

Products Type

NEW grooved piping system covers following categories:

● Grooved Couplings

Grooved couplings are designed as a ring self-centering connector, the inner key area of the housing engages in the pipe grooves to provide a pipe connection. When the flexible coupling is assembled in the pipeline, a gap is formed between the pipe ends to allow axial displacement and lateral deflection. Rigid coupling locks the pipes directly without deflection.

● Mechanical Outlets

The housing of branch outlet fittings has two different parts, respectively, the outlet housing and the cover. The mechanical outlets can be composed of two outlet housing (said the mechanical cross), or one outlet housing plus one cover (said as mechanical tee). The outlet housing is designed as a self-positioning structure, to builds a branch outlet on the main pipe run.

● Grooved Non-Gasket Fittings

Grooved fittings have a variety of styles, to provide flow direction turning, diameter reducing, branching and other functions.

Products Component

● Housing

Material: Ductile cast iron conforming to ASTM A-536, Grade 65-45-12.

Surface Finish: Standard: Epoxy powder coating

Optional: Galvanized (Zinc Plated, HDG), Dip painted

Surface Color: Variable colors for choice

● Rubber Gasket

Standard: EPDM.

Optional: Nitrile, Silicone, Fluoroelastomer, Neoprene

The sealing mechanism of grooved couplings and mechanical outlets is basically the same, the main structure of the gasket has "C" shape, forming a triple seal function. The first seal is formed by the elasticity of the gasket during the static state. After the coupling is installed, the gasket is confined by the housing of groove coupling or the mechanical outlet, the second seal is formed. Medium inside the pipe system press the "C" cavity after pressurizing, it increases the adhesion between gasket lip and steel pipe surface, so as to achieve the third reactive seal. The greater the pressure of the fluid within the pipe, The better the sealing of the coupling.



The material of the gasket must be chosen to follow the characteristics of the fluid medium below. The commonly used gasket are shown in the following table:

Grade	Temperature Range	Rubber Compound	Color Code	General Service Recommendations
E	-30°F to +230°F -34°C to +110°C	EPDM	Green Stripe	Recommended for hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. UL classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C and hot +180°F/+82°C potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.
T	-20°F to +180°F -29°C to +82°C	Nitrile	Orange Stripe	Recommended for petroleum products, hydrocarbons, air with oil vapors, vegetable and mineral oils within the specified temperature range; except hot dry air over +140°F/+60°C and water over +150°F/+66°C. NOT RECOMMENDED FOR HOT WATER SERVICES.
O	-20°F to +300°F -29°C to +149°C	Fluoroelastomer	Blue Stripe	Recommended for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air with hydrocarbons to +300°F/+149°C.
L	-30°F to +350°F -34°C to +177°C	Silicone	Body white	Recommended for dry heat, air without hydrocarbons to +350°F/+177°C and certain chemical services.
V	-30°F to +180°F -34°C to +82°C	Neoprene	Yellow Stripe	Recommended for hot lubricating oils and certain chemicals. Good oxidation resistance. Will not support combustion.

For specific compound and temperature compatibility, see this book Chemical Application Table

● Bolt/Nut

Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts.

Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.



As the manufacturer and innovator of grooved coupling technology, NEW offers a variety of coupling sizes and styles for almost any piping application.

All grooved couplings are made up of four parts, namely housing, gasket, bolt and nut. Housing is made of ductile iron, surface finish is orange, but also for a variety of fluid piping system to provide matching color scheme; standard gasket material is EPDM, also prepared for a variety of pipeline media rubber material. The bolt's tensile rating is class 8.8 and the nut's rating 8.0.

NEW couplings provide pipe system with versatility not found in other pipe connection methods. NEW rigid and flexible couplings can be combined to allow for thermal growth within the system. Additionally, the use of three consecutive flexible couplings reduces noise and vibration and eliminates costly noise dampeners.



Style 1GS Rigid Coupling
DN25~DN300 1"~24"
33.7mm~609.6mm



Style 1X Angle-pad Rigid Coupling
DN25~DN300 1"~12"
33.7mm~323.9mm



Style 1N Flexible Coupling
DN25~DN600 1"~24"
33.7mm~609.6mm



Style 1 F Quick Coupling
DN25~DN200 1"~8"
33.7mm~219.1mm



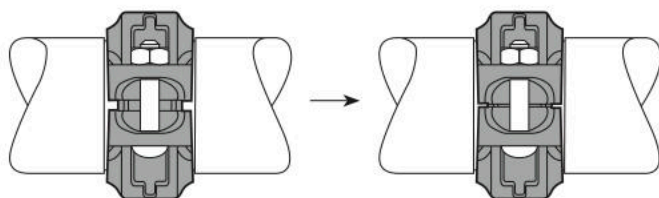
Style 1NR Reducing Flexible Coupling
DN32~DN200 1 1/4"~8"
42.4mm~219.1mm



Style 321 Split Flange Adaptor
DN50~DN200 2"~8"
60.3mm~219.1mm

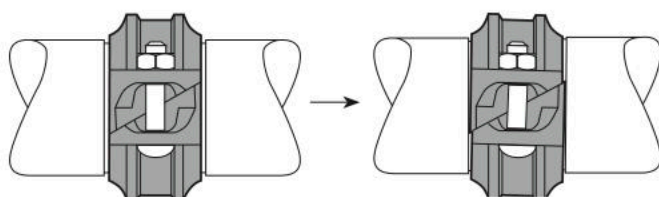


Rigid coupling connection & performance



The structure of the socket type rigid coupling is compact, with the inner and outer female and male teeth, socket type, meshing design, the use of the gap between the female and male port socket combination of pipe and joint meshing to achieve the rigid requirements.

Due to the improved interface structure, it is not easy to make the gasket to produce transverse and oblique twists and turns, the positioning of the gasket is more accurate, the abnormal pressing and destructive pressure loss of the gaskets are avoided, the sealing property is increased, and the overall joint is increased service life.



The Angle-pad rigid coupling is designed to sliding rather than vertical moving when tightening the housing. So the pipe tightly stuck to form a rigid connection. This 60°diagonal sliding also forces the coupling housing keys to make double sided contact on the inside and outside edges of the groove so that axial and radial movement of the tube cannot occur and the effect of rigid connecting pipe is truly achieved. No deflection after installation.

This rigid coupling allows for more accurate positioning of the tube end forming a fixed tube end separation that should be considered in the design and installation (see the following list of parameters).

Allow. Pipe End Sep.

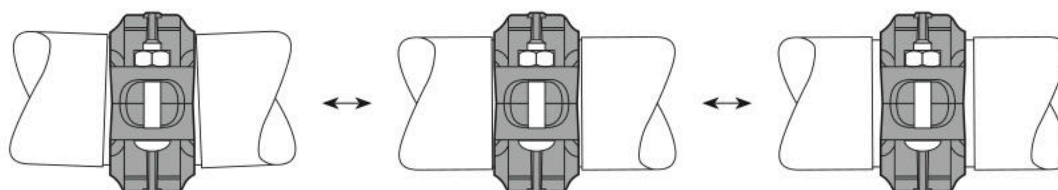
Size		Allow. Pipe End Sep.	
Nominal Dia.	Actual O.D.	Style 1GS	Style 1X
DN	mm	mm	mm
Inches	Inches	Inches	Inches
25	33.7	2.3	2.2
1	1.327	0.091	0.087
32	42.4	2.3	2.2
1 ¹ / ₄	1.660	0.091	0.087
40	48.3	2.3	2.2
1 ¹ / ₂	1.900	0.091	0.087
50	60.3	2.3	2.2
2	2.375	0.091	0.087
65	73.0	2.3	2.7
2 ¹ / ₂	2.875	0.091	0.106
65	76.1	2.3	2.7
2 ¹ / ₂	3.000	0.091	0.106
80	88.9	2.7	2.7
3	3.500	0.106	0.106
100	108.0	2.7	3.3
4	4.250	0.106	0.130
100	114.3	2.7	3.3
4	4.500	0.106	0.130

Size		Allow. Pipe End Sep.	
Nominal Dia.	Actual O.D.	Style 1GS	Style 1X
DN	mm	mm	mm
Inches	Inches	Inches	Inches
125	133.0	2.7	3.3
5	5.250	0.106	0.130
125	139.7	2.7	3.3
5	5.500	0.106	0.130
125	141.3	2.7	3.3
5	5.563	0.106	0.130
150	159.0	2.7	3.3
6	6.250	0.106	0.130
150	165.1	2.7	3.3
6	6.500	0.106	0.130
150	168.3	2.7	3.3
6	6.625	0.106	0.130
200	219.1	4.9	4.9
8	8.625	0.193	0.193
250	273.0	4.9	4.9
10	10.750	0.193	0.193
300	323.9	4.9	4.9
12	12.750	0.193	0.193

- Rigid couplings cannot be used to absorb any piping system movement.
- For the absorption of pipe system movement, please use flexible couplings.

Flexible Coupling Systems & Performance

Using of flat joint design, flexible coupling keeps a separation between pipe ends to achieve flexibility of pipeline. This structure ensures the strength without fully holding the pipes, allows axial and radial displacement, suitable for deflection requirements of the pipeline. The flexible coupling is designed to absorb the deviation of the pipe outer diameter without affecting the joint performance



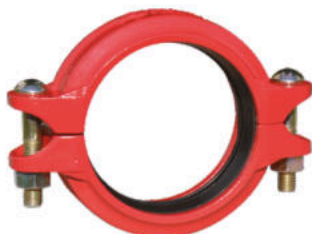
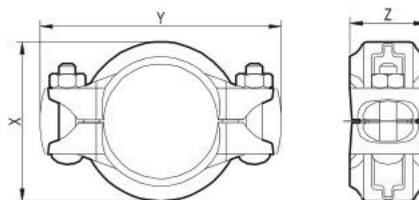
Allow. Pipe End Sep. & Flexibility

Size		Allow. Pipe End Sep.	Flexibility	
Nominal Dia.	Actual O.D.		Max. Degrees	Misalignment
DN Inches	mm Inches	mm Inches	(°)	mm/m In./Ft.
25 1	33.7 1.327	2.2 0.087	2.7	47 0.57
32 1 1/4	42.4 1.660	2.2 0.087	2.2	38 0.46
40 1 1/2	48.3 1.900	2.2 0.087	2.0	34 0.42
50 2	57.0 2.250	2.2 0.087	1.9	33 0.40
50 2	60.3 2.375	2.2 0.087	1.9	33 0.40
65 2 1/2	73.0 2.875	2.4 0.094	1.8	31 0.38
65 2 1/2	76.1 3.000	2.4 0.094	1.8	31 0.38
80 3	88.9 3.500	2.8 0.110	1.7	29 0.36
100 4	108.0 4.250	3.3 0.130	1.6	27 0.34
100 4	114.3 4.500	3.3 0.130	1.6	27 0.34

Size		Allow. Pipe End Sep.	Flexibility	
Nominal Dia.	Actual O.D.		Max. Degrees	Misalignment
DN Inches	mm Inches	mm Inches	(°)	mm/m In./Ft.
125 5	133.0 5.250	3.6 0.142	1.3	22 0.27
125 5	139.7 5.500	3.6 0.142	1.3	22 0.27
125 5	141.3 5.563	3.6 0.142	1.3	22 0.27
150 6	159.0 6.250	3.9 0.154	1.1	19 0.23
150 6	165.1 6.500	3.9 0.154	1.1	19 0.23
150 6	168.3 6.625	3.9 0.154	1.1	19 0.23
200A 8	216.3 8.516	4.9 0.193	0.85	14 0.18
200 8	219.1 8.625	4.9 0.193	0.85	14 0.18
250A 10	267.4 10.528	4.9 0.193	0.67	11 0.14
250 10	273.0 10.750	4.9 0.193	0.67	11 0.14
300A 12	318.5 12.539	4.9 0.193	0.58	10 0.12
300 12	323.9 12.750	4.9 0.193	0.58	10 0.12

- All the parameters in the above table are the maximum tolerance of each flexible coupling
- These values are based on standard roll grooved pipe. Figures for standard cut grooved pipe may increase.
- All the parameters in the above table are the maximum performance parameters. When designing and installing, the corresponding safety factor should be considered. It is suggested that the pipe diameter of DN25 ~ DN80 should be reduced to 50% and the pipe diameter of DN100 ~ DN300 should be reduced to 75%

Style 1GS Rigid Coupling

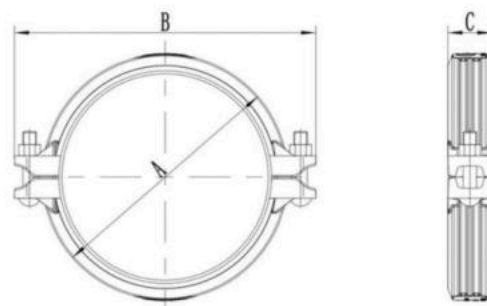


- Model 1GS rigid coupling, socketed & meshing design
- Female and male port socket design is not easy to make the horizontal and horizontal seal twists and turns, the gasket is not exposed, increasing the sealing and improve the overall service life of the joint
- Enhanced body resists 4 times working pressure.

Size		Max. Work Pressure	Max. End Load	Allow. Pipe End Sep.	Dimensions			Bolt/Nut Size
Nominal Dia.	Actual O.D.				X	Y	Z	
DN Inches	mm Inches	KPa PSI	N Lbs.	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches
25	33.7	5170	4530	2.3	54	98	44	M10X55
1	1.327	750	1020	0.091	2.126	3.858	1.732	3/8X2 1/4
32	42.4	5170	7300	2.3	63	103	44	M10X55
1 1/4	1.660	750	1620	0.091	2.480	4.055	1.732	3/8X2 1/4
40	48.3	5170	9470	2.3	69	109	44	M10X55
1 1/2	1.900	750	2130	0.091	2.717	4.291	1.732	3/8X2 1/4
50	60.3	4140	11820	2.3	82	123	45	M10X55
2	2.375	600	2660	0.091	3.268	4.843	1.772	3/8X2 1/4
65	73.0	3780	15820	2.3	96	142	46	M10X60
2 1/2	2.875	550	3570	0.091	3.780	5.591	1.811	3/8X2 1/4
65	76.1	3780	17190	2.3	100	145	46	M10X60
2 1/2	3.000	550	3890	0.091	3.937	5.709	1.811	3/8X2 1/4
80	88.9	3780	23460	2.7	113	159	47	M10X60
3	3.500	550	5290	0.106	4.449	6.260	1.850	3/8X2 1/4
100	108.0	3450	31610	2.7	136	186	49	M12X70
4	4.250	500	7090	0.106	5.354	7.323	1.929	1/2X2 3/4
100	114.3	3450	3540	2.7	140	189	47	M12X70
4	4.5	500	7950	0.106	5.512	7.441	1.850	1/2X2 3/4
125	133.0	3450	47930	2.7	163	216	50	M12X75
5	5.250	500	10820	0.106	6.417	8.504	1.969	1/2X3
125	139.7	3450	52880	2.7	169	222	50	M12X75
5	5.500	500	11880	0.106	6.654	8.740	1.969	1/2X3
125	141.3	3450	54100	2.7	171	224	50	M12X75
5	5.563	500	12150	0.106	6.732	8.819	1.969	1/2X3
150	159.0	3450	68500	2.7	190	237	51	M12X75
6	6.250	500	15340	0.106	7.480	9.33	2.008	1/2X3
150	165.1	3450	73860	2.7	196	248	51	M12X75
6	6.500	500	16590	0.106	7.717	9.764	2.008	1/2X3
150	168.3	3450	76750	2.7	198	251	51	M12X75
6	6.625	500	17240	0.106	7.835	9.882	2.008	1/2X3
200	216.3	2750	101050	4.9	252	319	58	M16X90
8	8.516	400	22780	0.193	9.921	12.560	2.283	5/8X3 3/8
200	219.1	2750	103680	4.9	255	322	58	M16X90
8	8.625	400	23370	0.193	10.039	12.677	2.283	5/8X3 3/8
250A	267.4	2500	140400	4.9	307	386	62	M20X100
10	10.528	350	30470	0.193	12.087	15.197	2.441	3/4X4
250	273.0	2500	146340	4.9	313	391	62	M20X100
10	10.750	350	31770	0.193	12.323	15.394	2.441	3/4X4
300A	318.5	2500	199182	4.9	360	440	63	M20X110
12	12.539	350	43220	0.193	14.173	17.468	2.480	3/4X4 1/8
300	323.9	2500	205990	4.9	366	445	63	M20X110
12	12.750	350	44690	0.193	14.409	17.520	2.480	3/4X4 1/8

- ♦ **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- ♦ **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- ♦ **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- ♦ **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- ♦ **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- ♦ **Size Range:** DN25 through DN300 (1" through 12")
- ♦ **Tolerance :** + / - 7%

Style 1GS Rigid Coupling

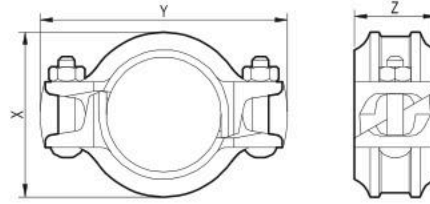


- Model 1GS rigid coupling, socketed & meshing design
- Female and male port socket design is not easy to make the horizontal and horizontal seal twists and turns, the gasket is not exposed, increasing the sealing and improve the overall service life of the joint
- Enhanced body resists 4 times working pressure.

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)	Dimensions			Bolt	
			A	B	C	No.	Size
in mm	mm	PSI Bar	in mm	in mm	in mm	No.	in mm
14 DN350	355.6	300 21	15.9 405	19.6 498	2.87 73	2	7/8×4.72 M22×120
16 DN400	406.4	300 21	18.0 457	21.8 553	2.87 73	2	7/8×4.72 M22×120
18 DN450	457.2	300 21	20.2 512.6	24 610	2.93 74.5	2	1×5.12 M24×130
20 DN500	508.0	300 21	22.3 566	26.5 674	2.99 76	2	1×5.12 M24×130
22 DN550	558.8	300 21	24.5 621	28.7 730	2.99 76	2	1×5.12 M24×130
24 DN600	609.6	300 21	26.5 672	30.9 784	2.99 76	2	1×5.12 M24×130

- ♦ **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- ♦ **Pressure Rating :** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- ♦ **Housing Finish:** Electrophoretic Orange Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- ♦ **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- ♦ **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- ♦ **Size Range:** DN350 through DN 600 (14" through 24")
- ♦ **Tolerance :** + /- 7%

Style 1X Angle Pad Rigid Coupling

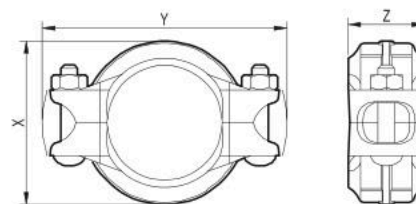


- Model 1X Angle pad rigid coupling
- This rigid coupling allows for more accurate positioning of the tube end, forming a fixed tube end separation, which should be considered in the design and installation.
- Enhanced body resists 4 times working pressure.

Size		Max. Work Pressure	Max. End Load	Allow. Pipe End Sep.	Dimensions			Bolt/Nut Size
Nominal Dia.	Actual O.D.				X	Y	Z	
DN Inches	mm Inches	KPa PSI	N Lbs.	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches
25	33.7	5170	4530	2.2	54	90	45	M10X55
1	1.327	750	1020	0.086	2.126	3.543	1.772	3/8X2 1/2
32	42.4	5170	7300	2.2	63	102	45	M10X55
1 1/8	1.660	750	1620	0.086	2.480	4.016	1.772	3/8X2 1/2
40	48.3	5170	9470	2.2	69	108	45	M10X55
1 1/2	1.900	750	2130	0.086	2.717	4.252	1.772	3/8X2 1/2
50	60.3	4140	11820	2.2	82	124	47	M10X55
2	2.375	600	2660	0.086	3.228	4.882	1.850	3/8X2 1/2
65	73.0	3780	15820	2.7	96	140	48	M10X60
2 1/2	2.875	550	3570	0.106	3.780	5.512	1.900	3/8X2 3/8
65	76.1	3780	17190	2.7	99	143	48	M10X60
2 1/2	3.000	550	3890	0.106	3.900	5.630	1.900	3/8X2 3/8
80	88.9	3780	23460	2.7	113	158	48	M10X60
3	3.500	550	5290	0.106	4.567	6.220	1.900	3/8X2 3/8
100	108.0	3450	31610	3.3	138	188	51	M12X70
4	4.250	500	7090	0.130	5.433	7.402	2.008	1/2X2 3/4
100	114.3	3450	35400	3.3	141	194	50	M12X70
4	4.500	500	7950	0.130	5.551	7.638	1.970	1/2X2 3/4
125	133.0	3450	47930	3.3	165	226	51	M12X75
5	5.250	500	10820	0.130	6.496	8.898	2.008	1/2X3
125	139.7	3450	52880	3.3	168	224	51	M12X75
5	5.500	500	11880	0.130	6.614	8.819	2.008	1/2X3
125	141.3	3450	54100	3.3	169	226	51	M12X75
5	5.563	500	12150	0.130	6.654	8.898	2.008	1/2X3
150	159.0	3450	68500	3.3	192	252	52	M12X75
6	6.250	500	15340	0.130	7.559	9.921	2.047	1/2X3
150	165.1	3450	73860	3.3	195	253	52	M12X75
6	6.500	500	16590	0.130	7.677	9.961	2.047	1/2X3
150	168.3	3450	76750	3.3	198	256	52	M12X75
6	6.625	500	17240	0.130	7.795	10.079	2.047	1/2X3
200A	216.3	2750	101050	4.9	252	319	60	M16X100
8	8.516	400	22780	0.193	9.921	12.560	2.362	5/8X4 1/8
200	219.1	2750	103680	4.9	255	322	60	M16X90
8	8.625	400	23370	0.193	10.039	12.677	2.362	5/8X3 1/2
250A	267.4	2500	140400	4.9	307	386	62	M20X115
10	10.528	350	30470	0.193	12.087	15.197	2.441	3/4X4 1/2
250	273.0	2500	146340	4.9	313	397	62	M20X115
10	10.750	350	31770	0.193	12.323	15.630	2.441	3/4X4 1/2
300A	318.5	2500	199180	4.9	361	440	63	M20X115
12	12.539	350	43220	0.193	14.213	17.323	2.480	3/4X4 1/2
300	323.9	2500	205990	4.9	366	445	63	M20X115
12	12.750	350	44690	0.193	14.409	17.520	2.480	3/4X4 1/2

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish:** Electrophoretic Orange Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
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- **Size Range:** DN25 through DN300 (1" through 12")
- **Tolerance :** + /- 7%

Style 1N Flexible Coupling

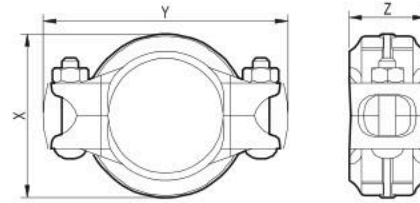


- Style 1N standard flexible coupling provides flexible connection by the gap between pipe groove and coupling key.
- Unique design allows both axial and radial movement, suitable for pipeline with flexibility under intermediate pressure.
- Enhanced body resists 4 times working pressure.

