FLUID TECH®

FLUID TECH PIPING SYSTEMS (TIANJIN) CO.,LTD
Address: UNIT B403, SHUAILING TECHNOLOGY PARK, NO.83
QIWEI ROAD, HEDONG DISTRICT TIANJIN 300171, CHINA
Tel: (86)13012223295
WhatsApp/Wechat:(86)13012223295
Email:sales@fluidtechpiping.com

Fluid Tech Solutions

Valve Solutions





FLUID TECH®

GROOVED FITTINGS CATALOG

PROFESSIONAL PRODUCTS & SIMPLIFIED PROCUREMENT

FLUID TECH PIPING SYSTEMS (TIANJIN) CO.,LTD

FLUID TECH®

About Us



Who are we?

Fluid Tech Piping System Company is the first integrated manufacturing and trading export enterprise in Northern China, focusing on full-range piping systems for fire protection, HVAC and waterworks. Founded in Tianjin in 2018, we deliver one-stop procurement, customized OEM manufacturing and professional fluid conveying solutions for global clients.
As a leading industry enterprise, Fluid Tech Piping System Company holds strategic equity investments in multiple core domestic manufacturing hubs. All production facilities operate in strict accordance with international quality system standards certified by ISO, SGS and TÜV. We focus deeply on fire protection and HVAC sectors, building a complete fluid piping product ecosystem to meet full-scenario engineering needs.

Core Product Ecosystem

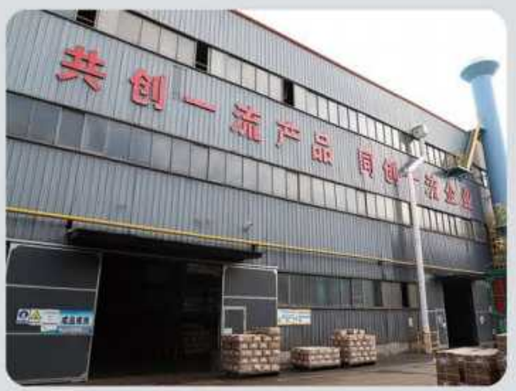
Fittings: Grooved couplings & fittings, galvanized & black pipe fittings, stainless steel fittings, butt-welding fittings
Valves & Hardware: Fire protection valves, industrial valves, steel pipe nipples & sockets, pipe hangers & supports, and full-range fire-fighting accessories

Products & Services

1. Comprehensive Product Portfolio
We provide high-performance integrated piping solutions tailored for fire protection, HVAC and waterworks projects, covering civil, industrial and municipal engineering scenarios.

Core Product Lineup
- Piping & Fittings: Malleable iron galvanized & black fittings, ductile iron grooved couplings & fittings, carbon steel press fittings for fire protection, gas pipe fittings
- Valves & Supports: Specialized fire valves, waterworks & industrial valve accessories, seismic bracing systems

2. End-to-End One-Stop Services
Backed by self-owned manufacturing hubs, we eliminate fragmented procurement pain points and deliver full-process customized services from production and inspection to global delivery, helping clients reduce comprehensive operational costs.
Value-Added Services
- Integrated Supply Chain: Unified production scheduling, rigorous quality inspection, optimized container loading and efficient global freight management
- Professional Technical Support: Free system solution consulting, engineering guidance and product sample testing
- Long-Term Market Empowerment: Customized overseas market research, localized promotion support and 24/7 global after-sales response





SOPHISTICATED EQUIPMENT QUALITY FIRST









Molding Process

Fadilke sand mixing system – highly automated, top-tier efficiency and stability, ensuring perfect sand mold parameters. The 416 vertical automatic molding line works with sand preparation system to boost productivity and quality.

FLUID TECH®

CERTIFICATE



ISO CERTIFICATES



FM CERTIFICATES



UL CERTIFICATES

CE CERTIFICATE

MOULD MANUFACTURING









Mould Manufacturing

The company has a strong product development and research team, the mold design is equipped with the most advanced 3D design software, all molds are designed by CAD/CAM computer aidedsystem, product structure optimization based on finite element theory, fully consider the possibleproduction defects in the casting process, the design safety factor of the product is closer to the actual production.

FLUID TECH®

PRODUCTIONPROCESS



Sand Mulling



Melting



Pouring



Painting



End Grind Line



Shot Blasting



Pressure Test



Package



Warehouse





PRODUCT CONTENTS



Rigid Coupling



Flexible Coupling



Angle Pad Coupling



Flexible Reducing Coupling



Grooved Quick Coupling



HDPE Coupling



Grooved Mechanical Tee



Threaded Mechanical Tee



U-bolted Threaded Mechanical Tee



Mechanical Cross Threaded Outlet



Mechanical Cross Grooved Outlet



90°Hydrant Elbow



90°Elbow



45°Elbow



22.5°Elbow



11.25°Elbow



90°Drain Elbow



90°END-ALL Elbow



Female Threaded Tee



Grooved Equal Tee

Material: ASTM A536, GRADE 65-45-12
Groove:AWWA C606, ISO 6182-12

Thread: ASME B1.20.1, ISO 7-1
Size Available: 1"-24"



Reducing Tee with Female Threaded



Reducing Tee



Equal Cross



Grooved Reducing Cross



Reducing Cross with Female Thread



Eccentric Grooved Reducer



Reducing Coupling



Grooved Eccentric Reducer with Female Thread



Grooved Concentric Reducer with Female Thread



Adaptor Flange ANSI125/150



Adaptor Flange PN16/PN25



Grooved Split Flange



Grooved*Thread Adaptor



End Cap



Cap with Concentric Hole



Cap with Eccentric Hole



Flexible Coupling



Rigid Coupling



90° Elbow



Equal Tee

PRODUCT CONTENTS



Grv * Welding Adapter



Grv * Thread Adapter



GrvGrv Adapter



Grv * Welding Adapter



Femal Thread * Welding Outlet Fitting



Hydraulic Roll Groover GHM-5X
For 1″–12″ Pipes



Automatic Roll Groover GHM-ZD3
For 8″–24″ Pipes



Manual Roll Groover G-1
For 1″–12″ Pipes



Electric Threading Machines T-3X / T-4X For ½" ~ 4"Pipes



Hole Cutting Machine KM-1
Cutting Range: 25–114 mm



Pipe Cutting Machine CHM-2X
Cutting Range: 60–325 mm



GROOVED PIPING SYSTEM

This grooved piping system is one of the most advanced, versatile, economical and reliable systems available today.After the pipe ends are grooved, a gasket is stretched over the pipe ends. The coupling segments are then placed over the gasket and the bolts and nuts are fastened, resulting in a secure and leak-free joint.

A coupling can be installed 3–4 times faster than a comparable welded or brazed joint,and there is no need for a flame or welding torch on the job site. A coupling can be installed by fastening a pair of bolts and nuts while using only a wrench or spanner, whereas a comparable flanged joint requires the fastening of many bolts and nuts with a pair of wrenches. The grooved system allows for easy material take-offs and, unlike a threaded system, there is no need to allow for added pipe length for thread engagement. With the removal of just a few bolts, one can easily access the system for cleaning, maintenance, changes and/or system expansion.

Grooving Standard & Seal Material Data

Table 1A: Roll Groove Specification

Roll–grooved dimension

Nom. Size	Pipe O.D.	A	B	D	C		T	Max. Flare dia.
		Gasket Seat	Groove Width	Groove Depth	Groove Diameter		Minimum Pipe Wall Thickness	
		Tol.(+0.76)	Tol.(+0.76)	Ret.	Basic Size	Tol.+0.00		
inch	mm	mm	mm	mm	mm	mm	mm	mm
1	33.7	15.88	7.14	1.60	30.23	−0.38	1.8	34.5
1-1/4	42.4	15.88	7.14	1.60	38.99	−0.38	1.8	43.3
1-1/2	48.3	15.88	7.14	1.60	45.09	−0.38	1.8	49.4
2	60.3	15.88	8.74	1.60	57.15	−0.38	1.8	62.2
2-1/2	73.0	15.88	8.74	1.98	69.09	−0.46	2.3	75.2
2-1/2	76.1	15.88	8.74	1.98	72.26	−0.46	2.3	77.7
3	88.9	15.88	8.74	1.98	84.94	−0.46	2.3	89.39
3-1/2	101.6	15.88	8.74	2.11	97.38	−0.51	2.3	103.4
4	108.0	15.88	8.74	2.11	103.73	−0.51	2.3	109.7
4	114.0	15.88	8.74	2.11	109.2	−0.51	2.3	114.0
5	133.0	15.88	8.74	2.11	129.13	−0.51	2.9	134.9
5	140.0	15.88	8.74	2.11	135.48	−0.51	2.9	141.4
5	141.3	15.88	8.74	2.13	137.03	−0.51	2.9	143.5
6	159.0	15.88	8.74	2.16	153.21	−0.56	2.9	161.0
6	165.0	15.88	8.74	2.16	160.90	−0.56	2.9	166.65
6	168.3	15.88	8.74	2.16	163.96	−0.56	2.9	170.7
8	219.1	19.05	11.91	2.34	214.40	−0.64	2.9	221.5
10	273.0	19.05	11.91	2.39	266.26	−0.69	3.6	275.4
12	323.9	19.05	11.91	2.77	318.29	−0.76	4.0	326.2

Table 1B: Cut Groove Specification

Cut–grooved dimension

Nom. Size	Pipe O.D.	A	B	D	C		T
		Gasket Seat Tol.(+0.76)	Groove Width Tol.(+0.76)	Groove Depth Ret.	Groove Diameter		Minimum Pipe Wall Thickness
					Basic Size	Tol.+0.00	
inch	mm	mm	mm	mm	mm	mm	mm
1	33.7	15.88	7.93	1.70	30.23	−0.38	3.3
1-1/4	42.4	15.88	7.93	1.70	38.99	−0.38	3.5
1-1/2	48.3	15.88	7.93	1.58	45.09	−0.38	3.6
2	60.3	15.88	7.93	1.58	57.15	−0.38	3.6
2-1/2	73.0	15.88	7.93	1.98	69.09	−0.46	4.0
2-1/2	76.1	15.88	7.93	1.98	72.26	−0.46	4.0
3	88.9	15.88	7.93	1.98	84.94	−0.46	4.5
3-1/2	101.6	15.88	7.93	2.11	97.38	−0.51	5.0
4	108.0	15.88	9.53	2.11	103.73	−0.51	5.0
4	114.0	15.88	9.53	2.11	110.08	−0.51	5.0
5	133.0	15.88	9.53	2.11	129.13	−0.51	5.0
5	140.0	15.88	9.53	2.11	135.48	−0.51	5.0
5	141.3	15.88	9.53	2.13	137.03	−0.56	5.0
6	159.0	15.88	9.53	2.16	153.21	−0.56	5.4
6	165.1	15.88	9.53	2.16	160.90	−0.56	5.4
6	168.3	15.88	9.53	2.16	163.96	−0.56	5.4
8	219.1	19.05	11.10	2.34	214.40	−0.64	5.4
10	273.0	19.05	12.70	2.39	266.26	−0.69	6.3
12	323.9	19.05	12.70	2.77	318.29	−0.76	7.1

Rubber Gasket Compounds

1 EPDM

EPDM is recognized as the most water resistant rubber available today. Good for cold & hot water from −34℃ up to 150℃, waste water, water with acid, deionized water and seawater. EPDM is not recommended for use with petroleum based oils and fuels, hydrocarbon solvents and aromatic hydrocarbons.



Green Stripe Grade"E"

2 Nitrile,NBR,

Nitrile and NBR both represent the same copolymer of butadiene and acrylonitrile (ACN), which is inherently resistant to hydraulic fluids, lubricating oils, transmission fluids and other non−polar petroleum based products and water from −29℃ up to 82℃. The higher the ACN content, the higher the resistance to oils and heat, but the lower elastic characteristics and compression set. NBR displays poor resistance to hot water and steam.



Orange Stripe

3 Silicone

Silicone compound features high temperature range stability and low temperature flexibility. Recommended for dry heat and air without hydrocarbons from −40℃ up to 177℃. Silicone compounds are used in many food and medical applications as they do not impart odor or taste. Not recommended for hot water or steam services.



White Gasket

Installation Instruction For Rigid & Flexible Coupling



1. Pipe preparation

Before installation, please make sure the pipe outer surface from the end to the grooved shall be clean and smooth. No lumps and bumps, no paint particles, or other factors that will influence seal of gasket.



2. Lubricate gasket

Check gasket to make sure that its compatible for the intended service. Then, lubricate gasket.



3. Install gasket

Set and fix the gasket on the end of pipe.



4. Alignment

Align the two pipes and slide the gasket to the groove. Please make sure the gasket does not slide into pipes.



5. House coupling

Dismantle the bolt and nut of one side and loosen that of the other side. Then house one point coupling onto the gasket , and do the some to the other part. Firstly, align the two parts manually.



6. Tighten nuts

First tighten nuts manually, and then with a torque wrench. Try to make sure the two oval necks, completely inset into the bole holes.



7a. Assembly compeleted-Rigid Couping

Check the pipe connections, making sure the coupling totally clamped into the pope grooves with the same seam in the pipe connection place and the gasket being invisible.



7. Assembly compeleted-Flexible Couping

Check the pipe connections, making sure the coupling totally clamped into the pope grooves with the same seam in the pipe connection place and the gasket being invisible.

Side Mechanical Tees & Crosses Installation Guide

Side outlet (mechanical cross) can be directly used to connect the branch pipes with the main steel pipe. Firstly, to open the hole with hole-cutting machine on steel pipes ,and clip the side outlet(mechanical cross)into the hole, around which are sealed by the gasket rings .Side outlet (mechanical cross)are categorized as threaded style and Grooved style. When be connected ,the threaded mechanical tee or mechanical cross should be applied with some compacting paint on it's outer screw thread ,and then roll thread around it to ensure the sealing performance of threaded joint.



1. Check the hole pickles.



2.Spread lubricant on gasket ring.



3.Put gasket seal in the Mechanical Tee.



4.Install the Mechanical Tee in the hole.



5.Install the bottom piece on the upper one of Mechanical Tee.



6.Secure the nuts and bolts of side outlet from both side.

Installation Instruction for Flange

Flange adaptor(Flange adaptor .threaded flange. flange)can be used for the transitional connection between the grooved pipe and the equipment &valves with flanges .The diameter ,location and measurement of the bolt hole on Flange adaptor are matching the bolts of international standards (GB9114.9115.9116.9119.9123-88)



1. Before installation, whether the groove meet the standard should be checked and then wipe away the pickles, iron rust, greasy dirt on gasket ring and pipe.



2.Assemble one part of flange on the pipe, and keep it in the groove of pipe



3.Put another part of flange in the groove, screw the bolts and nuts averagely on the two parts



4.Check the gasket to keep the availability in any situation, spread lubricant on surface of gasket.



5.Assemble gasket in the pipe ODand flange groove, to keep the gasket in right orientation.



6.Secure the bolts and refer to Table 5 for Bolt-Torque.



7.Insert standard bolts in bolt holes.



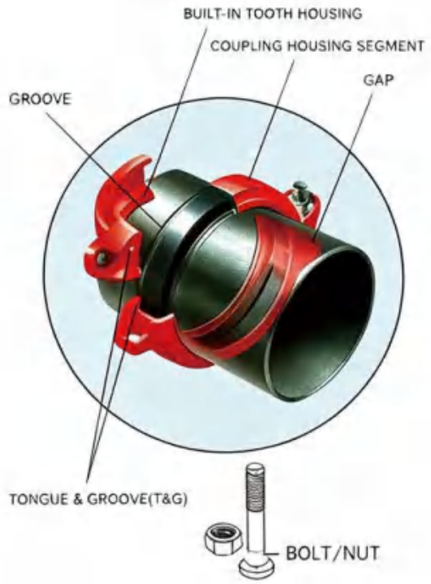
8.Insert standard bolts in the mated flange holes and screw nuts on them.



9.Secure the nuts and refer to Table 5 for Bolt-Torque.

Rigid Coupling

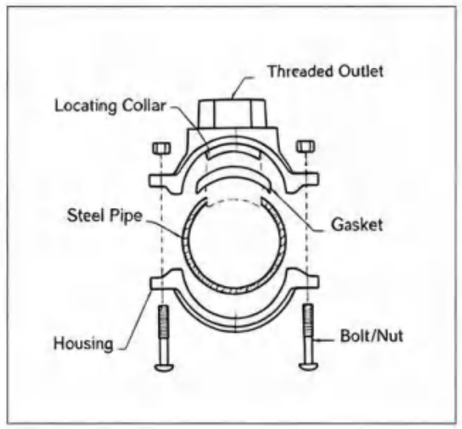
1.The Tougue&Groove mechanism in combination with a slightly shortened key diameter provides a mechanical and frictional interlock resulting in a rigid joint which reduces undesired angular movement.
2.The build-in teeth on the coupling grip the groove shoulder and serve to reduce linear movement.
3.The Tougue&Groove mechanism features a slight offset at the foot of the coupling halves which serve to protect the gasket from exposure.
4.With the Tongue&Groove style coupling no metal-to-metal contact of the bolt pads is required you will normally see a 1.6mm to 3.2mm gap between the bold pads when installed.



