

山西艾森特工贸有限公司

SHANXI ASCENT INDUSTRIAL CO.,LTD



PIPELINE

- Pipe
- Fitting
- Flange Adaptor
- Coupling
- Dismantling Joint
- Saddle
- Rubber Flexible Joint
- Repair Clamp



Ascent

PIPELINE LIFE 50 YEARS

Shanxi Ascent Industrial Co., Ltd

is a manufacturing leader in Water Pipelines, Sewerage and Piping for steam, air, gas, oil, etc. from 2010 in China.

► Products:

- DI pipe, Fitting, Dismantling Joint, Flange adaptor, Coupling, Saddle, Rubber Flexible, Repair clamp;
EN545, EN598, ISO2531, EN12842, EN14525, AWWA C153/C110.....

- DI Gate valve, Butterfly valve, Check valve, Air valve, Strainer, Control valve, Fire hydrant, etc;
DIN 3352, EN1074, EN1171, BS5163, EN593, AWWA C509/C515, API 609.....

- DI Gully top, Manhole top, Surface box and Manhole step, Drainage channel grating;
EN124-1, EN124-2, EN1433, EN13101.....

- Steel Pipe, Fitting

ASTM A53, ASTM A106, ASTM A335, ASTM A312, ASME B36.10M, ASME B36.19.
EN10216, EN10217, EN10224, ASME B16.9, ASME B16.28, ASME B16.11, ASTM A865,
EN1053, JIS B2311, JIS B2312, JIS B2313, DIN.....

- Steel flange, DI Flange;

ASME B16.5, ASME B16.47, ASME B16.42, EN1092-1, EN1092-2, BS10,
DIN, JIS B2220, SANS 1123.....

- Steel Gate valve, Butterfly valve, Check valve, Ball valve, Globe valve, etc;
API 602, API 603, API 600, API 623, API 608, API 6D, API 594.....

- Malleable Iron Fitting;

ASME B16.3, ASME B16.39, ASME B16.14, EN10242, BS 143&1256, DIN, EN10226, ISO7-1, ISO49

- CI Pipe, Fitting and Accessories;

EN877, ISO 6594, ASTM A888.....

- PE / HDPE / PVC-O.U.C.HI thermoplastic pipe, fitting, valve and joints;

EN12201, ISO4422, ISO1452, ISO16422.....

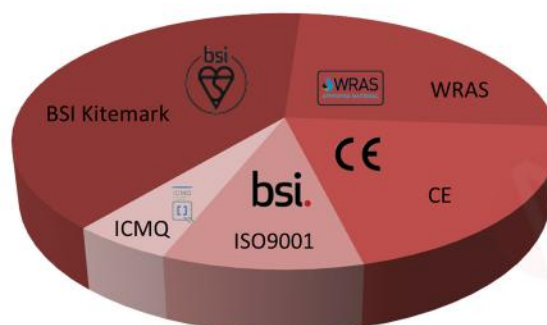
- Water Meter and Flow Meter;

ISO4064, ISO 20456, ISO9951, ISO12764, ISO5167, ISO2714, ISO12242, ISO10790.....

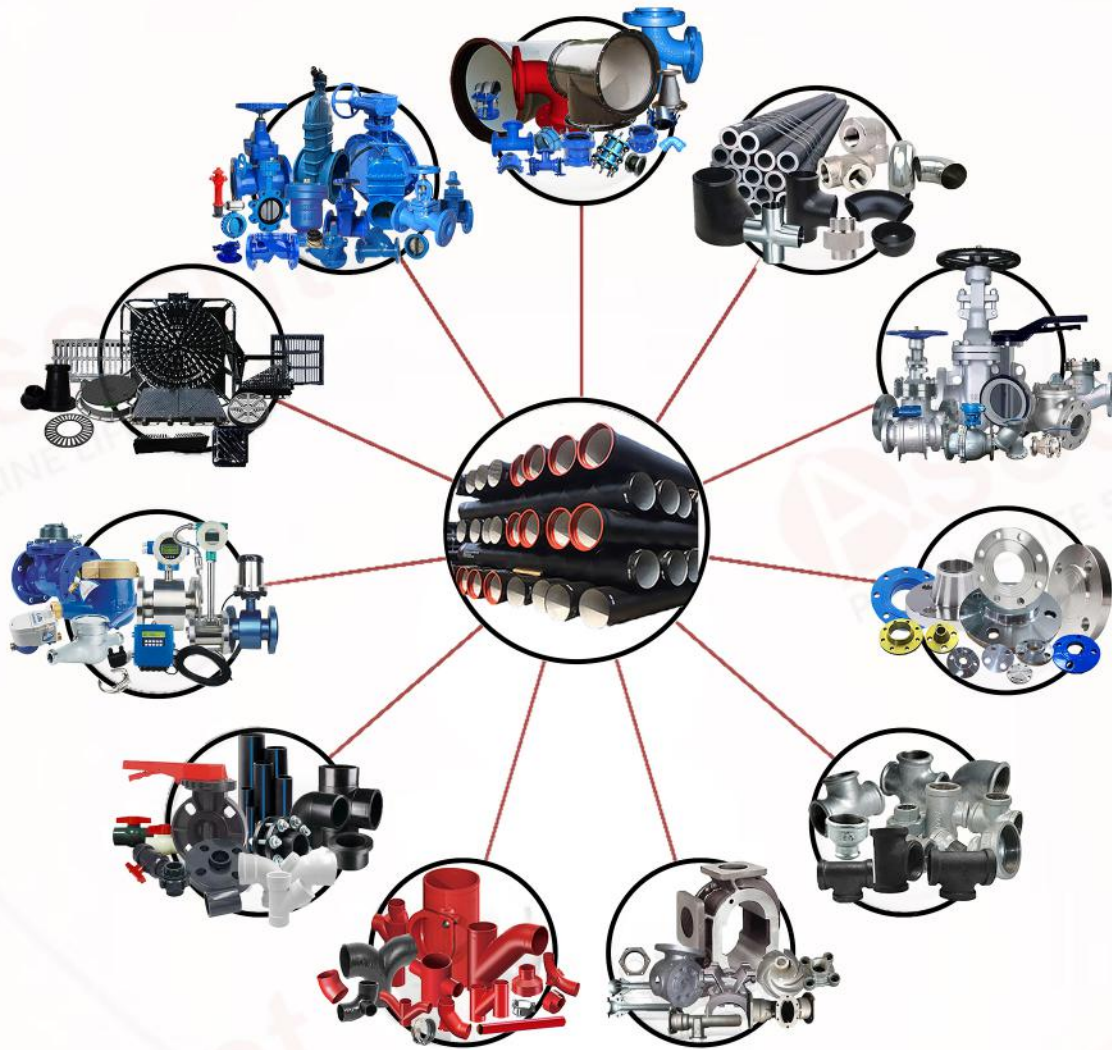
- DI, CI, Steel castings, OEM, ODM;

ISO 8062.....

► Hold certificates:



► Images:



► Vision: To become a world-class supplier of pipelines.

Mission: Satisfy and solve all requirements in the whole pipelines.

Value: Customer centric, Respect the individual, Team spirit.

► **DI PIPE**

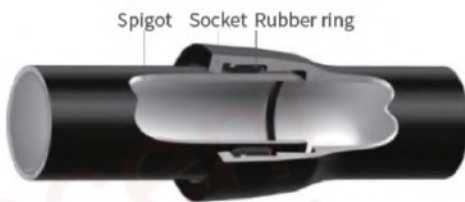
Standard: EN545, EN598, ISO2531, EN1092-2, ISO7005-2, EN197-1, EN196-1, ISO4179, ISO16132, ISO8179-1, ISO8179-2, ISO8180, EN14901, EN681-1, ISO4633, EN1514, EN ISO4016, EN ISO4034, EN ISO7091, and other Normative References.

Type and Joints

1. Socket Spigot Pipe

Push in Flexible Joint, Non-restrained. (a)

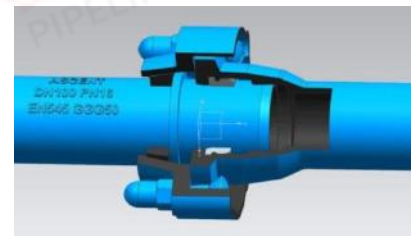
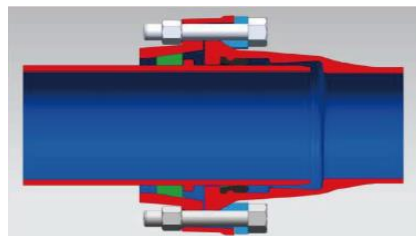
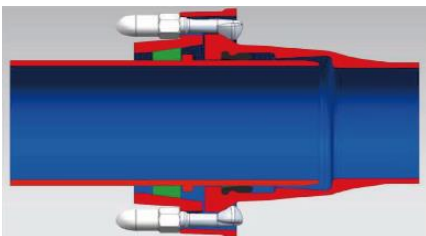
Accessory: EPDM Gasket,



2. TF self-anchored Pipe (T-type socket with K edge and Spigot end with welding ring)

Push in Flexible Joint, Restrained. (a)

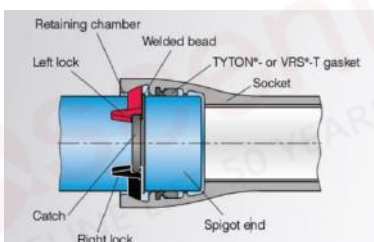
Accessory: EPDM Gasket, Gland, Locking ring, DI hooked bolts and nuts (\leq DN1000), Steel bolts and nuts ($>$ DN1000), Locking block ($>$ DN1000).



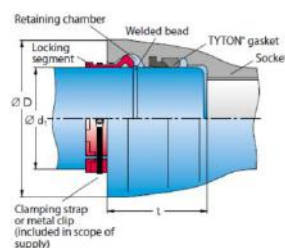
3. Internal self-anchored pipe (T-type socket with retaining chamber and Spigot end with welding ring)

Push in Flexible Joint, Restrained. (a)

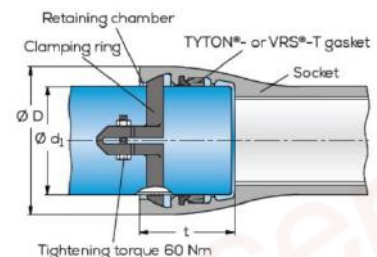
Accessory: EPDM Gasket, Left lock + Right lock + Catch (DN80-DN500), Locking segment + Clamping strap (DN600-DN1000)



DN80-DN500



DN600-DN1000



Internal self-anchored pipe with cutting spigot end

4. Double flanged Pipe (with Puddle flange) (b)
Accessory: EPDM gasket, Steel bolts and nuts.



Double flanged Pipe



Double flanged Pipe with Puddle flange

5. Flanged Spigot Pipe (with Puddle flange) (b)
Accessory: EPDM gasket, Steel bolts and nuts.



Flanged Spigot Pipe



Flanged Spigot Pipe with Puddle flange

6. Double Spigot Pipe, (with Puddle flange) (b)



Double Spigot Pipe



Double Spigot Pipe with Puddle flange

7. Socket Flanged Pipe, (with Puddle flange) (b)



Socket Flanged Pipe



Socket Flanged Pipe with Puddle flange

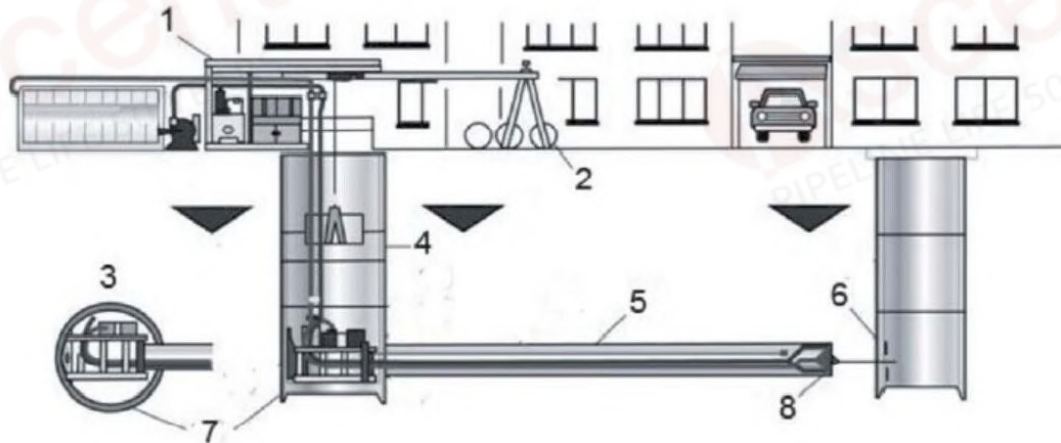
8. Jacking Pipe, (c)



Note: (a)Centrifugal casting (b)Fabrication cut and weld on flange through socket spigot pipe (c)Socket spigot pipe with cement

Corresponding DNs for trenchless technologies

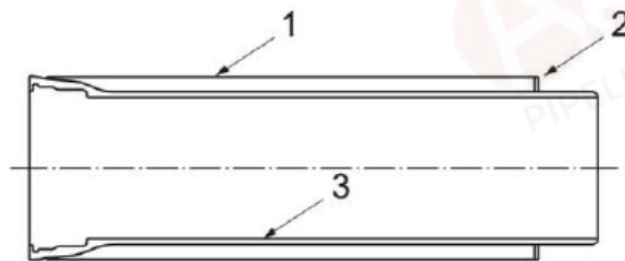
| | Pulling methods | Pushing methods |
|---------------------------------------|---------------------------|---------------------------|
| Horizontal directional drilling (HDD) | Yes DN 100 to DN 1 200 | No |
| Pipe bursting (PB) | Yes DN 100 to DN 1 200 | Yes DN 100 to DN 1 200 |
| Casing method (CM) | Yes DN 80 to DN 2 600 | Yes DN 80 to DN 2 600 |
| Pipe jacking (PJ) | No | Yes DN 250 to DN 2 600 |



Key

- 1 control container
- 2 jacking pipes
- 3 plan view on launch shaft
- 4 launch shaft
- 5 jacking pipes
- 6 reception seal
- 7 jacking frame
- 8 lead pipe

Pipe jacking method



Key

- 1 sheath
- 2 flange
- 3 pipe

Jacking pipe profile

Allowable pushing force resistance for pipe jacking

| DN | Pushing force resistance | | | |
|-------|--------------------------|---------------------|---------------------|--------------------|
| | kN | | | |
| | C20 | C25 | C30 | C40 |
| 250 | — | — | — | 920 ^a |
| 300 | — | — | 720 ^b | 1 240 ^a |
| 350 | — | 700 ^b | 1 270 ^a | 1 740 ^b |
| 400 | — | 850 ^b | 1 350 ^a | 2 190 ^b |
| 450 | — | 1 110 ^b | 1 560 ^a | 2 760 ^b |
| 500 | — | 1 300 ^b | 1 910 ^a | 3 300 ^b |
| 600 | — | 1 910 ^b | 2 720 ^a | 3 730 ^b |
| 700 | 1 650 ^b | 2 720 ^a | 3 670 ^b | 6 350 ^b |
| 800 | 2 110 ^b | 3 300 ^a | 4 760 ^b | 6 570 ^b |
| 900 | 2 640 ^b | 4 140 ^a | 5 990 ^b | 6 570 ^b |
| 1 000 | 3 300 ^b | 5 080 ^a | 7 240 ^b | 9 020 ^b |
| 1 100 | 3 950 ^b | 6 110 ^a | 8 890 ^b | 9 020 ^b |
| 1 200 | 4 650 ^b | 7 240 ^a | 9 020 ^b | 9 020 ^b |
| 1 400 | 6 350 ^b | 9 020 ^a | 9 020 ^b | — |
| 1 500 | 7 240 ^b | 11 350 ^a | 12 360 ^b | — |
| 1 600 | 8 320 ^b | 12 360 ^a | 12 360 ^b | — |
| 1 800 | 10 390 | 12 360 ^a | 12 360 ^b | — |
| 2 000 | 12 860 ^b | 16 970 ^a | 16 970 ^b | — |
| 2 200 | 15 600 ^b | 16 970 ^a | — | — |
| 2 400 | 16 970 ^b | 16 970 ^a | — | — |
| 2 600 | 21 650 ^b | 23 340 ^a | — | — |

NOTE For higher pressure classes, see the manufacturer's handbook.

^a Preferred classes of pipe.

^b Other classes of pipe (background in grey shading).

The Norminal Size and Norminal Pressure

DN80-DN2000

Class 20- Class 100

Pressure/Gravity (EN598)

PN10-PN40

Note: also according to K7,K8,K9,K12

Lining and Coating

Lining:

(ordinary portland) cement mortar
high-alumina cement mortar

Coating:

Zinc rich ($\geq 200\text{g/m}^2$), with finishing layer Black bitumen, Blue epoxy, Red epoxy.

Metallic Zinc ($\geq 200\text{g/m}^2$), with finishing layer Black bitumen, Blue epoxy, Red epoxy.

Alloy Zinc and aluminum ($\geq 400\text{g/m}^2$), with finishing layer Black bitumen, Blue epoxy, Red epoxy.

Note:

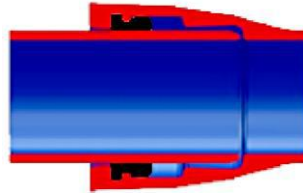
- a. Lining and Coating Polyurethane(PU), $900\mu\text{m}$, $700\mu\text{m}$.
- b. Lining epoxy ceramic, $1000\mu\text{m}$.
- c. Lining sulfate cement mortar
- d. Epoxy resin sealing layer on cement mortar lining.
- e. Bitumen sealing layer on cement mortar lining.
- f. A supplement to the Zinc coating with finish layer. Polyethylene sleeve(PE).
- g. Coating of the joint area: Epoxy coating, Polyurethane coating.

►DI FITTING

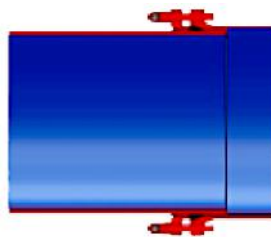
Standard: EN545, EN598, ISO2531, EN1092-2, ISO7005-2, EN197-1, EN196-1, ISO4179, ISO16132, ISO8179-1, ISO8179-2, ISO8180, EN14901, EN681-1, ISO4633, EN1514, EN ISO4016, EN ISO4034, EN ISO7091, and other Normative References.

Type and joints

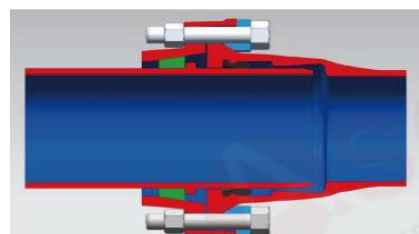
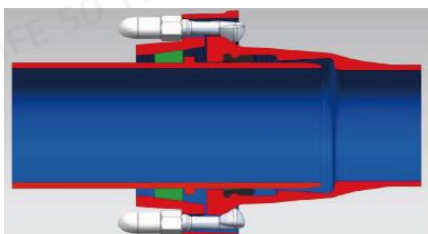
1. T-type socket
Push in flexible joint, non-restrained.
Accessory: EPDM gasket



2. K-type socket
Mechanical flexible joint, non-restrained.
Accessory: EPDM gasket, Gland, bolts and nuts.



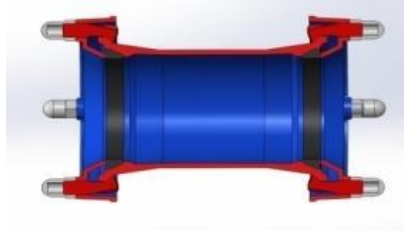
3. TF self-anchored (T-type socket with K edge, connect with spigot end with welding ring)
Push in Flexible joint, restrained.
Accessory: EPDM gasket, Gland, Locking ring, DI hooked bolts and nuts ($\leq \text{DN}1000$).
Steel bolts and nuts ($> \text{DN}1000$), hooked locking block ($> \text{DN}1000$).



4. EX socket

Mechanical flexible joint, non-restrained

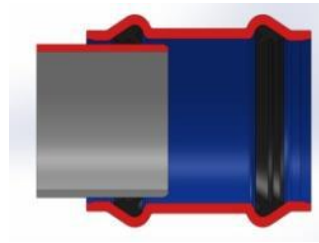
Accessory: EPDM, Gland, hooked bolts and nuts



5. Socket for PVC/PE Pipe

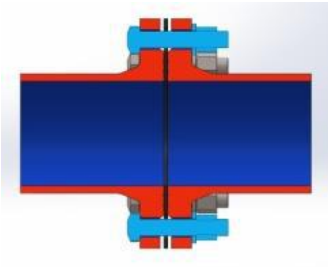
Push in flexible Joint, non-restrained.

Accessory: EPDM.



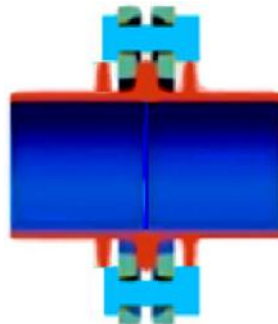
6. Flange

Accessory: EPDM, Bolts and nuts.



7. Loosing flange

Accessory: EPDM, bolts and nuts.



The Norminal Size and Norminal Pressure

1. T-type socket fitting. DN40-DN2000, Class25-Class100
2. K-type socket fitting. DN40-DN2000, PFA 16Bar
3. TF self-anchored fitting. DN40-DN2000, Class25-Class100
4. EX fitting. DN40-DN600, PFA16Bar.
5. Socket fitting for PVC/PE Pipe. DN60-DN700(OD63-OD710), PFA16Bar.
6. Flange fitting, EPDM, Bolts and nuts. DN40-DN2000, PN10 PN16 PN25 PN40.
7. Loosing flange fitting, EPDM, bolts and nuts. DN40-DN1200, PN10 PN16 PN25

Lining and Coating

Lining:

(ordinary portland) cement mortar

High-alumina cement mortar

Fusion bonded epoxy(FBE), Blue, Red, Black.

Coating:

Zinc rich ($\geq 220\text{g}/\text{m}^2$), with finishing layer Black bitumen, Blue epoxy, Red epoxy.

Metallic Zinc ($\geq 220\text{g}/\text{m}^2$), with finishing layer Black bitumen, Blue epoxy, Red epoxy.

Alloy Zinc and aluminum ($\geq 400\text{g}/\text{m}^2$), with finishing layer Black bitumen, Blue epoxy, Red epoxy.

Fusion bonded epoxy(FBE), Blue, Red, Black.

►DI FLANGE ADAPTOR

Flange joint and Socket Mechanical Flexible joint, DN40-DN2000, PN10 PN16.

►DI/STEEL COUPLING

Socket Mechanical Flexible joint, OD63-OD2082, PFA 16BAR.

►DI DISMANTLING JOINT

Flange joint and Mechanical joint, DN50-DN2000, PN10 PN16 PN25 PN40.

►DI SADDLE with threaded outlet or flanged outlet

Flange joint or Thread joint, OD50-OD860, PN10 PN16 and PFA 10BAR 16BAR

►FLANGED/THREADED RUBBER FLEXIBLE JOINT

Flanged: DN25-DN4000, PN2.5-PN40

Threaded: NPS1/2"-NPS2 1/2", PFA 2.5BAR-10BAR

►REPAIR CLAMP

OD18-OD1462, PFA32-PFA3

►Test methods for technical requirements and performance requirements.

"ASCENT" expect to receive your enquiry, will share detailed information.

Outside diameters of pipe (ISO, EN and National standard in mm)

| Size (DN) | Ductile | PVC | PVCO | PE | STEEL | | PVC |
|-----------|-------------------------------------|-----------------------------------|----------|-----------------------------------|---------------------------------------|----------|---------------------------------------|
| | EN 545 ISO 2531 | EN1452 | ISO16422 | EN12201 | DIN 2458 EN 10224 ISO 559 | DIN 2448 | Imperial |
| 40 | 56 ^{+1.0} _{-1.2} | 50 ^{+0.2} ₋₀ | | 50 ^{+0.4} ₋₀ | 48.3 ^{+0.8} _{-0.4} | 44.5 | - |
| 50 | 66 ^{+1.0} _{-1.2} | 63 ^{+0.3} ₋₀ | 63 | 63 ^{+0.4} ₋₀ | 60.3 ^{+0.8} _{-0.4} | 57 | 60.3 ^{+0.2} _{-0.1} |
| 60 | 77 ^{+1.0} _{-1.2} | 75 ^{+0.3} ₋₀ | 75 | 75 ^{+0.5} ₋₀ | 76.1 ^{+0.8} _{-0.8} | - | - |
| 65 | 82 ^{+1.0} _{-1.2} | - | | - | - | 76.1 | 76.1 ^{+0.2} _{-0.1} |
| 70 | - | - | | - | - | - | - |
| 80 | 98 ^{+1.0} _{-2.7} | 90 ^{+0.3} ₋₀ | 90 | 90 ^{+0.6} ₋₀ | 88.9 ^{+0.8} _{-0.8} | 88.9 | 88.9 ^{+0.2} _{-0.2} |
| 90 | - | - | | - | - | - | - |
| 100 | 118 ^{+1.0} _{-2.8} | 110 ^{+0.4} ₋₀ | 110 | 110 ^{+0.7} ₋₀ | 114.3 ^{+0.8} _{-0.8} | 108 | 114.3 ^{+0.2} _{-0.2} |
| | - | 125 ^{+0.4} ₋₀ | 125 | 125 ^{+0.8} ₋₀ | - | - | - |
| 125 | 144 ^{+1.0} _{-2.8} | 140 ^{+0.5} ₋₀ | 140 | 140 ^{+0.9} ₋₀ | 139.7 ^{+1.6} _{-0.8} | 133 | 140.2 ^{+0.2} _{-0.2} |
| 150 | 170 ^{+1.0} _{-2.9} | 160 ^{+0.6} ₋₀ | 160 | 160 ^{+1.0} ₋₀ | 168.3 ^{+1.6} _{-0.8} | 159 | 168.3 ^{+0.2} _{-0.3} |
| 175 | - | 180 ^{+0.6} ₋₀ | 180 | 180 ^{+1.1} ₋₀ | - | - | - |
| 200 | 222 ^{+1.0} _{-3.0} | 200 ^{+0.6} ₋₀ | 200 | 200 ^{+1.2} ₋₀ | 219.1 ^{+1.6} _{-0.8} | 216 | 219.1 ^{+0.3} _{-0.3} |
| 225 | - | 225 ^{+0.7} ₋₀ | 225 | 225 ^{+1.4} ₋₀ | - | - | - |
| 250 | 274 ^{+1.0} _{-3.1} | 250 ^{+0.8} ₋₀ | 250 | 250 ^{+1.5} ₋₀ | 273 ^{+1.6} _{-0.8} | 267 | 273 ^{+0.4} _{-0.4} |
| 275 | - | 280 ^{+0.9} ₋₀ | 280 | 280 ^{+1.7} ₋₀ | - | - | - |
| 300 | 326 ^{+1.0} _{-3.3} | - | | - | 323.9 ^{+1.6} _{-0.8} | 318 | - |
| | - | 315 ^{+1.0} ₋₀ | 315 | 315 ^{+1.9} ₋₀ | - | - | 323.9 ^{+0.4} _{-0.5} |
| 350 | 378 ^{+1.0} _{-3.4} | 355 ^{+1.0} ₋₀ | 355 | 355 ^{+2.1} ₋₀ | 355.6 ^{+1.6} _{-1.6} | 368 | 355.6 |
| 375 | - | - | | - | - | - | - |
| 400 | 429 ^{+1.0} _{-3.5} | 400 ^{+1.0} ₋₀ | 400 | 400 ^{+2.4} ₋₀ | 406.4 ^{+1.6} _{-1.6} | 419 | 406.4 |
| 450 | 480 ^{+1.0} _{-3.6} | 450 ^{+1.0} ₋₀ | 450 | 450 ^{+2.7} ₋₀ | - | - | - |
| 500 | 532 ^{+1.0} _{-3.8} | 500 ^{+1.0} ₋₀ | 500 | 500 ^{+3.0} ₋₀ | 508 ^{+1.6} _{-1.6} | 521 | 508 |
| 525 | - | - | | - | - | - | - |
| 550 | - | 560 ^{+1.0} ₋₀ | 560 | 560 ^{+3.4} ₋₀ | - | - | - |
| 600 | 635 ^{+1.0} _{-4.0} | 630 ^{+1.0} ₋₀ | 630 | 630 ^{+3.8} ₋₀ | 609.6 ^{+1.6} _{-1.6} | 610 | 609.6 |

Note: The size expression use "DN" for DI Pipe, use "OD" for PVC, PVCO, PE and Steel Pipe.

| Pressure Reference | | | | | | | | | | |
|--------------------|----------|------|-------|-------|-------|----------|-------|-----|----------|-----|
| EN | | | | | ASME | | | JIS | | |
| PN | Pressure | | | | Class | Pressure | | K | Pressure | |
| | Bar | Mpa | PSI | Kpa | | Psi | Kpa | | Bar | Mpa |
| | | | | | 25 | 25 | 172 | | | |
| 2.5 | 2.5 | 0.25 | 36.25 | 250 | | | | | | |
| | | | | | 75 | 75 | 517 | 5k | 5 | 0.5 |
| 6 | 6 | 0.6 | 87 | 600 | | | | | | |
| | | | | | 125 | 125 | 861 | | | |
| 10 | 10 | 1 | 145 | 1000 | | | | 10k | 10 | 1 |
| | | | | | 150 | 150 | 1034 | | | |
| 16 | 16 | 1.6 | 232 | 1600 | | | | 16k | 16 | 1.6 |
| | | | | | | | | 20k | 20 | 2 |
| | | | | | 250 | 250 | 1723 | | | |
| | | | | | 300 | 300 | 2068 | | | |
| 25 | 25 | 2.5 | 362.5 | 2500 | | | | | | |
| | | | | | 400 | 400 | 2758 | | | |
| | | | | | | | | 30k | 30 | 3 |
| 40 | 40 | 4 | 580 | 4000 | | | | 40k | 40 | 4 |
| | | | | | 600 | 600 | 4137 | | | |
| | | | | | 900 | 900 | 6205 | | | |
| 63 | 63 | 6.3 | 913 | 6300 | | | | 63k | 63 | 63 |
| 100 | 100 | 10 | 1450 | 10000 | | | | | | |
| | | | | | 1500 | 1500 | 10342 | | | |
| | | | | | 2500 | 2500 | 17237 | | | |
| 250 | 250 | 25 | 3625 | 25000 | | | | | | |
| 320 | 320 | 32 | 4640 | 32000 | | | | | | |
| 400 | 400 | 40 | 5800 | 40000 | | | | | | |

Note:

- ① 1mpa=10bar
- ② 1bar=100kpa
- ③ 1bar=14.5psi
- ④ 1psi=6.895kpa
- ⑤ special pressure-temperature rating

PIPE

| | |
|---|---|
| DIMENSIONS of PIPES EN545 | 1 |
| DIMENSIONS and WEIGHTS of PIPES of PREFERRED PRESSURE CLASSES EN545..... | 2 |
| DIMENSIONS and WEIGHTS of PIPES of K9 | 3 |
| DIMENSIONS of PIPES ISO2531..... | 4 |
| DIMENSIONS and WEIGHTS of PIPES of PREFERRED PRESSURE CLASSES ISO2531 | 5 |
| DIMENSIONS and WEIGHTS of PIPES EN598 | 6 |
| HYDRAULIC PRESSURE | 6 |

FLANGED FITTING

| | |
|---|----|
| FLANGE SPIGOT..... | 7 |
| DOUBLE FLANGED PIPE (CAST ON FLANGE) (with THREADED HOLE)..... | 8 |
| DOUBLE FLANGED PIPE (WELD ON FLANGE)..... | 10 |
| DOUBLE FLANGED HATCHBOX | 12 |
| DOUBLE FLANGED CONCENTRIC/ECCENTRIC TAPER A&B SERIES (B series up to DN450x400) | 12 |
| DOUBLE FLANGED 90°BEND A&B SERIES (A=B series) | 13 |
| DOUBLE FLANGED 90°DUCKFOOT BEND A&B SERIES (A=B series) | 14 |
| DOUBLE FLANGED 90°LONG RADIUS BEND..... | 15 |
| DOUBLE FLANGED 90°LONG RADIUS ACCESS BEND | 15 |
| DOUBLE FLANGED 45°BEND A&B SERIES (B series up to DN450) | 15 |
| DOUBLE FLANGED 22.5°BEND A&B SERIES (B series up to DN400) | 17 |
| DOUBLE FLANGED 11.25°BEND A&B SERIES (B series up to DN400) | 18 |
| DOUBLE FLANGED 22.5°LONG BEND..... | 19 |
| DOUBLE FLANGED 11.25°LONG BEND..... | 19 |
| ALL FLANGED TEE A&B SERIES (B series up to DN600X600)..... | 20 |
| ALL FLANGED LEVEL INVERT TEE | 25 |
| ALL FLANGED 45°ANGLE BRANCH TEE | 26 |
| ALL FLANGED RADIAL TEE..... | 29 |
| ALL FLANGED Y TEE | 30 |

| | |
|--|----|
| ALL FLANGED CROSS..... | 31 |
| BLANK FLANGES PN10 PN16 PN25 PN40 (with CENTER THREADED HOLE)..... | 33 |
| REDUCING FLANGE PN10 PN16 PN25 PN40 | 35 |
| SPLIT/LOOSING PUDDLE FLANGE..... | 39 |
| PIPE BLOCK..... | 39 |
| WELD-ON FLANGE(SHORT NECK) | 40 |
| SCREW-ON FLANGE..... | 40 |
| WELD-ON FLANGE(LONG NECK) | 40 |
| DOUBLE FLANGED 90°HYDRANT DUCKFOOT BEND | 40 |
| FLANGE SOCKET 90°SHORT HYDRANT DUCKFOOT BEND | 41 |
| FLANGE SOCKET A&B SERIES (B series up to DN450)..... | 41 |
| DIMENSIONS OF FLANGE PN10 PN16 PN25 PN40..... | 42 |
| TOLERANCES ON FLANGE DIMENSIONS..... | 44 |
| FLANGE RUBBER GASKET | 45 |
| HEXAGONAL BOLTS, NUTS..... | 46 |

T-TYPE & K-TYPE SOCKET FITTING

| | |
|---|----|
| COLLAR T-TYPE & MJ-K-TYPE(standard length) | 47 |
| COLLAR MJ-K-TYPE(long type)..... | 47 |
| DOUBLE SOCKET CONCENTRIC/ECCENTRIC TAPER A&B SERIES (B series up to DN450x400)..... | 48 |
| DOUBLE SOCKET 90°BEND A&B SERIES (B series up to DN300)..... | 49 |
| DOUBLE SOCKET 90°DUCKFOOT BEND A&B SERIES (B series up to DN300) | 49 |
| DOUBLE SOCKET 45°BEND A&B SERIES (B series up to DN450)..... | 50 |
| DOUBLE SOCKET 22.5°BEND A&B SERIES (A=B series)..... | 50 |
| DOUBLE SOCKET 11.25°BEND A&B SERIES (A=B series) | 50 |
| ALL SOCKET TEE A&B SERIES | 51 |
| DOUBLE SOCKET TEE with FLANGED BRANCH A&B SERIES (B series up to DN450) | 53 |
| DOUBLE SOCKET TEE with LEVEL INVERT FLANGE BRANCH | 59 |
| ALL SOCKET 45°ANGLE BRANCH TEE.... | 61 |

| | |
|---|----|
| ALL SOCKET CROSS | 62 |
| PLUG..... | 63 |
| CAP | 63 |
| BELLMOUTH..... | 63 |
| DIMENSIONS OF SOCKET JOINT for T-TYPE & K-TYPE..... | 64 |
| T-TYPE RUBBER GASKET for T-TYPE SOCKET | 65 |
| K-TYPE RUBBER RING for K-TYPE SOCKET..... | 66 |
| GLAND for K-TYPE SOCKET..... | 67 |
| T-HEAD BOLTS AND NUTS for K-TYPE SOCKET..... | 67 |

TF SELF-ANCHORED FITTING

| | |
|---|----|
| TF SELF-ANCHORED FITTING (T-type socket with K edge) | 68 |
| GLAND for TF SELF-ANCHORED FITTING | 68 |
| LOCKING RING for TF SELF-ANCHORED FITTING..... | 68 |
| DI HOOKED BOLTS AND NUTS for TF SELF-ANCHORED FITTING | 69 |
| T-TYPE RUBBER RING for TF SELF-ANCHORED FITTING | 69 |
| STEEL BOLTS AND NUTS for TF SELF-ANCHORED FITTING | 69 |
| LOCKING BLOCK for TF SELF-ANCHORED FITTING..... | 69 |

LOOSING FLANGED FITTING

| | |
|--|----|
| LOOSING FLANGE SET PN10..... | 70 |
| LOOSING FLANGE SET PN16..... | 70 |
| LOOSING FLANGE SPIGOT | 70 |
| DOUBLE LOOSING FLANGED PIPE..... | 71 |
| DOUBLE LOOSING FLANGED ANCHORING SLEEVE | 72 |
| DOUBLE LOOSING FLANGED CONCENTRIC/ECCENTRIC TAPER..... | 73 |
| DOUBLE LOOSING FLANGED 90°BEND | 74 |
| DOUBLE LOOSING FLANGED 90°DUCKFOOT BEND | 74 |
| DOUBLE LOOSING FLANGED 45°BEND | 74 |
| DOUBLE LOOSING FLANGED 11.25°BEND..... | 74 |

| | |
|--|----|
| DOUBLE LOOSING FLANGED 22.5°BEND | 74 |
| DOUBLE LOOSING FLANGED S PIPE..... | 75 |
| ALL LOOSING FLANGED TEE | 75 |
| ALL LOOSING FLANGED CROSS..... | 77 |
| HEXAGONAL BOLTS, NUTS AND WASHER | 77 |
| FLANGE RUBBER GASKET..... | 77 |

SOCKET FITTING FOR PVC/PE PIPE

| | |
|--|----|
| FLANGE SOCKET | 78 |
| FLANGE SPIGOT..... | 78 |
| SOCKET SPIGOT | 78 |
| COLLAR..... | 79 |
| DOUBLE SOCKET CONCENTRIC/ECCENTRIC TAPER | 79 |
| DOUBLE SOCKET 90°BEND..... | 80 |
| DOUBLE SOCKET 45°BEND | 80 |
| FLANGE SOCKET 90°DUCKFOOT BEND..... | 80 |
| DOUBLE SOCKET 30°BEND | 80 |
| DOUBLE SOCKET 22.5°BEND..... | 80 |
| DOUBLE SOCKET 11.25°BEND | 80 |
| ALL SOCKET TEE..... | 81 |
| DOUBLE SOCKET TEE with FLANGED BRANCH | 82 |
| DOUBLE SOCKET TEE with THREAED BRANCH | 83 |
| CAP | 83 |

EX FITTING

| | |
|--------------------------------|----|
| EX GLAND..... | 84 |
| FLANGED EX SOCKET..... | 84 |
| LOOSING FLANGED EX SOCKET..... | 85 |
| DOUBLE EX SOCKET TAPER | 85 |
| DOUBLE EX SOCKET COLLAR..... | 87 |

| | |
|---|----|
| EX DISMANTLING SLEEVE | 87 |
| DOUBLE EX SOCKET 90°BEND..... | 88 |
| DOUBLE EX SOCKET 45°BEND | 88 |
| DOUBLE EX SOCKET 22.5°BEND..... | 88 |
| DOUBLE EX SOCKET 11.25°BEND..... | 89 |
| ALL EX SOCKET TEE..... | 89 |
| DOUBLE EX SOCKET TEE with FLANGED BRANCH | 89 |
| DOUBLE EX SOCKET TEE with LOOSING FLANGED BRANCH..... | 92 |

FLANGE ADAPTOR

| | |
|--|----|
| QUICK FLANGE ADAPTOR for PVC PIPE..... | 94 |
| QUICK FLANGE ADAPTOR for PE PIPE..... | 94 |
| QUICK FLANGE ADAPTOR for DI PIPE PN16..... | 95 |
| FLANGE ADAPTOR for PVC PIPE..... | 95 |
| FLANGE ADAPTOR for PE PIPE..... | 96 |
| FLANGE ADAPTOR for DI PIPE..... | 97 |
| UNIVERSAL FLANGE ADAPTOR..... | 98 |

COUPLING

| | |
|--|-----|
| COUPLING for PVC PIPE..... | 100 |
| COUPLING for PE PIPE | 100 |
| COUPLING for DI PIPE..... | 101 |
| UNIVERSAL COUPLING | 102 |
| UNIVERSAL STEPPED/TAPER COUPLING | 103 |

DISMANTLING JOINT

| | |
|--|-----|
| DISMANTLING JOINT PN10 PN16 PN25 PN40..... | 104 |
|--|-----|

SADDLE

| | |
|---|-----|
| SADDLE for PVC/PE PIPE with THREADED OUTLET | 106 |
| SADDLE for PVC/PE PIPE with FLANGED OUTLET | 106 |

| | |
|---|-----|
| SADDLE for DI PIPE with THREADED OUTLET | 107 |
| SADDLE for DI PIPE with FLANGED OUTLET | 107 |
| UNIVERSAL SADDLE with THREADED OUTLET | 107 |
| UNIVERSAL SADDLE with FLANGED OUTLET | 108 |
| TRIPLE TAPPING SADDLE with FLANGED OUTLET | 108 |

RUBBER FLEXIBLE JOINT

| | |
|-------------------------------------|-----|
| FLANGED RUBBER FLEXIBLE JOINT | 109 |
| THREADED RUBBER FLEXIBLE JOINT..... | 110 |

REPAIR CLAMP

| | |
|--|-----|
| BAND REPAIR CLAMP (DI JAW and SS JAW) | 111 |
| MINI TYPE REPAIR CLAMP..... | 114 |
| MULTI-FUNCTION REPAIR CLAMP & COUPLING | 115 |
| MULTI-FUNCTION TEE PRODUCTS..... | 115 |
| OTHER REPAIR CLAMP | 115 |

PIPE

DIMENSIONS of PIPES EN545

| DN | External diameter DE mm | | Minimum wall thickness e_{min} mm | | | | | | |
|------|----------------------------|------------------|--|----------|----------|----------|----------|----------|-----------|
| | Nominal | Limit deviations | Class 20 | Class 25 | Class 30 | Class 40 | Class 50 | Class 64 | Class 100 |
| 40 | 56 | + 1/ - 1,2 | | | | 3,0 | 3,5 | 4,0 | 4,7 |
| 50 | 66 | + 1/ - 1,2 | | | | 3,0 | 3,5 | 4,0 | 4,7 |
| 60 | 77 | + 1/ - 1,2 | | | | 3,0 | 3,5 | 4,0 | 4,7 |
| 65 | 82 | + 1/ - 1,2 | | | | 3,0 | 3,5 | 4,0 | 4,7 |
| 80 | 98 | + 1/- 2,7 | | | | 3,0 | 3,5 | 4,0 | 4,7 |
| 100 | 118 | + 1/- 2,8 | | | | 3,0 | 3,5 | 4,0 | 4,7 |
| 125 | 144 | + 1/ - 2,8 | | | | 3,0 | 3,5 | 4,0 | 5,0 |
| 150 | 170 | + 1/ - 2,9 | | | | 3,0 | 3,5 | 4,0 | 5,9 |
| 200 | 222 | + 1/ - 3,0 | | | | 3,1 | 3,9 | 5,0 | 7,7 |
| 250 | 274 | + 1/ - 3,1 | | | | 3,9 | 4,8 | 6,1 | 9,5 |
| 300 | 326 | + 1/ - 3,3 | | | | 4,6 | 5,7 | 7,3 | 11,2 |
| 350 | 378 | + 1/ - 3,4 | | | 4,7 | 5,3 | 6,6 | 8,5 | 13,0 |
| 400 | 429 | + 1/ - 3,5 | | | 4,8 | 6,0 | 7,5 | 9,6 | 14,8 |
| 450 | 480 | + 1/ - 3,6 | | | 5,1 | 6,8 | 8,4 | 10,7 | 16,6 |
| 500 | 532 | + 1/ - 3,8 | | | 5,6 | 7,5 | 9,3 | 11,9 | 18,3 |
| 600 | 635 | + 1/ - 4,0 | | | 6,7 | 8,9 | 11,1 | 14,2 | 21,9 |
| 700 | 738 | + 1/ - 4,3 | | 6,8 | 7,8 | 10,4 | 13,0 | 16,5 | |
| 800 | 842 | + 1/ - 4,5 | | 7,5 | 8,9 | 11,9 | 14,8 | 18,8 | |
| 900 | 945 | + 1/ - 4,8 | | 8,4 | 10,0 | 13,3 | 16,6 | | |
| 1000 | 1048 | + 1/ - 5,0 | | 9,3 | 11,1 | 14,8 | 18,4 | | |
| 1100 | 1 152 | + 1/ - 6,0 | 8,2 | 10,2 | 12,2 | 16,2 | 20,2 | | |
| 1200 | 1 255 | + 1/ - 5,8 | 8,9 | 11,1 | 13,3 | 17,7 | 22,0 | | |
| 1400 | 1 462 | + 1/- 6,6 | 10,4 | 12,9 | 15,5 | | | | |
| 1500 | 1 565 | + 1/ - 7,0 | 11,1 | 13,9 | 16,6 | | | | |
| 1600 | 1 668 | + 1/ - 7,4 | 11,9 | 14,8 | 17,7 | | | | |
| 1800 | 1 875 | + 1/ - 8,2 | 13,3 | 16,6 | 19,9 | | | | |
| 2000 | 2 082 | + 1/ - 9,0 | 14,8 | 18,4 | 22,1 | | | | |

NOTE 1 The bold figures indicate the standard products which are suitable for most applications. Grey boxes represent products which are outside the scope of this standard.

NOTE 2 For smaller DN, the minimum pipe wall thickness is governed by a combination of manufacturing constraints, structural performance and installation and handling requirements

NOTE 3 The minimum thickness is given for non-restrained joints

NOTE 4 Pressure classes between 50 and 100 may be supplied by interpolation on request.

DIMENSIONS and WEIGHTS of PIPES of PREFERRED PRESSURE CLASSES EN545

| DN | External diameter DE | | Pressure class | Minimum Wall thickness e_{min} | Approximate Weight of Socket | Weight Kg/m | Weight Kg/Length (6000mm) |
|------|----------------------|------------------|----------------|----------------------------------|------------------------------|-------------|---------------------------|
| | mm | | | mm | Kg | | |
| — | Normal | Limit deviations | — | — | — | — | — |
| 100 | 118 | +1/-2.8 | 40 | 3 | 4.3 | 11.1 | 71 |
| 150 | 170 | +1/-2.9 | 40 | 3 | 7.1 | 16.5 | 106 |
| 200 | 222 | +1/-3.0 | 40 | 3.1 | 10.3 | 22.6 | 146 |
| 250 | 274 | +1/-3.1 | 40 | 3.9 | 14.2 | 32.6 | 210 |
| 300 | 326 | +1/-3.3 | 40 | 4.6 | 18.6 | 43.9 | 282 |
| 350 | 376 | +1/-3.4 | 30 | 4.7 | 23.7 | 51.9 | 335 |
| 400 | 429 | +1/-3.5 | 30 | 4.8 | 29.3 | 60.8 | 394 |
| 450 | 480 | +1/-3.6 | 30 | 5.1 | 38.3 | 72.3 | 472 |
| 500 | 532 | +1/-3.8 | 30 | 5.6 | 42.8 | 87.0 | 565 |
| 600 | 635 | +1/-4.0 | 30 | 6.7 | 59.3 | 115.8 | 754 |
| 700 | 738 | +1/-4.3 | 25 | 6.8 | 79.1 | 152.3 | 993 |
| 800 | 842 | +1/-4.5 | 25 | 7.5 | 102.6 | 177.1 | 1165 |
| 900 | 945 | +1/-4.8 | 25 | 8.4 | 129.6 | 219.1 | 1444 |
| 1000 | 1048 | +1/-5.0 | 25 | 9.3 | 161.3 | 266.3 | 1759 |
| 1100 | 1152 | +1/-6.0 | 25 | 10.2 | 194.7 | 318.2 | 2104 |
| 1200 | 1255 | +1/-5.8 | 25 | 11.1 | 237.7 | 373.4 | 2478 |
| 1400 | 1462 | +1/-6.6 | 25 | 12.9 | 279.3 | 521.0 | 3405 |
| 1500 | 1565 | +1/-7 | 25 | 13.9 | 474.7 | 572.7 | 3911 |
| 1600 | 1668 | +1/-7.4 | 25 | 14.8 | 526 | 647.0 | 4408 |
| 1800 | 1875 | +1/-8.2 | 25 | 16.6 | 702 | 809.5 | 5559 |
| 2000 | 2082 | +1/-9.0 | 25 | 18.4 | 909.9 | 990.7 | 6854 |

NOTE: The preferred pipe pressure classes cover products intended for all usual applications

DIMENSIONS and WEIGHTS of PIPES of K9

| DN | External diameter DE | | Wall thickness e_{nom} | Approximate Weight of Socket | Weight Kg/m | Weight Kg/Length (6000mm) | |
|------|----------------------|------------|-----------------------------|---------------------------------|----------------|------------------------------|---------|
| | mm | | mm | Kg | | | |
| — | Nominal | Limit | — | — | — | — | |
| | | deviations | | | | | |
| 80 | 98 | +1/-2.7 | 6.0 | 3.4 | 12.2 | 77 | |
| 100 | 118 | +1/-2.8 | 6.0 | 4.3 | 15.1 | 95 | |
| 150 | 170 | +1/-2.9 | 6.0 | 7.1 | 22.8 | 144 | |
| 200 | 222 | +1/-3.0 | 6.3 | 10.3 | 30.6 | 194 | |
| 250 | 274 | +1/-3.1 | 6.8 | 14.2 | 40.2 | 255 | |
| 300 | 326 | +1/-3.3 | 7.2 | 18.6 | 50.8 | 323 | |
| 350 | 376 | +1/-3.4 | 7.7 | 23.7 | 63.2 | 403 | |
| 400 | 429 | +1/-3.5 | 8.1 | 29.3 | 75.5 | 482 | |
| 450 | 480 | +1/-3.6 | 8.6 | 38.3 | 89.3 | 575 | |
| 500 | 532 | +1/-3.8 | 9.0 | 42.8 | 104.3 | 669 | |
| 600 | 635 | +1/-4.0 | 9.9 | 59.3 | 137.3 | 882 | |
| 700 | 738 | +1/-4.3 | 10.8 | 79.1 | 173.9 | 1123 | |
| 800 | 842 | +1/-4.5 | 11.7 | 102.6 | 215.2 | 1394 | |
| 900 | 945 | +1/-4.8 | 12.6 | 129.6 | 260.2 | 1691 | |
| 1000 | 1048 | +1/-5.0 | 13.5 | 161.3 | 309.3 | 2017 | |
| 1100 | 1152 | +1/-6.0 | 14.4 | 194.7 | 362.8 | 2372 | |
| 1200 | 1255 | +1/-5.8 | 15.3 | 237.7 | 420.1 | 2758 | |
| 1400 | 1462 | +1/-6.6 | 17.1 | 279.3 | 547.2 | 3669 | |
| | | | | | | L=6m | L=8.15m |
| 1500 | 1565 | +1/-7 | 18.0 | 474.7 | 616.4 | 4173.1 | 5498.4 |
| 1600 | 1668 | +1/-7.4 | 18.9 | 526 | 690 | 4666 | 6149.5 |
| 1800 | 1875 | +1/-8.2 | 20.7 | 702 | 849.7 | 5800.2 | 7627.1 |
| 2000 | 2082 | +1/-9.0 | 22.5 | 909.9 | 1025.8 | 7064.7 | 9270.2 |

DIMENSIONS of PIPES ISO2531

| DN | DE ^a mm | Nominal iron wall thickness, e _{nom} mm ^b | | | | | | |
|------|-----------------------|--|-------------------|-------------------|------------------|------|------|------|
| | | C20 | C25 | C30 | C40 | C50 | C64 | C100 |
| 40 | 56 | | | | 4,4 ^c | 4,4 | 4,4 | 4,4 |
| 50 | 66 | | | | 4,4 ^c | 4,4 | 4,4 | 4,4 |
| 60 | 77 | | | | 4,4 ^c | 4,4 | 4,4 | 4,4 |
| 65 | 82 | | | | 4,4 ^c | 4,4 | 4,4 | 4,4 |
| 80 | 98 | | | | 4,4 ^c | 4,4 | 4,4 | 4,8 |
| 100 | 118 | | | | 4,4 ^c | 4,4 | 4,4 | 5,5 |
| 125 | 144 | | | | 4,5 ^c | 4,5 | 4,8 | 6,5 |
| 150 | 170 | | | | 4,5 ^c | 4,5 | 5,3 | 7,4 |
| 200 | 222 | | | | 4,7 ^c | 5,4 | 6,5 | 9,2 |
| 250 | 274 | | | | 5,5 ^c | 6,4 | 7,8 | 11,1 |
| 300 | 326 | | | 5,1 | 6,2 ^c | 7,4 | 8,9 | 12,9 |
| 350 | 378 | | 5,1 | 6,3 ^{cd} | 7,1 | 8,4 | 10,2 | 14,8 |
| 400 | 429 | | 5,5 | 6,5 ^{cd} | 7,8 | 9,3 | 11,3 | 16,5 |
| 450 | 480 | | 6,1 | 6,9 ^c | 8,6 | 10,3 | 12,6 | 18,4 |
| 500 | 532 | | 6,5 | 7,5 ^c | 9,3 | 11,2 | 13,7 | 20,2 |
| 600 | 635 | | 7,6 | 8,7 ^c | 10,9 | 13,1 | 16,1 | 23,8 |
| 700 | 738 | 7,3 | 8,8 ^{cd} | 9,9 | 12,4 | 15,0 | 18,5 | 27,5 |
| 800 | 842 | 8,1 | 9,6 ^c | 11,1 | 14,0 | 16,9 | 21,0 | |
| 900 | 945 | 8,9 | 10,6 ^c | 12,3 | 15,5 | 18,8 | 23,4 | |
| 1000 | 1 048 | 9,8 | 11,6 ^c | 13,4 | 17,1 | 20,7 | | |
| 1100 | 1 152 | 10,6 | 12,6 ^c | 14,7 | 18,7 | 22,7 | | |
| 1200 | 1 255 | 11,4 | 13,6 ^c | 15,8 | 20,2 | | | |
| 1400 | 1 462 | 13,1 | 15,7 ^c | 18,2 | | | | |
| 1500 | 1 565 | 13,9 | 16,7 ^c | 19,4 | | | | |
| 1600 | 1 668 | 14,8 | 17,7 ^c | 20,6 | | | | |
| 1800 | 1 875 | 16,4 | 19,7 ^c | 23,0 | | | | |
| 2000 | 2 082 | 18,1 | 21,8 ^c | 25,4 | | | | |
| 2200 | 2 288 | 19,8 | 23,8 ^c | | | | | |
| 2400 | 2 495 | 21,4 | 25,8 ^c | | | | | |
| 2600 | 2 702 | 23,1 | 27,9 ^c | | | | | |

a A tolerance of +1 mm applies

b For pipes with weld beads, see ISO10804.

c Preferred classes.

d For preferred classes, thicknesses are greater than calculated for "smoothing" between C40 and C30 and also between C30 and C25.

DIMENSIONS and WEIGHTS of PIPES of PREFERRED PRESSURE CLASSES ISO2531

| DN | DE ^a | Pressure class | Nominal iron wall thickness, e_{nom} | Approximate Weight of Socket | Weight Kg/m | Weight(Kg) |
|------|-----------------|----------------|--|------------------------------|-------------|-----------------|
| | mm | | mm | Kg | | (Length=6000mm) |
| 100 | 118 | C40 | 4,4 | 4.3 | 15.1 | 71 |
| 150 | 170 | C40 | 4,5 | 7.1 | 16.5 | 106 |
| 200 | 222 | C40 | 4,7 | 10.3 | 22.6 | 146 |
| 250 | 274 | C40 | 5,5 | 14.2 | 32.7 | 210 |
| 300 | 326 | C40 | 6,2 | 18.6 | 50.8 | 282 |
| 350 | 378 | C30 | 6,3 ^b | 23.7 | 51.9 | 335 |
| 400 | 429 | C30 | 6,5 ^b | 29.3 | 60.9 | 394 |
| 450 | 480 | C30 | 6,9 | 38.3 | 72.3 | 472 |
| 500 | 532 | C30 | 7,5 | 42.8 | 87.1 | 565 |
| 600 | 635 | C30 | 8,7 | 59.3 | 120.7 | 754 |
| 700 | 738 | C25 | 8,8 ^b | 79.1 | 142.1 | 993 |
| 800 | 842 | C25 | 9,6 | 102.6 | 177.0 | 1165 |
| 900 | 945 | C25 | 10,6 | 129.6 | 219.4 | 1444 |
| 1000 | 1048 | C25 | 11,6 | 161.3 | 266.3 | 1759 |
| 1100 | 1152 | C25 | 12,6 | 194.7 | 318.2 | 2104 |
| 1200 | 1255 | C25 | 13,6 | 237.7 | 373.9 | 2481 |
| 1400 | 1462 | C25 | 15,7 | 279.3 | 521.0 | 3405 |
| 1500 | 1565 | C25 | 16,7 | 474.7 | 572.7 | 3911 |
| 1600 | 1668 | C25 | 17,7 | 526.0 | 647.0 | 4408 |
| 1800 | 1875 | C25 | 19,7 | 690.0 | 811.5 | 5559 |

a A tolerance of +1 mm applies

b Thicknesses are greater than calculated for "smoothing" between C40 and C30 and also between C30 and C25.

DIMENSIONS and WEIGHTS of PIPES EN598

| DN | External diameter, <i>DE</i> mm | | Iron thickness, <i>e</i> mm | | | | Approximate Weight of Socket (Kg) | Weight Kg/m | Weight Kg (Length=6000mm) |
|------|------------------------------------|--------------------|--------------------------------|---------------------------------|---------------|---------------------------------|--------------------------------------|----------------|------------------------------|
| | | | Pressure pipes | | Gravity pipes | | | | |
| | Nominal | Limit deviation | Nominal | Limit deviation ^a | Nominal | Limit deviation ^a | | | |
| 80 | 98 | + 1/-2,7 | 4,8 | -1,3 | 3,4 | -1,0 | 3.4 | 12.2 | 77(K9) |
| 100 | 118 | + 1/-2.8 | 4,8 | -1.3 | 3,4 | -1,0 | 4.3 | 15.1 | 71 |
| 150 | 170 | + 1/-2.9 | 4,8 | - 1,3 | 3,4 | -1,0 | 7.1 | 22.8 | 106 |
| 200 | 222 | + 1/-3,0 | 4,9 | - 1,3 | 3,4 | -1,0 | 10.3 | 30.6 | 146 |
| 250 | 274 | + 1/-3.1 | 5,3 | -1,6 | 4,1 | -1,0 | 14.2 | 40.2 | 210 |
| 300 | 326 | + 1/-3.3 | 5,6 | -1,6 | 4,8 | -1,0 | 18.6 | 50.8 | 282 |
| 350 | 378 | + 1/-3.4 | 6,0 | -1,7 | 5,5 | -1,2 | 23.7 | 63.2 | 335 |
| 400 | 429 | + 1/-3,5 | 6,3 | -1,7 | | | 29.3 | 75.5 | 394 |
| 450 | 480 | + 1/-3.6 | 6,7 | -1,8 | | | 38.3 | 89.3 | 472 |
| 500 | 532 | + 1/-3,8 | 7,0 | -1,8 | | | 42.8 | 104.3 | 565 |
| 600 | 635 | + 1/-4.0 | 7,7 | -1,9 | | | 59.3 | 137.3 | 754 |
| 700 | 738 | + 1/-4.3 | 9,6 | - 2,0 | | | 79.1 | 173.9 | 993 |
| 800 | 842 | + 1/-4,5 | 10,4 | -2,1 | | | 102.6 | 215.2 | 1165 |
| 900 | 945 | + 1/-4,8 | 11,2 | - 2,2 | | | 129.6 | 260.2 | 1444 |
| 1000 | 1 048 | + 1/-5,0 | 12,0 | - 2,3 | | | 161.3 | 309.3 | 1759 |
| 1100 | 1 152 | + 1/-6.0 | 14,4 | - 2,4 | | | 194.7 | 362.8 | 2104 |
| 1200 | 1 255 | + 1/-6.0 | 15,3 | - 2,5 | | | 237.7 | 420.1 | 2478 |
| 1400 | 1 462 | + 1/-6.6 | 17,1 | - 2,7 | | | 279.3 | 547.2 | 3405 |

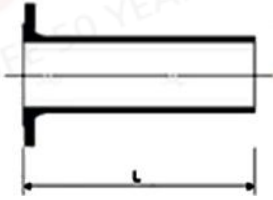
^a The minimum thickness can only appear locally at a few distinct points, not along the length or the circumference of the pipe.