Size		Max. Work Pressure	Max. End Load	Allow. Pipe End Sep.	Dimensions			Bolt/Nut Size
Nominal Dia.	Actual O.D.				X	Y	Z	
DN Inches	mm Inches	KPa PSI	N Lbs.	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches
25	33.7	5170	4530	2.2	56	91	45	M10X55
1	1.327	750	1020	0.087	2.205	3.583	1.772	$\frac{3}{8}$ X2 $\frac{1}{8}$
32	42.4	5170	7300	2.2	68	103	45	M10X55
$1\frac{1}{4}$	1.660	750	1620	0.087	2.677	4.055	1.772	$\frac{3}{8}$ X2 $\frac{1}{8}$
40	48.3	5170	9470	2.2	73	109	45	M10X55
$1\frac{1}{2}$	1.900	750	2130	0.087	2.874	4.291	1.772	$\frac{3}{8}$ X2 $\frac{1}{8}$
50	57.0	4140	10560	2.2	82	123	45	M10X55
2	2.250	600	2390	0.087	3.228	4.843	1.772	$\frac{3}{8}$ X2 $\frac{1}{8}$
50	60.3	4140	11820	2.2	87	125	45	M10X55
2	2.375	600	2660	0.087	3.425	4.921	1.772	$\frac{3}{8}$ X2 $\frac{1}{8}$
65	73.0	3780	15820	2.4	100	138	46	M10X60
$2\frac{1}{2}$	2.875	550	3570	0.094	3.937	5.433	1.811	$\frac{3}{8}$ X2 $\frac{1}{8}$
65	76.1	3780	17190	2.4	103	141	46	M10X60
$2\frac{1}{2}$	3.000	550	3890	0.094	4.055	5.551	1.811	$\frac{3}{8}$ X2 $\frac{1}{8}$
80	88.9	3780	23460	2.8	118	165	46	M12X70
3	3.500	550	5290	0.110	4.646	6.496	1.811	$\frac{1}{2}$ X2 $\frac{3}{4}$
100	108.0	3450	31610	3.3	136	183	50	M12X70
4	4.250	500	7090	0.130	5.354	7.205	1.969	$\frac{1}{2}$ X2 $\frac{3}{4}$
100	114.3	3450	3540	3.3	140	194	50	M12X70
4	4.500	500	7950	0.130	5.512	7.634	1.969	$\frac{1}{2}$ X2 $\frac{3}{4}$
125	133.0	3450	47930	3.6	160	209	51	M12X70
5	5.250	500	10820	0.142	6.300	8.228	2.008	$\frac{1}{2}$ X2 $\frac{3}{4}$
125	139.7	3450	52880	3.6	172	220	51	M12X85
5	5.500	500	11880	0.142	6.772	8.661	2.008	$\frac{1}{2}$ X2 $\frac{3}{4}$
125	141.3	3450	54100	3.6	173	221	51	M12X75
5	5.563	500	12150	0.142	6.811	8.701	2.008	$\frac{3}{4}$ X3
150	159.0	3450	68500	3.9	190	238	52	M12X75
6	6.250	500	15340	0.154	7.480	9.370	2.047	$\frac{3}{4}$ X3

- ♦ **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- ♦ **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- ♦ **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- ♦ **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- ♦ **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- ♦ **Size Range:** DN25 through DN300 (1" through 12")
- ♦ **Tolerance :** + / - 7%

Style 1N Flexible Coupling

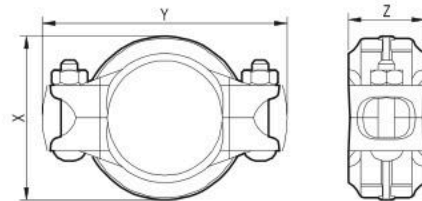


- Style 1N standard flexible coupling provides flexible connection by the gap between pipe groove and coupling key.
- Unique design allows both axial and radial movement, suitable for pipeline with flexibility under intermediate pressure.
- Enhanced body resists 4 times working pressure.

Size		Max. Work Pressure	Max. End Load	Allow. Pipe End Sep.	Dimensions			Bolt/Nut Size
Nominal Dia.	Actual O.D.				X	Y	Z	
DN Inches	mm Inches	KPa PSI	N Lbs.	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches
150	165.1	3450	73860	3.9	197	250	51	M12X75
6	6.500	500	16590	0.154	7.756	9.843	2.008	1/2X3
150	168.3	3450	76750	3.9	202	251	52	M12X75
6	6.625	500	17240	0.154	7.835	9.882	2.047	1/2X3
200A	216.3	2750	101050	4.9	257	332	61	M20X115
8	8.516	400	22780	0.193	10.118	13.071	2.402	3/4X4 1/2
200	219.1	2750	103680	4.9	260	335	61	M16X90
8	8.625	400	23370	0.193	10.236	13.189	2.402	5/8X3 1/2
200	219.1	2750	103680	4.9	257	325	59	M20X115
8	8.625	400	23370	0.193	10.118	12.795	2.323	3/4X4 1/2
250A	267.4	2500	140400	4.9	309	395	62	M20X100
10	10.528	3500	30470	0.193	12.165	15.551	2.441	1/2X4
250	273.0	2500	146340	4.9	315	400	62	M20X100
10	10.750	350	31770	0.193	12.401	15.748	2.441	3/4X4
300A	318.5	2500	199180	4.9	363	451	63	M20X100
12	12.539	350	43220	0.193	14.911	17.756	2.480	1/2X4
300	323.9	2500	205990	4.9	368	448	63	M20X100
12	12.750	350	44690	0.193	14.488	17.638	2.480	1/2X4

- ♦ **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- ♦ **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- ♦ **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- ♦ **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- ♦ **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- ♦ **Size Range:** DN25 through DN300 (1" through 12")
- ♦ **Tolerance :** + / - 7%

Style 1N Flexible Coupling

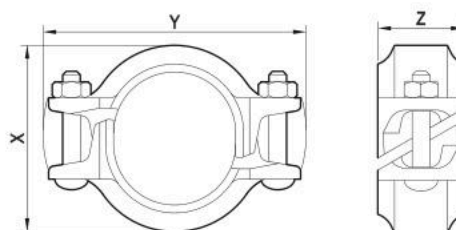


- Style 1N standard flexible coupling provides flexible connection by the gap between pipe groove and coupling key.
- Unique design allows both axial and radial movement, suitable for pipeline with flexibility under intermediate pressure.
- Enhanced body resists 4 times working pressure.

Size		Max. Work Pressure	Max. End Load	Allow. Pipe End Sep.	Dimensions			Bolt/Nut Size
Nominal Dia.	Actual O.D.				X	Y	Z	
350A	355.6	2500	248290	4.9	403	502	73	M22X120
14	14.000	350	53880	0.193	15.866	19.764	2.874	$\frac{7}{8} \times 4\frac{3}{4}$
350	377.0	2500	279070	4.9	425	515	73	M22X120
14	14.842	350	60560	0.193	16.732	20.276	2.874	$\frac{7}{8} \times 4\frac{3}{4}$
400A	406.4	2500	324300	4.9	459	560	73	M22X120
16	16.000	350	70380	0.193	18.071	22.047	2.874	$\frac{7}{8} \times 4\frac{3}{4}$
400	426.0	2500	36330	4.9	473	573	73	M22X120
16	16.772	350	77330	0.193	18.622	22.559	2.874	$\frac{7}{8} \times 4\frac{3}{4}$
500	508.0	2100	425640	4.9	576	681	76	M24X150
20	20.000	300	94250	0.193	22.677	26.811	2.992	1X5 $\frac{7}{8}$
600	610.0	2100	612920	4.9	666	769	78	M24X150
24	24.016	300	135720	0.193	26.220	30.276	3.071	1X5 $\frac{7}{8}$

- ♦ **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- ♦ **Pressure Rating :** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- ♦ **Housing Finish:** Electrophoretic Orange Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- ♦ **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- ♦ **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- ♦ **Size Range:** DN350 through DN 600 (14" through 24")
- ♦ **Tolerance :** + / - 7%

Style 1F Quick Coupling

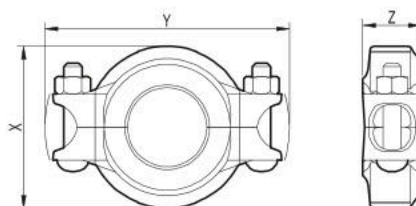


- Model 1F Quick Coupling rigid coupling
- This rigid coupling allows for more accurate positioning of the tube end, forming a fixed tube end separation, which should be considered in the design and installation.
- Enhanced body resists 4 times working pressure.

Size		Max. Work Pressure	Pre-assembly dimension			Post-assembly dimension			Bolt/Nut Size
Nominal Dia.	Actual O.D.		X	Y	Z	X	Y	Z	
DN Inches	mm Inches	KPa PSI	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches
25	33.7	5170	65	100	50	56	100	50	M10X55
1	1.327	750	2.556	3.937	1.969	2.205	3.937	1.969	3/8X2 1/8
32	42.4	5170	73	109	50	65	109	50	M10X55
1 1/4	1.660	750	2.874	4.291	1.969	2.556	4.291	1.969	3/8X2 1/8
40	48.3	5170	78	115	50	70	115	50	M10X55
1 1/2	1.900	750	3.071	4.528	1.969	2.756	4.528	1.969	3/8X2 1/8
50	60.3	4140	89	127	50	83	127	50	M10X60
2	2.375	600	3.504	5.000	1.969	3.268	5.000	1.969	3/8X2 1/8
65	73.0	3780	103	140	50	96	140	50	M10X60
2 1/2	2.875	550	4.055	5.512	1.969	3.780	5.512	1.969	3/8X2 1/8
65	76.1	3780	106	142	50	99	142	50	M10X60
2 1/2	3.000	550	4.173	5.591	1.969	3.898	5.591	1.969	3/8X2 1/8
80	88.9	3780	118	159	50	112	159	50	M12X65
3	3.500	550	4.646	6.260	1.969	4.409	6.260	1.969	1/2X2 1/2
100	114.3	3450	142	189	53	138	189	53	M12X70
4	4.500	500	5.591	7.441	2.087	5.433	7.441	2.087	1/2X2 1/4
125	139.7	3450	175	218	53	168	218	53	M12X75
5	5.500	500	6.891	8.583	2.087	6.614	8.583	2.087	1/2X3
125	141.3	3450	175	220	53	169	220	53	M12X75
5	5.563	500	6.891	8.661	2.087	6.654	8.661	2.087	1/2X3
150	165.1	3450	198	255	53	190	255	53	M16X90
6	6.500	500	7.795	10.039	2.087	7.480	10.039	2.087	5/8X3 1/2
150	168.3	3450	198	257	53	193	257	53	M16X90
6	6.625	500	7.795	10.118	2.087	7.598	10.118	2.087	5/8X3 1/2
200	216.3	2750	251	312	60	244	312	60	M16X90
8	8.516	400	9.882	12.283	2.362	9.606	12.283	2.362	5/8X3 1/2
200	219.1	2750	251	315	60	246	315	60	M16X90
8	8.625	400	9.882	12.402	2.362	9.685	12.402	2.362	5/8X3 1/2

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish:** Electrophoretic Orange Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- **Size Range:** DN25 through DN300 (1" through 12")
- **Tolerance :** + /- 7%

Style 1NR Reducing Flexible Coupling

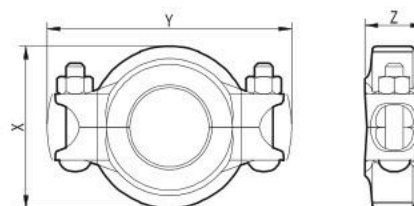


- Model 1NR is a reducing flexible coupling. Two ends can connect to different diameter of steel pipe. The middle of the coupling with a steel plate to avoid telescope by vertical installation.
- The structure ensures lower cost and faster installation under the premise of ensuring the strength.
- Enhanced body resists 4 times working pressure.

Size			Max. WorkPressure	Max. EndLoad	Allow. PipeEnd Sep.	Dimensions			Bolt/NutSize
Run Pipe	X	Branch Pipe				X	Y	Z	
mm	X	mm	KPa	N	mm	mm	mm	mm	mm
Inches	X	Inches	PSI	Lbs.	Inches	Inches	Inches	Inches	Inches
42.4	X	33.7	3800	3330	2.4	63	103	45	M10X55
1 1/4	X	1	550	730	0.094	2.480	4.055	1.772	3/8X2 1/8
48.3	X	42.4	3800	5365	2.4	72	109	45	M10X55
1 1/2	X	1 1/4	550	1190	0.094	2.835	4.291	1.772	3/8X2 1/8
60.3	X	42.4	3800	5365	2.6	84	125	46	M10X55
2	X	1 1/4	550	1190	0.102	3.307	4.921	1.811	3/8X2 1/8
	X	48.3	3800	6963	2.6	82	125	46	M10X55
	X	1 1/2	550	1559	0.102	3.228	4.921	1.811	3/8X2 1/8
73.0	X	42.4	3800	5365	2.6	100	145	46	M12X75
2 1/2	X	1 1/4	550	1190	0.102	3.937	5.709	1.811	1/2X3
	X	48.3	3800	6963	2.6	100	145	46	M12X75
	X	1 1/2	550	1559	0.102	3.937	5.709	1.811	1/2X3
	X	60.3	3800	10852	2.9	100	145	46	M12X75
	X	2	550	2437	0.114	3.937	5.709	1.811	1/2X3
76.1	X	42.4	3800	5365	2.6	103	148	46	M12X75
2 1/2	X	1 1/4	550	1190	0.102	4.055	5.827	1.811	1/2X3
	X	48.3	3800	6963	2.6	103	148	46	M12X75
	X	1 1/2	550	1559	0.102	4.055	5.827	1.811	1/2X3
	X	60.3	3800	10852	2.9	103	148	46	M12X75
	X	2	550	2437	0.114	4.055	5.827	1.811	1/2X3
	X	73.0	3800	15905	3.1	103	148	46	M12X75
	X	2 1/2	550	3571	0.122	4.055	5.827	1.811	1/2X3
88.9	X	42.4	3800	5365	3.1	114	160	49	M12X75
3	X	1 1/4	550	1190	0.122	4.488	6.299	1.929	1/2X3
	X	48.3	3800	6963	3.1	114	160	49	M12X75
	X	1 1/2	550	1559	0.122	4.488	6.299	1.929	1/2X3
	X	60.3	3450	9852	3.1	114	160	49	M12X75
	X	2	500	2215	0.122	4.488	6.299	1.929	1/2X3
	X	73.0	3800	15905	3.1	114	160	49	M12X75
	X	2 1/2	550	3571	0.122	4.488	6.299	1.929	1/2X3
	X	76.1	3800	17284	3.1	114	160	49	M12X75
	X	2 1/2	550	3888	0.122	4.488	6.299	1.929	1/2X3

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- **Size Range:** DN40 X DN32 through DN200 X DN150 (1 1/2" X 1 1/4" through 8"X6")
- **Tolerance :** + /- 7%

Style 1NR Reducing Flexible Coupling

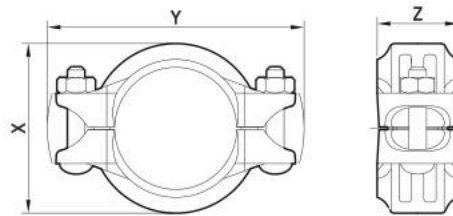


- Model 1NR is a reducing flexible coupling. Two ends can connect to different diameter of steel pipe. The middle of the coupling with a steel plate to avoid telescope by vertical installation.
- The structure ensures lower cost and faster installation under the premise of ensuring the strength.
- Enhanced body resists 4 times working pressure.

Size			Max. WorkPressure	Max. EndLoad	Allow. PipeEnd Sep.	Dimensions			Bolt/NutSize
Run Pipe	X	Branch Pipe				X	Y	Z	
mm	X	mm	KPa	N	mm	mm	mm	mm	mm
Inches	X	Inches	PSI	Lbs.	Inches	Inches	Inches	Inches	Inches
114.3 4	X	48.3	3450	6321	3.5	142	200	51	M16X90
		1 1/2	500	1421	0.138	5.591	7.874	2.008	5/8X3 1/2
		60.3	3450	9852	3.5	142	200	51	M16X90
		2	500	2215	0.138	5.591	7.874	2.008	5/8X3 1/2
		73.0	3450	14440	3.5	142	200	51	M16X90
		2 1/2	500	3246	0.138	5.591	7.874	2.008	5/8X3 1/2
		76.1	3450	15692	3.5	142	200	51	M16X90
		2 1/2	500	3534	0.138	5.591	7.874	2.008	5/8X3 1/2
165.1 6	X	88.9	3800	23587	3.5	142	200	51	M16X90
		3	550	5292	0.138	5.591	7.874	2.008	5/8X3 1/2
		76.1	2750	12508	4.0	197	269	51	M20X115
		2 1/2	400	2812	0.157	7.756	10.591	2.008	3/4X4 1/2
		88.9	2750	17070	4.0	197	269	51	M20X115
		3	400	3848	0.157	7.756	10.591	2.008	3/4X4 1/2
		114.3	3100	31809	4.0	197	269	51	M20X115
		4	450	7157	0.157	7.756	10.591	2.008	3/4X4 1/2
168.3 6	X	76.1	2750	12508	4.0	200	272	51	M20X115
		2 1/2	400	2812	0.157	7.874	10.709	2.008	3/4X4 1/2
		88.9	2750	17070	4.0	200	272	51	M20X115
		3	400	3848	0.157	7.874	10.709	2.008	3/4X4 1/2
		114.3	3100	31809	4.0	200	272	51	M20X115
		4	450	7157	0.157	7.874	10.709	2.008	3/4X4 1/2
216.3 8	X	165.1	2750	58873	4.7	258	342	61	M22X135
		6	350	13273	0.185	10.157	13.465	2.402	7/8X5 1/8
219.1 8	X	88.9	2070	12849	4.9	261	345	61	M22X135
		3	300	2886	0.193	10.276	13.583	2.402	7/8X5 1/8
		114.3	2070	21240	4.9	261	345	61	M22X135
		4	300	7157	0.193	10.276	13.583	2.402	7/8X5 1/8
		165.1	2750	58873	4.9	261	345	61	M22X135
		6	350	11674	0.193	10.276	13.583	2.402	7/8X5 1/8
		168.3	2750	61178	4.9	261	345	61	M22X135
		6	350	12058	0.193	10.276	13.583	2.402	7/8X5 1/8

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- **Size Range:** DN40 X DN32 through DN200 X DN150 (1 1/2" X 1 1/4" through 8"X6")
- **Tolerance :** + /- 7%

Style 1GH Heavy Duty Coupling

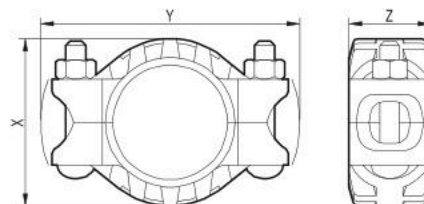


- Model 1GH rigid coupling, socketed & meshing design
- Female and male port socket design is not easy to make the horizontal and horizontal seal twists and turns, the gasket is not exposed, increasing the sealing and improve the overall service life of the joint
- Enhanced body resists 4 times working pressure.