Mechanical Tee Connection:

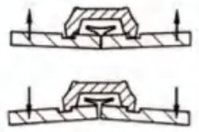
The Mechanical tee provide for a fast and easy grooved or threaded branch outlet and eliminate the need for welding or the use of a reducing tee and couplings. Simply cut a hole to the specified size at the expected location and fasten the mechanical tee to the pipe with the nuts and bolts provided. As the housing bolts are tightened, the pressure responsive gasket forms a leak-tight seal.





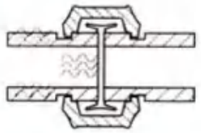
Flexible Coupling

1.A flexible coupling accommodates pipe deflection and non-alignment as below: if nominal diameter < DN200, deflection angle is>=1degree;If nominal diameter>=DN200, deflection angle is>=0.5degree but <1degree

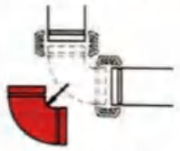


2.The C-shaped rubber gasket provides excellent self-sealing capabilities in both low and high pressure service as well as under certain vacuum conditions

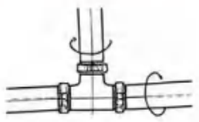
3.The design and construction of the coupling with elastomeric gaskets can provide significant noise and vibration absorption as well as seismic stress.



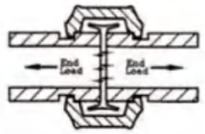
4.With the removal of just a few bolts you can easily access the system for cleaning maintenance changes or system expansion.

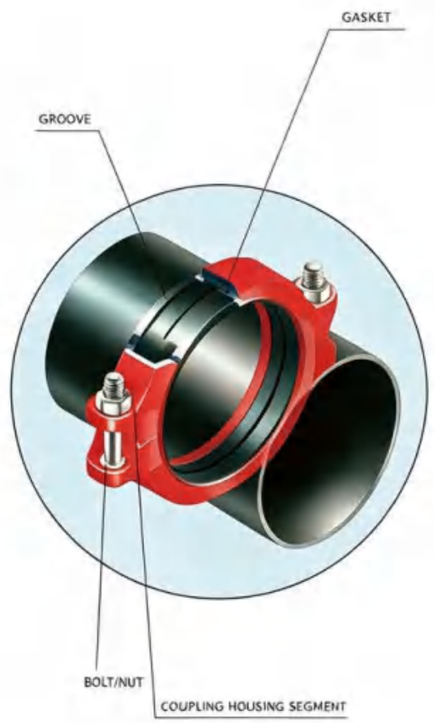


5.Coupling is non-directive and pie can be rotated 360 degree during installation.



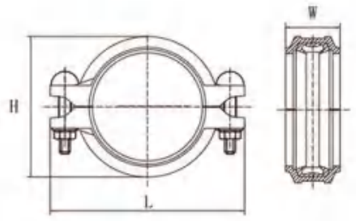
6.Coupling keys engage the full circumference of the grooves and provide significant pressure and end load restraint against pipe movement from internal and external forces.





Rigid Coupling





Purpose

This grooved rigid coupling, made of ductile iron, enables quick rigid connection for grooved pipes. It features reliable sealing, high pressure resistance, easy installation, and long service life,widely used in fire, water supply, and industrial systems.

Performance Parameters

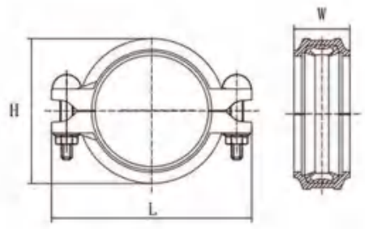
Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Rigid Coupling
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm			Bolt Size	Certificate	
			L	H	W	NO.-Size mm		
25/1	33.7	300/2.07	97	58	45.5	M10*45	FM	UL
32/1¼	42.4	300/2.07	104	66	45.5	M10*45	FM	UL
40/1½	48.3	300/2.07	114	72	45.5	M10*45	FM	UL
50/2	60.3	300/2.07	128	85	45.5	M10*55	FM	UL
65/2½	73.0	300/2.07	137	94	45.5	M10*55	FM	UL
65/2½	76.1	300/2.07	142	98	45.5	M10*55	FM	UL
80/3	88.9	300/2.07	164	112	46	M12*65	FM	UL
100/4	108.0	300/2.07	187	134	50	M12*65	FM	UL
100/4	114.3	300/2.07	190	138	50	M12*65	FM	UL
125/5	133.0	300/2.07	212	160	50	M12*75	FM	UL
125/5	139.7	300/2.07	223	168	50	M12*75	FM	UL
125/5	141.3	300/2.07	226	170	50	M12*75	FM	UL
150/6	159.0	300/2.07	244	188	50	M12*75	FM	UL
150/6	165.1	300/2.07	247	194	50	M12*75	FM	UL
150/6	168.3	300/2.07	250	196	50	M12*75	FM	UL
200/8	219.1	300/2.07	320	254	60	M16*90	FM	UL
250/10	273.0	300/2.07	408	316	65	M20*120	FM	UL
300/12	323.9	300/2.07	460	372	65	M22*140	FM	UL

FLUID TECH®

Flexible Coupling





Purpose

This grooved flexible coupling, made of ductile iron, allows slight deflection to absorb vibration and thermal expansion while ensuring reliable sealing. It is easy to install, pressure-resistant, durable, and suited for fire, water, and industrial piping.

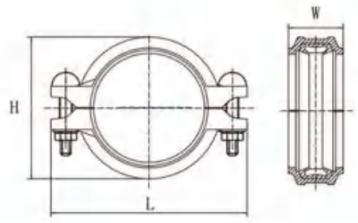
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Flexible Coupling
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm			Bolt Size	Certificate	
			L	H	W	NO.-Size mm		
25/1	33.7	300/2.07	97	58	45.5	M10*45	FM	UL
32/1¼	42.4	300/2.07	104	66	45.5	M10*45	FM	UL
40/1½	48.3	300/2.07	114	72	45.5	M10*45	FM	UL
50/2	60.3	300/2.07	128	85	45.5	M10*55	FM	UL
65/2½	73.0	300/2.07	137	94	45.5	M10*55	FM	UL
65/2½	76.1	300/2.07	142	98	45.5	M10*55	FM	UL
80/3	88.9	300/2.07	164	112	46	M12*65	FM	UL
100/4	108.0	300/2.07	187	134	50	M12*65	FM	UL
100/4	114.3	300/2.07	190	138	50	M12*65	FM	UL
125/5	133.0	300/2.07	212	160	50	M12*75	FM	UL
125/5	139.7	300/2.07	223	168	50	M12*75	FM	UL
125/5	141.3	300/2.07	226	170	50	M12*75	FM	UL
150/6	159.0	300/2.07	244	188	50	M12*75	FM	UL
150/6	165.1	300/2.07	247	194	50	M12*75	FM	UL
150/6	168.3	300/2.07	250	196	50	M12*75	FM	UL
200/8	219.1	300/2.07	320	254	60	M16*90	FM	UL
250/10	273.0	300/2.07	408	316	65	M20*120	FM	UL
300/12	323.9	300/2.07	460	372	65	M22*140	FM	UL

Angle Pad Coupling





Purpose

This grooved angle pad coupling, made of ductile iron, uses a unique angled bolt-pad design to provide maximum axial/angular rigidity, superior anti-rotation stability, and strong resistance to snaking or vibration. It installs fast with two bolts, features self-tightening sealing, and offers long service life – ideal for fixed, non-flexing joints in high-pressure or high-vibration straight piping.

Performance Parameters

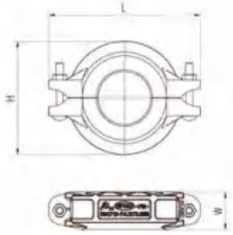
Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Angle Pad Coupling
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm			Bolt Size	Certificate	
			L	H	W	NO.-Size mm		
25/1	33.7	300/2.07	97	58	45.5	M10*55	FM	UL
32/1¼	42.4	300/2.07	104	66	45.5	M10*55	FM	UL
40/1½	48.3	300/2.07	114	72	45.5	M10*55	FM	UL
50/2	60.3	300/2.07	128	85	45.5	M10*55	FM	UL
65/2½	73.0	300/2.07	137	94	45.5	M10*55	FM	UL
65/2½	76.1	300/2.07	142	98	45.5	M10*55	FM	UL
80/3	88.9	300/2.07	164	112	46	M12*65	FM	UL
100/4	108.0	300/2.07	187	134	50	M12*65	FM	UL
100/4	114.3	300/2.07	190	138	50	M12*65	FM	UL
125/5	133.0	300/2.07	212	160	50	M12*75	FM	UL
125/5	139.7	300/2.07	223	168	50	M12*75	FM	UL
125/5	141.3	300/2.07	226	170	50	M12*75	FM	UL
150/6	159.0	300/2.07	244	188	50	M12*75	FM	UL
150/6	165.1	300/2.07	247	194	50	M12*75	FM	UL
150/6	168.3	300/2.07	250	196	50	M12*75	FM	UL
200/8	219.1	300/2.07	320	254	60	M16*90	FM	UL
250/10	273.0	300/2.07	408	316	65	M20*120	FM	UL
300/12	323.9	300/2.07	460	372	65	M22*140	FM	UL

FLUID TECH®

Flexible Reducing Coupling





Purpose

This grooved reducing coupling made of ductile iron connects pipes of different diameters with smooth diameter transition. It features easy grooved installation, reliable sealing, good pressure resistance, and long service life – widely used in fire, water, and industrial piping systems for size reduction.

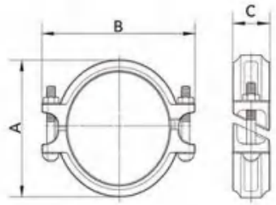
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Flexible Reducing Coupling
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm			Bolt Size	Certificate	
			L	H	W	NO.-Size mm		
65X50/2½X2	73X60	300/2.07	143	102	45	M10X65	FM	UL
65X50/3ODX2	76X60	300/2.07	143	102	45	M10X65	FM	UL
80X50/3X2	89X60	300/2.07	163	118	47	M12X70	FM	UL
80X65/3X2½	89X73	300/2.07	163	118	47	M12X70	FM	UL
100X50/4X2	114X60	300/2.07	200	150	50	M12X70	FM	UL
100X65/4X2½	114X73	300/2.07	200	150	50	M12X70	FM	UL
100X65/4X3OD	114X76	300/2.07	200	150	50	M12X70	FM	UL
100X80/4X3	114X89	300/2.07	200	150	50	M12X70	FM	UL
150X100/6½ODX4	165X114	300/2.07	270	200	51	M16X85	FM	UL
150X80/6X3	168X89	300/2.07	270	200	51	M16X85	FM	UL
150X100/6X4	168X114	300/2.07	270	200	51	M16X85	FM	UL
200X150/8X6½OD	219X165	300/2.07	335	260	63	M20X110	FM	UL
200X150/8X6	219X168	300/2.07	335	260	63	M20X110	FM	UL

Grooved Quick Coupling





Purpose

This grooved quick coupling enables fast connection of grooved pipes, simplifying installation, saving time, and ensuring a tight seal. Made of ductile iron, it offers excellent pressure resistance and long life for fire, water, and general pipeline projects.

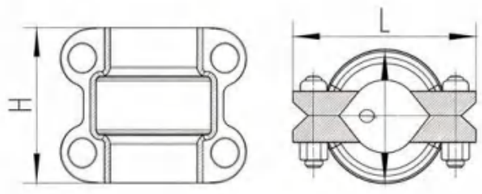
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Grooved Quick Coupling
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm			Bolt Size
			A	B	C	NO.-Size mm
32	42.4	300	65	110	48	M10*55-2
1¼	1.669	2.07	2.559	4.331	1.89	M10*55-2
40	48.3	300	72	114	48	M10*55-2
1½	1.9	2.07	2.84	4.48	1.89	M10*55-2
50	60.3	300	84	128	48	M10*60-2
2	2.375	2.07	3.30	5.039	1.89	M10*60-2
65	73	300	97	144	48	M10*60-2
2½	2.875	2.07	3.81	5.669	1.89	M10*60-2
65	76.1	300	100	146	48	M10*60-2
2½	3	2.07	3.93	5.748	1.89	M10*60-2
80	88.9	300	112	160	49	M10*60-2
3	3.5	2.07	4.409	6.299	1.929	M10*60-2
100	114.3	300	139	194	52	M12*70-2
4	4.5	2.07	5.472	7.638	2.047	M12*70-2
125	139.7	300	166	223	52	M12*75-2
5	5.5	2.07	6.535	8.78	2.047	M12*75-2
125	141.3	300	168	225	52	M12*75-2
5	5.563	2.07	6.614	8.858	2.047	M12*75-2
150	165.1	300	192	250	52	M12*75-2
6	6.5	2.07	7.559	9.843	2.047	M12*75-2
150	168.3	300	194	255	52	M12*75-2
6	6.625	2.07	7.638	10.039	2.047	M12*75-2

HDPE Coupling





Purpose

This grooved HDPE coupling is designed for connecting HDPE pipes in water, drainage, plumbing, and industrial systems. It offers stable connection, corrosion resistance, and long life. The grooved design enables fast installation, reliable sealing, and easy maintenance for plastic pipe applications.

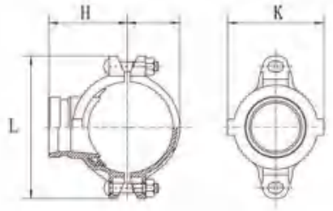
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: HDPE Coupling
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm			Bolt Size
			Φ	L	H	NO.-Size mm
50/2	60.3	300/2.07	83	120	116	M12*60-2
65/2½	63	300/2.07	89	116	105	M12*60-2
80/3	88.9	300/2.07	105	116	110	M12*60-2
100/4	114.3	300/2.07	137	80	110	M12*75-2
150/6	168.3	300/2.07	202	252	150	M12*75-2
200/8	219.1	300/2.07	258	320	152	M16*85-4
220/9	273	300/2.07	288	350	141	M20*100-4
250/10	273	300/2.07	313	390	165	M20*100-4

Grooved Mechanical Tee





Purpose

This grooved mechanical tee connects branch lines to main grooved pipes in fire, water, and industrial systems It allows on-site tapping without cutting the main pipe, ensuring easy installation and reliable sealing. Made of ductile iron, it offers good pressure resistance and long life.

Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Grooved Mechanical Tee
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Hole Dia mm/in	Dimensions mm				Bolt Size NO.-Sizemm	Certificate
				Φ	L	K	H		
50X32/2X1¼	60.3X42.4	300/2.07	51/2.00	75	116	68	75	M10*55	FM UL
50X40/2X1½	60.3X48.3	300/2.07	51/2.00	75	116	68	75	M10*55	FM UL
65X32/2½X1¼	73.0X42.4	300/2.07	51/2.00	92	128	76	83	M10*60	FM UL
65X40/2½X1½	73.0X48.3	300/2.07	51/2.00	92	128	76	83	M10*60	FM UL
65X32/3ODX1¼	76.1X42.4	300/2.07	51/2.00	96	128	76	83	M10*60	FM UL
65X40/3ODX1½	76.1X48.3	300/2.07	51/2.00	96	128	76	83	M10*60	FM UL
80X32/3X1¼	88.9X42.4	300/2.07	51/2.00	108	151	83	86	M12*65	FM UL
80X40/3X1½	88.9X48.3	300/2.07	51/2.00	108	151	83	86	M12*65	FM UL
80X50/3X2	88.9X60.3	300/2.07	64/2.50	108	151	83	101	M12*65	FM UL
100X65/4¼ODX3OD	108.0X76.1	300/2.07	70275	130	180	100	110	M12*70	FM UL
100X80/4¼ODX3	108.0X88.9	300/2.07	89/3.50	130	180	100	124	M12*70	FM UL
100X25/4X1	114.3X33.7	300/2.07	38/1.50	136	183	100	76	M12*75	FM UL
100X32/4X1¼	114.3X42.4	300/2.07	51/2.00	136	183	100	86	M12*75	FM UL
100X40/4X1½	114.3X48.3	300/2.07	51/2.00	136	183	100	86	M12*75	FM UL
100X50/4X2	114.3X60.3	300/2.07	64/250	136	183	100	105	M12*75	FM UL
100X65/4X2½	114.3X73.0	300/2.07	70/2.75	136	183	100	110	M12*75	FM UL
100X65/4X3OD	114.3X76.1	300/2.07	70/2.75	136	183	100	110	M12*75	FM UL
100X80/4X3	114.3X88.9	300/2.07	89/3.50	136	183	100	124	M12*75	FM UL
125X32/5½ODX1¼	139.7X42.4	300/2.07	51/2.00	164	219	110	92	M16*80	FM UL
125X40/5½ODX1½	139.7X48.3	300/2.07	51/2.00	164	219	110	92	M16*80	FM UL
125X50/5½ODX2	139.7X60.3	300/2.07	64/2.50	164	219	110	105	M16*80	FM UL
125X65/5½ODX3OD	139.7X76.1	300/2.07	70/2.75	164	219	110	110	M16*80	FM UL
125X80/5½ODX3	139.7X88.9	300/2.07	89/3.50	164	219	110	124	M16*80	FM UL

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Hole Dia mm/in	Dimensions mm				Bolt Size NO.-Sizemm	Certificate
				Φ	L	K	H		
125X32/5X1¼	141.3X42.4	300/2.07	51/2.00	164	219	110	92	M16*80	FM UL
125X40/5X1½	141.3X48.3	300/2.07	51/2.00	164	219	110	92	M16*80	FM UL
125X50/5X2	141.3X60.3	300/2.07	64/2.50	164	219	110	105	M16*80	FM UL
125X65/5X3OD	141.3X76.1	300/2.07	70/2.75	164	219	110	110	M16*80	FM UL
150X32/6½ODX1¼	165.1X42.4	300/2.07	51/2.00	190	245	123	90	M16*90	FM UL
150X40/6½ODX1½	165.1X48.3	300/2.07	51/2.00	190	245	123	90	M16*90	FM UL
150X50/6½ODX2	165.1X60.3	300/2.07	64/2.50	190	245	123	105	M16*90	FM UL
150X65/6½ODX3OD	165.1X76.1	300/2.07	70/2.75	190	245	123	110	M16*90	FM UL
150X80/6½ODX3	165.1X88.9	300/2.07	89/3.50	190	245	123	130	M16*90	FM UL
150X100/6½ODX4	165.1X114.3	300/2.07	114/4.50	190	245	125	159	M16*90	FM UL
150X32/6X1¼	168.3X42.4	300/2.07	51/2.00	192	250	127	90	M16*90	FM UL
150X40/6X1½	168.3X48.3	300/2.07	51/2.00	192	250	127	90	M16*90	FM UL
150X50/6X2	168.3X60.3	300/2.07	64/2.50	192	250	127	105	M16*90	FM UL
150X65/6X2½	168.3X73.0	300/2.07	70/2.75	192	250	127	110	M16*90	FM UL
150X65/6X3OD	168.3X76.1	300/2.07	70/2.75	192	250	127	110	M16*90	FM UL
150X80/6X3	168.3X88.9	300/2.07	89/3.50	192	250	127	130	M16*90	FM UL
150X100/6X4	168.3X114.3	300/2.07	114/4.50	192	250	127	159	M16*90	FM UL
200X50/8X2	219.1X60.3	300/2.07	64/2.50	240	302	150	105	M16*100	FM UL
200X65/8X3OD	219.1X76.1	300/2.07	70/2.75	240	302	150	115	M16*100	FM UL
200X80/8X3	219.1X88.9	300/2.07	89/3.50	240	302	150	134	M16*100	FM UL
200X100/8X4	219.1X114.3	300/2.07	114/4.50	240	302	150	167	M16*100	FM UL



1. Check the hole pickles.



2.Spread lubricant on gasket ring.