HYDRAULIC PRESSURE

| Specification DN | Minimum pressure at K= 7(Mpa) | Minimum pressure at k=8(Mpa) | Minimum pressure at K=9(Mpa) | Minimum test pressure of class c pipe (Mpa) | |
|------------------|----------------------------------|------------------------------------|------------------------------------|--|----------|
| | | | | Recommended pressure rating | Pressure |
| DN80-DN300 | 3.2 | 4 | 5 | C40 | 4 |
| DN350-DN600 | 2.5 | 3.2 | 4 | C30 | 3 |
| DN700-DN1000 | 1.8 | 2.5 | 3.2 | C25 | 2.5 |
| DN1100-DN2000 | 1.3 | 1.8 | 2.5 | | |
| DN2200-DN2600 | 0.8 | 1.3 | 1.8 | C25 | 2.5 |

FLANGED FITTING

FLANGE SPIGOT



| DN | L(mm) | Weight (Kg) | | |
|------|-------|-------------|-------|-------|
| | | PN10 | PN16 | PN25 |
| 40 | 335 | 4.3 | 4.3 | 4.3 |
| 50 | 340 | 5.2 | 5.2 | 5.2 |
| 60 | 345 | 6 | 6 | 6 |
| 65 | 345 | 6.6 | 6.6 | 6.6 |
| 80 | 350 | 7.8 | 7.8 | 7.8 |
| 100 | 360 | 9.6 | 9.6 | 10.2 |
| 125 | 370 | 12.4 | 12.4 | 13 |
| 150 | 380 | 15.6 | 15.6 | 16.6 |
| 200 | 400 | 22.5 | 22.5 | 24.5 |
| 250 | 420 | 32 | 31.5 | 35.5 |
| 300 | 440 | 43 | 42.5 | 47.5 |
| 350 | 460 | 52 | 55 | 64 |
| 400 | 480 | 64 | 70 | 81 |
| 450 | 500 | 79 | 88 | 103 |
| 500 | 520 | 94 | 109 | 121 |
| 600 | 560 | 133 | 159 | 173 |
| 700 | 600 | 179 | 197 | 228 |
| 800 | 600 | 226 | 245 | 294 |
| 900 | 600 | 272 | 295 | 356 |
| 1000 | 600 | 328 | 369 | 447 |
| 1100 | 600 | 386 | 424.4 | 508.4 |
| 1200 | 600 | 456 | 520 | 620 |
| 1400 | 710 | 664 | 732 | 884 |
| 1500 | 750 | 790.4 | 866.4 | 1017 |
| 1600 | 780 | 922 | 1024 | 1202 |
| 1800 | 850 | 1196 | 1322 | 1562 |
| 2000 | 920 | 1534 | 1687 | 2040 |
| 2200 | 990 | 1948 | 2115 | / |
| 2400 | 1060 | 2409 | 2611 | / |
| 2600 | 1130 | 2918 | 3153 | / |

DOUBLE FLANGED PIPE (CAST ON FLANGE) (with THREADED HOLE)

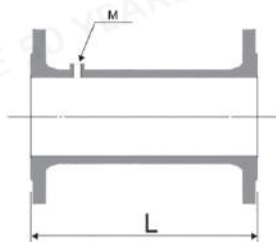
| DN | L(mm) | Weight (Kg) DN40 |
|------|-------|------------------|
| 80 | 200 | 9 |
| | 250 | 10 |
| | 300 | 11 |
| | 350 | 12 |
| | 400 | 12.5 |
| | 450 | 13 |
| | 500 | 14 |
| | 600 | 15.5 |
| | 700 | 17 |
| | 800 | 19 |
| 100 | 200 | 10.5 |
| | 250 | 11 |
| | 300 | 12 |
| | 350 | 13 |
| | 400 | 14 |
| | 450 | 15 |
| | 500 | 15.5 |
| | 600 | 18 |
| | 700 | 19 |
| | 800 | 21 |
| 150 | 200 | 16 |
| | 250 | 17 |
| | 300 | 19 |
| | 350 | 20 |
| | 400 | 21 |
| | 450 | 23 |
| | 500 | 24 |
| | 600 | 27 |
| | 700 | 30 |
| | 800 | 33 |
| 200 | 200 | 22 |
| | 250 | 24 |
| | 300 | 26 |
| | 350 | 28 |
| | 400 | 30 |
| | 450 | 32 |
| | 500 | 34 |
| | 600 | 38 |
| | 700 | 42 |
| | 800 | 46 |
| 900 | 50 | |
| 1000 | 54 | |

| DN | L(mm) | Weight (Kg) DN40 |
|------|-------|------------------|
| 250 | 200 | 29 |
| | 250 | 32 |
| | 300 | 35 |
| | 350 | 37 |
| | 400 | 40 |
| | 450 | 43 |
| | 500 | 45 |
| | 600 | 51 |
| | 700 | 56 |
| | 800 | 61 |
| 300 | 900 | 67 |
| | 1000 | 72 |
| | 200 | 39 |
| | 250 | 42 |
| | 300 | 45 |
| | 350 | 49 |
| | 400 | 52 |
| | 450 | 56 |
| | 500 | 59 |
| | 600 | 66 |
| 350 | 700 | 72 |
| | 800 | 79 |
| | 900 | 86 |
| | 1000 | 93 |
| | 1200 | 106 |
| | 200 | 51 |
| | 250 | 56 |
| | 300 | 60 |
| | 350 | 64 |
| | 400 | 68 |
| 400 | 500 | 76 |
| | 600 | 85 |
| | 700 | 93 |
| | 800 | 101 |
| | 900 | 110 |
| | 1000 | 118 |
| | 1200 | 135 |
| | 300 | 74 |
| | 400 | 84 |
| | 500 | 94 |
| 600 | 104 | |
| 700 | 114 | |
| 800 | 124 | |
| 900 | 134 | |
| 1000 | 144 | |
| 1200 | 164 | |

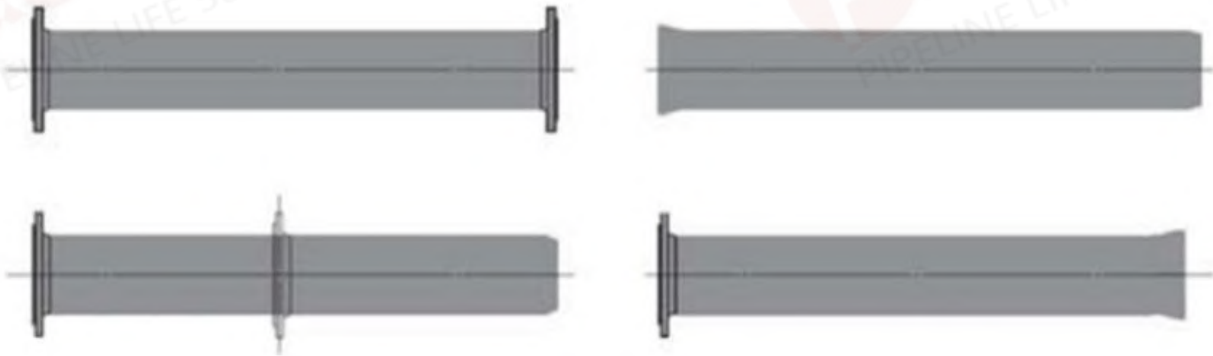
| DN | L(mm) | Weight (Kg) DN40 |
|-----|-------|------------------|
| 450 | 300 | 89 |
| | 400 | 101 |
| | 500 | 113 |
| | 600 | 125 |
| | 700 | 136 |
| | 800 | 148 |
| | 900 | 160 |
| | 1000 | 172 |
| | 1200 | 195 |
| | 1300 | 207 |
| 500 | 300 | 116 |
| | 400 | 130 |
| | 500 | 143 |
| | 600 | 157 |
| | 700 | 171 |
| | 800 | 185 |
| | 900 | 199 |
| | 1000 | 212 |
| | 1500 | 281 |
| | 2000 | 350 |
| 600 | 300 | 170 |
| | 400 | 188 |
| | 500 | 206 |
| | 600 | 224 |
| | 700 | 242 |
| | 800 | 261 |
| | 900 | 279 |
| | 1000 | 297 |
| | 1500 | 388 |
| | 2000 | 479 |
| 700 | 300 | 201 |
| | 400 | 224 |
| | 500 | 247 |
| | 600 | 270 |
| | 700 | 293 |
| | 800 | 316 |
| | 900 | 340 |
| | 1000 | 363 |
| | 1500 | 478 |
| | 2000 | 594 |
| 800 | 300 | 234 |
| | 400 | 263 |
| | 500 | 291 |
| | 600 | 320 |
| | 700 | 349 |
| | 800 | 377 |



| DN | L(mm) | Weight (Kg) DN40 |
|------|-------|------------------|
| 800 | 900 | 406 |
| | 1000 | 434 |
| | 1500 | 577 |
| | 2000 | 720 |
| 900 | 300 | 280 |
| | 400 | 315 |
| | 500 | 349 |
| | 600 | 384 |
| | 700 | 418 |
| | 800 | 453 |
| | 900 | 487 |
| | 1000 | 522 |
| | 1500 | 694 |
| | 2000 | 867 |
| 1000 | 300 | 370 |
| | 400 | 411 |
| | 500 | 452 |
| | 600 | 493 |
| | 700 | 534 |
| | 800 | 575 |
| | 900 | 616 |
| | 1000 | 657 |
| | 1500 | 863 |
| | 2000 | 1068 |
| 1100 | 1000 | 764 |
| | 1500 | 1005 |
| | 2000 | 1246 |
| 1200 | 1000 | 929 |
| | 1500 | 1208 |
| | 2000 | 1487 |
| 1400 | 1000 | 1158 |
| | 1500 | 1521 |
| | 2000 | 1884 |
| 1600 | 1000 | 1533 |
| | 1500 | 1991 |
| | 2000 | 2449 |



Straight Pipe, Cast-on Flange



| Nominal Dia. DN mm | Weight of Pipe Barrel | | Cast-on Flange | | | | | | Socket Weight | K9 pipe |
|-----------------------|-----------------------|----------|----------------|---------|-------|---------|-------|---------|------------------|---------|
| | K9 kg/m | K12 kg/m | PN10 | | PN16 | | PN25 | | T-type Kg/socket | Kg/6m |
| | | | kg/pc | kg/2pcs | kg/pc | kg/2pcs | kg/pc | kg/2pcs | | |
| 80 | 12.2 | 16 | 2.9 | 5.8 | 2.9 | 5.8 | 2.9 | 5.8 | 3.4 | 77 |
| 100 | 15.1 | 17.7 | 3.3 | 6.6 | 3.3 | 6.6 | 3.8 | 7.6 | 4.3 | 95 |
| 125 | 18.3 | 22.7 | 4.9 | 9.8 | 4.9 | 9.8 | 5.9 | 11.8 | 5.7 | 116 |
| 150 | 22.8 | 28 | 4.9 | 9.8 | 4.9 | 9.8 | 5.9 | 11.8 | 7.1 | 144 |
| 200 | 30.6 | 39.7 | 6.8 | 13.6 | 6.8 | 13.6 | 8.7 | 17.4 | 10.3 | 194 |
| 250 | 40.2 | 53 | 9.6 | 19.2 | 9.2 | 18.4 | 13.1 | 26.2 | 14.2 | 255 |
| 300 | 50.8 | 67.3 | 12.8 | 25.6 | 12.4 | 24.8 | 18 | 36 | 18.6 | 323 |
| 350 | 63.2 | 83.1 | 14.1 | 28.2 | 17.2 | 34.4 | 26 | 52 | 23.7 | 403 |
| 400 | 75.5 | 100 | 16.3 | 32.6 | 21.9 | 43.8 | 33 | 66 | 29.3 | 482 |
| 450 | 89.3 | 118 | 18.1 | 36.2 | 26.7 | 53.4 | 43 | 86 | 38.3 | 575 |
| 500 | 104.3 | 138 | 20.8 | 41.6 | 37 | 74 | 49 | 98 | 42.8 | 669 |
| 600 | 137.3 | 182 | 30.8 | 61.6 | 57.3 | 114.6 | 72 | 144 | 59.3 | 882 |
| 700 | 173.9 | 231 | 40.5 | 81 | 65.6 | 131.2 | 90.3 | 180.6 | 79.1 | 1123 |
| 800 | 215.2 | 286 | 54.8 | 109.6 | 74 | 148 | 123.2 | 246.4 | 102.6 | 1394 |
| 900 | 260.2 | 345 | 64.3 | 128.6 | 88.2 | 176.4 | 148.6 | 297.2 | 129.9 | 1691 |
| 1000 | 309.3 | 411 | 81.4 | 162.8 | 122.9 | 245.8 | 200.7 | 401.4 | 161.3 | 2017 |
| 1200 | 420.1 | 558 | 120.9 | 241.8 | 185.2 | 370.4 | 284.7 | 569.4 | 237.7 | 2758 |
| 1400 | 547.2 | 726 | 147.8 | 295.6 | 215.9 | 431.8 | 368.1 | 736.2 | 385.8 | 3669 |
| 1600 | 690.3 | 916 | 206.4 | 412.8 | 308.4 | 616.8 | 402 | 804 | - | - |
| 1800 | 850.1 | 1129 | 236.3 | 472.6 | 362.2 | 724.2 | 457.5 | - | - | - |
| 2000 | 1026 | 1363 | 279.4 | 558.8 | 432.2 | 864.4 | 565 | - | - | - |

DOUBLE FLANGED PIPE (WELD ON FLANGE)

| DN | L(mm) | Weight (Kg) | | |
|-----|-------|-------------|------|------|
| | | PN10 | PN16 | PN25 |
| 80 | 1000 | 24 | 24 | 24 |
| | 2000 | 40 | 40 | 40 |
| | 3000 | 45 | 45 | 45 |
| | 4000 | 57 | 57 | 57 |
| | 5000 | 69 | 69 | 69 |
| | 5500 | 76 | 76 | 76 |
| | 5700 | 78 | 78 | 78 |
| 100 | 2000 | 46 | 46 | 47 |
| | 3000 | 56 | 56 | 57 |
| | 4000 | 71 | 71 | 72 |
| | 5000 | 86 | 86 | 87 |
| | 5500 | 94 | 94 | 95 |
| | 5700 | 97 | 97 | 98 |
| 150 | 2000 | 72 | 72 | 74 |
| | 3000 | 85 | 85 | 87 |
| | 4000 | 108 | 108 | 110 |
| | 5000 | 130 | 130 | 132 |
| | 5500 | 142 | 142 | 144 |
| | 5700 | 146 | 146 | 148 |
| 200 | 2000 | 102 | 102 | 106 |
| | 3000 | 114 | 114 | 118 |
| | 4000 | 145 | 145 | 149 |
| | 5000 | 175 | 175 | 179 |
| | 5500 | 191 | 191 | 195 |
| | 5700 | 197 | 197 | 201 |
| 250 | 2000 | 137 | 137 | 145 |
| | 3000 | 151 | 151 | 159 |
| | 4000 | 191 | 191 | 199 |
| | 5000 | 231 | 231 | 239 |
| | 5500 | 252 | 252 | 260 |

| DN | L(mm) | Weight (Kg) | | |
|------|-------|-------------|------|------|
| | | PN10 | PN16 | PN25 |
| 250 | 5700 | 260 | 260 | 268 |
| 300 | 2000 | 173 | 173 | 183 |
| | 3000 | 191 | 191 | 201 |
| | 4000 | 242 | 242 | 252 |
| | 5000 | 292 | 292 | 302 |
| | 5500 | 318 | 318 | 328 |
| | 5700 | 328 | 328 | 338 |
| 350 | 2000 | 219 | 225 | 243 |
| | 3000 | 242 | 248 | 266 |
| | 4000 | 305 | 311 | 329 |
| | 5000 | 368 | 374 | 392 |
| | 5500 | 400 | 406 | 424 |
| | 5700 | 413 | 419 | 437 |
| 400 | 2000 | 262 | 270 | 294 |
| | 3000 | 289 | 297 | 321 |
| | 4000 | 364 | 372 | 396 |
| | 5000 | 440 | 448 | 472 |
| | 5500 | 478 | 486 | 510 |
| | 5700 | 493 | 501 | 525 |
| 450 | 3000 | 340 | 354 | 386 |
| | 4000 | 430 | 444 | 476 |
| | 5000 | 519 | 533 | 565 |
| | 5500 | 564 | 578 | 610 |
| | 5700 | 582 | 596 | 628 |
| | 500 | 3000 | 403 | 433 |
| 4000 | | 508 | 538 | 562 |
| 5000 | | 612 | 642 | 666 |
| 5500 | | 664 | 694 | 718 |
| 5700 | | 685 | 715 | 739 |
| 600 | 3000 | 530 | 582 | 612 |

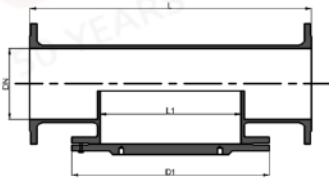
| DN | L(mm) | Weight (Kg) | | |
|------|-------|-------------|------|------|
| | | PN10 | PN16 | PN25 |
| 600 | 4000 | 668 | 720 | 750 |
| | 5000 | 805 | 857 | 887 |
| | 5500 | 874 | 926 | 956 |
| | 5700 | 901 | 953 | 983 |
| 700 | 3000 | 712 | 738 | 808 |
| | 4000 | 886 | 912 | 982 |
| | 5000 | 1060 | 1086 | 1156 |
| | 5500 | 1147 | 1173 | 1243 |
| 800 | 5700 | 1182 | 1208 | 1278 |
| | 3000 | 846 | 880 | 980 |
| | 4000 | 1061 | 1095 | 1195 |
| 900 | 5000 | 1276 | 1310 | 1410 |
| | 5500 | 1384 | 1418 | 1518 |
| | 5700 | 1427 | 1461 | 1561 |
| | 3000 | 1031 | 1067 | 1189 |
| 1000 | 4000 | 1291 | 1327 | 1449 |
| | 5000 | 1551 | 1587 | 1709 |
| | 5500 | 1682 | 1718 | 1840 |
| | 5700 | 1734 | 1770 | 1892 |
| | 3000 | 1218 | 1288 | 1444 |
| 1200 | 4000 | 1528 | 1598 | 1754 |
| | 5000 | 1837 | 1907 | 2063 |
| | 5500 | 1992 | 2062 | 2218 |
| | 5700 | 2054 | 2124 | 2280 |
| | 3000 | 1621 | 1731 | 1931 |
| 1200 | 4000 | 2041 | 2151 | 2351 |
| | 5000 | 2461 | 2571 | 2771 |
| | 5500 | 2671 | 2781 | 2981 |
| | 5700 | 2755 | 2865 | 3065 |

Weld-on Flange (long-neck)



| DN | PN10 | | PN16 | | PN25 | |
|--------|-------|---------|-------|---------|-------|---------|
| | Kg/pc | Kg/2pcs | Kg/pc | Kg/2pcs | Kg/pc | Kg/2pcs |
| DN80 | 4 | 8 | 4 | 8 | 4 | 8 |
| DN100 | 5 | 10 | 5 | 10 | 5.5 | 11 |
| DN150 | 8 | 16 | 8 | 16 | 9 | 18 |
| DN200 | 11 | 22 | 11 | 22 | 13 | 26 |
| DN250 | 15 | 30 | 15 | 30 | 19 | 38 |
| DN300 | 19 | 38 | 19 | 38 | 24 | 48 |
| DN350 | 26 | 52 | 29 | 58 | 38 | 76 |
| DN400 | 31 | 62 | 35 | 70 | 47 | 94 |
| DN450 | 36 | 72 | 43 | 86 | 59 | 118 |
| DN500 | 45 | 90 | 60 | 120 | 72 | 144 |
| DN600 | 59 | 118 | 85 | 170 | 100 | 200 |
| DN700 | 95 | 190 | 108 | 216 | 143 | 286 |
| DN800 | 100 | 200 | 117 | 234 | 167 | 234 |
| DN900 | 125 | 250 | 143 | 286 | 204 | 408 |
| DN1000 | 145 | 290 | 180 | 360 | 258 | 516 |
| DN1200 | 180 | 360 | 235 | 470 | 335 | 670 |
| DN1400 | 225 | 450 | 290 | 580 | | |
| DN1600 | 280 | 560 | 450 | 900 | | |
| DN1800 | | | 533 | 1066 | | |

DOUBLE FLANGED HATCHBOX



| DN | L | D1 | Weight(Kg) | |
|-----|------|-----|------------|--------|
| | | | PN10 | PN16 |
| 80 | 800 | 520 | 68.30 | |
| 100 | 800 | 535 | 73.50 | |
| 150 | 800 | 550 | 100.00 | |
| 200 | 800 | 560 | 107.40 | 107.00 |
| 250 | 950 | 675 | 155.60 | 155.00 |
| 300 | 950 | 685 | 194.10 | 193.50 |
| 350 | 950 | 705 | 259.60 | 265.00 |
| 400 | 1100 | 820 | 317.00 | 326.00 |
| 450 | 1100 | 820 | 370.00 | 385.00 |

DOUBLE FLANGED CONCENTRIC/ECCENTRIC TAPER A&B SERIES (B series up to DN450x400)



| DN | dn | L(mm) | Weight (Kg) | | |
|-----|-----|-------|-------------|------|------|
| | | | PN10 | PN16 | PN25 |
| 50 | 40 | 150 | 5.4 | 5.4 | 5.4 |
| 65 | 40 | 160 | 6.5 | 6.5 | 6.5 |
| | 50 | 200 | 7.3 | 7.3 | 7.3 |
| 80 | 40 | 200 | 7.4 | 7.4 | 7.4 |
| | 50 | 200 | 8 | 8 | 8 |
| | 65 | 200 | 8.8 | 8.8 | 8.8 |
| 100 | 80 | 200 | 9.3 | 9.3 | 9.8 |
| 150 | 80 | 400 | 16 | 16 | 17.1 |
| | 100 | 300 | 15 | 15 | 17.5 |
| 200 | 80 | 600 | 25.1 | 25.1 | 26.9 |
| | 100 | 600 | 27.3 | 27.5 | 29.1 |
| | 150 | 300 | 22 | 21.5 | 25 |
| 250 | 100 | 600 | 33 | 32.6 | 36.8 |
| | 150 | 600 | 38.6 | 39.5 | 42.3 |
| | 200 | 300 | 30 | 29.5 | 35.5 |
| 300 | 80 | 700 | 42 | 41.7 | 46.9 |
| | 100 | 600 | 44 | 43.6 | 49.4 |
| | 150 | 600 | 46.4 | 46 | 52.6 |
| | 200 | 600 | 51.7 | 51 | 58.7 |
| 350 | 250 | 300 | 40.5 | 39.5 | 49 |
| | 80 | 750 | 50.3 | 53.1 | 61 |
| | 100 | 750 | 52.5 | 55.2 | 63.7 |
| | 150 | 700 | 56 | 58.8 | 67.7 |
| | 200 | 600 | 58.1 | 60.5 | 70.9 |
| | 250 | 600 | 64.9 | 67 | 79.2 |

| DN | dn | L(mm) | Weight (Kg) | | |
|-----|-----|-------|-------------|-------|-------|
| | | | PN10 | PN16 | PN25 |
| 350 | 300 | 300 | 49.5 | 52 | 66 |
| 400 | 80 | 800 | 60.6 | 67.1 | 61.9 |
| | 100 | 800 | 62.9 | 69.4 | 79.1 |
| | 150 | 750 | 66.6 | 73.1 | 83.2 |
| | 200 | 600 | 65.7 | 71 | 84.4 |
| | 250 | 600 | 72 | 80.4 | 92.2 |
| | 300 | 600 | 78.8 | 84.3 | 101 |
| 450 | 350 | 300 | 58 | 67 | 86 |
| | 80 | 900 | 74.1 | 83.4 | 93.8 |
| | 100 | 900 | 76.7 | 86 | 96.9 |
| | 150 | 800 | 77.4 | 86.7 | 98 |
| | 200 | 750 | 81 | 90.4 | 102.6 |
| | 250 | 600 | 79.5 | 87.5 | 96.9 |
| | 300 | 600 | 86.8 | 95 | 107 |
| 500 | 350 | 600 | 92.7 | 104 | 121.5 |
| | 400 | 300 | 72.4 | 86.6 | 113 |
| | 80 | 950 | 88.8 | 103.2 | 113.6 |
| | 100 | 950 | 91.6 | 105.9 | 116.9 |
| | 150 | 900 | 95.8 | 110.2 | 121.6 |
| | 200 | 800 | 95.7 | 110 | 122.3 |
| | 250 | 700 | 99.4 | 114 | 130 |
| | 300 | 600 | 96.2 | 111 | 129 |
| | 350 | 600 | 103 | 121 | 141 |
| | 400 | 600 | 110 | 130 | 153 |
| | 450 | 300 | 116 | 139 | 157 |

| DN | dn | L(mm) | Weight (Kg) | | |
|------|-----|-------|-------------|-------|-------|
| | | | PN10 | PN16 | PN25 |
| 600 | 80 | 1050 | 122.4 | 147.4 | 159.8 |
| | 100 | 1050 | 125.8 | 150.6 | 163.5 |
| | 150 | 1000 | 130.1 | 155.1 | 168.5 |
| | 250 | 900 | 139.5 | 164.1 | 180.2 |
| | 300 | 800 | 145 | 171 | 191 |
| | 350 | 700 | 138 | 167 | 190 |
| | 400 | 600 | 132 | 164 | 190 |
| | 450 | 600 | 140 | 175 | 195 |
| | 500 | 600 | 149 | 190 | 216 |
| 700 | 200 | 1100 | 181.1 | 195.3 | 229.6 |
| | 250 | 1050 | 186.8 | 200.6 | 236.7 |
| | 300 | 1100 | 192.4 | 206.2 | 243.9 |
| | 350 | 900 | 188.3 | 205.2 | 245.6 |
| | 400 | 800 | 183.5 | 204.1 | 245.8 |
| | 450 | 700 | 190 | 213 | 251 |
| | 500 | 600 | 178 | 208 | 252 |
| 800 | 400 | 1030 | 260.8 | 285 | 340.2 |
| | 450 | 900 | 247.8 | 274.8 | 331.2 |
| | 500 | 800 | 255 | 285 | 347 |
| | 600 | 600 | 234 | 275 | 340 |
| | 700 | 600 | 250 | 285 | 374 |
| 900 | 400 | 1100 | 311.5 | 339.6 | 404.8 |
| | 450 | 1100 | 347 | 380 | 467 |
| | 500 | 1000 | 337 | 377 | 470 |
| | 600 | 800 | 315 | 366 | 462 |
| | 700 | 600 | 293 | 333 | 446 |
| 1000 | 500 | 1200 | 452 | 501 | 585 |
| | 600 | 1000 | 427 | 487 | 574 |
| | 700 | 800 | 403 | 452 | 556 |

| DN | dn | L(mm) | Weight (Kg) | | |
|------|------|-------|-------------|-------|-------|
| | | | PN10 | PN16 | PN25 |
| 1000 | 800 | 700 | 369 | 431.6 | 540 |
| | 900 | 600 | 373 | 438 | 545 |
| 1100 | 600 | 1100 | 479.1 | 542.5 | 638.9 |
| | 700 | 1000 | 483.9 | 536.4 | 652.9 |
| | 800 | 800 | 454.4 | 510.5 | 640.5 |
| | 900 | 700 | 448.1 | 508.1 | 648.1 |
| 1200 | 1000 | 600 | 444.4 | 520.5 | 677.1 |
| | 600 | 1150 | 555.2 | 638.5 | 741.6 |
| | 700 | 1345 | 698 | 768 | 882 |
| | 800 | 1160 | 695 | 765 | 897 |
| | 900 | 975 | 628 | 708 | 871 |
| 1400 | 1000 | 790 | 586 | 692 | 881 |
| | 1100 | 600 | 527.6 | 624.3 | 799 |
| | 700 | 850 | 554.7 | 629.6 | 801.8 |
| | 800 | 950 | 665.7 | 744.2 | 929.9 |
| | 900 | 1100 | 786.5 | 868.9 | 1065 |
| 1500 | 1000 | 1000 | 788 | 886.5 | 1099 |
| | 1100 | 800 | 723.6 | 822.8 | 1047 |
| | 1200 | 850 | 814 | 947 | 1223 |
| | 1400 | 600 | 786 | 922.8 | 1213 |
| 1600 | 1000 | 1650 | 1354 | 1484 | 1717 |
| | 1100 | 1465 | 1310 | 1441 | 1689 |
| | 1200 | 1000 | 1055 | 1205 | 1456 |
| | 1400 | 910 | 1103 | 1273 | 1641 |
| 1800 | 1000 | 1760 | 1620 | 1770 | 2060 |
| | 1200 | 1710 | 1747 | 1899 | 2199 |
| | 1400 | 1340 | 1588 | 1760 | 2067 |
| | 1500 | 1550 | 1886 | 2060 | 2416 |
| | 1600 | 970 | 1436 | 1664 | 2135 |

DOUBLE FLANGED 90° BEND A&B SERIES (A=B series)



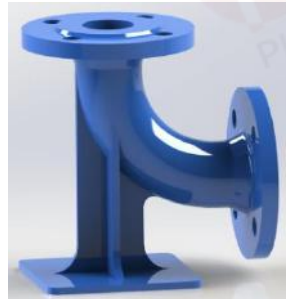
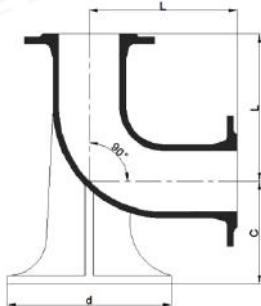
| DN | L(mm) | Weight (Kg) | | |
|-----|-------|---------------|------|------|
| | | PN10 | PN16 | PN25 |
| 40 | 140 | 5.6 | 5.6 | 5.6 |
| 50 | 150 | 6.8 | 6.8 | 6.8 |
| 60 | 160 | 7.8 | 7.8 | 7.8 |
| 65 | 165 | 8.7 | 8.7 | 8.7 |
| 80 | 165 | 9.6 | 9.6 | 9.6 |
| 100 | 180 | 11.9 | 11.9 | 12.9 |
| 125 | 200 | 15.6 | 15.6 | 16.9 |
| 150 | 220 | 20 | 20 | 22 |
| 200 | 260 | 31 | 30.5 | 34.5 |
| 250 | 350 | 50 | 49.5 | 57 |
| 300 | 400 | 70 | 70 | 81 |

| DN | L(mm) | Weight (Kg) | | |
|------|-------|---------------|------|-------|
| | | PN10 | PN16 | PN25 |
| 450 | 550 | 143 | 160 | 190 |
| 500 | 600 | 181 | 211 | 235 |
| 600 | 700 | 272 | 325 | 353 |
| 700 | 800 | 399 | 429 | 473.6 |
| 800 | 900 | 552 | 590 | 653 |
| 900 | 1000 | 722 | 770 | 841 |
| 1000 | 1100 | 937 | 1020 | 1163 |
| 1200 | 1300 | 1490 | 1619 | 1728 |
| 1400 | 1350 | 2199 | 2335 | 2640 |
| 1600 | 1450 | 2796 | 2983 | / |
| 1800 | 1500 | 3515 | 3750 | / |

| | | | | |
|-----|-----|-----|-----|-----|
| 350 | 450 | 90 | 96 | 113 |
| 400 | 500 | 116 | 127 | 149 |

| | | | | |
|------|------|------|------|---|
| 2000 | 1650 | 4307 | 4613 | / |
|------|------|------|------|---|

DOUBLE FLANGED 90° DUCKFOOT BEND A&B SERIES (A=B series)



| DN | L(mm) | C | d | Maas(Kg) | | |
|------|-------|-----|------|----------|------|------|
| | | | | PN10 | PN16 | PN25 |
| 40 | 140 | 95 | 150 | 7.7 | 7.7 | 7.7 |
| 50 | 150 | 95 | 150 | 9.1 | 9.1 | 9.1 |
| 60 | 160 | 100 | 160 | 10.5 | 10.5 | 10.5 |
| 65 | 165 | 100 | 165 | 11.6 | 11.6 | 11.6 |
| 80 | 165 | 110 | 180 | 14.1 | 14.1 | 14.1 |
| 100 | 180 | 125 | 200 | 17.8 | 17.8 | 18.8 |
| 125 | 200 | 140 | 225 | 23.5 | 23.5 | 24.5 |
| 150 | 220 | 160 | 250 | 30 | 30 | 32 |
| 200 | 260 | 190 | 300 | 46.5 | 46 | 50.5 |
| 250 | 350 | 225 | 350 | 75 | 75 | 82 |
| 300 | 400 | 255 | 400 | 106 | 105 | 116 |
| 350 | 450 | 290 | 450 | 139 | 145 | 162 |
| 400 | 500 | 320 | 500 | 178 | 189 | 212 |
| 450 | 550 | 355 | 550 | 229 | 249 | 275 |
| 500 | 600 | 385 | 600 | 283 | 313 | 337 |
| 600 | 700 | 450 | 700 | 428 | 481 | 509 |
| 700 | 800 | 515 | 800 | 700 | 741 | 811 |
| 800 | 900 | 580 | 900 | 846 | 884 | 982 |
| 900 | 1000 | 645 | 1000 | 1118 | 1165 | 1286 |
| 1000 | 1100 | 710 | 1100 | 1698 | 1781 | 1937 |
| 1200 | 1300 | 840 | 1300 | 2599 | 2709 | / |

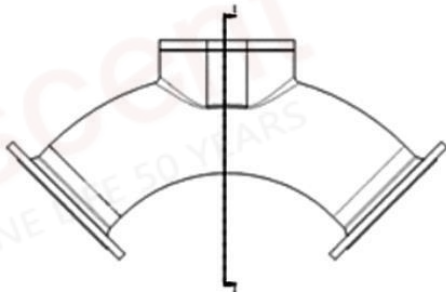


DOUBLE FLANGED 90° LONG RADIUS BEND



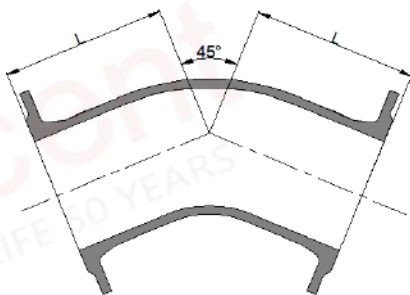
| DN | PN | L(mm) | R | Weight (Kg) |
|-----|-------|-------|-----|-------------|
| 80 | 10/16 | 380 | 330 | 14 |
| 100 | | 400 | 340 | 18 |
| 150 | | 450 | 385 | 30 |
| 200 | 16 | 500 | 430 | 46 |
| 250 | | 550 | 475 | 65 |
| 300 | | 600 | 515 | 90 |
| 350 | | 650 | 560 | 121 |
| 400 | | 700 | 605 | 157 |
| 450 | | 750 | 650 | 197 |
| 500 | | 800 | 690 | 252 |
| 600 | | 900 | 780 | 379 |

DOUBLE FLANGED 90° LONG RADIUS ACCESS BEND



| DN | L(mm) | Weight (Kg) | |
|-----|-------|-------------|------|
| | | PN10 | PN16 |
| 80 | 380 | 25 | 25 |
| 100 | 400 | 30 | 30 |
| 150 | 450 | 54 | 54 |
| 200 | 500 | 77.4 | 77 |
| 250 | 550 | 106 | 105 |
| 300 | 600 | 135.8 | 135 |

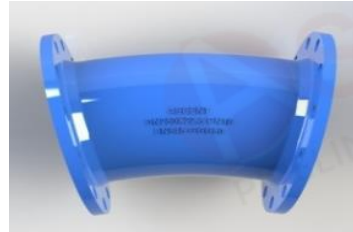
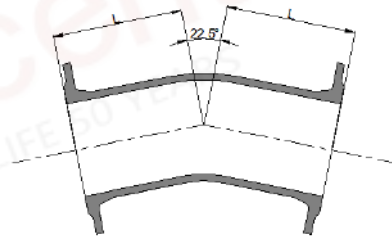
DOUBLE FLANGED 45° BEND A&B SERIES (B series up to DN450)



| DN | L(mm) | Weight (Kg) | | |
|------|-------|---------------|-------|------|
| | | PN10 | PN16 | PN25 |
| 40 | 140 | 5.6 | 5.6 | 5.6 |
| 50 | 150 | 6.8 | 6.8 | 6.8 |
| 60 | 160 | 7.8 | 7.8 | 7.8 |
| 65 | 165 | 8.7 | 8.7 | 8.7 |
| 80 | 130 | 9.3 | 9.3 | 9.3 |
| 100 | 140 | 11.3 | 11.3 | 12.4 |
| 125 | 150 | 14.6 | 14.6 | 15.9 |
| 150 | 160 | 18.6 | 18.6 | 21 |
| 200 | 180 | 27.5 | 27 | 31.5 |
| 250 | 350 | 55 | 54 | 62 |
| 300 | 400 | 78 | 77 | 88 |
| 350 | 298 | 76 | 83 | 89 |
| 400 | 324 | 96 | 107 | 129 |
| 450 | 349 | 116 | 133.8 | 158 |
| 500 | 375 | 145 | 175 | 198 |
| 600 | 426 | 212 | 266 | 294 |
| 700 | 478 | 296 | 326 | 388 |
| 800 | 529 | 403 | 442 | 528 |
| 900 | 581 | 519 | 567 | 669 |
| 1000 | 632 | 668 | 751 | 881 |
| 1100 | 695 | 841.2 | 918.0 | 1137 |
| 1200 | 750 | 1050 | 1178 | 1345 |
| 1400 | 775 | 1388 | 1524 | 1852 |
| 1500 | 810 | 1665 | 1788 | 2088 |
| 1600 | 845 | 1915 | 2119 | 2416 |
| 1800 | 910 | 2465 | 2717 | 3125 |
| 2000 | 980 | 3149 | 3455 | 3907 |
| 2200 | 930 | 3446 | 3804 | / |
| 2400 | 945 | 4277 | 4719 | / |
| 2600 | 1005 | 5175 | 5695 | / |

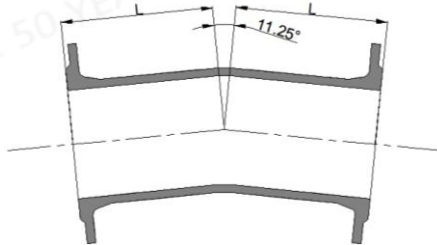


DOUBLE FLANGED 22.5° BEND A&B SERIES (B series up to DN400)



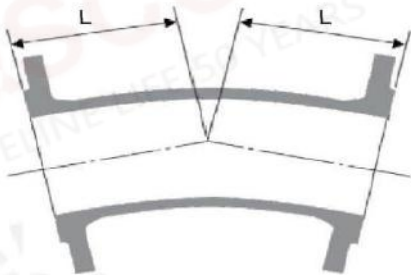
| DN | L(mm) | Weight (Kg) | | |
|------|-------|---------------|-------|-------|
| | | PN10 | PN16 | PN25 |
| 40 | 75 | 4.7 | 4.7 | 4.7 |
| 50 | 75 | 5.6 | 5.6 | 5.6 |
| 60 | 80 | 6.3 | 6.3 | 6.3 |
| 65 | 80 | 7.1 | 7.1 | 7.1 |
| 80 | 105 | 9.2 | 9.2 | 9.2 |
| 100 | 110 | 11.5 | 11.5 | 12.6 |
| 125 | 95 | 14.0 | 14.0 | 15.0 |
| 150 | 109 | 18.6 | 18.6 | 20.8 |
| 200 | 131 | 27 | 27 | 31 |
| 250 | 190 | 37.9 | 37.1 | 46 |
| 300 | 210 | 51 | 50.3 | 63 |
| 350 | 210 | 61.1 | 67.9 | 87.2 |
| 400 | 239 | 74.8 | 90.7 | 113.1 |
| 450 | 180 | 87.3 | 110 | 135.4 |
| 500 | 190 | 107.8 | 142.9 | 168.3 |
| 600 | 220 | 154.7 | 215.7 | 246 |
| 700 | 300 | 216.5 | 250.9 | 330.2 |
| 800 | 330 | 294.9 | 330.3 | 422.3 |
| 900 | 360 | 373 | 416.2 | 528.2 |
| 1000 | 390 | 477.2 | 552.6 | 697.8 |
| 1100 | 420 | 595.9 | 672.7 | 840.7 |
| 1200 | 450 | 736.6 | 853.2 | 1035 |
| 1400 | 460 | 1021 | 1157 | 1388 |
| 1600 | 470 | 1284 | 1468 | 1789 |
| 1800 | 480 | 1640 | 1864 | 2229 |
| 2000 | 520 | 2081 | 2357 | 2914 |
| 2200 | 550 | 2593 | 2908 | / |
| 2400 | 580 | 2995 | 3409 | / |
| 2600 | 600 | 3548 | 3983 | / |

DOUBLE FLANGED 11.25° BEND A&B SERIES (B series up to DN400)



| DN | L(mm) | Weight (Kg) | | |
|------|-------|---------------|-------|-------|
| | | PN10 | PN16 | PN25 |
| 40 | 65 | 4.6 | 4.6 | 4.6 |
| 50 | 65 | 5.4 | 5.4 | 5.4 |
| 60 | 70 | 6.1 | 6.1 | 6.1 |
| 65 | 70 | 6.8 | 6.8 | 6.8 |
| 80 | 113 | 9.2 | 9.2 | 9.2 |
| 100 | 115 | 11.5 | 11.5 | 12.5 |
| 125 | 80 | 11.4 | 11.4 | 12.6 |
| 150 | 113 | 17.2 | 17.2 | 19.5 |
| 200 | 132 | 24.3 | 24.4 | 28.8 |
| 250 | 165 | 34.7 | 33.8 | 42.8 |
| 300 | 175 | 46.4 | 45.7 | 58.4 |
| 350 | 191 | 54.9 | 61.8 | 81 |
| 400 | 205 | 66.8 | 82.7 | 105.1 |
| 450 | 135 | 76.6 | 99.3 | 124.7 |
| 500 | 140 | 93.6 | 128.7 | 154.1 |
| 600 | 160 | 134.7 | 195.7 | 225.9 |
| 700 | 205 | 206.6 | 241 | 320.3 |
| 800 | 230 | 270 | 308 | 367.3 |
| 900 | 245 | 303 | 351 | 450.2 |
| 1000 | 265 | 382 | 465 | 607 |
| 1100 | 320 | 502.0 | 592.0 | 826.0 |
| 1200 | 360 | 639.2 | 755.8 | 937.2 |
| 1400 | 380 | 873.8 | 995.4 | 1275 |
| 1600 | 400 | 1203 | 1382 | 1664 |
| 1800 | 410 | 1415 | 1641 | 2075 |
| 2000 | 415 | 1711 | 1985 | 2629 |
| 2200 | 420 | 2075 | 2390 | / |
| 2400 | 450 | 2502 | 2916 | / |
| 2600 | 480 | 3028 | 3463 | / |

DOUBLE FLANGED 22.5° LONG BEND



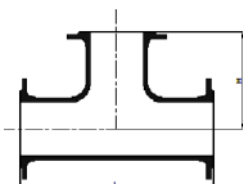
DOUBLE FLANGED 11.25° LONG BEND



| DN | L | Weight (Kg) | | |
|------|-----|---------------|------|------|
| | | PN10 | PN16 | PN25 |
| 80 | 130 | 9.4 | 9.4 | 9.4 |
| 100 | 140 | 11.5 | 11.5 | 12.5 |
| 150 | 160 | 19.1 | 19.1 | 21 |
| 200 | 180 | 28.5 | 28 | 32 |
| 250 | 350 | 56.5 | 56 | 63.5 |
| 300 | 400 | 79 | 78.5 | 89 |
| 350 | 298 | 78.5 | 84 | 99.5 |
| 400 | 324 | 99.5 | 109 | 131 |
| 450 | 349 | 122 | 138 | 166 |
| 500 | 375 | 151 | 178 | 200 |
| 600 | 426 | 221 | 268 | 296 |
| 700 | 478 | 311 | 334 | / |
| 800 | 529 | 423 | 453 | / |
| 900 | 581 | 543 | 588 | / |
| 1000 | 632 | 700 | 773 | / |
| 1200 | 735 | 1088 | 1213 | / |
| 1400 | 835 | 1551 | 1664 | / |
| 1600 | 940 | 2190 | 2369 | / |
| 1800 | 480 | 1640 | 1864 | / |
| 2000 | 520 | 2081 | 2357 | / |

| DN | L | Weight (Kg) | | |
|------|-----|---------------|------|------|
| | | PN10 | PN16 | PN25 |
| 80 | 130 | 9.5 | 9.5 | 9.5 |
| 100 | 140 | 11.5 | 11.5 | 12.5 |
| 150 | 160 | 19.1 | 19.1 | 21 |
| 200 | 180 | 28.5 | 28 | 32 |
| 250 | 350 | 56.5 | 56 | 63.5 |
| 300 | 400 | 79.5 | 79 | 89.5 |
| 350 | 298 | 79 | 84 | 100 |
| 400 | 324 | 100 | 109 | 131 |
| 450 | 349 | 123 | 139 | 166 |
| 500 | 375 | 152 | 179 | 201 |
| 600 | 426 | 222 | 269 | 297 |
| 700 | 478 | 313 | 343 | / |
| 800 | 529 | 426 | 455 | / |
| 900 | 581 | 546 | 592 | / |
| 1000 | 632 | 704 | 778 | / |
| 1200 | 735 | 1094 | 1220 | / |
| 1400 | 835 | 1560 | 1674 | / |
| 1600 | 940 | 2203 | 2382 | / |
| 1800 | 345 | 1342 | 1566 | / |
| 2000 | 375 | 1694 | 1970 | / |

ALL FLANGED TEE A&B SERIES (B series up to DN600X600)



| Body | Branch | L(mm) | | h | | Weight (Kg) | | | Weight (Kg) | | |
|------|--------|----------|----------|----------|----------|-------------|-------|-------|-------------|-------|-------|
| | | A Series | B Series | A Series | B Series | A Series | | | B Series | | |
| DN | dn | A Series | B Series | A Series | B Series | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 80 | 80 | 330 | 330 | 165 | 165 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 |
| 100 | 80 | 360 | 330 | 175 | 170 | 18.4 | 18.4 | 19.5 | 17.6 | 17.5 | 18.6 |
| | 100 | 360 | 360 | 180 | 180 | 19.4 | 19.4 | 21 | 19.4 | 19.4 | 21.0 |
| 125 | 80 | 400 | 350 | 190 | 185 | 23.0 | 23.0 | 24.5 | 21.3 | 21.3 | 22.5 |
| | 100 | 400 | 370 | 195 | 195 | 24.0 | 24.0 | 26.0 | 22.9 | 22.8 | 24.6 |
| | 125 | 400 | 400 | 200 | 200 | 25.5 | 25.5 | 27.5 | 25.5 | 25.5 | 27.5 |
| 150 | 80 | 440 | 360 | 205 | 200 | 28.5 | 28.5 | 31 | 25.6 | 25.6 | 27.5 |
| | 100 | 440 | 380 | 210 | 205 | 29.5 | 29.5 | 32 | 27.2 | 27.2 | 29.6 |
| | 125 | 440 | 410 | 215 | 215 | 31.0 | 31.0 | 34.0 | 29.7 | 29.7 | 32.2 |
| | 150 | 440 | 440 | 220 | 220 | 32.5 | 32.5 | 36 | 32.5 | 32.5 | 36.0 |
| 200 | 80 | 520 | 380 | 235 | 225 | 42 | 41.5 | 46 | 34.9 | 35.0 | 38.6 |
| | 100 | 520 | 400 | 240 | 230 | 43 | 42 | 47.5 | 36.7 | 36.8 | 40.9 |
| | 125 | 520 | 435 | 240 | 240 | 44.5 | 43.8 | 49.3 | 39.8 | 39.9 | 44.1 |
| | 150 | 520 | 460 | 250 | 245 | 46 | 45 | 51 | 42.6 | 42.7 | 47.3 |
| | 200 | 520 | 520 | 260 | 260 | 49.5 | 49 | 56 | 49.4 | 49.5 | 54.9 |
| 250 | 80 | 700 | 405 | 265 | 265 | 66 | 65.3 | 72.6 | 47.9 | 47.2 | 54.5 |
| | 100 | 700 | 425 | 275 | 270 | 68 | 67 | 75 | 50.1 | 49.3 | 57.2 |
| | 125 | 700 | 455 | 290 | 275 | 68.7 | 67.9 | 75.9 | 53.3 | 52.5 | 60.5 |
| | 150 | 700 | 485 | 300 | 280 | 72 | 71 | 81 | 56.8 | 56.1 | 64.3 |
| | 200 | 700 | 540 | 325 | 290 | 76 | 75 | 85 | 63.8 | 63.1 | 72.2 |
| | 250 | 700 | 600 | 350 | 300 | 82 | 81 | 93 | 72.8 | 71.7 | 82.7 |
| 300 | 80 | 800 | 425 | 290 | 295 | 91.5 | 90.9 | 101.3 | 62.3 | 61.7 | 72.1 |
| | 100 | 800 | 450 | 300 | 300 | 94 | 93 | 105 | 65.2 | 64.6 | 75.5 |
| | 125 | 800 | 480 | 310 | 300 | 94.0 | 93.4 | 104.4 | 68.7 | 68.1 | 79.1 |
| | 150 | 800 | 505 | 325 | 310 | 98 | 97 | 109 | 72.5 | 71.9 | 83.2 |
| | 200 | 800 | 565 | 350 | 320 | 102 | 101 | 114 | 80.7 | 80.1 | 92.3 |
| | 250 | 800 | 620 | 375 | 330 | 109 | 108 | 121 | 90.1 | 89.1 | 103.2 |
| | 300 | 800 | 680 | 400 | 340 | 116 | 115 | 131 | 100.9 | 100.0 | 115.6 |
| 350 | 80 | 850 | 445 | 325 | 325 | 113.8 | 119.4 | 135.2 | 74.7 | 79.3 | 96.1 |
| | 100 | 850 | 470 | 325 | 330 | 116 | 122 | 139 | 78.0 | 82.6 | 99.9 |
| | 125 | 850 | 480 | 325 | 330 | 116.0 | 122.0 | 138.0 | 80.2 | 84.8 | 102.2 |
| | 150 | 850 | 530 | 325 | 340 | 119 | 125 | 142 | 86.8 | 91.4 | 109.1 |
| | 200 | 850 | 585 | 325 | 350 | 121 | 128 | 146 | 95.5 | 100.2 | 118.8 |
| | 250 | 850 | 645 | 325 | 360 | 128 | 134 | 154 | 106.3 | 110.5 | 131.0 |
| | 300 | 850 | 680 | 425 | 365 | 132 | 138 | 160 | 115.1 | 119.4 | 141.4 |
| | 350 | 850 | 760 | 425 | 380 | 142 | 151 | 176 | 128.3 | 135.2 | 160.4 |
| 400 | 80 | 900 | 470 | 350 | 355 | 140.9 | 153.9 | 172.3 | 91.0 | 104.0 | 122.4 |
| | 100 | 900 | 490 | 350 | 360 | 143 | 154 | 177 | 94.3 | 107.2 | 126.2 |
| | 125 | 900 | 500 | 350 | 345 | 142.8 | 155.8 | 174.8 | 96.2 | 109.2 | 128.2 |
| | 150 | 900 | 550 | 350 | 370 | 144.2 | 157.2 | 181 | 104.2 | 117.2 | 136.5 |
| | 200 | 900 | 610 | 350 | 380 | 148 | 159 | 184 | 114.6 | 127.6 | 147.8 |
| | 250 | 900 | 665 | 350 | 390 | 151 | 161 | 198 | 125.8 | 138.4 | 160.5 |
| | 300 | 900 | 725 | 450 | 400 | 162.7 | 184 | 213 | 138.4 | 151.1 | 174.7 |
| | 350 | 900 | 760 | 450 | 410 | 170 | 183 | 215 | 147.2 | 162.5 | 189.3 |
| | 400 | 900 | 840 | 450 | 420 | 174 | 191 | 225 | 163.3 | 182.8 | 210.4 |
| 450 | 80 | 950 | 470 | 375 | 370 | 169.7 | 188.3 | 209.1 | 103.6 | 122.2 | 143.0 |
| | 100 | 950 | 515 | 375 | 375 | 176 | 193 | 225 | 110.7 | 129.2 | 150.6 |
| | 125 | 950 | 530 | 375 | 375 | 171.6 | 190.2 | 211.6 | 113.8 | 132.4 | 153.8 |

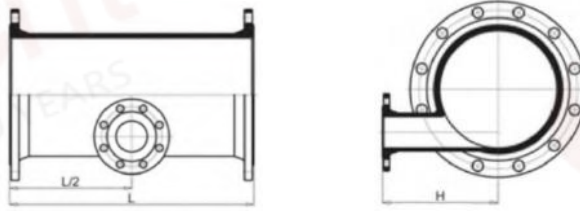
| Body | Branch | L(mm) | | h | | Weight (Kg) | | | | | |
|------|--------|-------|------|----------|----------|-------------|----------|-------|----------|-------|-------|
| | | | | | | A Series | | | B Series | | |
| | | DN | dn | A Series | B Series | A Series | B Series | PN10 | PN16 | PN25 | PN10 |
| 450 | 150 | 950 | 570 | 375 | 400 | 182 | 199 | 231 | 121.5 | 140.1 | 161.8 |
| | 200 | 950 | 630 | 375 | 410 | 190 | 207 | 240 | 133.1 | 151.7 | 174.3 |
| | 250 | 950 | 690 | 375 | 420 | 199 | 216 | 250 | 146.1 | 164.3 | 188.8 |
| | 300 | 950 | 745 | 475 | 430 | 210 | 227 | 263 | 159.2 | 177.5 | 203.5 |
| | 350 | 950 | 790 | 475 | 440 | 219 | 240 | 279 | 169.9 | 190.8 | 220.0 |
| | 400 | 950 | 860 | 475 | 450 | 231 | 254 | 296 | 185.9 | 211.0 | 241.0 |
| | 450 | 950 | 920 | 475 | 460 | 243 | 269 | 315 | 200.8 | 228.7 | 259.9 |
| 500 | 80 | 1000 | 515 | 400 | 400 | 207.4 | 236.2 | 257.0 | 129.5 | 158.3 | 179.1 |
| | 100 | 1000 | 535 | 400 | 400 | 210 | 241 | 265 | 133.5 | 162.3 | 183.6 |
| | 125 | 1000 | 560 | 400 | 405 | 209.3 | 238.1 | 259.5 | 138.7 | 167.5 | 188.9 |
| | 150 | 1000 | 600 | 400 | 410 | 214 | 243 | 269 | 146.6 | 175.4 | 197.2 |
| | 200 | 1000 | 650 | 400 | 415 | 215 | 245 | 271 | 157.5 | 186.3 | 208.9 |
| | 250 | 1000 | 680 | 400 | 430 | 218 | 258 | 280 | 166.9 | 195.3 | 219.8 |
| | 300 | 1000 | 740 | 500 | 450 | 228.1 | 256.6 | 287 | 182.4 | 210.9 | 236.9 |
| | 350 | 1000 | 810 | 500 | 465 | 239 | 276 | 298 | 198.3 | 229.4 | 258.6 |
| | 400 | 1000 | 885 | 500 | 480 | 242 | 276 | 311 | 216.9 | 252.2 | 282.2 |
| | 450 | 1000 | 940 | 500 | 490 | 249 | 298 | 327 | 231.9 | 270.0 | 301.2 |
| 500 | 1000 | 1000 | 500 | 500 | 252 | 297 | 332 | 252.0 | 297.0 | 332.0 | |
| 600 | 80 | 1100 | 525 | 450 | 450 | 296.0 | 346.0 | 370.8 | 174.5 | 224.5 | 249.3 |
| | 100 | 1100 | 550 | 450 | 450 | 296.7 | 346.7 | 372.0 | 180.5 | 230.5 | 255.8 |
| | 125 | 1100 | 580 | 450 | 450 | 297.8 | 347.8 | 373.2 | 187.9 | 237.9 | 263.3 |
| | 150 | 1100 | 650 | 450 | 455 | 299 | 349 | 374.7 | 204.2 | 254.2 | 279.9 |
| | 200 | 1100 | 700 | 450 | 460 | 305 | 358 | 388 | 217.1 | 267.2 | 293.8 |
| | 250 | 1100 | 740 | 450 | 480 | 307 | 360 | 392 | 230.1 | 279.8 | 308.2 |
| | 300 | 1100 | 810 | 550 | 500 | 312 | 374 | 398 | 250.4 | 300.1 | 330.1 |
| | 350 | 1100 | 885 | 550 | 520 | 326 | 380 | 413 | 270.9 | 323.2 | 356.4 |
| | 400 | 1100 | 930 | 550 | 530 | 329 | 387 | 427 | 285.9 | 342.4 | 376.4 |
| | 450 | 1100 | 970 | 550 | 540 | 338 | 417 | 448 | 299.7 | 359.0 | 394.2 |
| | 500 | 1100 | 1000 | 550 | 545 | 349 | 420 | 464 | 314.2 | 378.6 | 413.8 |
| 600 | 1100 | 1100 | 550 | 550 | 355 | 434 | 477 | 355.0 | 434.0 | 477.0 | |
| 700 | 80 | 520 | 535 | 505 | 500 | 223.3 | 251.5 | 316.5 | 227.2 | 255.4 | 320.4 |
| | 100 | 540 | 550 | 510 | 500 | 253 | 295 | 323.2 | 232.0 | 260.1 | 325.7 |
| | 125 | 570 | 580 | 510 | 505 | 238.5 | 266.7 | 332.3 | 241.1 | 269.3 | 334.9 |
| | 150 | 595 | 600 | 515 | 510 | 255 | 296 | 340.9 | 247.8 | 276.0 | 341.9 |
| | 200 | 650 | 650 | 525 | 525 | 258 | 298 | 359.3 | 258.0 | 298.0 | 359.3 |
| | 250 | 705 | 700 | 530 | 525 | 310 | 335 | 379.0 | 280.8 | 308.6 | 377.3 |
| | 300 | 760 | 750 | 540 | 530 | 319 | 342 | 399.7 | 295.1 | 323.0 | 393.2 |
| | 350 | 815 | 800 | 545 | 540 | 340 | 375 | 423.3 | 314.4 | 344.9 | 418.3 |
| | 400 | 870 | 870 | 555 | 555 | 343 | 379 | 447.1 | 343.0 | 379.0 | 447.1 |
| | 450 | 925 | 990 | 560 | 555 | 429 | 436 | 469.4 | 363.4 | 400.9 | 476.3 |
| | 500 | 980 | 1000 | 570 | 560 | 442 | 481 | 496.6 | 382.4 | 425.0 | 500.4 |
| | 600 | 1090 | 1180 | 585 | 575 | 476 | 523 | 556.0 | 447.4 | 500.6 | 578.0 |
| | 700 | 1200 | 1200 | 600 | 600 | 477 | 523 | 618.7 | 477.0 | 523.0 | 618.7 |
| 800 | 80 | 560 | 540 | 565 | 560 | 298.0 | 333.4 | 425.4 | 291.3 | 326.7 | 418.7 |
| | 100 | 580 | 560 | 570 | 560 | 345 | 383 | 433.3 | 298.6 | 334.0 | 426.5 |
| | 125 | 610 | 590 | 570 | 565 | 316.4 | 351.8 | 444.4 | 309.6 | 345.0 | 437.6 |
| | 150 | 635 | 610 | 575 | 570 | 349 | 387 | 454.6 | 317.6 | 353.0 | 445.9 |
| | 200 | 690 | 690 | 585 | 585 | 352 | 390 | 476.2 | 347.0 | 382.4 | 476.2 |
| | 250 | 745 | 720 | 590 | 585 | 372 | 410 | 499.5 | 360.2 | 395.2 | 490.9 |
| | 300 | 800 | 760 | 600 | 590 | 423 | 427 | 523.6 | 392.6 | 427.7 | 524.9 |
| | 350 | 855 | 830 | 605 | 600 | 443 | 471 | 550.5 | 406.1 | 443.8 | 544.2 |
| | 400 | 910 | 910 | 615 | 615 | 441 | 484 | 586 | 441 | 484 | 586 |
| | 450 | 965 | 960 | 620 | 615 | 519 | 563 | 603 | 453.5 | 498.2 | 600.6 |
| | 500 | 1020 | 1020 | 630 | 620 | 561 | 599 | 633.2 | 479.4 | 529.2 | 631.6 |
| | 600 | 1350 | 1050 | 645 | 645 | 613 | 678 | 771.3 | 506.9 | 567.3 | 671.7 |
| 700 | 1350 | 1200 | 660 | 665 | 663 | 711 | 802.1 | 579.7 | 629.2 | 753.7 | |

| Body | Branch | L(mm) | | h | | Weight (Kg) | | | | | |
|------|--------|----------|----------|----------|----------|-------------|-------|-------|----------|-------|-------|
| | | | | | | A Series | | | B Series | | |
| | | | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| DN | dn | A Series | B Series | A Series | B Series | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 900 | 800 | 1350 | 1350 | 675 | 675 | 657 | 715 | 850.8 | 659.7 | 715 | 850.8 |
| | 80 | 600 | 580 | 630 | 620 | 371.6 | 414.8 | 526.8 | 363.4 | 406.6 | 518.6 |
| | 100 | 620 | 600 | 630 | 620 | 428 | 476 | 536.1 | 372.2 | 415.3 | 527.9 |
| | 125 | 650 | 630 | 630 | 625 | 393.5 | 436.7 | 549.3 | 385.3 | 428.5 | 541.1 |
| | 150 | 675 | 650 | 635 | 630 | 432 | 480 | 561 | 394.6 | 437.8 | 550.8 |
| | 200 | 730 | 730 | 645 | 645 | 436 | 484 | 598 | 436 | 484 | 598 |
| | 250 | 785 | 760 | 650 | 645 | 499 | 533 | 613.6 | 444.7 | 487.6 | 603.2 |
| | 300 | 840 | 800 | 660 | 650 | 523 | 569 | 641.4 | 464.5 | 507.4 | 624.6 |
| | 350 | 895 | 870 | 665 | 660 | 538 | 588 | 672 | 495.1 | 540.6 | 661 |
| | 400 | 950 | 950 | 675 | 675 | 541 | 594 | 715.2 | 541 | 594 | 715.2 |
| | 450 | 1005 | 980 | 680 | 675 | 673 | 729 | 731.5 | 545.9 | 598.4 | 720.8 |
| | 500 | 1060 | 1040 | 690 | 680 | 726 | 784 | 765.3 | 575.7 | 633.3 | 755.7 |
| | 600 | 1500 | 1050 | 705 | 705 | 787 | 860 | 969.6 | 596.2 | 664.4 | 788.8 |
| | 700 | 1500 | 1200 | 720 | 710 | 843 | 901 | 998.7 | 674.2 | 731.5 | 876 |
| | 800 | 1500 | 1350 | 735 | 725 | 860 | 913 | 1045 | 762.1 | 823 | 981 |
| | 900 | 1500 | 1500 | 750 | 750 | 853 | 924 | 1089 | 856.2 | 924 | 1089 |
| 1000 | 80 | 640 | 620 | 690 | 680 | 470.4 | 545.8 | 691 | 460.7 | 536.1 | 681.3 |
| | 100 | 660 | 640 | 690 | 680 | 524 | 572 | 701.8 | 470.9 | 546.3 | 692 |
| | 125 | 690 | 670 | 690 | 685 | 496 | 571.4 | 717.2 | 486.3 | 561.7 | 707.5 |
| | 150 | 715 | 690 | 695 | 690 | 534 | 582 | 730.8 | 497.2 | 572.6 | 718.7 |
| | 200 | 770 | 770 | 705 | 705 | 546 | 629 | 775.6 | 546 | 629 | 775.6 |
| | 250 | 825 | 800 | 710 | 705 | 631 | 703 | 791.7 | 555.6 | 630.6 | 779.5 |
| | 300 | 880 | 840 | 720 | 710 | 651 | 739 | 823.6 | 578.2 | 653.3 | 803.7 |
| | 350 | 935 | 910 | 725 | 720 | 660 | 753 | 858.2 | 614 | 691.7 | 845.3 |
| | 400 | 990 | 990 | 735 | 735 | 668 | 755 | 910 | 668 | 755 | 910 |
| | 450 | 1045 | 1020 | 740 | 735 | 850 | 911 | 925.7 | 672.7 | 757.4 | 913 |
| | 500 | 1100 | 1040 | 750 | 740 | 955 | 1007 | 963.1 | 687.5 | 777.3 | 932.9 |
| | 600 | 1650 | 1050 | 765 | 765 | 1007 | 1116 | 1253 | 707.9 | 808.3 | 965.9 |
| | 700 | 1650 | 1200 | 780 | 770 | 1067 | 1152 | 1281 | 795.6 | 885.1 | 1063 |
| | 800 | 1650 | 1350 | 795 | 785 | 1085 | 1168 | 1325 | 893.3 | 986.4 | 1178 |
| | 900 | 1650 | 1500 | 810 | 800 | 1095 | 1219 | 1366 | 991.5 | 1089 | 1290 |
| | 1000 | 1650 | 1650 | 825 | 825 | 1105 | 1229 | 1441 | 1110 | 1229 | 1441 |
| 1100 | 80 | 680 | 610 | 745 | 740 | 579.7 | 656.5 | 824.5 | 540.4 | 617.2 | 785.2 |
| | 100 | 700 | 640 | 750 | 740 | 591.8 | 668.6 | 837.1 | 558.0 | 634.7 | 803.3 |
| | 125 | 730 | 670 | 750 | 745 | 609.6 | 686.4 | 855.0 | 575.9 | 652.7 | 821.3 |
| | 150 | 755 | 700 | 755 | 750 | 625.0 | 701.8 | 870.7 | 594.0 | 670.8 | 839.7 |
| | 200 | 810 | 750 | 765 | 755 | 658.3 | 735.2 | 905.0 | 624.3 | 701.1 | 870.9 |
| | 250 | 865 | 810 | 770 | 765 | 692.4 | 768.9 | 940.5 | 661.3 | 737.7 | 909.4 |
| | 300 | 920 | 860 | 780 | 770 | 727.1 | 803.6 | 976.8 | 692.7 | 769.2 | 942.4 |
| | 350 | 975 | 920 | 790 | 780 | 760.3 | 839.9 | 1016 | 728.6 | 807.7 | 984.1 |
| | 400 | 1030 | 980 | 795 | 795 | 794.3 | 877.6 | 1055 | 766.3 | 849.6 | 1027 |
| | 450 | 1085 | 1030 | 800 | 795 | 827.5 | 913.6 | 1092 | 796.0 | 882.1 | 1061 |
| | 500 | 1140 | 1090 | 810 | 800 | 864.2 | 955.4 | 1134 | 834.6 | 925.8 | 1105 |
| | 600 | 1800 | 1210 | 825 | 825 | 1248 | 1350 | 1530 | 916.6 | 1019 | 1199 |
| | 700 | 1800 | 1480 | 840 | 830 | 1265 | 1356 | 1556 | 1083 | 1174 | 1375 |
| | 800 | 1800 | 1540 | 855 | 845 | 1290 | 1385 | 1599 | 1141 | 1236 | 1450 |
| | 900 | 1800 | 1600 | 870 | 860 | 1315 | 1413 | 1637 | 1199 | 1297 | 1521 |
| | 1000 | 1800 | 1660 | 885 | 875 | 1354 | 1469 | 1709 | 1271 | 1385 | 1626 |
| 1100 | 1800 | 1780 | 900 | 890 | 1402 | 1517 | 1769 | 1385 | 1500 | 1752 | |
| 1200 | 100 | 660 | 640 | 810 | 800 | 996 | 1082 | 970.4 | 658.8 | 775.3 | 957.3 |
| | 150 | 715 | 700 | 815 | 810 | 998 | 1084 | 1009 | 700.1 | 816.7 | 999.0 |
| | 200 | 775 | 750 | 825 | 815 | 1000 | 1086 | 1052 | 734.7 | 851.4 | 1035 |
| | 250 | 830 | 810 | 830 | 825 | 1002 | 1094 | 1092 | 777.1 | 893.3 | 1079 |
| | 300 | 890 | 870 | 840 | 830 | 1004 | 1106 | 1136 | 819.3 | 935.6 | 1123 |
| | 350 | 950 | 930 | 845 | 840 | 1006 | 1113 | 1222 | 860.3 | 979.2 | 1169 |
| | 400 | 1005 | 990 | 855 | 845 | 1008 | 1122 | 1227 | 902.0 | 1026 | 1216 |

| Body | Branch | L(mm) | | h | | Weight (Kg) | | | | | |
|------|--------|-------|------|----------|----------|-------------|----------|------|----------|------|------|
| | | | | | | A Series | | | B Series | | |
| | | DN | dn | A Series | B Series | A Series | B Series | PN10 | PN16 | PN25 | PN10 |
| 1200 | 500 | 1120 | 1100 | 870 | 860 | 1109 | 1255 | 1319 | 980.7 | 1112 | 1304 |
| | 600 | 1240 | 1240 | 885 | 885 | 1101 | 1256 | 1450 | 1101 | 1256 | 1450 |
| | 700 | 1355 | 1330 | 900 | 890 | 1279 | 1423 | 1522 | 1158 | 1289 | 1503 |
| | 800 | 1470 | 1470 | 915 | 915 | 1291 | 1439 | 1666 | 1291 | 1439 | 1666 |
| | 900 | 1585 | 1570 | 930 | 920 | 1427 | 1662 | 1752 | 1359 | 1497 | 1735 |
| | 1000 | 1700 | 1700 | 945 | 945 | 1494 | 1664 | 1918 | 1494 | 1664 | 1918 |
| | 1200 | 1935 | 1910 | 975 | 955 | 2201 | 2321 | 2181 | 1708 | 1883 | 2155 |
| 1400 | 100 | 970 | 860 | 905 | 875 | 1227 | 1363 | 1522 | 1025 | 1147 | 1427 |
| | 200 | 1085 | 910 | 920 | 890 | 1231 | 1367 | 1623 | 1071 | 1193 | 1474 |
| | 400 | 1320 | 1250 | 950 | 920 | 1514 | 1656 | 1845 | 1366 | 1494 | 1783 |
| | 600 | 1550 | 1350 | 980 | 980 | 1655 | 1818 | 2077 | 1469 | 1616 | 1908 |
| | 700 | 1670 | 1440 | 995 | 990 | 1753 | 1889 | 2201 | 1557 | 1693 | 2005 |
| | 800 | 1780 | 1560 | 1010 | 1010 | 1886 | 2041 | 2367 | 1680 | 1819 | 2145 |
| | 900 | 1900 | 1670 | 1025 | 1020 | 1985 | 2129 | 2464 | 1789 | 1932 | 2268 |
| | 1000 | 2015 | 1760 | 1040 | 1040 | 2131 | 2309 | 2661 | 1897 | 2056 | 2408 |
| | 1100 | 2130 | 1880 | 1055 | 1055 | 2245 | 2405 | 2769 | 2034 | 2194 | 2557 |
| | 1200 | 2245 | 1980 | 1070 | 1070 | 2567 | 2767 | 2944 | 2441 | 2621 | 2991 |
| 1500 | 1400 | 2480 | 2200 | 1100 | 1100 | 2781 | 2985 | 3296 | 2458 | 2640 | 3059 |
| | 600 | 1575 | 1575 | 1035 | 1035 | 1886 | 2063 | 2375 | 1886 | 2063 | 2375 |
| 1600 | 1000 | 2040 | 2040 | 1095 | 1095 | 2410 | 2600 | 2972 | 2410 | 2600 | 2972 |
| | 100 | 1020 | / | 1015 | / | 1874 | 2078 | / | / | / | / |
| | 200 | 1140 | 920 | 1030 | 1040 | 1880 | 2084 | 2143 | 1402 | 1586 | 1909 |
| | 250 | 1200 | 980 | 1040 | 1040 | 1703 | 1887 | 2211 | 1468 | 1652 | 1976 |
| | 300 | 1250 | 1150 | 1045 | 1045 | 1758 | 1943 | 2268 | 1652 | 1836 | 2162 |
| | 400 | 1370 | 1270 | 1060 | 1055 | 2000 | 2210 | 2410 | 1780 | 1967 | 2295 |
| | 500 | 1490 | 1300 | 1075 | 1070 | 2022 | 2221 | 2551 | 1818 | 2017 | 2348 |
| | 600 | 1600 | 1380 | 1090 | 1090 | 2167 | 2398 | 2731 | 1912 | 2122 | 2455 |
| | 800 | 1835 | 1580 | 1120 | 1120 | 2452 | 2675 | 3041 | 2153 | 2355 | 2722 |
| | 1000 | 2065 | 1780 | 1150 | 1150 | 2740 | 2986 | 3378 | 2408 | 2630 | 3023 |
| | 1200 | 2300 | 2000 | 1180 | 1180 | 3058 | 3327 | 3738 | 2714 | 2957 | 3368 |
| 1800 | 1400 | 2530 | 2260 | 1210 | 1210 | 3498 | 3770 | 4071 | 3078 | 3323 | 3783 |
| | 1600 | 2760 | 2480 | 1240 | 1240 | 3886 | 4192 | 4528 | 3471 | 3748 | 4229 |
| | 100 | 1075 | / | 1125 | 1145 | 2346 | 2598 | / | / | / | / |
| | 200 | 1190 | 940 | 1140 | 1150 | 2350 | 2602 | 2705 | 1715 | 1938 | 2376 |
| | 250 | 1250 | 1010 | 1150 | 1145 | 2126 | 2352 | 2789 | 1810 | 2033 | 2474 |
| | 300 | 1310 | 1180 | 1155 | 1150 | 2208 | 2434 | 2872 | 2036 | 2259 | 2701 |
| | 400 | 1420 | 1320 | 1170 | 1165 | 2574 | 2835 | 3033 | 2223 | 2449 | 2894 |
| | 500 | 1540 | 1400 | 1185 | 1185 | 2513 | 2753 | 3197 | 2329 | 2566 | 3013 |
| | 600 | 1655 | 1410 | 1200 | 1200 | 2694 | 2972 | 3418 | 2356 | 2604 | 3053 |
| | 800 | 1885 | 1600 | 1230 | 1230 | 3023 | 3299 | 3779 | 2621 | 2862 | 3344 |
| 2000 | 1000 | 2120 | 1800 | 1260 | 1260 | 3375 | 3669 | 4176 | 2918 | 3179 | 3688 |
| | 1200 | 2350 | 2080 | 1290 | 1290 | 3740 | 4056 | 4580 | 3347 | 3629 | 4156 |
| | 1400 | 2580 | 2320 | 1320 | 1320 | 4254 | 4574 | 4937 | 3735 | 4019 | 4596 |
| | 1600 | 2815 | 2540 | 1350 | 1350 | 4691 | 5147 | 5427 | 4160 | 4476 | 5073 |
| | 1800 | 3045 | 2760 | 1380 | 1380 | 5123 | 5501 | 5976 | 4604 | 4941 | 5594 |
| | 100 | 1125 | / | 1235 | / | 2836 | 3142 | / | / | / | / |
| | 200 | 1240 | 980 | 1250 | 1240 | 2840 | 3146 | 3452 | 2119 | 2393 | 3039 |
| | 250 | 1300 | 1055 | 1260 | 1245 | 2632 | 2905 | 3553 | 2242 | 2516 | 3163 |
| | 300 | 1360 | 1200 | 1265 | 1250 | 2729 | 3003 | 3652 | 2475 | 2748 | 3397 |
| | 400 | 1475 | 1350 | 1280 | 1285 | 3002 | 3314 | 3843 | 2717 | 2993 | 3645 |
| 500 | 1590 | 1450 | 1295 | 1295 | 3095 | 3383 | 4037 | 2872 | 3161 | 3815 | |
| 600 | 1705 | 1500 | 1310 | 1310 | 3300 | 3642 | 4298 | 2947 | 3246 | 3902 | |
| 800 | 1940 | 1720 | 1340 | 1340 | 3844 | 4459 | 4655 | 3306 | 3597 | 4287 | |
| 1000 | 2170 | 2060 | 1370 | 1370 | 4112 | 4459 | 5175 | 3964 | 4275 | 4992 | |
| 1200 | 2400 | 2160 | 1400 | 1400 | 4484 | 4816 | 5551 | 4066 | 4398 | 5133 | |
| 1400 | 2635 | 2360 | 1430 | 1430 | 4966 | 5340 | 6123 | 4431 | 4766 | 5550 | |

| Body | Branch | L(mm) | | h | | Weight (Kg) | | | | | |
|------|--------|----------|----------|----------|----------|-------------|-------|-------|----------|------|------|
| | | | | | | A Series | | | B Series | | |
| | | | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| DN | dn | A Series | B Series | A Series | B Series | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 2000 | 1600 | 2865 | 2600 | 1460 | 1460 | 5625 | 6033 | 6579 | 4916 | 5282 | 6086 |
| | 1800 | 3100 | 2820 | 1490 | 1490 | 6115 | 6547 | 7150 | 4946 | 5333 | 6194 |
| | 2000 | 3330 | 2950 | 1520 | 1520 | 6648 | 7107 | 7839 | 5417 | 5828 | 6794 |
| 2200 | 200 | 1120 | 1000 | 1360 | 1340 | 2806 | 3120 | / | 2579 | 2893 | / |
| | 250 | 1175 | 1080 | 1370 | 1345 | 2913 | 3228 | / | 2733 | 3048 | / |
| | 300 | 1230 | 1250 | 1375 | 1350 | 3019 | 3334 | / | 3056 | 3370 | / |
| | 400 | 1340 | 1380 | 1390 | 1355 | 3231 | 3552 | / | 3301 | 3618 | / |
| | 500 | 1450 | 1480 | 1405 | 1360 | 3431 | 3760 | / | 3481 | 3810 | / |
| | 600 | 1560 | 1560 | 1420 | 1365 | 3675 | 4034 | / | 3622 | 3962 | / |
| | 800 | 1780 | 1820 | 1450 | 1375 | 4071 | 4403 | / | 4106 | 4439 | / |
| | 1000 | 2000 | 2120 | 1480 | 1385 | 4506 | 4859 | / | 4667 | 5019 | / |
| | 1200 | 2220 | 2220 | 1510 | 1410 | 5026 | 5413 | / | 4872 | 5245 | / |
| | 1400 | 2440 | 2400 | 1540 | 1440 | 5430 | 5805 | / | 5230 | 5606 | / |
| | 1600 | 2660 | 2650 | 1570 | 1470 | 5949 | 6356 | / | 5770 | 6177 | / |
| | 1800 | 2880 | 2880 | 1600 | 1520 | 6474 | 6934 | / | 6295 | 6723 | / |
| 2000 | 3100 | 2950 | 1630 | 1540 | 7051 | 7502 | / | 6535 | 6987 | / | |
| 2200 | 3320 | 3100 | 1660 | 1550 | 7714 | 8186 | / | 7093 | 7565 | / | |
| 2400 | 200 | 1180 | 1040 | 1470 | 1440 | 3372 | 3787 | / | 3062 | 3476 | / |
| | 250 | 1235 | 1120 | 1480 | 1445 | 3498 | 3912 | / | 3242 | 3656 | / |
| | 300 | 1290 | 1290 | 1485 | 1450 | 3621 | 4035 | / | 3619 | 4033 | / |
| | 400 | 1400 | 1420 | 1500 | 1455 | 3868 | 4289 | / | 3906 | 4323 | / |
| | 500 | 1510 | 1520 | 1515 | 1460 | 4102 | 4530 | / | 4115 | 4544 | / |
| | 600 | 1620 | 1610 | 1530 | 1465 | 4418 | 4849 | / | 4303 | 4742 | / |
| | 800 | 1840 | 1860 | 1560 | 1475 | 4843 | 5274 | / | 4843 | 5275 | / |
| | 1000 | 2060 | 2180 | 1590 | 1485 | 5344 | 5796 | / | 5538 | 5990 | / |
| | 1200 | 2280 | 2280 | 1620 | 1500 | 5963 | 6432 | / | 5759 | 6231 | / |
| | 1400 | 2500 | 2450 | 1650 | 1520 | 6391 | 6866 | / | 6134 | 6609 | / |
| | 1600 | 2720 | 2690 | 1680 | 1550 | 6968 | 7474 | / | 6714 | 7220 | / |
| | 1800 | 2940 | 2920 | 1710 | 1580 | 7614 | 8145 | / | 7266 | 7793 | / |
| 2000 | 3160 | 2980 | 1740 | 1600 | 8171 | 8722 | / | 7471 | 8022 | / | |
| 2200 | 3380 | 3150 | 1770 | 1620 | 8871 | 9442 | / | 8083 | 8652 | / | |
| 2400 | 3600 | 3300 | 1800 | 1650 | 9605 | 10226 | / | 8616 | 9237 | / | |
| 2600 | 200 | 1240 | 1080 | 1580 | 1550 | 4052 | 4486 | / | 3641 | 4076 | / |
| | 250 | 1295 | 1160 | 1590 | 1555 | 4196 | 4630 | / | 3849 | 4283 | / |
| | 300 | 1350 | 1320 | 1595 | 1560 | 4339 | 4773 | / | 4259 | 4694 | / |
| | 400 | 1460 | 1450 | 1610 | 1570 | 4624 | 5064 | / | 4592 | 5029 | / |
| | 500 | 1570 | 1550 | 1625 | 1580 | 4894 | 5342 | / | 4835 | 5284 | / |
| | 600 | 1680 | 1650 | 1640 | 1585 | 5214 | 5711 | / | 5077 | 5537 | / |
| | 800 | 1900 | 1890 | 1670 | 1595 | 5744 | 6195 | / | 5677 | 6129 | / |
| | 1000 | 2120 | 2210 | 1700 | 1605 | 6316 | 6788 | / | 6478 | 6951 | / |
| | 1200 | 2340 | 2310 | 1730 | 1620 | 6906 | 7399 | / | 6728 | 7222 | / |
| | 1400 | 2560 | 2490 | 1760 | 1640 | 7585 | 8128 | / | 7181 | 7676 | / |
| | 1600 | 2780 | 2720 | 1790 | 1650 | 8141 | 8668 | / | 7790 | 8317 | / |
| | 1800 | 3000 | 2950 | 1820 | 1660 | 8779 | 9326 | / | 8381 | 8929 | / |
| | 2000 | 3220 | 3020 | 1850 | 1670 | 9505 | 10128 | / | 8592 | 9164 | / |
| | 2200 | 3440 | 3180 | 1880 | 1675 | 10212 | 10803 | / | 9160 | 9753 | / |
| 2400 | 3660 | 3350 | 1910 | 1680 | 10988 | 11629 | / | 9687 | 10329 | / | |
| 2600 | 3880 | 3450 | 1940 | 1725 | 11860 | 12512 | / | 10211 | 10863 | / | |