Size		Max. Work Pressure	Max. End Load	Allow. Pipe End Sep.	Dimensions			Bolt/Nut Size
Nominal Dia.	Actual O.D.				X	Y	Z	
DN Inches	mm Inches	KPa PSI	N Lbs.	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches
25	33.7	10350	9068	2.2	56	97	45	M12X60
1	1.327	1500	2037	0.086	2.205	3.820	1.772	1/2 X 2 1/8
32	42.4	860	1214	2.2	66	112	45	M12X60
1 1/4	1.660	1250	2705	0.086	2.520	4.409	1.772	1/2 X 2 1/8
40	48.3	860	1576	2.2	70	125	45	M12X60
1 1/2	1.900	1250	3544	0.086	2.760	4.921	1.772	1/2 X 2 1/8
50	60.3	860	2195	2.2	84	134	46	M12X60
2	2.375	1250	4970	0.086	3.308	5.276	1.811	1/2 X 2 1/8
65	73.0	860	2456	2.7	98	153	48	M12X60
2 1/2	2.875	1250	5538	0.106	3.858	6.074	1.900	1/2 X 2 3/8
65	76.1	6900	28879	2.7	101	156	48	M12X60
2 1/2	3.000	1000	6492	0.106	3.976	6.142	1.900	1/2 X 2 3/8
80	88.9	6900	31384	2.7	115	164	48	M12X60
3	3.500	1000	7069	0.106	4.528	6.457	1.900	1/2 X 2 3/8
100	108.0	6900	42830	3.3	138	188	49	M12X75
4	4.250	1000	9621	0.130	5.433	7.402	1.929	1/2 X 3
100	114.3	6900	63210	3.3	144	203	49	M12X75
4	4.500	1000	14186	0.130	5.669	7.992	1.929	1/2 X 3
125	133.0	6900	70800	3.3	165	226	51	M16X90
5	5.250	1000	15904	0.130	6.496	8.898	2.008	5/8 X 3 1/2
125	139.7	6900	95861	3.3	171	233	51	M16X90
5	5.500	1000	21648	0.130	6.732	9.173	2.008	5/8 X 3 1/2
125	141.3	6900	105763	3.3	173	235	51	M16X90
5	5.563	1000	23758	0.130	6.811	9.252	2.008	5/8 X 3 1/2
150	159.0	6900	108199	3.3	192	252	52	M16X100
6	6.250	1000	24306	0.130	7.559	9.921	2.047	5/8 X 4
150	165.1	6900	137004	3.3	198	266	52	M16X100
6	6.500	1000	30680	0.130	7.795	10.472	2.047	5/8 X 4
150	168.3	6900	147718	3.3	201	269	52	M16X100
6	6.625	1000	33183	0.130	7.913	10.591	2.047	5/8 X 4
200A	216.3	6900	153500	4.9	250	334	61	M20X100
8	8.516	1000	34472	0.193	9.843	13.150	2.402	3/4 X 4
200	219.1	5500	207366	4.9	258	337	60	M20X100
8	8.625	800	46741	0.193	10.157	13.268	2.362	3/4 X 4
250A	267.4	5500	308870	4.9	314	396	64	M20X100
10	10.528	800	69642	0.193	12.362	15.591	2.520	3/4 X 4
250	273.0	5500	321943	4.9	319	401	64	M20X100
10	10.750	800	72610	0.193	12.560	15.787	2.520	3/4 X 4
300A	318.5	5500	438200	4.9	364	448	65	M20X115
12	12.539	800	98789	0.193	14.331	17.638	2.560	3/4 X 4 1/2
300	323.9	5500	453185	4.9	369	453	65	M20X115
12	12.750	800	102141	0.193	14.528	17.835	2.560	3/4 X 4 1/2

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- **Size Range:** DN25 through DN300 (1" through 12")
- **Tolerance :** + / - 7%

Style 1NH Heavy Duty Flexible Coupling

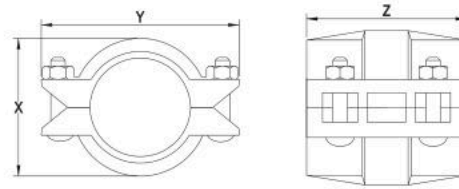


- Style 1NH heavy duty flexible coupling provides flexible connection by the gap between pipe groove and coupling key.
- Unique design allows both axial and radial movement, suitable for pipeline with flexibility under intermediate pressure.
- Enhanced body resists 4 times working pressure.

Size		Max. Work Pressure	Max. End Load	Allow. Pipe End Sep.	Dimensions			Bolt/Nut Size
Nominal Dia.	Actual O.D.				X	Y	Z	
DN Inches	mm Inches	KPa PSI	N Lbs.	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches
25	33.7	10350	9068	2.2	57	91	45	M10X55
1	1.327	1500	2037	0.087	2.244	3.583	1.772	3/8X2 1/8
32	42.4	860	1214	2.2	66	109	45	M12X60
1 1/4	1.660	1250	2705	0.087	2.598	4.291	1.772	1/2X2 1/8
40	48.3	860	1576	2.2	72	115	45	M12X60
1 1/2	1.900	1250	3544	0.087	2.835	4.528	1.772	1/2X2 1/8
50	60.3	860	2456	2.2	87	131	49	M12X60
2	2.375	1250	5538	0.087	3.425	5.787	1.929	1/2X2 1/8
65	73.0	6900	28879	2.4	101	147	49	M12X70
2 1/2	2.875	1000	6492	0.094	3.976	5.984	1.929	1/2X2 1/8
65	76.1	6900	31384	2.4	104	150	49	M12X70
2 1/2	3.000	1000	7069	0.094	4.094	5.906	1.929	1/2X2 1/8
80	88.9	6900	42830	2.8	118	166	49	M12X70
3	3.500	1000	9621	0.110	4.646	6.53	1.929	1/2X2 1/8
100	108.0	6900	63210	3.3	142	206	51	M16X90
4	4.250	1000	14186	0.130	5.591	8.110	2.008	5/8X3 1/2
100	114.3	6900	70800	3.3	148	204	51	M16X90
4	4.500	1000	15904	0.130	5.827	8.031	2.008	5/8X3 1/2
125	133.0	6900	95861	3.6	169	235	51	M20X110
5	5.250	1000	21648	0.142	6.654	9.324	2.008	3/4X4 1/8
125	139.7	6900	105763	3.6	176	241	51	M20X110
5	5.500	1000	23758	0.142	6.929	9.488	2.008	3/4X4 1/8
125	141.3	6900	108199	3.6	177	243	51	M20X110
5	5.563	1000	24306	0.142	6.969	9.567	2.008	3/4X4 1/8
150	159.0	6900	137004	3.9	197	263	52	M20X115
6	6.250	1000	30680	0.154	7.756	10.354	2.047	3/4X4 1/2
150	165.1	6900	147718	3.9	203	269	52	M20X115
6	6.500	1000	33183	0.154	7.992	10.591	2.047	3/4X4 1/2
150	168.3	6900	153500	3.9	206	272	52	M20X115
6	6.625	1000	34472	0.154	8.110	10.709	2.047	3/4X4 1/2
200A	216.3	5500	202100	4.9	264	342	61	M22X135
8	8.516	800	45567	0.193	10.394	13.465	2.402	7/8X5 1/8
200	219.1	5500	207366	4.9	267	345	61	M22X135
8	8.625	800	46741	0.193	10.512	13.583	2.402	7/8X5 1/8
250A	267.4	5500	308870	4.9	317	419	65	M24X150
10	10.528	800	69642	0.193	12.480	16.496	2.559	1X5 1/8
250	273.0	5500	321943	4.9	322	424	65	M24X150
10	10.750	800	72610	0.193	12.677	16.693	2.559	1X5 1/8
300A	318.5	5500	438200	4.9	371	473	65	M24X150
12	12.539	800	98789	0.193	14.606	18.622	2.559	1X5 1/8
300	323.9	5500	453185	4.9	376	478	65	M24X150
12	12.750	800	102141	0.193	14.803	18.819	2.559	1X5 1/8

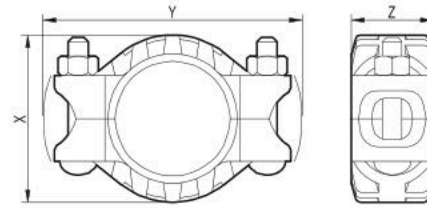
- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- **Size Range:** DN25 through DN300 (1" through 12")
- **Tolerance :** + /- 7%

HDPE Coupling



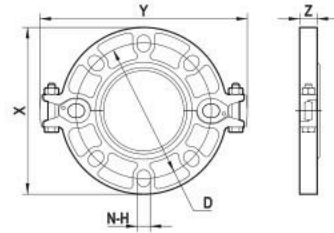
PIPE O.D.		Dimensions			Bolt/Nut Size
Min	Max	A	B	C	
mm	mm	mm	mm	mm	mm
Inches	Inches	Inches	Inches	Inches	Inches
50	50.5	71	111	105	M10X50
1.969	1.988	2.795	4.370	4.134	$\frac{3}{8}$ X2
63	63.6	86.7	128	105	M10X50
2.480	2.504	3.413	5.039	4.134	$\frac{3}{8}$ X2
75	75.7	97.5	140	105	M10X50
2.953	2.980	3.839	5.512	4.134	$\frac{3}{8}$ X2
90	90.9	113	156	105	M12X75
3.543	3.579	4.449	6.142	4.134	$\frac{1}{2}$ X3
110	111	136	180	112	M12X75
4.331	4.370	5.354	7.087	4.409	$\frac{1}{2}$ X3
140	141.3	168	210	118	M12X75
5.512	5.563	6.614	8.268	4.646	$\frac{1}{2}$ X3
160	161.5	187	230	118	M12X80
6.299	6.358	7.362	9.055	4.646	$\frac{3}{8}$ X3 $\frac{1}{8}$
180	181.7	211	253	118	M12X70
7.087	7.154	8.307	9.961	4.646	$\frac{3}{8}$ X2 $\frac{1}{4}$
200	201.8	228.4	290	127	M16X100
7.874	7.945	8.992	11.417	5.000	$\frac{5}{8}$ X4
225	226.4	261	330	127	M16X100
8.858	8.913	10.276	12.992	5.000	$\frac{5}{8}$ X4
250	252.3	279	345.5	134	M16X100
9.843	9.933	10.984	13.602	5.276	$\frac{5}{8}$ X4
280	281.7	311	393	134	M20X115
11.024	11.091	12.244	15.472	5.276	$\frac{3}{4}$ X4 $\frac{1}{2}$
315	317.9	347	429	134	M20X115
12.402	12.516	13.661	16.890	5.276	$\frac{3}{4}$ X4 $\frac{1}{2}$

Style 777Z Flexible Coupling



Size		Max. Work Pressure	Max. End Load	Allow. Pipe End Sep.	Dimensions			Bolt/Nut Size
Nominal Dia.	Actual O.D.				X	Y	Z	
DN Inches	mm Inches	KPa PSI	N Lbs.	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches
25 1	33.7 1.327	10350 1500	9068 2037	2.2 0.087	57 2.244	101 3.976	44 1.732	M10X50 3/8X2 1/4
32 1 1/4	42.4 1.660	860 1250	1214 2705	2.2 0.087	66 2.598	113 4.449	45 1.772	M12X60 1/2X2 3/8
40 1 1/2	48.3 1.900	860 1250	1576 3544	2.2 0.087	72 2.835	121 4.764	45 1.772	M12X60 1/2X2 3/8
50 2	57.0 2.250	860 1250	2195 4970	2.2 0.087	84 3.307	135 5.315	47 1.850	M12X60 1/2X2 3/8
50 2	60.3 2.375	860 1250	2456 5538	2.2 0.087	87 3.425	138 5.433	47 1.850	M12X60 1/2X2 3/8
65 2 1/2	73.0 2.875	6900 1000	28879 6492	2.4 0.094	101 3.976	152 5.984	49 1.929	M12X75 1/2X3
65 2 1/2	76.1 3.000	6900 1000	31384 7069	2.4 0.094	104 4.094	155 6.102	49 1.929	M12X75 1/2X3
80 3	88.9 3.500	6900 1000	42830 9621	2.8 0.110	118 4.646	170 6.693	49 1.929	M12X75 1/2X3
100 4	108.0 4.250	6900 1000	63210 14186	3.3 0.130	142 5.591	206 8.110	51 2.008	M16X90 5/8X3 3/8
100 4	114.3 4.500	6900 1000	70800 15904	3.3 0.130	148 5.827	212 8.346	51 2.008	M16X90 5/8X3 3/8
125 5	133.0 5.250	6900 1000	95861 21648	3.6 0.142	169 6.654	243 9.567	51 2.008	M20X115 3/4X4 1/2
125 5	139.7 5.500	6900 1000	105763 23758	3.6 0.142	176 6.929	249 9.803	51 2.008	M20X115 3/4X4 1/2
125 5	141.3 5.563	6900 1000	108199 24306	3.6 0.142	177 6.969	251 9.882	51 2.008	M20X115 3/4X4 1/2
150 6	159.0 6.250	6900 1000	137004 30680	3.9 0.154	197 7.756	271 10.669	51 2.008	M20X115 3/4X4 1/2
150 6	165.1 6.500	6900 1000	147718 33183	3.9 0.154	203 7.992	277 10.906	51 2.008	M20X115 3/4X4 1/2
150 6	168.3 6.625	6900 1000	153500 34472	3.9 0.154	206 8.110	279 10.984	51 2.008	M20X115 3/4X4 1/2
200 8	219.1 8.625	5500 800	207366 46741	4.9 0.193	267 10.512	357 14.055	63 2.480	M22X135 7/8X5 1/2
250 10	273.0 10.750	5500 800	321943 72610	4.9 0.193	320 12.598	410 16.142	65 2.559	M24X150 1X5 1/2
300 12	323.9 12.750	5500 800	453185 102141	4.9 0.193	370 14.567	460 18.110	65 2.559	M24X150 1X5 1/2

Style 321 Split Flange



- Style 321 split flange mainly use for the flange connection with the valve, equipment or pipe conversion connection to solve the groove connection and flange connection conversion, installation is simple and fast.
- Model 321 split flange's bolt holes designed into oval hole. ANSI Class 125 & 150 and PN16 grade flanges are universally available, with DN50 to DN200 (2" to 8") for both PN10 and PN25 nominal flanges; DN100 to DN150 (4" to 6") for both flanges PN10 nominal grade flange.
- In addition to the standard flanges described above, it is also available to provide flanges under other standards such as JIS 10K and ANSI Class 300.

Size		Max. Work Pressure	Max. End Load	Dimensions			Diameter	No. & Hole	Bolt/Nut Size
Nominal Dia.	Actual O.D.			X	Y	Z			
DN	mm	KPa	N	mm	mm	mm	mm	mm	mm
Inches	Inches	PSI	Lbs.	Inches	Inches	Inches	Inches	Inches	Inches
50	60.3	3450	9852	165	207	22	125	4-M18	M10X70
2	2.375	500	2215	6.496	8.145	0.866	4.921	4-0.709	³ / ₈ X2 ³ / ₄
65	73.0	3450	14440	178	223	22	140	4-M18	M10X70
2½	2.875	500	3246	7.008	8.780	0.866	5.512	4-0.709	³ / ₈ X2 ³ / ₄
65	76.1	3450	15692	185	230	22	145	4-M18	M10X70
2½	3.000	500	3534	7.283	9.055	0.866	5.709	4-0.709	³ / ₈ X2 ³ / ₄
80	88.9	3450	21415	200	246	22	160	8-M18	M10X70
3	3.500	500	4811	7.874	9.685	0.866	6.299	0.709	³ / ₈ X2 ³ / ₄
100	108.0	3450	31610	220	267	24	180	8-M18	M10X70
4	4.252	500	7090	8.661	10.512	0.945	7.087	0.709	³ / ₈ X2 ³ / ₄
100	114.3	3450	35400	229	276	24	191	8-M18	M10X70
4	4.500	500	7952	9.016	10.866	0.945	7.520	0.709	³ / ₈ X2 ³ / ₄
125	133.0	3450	47930	250	298	24	210	8-M18	M10X70
5	5.236	500	10820	9.843	11.732	0.945	8.268	0.709	³ / ₈ X2 ³ / ₄
125	139.7	3450	52881	254	300	24	210	8-M18	M10X70
5	5.500	500	11879	10.000	11.811	0.945	8.268	0.709	³ / ₈ X2 ³ / ₄
125	141.3	3450	54100	255	304	24	216	8-M22	M10X70
5	5.563	500	12153	10.039	11.968	0.945	8.504	0.866	³ / ₈ X2 ³ / ₄
150	159.0	3450	68500	285	341	25	240	8-M22	M12X75
6	6.260	500	15340	11.220	13.425	0.984	9.449	0.866	¹ / ₂ X3
150	165.1	3450	73859	285	341	25	240	8-M22	M12X75
6	6.500	500	16592	11.220	13.425	0.984	9.449	0.866	¹ / ₂ X3
150	168.3	3450	76750	285	341	26	240	8-M22	M12X75
6	6.625	500	17236	11.220	13.425	1.024	9.449	0.866	¹ / ₂ X3
200A	216.3	2750	101050	330	391	28	290	12-M22	M12X75
8	8.516	400	22780	12.992	15.394	1.102	11.417	12-0.866	¹ / ₂ X3
200	219.1	2750	103683	343	400	28	298	12-M22	M12X75
8	8.625	400	23371	13.50	15.748	1.102	11.732	12-0.866	¹ / ₂ X3

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- **Size Range:** DN50 through DN200 (2" through 8")
- **Tolerance :** + / - 7%

General



Grooved pipe fittings mainly include groove elbows, tee, cross, head, end cap and flange adaptor, etc., is an indispensable accessory in the grooved piping system, widely used in the whole system. Due to the grooved pipe fittings, making the site on-site installation and piping becomes quick and easy, is a very ideal way of piping.

The commonly used grooved fittings are made by the casting process. Most of the groove parts are made by casting. The advanced equipment and exquisite casting technology ensure the dimension accuracy of the groove. Machined grooves used, high precision machining, to ensure the reliability of the pipe system connection

The material of the grooved pipe fitting is ductile iron, which has the same performance as the connector shell. It has very high strength and toughness, and is a high-quality and long-life product.

The power of the pipeline system is provided by the pump. After passing through the entire piping system, it is ensured that sufficient pressure will be obtained on reaching the water equipment or appliances, and the pressure loss of the piping system will be minimized and the energy saving effect of the system will also be achieved.

The pressure loss of the pipe system is mainly caused by the pressure loss of pipes, pipe fittings, valves and some other fittings or accessories. The most serious pressure loss is the fittings of the pipe fittings. Therefore, it is very necessary to effectively control and improve the pressure loss of pipe fittings.

NEW groove fittings have carried out the calculation of the flow coefficient, to ensure product safety and life expectancy, but also to ensure adequate flow path diameter, turning radius and the smoothness of the inner surface, so as to ensure The pressure loss of the entire pipeline system is reduced, and the energy saving effect is achieved.

The pressure loss of NEW grooved pipe fittings can be estimated by referring to the flow coefficient table on the next page..

NEW groove fittings in addition to the standard ductile iron parts, there are other types of pipe fittings

- lined plastic grooved pipe fittings
- The lining plastic is lined with a layer of PTFE material on the inner surface of the pipe fitting, which is tasteless and non-toxic, and is an environmentally friendly food-grade material. Plastic pipe fittings are mainly used in domestic water piping systems or food-grade requirements of the pipeline system, such as pharmaceutical, food and other industries process pipeline.
- hot galvanized groove pipe fittings
- Steel grooved pipe fittings

Flow Data

The chart expresses the frictional resistance of various NEW fittings as equivalent feet of straight pipe. Fittings not listed can be estimated from the data given, for example, a 22.5° elbow is approximately one-half the resistance of a 45° elbow. Values of mid-sizes can be interpolated.

Size		90° Elbow		45° Elbow		Tee	
Nominal Dia.	Actual O.D.	Style 90	Style 9015D	Style 120	Style 9015D	Branch	RUN
DN	mm	m	m	m	m	m	m
Inches	Inches	Feet	Feet	Feet	Feet	Feet	Feet
25	33.7	0.5	—	0.2	—	1.3	0.5
1	1.327	1.6	—	0.7	—	4.3	1.6
32	424.	0.8	—	0.4	—	1.8	0.8
1 1/4	1.660	2.6	—	1.3	—	5.9	2.6
40	48.3	0.9	—	0.4	—	2.0	0.9
1 1/2	1.900	3.0	—	1.3	—	6.6	3.0
50	60.3	1.1	0.8	0.5	0.3	2.6	1.1
2	2.375	3.6	2.6	1.6	1.0	8.5	3.6
65	73.0	1.2	0.9	0.6	0.4	3.2	1.2
2 1/2	2.875	3.9	3.0	2.0	1.3	10.5	3.9
65	76.1	1.3	1.0	0.7	0.4	3.3	1.3
2 1/2	3.000	4.3	3.3	2.3	1.3	10.8	4.3
80	88.9	1.5	1.2	0.8	0.5	4.0	1.5
3	3.500	4.9	3.9	2.6	1.6	13.1	4.9
100	108.0	2.0	1.4	0.9	0.6	4.7	2.0
4	4.250	6.6	4.6	3.0	2.0	15.4	6.6
100	114.3	2.1	1.5	1.0	0.6	4.9	2.1
4	4.500	6.9	4.9	3.3	2.0	16.1	6.9
125	133.0	2.5	1.9	1.2	0.8	6.2	2.5
5	5.250	8.2	6.2	3.9	2.6	20.3	8.2
125	139.7	2.6	2.0	1.3	0.8	6.4	2.6
5	5.500	8.5	6.6	4.3	2.6	21.0	8.5

Size		90° Elbow		45° Elbow		Tee	
Nominal Dia.	Actual O.D.	Style 90	Style 9015D	Style 120	Style 9015D	Branch	RUN
DN	mm	m	m	m	m	m	m
Inches	Inches	Feet	Feet	Feet	Feet	Feet	Feet
125	141.3	2.6	2.0	1.3	0.8	6.4	2.6
5	5.563	8.5	6.6	4.3	2.6	21.0	8.5
150	159.0	2.9	2.2	1.5	0.9	7.6	2.9
6	6.250	9.5	7.2	4.9	3.0	24.9	9.5
150	165.1	2.9	2.3	1.5	0.9	7.6	3.0
6	6.500	9.5	7.2	4.9	3.0	24.9	9.5
150	168.3	3.0	2.3	1.5	0.9	7.6	3.0
6	6.625	9.8	7.5	4.9	3.0	24.9	9.8
200A	216.3	3.9	2.9	1.9	1.1	10.0	3.9
8	8.516	13.0	9.6	6.5	3.8	33.0	13.0
200	219.1	4.0	3.0	2.0	1.2	10.1	4.0
8	8.625	13.1	9.8	6.6	3.9	33.1	13.1
250A	267.4	4.9	3.4	2.4	1.4	12.3	4.9
10	10.528	16.0	11.1	8.1	4.8	40.3	16.0
250	273.0	5.2	3.7	2.5	1.5	12.5	5.2
10	10.750	17.1	12.1	8.2	4.9	41.0	17.1
300A	318.5	5.8	4.1	2.9	1.7	15.0	5.8
12	12.539	19.1	13.4	9.7	5.8	49.2	19.1
300	323.9	6.1	4.4	3.0	1.8	15.2	6.1
12	12.750	20.0	14.4	9.8	5.9	49.9	20.0

Note: The flow data listed is based upon the pressure drop of Schedule 40 pipe.