3.Put gasket seal in the Mechanical Tee.



4.Install the Mechanical Tee in the hole.



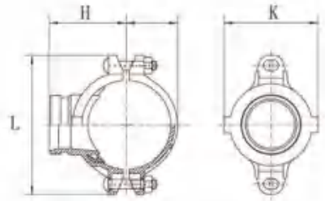
5.Install the bottom piece on the upper one of Mechanical Tee.



6.Secure the nuts and bolts of side outlet from both side.

Threaded Mechanical Tee





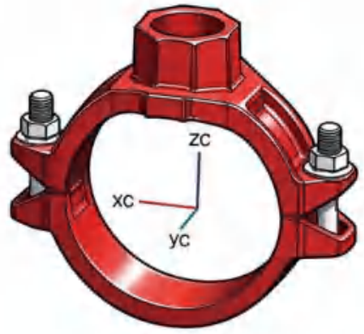
Purpose

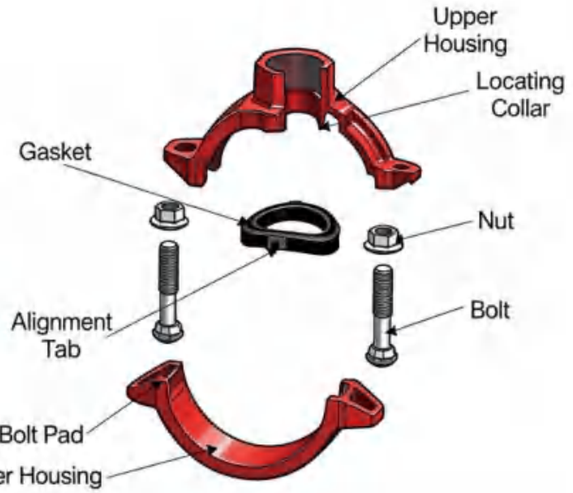
This threaded-branch mechanical tee enables branch connection on grooved mains without cutting the pipe. It ensures easy installation, reliable sealing, pressure resistance, and long life. Made of ductile iron, for fire, water, and industrial systems.

Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Threaded Mechanical Tee
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, Threaded End (NPT / BSPT)
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

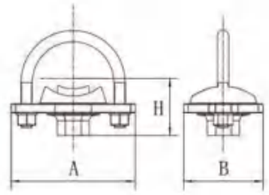
Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Hole Dia mm/in	Dimensions mm				Bolt Size NO.-Sizemm	Certificate
				Φ	L	K	H		
50X25/2X1	60.3X33.7	300/2.07	38/1.50	75	116	58	72	M10*55	FM UL
50X32/2X1¼	60.3X42.4	300/2.07	51/2.00	75	116	63	75	M10*55	FM UL
50X40/2X1½	60.3X48.3	300/2.07	51/2.00	75	116	68	75	M10*55	FM UL
65X32/2½X1	73.0X33.7	300/2.07	38/1.50	92	128	68	83	M10*60	FM UL
65X32/2½X1¼	73.0X42.4	300/2.07	51/2.00	92	128	76	72	M10*60	FM UL
65X40/2½X1½	73.0X48.3	300/2.07	51/2.00	92	128	76	83	M10*60	FM UL
65X32/2½X1	76.1X33.7	300/2.07	38/1.50	92	128	68	83	M10*60	FM UL
65X32/3ODX1¼	76.1X42.4	300/2.07	51/2.00	96	128	76	83	M10*60	FM UL
65X40/3ODX1½	76.1X48.3	300/2.07	51/2.00	96	128	76	83	M10*60	FM UL
80X25/3X1	88.9X33.7	300/2.07	38/1.50	108	151	78	74	M12*65	FM UL
80X32/3X1¼	88.9X42.4	300/2.07	51/2.00	108	151	78	86	M12*65	FM UL
80X40/3X1½	88.9X48.3	300/2.07	51/2.00	108	151	78	86	M12*65	FM UL
80X50/3X2	88.9X60.3	300/2.07	64/2.50	108	151	78	101	M12*65	FM UL
100X25/4¼ODX1	108.0X33.7	300/2.07	38/1.50	130	175	86	76	M12*70	FM UL
100X32/4¼ODX1¼	108.0X42.4	300/2.07	51/2.00	130	175	92	89	M12*70	FM UL
100X40/4¼ODX1½	108.0X48.3	300/2.07	51/2.00	130	175	92	89	M12*70	FM UL
100X50/4¼ODX2	108.0X60.3	300/2.07	64/2.50	130	175	96	105	M12*70	FM UL
100X65/4¼ODX2½	108.0X73.0	300/2.07	70/2.75	130	175	98	110	M12*70	FM UL
100X65/4¼ODX3OD	108.0X76.1	300/2.07	70/2.75	130	175	98	110	M12*70	FM UL
100X80/4¼ODX3	108.0X88.9	300/2.07	89/3.50	130	175	98	124	M12*70	FM UL
100X25/4X1	114.3X33.7	300/2.07	38/1.50	136	183	88	76	M12*75	FM UL
100X32/4X1¼	114.3X42.4	300/2.07	51/2.00	136	183	94	89	M12*75	FM UL
100X40/4X1½	114.3X48.3	300/2.07	51/2.00	136	183	94	89	M12*75	FM UL
125X32/5¼ODX1	133.0X33.7	300/2.07	38/1.50	157	212	100	80	M12*75	FM UL
125X32/5¼ODX1¼	133.0X42.4	300/2.07	51/2.00	158	212	100	93	M12*75	FM UL
125X40/5¼ODX1½	133.0X48.3	300/2.07	51/2.00	159	212	100	93	M12*75	FM UL
125X50/5¼ODX2	133.0X60.3	300/2.07	64/2.50	160	212	104	105	M12*75	FM UL
125X65/5¼ODX3OD	133.0X76.1	300/2.07	70/2.75	161	212	104	112	M12*75	FM UL
125X80/5¼ODX3	133.0X88.9	300/2.07	89/3.50	162	212	107	131	M12*75	FM UL
125X32/5½ODX1	139.7X33.7	300/2.07	38/1.50	164	219	103	80	M16*80	FM UL
125X32/5½ODX1¼	139.7X42.4	300/2.07	51/2.00	164	219	103	93	M16*80	FM UL
125X40/5½ODX1½	139.7X48.3	300/2.07	51/2.00	164	219	103	93	M16*80	FM UL
125X50/5½ODX2	139.7X60.3	300/2.07	64/2.50	164	219	107	105	M16*80	FM UL
125X65/5½ODX3OD	139.7X76.1	300/2.07	70/2.75	164	219	107	112	M16*80	FM UL
125X80/5½ODX3	139.7X88.9	300/2.07	89/3.50	164	219	110	131	M16*80	FM UL
125X32/5X1	141.3X33.7	300/2.07	38/1.50	164	219	103	80	M16*80	FM UL
125X32/5X1¼	141.3X42.4	300/2.07	51/2.00	164	219	103	93	M16*80	FM UL
125X40/5X1½	141.3X48.3	300/2.07	51/2.00	164	219	103	93	M16*80	FM UL
125X50/5X2	141.3X60.3	300/2.07	64/2.50	164	219	107	105	M16*80	FM UL
125X65/5X3OD	141.3X76.1	300/2.07	70/2.75	164	219	107	112	M16*80	FM UL
125X80/5X3	141.3X88.9	300/2.07	89/3.50	164	219	110	131	M16*80	FM UL





U-bolted Threaded Mechanical Tee





Purpose

This U-bolt with threaded branch is used for tapping on straight pipes in fire, water, and industrial systems. It provides stable clamping, easy installation, reliable sealing, and good pressure resistance, made of ductile iron for long service life – ideal for small branch connections.

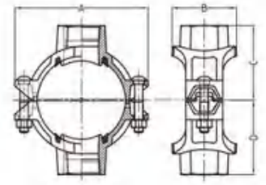
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: U-bolt with threaded branch
Material: Ductile Iron ASTM A536 65-45-12
Connection type: U-bolt clamp, threaded branch outlet
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Hole Dia mm/in	Dimensions mm			U-BoltSize	Certificate
				Φ	L	H	NO.-Size mm	
25X15/1X1½	33.7X21.3	300/2.07	24/0.94	89	58	45	M10X65	FM UL
32X15/1¼X½	42.4X21.3	300/2.07	30/1.18	89	58	49	M10X75	FM UL
32X20/1¼X¾	42.4X26.9	300/2.07	30/1.18	89	58	49	M10X75	FM UL
32X25/1¼X1	42.4X33.7	300/2.07	30/1.18	89	58	49	M10X75	FM UL
40X15/1½X½	48.3X21.3	300/2.07	30/1.18	89	58	52	M10X75	FM UL
40X20/1½X¾	48.3X26.9	300/2.07	30/1.18	89	58	52	M10X75	FM UL
40X25/1½X1	48.3X33.7	300/2.07	30/1.18	89	58	52	M10X75	FM UL
50X15/2X½	60.3X21.3	300/2.07	30/1.18	89	58	58	M10X92	FM UL
50X20/2X¾	60.3X26.9	300/2.07	30/1.18	89	58	58	M10X92	FM UL
50X25/2X1	60.3X33.7	300/2.07	30/1.18	89	58	58	M10X92	FM UL
50X32/2X1¼	60.3X42.4	300/2.07	45/1.75	89	58	58	M10X92	FM UL
65X15/2½X½	73.0X21.3	300/2.07	30/1.18	109	58	68	M10X105	FM UL
65X20/2½X1¾	73.0X26.9	300/2.07	30/1.18	109	58	68	M10X105	FM UL
65X15/3ODX½	76.1X21.3	300/2.07	30/1.18	109	58	68	M10X105	FM UL
65X20/3ODX¾	76.1X26.9	300/2.07	30/1.18	109	58	68	M10X105	FM UL
65X25/3ODX1	76.1X33.7	300/2.07	30/1.18	109	58	68	M10X105	FM UL
80X25/3X1	88.9X33.7	300/2.07	38/1.50	146	74	80	M12X110	FM UL

Mechanical Cross Threaded Outlet





Purpose

This mechanical cross with threaded branches enables multi-directional tapping on grooved mains without cutting the pipe. It offers easy installation, reliable sealing, pressure resistance, and long life – made of ductile iron for fire, water, and industrial systems.

Performance Parameters

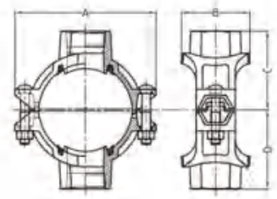
Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Mechanical cross with threaded branches
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, Threaded End (NPT / BSPT)
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Hole Dia mm/in	Dimensions mm				Bolt Size No.-Size mm
				A	B	C	D	
40×25 1½×1	48.3×33.7 1.900×13.15	300 2.07	30 1.181	101 3.98	55 2.17	53 2.09	53 2.09	M10*45-2
50×25 2×1	60.3×33.7 2.375×1.326	300 2.07	38 1.50	119 4.68	68 2.68	60 2.36	60 2.36	M10*55-2
50×32 2×1¼	60.3×42.4 2.375×1.660	300 2.07	46 1.81	119 4.68	73 2.87	61 2.40	61 2.40	M10*55-2
50×40 2×1½	60.3×48.3 2.375×1.900	300 2.07	46 1.81	119 4.68	73 2.87	63 2.48	63 2.48	M10*55-2
65×25 2½×1	73.0×33.7 2.875×1.326	300 2.07	38 1.50	128 5.04	72 2.83	66 2.60	66 2.60	M10*55-2
65×32 2½×1¼	73.0×42.4 2.875×1.660	300 2.07	46 1.81	128 5.04	80 3.15	68 2.68	68 2.68	M10*55-2
65×40 2½×1½	73.0×48.3 2.875×1.900	300 2.07	51 2.007	128 5.04	86 3.38	70 2.76	70 2.76	M10*55-2
65×25 2½×1	76.1×33.7 3.000×1.326	300 2.07	38 1.50	132 5.20	72 2.83	68 2.68	68 2.68	M10*55-2
65×32 2½×1¼	76.1×42.4 3.000×1.660	300 2.07	46 1.81	132 5.20	80 3.15	68 2.68	68 2.68	M10*55-2
65×40 2½×1½	76.1×42.4 3.000×1.660	300 2.07	51 2.007	132 5.20	86 3.38	68 2.68	68 2.68	M10*55-2
80×25 3×1	88.9×33.7 3.500×1.326	300 2.07	38 1.50	147 5.79	74 2.91	75 2.95	75 2.95	M10*55-2
80×32 3×1¼	88.9×42.4 3.500×1.660	300 2.07	46 1.81	147 5.79	82 3.22	76 2.99	76 2.99	M10*55-2
80×40 3×1½	88.9×48.3 3.500×1.900	300 2.07	51 2.007	147 5.79	87 3.42	77 3.03	77 3.03	M10*55-2
80×50 3×2	88.9×60.3 3.500×2.375	300 2.07	64 2.520	147 5.79	98 3.86	78 3.07	78 3.07	M10*55-2
100×25 4×1	108.0×33.7 4.250×1.326	300 2.07	38 1.50	170 6.69	71 2.80	82 3.23	82 3.23	M12*65-2
100×32 4×1¼	108.0×42.4 4.250×1.660	300 2.07	46 1.81	170 6.69	80 3.15	82 3.23	82 3.23	M12*65-2
100×40 4×1½	108.0×48.3 4.250×1.900	300 2.07	51 2.007	170 6.69	85 3.35	82 3.23	82 3.23	M12*65-2
100×50 4×2	108.0×60.3 4.250×2.375	300 2.07	64 2.520	170 6.69	97 3.82	84 3.31	84 3.31	M12*65-2
100×65 4×2½	108.0×76.1 4.250×3.000	300 2.07	81 3.18	170 6.69	115 4.53	86 3.39	86 3.39	M12*65-2
100×25 4×1	114.3×33.7 4.500×1.326	300 2.07	38 1.50	178 7.01	74 2.91	89 3.50	89 3.50	M12*70-2
100×32 4×1¼	114.3×42.4 4.500×1.660	300 2.07	46 1.81	178 7.01	82 3.22	90 3.54	90 3.54	M12*70-2

