DUCTILE IRON VALVES, FITTINGS, MANHOLE COVERS & ACCESSORIES

Foratti®

ISO CE

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Foratti®

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Foratti®

PTS keeps Quality Management System (QMS) ISO 9001 certification by an accredited certification body. We believe this shows our commitment to quality, customers, and a willingness to work towards improving efficiency and implementing strict quality procedures. Moreover, PTS has put in place an effective Environmental Management System (EMS) ISO 14001 certification and Occupational Health and Safety Management System OHSAS 45001. PTS bears also the CE mark and certification for all of its products under the registered trademark Foratti®.

ISO 14001

ISO 9001

ISO 45001

CE

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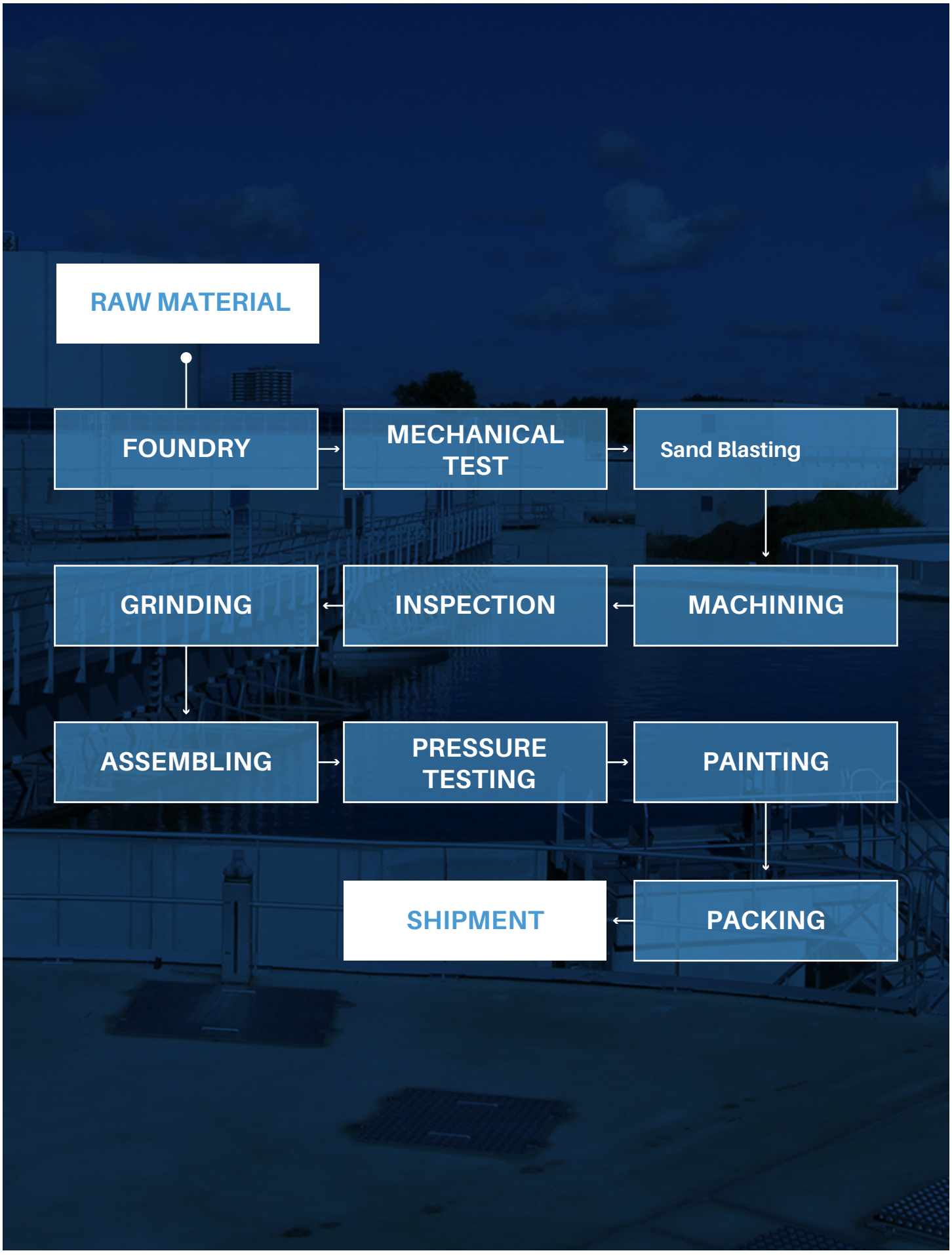

VALVES

Application

Water, Drinking Water, Waste Water

Product Information

Diameter range	DN 40 – 2200 mm
Standard	DIN 3352-F4, DIN 3352-F5, BS5163, AWWA C509, AWWA C515 Flange drilling is according to DIN2501, BS4504 and ANSI B16.1
Working pressure	10bar/16bar/25bar

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar
Type	non rising stem / rising stem

Material

Body	Ductile iron GGG40/50 or Cast IronGG25
Wedge	Ductile iron GGG40/50+EPDM/NBR or metal seated
Stem	Stainless steel 2CR13, SS304, SS316
Bolt and nuts	Carbon steel with zinc plated or SS304, 316
Coating	Internal and external with fusion bonded epoxy coating min. 250 μ m

Application

Water, Drinking Water, Waste Water

Product Information

Diameter range	DN 40 – 2200 mm
Standard	EN593/ ISO 5752 /BS5155/AWWA C504 Flange drilling is according to DIN 2501, BS4504, AND ANSI B16.1
Working pressure	10bar/16bar/25bar

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar
Type	Double Flange Eccentric, Double Flange Concentric

Material

Body	DI/CI /Carbon Steel/Stainless Steel
Disc	DI/Stainless steel 304/316, AL-Bronze
Shaft	Stainless steel410/416/420, Seat: EPDM/NBR
Coating	Internal and external with fusion bonded epoxy coating min. 250µm

Application

Water, Drinking Water, Waste Water

Product Information

Diameter range	DN 40 – 1200 mm
Standard	EN593/ ISO 5752 /BS5155/AWWA C504 Flange drilling is according to DIN 2501, BS4504, AND ANSI B16.1
Working pressure	10bar/16bar/25bar

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar

Material

Body	DI/CI /Carbon Steel/Stainless Steel
Disc	DI/Stainless steel 304/316, AL-Bronze
Shaft	Stainless steel410/416/420, Seat: EPDM/NBR
Coating	Internal and external with fusion bonded epoxy coating min. 250µm

Application

Water, Drinking Water, Waste Water

Product Information

Diameter range	DN 40 – 1200 mm
Standard	EN593/ ISO 5752 /BS5155/AWWA C504 Flange drilling is according to DIN 2501, BS4504, AND ANSI B16.1
Working pressure	10bar/16bar/25bar

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar

Material

Body	DI/CI /Carbon Steel/Stainless Steel
Disc	DI/Stainless steel 304/316, AL-Bronze
Shaft	Stainless steel410/416/420, Seat: EPDM/NBR
Coating	Internal and external with fusion bonded epoxy coating min. 250µm

Application

Water, Drinking Water, Waste Water

Product Information

Diameter range	DN 40 – 1200 mm
Standard	EN593/ ISO 5752 /BS5155/AWWA C504 Flange drilling is according to DIN 2501, BS4504, AND ANSI B16.1
Working pressure	10bar/16bar/25bar

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar

Material

Body	DI/CI /Carbon Steel/Stainless Steel
Disc	DI/Stainless steel 304/316, AL-Bronze
Shaft	Stainless steel410/416/420, Seat: EPDM/NBR
Coating	Internal and external with fusion bonded epoxy coating min. 250µm

Application

Water, Drinking Water, Waste Water

Product Information

Diameter range	DN 40 – 600 mm
Standard	BS5153, DIN3202-F6, DIN3201-F1, AWWA C508 Flange drilling is according to BS4504, DIN2501, AND ANSI B16.1
Working pressure	10bar/16bar/25bar

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar

Material

Body	Ductile iron GGG40/50 or Cast IronGG25
Disc seat ring	Brass/Bronze/Stainless steel
Bolt and Nuts	Carbon Steel with zinc plated or SS304, SS316
Coating	Internal and external with fusion bonded epoxy coating min. 250µm or Liquid Epoxy painting.

Application

Water, Drinking Water, Waste Water

Product Information

Diameter range	DN 40 – 1200 mm
Standard	BS5153, EN12334, API 609 Flange drilling is according to BS4504, DIN2501, AND ANSI B16.1
Working pressure	10bar/16bar/25bar

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar

Material

Body	Ductile iron GGG40/50 or Cast IronGG25
Disc	Ductile iron/Aluminum Bronze, Stainless steel
Stem	EPDM/Viton
Coating	Internal and external with fusion bonded epoxy coating min. 250µm or Liquid Epoxy painting.

Application

Water, Drinking Water, Waste Water

Product Information

Diameter range	DN 40 – 300 mm
Standard	BS5152, DIN3202-F1, MSS-SP-85 Flange drilling is according to BS4504, DIN2501, AND ANSI B16.1 PN10, PN16, PN25
Type	Flange End

Material

Body	Ductile iron GGG40/50 or Cast Iron
Body Seat Ring	Brass/Bronze/Stainless steel/Rubber
Disc Seat Ring	Brass/Bronze/Stainless steel/Rubber
Stem	Stainless Steel
Coating	Internal and external with fusion bonded epoxy coating min. 250µm or Liquid Epoxy painting.