Material Specifications

Housing:

A: Ductile cast iron, QT450-12.conforming to ASTM A—536, Grade 65—45—12.

Ductile cast iron material is not easy to rust, high strength & toughness, good extensibility, but also has strong shock absorption properties.

B: Steel, steel groove pipe fittings made of high-quality cold-rolled steel pipe, the groove is made of rolled (also according to customer requirements for cutting groove

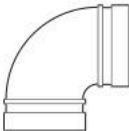
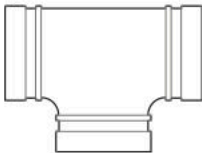
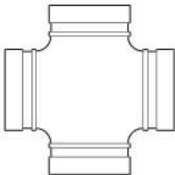
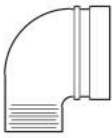
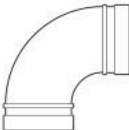
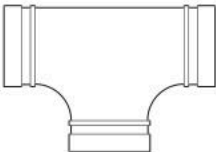
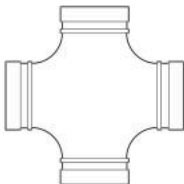
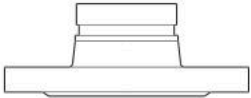
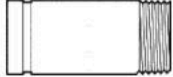
Housing color:

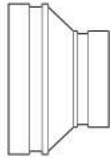
Standard color: Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated

Electrostatic powder epoxy resin powder, salt spray time more than 600 hours, superior corrosion resistance.

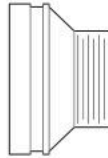
Other Optional: blue paint, gray paint, galvanized, etc. (order must be specified)

- The rated pressure of all standard pipe fittings is equal to the rated pressure of the coupling is used
- All pipe fittings are cut groove ends, as well as thread, flange and other conversion ends.
- Housing Finish: Fusion Bonded Epoxy Coated(Optional:Hot Deep Galvanized and Others)

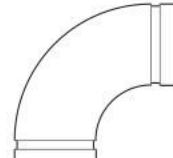
 Style 90S 90° Short Elbow DN50~DN200 2"~8" 60.3mm~219.1mm FM UL APPROVED LISTED	 Style 130S Short Equal Tee DN50~DN200 2"~8" 60.3mm~219.1mm FM UL APPROVED LISTED	 Style 180S Short Equal Cross DN50~DN200 2"~8" 60.3mm~219.1mm FM UL APPROVED LISTED	 Style 90RT 90° Reducing Elbow GxT DN25~DN65 1 1/4"~2 1/2" 42.4mm~76.1mm FM UL
 Style 90 90° Std. Elbow DN25~DN300 1"~12" 33.4mm~323.9mm FM UL APPROVED LISTED	 Style 130 Std. Equal Tee DN25~DN300 1"~12" 33.4mm~323.9mm FM UL APPROVED LISTED	 Style 180 Std. Equal Cross DN25~DN300 1"~12" 33.4mm~323.9mm FM UL APPROVED LISTED	 Style 90DE 90° Drain Elbow DN50~DN200 2"~8" 60.3mm~219.1mm FM UL
 Style 120 45° Elbow DN25~DN300 1"~12" 33.4mm~323.9mm FM UL APPROVED LISTED	 Style 110 22.5° Elbow DN25~DN300 1"~12" 33.4mm~323.9mm FM UL APPROVED LISTED	 Style 105 11.25° Elbow DN25~DN300 1"~12" 33.4mm~323.9mm FM UL APPROVED LISTED	 Style 321G Flange Adaptor Nipple DN50~DN300 2"~12" 60.3mm~323.9mm FM UL
 Style 120 45° Elbow DN25~DN300 1"~12" 33.4mm~323.9mm FM UL APPROVED LISTED	 Style 110 22.5° Elbow DN25~DN300 1"~12" 33.4mm~323.9mm FM UL APPROVED LISTED	 Style 105 11.25° Elbow DN25~DN300 1"~12" 33.4mm~323.9mm FM UL APPROVED LISTED	 Style 018GG Grooved X Grooved Nipple DN25~DN300 1"~12" 33.4mm~323.9mm
 Style 300 End Cap DN25~DN300 1"~12" 33.4mm~323.9mm FM UL APPROVED LISTED	 Style 300CH End Cap With Center Hole DN50~DN300 2"~12" 60.3mm~323.9mm FM UL APPROVED LISTED	 Style 300EH End Cap With Eccentric Hole DN50~DN300 2"~12" 60.3mm~323.9mm FM UL APPROVED LISTED	 Style 018GT Grooved X Threaded Nipple DN25~DN300 1"~12" 33.4mm~323.9mm
 Style 300 End Cap DN25~DN300 1"~12" 33.4mm~323.9mm FM UL APPROVED LISTED	 Style 300CH End Cap With Center Hole DN50~DN300 2"~12" 60.3mm~323.9mm FM UL APPROVED LISTED	 Style 300EH End Cap With Eccentric Hole DN50~DN300 2"~12" 60.3mm~323.9mm FM UL APPROVED LISTED	 Style 018GB Grooved X Bevel Nipple DN25~DN300 1"~12" 33.4mm~323.9mm



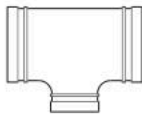
Style 240 Grooved Concentric Reducer
DN32X25~DN300X250
1 1/4"X1"~12X10"
42.4X33.4mm~323.9X273.0mm



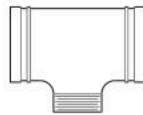
Style 240N Threaded Concentric Reducer
DN32X15~DN300X80
1 1/4"X1/2"~12X3"
42.4X21.3mm~323.9X88.9mm



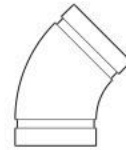
Style 9015D Long Radius 90° Elbows 1.5 D
DN50~DN300 2"~12"
60.3mm~323.9mm



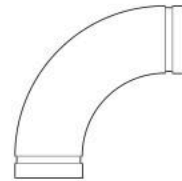
Style 131 Grooved Reducing Tee
DN32X25~DN300X250
1 1/4"X1"~12X10"
42.4X33.4mm~323.9X273.0mm



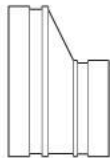
Style 131N Threaded Reducing Tee
DN32X15~DN300X80
1 1/4"X1/2"~12X3"
42.4X21.3mm~323.9X88.9mm



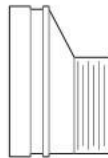
Style 4515D Long Radius 45° Elbows 1.5 D
DN50~DN300 2"~12"
60.3mm~323.9mm



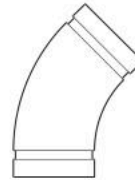
Style 9030D Long Radius 90° Elbows 3D
DN50~DN300 2"~12"
60.3mm~323.9mm



Style 230 Grooved Eccentric Reducer
DN32X25~DN300X250
1 1/4"X1"~12X10"
42.4X33.4mm~323.9X273.0mm

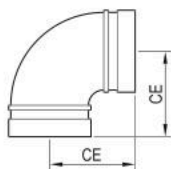


Style 230N Threaded Eccentric Reducer
DN32X15~DN300X80
1 1/4"X1/2"~12X3"
42.4X21.3mm~323.9X88.9mm

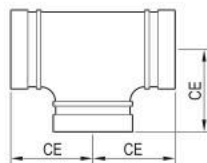


Style 4530D Long Radius 45° Elbows 3D
DN50~DN300 2"~12" 60.3mm~323.9mm

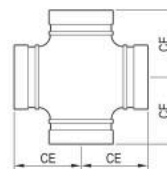
90° Short Elbow, Short Equal Tee & Short Equal Cross



Style 90S



Style 130S



Style 180S

Style 90S 90° Short Elbow



Style 130S Short Equal Tee



Style 180S Short Equal Cross



Size		Style 90S 90° Short Elbow	Style 130S Short Equal Tee	Style 180S Short Equal Cross
Nominal Dia.	Actual O.D.	CE	CE	CE
DN	mm	mm	mm	mm
Inches	Inches	Inches	Inches	Inches
25	33.7	—	—	—
1	1.327	—	—	—
32	42.4	—	—	—
1 1/4	1.660	—	—	—
40	48.3	—	—	—
1 1/2	1.900	—	—	—
50	60.3	70	70	70
2	2.375	2.75	2.75	2.75
65	73.0	76	76	76
2 1/2	2.875	3.00	3.00	3.00
65	76.1	76	76	76
2 1/2	3.000	3.00	3.00	3.00
80	88.9	86	86	86
3	3.500	3.40	3.40	3.40
100	108.0	102	102	102
4	4.250	4.00	4.00	4.00
100	114.3	102	102	102
4	4.500	4.00	4.00	4.00
125	133.0	124	124	124
5	5.250	4.88	4.88	4.88
125	139.7	124	124	124
5	5.500	4.88	4.88	4.88
125	141.3	124	124	124
5	5.563	4.88	4.88	4.88
150	159.0	140	140	140
6	6.250	5.50	5.50	5.50
150	165.1	140	140	140
6	6.500	5.50	5.50	5.50
150	168.3	140	140	140
6	6.625	5.50	5.50	5.50
200	216.3	173	173	173
8	8.516	6.80	6.80	6.80
200	219.1	173	173	173
8	8.625	6.80	6.80	6.80
250A	267.4	204	204	—
10	10.528	8.03	8.03	—
250	273.0	185	185	—
10	10.750	7.28	7.28	—
300A	318.5	220	220	—
12	12.539	8.66	8.66	—
300	323.9	215	215	—
12	12.750	8.46	8.46	—

♦ **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.

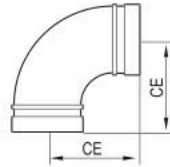
♦ **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI (2.065MPa / 20.65bars)

♦ **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)

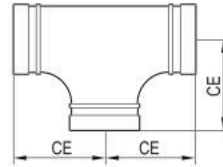
♦ **Size Range:** DN50 through DN200 (2" through 8")

♦ **Tolerance :** + / - 7%

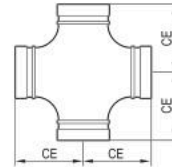
90° Standard Elbow, Standard Equal Tee & Standard Equal Cross



Style 90



Style 130



Style 180

Style 90 90° Standard Elbow



Style 130 Standard Equal Tee



Style 180 Standard Equal Cross



Size		Style 90 90° Std. Elbow	Style 130 Std. Equal Tee	Style 180 Std. Equal Cross
Nominal Dia.	Actual O.D.	CE	CE	CE
DN	mm	mm	mm	mm
Inches	Inches	Inches	Inches	Inches
25	33.7	57	57	57
1	1.327	2.25	2.25	2.25
32	42.4	70	70	70
1 1/4	1.660	2.75	2.75	2.75
40	48.3	70	70	70
1 1/2	1.900	2.75	2.75	2.75
50	60.3	83	83	83
2	2.375	3.25	3.25	3.25
65	73.0	95	95	95
2 1/2	2.875	3.75	3.75	3.75
65	76.1	95	95	95
2 1/2	3.000	3.75	3.75	3.75
80	88.9	108	108	108
3	3.500	4.25	4.25	4.25
100	108.0	127	127	127
4	4.250	5.00	5.00	5.00
100	114.3	127	127	127
4	4.500	5.00	5.00	5.00
125	133.0	140	140	140
5	5.250	5.50	5.50	5.50
125	139.7	140	140	140
5	5.500	5.50	5.50	5.50
125	141.3	140	140	140
5	5.563	5.50	5.50	5.50
150	159.0	165	165	165
6	6.250	6.50	6.50	6.50
150	165.1	165	165	165
6	6.500	6.50	6.50	6.50
150	168.3	165	165	165
6	6.625	6.50	6.50	6.50
200A	216.3	197	197	197
8	8.516	7.75	7.75	7.75
200	219.1	197	197	197
8	8.625	7.75	7.75	7.75
250A	267.4	229	229	229
10	10.528	9.00	9.00	9.00
250	273.0	229	229	229
10	10.750	9.00	9.00	9.00
300A	318.5	254	254	254
12	12.539	10.00	10.00	10.00
300	323.9	254	254	254
12	12.750	10.00	10.00	10.00

• **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.

• **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)

• **Housing Finish :** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)

• **Size Range:** DN25 through DN300 (1" through 12")

• **Tolerance :** + / - 7%

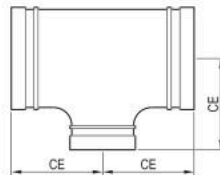
Reducing Tee



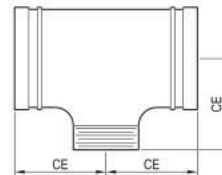
Style 131 Grooved Reducing Tee



Style 131N Threaded Reducing Tee



Style 131



Style 131N



Size			Style 131 Reducing Tee	Style 131N Reducing Tee
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X	mm Inches	mm Inches	mm Inches
42.4 1 1/4	X	33.7 1	57 2.25	57 2.25
48.3 1 1/2	X	33.4 1	70 2.75	70 2.75
		42.4 1 1/4	70 2.75	70 2.75
60.3 2	X	33.7 1	70 2.75	70 2.75
		42.4 1 1/4	70 2.75	70 2.75
		48.3 1 1/2	70 2.75	70 2.75
73.0 2 1/2	X	33.7 1	76 3.00	76 3.00
		42.4 1 1/4	76 3.00	76 3.00
		48.3 1 1/2	76 3.00	76 3.00
		60.3 2	76 3.00	76 3.00
76.1 2 1/2	X	33.7 1	76 3.00	76 3.00
		42.4 1 1/4	76 3.00	76 3.00
		48.3 1 1/2	76 3.00	76 3.00
		60.3 2	76 3.00	76 3.00
88.9 3	X	33.7 1	86 3.40	86 3.40
		42.4 1 1/4	86 3.40	86 3.40
		48.3 1 1/2	86 3.40	86 3.40
		60.3 2	86 3.40	86 3.40
		73.0 2 1/2	86 3.40	86 3.40
		76.1 2 1/2	86 3.40	86 3.40

Size			Style 131 Reducing Tee	Style 131N Reducing Tee
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X	mm Inches	mm Inches	mm Inches
114.3 4	X	33.7 1	102 4.00	102 4.00
		42.4 1 1/4	102 4.00	102 4.00
		48.3 1 1/2	102 4.00	102 4.00
		60.3 2	102 4.00	102 4.00
		73.0 2 1/2	102 4.00	102 4.00
		76.1 2 1/2	102 4.00	102 4.00
		88.9 3	102 4.00	102 4.00
139.7 5	X	33.7 1	124 4.88	124 4.88
		42.4 1 1/4	124 4.88	124 4.88
		48.3 1 1/2	124 4.88	124 4.88
		60.3 2	124 4.88	124 4.88
		76.1 2 1/2	124 4.88	124 4.88
		88.9 3	124 4.88	124 4.88
		114.3 4	124 4.88	--
141.3 5	X	33.7 1	124 4.88	124 4.88
		42.4 1 1/4	124 4.88	124 4.88
		48.3 1 1/2	124 4.88	124 4.88
		60.3 2	124 4.88	124 4.88
		73.0 2 1/2	124 4.88	124 4.88
		88.9 3	124 4.88	124 4.88
		114.3 4	124 4.88	--

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65kgf/cm²)
- **Housing Finish :** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Size Range:** DN32 X DN25 through DN300 X DN250 (1 1/4" X 1" through 12" X 10")
- **Tolerance :** + / - 7%

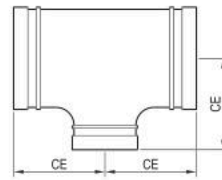
Reducing Tee



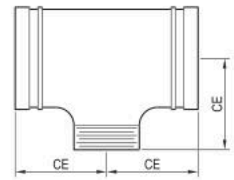
Style 131 Grooved Reducing Tee



Style 131N Threaded Reducing Tee



Style 131



Style 131N



Size			Style 131 Reducing Tee	Style 131N Reducing Tee
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X X	mm Inches	mm Inches	mm Inches
165.1 6	X	33.7	140	140
		1	5.50	5.50
		42.4	140	140
		1 1/4	5.50	5.50
		48.3	140	140
		1 1/2	5.50	5.50
		60.3	140	140
		2	5.50	5.50
		76.1	140	140
		2 1/2	5.50	5.50
		88.9	140	140
		3	5.50	5.50
		114.3	140	--
		4	5.50	--
		139.7	140	--
		5	5.50	--
168.3 6	X	33.7	140	140
		1	5.50	5.50
		42.4	140	140
		1 1/4	5.50	5.50
		48.3	140	140
		1 1/2	5.50	5.50
		60.3	140	140
		2	5.50	5.50
		73.0	140	140
		2 1/2	5.50	5.50
		88.9	140	140
		3	5.50	5.50
		114.3	140	--
		4	5.50	--
		114.3	140	--
		5	5.50	--
216.3 8	X	33.7	173	173
		1	6.80	6.80
		42.4	173	173
		1 1/4	6.80	6.80
		48.3	173	173
		1 1/2	6.80	6.80
		60.3	173	173
		2	6.80	6.80
		73.0	173	173
		2 1/2	6.80	6.80
		76.1	173	173
		2 1/2	6.80	6.80
		88.9	173	173
		3	6.80	6.80
		114.3	173	--
		4	6.80	--
		139.7	173	--
		5	6.80	--
		141.3	173	--
		5	6.80	--

Size			Style 131 Reducing Tee	Style 131N Reducing Tee
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X X	mm Inches	mm Inches	mm Inches
216.3 8	X	165.1	173	--
		6	6.80	--
		168.3	173	--
		6	6.80	--
219.1 8	X	33.7	173	173
		1	6.80	6.80
		42.4	173	173
		1 1/4	6.80	6.80
		48.3	173	173
		1 1/2	6.80	6.80
		60.3	173	173
		2	6.80	6.80
		73.0	173	173
		2 1/2	6.80	6.80
		76.1	173	173
		2 1/2	6.80	6.80
		88.9	173	173
		3	6.80	6.80
		114.3	173	--
		4	6.80	--
		139.7	173	--
		5	6.80	--
		141.3	173	--
		5	6.80	--
		165.1	173	--
		6	6.80	--
		168.3	173	--
		6	6.80	--
273.0 10	X	114.3	229	--
		4	9.00	--
		139.7	229	--
		5	9.00	--
		141.3	229	--
		5	9.00	--
		165.1	229	--
		6	9.00	--
		168.3	229	--
		6	9.00	--
		219.1	229	--
		8	9.00	--
323.9 12	X	114.3	254	--
		4	10.00	--
		139.7	254	--
		5	10.00	--
		141.3	254	--
		5	10.00	--
		165.1	254	--
		6	10.00	--
		168.3	254	--
		6	10.00	--
		219.1	254	--
		8	10.00	--
		273.0	254	--
		10	10.00	--

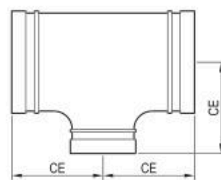
Reducing Tee



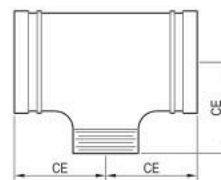
Style 131 Grooved Reducing Tee



Style 131N Threaded Reducing Tee



Style 131

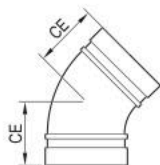


Style 131N

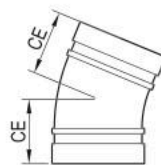


Size			Style 131 Reducing Tee	Style 131N Reducing Tee
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X X	mm Inches	mm Inches	mm Inches
267.4 10	X	114.3 4	204 8.03	--
		139.7 5	204 8.03	--
		165.1 6	204 8.03	--
		216.3 8	204 8.03	--
273.0 10	X	114.3 4	190 7.48	--
		139.7 5	190 7.48	--
		141.3 5	190 7.48	--
		165.1 6	190 7.48	--
		168.3 6	190 7.48	--
		219.1 8	190 7.48	--
318.5 12	X	139.7 5	220 8.66	--
		165.1 6	220 8.66	--
		216.3 8	220 8.66	--
		267.4 10	220 8.66	--
323.9 12	X	114.3 4	220 8.66	--
		139.7 5	220 8.66	--
		141.3 5	220 8.66	--
		165.1 6	220 8.66	--
		168.3 6	220 8.66	--
		219.1 8	220 8.66	--
		273.0 10	220 8.66	--