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Hole Dia mm/in	Dimensions mm				Bolt Size No.-Size mm
				A	B	C	D	
100×40 4×1½	114.3×48.3 4.500×1.900	300 2.07	51 2.07	178 7.01	86 3.39	92 3.62	92 3.62	M12*70-2
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	64 2.52	178 7.01	98 3.86	92 3.62	92 3.62	M12*70-2
100×65 4×2½	114.3×73 4.500×2.874	300 2.07	81 3.18	178 7.01	116 4.57	94 3.70	94 3.70	M12*70-2
100×65 4×2½	114.3×76.1 4.500×3.000	300 2.07	81 3.18	178 7.01	116 4.57	94 3.70	94 3.70	M12*70-2
100×80 4×3	114.3×88.9 4.500×3.500	300 2.07	89 3.50	178 7.01	126 4.96	98 3.86	98 3.86	M12*70-2
125×25 5×1	139.7×33.7 5.500×1.326	300 2.07	38 1.50	211 8.31	74 2.91	101 3.98	101 3.98	M12*75-2
125×32 5×1¼	139.7×42.4 5.500×1.660	300 2.07	46 1.81	211 8.31	83 3.27	103 4.06	103 4.06	M12*75-2
125×40 5×1½	139.7×48.3 5.500×1.900	300 2.07	51 2.07	211 8.31	88 3.46	104 4.09	104 4.09	M12*75-2
125×50 5×2	139.7×60.3 5.500×2.375	300 2.07	64 2.52	211 8.31	100 3.94	105 4.13	105 4.13	M12*75-2
125×65 5×2½	139.7×76.1 5.500×3.000	300 2.07	81 3.18	211 8.31	117 4.61	106 4.17	106 4.17	M12*75-2
125×80 5×3	139.7×88.9 6.250×1.326	300 2.07	89 3.50	211 8.31	124 4.88	108 4.25	108 4.25	M12*75-2
150×25 6×1	159.0×33.7 6.250×1.326	300 2.07	38 1.50	228 8.98	72 3.29	108 4.25	108 4.25	M12*75-2
150×32 6×1¼	159.0×42.4 6.250×1.660	300 2.07	46 1.81	228 8.98	81 3.19	108 4.25	108 4.25	M12*75-2
150×40 6×1½	159.0×48.3 6.250×1.900	300 2.07	51 2.07	228 8.98	86 3.39	110 4.33	110 4.33	M12*75-2
150×50 6×2	159.0×60.3 6.250×2.375	300 2.07	64 2.52	228 8.98	98 3.86	110 4.33	110 4.33	M12*75-2
150×65 6×2½	159.0×76.1 6.250×3.000	300 2.07	81 3.18	228 8.98	116 4.57	112 4.41	112 4.41	M12*75-2
150×80 6×3	159.0×88.9 6.250×3.500	300 2.07	89 3.50	228 8.98	125 4.92	118 4.65	118 4.65	M12*75-2
150×25 6×1	165.1×33.7 6.500×1.326	300 2.07	38 1.50	237 9.33	74 2.91	114 4.48	114 4.48	M12*75-2
150×32 6×1¼	165.1×42.4 6.500×1.660	300 2.07	46 1.81	237 9.33	83 3.27	116 3.70	116 3.70	M12*75-2
150×40 6×1½	165.1×48.3 6.500×1.900	300 2.07	51 2.007	237 9.33	88 3.46	116 3.70	116 3.70	M12*75-2
150×50 6×2	165.1×60.3 6.500×2.375	300 2.07	64 2.520	237 9.33	100 3.94	118 4.65	118 4.65	M12*75-2
150×65 6×2½	165.1×76.1 6.500×3.000	300 2.07	81 3.18	237 9.33	118 4.65	118 4.65	118 4.65	M12*75-2
150×80 6×3	165.1×88.9 6.500×3.500	300 2.07	89 3.50	237 9.33	125 4.92	120 4.72	120 4.72	M12*75-2
150×100 6×4	165.1×114.3 6.500×4.500	300 2.07	114 4.48	237 9.33	160 6.30	126 4.96	126 4.96	M12*75-2
150×25 6×1	168.3×33.7 6.625×1.326	300 2.07	38 1.50	252 9.92	72 2.83	115 4.53	115 4.53	M16*85-2
150×32 6×1¼	168.3×42.4 6.625×1.660	300 2.07	46 1.81	252 9.92	82 3.23	117 4.61	117 4.61	M16*85-2
150×40 6×1½	168.3×48.3 6.625×1.900	300 2.07	51 2.007	252 9.92	87 3.43	118 4.65	118 4.65	M16*85-2
150×50 6×2	168.3×60.3 6.625×2.375	300 2.07	64 2.520	252 9.92	99 3.90	119 4.69	119 4.69	M16*85-2
150×65 6×2½	168.3×73.0 6.625×3.000	300 2.07	81 3.18	252 9.92	116 4.57	120 4.72	120 4.72	M16*85-2
150×65 6×2½	168.3×76.1 6.625×3.000	300 2.07	81 3.18	252 9.92	116 4.57	120 4.72	120 4.72	M16*85-2
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	89 3.50	252 9.92	124 4.88	122 4.80	122 4.80	M16*85-2
200×25 8×1	219.1×33.7 8.625×1.326	300 2.07	38 1.50	310 12.20	74 2.91	142 5.59	142 5.59	M16*85-2
200×32 8×1¼	219.1×42.4 8.625×1.660	300 2.07	46 1.81	310 12.20	83 3.26	144 5.67	144 5.67	M16*85-2
200×40 8×1½	219.1×48.3 8.625×1.900	300 2.07	51 2.007	310 12.20	88 3.27	144 5.67	144 5.67	M16*85-2
200×50 8×2	219.1×60.3 8.625×2.375	300 2.07	64 2.520	310 12.20	99 3.90	146 5.75	146 5.75	M16*85-2
200×65 8×2½	219.1×76.1 8.625×3.000	300 2.07	81 3.18	310 12.20	118 4.65	148 5.83	148 5.83	M16*85-2
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	89 3.50	310 12.20	138 5.43	150 5.91	150 5.91	M16*85-2
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	114 4.48	310 12.20	160 6.30	156 6.14	156 6.14	M16*85-2

Mechanical Cross Grooved Outlet





Purpose

This mechanical cross with grooved branches enables multi-directional tapping on grooved mains without cutting the pipe. It offers easy installation, reliable sealing, pressure resistance, and long life – made of ductile iron for fire, water, and industrial systems.

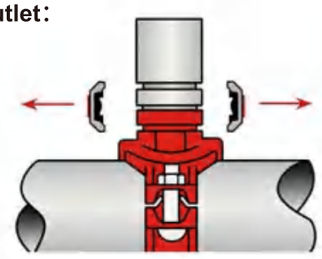
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Mechanical Cross Grooved Outlet
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Hole Dia mm/in	Dimensions mm				Bolt Size No.-Size mm
				A	B	C	D	
50x25 2x1	60.3x33.7 2.375x1.326	300 2.07	38 1.50	119 4.68	68 2.68	69 2.71	69 2.71	M10*55-2
50x32 2x1¼	60.3x42.4 2.375x1.669	300 2.07	46 1.81	119 4.68	73 2.87	69 2.71	69 2.71	M10*55-2
50x40 2x1½	60.3x48.3 2.375x1.900	300 2.07	46 1.81	119 4.68	73 2.87	69 2.71	69 2.71	M10*55-2
65x25 2½x1	73.0x43.7 2.875x1.326	300 2.07	38 1.50	128 5.04	72 2.83	75 2.95	75 2.95	M10*55-2
65x32 2½x1	73.0x42.4 2.875x1.660	300 2.07	46 1.81	128 5.04	80 3.15	75 2.95	75 2.95	M10*55-2
65x40 2½x1½	73.0x48.3 2.875x1.900	300 2.07	51 2.007	128 5.04	86 3.38	75 2.95	75 2.95	M10*55-2
65x25 2½x1	76.1x33.7 3.000x1.326	300 2.07	38 1.50	132 5.20	72 2.83	77 3.03	77 3.03	M10*55-2
65x32 2½x1¼	76.1x42.4 3.000x1.660	300 2.07	46 1.81	132 5.20	80 3.15	77 3.03	77 3.03	M10*55-2
65x40 2½x1½	76.1x48.3 3.000x1.900	300 2.07	51 2.007	132 5.20	86 3.38	77 3.03	77 3.03	M10*55-2
80x25 3x1	88.9x33.7 3.500x1.326	300 2.07	38 1.50	147 5.79	74 2.91	85 3.35	85 3.35	M10*55-2
80x32 3x1¼	88.9x42.4 3.500x1.660	300 2.07	46 1.81	147 5.79	82 3.22	85 3.35	85 3.35	M10*55-2
80x40 3x1½	88.9x48.3 3.500x1.900	300 2.07	51 2.007	147 5.79	87 3.22	85 3.35	85 3.35	M10*55-2
80x50 3x2	88.9x60.3 3.500x2.375	300 2.07	64 2.520	147 5.79	98 3.86	85 3.35	85 3.35	M10*55-2
100x25 4x1	114.3x33.7 4.500x1.326	300 2.07	38 1.50	178 7.01	74 2.91	98 3.86	98 3.86	M12*70-2
100x32 4x1¼	114.3x42.4 4.500x1.660	300 2.07	46 1.81	178 7.01	82 3.22	98 3.86	98 3.86	M12*70-2
100x40 4x1½	114.3x48.3 4.500x1.900	300 2.07	51 2.007	178 7.01	86 3.39	98 3.86	98 3.86	M12*70-2
100x50 4x2	114.3x60.3 4.500x2.375	300 2.07	64 2.520	178 7.01	98 3.86	98 3.86	98 3.86	M12*70-2
100x65 4x2½	114.3x73 4.500x2.874	300 2.07	81 3.18	178 7.01	118 4.57	98 3.86	98 3.86	M12*70-2
100x65 4x2½	114.3x76.1 4.500x3.000	300 2.07	81 3.18	178 7.01	118 4.57	98 3.86	98 3.86	M12*70-2

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Hole Dia mm/in	Dimensions mm				Bolt Size No.-Size mm
				A	B	C	D	
100x65 4x2½	114.3x73 4.500x2.874	300 2.07	81 3.18	178 7.01	118 4.57	98 3.86	98 3.86	M12*70-2
100x65 4x2½	114.3x76.1 4.500x3.000	300 2.07	81 3.18	178 7.01	118 4.57	98 3.86	98 3.86	M12*70-2
100x80 4x3	114.3x88.9 4.500x3.500	300 2.07	89 3.50	178 7.01	125 4.92	98 3.86	98 3.86	M12*70-2
125×50 5×2	139.7×60.3 5.500×2.375	300 2.07	64 2.520	210 8.27	100 3.94	111 4.37	111 4.37	M12*75-2
125×65 5×2½	139.7×76.1 5.500×3.000	300 2.07	81 3.18	210 8.27	116 4.57	111 4.37	111 4.37	M12*75-2
125×80 5×3	139.7×88.9 5.500×3.500	300 2.07	89 3.50	210 8.27	124 4.88	111 4.37	111 4.37	M12*75-2
150×65 6×2½	159.0×76.1 6.250×3.000	300 2.07	81 3.18	228 9.05	116 4.76	120 4.92	120 4.92	M12*75-2
150×80 6×3	159.0×88.9 6.250×3.500	300 2.07	89 3.50	228 9.05	125 4.92	120 4.92	120 4.92	M12*75-2
150×100 6×4	159.0×114.3 6.250×4.500	300 2.07	114 2.07	228 9.05	157 6.18	122 4.80	122 4.80	M12*75-2
150×50 6×2	165.1×60.3 6.500×2.375	300 2.07	81 3.18	237 9.33	100 3.94	124 4.88	124 4.88	M12*75-2
150×65 6×2½	165.1×76.1 6.500×3.000	300 2.07	81 3.18	237 9.33	118 4.65	124 4.88	124 4.88	M12*75-2
150×80 6×3	165.1×88.9 6.500×3.500	300 2.07	89 3.50	237 9.33	125 4.92	124 4.88	124 4.88	M12*75-2
150×100 6×4	165.1×114.3 6.500×4.500	300 2.07	114 2.07	236 9.29	160 6.30	126 4.96	126 4.96	M12*75-2
150×32 6×1¼	168.3×33.7 6.625×1.326	300 2.07	38 2.07	252 9.92	72 2.83	125 4.92	125 4.92	M16*85-2
150×32 6×1¼	168.3×42.4 6.625×1.660	300 2.07	46 2.07	252 9.92	82 3.23	125 4.92	125 4.92	M16*85-2
150×40 6×2½	168.3×48.3 6.625×1.900	300 2.07	51 2.007	252 9.92	87 3.43	125 4.92	125 4.92	M16*85-2
150×50 6×2½	168.3×60.3 6.625×2.375	300 2.07	64 2.520	252 9.92	99 3.90	125 4.92	125 4.92	M16*85-2
150×65 6×2½	168.3×76.1 6.625×3.000	300 2.07	81 3.18	252 9.92	116 4.57	125 4.92	125 4.92	M16*85-2
150×65 6×2½	168.3×76.1 6.625×3.000	300 2.07	81 3.18	252 9.92	116 4.57	125 4.92	125 4.92	M16*85-2
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	89 3.50	252 9.92	124 4.88	125 4.92	125 4.92	M16*85-2
150×100 6×4	168.3×114.3 6.625×4.500	300 2.07	114 4.48	252 9.92	124 4.88	127 5.00	127 5.00	M16*85-2
200×50 8×2	219.1×60.3 8.625×2.375	300 2.07	64 2.520	310 12.20	99 3.90	151 5.94	151 5.94	M16*85-2
200×65 8×2½	219.1×73 8.625×2.874	300 2.07	81 3.18	310 12.20	118 4.65	151 5.94	151 5.94	M16*85-2
200×65 8×2½	219.1×76.1 8.625×3.000	300 2.07	81 3.18	310 12.20	118 4.65	151 5.94	151 5.94	M16*85-2
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	89 3.50	310 12.20	138 5.43	151 5.94	151 5.94	M16*85-2
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	114 4.48	310 12.20	160 6.30	153 5.94	153 5.94	M16*85-2

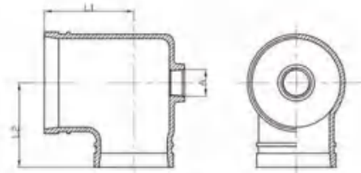
Grooved Outlet：





90°Hydrant Elbow





Purpose

This grooved 90° hydrant elbow is designed for fire hydrant connections, enabling 90° turns with grooved ends for fast installation and stable performance. Made of ductile iron, it offers high pressure resistance, reliable sealing, and long life for fire protection networks.

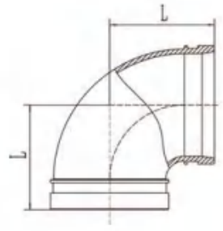
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: 90°Hydrant Elbow
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Max Working Pressure PSI/Mpa	Dimensions mm			Certificate
			A	L1	L2	
100X80X25	114.3X88.9X33.7	300 2.07	1-11.5NPT Rp1-ISO7/1	102 4.016	95 3.74	UL FM
4X3X1	4.500X3.500X1.327	300 2.07	1-11.5NPT Rp1-ISO7/1	102 4.016	95 3.74	UL FM
150X80X25	165.1X88.9X33.7	300 2.07	1-11.5NPT Rp1-ISO7/1	130 5.118	130 5.118	UL FM
6X3X1	6.500X3.500X1.327	300 2.07	1-11.5NPT Rp1-ISO7/1	130 5.118	130 5.118	UL FM

90°Elbow





Purpose

This grooved 90° elbow enables quick, reliable connection for fire, water, and industrial piping. Its grooved ends allow easy installation, disassembly, and maintenance, boosting construction efficiency. Made of ductile iron, it offers stable pressure resistance, reliable sealing, and long service life for medium pipeline turns.

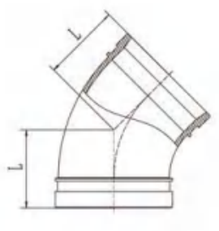
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: 90°Elbow
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm	Certificate
25/1	33.7	300/2.07	57/2.24	FM UL
32/1¼	42.4	300/2.07	60/2.36	FM UL
40/1½	48.3	300/2.07	60/2.36	FM UL
50/2	60.3	300/2.07	70/2.75	FM UL
65/2½	73.0	300/2.07	76/3.00	FM UL
65/2½	76.1	300/2.07	76/3.00	FM UL
80/3	88.9	300/2.07	86/3.39	FM UL
100/4	108.0	300/2.07	102/4.02	FM UL
100/4	114.3	300/2.07	102/4.02	FM UL
125/5	133.0	300/2.07	124/4.88	FM UL
125/5	139.7	300/2.07	124/4.88	FM UL
125/5	141.3	300/2.07	124/4.88	——
150/6	159.0	300/2.07	140/5.50	FM UL
150/6	165.1	300/2.07	140/5.50	FM UL
150/6	168.3	300/2.07	140/5.50	FM UL
200/8	219.1	300/2.07	173/6.81	FM UL
250/10	273	300/2.07	215/8.46	FM UL
300/12	323.9	300/2.07	245/9.65	FM UL

45°Elbow





Purpose

This grooved 45° elbow is designed for stable pipeline turns in fire, water, and industrial systems. Its grooved ends enable fast installation, disassembly, and maintenance, boosting efficiency. Made of ductile iron, it offers excellent pressure resistance, reliable sealing, and long life for 45° medium pipeline connections.