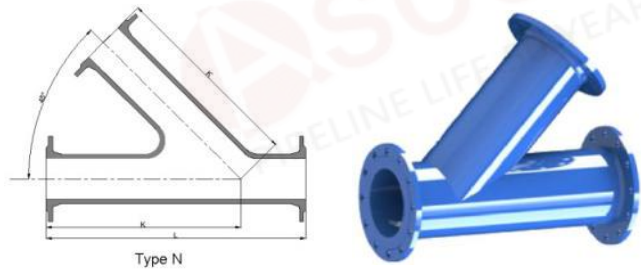
ALL FLANGED LEVEL INVERT TEE



| DN | | L(mm) | H(mm) | Weight (kg) | | |
|------|--------|-------|-------|-------------|------|------|
| Body | Branch | | | PN10 | PN16 | PN25 |
| 100 | 80 | 360 | 195 | 19.5 | 19.5 | 19.5 |
| 150 | 80 | 440 | 220 | 29.5 | 29.5 | 29.5 |
| 200 | 80 | 520 | 250 | 43 | 42.5 | 42 |
| | 100 | 520 | 270 | 44 | 43.5 | 43 |
| 250 | 80 | 700 | 275 | 66.4 | 66 | 65.6 |
| | 100 | 700 | 275 | 68.5 | 69 | 67.5 |
| 300 | 80 | 800 | 305 | 92.5 | 94 | 91.5 |
| | 100 | 800 | 305 | 96.5 | 96 | 94.5 |
| | 150 | 800 | 305 | 99.5 | 99 | 98.5 |
| 350 | 80 | 850 | 325 | 121 | 121 | 121 |
| | 100 | 850 | 325 | 117 | 125 | 129 |
| | 150 | 850 | 325 | 123 | 128 | 133 |
| 400 | 80 | 900 | 350 | 145 | 154 | 163 |
| | 100 | 900 | 350 | 147 | 156 | 165 |
| | 150 | 900 | 350 | 153 | 162 | 171 |
| | 200 | 900 | 350 | 158 | 167 | 176 |
| 450 | 80 | 950 | 375 | 188 | 188 | 188 |
| | 100 | 950 | 375 | 173 | 189 | 205 |
| | 150 | 950 | 375 | 181 | 197 | 213 |
| | 200 | 950 | 375 | 186 | 202 | 218 |
| 500 | 80 | 1000 | 400 | 237 | 237 | 237 |
| | 100 | 1000 | 400 | 215 | 241 | 267 |
| | 150 | 1000 | 400 | 221 | 248 | 275 |
| | 200 | 1000 | 400 | 228 | 255 | 282 |
| 600 | 80 | 1100 | 450 | 350 | 350 | 350 |
| | 100 | 1100 | 450 | 312 | 351 | 390 |
| | 150 | 1100 | 450 | 313 | 360 | 407 |
| | 200 | 1100 | 450 | 323 | 370 | 417 |
| 700 | 150 | 600 | 500 | 239 | 262 | 285 |
| | 200 | 650 | 500 | 246 | 268 | 290 |
| 800 | 150 | 670 | 540 | 350 | 379 | 408 |
| | 200 | 690 | 540 | 359 | 388 | 417 |
| 900 | 150 | 720 | 580 | 443 | 481 | 519 |
| | 200 | 730 | 580 | 446 | 483 | 520 |
| 1000 | 150 | 770 | 630 | 556 | 625 | 694 |
| | 200 | 770 | 630 | 560 | 628 | 696 |
| 1100 | 150 | 800 | 660 | 671 | 743 | 815 |
| | 200 | 850 | 660 | 701 | 773 | 845 |
| 1200 | 150 | 800 | 700 | 838 | 910 | 982 |
| | 200 | 850 | 700 | 873 | 945 | 1017 |

ALL FLANGED 45° ANGLE BRANCH TEE

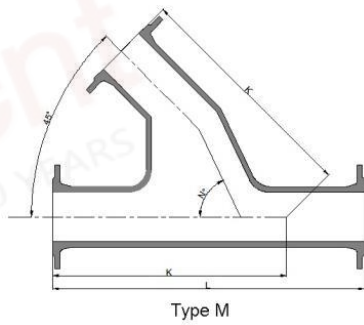
(Type N)



| DN | dn | L(mm) | K | Weight(Kg) |
|-----|-----|-------|-----|------------|
| | | | | PN16 |
| 80 | 80 | 500 | 375 | 23 |
| 100 | 80 | 500 | 390 | 27 |
| | 100 | 540 | 405 | 30 |
| 125 | 80 | 530 | 445 | 29.6 |
| | 100 | 540 | 445 | 31.6 |
| | 125 | 560 | 450 | 34.9 |
| 150 | 80 | 590 | 480 | 41 |
| | 100 | 640 | 480 | 45 |
| | 125 | 595 | 480 | 42.7 |
| | 150 | 640 | 480 | 52 |
| 200 | 80 | 635 | 535 | 55 |
| | 100 | 635 | 535 | 58 |
| | 125 | 599 | 540 | 58.7 |
| | 150 | 735 | 560 | 71 |
| | 200 | 735 | 560 | 81 |
| 250 | 80 | 660 | 585 | 75 |
| | 100 | 710 | 610 | 82 |
| | 125 | 715 | 600 | 78.8 |
| | 150 | 830 | 640 | 100 |
| | 200 | 830 | 640 | 112 |
| | 250 | 830 | 640 | 126 |
| | 300 | 830 | 640 | 126 |
| 300 | 80 | 685 | 610 | 97 |
| | 100 | 685 | 610 | 100 |
| | 125 | 775 | 660 | 103.4 |
| | 150 | 790 | 660 | 120 |
| | 200 | 865 | 685 | 140 |
| | 250 | 930 | 715 | 161 |
| | 300 | 930 | 715 | 177 |
| | 350 | 930 | 715 | 177 |
| 350 | 100 | 685 | 635 | 124 |
| | 125 | 840 | 720 | 135.0 |
| | 150 | 740 | 660 | 140 |
| | 200 | 840 | 710 | 165 |
| | 250 | 880 | 740 | 185 |
| | 300 | 960 | 740 | 178.0 |
| | 350 | 995 | 745 | 195.0 |
| 400 | 100 | 760 | 710 | 165 |
| | 125 | 900 | 780 | 169.5 |
| | 150 | 815 | 740 | 180 |
| | 200 | 865 | 760 | 200 |

| DN | dn | L(mm) | K | Weight(Kg) |
|-----|------|-------|-------|------------|
| | | | | PN16 |
| 400 | 250 | 970 | 820 | 230 |
| | 300 | 1020 | 800 | 217.0 |
| | 350 | 1060 | 810 | 236.0 |
| | 400 | 1095 | 815 | 255.0 |
| 450 | 100 | 740 | 710 | 185 |
| | 125 | 965 | 840 | 208.0 |
| | 150 | 840 | 760 | 211 |
| | 200 | 890 | 790 | 233 |
| | 250 | 990 | 820 | 272 |
| | 300 | 1090 | 865 | 261.0 |
| | 350 | 1120 | 870 | 280.0 |
| 500 | 400 | 1155 | 875 | 300.0 |
| | 450 | 1190 | 880 | 321.0 |
| | 100 | 1010 | 900 | 257.0 |
| | 125 | 1035 | 910 | 264.0 |
| | 150 | 790 | 765 | 245 |
| | 200 | 890 | 810 | 278 |
| | 250 | 940 | 840 | 304 |
| | 300 | 1150 | 925 | 321.0 |
| | 350 | 1175 | 930 | 341.0 |
| | 400 | 1215 | 935 | 362.0 |
| 600 | 450 | 1250 | 940 | 384.0 |
| | 500 | 1285 | 945 | 414.0 |
| | 100 | 1130 | 1020 | 377.0 |
| | 125 | 1155 | 1025 | 385.5 |
| | 150 | 890 | 840 | 354 |
| | 200 | 940 | 890 | 382 |
| | 250 | 990 | 915 | 413 |
| | 300 | 1270 | 1045 | 451.0 |
| | 350 | 1305 | 1050 | 474.0 |
| | 400 | 1340 | 1055 | 499.0 |
| | 450 | 1375 | 1060 | 524.0 |
| | 500 | 1410 | 1065 | 557.0 |
| 600 | 1480 | 1080 | 625.0 | |

| DN | dn | L(mm) | K | Weight(Kg) |
|------|-----|-------|------|------------|
| | | | | PN16 |
| 700 | 200 | 1040 | 1015 | 547 |
| | 250 | 1070 | 1040 | 582 |
| | 300 | 1170 | 1090 | 649 |
| 800 | 250 | 1180 | 1150 | 760 |
| | 300 | 1200 | 1170 | 800 |
| | 350 | 1270 | 1205 | 867 |
| 900 | 300 | 1270 | 1245 | 980 |
| | 350 | 1340 | 1280 | 1056 |
| | 400 | 1410 | 1315 | 1136 |
| 1000 | 350 | 1415 | 1380 | 1320 |
| | 400 | 1485 | 1415 | 1408 |
| | 450 | 1550 | 1450 | 1500 |
| 1100 | 400 | 1560 | 1515 | 1677 |
| | 450 | 1625 | 1550 | 1777 |
| 1200 | 450 | 1780 | 1700 | 2210 |
| | 500 | 1880 | 1750 | 2367 |

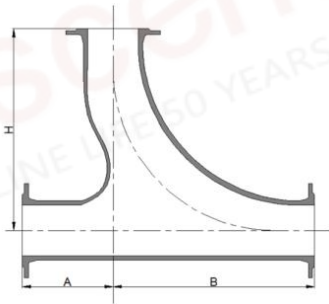


(Type M)

| DN | dn | L(mm) | K | Weight(Kg) |
|-----|-----|-------|------|------------|
| | | | | PN16 |
| 350 | 300 | 880 | 790 | 207 |
| | 350 | 880 | 790 | 168 |
| 400 | 300 | 970 | 870 | 254 |
| | 350 | 970 | 870 | 283 |
| | 400 | 970 | 870 | 310 |
| 450 | 300 | 1040 | 900 | 298 |
| | 350 | 1060 | 950 | 338 |
| | 400 | 1060 | 950 | 366 |
| | 450 | 1060 | 950 | 392 |
| 500 | 300 | 990 | 865 | 334 |
| | 350 | 1065 | 950 | 389 |
| | 400 | 1140 | 1025 | 439 |
| | 450 | 1140 | 1025 | 468 |
| | 500 | 1140 | 1025 | 505 |
| 600 | 300 | 1090 | 965 | 460 |
| | 350 | 1160 | 1000 | 520 |
| | 400 | 1230 | 1035 | 568 |

| DN | dn | L(mm) | K | Weight(Kg) |
|------|------|-------|------|------------|
| | | | | PN16 |
| 600 | 450 | 1295 | 1070 | 618 |
| | 500 | 1310 | 1180 | 680 |
| | 600 | 1310 | 1180 | 768 |
| 700 | 350 | 1240 | 1125 | 708 |
| | 400 | 1310 | 1160 | 772 |
| | 450 | 1370 | 1195 | 860 |
| | 500 | 1440 | 1240 | 945 |
| | 600 | 1570 | 1370 | 1133 |
| | 700 | 1570 | 1370 | 1240 |
| 800 | 400 | 1340 | 1240 | 938 |
| | 450 | 1400 | 1270 | 1009 |
| | 500 | 1470 | 1305 | 1128 |
| | 600 | 1600 | 1370 | 1314 |
| | 700 | 1660 | 1450 | 1476 |
| | 800 | 1720 | 1520 | 1674 |
| 900 | 450 | 1350 | 1350 | 1218 |
| | 500 | 1560 | 1390 | 1322 |
| | 600 | 1730 | 1475 | 1590 |
| | 700 | 1780 | 1540 | 1757 |
| | 800 | 1830 | 1610 | 1964 |
| | 900 | 1880 | 1680 | 2194 |
| 1000 | 500 | 1680 | 1510 | 1647 |
| | 600 | 1800 | 1575 | 1915 |
| | 700 | 1930 | 1640 | 2144 |
| | 800 | 2060 | 1700 | 2410 |
| | 900 | 2180 | 1980 | 2812 |
| | 1000 | 2180 | 1980 | 3052 |
| 1100 | 500 | 1730 | 1600 | 1922 |
| | 600 | 1830 | 1650 | 2200 |
| | 700 | 1980 | 1790 | 2490 |
| | 800 | 2120 | 1930 | 2827 |
| | 900 | 2265 | 2065 | 3205 |
| | 1000 | 2265 | 2065 | 3452 |
| | 1100 | 2265 | 2065 | 3703 |
| 1200 | 600 | 1980 | 1855 | 2695 |
| | 700 | 2125 | 1920 | 2988 |
| | 800 | 2270 | 1990 | 3330 |
| | 900 | 2415 | 2060 | 3693 |
| | 1000 | 2480 | 2280 | 4136 |
| | 1100 | 2480 | 2280 | 4410 |
| | 1200 | 2480 | 2280 | 4728 |

ALL FLANGED RADIAL TEE



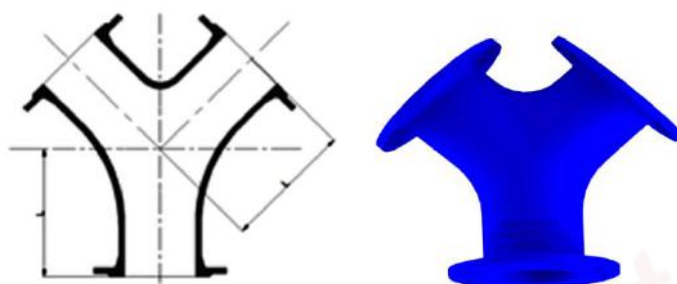
| DN | dn | A | B | H | Weight(Kg) PN16 |
|-----|-----|-----|-----|-----|--------------------|
| 80 | 80 | 165 | 380 | 380 | 24 |
| 100 | 80 | 180 | 390 | 390 | 28 |
| | 100 | 180 | 400 | 400 | 31 |
| 150 | 80 | 220 | 395 | 415 | 40 |
| | 100 | 220 | 405 | 425 | 43 |
| | 150 | 220 | 450 | 450 | 52 |
| 200 | 80 | 220 | 400 | 440 | 53 |
| | 100 | 220 | 410 | 450 | 56 |
| | 150 | 260 | 455 | 475 | 67 |
| | 200 | 260 | 500 | 500 | 80 |
| 250 | 80 | 220 | 405 | 465 | 70 |
| | 100 | 220 | 415 | 475 | 74 |
| | 150 | 300 | 460 | 500 | 91 |
| | 200 | 300 | 505 | 525 | 104 |
| | 250 | 350 | 550 | 550 | 124 |
| 300 | 80 | 220 | 415 | 490 | 90 |
| | 100 | 300 | 425 | 500 | 101 |
| | 150 | 300 | 470 | 525 | 114 |
| | 200 | 400 | 515 | 550 | 137 |
| | 250 | 400 | 560 | 575 | 154 |
| | 300 | 400 | 600 | 600 | 174 |
| 350 | 100 | 300 | 430 | 525 | 126 |
| | 150 | 300 | 475 | 550 | 140 |
| | 200 | 400 | 520 | 575 | 166 |
| | 250 | 400 | 565 | 600 | 185 |
| | 300 | 400 | 605 | 625 | 206 |
| | 350 | 450 | 650 | 650 | 235 |
| 400 | 100 | 300 | 435 | 550 | 160 |
| | 150 | 300 | 480 | 575 | 170 |
| | 200 | 400 | 525 | 600 | 200 |
| | 250 | 400 | 570 | 625 | 218 |
| | 300 | 450 | 610 | 650 | 246 |
| | 350 | 450 | 655 | 675 | 272 |
| | 400 | 500 | 700 | 700 | 307 |

| DN | dn | A | B | H | Weight(Kg) PN16 |
|-----|-----|------|------|------|--------------------|
| 450 | 100 | 300 | 440 | 575 | 185 |
| | 150 | 300 | 485 | 600 | 197 |
| | 200 | 400 | 530 | 625 | 230 |
| | 250 | 450 | 575 | 650 | 260 |
| | 300 | 450 | 615 | 675 | 282 |
| | 350 | 450 | 660 | 700 | 310 |
| | 400 | 550 | 705 | 725 | 355 |
| | 450 | 550 | 750 | 750 | 387 |
| 500 | 150 | 300 | 495 | 625 | 241 |
| | 200 | 400 | 540 | 650 | 278 |
| | 250 | 450 | 585 | 675 | 310 |
| | 300 | 450 | 625 | 700 | 335 |
| | 350 | 450 | 670 | 725 | 364 |
| | 400 | 550 | 715 | 750 | 413 |
| | 450 | 650 | 760 | 775 | 446 |
| 600 | 500 | 600 | 800 | 800 | 497 |
| | 150 | 330 | 505 | 675 | 330 |
| | 200 | 400 | 550 | 700 | 375 |
| | 250 | 450 | 595 | 725 | 413 |
| | 300 | 450 | 635 | 750 | 441 |
| | 350 | 450 | 680 | 775 | 473 |
| | 400 | 550 | 725 | 800 | 532 |
| | 450 | 600 | 770 | 825 | 580 |
| | 500 | 600 | 810 | 850 | 626 |
| | 600 | 700 | 900 | 900 | 748 |
| 700 | 200 | 400 | 550 | 750 | 500 |
| | 250 | 450 | 595 | 775 | 554 |
| | 300 | 450 | 635 | 800 | 591 |
| | 350 | 450 | 680 | 825 | 632 |
| | 400 | 550 | 725 | 850 | 715 |
| | 450 | 600 | 770 | 875 | 779 |
| | 500 | 600 | 810 | 900 | 835 |
| | 600 | 700 | 900 | 950 | 995 |
| 700 | 800 | 1000 | 1000 | 1154 | |

| DN | dn | A | B | H | Weight(Kg) PN16 |
|------|------|------|------|------|--------------------|
| 800 | 250 | 450 | 595 | 825 | 678 |
| | 300 | 450 | 635 | 850 | 719 |
| | 350 | 450 | 680 | 875 | 765 |
| | 400 | 550 | 725 | 900 | 861 |
| | 450 | 600 | 770 | 925 | 934 |
| | 500 | 600 | 810 | 950 | 995 |
| | 600 | 700 | 900 | 1000 | 1174 |
| | 700 | 800 | 1000 | 1050 | 1353 |
| | 800 | 900 | 1100 | 1100 | 1565 |
| 900 | 300 | 450 | 640 | 900 | 851 |
| | 350 | 450 | 685 | 925 | 907 |
| | 400 | 550 | 730 | 950 | 1013 |
| | 450 | 600 | 775 | 975 | 1101 |
| | 500 | 600 | 815 | 1000 | 1167 |
| | 600 | 700 | 905 | 1050 | 1366 |
| | 700 | 800 | 1005 | 1100 | 1568 |
| | 800 | 900 | 1105 | 1150 | 1802 |
| | 900 | 1000 | 1200 | 1200 | 2047 |
| 1000 | 350 | 450 | 695 | 975 | 1103 |
| | 400 | 550 | 740 | 1000 | 1224 |
| | 450 | 600 | 785 | 1025 | 1323 |
| | 500 | 600 | 825 | 1050 | 1394 |
| | 600 | 700 | 915 | 1100 | 1616 |
| | 700 | 800 | 1015 | 1150 | 1841 |
| | 800 | 900 | 1115 | 1200 | 2099 |
| | 900 | 1000 | 1210 | 1250 | 2369 |
| | 1000 | 1100 | 1300 | 1300 | 2676 |
| 1100 | 400 | 550 | 750 | 1050 | 1416 |
| | 450 | 600 | 795 | 1075 | 1528 |
| | 500 | 600 | 835 | 1100 | 1605 |
| | 600 | 700 | 925 | 1150 | 1851 |
| | 700 | 800 | 1025 | 1200 | 2101 |
| | 800 | 900 | 1125 | 1250 | 2385 |
| | 900 | 1000 | 1220 | 1300 | 2678 |
| | 1000 | 1100 | 1310 | 1350 | 3012 |
| | 1100 | 1200 | 1400 | 1100 | 3353 |
| 1200 | 450 | 600 | 805 | 1125 | 1793 |
| | 500 | 600 | 845 | 1150 | 1877 |
| | 600 | 700 | 935 | 1200 | 2148 |

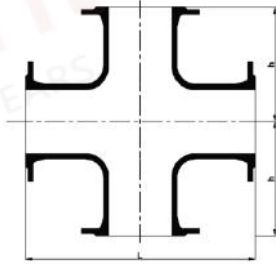
| DN | dn | A | B | H | Weight(Kg) PN16 |
|------|------|------|------|------|--------------------|
| 1200 | 700 | 800 | 1035 | 1250 | 2425 |
| | 800 | 900 | 1135 | 1300 | 2736 |
| | 900 | 1000 | 1230 | 1350 | 3056 |
| | 1000 | 1100 | 1320 | 1400 | 3417 |
| | 1100 | 1200 | 1410 | 1450 | 3785 |
| | 1200 | 1300 | 1500 | 1500 | 4200 |

ALL FLANGED Y TEE



| DN | L(mm) | Weight (Kg) | |
|-----|-------|-------------|------|
| | | PN10 | PN16 |
| 80 | 165 | 15.6 | 15.6 |
| 100 | 180 | 19.3 | 19.3 |
| 150 | 220 | 32.5 | 32.5 |
| 200 | 260 | 49.6 | 49 |
| 250 | 350 | 81.9 | 81 |
| 300 | 400 | 115.9 | 115 |
| 350 | 450 | 159.8 | 166 |
| 400 | 500 | / | 231 |
| 450 | 550 | / | 295 |
| 500 | 600 | / | 385 |
| 600 | 700 | / | 591 |

ALL FLANGED CROSS

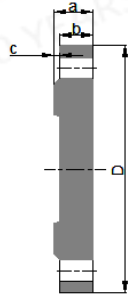


| Body | Branch | L(mm) | | h(mm) | | Maas(Kg) | | | | | |
|------|--------|-------|-----|-------|-----|----------|-------|-------|----------|-------|-------|
| | | | | | | A Series | | | B Series | | |
| DN | dn | A | B | A | B | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 80 | 80 | 330 | 330 | 165 | 165 | 20.1 | 20.1 | 20.1 | 20.1 | 20.1 | 20.1 |
| 100 | 80 | 360 | 330 | 175 | 170 | 23 | 23 | 24.2 | 22.0 | 22.0 | 23.0 |
| | 100 | 360 | 360 | 180 | 180 | 25 | 25 | 27.1 | 25.0 | 25.0 | 27.2 |
| 125 | 80 | 400 | 350 | 190 | 185 | 27.1 | 27.1 | 28.3 | 25.6 | 25.6 | 26.8 |
| | 100 | 400 | 370 | 195 | 195 | 29.1 | 29.0 | 31.3 | 28.3 | 28.2 | 30.5 |
| | 125 | 400 | 400 | 200 | 200 | 32.0 | 32.0 | 34.4 | 32.0 | 32.0 | 34.4 |
| 150 | 80 | 440 | 360 | 205 | 200 | 33.1 | 33.1 | 36.1 | 30.0 | 30.0 | 32 |
| | 100 | 440 | 380 | 210 | 205 | 35.1 | 35.1 | 38.1 | 32.5 | 32.5 | 35.4 |
| | 125 | 440 | 410 | 215 | 215 | 37.5 | 37.5 | 40.6 | 36.5 | 36.5 | 39.6 |
| | 150 | 440 | 440 | 220 | 220 | 41.1 | 41.1 | 46.1 | 41.1 | 41.1 | 46.1 |
| 200 | 80 | 520 | 380 | 235 | 225 | 46.5 | 45.9 | 50.7 | 39.2 | 39.3 | 42.9 |
| | 100 | 520 | 400 | 240 | 230 | 48.5 | 46.9 | 53.7 | 41.9 | 42.0 | 46.6 |
| | 125 | 520 | 440 | 240 | 240 | 50.4 | 50.4 | 55.2 | 46.7 | 46.8 | 51.6 |
| | 150 | 520 | 460 | 250 | 245 | 54.5 | 53.9 | 60.7 | 51.0 | 51.1 | 56.5 |
| | 200 | 520 | 520 | 260 | 260 | 61.5 | 60.9 | 70.7 | 61.7 | 61.9 | 70.7 |
| 250 | 80 | 700 | 400 | 265 | 265 | 37.5 | 37.5 | 44.5 | 52.1 | 51.3 | 58.7 |
| | 100 | 700 | 420 | 275 | 270 | 74.1 | 72.9 | 81.1 | 55.2 | 54.4 | 62.8 |
| | 125 | 700 | 460 | 290 | 275 | 75.8 | 75.1 | 83.6 | 60.3 | 59.6 | 68.1 |
| | 150 | 700 | 480 | 300 | 280 | 82.1 | 80.9 | 93.1 | 64.9 | 64.2 | 73.4 |
| | 200 | 700 | 540 | 325 | 290 | 90.1 | 88.9 | 101 | 75.9 | 75.2 | 86.2 |
| | 250 | 700 | 600 | 350 | 300 | 102 | 101 | 117 | 90.2 | 88.7 | 103.4 |
| 300 | 80 | 800 | 420 | 290 | 295 | 95.9 | 95.3 | 105.7 | 66.4 | 65.8 | 76.2 |
| | 100 | 800 | 450 | 300 | 300 | 100 | 98.8 | 112 | 70.6 | 70.0 | 81.4 |
| | 125 | 800 | 480 | 310 | 300 | 100.9 | 100.3 | 111.9 | 75.4 | 74.8 | 86.4 |
| | 150 | 800 | 500 | 325 | 310 | 108 | 107 | 120 | 80.5 | 79.9 | 92.2 |
| | 200 | 800 | 560 | 350 | 320 | 116 | 115 | 130 | 92.3 | 91.8 | 105.8 |
| | 250 | 800 | 620 | 375 | 330 | 130 | 129 | 144 | 107.1 | 105.8 | 123.5 |
| | 300 | 800 | 680 | 400 | 340 | 144 | 143 | 164 | 124.1 | 122.9 | 143.7 |
| 350 | 80 | 850 | 440 | 325 | 325 | 118.3 | 123.9 | 139.7 | 78.7 | 84.3 | 100.1 |
| | 100 | 850 | 470 | 325 | 330 | 122 | 128 | 145 | 83.5 | 89.0 | 105.9 |
| | 125 | 850 | 480 | 325 | 330 | 122.3 | 127.9 | 144.9 | 86.9 | 92.5 | 109.5 |
| | 150 | 850 | 530 | 325 | 340 | 128 | 134 | 151 | 95.2 | 100.8 | 118.5 |
| | 200 | 850 | 580 | 325 | 350 | 132 | 140 | 159 | 107.0 | 112.6 | 132.0 |
| | 250 | 850 | 640 | 352 | 360 | 146 | 151 | 176 | 122.6 | 127.5 | 150.6 |
| | 300 | 850 | 680 | 425 | 365 | 154 | 160 | 187 | 137.4 | 142.4 | 168.6 |
| | 350 | 850 | 760 | 425 | 380 | 174 | 186 | 219 | 156.1 | 167.3 | 198.9 |
| 400 | 80 | 900 | 470 | 350 | 355 | 145.4 | 158.4 | 176.8 | 95.6 | 108.6 | 127.0 |
| | 100 | 900 | 490 | 350 | 360 | 149 | 160 | 183 | 99.8 | 112.7 | 132.2 |
| | 125 | 900 | 500 | 350 | 345 | 149.3 | 162.3 | 181.9 | 102.5 | 115.5 | 135.1 |

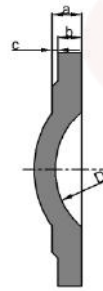


| Body | Branch | L(mm) | | h(mm) | | Maas(Kg) | | | | | |
|------|--------|-------|------|-------|-----|----------|-------|-------|-------|-------|-------|
| | | A | B | A | B | A | | | B | | |
| DN | dn | A | B | A | B | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 400 | 150 | 900 | 550 | 350 | 370 | 151 | 164 | 191 | 112.6 | 125.6 | 145.9 |
| | 200 | 900 | 610 | 350 | 380 | 159 | 170 | 197 | 126.4 | 139.5 | 161.5 |
| | 250 | 900 | 660 | 350 | 390 | 160 | 174 | 225 | 141.9 | 154.2 | 179.9 |
| | 300 | 900 | 720 | 450 | 400 | 182 | 220 | 236 | 160.2 | 172.6 | 201.4 |
| | 350 | 900 | 760 | 450 | 410 | 202 | 228 | 249 | 174.4 | 193.0 | 227.2 |
| | 400 | 900 | 840 | 450 | 420 | 211 | 234 | 259 | 197.2 | 223.2 | 260.0 |
| 450 | 80 | 950 | 470 | 375 | 370 | 174.1 | 192.7 | 213.5 | 108.0 | 126.6 | 147.4 |
| | 100 | 950 | 520 | 375 | 375 | 186 | 203 | 235 | 116.6 | 135.2 | 157.0 |
| | 125 | 950 | 530 | 375 | 375 | 177.9 | 196.5 | 218.5 | 120.2 | 138.8 | 160.8 |
| | 150 | 950 | 570 | 375 | 400 | 198 | 215 | 248 | 130.0 | 148.6 | 171.2 |
| | 200 | 950 | 630 | 375 | 410 | 213 | 230 | 265 | 144.9 | 163.6 | 188.0 |
| | 250 | 950 | 690 | 375 | 420 | 231 | 248 | 286 | 162.7 | 180.6 | 208.7 |
| | 300 | 950 | 740 | 475 | 430 | 253 | 270 | 312 | 180.6 | 198.6 | 229.8 |
| | 350 | 950 | 790 | 475 | 440 | 272 | 296 | 343 | 196.5 | 220.7 | 257.3 |
| | 400 | 950 | 860 | 475 | 450 | 296 | 324 | 378 | 218.9 | 250.5 | 289.7 |
| | 450 | 950 | 920 | 475 | 460 | 320 | 354 | 416 | 240.4 | 277.6 | 319.2 |
| 500 | 80 | 1000 | 520 | 400 | 400 | 211.8 | 240.6 | 261.4 | 134.8 | 163.6 | 184.4 |
| | 100 | 1000 | 540 | 400 | 400 | 215 | 247 | 272 | 139.5 | 168.3 | 190.1 |
| | 125 | 1000 | 560 | 400 | 405 | 215.5 | 244.3 | 266.3 | 145.1 | 173.9 | 195.9 |
| | 150 | 1000 | 600 | 400 | 410 | 223 | 251 | 280 | 154.5 | 183.3 | 206.0 |
| | 200 | 1000 | 650 | 400 | 415 | 225 | 255 | 284 | 168.2 | 197.1 | 221.5 |
| | 250 | 1000 | 680 | 400 | 430 | 231 | 281 | 301 | 182.2 | 210.3 | 238.4 |
| | 300 | 1000 | 740 | 500 | 450 | 249 | 275 | 316 | 203.5 | 231.7 | 262.9 |
| | 350 | 1000 | 810 | 500 | 465 | 273 | 290 | 338 | 224.0 | 258.4 | 295.0 |
| | 400 | 1000 | 880 | 500 | 480 | 279 | 317 | 364 | 248.4 | 290.2 | 329.4 |
| | 450 | 1000 | 940 | 500 | 490 | 293 | 361 | 396 | 270.4 | 317.8 | 359.4 |
| | 500 | 1000 | 1000 | 500 | 500 | 299 | 359 | 406 | 300.1 | 357.7 | 399.3 |
| 600 | 80 | 1100 | 520 | 450 | 450 | 300.3 | 350.3 | 375.1 | 177.8 | 227.8 | 252.6 |
| | 100 | 1100 | 550 | 450 | 450 | 242 | 311 | 329 | 185.6 | 235.5 | 261.4 |
| | 125 | 1100 | 580 | 450 | 450 | 303.8 | 353.8 | 379.8 | 193.9 | 243.9 | 269.9 |
| | 150 | 1100 | 650 | 450 | 455 | 272 | 333 | 365 | 211.5 | 261.5 | 288.1 |
| | 200 | 1100 | 700 | 450 | 460 | 316 | 369 | 401 | 227.1 | 277.2 | 305.6 |
| | 250 | 1100 | 740 | 450 | 480 | 321 | 373 | 409 | 244.7 | 294.0 | 326.1 |
| | 300 | 1100 | 810 | 550 | 500 | 330 | 400 | 420 | 270.5 | 319.9 | 355.1 |
| | 350 | 1100 | 880 | 550 | 520 | 358 | 413 | 451 | 294.5 | 350.1 | 390.7 |
| | 400 | 1100 | 930 | 550 | 530 | 364 | 427 | 479 | 316.1 | 379.1 | 422.3 |
| | 450 | 1100 | 970 | 550 | 540 | 382 | 487 | 521 | 335.3 | 403.9 | 449.5 |
| | 500 | 1100 | 1000 | 550 | 545 | 403 | 494 | 553 | 357.8 | 436.6 | 482.2 |
| | 600 | 1100 | 1100 | 550 | 550 | 416 | 521 | 579 | 416.6 | 521.0 | 579.0 |

BLANK FLANGES PN10 PN16 PN25 PN40 (with CENTER THREADED HOLE)



DN50~DN250



≥DN300

● **Blank Flange PN10**

| DN | D | a | b | c | Weight (Kg) |
|------|------|------|------|---|-------------|
| 40 | 150 | 19 | 16 | 3 | 2.0 |
| 50 | 165 | 19 | 16 | 3 | 2.4 |
| 60 | 175 | 19 | 16 | 3 | 2.7 |
| 65 | 185 | 19 | 16 | 3 | 3.1 |
| 80 | 200 | 19 | 16 | 3 | 3.5 |
| 100 | 220 | 19 | 16 | 3 | 4.3 |
| 125 | 250 | 19 | 16 | 3 | 5.6 |
| 150 | 285 | 19 | 16 | 3 | 7.2 |
| 200 | 340 | 20 | 17 | 3 | 11 |
| 250 | 400 | 22 | 19 | 3 | 16.9 |
| 300 | 455 | 24.5 | 20.5 | 4 | 24 |
| 350 | 505 | 24.5 | 20.5 | 4 | 30.7 |
| 400 | 565 | 24.5 | 20.5 | 4 | 38.1 |
| 450 | 615 | 25.5 | 21.5 | 4 | 47.1 |
| 500 | 670 | 26.5 | 22.5 | 4 | 58.7 |
| 600 | 780 | 30 | 25 | 5 | 88.9 |
| 700 | 895 | 32.5 | 27.5 | 5 | 128.7 |
| 800 | 1015 | 35 | 30 | 5 | 180.1 |
| 900 | 1115 | 37.5 | 32.5 | 5 | 235.1 |
| 1000 | 1230 | 40 | 35 | 5 | 307.8 |
| 1100 | 1340 | 42.5 | 37.5 | 5 | 391.1 |
| 1200 | 1455 | 45 | 40 | 5 | 575 |
| 1400 | 1675 | 46 | 41 | 5 | 739 |
| 1500 | 1786 | 47.5 | 42.5 | 5 | 990.0 |
| 1600 | 1915 | 49 | 44 | 5 | 1239 |
| 1800 | 2115 | 52 | 47 | 5 | 1717 |
| 2000 | 2325 | 55 | 50 | 5 | 2272 |
| 2200 | 2550 | 59 | 53 | 5 | 2372 |

● **Blank Flange PN16**

| DN | D | a | b | c | Weight (Kg) |
|------|------|------|------|---|-------------|
| 40 | 150 | 19 | 16 | 3 | 2.0 |
| 50 | 165 | 19 | 16 | 3 | 2.4 |
| 60 | 175 | 19 | 16 | 3 | 2.7 |
| 65 | 185 | 19 | 16 | 3 | 3.1 |
| 80 | 200 | 19 | 16 | 3 | 3.5 |
| 100 | 220 | 19 | 16 | 3 | 4.3 |
| 125 | 250 | 19 | 16 | 3 | 5.6 |
| 150 | 285 | 19 | 16 | 3 | 7.2 |
| 200 | 340 | 20 | 17 | 3 | 10.8 |
| 250 | 400 | 22 | 19 | 3 | 16.6 |
| 300 | 455 | 24.5 | 20.5 | 4 | 23.5 |
| 350 | 520 | 26.5 | 22.5 | 4 | 35 |
| 400 | 580 | 28 | 24 | 4 | 48.2 |
| 450 | 640 | 30 | 26 | 4 | 60.9 |
| 500 | 715 | 31.5 | 27.5 | 4 | 80.3 |
| 600 | 840 | 36 | 31 | 5 | 126.2 |
| 700 | 910 | 39.5 | 34.5 | 5 | 163.6 |
| 800 | 1025 | 43 | 38 | 5 | 228.7 |
| 900 | 1125 | 46.5 | 41.5 | 5 | 300.7 |
| 1000 | 1255 | 50 | 45 | 5 | 405.6 |
| 1100 | 1355 | 53.5 | 48.5 | 5 | 509.9 |
| 1200 | 1485 | 57 | 52 | 5 | 662 |
| 1400 | 1685 | 60 | 55 | 5 | 994 |
| 1500 | 1820 | 62.5 | 57.5 | 5 | 1201 |
| 1600 | 1930 | 65 | 60 | 5 | 1409 |
| 1800 | 2130 | 70 | 65 | 5 | 1858 |
| 2000 | 2345 | 75 | 70 | 5 | 2407 |
| 2200 | 2555 | 81 | 75 | 6 | 3097 |

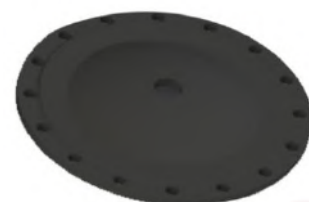
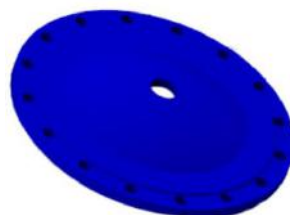
● **Blank Flange PN25**

| DN | D | a | b | c | Weight (Kg) |
|------|------|------|------|---|-------------|
| 40 | 150 | 19 | 16 | 3 | 2.0 |
| 50 | 165 | 19 | 16 | 3 | 2.4 |
| 60 | 175 | 19 | 16 | 3 | 2.7 |
| 65 | 185 | 19 | 16 | 3 | 3.1 |
| 80 | 200 | 19 | 16 | 3 | 3.5 |
| 100 | 235 | 19 | 16 | 3 | 4.8 |
| 125 | 270 | 19 | 16 | 3 | 6.2 |
| 150 | 300 | 20 | 17 | 3 | 8.3 |
| 200 | 360 | 22 | 19 | 3 | 13.3 |
| 250 | 425 | 24.5 | 21.5 | 3 | 21 |
| 300 | 485 | 27.5 | 23.5 | 4 | 30 |
| 350 | 555 | 30 | 26 | 4 | 45.1 |
| 400 | 620 | 32 | 28 | 4 | 60.5 |
| 450 | 670 | 34.5 | 30.5 | 4 | 79 |
| 500 | 730 | 36.5 | 32.5 | 4 | 97.4 |
| 600 | 845 | 42 | 37 | 5 | 150.4 |
| 700 | 960 | 46.5 | 41.5 | 5 | 215.9 |
| 800 | 1085 | 51 | 46 | 5 | 300.8 |
| 900 | 1185 | 55.5 | 50.5 | 5 | 398.5 |
| 1000 | 1320 | 60 | 55 | 5 | 535.8 |
| 1200 | 1530 | 69 | 64 | 5 | 702.0 |
| 1400 | 1755 | 74 | 69 | 5 | 1085 |
| 1600 | 1975 | 81 | 76 | 5 | 1674 |
| 1800 | 2195 | 88 | 83 | 5 | 2245 |
| 2000 | 2425 | 95 | 90 | 5 | 2985 |



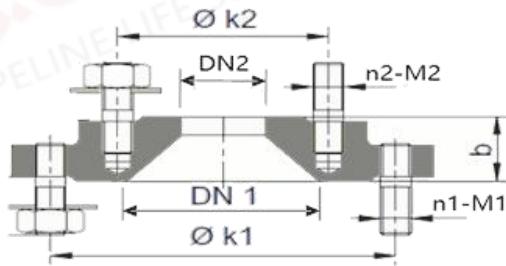
● **Blank Flange PN40**

| DN | D | a | b | c | Weight (Kg) |
|-----|-----|------|------|---|-------------|
| 80 | 200 | 19 | 16 | 3 | 3.7 |
| 100 | 235 | 19 | 16 | 3 | 5.1 |
| 150 | 300 | 26 | 23 | 3 | 11.4 |
| 200 | 375 | 30 | 27 | 3 | 20.5 |
| 250 | 450 | 34.5 | 31.5 | 3 | 34.5 |
| 300 | 515 | 39.5 | 35.5 | 4 | 51 |
| 350 | 580 | 44 | 40 | 4 | 74 |
| 400 | 660 | 48 | 44 | 4 | 106 |
| 450 | 685 | 50 | 46 | 4 | 118 |
| 500 | 755 | 52 | 48 | 4 | 150 |
| 600 | 845 | 58 | 53 | 5 | 232 |

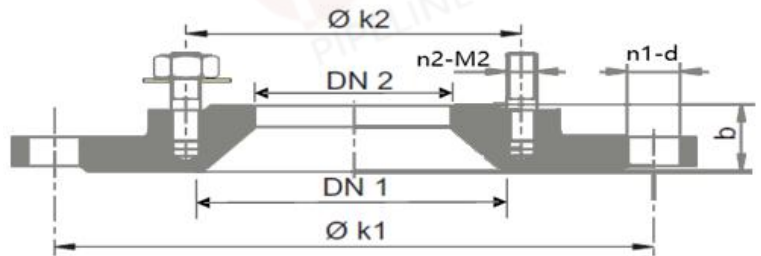


REDUCING FLANGE PN10 PN16 PN25 PN40

Type A



Type B



| DN1/DN2 | Type | b | K1 | n1 | M1 | d | K2 | n2 | M2 | PN | Weight(Kg) |
|---------|------|----|-----|----|---------|----|-----|----|---------|---------------|------------|
| 50/ 40 | A | 30 | 125 | 4 | M 16x50 | / | 110 | 4 | M 16x50 | PN 10/16 | 5.1 |
| 65/ 40 | A | 30 | 145 | 4 | M 16x50 | / | 110 | 4 | M 16x50 | PN 10/16 | 4.8 |
| 65/ 50 | A | 30 | 145 | 4 | M 16x50 | / | 125 | 4 | M 16x50 | PN 10/16 | 5.6 |
| 80/ 40 | A | 30 | 160 | 8 | M 16x50 | / | 110 | 4 | M 16x50 | PN 10/16 | 5.1 |
| 80/ 50 | A | 30 | 160 | 8 | M 16x50 | / | 125 | 4 | M 16x50 | PN 10/16 | 5.6 |
| 80/ 65 | A | 30 | 160 | 8 | M 16x50 | / | 145 | 4 | M 16x50 | PN 10/16 | 5.4 |
| 100/040 | A | 30 | 180 | 8 | M 16x50 | / | 110 | 4 | M 16x50 | PN 10/16 | 6.6 |
| 100/050 | A | 30 | 180 | 8 | M 16x50 | / | 125 | 4 | M 16x50 | PN 10/16 | 6.8 |
| 100/065 | A | 30 | 180 | 8 | M 16x50 | / | 145 | 4 | M 16x50 | PN 10/16 | 6.5 |
| 100/080 | A | 47 | 180 | 8 | M 16x50 | / | 160 | 8 | M 16x50 | PN 10/16 | 8.4 |
| 125/040 | A | 30 | 210 | 8 | M 16x50 | / | 110 | 4 | M 16x50 | PN 10/16 | 6.3 |
| 125/050 | A | 30 | 210 | 8 | M 16x50 | / | 125 | 4 | M 16x50 | PN 10/16 | 7.6 |
| 125/060 | A | 30 | 210 | 8 | M 16x50 | / | 135 | 4 | M 16x50 | PN 10/16 | 8.2 |
| 125/065 | A | 30 | 210 | 8 | M 16x50 | / | 145 | 4 | M 16x50 | PN 10/16 | 8.2 |
| 125/080 | A | 30 | 210 | 8 | M 16x50 | / | 160 | 8 | M 16x50 | PN 10/16 | 8.0 |
| 125/100 | A | 30 | 210 | 8 | M 16x50 | / | 180 | 8 | M 16x50 | PN 10/16 | 7.6 |
| 150/040 | B | 30 | 240 | 8 | / | 23 | 110 | 4 | M 16x50 | PN 10/16 | 11.0 |
| 150/050 | B | 30 | 240 | 8 | / | 23 | 125 | 4 | M 16x50 | PN 10/16 | 11.0 |
| 150/065 | B | 30 | 240 | 8 | / | 23 | 145 | 4 | M 16x50 | PN 10/16 | 11.0 |
| 150/080 | B | 30 | 240 | 8 | / | 23 | 160 | 8 | M 16x50 | PN 10/16 | 10.7 |
| 150/100 | A | 30 | 240 | 8 | M 20x60 | / | 180 | 8 | M 16x50 | PN 10/16 | 12.0 |
| 150/125 | A | 30 | 240 | 8 | M 20x60 | / | 210 | 8 | M 16x50 | PN 10/16 | 11.2 |
| 200/050 | B | 30 | 295 | 8 | / | 23 | 125 | 4 | M 16x50 | PN10-PN 10/16 | 14.9 |
| 200/050 | B | 30 | 295 | 12 | / | 23 | 125 | 4 | M 16x50 | PN16-PN 10/16 | 14.9 |
| 200/060 | B | 30 | 295 | 8 | / | 23 | 135 | 4 | M 16x50 | PN10-PN 10/16 | 14.8 |
| 200/065 | B | 30 | 295 | 8 | / | 23 | 145 | 4 | M 16x50 | PN10-PN 10/16 | 14.8 |
| 200/065 | B | 30 | 295 | 12 | / | 23 | 145 | 4 | M 16x50 | PN16-PN 10/16 | 14.8 |
| 200/080 | B | 30 | 295 | 8 | / | 23 | 160 | 8 | M 16x50 | PN10-PN 10/16 | 14.7 |
| 200/080 | B | 30 | 295 | 12 | / | 23 | 160 | 8 | M 16x50 | PN16-PN 10/16 | 14.5 |
| 200/100 | B | 30 | 295 | 8 | / | 23 | 180 | 8 | M 16x50 | PN10-PN 10/16 | 15.0 |
| 200/100 | B | 30 | 295 | 12 | / | 23 | 180 | 8 | M 16x50 | PN16-PN 10/16 | 14.9 |

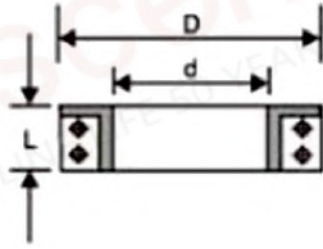
| DN1/DN2 | Type | b | K1 | n1 | M1 | d | K2 | n2 | M2 | PN | Weight(Kg) |
|---------|------|----|-----|----|---------|----|-----|----|---------|---------------|------------|
| 200/125 | B | 30 | 295 | 8 | / | 23 | 210 | 8 | M 16x50 | PN10-PN 10/16 | 13.7 |
| 200/125 | B | 30 | 295 | 12 | / | 23 | 210 | 8 | M 16x50 | PN16-PN 10/16 | 13.7 |
| 200/150 | A | 29 | 295 | 8 | M 20x60 | / | 240 | 8 | M 20x60 | PN10-PN 10/16 | 17.2 |
| 200/150 | A | 29 | 295 | 12 | M 20x60 | / | 240 | 8 | M 20x60 | PN16-PN 10/16 | 18.0 |
| 200/200 | A | 32 | 295 | 12 | M 20x60 | / | 295 | 8 | M 20x60 | PN16-PN 10 | 15.2 |
| 250/050 | B | 31 | 350 | 12 | / | 23 | 125 | 4 | M 16x50 | PN10-PN 10/16 | 22.3 |
| 250/050 | B | 31 | 355 | 12 | / | 28 | 125 | 4 | M 16x50 | PN16-PN 10/16 | 22.3 |
| 250/065 | B | 31 | 350 | 12 | / | 23 | 145 | 4 | M 16x50 | PN10-PN 10/16 | 22.2 |
| 250/065 | B | 31 | 355 | 12 | / | 28 | 145 | 4 | M 16x50 | PN16-PN 10/16 | 22.2 |
| 250/080 | B | 31 | 350 | 12 | / | 23 | 160 | 8 | M 16x50 | PN10-PN 10/16 | 21.9 |
| 250/080 | B | 31 | 355 | 12 | / | 28 | 160 | 8 | M 16x50 | PN16-PN 10/16 | 22.1 |
| 250/100 | B | 31 | 350 | 12 | / | 23 | 180 | 8 | M 16x50 | PN10-PN 10/16 | 21.5 |
| 250/100 | B | 31 | 355 | 12 | / | 28 | 180 | 8 | M 16x50 | PN16-PN 10/16 | 21.9 |
| 250/125 | B | 31 | 350 | 12 | / | 23 | 210 | 8 | M 16x50 | PN10-PN 10/16 | 21.5 |
| 250/125 | B | 31 | 355 | 12 | / | 28 | 210 | 8 | M 16x50 | PN16-PN 10/16 | 21.5 |
| 250/150 | B | 40 | 350 | 12 | / | 23 | 240 | 8 | M 20x60 | PN10-PN 10/16 | 26.8 |
| 250/150 | B | 40 | 355 | 12 | / | 28 | 240 | 8 | M 20x60 | PN16-PN 10/16 | 26.8 |
| 250/200 | A | 32 | 350 | 12 | M 20x60 | / | 295 | 8 | M 20x60 | PN10-PN 10 | 22.7 |
| 250/200 | A | 32 | 355 | 12 | M 24x70 | / | 295 | 12 | M 20x60 | PN16-PN 16 | 21.3 |
| 250/250 | A | 66 | 350 | 12 | M 20x60 | / | 355 | 12 | M 24x70 | PN10-PN 16 | 35.2 |
| 300/050 | B | 31 | 400 | 12 | / | 23 | 125 | 4 | M 16x50 | PN10-PN 10/16 | 27.5 |
| 300/050 | B | 31 | 410 | 12 | / | 28 | 125 | 4 | M 16x50 | PN16-PN 10/16 | 27.5 |
| 300/080 | B | 31 | 400 | 12 | / | 23 | 160 | 8 | M 16x50 | PN10-PN 10/16 | 27.5 |
| 300/080 | B | 31 | 410 | 12 | / | 28 | 160 | 8 | M 16x50 | PN16-PN 10/16 | 27.5 |
| 300/100 | B | 31 | 400 | 12 | / | 23 | 180 | 8 | M 16x50 | PN10-PN 10/16 | 27.1 |
| 300/100 | B | 31 | 410 | 12 | / | 28 | 180 | 8 | M 16x50 | PN16-PN 10/16 | 27.1 |
| 300/125 | B | 31 | 400 | 12 | / | 23 | 210 | 8 | M 16x50 | PN10-PN 10/16 | 27.2 |
| 300/125 | B | 31 | 410 | 12 | / | 28 | 210 | 8 | M 16x50 | PN16-PN 10/16 | 27.2 |
| 300/150 | B | 31 | 400 | 12 | / | 23 | 240 | 8 | M 20x60 | PN10-PN 10/16 | 28.5 |
| 300/150 | B | 31 | 410 | 12 | / | 28 | 240 | 8 | M 20x60 | PN16-PN 10/16 | 28.5 |
| 300/200 | B | 32 | 400 | 12 | / | 23 | 295 | 8 | M 20x60 | PN10-PN 10 | 26.4 |
| 300/200 | B | 32 | 410 | 12 | / | 28 | 295 | 12 | M 20x60 | PN16-PN 16 | 24.8 |
| 300/250 | A | 33 | 400 | 12 | M 20x60 | / | 350 | 12 | M 20x60 | PN10-PN 10 | 27.4 |
| 300/250 | A | 33 | 410 | 12 | M 24x70 | / | 355 | 12 | M 24x70 | PN16-PN 16 | 32.4 |
| 300/300 | A | 65 | 400 | 12 | M 20x60 | / | 410 | 12 | M 24x70 | PN10-PN 16 | 40.3 |
| 350/125 | B | 31 | 460 | 16 | / | 23 | 210 | 8 | M 16x50 | PN10-PN 10/16 | 26.8 |
| 350/150 | B | 38 | 460 | 16 | / | 23 | 240 | 8 | M 20x60 | PN10-PN 10/16 | 26.8 |
| 350/200 | B | 38 | 460 | 16 | / | 23 | 295 | 8 | M 20x60 | PN10-PN 10 | 36.2 |
| 350/200 | B | 38 | 470 | 16 | / | 28 | 295 | 12 | M 20x60 | PN16-PN 16 | 36.2 |
| 350/250 | A | 38 | 460 | 16 | M 20x60 | / | 350 | 12 | M 20x60 | PN10-PN 10 | 32.4 |
| 350/250 | A | 38 | 470 | 16 | M 24x70 | / | 355 | 12 | M 24x70 | PN16-PN 16 | 32.4 |
| 350/300 | A | 58 | 460 | 16 | M 20x60 | / | 400 | 12 | M 20x60 | PN10-PN 10 | 32.4 |
| 350/300 | A | 58 | 470 | 16 | M 24x70 | / | 410 | 12 | M 24x70 | PN16-PN 16 | 32.4 |
| 400/080 | B | 38 | 515 | 16 | / | 28 | 160 | 8 | M 16x50 | PN10-PN 10/16 | 55.1 |
| 400/080 | B | 38 | 525 | 16 | / | 31 | 160 | 8 | M 16x50 | PN16-PN 10/16 | 55.1 |

| DN1/DN2 | Type | b | K1 | n1 | M1 | d | K2 | n2 | M2 | PN | Weight(Kg) |
|---------|------|----|-----|----|---------|----|-----|----|---------|---------------|------------|
| 400/100 | B | 38 | 515 | 16 | / | 28 | 180 | 8 | M 16x50 | PN10-PN 10/16 | 53.8 |
| 400/100 | B | 38 | 525 | 16 | / | 31 | 180 | 8 | M 16x50 | PN16-PN 16 | 53.8 |
| 400/125 | B | 38 | 515 | 16 | / | 28 | 210 | 8 | M 16x50 | PN10-PN 10/16 | 50.2 |
| 400/150 | B | 38 | 515 | 16 | / | 28 | 240 | 8 | M 20x60 | PN10-PN 10/16 | 50.2 |
| 400/150 | B | 38 | 525 | 16 | / | 31 | 240 | 8 | M 20x60 | PN16-PN 16 | 50.2 |
| 400/200 | B | 38 | 515 | 16 | / | 28 | 295 | 8 | M 20x60 | PN10-PN 10 | 46.2 |
| 400/200 | B | 38 | 525 | 16 | / | 31 | 295 | 12 | M 20x60 | PN16-PN 16 | 46.2 |
| 400/250 | B | 38 | 515 | 16 | / | 28 | 350 | 12 | M 20x60 | PN10-PN 10 | 40.3 |
| 400/250 | B | 38 | 525 | 16 | / | 31 | 350 | 12 | M 20x60 | PN16-PN 10 | 40.3 |
| 400/250 | B | 38 | 525 | 16 | / | 31 | 355 | 12 | M 24x70 | PN16-PN 16 | 40.3 |
| 400/300 | B | 39 | 515 | 16 | / | 28 | 400 | 12 | M 20x60 | PN10-PN 10 | 39.8 |
| 400/300 | B | 39 | 525 | 16 | / | 31 | 410 | 12 | M 24x70 | PN16-PN 16 | 39.8 |
| 400/350 | A | 40 | 515 | 16 | M 24x70 | / | 460 | 16 | M 20x60 | PN10-PN 10 | 39.8 |
| 400/400 | A | 83 | 515 | 16 | M 24x70 | / | 525 | 16 | M 27x80 | PN10-PN 16 | 78.1 |
| 500/80 | B | 47 | 620 | 20 | / | 28 | 160 | 8 | M 16x50 | PN10-PN 10/16 | 115.0 |
| 500/80 | B | 47 | 650 | 20 | / | 34 | 160 | 8 | M 16x50 | PN16-PN 10/16 | 115.0 |
| 500/100 | B | 47 | 620 | 20 | / | 28 | 180 | 8 | M 16x50 | PN10-PN 10/16 | 116.0 |
| 500/100 | B | 47 | 650 | 20 | / | 34 | 180 | 8 | M 16x50 | PN16-PN 10/16 | 116.0 |
| 500/150 | B | 47 | 620 | 20 | / | 28 | 240 | 8 | M 20x60 | PN10-PN 10/16 | 102.1 |
| 500/150 | B | 47 | 650 | 20 | / | 34 | 240 | 8 | M 20x60 | PN16-PN 10/16 | 102.1 |
| 500/200 | B | 47 | 620 | 20 | / | 28 | 295 | 8 | M 20x60 | PN10-PN 10 | 91.0 |
| 500/200 | B | 47 | 650 | 20 | / | 34 | 295 | 12 | M 20x60 | PN16-PN 16 | 91.0 |
| 500/250 | B | 47 | 620 | 20 | / | 28 | 350 | 12 | M 20x60 | PN10-PN 10 | 90.0 |
| 500/300 | B | 47 | 620 | 20 | / | 28 | 400 | 12 | M 20x60 | PN10-PN 10 | 84.4 |
| 500/300 | B | 47 | 650 | 20 | / | 34 | 400 | 12 | M 20x60 | PN16-PN 10 | 90.0 |
| 500/300 | B | 47 | 650 | 20 | / | 34 | 410 | 12 | M 24x70 | PN16-PN 16 | 84.4 |
| 500/350 | B | 43 | 620 | 20 | / | 28 | 460 | 16 | M 20x60 | PN10-PN 10 | 88.0 |
| 500/350 | B | 43 | 650 | 20 | / | 34 | 470 | 16 | M 24x70 | PN16-PN 16 | 88.0 |
| 500/400 | A | 47 | 620 | 20 | M 24x70 | / | 515 | 16 | M 24x70 | PN10-PN 10 | 100.0 |
| 500/400 | B | 47 | 650 | 20 | / | 34 | 525 | 16 | M 27x90 | PN16-PN 16 | 100.0 |
| 500/450 | A | 47 | 620 | 20 | M 24x70 | / | 565 | 20 | M 24x70 | PN10-PN 10 | 95.0 |
| 500/450 | A | 47 | 650 | 20 | M 27x90 | / | 585 | 20 | M 27x90 | PN16-PN 16 | 90.0 |
| 500/500 | A | 91 | 620 | 20 | M 24x70 | / | 650 | 20 | M 30x80 | PN10-PN 16 | 110.0 |
| 600/080 | B | 45 | 725 | 20 | / | 31 | 160 | 8 | M 16x50 | PN10-PN 10/16 | 125.0 |
| 600/080 | B | 48 | 770 | 20 | / | 37 | 160 | 8 | M 16x50 | PN16-PN 10/16 | 125.0 |
| 600/100 | B | 45 | 725 | 20 | / | 31 | 180 | 8 | M 16x50 | PN10-PN 10/16 | 148.0 |
| 600/100 | B | 42 | 770 | 20 | / | 37 | 180 | 8 | M 16x50 | PN16-PN 10/16 | 148.0 |
| 600/150 | B | 45 | 725 | 20 | / | 31 | 240 | 8 | M 20x60 | PN10-PN 10/16 | 149.8 |
| 600/150 | B | 48 | 770 | 20 | / | 37 | 240 | 8 | M 20x60 | PN16-PN 10/16 | 149.8 |
| 600/200 | B | 42 | 725 | 20 | / | 31 | 295 | 8 | M 20x60 | PN10-PN 10 | 141.6 |
| 600/200 | B | 42 | 770 | 20 | / | 37 | 295 | 12 | M 20x60 | PN16-PN 16 | 141.6 |
| 600/300 | B | 45 | 725 | 20 | / | 31 | 400 | 12 | M 20x60 | PN10-PN 10 | 130.8 |
| 600/300 | B | 59 | 770 | 20 | / | 37 | 410 | 12 | M 24x70 | PN16-PN 16 | 130.8 |
| 600/400 | B | 45 | 725 | 20 | / | 31 | 515 | 16 | M 24x70 | PN10-PN 10 | 115.0 |
| 600/400 | B | 59 | 770 | 20 | / | 37 | 515 | 16 | M 24x70 | PN16-PN 10 | 115.0 |

| DN1/DN2 | Type | b | K1 | n1 | M1 | d | K2 | n2 | M2 | PN | Weight(Kg) |
|----------|------|-----|------|----|----------|----|-----|----|---------|---------------|------------|
| 600/400 | B | 59 | 770 | 20 | / | 37 | 525 | 16 | M 27x80 | PN16-PN 16 | 115.0 |
| 600/450 | B | 59 | 725 | 20 | / | 31 | 565 | 20 | M 24x70 | PN10-PN 10 | 100.0 |
| 600/450 | B | 59 | 770 | 20 | / | 37 | 585 | 20 | M 27x80 | PN16-PN 16 | 100.0 |
| 600/500 | A | 60 | 725 | 20 | M 27x80 | / | 620 | 20 | M 24x70 | PN10-PN 10 | 120.0 |
| 600/500 | A | 60 | 725 | 20 | M 27x80 | / | 650 | 20 | M 30x80 | PN10-PN 16 | 120.0 |
| 600/500 | A | 60 | 770 | 20 | M 33x100 | / | 650 | 20 | M 30x80 | PN16-PN 16 | 120.0 |
| 600/600 | A | 100 | 725 | 20 | M 27x80 | / | 770 | 20 | M 33x80 | PN10-PN 16 | 168.3 |
| 700/100 | B | 50 | 840 | 24 | / | 31 | 180 | 8 | M 16x50 | PN10-PN 10/16 | 196.1 |
| 700/150 | B | 50 | 840 | 24 | / | 31 | 240 | 8 | M 20x60 | PN10-PN 10/16 | 180.0 |
| 700/150 | B | 50 | 840 | 24 | / | 37 | 240 | 8 | M 20x60 | PN16-PN 10/16 | 180.0 |
| 700/200 | B | 50 | 840 | 24 | / | 31 | 295 | 8 | M 20x60 | PN10-PN 10 | 200.0 |
| 700/400 | B | 50 | 840 | 24 | / | 31 | 515 | 16 | M 24x70 | PN10-PN 10 | 200.0 |
| 700/500 | B | 50 | 840 | 24 | / | 31 | 620 | 20 | M 24x70 | PN10-PN 10 | 190.0 |
| 700/600 | B | 50 | 840 | 24 | / | 31 | 725 | 20 | M 27x80 | PN10-PN 10 | 170.0 |
| 800/080 | B | 43 | 950 | 24 | / | 34 | 160 | 8 | M 16x50 | PN10-PN 10 | 214.4 |
| 800/200 | B | 43 | 950 | 24 | / | 34 | 295 | 8 | M 20x60 | PN10-PN 10 | 219.5 |
| 800/200 | B | 43 | 950 | 24 | / | 41 | 295 | 12 | M 20x60 | PN16-PN 16 | 219.5 |
| 800/500 | B | 68 | 950 | 24 | / | 34 | 620 | 20 | M 24x70 | PN10-PN 10 | 192.0 |
| 800/600 | B | 65 | 950 | 24 | / | 34 | 725 | 20 | M 27x80 | PN10-PN 10 | 181.0 |
| 800/800 | A | 105 | 950 | 24 | M 30x90 | / | 950 | 24 | M 36x90 | PN10-PN 16 | 165.5 |
| 1000/500 | B | 13 | 1160 | 28 | / | 37 | 620 | 20 | M 24x70 | PN10-PN 10 | 332.0 |
| 1000/500 | B | 13 | 1170 | 28 | / | 44 | 650 | 20 | M 30x80 | PN16-PN 16 | 332.0 |
| 1000/600 | B | 34 | 1160 | 28 | / | 37 | 725 | 20 | M 27x80 | PN10-PN 10 | 320.0 |
| 1000/600 | B | 34 | 1170 | 28 | / | 44 | 770 | 20 | M 33x80 | PN16-PN 16 | 320.0 |
| 1000/800 | B | 71 | 1160 | 28 | / | 37 | 950 | 24 | M 30x90 | PN10-PN 10 | 268.0 |
| 1000/800 | B | 71 | 1170 | 28 | / | 44 | 950 | 24 | M 36x90 | PN16-PN 16 | 268.0 |

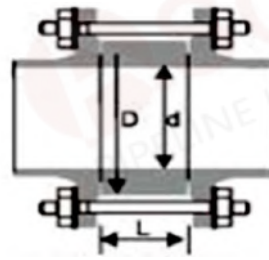


SPLIT/LOOSING PUDDLE FLANGE



| DN | D | L | d | Weight (Kg) |
|------|------|-----|------|-------------|
| 80 | 260 | 110 | 100 | 11.5 |
| 100 | 305 | 110 | 120 | 14.5 |
| 150 | 390 | 130 | 172 | 23 |
| 200 | 430 | 130 | 224 | 28 |
| 250 | 490 | 130 | 276 | 37 |
| 300 | 555 | 130 | 329 | 46 |
| 350 | 610 | 130 | 381 | 50 |
| 400 | 660 | 150 | 432 | 62 |
| 450 | 725 | 150 | 483 | 73 |
| 500 | 790 | 150 | 535 | 85 |
| 600 | 900 | 165 | 638 | 120 |
| 700 | 1000 | 165 | 746 | 144 |
| 800 | 1100 | 185 | 850 | 189 |
| 900 | 1200 | 185 | 953 | 221 |
| 1000 | 1340 | 200 | 1056 | 342 |
| 1200 | 1570 | 225 | 1263 | 487 |
| 1400 | 1780 | 225 | 1470 | 634 |
| 1600 | 1996 | 225 | 1686 | 702 |

PIPE BLOCK



| DN | d | D | L (Min) | L (Max) | Weight (Kg)/m |
|------|------|------|---------|---------|---------------|
| 80 | 76 | 133 | 15 | 105 | 66 |
| 100 | 100 | 153 | 15 | 120 | 74 |
| 150 | 150 | 209 | 15 | 130 | 117 |
| 200 | 200 | 264 | 15 | 140 | 164 |
| 250 | 250 | 319 | 20 | 155 | 217 |
| 300 | 300 | 367 | 20 | 170 | 247 |
| 350 | 350 | 432 | 20 | 180 | 355 |
| 400 | 400 | 484 | 20 | 195 | 411 |
| 450 | 450 | 544 | 20 | 205 | 517 |
| 500 | 500 | 606 | 20 | 220 | 649 |
| 600 | 600 | 721 | 30 | 245 | 885 |
| 700 | 704 | 791 | 30 | 245 | 746 |
| 800 | 802 | 898 | 30 | 245 | 934 |
| 900 | 897 | 998 | 30 | 250 | 1093 |
| 1000 | 1003 | 1115 | 35 | 270 | 1276 |
| 1200 | 1203 | 1328 | 35 | 310 | 1752 |
| 1400 | 1404 | 1530 | 40 | 375 | 2047 |
| 1600 | 1604 | 1750 | 40 | 375 | 2711 |

**WELD-ON FLANGE(SHORT NECK)
SCREW-ON FLANGE**



WELD-ON FLANGE(LONG NECK)