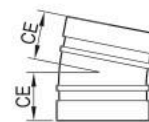
45° Elbow, 22.5° Elbow & 11.25° Elbow



Style 120



Style 110



Style 105

Style 120 45° Elbow



Style 110 22.5° Elbow



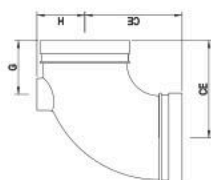
Style 105 11.25° Elbow



Size		Style 120 45° Elbow	Style 110 22.5° Elbow	Style 105 11.25° Elbow
Nominal Dia.	Actual O.D.	CE	CE	CE
DN	mm	mm	mm	mm
Inches	Inches	Inches	Inches	Inches
25	33.7	44	44	35
1	1.327	1.75	1.75	1.38
32	42.4	44	44	35
1 1/4	1.660	1.75	1.75	1.38
40	48.3	44	44	35
1 1/2	1.900	1.75	1.75	1.38
50	60.3	51	48	35
2	2.375	2.00	1.89	1.38
65	73.0	57	51	38
2 1/2	2.875	2.25	2.00	1.50
65	76.1	57	51	38
2 1/2	3.000	2.25	2.00	1.50
80	88.9	64	57	38
3	3.500	2.50	2.25	1.50
100	108.0	76	73	44
4	4.250	3.00	2.87	1.75
100	114.3	76	73	44
4	4.500	3.00	2.87	1.75
125	133.0	83	73	51
5	5.250	3.25	2.87	2.00
125	139.7	83	73	51
5	5.500	3.25	2.87	2.00
125	141.3	83	73	51
5	5.563	3.25	2.87	2.00
150	159.0	89	79	51
6	6.250	3.50	3.11	2.00
150	165.1	89	79	51
6	6.500	3.50	3.11	2.00
150	168.3	89	79	51
6	6.625	3.50	3.11	2.00
200A	216.3	108	83	51
8	8.516	4.25	3.25	2.00
200	219.1	108	83	51
8	8.625	4.25	3.25	2.00
250A	267.4	121	89	54
10	10.528	4.75	3.50	2.15
250	273.0	121	89	54
10	10.750	4.75	3.50	2.15
300A	318.5	133	102	57
12	12.539	5.25	4.00	2.25
300	323.9	133	102	57
12	12.750	5.25	4.00	2.25

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:** EPDM (Optional: Nitrile NBR, Silicone and Others)
- In addition to the points listed in this table, but also according to customer requirements to provide a variety of special point of the elbow
- **Size Range:** DN25 through DN300 (1"through 12")
- **Tolerance :** + /- 7%

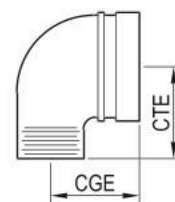
Style 90DE 90° Drain Elbow with 1" Threaded



Size			Style 90RT 90° Drain Elbow		
Run Pipe	X	Branch Pipe	C to CE	C to G	C to H
mm Inches	X	mm Inches	mm Inches	mm Inches	mm Inches
60.3	X	33.7	83	57	40
2	X	1	3.27	2.24	1.57
73.0	X	33.7	95	70	40
2 1/2	X	1	3.74	2.76	1.57
76.1	X	33.7	95	70	40
2 1/2	X	1	3.74	2.76	1.57
88.9	X	33.7	108	70	49
3	X	1	4.25	2.76	1.93
114.3	X	33.7	127	70	63
4	X	1	5.00	2.76	2.48
139.7	X	33.7	140	70	76
5	X	1	5.51	2.76	2.99
141.3	X	33.7	140	70	76
5	X	1	5.51	2.76	2.99
165.1	X	33.7	165	70	90
6	X	1	6.50	2.76	3.54
168.3	X	33.7	165	70	90
6	X	1	6.50	2.76	3.54
216.3	X	33.7	197	84	114
8	X	1	7.76	3.31	4.49
219.1	X	33.7	197	84	114
8	X	1	7.76	3.31	4.49

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- Hydrophobic port thread standard size is 1", for other specifications, please indicate on the order.
- **Size Range:** DN50 through DN200 (2"through 8")
- **Tolerance:** + /- 7%

Style 90RT 90° Reducing Elbow with Threaded Small End (Add-a-cap)



Style 90RT



Size			Style 90RT 90° Reducing Elbow	
Run Pipe	X	Branch Pipe	C to GE	C to GE
mm Inches	X	mm Inches	mm Inches	mm Inches
42.4	X	21.3	48	32
1 1/4		1/2	1.90	1.26
		26.9	51	34
		3/4	2.00	1.34
		33.7	55	37
		1	2.17	1.46
48.3	X	21.3	48	35
1 1/2		1/2	1.90	1.38
		26.9	51	37
		3/4	2.00	1.46
		33.7	55	40
		1	2.17	1.57
60.3	X	21.3	48	41
2		1/2	1.90	1.60
		26.9	51	43
		3/4	2.00	1.70
		33.7	55	46
		1	2.17	1.80
73.0	X	21.3	48	48
2 1/2		1/2	1.90	1.90
		26.9	51	50
		3/4	2.00	1.97
		33.7	55	53
		1	2.17	2.10
76.1	X	21.3	48	51
2 1/2		1/2	1.90	2.00
		26.9	51	53
		3/4	2.00	2.10
		33.7	55	56
		1	2.17	2.20

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Size Range:** DN32 X DN15 through DN65 X DN25 (1 1/4" X 1/2" through 2 1/2" X 1")
- **Tolerance:** + /- 7%

End Cap & End Cap with Hole



Style 300

Style 300 End Cap



Size		Style 300 End Cap
Nominal Dia.	Actual O.D.	CE
DN	mm	mm
Inches	Inches	Inches
25	33.7	27
1	1.327	1.06
32	424.	27
1 1/4	1.660	1.06
40	48.3	27
1 1/2	1.900	1.06
50	60.3	29
2	2.375	1.142
65	73.0	29
2 1/2	2.875	1.142
65	76.1	29
2 1/2	3.000	1.142
80	88.9	31
3	3.500	1.221
100	108.0	33
4	4.250	1.299
100	114.3	33
4	4.500	1.299
125	133.0	35
5	5.250	1.378
125	139.7	35
5	5.500	1.378
125	141.3	35
5	5.563	1.378
150	159.0	35
6	6.250	1.378
150	165.1	35
6	6.500	1.378
150	168.3	35
6	6.625	1.378
200	216.3	43
8	8.516	1.693
200	219.1	43
8	8.625	1.693
250A	267.4	50
10	10.528	1.969
250	273.0	50
10	10.750	1.969
300A	318.5	50
12	12.539	1.969
300	323.9	50
12	12.750	1.969

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish :** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- End cap standard thread is 1", for other specifications, please indicate on the order
- **Size Range:** DN25 through DN300 (1" through 12")
- **Tolerance :** + / - 7%

Style 300H1 End Cap With Center Hole



Style 300H1

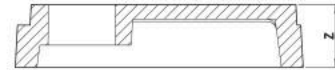


Size			Max. Work Pressure	Dimensions
Run Pipe	X	Branch Pipe		Z
mm	X	mm	KPa	mm
Inches	X	Inches	PSI	Inches
60.3 2	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25
73.0 2 ¹ / ₂	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25
76.1 2 ¹ / ₂	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25
88.9 3	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25
108.0 4	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25
114.3 4	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25
133.0 4	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25

Size			Max. Work Pressure	Dimensions
Run Pipe	X	Branch Pipe		Z
mm	X	mm	KPa	mm
Inches	X	Inches	PSI	Inches
139.7 5	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25
141.3 5	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25
159.0 6	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25
165.1 6	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25
168.3 6	X	33.7	2500	25
		1	350	0.984
		42.4	2500	25
		1 ¹ / ₄	350	0.984
		48.3	2500	25
216.3 8	X	33.7	2500	30
		1	350	1.181
		42.4	2500	30
		1 ¹ / ₄	350	1.181
		48.3	2500	30
219.1 8	X	33.7	2500	30
		1	350	1.181
		42.4	2500	30
		1 ¹ / ₄	350	1.181
		48.3	2500	30

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish :** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- End cap standard thread is 1", for other specifications, please indicate on the order
- **Size Range:** DN25 through DN200 (1" through 8")
- **Tolerance :** + / - 7%

Style 300H2 End Cap With Eccentric Hole



Style 300H2

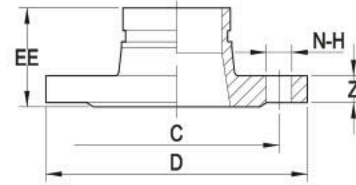


Size			Max. Work Pressure	Dimensions	
Run Pipe	X	Branch Pipe		Z	
mm	X	mm	KPa	mm	
Inches	X	Inches	PSI	Inches	
60.3 2	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	
73.0 2 1/2	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	
76.1 2 1/2	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	
88.9 3	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	
108.0 4	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	
114.3 4	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	
133.0 4	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	

Size			Max. Work Pressure	Dimensions	
Run Pipe	X	Branch Pipe		Z	
mm	X	mm	KPa	mm	
Inches	X	Inches	PSI	Inches	
139.7 5	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	
141.3 5	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	
159.0 6	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	
165.1 6	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	
168.3 6	X	33.7 1	2500 350	25 0.984	
		42.4 1 1/4	2500 350	25 0.984	
		48.3 1 1/2	2500 350	25 0.984	
		60.3 2	2500 350	25 0.984	
216.3 8	X	33.7 1	2500 350	30 1.181	
		42.4 1 1/4	2500 350	30 1.181	
		48.3 1 1/2	2500 350	30 1.181	
		60.3 2	2500 350	30 1.181	
219.1 8	X	33.7 1	2500 350	30 1.181	
		42.4 1 1/4	2500 350	30 1.181	
		48.3 1 1/2	2500 350	30 1.181	
		60.3 2	2500 350	30 1.181	

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish :** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- End cap standard thread is 1", for other specifications, please indicate on the order
- **Size Range :** DN25 through DN200 (1" through 8")
- **Tolerance :** + /- 7%

Style 321G Flange Adaptor Nipple



Style 321G

Style 321G Flange Adaptor Nipple



- Model 321G flanged adaptor is mainly used for the conversion connection of valves, equipment or pipes which interface with some flanges, which solves the conversion of the grooved connection and the flanged connection, and the installation is quick and easy.
- Model 321G flanged adaptor has bolt hole designed into an oval shape. ANSI Class 125 & 150 and PN16 grade flanges are universally available, with DN50 to DN80(2"to 3") for both PN10 and PN25 nominal flanges; DN100 to DN150 (4"to 6") for both flanges PN10 nominal grade flange.
- In addition to the above standard flanged short pipe products, other flange standards such as JIS 10K and ANSI Class 300 can also be supplied.

Size		Dimensions				
Nominal Dia.	Actual O.D.	EE	D	C	Z	No. & Hole
DN	mm	mm	mm	mm	mm	mm
Inches	Inches	Inches	Inches	Inches	Inches	Inches
32	42.4	60	134	100	14	4-M18
1 1/4	1.660	2.36	5.28	3.94	0.55	4-0.71
40	48.3	60	150	110	14	4-M18
1 1/2	1.900	2.36	5.91	4.33	0.55	4-0.71
50	60.3	60	165	121	15	4-M18
2	2.375	2.36	6.50	4.76	0.59	4-0.71
65	73.0	60	182	140	15	4-M18
2 1/2	2.875	2.36	7.17	5.51	0.59	4-0.71
65	76.1	60	182	140	15	4-M18
2 1/2	3.000	2.36	7.17	5.51	0.59	4-0.71
80	88.9	60	199	153	15	8-M18
3	3.500	2.36	7.83	6.02	0.59	8-0.71
100	108.0	70	227	180	18	8-M18
4	4.250	2.76	8.94	7.09	0.71	8-0.71
100	114.3	70	227	191	18	8-M18
4	4.500	2.76	8.94	7.52	0.71	8-0.71
125	133.0	70	250	210	19	8-M18
5	5.250	2.76	9.84	8.27	0.75	8-0.71
125	139.7	70	250	210	19	8-M23
5	5.500	2.76	9.84	8.27	0.75	8-0.91
125	139.7	80	253	210	19	8-M18
5	5.500	3.15	9.96	8.27	0.75	8-0.71
125	141.3	70	254	216	19	8-M22
5	5.563	2.76	10.00	8.50	0.75	8-0.87
150	159.0	70	285	240	19	8-M22
6	6.250	2.76	11.22	9.45	0.75	8-0.87
150	165.1	70	285	240	19	8-M22
6	6.500	2.76	11.22	9.45	0.75	8-0.87
150	168.3	70	285	240	19	8-M22
6	6.625	2.76	11.22	9.45	0.75	8-0.87
200	216.3	75	330	290	19	12-M22
8	8.516	2.95	11.29	11.42	0.75	12-0.87
200	219.1	75	345	295	19	12-M22
8	8.625	2.95	13.58	11.61	0.75	12-0.87
250A	267.4	90	400	355	24	12-M25
10	10.528	3.54	15.748	13.98	0.945	12-0.98
250	273.0	90	405	362	22	12-M25
10	10.750	3.54	15.94	14.25	0.87	12-0.98
300A	318.5	95	445	400	24	16-M26
12	12.539	3.74	17.520	15.75	0.945	16-1.02
300	323.9	95	485	432	30	12-M26
12	12.750	3.74	19.09	17.01	1.18	12-1.02

- Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- Housing Finish :** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- Size Range:** DN50 through DN300 (2"through 12")
- Tolerance :** + / - 7%

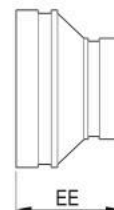
Concentric Reducer



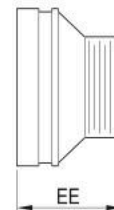
Style 240 Grooved Concentric Reducer



Style 240N Threaded Concentric Reducer



Style 240



Style 240N



Size			Style 240 Concentric Reducer	Style 240N Concentric Reducer
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X	mm Inches	mm Inches	mm Inches
42.4 1 1/4	X	33.7 1	64 2.50	64 2.50
48.3 1 1/2	X	33.7 1	64 2.50	64 2.50
		42.4 1 1/4	64 2.50	64 2.50
60.3 2	X	33.7 1	64 2.50	64 2.50
		42.4 1 1/4	64 2.50	64 2.50
		48.3 1 1/2	64 2.50	64 2.50
73.0 2 1/2	X	33.7 1	64 2.50	64 2.50
		42.4 1 1/4	64 2.50	64 2.50
		48.3 1 1/2	64 2.50	64 2.50
		60.3 2	64 2.50	64 2.50
76.1 2 1/2	X	33.7 1 1/2	64 2.50	64 2.50
		42.4 1 1/4	64 2.50	64 2.50
		48.3 1 1/2	64 2.50	64 2.50
		60.3 2	64 2.50	64 2.50
88.9 3	X	33.7 1	64 2.50	64 2.50
		42.4 1 1/4	64 2.50	64 2.50
		48.3 1 1/2	64 2.50	64 2.50

Size			Style 240 Concentric Reducer	Style 240N Concentric Reducer
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X	mm Inches	mm Inches	mm Inches
88.9 3	X	60.3 2	64 2.50	64 2.50
		73.0 2 1/2	64 2.50	64 2.50
		76.1 2 1/2	64 2.50	64 2.50
114.3 4	X	33.7 1	76 3.00	76 3.00
		42.4 1 1/4	76 3.00	76 3.00
		48.3 1 1/2	76 3.00	76 3.00
		60.3 2	76 3.00	76 3.00
		73.0 2 1/2	76 3.00	76 3.00
		76.1 2 1/2	76 3.00	76 3.00
		88.9 3	76 3.00	76 3.00
139.7 5	X	33.7 1	89 3.50	89 3.50
		42.4 1 1/4	89 3.50	89 3.50
		48.3 1 1/2	89 3.50	89 3.50
		60.3 2	89 3.50	89 3.50
		76.1 2 1/2	89 3.50	89 3.50
		88.9 3	89 3.50	89 3.50
		114.3 4	89 3.50	--
141.3 5	X	33.7 1	89 3.50	89 3.50
		42.4 1 1/4	89 3.50	89 3.50
		48.3 1 1/2	89 3.50	89 3.50
		60.3 2	89 3.50	89 3.50
		73.0 2 1/2	89 3.50	89 3.50
		88.9 3	89 3.50	89 3.50
		114.3 4	89 3.50	--

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa/ 20.65bars)
- **Housing Finish :** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Size Range:** DN32 X DN25 through DN300 X DN250 (1 1/4" X 1" through 12" X 10")
- **Tolerance :** + /- 7%

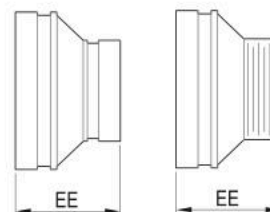
Concentric Reducer



Style 240 Grooved Concentric Reducer



Style 240N Threaded Concentric Reducer



Style 240

Style 240N



Size			Style 240 Concentric Reducer	Style 240N Concentric Reducer
Run Pipe	X	Branch Pipe	EE	EE
mm	X	mm	mm	mm
Inches	X	Inches	Inches	Inches
165.1 6	X	33.7 1	102 4.00	102 4.00
		42.4 1 1/4	102 4.00	102 4.00
		48.3 1 1/2	102 4.00	102 4.00
		60.3 2	102 4.00	102 4.00
		76.1 2 1/2	102 4.00	102 4.00
		88.9 3	102 4.00	102 4.00
		114.3 4	102 4.00	--
		139.7 5	102 4.00	--
168.3 6	X	33.7 1	102 4.00	102 4.00
		42.4 1 1/4	102 4.00	102 4.00
		48.3 1 1/2	102 4.00	102 4.00
		60.3 2	102 4.00	102 4.00
		73.0 2 1/2	102 4.00	102 4.00
		88.9 3	102 4.00	102 4.00
		114.3 4	102 4.00	--
		141.3 5	102 4.00	--
216.3 8	X	33.7 1	127 5.00	127 5.00
		141.3 1 1/4	127 5.00	127 5.00
		48.3 1 1/2	127 5.00	127 5.00
		60.3 2	127 5.00	127 5.00
		73.0 2 1/2	127 5.00	127 5.00
		88.9 3	127 5.00	127 5.00
		114.3 4	127 5.00	--
		139.7 5	127 5.00	--
		141.3 5	127 5.00	--

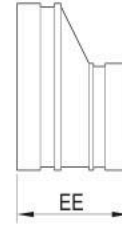
Size			Style 240 Concentric Reducer	Style 240N Concentric Reducer
Run Pipe	X	Branch Pipe	EE	EE
mm	X	mm	mm	mm
Inches	X	Inches	Inches	Inches
216.3 8	X	165.1 6	127 5.00	--
		168.3 6	127 5.00	--
219.1 8	X	33.7 1	127 5.00	127 5.00
		141.3 1 1/4	127 5.00	127 5.00
		48.3 1 1/2	127 5.00	127 5.00
		60.3 2	127 5.00	127 5.00
		73.0 2 1/2	127 5.00	127 5.00
		76.1 2 1/2	127 5.00	127 5.00
		88.9 3	127 5.00	127 5.00
		114.3 4	127 5.00	--
		139.7 5	127 5.00	--
		141.3 5	127 5.00	--
		165.1 6	127 5.00	--
		168.3 6	127 5.00	--
273.0 10	X	114.3 4	152 6.00	--
		139.7 5	152 6.00	--
		141.3 5	152 6.00	--
		165.1 6	152 6.00	--
		168.3 6	152 6.00	--
		219.1 8	152 6.00	--
323.9 12	X	114.3 4	178 7.00	--
		139.7 5	178 7.00	--
		141.3 5	178 7.00	--
		165.1 6	178 7.00	--
		168.3 6	178 7.00	--
		219.1 8	178 7.00	--
		273.0 10	178 7.00	--

Eccentric Reducer

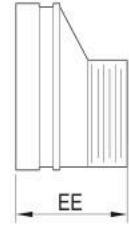


Style 230 Grooved Eccentric Reducer

Style 230N Threaded Eccentric Reducer



Style 230



Style 230N



Size			Style 230 Eccentric Reducer	Style 230N Eccentric Reducer
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X	mm Inches	mm Inches	mm Inches
42.4 1 1/4	X	33.7 1	64 2.50	64 2.50
48.3 1 1/2	X	33.4 1	64 2.50	64 2.50
		42.4 1 1/4	64 2.50	64 2.50
60.3 2	X	33.7 1	64 2.50	64 2.50
		42.4 1 1/4	64 2.50	64 2.50
		48.3 1 1/2	64 2.50	64 2.50
73.0 2 1/2	X	33.7 1	64 2.50	64 2.50
		42.4 1 1/4	64 2.50	64 2.50
		48.3 1 1/2	64 2.50	64 2.50
		60.3 2	64 2.50	64 2.50
76.1 2 1/2	X	33.7 1 1/2	64 2.50	64 2.50
		42.4 1 1/4	64 2.50	64 2.50
		48.3 1 1/2	64 2.50	64 2.50
		60.3 2	64 2.50	64 2.50
88.9 3	X	33.7 1	64 2.50	64 2.50
		42.4 1 1/4	64 2.50	64 2.50
		48.3 1 1/2	64 2.50	64 2.50
		60.3 2	64 2.50	64 2.50
		73.0 2 1/2	64 2.50	64 2.50
		76.1 2 1/2	64 2.50	64 2.50
108.0 4	X	33.7 1	76 3.00	76 3.00
		42.4 1 1/4	76 3.00	76 3.00
		48.3 1 1/2	76 3.00	76 3.00