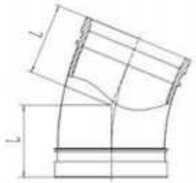
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: 45°Elbow
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm	Certificate
25/1	33.7	300/2.07	44/1.73	FM UL
32/1¼	42.4	300/2.07	44/1.73	FM UL
40/1½	48.3	300/2.07	44/1.73	FM UL
50/2	60.3	300/2.07	51/2.01	FM UL
65/2½	73.0	300/2.07	57/2.24	FM UL
65/2½	76.1	300/2.07	57/2.24	FM UL
80/3	88.9	300/2.07	64/2.52	FM UL
100/4	108.0	300/2.07	76/3.00	FM UL
100/4	114.3	300/2.07	76/3.00	FM UL
125/5	133.0	300/2.07	83/3.27	FM UL
125/5	139.7	300/2.07	83/3.27	FM UL
125/5	141.3	300/2.07	83/3.27	——
150/6	159.0	300/2.07	89/3.50	FM UL
150/6	165.1	300/2.07	89/3.50	FM UL
150/6	168.3	300/2.07	89/3.50	FM UL
200/8	219.1	300/2.07	108/4.25	FM UL
250/10	273	300/2.07	121/4.76	——
300/12	323.9	300/2.07	133/5.24	——

22.5°Elbow





Purpose

This grooved 22.5° elbow is designed for gentle angle turns in fire, water, and industrial piping. Its grooved ends allow fast installation, disassembly, and maintenance, boosting efficiency. Made of ductile iron, it offers excellent pressure resistance, reliable sealing, and long life for small-angle turning and layout adjustment.

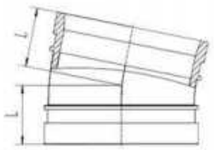
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: 22.5°Elbow
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions L mm
32 1¼	42.4 1.669	300 psi 2.07 Mpa	45 1.77
40 1½	48.3 1.9	300 psi 2.07 Mpa	45 1.77
50 2	60.3 2.375	300 psi 2.07 Mpa	48 1.88
65 2½	73 2.875	300 psi 2.07 Mpa	51 2.00
65 2½	76.1 3	300 psi 2.07 Mpa	51 2.00
80 3	88.9 3.5	300 psi 2.07 Mpa	57 2.24
100 4	108 4.25	300 psi 2.07 Mpa	73 2.87
100 4	114.3 4.5	300 psi 2.07 Mpa	73 2.87
125 5	133 5.25	300 psi 2.07 Mpa	73 2.87
125 5	139.7 5.5	300 psi 2.07 Mpa	73 2.87
150 6	159 6.25	300 psi 2.07 Mpa	89 3.50
150 6	165.1 6.5	300 psi 2.07 Mpa	89 3.50
150 6	168.3 6.625	300 psi 2.07 Mpa	89 3.50
200 8	219.1 8.625	300 psi 2.07 Mpa	98 3.85

11.25°Elbow





Purpose

This grooved 11.25° elbow enables micro-angle steering and precise adjustment for fire, water, and industrial piping. Grooved ends allow fast installation, disassembly, and maintenance, boosting efficiency. Made of ductile iron, it offers stable pressure resistance, reliable sealing, and long service life for fine layout and low-angle turns.

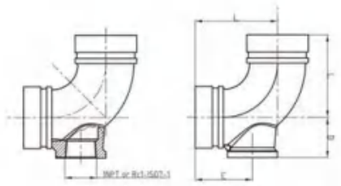
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: 11.25°Elbow
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm in	Pipe O.D mm	Working Pressure PSI Mpa	Dimensions L mm
50 2	60.3 2.375	300 psi 2.07 Mpa	35 1.37
65 2½	76.1 3	300 psi 2.07 Mpa	38 1.49
80 3	88.9 3.5	300 psi 2.07 Mpa	38 1.49
100 4	108 4.25	300 psi 2.07 Mpa	44 1.73
100 4	114.3 4.5	300 psi 2.07 Mpa	44 1.73
125 5	133 5.25	300 psi 2.07 Mpa	51 2.00
125 5	139.7 5.5	300 psi 2.07 Mpa	51 2.00
150 6	159 6.25	300 psi 2.07 Mpa	51 2.00
150 6	165.1 6.5	300 psi 2.07 Mpa	51 2.00
150 6	168.3 6.625	300 psi 2.07 Mpa	51 2.00
200 8	219.1 8.625	300 psi 2.07 Mpa	51 2.00

90°Drain Elbow





Purpose

This grooved 90° drain elbow is designed for pipeline turning and drainage in water supply, drainage, and industrial systems. Its grooved connection enables easy installation and maintenance. Made of ductile iron, it offers good pressure resistance, reliable sealing, and long life for smooth right-angle fluid drainage.

Performance Parameters

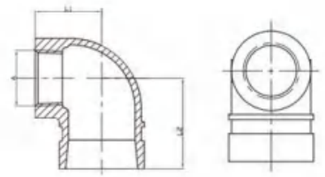
Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: 90°Drain Elbow
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, Threaded End (NPT / BSPT)
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Max Working Pressure PSI/Mpa	Dimensions mm			Certificate
			L	D	E	
50 2	60.3 2.375	300 2.07	82.5 3.248	57 2.244	40 1.575	——
65 2 1/2	73 2.875	300 2.07	95 3.74	70 2.756	43 1.693	——
80 3	88.9 3.500	300 2.07	108 4.25	70 2.756	53 2.087	——
100 4	114.3 4.5	300 2.07	127 5	70 2.756	66 2.598	——
150 6	168.3 6.625	300 2.07	165 6.496	70 2.756	93 3.661	——
200 8	219.1 8.625	300 2.07	197 7.756	70 2.756	126 4.961	——

FLUID TECH®

90°END-ALL Elbow





Purpose

This grooved 90° reducing elbow with threaded outlet combines turning, diameter change, and branch connection in one fitting. It features grooved ends, a 90° reducing bend, and a threaded side outlet for flexible efficient installation. Made of ductile iron, it offers reliable sealing, pressure resistance, and long life for pipe turns with branch tapping

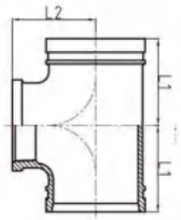
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: 90°END-ALL Elbow
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, Threaded End (NPT / BSPT)
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Max Working Pressure PSI/Mpa	Dimensions mm			Certificate
			A	L1	L2	
32X15 11/4X1/2	42.4X21.3 1.660X0.825	500 3.45	1/2	35.1 1.382	44.5 1.752	UL FM
32X20 11/4X3/4	42.4X26.9 1.660X1.050	500 3.45	3/4	34.9 1.374	47.6 1.874	UL FM
32X25 11/4X1	42.4X33.7 1.660X1.315	500 3.45	1	38.1 1.5	51.6 2.031	UL FM
40X15 11/2X1/2	48.3X21.3 1.900X0.825	500 3.45	1/2	34.9 1.374	44.5 1.752	UL FM
40X20 11/2X3/4	48.3X26.9 1.900X1.050	500 3.45	3/4	34.9 1.374	47.6 1.874	UL FM
40X25 11/2X1	48.3X33.7 1.900X1.315	500 3.45	1	38.1 1.5	51.6 2.031	UL FM
50X15 2X1/2	60.3X21.3 2.375X0.825	500 3.45	1/2	41.4 1.63	44.5 1.752	UL FM
50X20 2X3/4	60.3X26.9 2.375X1.050	500 3.45	3/4	41.3 1.626	47.6 1.874	UL FM
50X25 2X1	60.3X33.7 2.375X1.315	500 3.45	1	44.5 1.752	51.6 2.031	UL FM
65X15 21/2X1/2	73.0X21.3 2.875X0.825	500 3.45	1/2	46 1.811	44.5 1.752	UL FM
65X20 21/2X3/4	73.0X26.9 2.875X1.050	500 3.45	3/4	46 1.811	47.6 1.874	UL FM
65X25 21/2X1	73.0X33.7 2.875X1.315	500 3.45	1	49.2 1.937	51.6 2.031	UL FM
65X25 21/2X1	76.1X33.7 2.996X1.327	500 3.45	1	49.2 1.94	51.6 2.03	UL FM
80X20 3X3/4	88.9X26.9 3.500X1.050	500 3.45	3/4	60.3 2.374	52.4 2.063	UL FM
80X25 3X1	88.9X33.7 3.500X1.315	500 3.45	1	63.5 2.5	52.4 2.063	UL FM

Female Threaded Tee





Purpose

This female threaded tee features internal threads on all three ends, used for pipeline branching or merging in fire, water, and industrial systems. Threaded connections enable easy installation and reliable sealing. Made of high-strength ductile iron, it offers good pressure resistance and long service life.

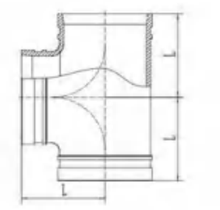
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Female Threaded Tee
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Max Working Pressure PSI/Mpa	Dimensions L1	Dimensions L2	Certificate
50×25 2×1	60.3×33.7 2.375×1.315	500 3.45	70 2.75	70 2.75	ULFM
50×32 2×1¼	60.3×42.4 2.375×1.660	500 3.45	70 2.75	70 2.75	ULFM
50×40 2×1½	60.3×48.3 2.375×1.900	500 3.45	70 2.75	70 2.75	ULFM
50×50×65 2×2×2½	60.3×60.3×76.1 2.375×2.375×3.000	300 2.07	66 2.59	76 2.99	——
50×50×80 2×2×3	60.3×60.3×88.9 2.375×2.375×3.500	300 2.07	70 2.755	80 3.149	——
65×25 2½×1	73.0×33.7 2.875×1.315	500 3.45	76 3.00	76 3.00	ULFM
65×40 2½×1½	73.0×48.3 2.875×1.900	300 3.45	76 3.00	76 3.00	ULFM
65×32 2½×1½	73.0×42.4 2.875×1.660	500 3.45	76 3.00	76 3.00	ULFM
65×25 2½×1	76.1×33.7 3.000×1.315	500 3.45	76 3.00	76 3.00	ULFM
65×32 2½×1¼	76.1×42.4 3.000×1.660	500 3.45	76 3.00	76 3.00	ULFM
65×40 2½×1½	76.1×48.3 3.000×1.900	500 3.45	76 3.00	76 3.00	ULFM
65×50 2½×2	76.1×60.3 3.000×2.375	500 3.45	76 3.00	76 3.00	ULFM
80×25 3×1	88.9×33.7 3.500×1.315	500 3.45	85.5 3.37	85.5 3.37	ULFM
80×32 3×1¼	88.9×42.4 3.500×1.660	500 3.45	85.5 3.37	85.5 3.37	ULFM
80×40 3×1½	88.9×48.3 3.500×1.900	500 3.45	85.5 3.37	85.5 3.37	ULFM
80×50 3×2	88.9×60.3 3.500×2.375	500 3.45	85.5 3.37	85.5 3.37	ULFM
80×65 3×2½	88.9×76.1 3.500×3.000	500 3.45	85.5 3.37	85.5 3.37	ULFM
100×65 4×2½	108.0×76.1 4.250×3.000	300 2.07	100 3.94	96 3.78	ULFM
100×80 4×3	108.0×88.9 4.250×3.500	300 2.07	100 3.94	96 3.78	ULFM
100×65 4×2½	114.3×76.1 4.500×3.000	300 2.07	100 3.94	96 3.78	ULFM
100×80 4×3	114.3×88.9 4.500×3.500	300 2.07	100 3.94	96 3.78	ULFM
200×50 8×2	219.1×60.3 8.625×2.375	300 2.07	175 6.89	175 6.89	FM
200×65 8×2½	219.1×76.1 8.625×3.000	300 2.07	175 6.89	175 6.89	FM
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	175 6.89	175 6.89	FM

Grooved Equal Tee





Purpose

This grooved equal tee is used for pipeline branching in fire, water, and industrial systems. Its grooved ends enable quick installation and stable performance. Made of ductile iron, it offers good pressure resistance, reliable sealing, and long life for three-way fluid distribution.

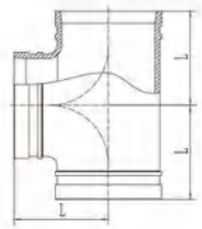
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Grooved Equal Tee
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions L	Certificate
25/1	33.7	300/2.07	57/2.24	FM UL
32/1¼	42.4	300/2.07	60/2.36	FM UL
40/1½	48.3	300/2.07	60/2.36	FM UL
50/2	60.3	300/2.07	70/2.75	FM UL
65/2½	73.0	300/2.07	76/3.00	FM UL
65/2½	76.1	300/2.07	76/3.00	FM UL
80/3	88.9	300/2.07	86/3.39	FM UL
100/4	108.0	300/2.07	102/4.02	FM UL
100/4	114.3	300/2.07	102/4.02	FM UL
125/5	133.0	300/2.07	124/4.88	FM UL
125/5	139.7	300/2.07	124/4.88	FM UL
125/5	141.3	300/2.07	124/4.88	——
150/6	159.0	300/2.07	140/5.50	FM UL
150/6	165.1	300/2.07	140/5.50	FM UL
150/6	168.3	300/2.07	140/5.50	FM UL
200/8	219.1	300/2.07	173/6.81	FM UL
250/10	273.0	300/2.07	215/8.46	FM UL
300/12	323.9	300/2.07	245/9.65	FM UL

Reducing Tee with Female Threaded





Purpose

This grooved reducing tee with threaded branch is designed for pipeline branching and diameter change in fire, water, and industrial systems. It features grooved main ends and a threaded side outlet for fast connection and easy branch installation. Made of ductile iron, it offers good pressure resistance, stable sealing, and long life formedium distribution and pipeline modification.

Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Reducing Tee with Female Threaded
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, Threaded End (NPT / BSPT)
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm		Certificate
			Φ	L	
50X25/2X1	60.3X33.7	300/2.07	70/2.57	70/2.57	FM UL
50X32/2X1¼	60.3X42.4	300/2.07	70/2.57	70/2.57	FM UL
50X40/2X1½	60.3X48.3	300/2.07	70/2.57	70/2.57	FM UL
65X32/2½X1¼	73.0X42.4	300/2.07	76/3.00	76/3.00	FM UL
65X40/2½X1½	73.0X48.3	300/2.07	76/3.00	76/3.00	FM UL
65X50/2½X2	73.0X60.3	300/2.07	76/3.00	76/3.00	FM UL
65X25/3ODX1	76.1X33.7	300/2.07	76/3.00	76/3.00	FM UL
65X40/3ODX1½	76.1X48.3	300/2.07	76/3.00	76/3.00	FM UL
65X50/3ODX2	76.1X60.3	300/2.07	76/3.00	76/3.00	FM UL
80X25/3X1	88.9X33.7	300/2.07	86/3.38	86/3.38	FM UL
80X32/3X1¼	88.9X42.4	300/2.07	86/3.38	86/3.38	FM UL
80X40/3X1½	88.9X48.3	300/2.07	86/3.38	86/3.38	FM UL
80X50/3X2	88.9X60.3	300/2.07	86/3.38	86/3.38	FM UL
80X65/3X3OD	88.9X76.1	300/2.07	86/3.38	86/3.38	FM UL
100X65/4¼ODX3OD	108.0X76.1	300/2.07	102/4.01	102/4.01	FM UL
100X80/4¼ODX3	108.0X88.9	300/2.07	102/4.01	102/4.01	FM UL
100X25/4X1	114.3X33.7	300/2.07	102/4.01	102/4.01	FM UL
100X32/4X1¼	114.3X42.4	300/2.07	102/4.01	102/4.01	FM UL
100X40/4X1½	114.3X48.3	300/2.07	102/4.01	102/4.01	FM UL
100X50/4X2	114.3X60.3	300/2.07	102/4.01	102/4.01	FM UL
100X65/4X2½	114.3X73.0	300/2.07	102/4.01	102/4.01	FM UL
100X65/4X3OD	114.3X76.1	300/2.07	102/4.01	102/4.01	FM UL
100X80/4X3	114.3X88.9	300/2.07	102/4.01	102/4.01	FM UL
125X25/5½ODX1	139.7X33.7	300/2.07	124/4.88	124/4.88	FM UL
125X32/5½ODX1¼	139.7X42.4	300/2.07	124/4.88	124/4.88	FM UL
125X40/5½ODX1½	139.7X48.3	300/2.07	124/4.88	124/4.88	FM UL
125X50/5½ODX2	139.7X60.3	300/2.07	124/4.88	124/4.88	FM UL
125X65/5½ODX2½	139.7X73.0	300/2.07	124/4.88	124/4.88	FM UL
125X80/5½ODX3	139.7X88.9	300/2.07	124/4.88	124/4.88	FM UL
150X65/6¼ODX3OD	159.0X76.1	300/2.07	140/5.50	140/5.50	FM UL
150X80/6¼ODX3	159.0X88.9	300/2.07	140/5.50	140/5.50	FM UL
150X25/6½ODX1	165.1X33.7	300/2.07	140/5.50	140/5.50	FM UL
150X32/6½ODX1¼	165.1X42.4	300/2.07	140/5.50	140/5.50	FM UL
150X40/6½ODX1½	165.1X48.3	300/2.07	140/5.50	140/5.50	FM UL
150X50/6½ODX2	165.1X60.3	300/2.07	140/5.50	140/5.50	FM UL
150X65/6½ODX3OD	165.1X76.1	300/2.07	140/5.50	140/5.50	FM UL
150X80/6½ODX3OD	165.1X88.9	300/2.07	140/5.50	140/5.50	FM UL
150X25/6X1	168.3X33.7	300/2.07	140/5.50	140/5.50	FM UL
150X32/6X1¼	168.3X42.4	300/2.07	140/5.50	140/5.50	FM UL
150X50/6X2	168.3X60.3	300/2.07	140/5.50	140/5.50	FM UL
150X65/6X2½	168.3X73.0	300/2.07	140/5.50	140/5.50	FM UL
150X80/6X3	168.3X88.9	300/2.07	140/5.50	140/5.50	FM UL
200X65/8X3OD	219.1X76.1	300/2.07	175/6.89	175/6.89	FM UL
200X80/8X3	219.1X88.9	300/2.07	175/6.89	175/6.89	FM UL

Product Applications

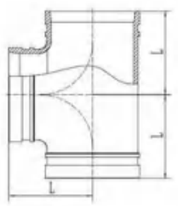
- Branch and diameter changing in fire sprinkler piping systems
- Pipeline distribution in building water supply and drainage systems
- Small branch connection in HVAC circulating water pipelines
- Industrial pipeline tapping and branch modification
- Urban pipe network, fire protection engineering and construction piping

Installation and Maintenance

- Inspect the tee for cracks, deformation and complete grooves before installation
- Clean grooves and threads, install gaskets correctly
- Connect grooved ends with couplings and tighten bolts evenly
- Install threaded branch with seal tape to ensure tightness
- Conduct pressure test after installation to check for leakage
- Regularly check sealing condition and fastening status

Reducing Tee





Purpose

This grooved reducing tee allows branching and diameter change on grooved pipes, with quick installation and reliable sealing. Made of ductile iron, it offers pressure resistance and long life for fire, water, and industrial systems.