Application

Water, Drinking Water, Waste Water

Product Information

Diameter range	DN 15 – 300 mm
Standard	DIN3357, API 6D, JIS 7S-48
Working pressure	10bar/16bar/25bar

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar
Type	Full bore, flanged end/ Reduce bore, flanged end

Material

Body	Ductile iron GGG40/50 or Cast IronGG25, stem: stainless steel 2CR13, Ball: 2CR13 or SS 304, seat: PTFE
Coating	Internal and external with fusion bonded epoxy coating min. 250µm or Liquid epoxy painting

Application

Water, Drinking Water

Product Information

Diameter range	DN 50 – 300 mm
Standard	EN1074-4, BS, ANSI | FLANGE DRILLED TO EN1092-2
Working pressure	10bar/16bar/25bar
Type	Flanged type or with brass isolation valve

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar

Material

Body	Ductile iron GGG40/50 /Cast Iron GG25/Carbon Steel Float ball: SS304, ABS or NBR
Coating	Internal and external with fusion bonded epoxy coating min. 250µm or Liquid epoxy painting

Application

Water, Drinking Water

Product Information

Diameter range	DN 50 – 300 mm
Standard	EN1074-4, BS, ANSI | FLANGE DRILLED TO EN1092-2
Working pressure	10bar/16bar/25bar

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar

Material

Body	Ductile iron GGG40/50 /Cast Iron GG25/Carbon Steel Float ball: SS304, ABS or NBR
Coating	Internal and external with fusion bonded epoxy coating min. 250µm or Liquid epoxy painting

Application

Water, Drinking Water

Product Information

Diameter range	DN 50 – 300 mm
Standard	EN1074-4, BS, ANSI
Working pressure	10bar/16bar/25bar

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar

Material

Body	Ductile iron GGG40/50 /Cast Iron GG25/Carbon Steel Float ball: SS304, ABS or NBR
Coating	Internal and external with fusion bonded epoxy coating min. 250µm or Liquid epoxy painting

Application

Water, Drinking Water

Product Information

Diameter range	DN 15 – 600 mm
Standard	Y-STRAINER – FLANGED ENDS Flange drilling is according to BS4504, DIN2501, AND ANSI B16.1 PN10, PN16
Working pressure	10bar/16bar/25bar

Testing Pressure

Shell	15bar/24bar/37.5bar
Seal	11bar/17.6bar/27.5bar

Material

Body	Ductile iron GGG40/50 /Cast Iron GG25/Carbon Steel
Bonnet	Cast iron/Ductile iron
Screen	Stainless steel 304
Coating	Internal and external with fusion bonded epoxy coating min. 250µm or Liquid epoxy painting

Application

Water, Drinking Water

Product Information

Diameter range	DN 80 – 600 mm
Standard	EN1074-5
TYPE	Flanged End

Material

Body /Disc	Ductile iron
Pin	Stainless steel 304
Hinge	Ductile iron
Body ring /Disc ring	Brass/Bronze
Coating	Internal and external with fusion bonded epoxy coating

Sluice / Knife Gate Valves (According To Bs & Din Standards)

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Application

Water, Drinking Water, Waste Water

Product Information

Diameter range	DN 65 – 600 mm
Working Pressure	6BAR/10BAR/16BAR
TYPE	Flanged End

Testing Pressure

Shell	9bar/15bar/24bar
Seal	6.6bar/1.1bar/1.8bar

Material

Body	Ductile iron GGG40/50 /Cast Iron GG25
Disc	Stainless steel
Stem	Stainless steel
Seal	Rubber / PTFE / S.S. / Carbide Alloy
Coating	Internal and external with fusion bonded epoxy coating min. 250µm or Liquid epoxy painting




JOINTS

Dismantling Joints

Application	Water, Drinking Water, Waste Water
Diameter Range	DN 40 – 1600 mm
Standard	ISO2531, EN545, ASTM
Pressure	PN10/PN16/PN25/PN40/PN64 BARS
Body material	Ductile iron with FBE (fusion bonded epoxy) coating or Epoxy painting; Gaskets are NBR or EPDM
Bolts and Nuts	Carbon steel with galvanized zinc plated G4.8/G8.8, or SS304/SS316

Application:

Dismantling joint is suitable for all flanged piping materials above ground or inside chambers (Especially in Valve Chambers).
It enables easy installation and dismantling of isolating valves, non-return valves, flow metering equipment, pumps etc. as it compensates for the axial displacement of the pipe during installation.

Flexible Couplings & Flange Adaptors (For Ductile Iron Pipes)

Application	Water, Drinking Water, Waste Water
Diameter Range	DN 40 – 1600 mm
Standard	ISO2531, EN545
Pressure	PN10/PN16/PN25/PN25 BARS
Bolts and Nuts	Carbon steel with galvanized zinc plated G4.8/G8.8, or SS304/SS316

Application:

Flexible coupling is also a dedicated coupling, straight coupling. It can fit ductile iron pipes only.

Flexible flange adaptor is also a dedicated flange adaptor, straight flange adaptor. It can fit ductile iron pipes only.

Universal Coupling & Universal Flange Adaptor

Application	Water, Drinking Water, Waste Water
Diameter Range	DN 40 – 1600 mm
Standard	ISO2531, EN545
Pressure	PN10/PN16
Body material	Ductile iron with FBE (fusion bonded epoxy) coating or Epoxy painting; Gaskets are NBR or EPDM
Bolts and Nuts	Carbon steel with galvanized zinc plated G4.8/G8.8, or SS304/SS316

Application:

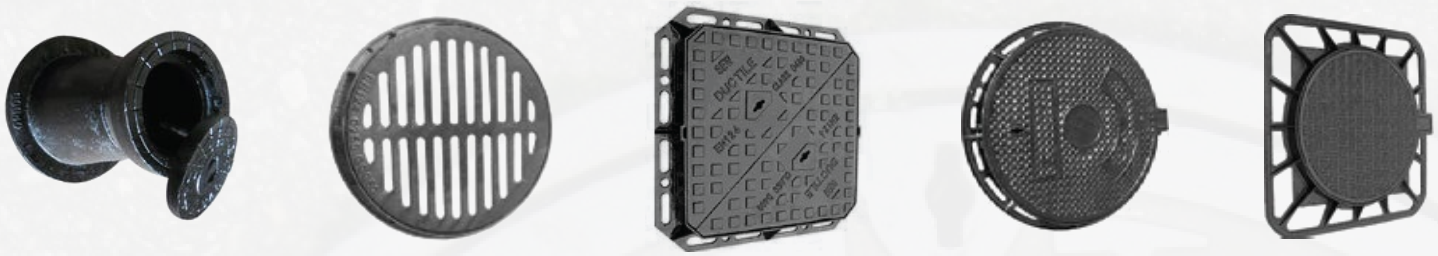
Universal coupling / flange adaptor is also called wide range coupling / flange adaptor, tolerance range coupling/ flange adaptor. It can fit most standard pipe materials and therefore dramatically reduces the stocks of dedicated couplings / flange adaptors. It is suitable for steel, GRP, PVC, Ductile Iron, Cast Iron and Asbestos Cement pipes.

Quick Adaptor For Hdpe Pipes

Application	Water, Drinking Water
Diameter Range	DN 40 – 1600 mm
Standard	ISO2531, EN545
Pressure	PN10/PN16
Body Material	Ductile iron with FBE (fusion bonded epoxy) coating or Epoxy painting; Gaskets are NBR or EPDM
Gripping teeth material	Brass
Bolts and Nuts	Carbon steel with galvanized zinc plated G4.8/G8.8, or SS304/SS316

Application:

Quick adaptor is used for connecting with HDPE Pipes.