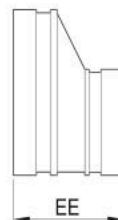
Size			Style 230 Eccentric Reducer	Style 230N Eccentric Reducer
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X	mm Inches	mm Inches	mm Inches
108.0 4	X	60.3 2	76 3.00	76 3.00
		76.1 2 1/2	76 3.00	76 3.00
		88.9 3	76 3.00	76 3.00
114.3 4	X	33.7 1	76 3.00	76 3.00
		42.4 1 1/4	76 3.00	76 3.00
		48.3 1 1/2	76 3.00	76 3.00
		60.3 2	76 3.00	76 3.00
		73.0 2 1/2	76 3.00	76 3.00
		76.1 2 1/2	76 3.00	76 3.00
		88.9 3	76 3.00	76 3.00
133.0 5	X	60.3 2	89 3.50	89 3.50
		76.1 2 1/2	89 3.50	89 3.50
		88.9 3	89 3.50	89 3.50
		108.0 4	89 3.50	--
		114.3 4	89 3.50	--
139.7 5	X	60.3 2	89 3.50	89 3.50
		76.1 2 1/2	89 3.50	89 3.50
		88.9 3	89 3.50	89 3.50
		108.0 4	89 3.50	--
		114.3 4	89 3.50	--
141.3 5	X	60.3 2	89 3.50	89 3.50
		73.0 2 1/2	89 3.50	89 3.50
		88.9 3	89 3.50	89 3.50
		114.3 4	89 3.50	--

Eccentric Reducer



Style 230 Grooved Eccentric Reducer

Style 230N Threaded Eccentric Reducer



Style 230



Style 230N



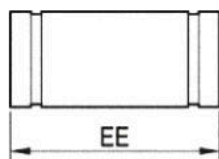
Size			Style 230 Eccentric Reducer	Style 230N Eccentric Reducer
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X	mm Inches	mm Inches	mm Inches
159.0 6	X	60.3	102	102
		2	4.00	4.00
		76.1	102	102
		2 1/2	4.00	4.00
		88.9	102	102
		3	4.00	4.00
		108.0	102	--
		4	4.00	--
		114.3	102	--
		4	4.00	--
165.1 6	X	60.3	102	102
		2	4.00	4.00
		76.1	102	102
		2 1/2	4.00	4.00
		88.9	102	102
		3	4.00	4.00
		108.0	102	--
		4	4.00	--
		114.3	102	--
		4	4.00	--
168.3 6	X	60.3	102	102
		2	4.00	4.00
		73.0	102	102
		2 1/2	4.00	4.00
		88.9	102	102
		3	4.00	4.00
		114.3	102	--
		4	4.00	--
		141.3	102	--
		5	4.00	--

Size			Style 230 Eccentric Reducer	Style 230N Eccentric Reducer
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X	mm Inches	mm Inches	mm Inches
216.3 8	X	60.3	127	127
		2	5.00	5.00
		73.0	127	127
		2 1/2	5.00	5.00
		76.1	127	127
		2 1/2	5.00	5.00
		88.9	127	127
		3	5.00	5.00
		108.0	127	--
		4	5.00	--
219.1 8	X	60.3	127	127
		2	5.00	5.00
		73.0	127	127
		2 1/2	5.00	5.00
		76.1	127	127
		2 1/2	5.00	5.00
		88.9	127	127
		3	5.00	5.00
		108.0	127	--
		4	5.00	--

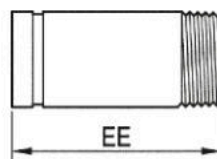
Size			Style 230 Eccentric Reducer	Style 230N Eccentric Reducer
Run Pipe	X	Branch Pipe	EE	EE
mm Inches	X	mm Inches	mm Inches	mm Inches
219.1 8	X	114.3	127	--
		4	5.00	--
		133.0	127	--
		5	5.00	--
		139.7	127	--
		5	5.00	--
		141.3	127	--
		5	5.00	--
		159.0	127	--
		6	5.00	--
273.0 10	X	108.0	152	--
		4	6.00	--
		114.3	152	--
		4	6.00	--
		133.0	152	--
		5	6.00	--
		139.7	152	--
		5	6.00	--
		141.3	152	--
		5	6.00	--
323.9 12	X	108.0	178	--
		4	7.00	--
		114.3	178	--
		4	7.00	--
		133.0	178	--
		5	7.00	--
		139.7	178	--
		5	7.00	--
		141.3	178	--
		5	7.00	--

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI (2.065MPa / 20.65kgf/cm²)
- **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Size Range:** DN32 X DN25 through DN300 X DN250 (1 1/4" X 1" through 12" X 10")
- **Tolerance :** + / - 7%

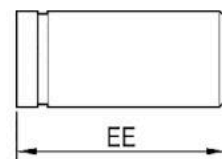
Grooved Nipple



Style 018GG



Style 018GT



Style 018GB

- The table EE value is the standard value, but can also be customized according to user requirements length
- Nipple's wall thickness is the standard US' SCH40 thickness, weight is based on the wall thickness, but also according to user requirements choose a different wall thickness
- Standard cutting groove, but also can do the rolling groove

Size		Style 018GG Grooved X Grooved Nipple	Style 018GT Grooved X Threaded Nipple	Style 018GB Grooved X Bevel Nipple
Nominal Dia.	Actual O.D.	EE	EE	EE
DN	mm	mm	mm	mm
Inches	Inches	Inches	Inches	Inches
25	33.7	76	76	76
1	1.327	3.00	3.00	3.00
32	42.4	102	102	102
1 1/4	1.660	4.00	4.00	4.00
40	48.3	102	102	102
1 1/2	1.900	4.00	4.00	4.00
50	60.3	102	102	102
2	2.375	4.00	4.00	4.00
65	73.0	102	102	102
2 1/2	2.875	4.00	4.00	4.00
65	76.1	102	102	102
2 1/2	3.000	4.00	4.00	4.00
80	88.9	102	102	102
3	3.500	4.00	4.00	4.00
100	108.0	152	---	152
4	4.250	6.00	---	6.00
100	114.3	152	---	152
4	4.500	6.00	---	6.00
125	133.0	152	---	152
5	5.250	6.00	---	6.00
125	139.7	152	---	152
5	5.500	6.00	---	6.00
125	141.3	152	---	152
5	5.563	6.00	---	6.00
150	159.0	152	---	152
6	6.250	6.00	---	6.00
150	165.1	152	---	152
6	6.500	6.00	---	6.00
150	168.3	152	---	152
6	6.625	6.00	---	6.00
200A	216.3	152	---	152
8	8.516	6.00	---	6.00
200	219.1	152	---	152
8	8.625	6.00	---	6.00
250A	267.4	203	---	203
10	10.528	8.00	---	8.00
250	273.0	203	---	203
10	10.750	8.00	---	8.00
300A	318.5	203	---	203
12	12.539	8.00	---	8.00
300	323.9	203	---	203
12	12.750	8.00	---	8.00

- **Housing material** : Steel
- **Housing Finish** : Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Size Range** : DN25 through DN300 (1" through 12")
- **Tolerance** : + / - 7%



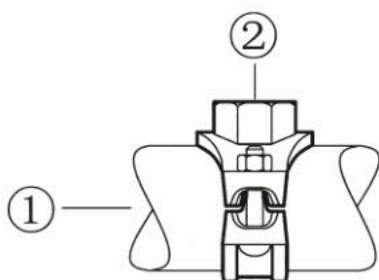
- ◆ Branch outlet fitting is a supplement to the grooved piping system. It is a very important piping unit in the mechanical piping system. The appearance of the branch outlet fitting makes the installation of the piping system more convenient and quick. Branch outlet fittings replaced welding and reducing Tee, to solve the problem of the connection branch.
- ◆ Branch outlet fitting is another way of piping innovation, is the use of bolted connections branch pipe fittings. No need to weld directly from the supervisor on the branch pipe. The method used is in the need to take over the main branch pipe processing a round hole, fitted with branch outlet housing. The opening must be secured on the centerline of the pipe and be mechanically perforated by a dedicated opening.
- ◆ NEW branch outlet fitting, including mechanical tee, mechanical cross, U-bolt.

Flow Date

The flow coefficient and flow resistance of the product at 16°C (60 F) are shown in the table on the right.

Since the pressure of the medium varies across the manifolds, the connection of the product functions best when the medium flows between ① and ②. As shown below.

The physical relationship between the various parameters under different pressures can be calculated from the formula on the right and from the data on the right.



Formulas for CV Values:

$$\Delta P = \frac{Q^2}{C_v^2}$$

$$Q = C_v \times \sqrt{\Delta P}$$

注:

ΔP : Pressure Drop, MPa

Q : Flow, L/min

C_v : Flow Coefficient

Size		C _v Values	Equiv. of Pipe		Size		CV Values	Equiv. of Pipe	
Nominal Dia.	Actual O.D.		Grooved	Threaded	Nominal Dia.	Actual O.D.		Grooved	Threaded
DN Inches	mm Inches		m Feet	m Feet	DN Inches	mm Inches		m Feet	m Feet
15	21.3	775	---	0.6	65	73.0	6154	3.4	3.8
1/2	0.840		---	2.0	2 1/2	2.875		11.0	12.5
20	26.9	957	---	1.2	65	76.1	6154	3.4	3.8
3/4	1.050		---	4.0	2 1/2	3.000		11.0	12.5
25	33.7	1140	---	1.5	80	88.9	9117	4.1	4.7
1	1.327		---	5.0	3	3.500		13.5	15.5
32	42.4	2051	1.7	1.8	100	108.0	18234	6.1	6.7
1 1/4	1.660		5.5	6.0	4	4.250		20.0	22.0
40	48.3	2735	2.1	2.4	100	114.3	18234	6.1	6.7
1 1/2	1.900		7.0	8.0	4	4.500		20.0	22.0
50	60.3	4558	2.7	3.2					
2	2.375		9.0	10.5					

Mechanical Cross



Mechanical cross description :

- ◆ Model 4G grooved mechanical cross is built by 2 pieces of model 3G's outlet housing.
- ◆ Model 4J threaded mechanical cross is built by 2 pieces of model 3J's outlet housing

In the sprinkler system, the use of mechanical cross should be in accordance with the following principles, otherwise it will affect the strength of the pipeline:

All sizes of 3G / 3J mechanical tee can be combined into a mechanical cross, but must be combined according to certain principles, otherwise it will affect the strength of the pipeline, see the table on the right.

Run Pipe Size		Max. Branch Pipe Size			
Nominal Dia.	Actual O.D.	Mechanical Tee		Mechanical Cross	
		Nominal Dia.	Actual O.D.	Nominal Dia.	Actual O.D.
DN Inches	mm Inches	DN Inches	mm Inches	DN Inches	mm Inches
50	60.3	25	33.7	25	33.7
2	2.375	1	1.327	1	1.327
65	73.0	40	48.3	32	42.4
2 1/2	2.875	1 1/2	1.900	1 1/4	1.660
65	76.1	40	48.3	32	42.4
2 1/2	3.000	1 1/2	1.900	1 1/4	1.660
80	88.9	50	60.3	40	48.3
3	3.500	2	2.375	1 1/2	1.900
100	108.0	65	76.1	50	60.3
4	4.250	2 1/2	3.000	2	2.375
100	114.3	80	88.9	50	60.3
4	4.500	3	3.500	2	2.375
125	133.0	80	88.9	76.1	40
5	5.250	3	3.500	3.000	1 1/2
125	139.7	80	88.9	76.1	40
5	5.500	3	3.500	3.000	1 1/2
125	141.3	80	88.9	73.0	40
5	5.563	3	3.500	2.875	1 1/2
150	159.0	100	114.3	88.9	50
6	6.250	4	4.500	3.500	2
150	165.1	100	114.3	88.9	50
6	6.500	4	4.500	3.500	2
150	168.3	100	114.3	88.9	50
6	6.625	4	4.500	3.500	2
200	219.1	100	114.3	100	114.3
8	8.625	4	4.500	4	4.500

- ◆ With mechanical outlet fittings, the branch pipe can be built directly from the main pipe without welding.
- ◆ Gasket designed with the pipe arc to pipe surface, so as to achieve a more ideal sealing effect.
- ◆ Hole cut must be ensured on the center line of the pipe and be perforated by hole saw.



Style 3G Grooved Outlet Mechanical Tee
DN65X25~DN200X100
2X1"~8X4"
60.3X33.7mm~219.1X114.3mm



Style 3J Threaded Outlet Mechanical Tee
DN65X15~DN200X80
2 1/2 X 1/2"~8X3"
60.3X21.3mm~219.1X88.9mm



Style 3L U-bolt Mechanical Tee
DN32X15~DN65X25
1 1/4 X 1/2"~2 1/2 X 1"
42.4X21.3mm~76.1X33.7mm



Style 4G Grooved Mechanical Cross

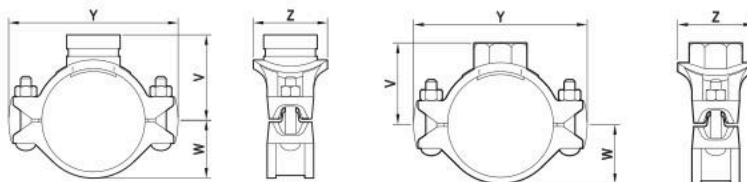


Style 4J Threaded Mechanical Cross



Style 4GJ Grooved/Threaded Mechanical Cross

Mechanical Tee



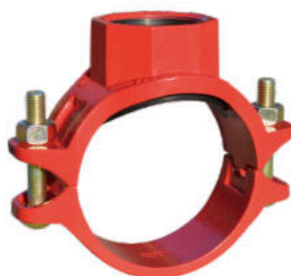
Style 3G

Style 3J

Style 3G Grooved Outlet
Mechanical Tee



Style 3J Threaded Outlet
Mechanical Tee

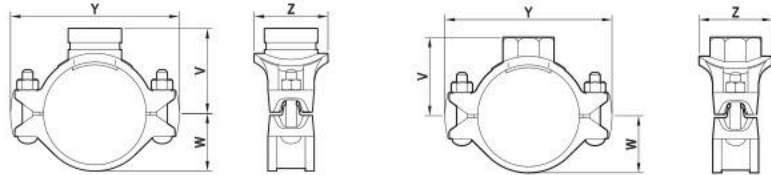


- By using the bolting method, the branch pipe is directly connected with the main pipe without welding
- All products have 21.3mm (1/2") outlets and 26.9mm (3/4") outlets are the same as 33.4mm (1") outlets.
- Enhanced body resists 4 times working pressure.

Size			Max. Work Pressure	Hole Size	Dimensions					Bolt/Nut Size
Run Pipe	X	Branch Pipe			W	Y	Z	3G V	3J V	
mm	X	mm	KPa	mm	mm	mm	mm	mm	mm	mm
Inches	X	Inches	PSI	Inches	Inches	Inches	Inches	Inches	Inches	Inches
60.3 2	X	33.7	3450	38	35	128	70	63	62	M12X60
		1	500	1.50	1.38	5.04	2.76	2.48	2.44	1/2 X 2 1/8
		42.4	3450	44.5	35	128	77	63	60	M12X60
		1 1/8	500	1.75	1.38	5.04	3.03	2.48	2.36	1/2 X 2 1/8
		48.3	3450	44.5	35	128	77	63	60	M12X60
		1 1/2	500	1.75	1.38	5.04	3.03	2.48	2.36	1/2 X 2 1/8
73.0 2 1/2	X	33.7	3450	38	42	139	69	70	69	M12X75
		1	500	1.50	1.65	5.47	2.72	2.76	2.72	1/2 X 3
		42.4	3450	44.5	42	139	77	70	71	M12X75
		1 1/8	500	1.75	1.65	5.47	3.03	2.76	2.80	1/2 X 3
		48.3	3450	51	42	139	83	70	71	M12X75
		1 1/2	500	2.00	1.65	5.47	3.27	2.76	2.80	1/2 X 3
76.1 2 1/2	X	33.7	3450	38	43	142	69	72	68	M12X75
		1	500	1.50	1.69	5.59	2.72	2.83	2.68	1/2 X 3
		42.4	3450	44.5	43	142	77	72	69	M12X75
		1 1/8	500	1.75	1.69	5.59	3.03	2.83	2.72	1/2 X 3
		48.3	3450	51	43	142	83	72	69	M12X75
		1 1/2	500	2.00	1.69	5.59	3.27	2.83	2.72	1/2 X 3
		60.3	3450	51	43	142	95	72	74	M12X75
		2	500	2.50	1.69	5.59	3.74	2.83	2.91	1/2 X 3
		33.7	3450	38	50	152	69	77	76	M12X75
		1	500	1.50	1.97	5.98	2.72	3.03	2.99	1/2 X 3
88.9 3	X	42.4	3450	44.5	50	152	75	78	79	M12X75
		1 1/8	500	1.75	1.97	5.98	2.95	3.07	3.11	1/2 X 3
		48.3	3450	51	50	152	83	78	79	M12X75
		1 1/2	500	2.00	1.97	5.98	3.27	3.07	3.11	1/2 X 3
		60.3	3450	64	50	152	95	79	79	M12X75
		2	500	2.50	1.97	5.98	3.74	3.11	3.11	1/2 X 3
		33.7	3450	38	60	173	69	--	84	M12X75
		1	500	1.50	2.36	6.81	2.72	--	3.31	1/2 X 3
		42.4	3450	44.5	60	173	75	--	85	M12X75
		1 1/8	500	1.75	2.36	6.81	2.95	--	3.35	1/2 X 3
108.0 4	X	48.3	3450	51	60	173	83	--	85	M12X75
		1 1/2	500	2.00	2.36	6.81	3.27	--	3.35	1/2 X 3
		60.3	3450	64	60	173	95	89	89	M12X75
		2	500	2.50	2.36	6.81	3.74	3.50	3.50	1/2 X 3
		76.1	3450	70	60	173	103	95	95	M12X75
		2 1/2	500	2.75	2.36	6.81	4.06	3.74	3.74	1/2 X 3
		33.7	3450	38	63	179	69	91	87	M12X75
		1	500	1.50	2.48	7.05	2.72	3.58	3.42	1/2 X 3
		42.4	3450	44.5	63	179	75	91	88	M12X75
		1 1/8	500	1.75	2.48	7.05	2.95	3.58	3.46	1/2 X 3
114.3 4	X	48.3	3450	51	63	179	83	91	88	M12X75
		1 1/2	500	2.00	2.48	7.05	3.27	3.58	3.46	1/2 X 3
		60.3	3450	64	63	179	95	92	92	M12X75
		2	500	2.50	2.48	7.05	3.74	3.62	3.62	1/2 X 3
		73.0	3450	70	63	179	105	93	98	M12X75
		2 1/2	500	2.75	2.48	7.05	4.13	3.66	3.86	1/2 X 3
		76.1	3450	70	63	179	105	93	98	M12X75
		2 1/2	500	2.75	2.48	7.05	4.13	3.66	3.86	1/2 X 3
		88.9	3450	89	63	179	126	93	100	M12X75
		3	500	3.50	2.48	7.05	4.96	3.66	3.94	1/2 X 3

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish :** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:** EPDM(Optional:Nitrile NBR,Silicone and Others)
- **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- **Size Range:** DN50 X DN25 through DN200 X DN100 (2" X 1" through 8" X 4")
- **Tolerance :** +/- 7%

Mechanical Tee



Style 3G

Style 3J

Style 3G Grooved Outlet
Mechanical Tee



Style 3J Threaded Outlet
Mechanical Tee

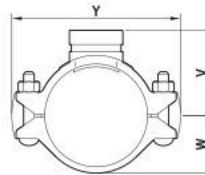


- By using the bolting method, the branch pipe is directly connected with the main pipe without welding
- All products have 21.3mm (1/2") outlets and 26.9mm (3/4") outlets are the same as 33.4mm (1") outlets.
- Enhanced body resists 4 times working pressure.