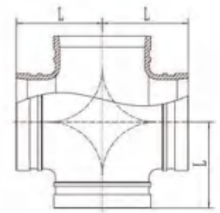
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Reducing Tee
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm		Certificate
			Φ	L	
125X80/5½ODX3	139.7X88.9	300/2.07	124/4.88	124/4.88	FM UL
125X100/5½ODX4	139.7X114.3	300/2.07	124/4.88	124/4.88	FM UL
150X65/6¼ODX3OD	159.0X76.1	300/2.07	140/5.50	140/5.50	FM UL
150X80/6¼ODX3	159.0X88.9	300/2.07	140/5.50	140/5.50	FM UL
150X100/6¼ODX4¼OD	159.0X108.0	300/2.07	140/5.50	140/5.50	FM UL
150X100/6¼ODX4	159.0X114.3	300/2.07	140/5.50	140/5.50	FM UL
150X50/6½ODX2	165.1X60.3	300/2.07	140/5.50	140/5.50	FM UL
150X65/6½ODX3OD	165.1X76.1	300/2.07	140/5.50	140/5.50	FM UL
150X80/6½ODX3OD	165.1X88.9	300/2.07	140/5.50	140/5.50	FM UL
150X100/6½ODX4	165.1X114.3	300/2.07	140/5.50	140/5.50	FM UL
150X125/6½ODX5½OD	165.1X139.7	300/2.07	140/5.50	140/5.50	FM UL
150X50/6X2	168.3X60.3	300/2.07	140/5.50	140/5.50	FM UL
150X65/6X2½	168.3X73.0	300/2.07	140/5.50	140/5.50	FM UL
150X65/6X3OD	168.3X76.1	300/2.07	140/5.50	140/5.50	FM UL
150X80/6X3	168.3X88.9	300/2.07	140/5.50	140/5.50	FM UL
150X100/6X4	168.3X114.3	300/2.07	140/5.50	140/5.50	FM UL
200X100/8X4	219.1X114.3	300/2.07	175/6.89	175/6.89	FM UL
200X125/8X5½OD	219.1X139.7	300/2.07	175/6.89	175/6.89	FM UL
200X150/8X6¼OD	219.1X159.0	300/2.07	175/6.89	175/6.89	FM UL
200X150/8X6½OD	219.1X165.1	300/2.07	175/6.89	175/6.89	FM UL
200X150/8X6	219.1X168.3	300/2.07	175/6.89	175/6.89	FM UL

Equal Cross





Purpose

This grooved equal cross enables four-way branching and connection on grooved pipes with quick installation and disassembly, boosting construction efficiency. Made of ductile iron, it offers stable pressure resistance, reliable sealing, and long life for fire, water, and industrial multi-directional distribution.

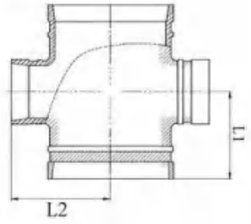
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Equal Cross
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions L mm	Certificate
25/1	33.7	300/2.07	57/2.24	——
32/1¼	42.4	300/2.07	60/2.36	——
40/1½	48.3	300/2.07	60/2.36	——
50/2	60.3	300/2.07	70/2.75	FM UL
65/2½	73.0	300/2.07	76/3.00	FM UL
65/2½	76.1	300/2.07	76/3.00	FM UL
80/3	88.9	300/2.07	86/3.39	FM UL
100/4	108.0	300/2.07	102/4.02	——
100/4	114.3	300/2.07	102/4.02	FM UL
125/5	133.0	300/2.07	124/4.88	——
125/5	139.7	300/2.07	124/4.88	FM UL
125/5	141.3	300/2.07	124/4.88	——
150/6	159.0	300/2.07	140/5.50	FM UL
150/6	165.1	300/2.07	140/5.50	FM UL
150/6	168.3	300/2.07	140/5.50	FM UL
200/8	219.1	300/2.07	173/6.81	FM UL
250/10	273	300/2.07	215/8.46	——
300/12	323.9	300/2.07	245/9.65	——

Grooved Reducing Cross





Purpose

This grooved reducing cross enables four-way branching and diameter change on grooved pipes, with easy installation and disassembly for high efficiency. Made of ductile iron, it offers stable pressure resistance, reliable sealing, and long life for multi-directional fluid distribution in fire, water, and industrial systems.

Performance Parameters

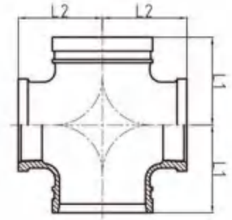
Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Grooved Reducing Cross
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm/in	
			L1	L2
100X25/4X1	114.3X33.7	300/2.07	102/4.01	102/4.01
100X32/4X1¼	114.3X42.4	300/2.07	102/4.01	102/4.01
100X40/4X1½	114.3X48.3	300/2.07	102/4.01	102/4.01
100X50/4X2	114.3X60.3	300/2.07	102/4.01	102/4.01
100X65/4X3OD	114.3X76.1	300/2.07	102/4.01	102/4.01
100X80/4X3	114.3X88.9	300/2.07	102/4.01	102/4.01
125X32/5½ODX1¼	139.7X42.4	300/2.07	124/4.88	124/4.88
125X40/5½ODX1½	139.7X48.3	300/2.07	124/4.88	124/4.88
125X50/5½ODX2	139.7X60.3	300/2.07	124/4.88	124/4.88
125X65/5½ODX2½	139.7X76.1	300/2.07	124/4.88	124/4.88
125X80/5½ODX3	139.7X88.9	300/2.07	124/4.88	124/4.88
150X25/6½ODX1	165.1X33.7	300/2.07	140/5.50	140/5.50
150X32/6½ODX1¼	165.1X42.4	300/2.07	140/5.50	140/5.50
150X40/6½ODX1½	165.1X48.3	300/2.07	140/5.50	140/5.50
150X50/6½ODX2	165.1X60.3	300/2.07	140/5.50	140/5.50
150X65/6½ODX3OD	165.1X76.1	300/2.07	140/5.50	140/5.50
150X80/6½ODX3OD	165.1X88.9	300/2.07	140/5.50	140/5.50

FLUID TECH®

Reducing Cross with Female Thread





Purpose

Grooved reducing cross with threaded branches – for multi-directional branch and size change on grooved mains. Threaded outlets allow quick branch hook-up. Ductile iron, pressure-resistant, reliable seal, long life. For fire/water/industrial distribution.

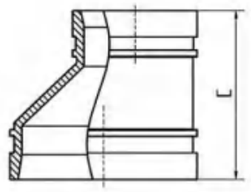
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Reducing Cross with Female Thread
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, Threaded End (NPT / BSPT)
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm/in		Certificate
			L1	L2	
65×50 2½×2	76.1×60.3 3.000×2.375	300 2.07	76 3.00	76 3.00	UL FM
80×32 3×1¼	88.9×42.4 3.500×1.660	300 2.07	108 4.25	108 4.25	———
80×40 3×1½	88.9×48.3 3.500×1.900	300 2.07	85.5 3.37	85.5 3.37	UL FM
80×50 3×2	88.9×60.3 3.500×2.375	300 2.07	85.5 3.37	85.5 3.37	UL FM
100×25 4×1	114.3×33.7 4.500×1.315	300 2.07	76 2.99	85.5 3.47	UL FM
100×32 4×1¼	114.3×42.4 4.500×1.660	300 2.07	76 2.99	85.5 3.47	UL FM
100×40 4×1½	114.3×48.3 4.500×1.900	300 2.07	85 3.35	91 3.58	UL FM
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	85 3.35	91 3.58	UL FM
100×65 4×2½	114.3×76.1 4.500×3.000	300 2.07	101 3.98	96 3.76	UL FM
100×80 4×3	114.3×88.9 4.500×3.500	300 2.07	101 3.98	96 3.76	UL FM
150×32 6×1¼	165.1×42.4 6.500×1.660	300 2.07	92 3.62	124 4.88	———
150×40 6×1½	165.1×48.3 6.500×1.900	300 2.07	92 3.62	124 4.88	UL FM
150×50 6×2	165.1×60.3 6.500×2.375	300 2.07	92 3.62	124 4.88	UL FM
150×65 6×2½	165.1×76.1 6.500×3.000	300 2.07	140 5.50	140 5.50	———
150×80 6×3	165.1×88.9 6.500×3.500	300 2.07	140 5.50	140 5.50	———
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	175 6.89	175 6.89	———

Eccentric Grooved Reducer





Purpose

This grooved cap with eccentric hole seals pipe ends and provides a side branch outlet. Its grooved design enables easy installation, while the eccentric hole allows flexible tapping. Made of ductile iron, it offers good pressure resistance, reliable sealing, and long life for fire, water, and industrial systems.

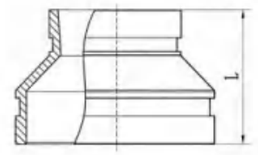
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Eccentric Grooved Reducer
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions L mm
80X50 3X2	88.9X60.3 3.500X2.375	300/2.07	89 3.50
100X65 4X2½	108.0X76.1 4.250X3.000	300/2.07	102 4.01
100X80 4X3	108.0X88.9 4.250X3.500	300/2.07	102 4.01
100X50 4X2	114.3X60.3 4.500X2.375	300/2.07	102 4.01
100X65 4X2½	114.3X76.1 4.500X3.000	300/2.07	102 4.01
100X80 4X3	114.3X88.9 4.500X3.500	300/2.07	102 4.01
125X80 5X3	139.7X88.9 5.500X3.500	300/2.07	102 4.01
125X100 5X4	139.7X114.3 5.500X4.500	300/2.07	102 4.01
150X80 6X3	159.0X88.9 6.250X3.500	300/2.07	102 4.01
150X100 6X4	159.0X108.0 6.250X4.250	300/2.07	102 4.01
150X100 6X4	159.0X114.3 6.250X4.500	300/2.07	102 4.01
150X65 6X2½	165.1X76.1 6.500X3.000	300/2.07	102 4.01
150X80 6X3	165.1X88.9 6.500X3.500	300/2.07	102 4.01
150X100 6X4	165.1X114.3 6.500X4.500	300/2.07	102 4.01
150X125 6X5	165.1X139.7 6.500X5.500	300/2.07	102 4.01
150X80 6X3	168.3X88.9 6.625X3.500	300/2.07	102 4.01
150X100 6X4	168.3X114.3 6.625X4.500	300/2.07	102 4.01
150X80 6X5	168.3X139.7 6.625X5.500	300/2.07	102 4.01
200X80 8X3	219.1X88.9 8.625X3.500	300/2.07	127 5
200X100 8X4	219.1X114.3 8.625X4.500	300/2.07	127 5
200X125 8X5	219.1X139.7 8.625X5.500	300/2.07	127 5
200X150 8X6	219.1X165.1 8.625X6.500	300/2.07	127 5
200X150 8X6	219.1X168.3 8.625X6.625	300/2.07	127 5

Reducing Coupling





Purpose

This grooved concentric reducer enables quick pipe diameter reduction with easy grooved installation, offering pressure resistance, reliable sealing, and long service life for fire, water, and industrial systems.

Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Reducing Coupling
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions L mm	Certificate
50X25/2X1	60.3X33.7	300/2.07	64	FM UL
50X32/2X1¼	60.3X42.4	300/2.07	64	FM UL
50X40/2X1½	60.3X48.3	300/2.07	64	FM UL
65X25/2½X1	73.0X33.7	300/2.07	64	FM UL
65X32/2½X1¼	73.0X42.4	300/2.07	64	FM UL
65X40/2½X1½	73.0X48.3	300/2.07	64	FM UL
65X25/3ODX1	76.1X33.7	300/2.07	64	FM UL
65X32/3ODX1¼	76.1X42.4	300/2.07	64	FM UL
65X40/3ODX1½	76.1X48.3	300/2.07	64	FM UL
65X50/3ODX2	76.1X60.3	300/2.07	64	FM UL
80X25/3X1	88.9X33.7	300/2.07	64	FM UL
80X32/3X1¼	88.9X42.4	300/2.07	64	FM UL
80X40/3X1½	88.9X48.3	300/2.07	64	FM UL
80X50/3X2	88.9X60.3	300/2.07	64	FM UL
80X65/3X2½	88.9X73.0	300/2.07	64	FM UL
80X65/3X3OD	88.9X76.1	300/2.07	64	FM UL
100X65/4¼ODX3OD	108.0X76.1	300/2.07	76	FM UL
100X80/4¼ODX3	108.0X88.9	300/2.07	76	FM UL
100X50/4X2	114.3X60.3	300/2.07	76	FM UL
100X65/4X2½	114.3X73.0	300/2.07	76	FM UL
100X65/4X3OD	114.3X76.1	300/2.07	76	FM UL
100X80/4X3	114.3X88.9	300/2.07	76	FM UL
125X100/5½ODX4¼OD	133.0X108.0	300/2.07	89	FM UL
125X100/5½ODX4	133.0X114.3	300/2.07	89	FM UL
125X50/5½ODX2	139.7X60.3	300/2.07	89	FM UL
125X65/5½ODX3OD	139.7X76.1	300/2.07	89	FM UL

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions L mm	Certificate
125X80/5"ODX3	139.7X88.9	300/2.07	89	FM UL
125X100/5"ODX4	139.7X114.3	300/2.07	89	FM UL
150X50/6"ODX2	159.0X60.3	300/2.07	89	FM UL
150X65/6"ODX3OD	159.0X76.1	300/2.07	89	FM UL
150X80/6"ODX3	159.0X88.9	300/2.07	89	FM UL
150X100/6"ODX4"OD	159.0X108.0	300/2.07	89	FM UL
150X100/6"ODX4	159.0X114.3	300/2.07	89	FM UL
150X125/6"ODX5"OD	159.0X133.0	300/2.07	89	FM UL
150X50/6"ODX2	165.1X60.3	300/2.07	102	FM UL
150X65/6"ODX3OD	165.1X76.1	300/2.07	102	FM UL
150X80/6"ODX3	165.1X88.9	300/2.07	102	FM UL
150X100/6"ODX4	165.1X114.3	300/2.07	102	FM UL
150X125/6"ODX5"OD	165.1X139.7	300/2.07	102	FM UL
150X50/6X2	168.3X60.3	300/2.07	102	FM UL
150X65/6X2"	168.3X73.0	300/2.07	102	FM UL

Product Applications

- Diameter transition in fire sprinkler piping systems
- Pipeline reducing for building water supply and drainage
- Smooth diameter change in HVAC circulating water pipelines
- Industrial fluid pipeline concentric reducing connection
- Urban pipe network, fire protection engineering and construction piping

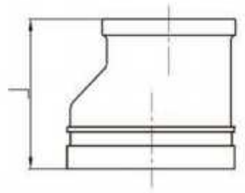
Installation and Maintenance

- Inspect the reducer for cracks, deformation and complete grooves before installation
- Clean the grooves and install gaskets correctly in place
- Connect with coupling clamps and tighten bolts evenly
- Do not over-tighten to avoid damage to fittings or gaskets
- Conduct pressure test after installation to check for leakage
- Regularly check sealing condition and clamp fastening status

FLUID TECH®

Grooved Eccentric Reducer with Female Thread





Purpose

This grooved eccentric reducer with threaded outlet enables diameter change and branch tapping with easy installation and reliable sealing, made of ductile iron for pressure resistance and long service life in fire, water, and industrial systems.