MANHOLE COVERS

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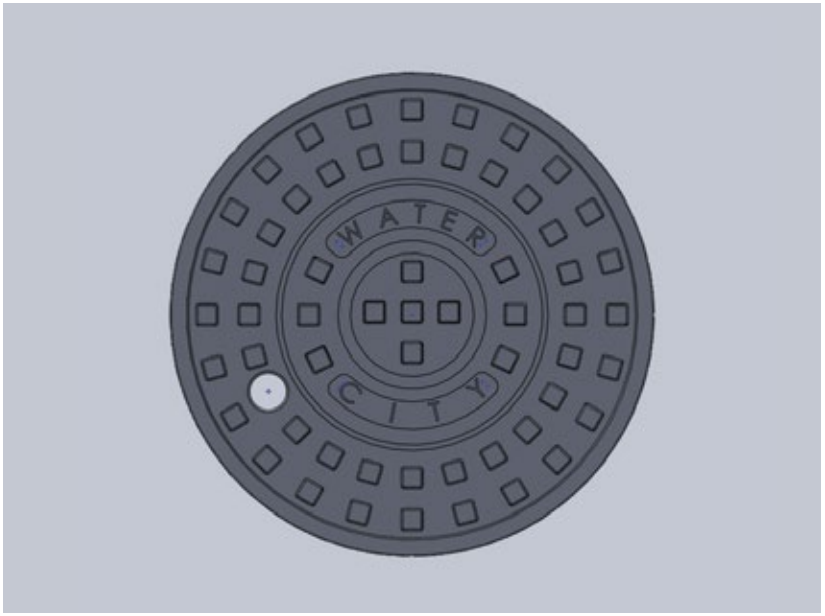
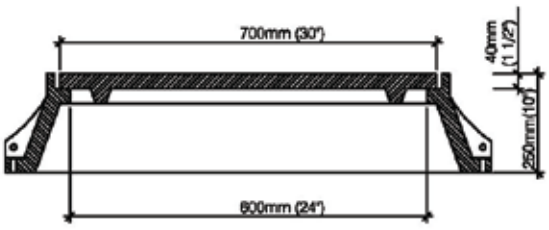
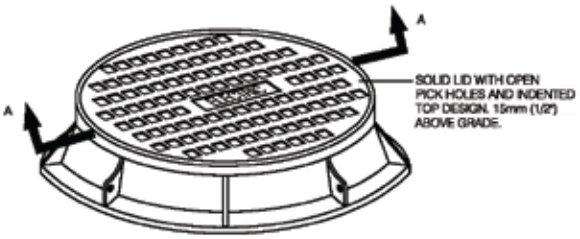
Application	Water, drinking water, waste water, Sewer, Electrical, and Telecommunications
Shape	Round, square, rectangular cover with lifting pocket, frame with seal and lock
Material	Ductile iron GGG500 / Grey iron HT200 Designed and Manufactured to EN 124
Proof Loads	A15 / B125 (Light Duty), C250 (Medium Duty), D400, E600, F900 (Heavy Duty)
Coating	Bitumen Coating, Epoxy Coating

All Standard Sizes and Shapes are available (circular, square and rectangular)







GULLY GRATINGS WITHOUT AND WITH FRAMES

Foratti®

Standard EN124/GGG500-7

Material Ductile Iron

Coating Bitumen coating

Load Capacity C250/D400

ITEM	DESCRIPTION	FRAME SIZE (mm)	CLEAR OPENING (mm)	HEIGHT (mm)	UNIT WEIGHT (KG/PC)
1	C250 gully grating	300*300	170*170	45	9
2	C250 gully grating	400*400	270*270	45	15
3	C250 gully grating	500*500	370*370	50	23
4	C250 gully grating	550*550	420*420	50	27
5	C250 gully grating	600*600	470*470	55	31
6	C250 gully grating	700*700	570*570	60	48
7	D400 gully grating	500*500	370*370	80	32
8	D400 gully grating	550*550	420*420	80	38
9	D400 gully grating	600*600	500*500	80	43
10	D400 gully grating	700*700	570*570	80	58
11	D400 gully grating	700*700	600*600	100	95

Most of the standard sizes are available.

Surface Boxes

Designed and manufactured according to BS5834

Widely used as surface box, water meter box, valves box and more.

Material Ductile iron / Grey iron

Coating Epoxy coating or Bitumen coating

Most of the standard sizes are available.

FIRE HYDRANTS

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Outdoor fire hydrant is the main equipment of urban network which will supply water to the fire, installed in the outdoor fire service pipe network, for fire engines or fire pump getting water to fire fighting and rescue works, such as pipeline of high pressure water area can be directly connected to fire hose for fire extinguishing.
Outdoor fire hydrant have two kinds: Above ground and underground.

UNDER GROUND TYPE

Installed underground, do not take a place, not easy to damage, suitable for cold places.

Standard	BS750
Material	Ductile iron GGG50/40 or cast iron, Bonnet: Cast iron/ Ductile iron
Coating	Internal and external with fusion bonded epoxy coating or liquid painting
Stem	Stainless steel
Stem nut	Brass

ABOVE GROUND TYPE

Body and interface above the ground, target significantly, easy to use, suitable for high temperature places.

Size	DN 100, DN 150
Body Material	Cast iron BS 1452
Adaptor Material	Brass or bronze
Coating	Internal and external with fusion bonded epoxy coating or liquid painting
Color	blue color, black color, red color, gray color, etc.. Epoxy Coated.
Working pressure	25bar (350PSI)

NOTES

Used as auxiliary connection through which the fire department can pump water to supplement existing water supplies. It is widespread and convenient in life for firefighting. This There is a safety for children, because it is fixed.
Must check the fire hydrant every month or before major holidays.
Removing clutter around the stem end, will special wrench in rod head, check whether appropriate, turn the valve stem, filling lubricating oil.
Using oil sands erasing rust stains on outlet thread, check the rubber gasket in caps are in good condition.
Open the fire hydrant, check the situation of water supply, put all rusty water and then shut, and observe any slack phenomenon.
Exterior paint falls off, should be timely repaired.
Check and remove the obstacles near fire hydrant.

WATER METERS

Vane Wheel Multi-jet Dry Dial Magnetic Type Cold (Hot) Water Meter Type

SPECIFICATIONS	
Item	Standard
Operating Condition	PN: 1.0/1.6 Mpa (10/16bar)
The water temperature	Cold water up to 50℃ and hot water up to 90℃
Standard	ISO 4064 Class B
Material	Brass, Cast iron, Plastic
Size	DN15 - DN50
Pressure loss	ΔP63

APPLICATION

To totalize the total volume of water passing through the pipeline.

Features: Large measuring range; high flow accuracy; Steady error curve; Long life of service; Reliable operation; Magnetic shield protection; Negligible head loss at working flow-rates; Vacuum sealed register without any condensation problem. Upon request, the meter can be equipped with pulse output device.

Error curve: From qt inclusive up to and including qs is ±2%; From qmin inclusive up to but excluding qt is ±5%.

Vane Wheel Multi-jet Wet Dial Magnetic Type Cold (Hot) Water Meter Type

SPECIFICATIONS	
Item	Standard
Operating Condition	PN: 1.0/1.6 Mpa (10/16bar)
The water temperature	Cold water up to 50°c and hot water up to 90°c
Standard	ISO 4064 Class B
Material	Brass, Cast iron, Plastic
Size	DN15 - DN50
Pressure loss	ΔP63

APPLICATION

To totalize the total volume of water passing through the pipeline.

Features: Large measuring range; high flow accuracy; Steady error curve; Long life of service; Reliable operation; Magnetic shield protection; Negligible head loss at working flow-rates; Vacuum sealed register without any condensation problem. Upon request, the meter can be equipped with pulse output device.

Error curve: From qt inclusive up to and including qs is ±2%; From qmin inclusive up to but excluding qt is ±5%.

Vane Wheel Single-jet Super Dry Dial Magnetic Type Cold (Hot) Water Meter Type

SPECIFICATIONS	
Item	Standard
Operating Condition	PN: 1.0/1.6 Mpa (10/16bar)
The water temperature	Cold water up to 50°c; and hot water up to 90 °c;
Standard	ISO 4064 Class B
Material	Brass
Size	DN15 - DN50
Pressure loss	ΔP63

APPLICATION

To totalize the total volume of water passing through the pipeline.

Features: Large measuring range, high flow accuracy; Long life of service; Reliable operation; Magnetic shield protection; Vacuum sealed register. Upon request, the meter can be equipped with pulse output device.

Error curve: From qt inclusive up to and including qs is ±2%; From qmin inclusive up to but excluding qt is ±5%.

Removable Element Dry Dial Woltman Type Cold (Hot) Water Meter Type

SPECIFICATIONS	
Item	Standard
Operating Condition	PN: 1.0/1.6 Mpa (10/16bar)
The water temperature	Cold water up to 50℃ and hot water up to 90℃
Standard	ISO 4064 Class B
Material	Cast Iron
Size	DN40 - DN600
Pressure loss	ΔP25

APPLICATION

To totalize the total volume of water passing through the pipeline.

Features: A magnetic drive, dry dial and helix type water meter with an interchangeable measuring unit. It has the advantages of small resistance, negligible head loss, big capacity, excellent accuracy, high measuring capacity, and long life of service. The measuring unit with sealed indicator offers the meter with very clear reading condition. The meters can be equipped with a kind of remote transmission Device, the pulse generating volume could be 100, 1000 or 10000 liter/pulse.

Error curve: From qt inclusive up to and including qs is ±2%; From qmin inclusive up to but excluding qt is ±5%.

Rotary Piston Volumetric Type Water Meter Type

SPECIFICATIONS	
Item	Standard
Operating Condition	PN: 1.0/1.6 Mpa (10/16bar)
The water temperature	Cold water up to 50°c and hot water up to 90°c
Standard	ISO 4064 Class B
Material	Brass, Iron, Plastic
Size	DN15-DN600
Humidity	< 93%
Reading card	RF IC Card

APPLICATION

To totalize the total volume of water passing through the pipeline. This system is suitable for water authorities, real estate companies, property management departments, some water managements. Compared with old-fashioned way of meter reading, it emphasizes on solving purchasing difficulty meanwhile it relies on automatic statistics, and automatic analysis. The specific application programs can choose flexibility according to different environment and requirement.

Features: IC card prepaid water meter is the new measuring instrument employing the microprocessor to realize water collection, processing, display, and reserving. This meter features small dimensions, light weight, low power consumption, high accuracy, anti-jamming, high reliability, easy installation and maintenance, battery replaceable, the best choice for realizing intelligent control by most of tap water administrative bureaus, ideal for enhancing public awareness of saving water.