Size			Max. Work Pressure	Hole Size	Dimensions					Bolt/Nut Size
Run Pipe	X	Branch Pipe			W	Y	Z	3G V	3J V	
mm Inches	X X	mm Inches	KPa PSI	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches
133.0 5	X	33.7 1	3450 500	38 1.50	73 2.87	216 8.50	69 2.72	-- --	97 3.82	M16X90 5/8X3 3/8
		42.4 1 1/4	3450 500	44.5 1.75	73 2.87	216 8.50	75 2.95	-- --	97 3.82	M16X90 5/8X3 3/8
		48.3 1 1/2	3450 500	51 2.00	73 2.87	216 8.50	83 3.27	-- --	97 3.82	M16X90 5/8X3 3/8
		60.3 2	3450 500	64 2.50	73 2.87	216 8.50	95 3.74	104 4.09	102 4.02	M16X90 5/8X3 3/8
		76.1 2 1/2	3450 500	70 2.75	73 2.87	216 8.50	106 4.17	104 4.09	109 4.29	M16X90 5/8X3 3/8
		88.9 3	3450 500	89 3.50	73 2.87	216 8.50	126 4.96	104 4.09	111 4.37	M16X90 5/8X3 3/8
		33.7 1	3450 500	38 1.50	76 2.99	222 8.74	69 2.72	105 4.13	99 3.90	M16X90 5/8X3 3/8
		42.4 1 1/4	3450 500	44.5 1.75	76 2.99	222 8.74	75 2.95	105 4.13	101 3.98	M16X90 5/8X3 3/8
		48.3 1 1/2	3450 500	51 2.00	76 2.99	222 8.74	83 3.27	107 4.21	101 3.98	M16X90 5/8X3 3/8
		60.3 2	3450 500	64 2.50	76 2.99	222 8.74	95 3.74	107 4.21	105 4.13	M16X90 5/8X3 3/8
		76.1 2 1/2	3450 500	70 2.75	76 2.99	222 8.74	106 4.17	108 4.25	112 4.41	M16X90 5/8X3 3/8
		88.9 3	3450 500	89 3.50	76 2.99	222 8.74	126 4.96	108 4.25	112 4.41	M16X90 5/8X3 3/8
141.3 5	X	33.7 1	3450 500	38 1.50	77 3.03	224 8.97	69 2.72	106 4.17	100 3.94	M16X90 5/8X3 3/8
		42.4 1 1/4	3450 500	44.5 1.75	77 3.03	224 8.97	75 2.95	106 4.17	102 4.02	M16X90 5/8X3 3/8
		48.3 1 1/2	3450 500	51 2.00	77 3.03	224 8.97	83 3.27	106 4.17	102 4.02	M16X90 5/8X3 3/8
		60.3 2	3450 500	64 2.50	77 3.03	224 8.97	95 3.74	108 4.25	106 4.17	M16X90 5/8X3 3/8
		73.0 2 1/2	3450 500	70 2.75	77 3.03	224 8.97	106 4.17	108 4.25	112 4.41	M16X90 5/8X3 3/8
		88.9 3	3450 500	89 3.50	77 3.03	224 8.97	126 4.96	108 4.25	112 4.41	M16X90 5/8X3 3/8
		33.7 1	3450 500	38 1.50	86 3.76	244 9.61	69 2.72	-- --	110 4.33	M16X90 5/8X3 3/8
		42.4 1 1/4	3450 500	44.5 1.75	86 3.76	244 9.61	75 2.95	-- --	111 4.37	M16X90 5/8X3 3/8
		48.3 1 1/2	3450 500	51 2.00	86 3.76	244 9.61	83 3.27	-- --	111 4.37	M16X90 5/8X3 3/8
		60.3 2	3450 500	64 2.50	86 3.76	244 9.61	95 3.74	118 4.65	115 4.53	M16X90 5/8X3 3/8
		76.1 2 1/2	3450 500	70 2.75	86 3.76	244 9.61	106 4.17	118 4.65	121 4.76	M16X90 5/8X3 3/8
		88.9 3	3450 500	89 3.50	86 3.76	244 9.61	126 4.96	118 4.65	123 4.84	M16X90 5/8X3 3/8
159.0 5	X	108.0 4	3450 500	114 4.50	86 3.76	244 9.61	-- --	-- --	-- --	-- --
		114.3 4	3450 500	114 4.50	86 3.76	244 9.61	-- --	-- --	-- --	-- --

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish :** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:**EPDM(Optional:Nitrile NBR,Silicone and Others)
- **Bolts and Nuts:**Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- **Size Range:**DN50 X DN25 through DN200 X DN100 (2" X 1" through 8" X 4")
- **Tolerance :** + / - 7%

Mechanical Tee



Style 3G

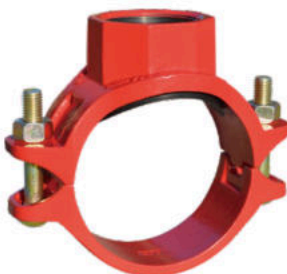


Style 3J

Style 3G Grooved Outlet
Mechanical Tee



Style 3J Threaded Outlet
Mechanical Tee



- By using the bolting method, the branch pipe is directly connected with the main pipe without welding
- All products have 21.3mm (1/2") outlets and 26.9mm (3/4") outlets are the same as 33.4mm (1") outlets.
- Enhanced body resists 4 times working pressure.

Size			Max. Work Pressure	Hole Size	Dimensions					Bolt/Nut Size
Run Pipe	X	Branch Pipe			W	Y	Z	3G V	3J V	
mm	X	mm	KPa	mm	mm	mm	mm	mm	mm	mm
Inches	X	Inches	PSI	Inches	Inches	Inches	Inches	Inches	Inches	Inches
165.1 6	X	33.7	3450	38	89	250	69	118	103	M16X90
		1	500	1.50	3.50	9.84	2.72	4.65	4.06	$\frac{3}{4}$ X3 $\frac{1}{8}$
		42.4	3450	44.5	89	250	75	119	115	M16X90
		1 $\frac{1}{4}$	500	1.75	3.50	9.84	2.95	4.69	4.53	$\frac{3}{4}$ X3 $\frac{1}{8}$
		48.3	3450	51	89	250	83	121	115	M16X90
		1 $\frac{1}{2}$	500	2.00	3.50	9.84	3.27	4.76	4.53	$\frac{3}{4}$ X3 $\frac{1}{8}$
		60.3	3450	64	89	250	95	121	119	M16X90
		2	500	2.50	3.50	9.84	3.74	4.76	4.69	$\frac{3}{4}$ X3 $\frac{1}{8}$
		76.1	3450	70	89	250	106	121	124	M16X90
		2 $\frac{1}{2}$	500	2.75	3.50	9.84	4.17	4.76	4.88	$\frac{3}{4}$ X3 $\frac{1}{8}$
		88.9	3450	89	89	250	126	121	126	M16X90
		3	500	3.50	3.50	9.84	4.96	4.76	4.96	$\frac{3}{4}$ X3 $\frac{1}{8}$
		108.0	3450	114	89	250	154	124	126	M16X90
		4	500	4.50	3.50	9.84	6.06	4.88	4.96	$\frac{3}{4}$ X3 $\frac{1}{8}$
		114.3	3450	114	89	250	154	124	126	M16X90
		4	500	4.50	3.50	9.84	6.06	4.88	4.96	$\frac{3}{4}$ X3 $\frac{1}{8}$
168.3 6	X	33.7	3450	38	91	253	69	120	115	M16X90
		1	500	1.50	3.58	9.96	2.72	4.72	4.53	$\frac{3}{4}$ X3 $\frac{1}{8}$
		42.4	3450	44.5	91	253	75	120	116	M16X90
		1 $\frac{1}{4}$	500	1.75	3.58	9.96	2.95	4.72	4.57	$\frac{3}{4}$ X3 $\frac{1}{8}$
		48.3	3450	51	91	253	83	123	116	M16X90
		1 $\frac{1}{2}$	500	2.00	3.58	9.96	3.27	4.84	4.57	$\frac{3}{4}$ X3 $\frac{1}{8}$
		60.3	3450	64	91	253	95	123	120	M16X90
		2	500	2.50	3.58	9.96	3.74	4.84	4.72	$\frac{3}{4}$ X3 $\frac{1}{8}$
		73.0	3450	70	91	253	106	123	125	M16X90
		2 $\frac{1}{2}$	500	2.75	3.58	9.96	4.17	4.84	4.92	$\frac{3}{4}$ X3 $\frac{1}{8}$
		76.1	3450	70	91	253	106	123	125	M16X90
		2 $\frac{1}{2}$	500	2.75	3.58	9.96	4.17	4.84	4.92	$\frac{3}{4}$ X3 $\frac{1}{8}$
		88.9	3450	89	91	253	126	123	125	M16X90
		3	500	3.50	3.58	9.96	4.96	4.84	4.92	$\frac{3}{4}$ X3 $\frac{1}{8}$
		114.3	3450	114	91	253	154	125	126	M16X90
		4	500	4.50	3.58	9.96	6.06	4.92	4.96	$\frac{3}{4}$ X3 $\frac{1}{8}$
216.3 8	X	33.7	3450	38	118	317	69	145	138	M20X115
		1	500	1.50	4.65	12.48	2.72	5.71	5.43	$\frac{3}{4}$ X4 $\frac{1}{2}$
		42.4	3450	44.5	118	317	75	145	140	M20X115
		1 $\frac{1}{4}$	500	1.75	4.65	12.48	2.95	5.71	5.51	$\frac{3}{4}$ X4 $\frac{1}{2}$
		48.3	3450	51	118	317	83	147	140	M20X115
		1 $\frac{1}{2}$	500	2.00	4.65	12.48	3.27	5.79	5.51	$\frac{3}{4}$ X4 $\frac{1}{2}$
		60.3	3450	64	118	317	95	147	144	M20X115
		2	500	2.50	4.65	12.48	3.74	5.79	5.67	$\frac{3}{4}$ X4 $\frac{1}{2}$
		73.0	3450	70	118	317	106	147	149	M20X115
		21/2	500	2.75	4.65	12.48	4.17	5.79	5.87	$\frac{3}{4}$ X4 $\frac{1}{2}$
		76.1	3450	70	118	317	106	147	151	M20X115
		2 $\frac{1}{2}$	500	2.75	4.65	12.48	4.17	5.79	5.94	$\frac{3}{4}$ X4 $\frac{1}{2}$
		88.9	3450	89	118	317	126	147	--	M20X115
		3	500	3.50	4.65	12.48	4.96	5.79	--	$\frac{3}{4}$ X4 $\frac{1}{2}$
		108.0	3450	114	118	317	154	147	--	M20X115
		4	500	4.50	4.65	12.48	6.06	5.79	--	$\frac{3}{4}$ X4 $\frac{1}{2}$
219.1 8	X	33.7	3450	38	118	320	69	145	138	M20X115
		1	500	1.50	4.65	12.6	2.72	5.71	5.43	$\frac{3}{4}$ X4 $\frac{1}{2}$
		42.4	3450	44.5	118	320	75	145	140	M20X115
		1 $\frac{1}{4}$	500	1.75	4.65	12.6	2.95	5.71	5.51	$\frac{3}{4}$ X4 $\frac{1}{2}$
		48.3	3450	51	118	320	83	147	140	M20X115
		1 $\frac{1}{2}$	500	2.00	4.65	12.6	3.27	5.79	5.51	$\frac{3}{4}$ X4 $\frac{1}{2}$
		60.3	3450	64	118	320	95	147	144	M20X115
		2	500	2.50	4.65	12.6	3.74	5.79	5.67	$\frac{3}{4}$ X4 $\frac{1}{2}$
		73.0	3450	70	118	320	106	147	149	M20X115
		21/2	500	2.75	4.65	12.6	4.17	5.79	5.87	$\frac{3}{4}$ X4 $\frac{1}{2}$
		76.1	3450	70	118	320	106	147	151	M20X115
		2 $\frac{1}{2}$	500	2.75	4.65	12.6	4.17	5.79	5.94	$\frac{3}{4}$ X4 $\frac{1}{2}$
		88.9	3450	89	118	320	126	147	151	M20X115
		3	500	3.50	4.65	12.6	4.96	5.79	5.94	$\frac{3}{4}$ X4 $\frac{1}{2}$
		108.0	3450	114	118	320	154	147	151	M20X115
		4	500	4.50	4.65	12.6	6.06	5.79	5.94	$\frac{3}{4}$ X4 $\frac{1}{2}$
114.3	4	3450	114	118	320	154	147	151	M20X115	
		500	4.50	4.65	12.6	6.06	5.79	5.94	$\frac{3}{4}$ X4 $\frac{1}{2}$	

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish :** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:** EPDM(Optional:Nitrile NBR,Silicone and Others)
- **Bolts and Nuts:**Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- **Size Range:** DN50 X DN25 through DN200 X DN100 (2" X 1" through 8" X 4")
- **Tolerance :** + / - .7%

Mechanical Cross

Mechanical Tee, all the sizes can be combined into a mechanical cross. But it should be in accordance with certain principles of combination, otherwise it will affect pipe strength.

This table shows the principle of combination.

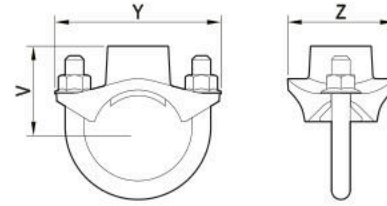
- ◆ Can be combined into mechanical cross.
- ◆ Not recommended to assemble a mechanical cross.



Size			Branch Pipe						
Run Pipe	X	Branch Pipe	33.7 1	42.4 1 1/8	48.3 1 1/4	60.3 2	73.0 2 1/2	76.1 2 1/2	88.9 3
73.0 2 1/2	X	33.4 1	★	★	★				
		42.4 1 1/8	★	★	★				
		48.3 1 1/4	★	★	※				
76.1 2 1/2	X	33.7 1	★	★	★				
		42.4 1 1/8	★	★	★				
		48.3 1 1/4	★	★	※				
88.9 3	X	33.7 1	★	★	★	★			
		42.4 1 1/8	★	★	★	★			
		48.3 1 1/4	★	★	★	★			
108.0 4	X	33.7 1	★	★	★	★		★	
		42.4 1 1/8	★	★	★	★		★	
		48.3 1 1/4	★	★	★	★		★	
114.3 4	X	33.7 1	★	★	★	★	★	★	★
		42.4 1 1/8	★	★	★	★	★	★	★
		48.3 1 1/4	★	★	★	★	★	★	★
133.0 5	X	33.7 1	★	★	★	★		★	★
		42.4 1 1/8	★	★	★	★		★	★
		48.3 1 1/4	★	★	★	★		★	★
139.7 5	X	33.7 1	★	★	★	★		★	★
		42.4 1 1/8	★	★	★	★		★	★
		48.3 1 1/4	★	★	★	★		★	★

Size			Branch Pipe								
Run Pipe	X	Branch Pipe	33.7 1	42.4 1 1/8	48.3 1 1/4	60.3 2	73.0 2 1/2	76.1 2 1/2	88.9 3	108.0 4	114.3 4
141.3 5	X	33.7 1	★	★	★	★	★		★		
		42.4 1 1/8	★	★	★	★	★		★		
		48.3 1 1/4	★	★	★	★	★		★		
		60.3 2	★	★	★	★	★		★		
		73.0 2 1/2	★	★	★	★	★		※		
		88.9 3	★	★	★	★	※		※		
159.0 6	X	33.7 1	★	★	★	★		★	★	★	★
		42.4 1 1/8	★	★	★	★		★	★	★	★
		48.3 1 1/4	★	★	★	★		★	★	★	★
		60.3 2	★	★	★	★		★	★	★	★
		76.1 2 1/2	★	★	★	★		★	★	★	★
		88.9 3	★	★	★	★		★	★	※	※
		108.0 4	★	★	★	★		★	※	※	※
		114.3 4	★	★	★	★		★	※	※	※
165.1 6	X	33.7 1	★	★	★	★		★	★	★	★
		42.4 1 1/8	★	★	★	★		★	★	★	★
		48.3 1 1/4	★	★	★	★		★	★	★	★
		60.3 2	★	★	★	★		★	★	★	★
		76.1 2 1/2	★	★	★	★		★	★	★	★
		88.9 3	★	★	★	★		★	★	※	※
		108.0 4	★	★	★	★		★	※	※	※
		114.3 4	★	★	★	★		★	※	※	※
168.3 6	X	33.7 1	★	★	★	★	★		★		★
		42.4 1 1/8	★	★	★	★	★		★		★
		48.3 1 1/4	★	★	★	★	★		★		★
		60.3 2	★	★	★	★	★		★		★
		76.1 2 1/2	★	★	★	★	★		★		★
		88.9 3	★	★	★	★	★		★		★
		108.0 4	★	★	★	★	★		★		※
		114.3 4	★	★	★	★	★		※		※
219.1 8	X	33.7 1	★	★	★	★	★	★	★	★	★
		42.4 1 1/8	★	★	★	★	★	★	★	★	★
		48.3 1 1/4	★	★	★	★	★	★	★	★	★
		60.3 2	★	★	★	★	★	★	★	★	★
		73.0 2 1/2	★	★	★	★	★	★	★	★	★
		76.1 2 1/2	★	★	★	★	★	★	★	★	★
		88.9 3	★	★	★	★	★	★	★	★	★
		108.0 4	★	★	★	★	★	★	★	★	★
		114.3 4	★	★	★	★	★	★	★	★	★

U-bolt Mechanical Tee



Style 3L U-bolt Mechanical Tee

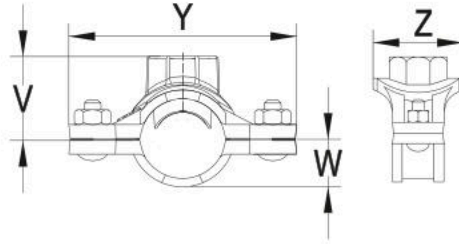


- U-bolt replaces cover part, without welding, directly from the main pipe branch
- Enhanced body resists 4 times working pressure.

Size			Max. Work Pressure	Hole Size	Dimensions			Bolt/Nut Size
Run Pipe	X	Branch Pipe			Y	Z	V	
mm	X	mm	KPa	mm	mm	mm	mm	mm
Inches	X	Inches	PSI	Inches	Inches	Inches	Inches	Inches
33.7 1	X	21.3	2500	25	78	45	37	M10 X 60 X 28
		1/2	350	0.98	3.07	1.77	1.46	3/8 X 2 3/8 X 1 1/8
		26.9	2500	25	78	45	37	M10 X 60 X 28
		3/4	350	0.98	3.07	1.77	1.46	3/8 X 2 3/8 X 1 1/8
42.4 1 1/4	X	21.3	2500	30.5	87	57	42	M10 X 68 X 38
		1/2	350	1.20	3.43	2.25	1.65	3/8 X 2 11/16 X 1 1/2
		26.9	2500	30.5	87	57	45	M10 X 68 X 38
		3/4	350	1.20	3.43	2.25	1.77	3/8 X 2 11/16 X 1 1/2
48.3 1 1/2	X	33.7	2500	30.5	87	57	52	M10 X 68 X 38
		1	350	1.20	3.43	2.25	2.05	3/8 X 2 11/16 X 1 1/2
		21.3	2500	30.5	87	57	45	M10 X 68 X 38
		1/2	350	1.20	3.43	2.25	1.77	3/8 X 2 11/16 X 1 1/2
60.3 2	X	26.9	2500	30.5	87	57	48	M10 X 68 X 38
		3/4	350	1.20	3.43	2.25	1.89	3/8 X 2 11/16 X 1 1/2
		33.7	2500	30.5	87	57	55	M10 X 68 X 38
		1	350	1.20	3.43	2.25	2.17	3/8 X 2 11/16 X 1 1/2
73.0 2 1/2	X	21.3	2500	30.5	93	57	51	M10 X 74 X 47
		1/2	350	1.20	3.66	2.25	2.00	3/8 X 2 15/16 X 1 7/8
		26.9	2500	30.5	93	57	54	M10 X 74 X 47
		3/4	350	1.20	3.66	2.25	2.13	3/8 X 2 15/16 X 1 7/8
76.1 2 3/4	X	33.7	2500	30.5	93	57	61	M10 X 74 X 47
		1	350	1.20	3.66	2.25	2.40	3/8 X 2 15/16 X 1 7/8
		21.3	2500	30.5	108	57	58	M10 X 89 X 57
		1/2	350	1.20	4.25	2.25	2.28	3/8 X 3 1/2 X 2 3/4
		26.9	2500	30.5	108	57	62	M10 X 89 X 57
		3/4	350	1.20	4.25	2.25	2.44	3/8 X 3 1/2 X 2 3/4
		33.7	2500	30.5	108	57	68	M10 X 89 X 57
		1	350	1.20	4.25	2.25	2.68	3/8 X 3 1/2 X 2 3/4
		21.3	2500	30.5	108	57	58	M10 X 89 X 57
		1/2	350	1.20	4.25	2.25	2.28	3/8 X 3 1/2 X 2 3/4
		26.9	2500	30.5	108	57	62	M10 X 89 X 57
		3/4	350	1.20	4.25	2.25	2.44	3/8 X 3 1/2 X 2 3/4
		33.7	2500	30.5	108	57	68	M10 X 89 X 57
		1	350	1.20	4.25	2.25	2.68	3/8 X 3 1/2 X 2 3/4

- **Housing material:** Ductile iron conforming to ASTM A-536, grade 65-45-12.
- **FM Approved & UL Listed:** R.W.P. rated working pressure 300PSI(2.065MPa / 20.65bars)
- **Housing Finish:** Electrophoretic Red Paint/ Fusion Bonded Epoxy Coated (Optional : Hot Dip Galvanized and Others)
- **Coupling gasket material:** EPDM(Optional: Nitrile NBR, Silicone and Others)
- **Bolts and Nuts:** Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.
- **Size Range:** DN32 X DN15 through DN65 X DN25 (1 1/4" X 1/2" through 2 1/2" X 1")
- **Tolerance :** + / - 7%

Small Mechanical Tee



Style 3JS Small Mechanical Tee



- By using the bolting method, the branch pipe is directly connected with the main pipe without welding
- All products have 21.3mm (1/2") outlets and 26.9mm (3/4") outlets are the same as 33.4mm (1") outlets.
- Enhanced body resists 4 times working pressure.