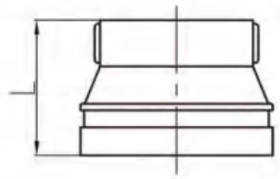
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Grooved Eccentric Reducer with Female Thread
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, Threaded End (NPT / BSPT)
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions L mm	Certificate
100X65 4X2½	114.3X76.1 4.500X3.000	300 2.07	102 4.00	UL FM
125X80 5X3	139.7X88.9 5.500X3.500	300 2.07	127 5.00	UL FM
150X80 6X3	165.1X88.9 6.500X3.500	300 2.07	140 5.50	UL FM

Grooved Concentric Reducer with Female Thread





Purpose

This grooved concentric reducer with threaded outlet enables diameter transition and branch tapping in one fitting, with grooved main connection and threaded side outlet for flexible installation. Made of ductile iron, it offers pressure resistance, reliable sealing, and long life for fire, water, and industrial systems.

Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Grooved Concentric Reducer with Female Thread
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, Threaded End (NPT / BSPT)
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm in	Pipe O.D mm	Working Pressure PSI Mpa	Dimensions L mm	Certificate
42X25 1¼X1	42.4X33.7 1.660X1.315	500 3.45	64 2.50	—
48X25 1½X1	48.3X33.7 1.900X1.315	500 3.45	64 2.50	—
50X15 2X½	60.3X21.3 2.375X0.825	500 3.45	64 2.50	UL FM VdS
50X20 2X¾	60.3X26.9 2.375X1.05	500 3.45	64 2.50	UL FM VdS LPCB
50X25 2X1	60.3X33.7 2.375X1.315	500 3.45	64 2.50	UL FM VdS LPCB
50X32 2X1¼	60.3X42.4 2.375X1.660	500 3.45	64 2.50	UL FM VdS LPCB
50X40 2X1½	60.3X48.3 2.375X1.900	500 3.45	64 2.50	UL FM VdS LPCB
65X25 2½X1	73.0X33.7 2.875X1.315	500 3.45	64 2.50	UL FM
65X25 2½X1¼	73.0X42.4 2.875X1.660	500 3.45	64 2.50	UL FM
65X40 2½X1½	73.0X48.3 2.875X1.900	500 3.45	64 2.50	UL FM
65X50 2½X2	73.0X60.3 2.875X2.375	500 3.45	64 2.50	UL FM
65X15 2½X½	76.1X21.3 3.000X0.825	500 3.45	64 2.50	UL FM VdS
65X20 2½X¾	76.1X26.9 3.000X1.05	500 3.45	64 2.50	UL FM VdS
65X25 2½X1	76.1X33.7 3.000X1.315	500 3.45	64 2.50	UL FM VdS
65X32 2½X1¼	76.1X42.4 3.000X1.660	500 3.45	64 2.50	UL FM VdS LPCB
65X40 2½X1½	76.1X48.3 3.000X1.900	500 3.45	64 2.50	UL FM VdS LPCB
65X50 2½X2	76.1X60.3 3.000X2.375	500 3.45	64 2.50	UL FM VdS LPCB
80X15 3X½	88.9X21.3 3.500X0.825	500 3.45	64 2.50	UL FM VdS
80X20 3X¾	88.9X26.9 3.500X1.05	500 3.45	64 2.50	UL FM VdS
80X25 3X1	88.9X33.7 3.500X1.315	500 3.45	64 2.50	UL FM VdS
80X32 3X1¼	88.9X42.4 3.500X1.660	500 3.45	64 2.50	UL FM VdS
80X40 3X1½	88.9X48.3 3.500X1.900	500 3.45	64 2.50	UL FM VdS LPCB
80X50 3X2	88.9X60.3 3.500X2.375	500 3.45	64 2.50	UL FM VdS LPCB
80X65 3X2½	88.9X73.0 3.500X2.875	500 3.45	64 2.50	UL FM
80X65 3X2½	88.9X76.1 3.500X3.000	500 3.45	64 2.50	UL FM VdS LPCB
100X25 4X1	108.0X33.7 4.250X1.315	500 3.45	76 3.00	UL FM
100X32 4X1¼	108.0X42.4 4.250X1.660	500 3.45	76 3.00	UL FM
100X40 4X1½	108.0X48.3 4.250X1.900	500 3.45	76 3.00	UL FM
100X50 4X2	108.0X60.3 4.250X2.375	500 3.45	76 3.00	UL FM
100X65 4X2½	108.0X76.1 4.250X3.000	500 3.45	76 3.00	UL FM
100X80 4X3	108.0X88.9 4.250X3.500	500 3.45	76 3.00	UL FM
100X15 4X½	114.3X21.3 4.500X0.825	500 3.45	76 3.00	UL FM VdS
100X20 4X¾	114.3X26.9 4.500X1.05	500 3.45	76 3.00	UL FM VdS
100X25 4X1	114.3X33.7 4.500X1.315	500 3.45	76 3.00	UL FM VdS
100X32 4X1¼	114.3X42.4 4.500X1.660	500 3.45	76 3.00	UL FM VdS
100X40 4X1½	114.3X48.3 4.500X1.900	500 3.45	76 3.00	UL FM VdS LPCB
100X50 4X2	114.3X60.3 4.500X2.375	500 3.45	76 3.00	UL FM VdS LPCB
100X65 4X2½	114.3X73.0 4.500X2.875	500 3.45	76 3.00	UL FM
100X65 4X2½	114.3X76.1 4.500X3.000	500 3.45	76 3.00	UL FM VdS LPCB

Product Applications

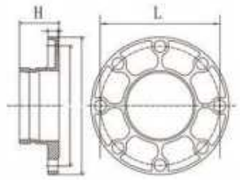
- Reducing and branch tapping in fire sprinkler systems
- Pipeline reducing with small outlet in water supply systems
- Branch connection for HVAC circulating water pipelines
- Industrial fluid pipeline reducing and side outlet connection
- Urban pipe network, fire protection engineering and construction piping

Installation and Maintenance

- Inspect the reducer for cracks, deformation and complete grooves before installation
- Clean grooves and threads, install gaskets properly
- Connect grooved ends with couplings and tighten bolts evenly
- Use seal tape on threaded outlet to ensure tight sealing
- Conduct pressure test after installation to check for leakage
- Regularly check sealing condition and fastening status

Adaptor Flange ANSI125/150





Purpose

This adaptor flange connects grooved pipe ends to flanged pipes, valves, or equipment. It offers stable connection, reliable sealing, pressure resistance, and long life – made of ductile iron for fire-protection, water supply and industrial piping systems.

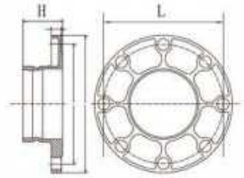
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Adaptor Flange ANSI125/150
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm in	Pipe O.D mm	Working Pressure PSI Mpa	Dimensions mm			Certificate
			L	H	n-Φ	
50/2	60.3	300/2.07	120.5/4.74	65/2.56	4-M16	FM UL
65/2½	73.0	300/2.07	139.7/5.50	65/2.56	4-M16	FM UL
80/3	88.9	300/2.07	152.4/6.00	65/2.56	8-M16	FM UL
100/4	114.3	300/2.07	190.5/7.50	70/2.76	8-M16	FM UL
125/5	141.3	300/2.07	216/8.50	70/2.76	8-M16	FM UL
150/6	168.3	300/2.07	241/9.5	70/2.76	8-M20	FM UL
200/8	219.1	300/2.07	298.5/11.75	80/3.15	12-M20	FM UL
250/10	273	300/2.07	362/14.25	85/3.35	12-M20	FM UL
300/12	323.9	300/2.07	432/17.01	85/3.35	12-M20	FM UL

Adaptor Flange PN16/PN25





Purpose

This adaptor flange connects grooved pipe ends to flanged pipes, valves, or equipment. It offers stable connection, reliable sealing, pressure resistance, and long life – made of ductile iron for fire, water, and industrial systems.

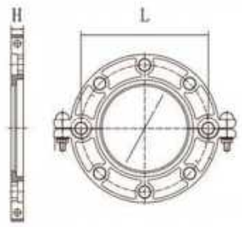
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Adaptor Flange PN16/PN25
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm in	Pipe O.D mm	Working Pressure PSI Mpa	Dimensions mm			Certificate
			L	H	n-Φ	
50 2	60.3	300 2.07	125 4.92	65 2.56	4-M16	FM UL
65 2½	73.0	300 2.07	145 5.71	65 2.56	4-M16	FM UL
65 2½	76.1	300 2.07	145 5.71	65 2.56	4-M16	FM UL
80 3	88.9	300 2.07	160 6.30	65 2.56	8-M16	FM UL
100 4	108	300 2.07	180 7.09	70 2.76	8-M16	FM UL
100 4	114.3	300 2.07	180 7.09	70 2.76	8-M16	FM UL
125 5	133	300 2.07	210 8.27	70 2.76	8-M16	FM UL
125 5	139.7	300 2.07	210 8.27	70 2.76	8-M16	FM UL
150 6	159	300 2.07	240 9.45	70 2.76	8-M20	FM UL
150 6	165.1	300 2.07	240 9.45	70 2.76	8-M20	FM UL
150 6	168.3	300 2.07	240 9.45	70 2.76	8-M20	FM UL
200 8	219.1	300 2.07	295 11.61	80 3.15	12-M20	FM UL

Grooved Split Flange





Purpose

This grooved flange connects grooved pipes to flanged valves, pumps, and other equipment. It features easy installation, stable connection, and reliable sealing. Made of ductile iron, it is pressure-resistant and durable, widely used in fire, water, HVAC, and industrial piping.

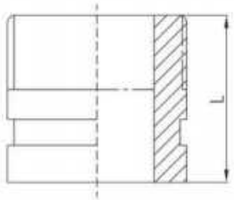
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Grooved Split Flange
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm in	Pipe O.D mm	Working Pressure PSI Mpa	Dimensions mm			Certificate
			L	H	n-Φ	
50/2	60.3	300/2.07	125/4.92	18.5/0.73	4-M16	FM UL
65/2½	73.0	300/2.07	140/5.51	19/0.75	4-M16	FM UL
65/2½	76.1	300/2.07	145/5.71	18.5/0.73	4-M16	FM UL
80/3	88.9	300/2.07	160/6.30	18.5/0.73	8-M16	FM UL
100/4	108.0	300/2.07	180/7.09	18.5/0.73	8-M16	FM UL
100/4	114.3	300/2.07	180/7.09	18.5/0.73	8-M16	FM UL
125/5	133.0	300/2.07	210/8.27	21.5/0.85	8-M16	FM UL
125/5	139.7	300/2.07	210/8.27	21.5/0.85	8-M16	FM UL
125/5	141.3	300/2.07	216/8.50	22/0.87	8-M16	FM UL
150/6	159.0	300/2.07	240/9.45	21.5/0.85	8-M20	FM UL
150/6	165.1	300/2.07	240/9.45	21.5/0.85	8-M20	FM UL
150/6	168.3	300/2.07	240/9.45	24/0.94	8-M20	FM UL
200/8	219.1	300/2.07	295/11.61	30/1.18	12-M20	FM UL
250/10	273	300/2.07	355/13.98	25.4/1	12-M24	FM UL
300/12	323.9	300/2.07	410/16.14	25.4/1	12-M24	FM UL

Grooved*Thread Adaptor





Purpose

This grooved threaded adaptor nipple features one grooved end and one threaded end for seamless transition between grooved and threaded piping. Made of ductile iron, it offers quick conversion, reliable sealing with standard gaskets, multiple thread types and pressure ratings, UL Listed and FM Approved with anti-corrosion finishes – for fire, water, HVAC, gas, and irrigation systems.

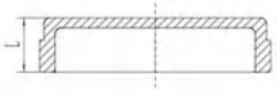
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Grooved*Thread Adaptor
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, Threaded End (NPT / BSPT)
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm in	Pipe O.D mm	Working Pressure PSI Mpa	Dimensions mm	Certificate
40 × 25 1½× 1	48.3 × 33.7 1.900 × 1.327	500 3.45	63 2.48	FM UL
40 × 40 1½ × 1½	48.3 × 48.3 1.900 × 1.900	500 3.45	63 2.48	FM UL
50 × 40 2 × 1½	60.3 × 48.3 2.375 × 1.900	500 3.45	63 2.48	FM UL
50 × 50 2 × 2	60.3 × 60.3 2.375 × 2.375	500 3.45	63 2.48	FM UL

End Cap





Purpose

This grooved end cap safely seals pipe ends with quick grooved installation and easy maintenance. Made of ductile iron, it ensures pressure resistance, stable sealing, and long service life for fire, water, and industrial pipelines.

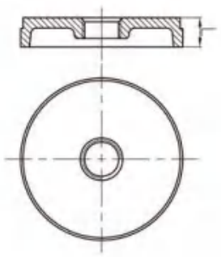
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: End Cap
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm in	Pipe O.D mm	Working Pressure PSI Mpa	Dimensions L mm	Certificate
25/1	33.7	300/2.07	22/0.87	FM UL
32/1¼	42.4	300/2.07	24/0.94	FM UL
40/1½	48.3	300/2.07	24/0.94	FM UL
50/2	60.3	300/2.07	24/0.94	FM UL
65/2½	76.1	300/2.07	24/0.94	FM UL
80/3	88.9	300/2.07	24/0.94	FM UL
100/4	114.3	300/2.07	26/1.02	FM UL
125/5	139.7	300/2.07	26/1.02	FM UL
150/6	165.1	300/2.07	26/1.02	FM UL
150/6	168.3	300/2.07	26/1.02	FM UL
200/8	219.1	300/2.07	28/1.10	FM UL

Cap with Concentric Hole





Purpose

This grooved cap with concentric hole seals pipe ends and provides a branch outlet with quick grooved installation. Made of ductile iron, it offers pressure resistance, reliable sealing, and long life for fire, water, and industrial systems.

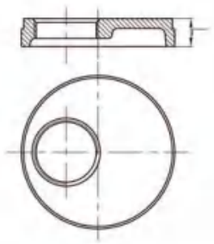
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Cap with Concentric Hole
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, Threaded End (NPT / BSPT)
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm in	Pipe O.D mm	Max Working Pressure PSI Mpa	Dimensions L mm	Certificate
50X25 2X1	60.3X33.7 2.375X1.315	500 3.45	23.5 0.93	VdS
65X25 2½X1	76.1X33.7 3.000X1.315	500 3.45	24.5 0.96	—
65X40 2½X1½	76.1X48.3 3.000X1.900	500 3.45	23.5 0.925	UL
65X50 2½X2	76.1X60.3 3.000X2.375	500 3.45	24 0.94	VdS
80X15 3X½	88.9X21.3 3.500X0.825	500 3.45	25.4 1.00	UL FM
80X25 3X1	88.9X33.7 3.500X1.315	500 3.45	24 0.94	UL FM
80X40 3X1½	88.9X48.3 3.500X1.900	500 3.45	23.5 0.925	UL FM
80X50 3X2	88.9X60.3 3.500X2.375	500 3.45	23.5 0.925	UL VdS
100X15 4X½	114.3X21.3 4.500X0.825	500 3.45	27.0 1.06	UL
100X25 4X1	114.3X33.7 4.500X1.315	500 3.45	27.0 1.06	UL
100X40 4X1½	114.3X48.3 4.500X1.900	500 3.45	25.4 1.00	UL
100X50 4X2	114.3X60.3 4.500X2.375	500 3.45	25.4 1.00	UL
125X50 5X2	139.7X60.3 5.500X2.375	500 3.45	27 1.06	UL
150X15 6X½	165.1X21.3 6.500X0.825	500 3.45	27 1.06	UL
150X15 6X½	168.3X21.3 6.625X0.825	500 3.45	25.4 1.00	UL FM
150X25 6X1	159.0X33.7 6.250X1.315	500 3.45	27 1.06	—
150X25 6X1	165.1X33.7 6.500X1.315	500 3.45	27 1.06	UL
150X25 6X1	168.3X33.7 6.625X1.315	500 3.45	25.4 1.00	—
150X50 6X2	165.1X60.3 6.500X2.375	500 3.45	27 1.06	UL
150X40 6X1½	168.3X48.3 6.625X1.900	500 3.45	27 1.06	UL
150X50 6X2	168.3X60.3 6.625X2.375	500 3.45	27 1.06	UL FM
200X25 8X1	219.1X33.7 8.625X1.315	500 3.45	30 1.18	UL FM

Cap with Eccentric Hole





Purpose

This grooved cap with eccentric hole seals pipe ends and offers a flexible side outlet, with quick installation, pressure resistance, reliable sealing, and long life for fire, water, and industrial systems.

