONS	RAILWAY	RIYADH	SAUDI ARABIA
RIYADH METRO PROJECT ICONIC STATION	RAILWAY	RIYADH	SAUDI ARABIA
RIYADH METRO PROJECT PARK & RIDE STATIONS	RAILWAY	RIYADH	SAUDI ARABIA
NORTH SOUTH RAILWAY	RAILWAY	DAMMAM	SAUDI ARABIA
JABER AL AHMAD AL SABAH CAUSEWAY PROJECT	RAILWAY	KUWAIT CITY	KUWAIT
BEİT MİSK	RESIDENCE	BEIRUT	LEBANON
LEVEL 27	RESIDENCE	BEIRUT	LEBANON
20000 HOUSING PROJECT IN WEST BENGHAZI	RESIDENCE	BENGHAZI	LIBYA
JUMEIRAH VILLAGES	RESIDENCE	DUBAI	U.A.E.
DAR AL HIJRA HAJJ CITY	RESIDENCE	MADINAH	SAUDI ARABIA
KING ABDEL AZIZ ROAD MAKKAH (KAAR)	RESIDENCE	MAKKAH	SAUDI ARABIA
SHARMA COMPLEX	RESIDENCE	SHARMA	SAUDI ARABIA
GOVERNMENT AGENCIES COMPOUND (GAC)	RESIDENCE	RIYADH	SAUDI ARABIA
WADI AL HADA RESIDENTIAL COMPOUND PROJECT	RESIDENCE	RIYADH	SAUDI ARABIA
KAUST HOUSING	RESIDENCE	RIYADH	SAUDI ARABIA
KAP-1 RIYADH	RESIDENCE	RIYADH	SAUDI ARABIA
SANG HOUSING	RESIDENCE	RIYADH	SAUDI ARABIA
PRINCE MISHAAL BIN KHALID F. AL-SAUD PRIVATE RESIDENCE	RESIDENCE	RIYADH	SAUDI ARABIA
AIR FORCES HOUSING	RESIDENCE	KHOBAR	SAUDI ARABIA
RAYADA HOUSING COMPLEX (RHC)	RESIDENCE	JEDDAH	SAUDI ARABIA
JABAL OMAR DEVELOPMENT	RESIDENCE	MAKKAH	SAUDI ARABIA
FADHILI BACHELOR CAMP	RESIDENCE	JUBAIL	SAUDI ARABIA
EMAAR SALES CENTER	RESIDENCE	KARACHI	PAKISTAN
AL WAAB RESIDENTIAL BUILDING AND COMMERCIAL DISTRICT	RESIDENCE	DOHA	QATAR
SEEF LUSAIL D1 & D2	RESIDENCE	DOHA	QATAR
LA PLAGE SOUTH 4	RESIDENCE	DOHA	QATAR
AL ERKYAH RESIDENTIAL APARTMENT BUILDING	RESIDENCE	DOHA	QATAR
VIVA BAHRIYA-24	RESIDENCE	DOHA	QATAR
VIVA BAHRIYA B-14 & 15	RESIDENCE	DOHA	QATAR
RESIDENTIAL BUILDINGS & CLUB HOUSE, RIVERA COMPOUND	RESIDENCE	DOHA	QATAR
ALWAKRA HERITAGE VILLAGE	RESIDENCE	DOHA	QATAR
COMMERCIAL AND RESIDENTIAL BUILDING, MUNTAZAH	RESIDENCE	DOHA	QATAR
AL FARDAN LPW 18 & 19	RESIDENCE	DOHA	QATAR
AL RAYYAN VILLAGE	RESIDENCE	DOHA	QATAR
OFFICIAL RESIDENCE BAKU - BOR	RESIDENCE	BAKU	AZERBAIJAN
AZURI PENINSULA	RESIDENCE	LAGOS	NIGERIA
KURAMO BEACH	RESIDENCE	LAGOS	NIGERIA
TRUST COMPLEX	RESIDENCE	ALGIER	ALGERIA
JAWAHER RESIDENTIAL BUILDING	RESIDENCE	KUWAIT CITY	KUWAIT
HAYAWANE COMPLEX	RESIDENCE	KUWAIT CITY	KUWAIT
AL MARZOUQ VILLA	RESIDENCE	SHUWAIKH	KUWAIT
ASIMA TOWER	RESIDENCE	KUWAIT CITY	KUWAIT
JUVENILE HOUSING CARE COMPLEX	RESIDENCE	SULAIBIYA	KUWAIT
OCEANA	RESIDENCE	LAGOS	NIGERIA
ITC	RESIDENCE	ABIDJAN	IVORY COAST
GOLD CREST MALL & APARTMENTS	RESIDENCE-MALL	LAHORE	PAKISTAN
MAZAR MARKAZ COMPLEX	RESIDENCE-MALL	MAZAR-I-SHERIF	AFGHANISTAN
LEKHWIYA SPORTS STADIUM	STADIUM	DOHA	QATAR
TENNIS COURT COMPLEX	STADIUM	SOUTH SURRA	KUWAIT
RWANDA SPORTS ARENA	STADIUM	KIGALI	RWANDA
TURKMENISTAN STADIUM	STADIUM	ASGABAT	TURKMENISTAN

PROJECT NAME	PROJECT TYPE	CITY	COUNTRY
AL FATEH UNIVERSITY	UNIVERSITY	TRIPOLI	LIBYA
UNIVERSITY OF DAMMAM	UNIVERSITY	DAMMAM	SAUDI ARABIA
UNIVERSITY OF TAIF	UNIVERSITY	TAIF	SAUDI ARABIA
BAHA UNIVERSITY	UNIVERSITY	BAHA	SAUDI ARABIA
RAFHA UNIVERSITY	UNIVERSITY	RAFHA	SAUDI ARABIA
QATAR FOUNDATION EDUCATION CITY SOUTH SITE UTILITY TUNNELS	UNIVERSITY	DOHA	QATAR
KUWAIT UNIVERSITY-MULTI STOREY CAR PARK	UNIVERSITY	KHALDIYA	KUWAIT
QATAR FOUNDATION WAREHOUSE	WAREHOUSE	DOHA	QATAR

CERTIFICATES

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Notes

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