Error curve: From qt inclusive up to and including qs is ±2%; from qmin inclusive up to but excluding qt is ±5%.

Rotary Piston Volumetric Type Water Meter Type

SPECIFICATIONS	
Item	Standard
Operating Condition	PN: 1.0/1.6 Mpa (10/16bar)
The water temperature	Cold water up to 50°c and hot water up to 90°c
Standard	ISO 4064 Class B
Material	Brass
Size	DN15 - DN50
Pressure loss	ΔP63

APPLICATION

To totalize the total volume of water passing through the pipeline.

Features: Volumetric rotary piston principle of measurement; No location limitation for installation. Accuracy is not to be affected wherever installed at a horizontal, vertical or inclined pipeline; Register is sealed with a special liquid to keep a clear reading in long time; Mechanism use of high-quality material to ensure a stable characteristic; Accurate measurement conform to ISO4064 Class C.

Error curve: From qt inclusive up to and including qs is ±2%; From qmin inclusive up to but excluding qt is ±5%.

Water Meter Boxes

SPECIFICATIONS	
Item	Standard
Resistance load	1500lbs(7KN)
Material	Plastic, Iron, SMC
Size	DN15 - DN32

APPLICATION

To protect water meter and valves.

Features: Complete plastic shell, solid and robust design, long service guaranteed. For installation of both 15mm and 32mm water meter.

Material: PP material for box container, cover, bottom. Or PA For box container and box cover. ABS material for box bottom. Box tap: slip surface hinged to allow opening of more than 90 degree.

Packing: Carton + pallet.

FITTINGS

DIMENSION OF FLANGES

ISO 2531 / EN 545

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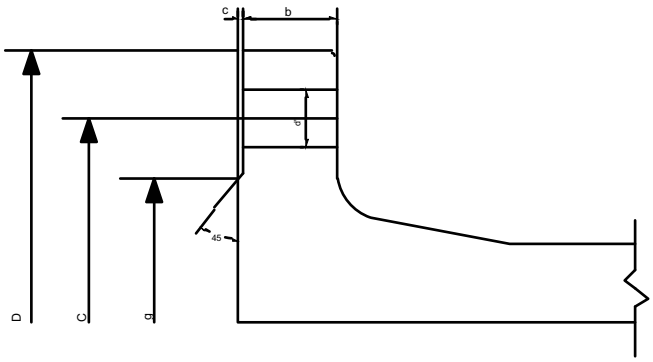


Bolt holes shall be arranged symmetrically about the vertical centerline through the flange faces.
In the case of Tees, this vertical centerline is defined with the face of the branch flange held parallel to the vertical plane.

PN 10 Flange

NOMINAL DIAMETER DN	DIMENSIONS					BOLTS			MASS	NOMINAL DIAMETER DN
	g	D	b	c	C	size	d'	NO	(kg)	
80	133	200	16.0	3	160	M16	19	8	2.9	80
100	153	220	16.0	3	180	M16	19	8	3.3	100
150	209	285	16.0	3	240	M20	23	8	5.1	150
200	264	340	17.0	3	295	M20	23	8	7.1	200
250	319	400	19.0	3	350	M20	23	12	9.9	250
300	367	455	20.5	4	400	M20	23	12	12.9	300
350	427	505	20.5	4	460	M20	23	16	14.7	350
400	477	565	20.5	4	515	M24	28	16	17.7	400
450	527	615	21.5	4	565	M24	28	20	20.2	450
500	582	670	22.5	4	620	M24	28	20	24.3	500
600	682	780	25.0	5	725	M27	31	20	33.7	600
700	797	895	27.5	5	840	M27	31	24	46.3	700
800	904	1015	30.0	5	950	M30	34	24	62.1	800
900	1004	1115	32.5	5	1050	M30	34	28	73.0	900
1000	1111	1230	35.0	5	1160	M33	37	28	92.9	1000
1200	1330	1455	40.0	5	1380	M36	40	32	138.0	1200

PN 16 Flange

NOMINAL DIAMETER DN	DIMENSIONS					BOLTS			MASS	NOMINAL DIAMETER DN
	g	D	b	c	C	size	d'	NO	(kg)	
80	133	200	16.0	3	160	M16	19	8	2.9	80
100	153	220	16.0	3	180	M16	19	8	3.3	100
150	209	285	16.0	3	240	M20	23	8	5.1	150
200	264	340	17.0	3	295	M20	23	12	6.9	200
250	319	400	19.0	3	355	M24	28	12	9.6	250
300	367	455	20.5	4	410	M24	28	12	12.6	300
350	432	520	22.5	4	470	M24	28	16	17.4	350
400	484	580	24.0	4	525	M27	31	16	22.2	400
450	544	640	26.0	4	585	M27	31	20	28.1	450
500	606	715	27.5	4	650	M30	34	20	37.7	500
600	721	840	31.0	5	770	M33	37	20	57.4	600
700	791	910	34.5	5	840	M33	37	24	58.0	700
800	898	1025	38.0	5	950	M36	40	24	77.0	800
900	998	1125	41.5	5	1050	M36	40	28	92.0	900
1000	1115	1255	45.0	5	1170	M39	43	28	127.4	1000
1200	1330	1485	52.0	5	1390	M45	49	32	192.9	1200

PN 25 Flange

NOMINAL DIAMETER DN	DIMENSIONS					BOLTS			MASS	NOMINAL DIAMETER DN
	g	D	b	c	C	size	d'	NO	(kg)	
80	133	200	16.0	3	160	M16	19	8	2.9	80
100	159	235	16.0	3	190	M20	23	8	3.8	100
150	214	300	17.0	3	250	M24	28	8	6.1	150
200	274	360	19.0	3	310	M24	28	12	8.9	200
250	331	425	21.5	3	370	M27	31	12	13.2	250
300	389	485	23.5	4	430	M27	31	12	18.0	300
350	446	555	26.0	4	490	M30	34	16	25.3	350
400	503	620	28.0	4	550	M33	37	16	33.2	400
450	553	670	30.5	4	600	M33	37	20	39.0	450
500	613	730	32.5	4	660	M33	37	20	48.3	500
600	718	845	37.0	5	770	M36	40	20	69.2	600

WALL THICKNESS OF FITTINGS

ISO 2531/ EN 545

K=12 millimeters

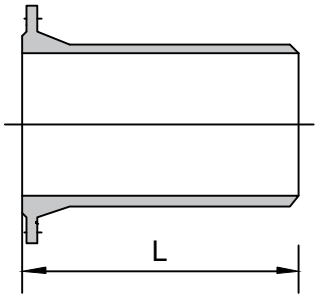
NOMINAL DIAMETER DN	WALL THICKNESS	
	K=12	K=14
80	7.0	8.1
100	7.2	8.4
150	7.8	9.1
200	8.4	9.8
250	9.0	10.5
300	9.6	11.2
350	10.2	11.9
400	10.8	12.6

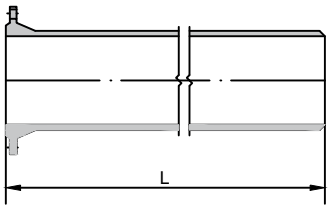
K=12 millimeters

NOMINAL DIAMETER DN	WALL THICKNESS	
	K=12	K=14
450	11.4	13.3
500	12.0	14.0
600	13.2	15.4
700	14.4	16.8
800	15.6	18.2
900	16.8	19.6
1000	18.0	21.0
1200	20.4	23.8

FLANGE SPIGOT PIPE

ISO 2531 / EN 545





K=12 millimeters

NOMINAL DIAMETER DN	DIMENSIONS	MASS (kg)	
	L	PN10	PN16
80	4000	59.5	59.5
100	4000	74.0	74.0
150	5000	146	146
200	5000	206	206
250	5000	275	274
300	6000	418	417
350	6000	514	517
400	6000	619	624
450	6000	731	740
500	6000	854	870
600	6000	1126	1152
700	6000	1432	1447
800	6000	1777	1796
900	6000	2147	2171
1000	6000	2559	2600
1200	6000	3489	3552

K=12 millimeters

NOMINAL DIAMETER DN	DIMENSIONS	MASS (kg)		
	L	PN10	PN16	PN 25
80	3000	48.0	48.0	48.0
100	3000	59.5	59.5	60.5
150	4000	122	122	124
200	4000	173	173	177
250	4000	231	230	238
300	4000	295	294	305
350	4000	362	367	383
400	4000	436	445	467
450	4000	514	529	551
500	4000	601	628	649
600	4000	795	842	866
700	4000	1016	1039	-
800	4000	1266	1296	-
900	4000	1527	1565	-
1000	4000	1828	1897	-
1200	4000	2507	2617	-

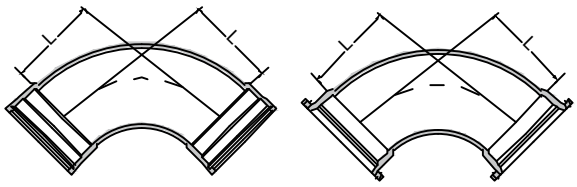
•PTS can supply flanged pipes, flanged pipes with puddle flanges, and all types of spools according to the client's request / drawings.

•PTS can supply all types of Ductile Iron Fittings, Flanged Fittings, and Spools with all types of Lining (cement, FBE, Bitumen, etc..) and all types of Coating (FBE, Bitumen, etc..) based on the Client's request.