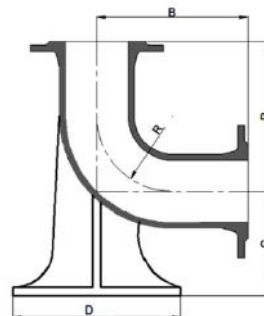


| DN | PN10 | | PN16 | |
|------|-------|---------|-------|---------|
| | Kg/pc | Kg/2pcs | Kg/pc | Kg/2pes |
| 80 | 3.5 | 7 | 3.5 | 7 |
| 100 | 4 | 8 | 4 | 8 |
| 125 | 5 | 10 | 5 | 10 |
| 150 | 6.1 | 12.2 | 6.1 | 12.2 |
| 200 | 8.5 | 17 | 8.3 | 16.6 |
| 250 | 11.8 | 23.6 | 11.4 | 22.8 |
| 300 | 15.6 | 31.2 | 15.2 | 30.4 |
| 350 | 17.6 | 35.2 | 20.7 | 41.4 |
| 400 | 20.5 | 41 | 26.1 | 52.2 |
| 450 | 24.1 | 48.2 | 32.7 | 65.4 |
| 500 | 27.6 | 55.2 | 42.8 | 85.6 |
| 600 | 38.4 | 76.8 | 64.9 | 129.8 |
| 700 | 50.2 | 100.4 | 65.3 | 130.6 |
| 800 | 66.7 | 133.4 | 85.9 | 171.8 |
| 900 | 78.7 | 157.4 | 102.6 | 205.2 |
| 1000 | 98.6 | 197.2 | 140.1 | 280.2 |
| 1200 | 114.2 | 228.4 | 208.5 | 417 |
| 1400 | 178.2 | 356.4 | 246.3 | 492.6 |
| 1600 | 244.7 | 489.4 | 346.7 | 693.4 |
| 1800 | 283.5 | 567 | 409.4 | 818.8 |
| 2000 | 336.4 | 672.8 | 489.2 | 978.4 |

| DN | PN10 | | PN16 | | PN25 | |
|------|-------|---------|-------|---------|-------|---------|
| | Kg/pc | Kg/2pcs | Kg/pc | Kg/2pes | Kg/pc | Kg/2pes |
| 80 | 4 | 8 | 4 | 8 | 4 | 8 |
| 100 | 5 | 10 | 5 | 10 | 5.5 | 11 |
| 150 | 8 | 16 | 8 | 16 | 9 | 18 |
| 200 | 11 | 22 | 11 | 22 | 13 | 26 |
| 250 | 15 | 30 | 15 | 30 | 19 | 38 |
| 300 | 19 | 38 | 19 | 38 | 24 | 48 |
| 350 | 26 | 52 | 29 | 58 | 38 | 76 |
| 400 | 31 | 62 | 35 | 70 | 47 | 94 |
| 450 | 36 | 72 | 43 | 86 | 59 | 118 |
| 500 | 45 | 90 | 60 | 120 | 72 | 144 |
| 600 | 59 | 118 | 85 | 170 | 100 | 200 |
| 700 | 95 | 190 | 108 | 216 | 143 | 286 |
| 800 | 100 | 200 | 117 | 234 | 167 | 234 |
| 900 | 125 | 250 | 143 | 286 | 204 | 408 |
| 1000 | 145 | 290 | 180 | 360 | 258 | 516 |
| 1200 | 180 | 360 | 235 | 470 | 335 | 670 |
| 1400 | 225 | 450 | 290 | 580 | / | / |
| 1600 | 280 | 560 | 450 | 900 | / | / |
| 1800 | / | / | 533 | 1066 | / | / |

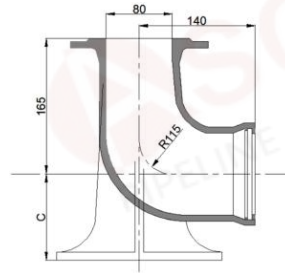
DOUBLE FLANGED 90°HYDRANT DUCKFOOT BEND

| DN | | B | C | D | Weight (Kg) |
|------|--------|-----|-----|-----|-------------|
| B0dy | Branch | | | | |
| 80 | 80 | 165 | 110 | 180 | 14 |
| 100 | 80 | 180 | 125 | 200 | 17 |
| 150 | 80 | 220 | 160 | 200 | 28 |

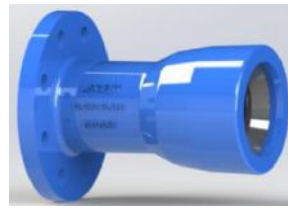


FLANGE SOCKET 90°SHORT HYDRANT DUCKFOOT BEND

| DN | C | Weight (Kg) |
|-----|-----|-------------|
| 80 | 95 | 12.5 |
| 100 | 105 | 15.9 |
| 150 | 130 | 21.5 |

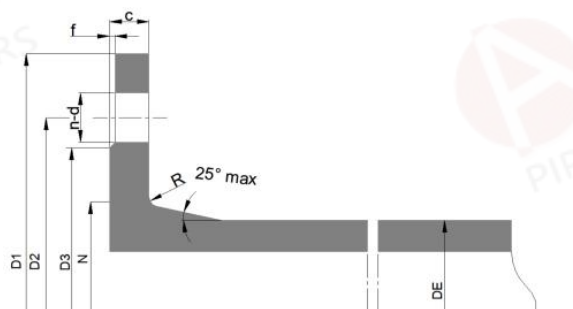


FLANGE SOCKET A&B SERIES (B series up to DN450)



| DN | L | T-type Weight (Kg) | | | K-type Weight (Kg) | | |
|------|-----|---------------------|-------|-------|--------------------|-------|-------|
| | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 40 | 125 | 4.7 | 4.7 | 4.7 | / | / | / |
| 50 | 125 | 5.4 | 5.4 | 5.4 | / | / | / |
| 60 | 125 | 6.2 | 6.2 | 6.2 | / | / | / |
| 65 | 125 | 6.7 | 6.7 | 6.7 | / | / | / |
| 80 | 130 | 7.6 | 7.6 | 7.6 | 9.6 | 9.6 | 9.6 |
| 100 | 130 | 9.1 | 9.1 | 9.6 | 11.4 | 11.4 | 12.4 |
| 125 | 135 | 11.9 | 11.9 | 12.5 | 13.8 | 13.8 | 14.4 |
| 150 | 135 | 14.2 | 14.2 | 15.2 | 16.7 | 16.7 | 17.7 |
| 200 | 140 | 20.5 | 20 | 22 | 22.7 | 22.7 | 24.5 |
| 250 | 145 | 30 | 32 | 33.3 | 30.7 | 30.3 | 34 |
| 300 | 150 | 37 | 36.5 | 42 | 45.4 | 45.1 | 50.3 |
| 350 | 155 | 45 | 48 | 56 | 52.9 | 55.7 | 63.6 |
| 400 | 160 | 55 | 60 | 71 | 62.2 | 68.7 | 77.9 |
| 450 | 165 | 66.5 | 86.2 | 87.5 | 72.8 | 82.1 | 92.5 |
| 500 | 170 | 78 | 93 | 104 | 85.7 | 100.1 | 110.5 |
| 600 | 180 | 108 | 135 | 149 | 114.6 | 139.6 | 152 |
| 700 | 190 | 144 | 159 | 216 | 161 | 176 | 211 |
| 800 | 200 | 189 | 235 | 287 | 206 | 225 | 274 |
| 900 | 210 | 262.5 | 284.1 | 356 | 257 | 281 | 341 |
| 1000 | 220 | 328.3 | 366 | 458 | 307.3 | 345 | 417.6 |
| 1100 | 230 | 406.0 | 442.6 | 526.6 | 367.8 | 406.2 | 490.2 |
| 1200 | 240 | 496 | 554.3 | 664 | 456 | 521 | 664 |
| 1400 | 310 | 759.4 | 820.3 | 960 | 654 | 723 | 882 |
| 1500 | 330 | 1007 | 1083 | 1233 | 724.6 | 800.6 | 950.6 |
| 1600 | 330 | 1185 | 1278 | 1438 | 897 | 999 | 1176 |
| 1800 | 350 | 1308 | 1421 | 1638 | 1137 | 1263 | 1503 |
| 2000 | 370 | / | / | / | 1428 | 1581 | 1933 |
| 2200 | 390 | / | / | / | 1783 | 1950 | / |
| 2400 | 410 | / | / | / | 2140 | 2465 | / |
| 2600 | 480 | / | / | / | 2679 | 3045 | / |

DIMENSIONS OF FLANGE PN10 PN16 PN25 PN40



● **PN10 Flange**

| DN | D1 | D2 | D3 | c | f | N | R | n | d | Bolt Size | Weight (Kg) |
|------|------|------|------|------|---|--------|----|----|----|-----------|-------------|
| 40 | 150 | 110 | 84 | 19 | 3 | 71 | 6 | 4 | 19 | M16 | 1.8 |
| 50 | 165 | 125 | 99 | 19 | 3 | 81 | 6 | 4 | 19 | M16 | 2.1 |
| 60 | 175 | 135 | 108 | 19 | 3 | 92 | 6 | 4 | 19 | M16 | 2.3 |
| 65 | 185 | 145 | 118 | 19 | 3 | 97 | 6 | 4 | 19 | M16 | 2.6 |
| 80 | 200 | 160 | 132 | 19 | 3 | 120 | 6 | 8 | 19 | M16*65 | 2.9 |
| 100 | 220 | 180 | 156 | 19 | 3 | 140 | 6 | 8 | 19 | M16*65 | 3.3 |
| 125 | 250 | 210 | 184 | 19 | 3 | 159 | 6 | 8 | 19 | M16 | 3.9 |
| 150 | 285 | 240 | 211 | 19 | 3 | 190 | 8 | 8 | 23 | M20*70 | 4.9 |
| 200 | 340 | 295 | 266 | 20 | 3 | 246 | 8 | 8 | 23 | M20*70 | 6.8 |
| 250 | 400 | 350 | 319 | 22 | 3 | 298 | 10 | 12 | 23 | M20*80 | 9.6 |
| 300 | 455 | 400 | 370 | 24.5 | 4 | 348 | 10 | 12 | 23 | M20*80 | 12.8 |
| 350 | 505 | 460 | 429 | 24.5 | 4 | 408 | 10 | 16 | 23 | M20*80 | 14.1 |
| 400 | 565 | 515 | 480 | 24.5 | 4 | 456 | 10 | 16 | 28 | M24*85 | 16.3 |
| 450 | 615 | 565 | 530 | 24.5 | 4 | 502 | 12 | 20 | 28 | M24*85 | 18.1 |
| 500 | 670 | 620 | 582 | 26.5 | 4 | 559 | 12 | 20 | 28 | M24*85 | 20.8 |
| 600 | 780 | 725 | 682 | 30 | 5 | 658 | 12 | 20 | 31 | M27*100 | 30.8 |
| 700 | 895 | 840 | 794 | 32.5 | 5 | 772 | 16 | 24 | 31 | M27*100 | 40.5 |
| 800 | 1015 | 950 | 901 | 35 | 5 | 876 | 16 | 24 | 34 | M30*110 | 54.8 |
| 900 | 1115 | 1050 | 1001 | 37.5 | 5 | 976 | 16 | 28 | 34 | M30*120 | 64.3 |
| 1000 | 1230 | 1160 | 1112 | 40 | 5 | 1080 | 16 | 28 | 37 | M33*130 | 81.4 |
| 1100 | 1340 | 1270 | 1218 | 42.5 | 5 | 1182 | 20 | 32 | 37 | M33 | 97.0 |
| 1200 | 1455 | 1380 | 1328 | 45 | 5 | 1292 | 20 | 32 | 40 | M36*140 | 120.9 |
| 1400 | 1675 | 1590 | 1530 | 46 | 5 | 1496 | 20 | 36 | 43 | M39*150 | 147.8 |
| 1500 | 1786 | 1700 | 1640 | 47.5 | 5 | 1598 | 20 | 36 | 43 | M39 | 176.0 |
| 1600 | 1915 | 1820 | 1750 | 49 | 5 | 1712 | 20 | 40 | 49 | M45*160 | 206.4 |
| 1800 | 2115 | 2020 | 1950 | 52 | 5 | 1910 | 20 | 44 | 49 | M45*160 | 236.3 |
| 2000 | 2325 | 2230 | 2150 | 55 | 5 | 2120 | 20 | 48 | 49 | M45*170 | 279.4 |
| 2200 | 2550 | 2440 | 2370 | 59 | 6 | 2329.5 | 20 | 52 | 56 | M52 | 343.7 |
| 2400 | 2750 | 2650 | 2570 | 62 | 6 | 2538.5 | 20 | 56 | 56 | M52 | 380.0 |
| 2600 | 2960 | 2850 | 2780 | 65 | 6 | 2747.5 | 20 | 60 | 56 | M52 | 437.2 |

● PN16 Flange

| DN | D1 | D2 | D3 | c | f | N | R | n | d | Bolt Size | Weight |
|------|------|------|------|------|---|--------|----|----|----|-----------|--------|
| 40 | 150 | 110 | 84 | 19 | 3 | 71 | 6 | 4 | 19 | M16 | 1.8 |
| 50 | 165 | 125 | 99 | 19 | 3 | 81 | 6 | 4 | 19 | M16 | 2.1 |
| 60 | 175 | 135 | 108 | 19 | 3 | 92 | 6 | 4 | 19 | M16 | 2.3 |
| 65 | 185 | 145 | 118 | 19 | 3 | 97 | 6 | 4 | 19 | M16 | 2.6 |
| 80 | 200 | 160 | 132 | 19 | 3 | 120 | 6 | 8 | 19 | M16*65 | 2.9 |
| 100 | 220 | 180 | 156 | 19 | 3 | 140 | 6 | 8 | 19 | M16*65 | 3.3 |
| 125 | 250 | 210 | 184 | 19 | 3 | 159 | 6 | 8 | 19 | M16 | 3.9 |
| 150 | 285 | 240 | 211 | 19 | 3 | 190 | 8 | 8 | 23 | M20*70 | 4.9 |
| 200 | 340 | 295 | 266 | 20 | 3 | 246 | 8 | 12 | 23 | M20*70 | 6.6 |
| 250 | 400 | 355 | 319 | 22 | 3 | 296 | 10 | 12 | 28 | M24*90 | 9.2 |
| 300 | 455 | 410 | 370 | 24.5 | 4 | 350 | 10 | 12 | 28 | M24*90 | 12.4 |
| 350 | 520 | 470 | 429 | 26.5 | 4 | 410 | 10 | 16 | 28 | M24*90 | 17.2 |
| 400 | 580 | 525 | 480 | 28 | 4 | 458 | 10 | 16 | 31 | M27*100 | 21.9 |
| 450 | 640 | 585 | 548 | 30 | 4 | 516 | 12 | 20 | 31 | M27*100 | 26.7 |
| 500 | 715 | 650 | 609 | 31.5 | 4 | 576 | 12 | 20 | 34 | M30*110 | 37.0 |
| 600 | 840 | 770 | 720 | 36 | 5 | 690 | 12 | 20 | 37 | M33*120 | 57.3 |
| 700 | 910 | 840 | 794 | 39.5 | 5 | 760 | 16 | 24 | 37 | M33*120 | 65.6 |
| 800 | 1025 | 950 | 901 | 43 | 5 | 862 | 16 | 24 | 40 | M36*140 | 74.0 |
| 900 | 1125 | 1050 | 1001 | 46.5 | 5 | 962 | 16 | 28 | 40 | M36*140 | 88.2 |
| 1000 | 1255 | 1170 | 1112 | 50 | 5 | 1076 | 16 | 28 | 43 | M39*150 | 122.9 |
| 1100 | 1355 | 1270 | 1218 | 53.5 | 5 | 1189.5 | 20 | 32 | 43 | M39 | 135.4 |
| 1200 | 1485 | 1390 | 1328 | 57 | S | 1282 | 20 | 32 | 49 | M45*170 | 185.2 |
| 1400 | 1685 | 1590 | 1530 | 60 | 5 | 1482 | 20 | 36 | 49 | M45*180 | 215.9 |
| 1500 | 1820 | 1710 | 1640 | 62.5 | 5 | 1608 | 20 | 36 | 56 | M52 | 252.0 |
| 1600 | 1930 | 1820 | 1750 | 65 | 5 | 1696 | 20 | 40 | 56 | M52*190 | 308.4 |
| 1800 | 2130 | 2020 | 1950 | 70 | 5 | 1896 | 20 | 44 | 56 | M52*200 | 362.2 |
| 2000 | 2345 | 2230 | 2150 | 75 | 5 | 2100 | 20 | 48 | 62 | M56*220 | 432.2 |
| 2200 | 2555 | 2440 | 2370 | 81 | 6 | 2344.5 | 20 | 52 | 62 | M56 | 501.0 |
| 2400 | 2765 | 2650 | 2570 | 86 | 6 | 2555 | 20 | 56 | 62 | M56 | 587.0 |
| 2600 | 2965 | 2850 | 2780 | 91 | 6 | 2765.5 | 20 | 60 | 62 | M56 | 654.6 |

● PN25 Flange

| DN | D1 | D2 | D3 | c | f | N | R | n | d | Bolt | Weight |
|-----|-----|-----|-----|------|---|-----|----|----|----|---------|--------|
| 40 | 150 | 110 | 84 | 19 | 3 | 71 | 6 | 4 | 19 | M16 | 1.8 |
| 50 | 165 | 125 | 99 | 19 | 3 | 81 | 6 | 4 | 19 | M16 | 2.1 |
| 60 | 175 | 135 | 108 | 19 | 3 | 92 | 6 | 8 | 19 | M16 | 2.3 |
| 65 | 185 | 145 | 118 | 19 | 3 | 97 | 6 | 8 | 19 | M16 | 2.6 |
| 80 | 200 | 160 | 132 | 19 | 3 | 120 | 6 | 8 | 19 | M16*65 | 2.9 |
| 100 | 235 | 190 | 156 | 19 | 3 | 142 | 6 | 8 | 23 | M20*70 | 3.8 |
| 125 | 270 | 220 | 184 | 19 | 3 | 159 | 6 | 8 | 28 | M24 | 4.5 |
| 150 | 300 | 250 | 211 | 20 | 3 | 192 | 8 | 8 | 28 | M24*80 | 5.9 |
| 200 | 360 | 310 | 274 | 22 | 3 | 252 | 8 | 12 | 28 | M24*80 | 8.7 |
| 250 | 425 | 370 | 330 | 24.5 | 3 | 304 | 10 | 12 | 31 | M27*90 | 13.1 |
| 300 | 485 | 430 | 389 | 27.5 | 4 | 364 | 10 | 16 | 31 | M27*90 | 18.0 |
| 350 | 555 | 490 | 448 | 30 | 4 | 418 | 10 | 16 | 34 | M30*110 | 25.5 |
| 400 | 620 | 550 | 503 | 32 | 4 | 472 | 10 | 16 | 37 | M33*120 | 33.2 |
| 450 | 670 | 600 | 548 | 34.5 | 4 | 520 | 12 | 20 | 37 | M33*120 | 42.2 |
| 500 | 730 | 660 | 609 | 36.5 | 4 | 580 | 12 | 20 | 37 | M33*120 | 48.7 |
| 600 | 845 | 770 | 720 | 42 | 5 | 684 | 12 | 20 | 40 | M36*140 | 71.5 |
| 700 | 960 | 875 | 820 | 46.5 | 5 | 780 | 16 | 24 | 43 | M39*150 | 90.3 |

| DN | D1 | D2 | D3 | c | f | N | R | n | d | Bolt | Weight |
|------|------|------|------|------|---|------|----|----|----|---------|--------|
| 800 | 1085 | 990 | 928 | 51 | 5 | 882 | 16 | 24 | 49 | M45*160 | 123.2 |
| 900 | 1185 | 1090 | 1028 | 55.5 | 5 | 982 | 16 | 28 | 49 | M45*170 | 148.6 |
| 1000 | 1320 | 1210 | 1140 | 60 | 5 | 1086 | 16 | 28 | 56 | M52*180 | 200.7 |
| 1100 | 1420 | 1310 | 1240 | 64.5 | 5 | 1197 | 20 | 32 | 56 | M52 | 219.4 |
| 1200 | 1530 | 1420 | 1350 | 69 | 5 | 1296 | 20 | 32 | 56 | M52*200 | 284.7 |
| 1400 | 1755 | 1640 | 1560 | 74 | 5 | 1508 | 20 | 36 | 62 | M56*220 | 368.1 |
| 1600 | 1975 | 1860 | 1780 | 81 | 5 | 1726 | 20 | 40 | 62 | M56*230 | 485.5 |
| 1800 | 2195 | 2070 | 1985 | 88 | 5 | 1920 | 20 | 44 | 70 | M64*260 | 601.9 |
| 2000 | 2425 | 2300 | 2210 | 95 | 5 | 2150 | 20 | 48 | 70 | M64*270 | 784.9 |

● PN40 Flange

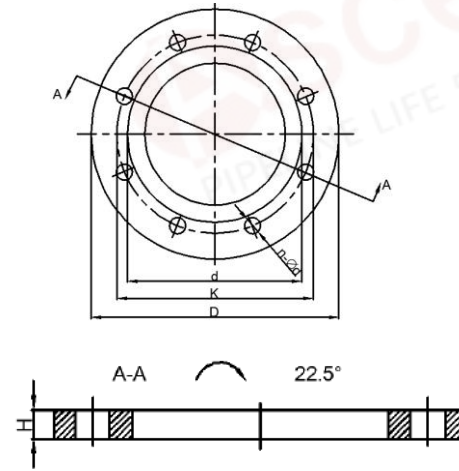
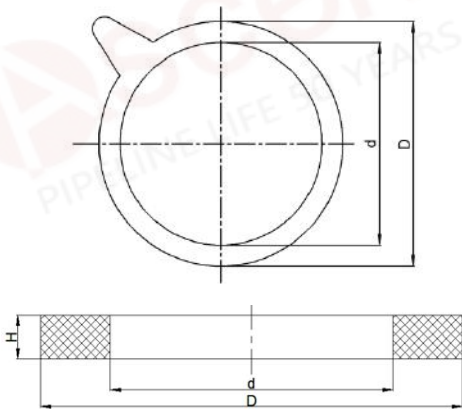
| DN | D1 | D2 | D3 | c | f | N | R | n | d | Bolt | Weight |
|-----|-----|-----|-----|------|---|-----|----|----|----|---------|--------|
| 80 | 200 | 160 | 132 | 19 | 3 | 120 | 6 | 8 | 19 | M16*65 | 2.9 |
| 100 | 235 | 190 | 156 | 19 | 3 | 142 | 6 | 8 | 23 | M20*70 | 3.8 |
| 150 | 300 | 250 | 211 | 26 | 3 | 192 | 8 | 8 | 28 | M24*90 | 8.0 |
| 200 | 375 | 320 | 284 | 30 | 3 | 254 | 8 | 12 | 31 | M27*100 | 14.0 |
| 250 | 450 | 385 | 345 | 34.5 | 3 | 312 | 10 | 12 | 34 | M30*110 | 23.2 |
| 300 | 515 | 450 | 409 | 39.5 | 4 | 378 | 10 | 16 | 34 | M30*120 | 33.5 |
| 350 | 580 | 510 | 465 | 40 | 4 | 432 | 10 | 16 | 37 | M33*130 | 46.7 |
| 400 | 660 | 585 | 535 | 48 | 4 | 498 | 10 | 16 | 40 | M36*140 | 66.9 |
| 450 | 685 | 610 | 560 | 50 | 4 | 522 | 12 | 20 | 40 | M36*150 | 65.5 |
| 500 | 755 | 670 | 615 | 52 | 4 | 576 | 12 | 20 | 43 | M39*150 | 82.3 |
| 600 | 890 | 795 | 735 | 58 | 5 | 686 | 12 | 20 | 49 | M45*170 | 124.1 |

TOLERANCES ON FLANGE DIMENSIONS

| Tolerances on dimensions | | | | | | | | | | | |
|----------------------------------|-----------------------|-----------|---|------------|------------|------------|------------|-------------|----------|-------|-----|
| Lincar dimensions in millimetres | | | | | | | | | | | |
| Symbol | Designation | | Tolerances | | | | | | | | |
| D | outside diameter | | Not specified but the minimum shall provide a sufficient bearing area for standard hexagonal bolt | | | | | | | | |
| d | Facing diameter | For DN | ≤100 | 120 to 300 | | 350 to 600 | | 700 to 1200 | | ≥1400 | |
| | | Tolerance | -4 | -4.5 | | -5.5 | | -5.5 | | -6 | |
| | | | Maximum diameter can be greater than the nominal value, but no plus tolerance is given in this standard | | | | | | | | |
| j | Facing height | | j=1mm minimum | | | | | | | | |
| b (=c-f) | Flange thickness | Thickness | ≤35 | | 36 to 45 | | 46 to 60 | | 61 to 75 | | >76 |
| | | Tolerance | +4 | +4.5 | | +5 | | +6 | | +7 | |
| | | | -3 | | -4 | | -4 | | -5 | | -6 |
| L | Bolt hole diameter | | ≤M33 | | | M36 to M39 | | M45 to M52 | | >M52 | |
| | | | +1.5 | | | +2 | | +2.5 | | | |
| | | | 0 | | | 0 | | 0 | | | |
| | Position of bolt hole | | M10 | M12 | M14 to M20 | M24 to M33 | M36 to M52 | | >M52 | | |
| | | | 1 | 2 | 3 | 4 | 5 | | 6 | | |
| | Facing draught angle | | ≤2° | | | | | | | | |

1) The position of bolt holes takes into account the tolerances on bolt circle diameter and centre to centre.
2) For explanation see ISO 5458:1987.

FLANGE RUBBER GASKET



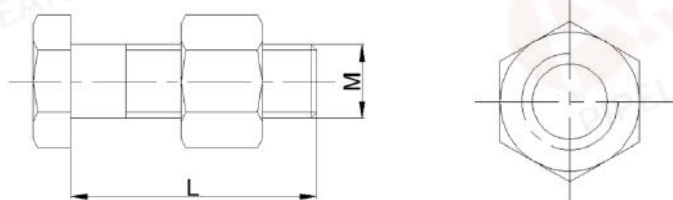
● Inside Bolt Circle EPDM Gasket

● Full Face EPDM Gasket

| DN | D | d | H |
|------|------|------|---|
| | PN16 | | |
| 80 | 132 | 80 | 3 |
| 100 | 156 | 100 | 3 |
| 150 | 211 | 150 | 3 |
| 200 | 266 | 200 | 3 |
| 250 | 319 | 250 | 4 |
| 300 | 370 | 300 | 4 |
| 350 | 429 | 350 | 4 |
| 400 | 480 | 400 | 4 |
| 450 | 548 | 450 | 4 |
| 500 | 609 | 500 | 5 |
| 600 | 720 | 600 | 5 |
| 700 | 794 | 700 | 5 |
| 800 | 901 | 800 | 5 |
| 900 | 1001 | 900 | 5 |
| 1000 | 1112 | 1000 | 5 |
| 1100 | 1218 | 1100 | 5 |
| 1200 | 1328 | 1200 | 5 |
| 1400 | 1542 | 1400 | 5 |
| 1600 | 1765 | 1620 | 5 |
| 1800 | 1965 | 1820 | 5 |
| 2000 | 2170 | 2020 | 5 |

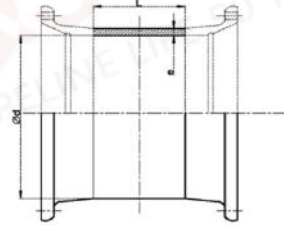
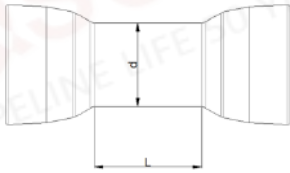
| DN | PN10 | | | | | PN16 | | | | |
|------|------|------|------|-------|-------|------|------|-----|-------|------|
| | D | K | d | H | n-Ød | D | K | d | H | n-Ød |
| 40 | 150 | 110 | 84 | 3 | 4-19 | 150 | 110 | 84 | 3 | 4-19 |
| 50 | 165 | 125 | 99 | | | 165 | 125 | 99 | | |
| 60 | 175 | 135 | 109 | | | 175 | 135 | 109 | | |
| 65 | 185 | 145 | 118 | | | 185 | 145 | 118 | | |
| 80 | 200 | 160 | 132 | | | 200 | 160 | 132 | | |
| 100 | 220 | 180 | 156 | | | 220 | 180 | 156 | | |
| 125 | 250 | 210 | 184 | 8-19 | 250 | 210 | 184 | 3 | 8-19 | |
| 150 | 285 | 240 | 211 | | 285 | 240 | 211 | | | |
| 200 | 340 | 295 | 266 | | 340 | 295 | 266 | | | |
| 250 | 400 | 350 | 319 | | 400 | 355 | 319 | | | |
| 300 | 455 | 400 | 370 | 4 | 455 | 410 | 370 | 4 | 12-28 | |
| 350 | 505 | 460 | 429 | | 520 | 470 | 429 | | | |
| 400 | 565 | 515 | 480 | | 580 | 525 | 480 | | | |
| 450 | 615 | 565 | 530 | | 640 | 585 | 548 | | | |
| 500 | 670 | 620 | 582 | | 715 | 650 | 609 | | | |
| 600 | 780 | 725 | 682 | | 840 | 770 | 720 | | | |
| 700 | 895 | 840 | 794 | 5 | 910 | 840 | 794 | 5 | 24-37 | |
| 800 | 1015 | 950 | 901 | | 1025 | 950 | 901 | | | |
| 900 | 1115 | 1050 | 1001 | | 1125 | 1050 | 1001 | | | |
| 1000 | 1230 | 1160 | 1112 | | 1255 | 1170 | 1112 | | | |
| 1200 | 1455 | 1380 | 1328 | | 1485 | 1390 | 1328 | | | |
| 1400 | 1675 | 1590 | 1530 | | 1685 | 1590 | 1530 | | | |
| 1600 | 1915 | 1820 | 1750 | | 1930 | 1820 | 1750 | | | |
| | | | | | 20-28 | 715 | 650 | | | 609 |
| | | | | 20-31 | 840 | 770 | 720 | 5 | 20-37 | |
| | | | | 24-31 | 910 | 840 | 794 | 5 | 24-37 | |
| | | | | 24-34 | 1025 | 950 | 901 | 5 | 24-40 | |
| | | | | 28-34 | 1125 | 1050 | 1001 | 5 | 28-40 | |
| | | | | 28-37 | 1255 | 1170 | 1112 | 5 | 28-43 | |
| | | | | 32-40 | 1485 | 1390 | 1328 | 5 | 32-49 | |
| | | | | 36-43 | 1685 | 1590 | 1530 | 5 | 36-49 | |
| | | | | 40-49 | 1930 | 1820 | 1750 | 5 | 40-56 | |

HEXAGONAL BOLTS, NUTS



| DN | PN10 | | PN16 | | PN25 | | PN40 | |
|------|------|---------|------|---------|------|---------|------|---------|
| | n | MxL | n | MxL | n | MxL | n | MxL |
| 80 | 8 | M16X65 | 8 | M16X65 | 8 | M16X65 | 8 | M16X65 |
| 100 | 8 | M16X65 | 8 | M16X65 | 8 | M20X70 | 8 | M20X70 |
| 125 | 8 | M16X65 | 8 | M16X65 | 8 | M24X80 | 8 | M24X80 |
| 150 | 8 | M20X70 | 8 | M20X70 | 8 | M24X80 | 8 | M24X90 |
| 200 | 8 | M20X70 | 12 | M20X70 | 12 | M24X80 | 12 | M27X100 |
| 250 | 12 | M20X80 | 12 | M24X90 | 12 | M27X90 | 12 | M30X110 |
| 300 | 12 | M20X80 | 12 | M24X90 | 16 | M27X90 | 16 | M30X120 |
| 350 | 16 | M20X80 | 16 | M24X90 | 16 | M30X110 | 16 | M33X130 |
| 400 | 16 | M24X90 | 16 | M27X100 | 16 | M33X120 | 16 | M36X140 |
| 450 | 20 | M24X90 | 20 | M27X100 | 20 | M33X120 | 20 | M36X150 |
| 500 | 20 | M24X90 | 20 | M30X110 | 20 | M33X120 | 20 | M39X150 |
| 600 | 20 | M27X100 | 20 | M33X120 | 20 | M36X140 | 20 | M45X170 |
| 700 | 24 | M27X100 | 24 | M33X120 | 24 | M39X140 | / | / |
| 800 | 24 | M30X110 | 24 | M36X140 | 24 | M45X160 | / | / |
| 900 | 28 | M30X120 | 28 | M36X140 | 28 | M45X170 | / | / |
| 1000 | 28 | M33X130 | 28 | M39X150 | 28 | M45X180 | / | / |
| 1100 | 32 | M33X130 | 32 | M39X160 | 32 | M52X180 | / | / |
| 1200 | 32 | M36X140 | 32 | M45X170 | 32 | M52X200 | / | / |
| 1400 | 36 | M39X150 | 36 | M45X180 | 36 | M56X220 | / | / |
| 1500 | 36 | M39X150 | 36 | M52X190 | 36 | M56X230 | / | / |
| 1600 | 40 | M45X160 | 40 | M52X190 | 40 | M56X230 | / | / |
| 1800 | 44 | M45X160 | 44 | M52X200 | 44 | M64X260 | / | / |
| 2000 | 48 | M45X170 | 48 | M56X220 | 48 | M64X270 | / | / |
| 2200 | 52 | M52X190 | 52 | M56X230 | / | / | / | / |
| 2400 | 56 | M52X200 | 56 | M56X240 | / | / | / | / |
| 2600 | 60 | M52X200 | 60 | M56X250 | / | / | / | / |

T-TYPE & K-TYPE SOCKET FITTING



COLLAR T-TYPE & MJ-K-TYPE(standard length)

| DN | d | L(mm) | Weight (Kg) | | K type include 2 glands |
|------|------|-------|-------------|--------|-------------------------|
| | | | T-type | K-type | |
| 40 | 67 | 155 | 4.6 | / | / |
| 50 | 78 | 155 | 5.4 | / | / |
| 60 | 88 | 155 | 6.3 | / | / |
| 65 | 93 | 155 | 6.6 | / | / |
| 80 | 109 | 160 | 7.9 | 11.6 | 19.8 |
| 100 | 130 | 160 | 9.9 | 14.7 | 22.9 |
| 125 | 156 | 165 | 12.9 | / | / |
| 150 | 183 | 165 | 15.9 | 20.3 | 31.7 |
| 200 | 235 | 170 | 23 | 27.4 | 42.4 |
| 250 | 288 | 175 | 31.5 | 34.3 | 53.3 |
| 300 | 340 | 180 | 41 | 51.8 | 76.2 |
| 350 | 393 | 185 | 52 | 62.4 | 91.9 |
| 400 | 445 | 190 | 64 | 74.4 | 109 |
| 450 | 498 | 195 | 91 | 96.2 | 142 |
| 500 | 550 | 200 | 93 | 98.8 | 145 |
| 600 | 655 | 210 | 129 | 125 | 182 |
| 700 | 760 | 220 | 172 | 202 | 280 |
| 800 | 865 | 230 | 225.7 | 250 | 345 |
| 900 | 970 | 240 | 291 | 319 | 443 |
| 1000 | 1075 | 250 | 357 | 349 | 477 |
| 1100 | 1180 | 260 | 455 | / | / |
| 1200 | 1285 | 270 | 566 | 560 | 725 |
| 1400 | 1477 | 340 | 890 | 816 | 1024 |
| 1500 | 1596 | 350 | 1113 | / | / |
| 1600 | 1683 | 360 | 1395 | 1094 | 1340 |
| 1800 | 1889 | 380 | 1822 | 1426 | 1750 |
| 2000 | 2095 | 400 | / | 1818 | 2210 |
| 2200 | 2316 | 420 | / | / | / |
| 2400 | 2521 | 440 | / | / | / |
| 2600 | 2728 | 460 | / | / | / |

COLLAR MJ-K-TYPE(long type)

| DN | d | L(mm) | Weight (Kg) | K type include 2 glands |
|------|------|-------|-------------|-------------------------|
| 80 | 109 | 410 | 13.5 | 21.7 |
| 100 | 130 | 410 | 16.5 | 24.7 |
| 125 | 156 | 415 | 20.7 | / |
| 150 | 183 | 415 | 24.4 | 35.8 |
| 200 | 235 | 420 | 32.6 | 47.6 |
| 250 | 288 | 425 | 42.5 | 61.5 |
| 300 | 340 | 430 | 61.7 | 86.1 |
| 350 | 393 | 435 | 78.6 | 108 |
| 400 | 445 | 440 | 100.4 | 135 |
| 450 | 498 | 445 | 126.9 | 173 |
| 500 | 550 | 450 | 134.6 | 181 |
| 600 | 655 | 460 | 171.9 | 229 |
| 700 | 760 | 470 | 261.5 | 339 |
| 800 | 865 | 480 | 323.4 | 419 |
| 900 | 970 | 490 | 407.7 | 532 |
| 1000 | 1075 | 500 | 454.4 | 582 |
| 1100 | 1180 | 610 | 627.8 | / |
| 1200 | 1285 | 620 | 760 | 925 |
| 1400 | 1492 | 660 | 1076 | 1284 |
| 1500 | 1596 | 700 | 1248 | / |
| 1600 | 1699 | 710 | 1421 | 1667 |
| 1800 | 1905 | 730 | 1828 | 2152 |
| 2000 | 2107 | 750 | 2301 | 2693 |
| 2200 | 2316 | 770 | 2845 | / |
| 2400 | 2521 | 790 | 3465 | / |
| 2600 | 2728 | 810 | 4166 | / |

DOUBLE SOCKET CONCENTRIC/ECCENTRIC TAPER A&B SERIES (B series up to DN450x400)



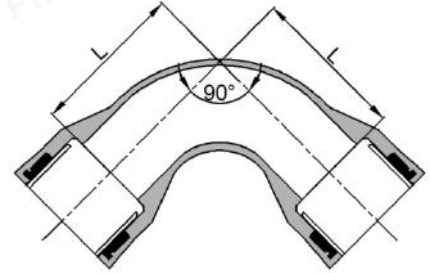
| DN | dn | L(mm) | Weight(Kg) | |
|-----|-----|-------|-------------|--------|
| | | | T-type | K-type |
| 100 | 80 | 90 | 8.5 | 12.3 |
| 150 | 80 | 190 | 13.5 | 17.5 |
| | 100 | 150 | 13.8 | 18.7 |
| 200 | 80 | 290 | 20.5 | 23 |
| | 100 | 250 | 20.5 | 25.2 |
| | 150 | 150 | 21 | 26 |
| 250 | 80 | 390 | 28.5 | 31 |
| | 100 | 300 | 28.5 | 32.2 |
| | 150 | 250 | 29 | 33.2 |
| | 200 | 150 | 29 | 33 |
| 300 | 80 | 490 | 39 | 42.9 |
| | 100 | 450 | 39 | 46.9 |
| | 150 | 350 | 39.5 | 46.9 |
| | 200 | 250 | 39.5 | 46.9 |
| | 250 | 150 | 38.5 | 45.7 |
| 350 | 80 | 600 | 51.5 | 57.9 |
| | 100 | 560 | 50 | 58.2 |
| | 150 | 460 | 52 | 60.1 |
| | 200 | 360 | 52 | 60.1 |
| | 250 | 260 | 51 | 62.1 |
| | 300 | 160 | 49.5 | 64.9 |
| 400 | 80 | 700 | 64 | 71.4 |
| | 100 | 660 | 65 | 72.3 |
| | 150 | 560 | 66.5 | 78.4 |
| | 200 | 460 | 67 | 78.3 |
| | 250 | 360 | 66 | 77.2 |
| | 300 | 260 | 64 | 80.1 |
| | 350 | 160 | 62 | 78 |
| 450 | 80 | 760 | 87.9 | 88.5 |
| | 100 | 760 | 87.9 | 94.2 |
| | 150 | 660 | 88.9 | 95.3 |
| | 200 | 560 | 88.9 | 95.3 |
| | 250 | 460 | 89.2 | 94.2 |
| | 300 | 360 | 88.1 | 97.1 |
| | 350 | 260 | 86 | 95 |
| | 400 | 160 | 83.1 | 92 |
| 500 | 80 | 900 | 101 | 109.8 |
| | 100 | 860 | 101 | 106 |
| | 150 | 760 | 102 | 114 |
| | 200 | 660 | 101 | 114 |
| | 250 | 560 | 101 | 113 |
| | 300 | 460 | 100 | 116 |
| | 350 | 360 | 98 | 115 |
| | 400 | 260 | 94 | 111 |
| | 450 | 160 | 99.5 | 106 |

| DN | dn | L(mm) | Weight(Kg) | |
|------|------|-------|-------------|--------|
| | | | T-type | K-type |
| 600 | 80 | 1100 | 152 | 153 |
| | 100 | 1060 | 152 | 153 |
| | 150 | 960 | 153 | 159 |
| | 200 | 860 | 154 | 159 |
| | 250 | 760 | 153 | 158 |
| | 300 | 660 | 152 | 161 |
| | 350 | 560 | 151 | 159 |
| | 400 | 460 | 142 | 156 |
| | 450 | 360 | 149 | 151 |
| | 500 | 260 | 131 | 145 |
| 700 | 200 | 1080 | 215.9 | 212.9 |
| | 250 | 980 | 216.1 | 212.3 |
| | 300 | 880 | 218.5 | 216.3 |
| | 350 | 780 | 212.4 | 212.9 |
| | 400 | 680 | 206.7 | 208.5 |
| | 450 | 580 | 199.6 | 204.1 |
| | 500 | 480 | 194 | 204 |
| 800 | 400 | 880 | 285 | 277.9 |
| | 450 | 780 | 277.7 | 273.5 |
| | 500 | 680 | 272.2 | 266.6 |
| | 600 | 480 | 252 | 257 |
| | 700 | 280 | 229 | 236 |
| 900 | 400 | 1080 | 387.4 | 366.6 |
| | 450 | 980 | 372.2 | 362.2 |
| | 500 | 880 | 366.8 | 355.4 |
| | 600 | 680 | 349.4 | 336.7 |
| | 700 | 480 | 337.4 | 327 |
| | 800 | 280 | 312.7 | 294 |
| | 600 | 880 | 476 | 445 |
| 1000 | 700 | 680 | 446.3 | 420.8 |
| | 800 | 480 | 392 | 403 |
| | 900 | 280 | 354 | 368 |
| 1100 | 600 | 1080 | 588.5 | 558.4 |
| | 700 | 880 | 576.5 | 535.6 |
| | 800 | 680 | 552.0 | 502.4 |
| | 900 | 480 | 521.0 | 465.6 |
| 1200 | 1000 | 280 | 479.2 | 421.8 |
| | 600 | 1280 | 745 | 691.8 |
| | 700 | 1080 | 729.6 | 669.1 |
| | 800 | 880 | 710.7 | 636 |
| | 900 | 680 | 674.3 | 599.3 |
| | 1000 | 480 | 632.6 | 580 |
| | 1100 | 280 | 584.8 | 492.4 |
| 1400 | 600 | 960 | 844.4 | 704.6 |

| DN | dn | L(mm) | Weight(Kg) | |
|------|------|-------|-------------|--------|
| | | | T-type | K-type |
| 1400 | 700 | 860 | 855.6 | 705 |
| | 800 | 760 | 859.5 | 700.2 |
| | 900 | 660 | 862.8 | 697.7 |
| | 1000 | 560 | 861.6 | 694.5 |
| | 1100 | 460 | 861.4 | 678.9 |
| | 1200 | 360 | 862.2 | 698 |
| 1600 | 800 | 960 | 1207 | 978.7 |
| | 900 | 860 | 1220 | 985.7 |
| | 1000 | 760 | 1211 | 974.1 |
| | 1200 | 560 | 1212 | 940.9 |
| 1800 | 1400 | 360 | 1244 | 936 |
| | 1000 | 960 | 1547 | 1301 |
| | 1200 | 760 | 1549 | 1269 |
| | 1400 | 560 | 1581 | 1210 |
| 2000 | 1600 | 360 | 1605 | 1235 |
| | 1000 | 1160 | / | 1696 |
| | 1200 | 960 | / | 1663 |
| | 1400 | 760 | / | 1605 |
| 2200 | 1800 | 360 | / | 1566 |
| | 1000 | 1360 | / | 2243 |
| | 1200 | 1160 | / | 2325 |
| | 1400 | 960 | / | 2288 |
| | 1600 | 760 | / | 2266 |
| 2400 | 1800 | 560 | / | 2211 |
| | 2000 | 360 | / | 2134 |
| | 1000 | 1460 | / | 2780 |
| | 1200 | 1360 | / | 2865 |
| | 1400 | 1160 | / | 2946 |
| | 1600 | 960 | / | 2892 |
| 2600 | 1800 | 760 | / | 2872 |
| | 2000 | 560 | / | 2797 |
| | 2200 | 360 | / | 2374 |
| | 1000 | 1560 | / | 3177 |
| | 1200 | 1460 | / | 3259 |
| | 1400 | 1360 | / | 3328 |
| | 1600 | 1160 | / | 3285 |
| | 1800 | 960 | / | 3208 |
| 2800 | 2000 | 760 | / | 3109 |
| | 2200 | 560 | / | 2971 |
| | 2400 | 360 | / | 2877 |

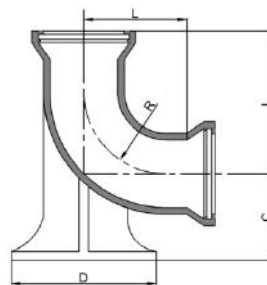
DOUBLE SOCKET 90° BEND A&B SERIES (B series up to DN300)

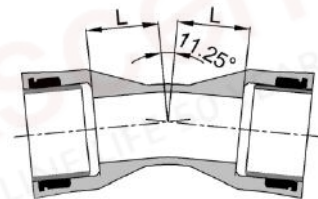
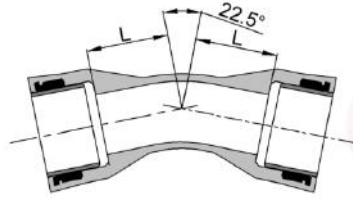
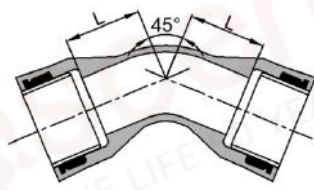
| DN | L(mm) | Weight (Kg) | |
|------|-------|-------------|--------|
| | | T-type | K-type |
| 40 | 60 | 4.2 | / |
| 50 | 70 | 5.3 | / |
| 60 | 80 | 6.3 | / |
| 65 | 85 | 6.9 | / |
| 80 | 100 | 8.6 | 11.1 |
| 100 | 120 | 11.4 | 16.2 |
| 125 | 145 | 15.7 | 19.0 |
| 150 | 170 | 20.5 | 25.5 |
| 200 | 220 | 33 | 37.4 |
| 250 | 270 | 48.5 | 51.3 |
| 300 | 320 | 68 | 80.5 |
| 350 | 370 | 98.4 | 109 |
| 400 | 420 | 129 | 139 |
| 450 | 470 | 163 | 172 |
| 500 | 520 | 204 | 210 |
| 600 | 620 | 303 | 300 |
| 700 | 720 | 436 | 428 |
| 800 | 820 | 595 | 572 |
| 900 | 920 | 793 | 778 |
| 1000 | 1020 | 1045 | 986 |
| 1100 | 1120 | 1358 | 1176 |
| 1200 | 1220 | 1663 | 1624 |
| 1400 | 1220 | 2419 | 2419 |
| 1500 | 1270 | 2985 | 2598 |
| 1600 | 1290 | 3444 | 3014 |
| 1800 | 1320 | 4283 | 3833 |
| 2000 | / | / | / |



DOUBLE SOCKET 90° DUCKFOOT BEND A&B SERIES (B series up to DN300)

| DN | L(mm) | C | D | Weight(Kg) |
|------|-------|-----|------|------------|
| | | | | T-type |
| 100 | 120 | 125 | 200 | 14.8 |
| 150 | 170 | 160 | 250 | 28.5 |
| 200 | 220 | 190 | 300 | 44.5 |
| 250 | 270 | 225 | 350 | 68.5 |
| 300 | 320 | 255 | 400 | 100 |
| 350 | 370 | 290 | 450 | 133 |
| 400 | 420 | 320 | 500 | 180 |
| 450 | 470 | 355 | 550 | 230 |
| 500 | 520 | 385 | 600 | 294 |
| 600 | 620 | 450 | 700 | 442 |
| 700 | 720 | 515 | 800 | 618 |
| 800 | 820 | 580 | 900 | 832 |
| 900 | 920 | 645 | 1000 | 1113 |
| 1000 | 1020 | 710 | 1100 | 1435 |
| 1200 | 1220 | 840 | 1300 | 2153 |





**DOUBLE SOCKET 45° BEND
A&B SERIES (B series up to
DN450)**

| DN | L(mm) | Weight (Kg) | |
|------|-------|-------------|--------|
| | | T-type | K-type |
| 40 | 40 | 4.0 | / |
| 50 | 40 | 5.0 | / |
| 60 | 45 | 5.3 | / |
| 65 | 50 | 6.3 | / |
| 80 | 55 | 7.7 | 10.3 |
| 100 | 65 | 10.1 | 14.9 |
| 125 | 75 | 13.6 | 16.9 |
| 150 | 85 | 17.4 | 22.5 |
| 200 | 110 | 27 | 31.4 |
| 250 | 130 | 38.5 | 41.3 |
| 300 | 150 | 53 | 65.3 |
| 350 | 170 | 70 | 80.5 |
| 400 | 195 | 89 | 99.4 |
| 450 | 220 | 123 | 132 |
| 500 | 240 | 139 | 145.4 |
| 600 | 285 | 202 | 198 |
| 700 | 330 | 282 | 302 |
| 800 | 370 | 378 | 395 |
| 900 | 415 | 496 | 539 |
| 1000 | 460 | 635 | 734 |
| 1100 | 505 | 842.5 | 769.7 |
| 1200 | 550 | 986 | 1109 |
| 1400 | 515 | 1509 | 1273 |
| 1500 | 540 | 1803 | 1415 |
| 1600 | 565 | 2117 | 1740 |
| 1800 | 610 | 2615 | 2296 |
| 2000 | 660 | / | 2970 |
| 2200 | 710 | / | 3762 |
| 2400 | 755 | / | 4854 |
| 2600 | 805 | / | 5943 |

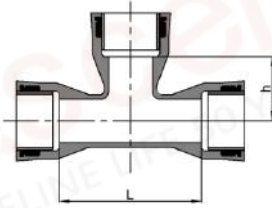
**DOUBLE SOCKET 22.5° BEND
A&B SERIES (A=B series)**

| DN | L(mm) | Weight (Kg) | |
|------|-------|-------------|--------|
| | | T-type | K-type |
| 40 | 30 | 3.8 | / |
| 50 | 30 | 4.8 | / |
| 60 | 35 | 5.5 | / |
| 65 | 35 | 6.0 | / |
| 80 | 40 | 7.3 | 9.9 |
| 100 | 40 | 9.3 | 14.1 |
| 125 | 50 | 12.6 | 15.9 |
| 150 | 55 | 15.9 | 21 |
| 200 | 65 | 24 | 28.4 |
| 250 | 75 | 33.5 | 36.3 |
| 300 | 85 | 44.5 | 55.5 |
| 350 | 95 | 58 | 68.4 |
| 400 | 110 | 74 | 84.4 |
| 450 | 120 | 102 | 110 |
| 500 | 130 | 111 | 117.6 |
| 600 | 150 | 157 | 154 |
| 700 | 175 | 248 | 240 |
| 800 | 195 | 331 | 308 |
| 900 | 220 | 432 | 417 |
| 1000 | 240 | 550 | 469 |
| 1100 | 260 | 710.0 | 568.0 |
| 1200 | 285 | 851 | 689 |
| 1400 | 260 | 1241 | 857 |
| 1500 | 270 | 1410 | 994.6 |
| 1600 | 280 | 1628 | 1198 |
| 1800 | 305 | 2037 | 1588 |
| 2000 | 330 | / | 2144 |
| 2200 | 355 | / | 2707 |
| 2400 | 380 | / | 3548 |
| 2600 | 400 | / | 4309 |

**DOUBLE SOCKET 11.25° BEND
A&B SERIES (A=B series)**

| DN | L(mm) | Weight (Kg) | |
|------|-------|-------------|--------|
| | | T-type | K-type |
| 40 | 25 | 3.7 | / |
| 50 | 25 | 4.7 | / |
| 60 | 25 | 5.4 | / |
| 65 | 25 | 5.9 | / |
| 80 | 30 | 7.1 | 9.7 |
| 100 | 30 | 8.9 | 13.7 |
| 125 | 35 | 11.9 | 15.2 |
| 150 | 35 | 14.8 | 18.2 |
| 200 | 40 | 22 | 26.4 |
| 250 | 50 | 30.5 | 33.3 |
| 300 | 55 | 40.5 | 53.4 |
| 350 | 60 | 52 | 62.6 |
| 400 | 65 | 65 | 75.4 |
| 450 | 70 | 91.9 | 100 |
| 500 | 75 | 96 | 102.7 |
| 600 | 85 | 134 | 135.4 |
| 700 | 95 | 216 | 208 |
| 800 | 110 | 286 | 263 |
| 900 | 120 | 374 | 359 |
| 1000 | 130 | 473 | 473 |
| 1100 | 140 | 600.0 | 455.0 |
| 1200 | 150 | 724 | 541 |
| 1400 | 130 | 1047 | 672 |
| 1500 | 140 | 1198 | 785.6 |
| 1600 | 140 | 1376 | 1007 |
| 1800 | 155 | 1704 | 1331 |
| 2000 | 165 | / | 1702 |
| 2200 | 190 | / | 2183 |
| 2400 | 205 | / | 2898 |
| 2600 | 215 | / | 3512 |

ALL SOCKET TEE A&B SERIES



| Body DN | Branch dn | L(mm) | h | Weight (Kg) | |
|------------|--------------|-------|-----|-------------|-------|
| | | | | T- | K- |
| 80 | 80 | 170 | 85 | 12.4 | 17.7 |
| 100 | 80 | 170 | 95 | 14.8 | 21.5 |
| | 100 | 190 | 95 | 16.1 | 23.2 |
| 125 | 80 | 170 | 105 | 17.6 | 22.8 |
| | 100 | 195 | 110 | 19.0 | 24.8 |
| | 125 | 225 | 110 | 22.0 | 26.9 |
| 150 | 80 | 170 | 120 | 21.5 | 29.2 |
| | 100 | 195 | 120 | 23.5 | 31 |
| | 125 | 230 | 125 | 25.8 | 33.3 |
| | 150 | 255 | 125 | 28 | 35.6 |
| 200 | 80 | 175 | 145 | 30 | 37.9 |
| | 100 | 200 | 145 | 32 | 38.8 |
| | 125 | 230 | 145 | 34.5 | 41.4 |
| | 150 | 255 | 150 | 37 | 44 |
| | 200 | 315 | 155 | 48 | 49.6 |
| 250 | 80 | 175 | 165 | 40.2 | 48.3 |
| | 100 | 200 | 165 | 42.8 | 47.9 |
| | 125 | 230 | 175 | 46.0 | 49.1 |
| | 150 | 260 | 175 | 51.1 | 56.4 |
| | 200 | 315 | 180 | 55.9 | 60.9 |
| | 250 | 375 | 185 | 64.1 | 67.4 |
| 300 | 80 | 180 | 190 | 51.5 | 65.4 |
| | 100 | 200 | 195 | 54.2 | 67.4 |
| | 125 | 240 | 200 | 65.2 | 71.7 |
| | 150 | 260 | 200 | 64.3 | 77.6 |
| | 200 | 320 | 205 | 69.9 | 82.9 |
| | 250 | 375 | 210 | 79.9 | 92.1 |
| | 300 | 435 | 215 | 86.2 | 102 |
| 350 | 80 | 180 | 215 | 63.6 | 74.5 |
| | 100 | 205 | 220 | 67.2 | 80 |
| | 125 | 240 | 225 | 71.7 | 83.6 |
| | 150 | 265 | 225 | 79.6 | 92.6 |
| | 200 | 320 | 230 | 84.9 | 97.5 |
| | 250 | 380 | 235 | 96.9 | 109 |
| | 300 | 435 | 240 | 106 | 122 |
| | 350 | 495 | 245 | 116 | 131 |
| 400 | 80 | 185 | 240 | 76.1 | 87.1 |
| | 100 | 210 | 245 | 82.2 | 95 |
| | 125 | 240 | 250 | 89.5 | 102.5 |
| | 150 | 265 | 240 | 96.7 | 110 |
| | 200 | 325 | 255 | 102 | 115 |
| | 250 | 380 | 260 | 116 | 128 |
| | 300 | 440 | 265 | 126 | 142 |
| | 350 | 500 | 270 | 137 | 152 |
| | 400 | 555 | 275 | 150 | 166 |

| Body DN | Branch dn | L(mm) | h | Weight (Kg) | |
|------------|--------------|-------|-----|-------------|-------|
| | | | | T- | K- |
| 450 | 80 | 185 | 265 | 101 | 102.5 |
| | 100 | 210 | 270 | 106 | 116 |
| | 125 | 240 | 270 | 111.0 | 121.0 |
| | 150 | 270 | 275 | 116 | 126 |
| | 200 | 325 | 280 | 127 | 137 |
| | 250 | 385 | 285 | 138 | 147 |
| | 300 | 445 | 290 | 149 | 163 |
| | 350 | 500 | 295 | 161 | 175 |
| | 400 | 560 | 300 | 173 | 186 |
| | 450 | 615 | 305 | 186 | 198 |
| 500 | 80 | 190 | 290 | 110 | 116.8 |
| | 100 | 215 | 295 | 115 | 123 |
| | 125 | 245 | 300 | 126.0 | 134.0 |
| | 150 | 270 | 300 | 137 | 145 |
| | 200 | 330 | 305 | 141 | 149 |
| | 250 | 390 | 310 | 161 | 168 |
| | 300 | 445 | 315 | 174 | 185 |
| | 350 | 505 | 320 | 187 | 198 |
| | 400 | 560 | 325 | 199 | 210 |
| | 450 | 620 | 330 | 214 | 224 |
| 600 | 500 | 680 | 340 | 234 | 242 |
| | 80 | 195 | 340 | 165 | 165 |
| | 100 | 220 | 345 | 169 | 168 |
| | 125 | 250 | 350 | 177.0 | 176.0 |
| | 150 | 280 | 350 | 185 | 184 |
| | 200 | 335 | 355 | 188 | 187 |
| | 250 | 395 | 360 | 215 | 213 |
| | 300 | 450 | 365 | 231 | 233 |
| | 350 | 510 | 370 | 246 | 248 |
| | 400 | 570 | 375 | 258 | 260 |
| 700 | 450 | 625 | 380 | 280 | 281 |
| | 500 | 685 | 390 | 296 | 296 |
| | 600 | 800 | 400 | 343 | 338 |
| | 80 | 205 | 395 | 217 | 207 |
| | 100 | 230 | 395 | 224 | 215 |
| | 125 | 260 | 400 | 232.5 | 223.5 |
| | 150 | 285 | 400 | 241 | 232 |
| | 200 | 345 | 405 | 259 | 250 |
| | 250 | 400 | 410 | 277 | 267 |
| | 300 | 460 | 420 | 297 | 290 |
| 800 | 350 | 520 | 425 | 317 | 310 |
| | 400 | 575 | 430 | 337 | 329 |
| | 450 | 635 | 435 | 361 | 350 |
| | 500 | 690 | 440 | 380 | 370 |
| | 600 | 810 | 450 | 430 | 416 |

| Body DN | Branch dn | L(mm) | h | Weight (Kg) | |
|------------|--------------|-------|-----|-------------|-------|
| | | | | T- | K- |
| 700 | 700 | 925 | 460 | 486 | 470 |
| | 80 | 210 | 445 | 278 | 254 |
| | 100 | 235 | 445 | 287 | 264 |
| | 125 | 260 | 450 | 297.0 | 274.0 |
| | 150 | 290 | 450 | 307 | 284 |
| | 200 | 350 | 455 | 330 | 305 |
| | 250 | 410 | 460 | 352 | 328 |
| | 300 | 465 | 470 | 374 | 353 |
| | 350 | 525 | 475 | 398 | 376 |
| | 400 | 580 | 480 | 420 | 398 |
| 800 | 450 | 640 | 485 | 448 | 422 |
| | 500 | 700 | 490 | 472 | 447 |
| | 600 | 815 | 500 | 526 | 497 |
| | 700 | 930 | 510 | 586 | 556 |
| | 800 | 1045 | 525 | 655 | 618 |
| | 80 | 215 | 495 | 349 | 322 |
| | 100 | 240 | 495 | 360 | 333 |
| | 125 | 270 | 500 | 373.0 | 346.0 |
| | 150 | 300 | 500 | 386 | 359 |
| | 200 | 355 | 505 | 410 | 382 |
| 900 | 250 | 415 | 510 | 437 | 408 |
| | 300 | 470 | 515 | 462 | 438 |
| | 350 | 530 | 525 | 490 | 464 |
| | 400 | 590 | 530 | 518 | 491 |
| | 450 | 645 | 535 | 547 | 518 |
| | 500 | 705 | 540 | 574 | 546 |
| | 600 | 820 | 550 | 635 | 602 |
| | 700 | 935 | 560 | 700 | 667 |
| | 800 | 1050 | 570 | 774 | 733 |
| | 900 | 1170 | 585 | 858 | 815 |
| 1000 | 80 | 225 | 545 | 433 | 434 |
| | 100 | 245 | 545 | 443 | 445 |
| | 125 | 275 | 550 | 459.0 | 460.0 |
| | 150 | 305 | 550 | 474 | 475 |
| | 200 | 360 | 555 | 502 | 503 |
| | 250 | 420 | 560 | 533 | 533 |
| | 300 | 480 | 570 | 564 | 568 |
| | 350 | 535 | 575 | 594 | 597 |
| | 400 | 595 | 580 | 626 | 628 |
| | 450 | 650 | 585 | 659 | 658 |
| 1000 | 500 | 710 | 590 | 690 | 690 |
| | 600 | 825 | 600 | 758 | 754 |
| | 700 | 940 | 610 | 831 | 825 |
| | 800 | 1060 | 625 | 913 | 901 |
| | 900 | 1175 | 635 | 1000 | 985 |



| Body DN | Branch dn | L(mm) | h | Weight (Kg) | | |
|------------|--------------|-------|-------|---------------|--------|-------|
| | | | | T-type | K-type | |
| 1000 | 1000 | 1290 | 645 | 1096 | 1096 | |
| | 1100 | 80 | 230 | 590 | 524.1 | 452.7 |
| | | 100 | 250 | 600 | 535.8 | 465.0 |
| | | 125 | 280 | 600 | 553.3 | 482.4 |
| | | 150 | 310 | 600 | 570.1 | 499.8 |
| | | 200 | 370 | 610 | 605.9 | 534.6 |
| | | 250 | 430 | 610 | 641.4 | 569.3 |
| | | 300 | 480 | 620 | 675.3 | 604.8 |
| | | 350 | 540 | 620 | 706.7 | 638.9 |
| | | 400 | 600 | 630 | 741.0 | 674.5 |
| | | 450 | 660 | 635 | 775.1 | 711.3 |
| 500 | 720 | 640 | 812.5 | 747.3 | | |
| 600 | 830 | 650 | 881.9 | 815.4 | | |
| 700 | 950 | 660 | 972.2 | 894.9 | | |
| 800 | 1060 | 670 | 1057 | 970.1 | | |
| 900 | 1180 | 680 | 1154 | 1062 | | |
| 1000 | 1300 | 695 | 1260 | 1166 | | |
| 1100 | 1410 | 710 | 1375 | 1265 | | |
| 1200 | 80 | 235 | 645 | 631 | 632 | |
| | 100 | 260 | 645 | 648 | 649 | |
| | 125 | 290 | 650 | 677.6 | 567.5 | |
| | 150 | 315 | 650 | 685 | 686 | |
| | 200 | 375 | 655 | 725 | 726 | |
| | 250 | 430 | 660 | 766 | 766 | |
| | 300 | 490 | 670 | 816 | 819 | |
| | 350 | 550 | 675 | 845 | 849 | |
| | 400 | 605 | 680 | 884 | 886 | |
| | 450 | 665 | 685 | 929 | 928 | |
| | 500 | 720 | 690 | 966 | 966 | |
| 600 | 840 | 700 | 1054 | 1050 | | |
| 700 | 955 | 710 | 1143 | 1138 | | |
| 800 | 1070 | 725 | 1239 | 1226 | | |
| 900 | 1185 | 735 | 1339 | 1325 | | |
| 1000 | 1300 | 745 | 1447 | 1447 | | |
| 1200 | 1535 | 765 | 1697 | 1697 | | |
| 1400 | 80 | 250 | 745 | 988.8 | 698 | |
| | 100 | 270 | 745 | 1006 | 715.9 | |
| | 125 | 300 | 750 | 1032 | 741.7 | |
| | 150 | 330 | 750 | 1058 | 767.5 | |
| | 200 | 385 | 755 | 1110 | 818.8 | |
| | 250 | 445 | 760 | 1153 | 861.5 | |
| | 300 | 500 | 770 | 1209 | 918.9 | |
| | 350 | 560 | 775 | 1257 | 969.1 | |
| | 400 | 620 | 780 | 1307 | 1021 | |
| | 450 | 675 | 785 | 1357 | 1074 | |

| Body DN | Branch dn | L(mm) | h | Weight (Kg) | | |
|------------|--------------|-------|------|---------------|--------|------|
| | | | | T-type | K-type | |
| 1400 | 500 | 735 | 790 | 1402 | 1117 | |
| | 600 | 850 | 800 | 1507 | 1221 | |
| | 700 | 965 | 810 | 1627 | 1330 | |
| | 800 | 1080 | 825 | 1737 | 1431 | |
| | 900 | 1200 | 835 | 1861 | 1550 | |
| | 1000 | 1315 | 845 | 1984 | 1670 | |
| | 1200 | 1545 | 865 | 2279 | 1930 | |
| | 1400 | 1780 | 890 | 2648 | 2210 | |
| | 1600 | 80 | 260 | 845 | / | 1032 |
| | | 100 | 280 | 845 | / | 1054 |
| 150 | | 340 | 850 | / | 1119 | |
| 200 | | 400 | 855 | 1551 | 1122 | |
| 250 | | 455 | 860 | 1616 | 1186 | |
| 300 | | 515 | 870 | 1674 | 1246 | |
| 350 | | 570 | 875 | / | 1371 | |
| 400 | | 630 | 880 | 1797 | 1373 | |
| 450 | | 690 | 885 | / | 1500 | |
| 500 | | 745 | 890 | 1946 | 1523 | |
| 600 | 860 | 900 | 2044 | 1620 | | |
| 700 | 980 | 910 | / | 1819 | | |
| 800 | 1095 | 925 | 2318 | 1875 | | |
| 900 | 1210 | 935 | / | 2086 | | |
| 1000 | 1325 | 945 | 2618 | 2167 | | |
| 1200 | 1560 | 965 | 2942 | 2456 | | |
| 1400 | 1790 | 990 | 3341 | 2764 | | |
| 1600 | 2020 | 1010 | 3800 | 3155 | | |
| 1800 | 80 | 270 | 945 | / | 1340 | |
| | 100 | 295 | 945 | / | 1373 | |
| | 150 | 350 | 950 | / | 1446 | |
| | 200 | 410 | 955 | 1897 | 1449 | |
| | 250 | 470 | 960 | 1980 | 1531 | |
| | 300 | 525 | 970 | 2063 | 1680 | |
| | 350 | 585 | 975 | / | 1759 | |
| | 400 | 640 | 980 | 2208 | 1831 | |
| | 450 | 700 | 985 | / | 1911 | |
| | 500 | 760 | 990 | 2353 | 1989 | |
| 600 | 875 | 1000 | 2526 | 2139 | | |
| 700 | 990 | 1010 | / | 2295 | | |
| 800 | 1105 | 1025 | 2835 | 2373 | | |
| 900 | 1220 | 1035 | / | 2612 | | |
| 1000 | 1340 | 1045 | 3173 | 2703 | | |
| 1200 | 1570 | 1065 | 3543 | 3037 | | |
| 1400 | 1800 | 1090 | 3983 | 3387 | | |
| 1600 | 2035 | 1110 | 4473 | 3809 | | |
| 1800 | 2265 | 1135 | 4958 | 4285 | | |

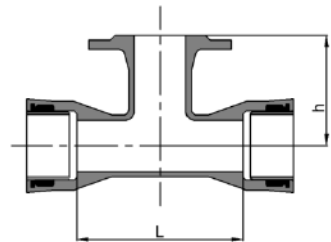
| Body DN | Branch dn | L(mm) | h | Weight (Kg) | |
|------------|--------------|-------|------|---------------|--------|
| | | | | T-type | K-type |
| 2000 | 80 | 280 | 1045 | / | 1710 |
| | 100 | 305 | 1045 | / | 1744 |
| | 150 | 365 | 1050 | / | 1838 |
| | 200 | 420 | 1055 | / | 1924 |
| | 250 | 480 | 1060 | / | 2020 |
| | 300 | 540 | 1070 | / | 2117 |
| | 350 | 600 | 1075 | / | 2204 |
| | 400 | 655 | 1080 | / | 2205 |
| | 450 | 710 | 1085 | / | 2386 |
| | 500 | 770 | 1090 | / | 2479 |
| 600 | 885 | 1100 | / | 2660 | |
| 700 | 1000 | 1110 | / | 2845 | |
| 800 | 1120 | 1125 | / | 3035 | |
| 900 | 1235 | 1135 | / | 3226 | |
| 1000 | 1350 | 1145 | / | 3437 | |
| 1200 | 1580 | 1165 | / | 3846 | |
| 1400 | 1815 | 1190 | / | 4244 | |
| 1600 | 2045 | 1210 | / | 4695 | |
| 1800 | 2280 | 1235 | / | 5218 | |
| 2000 | 2510 | 1255 | / | 5787 | |
| 2200 | 200 | 430 | 1160 | / | 2252 |
| | 250 | 490 | 1160 | / | 2369 |
| | 300 | 550 | 1170 | / | 2487 |
| | 400 | 670 | 1180 | / | 2717 |
| | 500 | 780 | 1190 | / | 2906 |
| | 600 | 900 | 1200 | / | 3126 |
| | 800 | 1130 | 1220 | / | 3552 |
| | 1000 | 1360 | 1245 | / | 3998 |
| | 1200 | 1590 | 1270 | / | 4453 |
| | 1400 | 1830 | 1290 | / | 4916 |
| 1600 | 2060 | 1310 | / | 5433 | |
| 1800 | 2290 | 1330 | / | 5974 | |
| 2000 | 2520 | 1355 | / | 6573 | |
| 2200 | 2750 | 1380 | / | 7230 | |
| 2400 | 200 | 450 | 1260 | / | 2959 |
| | 250 | 500 | 1260 | / | 3073 |
| | 300 | 560 | 1270 | / | 3210 |
| | 400 | 680 | 1280 | / | 3478 |
| | 500 | 790 | 1290 | / | 3700 |
| | 600 | 910 | 1300 | / | 3957 |
| | 800 | 1140 | 1320 | / | 4452 |
| | 1000 | 1370 | 1345 | / | 4965 |
| | 1200 | 1610 | 1370 | / | 5497 |
| | 1400 | 1840 | 1390 | / | 6013 |
| 1600 | 2070 | 1410 | / | 6589 | |

| Body DN | Branch dn | L(mm) | h | Weight (Kg) | |
|------------|--------------|-------|------|---------------|--------|
| | | | | T-type | K-type |
| 2400 | 1800 | 2300 | 1430 | / | 7185 |
| | 2000 | 2530 | 1455 | / | 7832 |
| | 2200 | 2770 | 1480 | / | 8558 |
| | 2400 | 3000 | 1500 | / | 9428 |
| 2600 | 200 | 460 | 1360 | / | 3551 |
| | 250 | 520 | 1360 | / | 3708 |
| | 300 | 570 | 1370 | / | 3840 |
| | 400 | 690 | 1380 | / | 4149 |
| | 500 | 810 | 1390 | / | 4432 |
| | 600 | 920 | 1400 | / | 4704 |
| | 800 | 1150 | 1420 | / | 5273 |
| | 1000 | 1390 | 1445 | / | 5885 |
| | 1200 | 1620 | 1470 | / | 6466 |
| | 1400 | 1850 | 1490 | / | 7051 |
| | 1600 | 2080 | 1510 | / | 7692 |
| | 1800 | 2310 | 1530 | / | 8351 |
| | 2000 | 2550 | 1555 | / | 9081 |
| | 2200 | 2780 | 1580 | / | 9835 |
| | 2400 | 3010 | 1600 | / | 10743 |
| | 2600 | 3240 | 1620 | / | 11545 |