Size			Max. Work Pressure	Hole Size	Dimensions				Bolt/Nut Size
Run Pipe	X	Branch Pipe			Y	V	W	Z	
mm	X	mm	KPa	mm	mm	mm	mm	mm	mm
Inches	X	Inches	PSI	Inches	Inches	Inches	Inches	Inches	Inches
33.7	X	21.3	2500	25	93	34	27	48	M10 X 40
1		1/2	350	0.98	3.661	1.339	1.063	1.890	3/8 X 1 5/8
42.4	X	21.3	2500	30.5	98	45	28	66	M10 X 40
1 1/4		1/2	350	1.20	3.858	1.772	1.102	2.598	3/8 X 1 5/8
		26.9	2500	30.5	98	45	28	66	M10 X 40
		3/4	350	1.20	3.858	1.772	1.102	2.598	3/8 X 1 5/8
		33.7	2500	30.5	98	54	28	66	M10 X 40
		1	350	1.20	3.858	2.126	1.102	2.598	3/8 X 1 5/8
48.3	X	21.3	2500	30.5	104	48	31	66	M10 X 40
1 1/2		1/2	350	1.20	4.094	1.890	1.220	2.598	3/8 X 1 5/8
		26.9	2500	30.5	104	48	31	66	M10 X 40
		3/4	350	1.20	4.094	1.890	1.220	2.598	3/8 X 1 5/8
		33.7	2500	30.5	104	57	31	66	M10 X 40
		1	350	1.20	4.094	2.244	1.220	2.598	3/8 X 1 5/8
60.3	X	21.3	2500	30.5	125	54	38	66	M10 X 40
2		1/2	350	1.20	4.921	2.126	1.496	2.598	3/8 X 1 5/8
		26.9	2500	30.5	125	54	38	66	M10 X 40
		3/4	350	1.20	4.921	2.126	1.496	2.598	3/8 X 1 5/8
		33.7	2500	30.5	125	62	38	66	M10 X 40
		1	350	1.20	4.921	2.441	1.496	2.598	3/8 X 1 5/8
73.0	X	21.3	2500	30.5	136	61	45	66	M10 X 40
2 1/2		1/2	350	1.20	5.354	2.402	1.772	2.598	3/8 X 1 5/8
		26.9	2500	30.5	136	61	45	66	M10 X 40
		3/4	350	1.20	5.354	2.402	1.772	2.598	3/8 X 1 5/8
		33.7	2500	30.5	136	71	45	66	M10 X 40
		1	350	1.20	5.354	2.795	1.772	2.598	3/8 X 1 5/8
76.1	X	21.3	2500	30.5	136	61	47	66	M10 X 40
2 3/2		1/2	350	1.20	5.354	2.402	1.850	2.598	3/8 X 1 5/8
		26.9	2500	30.5	136	61	47	66	M10 X 40
		3/4	350	1.20	5.354	2.402	1.850	2.598	3/8 X 1 5/8
		33.7	2500	30.5	136	71	47	66	M10 X 40
		1	350	1.20	5.354	2.795	1.850	2.598	3/8 X 1 5/8
88.9	X	33.7	2500	30.5	158	75	54	66	M10 X 40
3		1	350	1.20	6.220	2.953	2.126	2.598	3/8 X 1 5/8
		42.4	2500	44.5	158	79	54	66	M10 X 40
		1 1/4	350	1.75	6.220	3.110	2.126	2.598	3/8 X 1 5/8

Rubber Gasket



NEW gaskets are designed to provide life-of-the-system service in a wide variety of applications.

Gasket materials are available to meet most piping applications. For a list of service recommendations by gasket type see pg 45-47

Rubber Gasket Styles



Standard C type:

Usually with grooved fittings. 1GS, 1X, 1N, 1NH, such as no special requirements are supporting this type of rubber seals



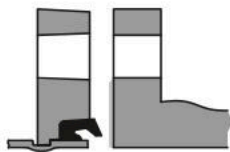
E type: áØ

Special Rubber Ring for 1F, 2F Quick Coupling Series.



Reducing type: áØ

Usually with grooved reducing fitting. 1NR supporting this type of rubber ring.



Flange type:

321-type slip flange are matched with this type of rubber ring



Opening reaction type:

3G, 3J are optional matching this type of rubber ring



Hole labyrinth type:

3G, 3J are optional matching this type of rubber ring

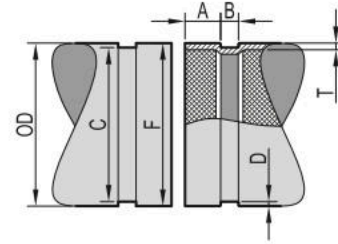
Rubber Gasket Materials

As elastomer technology advanced, superior gasket materials became available and were added to the NEW line. This allows NEW to presently offer a variety of synthetic rubber gaskets to provide the option of selecting NEW products for the widest variety of applications.

For most water system piping applications, NEW grade EPDM rubber is recommended. NEW E-grade rubber gasket material with excellent performance in anti-aging and heat resistance, the material at 125 °C (257°F) temperature, the material for hot air aging test, the physical properties of the basic unchanged. When the rubber in a non-air environment, such as water piping system, its anti-aging properties will be further strengthened.

Since water has no deteriorating effect on the elastomer, temperature is the only limiting factor to be considered in determining the life expectancy of the elastomer in water service. The superior performance of the Grade "E" elastomer permits its use for hot water service up to +230°F/+110°C. The Grade "E" gasket is superior to previous gasket materials by all performance barometers, including high and low temperature limits, tensile strength, chemical resistance and shelf life.

Roll Groove Parameters

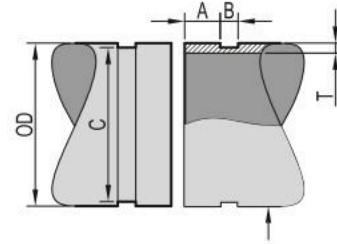


Standard Roll Groove Specifications-Steel and Other IPS Pipe

Size				Gasket Seat	Grv. Width	Grv. Diameter C		Grv. Depth	Min. Wall	Max. Flare
Nominal Dia.	Actual O.D.	Tolerance		A	B	Std.	Tolerance	D(Ref.)	T	F
DN Inches	mm Inches	mm Inches	mm Inches	±0.76mm ±0.03In.	±0.76mm ±0.03In.	mm Inches	mm Inches	mm Inches	mm Inches	mm Inches
20	26.9	0.25	0.25	15.88	7.14	23.83	-0.38	1.42	1.65	29.2
3/4	1.050	0.01	0.01	0.625	0.281	0.938	-0.015	0.056	0.065	1.15
25	33.7	0.33	0.33	15.88	7.14	30.23	-0.38	1.6	1.65	36.3
1	1.327	0.013	0.013	0.625	0.281	1.19	-0.015	0.063	0.065	1.43
32	42.4	0.041	0.041	15.88	7.14	38.99	-0.38	1.6	1.65	45
1 1/4	1.660	0.016	0.016	0.625	0.281	1.535	-0.015	0.063	0.065	1.77
40	48.3	0.048	0.048	15.88	7.14	45.09	-0.38	1.6	1.65	51.1
1 1/2	1.900	0.019	0.019	0.625	0.281	1.775	-0.015	0.063	0.065	2.01
50	57.0	0.57	0.57	15.88	8.74	53.85	-0.38	1.6	1.65	59.7
2	2.250	0.022	0.022	0.625	0.344	2.12	-0.015	0.063	0.065	2.35
50	60.3	0.61	0.61	15.88	8.74	57.15	-0.38	1.6	1.65	63
2	2.375	0.024	0.024	0.625	0.344	2.25	-0.015	0.063	0.065	2.48
65	73.0	0.74	0.74	15.88	8.74	69.09	-0.46	1.98	2.11	75.7
2 1/2	2.875	0.029	0.029	0.625	0.344	2.72	-0.018	0.078	0.083	2.98
65	76.1	0.76	0.76	15.88	8.74	72.26	-0.46	1.98	2.11	78.7
2 1/2	3.000	0.03	0.03	0.625	0.344	2.845	-0.018	0.078	0.083	3.1
80	88.9	0.89	0.79	15.88	8.74	84.94	-0.46	1.98	2.11	91.4
3	3.500	0.089	0.031	0.625	0.344	3.344	-0.018	0.078	0.083	3.6
90	101.6	1.02	0.79	15.88	8.74	97.38	-0.51	2.11	2.11	104.1
3 1/2	4.000	0.04	0.031	0.625	0.344	3.834	-0.02	0.083	0.083	4.1
100	108.0	1.07	0.79	15.88	8.74	103.73	-0.51	2.11	2.11	110.5
4	4.250	0.042	0.031	0.625	0.344	4.084	-0.02	0.083	0.083	4.35
100	114.3	1.14	0.79	15.88	8.74	110.08	-0.51	2.11	2.11	116.8
4	4.500	0.045	0.031	0.625	0.344	4.334	-0.02	0.083	0.083	4.6
120	127	1.27	0.79	15.88	8.74	122.78	-0.51	2.11	2.41	129.5
4 1/2	5.000	0.05	0.031	0.625	0.344	4.834	-0.02	0.083	0.095	5.098
125	133.0	1.32	0.79	15.88	8.74	129.13	-0.51	2.11	2.77	135.9
5	5.250	0.052	0.031	0.625	0.344	5.084	-0.02	0.083	0.109	5.35
125	139.7	1.42	0.79	15.88	8.74	135.48	-0.51	2.11	2.77	142.2
5	5.500	0.056	0.031	0.625	0.344	5.334	-0.02	0.083	0.109	5.6
125	141.3	1.42	0.79	15.88	8.74	137.03	-0.56	2.13	2.77	143.8
5	5.563	0.056	0.031	0.625	0.344	5.395	-0.022	0.084	0.109	5.66
6	152.4	1.42	0.79	15.88	8.74	148.08	-0.56	2.16	2.77	154.9
60D	6.000	0.056	0.031	0.625	0.344	5.83	-0.022	0.085	0.109	6.1
150	159.0	1.6	0.79	15.88	8.74	154.5	-0.56	2.16	2.77	161.3
6	6.250	0.063	0.031	0.625	0.344	6.082	-0.022	0.085	0.109	6.35
150	165.1	1.6	0.79	15.88	8.74	160.9	-0.56	2.16	2.77	167.6
6	6.500	0.063	0.031	0.625	0.344	6.334	-0.022	0.085	0.109	6.6
150	168.3	1.6	0.79	15.88	8.74	163.96	-0.56	2.16	2.77	170.9
6	6.625	0.063	0.031	0.625	0.344	6.455	-0.022	0.085	0.109	6.73
200	216.3	1.6	0.79	19.05	11.91	211.61	-0.64	2.34	2.77	220.7
8	8.500	0.063	0.031	0.75	0.469	8.331	-0.025	0.092	0.109	8.69
200	219.1	1.6	0.79	19.05	11.91	214.4	-0.64	2.34	2.77	223.5
8	8.625	0.063	0.031	0.75	0.469	8.441	-0.025	0.092	0.109	8.8
250	267.4	1.6	0.79	19.05	11.91	262.6	-0.69	2.39	3.4	271.8
10	10.500	0.063	0.031	0.75	0.469	10.339	-0.027	0.094	0.134	10.7
250	273.0	1.6	0.79	19.05	11.91	268.28	-0.69	2.39	3.4	277.4
10	10.750	0.063	0.031	0.75	0.469	10.562	-0.027	0.094	0.134	10.92
300	318.4	1.6	0.79	19.05	11.91	312.9	-0.76	2.77	3.96	322.8
12	12.500	0.063	0.031	0.75	0.469	12.319	-0.03	0.109	0.156	12.71
300	323.9	1.6	0.79	19.05	11.91	318.29	-0.76	2.77	3.96	328.2
12	12.750	0.063	0.031	0.75	0.469	12.531	-0.03	0.109	0.156	12.92

- Pipe standard OD and tolerance OD: Confirmed before rolling the groove pipe and not, then the pipe is not suitable for rolling groove.
- Sealing surface A: confirm the sealing surface size in line with the requirements of the above table, if it is too large, it will affect the joint installation, too small will affect the joint sealing performance;
- Groove width B: Confirm that the width of the groove conforms to the above requirements, if it exceeds the requirement, it will affect the flexibility of the flexible coupling;
- Groove bottom diameter C: The standard value is its maximum, which has only negative tolerances. It affects the pressure bearing capacity and the various indicators of sex, if C is too large will appear the possibility of joint tripping;
- Groove depth D: for reference only. When the pipe outer diameter is the standard outer diameter, it is the minimum depth of the groove.
- Minimum wall thickness T: control the quality of the pipeline after rolling groove, if it is too small, there will be pipeline cracking or lowering pipe pressure capacity;
- Max.flare F: After the pipe grooved, the pipe-end flare will generally occur. If it is oversized or over-pressed, it may exceed the requirements in the following table, which will lead to the installation quality of the joint and the seal exposed Sealing performance.

Cut Groove Parameters



Standard Roll Groove Specifications-Steel and Other IPS Pipe

Size				Gasket Seat	Grv. Width	Grv. Diameter C		Grv. Depth	Min. Wall
Nominal Dia.	Actual O.D.	Tolerance		A	B	Std.	Tolerance	D(Ref.)	T
DN	mm	mm	mm	±0.76mm	±0.76mm	mm	mm	mm	mm
Inches	Inches	Inches	Inches	±0.03In.	±0.03In.	Inches	Inches	Inches	Inches
20	26.9	0.25	0.25	15.88	7.95	23.83	-0.38	1.42	2.87
3/4	1.050	0.01	0.01	0.625	0.313	0.938	-0.015	0.056	0.113
25	33.7	0.33	0.33	15.88	7.95	30.23	-0.38	1.6	3.38
1	1.327	0.013	0.013	0.625	0.313	1.19	-0.015	0.063	0.133
32	42.4	0.041	0.041	15.88	7.95	38.99	-0.38	1.6	3.56
1 1/4	1.660	0.016	0.016	0.625	0.313	1.535	-0.015	0.063	0.140
40	48.3	0.048	0.048	15.88	7.95	45.09	-0.38	1.6	3.68
1 1/2	1.900	0.019	0.019	0.625	0.313	1.775	-0.015	0.063	0.145
50	57.0	0.57	0.57	15.88	7.95	53.85	-0.38	1.6	3.91
2	2.250	0.022	0.022	0.625	0.313	2.12	-0.015	0.063	0.154
50	60.3	0.61	0.61	15.88	7.95	57.15	-0.38	1.6	3.91
2	2.375	0.024	0.024	0.625	0.313	2.25	-0.015	0.063	0.154
65	73.0	0.74	0.74	15.88	7.95	69.09	-0.46	1.98	4.78
2 1/2	2.875	0.029	0.029	0.625	0.313	2.72	-0.018	0.078	0.188
65	76.1	0.76	0.76	15.88	7.95	72.26	-0.46	1.98	4.78
2 1/2	3.000	0.03	0.03	0.625	0.313	2.845	-0.018	0.078	0.188
80	88.9	0.89	0.79	15.88	7.95	84.94	-0.46	1.98	4.78
3	3.500	0.089	0.031	0.625	0.313	3.344	-0.018	0.078	0.188
90	101.6	1.02	0.79	15.88	7.95	97.38	-0.51	2.11	4.78
3 1/2	4.000	0.04	0.031	0.625	0.313	3.834	-0.02	0.083	0.188
100	108.0	1.07	0.79	15.88	9.53	103.73	-0.51	2.11	5.17
4	4.250	0.042	0.031	0.625	0.375	4.084	-0.02	0.083	0.203
100	114.3	1.14	0.79	15.88	9.53	110.08	-0.51	2.11	5.17
4	4.500	0.045	0.031	0.625	0.375	4.334	-0.02	0.083	0.203
120	127	1.27	0.79	15.88	9.53	122.78	-0.51	2.11	5.17
4 1/2	5.000	0.05	0.031	0.625	0.375	4.834	-0.02	0.083	0.203
125	133.0	1.32	0.79	15.88	9.53	129.13	-0.51	2.11	5.17
5	5.250	0.052	0.031	0.625	0.375	5.084	-0.02	0.083	0.203
125	139.7	1.42	0.79	15.88	9.53	135.48	-0.51	2.11	5.17
5	5.500	0.056	0.031	0.625	0.375	5.334	-0.02	0.083	0.203
125	141.3	1.42	0.79	15.88	9.53	137.03	-0.56	2.13	5.17
5	5.563	0.056	0.031	0.625	0.375	5.395	-0.022	0.084	0.203
6	152.4	1.42	0.79	15.88	9.53	148.08	-0.56	2.16	5.56
60D	6.000	0.056	0.031	0.625	0.375	5.83	-0.022	0.085	0.219
150	159.0	1.6	0.79	15.88	9.53	154.5	-0.56	2.16	5.56
6	6.250	0.063	0.031	0.625	0.375	6.082	-0.022	0.085	0.219
150	165.1	1.6	0.79	15.88	9.53	160.9	-0.56	2.16	5.56
6	6.500	0.063	0.031	0.625	0.375	6.334	-0.022	0.085	0.219
150	168.3	1.6	0.79	15.88	9.53	163.96	-0.56	2.16	5.56
6	6.625	0.063	0.031	0.625	0.375	6.455	-0.022	0.085	0.219
200	216.3	1.6	0.79	19.05	11.13	211.61	-0.64	2.34	6.05
8	8.500	0.063	0.031	0.75	0.438	8.331	-0.025	0.092	0.238
200	219.1	1.6	0.79	19.05	11.13	214.4	-0.64	2.34	6.05
8	8.625	0.063	0.031	0.75	0.438	8.441	-0.025	0.092	0.238
250	267.4	1.6	0.79	19.05	12.7	262.6	-0.69	2.39	6.35
10	10.500	0.063	0.031	0.75	0.500	10.339	-0.027	0.094	0.250
250	273.0	1.6	0.79	19.05	12.7	268.28	-0.69	2.39	6.35
10	10.750	0.063	0.031	0.75	0.500	10.562	-0.027	0.094	0.250
300	318.4	1.6	0.79	19.05	12.7	312.9	-0.76	2.77	7.09
12	12.500	0.063	0.031	0.75	0.500	12.319	-0.03	0.109	0.279
300	323.9	1.6	0.79	19.05	12.7	318.29	-0.76	2.77	7.09
12	12.750	0.063	0.031	0.75	0.500	12.531	-0.03	0.109	0.279

- Pipe standard OD and tolerance OD: Confirmed before rolling the groove pipe, if not, then the pipe is not suitable for rolling groove;
- Sealing surface A: confirm the sealing surface size in line with the requirements of the above table, if it is too large, it will affect the joint installation, too small will affect the joint sealing performance;
- Groove width B: Confirm that the width of the groove conforms to the above requirements, if it exceeds the requirement, it will affect the flexibility of the flexible coupling;
- Groove bottom diameter C: The standard value is its maximum, which has only negative tolerances. It affect the pressure bearing capacity and the various indicators of sex, if C is too large will appear the possibility of joint tripping;
- Groove depth D: for reference only. When the pipe outer diameter is the standard outer diameter, it is the minimum depth of the groove.
- Minimum wall thickness T: control the quality of the pipeline after rolling groove, if it is too small, there will be pipeline cracking or lowering pipe pressure capacity;

Designations of global pipe sizes

NEW product data is utilized worldwide and all technical data is shown in both imperial (U.S.) and metric terms. The following chart shows a comparison between typical metric and IPS pipe sizes.

Size		Design Date	ISO	ANSI	BS	DIN	JIS	GB
Nominal Dia.		Actual O.D.	Actual O.D.	Actual O.D.	Actual O.D.	Actual O.D.	Actual O.D.	Actual O.D.
Metric	Inches	Metric mm	Metric mm	Metric mm	Metric mm	Metric mm	Metric mm	Metric mm
15	1/2	21.3	21.3	21.3	21.3	21.3	21.7	21.3
20	3/4	26.9	26.9	26.7	26.9	26.9	27.2	26.9
25	1	33.4	33.7	33.4	33.7	33.7	34.0	33.7
32	1 1/4	42.4	42.4	42.2	42.4	42.4	42.7	42.4
40	1 1/2	48.3	48.3	48.3	48.3	48.3	48.3	48.3
50	2	54.0	-	-	-	-	-	54.0
		57.0	-	-	-	-	-	57.0
		60.3	60.3	60.3	60.3	60.3	60.5	60.3
65	2 1/2	73.0	-	73.0	-	-	-	73.0
		76.1	76.1	-	76.1	76.1	76.3	76.1
80	3	88.9	88.9	88.9	88.9	88.9	89.1	88.9
90	3 1/2	101.6	-	101.6	101.6	101.6	101.5	102.0
100	4	108.0	-	-	-	-	-	108.0
		114.3	114.3	114.3	114.3	114.3	114.3	114.3
120	4 1/2	127.0	-	127.0	-	-	-	127.0
125	5	133.0	-	-	-	-	-	133.0
		139.7	139.7	-	139.7	139.7	139.8	139.7
		141.3	-	141.3	-	-	-	141.3
150	6	152.4	-	152.4(60D)	-	-	-	152.0
		159.0	-	-	-	-	-	159.0
		165.1	-	-	165.1	-	165.2	165.1
		168.3	168.3	168.3	-	168.3	-	168.3
175	7	194.0	-	193.7	193.7	193.7	-	194.0
200	8	203.2	-	203.2(80D)	-	-	-	203.0
		216.3	-	-	-	-	216.3	-
		219.1	219.1	219.1	219.1	219.1	-	219.1
225	9	241.8	-	-	-	-	241.8	-
		245.0	-	245.0	-	-	-	245.0
250	10	254.0	-	254.0(100D)	-	-	-	-
		267.4	-	-	-	-	267.4	267.0
		273.0	273.0	273.0	273.0	273.0	-	273.0
275	11	299.1	-	299.1	-	-	-	299.0
300	12	304.8	-	304.8(120D)	-	-	-	-
		318.5	-	-	-	-	318.5	318.5
		323.9	323.9	323.9	323.9	323.9	-	325.0
350	14	355.6	355.6	355.6	355.6	355.6	355.6	356.0
		377.0	-	-	-	-	-	377.0
400	16	406.4	406.4	406.4	406.4	406.4	406.4	406.0
		426.0	-	-	-	-	-	426.0
450	18	457.2	457.2	457.2	457.2	457.2	457.2	457.0
		480.0	-	-	-	-	-	480.0
500	20	508.0	508.0	508.0	508.0	508.0	508.0	508.0
		530.0	-	-	-	-	-	530.0
550	22	558.8	-	558.8	559.0	558.8	558.8	560.0
600	24	609.6	610.0	609.6	610.0	609.6	609.6	610.0
		630.0	-	-	-	-	-	630.0
700	28	711.2	711.0	711.2	711.0	711.2	711.2	711.0
		720.0	-	-	-	-	-	720.0
800	32	812.8	813.0	812.8	813.0	812.8	812.8	813.0
900	36	914.4	914.0	914.4	914.0	914.4	914.4	914.0
1000	40	1016.0	1016.0	1016.0	1016.0	1016.0	1016.0	1016.0
1050	42	1066.8	1067.0	1066.8	-	1066.8	-	1067.0
1100	44	1117.6	1118.0	1117.6	-	1117.6	1117.6	1118.0
1200	48	1219.2	-	1219.2	-	1219.2	1219.2	1219.0