DOUBLE SOCKET 90° BEND

ISO 2531 / EN 545

"T" type "K" type



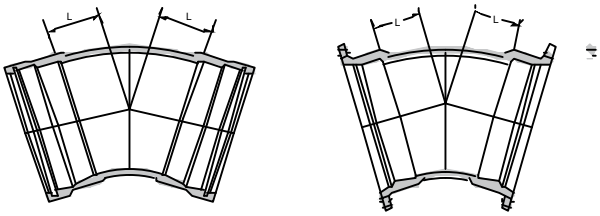
K=12 millimeters

NOMINAL DIAMETER DN	L	MASS (kg)	
		T Type	K Type
80	100	9.0	12.0
100	120	12.1	15.6
150	170	22.0	275
200	220	36.5	40.0
250	270	51.5	55.5
300	320	70.5	81.5
350	370	97.5	105
400	420	124	134
450	470	156	166
500	520	193	202
600	620	280	290
700	720	408	408
800	820	554	544
900	920	733	720
1000	1020	947	935

DOUBLE SOCKET 45° BEND

ISO 2531 / EN 545

"T" type "K" type



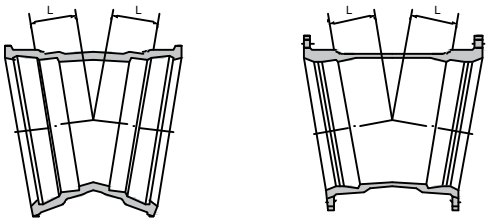
K=12 millimeters

NOMINAL DIAMETER DN	L	MASS (kg)	
		T Type	K Type
80	55	8.1	11.1
100	65	10.8	14.3
150	85	18.8	24.0
200	110	31.0	34.0
250	130	41.5	45.5
300	150	55.0	66.0
350	175	76.0	83.5
400	195	94.0	104
450	220	117	127
500	240	141	150
600	285	199	209
700	330	288	289
800	370	382	373
900	415	501	488
1000	460	640	629

DOUBLE SOCKET 22¼° BEND

ISO 2531 / EN 545

"T" type "K" type



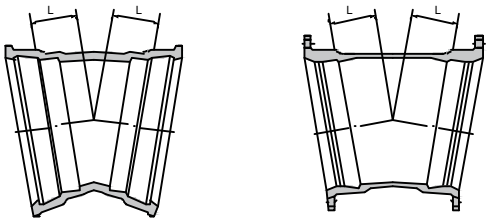
K=12 millimeters

NOMINAL DIAMETER DN	L	MASS (kg)	
		T Type	K Type
80	40	7.7	10.7
100	40	10.0	13.5
150	55	17.3	22.5
200	65	27.5	30.5
250	75	36.0	40.5
300	85	47.0	58.0
350	95	64.0	71.0
400	110	78.5	88.0
450	120	95.0	105
500	130	113	123
600	150	154	164
700	175	223	223
800	195	291	281
900	220	377	364
1000	240	474	463

DOUBLE SOCKET 11 ¼° BEND

ISO 2531 / EN 545

"T" type "K" type

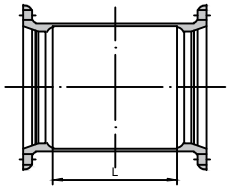


K=12 millimeters

NOMINAL DIAMETER DN	L	MASS (kg)	
		T Type	K Type
80	30	7.4	10.5
100	30	9.7	13.1
150	35	16.2	21.5
200	40	25.5	29.0
250	50	33.5	37.5
300	55	43.0	54.0
350	60	58.0	65.5
400	655	70.0	79.0
450	70	83.5	93.5
500	75	98.5	108
600	85	131	141
700	95	186	187
800	110	243	234
900	120	309	297
1000	130	386	375

COLLAR

ISO 2531 / EN 545



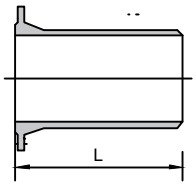
"K" TYPE

K=12 millimeters

NOMINAL DIAMETER DN	L	MASS (kg)
80	160	12.9
100	160	15.8
150	165	23.5
200	170	30.0
250	175	38.5
300	180	54.0
350	185	67.5
400	190	81.0
450	195	96.0
500	200	109
600	210	140
700	220	185
800	230	225
900	240	278
1000	250	348
1200	270	472

FLANGED SPIGOT

ISO 2531 / EN 545

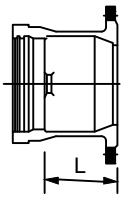


K=12 millimeters

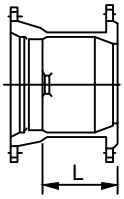
NOMINAL DIAMETER DN	L	PN 10	MASS (kg)	
			PN 16	PN 25
80	350	7.8	7.8	7.8
100	360	9.7	9.7	10.2
150	380	15.8	15.8	16.7
200	400	23.0	23.0	25.0
250	420	32.0	32.0	35.5
300	440	42.5	42.0	47.5
350	460	53.0	55.5	63.5
400	480	65.5	70.0	81.0
450	500	78.5	87.0	98.0
500	520	96.0	110	120
600	560	136	159	171
700	600	185	196	-
800	600	233	248	-
900	600	280	299	-
1000	600	339	374	-
1200	600	473	528	-

FLANGED SOCKET

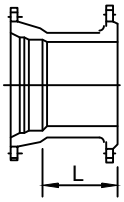
"T" type
DN 80
to
DN 600



"K" type
DN 80
to
DN 600



"K" type
DN 700
to
DN 1200



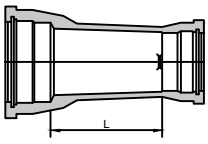
K=12 millimeters

NOMINAL DIAMETER DN	L	MASS (kg)					
		T Type			k Type		
		PN 10	PN 16	PN 25	PN 10	PN 16	PN 25
80	130	8.3	8.3	8.3	9.3	9.3	9.3
100	130	10.2	10.2	10.7	11.3	11.3	12.5
150	135	16.4	16.4	17.3	18.0	18.0	19.0
200	140	24.5	24.0	26.0	24.5	24.0	26.0
250	145	32.0	32.0	35.5	32.5	32.0	35.5
300	150	39.0	39.0	44.0	44.5	44.0	49.5
350	155	47.0	50.5	60.0	53.0	55.5	63.0
400	160	60.0	64.0	75.0	64.0	68.0	78.5
450	165	70.5	78.0	88.5	74.5	82.0	92.5
500	170	84.0	96.5	107	87.0	100	110
600	180	112	135	146	115	138	149
700	190	-	-	-	162	174	-
800	200	-	-	-	205	220	-
900	210	-	-	-	252	271	-
1000	220	-	-	-	317	351	-
1200	240	-	-	-	450	505	-

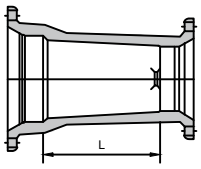
DOUBLE SOCKET TAPER

ISO 2531 / EN 545

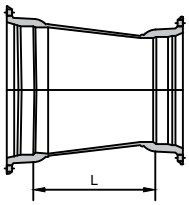
"T" Type
DN 80
To
DN 600



"K" Type
DN 80
To
DN 600



DN 700
To
DN 1200



K=12 millimeters

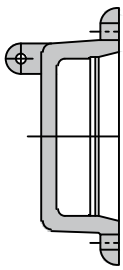
NOMINAL DIAMETER		L	MASS (kg)	
DN	dn		T Type	K Type
100	80	90	9.2	11.9
150	80	190	14.9	18.6
150	100	150	15.3	19.1
200	100	250	23.5	26.0
200	150	150	24.0	27.0
250	150	250	32.5	36.0
250	200	150	33.0	35.0
300	150	350	43.0	50.0
300	200	250	43.5	49.0
300	250	150	41.5	47.5
300	200	360	59.0	62.5
300	250	260	57.0	61.0
300	300	160	52.5	61.5
400	200	460	73.5	78.0
400	250	360	72.0	76.5
400	300	260	67.5	77.0
400	350	160	66.0	73.0
450	250	460	89.0	94.0
450	300	360	84.5	94.5
450	350	260	83.0	91.0
450	4000	160	77.5	86.5
500	300	460	104	114
500	350	360	103	110
500	400	260	97.0	106
500	450	160	90.5	99.0

K=12 millimeters

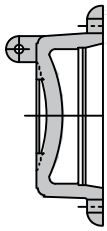
NOMINAL DIAMETER		L	MASS (kg)	
DN	dn		T Type	K Type
600	350	560	149	157
600	400	460	143	152
600	450	360	137	146
600	500	260	129	137
700	400	680	-	215
700	450	580	-	210
700	500	480	-	203
700	600	280	-	184
800	450	780	-	278
800	500	680	-	271
800	600	480	-	252
800	700	280	-	230
900	500	880	-	358
900	600	680	-	339
900	700	480	-	316
900	800	280	-	281
1000	600	880	-	445
1000	700	680	-	422
1000	800	480	-	386
1000	900	280	-	346
1200	700	1018	-	667
1200	800	880	-	631
1200	900	680	-	591
1200	1000	480	-	544