DOUBLE SOCKET TEE with FLANGED BRANCH A&B SERIES (B series up to DN450)

| Body DN | Branch dn | L(mm) | h | Weight(Kg) | | | | | |
|------------|--------------|-------|-----|------------|------|------|--------|------|------|
| | | | | T-type | | | K-type | | |
| | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 80 | 80 | 170 | 160 | 13.5 | 13.5 | 13.5 | / | / | / |
| 100 | 80 | 170 | 175 | 15.8 | 15.8 | 15.8 | 20 | 20 | 20 |
| | 100 | 190 | 180 | 17.2 | 17.2 | 17.7 | 22 | 22 | 22 |
| 125 | 80 | 170 | 190 | 19.4 | 19.4 | 19.4 | 23.0 | 23.0 | 23.0 |
| | 100 | 195 | 195 | 21.0 | 21.0 | 21.5 | 24.6 | 24.5 | 25.1 |
| | 125 | 225 | 200 | 23.0 | 23.0 | 24.0 | 26.8 | 26.8 | 27.4 |
| 150 | 80 | 170 | 205 | 23 | 23 | 23 | 28 | 28 | 28 |
| | 100 | 195 | 210 | 24.5 | 24.5 | 25 | 29.5 | 29.5 | 29.5 |
| | 125 | 230 | 215 | 27.1 | 27.5 | 27.7 | 32.1 | 32.1 | 32.7 |
| | 150 | 255 | 220 | 29.5 | 29.5 | 30.5 | 34.5 | 34.5 | 34.5 |
| 200 | 80 | 175 | 235 | 31.5 | 31.5 | 31.5 | 36 | 36 | 36 |
| | 100 | 200 | 240 | 33.5 | 33.5 | 34 | 38 | 38 | 38 |
| | 125 | 235 | 240 | 36.2 | 36.2 | 36.8 | 39.2 | 39.2 | 39.8 |
| | 150 | 255 | 250 | 39 | 39 | 40 | 43.4 | 43.4 | 43.4 |
| | 200 | 315 | 260 | 45.6 | 46 | 47.5 | 50 | 50.4 | 52 |



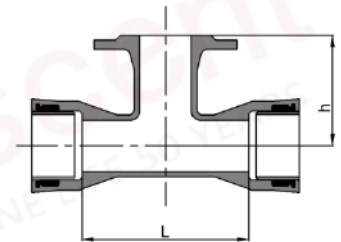
| Body | Branch | L(mm) | h | Weight(Kg) | | | | | |
|------|--------|-------|-----|------------|-------|-------|--------|-------|-------|
| | | | | T-type | | | K-type | | |
| | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| DN | dn | | | | | | | | |
| 250 | 80 | 175 | 265 | 44 | 44 | 44 | 46.6 | 45.6 | 45.6 |
| | 100 | 200 | 270 | 43.5 | 43.5 | 44 | 46 | 46 | 46.5 |
| | 125 | 230 | 275 | 47.7 | 47.7 | 48.3 | 49.1 | 49.1 | 49.7 |
| | 150 | 260 | 280 | 56.6 | 56.6 | 57.6 | 59 | 59 | 60 |
| | 200 | 315 | 290 | 57 | 57 | 59 | 60 | 60 | 62 |
| | 250 | 375 | 300 | 67.4 | 67.1 | 70.7 | 68.8 | 68.6 | 72.1 |
| 300 | 80 | 180 | 295 | 60.8 | 60.8 | 60.8 | 65.4 | 65.4 | 65.4 |
| | 100 | 200 | 300 | 64.2 | 64.2 | 64.7 | 68.8 | 68.8 | 69.3 |
| | 125 | 230 | 300 | 67.0 | 67.0 | 67.6 | 71.6 | 71.6 | 72.2 |
| | 150 | 260 | 310 | 71.2 | 71.2 | 72.1 | 79 | 79 | 80 |
| | 200 | 320 | 320 | 77.9 | 77.9 | 79.7 | 82.5 | 82.5 | 84.3 |
| | 250 | 375 | 330 | 87.8 | 87.4 | 94.1 | 94 | 92 | 96 |
| 350 | 80 | 185 | 325 | 66.0 | 66.0 | 66.0 | 76.0 | 76.0 | 76.0 |
| | 100 | 205 | 330 | 68 | 68 | 68 | 78 | 78 | 78 |
| | 125 | 230 | 330 | 70.2 | 70.2 | 70.8 | 82.6 | 82.6 | 83.2 |
| | 150 | 265 | 340 | 82.3 | 81.3 | 82.3 | 93 | 93 | 93 |
| | 200 | 320 | 350 | 86 | 86 | 88 | 96 | 96 | 98 |
| | 250 | 380 | 360 | 103 | 114 | 125 | 114 | 124 | 135 |
| 400 | 80 | 185 | 355 | 80.0 | 80.0 | 80.0 | 90.0 | 90.0 | 90.0 |
| | 100 | 210 | 360 | 83 | 83 | 83 | 93 | 93 | 93 |
| | 125 | 230 | 360 | 86.2 | 86.2 | 86.7 | 95.3 | 95.3 | 95.9 |
| | 150 | 265 | 370 | 98 | 98 | 98 | 108 | 108 | 108 |
| | 200 | 325 | 380 | 103 | 102 | 104 | 113 | 113 | 114 |
| | 250 | 380 | 390 | 119 | 118 | 122 | 127 | 128 | 132 |
| 450 | 80 | 190 | 370 | 85.8 | 85.8 | 85.8 | 103.8 | 103.8 | 103.8 |
| | 100 | 210 | 390 | 107 | 107 | 108 | 115 | 115 | 116 |
| | 125 | 230 | 390 | 93.8 | 93.8 | 94.4 | 111.8 | 111.8 | 112.4 |
| | 150 | 270 | 400 | 119 | 119 | 120 | 127 | 127 | 128 |
| | 200 | 325 | 410 | 130 | 129 | 132 | 138 | 138 | 140 |
| | 250 | 385 | 420 | 141 | 140 | 144 | 149 | 149 | 153 |
| 500 | 80 | 190 | 400 | 103.2 | 103.2 | 103.2 | 118.4 | 118.4 | 118.4 |
| | 100 | 215 | 420 | 116 | 116 | 117 | 122 | 122 | 122 |
| | 125 | 240 | 420 | 118.8 | 118.8 | 119.4 | 129.0 | 129.0 | 129.6 |
| | 150 | 270 | 430 | 137 | 137 | 139 | 145 | 145 | 145 |
| | 200 | 330 | 440 | 141 | 141 | 143 | 146 | 147 | 149 |

| Body | Branch | L(mm) | h | Weight(Kg) | | | | | |
|------|--------|-------|-----|------------|-------|-------|--------|-------|-------|
| | | | | T-type | | | K-type | | |
| | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| DN | dn | | | | | | | | |
| 500 | 250 | 390 | 450 | 165 | 165 | 149 | 172 | 171 | 177 |
| | 300 | 445 | 460 | 179 | 179 | 184 | 182 | 185 | 190 |
| | 350 | 505 | 470 | 193 | 195 | 203 | 198 | 201 | 210 |
| | 400 | 565 | 480 | 199 | 205 | 216 | 205 | 211 | 222 |
| | 450 | 620 | 490 | 220 | 228 | 244 | 226 | 235 | 250 |
| | 500 | 680 | 500 | 232 | 247 | 259 | 238 | 253 | 265 |
| 600 | 80 | 195 | 460 | 168.0 | 168.0 | 169.0 | 164.0 | 164.0 | 170.0 |
| | 100 | 220 | 480 | 171 | 171 | 171 | 167 | 167 | 168 |
| | 125 | 240 | 465 | 184.0 | 184.0 | 185.0 | 178.0 | 178.0 | 179.0 |
| | 150 | 280 | 490 | 187 | 187 | 188 | 182 | 182 | 183 |
| | 200 | 340 | 500 | 189 | 189 | 191 | 185 | 185 | 188 |
| | 250 | 395 | 510 | 219 | 218 | 222 | 215 | 215 | 218 |
| 700 | 80 | 210 | 490 | 208.8 | 208.8 | 208.8 | 189.8 | 189.8 | 189.8 |
| | 100 | 230 | 510 | 242 | 242 | 243 | 243 | 243 | 244 |
| | 125 | 250 | 495 | 221.5 | 221.5 | 222.1 | 202.5 | 202.5 | 203.1 |
| | 150 | 285 | 515 | 246 | 246 | 247 | 246 | 246 | 247 |
| | 200 | 345 | 525 | 252.4 | 252.4 | 254.2 | 249 | 249 | 251 |
| | 250 | 390 | 525 | 268.0 | 267.7 | 271.3 | 249.0 | 248.7 | 252.3 |
| 800 | 80 | 240 | 550 | 278.9 | 278.9 | 278.9 | 252.5 | 252.5 | 252.5 |
| | 100 | 235 | 570 | 304 | 304 | 305 | 295 | 295 | 295 |
| | 125 | 290 | 555 | 297.2 | 297.2 | 297.8 | 270.8 | 270.8 | 271.4 |
| | 150 | 290 | 580 | 308 | 308 | 309 | 298 | 298 | 299 |
| | 200 | 350 | 585 | 321.5 | 321.5 | 323.3 | 302 | 301 | 303 |
| | 250 | 410 | 590 | 351 | 351 | 355 | 342 | 341 | 346 |
| 900 | 80 | 240 | 600 | 371 | 371 | 377 | 362 | 362 | 368 |
| | 100 | 235 | 620 | 404 | 404 | 406 | 392 | 392 | 396 |
| | 125 | 290 | 605 | 397.2 | 397.2 | 397.8 | 370.8 | 370.8 | 371.4 |
| | 150 | 290 | 630 | 408 | 408 | 409 | 398 | 398 | 401 |
| | 200 | 350 | 635 | 421.5 | 421.5 | 423.3 | 402 | 401 | 403 |
| | 250 | 410 | 640 | 451 | 451 | 455 | 442 | 441 | 446 |
| 1000 | 80 | 240 | 675 | 412.2 | 412.2 | 417.9 | 396 | 396 | 401 |
| | 100 | 235 | 690 | 442.2 | 442.2 | 443.9 | 426.2 | 426.2 | 431.9 |
| | 125 | 290 | 675 | 435.2 | 435.2 | 435.8 | 408.2 | 408.2 | 413.9 |
| | 150 | 290 | 700 | 446 | 446 | 447 | 437 | 437 | 442 |
| | 200 | 350 | 705 | 459.5 | 459.5 | 461.3 | 450 | 450 | 455 |
| | 250 | 410 | 710 | 491.5 | 491.5 | 493.3 | 482 | 482 | 487 |

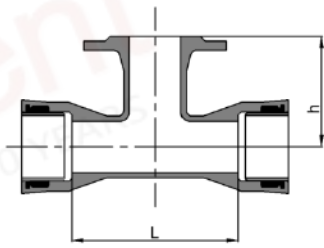
| Body | Branch | L(mm) | h | Weight(Kg) | | | | | |
|------|--------|-------|-------|------------|-------|-------|--------|-------|-------|
| | | | | T-type | | | K-type | | |
| | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 900 | 80 | 240 | 605 | 354.6 | 354.6 | 354.6 | 316.6 | 316.6 | 316.6 |
| | 100 | 240 | 630 | 378 | 378 | 378 | 365 | 365 | 366 |
| | 125 | 290 | 615 | 376.4 | 376.4 | 377.0 | 338.4 | 338.4 | 339.0 |
| | 150 | 300 | 635 | 381 | 381 | 382 | 368 | 368 | 369 |
| | 200 | 355 | 645 | 406.9 | 407 | 408.8 | 371 | 371 | 373 |
| | 250 | 420 | 645 | 436.1 | 435.8 | 439.4 | 398.1 | 397.8 | 401.4 |
| | 300 | 470 | 660 | 455 | 455 | 461 | 442 | 442 | 448 |
| | 350 | 530 | 660 | 486.5 | 489.3 | 497.2 | 448.5 | 451.3 | 459.2 |
| | 400 | 590 | 675 | 515.1 | 521.6 | 530.8 | 484 | 488 | 499 |
| | 450 | 640 | 680 | 538.1 | 547.4 | 557.8 | 500.1 | 509.4 | 519.8 |
| | 500 | 705 | 690 | 666 | 681 | 693 | 653 | 668 | 690 |
| | 600 | 820 | 705 | 748 | 774 | 784 | 745 | 769 | 783 |
| | 700 | 935 | 720 | 788 | 803 | 837 | 775 | 790 | 824 |
| | 800 | 1050 | 735 | 808 | 823 | 876 | 795 | 810 | 863 |
| 900 | 1170 | 750 | 851.6 | 873.2 | 929.2 | 822 | 841 | 907 | |
| 1000 | 80 | 240 | 670 | 435.0 | 435.0 | 435.0 | 393.0 | 393.0 | 393.0 |
| | 100 | 245 | 690 | 461 | 461 | 462 | 461 | 461 | 462 |
| | 125 | 290 | 675 | 470.5 | 470.5 | 471.1 | 428.5 | 428.5 | 429.1 |
| | 150 | 305 | 695 | 461 | 464 | 465 | 464 | 464 | 465 |
| | 200 | 360 | 705 | 498.3 | 498.4 | 500.2 | 467 | 467 | 469 |
| | 250 | 420 | 710 | 521 | 521 | 525 | 521 | 521 | 525 |
| | 300 | 480 | 720 | 552 | 552 | 558 | 552 | 552 | 558 |
| | 350 | 530 | 720 | 588.4 | 591.2 | 599.1 | 546.4 | 549.2 | 557.1 |
| | 400 | 595 | 735 | 623.8 | 630.3 | 639.5 | 598 | 603 | 614 |
| | 450 | 640 | 740 | 647.9 | 657.2 | 667.6 | 605.9 | 615.2 | 625.6 |
| | 600 | 825 | 765 | 947 | 973 | 994 | 958 | 982 | 994 |
| | 700 | 940 | 780 | 985 | 1000 | 1032 | 985 | 1000 | 1032 |
| | 800 | 1060 | 795 | 1006 | 1021 | 1074 | 1006 | 1021 | 1074 |
| | 900 | 1175 | 810 | 1052 | 1076 | 1137 | 1052 | 1076 | 1137 |
| 1000 | 1290 | 825 | 1044 | 1086 | 1192 | 1072 | 1106 | 1192 | |
| 1100 | 80 | 240 | 730 | 531.7 | 531.7 | 531.7 | 458.9 | 458.9 | 458.9 |
| | 100 | 260 | 730 | 543.6 | 543.6 | 544.1 | 470.8 | 470.8 | 471.3 |
| | 125 | 290 | 735 | 561.4 | 561.4 | 562.0 | 488.6 | 488.6 | 489.2 |
| | 150 | 310 | 740 | 573.9 | 573.9 | 574.8 | 501.1 | 501.1 | 502.0 |
| | 200 | 360 | 745 | 604.0 | 604.1 | 605.9 | 531.2 | 531.3 | 533.1 |
| | 250 | 420 | 755 | 640.9 | 640.6 | 644.2 | 568.1 | 567.8 | 571.4 |
| | 300 | 480 | 760 | 677.8 | 677.5 | 682.7 | 605.0 | 604.7 | 609.9 |
| | 350 | 530 | 770 | 707.8 | 710.6 | 718.5 | 635.0 | 637.8 | 645.7 |
| | 400 | 600 | 795 | 744.2 | 750.7 | 759.9 | 671.4 | 677.9 | 687.1 |
| | 450 | 650 | 795 | 780.4 | 789.7 | 800.1 | 707.6 | 716.9 | 727.3 |
| | 500 | 700 | 795 | 813.2 | 827.6 | 838.0 | 740.4 | 754.8 | 765.2 |
| | 600 | 830 | 825 | 892.6 | 917.6 | 930.0 | 819.8 | 844.8 | 857.2 |
| | 700 | 940 | 830 | 976.2 | 990.3 | 1023 | 903.4 | 917.5 | 950.0 |
| | 800 | 1050 | 835 | 1062 | 1080 | 1126 | 988.8 | 1007 | 1053 |



| Body | Branch | L(mm) | h | Weight(Kg) | | | | | |
|------|--------|-------|------|------------|-------|-------|--------|-------|-------|
| | | | | T-type | | | K-type | | |
| | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| DN | dn | | | | | | | | |
| 1100 | 900 | 1170 | 850 | 1153 | 1174 | 1230 | 1080 | 1102 | 1158 |
| | 1000 | 1280 | 870 | 1254 | 1292 | 1365 | 1181 | 1219 | 1292 |
| | 1100 | 1390 | 880 | 1359 | 1398 | 1482 | 1287 | 1325 | 1409 |
| 1200 | 80 | 240 | 790 | 646.3 | 646.3 | 646.3 | 534.3 | 534.3 | 534.3 |
| | 100 | 260 | 810 | 676 | 676 | 676 | 676 | 676 | 676 |
| | 125 | 290 | 795 | 680.4 | 680.4 | 681.0 | 568.4 | 568.4 | 569.0 |
| | 150 | 310 | 800 | 694.6 | 694.6 | 695.6 | 582.6 | 582.6 | 583.6 |
| | 200 | 375 | 825 | 682 | 682 | 684 | 682 | 682 | 684 |
| | 250 | 420 | 815 | 771.3 | 771.0 | 774.6 | 659.3 | 659.0 | 662.6 |
| | 300 | 490 | 840 | 769 | 769 | 775 | 769 | 769 | 775 |
| | 350 | 530 | 830 | 847.7 | 850.5 | 858.4 | 735.7 | 738.5 | 746.4 |
| | 400 | 605 | 855 | 852 | 856 | 867 | 852 | 856 | 867 |
| | 450 | 650 | 845 | 930.5 | 939.8 | 950.2 | 818.5 | 827.8 | 838.2 |
| | 500 | 720 | 870 | 968 | 973 | 995 | 968 | 973 | 995 |
| | 600 | 840 | 885 | 1074 | 1099 | 1112 | 1031 | 1055 | 1067 |
| | 700 | 955 | 900 | 1169 | 1184 | 1218 | 1169 | 1184 | 1218 |
| | 800 | 1070 | 915 | 1264 | 1281 | 1327 | 1227 | 1242 | 1295 |
| | 900 | 1185 | 930 | 1367 | 1427 | 1452 | 1367 | 1427 | 1452 |
| 1000 | 1300 | 945 | 1436 | 1470 | 1556 | 1436 | 1470 | 1556 | |
| 1200 | 1535 | 975 | 1682 | 1736 | 1846 | 1682 | 1736 | 1846 | |
| 1400 | 80 | 340 | 870 | 1067 | 1067 | 1067 | 774.5 | 774.5 | 774.5 |
| | 100 | 450 | 905 | 1120 | 1120 | 1120 | 1120 | 1120 | 1120 |
| | 125 | 450 | 880 | 1162 | 1162 | 1162 | 869.0 | 869.0 | 869.6 |
| | 150 | 480 | 880 | 1188 | 1188 | 1189 | 895.2 | 895.2 | 896.2 |
| | 200 | 565 | 920 | 1240 | 1240 | 1242 | 948 | 948 | 950 |
| | 250 | 560 | 895 | 1259 | 1259 | 1263 | 966.8 | 966.5 | 970.1 |
| | 300 | 680 | 935 | 1338 | 1338 | 1343 | 1046 | 1046 | 1051 |
| | 350 | 710 | 910 | 1389 | 1392 | 1400 | 1097 | 1100 | 1108 |
| | 400 | 800 | 950 | 1442 | 1449 | 1458 | 1150 | 1156 | 1166 |
| | 450 | 830 | 925 | 1493 | 1503 | 1513 | 1201 | 1211 | 1221 |
| | 500 | 915 | 965 | 1540 | 1554 | 1564 | 1247 | 1262 | 1272 |
| | 600 | 1030 | 980 | 1681 | 1706 | 1718 | 1389 | 1414 | 1426 |
| | 700 | 1120 | 990 | 1769 | 1783 | 1816 | 1477 | 1491 | 1523 |
| | 800 | 1260 | 1010 | 1908 | 1926 | 1972 | 1616 | 1634 | 1680 |
| | 900 | 1350 | 1020 | 2001 | 2022 | 2078 | 1708 | 1730 | 1786 |
| | 1000 | 1495 | 1040 | 2155 | 2193 | 2266 | 1863 | 1901 | 1973 |
| | 1100 | 1580 | 1045 | 2257 | 2295 | 23799 | 1965 | 2003 | 2087 |
| 1200 | 1725 | 1070 | 2398 | 2457 | 2547 | 2106 | 2164 | 2255 | |
| 1400 | 1960 | 1100 | 2686 | 2747 | 2887 | 2394 | 2455 | 2595 | |
| 1600 | 200 | 580 | 1030 | 1748 | 1748 | 1750 | 1318 | 1318 | 1320 |
| | 250 | 635 | 1040 | 1810 | 1809 | 1813 | 1380 | 1379 | 1383 |
| | 300 | 695 | 1045 | 1876 | 1876 | 1881 | 1446 | 1446 | 1451 |
| | 400 | 810 | 1060 | 2002 | 2008 | 2017 | 1572 | 1578 | 1587 |
| | 500 | 925 | 1075 | 2129 | 2143 | 2154 | 1699 | 1713 | 1724 |

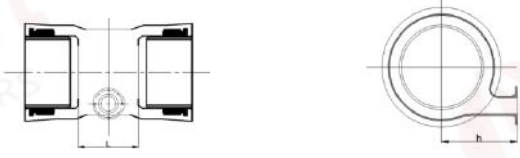


| Body | Branch | L(mm) | h | Weight(Kg) | | | | | |
|------|--------|-------|------|------------|------|------|--------|------|------|
| | | | | T-type | | | K-type | | |
| | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| DN | dn | | | | | | | | |
| 1600 | 600 | 1040 | 1090 | 2260 | 2285 | 2297 | 1908 | 1934 | 1967 |
| | 800 | 1275 | 1120 | 2811 | 2829 | 2875 | 2381 | 2399 | 2445 |
| | 1000 | 1505 | 1150 | 2824 | 2862 | 2935 | 2480 | 2522 | 2594 |
| | 1200 | 1740 | 1180 | 3146 | 3205 | 3295 | 2799 | 2863 | 2954 |
| | 1400 | 1970 | 1210 | 3478 | 3539 | 3679 | 3048 | 3109 | 3249 |
| | 1600 | 2200 | 1240 | 3883 | 3975 | 4135 | 3453 | 3545 | 3705 |
| 1800 | 200 | 595 | 1150 | 2146 | 2146 | 2148 | 1697 | 1697 | 1699 |
| | 250 | 650 | 1150 | 2220 | 2220 | 2224 | 1771 | 1771 | 1774 |
| | 300 | 705 | 1155 | 2295 | 2294 | 2300 | 1846 | 1845 | 1850 |
| | 400 | 820 | 1170 | 2448 | 2454 | 2463 | 1998 | 2005 | 2014 |
| | 500 | 940 | 1185 | 2608 | 2623 | 2633 | 2159 | 2174 | 2184 |
| | 600 | 1055 | 1200 | 2766 | 2791 | 2803 | 2414 | 2440 | 2453 |
| | 800 | 1285 | 1230 | 3092 | 3109 | 3155 | 2748 | 2767 | 2813 |
| | 1000 | 1520 | 1260 | 3434 | 3472 | 3545 | 3095 | 3137 | 3210 |
| | 1200 | 1750 | 1290 | 3798 | 3856 | 3947 | 3460 | 3524 | 3614 |
| | 1400 | 1980 | 1320 | 4173 | 4233 | 4373 | 3723 | 3784 | 3924 |
| | 1600 | 2215 | 1350 | 4617 | 4710 | 4870 | 4168 | 4260 | 4421 |
| | 1800 | 2445 | 1380 | 5075 | 5188 | 5405 | 4626 | 4739 | 4956 |
| 2000 | 200 | 600 | 1250 | / | / | / | 2117 | 2117 | 2119 |
| | 250 | 660 | 1260 | / | / | / | 2214 | 2214 | 2218 |
| | 300 | 720 | 1270 | / | / | / | 2312 | 2311 | 2317 |
| | 400 | 835 | 1290 | / | / | / | 2496 | 2502 | 2511 |
| | 500 | 950 | 1305 | / | / | / | 2681 | 2695 | 2705 |
| | 600 | 1065 | 1310 | / | / | / | 2988 | 3015 | 3028 |
| | 800 | 1300 | 1340 | / | / | / | 3231 | 3248 | 3294 |
| | 1000 | 1530 | 1370 | / | / | / | 3790 | 3832 | 3904 |
| | 1200 | 1760 | 1400 | / | / | / | 4014 | 4072 | 4163 |
| | 1400 | 1995 | 1430 | / | / | / | 4645 | 4713 | 4852 |
| | 1600 | 2225 | 1460 | / | / | / | 4892 | 4984 | 5144 |
| | 1800 | 2460 | 1490 | / | / | / | 5367 | 5480 | 5697 |
| | 2000 | 2690 | 1520 | / | / | / | 5999 | 6136 | 6458 |
| 2200 | 200 | 615 | 1360 | / | / | / | 2606 | 2606 | 2608 |
| | 250 | 670 | 1370 | / | / | / | 2712 | 2711 | 2715 |
| | 300 | 730 | 1380 | / | / | / | 2827 | 2826 | 2831 |
| | 400 | 845 | 1395 | / | / | / | 3043 | 3050 | 3059 |
| | 500 | 960 | 1410 | / | / | / | 3245 | 3259 | 3270 |
| | 600 | 1080 | 1420 | / | / | / | 3647 | 3647 | 3660 |
| | 800 | 1310 | 1445 | / | / | / | 3917 | 3934 | 3980 |
| | 1000 | 1540 | 1480 | / | / | / | 4365 | 4403 | 4475 |
| | 1200 | 1775 | 1510 | / | / | / | 5056 | 5119 | 5101 |
| | 1400 | 2005 | 1540 | / | / | / | 5315 | 5375 | 5515 |
| | 1600 | 2240 | 1570 | / | / | / | 5846 | 5938 | 6099 |
| | 1800 | 2470 | 1600 | / | / | / | 6579 | 6705 | 6922 |
| | 2000 | 2700 | 1630 | / | / | / | 6947 | 7084 | 7406 |



| Body | Branch | L(mm) | h | Weight(Kg) | | | | | |
|------|--------|-------|------|------------|------|------|--------|-------|------|
| | | | | T-type | | | K-type | | |
| | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| DN | dn | | | | | | | | |
| 2200 | 2200 | 2935 | 1660 | / | / | / | 7741 | 7898 | / |
| | 200 | 625 | 1470 | / | / | / | 3351 | 3351 | 3353 |
| | 250 | 685 | 1480 | / | / | / | 3485 | 3485 | 3488 |
| | 300 | 740 | 1490 | / | / | / | 3608 | 3608 | 3613 |
| | 400 | 860 | 1505 | / | / | / | 3872 | 3878 | 3888 |
| | 500 | 980 | 1520 | / | / | / | 4137 | 4151 | 4161 |
| | 600 | 1090 | 1530 | / | / | / | 4383 | 4409 | 4422 |
| | 800 | 1320 | 1560 | / | / | / | 4879 | 4897 | 4943 |
| | 1000 | 1555 | 1590 | / | / | / | 5406 | 5443 | 5516 |
| | 1200 | 1785 | 1620 | / | / | / | 6005 | 6069 | 6159 |
| | 1400 | 2020 | 1650 | / | / | / | 6487 | 6548 | 6687 |
| | 1600 | 2250 | 1680 | / | / | / | 7072 | 7164 | 7324 |
| | 1800 | 2480 | 1710 | / | / | / | 7734 | 7860 | 8084 |
| | 2000 | 2715 | 1740 | / | / | / | 8295 | 8432 | 8754 |
| | 2400 | 2200 | 2945 | 1770 | / | / | / | 9114 | 9272 |
| 2400 | | 3180 | 1800 | / | / | / | 9886 | 10093 | / |
| 200 | | 640 | 1580 | / | / | / | 4017 | 4017 | 4019 |
| 250 | | 695 | 1590 | / | / | / | 4159 | 4159 | 4163 |
| 300 | | 755 | 1600 | / | / | / | 4314 | 4314 | 4319 |
| 400 | | 870 | 1615 | / | / | / | 4606 | 4613 | 4622 |
| 500 | | 985 | 1630 | / | / | / | 4898 | 4913 | 4923 |
| 600 | | 1100 | 1640 | / | / | / | 5205 | 5231 | 5250 |
| 800 | | 1335 | 1670 | / | / | / | 5779 | 5797 | 5843 |
| 1000 | | 1565 | 1700 | / | / | / | 6369 | 6407 | 6479 |
| 1200 | | 1800 | 1730 | / | / | / | 6990 | 7048 | 7139 |
| 1400 | | 2030 | 1750 | / | / | / | 7704 | 7772 | 7912 |
| 1600 | | 2260 | 1790 | / | / | / | 8250 | 8342 | 8502 |
| 1800 | | 2495 | 1820 | / | / | / | 8910 | 9023 | 9240 |
| 2600 | | 2000 | 2725 | 1850 | / | / | / | 9713 | 9866 |
| | 2200 | 2960 | 1880 | / | / | / | 10484 | 10641 | / |
| | 2400 | 3190 | 1910 | / | / | / | 11286 | 11493 | / |
| | 2600 | 3420 | 1940 | / | / | / | 11667 | 11885 | / |

DOUBLE SOCKET TEE with LEVEL INVERT FLANGE BRANCH



| Bod DN | Branc dn | L(mm) | h | T-type Weight(Kg) | | | K-type Weight(Kg) | | |
|-----------|-------------|-----------|----|-------------------|------|------|-------------------|------|------|
| | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 100 | 80 | 170 | 17 | 15.8 | 15.8 | 15.8 | 20.0 | 20.0 | 20.0 |
| 150 | 80 | 170 | 20 | 23.0 | 23.0 | 23.0 | 28.0 | 28.0 | 28.0 |
| | 100 | 195 | 21 | 24.5 | 24.5 | 25 | 29.5 | 29.5 | 29.5 |
| 200 | 80 | 175 | 23 | 31.5 | 31.5 | 31.5 | 36.0 | 36.0 | 36.0 |
| | 100 | 200 | 24 | 36.5 | 36.5 | 37 | 41 | 41 | 41.5 |
| 250 | 150 | 250 | 25 | 44 | 44 | 45 | 48.5 | 48.5 | 49.5 |
| | 80 | 180 | 26 | 42.2 | 42.2 | 42.2 | 43.6 | 43.6 | 43.6 |
| 250 | 100 | 200 | 27 | 47.5 | 47.5 | 49 | 51.1 | 51.1 | 52.6 |
| | 150 | 255 | 28 | 62.6 | 62.6 | 63.5 | 66.2 | 66.2 | 67.1 |
| 300 | 200 | 315 | 29 | 65 | 65 | 67 | 68.6 | 68.6 | 70.6 |
| | 80 | 180 | 29 | 60.8 | 60.8 | 60.8 | 65.4 | 65.4 | 65.4 |
| 300 | 100 | 205 | 30 | 64.2 | 64.2 | 62.4 | 69.8 | 69.8 | 71.3 |
| | 125 | 230 | 30 | 67.0 | 67.0 | 67.6 | 71.6 | 71.6 | 72.2 |
| 350 | 150 | 260 | 31 | 74 | 74 | 75 | 74.8 | 74.8 | 75.8 |
| | 200 | 320 | 32 | 80 | 79 | 82 | 90.8 | 90.8 | 92.8 |
| 350 | 250 | 380 | 33 | 87.8 | 87.4 | 91.1 | 92.4 | 92.0 | 95.7 |
| | 80 | 185 | 32 | 63.6 | 63.6 | 63.6 | 76.0 | 76.0 | 76.0 |
| 350 | 100 | 205 | 33 | 73 | 73 | 73 | 83.4 | 83.4 | 83.4 |
| | 125 | 230 | 33 | 70.2 | 70.2 | 70.8 | 82.6 | 82.6 | 83.2 |
| 400 | 150 | 265 | 34 | 91.5 | 91.5 | 92 | 102 | 102 | 102 |
| | 200 | 325 | 35 | 96 | 96 | 98 | 106 | 106 | 108 |
| 400 | 250 | 385 | 36 | 93.2 | 92.9 | 96.5 | 105. | 105. | 108. |
| | 300 | 420 | 37 | 105. | 104. | 109. | 117. | 117. | 122. |
| 450 | 80 | 185 | 35 | 75.2 | 75.2 | 75.2 | 87.8 | 87.8 | 87.8 |
| | 100 | 210 | 36 | 89 | 89 | 89 | 99.4 | 99.4 | 99.4 |
| 450 | 125 | 230 | 36 | 86.2 | 86.2 | 86.7 | 95.3 | 95.3 | 95.9 |
| | 150 | 265 | 37 | 101 | 101 | 102 | 111 | 111 | 112 |
| 500 | 200 | 325 | 38 | 115 | 114 | 116 | 125 | 125 | 126 |
| | 250 | 380 | 39 | 134 | 133 | 138 | 144 | 144 | 148 |
| 500 | 300 | 440 | 40 | 123. | 123. | 128. | 136. | 135. | 141. |
| | 350 | 480 | 41 | 132. | 135. | 143. | 145. | 148. | 156. |
| 550 | 100 | 210 | 40 | 114 | 114 | 114 | 121 | 121 | 121 |
| | 125 | 230 | 39 | 93.8 | 93.8 | 94.4 | 111. | 111. | 112. |
| 550 | 150 | 270 | 40 | 130 | 130 | 131 | 137 | 137 | 138 |
| | 200 | 325 | 41 | 142 | 142 | 144 | 149 | 149 | 151 |
| 600 | 250 | 385 | 42 | 155 | 154 | 159 | 162 | 162 | 166 |
| | 300 | 445 | 43 | 174 | 174 | 180 | 181 | 181 | 187 |
| 600 | 350 | 480 | 43 | 148. | 150. | 158. | 166. | 168. | 176. |
| | 400 | 560 | 45 | 166. | 173. | 182. | 184. | 191. | 200. |
| 650 | 80 | 190 | 40 | 103. | 103. | 103. | 118. | 118. | 118. |
| | 100 | 215 | 42 | 124 | 124 | 125 | 130 | 130 | 131 |
| 650 | 125 | 240 | 42 | 113. | 113. | 114. | 129. | 129. | 129. |
| | 150 | 274 | 43 | 149 | 150 | 151 | 155 | 156 | 157 |
| 700 | 200 | 330 | 44 | 158 | 157 | 159 | 164 | 164 | 165 |
| | 250 | 390 | 45 | 182 | 181 | 185 | 188 | 188 | 191 |
| 750 | 300 | 445 | 46 | 201 | 201 | 206 | 207 | 207 | 212 |
| | 350 | 490 | 45 | 172. | 175. | 183. | 187. | 190. | 198. |
| 800 | 400 | 565 | 48 | 199. | 205. | 216. | 208. | 214. | 223. |
| | 450 | 600 | 48 | 203. | 212. | 223. | 218. | 227. | 238. |

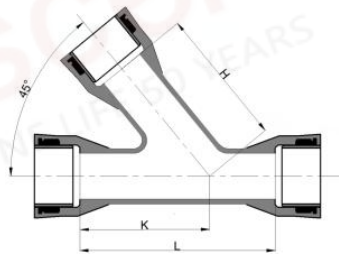
| Body DN | Branc dn | L(mm) | h | T-type Weight(Kg) | | | K-type Weight(Kg) | | |
|------------|-------------|-----------|----|-------------------|------|------|-------------------|------|------|
| | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 600 | 80 | 195 | 46 | 139. | 139. | 139. | 152. | 152. | 152. |
| | 100 | 220 | 48 | 186 | 185 | 185 | 184 | 183 | 183 |
| | 125 | 240 | 46 | 151. | 151. | 151. | 163. | 163. | 164. |
| | 150 | 280 | 49 | 199 | 199 | 200 | 197 | 197 | 198 |
| | 200 | 340 | 50 | 205 | 205 | 207 | 203 | 203 | 205 |
| | 250 | 395 | 51 | 239 | 238 | 243 | 237 | 236 | 241 |
| | 300 | 450 | 52 | 257 | 257 | 261 | 255 | 255 | 259 |
| | 350 | 510 | 53 | 283 | 289 | 295 | 281 | 287 | 293 |
| | 400 | 570 | 54 | 294 | 300 | 310 | 292 | 298 | 308 |
| | 450 | 610 | 54 | 260. | 269. | 280. | 273. | 282. | 292. |
| 700 | 500 | 670 | 54 | 280. | 295. | 305. | 293. | 307. | 318. |
| | 80 | 210 | 49 | 208. | 208. | 208. | 189. | 189. | 189. |
| | 100 | 230 | 51 | 261 | 261 | 262 | 253 | 253 | 254 |
| | 125 | 250 | 49 | 221. | 221. | 222. | 202. | 202. | 203. |
| | 150 | 285 | 51 | 265 | 265 | 266 | 255 | 255 | 256 |
| | 200 | 345 | 52 | 269 | 269 | 271 | 280 | 280 | 282 |
| | 250 | 390 | 52 | 268. | 267. | 271. | 249. | 248. | 252. |
| | 300 | 460 | 54 | 324 | 324 | 330 | 320 | 319 | 326 |
| | 350 | 500 | 53 | 304. | 306. | 314. | 285. | 287. | 295. |
| | 400 | 575 | 55 | 330. | 337. | 346. | 311. | 318. | 327. |
| 800 | 450 | 610 | 54 | 341. | 350. | 361. | 322. | 331. | 342. |
| | 500 | 680 | 55 | 374. | 388. | 399. | 365. | 379. | 390. |
| | 600 | 770 | 56 | 416. | 441. | 453. | 407. | 432. | 444. |
| | 80 | 240 | 55 | 283. | 283. | 283. | 256. | 256. | 256. |
| | 100 | 235 | 57 | 328 | 328 | 329 | 308 | 308 | 309 |
| | 125 | 290 | 55 | 301. | 301. | 302. | 275. | 275. | 275. |
| | 150 | 290 | 57 | 335 | 335 | 336 | 310 | 310 | 311 |
| | 200 | 350 | 58 | 336 | 336 | 338 | 335 | 335 | 337 |
| | 250 | 410 | 59 | 379 | 379 | 383 | 355 | 354 | 358 |
| | 300 | 465 | 63 | 401 | 401 | 407 | 380 | 379 | 385 |
| 900 | 350 | 530 | 59 | 398. | 400. | 408. | 371. | 374. | 382. |
| | 400 | 580 | 61 | 419. | 425. | 434. | 392. | 399. | 408. |
| | 450 | 640 | 61 | 443. | 452. | 462. | 416. | 426. | 436. |
| | 500 | 690 | 61 | 522. | 513. | 537. | 528. | 549. | 540. |
| | 600 | 810 | 62 | 588. | 579. | 612. | 603. | 624. | 614. |
| | 80 | 240 | 60 | 358. | 358. | 358. | 320. | 320. | 320. |
| | 100 | 260 | 61 | 367. | 367. | 368. | 329. | 329. | 330. |
| | 125 | 290 | 61 | 381. | 381. | 381. | 343. | 343. | 343. |
| | 150 | 300 | 63 | 409 | 409 | 410 | 382 | 382 | 383 |
| | 200 | 355 | 64 | 416 | 416 | 418 | 396 | 396 | 398 |
| 1000 | 250 | 420 | 64 | 442. | 441. | 445. | 404. | 403. | 407. |
| | 300 | 470 | 66 | 491 | 491 | 497 | 460 | 459 | 465 |
| | 350 | 530 | 66 | 493. | 496. | 504. | 455. | 458. | 466. |
| | 400 | 590 | 67 | 537 | 542 | 553 | 504 | 508 | 519 |
| | 450 | 640 | 66 | 544. | 553. | 563. | 506. | 515. | 525. |
| | 500 | 690 | 67 | 569. | 584. | 594. | 531. | 546. | 556. |
| | 600 | 820 | 68 | 638. | 663. | 676. | 600. | 625. | 638. |
| | 80 | 240 | 67 | 439. | 439. | 439. | 397. | 397. | 397. |
| | 100 | 240 | 69 | 449. | 449. | 450. | 407. | 407. | 408. |

| Body DN | Branch dn | L | h | T-type Weight(Kg) | | | K-type Weight(Kg) | | |
|---------|-----------|------|------|-------------------|-------|-------|-------------------|-------|-------|
| | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 1000 | 125 | 290 | 675 | 465.7 | 465.7 | 466.3 | 423.7 | 423.7 | 424.3 |
| | 150 | 305 | 695 | 476.7 | 476.7 | 477.7 | 434.7 | 434.7 | 435.7 |
| | 200 | 360 | 705 | 504.4 | 504.4 | 506.2 | 462.4 | 462.4 | 462.2 |
| | 250 | 420 | 705 | 536.9 | 536.6 | 540.2 | 494.9 | 494.6 | 498.2 |
| | 300 | 480 | 720 | 569.9 | 569.6 | 574.8 | 527.9 | 527.6 | 532.8 |
| | 350 | 530 | 720 | 596.7 | 599.5 | 607.4 | 554.7 | 557.5 | 565.4 |
| | 400 | 595 | 735 | 632.9 | 639.4 | 648.6 | 590.9 | 597.4 | 606.6 |
| | 450 | 640 | 725 | 655.3 | 664.6 | 675.0 | 613.3 | 622.6 | 633.0 |
| | 500 | 690 | 730 | 684.7 | 699.1 | 709.5 | 642.7 | 657.1 | 667.5 |
| | 600 | 825 | 745 | 756.2 | 781.2 | 793.6 | 714.2 | 739.2 | 751.6 |
| 1100 | 80 | 240 | 730 | 539.7 | 539.7 | 539.7 | 466.9 | 466.9 | 466.9 |
| | 100 | 260 | 730 | 548.9 | 548.9 | 549.4 | 476.1 | 476.1 | 476.6 |
| | 125 | 290 | 735 | 567.3 | 567.3 | 567.9 | 494.5 | 494.5 | 495.1 |
| | 150 | 310 | 740 | 580.0 | 580.0 | 581.0 | 507.2 | 507.2 | 508.2 |
| | 200 | 360 | 745 | 611.0 | 611.0 | 612.8 | 538.2 | 538.2 | 540.0 |
| | 250 | 420 | 755 | 648.9 | 648.5 | 652.2 | 576.1 | 575.7 | 579.4 |
| | 300 | 480 | 760 | 686.7 | 686.4 | 691.6 | 613.9 | 613.6 | 618.8 |
| | 350 | 530 | 770 | 717.4 | 720.2 | 728.1 | 644.6 | 647.4 | 655.3 |
| | 400 | 600 | 795 | 762.8 | 769.3 | 778.5 | 690.0 | 696.5 | 705.7 |
| | 450 | 650 | 795 | 793.1 | 802.4 | 812.8 | 720.3 | 729.6 | 740.0 |
| 1200 | 500 | 700 | 795 | 825.8 | 840.2 | 850.6 | 753.0 | 767.4 | 777.8 |
| | 600 | 830 | 825 | 915.9 | 940.9 | 953.3 | 843.1 | 868.1 | 880.5 |
| | 80 | 240 | 790 | 651.9 | 651.9 | 651.9 | 539.9 | 539.9 | 539.9 |
| | 100 | 260 | 790 | 666.0 | 665.9 | 666.5 | 554.0 | 553.9 | 554.5 |
| | 125 | 290 | 795 | 687.1 | 687.1 | 687.7 | 575.1 | 575.1 | 575.7 |
| | 150 | 310 | 800 | 701.8 | 701.8 | 702.7 | 589.8 | 589.8 | 590.7 |
| | 200 | 375 | 825 | 738.1 | 738.1 | 739.9 | 626.1 | 626.1 | 627.9 |
| | 250 | 420 | 815 | 781.8 | 781.4 | 785.1 | 669.8 | 669.4 | 673.1 |
| | 300 | 480 | 820 | 825.7 | 825.4 | 830.6 | 713.7 | 713.4 | 718.6 |
| | 350 | 530 | 830 | 861.2 | 864.0 | 871.9 | 749.2 | 752.0 | 759.9 |
| 1400 | 400 | 605 | 855 | 904.5 | 911 | 920.2 | 792.5 | 799 | 808.2 |
| | 450 | 650 | 845 | 947.1 | 956.4 | 966.8 | 835.1 | 844.4 | 854.8 |
| | 500 | 710 | 850 | 990.7 | 1005 | 1016 | 878.7 | 893.1 | 903.5 |
| | 600 | 840 | 885 | 1090 | 1115 | 1128 | 977.8 | 1003 | 1016 |
| | 80 | 340 | 870 | 1077 | 1077 | 1077 | 784.8 | 784.8 | 784.8 |
| | 100 | 420 | 875 | 1148 | 1148 | 1149 | 855.5 | 855.4 | 856.0 |
| | 125 | 450 | 880 | 1175 | 1175 | 1176 | 882.4 | 882.4 | 883.0 |
| | 150 | 480 | 880 | 1201 | 1201 | 1202 | 908.4 | 908.4 | 909.4 |
| | 200 | 565 | 920 | 1256 | 1256 | 1258 | 963.4 | 963.4 | 965.2 |
| | 250 | 560 | 895 | 1275 | 1275 | 1279 | 982.7 | 982.4 | 986.0 |
| 1600 | 300 | 650 | 905 | 1357 | 1356 | 1361 | 1064 | 1064 | 1069 |
| | 350 | 710 | 910 | 1409 | 1412 | 1420 | 1117 | 1120 | 1128 |
| | 400 | 800 | 950 | 1463 | 1470 | 1479 | 1171 | 1177 | 1187 |
| | 450 | 830 | 925 | 1516 | 1525 | 1535 | 1224 | 1233 | 1243 |
| | 500 | 880 | 935 | 1563 | 1577 | 1588 | 1271 | 1285 | 1295 |
| | 600 | 1030 | 980 | 1708 | 1733 | 1745 | 1415 | 1440 | 1453 |
| | 200 | 580 | 1030 | 1769 | 1769 | 1771 | 1339 | 1339 | 1341 |



| Body DN | Branch dn | L | h | T-type Weight(Kg) | | | K-type Weight(Kg) | | |
|---------|-----------|------|------|-------------------|------|------|-------------------|------|------|
| | | | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 |
| 1600 | 250 | 635 | 1040 | 1832 | 1832 | 1836 | 1402 | 1402 | 1406 |
| | 300 | 695 | 1045 | 1901 | 1900 | 1906 | 1471 | 1470 | 1476 |
| | 400 | 810 | 1060 | 2029 | 2036 | 2045 | 1599 | 1606 | 1615 |
| | 500 | 925 | 1075 | 2159 | 2174 | 2184 | 1729 | 1744 | 1754 |
| | 600 | 1040 | 1090 | 2293 | 2318 | 2330 | 1863 | 1888 | 1900 |
| 1800 | 200 | 595 | 1150 | 2172 | 2172 | 2174 | 1723 | 1723 | 1724 |
| | 250 | 650 | 1150 | 2249 | 2249 | 2253 | 1800 | 1800 | 1803 |
| | 300 | 705 | 1155 | 2326 | 2326 | 2331 | 1877 | 1877 | 1882 |
| | 400 | 820 | 1170 | 2486 | 2492 | 2501 | 2037 | 2043 | 2052 |
| | 500 | 940 | 1185 | 2646 | 2661 | 2671 | 2197 | 2212 | 2222 |
| 2000 | 600 | 1055 | 1200 | 2818 | 2843 | 2856 | 2369 | 2394 | 2406 |
| | 200 | 600 | 1250 | / | / | / | 2148 | 2148 | 2150 |
| | 250 | 660 | 1260 | / | / | / | 2250 | 2249 | 2253 |
| | 300 | 720 | 1270 | / | / | / | 2350 | 2350 | 2355 |
| | 400 | 835 | 1280 | / | / | / | 2542 | 2548 | 2588 |
| 2200 | 500 | 950 | 1305 | / | / | / | 2726 | 2741 | 2751 |
| | 600 | 1065 | 1310 | / | / | / | 2988 | 3015 | 3026 |
| | 200 | 615 | 1360 | / | / | / | 2643 | 2643 | 2645 |
| | 250 | 670 | 1370 | / | / | / | 2754 | 2753 | 2757 |
| | 300 | 730 | 1380 | / | / | / | 2872 | 2872 | 2877 |
| 2400 | 400 | 845 | 1395 | / | / | / | 3098 | 3105 | 3114 |
| | 500 | 960 | 1410 | / | / | / | 3299 | 3314 | 3324 |
| | 600 | 1080 | 1420 | / | / | / | 3647 | 3674 | 3687 |
| | 200 | 625 | 1470 | / | / | / | 3395 | 3395 | 3397 |
| | 250 | 685 | 1480 | / | / | / | 3535 | 3534 | 3538 |
| 2600 | 300 | 740 | 1490 | / | / | / | 3662 | 3661 | 3666 |
| | 400 | 860 | 1505 | / | / | / | 3937 | 3944 | 3953 |
| | 500 | 980 | 1520 | / | / | / | 4202 | 4216 | 4226 |
| | 600 | 1090 | 1530 | / | / | / | 4442 | 4467 | 4480 |
| | 200 | 640 | 1580 | / | / | / | 4069 | 4069 | 4071 |
| 2600 | 250 | 695 | 1590 | / | / | / | 4217 | 4217 | 4220 |
| | 300 | 755 | 1600 | / | / | / | 4371 | 4376 | 4381 |
| | 400 | 870 | 1615 | / | / | / | 4682 | 4688 | 4697 |
| | 500 | 985 | 1630 | / | / | / | 4974 | 4988 | 4998 |
| | 600 | 1100 | 1640 | / | / | / | 5265 | 5290 | 5303 |

ALL SOCKET 45° ANGLE BRANCH TEE



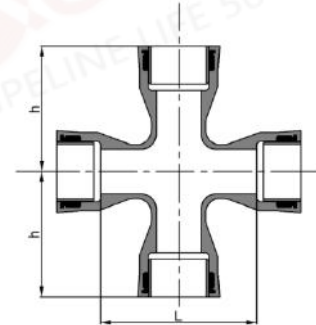
| Body DN | Branch dn | L | K | H | Weight (Kg) | |
|---------|-----------|-----|-----|-----|-------------|--------|
| | | | | | T-type | K-type |
| 80 | 80 | 290 | 215 | 215 | 21.4 | 21.4 |
| 100 | 80 | 290 | 225 | 230 | 25 | 25 |
| | 100 | 320 | 240 | 240 | 26.8 | 26.8 |
| 125 | 80 | 380 | 295 | 295 | 30.7 | 30.7 |
| | 100 | 400 | 300 | 300 | 33.3 | 33.3 |
| 125 | 125 | 415 | 300 | 300 | 35.9 | 35.9 |
| | 80 | 290 | 250 | 265 | 37.1 | 37.1 |
| 150 | 100 | 320 | 265 | 275 | 39.4 | 39.4 |
| | 125 | 445 | 330 | 330 | 42.2 | 42.2 |
| | 150 | 390 | 300 | 300 | 46 | 46 |
| 200 | 80 | 290 | 275 | 300 | 52.7 | 52.3 |
| | 100 | 320 | 290 | 310 | 55.3 | 54.9 |
| | 125 | 505 | 390 | 390 | 58.4 | 58.2 |
| | 150 | 390 | 325 | 335 | 62.8 | 62.4 |
| | 200 | 460 | 360 | 360 | 71.5 | 70.9 |
| 250 | 80 | 290 | 300 | 335 | 72.5 | 71.7 |
| | 100 | 320 | 315 | 345 | 75.4 | 74.6 |
| | 125 | 565 | 450 | 450 | 78.3 | 78.0 |
| | 150 | 390 | 350 | 370 | 83.8 | 83 |
| | 200 | 460 | 385 | 395 | 93.7 | 92.7 |
| | 250 | 530 | 420 | 420 | 104 | 103 |
| | 300 | 600 | 480 | 480 | 145 | 144 |
| 300 | 80 | 290 | 325 | 370 | 96.3 | 96 |
| | 100 | 320 | 340 | 380 | 99.6 | 98.8 |
| | 125 | 625 | 510 | 510 | 101.2 | 107.7 |
| | 150 | 390 | 375 | 405 | 109 | 108 |
| | 200 | 460 | 410 | 430 | 120 | 119 |
| | 250 | 530 | 445 | 455 | 132 | 131 |
| 350 | 300 | 600 | 480 | 480 | 145 | 144 |
| | 100 | 380 | 405 | 455 | 126 | 139 |
| | 125 | 690 | 570 | 570 | 130.0 | 142.0 |
| | 150 | 450 | 440 | 480 | 136 | 149 |
| | 200 | 520 | 475 | 505 | 146 | 159 |
| | 250 | 690 | 510 | 530 | 158 | 170 |
| | 300 | 660 | 545 | 555 | 171 | 187 |
| | 350 | 730 | 580 | 580 | 186 | 201 |
| 400 | 100 | 380 | 430 | 490 | 159 | 172 |
| | 125 | 750 | 630 | 630 | 164.5 | 177.5 |
| | 150 | 450 | 465 | 515 | 170 | 183 |
| | 200 | 520 | 500 | 540 | 182 | 195 |

| Body DN | Branch dn | L | K | H | Weight (Kg) | |
|---------|-----------|------|------|------|-------------|--------|
| | | | | | T-type | K-type |
| 400 | 250 | 590 | 535 | 565 | 195 | 206 |
| | 300 | 660 | 570 | 590 | 209 | 225 |
| | 350 | 730 | 605 | 615 | 225 | 241 |
| | 400 | 800 | 640 | 640 | 242 | 258 |
| 450 | 100 | 380 | 455 | 525 | 198 | 208 |
| | 125 | 810 | 690 | 690 | 204.0 | 214.5 |
| | 150 | 450 | 490 | 550 | 210 | 221 |
| | 200 | 520 | 525 | 575 | 223 | 233 |
| | 250 | 590 | 560 | 600 | 237 | 247 |
| | 300 | 935 | 710 | 710 | 253.5 | 265.0 |
| | 350 | 730 | 630 | 650 | 270 | 283 |
| | 400 | 800 | 665 | 675 | 288 | 301 |
| | 450 | 870 | 700 | 700 | 307 | 320 |
| | 500 | 940 | 760 | 760 | 383 | 392 |
| 500 | 100 | 380 | 480 | 560 | 243 | 251 |
| | 125 | 875 | 750 | 750 | 249.5 | 257.5 |
| | 150 | 450 | 515 | 585 | 256 | 264 |
| | 200 | 520 | 550 | 610 | 269 | 277 |
| | 250 | 590 | 585 | 635 | 286 | 293 |
| | 300 | 660 | 620 | 660 | 303 | 314 |
| | 350 | 730 | 655 | 685 | 321 | 332 |
| | 400 | 800 | 690 | 710 | 340 | 351 |
| | 450 | 870 | 725 | 735 | 361 | 371 |
| | 500 | 940 | 760 | 760 | 383 | 392 |
| 600 | 100 | 380 | 565 | 655 | 347 | 346 |
| | 125 | 1000 | 875 | 875 | 355.5 | 354.5 |
| | 150 | 450 | 600 | 680 | 364 | 363 |
| | 200 | 520 | 635 | 705 | 381 | 379 |
| | 250 | 590 | 670 | 730 | 399 | 379 |
| | 300 | 660 | 705 | 755 | 418 | 419 |
| | 350 | 730 | 740 | 780 | 439 | 440 |
| | 400 | 800 | 775 | 805 | 461 | 463 |
| | 450 | 870 | 810 | 830 | 485 | 486 |
| | 500 | 940 | 845 | 855 | 511 | 510 |
| 600 | 1080 | 880 | 880 | 567 | 562 | |
| 700 | 700 | 1220 | 1000 | 1000 | 950 | 935 |
| 800 | 800 | 1360 | 1120 | 1120 | 1769 | 1733 |
| 900 | 900 | 1500 | 1240 | 1240 | 1795 | 1753 |
| 1000 | 1000 | 1640 | 1360 | 1360 | 2310 | 2310 |
| 1200 | 1200 | 1780 | 1480 | 1480 | 3015 | 3015 |

ALL SOCKET CROSS

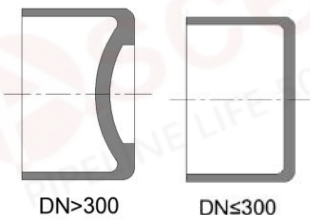
| Bod DN | Branc dn | L(mm) | h(mm) | Weight (Kg) | |
|-----------|-------------|-----------|-----------|-------------|------|
| | | | | T- | K- |
| 80 | 80 | 170 | 85 | 15.4 | 21.0 |
| 100 | 80 | 170 | 95 | 17.2 | 24.1 |
| | 100 | 190 | 95 | 19.8 | 29.3 |
| 125 | 80 | 170 | 105 | 21.1 | 27.7 |
| | 100 | 190 | 110 | 23.0 | 30.8 |
| 150 | 125 | 220 | 110 | 26.8 | 34.4 |
| | 80 | 170 | 120 | 22.6 | 30.4 |
| | 100 | 195 | 120 | 26.6 | 36.4 |
| | 125 | 230 | 120 | 29.9 | 38.7 |
| 200 | 150 | 255 | 125 | 33.6 | 43.8 |
| | 80 | 180 | 145 | 31.9 | 37.7 |
| | 100 | 200 | 145 | 34.2 | 43.4 |
| | 125 | 230 | 145 | 39.4 | 46.2 |
| 250 | 150 | 255 | 150 | 41.7 | 51.2 |
| | 200 | 315 | 155 | 50.9 | 59.7 |
| | 80 | 180 | 170 | 44.0 | 48.2 |
| | 100 | 200 | 170 | 44.9 | 52.4 |
| | 125 | 230 | 175 | 51.0 | 56.2 |
| | 150 | 260 | 175 | 57.9 | 65.8 |
| 300 | 200 | 315 | 180 | 64.2 | 71.4 |
| | 250 | 375 | 185 | 75.1 | 80.7 |
| | 80 | 190 | 195 | 62.5 | 69.9 |
| | 100 | 205 | 195 | 55.7 | 71.2 |
| | 125 | 240 | 200 | 70.2 | 78.6 |
| | 150 | 260 | 200 | 71.1 | 87 |
| | 200 | 320 | 205 | 77.6 | 92.8 |
| 350 | 250 | 380 | 210 | 93.3 | 107 |
| | 300 | 435 | 220 | 101 | 123 |
| | 80 | 190 | 220 | 67.1 | 79.9 |
| | 100 | 210 | 220 | 70.1 | 84.2 |
| | 150 | 260 | 225 | 78.7 | 93.7 |
| | 200 | 325 | 230 | 91.7 | 107 |
| | 250 | 380 | 235 | 110 | 123 |
| 400 | 300 | 440 | 245 | 123 | 144 |
| | 350 | 495 | 250 | 137 | 157 |
| | 80 | 190 | 240 | 76.0 | 91.4 |
| | 100 | 210 | 245 | 79.6 | 96.2 |
| | 125 | 240 | 250 | 85.6 | 102. |
| | 150 | 270 | 250 | 90.1 | 107. |
| | 200 | 325 | 255 | 108 | 122 |
| 450 | 250 | 385 | 260 | 130 | 143 |
| | 300 | 440 | 270 | 142 | 163 |
| | 350 | 500 | 275 | 157 | 178 |
| | 400 | 560 | 280 | 177 | 198 |

| Bod DN | Branc dn | L(mm) | h(mm) | Weight (Kg) | |
|-----------|-------------|-----------|-----------|-------------|------|
| | | | | T- | K- |
| 450 | 80 | 190 | 270 | 86.2 | 107. |
| | 100 | 210 | 270 | 89.9 | 112. |
| | 125 | 240 | 270 | 96.2 | 118. |
| | 150 | 270 | 280 | 101. | 124. |
| | 200 | 330 | 280 | 116. | 137. |
| | 250 | 390 | 290 | 132. | 151. |
| | 300 | 440 | 290 | 153. | 176. |
| | 350 | 500 | 300 | 164. | 192. |
| | 400 | 560 | 300 | 178. | 209. |
| | 450 | 620 | 310 | 196. | 232. |
| 500 | 80 | 190 | 290 | 103. | 121. |
| | 100 | 220 | 295 | 109. | 128. |
| | 125 | 240 | 300 | 114. | 133. |
| | 150 | 270 | 300 | 120. | 140. |
| | 200 | 330 | 310 | 136. | 154. |
| | 250 | 390 | 310 | 174 | 183 |
| | 300 | 450 | 320 | 191 | 208 |
| | 350 | 505 | 325 | 207 | 223 |
| | 400 | 565 | 330 | 223 | 239 |
| | 450 | 620 | 335 | 220. | 253. |
| 600 | 500 | 680 | 340 | 272 | 284 |
| | 80 | 200 | 340 | 139. | 155. |
| | 100 | 220 | 345 | 145. | 161. |
| | 125 | 250 | 350 | 153. | 170. |
| | 150 | 280 | 350 | 160. | 178. |
| | 200 | 340 | 360 | 179. | 195. |
| | 250 | 400 | 360 | 198. | 212. |
| | 300 | 455 | 370 | 249 | 256 |
| | 350 | 510 | 375 | 267 | 274 |
| | 400 | 570 | 380 | 278 | 284 |
| 700 | 450 | 630 | 385 | 273. | 303. |
| | 500 | 685 | 390 | 330 | 332 |
| | 600 | 800 | 400 | 399 | 392 |
| | 350 | 520 | 425 | 413 | 410 |
| | 400 | 575 | 430 | 447 | 441 |
| | 500 | 690 | 440 | 520 | 510 |
| | 600 | 810 | 450 | 607 | 589 |
| 800 | 700 | 925 | 460 | 712 | 691 |
| | 400 | 580 | 480 | 548 | 527 |
| | 500 | 700 | 490 | 632 | 608 |
| | 600 | 815 | 500 | 725 | 692 |
| | 700 | 930 | 510 | 831 | 796 |
| 900 | 800 | 1045 | 525 | 963 | 914 |
| | 500 | 705 | 540 | 757 | 729 |



| Bod DN | Branc dn | L(mm) | h(mm) | Weight (Kg) | |
|-----------|-------------|-----------|-----------|-------------|------|
| | | | | T- | K- |
| 900 | 600 | 802 | 550 | 859 | 823 |
| | 700 | 935 | 560 | 969 | 930 |
| | 800 | 1050 | 575 | 1105 | 1052 |
| | 900 | 1170 | 585 | 1262 | 1205 |
| 1000 | 600 | 825 | 600 | 1011 | 1003 |
| | 700 | 940 | 610 | 1130 | 1120 |
| | 800 | 1060 | 625 | 1276 | 1251 |
| | 900 | 1175 | 635 | 1432 | 1404 |
| 1200 | 1000 | 1290 | 645 | 1612 | 1612 |
| | 800 | 1070 | 725 | 1677 | 1652 |
| | 900 | 1185 | 735 | 1847 | 1818 |
| | 1000 | 1300 | 745 | 2034 | 2034 |
| 1400 | 1200 | 1535 | 765 | 2497 | 2497 |
| | 900 | 1200 | 835 | 2261 | 2232 |
| | 1000 | 1315 | 845 | 2468 | 2468 |
| | 1200 | 1545 | 865 | 2940 | 2940 |
| 1400 | 1780 | 890 | 3446 | 3446 | |

PLUG

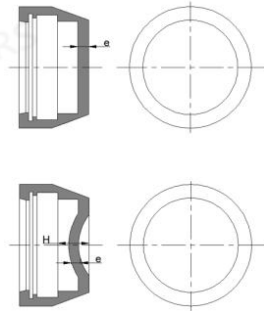


DN>300

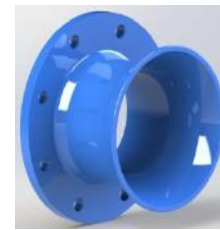
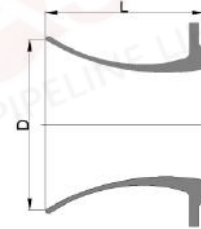
DN≤300



CAP



BELLMOUTH



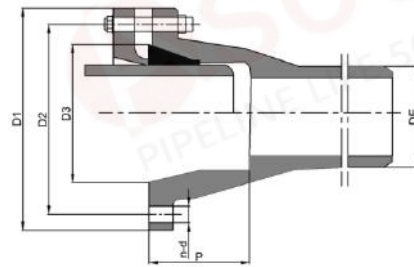
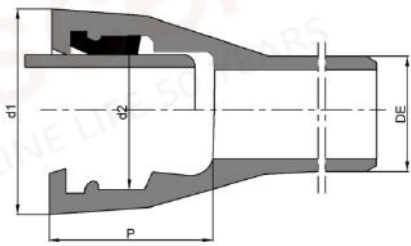
| DN | Weight(Kg) | |
|------|------------|-------|
| | T | K |
| 40 | 1.6 | / |
| 50 | 2.0 | / |
| 60 | 2.4 | / |
| 65 | 2.6 | / |
| 80 | 3.3 | 4.5 |
| 100 | 4.5 | 5.7 |
| 125 | 7.0 | / |
| 150 | 9.5 | 8.8 |
| 200 | 14.8 | 13 |
| 250 | 21.5 | 17.6 |
| 300 | 33.5 | 25.2 |
| 350 | 45.5 | 32.7 |
| 400 | 56 | 42.9 |
| 450 | 68.5 | 52.5 |
| 500 | 81 | 63.6 |
| 600 | 112 | 88.7 |
| 700 | 193 | 166 |
| 800 | 259 | 250 |
| 900 | 337 | 333 |
| 1000 | 437 | 434 |
| 1100 | 520.0 | 553.0 |
| 1200 | 783 | 671 |
| 1400 | 1078 | 710 |
| 1500 | 976.0 | 747.2 |
| 1600 | 1133 | 816 |
| 1800 | 1564 | 1123 |
| 2000 | / | 1515 |
| 2200 | / | 1808 |
| 2400 | / | 2340 |
| 2600 | / | 2870 |

| DN | Weight(Kg) | |
|------|------------|-------|
| | T | K |
| 40 | 3.7 | / |
| 50 | 4.2 | / |
| 60 | 4.8 | / |
| 65 | 5.3 | / |
| 80 | 7.3 | 6.5 |
| 100 | 8.5 | 8.5 |
| 125 | 11.3 | 10.4 |
| 150 | 14.1 | 12.3 |
| 200 | 19.8 | 18.4 |
| 250 | 27.4 | 22 |
| 300 | 42.8 | 34 |
| 350 | 61.7 | 47.3 |
| 400 | 76.3 | 56 |
| 450 | 93.7 | 70 |
| 500 | 107 | 83 |
| 600 | 132 | 138 |
| 700 | 202 | 170 |
| 800 | 275 | 225 |
| 900 | 353 | 300 |
| 1000 | 454 | 370 |
| 1100 | 493.3 | 475.0 |
| 1200 | 613 | 580 |
| 1400 | 1018 | 1027 |
| 1500 | 1337 | 1234 |
| 1600 | 1656 | 1441 |
| 1800 | 2165 | 1941 |
| 2000 | 2541 | 2541 |
| 2200 | / | 2710 |
| 2400 | / | 2880 |
| 2600 | / | 3280 |

| DN | L(mm) | D(mm) | Weight(Kg) | | |
|------|-------|-------|------------|------|-------|
| | | | PN10 | PN16 | PN25 |
| 80 | 130 | 150 | 5.2 | 5.2 | 5.2 |
| 100 | 135 | 175 | 6.2 | 6.2 | 6.7 |
| 150 | 150 | 230 | 10.1 | 10.1 | 11.1 |
| 200 | 170 | 290 | 15 | 14.8 | 16.8 |
| 250 | 185 | 345 | 21 | 20.5 | 24.5 |
| 300 | 205 | 405 | 28.5 | 28.5 | 33.5 |
| 350 | 220 | 460 | 35.5 | 38 | 46 |
| 400 | 240 | 520 | 45 | 49.5 | 60.5 |
| 450 | 255 | 575 | 54 | 62 | 73 |
| 500 | 275 | 630 | 67 | 80 | 91 |
| 600 | 310 | 750 | 96.5 | 120 | 132 |
| 700 | 345 | 865 | 135 | 146 | 178.5 |
| 800 | 380 | 980 | 182 | 197 | 243 |
| 900 | 415 | 1095 | 231 | 250 | 306 |
| 1000 | 450 | 1210 | 297 | 331 | 404 |
| 1200 | 520 | 1440 | 457 | 512 | 603 |
| 1400 | 590 | 1670 | 646 | 702 | 842 |
| 1600 | 660 | 1990 | 906 | 995 | 1156 |
| 1800 | 730 | 2130 | 1185 | 1297 | 1514 |
| 2000 | 800 | 2360 | 1530 | 1668 | 1990 |



DIMENSIONS OF SOCKET JOINT for T-TYPE & K-TYPE



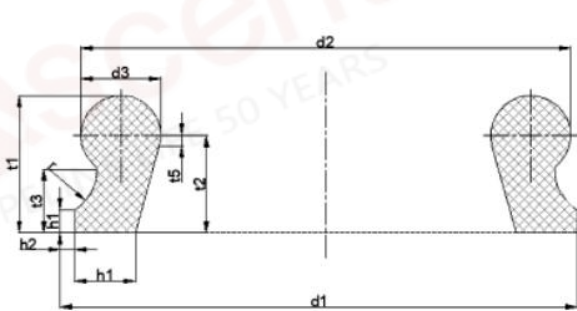
T-TYPE

| DN | DE | d1 | d2 | P | Weight(Kg) | |
|------|------|------|-------|-----|------------|--|
| | | | | | Socket | |
| 40 | 56 | 103 | 77 | 78 | 1.8 | |
| 50 | 66 | 113 | 87 | 78 | 2.1 | |
| 60 | 77 | 123 | 98 | 80 | 2.4 | |
| 65 | 82 | 128 | 103 | 80 | 2.5 | |
| 80 | 98 | 140 | 119.1 | 85 | 3.4 | |
| 100 | 118 | 163 | 138.9 | 88 | 4.3 | |
| 125 | 144 | 190 | 164.8 | 91 | 5.7 | |
| 150 | 170 | 217 | 190.6 | 94 | 7.1 | |
| 200 | 222 | 278 | 245.2 | 100 | 10.3 | |
| 250 | 274 | 336 | 296.9 | 105 | 14.2 | |
| 300 | 326 | 393 | 351.7 | 110 | 18.6 | |
| 350 | 378 | 448 | 403.4 | 110 | 23.7 | |
| 400 | 429 | 500 | 457.2 | 110 | 29.3 | |
| 450 | 480 | 540 | 509 | 120 | 38.3 | |
| 500 | 532 | 604 | 562.6 | 120 | 42.8 | |
| 600 | 635 | 713 | 668 | 120 | 59.3 | |
| 700 | 738 | 824 | 779.3 | 150 | 79.1 | |
| 800 | 842 | 943 | 885.9 | 160 | 102.6 | |
| 900 | 945 | 1052 | 991.3 | 175 | 129.9 | |
| 1000 | 1048 | 1158 | 1097 | 185 | 161.3 | |
| 1100 | 1152 | 1267 | 1203 | 200 | 194.7 | |
| 1200 | 1255 | 1377 | 1308 | 215 | 237.7 | |
| 1400 | 1462 | 1610 | 1509 | 239 | 385.3 | |