CAP

"K"
Type
DN 80
To DN
300



DN 350
To
DN 1200



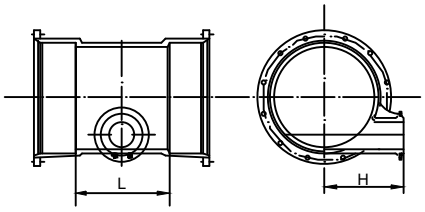
K=12 millimeters

NOMINAL DIAMETER DN	DIMENSIONS			MASS (kg)
	e1	P	R	
80	9.5	80	-	5.0
100	10.5	80	-	6.5
150	14.5	90	-	12.0
200	18.0	90	-	17.5
250	19.5	90	-	24.5
300	23.0	110	-	38.0
350	24.0	110	388	50.0
400	25.0	110	443	62.5
450	26.0	110	489	76.5
500	27.0	110	536	91.0
600	29.5	110	630	128
700	31.0	120	733	175
800	33.0	120	835	228
900	35.0	120	935	296
1000	37.0	130	1037	380

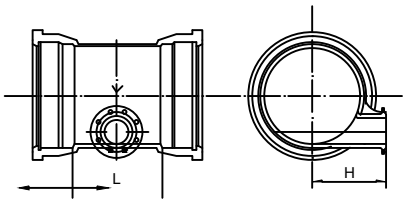
DOUBLE SOCKET LEVEL INVERT TEE WITH FLANGED BRANCH

ISO 2531 / EN 545

"T" Type



"K" Type



K=14 millimeters

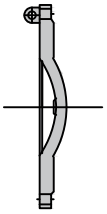
NOMINAL DIAMETER		L	H	MASS (kg)				
				T Type			k Type	
DN	dn			PN 10	PN 16	PN 25	PN 10	PN 16
200	80	245	250	39.5	39.5	39.5	43.0	43.0
250	80	250	275	49.5	49.5	49.5	54.0	54.0
300	80	255	300	62.0	62.0	62.0	73.5	73.5
350	100	280	325	83.0	83.0	83.5	90.5	90.5
400	100	280	350	97.5	97.5	98.0	107	107
450	100	285	375	115	115	116	125	125
500	100	290	400	137	137	134	143	143
600	100	295	450	173	173	173	183	183
700	150	360	500	-	-	-	255	255
800	150	365	550	-	-	-	310	310
900	150	370	600	-	-	-	382	382
1000	200	435	650	-	-	-	501	501
1200	200	445	750	-	-	-	679	679

BLANK FLANGE

ISO 2531 / EN 545

DN 80
To
DN 300

DN 350
To
DN 1200

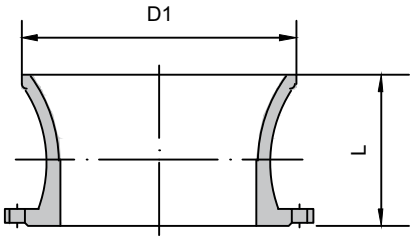


K=12 millimeters

NOMINAL DIAMETER DN	DIMENSIONS		
	PN10	PN16	PN25
80	3.5	3.5	3.5
100	4.3	4.3	4.8
150	7.2	7.2	8.3
200	11.0	10.8	13.3
250	16.9	16.6	21.0
300	24.0	23.0	30.0
350	32.5	37.0	46.5
400	40.5	48.5	62.5
450	50.0	63.5	79.0
500	62.0	83.0	100
600	94.0	130	154
700	136	169	-
800	189	235	-
900	244	307	-
1000	319	413	-
1200	504	659	

FLANGED BELL MOUTH

ISO 2531 / EN 545



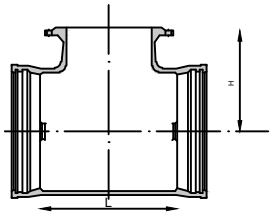
K=12 millimeters

NOMINAL DIAMETER DN	DIMENSIONS				
	D1	L	PN10	PN16	PN25
80	150	130	5.2	5.2	5.2
100	175	135	6.2	6.2	6.7
150	230	150	10.1	10.1	11.1
200	290	170	15.0	14.8	16.8
250	345	183	21.0	20.5	24.5
300	405	205	28.5	28.5	33.5
350	460	220	35.5	38.0	46.0
400	520	240	45.0	49.5	60.5
450	575	255	54.0	62.0	73.0
500	635	275	67.0	80.0	91.0
600	750	310	96.5	120	132
700	865	345	135	146	-
800	980	380	182	197	-
900	1095	415	231	250	-
1000	1210	450	297	331	-
1200	1440	520	457	512	-

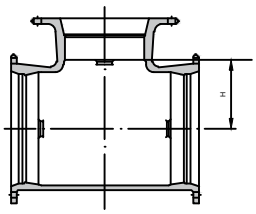
ALL SOCKET TEE

ISO 2531 / EN 545

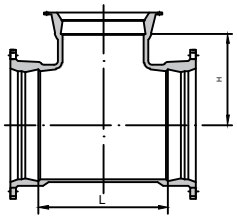
"T" Type
DN 80
To
DN 250



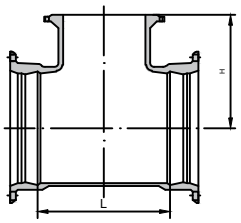
"T" Type
DN 300
To
DN 600



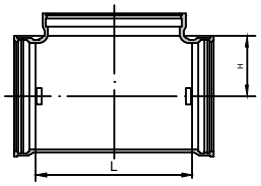
"K" Type
DN 80
To
DN 250



"K" Type
DN 300
To
DN 600



"K" Type
DN 700
To
DN 1200



K=14 millimeters

NOMINAL DIAMETER		DIMENSIONS		MASS (kg)	
DN	dn	L	H	T type	K Type
80	80	170	85	13.8	16.8
100	80	170	95	16.6	19.8
100	100	190	95	18.1	21.5
150	80	170	120	24.5	28.5
150	100	195	120	26.0	30.5
150	150	255	125	31.5	36.5
200	80	175	145	35.0	36.0
200	100	200	145	37.5	38.5
200	150	255	150	43.0	45.0
200	200	315	155	50.5	50.5
250	100	200	210	47.5	49.0
250	150	315	220	59.0	61.0
250	200	315	220	63.5	63.5
250	250	375	230	71.5	71.5
300	100	205	235	54.5	66.5
300	150	320	245	68.0	80.5
300	200	320	245	72.0	84.0
300	300	435	260	90.5	106
350	100	205	260	70.5	78.0
350	150	325	270	86.5	95.0
350	200	325	270	90.5	98.0
350	300	440	285	111	122
350	350	495	290	124	133
400	100	210	285	83.0	92.0
400	150	325	295	101	111
400	200	325	295	105	114
400	300	440	310	127	140
400	400	560	320	155	167
450	150	330	320	117	128
450	200	330	320	121	131
450	300	445	335	146	160
450	400	560	345	175	188
450	450	62	350	190	203
500	150	330	345	135	145

K=14 millimeters

NOMINAL DIAMETER		DIMENSIONS		MASS (kg)	
DN	dn	L	H	T type	K Type
500	20	330	345	139	148
500	300	450	360	167	179
500	400	656	370	198	210
500	500	680	380	231	242
600	150	340	395	175	184
600	200	340	395	178	187
600	300	455	410	211	223
600	400	570	420	248	259
600	600	800	440	325	337
700	200	345	445	-	250
700	300	460	460	-	292
700	400	575	470	-	333
700	600	810	490	-	422
700	700	925	500	-	475
800	200	350	495	-	301
800	300	465	510	-	350
800	400	580	520	-	398
800	600	1045	540	-	576
800	800	1045	565	-	618
900	200	355	545	-	370
900	400	590	570	-	484
900	600	1170	590	-	739
900	800	1170	615	-	777
900	900	1170	625	-	806
1000	200	360	595	-	453
1000	400	595	620	-	584
1000	600	1290	640	-	936
1000	800	1290	665	-	971
1000	1000	1290	685	-	1033
1200	400	605	720	-	780
1200	600	840	740	-	950
1200	800	1070	765	-	1129
1200	1000	1300	785	-	1331
1200	1200	1535	805	-	1547

DOUBLE SOCKET TEE WITH FLANGED BRANCH

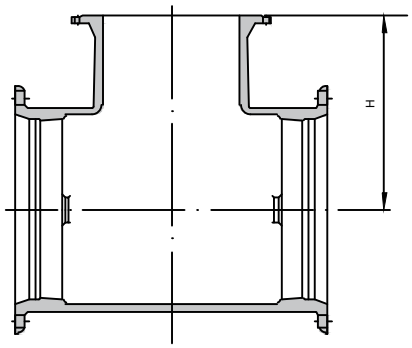
ISO 2531 / EN 545

Foratti®

K=14

millimeters

NOMINAL DIAMETER		DIMENSIONS		MASS (kg)					
				T Type			K Type		
DN	dn	L	H	PN 10	PN 16	PN 25	PN 10	PN 16	PN 25
80	80	170	165	14.7	14.7	14.7	16.7	16.7	16.7
100	80	170	175	17.4	17.4	17.4	19.7	19.7	19.7
100	100	190	180	18.8	18.8	19.3	21.0	21.0	21.5
150	80	170	205	25.5	25.5	25.5	28.5	28.5	28.5
150	100	195	210	27.0	27.0	27.5	30.5	30.5	31.0
150	150	255	220	32.5	32.5	32.5	35.5	35.5	36.5
200	80	175	235	36.5	36.5	36.5	36.5	36.5	36.5
200	100	200	240	38.5	38.5	39.0	38.5	38.5	39.0
200	150	255	250	44.5	44.5	45.5	44.5	44.5	45.5
200	200	315	260	51.5	51.0	53.0	51.5	51.5	53.0
250	80	200	270	47.0	47.0	47.0	47.0	47.0	47.0
250	100	200	270	47.5	47.5	48.0	48.0	48.0	48.5
250	150	315	290	59.0	59.0	60.0	59.0	59.0	60.0
250	200	315	290	62.5	62.0	64.0	62.5	62.0	64.0
250	250	375	300	71.0	71.0	74.5	71.5	71.0	74.5
300	80	205	300	54.5	54.5	54.5	64.0	64.0	64.0
300	100	205	300	55.0	55.0	55.5	65.0	75.0	65.5
300	150	320	320	68.5	68.5	69.5	78.5	78.5	79.5
300	200	320	320	72.0	71.5	73.5	81.5	81.5	83.5
300	300	435	340	92.0	91.5	97.0	102	102	107
350	80	205	330	70.5	70.5	70.5	76.0	76.0	76.0
350	100	205	330	71.0	71.0	71.5	76.5	76.5	77.0
350	150	325	350	87.5	87.5	88.5	93.0	93.0	94.0
350	200	325	350	90.5	90.5	92.5	96.0	96.0	98.0
350	300	440	370	113	113	118	118	118	123
350	350	495	380	123	126	134	129	132	139
400	80	210	360	83.0	83.0	83.0	90.0	90.0	90.0
400	100	210	360	84.0	84.0	84.5	91.0	91.0	91.5
400	150	325	380	102	102	103	109	109	110
400	200	325	380	105	105	107	113	112	114
400	300	440	400	129	129	134	137	136	142
400	400	560	420	155	160	171	163	167	178
450	80	215	395	97.5	97.5	97.5	105	105	105
450	100	215	395	98.5	98.5	99.0	106	106	107
450	150	330	410	119	119	120	127	127	128
450	200	330	410	122	122	124	130	130	132
450	300	445	430	149	149	154	157	157	162
450	400	560	450	177	181	192	185	189	200
450	450	620	460	192	200	211	200	208	219
500	80	215	420	113	113	113	119	119	119
500	100	215	420	114	114	114	120	120	120
500	150	330	440	137	137	138	143	143	144
500	200	330	440	140	140	142	147	146	148
500	300	450	460	171	171	176	177	177	182
500	400	565	480	201	206	217	207	212	223
500	500	680	500	236	249	260	242	256	266
600	80	220	480	145	145	145	151	151	151
600	100	220	480	146	146	147	152	152	153
600	150	340	500	177	177	178	183	183	184
600	200	340	500	180	180	182	1857	187	188
600	300	455	520	216	216	221	222	222	227
600	400	570	540	252	257	268	258	263	274
600	600	800	580	338	362	374	345	368	380

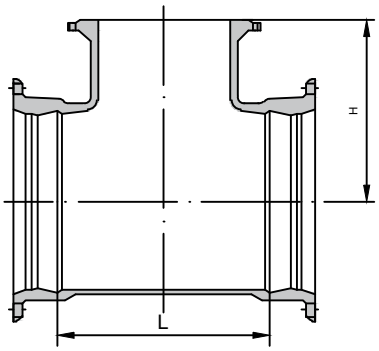


"T" Type

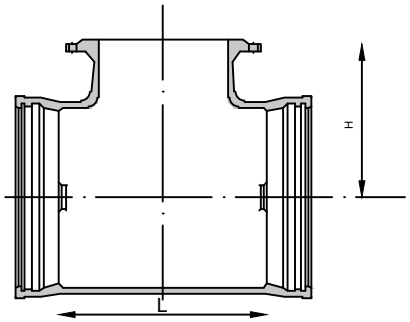
DN 80
To
DN 600

DOUBLE SOCKET TEE WITH FLANGED BRANCH

ISO 2531 / EN 545



"K" Type
DN 80
To
DN 600

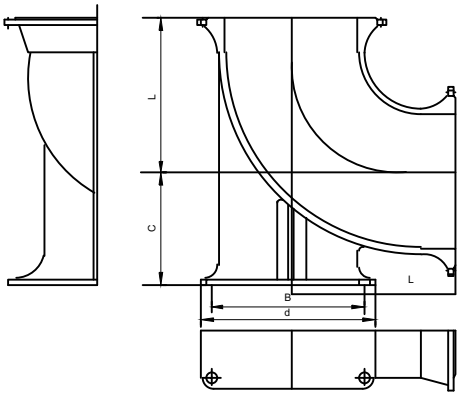


"K" Type
DN 70
To
DN 1200

K=14 millimeters

NOMINAL DIAMETER		DIMENSIONS		MASS (kg)					
				T Type			K Type		
DN	dn	L	H	PN 10	PN 16	PN 25	PN 10	PN 16	PN 25
700	100	345	525	-	-	-	243	243	244
700	150	345	525	-	-	-	246	246	247
700	200	345	525	-	-	-	250	249	251
700	400	575	555	-	-	-	329	334	345
700	600	810	585	-	-	-	422	445	457
700	700	925	600	-	-	-	476	488	521
800	100	350	585	-	-	-	295	295	295
800	150	350	585	-	-	-	298	298	299
800	200	350	585	-	-	-	302	301	303
800	400	580	615	-	-	-	396	401	412
800	600	1045	645	-	-	-	579	603	614
800	800	1045	675	-	-	-	631	646	-
900	150	355	645	-	-	-	368	368	369
900	200	355	645	-	-	-	371	371	373
900	400	590	675	-	-	-	484	488	499
900	600	1170	705	-	-	-	745	769	780
900	800	1170	735	-	-	-	795	810	-
900	900	1170	750	-	-	-	822	841	-
1000	150	360	705	-	-	-	451	451	452
1000	200	360	705	-	-	-	455	455	457
1000	400	595	735	-	-	-	586	591	602
1000	600	1290	765	-	-	-	946	970	981
1000	800	1290	795	-	-	-	994	1009	-
1000	1000	1290	825	-	-	-	1059	1094	-
1200	200	375	825	-	-	-	618	618	620
1200	400	605	855	-	-	-	787	792	803
1200	600	840	885	-	-	-	967	991	1003
1200	800	1070	915	-	-	-	1162	1177	-
1200	1000	1300	945	-	-	-	1372	1406	-
1200	1200	1535	975	-	-	-	1617	1672	

DOUBLE FLANGED 90° DUCKFOOT BEND

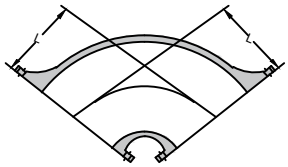


K=12 millimeters

NOMINAL DIAMETER DN	L	C	d	B	d'	MASS (kg)		
						PN 10	PN 16	PN 25
80	165	110	180	120	19	14.8	14.8	14.8
100	180	125	200	130	23	18.2	18.2	19.2
150	220	160	250	165	28	31.5	31.5	33.5
200	260	190	300	215	28	49.0	48.5	52.5
250	350	225	350	250	31	78.5	77.5	85.0
300	400	255	400	300	31	111	111	121
350	450	290	450	350	34	147	153	168
400	500	320	500	390	37	192	201	223
450	550	350	550	440	37	245	261	283
500	600	385	600	490	37	309	336	357
600	700	450	700	580	40	475	522	546
700	800	515	800	680	43	684	708	-
800	900	580	900	77	49	944	974	-
900	1000	645	1000	870	49	1252	1290	-
1000	1100	710	1100	960	56	1629	1698	-
1200	1300	840	1300	1160	56	2599	2709	-

DOUBLE FLANGED 90° BEND

ISO 2531 / EN 545

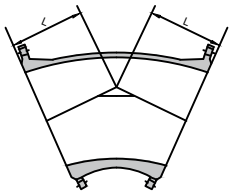


K=12 millimeters

NOMINAL DIAMETER DN	L	MASS (kg)		
		PN10	PN16	PN 25
80	165	9.6	9.6	9.6
100	180	12.0	12.0	13.0
150	220	20.5	20.5	22.5
200	260	31.5	31.0	35.0
250	350	50.5	49.5	57.0
300	400	70.0	69.5	80.0
350	450	90.5	96.0	112
400	500	117	126	148
450	550	147	163	184
500	600	184	211	232
600	700	277	324	348
700	800	394	418	-
800	900	543	573	-
900	1000	708	746	-
1000	1100	919	988	-

DOUBLE FLANGED 45° BEND

ISO 2531 / EN 545

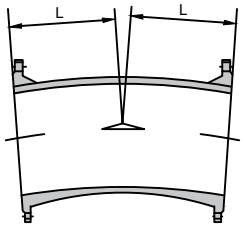


K=12 millimeters

NOMINAL DIAMETER DN	L	MASS (kg)		
		PN10	PN16	PN 25
80	130	9.3	9.3	9.3
100	140	11.4	11.4	12.5
150	160	18.9	18.9	21.0
200	180	28.0	27.5	31.5
250	350	55.5	54.5	62.0
300	400	77.5	76.5	87.5
350	298	77.0	82.5	98.0
400	324	97.5	107	129
450	349	120	135	157
500	375	148	175	196
600	400	216	263	287
700	298	304	328	-
800	324	414	444	-
900	349	531	569	-
1000	375	684	753	-