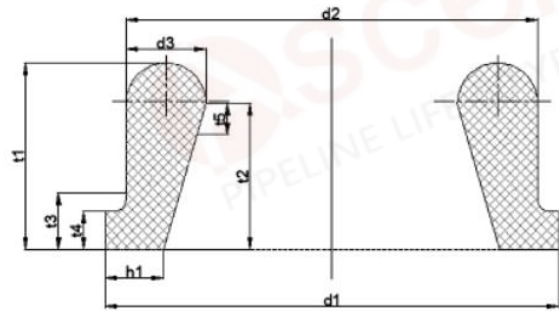
K-TYPE

| DN | DE | D1 | D2 | D3 | P | d | n | Weight(Kg) | |
|------|------|------|------|------|-----|----|----|------------|--|
| | | | | | | | | Socket | |
| 80 | 98 | 202 | 164 | 101 | 80 | 19 | 4 | 4.2 | |
| 100 | 118 | 234 | 188 | 121 | 80 | 23 | 4 | 5.9 | |
| 150 | 170 | 288 | 242 | 173 | 80 | 23 | 6 | 8.4 | |
| 200 | 220 | 341 | 295 | 225 | 80 | 23 | 6 | 11 | |
| 250 | 274 | 395 | 349 | 277 | 80 | 23 | 8 | 14.1 | |
| 300 | 326 | 455 | 409 | 329 | 110 | 23 | 8 | 22.4 | |
| 350 | 378 | 508 | 462 | 382 | 110 | 23 | 10 | 27.2 | |
| 400 | 429 | 561 | 515 | 433 | 110 | 23 | 12 | 31.5 | |
| 450 | 480 | 614 | 568 | 484 | 110 | 23 | 12 | 37.3 | |
| 500 | 532 | 667 | 621 | 536 | 110 | 23 | 14 | 42.8 | |
| 600 | 635 | 773 | 727 | 639 | 110 | 23 | 14 | 55.4 | |
| 700 | 738 | 892 | 838 | 743 | 120 | 27 | 16 | 73.9 | |
| 800 | 842 | 999 | 942 | 847 | 120 | 27 | 20 | 90.2 | |
| 900 | 945 | 1123 | 1057 | 950 | 120 | 33 | 20 | 115.6 | |
| 1000 | 1048 | 1231 | 1160 | 1054 | 130 | 33 | 20 | 146.6 | |
| 1100 | 1152 | 1338 | 1272 | 1158 | 130 | 33 | 24 | 172.4 | |
| 1200 | 1255 | 1444 | 1378 | 1261 | 130 | 33 | 28 | 201 | |
| 1400 | 1462 | 1657 | 1591 | 1469 | 130 | 33 | 28 | 265.8 | |
| 1500 | 1565 | 1766 | 1700 | 1573 | 130 | 33 | 28 | 298.8 | |
| 1600 | 1668 | 1874 | 1808 | 1678 | 160 | 33 | 30 | 375.4 | |
| 1800 | 1875 | 2089 | 2023 | 1883 | 170 | 33 | 34 | 490.6 | |
| 2000 | 2082 | 2305 | 2239 | 2091 | 180 | 33 | 36 | 626.4 | |
| 2200 | 2288 | 2519 | 2453 | 2298 | 190 | 33 | 40 | 784.2 | |
| 2400 | 2495 | 2734 | 2668 | 2505 | 260 | 33 | 44 | 1108 | |
| 2600 | 2702 | 2949 | 2883 | 2713 | 260 | 33 | 48 | 1295 | |

T-TYPE RUBBER GASKET for T-TYPE SOCKET



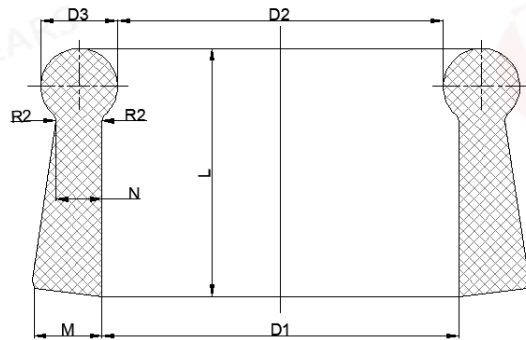
DN80-1200



DN1400-1600

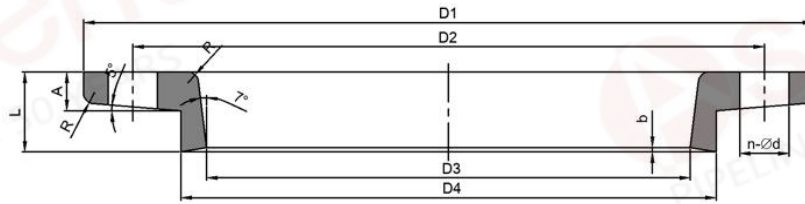
| DN | d1 | d2 | d3 | h1 | h2 | t1 | t2 | t3 | t4 | t5 | r |
|------|------|------|------|------|------|----|----|----|----|----|-----|
| 80 | 126 | 123 | 16 | 10 | 4.5 | 26 | 18 | 10 | 5 | 3 | 3 |
| 100 | 146 | 144 | 16 | 10 | 4.5 | 26 | 18 | 10 | 5 | 3 | 3.5 |
| 150 | 200 | 198 | 16 | 10 | 4.5 | 26 | 18 | 10 | 5 | 3 | 3.5 |
| 200 | 256 | 254 | 18 | 11 | 5 | 30 | 21 | 12 | 6 | 4 | 4 |
| 250 | 310 | 308 | 18 | 11 | 5 | 32 | 23 | 12 | 6 | 4 | 4 |
| 300 | 366 | 364 | 20 | 12 | 5.5 | 34 | 24 | 14 | 7 | 4 | 4.5 |
| 350 | 420 | 418 | 20 | 12 | 5.5 | 34 | 24 | 14 | 7 | 4 | 4.5 |
| 400 | 475 | 473 | 22 | 13 | 6 | 38 | 27 | 16 | 8 | 5 | 5 |
| 450 | 528 | 526 | 23 | 13 | 6 | 38 | 27 | 16 | 8 | 5 | 5 |
| 500 | 583 | 581 | 24 | 14 | 6.5 | 42 | 30 | 18 | 9 | 6 | 5.5 |
| 600 | 692 | 690 | 26 | 15 | 7 | 46 | 33 | 20 | 10 | 7 | 6 |
| 700 | 809 | 803 | 33.5 | 20 | 10 | 55 | 39 | 24 | 16 | 8 | 7 |
| 800 | 919 | 913 | 35.5 | 21 | 11 | 60 | 43 | 26 | 16 | 9 | 8 |
| 900 | 1026 | 1020 | 37.5 | 22 | 12 | 65 | 47 | 28 | 18 | 10 | 9 |
| 1000 | 1133 | 1127 | 39.5 | 23 | 12 | 70 | 51 | 30 | 18 | 10 | 9 |
| 1200 | 1352 | 1345 | 43.5 | 27 | 13.5 | 78 | 57 | 34 | 20 | 11 | 10 |
| 1400 | 1569 | 1549 | 41.5 | 27 | / | 80 | 58 | 28 | 23 | 22 | / |
| 1500 | 1677 | 1660 | 42 | 30 | / | 70 | 49 | 20 | 25 | 22 | / |
| 1600 | 1799 | 1779 | 42 | 32.5 | / | 70 | 49 | 30 | 23 | 20 | / |

K-TYPE RUBBER RING for K-TYPE SOCKET



| DN | D1 | D2 | D3 | L | M | N | a | b |
|------|------|------|----|----|------|----|---|---|
| 100 | 116 | 111 | 11 | 45 | 15 | 6 | 4 | 4 |
| 150 | 167 | 162 | 11 | 45 | 15 | 6 | 4 | 4 |
| 200 | 218 | 213 | 11 | 45 | 15 | 6 | 4 | 4 |
| 250 | 269 | 264 | 11 | 45 | 15 | 6 | 4 | 4 |
| 300 | 319 | 312 | 15 | 49 | 18 | 8 | 4 | 4 |
| 350 | 370 | 363 | 15 | 49 | 18 | 8 | 4 | 4 |
| 400 | 420 | 413 | 15 | 49 | 18 | 8 | 4 | 4 |
| 450 | 471 | 465 | 15 | 49 | 18 | 8 | 4 | 4 |
| 500 | 521 | 514 | 15 | 49 | 18 | 8 | 4 | 4 |
| 600 | 622 | 615 | 15 | 49 | 18 | 8 | 4 | 4 |
| 700 | 723 | 716 | 18 | 61 | 21 | 11 | 4 | 4 |
| 800 | 825 | 818 | 18 | 61 | 21 | 11 | 4 | 4 |
| 900 | 926 | 919 | 18 | 61 | 21 | 11 | 4 | 4 |
| 1000 | 1027 | 1020 | 18 | 62 | 21 | 11 | 4 | 5 |
| 1200 | 1230 | 1223 | 20 | 62 | 21.5 | 13 | 4 | 5 |
| 1400 | 1430 | 1423 | 20 | 62 | 21.5 | 13 | 4 | 5 |
| 1500 | 1532 | 1525 | 20 | 62 | 21.5 | 13 | 4 | 5 |
| 1600 | 1635 | 1628 | 23 | 80 | 27 | 15 | 4 | 5 |
| 1800 | 1833 | 1825 | 23 | 80 | 27 | 15 | 4 | 5 |
| 2000 | 2035 | 2027 | 23 | 80 | 27 | 15 | 4 | 5 |

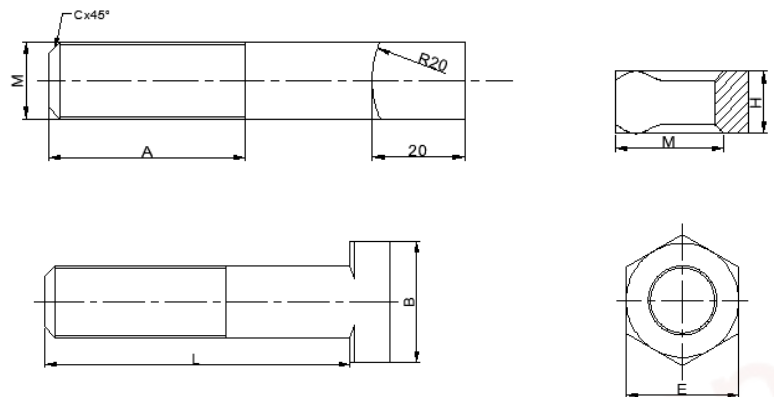
GLAND for K-TYPE SOCKET



| DN | D1 | D2 | D3 | D4 | A | L | R | b | n-φd | Kg(pc) | Kg(2pcs) |
|------|------|------|------|------|----|----|----|-----|-------|--------|----------|
| 100 | 234 | 188 | 122 | 146 | 16 | 35 | 5 | 2 | 4-23 | 4.1 | 8.2 |
| 150 | 288 | 242 | 174 | 198 | 17 | 36 | 5 | 2 | 6-23 | 5.7 | 11.4 |
| 200 | 341 | 295 | 226 | 250 | 18 | 37 | 5 | 2 | 6-23 | 7.5 | 15 |
| 250 | 395 | 349 | 278 | 302 | 19 | 38 | 5 | 2 | 8-23 | 9.5 | 19 |
| 300 | 455 | 409 | 330 | 354 | 20 | 39 | 5 | 2 | 8-23 | 12.2 | 24.4 |
| 350 | 508 | 462 | 382 | 406 | 21 | 40 | 5 | 2 | 10-23 | 14.6 | 29.2 |
| 400 | 561 | 515 | 433 | 457 | 22 | 41 | 7 | 2 | 12-23 | 17.2 | 34.4 |
| 500 | 667 | 621 | 536 | 560 | 24 | 43 | 7 | 2 | 14-23 | 22.9 | 45.8 |
| 600 | 773 | 727 | 639 | 663 | 25 | 44 | 7 | 2 | 14-23 | 28.5 | 57 |
| 700 | 892 | 838 | 743 | 773 | 26 | 45 | 7 | 2.5 | 16-27 | 38.6 | 77.2 |
| 800 | 999 | 945 | 847 | 877 | 28 | 47 | 9 | 2.5 | 20-27 | 47.4 | 94.8 |
| 900 | 1123 | 1057 | 950 | 980 | 29 | 48 | 9 | 2.5 | 20-33 | 61.9 | 123.8 |
| 1000 | 1231 | 1165 | 1054 | 1083 | 30 | 49 | 9 | 2.5 | 20-33 | 63.8 | 127.6 |
| 1100 | 1338 | 1272 | 1158 | 1187 | 31 | 50 | 9 | 2.5 | 24-33 | 68.5 | 137 |
| 1200 | 1444 | 1378 | 1262 | 1290 | 32 | 51 | 9 | 2.5 | 28-33 | 82.5 | 165 |
| 1400 | 1657 | 1591 | 1469 | 1497 | 34 | 53 | 9 | 3 | 28-33 | 104 | 208 |
| 1500 | 1766 | 1700 | 1573 | 1605 | 35 | 54 | 9 | 3 | 30-33 | 119 | 238 |
| 1600 | 1874 | 1808 | 1676 | 1711 | 36 | 55 | 9 | 3 | 30-33 | 123 | 246 |
| 1800 | 2089 | 2023 | 1883 | 1918 | 38 | 57 | 11 | 3 | 34-33 | 162 | 324 |
| 2000 | 2305 | 2239 | 2090 | 2125 | 40 | 59 | 11 | 3 | 36-33 | 196 | 392 |
| 2200 | 2519 | 2453 | 2296 | 2331 | 43 | 62 | 11 | 3 | 40-33 | 238.0 | 476 |
| 2400 | 2734 | 2668 | 2503 | 2538 | 46 | 65 | 11 | 3 | 44-33 | 318.0 | 636 |
| 2600 | 2949 | 2883 | 2710 | 2745 | 49 | 68 | 11 | 3 | 48-33 | 378.0 | 756 |

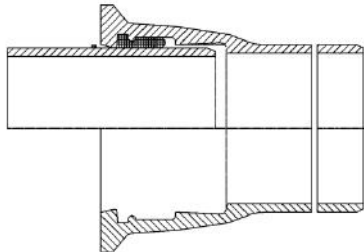
T-HEAD BOLTS AND NUTS for K-TYPE SOCKET

| DN | Dia. | L | A | B | C | E | H |
|---------|------|-----|----|----|---|----|------|
| 100~150 | M20 | 95 | 65 | 40 | 3 | 30 | 16 |
| 200~300 | | 100 | | | | | |
| 350~600 | | 110 | | | | | |
| 700~800 | M24 | 120 | 75 | 55 | 4 | 36 | 21.5 |
| 900 | M30 | 130 | 85 | 75 | 5 | 46 | 25.6 |
| 1000 | | | | | | | |
| 1100 | | 140 | | | | | |
| 1200 | | | | | | | |
| 1400 | | 150 | | | | | |
| 1500 | | | | | | | |
| 1600 | | 160 | | | | | |
| 1800 | | | | | | | |
| 2000 | 90 | | | | | | |

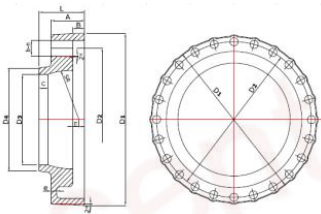


TF SELF-ANCHORED FITTING

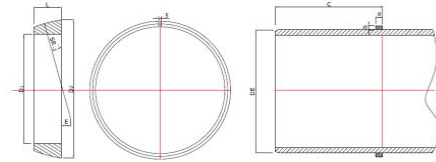
TF SELF-ANCHORED FITTING (T-type socket with K edge)



GLAND for TF SELF-ANCHORED FITTING



LOCKING RING for TF SELF-ANCHORED FITTING



| DN | Weight(Kg) |
|------|------------|
| 80 | 3 |
| 100 | 6 |
| 150 | 11 |
| 200 | 11.5 |
| 250 | 13.5 |
| 300 | 22 |
| 350 | 25.6 |
| 400 | 33.8 |
| 500 | 49.5 |
| 600 | 67 |
| 700 | 104 |
| 800 | 119 |
| 900 | 140 |
| 1000 | 168 |
| 1100 | 191 |
| 1200 | 214 |
| 1400 | 355 |
| 1600 | 370 |

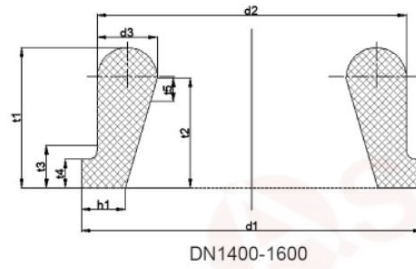
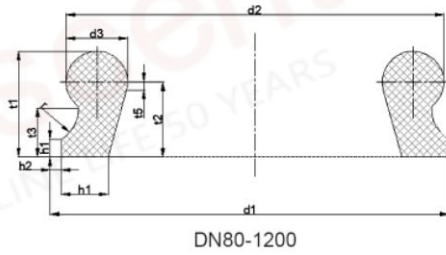
| DN | Weight(Kg) |
|------|------------|
| 80 | 0.36 |
| 100 | 0.4 |
| 150 | 0.58 |
| 200 | 0.72 |
| 250 | 0.78 |
| 300 | 4.0 |
| 350 | 4.4 |
| 400 | 4.5 |
| 500 | 6.9 |
| 600 | 8.8 |
| 700 | 10.7 |
| 800 | 11.0 |
| 900 | 16.2 |
| 1000 | 19.6 |
| 1100 | 27.0 |
| 1200 | 27.4 |
| 1400 | 35.0 |
| 1600 | 40.0 |

DI HOOKED BOLTS AND NUTS for TF SELF-ANCHORED FITTING

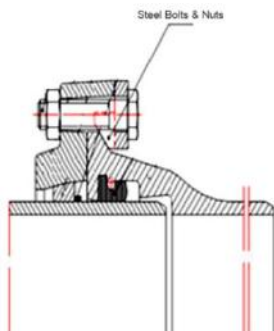
| DN | MxL |
|------|---------|
| 80 | M22x93 |
| 100 | M22x95 |
| 150 | |
| 200 | |
| 250 | M27x100 |
| 300 | M27x130 |
| 350 | |
| 400 | |
| 450 | |
| 500 | |
| 600 | M27x135 |
| 700 | |
| 800 | |
| 900 | |
| 1000 | |



T-TYPE RUBBER RING for TF SELF-ANCHORED FITTING



STEEL BOLTS AND NUTS for TF SELF-ANCHORED FITTING



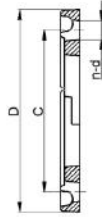
| DN | MxL |
|------|---------|
| 1100 | M27x200 |
| 1200 | |
| 1400 | |
| 1500 | |
| 1600 | |

LOCKING BLOCK for TF SELF-ANCHORED FITTING



LOOSING FLANGED FITTING

LOOSING FLANGE SET PN10



LOOSING FLANGE SET PN16

| DN | PN10 | | | | | |
|------|------|------|------|------|-----|-------------|
| | D | C | Bolt | | | Weight (Kg) |
| | | | d | Size | No. | |
| 40 | 150 | 110 | 19 | M16 | 4 | 1.4 |
| 50 | 165 | 125 | 19 | M16 | 4 | 1.6 |
| 60 | 175 | 135 | 19 | M16 | 4 | 2 |
| 65 | 185 | 145 | 19 | M16 | 4 | 2.2 |
| 80 | 200 | 160 | 19 | M16 | 8 | 2.4 |
| 100 | 220 | 180 | 19 | M16 | 8 | 2.7 |
| 125 | 250 | 210 | 19 | M16 | 8 | 3.6 |
| 150 | 285 | 240 | 23 | M20 | 8 | 4.2 |
| 200 | 340 | 295 | 23 | M20 | 8 | 6 |
| 250 | 400 | 350 | 23 | M20 | 12 | 8.6 |
| 300 | 455 | 400 | 23 | M20 | 12 | 11.3 |
| 350 | 505 | 460 | 23 | M20 | 16 | 14.5 |
| 400 | 565 | 515 | 28 | M24 | 16 | 20 |
| 450 | 615 | 565 | 28 | M24 | 20 | 26 |
| 500 | 670 | 620 | 28 | M24 | 20 | 28 |
| 600 | 780 | 725 | 31 | M27 | 20 | 33 |
| 700 | 895 | 840 | 31 | M27 | 24 | 35 |
| 800 | 1015 | 950 | 34 | M30 | 24 | 41 |
| 900 | 1115 | 1050 | 34 | M30 | 28 | 50 |
| 1000 | 1230 | 1160 | 37 | M33 | 28 | 65 |

| DN | PN16 | | | | | |
|------|------|------|------|------|-----|-------------|
| | D | C | Bolt | | | Weight (Kg) |
| | | | d | Size | No. | |
| 40 | 150 | 110 | 19 | M16 | 4 | 1.4 |
| 50 | 165 | 125 | 19 | M16 | 4 | 1.6 |
| 60 | 175 | 135 | 19 | M16 | 4 | 2 |
| 65 | 185 | 145 | 19 | M16 | 4 | 2.2 |
| 80 | 200 | 160 | 19 | M16 | 8 | 2.4 |
| 100 | 220 | 180 | 19 | M16 | 8 | 2.7 |
| 125 | 250 | 210 | 19 | M16 | 8 | 3.6 |
| 150 | 285 | 240 | 23 | M20 | 8 | 4.2 |
| 200 | 340 | 295 | 23 | M20 | 12 | 5.7 |
| 250 | 400 | 355 | 28 | M24 | 12 | 8.5 |
| 300 | 455 | 410 | 28 | M24 | 12 | 11 |
| 350 | 520 | 470 | 28 | M24 | 16 | 14.9 |
| 400 | 580 | 525 | 31 | M27 | 16 | 21 |
| 450 | 640 | 585 | 31 | M27 | 20 | 29 |
| 500 | 715 | 650 | 34 | M30 | 20 | 38 |
| 600 | 840 | 770 | 37 | M33 | 20 | 58 |
| 700 | 910 | 840 | 37 | M33 | 24 | 64 |
| 800 | 1025 | 950 | 40 | M36 | 24 | 70 |
| 900 | 1125 | 1050 | 40 | M36 | 28 | 79 |
| 1000 | 1255 | 1170 | 43 | M39 | 28 | 92 |

LOOSING FLANGE SPIGOT

| DN | L(mm) | DE | Weight(Kg) | |
|------|-------|------|------------|------|
| | | | PN10 | PN16 |
| 40 | 335 | 56 | 4.5 | |
| 50 | 340 | 66 | 5 | |
| 60 | 345 | 77 | 5.6 | |
| 65 | 345 | 82 | 6 | |
| 80 | 350 | 98 | 8 | |
| 100 | 360 | 118 | 10.5 | |
| 125 | 370 | 144 | 12 | |
| 150 | 380 | 170 | 16.5 | |
| 200 | 400 | 222 | 26 | 26 |
| 250 | 420 | 274 | 36 | 36 |
| 300 | 440 | 326 | 47 | 46 |
| 350 | 460 | 378 | 56 | 59 |
| 400 | 480 | 429 | 69 | 75 |
| 450 | 500 | 480 | 84 | 95 |
| 500 | 520 | 532 | 101 | 117 |
| 600 | 560 | 632 | 143 | 171 |
| 700 | 600 | 738 | 193 | 209 |
| 800 | 600 | 842 | 239 | 259 |
| 900 | 600 | 945 | 288 | 312 |
| 1000 | 600 | 1048 | 347 | 391 |



DOUBLE LOSING FLANGED PIPE



| DN | L(mm) | Weight(Kg) | |
|----|-------|------------|------|
| | | PN10 | PN16 |
| 40 | 100 | 4.5 | |
| | 150 | 5 | |
| | 200 | 5.5 | |
| | 250 | 6 | |
| | 300 | 6.3 | |
| | 350 | 6.7 | |
| | 400 | 7.2 | |
| | 450 | 7.5 | |
| | 500 | 7.8 | |
| 50 | 100 | 5.5 | |
| | 150 | 5.9 | |
| | 200 | 6.5 | |
| | 250 | 6.8 | |
| | 300 | 7.3 | |
| | 350 | 7.8 | |
| | 400 | 8.2 | |
| | 450 | 8.7 | |
| | 500 | 9.5 | |
| 60 | 100 | 6.2 | |
| | 150 | 6.7 | |
| | 200 | 7.2 | |
| | 250 | 7.8 | |
| | 300 | 8.3 | |
| | 350 | 8.8 | |
| | 400 | 9.4 | |
| | 450 | 10 | |
| | 500 | 10.5 | |
| 65 | 100 | 7 | |
| | 150 | 7.3 | |
| | 200 | 7.9 | |
| | 250 | 8.5 | |
| | 300 | 9 | |
| | 350 | 9.6 | |
| | 400 | 10.2 | |
| | 450 | 10.8 | |
| | 500 | 11.5 | |
| 80 | 100 | 7.5 | |
| | 150 | 8 | |
| | 200 | 8.7 | |
| | 250 | 9.5 | |
| | 300 | 10.5 | |
| | 350 | 11 | |
| | 400 | 11.5 | |
| | 450 | 12.5 | |
| | 500 | 13 | |
| | 600 | 14.5 | |
| | 700 | 16 | |
| | 800 | 17.5 | |

| DN | L(mm) | Weight(Kg) | |
|------|-------|------------|------|
| | | PN10 | PN16 |
| 80 | 900 | 18.5 | |
| | 1000 | 20 | |
| 100 | 100 | 8.5 | |
| | 150 | 9.5 | |
| | 200 | 10.5 | |
| | 250 | 11.5 | |
| | 300 | 12 | |
| | 350 | 13 | |
| | 400 | 14 | |
| | 450 | 14.8 | |
| | 500 | 15.5 | |
| | 600 | 17.5 | |
| | 700 | 19 | |
| | 800 | 21 | |
| 125 | 900 | 23 | |
| | 1000 | 24.5 | |
| | 1200 | 28 | |
| | 100 | 10.5 | |
| | 150 | 11.5 | |
| | 200 | 13 | |
| | 250 | 14 | |
| | 300 | 15 | |
| | 350 | 16 | |
| | 400 | 17.5 | |
| | 450 | 18.5 | |
| | 500 | 19.5 | |
| 600 | 22 | | |
| 700 | 24 | | |
| 800 | 26.5 | | |
| 900 | 28.5 | | |
| 1000 | 31 | | |
| 1200 | 35.5 | | |
| 150 | 100 | 13 | |
| | 150 | 14.5 | |
| | 200 | 16 | |
| | 250 | 17.5 | |
| | 300 | 19 | |
| | 350 | 20 | |
| | 400 | 21.5 | |
| | 450 | 23 | |
| | 500 | 24.5 | |
| | 600 | 27 | |
| | 700 | 30 | |
| | 800 | 33 | |
| | 900 | 35.5 | |
| 1000 | 38.5 | | |
| 200 | 100 | 18.5 | 18 |
| | 150 | 20.5 | 20 |

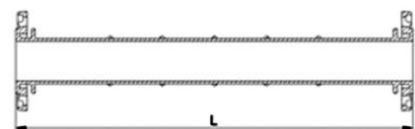
| DN | L(mm) | Weight(Kg) | |
|------|-------|------------|------|
| | | PN10 | PN16 |
| 200 | 200 | 22.5 | 22 |
| | 250 | 24.5 | 24 |
| | 300 | 26.5 | 26 |
| | 350 | 28.5 | 28 |
| | 400 | 30.5 | 30 |
| | 450 | 32.5 | 32 |
| | 500 | 34.5 | 34 |
| | 600 | 38.5 | 38 |
| | 700 | 42 | 42 |
| | 800 | 46 | 46 |
| | 900 | 50 | 50 |
| | 1000 | 54 | 53.5 |
| 250 | 1200 | 62 | 62 |
| | 100 | 23.5 | 25.5 |
| | 150 | 26 | 27.5 |
| | 200 | 29 | 30 |
| | 250 | 31.5 | 32.5 |
| | 300 | 34 | 35.5 |
| | 350 | 36.5 | 38 |
| | 400 | 39.5 | 40.5 |
| | 450 | 42 | 43 |
| | 500 | 44.5 | 46 |
| | 600 | 50 | 51 |
| | 700 | 55 | 56.5 |
| 800 | 60.5 | 61.5 | |
| 900 | 66 | 67 | |
| 1000 | 71 | 72 | |
| 1200 | 81.5 | 83 | |
| 300 | 200 | 40 | 39 |
| | 250 | 43 | 43 |
| | 300 | 47 | 46 |
| | 350 | 51 | 50 |
| | 400 | 55 | 54 |
| | 450 | 59 | 58 |
| | 500 | 63 | 62 |
| | 600 | 71 | 70 |
| | 700 | 79 | 78 |
| | 800 | 87 | 87 |
| | 900 | 96 | 95 |
| | 1000 | 105 | 104 |
| 1200 | 121 | 121 | |
| 350 | 250 | 51 | 56 |
| | 300 | 55 | 61 |
| | 350 | 60 | 65 |
| | 400 | 64 | 70 |
| | 450 | 69 | 74 |
| | 500 | 74 | 79 |
| 600 | 83 | 89 | |

| DN | L | Weight(Kg) | |
|-----|------|------------|------|
| | | PN10 | PN16 |
| 350 | 700 | 93 | 98 |
| | 800 | 103 | 108 |
| | 900 | 113 | 118 |
| | 1000 | 123 | 128 |
| | 1200 | 143 | 148 |
| 400 | 300 | 66 | 75 |
| | 350 | 71 | 80 |
| | 400 | 77 | 86 |
| | 450 | 82 | 91 |
| | 500 | 88 | 97 |
| | 600 | 99 | 108 |
| | 700 | 110 | 119 |
| | 800 | 121 | 130 |
| | 900 | 133 | 142 |
| | 1000 | 145 | 154 |
| | 1200 | 183 | 199 |
| 450 | 350 | 83 | 98 |
| | 400 | 89 | 105 |
| | 450 | 95 | 111 |
| | 500 | 102 | 118 |
| | 600 | 115 | 131 |
| | 700 | 128 | 144 |
| | 800 | 141 | 157 |
| | 900 | 155 | 170 |
| | 1000 | 168 | 184 |
| | 1200 | 195 | 211 |
| 500 | 350 | 97 | 124 |
| | 400 | 104 | 131 |
| | 450 | 111 | 138 |
| | 500 | 118 | 145 |
| | 600 | 132 | 159 |
| | 700 | 146 | 173 |
| | 800 | 160 | 186 |
| | 900 | 173 | 200 |
| | 1000 | 187 | 214 |
| | 1200 | 215 | 242 |
| 600 | 350 | 132 | 179 |
| | 400 | 141 | 188 |
| | 450 | 150 | 197 |
| | 500 | 159 | 206 |
| | 600 | 177 | 224 |
| | 700 | 195 | 243 |
| | 800 | 213 | 261 |

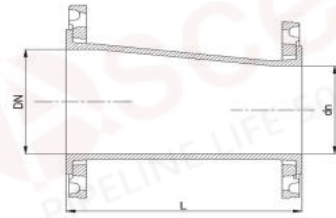
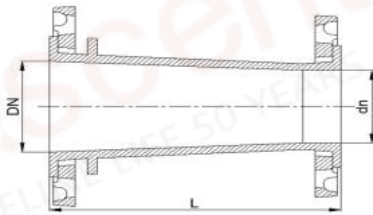
| DN | L | Weight(Kg) | |
|------|------|------------|------|
| | | PN10 | PN16 |
| 700 | 900 | 232 | 279 |
| | 1000 | 250 | 297 |
| | 1200 | 286 | 333 |
| | 350 | 174 | 197 |
| | 400 | 185 | 209 |
| | 450 | 197 | 220 |
| | 500 | 209 | 232 |
| | 600 | 232 | 255 |
| | 700 | 255 | 278 |
| | 800 | 278 | 301 |
| | 900 | 301 | 234 |
| | 1000 | 324 | 347 |
| 800 | 1200 | 370 | 393 |
| | 350 | 225 | 254 |
| | 400 | 239 | 269 |
| | 450 | 253 | 283 |
| | 500 | 267 | 297 |
| | 600 | 296 | 326 |
| | 700 | 325 | 354 |
| | 800 | 353 | 383 |
| | 900 | 382 | 411 |
| | 1000 | 410 | 440 |
| 900 | 1200 | 467 | 497 |
| | 350 | 267 | 305 |
| | 400 | 285 | 323 |
| | 450 | 303 | 341 |
| | 500 | 321 | 359 |
| | 600 | 356 | 394 |
| | 700 | 392 | 430 |
| | 800 | 428 | 466 |
| | 900 | 464 | 502 |
| | 1000 | 500 | 538 |
| 1000 | 1200 | 572 | 610 |
| | 350 | 330 | 399 |
| | 400 | 351 | 420 |
| | 450 | 372 | 441 |
| | 500 | 393 | 462 |
| | 600 | 435 | 504 |
| | 700 | 477 | 546 |
| | 800 | 520 | 589 |
| | 900 | 562 | 631 |
| | 1000 | 605 | 674 |
| 1200 | 690 | 759 | |

DOUBLE LOSING FLANGED ANCHORING SLEEVE

| DN | L(mm) | Weight without losing flanges (Kg) | Weight with losing flanges PN10 (Kg) | Weight with losing flanges PN16(Kg) |
|-----|-------|------------------------------------|--------------------------------------|-------------------------------------|
| 80 | 800 | 15.2 | 19.8 | 19.8 |
| 100 | 800 | 19.3 | 24.3 | 24.3 |
| 125 | 800 | 25 | 31.4 | 31.4 |
| 150 | 800 | 30.8 | 39.2 | 39.2 |
| 200 | 800 | 44 | 56 | 55.8 |
| 250 | 800 | 58.4 | 75.6 | 74.8 |
| 300 | 1000 | 90.5 | 113.1 | 111.7 |



DOUBLE LOSING FLANGED CONCENTRIC/ECCENTRIC TAPER

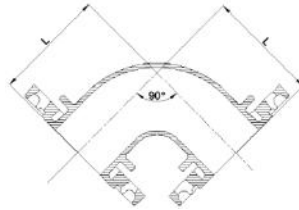


| DN | dn | L(mm) | Weight(Kg) | |
|-----|-----|-------|------------|------|
| | | | PN10 | PN16 |
| 50 | 40 | 150 | 5 | |
| 60 | 40 | 200 | 5.5 | |
| | 50 | | 6 | |
| 65 | 40 | 200 | 6 | |
| | 50 | | 6 | |
| | 60 | | 6.5 | |
| 80 | 40 | 200 | 6.5 | |
| | 50 | | 7.5 | |
| | 60 | | 7.5 | |
| 100 | 40 | 200 | 7.5 | |
| | 50 | | 7.7 | |
| | 60 | | 8 | |
| | 65 | | 8.5 | |
| 125 | 40 | 200 | 9.5 | |
| | 50 | | 9.8 | |
| | 60 | | 10.5 | |
| | 65 | | 10.5 | |
| 150 | 40 | 200 | 11 | |
| | 50 | | 11.5 | |
| | 60 | | 12 | |
| | 65 | | 12.5 | |
| | 80 | | 12.5 | |
| 200 | 40 | 300 | 17 | |
| | 50 | | 17.5 | |
| | 60 | | 17.5 | |
| | 65 | | 17.5 | |
| | 80 | | 18 | |
| | 100 | | 19.5 | |
| 250 | 40 | 300 | 21 | |
| | 50 | | 21 | |
| | 60 | | 22 | |
| | 65 | | 22 | |
| | 80 | | 23 | |
| | 100 | | 24 | |
| | 125 | | 24.5 | |
| 300 | 40 | 300 | 26 | |
| | 50 | | 27 | |
| | 60 | | 27 | |
| | 65 | | 27 | |
| | 80 | | 28 | |
| | 100 | | 28 | |

| DN | dn | L(mm) | Weight(Kg) | |
|------|-----|-------|------------|------|
| | | | PN10 | PN16 |
| 300 | 125 | 300 | 32.5 | |
| | 150 | | 32.5 | |
| | 200 | | 35 | |
| | 250 | | 35 | |
| 350 | 200 | 300 | 39 | |
| | 250 | | 38.5 | |
| | 300 | | 41 | |
| 400 | 200 | 300 | 41.5 | |
| | 250 | | 46 | |
| | 300 | | 49 | |
| 450 | 200 | 300 | 50 | |
| | 250 | | 52.5 | |
| | 300 | | 55 | |
| | 350 | | 58.5 | |
| 500 | 200 | 300 | 57 | |
| | 250 | | 59.5 | |
| | 300 | | 52 | |
| | 350 | | 56.5 | |
| 550 | 200 | 300 | 55 | |
| | 250 | | 59.5 | |
| | 300 | | 59 | |
| | 350 | | 64 | |
| 600 | 200 | 300 | 64 | |
| | 250 | | 68.5 | |
| | 300 | | 69 | |
| | 350 | | 76 | |
| 650 | 200 | 300 | 73 | |
| | 250 | | 81 | |
| | 300 | | 73 | |
| | 350 | | 82 | |
| 700 | 200 | 300 | 82 | |
| | 250 | | 90.5 | |
| | 300 | | 89 | |
| | 350 | | 96.5 | |
| 750 | 200 | 300 | 96 | |
| | 250 | | 107 | |
| | 300 | | 93 | |
| | 350 | | 106.5 | |
| 800 | 200 | 300 | 97 | |
| | 250 | | 111 | |
| | 300 | | 103 | |
| | 350 | | 116.5 | |
| 850 | 200 | 300 | 115 | |
| | 250 | | 131 | |
| | 300 | | 450 | |
| | 350 | | 600 | |
| 900 | 200 | 300 | 102 | |
| | 250 | | 123 | |
| | 300 | | 350 | |
| | 350 | | 750 | |
| 950 | 200 | 300 | 180 | |
| | 250 | | 203 | |
| | 300 | | 400 | |
| | 350 | | 700 | |
| 1000 | 200 | 300 | 177 | |
| | 250 | | 206 | |
| | 300 | | 450 | |
| | 350 | | 650 | |

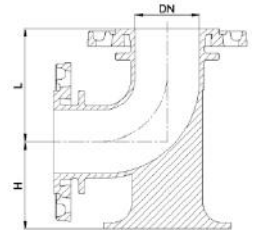
DOUBLE LOOSING FLANGED 90°BEND

| DN | L(mm) | Weight(Kg) | |
|------|-------|------------|------|
| | | PN10 | PN16 |
| 40 | 140 | 5 | |
| 50 | 150 | 6.5 | |
| 60 | 160 | 7.5 | |
| 65 | 165 | 7.5 | |
| 80 | 165 | 9.5 | |
| 100 | 180 | 12.5 | |
| 125 | 200 | 16.5 | |
| 150 | 220 | 20.5 | |
| 200 | 260 | 34.5 | 34 |
| 250 | 350 | 54 | 53 |
| 300 | 400 | 77 | 77 |
| 350 | 450 | 97 | 103 |
| 400 | 500 | 125 | 137 |
| 450 | 550 | 159 | 177 |
| 500 | 600 | 195 | 227 |
| 600 | 700 | 293 | 351 |
| 700 | 800 | 416 | 449 |
| 800 | 900 | 565 | 606 |
| 900 | 1000 | 740 | 789 |
| 1000 | 1100 | 974 | 1049 |

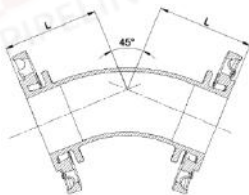


DOUBLE LOOSING FLANGED 90°DUCKFOOT BEND

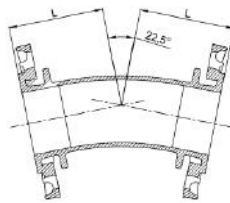
| DN | L(mm) | H | Weight(Kg) | |
|------|-------|-----|------------|------|
| | | | PN10 | PN16 |
| 40 | 140 | 90 | 9 | |
| 50 | 150 | 95 | 10 | |
| 60 | 160 | 100 | 11 | |
| 65 | 165 | 100 | 11 | |
| 80 | 165 | 110 | 15 | |
| 100 | 180 | 125 | 19 | |
| 125 | 200 | 140 | 25 | |
| 150 | 220 | 160 | 32 | |
| 200 | 260 | 190 | 50 | 51 |
| 250 | 350 | 225 | 83 | 83 |
| 300 | 400 | 255 | 114 | 116 |
| 350 | 450 | 290 | 147 | 153 |
| 400 | 500 | 320 | 199 | 210 |
| 450 | 550 | 355 | 266 | 282 |
| 500 | 600 | 385 | 314 | 344 |
| 600 | 700 | 450 | 464 | 517 |
| 700 | 800 | 515 | 684 | 708 |
| 800 | 900 | 580 | 944 | 974 |
| 900 | 1000 | 645 | 1278 | 1308 |
| 1000 | 1100 | 710 | 1730 | 1799 |



DOUBLE LOOSING FLANGED 45°BEND



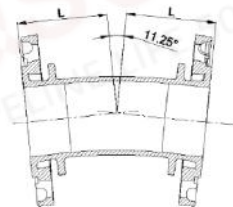
| DN | L(mm) | Weight(Kg) | |
|------|-------|------------|------|
| | | PN10 | PN16 |
| 40 | 140 | 5 | |
| 50 | 150 | 5.5 | |
| 60 | 160 | 7.5 | |
| 65 | 165 | 7.5 | |
| 80 | 130 | 9 | |
| 100 | 140 | 11.5 | |
| 125 | 150 | 16 | |
| 150 | 160 | 18.5 | |
| 200 | 180 | 28 | 27 |
| 250 | 350 | 48 | 48 |
| 300 | 400 | 62 | 62 |
| 350 | 298 | 82 | 89 |
| 400 | 324 | 103 | 115 |
| 450 | 350 | 129 | 145 |
| 500 | 375 | 156 | 189 |
| 600 | 426 | 229 | 287 |
| 700 | 478 | 319 | 352 |
| 800 | 529 | 426 | 477 |
| 900 | 581 | 550 | 612 |
| 1000 | 632 | 708 | 811 |



DOUBLE LOOSING FLANGED 22.5°BEND

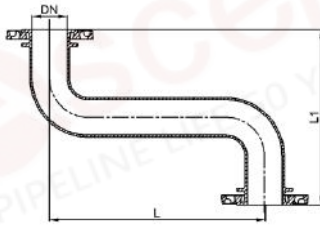
| DN | L(mm) | Weight(Kg) | |
|------|-------|------------|------|
| | | PN10 | PN16 |
| 40 | 94 | 4.5 | |
| 50 | 104 | 5.5 | |
| 60 | 114 | 7 | |
| 65 | 119 | 7.5 | |
| 80 | 105 | 8.9 | |
| 100 | 110 | 11 | |
| 125 | 105 | 14 | |
| 150 | 109 | 16 | |
| 200 | 131 | 25.5 | 26 |
| 250 | 190 | 56 | 56 |
| 300 | 210 | 79 | 79 |
| 350 | 210 | 84 | 90 |
| 400 | 239 | 106 | 116 |
| 450 | 349 | 131 | 149 |
| 500 | 375 | 160 | 191 |
| 600 | 426 | 236 | 290 |
| 700 | 478 | 335 | 360 |
| 800 | 529 | 448 | 489 |
| 900 | 581 | 575 | 627 |
| 1000 | 632 | 742 | 830 |

DOUBLE LOOSING FLANGED 11.25°BEND



| DN | L(mm) | Weight(Kg) | |
|------|-------|------------|------|
| | | PN10 | PN16 |
| 40 | 99 | 4.5 | |
| 50 | 109 | 5 | |
| 60 | 119 | 6 | |
| 65 | 124 | 6.5 | |
| 80 | 113 | 9 | |
| 100 | 115 | 10 | |
| 125 | 111 | 13 | |
| 150 | 113 | 16.5 | |
| 200 | 132 | 29 | 29 |
| 250 | 165 | 58 | 56 |
| 300 | 175 | 79 | 79 |
| 350 | 191 | 85 | 91 |
| 400 | 205 | 108 | 117 |
| 450 | 349 | 132 | 150 |
| 500 | 375 | 162 | 192 |
| 600 | 426 | 239 | 290 |
| 700 | 478 | 338 | 362 |
| 800 | 529 | 451 | 482 |
| 900 | 581 | 578 | 619 |
| 1000 | 632 | 746 | 819 |

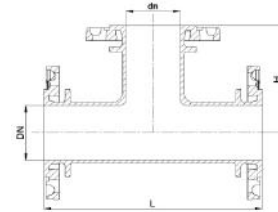
DOUBLE LOSING FLANGED S PIPE



| DN | L(mm) | L ₁ | Weight(Kg) | |
|-----|-------|----------------|------------|------|
| | | | PN10 | PN16 |
| 80 | 500 | 300 | 16 | |
| 100 | 500 | 300 | 20 | |
| 150 | 500 | 320 | 32 | |

ALL LOSING FLANGED TEE

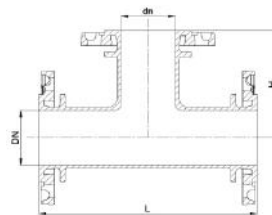
| DN | dn | L(mm) | H | Weight(Kg) | | |
|-----|-----|-------|-----|------------|------|--|
| | | | | PN10 | PN16 | |
| 40 | 40 | 280 | 140 | 8 | | |
| 50 | 40 | 300 | 145 | 8.5 | | |
| | 50 | | 150 | 9 | | |
| 60 | 40 | 300 | 130 | 10.5 | | |
| | 50 | | 320 | 150 | 11 | |
| | 60 | | | 160 | 11.5 | |
| 65 | 40 | 330 | 150 | 11.5 | | |
| | 50 | | 155 | 12 | | |
| | 60 | | 160 | 13 | | |
| | 65 | | 165 | 13.5 | | |
| 80 | 40 | 330 | 150 | 13.5 | | |
| | 50 | | 155 | 14 | | |
| | 60 | | 160 | 14.5 | | |
| | 65 | | 160 | 15 | | |
| | 80 | | 165 | 15.5 | | |
| 100 | 40 | 360 | 165 | 16.5 | | |
| | 50 | | 165 | 17 | | |
| | 60 | | 170 | 17.5 | | |
| | 65 | | 175 | 17.5 | | |
| | 80 | | 175 | 18 | | |
| 125 | 40 | 400 | 180 | 20.5 | | |
| | 50 | | 185 | 21.5 | | |
| | 60 | | 185 | 22 | | |
| | 65 | | 190 | 22.5 | | |
| | 80 | | 190 | 23 | | |
| | 100 | | 195 | 24.5 | | |
| 150 | 125 | 440 | 200 | 26 | | |
| | 40 | | 195 | 26.5 | | |
| | 50 | | 200 | 27 | | |
| | 60 | | 200 | 27 | | |
| | 65 | | 205 | 27.5 | | |
| | 80 | | 205 | 28 | | |
| | 100 | | 210 | 29 | | |
| 200 | 125 | 520 | 215 | 31.5 | | |
| | 150 | | 220 | 33 | | |
| | 40 | | 225 | 41 | 41 | |
| | 50 | | 230 | 41.5 | 40 | |
| 200 | 60 | 520 | 230 | 42 | 41.5 | |
| | 65 | | 235 | 42.5 | 42 | |



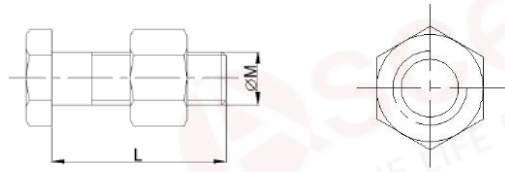
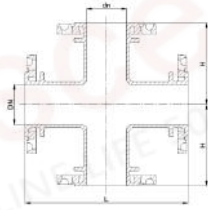
| DN | dn | L(mm) | H | Weight(Kg) | |
|-----|-----|-------|-----|------------|-------|
| | | | | PN10 | PN16 |
| 200 | 80 | 520 | 235 | 43.5 | 43 |
| | 100 | | 240 | 44.5 | 44 |
| | 125 | | 245 | 47 | 46.5 |
| | 150 | | 250 | 47.5 | 47 |
| 250 | 200 | 700 | 260 | 54 | 53.5 |
| | 40 | | 245 | 57 | 58 |
| | 50 | | 250 | 57.5 | 59 |
| | 60 | | 255 | 58 | 59.5 |
| | 65 | | 260 | 58.5 | 60 |
| | 80 | | 265 | 59 | 60.5 |
| | 100 | | 275 | 60 | 61.5 |
| | 125 | | 280 | 63 | 64.5 |
| | 150 | | 300 | 65 | 66.5 |
| | 200 | | 325 | 71 | 72.5 |
| 300 | 250 | 800 | 350 | 79 | 81 |
| | 40 | | 270 | 80 | 79 |
| | 50 | | 275 | 81 | 80 |
| | 60 | | 280 | 82 | 81.5 |
| | 65 | | 285 | 82.5 | 82 |
| | 80 | | 290 | 83 | 82.5 |
| | 100 | | 300 | 86 | 86 |
| | 125 | | 315 | 87.5 | 87 |
| | 150 | | 325 | 89 | 88 |
| | 200 | | 350 | 90 | 90.5 |
| 350 | 250 | 850 | 375 | 97 | 96 |
| | 300 | | 400 | 106 | 105 |
| | 40 | | 390 | 120 | 125 |
| | 50 | | 390 | 120.5 | 126 |
| | 60 | | 390 | 121 | 126.5 |
| | 65 | | 390 | 121 | 126.5 |
| | 80 | | 390 | 121.5 | 127 |
| | 100 | | 390 | 122.5 | 128 |
| | 125 | | 390 | 124 | 130 |
| | 150 | | 390 | 126 | 133 |
| 200 | 200 | 520 | 420 | 129 | 136 |
| | 250 | | 420 | 134 | 140 |

| DN | dn | L(mm) | H | Weight(Kg) | |
|-----|-----|-------|-----|------------|------|
| | | | | PN10 | PN16 |
| 350 | 300 | 850 | 420 | 142 | 148 |
| | 350 | | 420 | 149 | 156 |
| 400 | 40 | 900 | 320 | 148.5 | 157 |
| | 50 | | 325 | 149 | 158 |
| | 60 | | 330 | 150 | 159 |
| | 65 | | 330 | 150 | 159 |
| | 80 | | 340 | 151 | 160 |
| | 100 | | 350 | 152 | 161 |
| | 125 | | 350 | 154 | 163 |
| | 150 | | 350 | 156 | 165 |
| | 200 | | 350 | 160 | 169 |
| | 250 | | 375 | 165 | 174 |
| | 300 | | 450 | 180 | 189 |
| | 350 | | 450 | 190 | 202 |
| 400 | 450 | 200 | 214 | | |
| 500 | 40 | 1000 | 370 | 251 | 277 |
| | 50 | | 375 | 252 | 278 |
| | 60 | | 380 | 253 | 279 |
| | 65 | | 380 | 253 | 279 |
| | 80 | | 390 | 254 | 280 |
| | 100 | | 400 | 256 | 282 |
| | 125 | | 400 | 258 | 284 |
| | 150 | | 400 | 261 | 287 |
| | 200 | | 400 | 265 | 291 |
| | 250 | | 475 | 270 | 296 |
| | 300 | | 500 | 275 | 303 |
| | 350 | | 500 | 280 | 309 |
| | 400 | | 500 | 286 | 320 |
| | 450 | | 500 | 295 | 329 |
| 500 | 500 | 310 | 381 | | |
| 600 | 40 | 1100 | 420 | 353 | 400 |
| | 50 | | 425 | 353 | 400 |
| | 60 | | 430 | 355 | 402 |
| | 65 | | 430 | 355 | 402 |
| | 80 | | 440 | 357 | 404 |
| | 100 | | 450 | 358 | 405 |
| | 125 | | 450 | 360 | 407 |
| | 150 | | 450 | 362 | 409 |
| | 200 | | 450 | 365 | 412 |
| | 250 | | 525 | 378 | 431 |
| | 300 | | 550 | 385 | 432 |
| | 350 | | 550 | 390 | 441 |
| | 400 | | 550 | 395 | 453 |
| | 450 | | 550 | 400 | 479 |
| 500 | 550 | 410 | 492 | | |
| 600 | 550 | 430 | 509 | | |
| 700 | 80 | 600 | 600 | 257 | 281 |
| | 100 | 540 | 510 | 259 | 284 |
| | 150 | 595 | 515 | 261 | 286 |
| | 200 | 650 | 525 | 299 | 322 |
| | 250 | 705 | 530 | 324 | 347 |

| DN | dn | L(mm) | H | Weight(Kg) | |
|------|------|-------|------|------------|------|
| | | | | PN10 | PN16 |
| 700 | 300 | 760 | 540 | 344 | 369 |
| | 400 | 870 | 555 | 380 | 409 |
| | 500 | 980 | 570 | 444 | 483 |
| | 600 | 1200 | 585 | 528 | 578 |
| | 700 | 1200 | 600 | 554 | 591 |
| 800 | 80 | 670 | 440 | 329 | 360 |
| | 100 | 580 | 570 | 335 | 365 |
| | 150 | 585 | 575 | 339 | 369 |
| | 200 | 690 | 585 | 376 | 407 |
| | 300 | 800 | 600 | 430 | 461 |
| | 400 | 910 | 615 | 470 | 506 |
| | 500 | 1020 | 630 | 524 | 570 |
| | 600 | 1350 | 645 | 684 | 740 |
| | 700 | 1350 | 660 | 704 | 748 |
| | 800 | 1350 | 675 | 738 | 785 |
| 900 | 80 | 720 | 490 | 417 | 457 |
| | 100 | 620 | 630 | 419 | 460 |
| | 150 | 675 | 635 | 421 | 462 |
| | 200 | 730 | 645 | 427 | 466 |
| | 300 | 840 | 660 | 543 | 583 |
| | 400 | 950 | 675 | 581 | 626 |
| | 500 | 1060 | 690 | 647 | 701 |
| | 600 | 1500 | 705 | 887 | 951 |
| | 700 | 1500 | 720 | 906 | 958 |
| | 800 | 1500 | 735 | 932 | 987 |
| 900 | 1500 | 750 | 972 | 1032 | |
| 1000 | 80 | 770 | 545 | 521 | 594 |
| | 100 | 660 | 690 | 523 | 596 |
| | 150 | 715 | 695 | 525 | 598 |
| | 200 | 770 | 705 | 528 | 601 |
| | 300 | 880 | 720 | 673 | 745 |
| | 400 | 990 | 735 | 713 | 790 |
| | 500 | 1100 | 750 | 796 | 883 |
| | 600 | 1650 | 765 | 1075 | 1173 |
| | 700 | 1650 | 780 | 1152 | 1237 |
| | 800 | 1650 | 795 | 1172 | 1260 |
| 900 | 1650 | 810 | 1211 | 1304 | |
| 1000 | 1650 | 825 | 1257 | 1366 | |



ALL LOOSING FLANGED CROSS



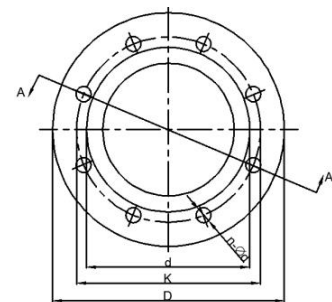
HEXAGONAL BOLTS, NUTS AND WASHER

| DN | dn | L(mm) | H | Weight(Kg) | |
|------|------|-------|-----|------------|------|
| | | | | PN10 | PN16 |
| 65 | 65 | 330 | 165 | 17.5 | |
| 80 | 80 | 330 | 135 | 20.5 | |
| 100 | 100 | 360 | 180 | 24.5 | |
| 125 | 125 | 400 | 200 | 34.5 | |
| 150 | 150 | 440 | 220 | 45 | |
| 200 | 200 | 520 | 260 | 69 | 70 |
| 250 | 250 | 700 | 350 | 110 | 110 |
| 300 | 300 | 800 | 400 | 157 | 154 |
| 350 | 350 | 850 | 425 | 201 | 205 |
| 400 | 400 | 900 | 450 | 228 | 253 |
| 450 | 450 | 950 | 475 | 346 | 382 |
| 500 | 500 | 1000 | 500 | 398 | 416 |
| 600 | 600 | 1100 | 550 | 454 | 563 |
| 700 | 700 | 1200 | 600 | 884 | 930 |
| 800 | 800 | 1350 | 675 | 1181 | 1240 |
| 900 | 900 | 1500 | 750 | 1544 | 1620 |
| 1000 | 1000 | 1650 | 825 | 2102 | 2240 |

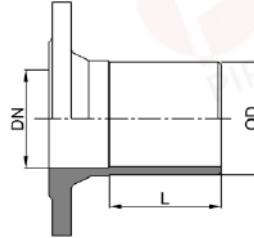
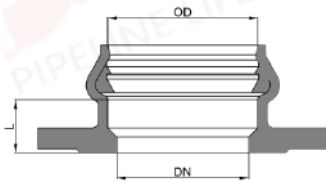
| DN | Bolts for PN10 | | | Bolts for PN16 | | |
|------|----------------|-----|----|----------------|-----|----|
| | ØM | L | N° | ØM | L | N° |
| 40 | M16 | 80 | 4 | M16 | 80 | 4 |
| 50 | M16 | 80 | 4 | M16 | 80 | 4 |
| 60 | M16 | 80 | 4 | M16 | 80 | 4 |
| 65 | M16 | 80 | 4 | M16 | 80 | 4 |
| 80 | M16 | 80 | 8 | M16 | 80 | 8 |
| 100 | M16 | 80 | 8 | M16 | 80 | 8 |
| 125 | M16 | 80 | 8 | M16 | 80 | 8 |
| 150 | M20 | 90 | 8 | M20 | 90 | 8 |
| 200 | M20 | 90 | 8 | M20 | 90 | 12 |
| 250 | M20 | 100 | 12 | M24 | 100 | 12 |
| 300 | M20 | 110 | 12 | M24 | 120 | 12 |
| 350 | M20 | 110 | 16 | M24 | 120 | 16 |
| 400 | M24 | 120 | 16 | M27 | 130 | 16 |
| 450 | M24 | 120 | 20 | M27 | 130 | 20 |
| 500 | M24 | 120 | 20 | M30 | 140 | 20 |
| 600 | M27 | 130 | 20 | M33 | 150 | 20 |
| 700 | M27 | 140 | 24 | M33 | 170 | 24 |
| 800 | M30 | 150 | 24 | M36 | 180 | 24 |
| 900 | M30 | 160 | 28 | M36 | 180 | 28 |
| 1000 | M33 | 170 | 28 | M39 | 190 | 28 |

FLANGE RUBBER GASKET

| DN | PN10 | | | | | PN16 | | | | | |
|------|------|------|------|------|------|------|-------|-------|---|-------|-------|
| | D | K | d | a | n-Ød | D | K | d | a | n-Ød | |
| 40 | 150 | 110 | 84 | 3 | 4-19 | 150 | 110 | 84 | 3 | 4-19 | |
| 50 | 165 | 125 | 99 | | | 165 | 125 | 99 | | | |
| 60 | 175 | 135 | 109 | | | 175 | 135 | 109 | | | |
| 65 | 185 | 145 | 118 | | | 185 | 145 | 118 | | | |
| 80 | 200 | 160 | 132 | 3 | 8-19 | 200 | 160 | 132 | 3 | 8-19 | |
| 100 | 220 | 180 | 156 | | | 220 | 180 | 156 | | | |
| 125 | 250 | 210 | 184 | | | 250 | 210 | 184 | | | |
| 150 | 285 | 240 | 211 | | | 285 | 240 | 211 | | | |
| 200 | 340 | 295 | 266 | 4 | 8-23 | 340 | 295 | 266 | 4 | 12-23 | |
| 250 | 400 | 350 | 319 | | | 400 | 355 | 319 | | | 12-28 |
| 300 | 455 | 400 | 370 | | | 455 | 410 | 370 | | | |
| 350 | 505 | 460 | 429 | | | 520 | 470 | 429 | | | 16-28 |
| 400 | 565 | 515 | 480 | 580 | 525 | 480 | 16-31 | | | | |
| 450 | 615 | 565 | 530 | 640 | 585 | 548 | | 20-31 | | | |
| 500 | 670 | 620 | 582 | 715 | 650 | 609 | 20-34 | | | | |
| 600 | 780 | 725 | 682 | 840 | 770 | 720 | | 20-37 | | | |
| 700 | 895 | 840 | 794 | 910 | 840 | 794 | 24-37 | | | | |
| 800 | 1015 | 950 | 901 | 1025 | 950 | 901 | | 24-40 | | | |
| 900 | 1115 | 1050 | 1001 | 1125 | 1050 | 1001 | 28-40 | | | | |
| 1000 | 1230 | 1160 | 1112 | 1255 | 1170 | 1112 | | 28-43 | | | |



SOCKET FITTING FOR PVC/PE PIPE



FLANGE SOCKET

| DN | OD | L | Weight(Kg) | |
|-----|-----|----|------------|------|
| | | | PN10 | PN16 |
| 50 | 63 | 15 | 3.8 | 3.8 |
| 65 | 75 | 15 | 4.3 | 4.3 |
| 80 | 90 | 15 | 5.6 | 5.6 |
| 100 | 110 | 15 | 6.6 | 6.6 |
| 100 | 125 | 15 | 7.2 | 7.2 |
| 125 | 125 | 15 | 8.1 | 8.1 |
| 125 | 140 | 20 | 9.5 | 9.5 |
| 150 | 160 | 35 | 10.3 | 10.3 |
| 150 | 180 | 35 | 13.5 | 13.8 |
| 200 | 200 | 40 | 14 | 14.6 |
| 200 | 225 | 40 | 18 | 19 |
| 250 | 250 | 50 | 24 | 25 |
| 250 | 280 | 50 | 27.5 | 28 |
| 300 | 315 | 60 | 33 | 35 |
| 350 | 355 | 60 | 42.7 | 45.4 |
| 400 | 400 | 70 | 50 | 53.5 |
| 450 | 450 | 70 | 54 | 58 |
| 450 | 500 | 80 | 73 | 78 |
| 500 | 500 | 80 | 80.5 | 83.5 |
| 600 | 630 | 90 | 110 | 114 |

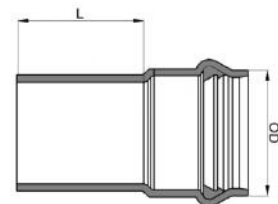
FLANGE SPIGOT

| DN | OD | L | Weight(Kg) | |
|-----|-----|-----|------------|------|
| | | | PN10 | PN16 |
| 50 | 63 | 93 | 2.2 | 2.2 |
| 65 | 75 | 98 | 4.3 | 4.3 |
| 80 | 90 | 102 | 5 | 5 |
| 100 | 110 | 110 | 5.4 | 5.4 |
| 100 | 125 | 114 | 8 | 8 |
| 125 | 125 | 114 | 8.5 | 8.5 |
| 125 | 140 | 119 | 9 | 9 |
| 150 | 160 | 127 | 11.5 | 11.5 |
| 150 | 180 | 133 | 14.5 | 14.5 |
| 200 | 200 | 139 | 16 | 15.8 |
| 200 | 225 | 147 | 16.7 | 16.5 |
| 250 | 250 | 156 | 23 | 23.3 |
| 250 | 280 | 166 | 25 | 25.3 |
| 300 | 315 | 176 | 35 | 35.5 |
| 350 | 355 | 187 | 41 | 44 |
| 400 | 400 | 198 | 52 | 58 |
| 450 | 450 | 200 | 53 | 59.5 |
| 500 | 500 | 224 | 76 | 92 |
| 600 | 630 | 260 | 108 | 136 |

SOCKET SPIGOT

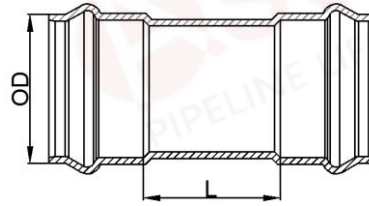
| OD | L | Weight(Kg) |
|-----|-----|------------|
| 40 | 85 | 1.00 |
| 50 | 90 | 1.10 |
| 63 | 95 | 1.57 |
| 75 | 100 | 1.87 |
| 90 | 105 | 2.53 |
| 110 | 110 | 3.21 |
| 125 | 115 | 3.74 |
| 140 | 120 | 4.43 |
| 160 | 130 | 5.21 |

| OD | L | Weight(Kg) |
|-----|-----|------------|
| 180 | 135 | 6.60 |
| 200 | 140 | 7.29 |
| 225 | 150 | 10.34 |
| 250 | 160 | 13.64 |
| 280 | 170 | 14.96 |
| 315 | 180 | 18.15 |
| 355 | 190 | 23.76 |
| 400 | 200 | 25.08 |



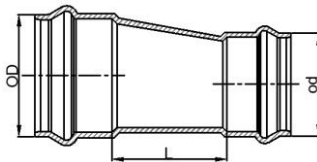
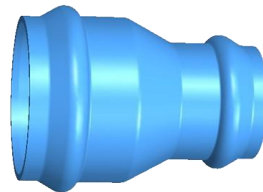
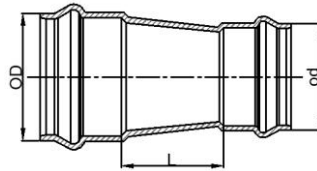
COLLAR

| OD | L(mm) | Weight(Kg) |
|-----|-------|------------|
| 40 | 160 | 1.38 |
| 50 | 60 | 2.5 |
| 63 | 60 | 3.2 |
| 75 | 60 | 4.2 |
| 90 | 60 | 5.1 |
| 110 | 60 | 7 |
| 125 | 60 | 7.6 |
| 140 | 60 | 8.6 |
| 160 | 60 | 10.5 |
| 180 | 60 | 14 |
| 200 | 60 | 15.1 |
| 225 | 60 | 19.5 |
| 250 | 60 | 27 |
| 280 | 60 | 31.2 |
| 315 | 60 | 43.2 |
| 355 | 60 | 49.5 |
| 400 | 60 | 59.4 |
| 450 | 60 | 70 |
| 500 | 60 | 89.6 |

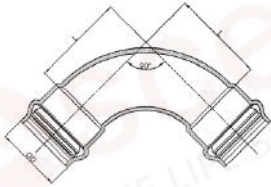


DOUBLE SOCKET CONCENTRIC/ECCENTRIC TAPER

| OD | od | L(mm) | Weight(Kg) |
|-----|-----|-------|------------|
| 63 | 50 | 70 | 3.2 |
| 75 | 50 | 80 | 3.3 |
| | 63 | 80 | 3.8 |
| 90 | 50 | 80 | 4.3 |
| | 63 | 80 | 4.5 |
| | 75 | 80 | 4.9 |
| 110 | 50 | 100 | 5 |
| | 63 | 160 | 5.7 |
| | 75 | 120 | 5.8 |
| | 90 | 85 | 6.5 |
| 125 | 63 | 190 | 7.6 |
| | 75 | 190 | 8.1 |
| | 90 | 135 | 8.6 |
| | 110 | 100 | 9 |
| 140 | 63 | 200 | 8 |
| | 75 | 190 | 9 |
| | 90 | 135 | 9.2 |
| | 110 | 100 | 9.4 |
| 160 | 125 | 100 | 9.8 |
| | 50 | 160 | 8.8 |
| | 63 | 210 | 9.3 |
| | 75 | 200 | 9.7 |
| | 110 | 150 | 10.8 |
| 200 | 125 | 100 | 11.5 |
| | 140 | 100 | 14 |
| | 63 | 250 | 14 |
| | 75 | 250 | 14.3 |
| | 90 | 250 | 15.1 |
| | 110 | 250 | 15.5 |
| 200 | 125 | 250 | 16.2 |
| | 140 | 200 | 16 |

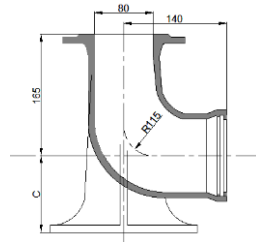


| OD | od | L(mm) | Weight(Kg) |
|-----|-----|-------|------------|
| 200 | 160 | 145 | 16.3 |
| 225 | 63 | 200 | 14 |
| | 75 | 200 | 15.1 |
| | 90 | 250 | 15.2 |
| | 110 | 250 | 15.5 |
| | 125 | 250 | 16.2 |
| | 140 | 200 | 16.5 |
| | 160 | 145 | 17.3 |
| 250 | 200 | 145 | 19.4 |
| | 63 | 300 | 18.4 |
| | 90 | 300 | 21.1 |
| | 110 | 300 | 22 |
| | 125 | 300 | 24 |
| | 140 | 250 | 23 |
| | 160 | 250 | 27.5 |
| 280 | 200 | 150 | 28.1 |
| | 160 | 250 | 28.6 |
| 315 | 225 | 150 | 29 |
| | 63 | 220 | 30 |
| | 90 | 110 | 26 |
| | 110 | 125 | 29.5 |
| | 160 | 150 | 30.5 |
| 400 | 200 | 250 | 40 |
| | 250 | 150 | 41 |
| | 63 | 260 | 39 |
| | 110 | 250 | 41 |
| 500 | 250 | 360 | 64 |
| | 315 | 260 | 66 |
| | 315 | 460 | 74.5 |
| 500 | 400 | 260 | 86 |



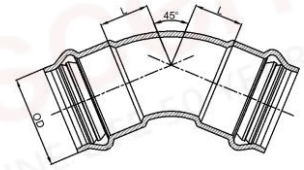
DOUBLE SOCKET 90° BEND

| OD | L(mm) | Weight(Kg) |
|-----|-------|------------|
| 50 | 60 | 3 |
| 63 | 65 | 3.8 |
| 75 | 70 | 5 |
| 90 | 75 | 6.5 |
| 110 | 85 | 8.6 |
| 125 | 110 | 9.5 |
| 140 | 110 | 12.5 |
| 160 | 130 | 16 |
| 180 | 160 | 19.2 |
| 200 | 160 | 22 |
| 225 | 160 | 28 |
| 250 | 185 | 38 |
| 315 | 215 | 60 |
| 355 | 290 | 86 |
| 400 | 300 | 101 |
| 450 | 300 | 138 |
| 500 | 315 | 147 |
| 630 | 515 | 270 |



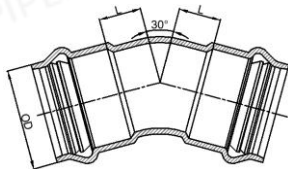
FLANGE SOCKET 90° DUCKFOOT BEND

| DN | L(mm) | H | Weight(|
|------------|-------|----|---------|
| 110x80x90° | 180 | 12 | 15 |



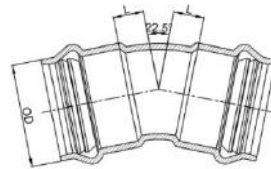
DOUBLE SOCKET 45° BEND

| OD | L(mm) | Weight(Kg) |
|-----|-------|------------|
| 50 | 40 | 2.5 |
| 63 | 40 | 3.5 |
| 75 | 40 | 4.3 |
| 90 | 50 | 5 |
| 110 | 60 | 6.6 |
| 125 | 65 | 9 |
| 140 | 65 | 10 |
| 160 | 70 | 11.3 |
| 180 | 70 | 15.5 |
| 200 | 70 | 17.3 |
| 225 | 80 | 22 |
| 250 | 110 | 32.4 |
| 315 | 135 | 52 |
| 355 | 170 | 65 |
| 400 | 175 | 87 |
| 450 | 200 | 103 |
| 500 | 210 | 139 |
| 630 | 235 | 195 |



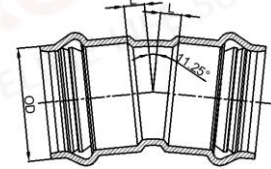
DOUBLE SOCKET 30° BEND

| OD | L(mm) | Weight(Kg) |
|-----|-------|------------|
| 50 | 40 | 2.3 |
| 63 | 40 | 3 |
| 75 | 40 | 3.8 |
| 90 | 50 | 5 |
| 110 | 60 | 7.6 |
| 125 | 65 | 8.2 |
| 140 | 65 | 9.5 |
| 160 | 70 | 10.8 |
| 180 | 70 | 14.5 |
| 200 | 70 | 16.5 |
| 225 | 80 | 20 |
| 250 | 110 | 29.8 |
| 315 | 135 | 48 |
| 355 | 170 | 59 |
| 400 | 175 | 63.7 |
| 450 | 195 | 81 |
| 500 | 210 | 126 |
| 630 | 235 | 172 |



DOUBLE SOCKET 22.5° BEND

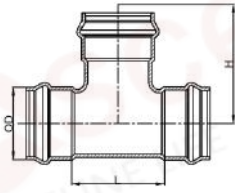
| OD | L(mm) | Weight(Kg) |
|-----|-------|------------|
| 50 | 20 | 2.2 |
| 63 | 20 | 2.7 |
| 75 | 25 | 4 |
| 90 | 25 | 5 |
| 110 | 30 | 6.5 |
| 125 | 30 | 8 |
| 140 | 30 | 8.6 |
| 160 | 35 | 12 |
| 180 | 40 | 13.8 |
| 200 | 40 | 15 |
| 225 | 45 | 18.5 |
| 250 | 50 | 27.5 |
| 315 | 85 | 44.3 |
| 355 | 95 | 54 |
| 400 | 110 | 74 |
| 450 | 120 | 75.6 |
| 500 | 130 | 115 |
| 630 | 150 | 152 |



DOUBLE SOCKET 11.25° BEND

| OD | L(mm) | Weight(Kg) |
|-----|-------|------------|
| 50 | 20 | 2.2 |
| 63 | 20 | 2.7 |
| 75 | 25 | 3.8 |
| 90 | 25 | 4.9 |
| 110 | 30 | 6 |
| 125 | 30 | 7.6 |
| 140 | 30 | 8.6 |
| 160 | 30 | 12 |
| 180 | 30 | 13.5 |
| 200 | 30 | 14 |
| 225 | 40 | 19 |
| 250 | 40 | 24.8 |
| 315 | 55 | 41 |
| 355 | 60 | 50 |
| 400 | 65 | 68 |
| 450 | 70 | 72 |
| 500 | 75 | 101 |
| 630 | 90 | 129 |

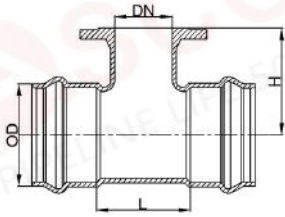
ALL SOCKET TEE



| OD | od | L(mm) | H | Weight(Kg) |
|-----|-----|-------|------|------------|
| 50 | 50 | 60 | 30 | 3.5 |
| 63 | 50 | 65 | 30 | 4.3 |
| | 63 | 70 | 30 | 4.5 |
| 75 | 50 | 65 | 45 | 5.4 |
| | 63 | 70 | 45 | 6 |
| | 75 | 85 | 45 | 6.5 |
| 90 | 50 | 75 | 50 | 6.5 |
| | 63 | 80 | 50 | 6.8 |
| | 75 | 90 | 50 | 7.6 |
| | 90 | 105 | 50 | 10.3 |
| 110 | 50 | 65 | 60 | 8 |
| | 63 | 75 | 60 | 8.6 |
| | 75 | 90 | 60 | 10.5 |
| | 90 | 105 | 60 | 10.8 |
| 125 | 50 | 65 | 70 | 9.7 |
| | 63 | 75 | 70 | 10 |
| | 75 | 90 | 70 | 11.8 |
| | 90 | 105 | 70 | 13 |
| 140 | 125 | 150 | 70 | 15.1 |
| | 50 | 65 | 75 | 10.5 |
| | 63 | 75 | 75 | 12 |
| | 75 | 90 | 75 | 12.5 |
| 160 | 90 | 105 | 75 | 14 |
| | 125 | 150 | 75 | 16 |
| | 40 | 55 | 85 | 11.9 |
| | 50 | 65 | 85 | 12.5 |
| | 63 | 75 | 85 | 13 |
| | 75 | 90 | 85 | 14.8 |
| | 90 | 105 | 85 | 16.5 |
| | 110 | 125 | 85 | 19 |
| 125 | 125 | 85 | 19.5 | |
| 200 | 160 | 175 | 85 | 21.1 |
| | 50 | 70 | 105 | 16.2 |
| | 75 | 120 | 105 | 19.4 |
| | 110 | 160 | 105 | 22.1 |
| | 125 | 160 | 105 | 22.7 |
| | 160 | 210 | 105 | 24.8 |
| | 200 | 240 | 105 | 27 |
| 225 | 50 | 70 | 120 | 20.5 |
| | 63 | 110 | 120 | 21.6 |
| | 75 | 120 | 120 | 22.1 |
| | 90 | 140 | 120 | 23.8 |
| | 110 | 160 | 120 | 25.9 |
| | 125 | 170 | 120 | 27 |
| | 160 | 210 | 120 | 28.6 |
| | 200 | 240 | 120 | 32.4 |
| 225 | 260 | 120 | 34.6 | |

| OD | od | L(mm) | H | Weight(Kg) |
|-----|-----|-------|-----|------------|
| 250 | 50 | 70 | 130 | 30.2 |
| | 63 | 110 | 130 | 30.5 |
| | 75 | 130 | 130 | 30.8 |
| | 90 | 155 | 130 | 33 |
| | 110 | 175 | 130 | 33.5 |
| | 125 | 180 | 130 | 35.6 |
| | 140 | 200 | 130 | 36 |
| | 160 | 225 | 130 | 39 |
| | 200 | 250 | 130 | 41.6 |
| | 225 | 270 | 130 | 43.7 |
| 280 | 250 | 300 | 130 | 55.5 |
| | 63 | 80 | 145 | 37 |
| | 90 | 155 | 145 | 38 |
| | 110 | 175 | 145 | 39 |
| | 160 | 225 | 145 | 43.2 |
| | 180 | 230 | 145 | 45.4 |
| | 225 | 250 | 145 | 53 |
| 315 | 280 | 325 | 145 | 62 |
| | 63 | 80 | 165 | 46.5 |
| | 75 | 100 | 165 | 48 |
| | 90 | 120 | 165 | 49 |
| | 110 | 175 | 165 | 50 |
| | 125 | 180 | 165 | 51.2 |
| | 160 | 225 | 165 | 53 |
| | 180 | 225 | 165 | 55 |
| 355 | 200 | 250 | 165 | 58.5 |
| | 225 | 250 | 165 | 61.6 |
| | 250 | 300 | 165 | 66 |
| | 280 | 325 | 165 | 70 |
| | 315 | 375 | 165 | 81 |
| | 110 | 140 | 190 | 58.3 |
| | 200 | 220 | 190 | 69 |
| | 225 | 250 | 190 | 73 |
| 400 | 250 | 270 | 190 | 74.5 |
| | 280 | 300 | 190 | 84.2 |
| | 315 | 340 | 190 | 91 |
| | 355 | 380 | 190 | 98 |
| | 90 | 120 | 215 | 65 |
| | 110 | 140 | 215 | 70.2 |
| | 125 | 155 | 215 | 74.5 |
| 500 | 160 | 180 | 215 | 77 |
| | 180 | 200 | 215 | 78 |
| | 200 | 220 | 215 | 90 |
| | 250 | 270 | 215 | 93 |
| | 315 | 340 | 215 | 112 |
| | 400 | 430 | 215 | 123 |
| | 110 | 140 | 260 | 110 |
| | 125 | 155 | 260 | 115 |
| 500 | 160 | 180 | 260 | 119 |
| | 200 | 220 | 260 | 128 |
| | 250 | 270 | 260 | 143 |
| | 315 | 340 | 260 | 150 |
| | 400 | 430 | 260 | 167 |
| | 500 | 530 | 270 | 199 |

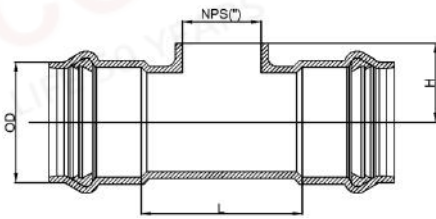
DOUBLE SOCKET TEE with FLANGED BRANCH



| OD | DN | L(mm) | H | Weight(Kg) | |
|-----|-----|-------|-----|------------|-------|
| | | | | PN10 | PN16 |
| 63 | 50 | 70 | 140 | 5.89 | 6.5 |
| | 65 | / | / | 6.78 | 6.78 |
| 75 | 50 | / | / | 6.52 | 6.52 |
| | 65 | / | / | 7.5 | 7.5 |
| 90 | 50 | / | / | 7.6 | 7.6 |
| | 65 | / | / | 8.72 | 8.72 |
| | 80 | 105 | 160 | 9.54 | 10.3 |
| 110 | 50 | 75 | 145 | 9.4 | 10.3 |
| | 65 | / | / | 10.1 | 10.1 |
| | 80 | 105 | 170 | 10.95 | 13 |
| | 100 | 125 | 170 | 12.21 | 14.5 |
| 125 | 40 | / | / | 9.26 | 9.26 |
| | 50 | 80 | 160 | 9.94 | 10 |
| | 65 | / | / | 11.11 | 10.1 |
| | 80 | 105 | 170 | 12.05 | 11.5 |
| | 100 | 125 | 180 | 13.53 | 13 |
| 140 | 125 | / | / | 15.4 | 15.4 |
| | 40 | / | / | 10.58 | 10.58 |
| | 65 | / | / | 12.72 | 12.72 |
| | 80 | / | / | 13.64 | 13.64 |
| | 100 | / | / | 15.18 | 15.18 |
| 160 | 125 | / | / | 17.34 | 17.34 |
| | 50 | 75 | 170 | 13.34 | 14.6 |
| | 65 | / | / | 14.77 | 14.77 |
| | 80 | / | / | 15.84 | 15.84 |
| | 100 | 125 | 205 | 17.38 | 17.8 |
| 200 | 125 | / | / | 19.58 | 19.58 |
| | 150 | 175 | 220 | 22.47 | 24.8 |
| | 50 | 110 | 195 | / | 17.3 |
| | 65 | / | / | 19.98 | 19.98 |
| | 80 | 140 | 225 | 21.18 | 18.5 |
| | 100 | 160 | 230 | 22.91 | 20.5 |
| | 125 | 185 | 240 | 25.45 | 22 |
| 225 | 150 | 210 | 245 | 28.38 | 25.4 |
| | 200 | 260 | 250 | 34 | 30 |
| | 65 | / | / | 23.05 | 23.05 |
| | 80 | 140 | 225 | 24.31 | 26 |
| | 100 | 160 | 230 | 26.07 | 27.5 |
| | 125 | / | / | 28.71 | 28.71 |
| 225 | 150 | 210 | 245 | 31.68 | 34 |
| | 200 | 260 | 260 | 37.6 | 39 |

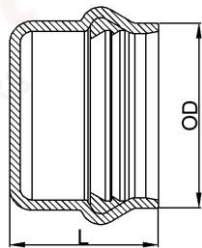
| OD | DN | L(mm) | H | Weight(Kg) | |
|-----|-----|-------|-----|------------|--------|
| | | | | PN10 | PN16 |
| 250 | 65 | / | / | 27.83 | 27.83 |
| | 80 | 155 | 250 | 29.15 | 35.5 |
| | 100 | 175 | 255 | 31.13 | 36.3 |
| | 125 | 200 | 260 | 33.77 | 39 |
| | 150 | 225 | 265 | 36.96 | 43.1 |
| | 200 | 275 | 275 | 43.1 | 45 |
| 315 | 250 | / | / | 51.30 | 50.86 |
| | 65 | / | / | 38.78 | 38.78 |
| | 80 | / | / | 40.37 | 40.37 |
| | 100 | / | / | 42.74 | 42.74 |
| | 125 | / | / | 45.91 | 45.91 |
| | 150 | / | / | 49.5 | 49.50 |
| | 200 | / | / | 56.2 | 55.97 |
| 355 | 250 | / | / | 64.40 | 64.02 |
| | 300 | / | / | 73.20 | 72.82 |
| | 65 | / | / | 47.85 | 47.85 |
| | 80 | / | / | 49.67 | 49.67 |
| | 100 | / | / | 52.32 | 52.32 |
| | 150 | / | / | 59.84 | 59.84 |
| | 200 | / | / | 67.60 | 67.43 |
| 400 | 250 | / | / | 77.1 | 76.67 |
| | 350 | / | / | 99 | 101.42 |
| | 80 | 175 | 340 | 61.47 | 69.2 |
| | 100 | 210 | 355 | 66 | 75.6 |
| | 150 | 275 | 360 | 75.63 | 79 |
| | 200 | 325 | 365 | 83.8 | 93 |
| 500 | 250 | / | / | 93.4 | 92.95 |
| | 300 | / | / | 104.2 | 103.8 |
| | 400 | / | / | 125.5 | 129.8 |
| | 80 | 120 | 375 | / | 112.3 |
| | 100 | 140 | 380 | / | 119 |
| | 150 | 275 | 385 | / | 127.5 |
| 630 | 200 | 250 | 390 | / | 134 |
| | 250 | 300 | 400 | / | 157 |
| | 300 | 420 | 440 | / | 164.2 |
| | 400 | 450 | 440 | / | 184 |
| | 500 | 550 | 460 | / | 249 |
| | 80 | 140 | 450 | / | 141 |
| 630 | 100 | 160 | 450 | / | 146 |
| | 150 | 275 | 450 | / | 168 |
| | 200 | 280 | 450 | / | 174 |
| | 250 | 300 | 460 | / | 179 |
| | 300 | 420 | 460 | / | 200 |
| | 400 | 470 | 480 | / | 239 |
| 600 | 680 | 560 | / | 355 | |

DOUBLE SOCKET TEE with THREADED BRANCH



| OD | NPS | L(mm) | H(mm) | Weight(Kg) |
|-----|------|-------|-------|------------|
| 75 | 2.5" | 300 | 105 | 5.2 |
| 90 | 2" | 340 | 69 | 6 |
| 90 | 3" | 340 | 72 | 6 |
| 110 | 3" | 360 | 82 | 8.5 |

CAP



| OD | L(mm) | Weight(Kg) |
|-----|-------|------------|
| 50 | 95 | 1 |
| 63 | 100 | 1.5 |
| 75 | 100 | 1.7 |
| 90 | 120 | 2.5 |
| 110 | 130 | 3.5 |
| 125 | 135 | 4.5 |
| 140 | 145 | 5 |
| 160 | 155 | 6.5 |
| 180 | 170 | 8.2 |
| 200 | 175 | 10 |
| 225 | 185 | 12 |
| 250 | 195 | 15.5 |
| 280 | 205 | 20 |
| 315 | 220 | 24.6 |
| 355 | 240 | 30 |
| 400 | 260 | 40 |

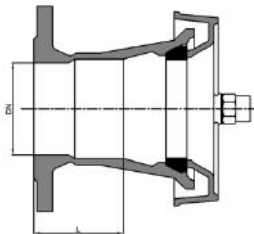
EX FITTING

EX GLAND



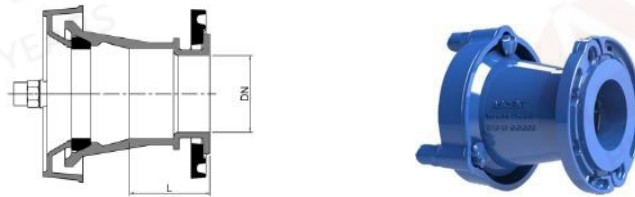
| DN | NO.holes | Weight(Kg) |
|-----|----------|------------|
| 60 | 3 | 2.5 |
| 80 | 3 | 2.8 |
| 100 | 3 | 3 |
| 125 | 3 | 3.3 |
| 150 | 4 | 4.1 |
| 200 | 5 | 5.2 |
| 250 | 6 | 5.4 |
| 300 | 7 | 8.2 |
| 350 | 8 | 9 |
| 400 | 9 | 11.2 |
| 450 | 8 | 19 |
| 500 | 10 | 20 |
| 600 | 12 | 26.5 |

FLANGED EX SOCKET



| DN | L(mm) | Weight without glands(Kg) | | Weight with glands (Kg) | | Weight completely (Kg) | |
|-----|-------|---------------------------|-------|-------------------------|------|------------------------|-------|
| | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 |
| 60 | 100 | 6.1 | 6.1 | 8.6 | 8.6 | 9.44 | 9.44 |
| 80 | 105 | 7.9 | 7.9 | 10.7 | 10.7 | 11.96 | 11.96 |
| 100 | 105 | 9.5 | 9.5 | 12.5 | 12.5 | 13.76 | 13.76 |
| 125 | 110 | 11.5 | 11.5 | 14.8 | 14.8 | 16.06 | 16.06 |
| 150 | 110 | 14.4 | 14.4 | 18.5 | 18.5 | 20.18 | 20.18 |
| 200 | 115 | 19.6 | 19.4 | 24.8 | 24.6 | 26.9 | 26.7 |
| 250 | 120 | 29.6 | 29.3 | 35 | 34.7 | 37.52 | 37.22 |
| 300 | 125 | 37.8 | 37.5 | 46 | 45.7 | 48.94 | 48.64 |
| 350 | 130 | 44.6 | 47.6 | 53.6 | 56.6 | 57 | 60 |
| 400 | 135 | 52.1 | 57.6 | 63.3 | 68.8 | 67.1 | 72.58 |
| 450 | 140 | 66.1 | 74 | 85.1 | 93 | 88.5 | 96.4 |
| 500 | 145 | 79.6 | 93 | 99.6 | 113 | 104.6 | 118 |
| 600 | 155 | 102.8 | 126.5 | 129.3 | 153 | 135.3 | 159 |

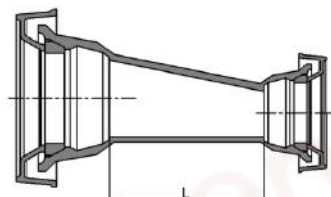
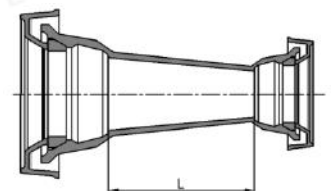
LOOSING FLANGED EX SOCKET



| DN | L(mm) | Weight without glands and loosening flanges(Kg) | | Weight with loosening without glands(Kg) | | Weight with glands and loosening flanges(Kg) | | Weight completely (Kg) | |
|-----|-------|---|------|--|-------|--|------|------------------------|-------|
| | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 |
| | | | | | | | | | |
| 60 | 124 | / | / | 7.6 | 7.6 | 10.1 | 10.1 | / | / |
| 60 | 100 | 4.5 | 4.5 | 6.3 | 6.3 | 8.8 | 8.8 | 9.6 | 9.6 |
| 80 | 105 | 5.7 | 5.7 | 8 | 8 | 10.8 | 10.8 | 12.1 | 12.1 |
| 100 | 105 | 7.1 | 7.1 | 9.6 | 9.6 | 12.6 | 12.6 | 13.9 | 13.9 |
| 125 | 110 | 8.8 | 8.8 | 12 | 12 | 15.3 | 15.3 | 16.6 | 16.6 |
| 150 | 110 | 11.2 | 11.2 | 15.4 | 15.4 | 19.5 | 19.5 | 21.2 | 21.2 |
| 200 | 115 | 15.6 | 15.5 | 21.6 | 21.4 | 26.8 | 26.6 | 28.9 | 28.7 |
| 250 | 120 | 23.6 | 23.6 | 32.2 | 31.8 | 37.6 | 37.2 | 40.1 | 39.7 |
| 300 | 125 | 29.9 | 29.9 | 41.2 | 40.5 | 49.4 | 48.7 | 52.34 | 51.6 |
| 350 | 130 | 36.7 | 36.7 | 50.8 | 51.6 | 59.8 | 60.6 | 63.2 | 64 |
| 400 | 135 | 43.6 | 43.6 | 60.1 | 64.6 | 71.3 | 75.8 | 75.1 | 79.6 |
| 450 | 140 | 61 | 61 | 81 | 90 | 100 | 109 | 103.4 | 112.4 |
| 500 | 145 | 71 | 71 | 96 | 109 | 116 | 129 | 121 | 134 |
| 600 | 155 | 93.5 | 93.5 | 126.5 | 151.5 | 153 | 178 | 159 | 184 |

DOUBLE EX SOCKET TAPER

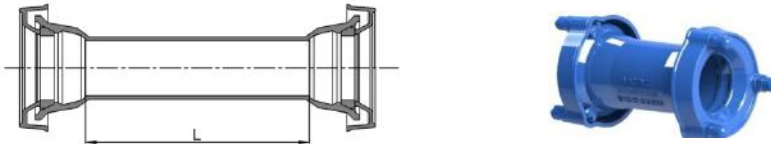
| DN | dn | L(mm) | Weight without glands (Kg) | Weight with glands (Kg) | Weight completely (Kg) |
|-----|-----|-------|----------------------------|-------------------------|------------------------|
| 80 | 60 | 90 | 7.5 | 12.8 | 14.9 |
| 100 | 60 | 130 | 8.2 | 13.7 | 15.8 |
| 100 | 80 | 90 | 8.8 | 14.6 | 17.12 |
| 125 | 60 | 180 | 9.8 | 15.6 | 17.7 |
| 125 | 80 | 140 | 10 | 16.1 | 18.62 |
| 125 | 100 | 100 | 10.5 | 16.8 | 19.32 |
| 150 | 60 | 230 | 12.3 | 18.9 | 21.42 |
| 150 | 80 | 190 | 12.8 | 19.7 | 22.64 |
| 150 | 100 | 150 | 13.5 | 20.6 | 23.54 |
| 150 | 125 | 100 | 14.2 | 21.6 | 24.54 |
| 200 | 60 | 330 | 19.5 | 27.2 | 30.14 |
| 200 | 80 | 290 | 20 | 28 | 31.36 |
| 200 | 100 | 250 | 21 | 29.2 | 32.56 |
| 200 | 125 | 200 | 22 | 30.5 | 33.86 |
| 200 | 150 | 150 | 23 | 32.3 | 36.08 |
| 250 | 60 | 430 | 29.1 | 37 | 40.36 |
| 250 | 80 | 390 | 29.3 | 37.5 | 41.28 |
| 250 | 100 | 350 | 30 | 38.4 | 42.18 |
| 250 | 125 | 300 | 33 | 41.7 | 45.48 |
| 250 | 150 | 250 | 35 | 44.5 | 48.7 |
| 250 | 200 | 150 | 37 | 47.6 | 52.22 |



| DN | dn | L(mm) | Weight without glands (Kg) | Weight with glands (Kg) | Weight completely (Kg) |
|-----|-----|-------|----------------------------|-------------------------|------------------------|
| 300 | 60 | 530 | 39.7 | 50.4 | 54.18 |
| 300 | 80 | 490 | 39.9 | 50.9 | 55.1 |
| 300 | 100 | 450 | 39.9 | 51.1 | 55.3 |
| 300 | 125 | 400 | 40 | 51.5 | 55.7 |
| 300 | 150 | 350 | 42 | 54.3 | 58.9 |
| 300 | 200 | 250 | 40 | 53.4 | 58.44 |
| 300 | 250 | 150 | 40 | 53.6 | 59.06 |
| 350 | 60 | 640 | 50.8 | 62.3 | 66.5 |
| 350 | 80 | 600 | 51 | 62.8 | 67.42 |
| 350 | 100 | 560 | 51 | 63 | 67.62 |
| 350 | 125 | 510 | 51.3 | 63.6 | 68.22 |
| 350 | 150 | 460 | 51.4 | 64.5 | 69.54 |
| 350 | 200 | 360 | 50.3 | 64.5 | 69.96 |
| 350 | 250 | 260 | 50.6 | 65 | 70.88 |
| 350 | 300 | 160 | 49 | 66.2 | 72.5 |
| 400 | 60 | 740 | 63.5 | 77.2 | 81.82 |
| 400 | 80 | 700 | 63.5 | 77.5 | 82.54 |
| 400 | 100 | 660 | 63.8 | 78 | 83.04 |
| 400 | 125 | 610 | 64.1 | 78.6 | 83.64 |
| 400 | 150 | 560 | 64.3 | 79.6 | 85.06 |
| 400 | 200 | 460 | 63.4 | 79.8 | 85.68 |
| 400 | 250 | 360 | 63.8 | 80.4 | 86.7 |
| 400 | 300 | 260 | 62.2 | 81.6 | 88.32 |
| 400 | 350 | 160 | 57.6 | 77.8 | 84.94 |
| 450 | 60 | 840 | 80.8 | 102.3 | 106.5 |
| 450 | 80 | 800 | 80.9 | 102.7 | 107.32 |
| 450 | 100 | 760 | 81.1 | 103.1 | 107.72 |
| 450 | 125 | 710 | 81.6 | 103.9 | 108.52 |
| 450 | 150 | 660 | 81.9 | 105 | 110.04 |
| 450 | 200 | 560 | 81.1 | 105.3 | 110.76 |
| 450 | 250 | 460 | 81.7 | 106.1 | 111.98 |
| 450 | 300 | 360 | 50.2 | 77.4 | 83.7 |
| 450 | 350 | 260 | 75.6 | 103.6 | 110.32 |
| 450 | 400 | 160 | 69.7 | 99.9 | 107.04 |
| 500 | 60 | 940 | 99 | 121.5 | 127.34 |
| 500 | 80 | 900 | 99.2 | 122 | 128.26 |
| 500 | 100 | 860 | 99.5 | 122.5 | 128.76 |
| 500 | 125 | 810 | 100 | 123.3 | 129.56 |
| 500 | 150 | 760 | 100.5 | 124.6 | 131.28 |
| 500 | 200 | 660 | 100 | 125.2 | 132.3 |
| 500 | 250 | 560 | 100.6 | 126 | 133.52 |
| 500 | 300 | 460 | 99.2 | 127.4 | 135.34 |
| 500 | 350 | 360 | 94.7 | 123.7 | 132.06 |
| 500 | 400 | 260 | 88.9 | 120.1 | 128.88 |
| 500 | 450 | 160 | 84.1 | 123.1 | 131.46 |
| 600 | 60 | 1140 | 141.6 | 170.6 | 177.44 |
| 600 | 80 | 1100 | 141.7 | 171 | 178.26 |
| 600 | 100 | 1060 | 142.2 | 171.7 | 178.96 |
| 600 | 125 | 1010 | 143 | 172.8 | 180.06 |
| 600 | 150 | 960 | 143.8 | 174.4 | 182.08 |

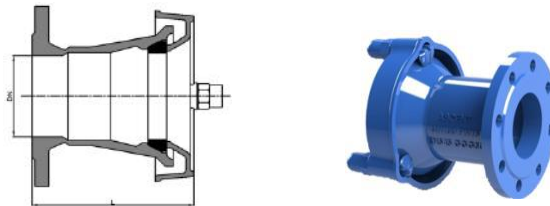
| DN | dn | L(mm) | Weight without glands (Kg) | Weight with glands (Kg) | Weight completely (Kg) |
|-----|-----|-------|----------------------------|-------------------------|------------------------|
| 600 | 200 | 860 | 143.7 | 175.4 | 183.5 |
| 600 | 250 | 760 | 144.8 | 176.7 | 185.22 |
| 600 | 300 | 660 | 143.8 | 178.5 | 187.44 |
| 600 | 350 | 560 | 139.6 | 175.1 | 184.46 |
| 600 | 400 | 460 | 134 | 171.7 | 181.48 |
| 600 | 450 | 360 | 129.3 | 174.8 | 184.16 |
| 600 | 500 | 260 | 121.6 | 168.1 | 179.1 |

DOUBLE EX SOCKET COLLAR



| DN | L(mm) | Weight without glands(Kg) | Weight with glands(Kg) | Weight completely (Kg) |
|-----|-------|---------------------------|------------------------|------------------------|
| 60 | 289 | 7 | 12 | 13.68 |
| 80 | 301 | 8.9 | 14.5 | 17.02 |
| 100 | 305 | 10.6 | 16.6 | 19.12 |
| 125 | 316 | 13.2 | 19.8 | 22.32 |
| 150 | 322 | 15.6 | 23.8 | 27.16 |
| 200 | 339 | 26.5 | 36.9 | 41.1 |
| 250 | 338 | 33.4 | 44.2 | 49.24 |
| 300 | 343 | 41.4 | 57.8 | 63.68 |
| 350 | 346 | 49.9 | 67.9 | 74.62 |
| 400 | 355 | 57.5 | 79.9 | 87.46 |
| 450 | 366 | 71 | 109 | 115.72 |
| 500 | 373 | 84 | 124 | 134 |
| 600 | 387 | 116 | 169 | 181 |

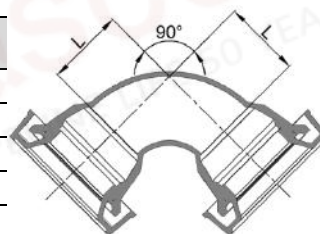
EX DISMANTLING SLEEVE



| DN | L(mm) | Weight without glands (Kg) | | Weight with glands (Kg) | | Weight completely(Kg) | |
|-----|-------|----------------------------|------|-------------------------|-------|-----------------------|--------|
| | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 |
| 80 | 190 | 8 | 8 | 10.8 | 10.8 | 12.06 | 12.06 |
| 100 | 190 | 9.6 | 9.6 | 12.6 | 12.6 | 13.86 | 13.86 |
| 125 | 195 | 11.5 | 11.5 | 14.8 | 14.8 | 16.06 | 16.06 |
| 150 | 220 | 15.2 | 15.2 | 19.3 | 19.3 | 20.98 | 20.98 |
| 200 | 240 | 23 | 22.8 | 28.2 | 28 | 30.3 | 30.1 |
| 250 | 260 | 30.3 | 30 | 35.7 | 35.4 | 38.22 | 37.92 |
| 300 | 290 | 40.5 | 40.2 | 48.7 | 48.4 | 51.64 | 51.34 |
| 350 | 310 | 50.3 | 52.6 | 59.3 | 61.6 | 62.66 | 64.96 |
| 400 | 340 | 62.7 | 66.6 | 73.9 | 77.8 | 77.68 | 81.58 |
| 450 | 360 | 77.5 | 84.7 | 96.5 | 103.7 | 99.86 | 107.06 |
| 500 | 390 | 95.3 | 108 | 115.3 | 128 | 120.3 | 133 |
| 500 | 410 | 128 | 150 | 154.5 | 176.5 | 160.5 | 182.5 |

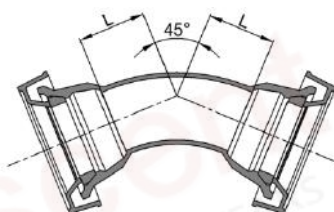
DOUBLE EX SOCKET 90° BEND

| DN | L(mm) | Weight without glands (Kg) | Weight with glands (Kg) | Weight completely (Kg) |
|-----|-------|----------------------------|-------------------------|------------------------|
| 60 | 80 | 7.5 | 12.5 | 14.18 |
| 80 | 100 | 9 | 14.6 | 17.12 |
| 100 | 120 | 11.2 | 17.2 | 19.72 |
| 125 | 145 | 14.2 | 20.8 | 23.32 |
| 150 | 170 | 19.2 | 27.4 | 30.76 |
| 200 | 220 | 30.5 | 40.9 | 45.1 |
| 250 | 270 | 49 | 59.8 | 64.84 |
| 300 | 320 | 67.9 | 84.3 | 90.18 |
| 350 | 370 | 88.4 | 106.4 | 113.12 |
| 400 | 420 | 115 | 137.4 | 144.96 |
| 450 | 470 | 145.3 | 183.3 | 190.02 |
| 500 | 520 | 175.2 | 215.2 | 225.2 |
| 600 | 620 | 267 | 320 | 332 |



DOUBLE EX SOCKET 45° BEND

| DN | L(mm) | Weight without glands (Kg) | Weight with glands (Kg) | Weight completely (Kg) |
|-----|-------|----------------------------|-------------------------|------------------------|
| 60 | 45 | 6.8 | 11.8 | 13.48 |
| 80 | 55 | 8.7 | 14.3 | 16.82 |
| 100 | 65 | 10.3 | 16.3 | 18.82 |
| 125 | 75 | 13.2 | 19.8 | 22.32 |
| 150 | 85 | 17.8 | 26 | 29.36 |
| 200 | 110 | 24 | 34.4 | 38.6 |
| 250 | 130 | 40.6 | 51.4 | 56.44 |
| 300 | 150 | 53 | 69.4 | 75.28 |
| 350 | 175 | 67.4 | 85.4 | 92.12 |
| 400 | 195 | 83 | 105.4 | 112.96 |
| 450 | 220 | 107.3 | 145.3 | 152.02 |
| 500 | 240 | 131 | 171 | 181 |
| 600 | 285 | 190 | 243 | 255 |



DOUBLE EX SOCKET 22.5° BEND

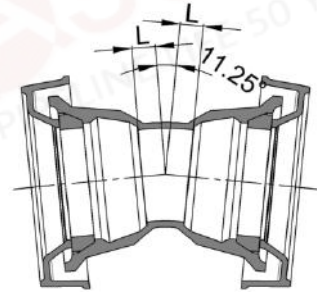


| DN | L(mm) | Weight without glands (Kg) | Weight with glands (Kg) | Weight completely (Kg) |
|-----|-------|----------------------------|-------------------------|------------------------|
| 60 | 35 | 5.7 | 10.7 | 12.38 |
| 80 | 40 | 7.5 | 13.1 | 15.62 |
| 100 | 40 | 9.3 | 15.3 | 17.82 |
| 125 | 50 | 11 | 17.6 | 20.12 |
| 150 | 55 | 14.2 | 22.4 | 25.76 |
| 200 | 65 | 20.5 | 30.9 | 35.1 |
| 250 | 75 | 32 | 42.8 | 47.84 |

| DN | L(mm) | Weight without glands (Kg) | Weight with glands (Kg) | Weight completely (Kg) |
|-----|-------|----------------------------|-------------------------|------------------------|
| 300 | 85 | 44 | 60.4 | 66.28 |
| 350 | 95 | 55.4 | 73.4 | 80.12 |
| 400 | 110 | 67.4 | 89.8 | 97.36 |
| 450 | 120 | 85.6 | 123.6 | 130.32 |
| 500 | 130 | 103.4 | 143.4 | 153.4 |
| 600 | 150 | 146 | 199 | 211 |

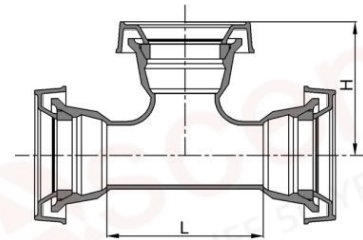
DOUBLE EX SOCKET 11.25° BEND

| DN | L(mm) | Weight without glands (Kg) | Weight with glands (Kg) | Weight completely (Kg) |
|-----|-------|----------------------------|-------------------------|------------------------|
| 60 | 25 | 5.8 | 10.8 | 12.48 |
| 80 | 30 | 7.5 | 13.1 | 15.62 |
| 100 | 30 | 9.3 | 15.3 | 17.82 |
| 125 | 35 | 11.1 | 17.7 | 20.22 |
| 150 | 35 | 14.5 | 22.7 | 26.06 |
| 200 | 40 | 22 | 32.4 | 36.6 |
| 250 | 50 | 32.6 | 43.4 | 48.44 |
| 300 | 55 | 41.1 | 57.5 | 63.38 |
| 350 | 60 | 49.9 | 67.9 | 74.62 |
| 400 | 65 | 59 | 81.4 | 88.96 |
| 450 | 70 | 73.9 | 111.9 | 118.62 |
| 500 | 75 | 88.3 | 128.3 | 138.3 |
| 600 | 85 | 123 | 176 | 188 |

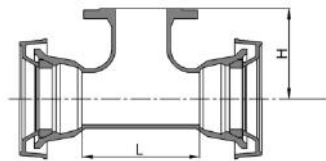


ALL EX SOCKET TEE

| DN | dn | L(mm) | H(mm) | Weight without glands (Kg) | Weight with glands (Kg) | Weight completely (Kg) |
|-----|-----|-------|-------|----------------------------|-------------------------|------------------------|
| 80 | 80 | 160 | 85 | 13 | 21.4 | 25.18 |
| 100 | 80 | 170 | 95 | 15 | 23.8 | 27.58 |
| 100 | 100 | 170 | 95 | 16 | 25 | 28.78 |
| 125 | 100 | 175 | 110 | 19.5 | 29.1 | 32.88 |
| 125 | 125 | 225 | 110 | 21 | 30.9 | 31.38 |
| 150 | 80 | 175 | 120 | 22 | 33 | 37.62 |
| 150 | 100 | 175 | 120 | 23 | 34.2 | 38.82 |
| 150 | 150 | 255 | 125 | 26.5 | 38.8 | 43.84 |
| 200 | 100 | 200 | 145 | 29 | 42.4 | 47.86 |
| 200 | 150 | 295 | 150 | 35 | 49.5 | 55.38 |
| 200 | 200 | 295 | 155 | 36.5 | 52.1 | 58.4 |



DOUBLE EX SOCKET TEE with FLANGED BRANCH

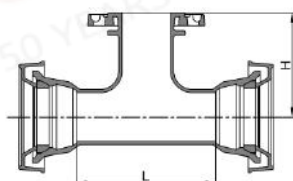


| DN | dn | L(mm) | H(mm) | Weight without glands (Kg) | | Weight with glands (Kg) | | Weight completely (Kg) | |
|-----|-----|-------|-------|----------------------------|------|-------------------------|------|------------------------|-------|
| | | | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 |
| 60 | 60 | 145 | 150 | 11.1 | 11.1 | 16.1 | 16.1 | 17.78 | 17.78 |
| 80 | 40 | 145 | 160 | 11.2 | 11.2 | 16.8 | 16.8 | 19.32 | 19.32 |
| 80 | 60 | 145 | 160 | 12.2 | 12.2 | 17.8 | 17.8 | 20.32 | 20.32 |
| 80 | 80 | 170 | 175 | 13.8 | 13.8 | 19.4 | 19.4 | 21.92 | 21.92 |
| 100 | 60 | 145 | 170 | 14.1 | 14.1 | 20.1 | 20.1 | 22.62 | 22.62 |
| 100 | 80 | 170 | 175 | 15.9 | 15.9 | 21.9 | 21.9 | 24.42 | 24.42 |
| 100 | 100 | 190 | 180 | 17.2 | 17.2 | 23.2 | 23.2 | 25.72 | 25.72 |
| 125 | 60 | 145 | 190 | 16.1 | 16.1 | 22.7 | 22.7 | 25.22 | 25.22 |
| 125 | 80 | 170 | 190 | 17.7 | 17.7 | 24.3 | 24.3 | 26.82 | 26.82 |
| 125 | 100 | 195 | 195 | 19.5 | 19.5 | 26.1 | 26.1 | 28.62 | 28.62 |
| 125 | 125 | 225 | 200 | 22.2 | 22.2 | 28.8 | 28.8 | 31.32 | 31.32 |

| DN | dn | L(mm) | H(mm) | Weight without glands (Kg) | | Weight with glands (Kg) | | Weight completely (Kg) | |
|-----|-----|-------|-------|----------------------------|-------|-------------------------|-------|------------------------|--------|
| | | | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 |
| 150 | 60 | 150 | 200 | 19.8 | 19.8 | 28 | 28 | 31.36 | 31.36 |
| 150 | 80 | 170 | 205 | 20.8 | 20.8 | 29 | 29 | 32.36 | 32.36 |
| 150 | 100 | 195 | 210 | 23 | 23 | 31.2 | 31.2 | 34.56 | 34.56 |
| 150 | 125 | 225 | 215 | 25.6 | 25.6 | 33.8 | 33.8 | 37.16 | 37.16 |
| 150 | 150 | 255 | 220 | 28.2 | 28.2 | 36.4 | 36.4 | 39.76 | 39.76 |
| 200 | 60 | 150 | 230 | 25.9 | 25.9 | 36.3 | 36.3 | 40.5 | 40.5 |
| 200 | 80 | 175 | 235 | 27.7 | 27.7 | 38.1 | 38.1 | 42.3 | 42.3 |
| 200 | 100 | 200 | 240 | 29.6 | 29.6 | 40 | 40 | 44.2 | 44.2 |
| 200 | 125 | 225 | 245 | 32 | 32 | 42.4 | 42.4 | 46.6 | 46.6 |
| 200 | 150 | 255 | 250 | 34.9 | 34.9 | 45.3 | 45.3 | 49.5 | 49.5 |
| 200 | 200 | 315 | 260 | 41.1 | 40.9 | 51.5 | 51.3 | 55.7 | 55.5 |
| 250 | 40 | 175 | 260 | 37.6 | 37.6 | 48.4 | 48 | 53.44 | 53.04 |
| 250 | 50 | 175 | 260 | 38.2 | 38.2 | 49 | 48.6 | 54.04 | 54.64 |
| 250 | 60 | 175 | 260 | 38.6 | 38.6 | 49.4 | 49 | 54.44 | 54.04 |
| 250 | 80 | 175 | 265 | 39.4 | 39.4 | 50.2 | 49.8 | 55.24 | 54.84 |
| 250 | 100 | 175 | 270 | 40.3 | 40.3 | 51.1 | 50.7 | 56.14 | 55.74 |
| 250 | 125 | 240 | 275 | 45.2 | 45.2 | 56 | 55.6 | 61.04 | 60.64 |
| 250 | 150 | 240 | 280 | 46.8 | 46.8 | 57.6 | 57.2 | 62.64 | 62.24 |
| 250 | 200 | 355 | 290 | 56.6 | 56.4 | 67.4 | 66.8 | 72.44 | 71.84 |
| 250 | 250 | 355 | 300 | 62 | 61.6 | 72.8 | 72 | 77.84 | 77.04 |
| 300 | 40 | 180 | 290 | 48.9 | 48.9 | 65.3 | 65.3 | 71.18 | 71.18 |
| 300 | 50 | 180 | 290 | 49.5 | 49.5 | 65.9 | 65.9 | 71.78 | 71.78 |
| 300 | 60 | 180 | 290 | 49.8 | 49.8 | 66.2 | 66.2 | 72.08 | 72.08 |
| 300 | 80 | 180 | 295 | 50.7 | 50.7 | 67.1 | 67.1 | 72.98 | 72.98 |
| 300 | 100 | 180 | 300 | 51.6 | 51.6 | 68 | 68 | 73.88 | 73.88 |
| 300 | 125 | 235 | 305 | 56.7 | 56.7 | 73.1 | 73.1 | 78.98 | 78.98 |
| 300 | 150 | 235 | 310 | 58.3 | 58.3 | 74.7 | 74.7 | 80.58 | 80.58 |
| 300 | 200 | 360 | 320 | 75.2 | 75 | 91.6 | 91.4 | 97.48 | 97.28 |
| 300 | 250 | 360 | 330 | 80.6 | 80.2 | 97 | 96.6 | 102.88 | 102.48 |
| 300 | 300 | 435 | 340 | 87 | 86.6 | 103.4 | 103 | 109.28 | 108.88 |
| 350 | 40 | 180 | 320 | 57.3 | 57.3 | 75.3 | 75.3 | 82.02 | 82.02 |
| 350 | 50 | 180 | 320 | 57.8 | 57.8 | 75.8 | 75.8 | 82.52 | 82.52 |
| 350 | 60 | 180 | 320 | 58.2 | 58.2 | 76.2 | 76.2 | 82.92 | 82.92 |
| 350 | 80 | 180 | 325 | 59.1 | 59.1 | 77.1 | 77.1 | 83.82 | 83.82 |
| 350 | 100 | 180 | 330 | 60 | 60 | 78 | 78 | 84.72 | 84.72 |
| 350 | 125 | 245 | 335 | 66.8 | 66.8 | 84.8 | 84.8 | 91.52 | 91.52 |
| 350 | 150 | 245 | 340 | 68.4 | 68.4 | 86.4 | 86.4 | 93.12 | 93.12 |
| 350 | 200 | 360 | 350 | 81.6 | 81.4 | 99.6 | 99.4 | 106.32 | 106.12 |
| 350 | 250 | 360 | 360 | 86.7 | 86.3 | 104.7 | 104.3 | 111.42 | 111.02 |
| 350 | 300 | 480 | 370 | 102.8 | 102.4 | 120.8 | 120.4 | 127.52 | 127.12 |
| 350 | 350 | 480 | 380 | 108.1 | 111 | 126.1 | 129 | 132.82 | 135.72 |
| 400 | 40 | 165 | 350 | 65.2 | 65.2 | 87.6 | 87 | 95.16 | 95.16 |
| 400 | 50 | 165 | 350 | 65.8 | 65.8 | 88.2 | 88.2 | 95.76 | 95.76 |
| 400 | 60 | 165 | 350 | 66.1 | 66.1 | 88.5 | 88.5 | 96.06 | 96.06 |
| 400 | 80 | 165 | 355 | 67 | 67 | 89.4 | 89.4 | 96.96 | 96.96 |
| 400 | 100 | 220 | 360 | 73.5 | 73.5 | 95.9 | 95.9 | 103.46 | 103.46 |
| 400 | 125 | 220 | 365 | 74.8 | 74.8 | 97.2 | 97.2 | 104.76 | 104.76 |
| 400 | 150 | 310 | 370 | 85.6 | 85.6 | 108 | 108 | 115.56 | 115.56 |

| DN | dn | L(mm) | H(mm) | Weight without glands (Kg) | | Weight with glands (Kg) | | Weight completely (Kg) | |
|-----|-----|--------|-------|----------------------------|-------|-------------------------|-------|------------------------|--------|
| | | | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 |
| 400 | 200 | 310 | 380 | 89 | 88.8 | 111.4 | 111.2 | 118.96 | 118.76 |
| 400 | 250 | 420 | 390 | 105.2 | 104.8 | 127.6 | 127.2 | 135.16 | 134.76 |
| 400 | 300 | 420 | 400 | 115.4 | 115 | 137.8 | 137.4 | 145.36 | 144.96 |
| 400 | 350 | 540 | 410 | 128.3 | 131.2 | 150.7 | 153.6 | 158.26 | 161.16 |
| 400 | 400 | 540 | 420 | 134.5 | 140.1 | 156.9 | 162.5 | 164.46 | 170.06 |
| 450 | 40 | 170 | 380 | 81 | 81 | 119 | 119 | 125.72 | 125.72 |
| 450 | 50 | 170 | 380 | 81.6 | 81.6 | 119.6 | 119.6 | 126.32 | 126.32 |
| 450 | 60 | 170 | 380 | 82 | 82 | 120 | 120 | 126.72 | 126.72 |
| 450 | 80 | 170 | 385 | 82.8 | 82.8 | 120.8 | 120.8 | 127.52 | 127.52 |
| 450 | 100 | 250 | 390 | 93.4 | 93.4 | 131.4 | 131.4 | 138.12 | 138.12 |
| 450 | 125 | 250 | 395 | 94.7 | 94.7 | 132.7 | 132.7 | 139.42 | 139.42 |
| 450 | 150 | 250 | 400 | 96.3 | 96.3 | 134.3 | 134.3 | 141.02 | 141.02 |
| 450 | 200 | 370 | 410 | 114.2 | 114 | 152.2 | 152 | 158.92 | 158.72 |
| 450 | 250 | 370 | 420 | 119.1 | 118.7 | 157.1 | 156.7 | 163.82 | 163.42 |
| 450 | 300 | 485 | 430 | 138.7 | 138.3 | 176.7 | 176.3 | 183.42 | 183.02 |
| 450 | 350 | 485 | 440 | 143.5 | 146.4 | 181.5 | 184.4 | 188.22 | 191.12 |
| 450 | 400 | 600 | 450 | 163.2 | 168.8 | 201.2 | 206.8 | 207.92 | 213.52 |
| 450 | 450 | 600 | 460 | 169.8 | 179.8 | 207.8 | 217.8 | 214.52 | 224.52 |
| 500 | 40 | 175 | 410 | 95.5 | 95.5 | 135.5 | 135.5 | 145.5 | 145.5 |
| 500 | 50 | 175 | 410 | 96 | 96 | 136 | 136 | 146 | 146 |
| 500 | 60 | 175 | 410 | 96.4 | 96.4 | 136.4 | 136.4 | 146.4 | 146.4 |
| 500 | 80 | 175 | 415 | 97.3 | 97.3 | 137.3 | 137.3 | 147.3 | 147.3 |
| 500 | 100 | 255 | 420 | 109.4 | 109.4 | 149.4 | 149.4 | 159.4 | 159.4 |
| 500 | 125 | 255 | 425 | 110.8 | 110.8 | 150.8 | 150.8 | 160.8 | 160.8 |
| 500 | 150 | 255 | 430 | 112.4 | 112.4 | 152.4 | 152.4 | 162.4 | 162.4 |
| 500 | 200 | 370 | 440 | 131.9 | 131.7 | 171.9 | 171.7 | 181.9 | 181.7 |
| 500 | 250 | 370 | 450 | 136.8 | 136.4 | 176.8 | 176.4 | 186.8 | 186.4 |
| 500 | 300 | 485 | 460 | 158.6 | 158.2 | 198.6 | 198.2 | 208.6 | 208.2 |
| 500 | 350 | 485 | 470 | 163.2 | 166.1 | 203.2 | 206.1 | 213.2 | 216.1 |
| 500 | 400 | 600 | 480 | 185.1 | 190.7 | 225.1 | 230.7 | 235.1 | 240.7 |
| 500 | 450 | 600 | 490 | 191.2 | 201.2 | 231.2 | 241.2 | 241.2 | 251.2 |
| 600 | 40 | 180 | 470 | 125 | 125 | 178 | 178 | 190 | 190 |
| 600 | 50 | 180 | 470 | 125.5 | 125.5 | 178.5 | 178.5 | 190.5 | 190.5 |
| 600 | 60 | 180 | 470 | 125.9 | 125.9 | 178.9 | 178.9 | 190.9 | 190.9 |
| 600 | 80 | 180 | 475 | 126.8 | 126.8 | 179.8 | 179.8 | 191.8 | 191.8 |
| 600 | 100 | 260 | 480 | 142.5 | 142.5 | 195.5 | 195.5 | 207.5 | 207.5 |
| 600 | 125 | 260 | 485 | 143.9 | 143.9 | 196.9 | 196.9 | 208.9 | 208.9 |
| 600 | 150 | 260 | 490 | 145.5 | 145.5 | 198.5 | 198.5 | 210.5 | 210.5 |
| 600 | 200 | 375 | 500 | 170.1 | 169.9 | 223.1 | 222.9 | 235.1 | 234.9 |
| 600 | 250 | 375 | 510 | 174.9 | 174.5 | 227.9 | 227.5 | 239.9 | 239.5 |
| 600 | 300 | 490 | 520 | 205.4 | 205 | 258.4 | 258 | 270.4 | 270 |
| 600 | 350 | 490 | 530 | 206 | 208.9 | 259 | 261.9 | 271 | 273.9 |
| 600 | 400 | 610 | 540 | 233.6 | 239.2 | 286.6 | 292.2 | 298.6 | 304.2 |
| 600 | 450 | 610 | 550 | 239.2 | 249.2 | 292.2 | 302.2 | 304.2 | 314.2 |
| 600 | 500 | 665 | 560 | 258.9 | 273.9 | 311.9 | 326.9 | 323.9 | 338.9 |
| 600 | 600 | 780 | 580 | 306.3 | 330 | 359.3 | 383 | 371.3 | 395 |

DOUBLE EX SOCKET TEE with LOOSING FLANGED BRANCH



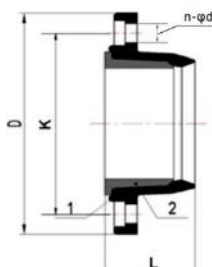
| DN | dn | L(mm) | H(mm) | Weight without glands (Kg) | | Weight with glands (Kg) | | Weight completely (Kg) | |
|-----|-----|-------|-------|----------------------------|-------|-------------------------|-------|------------------------|--------|
| | | | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 |
| 80 | 40 | 145 | 160 | 12.1 | 12.1 | 17.7 | 17.7 | 20.22 | 20.22 |
| 80 | 60 | 145 | 160 | 12.2 | 12.2 | 17.8 | 17.8 | 20.32 | 20.32 |
| 80 | 65 | 145 | 160 | 12.5 | 12.5 | 18.1 | 18.1 | 20.62 | 20.62 |
| 80 | 80 | 170 | 175 | 14 | 14 | 19.6 | 19.6 | 22.12 | 22.12 |
| 100 | 65 | 145 | 170 | 14.3 | 14.3 | 20.3 | 20.3 | 22.82 | 22.82 |
| 100 | 80 | 170 | 175 | 15.9 | 15.9 | 21.9 | 21.9 | 24.42 | 24.42 |
| 100 | 100 | 190 | 180 | 17.5 | 17.5 | 23.5 | 23.5 | 26.02 | 26.02 |
| 125 | 65 | 145 | 170 | 16.3 | 16.3 | 22.9 | 22.9 | 25.42 | 25.42 |
| 125 | 80 | 170 | 190 | 17.8 | 17.8 | 24.4 | 24.4 | 26.92 | 26.92 |
| 125 | 100 | 195 | 195 | 19.5 | 19.5 | 26.1 | 26.1 | 28.62 | 28.62 |
| 150 | 60 | 150 | 200 | 19.8 | 19.8 | 28 | 28 | 31.36 | 31.36 |
| 150 | 65 | 150 | 200 | 20 | 20 | 28.2 | 28.2 | 31.56 | 31.56 |
| 150 | 80 | 170 | 205 | 20.9 | 20.9 | 29.1 | 29.1 | 32.46 | 32.46 |
| 150 | 100 | 195 | 210 | 23 | 23 | 31.2 | 31.2 | 34.56 | 34.56 |
| 150 | 125 | 225 | 215 | 26.1 | 26.1 | 34.3 | 34.3 | 37.66 | 37.66 |
| 150 | 150 | 255 | 220 | 29.2 | 29.2 | 37.4 | 37.4 | 40.76 | 40.76 |
| 200 | 60 | 150 | 230 | 26.6 | 26.6 | 37 | 37 | 41.2 | 41.2 |
| 200 | 80 | 175 | 235 | 27.8 | 27.8 | 38.2 | 38.2 | 42.4 | 42.4 |
| 200 | 100 | 200 | 240 | 29.8 | 29.8 | 40.2 | 40.2 | 44.4 | 44.4 |
| 200 | 125 | 225 | 245 | 32.5 | 32.5 | 42.9 | 42.9 | 47.1 | 47.1 |
| 200 | 150 | 255 | 250 | 35.9 | 35.9 | 46.3 | 46.3 | 50.5 | 50.5 |
| 200 | 200 | 315 | 260 | 43 | 42.9 | 53.4 | 53.3 | 57.6 | 57.5 |
| 250 | 60 | 175 | 260 | 40.4 | 40.4 | 51.2 | 51.2 | 56.24 | 56.24 |
| 250 | 65 | 175 | 260 | 38.8 | 38.8 | 49.6 | 49.6 | 54.64 | 54.64 |
| 250 | 80 | 175 | 265 | 39.5 | 39.5 | 50.3 | 50.3 | 55.34 | 55.34 |
| 250 | 100 | 175 | 270 | 40.3 | 40.3 | 51.1 | 51.1 | 56.14 | 56.14 |
| 250 | 150 | 240 | 280 | 47.8 | 47.8 | 58.6 | 58.6 | 63.64 | 63.64 |
| 250 | 200 | 355 | 290 | 58.5 | 58.4 | 69.3 | 69.2 | 74.34 | 74.24 |
| 250 | 250 | 355 | 300 | 67.6 | 67.2 | 78.4 | 78 | 83.44 | 83.04 |
| 300 | 60 | 180 | 290 | 49.8 | 49.8 | 66.2 | 66.2 | 72.08 | 72.08 |
| 300 | 80 | 180 | 295 | 50.7 | 50.7 | 67.1 | 67.1 | 72.98 | 72.98 |
| 300 | 150 | 235 | 310 | 59.3 | 59.3 | 75.7 | 75.7 | 81.58 | 81.58 |
| 300 | 200 | 360 | 320 | 72.2 | 72.2 | 88.6 | 88.6 | 94.48 | 94.48 |
| 300 | 250 | 360 | 330 | 77.3 | 77.7 | 93.7 | 94.1 | 99.58 | 99.98 |
| 300 | 300 | 435 | 340 | 94.7 | 94 | 111.1 | 110.4 | 116.98 | 116.28 |
| 350 | 100 | 180 | 330 | 78.1 | 78.1 | 96.1 | 96.1 | 102.82 | 102.82 |
| 350 | 150 | 245 | 340 | 92.2 | 92.2 | 110.2 | 110.2 | 116.92 | 116.92 |
| 350 | 200 | 360 | 350 | 97.3 | 97.2 | 115.3 | 115.2 | 122.02 | 121.92 |
| 350 | 250 | 366 | 360 | 109.6 | 109.2 | 127.6 | 127.2 | 134.32 | 133.92 |
| 350 | 350 | 480 | 380 | 114.2 | 115 | 132.2 | 133 | 138.92 | 139.72 |

| DN | dn | L(mm) | H(mm) | Weight without glands (Kg) | | Weight with glands (Kg) | | Weight completely (Kg) | |
|-----|-----|-------|-------|----------------------------|-------|-------------------------|-------|------------------------|--------|
| | | | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 |
| 400 | 100 | 220 | 360 | 74 | 74 | 96.4 | 96.4 | 103.96 | 103.96 |
| 400 | 150 | 310 | 370 | 86.6 | 86.6 | 109 | 109 | 116.56 | 116.56 |
| 400 | 200 | 310 | 380 | 90.9 | 90.8 | 113.3 | 113.2 | 120.86 | 120.76 |
| 400 | 250 | 420 | 390 | 113 | 112.6 | 135.4 | 135 | 142.96 | 142.56 |
| 400 | 300 | 420 | 400 | 114.4 | 113.7 | 136.8 | 136.1 | 144.36 | 143.66 |
| 400 | 400 | 540 | 420 | 142.6 | 147.1 | 165 | 169.5 | 172.56 | 177.06 |
| 450 | 100 | 250 | 390 | 93.4 | 93.4 | 131.4 | 131.4 | 138.12 | 138.12 |
| 450 | 200 | 370 | 410 | 118.1 | 118 | 156.1 | 156 | 162.82 | 162.72 |
| 450 | 300 | 485 | 430 | 148.2 | 147.5 | 186.2 | 185.5 | 192.92 | 192.22 |
| 450 | 400 | 600 | 450 | 180 | 184.3 | 218 | 222.3 | 224.72 | 229.02 |
| 450 | 450 | 600 | 460 | 192.8 | 200.8 | 230.8 | 238.8 | 237.52 | 245.52 |
| 500 | 100 | 255 | 420 | 114.4 | 114.4 | 154.4 | 154.4 | 164.4 | 164.4 |
| 500 | 150 | 255 | 430 | 118.5 | 118.5 | 158.5 | 158.5 | 168.5 | 168.5 |
| 500 | 200 | 370 | 440 | 133.8 | 133.7 | 173.8 | 173.7 | 183.8 | 183.7 |
| 500 | 250 | 370 | 450 | 145.4 | 145 | 185.4 | 185 | 195.4 | 195 |
| 500 | 300 | 485 | 460 | 161.9 | 161.2 | 201.9 | 201.2 | 211.9 | 211.2 |
| 500 | 400 | 600 | 480 | 193.2 | 197.7 | 233.2 | 237.7 | 243.2 | 247.7 |
| 500 | 500 | 660 | 500 | 241 | 253 | 281 | 293 | 291 | 303 |
| 600 | 100 | 260 | 480 | 147 | 147 | 200 | 200 | 212 | 212 |
| 600 | 200 | 375 | 500 | 174.1 | 174 | 227.1 | 227 | 239.1 | 239 |
| 600 | 300 | 490 | 520 | 206.7 | 206 | 259.7 | 259 | 271.7 | 271 |
| 600 | 400 | 610 | 540 | 241.7 | 246.2 | 294.7 | 299.2 | 306.7 | 311.2 |
| 600 | 600 | 780 | 580 | 352 | 372 | 405 | 425 | 417 | 437 |

FLANGE ADAPTOR

QUICK FLANGE ADAPTOR for PVC PIPE

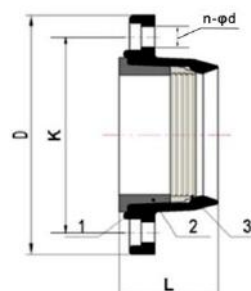
| NO. | NAME | MATERIAL |
|-----|----------------|--------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Sealing Gasket | EPDM |



| DN | OD | D | | K | | L | | n-φd | | Weight (Kg) | |
|-----|-----|------|------|------|------|------|------|-------|------|-------------|------|
| | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 |
| 40 | 50 | 165 | | 110 | | 50 | | 4-19 | | 1.7 | |
| 50 | 63 | 165 | | 125 | | 55 | | | | 1.8 | |
| 60 | 63 | 175 | | 135 | | 55 | | | | 2.2 | |
| 60 | 75 | 175 | | 135 | | 55 | | | | 2.2 | |
| 80 | 90 | 200 | | 160 | | 63 | | 8-19 | | 2.5 | |
| 100 | 110 | 220 | | 180 | | 69 | | | | 3.6 | |
| 125 | 125 | 250 | | 210 | | 70 | | | | 4.1 | |
| 125 | 140 | 250 | | 210 | | 75 | | | | 4 | |
| 150 | 160 | 285 | | 240 | | 80 | | 16-23 | | 5.9 | |
| 200 | 200 | 340 | | 295 | | 90 | | | | 8.2 | |
| 200 | 225 | 340 | | 295 | | 93 | | 12-28 | | 9.4 | |
| 250 | 250 | 400 | | 350 | 355 | 95 | | | | / | |
| 300 | 315 | 455 | | 400 | 410 | 98 | | / | | 14.2 | |
| 400 | 400 | 565 | 580 | 515 | 525 | 105 | | 16-31 | | / | 23.5 |
| 500 | 500 | 670 | 715 | 620 | 650 | 110 | | 20-34 | | / | 57.6 |
| 600 | 630 | 780 | 840 | 725 | 770 | 115 | | 20-37 | | / | 65 |

QUICK FLANGE ADAPTOR for PE PIPE

| NO. | NAME | MATERIAL |
|-----|----------------|--------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Sealing Gasket | EPDM |
| 3 | Retaining Ring | Brass |



| DN | OD | D | | K | | L | | n-φd | | Weight (Kg) | |
|-----|-----|------|------|------|------|------|------|-------|------|-------------|------|
| | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 |
| 40 | 50 | 165 | | 110 | | 50 | | 4-19 | | 1.7 | |
| 50 | 50 | 165 | | 125 | | 50 | | | | 2 | |
| 50 | 63 | 165 | | 125 | | 55 | | | | 2 | |
| 60 | 63 | 175 | | 135 | | 55 | | | | 2.3 | |
| 60 | 75 | 175 | | 135 | | 55 | | | | 2.2 | |
| 65 | 75 | 185 | | 145 | | 55 | | | | 2.4 | |
| 80 | 90 | 200 | | 160 | | 63 | | 8-19 | | 2.6 | |
| 100 | 110 | 220 | | 180 | | 69 | | | | 3.8 | |
| 125 | 125 | 250 | | 210 | | 70 | | | | 5.5 | |
| 125 | 140 | 250 | | 210 | | 75 | | | | 6 | |
| 150 | 160 | 285 | | 240 | | 80 | | | | 6 | |
| 200 | 200 | 340 | | 295 | | 90 | | 16-23 | | 8.5 | |
| 200 | 225 | 340 | | 295 | | 93 | | | | 9.6 | |
| 250 | 250 | 400 | | 350 | 355 | 95 | | 12-28 | | / | 12.5 |
| 300 | 315 | 455 | | 400 | 410 | 98 | | | | / | 14.5 |
| 400 | 400 | 565 | 580 | 515 | 525 | 105 | | 16-31 | | / | 24.5 |

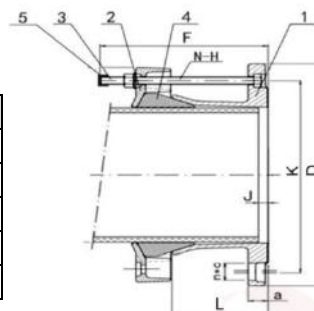
QUICK FLANGE ADAPTOR for DI PIPE PN16



| DN | OD | D | K | L | n-φd | Weight (Kg) |
|-----|-----|------|-----|-----|-------|-------------|
| 200 | 222 | 340 | 295 | 93 | 12-23 | 6.2 |
| 250 | 274 | 400 | 355 | 95 | 12-28 | 8 |
| 300 | 326 | 455 | 410 | 98 | | 10.8 |
| 400 | 429 | 580 | 525 | 105 | 16-31 | 22 |
| 500 | 532 | 715 | 650 | 110 | 20-34 | 37 |
| 600 | 635 | 840 | 770 | 115 | 20-37 | 63 |
| 700 | 738 | 910 | 840 | 125 | 24-37 | 67 |
| 800 | 842 | 1025 | 950 | 135 | 24-40 | 78 |

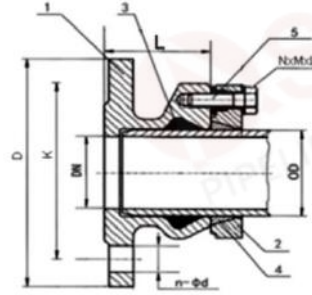
FLANGE ADAPTOR for PVC PIPE

| NO. | Part | Material |
|-----|---------------------|-------------------------------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Gland | EN-GJS-500-7 |
| 3 | Bolt & Nut & Washer | Hot dip galvanized 8.8 carbon steel |
| 4 | Sealing Gasket | EPDM |
| 5 | Cap | Plastic |



FLANGE ADAPTOR for PE PIPE

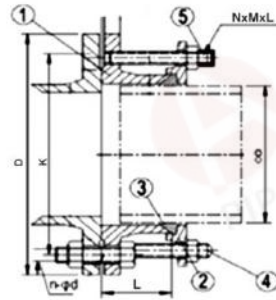
| NO. | Part | Material |
|-----|----------------|-------------------------------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Gland | EN-GJS-500-7 |
| 3 | Sealing Gasket | EPDM |
| 4 | Retaining Ring | Brass |
| 5 | Bolt & Washer | Hot dip galvanized 8.8 carbon steel |



| DN | OD | D | | K | | L | | n- φd | | Bolt N x M x L | Weight (Kg) | |
|-----|-----|------|------|------|------|------|------|-------|-------|-------------------|-------------|------|
| | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 | | PN10 | PN16 |
| 50 | 63 | 165 | | 125 | | 75 | | 4-19 | | 2xM10×40 | 3.6 | |
| 65 | 63 | 185 | | 148 | | 80 | | | | | 4.0 | |
| 65 | 75 | 185 | | 145 | | 80 | | | | | 4.7 | |
| 80 | 90 | 200 | | 160 | | 75 | | 8-19 | | 4xM10×40 | 5.0 | |
| 100 | 110 | 220 | | 180 | | 80 | | | | | 5.8 | |
| 100 | 125 | 220 | | 180 | | 100 | | | | | 7.3 | |
| 125 | 125 | 250 | | 210 | | 100 | | | | | 8.1 | |
| 125 | 140 | 250 | | 210 | | 105 | | | | | 8.8 | |
| 150 | 160 | 285 | | 240 | | 115 | | 8-23 | | 4xM12×45 | 11.4 | |
| 150 | 180 | 285 | | 240 | | 120 | | | | | 12.0 | |
| 200 | 200 | 340 | | 295 | | 125 | | 8-23 | 12-23 | 6xM12×45 | 17.0 | |
| 200 | 225 | 340 | | 295 | | 136 | | | | | 17.4 | |
| 250 | 250 | 400 | | 350 | 355 | 145 | | 12-23 | 12-28 | 6xM12×50 | / 25.0 | |
| 250 | 280 | 400 | | 350 | 355 | 155 | | | | | / 27.4 | |
| 300 | 315 | 455 | | 400 | 410 | 165 | | | | | / 39.0 | |