DOUBLE FLANGED 22 ½° BEND

ISO 2531 / EN 545

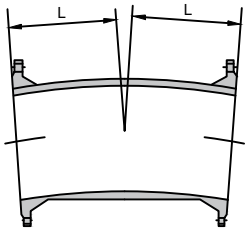


K=12 millimeters

NOMINAL DIAMETER DN	L	MASS (kg)		
		PN10	PN16	PN 25
80	130	9.4	9.4	9.4
100	140	11.5	11.5	12.5
150	160	19.1	19.1	21.0
200	180	28.5	28.0	32.0
250	350	56.5	56.0	63.0
300	400	79.0	78.5	89.0
350	298	78.5	84.0	99.5
400	324	99.5	109	131
450	349	122	138	160
500	375	151	178	199
600	426	221	268	262
700	478	311	334	-
800	529	423	453	-
900	581	543	581	-
1000	632	700	769	-
1200	735	1088	1198	-

DOUBLE FLANGED 11 ¼° BEND

ISO 2531 / EN 545

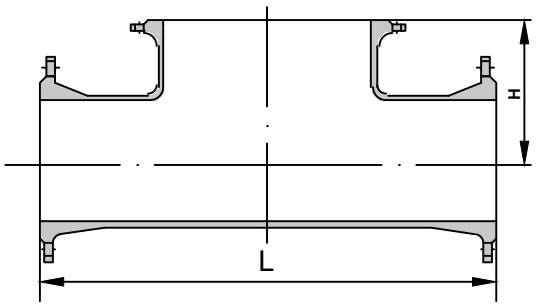


K=12 millimeters

NOMINAL DIAMETER DN	L	MASS (kg)		
		PN10	PN16	PN 25
80	130	9.5	9.5	9.5
100	140	11.5	11.5	12.5
150	160	19.1	19.1	21.0
200	180	28.5	28.0	32.0
250	350	56.5	56.0	63.5
300	400	79.5	79.0	89.5
350	298	79.0	84.0	100
400	324	100	109	131
450	349	123	139	160
500	375	152	179	200
600	426	222	269	294
700	478	313	336	-
800	529	426	455	-
900	581	546	584	-
1000	632	704	773	-
1200	735	1094	1204	-

ALL FLANGED TEE

ISO 2531 / EN 545



K=14 millimeters

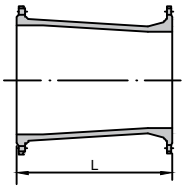
NOMINAL DIAMETER		DIMENSIONS		MASS (kg)		
DN	dn	L	H	PN 10	PN 16	PN 25
80	80	330	165	15.8	15.8	15.8
100	80	360	175	18.6	18.6	19.6
100	100	360	180	19.5	19.5	21.0
150	80	440	205	29.0	29.0	31.0
150	100	440	210	30.0	30.0	32.5
150	150	440	220	33.5	33.5	36.5
200	80	520	235	43.0	42.5	46.5
200	100	520	240	44.0	43.5	48.0
200	150	520	250	47.0	47.0	52.0
200	200	520	260	51.0	50.5	56.5
250	100	700	275	68.5	68.0	76.0
250	150	700	325	73.5	73.0	81.0
250	200	700	325	77.5	76.5	86.0
250	250	700	350	84.0	83.0	93.5
300	100	800	300	94.5	93.5	105
300	150	800	350	99	98.5	110
300	200	800	350	103	102	115
300	300	800	400	117	116	132
350	100	850	325	117	123	139
350	150	850	325	120	126	143
350	200	850	325	124	129	147
350	300	850	425	140	145	166
350	350	850	425	145	153	177
400	100	900	350	149	155	178
400	150	900	350	149	158	181
400	200	900	350	152	161	185
400	300	900	450	168	177	204
400	400	900	450	179	193	226
450	100	950	375	177	193	215
450	150	950	375	180	196	219
450	200	950	375	183	199	222
450	300	950	475	199	215	242
450	400	950	475	210	230	263
450	450	950	475	216	240	272
500	100	1000	400	215	242	264

K=14 millimeters

NOMINAL DIAMETER		DIMENSIONS		MASS (kg)		
DN	dn	L	H	PN 10	PN 16	PN 25
500	150	1000	400	218	245	267
500	200	1000	400	221	248	271
500	300	1000	500	237	264	291
500	400	1000	500	248	279	311
500	500	1000	500	261	301	333
600	150	1100	450	309	356	381
600	200	1100	450	312	359	385
600	300	1100	550	328	375	404
600	400	1100	550	338	390	424
600	600	1100	550	367	438	473
700	200	650	525	281	304	373
700	300	760	540	319	342	415
700	400	870	555	358	386	463
700	600	1200	585	476	523	601
700	700	1200	600	499	534	-
800	200	690	585	368	397	492
800	300	800	600	413	443	541
800	400	910	615	459	493	597
800	600	1350	645	633	687	791
800	800	1350	675	685	730	-
900	200	730	645	454	492	602
900	400	950	675	561	604	723
900	600	1500	705	810	872	992
900	800	1500	735	860	913	-
900	900	1500	750	887	944	-
1000	200	770	705	570	638	781
1000	400	990	735	694	767	919
1000	600	1650	765	1036	1129	1281
1000	800	1650	792	1085	1168	-
1000	1000	1650	825	1150	1253	-
1200	400	1070	855	1008	1122	1302
1200	600	1290	885	1178	1312	1492
1200	800	1510	915	1367	1492	-
1200	1000	1730	945	1570	1714	-
1200	1200	19500	975	1806	1970	-

DOUBLE FLANGED TAPER

ISO 2531 / EN 545



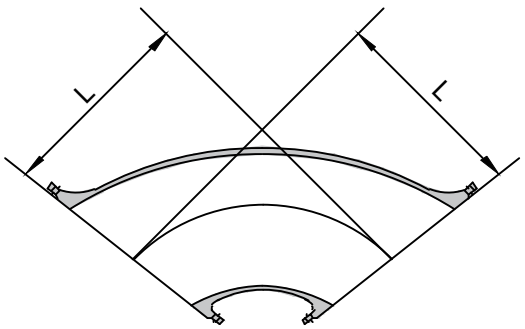
K=12 millimeters

NOMINAL DIAMETER		LENGTH	MASS (kg)		
DN	D1	L	PN 10	PN 16	PN 25
100	80	200	9.4	9.4	9.9
150	80	400	16.4	16.4	17.4
150	100	300	15.3	15.3	16.8
200	100	600	27.5	27.5	30.0
200	150	300	22.5	22.0	25.0
250	150	600	39.0	39.0	43.5
250	200	300	31.0	30.5	36.0
300	150	650	48.5	48.5	55.0
300	200	600	52.0	51.5	59.0
300	250	300	41.0	40.0	49.0
350	200	650	61.5	64.0	74.0
350	250	600	65.5	67.5	79.0
350	300	300	50.0	52.5	66.0
400	200	700	73.5	77.5	90.5
400	250	650	77.0	81.5	96.0
400	300	600	80.5	85.0	101
400	350	300	60.0	67.0	86.0
450	250	700	89.5	97.0	112
450	300	650	93.5	101	117
450	350	600	95.5	106	125
450	400	300	70.5	83.0	105
500	300	700	109	122	138
500	350	650	111	127	145
500	400	600	113	131	153
500	450	300	83.0	104	126

K=12 millimeters

NOMINAL DIAMETER		LENGTH	MASS (kg)		
DN	D1	L	PN 10	PN 16	PN 25
600	350	750	147	174	193
600	400	700	150	178	201
600	450	650	151	183	206
600	500	600	154	191	214
700	400	800	196	212	-
700	450	750	197	217	-
700	500	700	200	225	-
700	600	600	204	239	-
800	450	900	263	286	-
800	500	800	256	284	-
800	600	700	260	298	-
800	700	600	263	290	-
900	500	1000	338	370	-
900	600	800	318	360	-
900	700	700	321	352	-
900	800	600	325	358	-
1000	600	1000	422	480	-
1000	700	800	396	442	-
1000	800	700	399	448	-
1000	900	600	393	446	-
1200	700	1345	711	777	-
1200	800	1160	688	758	-
1200	900	975	652	726	-
1200	100	790	614	703	-
1200	1100	605	566	655	

DOUBLE FLANGED 90° LONG RADIUS BEND



K=12 millimeters

NOMINAL DIAMETER DN	L	MASS (kg)		
		PN10	PN16	PN 25
80	380	14.5	14.5	14.5
100	400	18.0	18.0	19.0
150	450	30.5	30.5	32.5
200	500	46.5	46.0	50.0
250	550	67.0	66.0	73.5
300	600	91.0	90.5	101
350	650	117	122	138
400	700	149	158	180
450	750	184	200	221
500	800	227	254	275
600	900	332	379	403
700	1000	466	489	-
800	1100	632	661	-
900	1200	816	854	-
1000	1300	1048	1117	-
1200	1500	1627	1737	-

Foratti

PTS PIPELINE TECHNOLOGY SYSTEMS