FLANGE ADAPTOR for DI PIPE

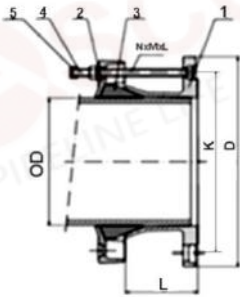
| NO. | Part | Material |
|-----|---------------------|-------------------------------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Gland | EN-GJS-500-7 |
| 3 | Sealing Gasket | EPDM |
| 4 | Bolt & Nut & Washer | Hot dip galvanized 8.8 carbon steel |
| 5 | Cap | Plastic |



| DN | OD | D | | K | | L | | n-φd | | Bolt NxMxL | Weight(Kg) | |
|------|------|------|------|------|------|------|------|-------|-------|---------------|------------|------|
| | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 | | PN10 | PN16 |
| 50 | 66 | 165 | | 125 | | 73 | | 4-19 | | 4x M12x100 | 5 | |
| 65 | 82 | 185 | | 135 | | 73 | | | | | 6 | |
| 80 | 98 | 200 | | 160 | | 73 | | | | | 7 | |
| 100 | 118 | 220 | | 180 | | 76 | | 8-19 | | | 8 | |
| 125 | 144 | 250 | | 210 | | 76 | | | | | 8.6 | |
| 150 | 170 | 285 | | 240 | | 76 | | 8-23 | | 4x M12x110 | 9 | |
| 200 | 222 | 340 | | 295 | 295 | 76 | | 8-23 | 12-23 | 6x M12x110 | / | 14 |
| 250 | 274 | 400 | | 350 | 355 | 90 | | 12-28 | | 6x M12x120 | / | 18 |
| 300 | 326 | 455 | | 400 | 410 | 90 | | | | | / | 21 |
| 350 | 378 | 505 | 520 | 460 | 470 | 110 | | 16-28 | | 8x M16x170 | / | 30 |
| 400 | 429 | 565 | 580 | 515 | 525 | 110 | | 16-31 | | | / | 40 |
| 450 | 480 | 615 | 640 | 565 | 585 | 110 | | 20-32 | | 10xM16x170 | / | 42 |
| 500 | 532 | 670 | 715 | 620 | 650 | 115 | | 20-34 | | 10xM16x180 | / | 65 |
| 600 | 635 | 780 | 840 | 725 | 770 | 115 | | 20-37 | | | / | 85 |
| 700 | 738 | 895 | 910 | 840 | 840 | 115 | | 24-37 | | 12xM16x180 | / | 95 |
| 800 | 842 | 1015 | 1025 | 950 | 950 | 115 | | 24-40 | | | / | 116 |
| 900 | 945 | 1115 | 1125 | 1050 | 1050 | 115 | | 28-40 | | 14xM16x180 | / | 138 |
| 1000 | 1048 | 1230 | 1255 | 1160 | 1170 | 115 | | 28-43 | | | / | 179 |
| 1100 | 1152 | 1340 | 1355 | 1270 | 1270 | 130 | | 32-43 | | 16xM16x180 | / | 195 |
| 1200 | 1255 | 1455 | 1485 | 1380 | 1390 | 130 | | 32-49 | | | / | 250 |
| 1400 | 1462 | 1675 | 1685 | 1590 | 1590 | 130 | | 36-49 | | 18xM16x200 | / | 320 |
| 1500 | 1565 | 1785 | 1820 | 1700 | 1710 | 130 | | 36-56 | | 18xM16x240 | / | 400 |
| 1600 | 1668 | 1915 | 1930 | 1820 | 1820 | 190 | | 40-56 | | 20xM16x240 | / | 460 |
| 1800 | 1875 | 2115 | 2130 | 2020 | 2020 | 190 | | 44-56 | | 22xM20x240 | / | 600 |
| 2000 | 2082 | 2325 | 2345 | 2230 | 2230 | 190 | | 48-62 | | 24xM20x240 | / | 800 |



UNIVERSAL FLANGE ADAPTOR



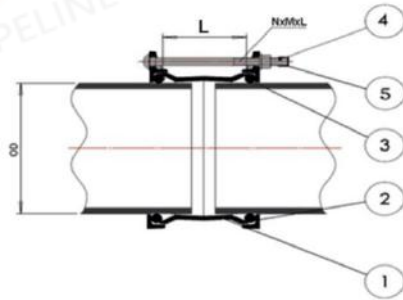
| NO. | Part | Material |
|-----|---------------------|-------------------------------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Gland | EN-GJS-500-7 |
| 3 | Sealing Gasket | EPDM |
| 4 | Bolt & Nut & Washer | Hot dip galvanized 8.8 carbon steel |
| 5 | Cap | Plastic |

| DN | OD | D | | K | | L | | n-φd | | Bolt NxMxL | Weight(Kg) | |
|-----|---------|------|------|------|------|------|------|-------|------|---------------|-------------|------|
| | | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 | PN10 | PN16 | | PN10 | PN16 |
| 40 | 48-60 | 150 | | 110 | | 80 | | 4-19 | | 2xM12x130 | 3.50 | |
| 50 | 45-69 | 165 | | 125 | | 80 | | | | | 3.90 | |
| 50 | 59-72 | 165 | | 125 | | 80 | | | | | 3.90 | |
| 50 | 52-76 | 165 | | 125 | | 80 | | | | | 4.10 | |
| 65 | 72-85 | 190 | | 145 | | 80 | | | | | 4.30 | |
| 65 | 63-87 | 190 | | 145 | | 80 | | | | | 4.30 | |
| 80 | 88-103 | 200 | | 160 | | 80 | | 8-19 | | 4xM12x130 | 5.00 | |
| 80 | 84-108 | 200 | | 160 | | 80 | | | | | 5.20 | |
| 100 | 96-116 | 220 | | 180 | | 80 | | | | | 5.50 | |
| 100 | 93-117 | 220 | | 180 | | 80 | | | | | 5.50 | |
| 100 | 108-120 | 220 | | 180 | | 80 | | | | | 5.50 | |
| 100 | 105-125 | 220 | | 180 | | 80 | | | | | 5.50 | |
| 100 | 109-128 | 220 | | 180 | | 80 | | 8-23 | | 4xM12x140 | 5.50 | |
| 100 | 106-130 | 220 | | 180 | | 80 | | | | | 5.50 | |
| 125 | 132-146 | 250 | | 210 | | 80 | | | | | 7.00 | |
| 125 | 123-147 | 250 | | 210 | | 80 | | | | | 7.00 | |
| 125 | 138-153 | 250 | | 210 | | 80 | | | | | 7.30 | |
| 150 | 138-162 | 285 | | 240 | | 80 | | | | | 8.00 | |
| 150 | 158-172 | 285 | | 240 | | 80 | | 16-23 | | 6xM12x140 | 8.20 | |
| 150 | 155-175 | 285 | | 240 | | 80 | | | | | 8.50 | |
| 150 | 159-182 | 285 | | 240 | | 80 | | | | | 8.90 | |
| 150 | 159-183 | 285 | | 240 | | 80 | | | | | 9.50 | |
| 175 | 192-210 | 310 | | 270 | | 80 | | | | | 11.60 | |
| 200 | 164-188 | 340 | | 295 | | 80 | | | | | 10.70 | |
| 200 | 184-208 | 340 | | 295 | | 80 | | 12-28 | | 6xM12x140 | 11.70 | |
| 200 | 192-210 | 340 | | 295 | | 80 | | | | | 11.80 | |
| 200 | 198-225 | 340 | | 295 | | 80 | | | | | 12.00 | |
| 200 | 206-230 | 340 | | 295 | | 80 | | | | | 12.20 | |
| 200 | 218-235 | 340 | | 295 | | 80 | | | | | 12.40 | |
| 200 | 214-238 | 340 | | 295 | | 80 | | | | | 12.50 | |
| 250 | 222-246 | 400 | | 355 | | 85 | | 12-28 | | 6xM12x140 | 14.50 | |
| 250 | 235-259 | 400 | | 355 | | 85 | | | | | 15.00 | |
| 250 | 242-262 | 400 | | 355 | | 85 | | | | | 15.00 | |
| 250 | 250-267 | 400 | | 355 | | 85 | | | | | 16.50 | |

| DN | OD | D | | | K | | | L | | n-φd | | Bolt | Weight(Kg) | |
|-----|---------|------|------|------|------|------|------|------|------|------|-------|------------|------------|--------|
| | | PN10 | PN16 | PN25 | PN10 | PN16 | PN25 | PN10 | PN16 | PN10 | PN16 | NxMxL | PN10 | PN16 |
| 250 | 250-274 | 400 | / | | 355 | / | | 85 | | | | | | 16.80 |
| 250 | 272-289 | 400 | / | | 355 | / | | 85 | | | | | | 17.00 |
| 250 | 264-288 | 400 | / | | 355 | / | | 85 | | | | | | 17.00 |
| 250 | 272-296 | 400 | / | | 355 | / | | 85 | | | | | | 18.00 |
| 300 | 282-306 | 455 | / | | 410 | / | | 85 | | | | | | 19.00 |
| 300 | 297-321 | 455 | / | | 410 | / | | 85 | | | | | | 18.00 |
| 300 | 315-332 | 455 | / | | 410 | / | | 85 | | | | | | 19.00 |
| 300 | 312-336 | 455 | / | | 410 | / | | 85 | | | | | | 19.40 |
| 300 | 322-339 | 455 | / | | 410 | / | | 85 | | | | | | 20.00 |
| 300 | 340-360 | 455 | / | | 410 | / | | 85 | | | | 6xM12x170 | | 21.00 |
| 350 | 340-360 | 520 | / | | 470 | / | | 108 | | | | | | 28.00 |
| 350 | 334-360 | 520 | / | | 470 | / | | 108 | | | | | | 27.70 |
| 350 | 351-378 | 520 | / | | 470 | / | | 108 | | | | | | 28.50 |
| 350 | 360-386 | 520 | / | | 470 | / | | 108 | | | | | | 29.50 |
| 350 | 374-391 | 520 | / | | 470 | / | | 108 | | | | | | 30.00 |
| 350 | 374-400 | 520 | / | | 470 | / | | 108 | | | | | | 30.50 |
| 400 | 390-410 | 580 | / | | 525 | / | | 108 | | | | | | 40.00 |
| 400 | 386-414 | 580 | / | | 525 | / | | 108 | | | | | | 40.00 |
| 400 | 398-430 | 580 | / | | 525 | / | | 108 | | | | | | 41.00 |
| 400 | 408-436 | 580 | / | | 525 | / | | 108 | | | | | | 41.00 |
| 400 | 417-437 | 580 | / | | 525 | / | | 108 | | | | | | 41.00 |
| 400 | 425-442 | 580 | / | | 525 | / | | 108 | | | | | | 42.00 |
| 400 | 416-444 | 580 | / | | 525 | / | | 108 | | | | | | 42.00 |
| 400 | 450-463 | 580 | / | | 525 | / | | 108 | | | | | | 43.00 |
| 450 | 424-458 | 580 | / | | 585 | / | | 108 | | | | | | 44.00 |
| 450 | 455-475 | 640 | / | | 585 | / | | 108 | | | | | | 45.00 |
| 450 | 447-475 | 640 | / | | 585 | / | | 108 | | | | | | 45.00 |
| 450 | 464-498 | 640 | / | | 585 | / | | 108 | | | | | | 47.00 |
| 450 | 476-500 | 640 | / | | 585 | / | | 108 | | | | | | 47.00 |
| 500 | 492-516 | 640 | / | | 650 | / | | 114 | | | | | | 50.00 |
| 500 | 500-508 | 715 | / | | 650 | / | | 114 | | | | | | 50.00 |
| 500 | 500-533 | 715 | / | | 650 | / | | 114 | | | | | | 51.00 |
| 500 | 526-546 | 715 | / | | 650 | / | | 114 | | | | | | 52.00 |
| 500 | 540-564 | 715 | / | | 650 | / | | 114 | | | | | | 53.00 |
| 600 | 596-620 | 840 | / | | 770 | / | | 114 | | | | | | 66.00 |
| 600 | 600-630 | 840 | / | | 770 | / | | 114 | | | | | | 67.00 |
| 600 | 608-636 | 840 | / | | 770 | / | | 114 | | | | | | 68.00 |
| 600 | 615-639 | 840 | / | | 770 | / | | 114 | | | | | | 68.00 |
| 600 | 630-650 | 840 | / | | 770 | / | | 114 | | | | | | 70.00 |
| 700 | 710-739 | 910 | / | | 840 | / | | 114 | | | 24-37 | 12xM16x180 | | 85.00 |
| 800 | 816-842 | 1025 | / | | 950 | / | | 128 | | | 24-40 | 12xM16x230 | | 120.00 |
| 700 | 710-739 | / | 960 | / | | 875 | | 114 | | | 24-43 | 12xM16x180 | | 115.00 |
| 800 | 816-842 | / | 1085 | / | | 990 | | 128 | | | 24-49 | 12xM16x230 | | 190.00 |

COUPLING

COUPLING for PVC PIPE

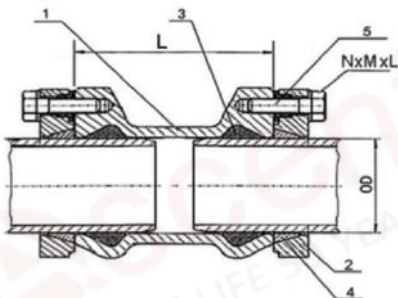


| NO. | Part | Material |
|-----|---------------------|-------------------------------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Gland | EN-GJS-500-7 |
| 3 | Sealing Gasket | EPDM |
| 4 | Bolt & Nut & Washer | Hot dip galvanized 8.8 carbon steel |
| 5 | Cap | Plastic |

| OD | L | Bolt | Weight(Kg) |
|-----|-----|-----------|------------|
| | | NxMxL | |
| 50 | 110 | 2*M12*140 | 1.96 |
| 63 | 130 | 2*M12*180 | 2.29 |
| 75 | 130 | 2*M12*180 | 2.9 |
| 90 | 130 | 4*M12*180 | 4.07 |
| 110 | 150 | 4*M12*200 | 5.29 |
| 125 | 150 | 4*M12*200 | 5.84 |
| 140 | 150 | 4*M12*200 | 7.18 |
| 160 | 190 | 4*M12*250 | 8.97 |
| 200 | 190 | 4*M12*250 | 10.44 |
| 225 | 200 | 4*M12*290 | 12.4 |
| 250 | 210 | 6*M12*290 | 19.53 |
| 315 | 210 | 6*M12*290 | 22.35 |



COUPLING for PE PIPE

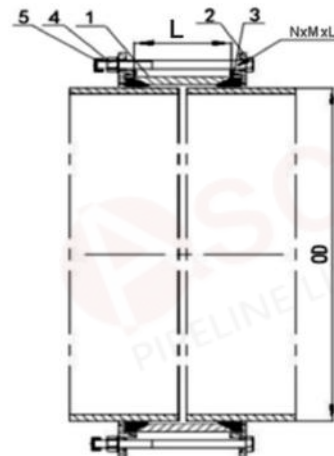


| NO. | Part | Material |
|-----|----------------|-------------------------------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Gland | EN-GJS-500-7 |
| 3 | Sealing Gasket | EPDM |
| 4 | Retaining Ring | Brass |
| 5 | Bolt & Washer | Hot dip galvanized 8.8 carbon steel |

| OD | L | Bolt | Weight(Kg) |
|-----|-----|----------|------------|
| | | NxMxL | |
| 63 | 125 | 4xM10x40 | 4.5 |
| 75 | | | 5.5 |
| 90 | 130 | | 6.5 |
| 110 | | | 8 |
| 125 | 135 | | 9.5 |
| 140 | 145 | | 11 |
| 160 | 170 | 4xM12x45 | 13 |
| 180 | 180 | | 15.5 |
| 200 | 210 | 6xM12x45 | 18 |
| 225 | 215 | | 18.5 |
| 250 | 230 | | 31.5 |
| 280 | 250 | | 36 |
| 315 | 270 | | 48 |



COUPLING for DI PIPE



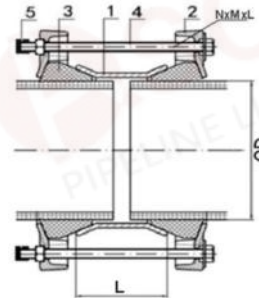
| NO. | Part | Material |
|-----|---------------------|-------------------------------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Gland | EN-GJS-500-7 |
| 3 | Sealing Gasket | EPDM |
| 4 | Bolt & Nut & washer | Hot dip galvanized 8.8 carbon steel |
| 5 | Cap | Plastic |

| OD | L | Bolt | Weight(Kg) |
|-----|------------|------------|------------|
| | | NxMxL | |
| 98 | 100 | 4xM12x180 | 6.5 |
| 118 | | | 7 |
| 144 | | | 9 |
| 170 | | 6xM12x180 | 11 |
| 222 | | | 15 |
| 274 | | | 21.5 |
| 326 | 150 | 8xM16x265 | 23 |
| 378 | | | 36.5 |
| 429 | | 10xM16x265 | 42.5 |
| 480 | | | 50.5 |
| 532 | | | 54.5 |
| 635 | | | 74 |
| 738 | 12xM16x265 | 97.5 | |
| 842 | | 105 | |

| OD | L | Bolt | Weight(Kg) |
|------|-----|------------|------------|
| | | NxMxL | |
| 945 | 175 | 14xM16x280 | 147 |
| 1048 | | | 157.5 |
| 1152 | | 16xM16x290 | 272 |
| 1255 | | | 301 |
| 1462 | | 18xM16x290 | 406 |
| 1565 | | | 443 |
| 1668 | 250 | 20xM16x290 | 480 |
| 1875 | | | 640 |
| 2082 | | 22xM20x440 | 860 |
| | | | 24xM20x440 |

UNIVERSAL COUPLING

| NO. | Part | Material |
|-----|---------------------|-------------------------------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Gland | EN-GJS-500-7 |
| 3 | Sealing Gasket | EPDM |
| 4 | Bolt & Nut & washer | Hot dip galvanized 8.8 carbon steel |
| 5 | Cap | Plastic |



| OD | L | Bolt | Weight (Kg) | |
|---------|-----|-----------|-------------|-------|
| | | NxMxL | | |
| 48-60 | 98 | 2xM12x180 | 2.50 | |
| 45-69 | | | 2.80 | |
| 56-69 | | | 2.80 | |
| 59-72 | | | 3.20 | |
| 52-76 | | | 3.50 | |
| 72-85 | | | 3.80 | |
| 63-87 | | | 4.00 | |
| 74-87 | | | 4.00 | |
| 88-103 | | | 4.80 | |
| 84-108 | | | 5.00 | |
| 90-108 | | | 5.00 | |
| 96-116 | | | 5.20 | |
| 93-117 | | | 5.20 | |
| 103-117 | | | 5.20 | |
| 108-120 | | | 5.50 | |
| 105-125 | | | 5.50 | |
| 109-128 | | | 6.00 | |
| 106-130 | | | 6.00 | |
| 113-130 | | | 6.00 | |
| 132-146 | | | 7.00 | |
| 123-147 | | 7.20 | | |
| 128-147 | | 7.20 | | |
| 138-153 | | 7.50 | | |
| 158-172 | 110 | 4xM12x200 | 7.50 | |
| 155-175 | | | 7.80 | |
| 159-182 | | | 8.00 | |
| 138-162 | | | 7.50 | |
| 144-162 | | | 7.50 | |
| 159-183 | | | 8.00 | |
| 192-210 | | | 10.50 | |
| 164-188 | | | 10.50 | |
| 184-208 | 130 | 4xM12x220 | 11.70 | |
| 198-225 | | | 12.50 | |
| 206-230 | | | 13.10 | |
| 213-230 | | | 13.10 | |
| 218-235 | | | 14.00 | |
| 214-238 | | | 14.10 | |
| 220-238 | | | 14.30 | |
| 242-262 | | | 16.50 | |
| 222-246 | | | 17.00 | |
| 235-259 | | | 17.30 | |
| | | | 6xM12x220 | 17.30 |

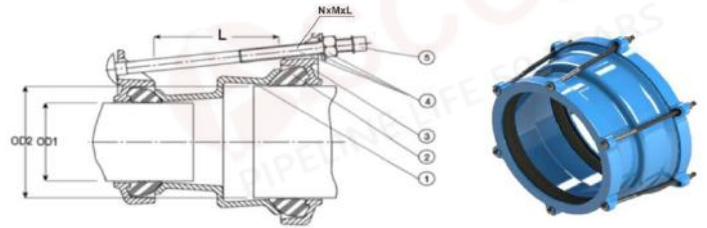
| OD | L | Bolt | Weight (Kg) |
|---------|------------|-----------|-------------|
| | | NxMxL | |
| 250-267 | 130 | 6xM12x220 | 17.30 |
| 250-274 | | | 17.80 |
| 264-288 | | | 18.00 |
| 272-289 | | | 18.00 |
| 272-296 | | | 18.50 |
| 278-296 | | | 18.50 |
| 322-339 | | 6xM12x240 | 18.50 |
| 282-306 | | | 18.50 |
| 288-306 | | | 19.50 |
| 297-321 | | | 19.50 |
| 304-321 | | | 20.00 |
| 315-332 | | | 20.50 |
| 312-336 | 150 | 20.50 | |
| 318-336 | | 20.50 | |
| 334-360 | | 8xM14x250 | 28.50 |
| 340-360 | | | 28.50 |
| 351-378 | | | 29.00 |
| 360-386 | | | 30.00 |
| 368-386 | | | 30.00 |
| 374-391 | | | 30.50 |
| 374-400 | | | 31.00 |
| 390-410 | | | 34.00 |
| 386-414 | | | 34.50 |
| 394-414 | | | 35.50 |
| 398-430 | 10xM14x250 | | 35.50 |
| 408-436 | | | 35.50 |
| 417-437 | | 37.50 | |
| 425-442 | | 38.00 | |
| 416-444 | | 38.00 | |
| 424-458 | | 40.50 | |
| 450-463 | | 41.00 | |
| 455-475 | | 42.00 | |
| 447-475 | | 42.00 | |
| 464-498 | | 44.50 | |
| 475-498 | | 44.50 | |
| 476-500 | | 45.00 | |
| 500-508 | 10xM14x260 | 48.00 | |
| 492-516 | | 49.00 | |
| 495-516 | | 49.00 | |
| 500-533 | | 50.00 | |
| 526-546 | | 51.50 | |

| OD | L | Bolt | Weight (Kg) |
|---------|-----|------------|-------------|
| | | NxMxL | |
| 540-564 | 150 | 10xM14x260 | 53.00 |
| 596-620 | | 10xM14x260 | 56.00 |
| 600-630 | | 10xM14x260 | 57.00 |
| 608-636 | | 10xM14x260 | 58.00 |
| 615-639 | | 10xM14x260 | 58.00 |
| 630-650 | | 10xM14x260 | 59.00 |
| 710-738 | | 160 | 12xM16x280 |
| 810-845 | 180 | 12xM16x330 | 118.00 |



UNIVERSAL STEPPED/TAPER COUPLING

| NO. | Reference | Material |
|-----|---------------------|-------------------------------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Gland | EN-GJS-500-7 |
| 3 | Sealing Gasket | EPDM |
| 4 | Bolt & Nut & Washer | Hot dip galvanized 8.8 carbon steel |
| 5 | Cap | Plastic |

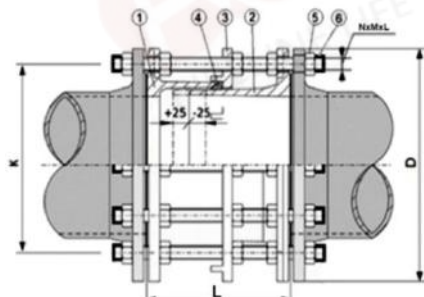


| OD1 | OD2 | L | Bolt | Weight(Kg) |
|---------|---------|-----------|-----------|------------|
| | | | NxMxL | |
| 46-63 | 57-74 | 100 | 2xM12x210 | 4.8 |
| 46-63 | 68-85 | | 4xM12x210 | 6.3 |
| 57-74 | 68-85 | | | 6.3 |
| 57-74 | 84-106 | | | 6.8 |
| 68-85 | 84-106 | | | 7.4 |
| 57-74 | 99-119 | | | 7.5 |
| 68-85 | 99-119 | | | 7.5 |
| 84-106 | 99-119 | | | 8.5 |
| 84-106 | 109-133 | | | 8.5 |
| 99-119 | 109-133 | | | 9 |
| 99-119 | 132-157 | | | 10 |
| 109-133 | 132-157 | | 11 | |
| 109-133 | 157-183 | 115 | 4xM12x230 | 11.5 |
| 132-157 | 157-183 | | | 12 |
| 68-85 | 176-201 | | | 9.5 |
| 84-106 | 176-201 | | | 10.5 |
| 109-133 | 176-201 | | | 12 |
| 157-183 | 176-201 | | | 14 |
| 176-201 | 193-215 | | | 14.5 |
| 99-119 | 218-242 | | | 140 |
| 109-133 | 218-242 | 18.2 | | |
| 176-201 | 218-242 | 18.2 | | |
| 193-215 | 218-242 | 18.2 | | |
| 218-242 | 242-268 | 6xM12x250 | 18.2 | |
| 109-133 | 266-292 | 160 | 6xM12x270 | 18.2 |
| 242-268 | 266-292 | | | 19.5 |
| 266-292 | 280-306 | | | 26 |
| 266-292 | 301-327 | | | 26 |
| 301-327 | 324-350 | | | 22.1 |
| 301-327 | 352-378 | | | 24.7 |
| 324-350 | 352-378 | | 8xM12x270 | 26 |
| 352-378 | 372-396 | | | 34 |
| 372-396 | 384-410 | | | 34 |
| 384-410 | 410-436 | | | 35 |
| 410-436 | 436-462 | 36 | | |

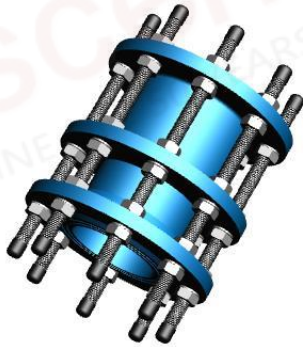
DISMANTLING JOINT

DISMANTLING JOINT PN10 PN16 PN25 PN40

| NO. | Part | Material |
|-----|---------------------|-------------------------------------|
| 1 | Outer Pipe | EN-GJS-500-7 |
| 2 | Inner Pipe | EN-GJS-500-7 |
| 3 | Gland | EN-GJS-500-7 |
| 4 | Sealing Gasket | EPDM |
| 5 | Bolt & Nut & Washer | Hot dip galvanized 8.8 carbon steel |
| 6 | Cap | Plastic |



| DN | D | | | | K | | | | L | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | PN10 | PN16 | PN25 | PN40 | PN10 | PN16 | PN25 | PN40 | PN10 | PN16 | PN25 | PN40 |
| 50 | 165 | | | | 125 | | | | 190 | | | |
| 65 | 185 | | | | 145 | | | | | | | |
| 80 | 200 | | | | 160 | | | | 200 | | | |
| 100 | 220 | | 235 | | 180 | | 190 | | 200 | | 220 | |
| 125 | 250 | | 270 | | 210 | | 220 | | 200 | | 220 | 240 |
| 150 | 285 | | 300 | | 240 | | 250 | | 210 | | 220 | 250 |
| 200 | 340 | | 360 | 375 | 295 | | 310 | 320 | 220 | | 230 | 250 |
| 250 | 400 | | 425 | 450 | 350 | 355 | 370 | 385 | 230 | | 250 | 270 |
| 300 | 455 | | 485 | 515 | 400 | 410 | 430 | 450 | 230 | | 250 | 270 |
| 350 | 505 | 520 | 555 | 580 | 460 | 470 | 490 | 510 | 250 | | 260 | 290 |
| 400 | 565 | 580 | 620 | 660 | 515 | 525 | 550 | 585 | 250 | | 280 | 300 |
| 450 | 615 | 640 | 670 | 685 | 565 | 585 | 600 | 610 | 270 | | | |
| 500 | 670 | 715 | 730 | 755 | 620 | 650 | 660 | 670 | 280 | | | 320 |
| 600 | 780 | 840 | 845 | 890 | 725 | 770 | 770 | 795 | 300 | | 300 | 340 |
| 700 | 895 | 910 | 960 | / | 840 | 840 | 875 | / | 300 | | 320 | / |
| 800 | 1015 | 1025 | 1085 | / | 950 | 950 | 990 | / | 320 | | 350 | / |
| 900 | 1115 | 1125 | 1185 | / | 1050 | 1050 | 1090 | / | 320 | | 350 | / |
| 1000 | 1230 | 1255 | 1320 | / | 1160 | 1170 | 1210 | / | 340 | 350 | 390 | / |
| 1100 | 1340 | 1355 | 1420 | / | 1270 | 1270 | 1310 | / | 350 | 360 | | / |
| 1200 | 1455 | 1485 | 1530 | / | 1380 | 1390 | 1420 | / | 370 | | 400 | / |
| 1400 | 1675 | 1685 | 1755 | / | 1590 | 1590 | 1640 | / | 380 | | 460 | / |
| 1500 | 1785 | 1820 | 1865 | / | 1700 | 1710 | 1750 | / | 410 | | | / |
| 1600 | 1915 | 1930 | 1975 | / | 1820 | 1820 | 1860 | / | 410 | | 495 | / |
| 1800 | 2115 | 2130 | 2195 | / | 2020 | 2020 | 2070 | / | 440 | | 520 | / |
| 2000 | 2325 | 2345 | 2425 | / | 2230 | 2230 | 2300 | / | 460 | | 545 | / |



| BOLTS | | | | Weight(Kg) | | | | DN |
|------------|------------|------------|------------|------------|-------|-------|------|------|
| NxMxL | | | | | | | | |
| PN10 | PN16 | PN25 | PN40 | PN10 | PN16 | PN25 | PN40 | |
| 4xM16x330 | | | | 10.7 | | 11 | | 50 |
| 4xM16x330 | | 8xM16x330 | | 12.5 | | 15 | | 65 |
| 8xM16x340 | | 8xM16x340 | | 16.6 | | 17 | | 80 |
| | | 8xM20x360 | | 19 | | 25 | | 100 |
| 8xM20x350 | | 8xM24x370 | 8xM24x400 | 22.2 | | 33.4 | 38 | 125 |
| | | 8xM24x380 | 8xM24x410 | 29.9 | | 37.9 | 44 | 150 |
| 8xM20x370 | 12xM20x370 | 12xM24x380 | 12xM27x420 | 38.9 | 43.2 | 55.8 | 78 | 200 |
| 12xM20x380 | 12xM24x380 | 12xM27x420 | 12xM30x460 | 54.4 | 61.4 | 80.3 | 113 | 250 |
| 12xM20x380 | 12xM24x400 | 16xM27x420 | 16xM30x470 | 64.7 | 72.3 | 104.5 | 151 | 300 |
| 16xM20x400 | 16xM24x420 | 16xM30x450 | 16xM33x510 | 80.5 | 97.7 | 140.3 | 202 | 350 |
| 16xM24x420 | 16xM27x420 | 16xM33x480 | 16xM36x530 | 102.9 | 123.7 | 181 | 266 | 400 |
| 20xM24x440 | 20xM27x450 | 20xM33x480 | 20xM36x550 | 124.6 | 156.9 | 216 | 291 | 450 |
| | 20xM30x470 | 20xM33x480 | 20xM39x580 | 139 | 200.8 | 240 | 387 | 500 |
| 20xM27x480 | 20xM33x500 | 20xM36x520 | 20xM45x600 | 192.7 | 280.4 | 322 | 563 | 600 |
| 24xM27x480 | 24xM33x510 | 24xM39x560 | / | 252.5 | 324 | 464 | / | 700 |
| 24xM30x510 | 24xM36x550 | 24xM45x610 | / | 332.9 | 417 | 652 | / | 800 |
| 28xM30x510 | 28xM36x550 | 28xM45x610 | / | 390 | 488 | 765 | / | 900 |
| 28xM33x550 | 28xM39x600 | 28xM52x680 | / | 509 | 666 | 1086 | / | 1000 |
| 32xM33x570 | 32xM39x610 | 32xM52x700 | / | 606 | 770 | 1251 | / | 1100 |
| 32xM36x600 | 32xM45x640 | 32xM52x720 | / | 750 | 1100 | 1393 | / | 1200 |
| 36xM39x630 | 36xM45x660 | 36xM56x800 | / | 1035 | 1350 | 1881 | / | 1400 |
| 36xM39x660 | 36xM52x720 | 36xM56x800 | / | 1180 | 1525 | 2036 | / | 1500 |
| 40xM45x680 | 40xM52x730 | 40xM56x840 | / | 1525 | 1718 | 2339 | / | 1600 |
| 44xM45x720 | 44xM52x760 | 44xM64x900 | / | 1830 | 2100 | 3143 | / | 1800 |
| 48xM45x740 | 48xM56x800 | 48xM64x950 | / | 2280 | 2650 | 3824 | / | 2000 |

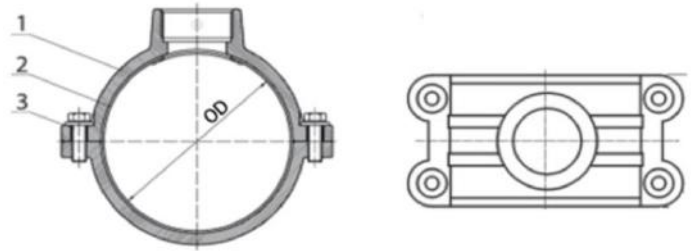
Note: The actual L value is ± 25 based on the reference L value.

SADDLE

SADDLE for PVC/PE PIPE with THREADED OUTLET

| NO. | Part | Material |
|-----|---------------------|--|
| 1 | Body | EN-GJS-500-7 |
| 2 | Sealing Gasket | EPDM |
| 3 | Bolt & Nut & Washer | Hot Dip Galvanized 8.8 Carbon Steel or SS304 |

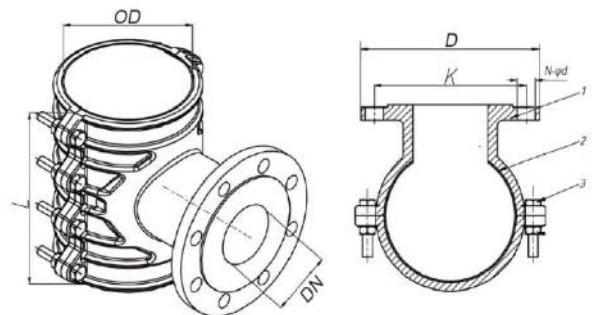
| OD | Threaded Outlet | Weight(Kg) |
|-----|--------------------------|------------|
| | NPS | |
| 50 | 3/4" 1" 1 1/4" 1 1/2" 2" | 1.8 |
| 63 | | 2.4 |
| 75 | | 2.6 |
| 90 | | 3 |
| 110 | | 4 |
| 125 | | 5 |
| 140 | | 6 |
| 160 | | 6.5 |
| 180 | | 9 |
| 200 | | 10 |
| 225 | | 14 |
| 250 | | 16 |
| 280 | | 18 |
| 315 | | 20 |



SADDLE for PVC/PE PIPE with FLANGED OUTLET

| NO. | Part | Material |
|-----|---------------------|--|
| 1 | Body | EN-GJS-500-7 |
| 2 | Sealing Gasket | EPDM |
| 3 | Bolt & Nut & Washer | Hot Dip Galvanized 8.8 Carbon Steel or SS304 |

| OD | Flanged Outlet | |
|-----|----------------|-------|
| | DN | PN |
| 110 | 50 | 10/16 |
| 125 | | |
| 140 | | |
| 160 | | |
| 180 | | |
| 200 | | |
| 225 | | |
| 250 | 50 | |
| | 100 | |
| | 150 | |
| 315 | 50 | |
| | 100 | |
| | 150 | |
| 355 | 50 | |
| | 100 | |
| | 150 | |
| 400 | 100 | |
| | 150 | |

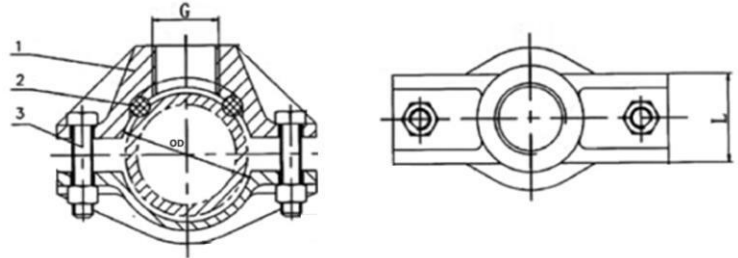


SADDLE for DI PIPE with THREADED OUTLET

| NO. | Part | Material |
|-----|---------------------|--|
| 1 | Body | EN-GJS-500-7 |
| 2 | Sealing Gasket | EPDM |
| 3 | Bolt & Nut & Washer | Hot dip galvanized 8.8 carbon steel or SS304 |



| DN/OD | Threaded Outlet | Weight (Kg) |
|---------|--------------------------|-------------|
| | NPS | |
| 80/98 | 3/4" 1" 1 1/4" 1 1/2" 2" | 2.3 |
| 100/118 | | 2.8 |
| 150/170 | | 3.3 |
| 200/222 | | 3.9 |
| 250/274 | | 5.8 |
| 300/326 | | 6.8 |
| 400/429 | | 10 |

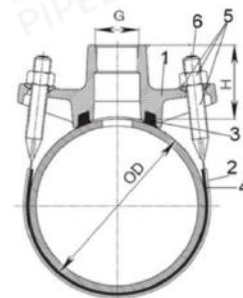


SADDLE for DI PIPE with FLANGED OUTLET



UNIVERSAL SADDLE with THREADED OUTLET

| NO. | Part | Material |
|-----|---------------------------------|--------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Strap | SS304 |
| 3 | Sealing Gasket | EPDM |
| 4 | Strap Lining | EPDM |
| 5 | Bolt & Nut & Washer & Ball disc | SS304 |
| 6 | Cap | Plastic |

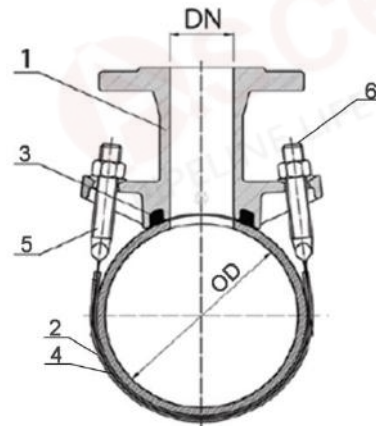


| OD | Threaded Outlet | Weight(Kg) |
|---------|--------------------------|------------|
| | NPS | |
| 110-133 | 3/4" 1" 1 1/4" 1 1/2" 2" | 1.99 |
| 135-160 | | 2.08 |
| 158-177 | | 2.13 |
| 206-233 | | 2.31 |
| 310-360 | | 8.64 |
| 400-455 | | 14.93 |
| 500-532 | | 21.05 |



UNIVERSAL SADDLE with FLANGED OUTLET

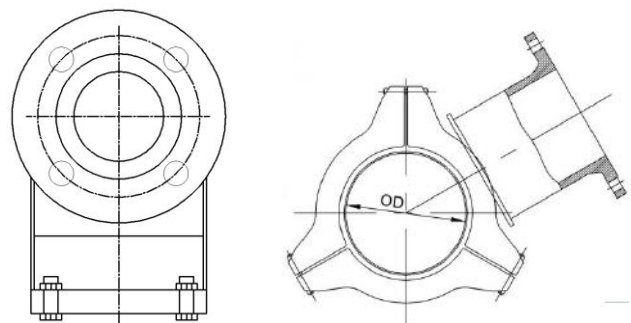
| NO. | Part | Material |
|-----|---------------------------------|--------------|
| 1 | Body | EN-GJS-500-7 |
| 2 | Strap | SS304 |
| 3 | Sealing Gasket | EPDM |
| 4 | Strip Lining | EPDM |
| 5 | Bolt & Nut & Washer & Ball disc | SS304 |
| 6 | Cap | Plastic |



| OD | Flanged Outlet | | Weight (Kg) |
|---------|----------------|-------|-------------|
| | DN | PN | |
| 85-114 | 50 | 10/16 | 12.5 |
| 110-133 | | | 14.8 |
| 112-139 | | | 14.8 |
| 166-195 | | | 15.1 |
| 97-118 | 80 | | 13.2 |
| 158-177 | 100 | | 16.2 |
| 206-233 | 50 | | 16.7 |
| | 100 | | 17.2 |
| 210-245 | 50 | | 16.7 |
| | 100 | | 17.2 |
| 310-360 | 50 | | 22.4 |
| | 100 | | 23.4 |
| | 150 | | 24.1 |
| 500-544 | 150 | | 29.2 |

TRIPLE TAPPING SADDLE with FLANGED OUTLET

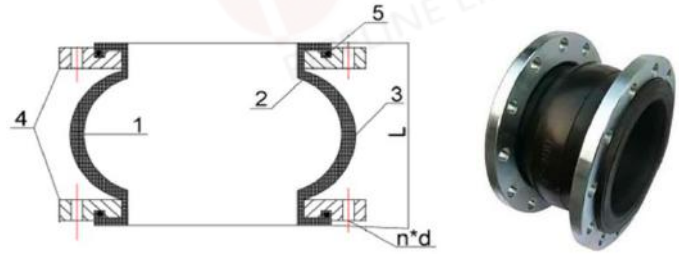
| OD | Flanged Outlet | | Weight(Kg) |
|--------------------|----------------|-------|------------|
| | DN | PN | |
| 87 -106 | 80 | 10/16 | 14.5 |
| 108-126 | 100 | | 16.5 |
| 135-160 | 125 | | 24 |
| 159-184 | 150 | | 25 |
| 190- 220 | 175 | 16 | 26 |
| 210- 240 | 200 | | 31 |
| 240- 255 | 225 | | 32 |
| 250-288 | 250 | | 68 |
| 290- 312 | 275 | | 75 |
| 312-345 or 302-335 | 300 | | 82 |
| 360-390 or 350-380 | 350 | | 100 |
| 410-460 or 400-450 | 400 | | 117 |
| 460-510 or 450-500 | 450 | | 125 |
| 510-570 or 500-560 | 500 | | 140 |
| 570-620 or 560-610 | 550 | | 145 |
| 620-680 or 610-670 | 600 | | 150 |
| 730-800 or 720-790 | 700 | | 170 |
| 810-860 or 800-850 | 800 | | 190 |



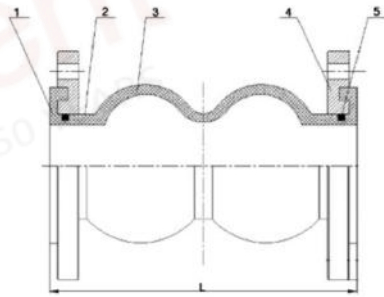
RUBBER FLEXIBLE JOINT

FLANGED RUBBER FLEXIBLE JOINT

| NO. | Part | Material |
|-----|----------------------|--------------|
| 1 | Rubber Core (inner) | EPDM |
| 2 | Reinforcing Fabric | Nylon |
| 3 | Rubber Cover (outer) | EPDM |
| 4 | Flange | Carbon Steel |
| 5 | Wire | Carbon Steel |



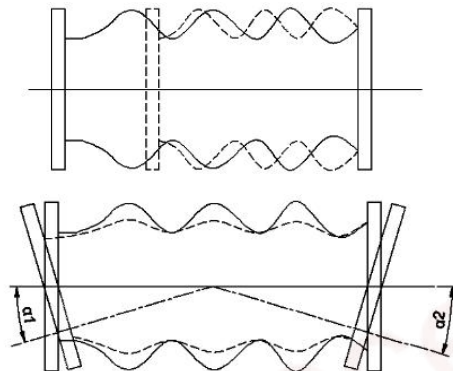
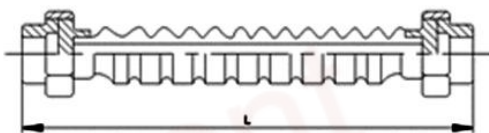
| DN | PN | L | n | d | Axial displacement mm | | Horizontal displacement mm | Angular deflection(a1+a2)° |
|------|-----|-----|----|----|-----------------------|-------------|----------------------------|----------------------------|
| | | | | | Extension | Compression | | |
| 32 | 16 | 95 | 4 | 18 | 6 | 9 | 9 | 15 |
| 40 | | 95 | 4 | 18 | 6 | 10 | 9 | 15 |
| 50 | | 105 | 4 | 18 | 7 | 10 | 10 | 15 |
| 65 | | 115 | 4 | 18 | 7 | 13 | 11 | 15 |
| 80 | | 135 | 4 | 18 | 8 | 15 | 12 | 15 |
| 100 | | 150 | 8 | 18 | 10 | 19 | 13 | 15 |
| 125 | | 165 | 8 | 18 | 12 | 19 | 13 | 15 |
| 150 | | 180 | 8 | 23 | 12 | 20 | 14 | 15 |
| 200 | | 210 | 12 | 23 | 16 | 25 | 22 | 15 |
| 250 | | 230 | 12 | 23 | 16 | 25 | 22 | 15 |
| 300 | | 245 | 12 | 23 | 16 | 25 | 22 | 15 |
| 350 | | 255 | 16 | 23 | 16 | 25 | 22 | 15 |
| 400 | | 255 | 16 | 25 | 16 | 25 | 22 | 15 |
| 450 | | 255 | 20 | 25 | 16 | 25 | 22 | 15 |
| 500 | | 255 | 20 | 25 | 16 | 25 | 22 | 15 |
| 600 | | 260 | 20 | 30 | 16 | 25 | 22 | 15 |
| 700 | | 260 | 24 | 30 | 16 | 25 | 22 | 15 |
| 800 | | 260 | 24 | 34 | 16 | 25 | 22 | 15 |
| 900 | | 260 | 28 | 34 | 16 | 25 | 22 | 15 |
| 1000 | | 260 | 28 | 34 | 18 | 26 | 24 | 15 |
| 1200 | | 260 | 32 | 41 | 18 | 26 | 24 | 15 |
| 1400 | | 260 | 36 | 34 | 20 | 28 | 26 | 15 |
| 1600 | | 350 | 40 | 34 | 25 | 28 | 30 | 10 |
| 1800 | | 400 | 44 | 41 | 25 | 30 | 30 | 10 |
| 2000 | | 450 | 48 | 48 | 25 | 30 | 30 | 10 |
| 2200 | | 500 | 52 | 43 | 25 | 35 | 30 | 10 |
| 2400 | | 500 | 56 | 43 | 25 | 35 | 30 | 10 |
| 2600 | | 500 | 60 | 48 | 25 | 35 | 30 | 10 |
| 2800 | 500 | 64 | 48 | 25 | 35 | 30 | 10 | |
| 3000 | 500 | 68 | 48 | 25 | 35 | 30 | 10 | |
| 3200 | 500 | 72 | 36 | 25 | 35 | 30 | 10 | |



| DN | PN | L | Axial displacement mm | | Horizontal displacement mm | Angular deflection (a1+a2)° |
|-----|----|-----|-----------------------|-------------|----------------------------|-----------------------------|
| | | | Extension | Compression | | |
| 50 | 16 | 165 | 30 | 50 | 45 | 40° |
| 65 | | 175 | 30 | 50 | 45 | 40° |
| 80 | | 175 | 30 | 50 | 45 | 40° |
| 100 | | 225 | 35 | 50 | 40 | 35° |
| 125 | | 225 | 35 | 50 | 40 | 35° |
| 150 | | 225 | 35 | 50 | 40 | 35° |
| 200 | | 325 | 35 | 60 | 35 | 30° |
| 250 | | 330 | 35 | 60 | 35 | 30° |
| 300 | | 330 | 35 | 60 | 35 | 30° |
| 350 | | 330 | 30 | 50 | 30 | 30° |
| 400 | | 330 | 30 | 50 | 30 | 30° |
| 500 | | 340 | 30 | 50 | 30 | 30° |

THREADED RUBBER FLEXIBLE JOINT

| DN | PFA(bar) | L | | Compression | Extension | Horizontal displacement mm | Angular deflection (a1+a2)° |
|----|----------|-----|-----|-------------|-----------|----------------------------|-----------------------------|
| | | A | B | | | | |
| 15 | 16 | 180 | 200 | 10 | 5 | 20 | 45 |
| 20 | | 200 | 200 | 10 | 5 | 20 | 45 |
| 25 | | 210 | 200 | 10 | 5 | 20 | 45 |
| 32 | | 210 | 200 | 10 | 5 | 20 | 45 |
| 40 | | 220 | 200 | 10 | 5 | 20 | 45 |
| 50 | | 220 | 200 | 10 | 5 | 20 | 45 |



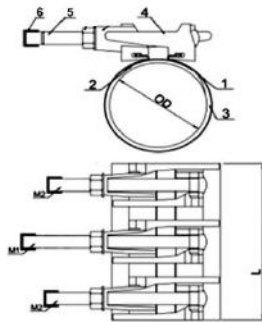
REPAIR CLAMP

BAND REPAIR CLAMP (DI JAW and SS JAW)

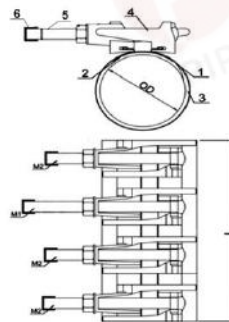
| No. | Name | Material |
|-----|---------------------|---|
| 1 | Outer Shell | SS304 THICKNESS 0.8mm |
| 2 | Junction Plate | |
| 3 | Shell Lining | EPDM |
| 4 | Jaw | EN-GJS-500-7 (Fusion Bonded Epoxy, $\geq 250\mu\text{m}$, EN14901) |
| 5 | Bolt & Nut & Washer | Hot Dip Galvanized 8.8 Carbon Steel |
| 6 | Cap | Plastic |

● Single Band Ductile Iron Repair Clamp

| OD | PFA(bar) | L(mm) | | M1 | M2 | Weight(Kg) | |
|---------|----------|-------|-----|---------|---------|------------|-------|
| | | | | | | L=200 | L=300 |
| 59-67 | 16 | 200 | 300 | M16X185 | M16X165 | 3.74 | 5.46 |
| 75-83 | | 200 | 300 | | | 3.87 | 5.80 |
| 88-98 | | 200 | 300 | | | 4.00 | 5.90 |
| 108-118 | | 200 | 300 | | | 4.14 | 6.14 |
| 132-142 | | 200 | 300 | | | 4.36 | 6.46 |
| 159-170 | | 200 | 300 | | | 4.58 | 6.80 |
| 218-228 | | 200 | 300 | | | 5.12 | 7.61 |
| 270-280 | | 200 | 300 | | | 5.44 | 8.52 |
| 315-325 | | 200 | 300 | | | 6.12 | 8.94 |



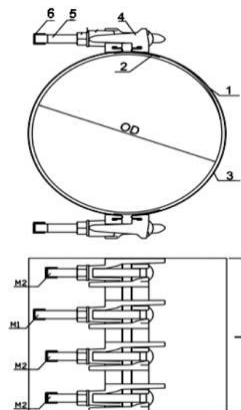
L=200mm



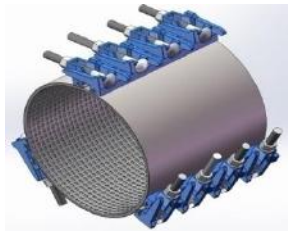
L=300mm

● Double Band Ductile Iron Repair Clamp

| OD | L | M1 | M2 |
|---------|-----|---------|---------|
| 270-288 | 300 | M16X185 | M16X165 |
| 304-320 | 300 | | |



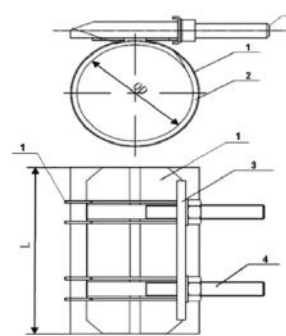
● Triple Band Ductile Iron Repair Clamp



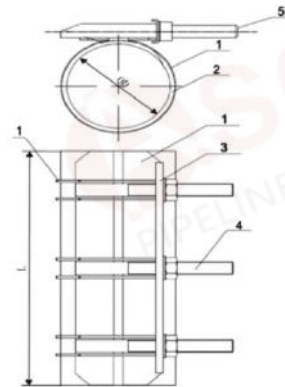
● Single Band Stainless Steel Repair Clamp

| No. | Name | Material |
|-----|------------------------------------|-------------|
| 1 | Outer Shell & Jaw & Junction Plate | SS304/SS316 |
| 2 | Sealing Gasket | EPDM |
| 3 | Locking Plate | SS304/SS316 |
| 4 | Bolt & Nut & Washer | SS304/SS316 |
| 5 | Cap | Plastic |

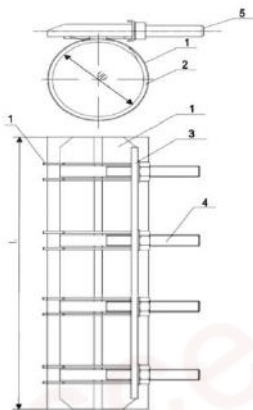
| OD | PFA(bar) | L(mm) | Bolt |
|---------|----------|-------|---------|
| 58-65 | 16 | 150 | M14X150 |
| 60-67 | | 200 | |
| 86-94 | | 300 | |
| 108-118 | 16 | 200 | M16X165 |
| | | 300 | |
| 115-125 | | 200 | |
| 132-142 | | 200 | |
| 148-158 | | 200 | |
| | | 300 | |



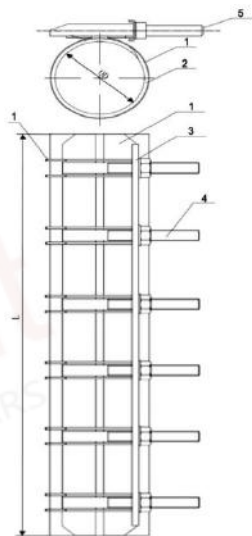
L=150-200mm



L=300mm



L=400mm

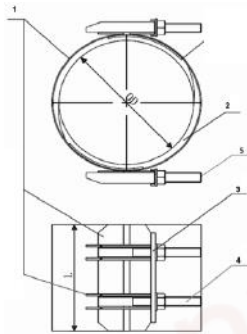
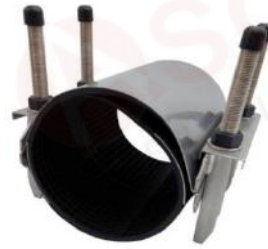


L=600mm

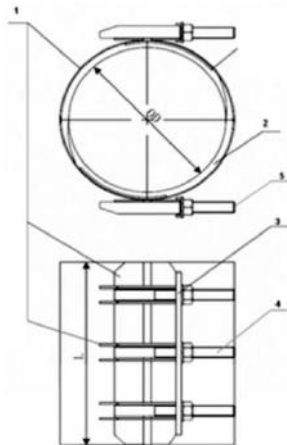


● Double Band Stainless Steel Repair Clamp

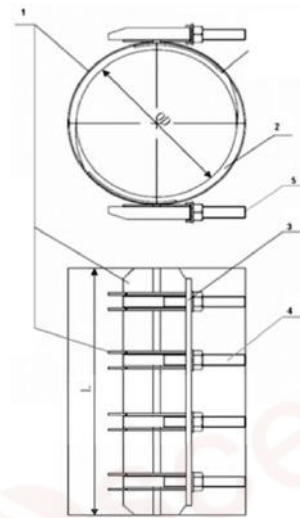
| No. | Name | Material |
|-----|------------------------------------|----------|
| 1 | Outer Shell & Jaw & Junction Plate | SS304 |
| 2 | Sealing Gasket | EPDM |
| 3 | Locking Plate | SS304 |
| 4 | Bolt | SS304 |
| 5 | Cap | Plastic |



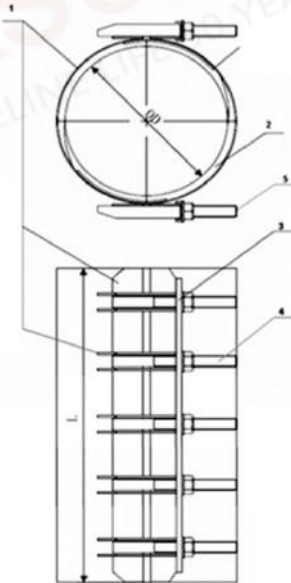
L=200mm



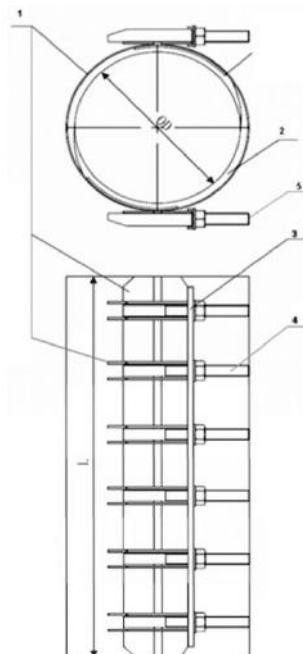
L=300mm



L=400mm



L=500mm



L=600mm



● Triple Band Stainless Steel Repair Clamp

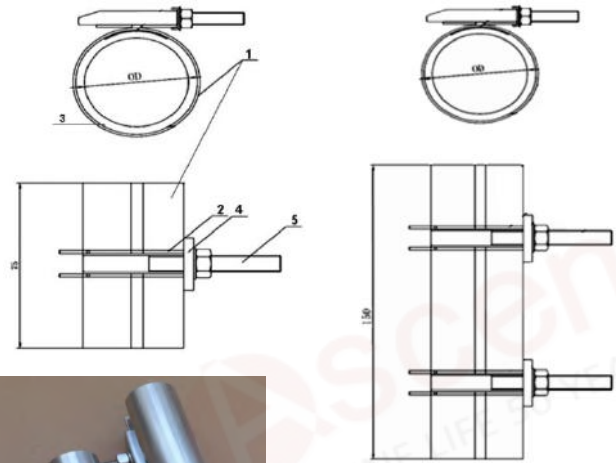


MINI TYPE REPAIR CLAMP

● Stainless Steel Full-circle Mini-type Pipe Repair Clamp

| No. | Name | Material |
|-----|------------------------------|----------|
| 1 | Outer Shell & Junction Plate | SS316 |
| 2 | Jaw | SS316 |
| 3 | Shell Lining | EPDM |
| 4 | Locking Plate | SS316 |
| 5 | Bolt | SS316 |

| OD | PFA(bar) | L | Bolt |
|-------|----------|-----|---------|
| 26-30 | 16 | 75 | M10X60 |
| 38-42 | | 75 | M12X75 |
| 38-42 | | 150 | |
| 50-54 | | 75 | M12x135 |
| 60-64 | | 75 | |
| 78-82 | | 75 | |
| 87-93 | | 75 | |



● Stainless Steel Semi-circle Mini-type Pipe Repair Clamp (With SS304 Bolt, Nut, Washer)

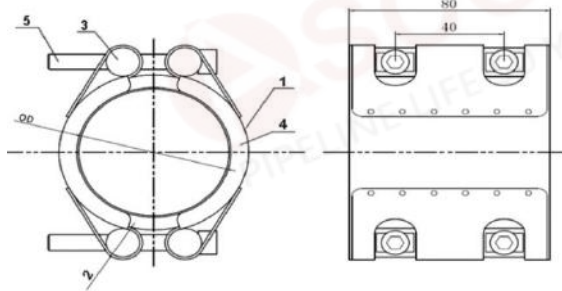
● Full-circle Mini-type Pipe Repair Clamp (ELECTRIC GALVANIZED GGG40+Galvanized Carbon Steel Bolt, Nut, Washer)

● Semi-circle Mini-type Pipe Repair Clamp (ELECTRIC GALVANIZED GGG40+Galvanized Carbon Steel Bolt, Nut, Washer)

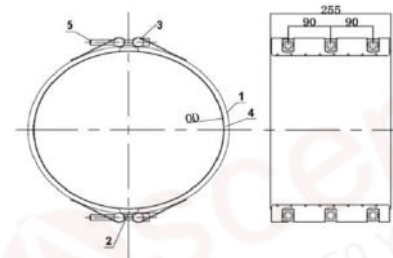
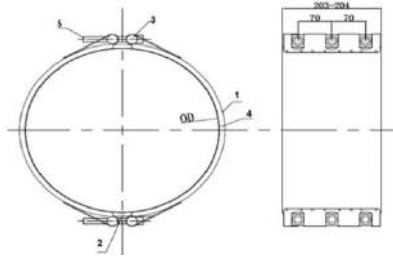


MULTI-FUNCTION REPAIR CLAMP & COUPLING

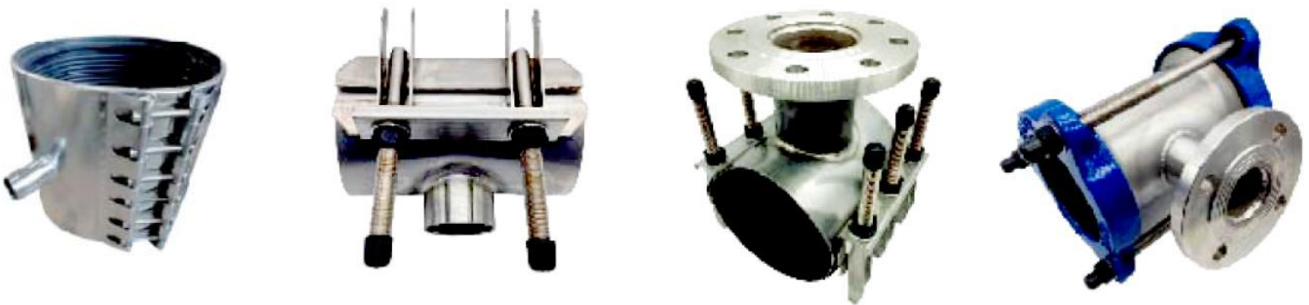
| No. | Name | Material |
|-----|----------------|----------|
| 1 | Outer Shell | SS304 |
| 2 | Junction Plate | SS304 |
| 3 | Tie Rod | SS304 |
| 4 | Shell Lining | EPDM |
| 5 | Bolt & Nut | SS304 |



| OD | PFA(bar) | L(mm) | Bolt |
|---------|----------|-------|---------|
| 75-77 | 20 | 80 | M10X90 |
| 88-92 | 20 | 203 | M12X100 |
| 108-112 | 16 | 203 | |
| 138-142 | 16 | 203 | |
| 157-161 | 16 | 203 | |
| 168-172 | 16 | 203 | |
| 220-224 | 16 | 255 | M14X120 |
| 271-275 | 14 | 255 | |
| 313-317 | 14 | 255 | |
| 323-327 | 14 | 255 | |
| 424-428 | 12 | 255 | |
| 427-431 | 12 | 255 | |



MULTI-FUNCTION TEE PRODUCTS



OTHER REPAIR CLAMP

Lengthen Type Repair Clamp



Wide-Range strip Repair Clamp



PLEASE CHECK OUR PROFESSIONAL WATER VALVE VOLUME

► DI GATE VALVE

| | CONNECTION | OPERATING MECHANISM(STEM) SEALING | NOMINAL SIZE | OPERATING DEVICE | STANDARD & PRESSURE | | |
|---------------------|--|-----------------------------------|------------------------|--|---|---|---|
| | DI NON-RISING STEM(NRS) RESILIENT SEATED GATE VALVE | FLANGED END | BRASS BUSHING | DN40-DN600 | HANDWHEEL, CAP, EXTENSION SPINDLE | DIN3352 DIN3202 F4/F5 EN1092-2 PN10/PN16 DIN2501 | BS5163 EN558 SER3 EN1092-2 PN10/PN16 |
| DI GLAND | | | DN40-DN600 | HANDWHEEL, CAP, EXTENSION SPINDLE | | | |
| DI TOP FLANGE | | | DN40-DN600 | Manual GEARBOX (top flange ISO5210) | | | |
| DI TOP FLANGE /YOKE | | | DN400-DN1000 | Manual GEARBOX or ACTUATOR or ACTUATOR+ GEARBOX (top flange ISO5210) | | | |
| SOCKETED END | | BRASS BUSHING | DN50/OD63- DN300/OD315 | HANDWHEEL, CAP, EXTENSION SPINDLE | DIN3352 DIN3202-F5 EN12842 PFA 16BAR | - | - |
| THREADED END | BRASS BUSHING | DN20 25 32 40 50 | HANDWHEEL, CAP | BS5150 ISO228 PFA 16BAR | - | - | |

NOTE:

1. WE ALSO PROVIDE BELOW:

- > DI NON-RISING STEM (NRS) METAL SEATED GATE VALVE:
- > DI RISING STEM (RS) / OUTSIDE SCREW & YOKE (OS&Y) RESILIENT SEATED GATE VALVE,
- > DI RISING STEM (RS) / OUTSIDE SCREW & YOKE (OS&Y) METAL SEATED GATE VALVE.
- > AMERICAN STANDARD DI GATE VALVE, AWWA509/519, FACE TO FACE ASME B16.10, FLANGE ASME B16.42.
- > AUSTRALIAN STANDARD DI GATE VALVE, AS/NZS2638.2, FLANGE AS4087.
- > RUSSIA STANDARD DI GATE VALVE, GOST9544
- > SOUTH AFRICAN STANDARD DI GATE VALVE, SABS664, FLANGE SABS1123
- > CONNECTION SPIGOT END, WELDING END, SOCKET END FOR DI PIPE, GROOVE END, COUPLING WITH BRASS RING END.
- > For OPERATING DEVICE, OPTIONAL "ROTORK" brand.

► DI BUTTERFLY VALVE

| DI BUTTERFLY VALVE | CONNECTION | NOMINAL SIZE | OPERATING DEVICE | STANDARD |
|---|-----------------------------|--------------|---|--|
| DI DOUBLE FLANGE DOUBLE ECCENTRIC RESILIENT/SOFT SEATED BUTTERFLY VALVE | FLANGED END | DN100-DN2000 | manual GEARBOX or ACTUATOR or ACTUATOR+ GEARBOX (ISO 5210/5211) | BS5155 EN593 EN558 SER 13/14 EN1092-2PN10/PN16 |
| DI DOUBLE FLANGE CONCENTRIC RESILIENT/SOFT SEATED BUTTERFLY VALVE | FLANGED END | DN50-DN1200 | manual GEARBOX or ACTUATOR or ACTUATOR+ GEARBOX (ISO 5210/5211) | |
| DI LUG RESILIENT SEATED BUTTERFLY VALVE | FLANGED END (THREADED HOLE) | DN40-DN300 | manual LEVER, manual GEARBOX (ISO5211) | BS5155 EN593 EN558 SER20 EN1092-2 PN10/PN16 |
| DI WAFER RESILIENT/SOFT SEATED BUTTERFLY VALVE | WAFER | DN40-DN300 | manual LEVER, manual GEARBOX (ISO5211) | |

NOTE:

1. WE ALSO PROVIDE MATEL SEATED BUTTERFLY VALVE.
2. AMERICAN STANDARD BUTTERFLY VALVE, API609, FLANGE ASME B16.42.
3. For OPERATING DEVICE, OPTIONAL "ROTORK" brand.

► DI CHECK VALVE

| DI CHECK VALVE | CONNECTION | NOMINAL SIZE | STANDARD |
|--|-------------|--------------|--|
| DI SWING CHECK VALVE | FLANGED END | DN50-DN1000 | EN12334 EN558 SER48/12/16 EN1092-2 PN10/PN16 |
| DI SWING CHECK VALVE WITH COUNTER WEIGHT | FLANGED END | DN50-DN1000 | |
| DI BALL CHECK VALVE | FLANGED END | DN50-DN300 | |
| DI SILENT CHECK VALVE | FLANGED END | DN50-DN300 | |
| DI DOUBLE PLATE WAFER CHECK VALVE | WAFER | DN50-DN300 | |

► DI AIR VALVE

| DI AIR VALVE | CONNECTION | NOMINAL SIZE | STANDARD |
|---|--------------|---------------|--|
| DI DOUBLE ORIFICE AIR VALVE | FLANGED END | DN50-DN200 | EN1074-4 EN1092-2 PN10/PN16 ISO228 PFA 16BAR |
| DI SINGLE ORIFICE AIR VALVE | FLANGED END | DN50-DN200 | |
| DI SINGLE ORIFICE AIR VALVE with THREADED END | THREADED END | NPS1/2"-NPS2" | |

► **DI STRAINER**

| DI STRAINER | CONNECTION | NOMINAL SIZE | STANDARD |
|--------------------|-------------------|---------------------|--------------------|
| DI Y-TYPE STRAINER | FLANGED END | DN50-DN300 | EN1092-2 PN10/PN16 |
| DI T-TYPE STRAINER | FLANGED END | DN50-DN300 | EN1092-2 PN10/PN16 |

► **DI FIRE HYDRANT**

| DI FIRE HYDRANT | CONNECTION | NOMINAL SIZE | STANDARD |
|-----------------------------|-------------------|---------------------|------------------------------------|
| DI UNDERGROUND FIRE HYDRANT | FLANGED END | DN80 | BS750 TYPE 2 EN1092-2 PN16/PN25 |
| DI PILLAR FIRE HYDRANT | FLANGED END | DN80 DN100 DN150 | EN14384 EN1092-2 PN16 |

► **OTHER VALVES and PRODUCTS**

| OTHER VALVES and PRODUCTS | CONNECTION | NOMINAL SIZE | STANDARD |
|----------------------------------|-------------------|---|--|
| DI FOOT VALVE | FLANGED END | DN50-DN400 | EN1092-2 PN10/PN16 |
| DI FLAP VALVE | FLANGED END | DN50-DN300 | EN1092-2 PN10/PN16 |
| DI GLOBE VALVE | FLANGED END | DN50-DN300 | BS5152 EN1092-2 PN10/PN16 |
| EXTENSION SPINDLE | / | / | / |
| DI SURFACE BOX | / | / | BS750 |
| DI ELECTROMAGNETIC FLOWMETER | FLANGED END | DN50-DN300 | EN1092-2 PN10/PN16 |
| DI MECHANICAL WATERMETER | FLANGED END | DN50-DN300 | EN1092-2 PN10/PN16 |
| DI CONTROL VALVE | FLANGED END | DN50-DN450 | FLOW RATE LEVEL PRESSURE EN1092-2 PN10/PN16 |
| DI PENSTOCK | /- | 300X300-1300X1300 400X300- 2000X1500 | 15BARS |

山西艾森特工贸有限公司

一家有关供水, 污水管道系统及排水, 排气, 石油, 天然气, 蒸汽等管道系统的制造业领导者。

► 产品包括:

- 球铁管, 管件, 可拆卸接头, 法兰连接器, 筒型连接器, 马鞍管卡, 橡胶接头, 修补器等;
- 球铁闸阀, 蝶阀, 止回阀, 排气阀, 过滤器, 控制阀, 消防栓等;
- 球铁井盖, 水篦子, 水槽水篦子, 水表箱, 爬梯;
- 钢制管, 管件;
- 钢制法兰, 球铁法兰;
- 钢制闸阀, 蝶阀, 止回阀, 球阀, 截止阀等;
- 玛钢管件;
- 灰铁管, 管件及配件;
- PE / HDPE / PVC-O.U.C.HI 热塑管/管件/阀门和接头;
- 水表, 流量计;
- 球铁, 灰铁, 钢制来图定制铸件和我公司自行设计铸件。

► 愿景: 成为世界级的管道系统供应商.

使命: 满足和解决整个管道系统的需求和出现的问题.

价值观: 以客户为中心, 尊重个人, 团队精神.

山西艾森特工贸有限公司

SHANXI ASCENT INDUSTRIAL CO.,LTD



Shanxi Ascent Industrial Co.,Ltd

Tel: + 86-351-7922077 Fax:+ 86-351-7921035 Web: www.ascentcn.com
ADD: Floor 8, Tianjia Building, Xiaodian District, Taiyuan, Shanxi, China

General Manager: Mr.Asa Wang
Mobile/Whatsapp/Wechat: +86-13834557191

WWW.ASCENTCN.COM



The 2023 version