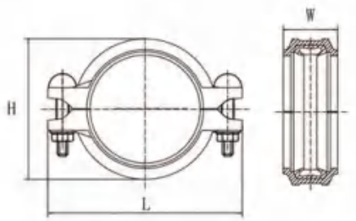
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Cap with Eccentric Hole
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, Threaded End (NPT / BSPT)
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm in	Pipe O.D mm	Max Working Pressure PSI Mpa	Dimensions L mm	Certificate
65X25 2½X1	76.1X33.7 3.000X1.315	500 3.45	23.5 0.925	UL FM VdS
65X40 2½X1½	76.1X48.3 3.000X1.900	500 3.45	23.5 0.925	VdS
80X25 3X1	88.9X33.7 3.500X1.315	500 3.45	23.5 0.925	VdS
80X40 3X1½	88.9X48.3 3.500X1.900	500 3.45	23.5 0.925	UL FM VdS
80X50 3X2	88.9X60.3 3.500X2.375	500 3.45	23.5 0.925	UL FM VdS
100X25 4X1	114.3X33.7 4.500X1.315	500 3.45	27 1.06	UL FM
100X40 4X1½	114.3X48.3 4.500X1.900	500 3.45	25.4 1.00	UL FM VdS
100X50 4X2	114.3X60.3 4.500X2.375	500 3.45	25.4 1.00	UL FM VdS
125X25 5X1	139.7X33.7 5.500X1.315	500 3.45	27.3	—
125X40 5X1½	139.7X48.3 5.500X1.900	500 3.45	25.4 1.00	UL FM VdS
125X50 5X2	139.7X60.3 5.500X2.375	500 3.45	25.4 1.00	UL FM VdS
150X40 6X1½	165.1X48.3 6.500X1.900	500 3.45	25.4 1.00	UL FM
150X40 6X1½	168.3X48.3 6.625X1.900	500 3.45	25.4 1.00	UL FM VdS
150X50 6X2	168.3X60.3 6.625X2.375	500 3.45	25.4 1.00	UL FM VdS
200X40 8X1½	219.1X48.3 8.625X1.900	500 3.45	30.2 1.19	UL FM VdS
200X50 8X2	219.1X60.3 8.625X2.375	500 3.45	30.2 1.19	UL FM VdS
250X40 10X1½	273.0X48.3 10.750X1.900	500 3.45	33.1	—
300X40 12X1½	323.9X48.3 12.750X1.900	500 3.45	31.2	—

Rigid Coupling





Purpose

This grooved rigid coupling, made of ductile iron with hot-dip galvanized surface, enables quick rigid connection for grooved pipes. It features reliable sealing, high pressure resistance, easy installation, and long service life, widely used in fire, water supply, and industrial systems.

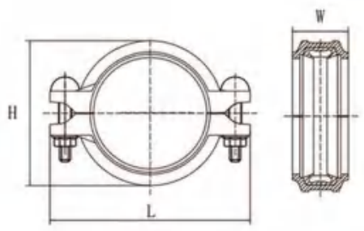
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Rigid Coupling
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm			Bolt Size	Certificate
			L	H	W	NO.-Size mm	
25/1	33.7	300/2.07	97	58	45.5	M10*45	FM UL
32/1¼	42.4	300/2.07	104	66	45.5	M10*45	FM UL
40/1½	48.3	300/2.07	114	72	45.5	M10*45	FM UL
50/2	60.3	300/2.07	128	85	45.5	M10*55	FM UL
65/2½	73.0	300/2.07	137	94	45.5	M10*55	FM UL
65/2½	76.1	300/2.07	142	98	45.5	M10*55	FM UL
80/3	88.9	300/2.07	164	112	46	M12*65	FM UL
100/4	108.0	300/2.07	187	134	50	M12*65	FM UL
100/4	114.3	300/2.07	190	138	50	M12*65	FM UL
125/5	133.0	300/2.07	212	160	50	M12*75	FM UL
125/5	139.7	300/2.07	223	168	50	M12*75	FM UL
125/5	141.3	300/2.07	226	170	50	M12*75	FM UL
150/6	159.0	300/2.07	244	188	50	M12*75	FM UL
150/6	165.1	300/2.07	247	194	50	M12*75	FM UL
150/6	168.3	300/2.07	250	196	50	M12*75	FM UL
200/8	219.1	300/2.07	320	254	60	M16*90	FM UL
250/10	273.0	300/2.07	408	316	65	M20*120	FM UL
300/12	323.9	300/2.07	460	372	65	M22*140	FM UL

Flexible Coupling





Purpose

This grooved flexible coupling, made of ductile iron with a hot-dip galvanized surface, allows slight deflection to absorb vibration and thermal expansion while ensuring reliable sealing. It is easy to install, pressure-resistant, durable, and suited for fire, water, and industrial piping.

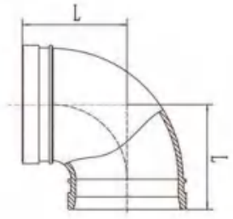
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Flexible Coupling
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm			Bolt Size	Certificate	
			L	H	W	NO.-Size mm		
25/1	33.7	300/2.07	97	58	45.5	M10*45	FM	UL
32/1¼	42.4	300/2.07	104	66	45.5	M10*45	FM	UL
40/1½	48.3	300/2.07	114	72	45.5	M10*45	FM	UL
50/2	60.3	300/2.07	128	85	45.5	M10*55	FM	UL
65/2½	73.0	300/2.07	137	94	45.5	M10*55	FM	UL
65/2½	76.1	300/2.07	142	98	45.5	M10*55	FM	UL
80/3	88.9	300/2.07	164	112	46	M12*65	FM	UL
100/4	108.0	300/2.07	187	134	50	M12*65	FM	UL
100/4	114.3	300/2.07	190	138	50	M12*65	FM	UL
125/5	133.0	300/2.07	212	160	50	M12*75	FM	UL
125/5	139.7	300/2.07	223	168	50	M12*75	FM	UL
125/5	141.3	300/2.07	226	170	50	M12*75	FM	UL
150/6	159.0	300/2.07	244	188	50	M12*75	FM	UL
150/6	165.1	300/2.07	247	194	50	M12*75	FM	UL
150/6	168.3	300/2.07	250	196	50	M12*75	FM	UL
200/8	219.1	300/2.07	320	254	60	M16*90	FM	UL
250/10	273.0	300/2.07	408	316	65	M20*120	FM	UL
300/12	323.9	300/2.07	460	372	65	M22*140	FM	UL

90°Elbow





Purpose

This grooved 90° elbow enables quick, reliable connection for fire, water, and industrial piping. Its grooved ends allow easy installation, disassembly, and maintenance, boosting construction efficiency. Made of ductile iron with a hot-dip galvanized surface, it offers stable pressure resistance, reliable sealing, and long service l ife for medium pipeline turns.

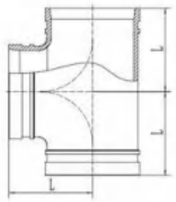
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: 90°Elbow
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size mm/in	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions mm	Certificate
25/1	33.7	300/2.07	57/2.24	FM UL
32/1¼	42.4	300/2.07	60/2.36	FM UL
40/1½	48.3	300/2.07	60/2.36	FM UL
50/2	60.3	300/2.07	70/2.75	FM UL
65/2½	73.0	300/2.07	76/3.00	FM UL
65/2½	76.1	300/2.07	76/3.00	FM UL
80/3	88.9	300/2.07	86/3.39	FM UL
100/4	108.0	300/2.07	102/4.02	FM UL
100/4	114.3	300/2.07	102/4.02	FM UL
125/5	133.0	300/2.07	124/4.88	FM UL
125/5	139.7	300/2.07	124/4.88	FM UL
125/5	141.3	300/2.07	124/4.88	——
150/6	159.0	300/2.07	140/5.50	FM UL
150/6	165.1	300/2.07	140/5.50	FM UL
150/6	168.3	300/2.07	140/5.50	FM UL
200/8	219.1	300/2.07	173/6.81	FM UL
250/10	273	300/2.07	215/8.46	FM UL
300/12	323.9	300/2.07	245/9.65	FM UL

Equal Tee





Purpose

This grooved equal tee is used for pipeline branching in fire, water, and industrial systems. Its grooved ends enable quick installation and stable performance. Made of ductile iron with a hot-dip galvanized surface, it offers good pressure resistance, reliable sealing, and long life for three-way fluid distribution.

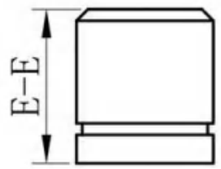
Performance Parameters

Standard: UL Listed / FM Approved / GB/T / NFPA 13
Type: Equal Tee
Material: Ductile Iron ASTM A536 65-45-12
Connection Type: Grooved End, AWWA C606 / ISO 6182-12
Pressure Class: 1.6 MPa (232 psi) / 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Red Epoxy / Red Painted / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Nominal Size	Pipe O.D mm	Working Pressure PSI/Mpa	Dimensions L	Certificate
25/1	33.7	300/2.07	57/2.24	FM UL
32/1¼	42.4	300/2.07	60/2.36	FM UL
40/1½	48.3	300/2.07	60/2.36	FM UL
50/2	60.3	300/2.07	70/2.75	FM UL
65/2½	73.0	300/2.07	76/3.00	FM UL
65/2½	76.1	300/2.07	76/3.00	FM UL
80/3	88.9	300/2.07	86/3.39	FM UL
100/4	108.0	300/2.07	102/4.02	FM UL
100/4	114.3	300/2.07	102/4.02	FM UL
125/5	133.0	300/2.07	124/4.88	FM UL
125/5	139.7	300/2.07	124/4.88	FM UL
125/5	141.3	300/2.07	124/4.88	——
150/6	159.0	300/2.07	140/5.50	FM UL
150/6	165.1	300/2.07	140/5.50	FM UL
150/6	168.3	300/2.07	140/5.50	FM UL
200/8	219.1	300/2.07	173/6.81	FM UL
250/10	273.0	300/2.07	215/8.46	FM UL
300/12	323.9	300/2.07	245/9.65	FM UL

Grv * Welding Adapter





Purpose

This grooved plain-end adapter (Grv * Welding) connects grooved pipes to plain-end systems with one grooved end and one plain end. Made of ductile iron with hot-dip galvanized finish, it ensures reliable sealing, easy installation, and long life for fire, water, and industrial applications.

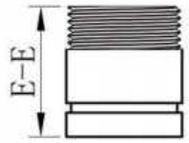
Performance Parameters

Standard: Refer to NFPA 13
Type:Grooved plain-end adapter (Grv * Welding Adapter)
Material: ASTM A106 Sch.40 / ASTM A53 Sch.10
Connection Type:Grooved × Plain end
Pressure Class: 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Black / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Working Pressure PSI/MPa	Nominal Diameter (mm/in)	Diameter (mm/in)	Structural length ±1.6mm (E-E)	Remark
300 2.07	25/1	33.4/1.315	76.2/3	E-E dimension can be oriented according to customer's special requirements.
	32/ 11/4	42.2/1.661	101.6/4	
	40/ 11/2	48.3/1.900	101.6/4	
	50/2	60.3/2.375	101.6/4	
	65/ 21/2	73/2.875	101.6/4	
	80/3	88.9/3.5	101.6/4	
	100/4	114.3/4.5	152.4/6	
	125/5	141.3/5.563	152.4/6	
	150/6	168.3/6.625	152.4/6	
	200/8	219.1/8.625	152.4/6	

Grv*Thread Adapter





Purpose

This grooved threaded adapter (Grv*Thread) connects grooved pipes to threaded systems with one grooved end and one threaded end. Made of ductile iron with hot-dip galvanized finish, it ensures reliable sealing, easy installation, and long life for fire, water, and industrial applications.

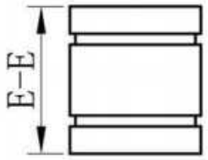
Performance Parameters

Standard: Refer to NFPA 13
Type：Grooved Threaded Adapter (Grv*Thread Adapter)
Material: ASTM A106 Sch.40 / ASTM A53 Sch.10
Connection type：Grooved × Threaded end
Pressure Class: 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Black / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Working Pressure PSI/MPa	Nominal Diameter (mm/in)	Diameter (mm/in)	Structural length ±1.6mm (E-E)	Remark
300 2.07	25/1	33.4/1.315	76.2/3	E-E dimension can be oriented according to customer's special requirements.
	32/ 11/4	42.2/1.661	101.6/4	
	40/ 11/2	48.3/1.900	101.6/4	
	50/2	60.3/2.375	101.6/4	
	65/ 21/2	73/2.875	101.6/4	
	80/3	88.9/3.5	101.6/4	
	100/4	114.3/4.5	152.4/6	
	125/5	141.3/5.563	152.4/6	
	150/6	168.3/6.625	152.4/6	
	200/8	219.1/8.625	152.4/6	

Grv*Grv Adapter





Purpose

This grooved-to-grooved adapter (GrvGrv) connects two grooved pipes with a straight, rigid joint. Both ends are grooved for quick installation and reliable sealing. Made of ductile iron with hot-dip galvanized finish, it ensures pressure resistance and long life for fire, water, and industrial applications.

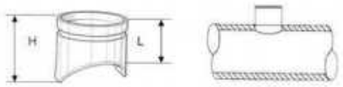
Performance Parameters

Standard: Refer to NFPA 13
Type: Grv*Grv Adapter
Material: ASTM A106 Sch.40 / ASTM A53 Sch.10
Connection Type: Both ends Grooved (roll-grooved)
Pressure Class: 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Black / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Working Pressure PSI/MPa	Nominal Diameter (mm/in)	Diameter (mm/in)	Structural length ±1.6mm (E-E)	Remark
300 2.07	25/1	33.4/1.315	76.2/3	E-E dimension can be oriented according to customer's special requirements.
	32/ 11/4	42.2/1.661	101.6/4	
	40/ 11/2	48.3/1.900	101.6/4	
	50/2	60.3/2.375	101.6/4	
	65/ 21/2	73/2.875	101.6/4	
	80/3	88.9/3.5	101.6/4	
	100/4	114.3/4.5	152.4/6	
	125/5	141.3/5.563	152.4/6	
	150/6	168.3/6.625	152.4/6	
	200/8	219.1/8.625	152.4/6	

Grv * Welding Adapter





Purpose

This grooved weld adapter (Grv * Welding) connects grooved pipes to bevel-end welded systems with one grooved end and one weld end. Made of ductile iron with hot-dip galvanized finish, it ensures reliable sealing, easy installation, and long life for fire, water, and industrial applications.

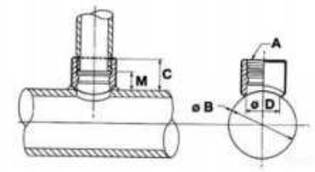
Performance Parameters

Standard: Refer to NFPA 13
Type: Grv * Welding Adapter
Material: ASTM A106 Sch.40 / ASTM A53 Sch.10
Connection Type: Grooved (roll-grooved) / Other end: Beveled (weld) end
Pressure Class: 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Black / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Code (Grooved)	Branch Size	Pipe Size	H	L
FT-GW-100-80	80mm	100mm	69mm	88mm
FT-GW-100-100	100mm	100mm	68mm	111mm
FT-GW-150-80	80mm	100mm	82mm	95mm
FT-GW-150-150	150mm	150mm	82mm	148mm
FT-GW-200-100	100mm	200mm	61mm	76mm

Femal Thread * Welding Outlet Fitting





Purpose

These welded branch outlets are designed for fire sprinkler and pressure piping systems. Featuring a beveled body with precision BSP internal threads, they weld onto main pipes and allow direct sprinkler mounting without extra adapters. Made of carbon steel (equivalent to ASTM A-105), UL Listed, with NPT or ISO 7/1 threads for reliable leak-tight connections and long-term performance.

Performance Parameters

Standard: Refer to NFPA 13
Type: Femal Thread * Welding Outlet Fitting
Material: ASTM A106 Sch.40 / ASTM A53 Sch.10
Pressure Class: 2.07 MPa (300 psi)
Temperature Range: -20°C to 120°C (-4°F to 248°F)
Surface Treatment: Black / Galvanized
Application: Fire Protection Systems, HVAC, Industrial Fluid Pipelines

Product Code	Outlet Size A DN	Header Size B DN Main Pipe OD	Outlet Lgn C mm	Make Up M mm	Box Quantity
FT-TW-15-2540	15	25-40	28	8	300
FT-TW-15-5065	15	50-65	28	8	300
FT-TW-15-80200	15	80-200	28	8	300
FT-TW-20-2540	20	25-40	35	13	200
FT-TW-20-5065	20	50-65	35	13	200
FT-TW-20-80125	20	80-125	35	13	200
FT-TW-20-150200	20	150-200	35	13	200
FT-TW-25-6580	25	65-80	40	13	150
FT-TW-25-100	25	100	40	13	150
FT-TW-Z2-5065	32	50-65	50	13	100
FT-TW-40-80	40	80	56	22	90
FT-TW-40-100	40	100	56	22	90
FT-TW-40-200	40	200	56	22	90
FT-TW-50-100	50	100	70	22	40
FT-TW-50-150200	50	150-200	70	22	40
FT-TW-65-150200	65	150-200	80	28	30

Hydraulic Roll Groover GHM-5X For 1"-12" pipes



Purpose

This grooving machine handles small to medium workloads. Its groove depth nut features a scale mark for easy adjustment. Model GHM-5A uses a trolley with air cylinders, movable by one operator to save labor, and includes a yoke stand for enhanced stability

Performance Parameters

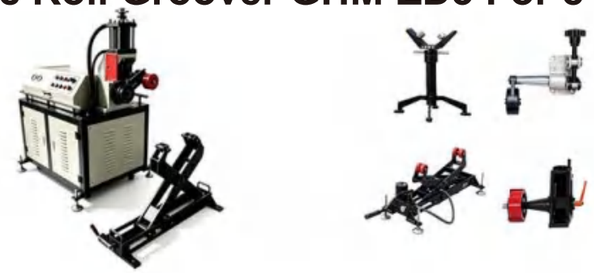
1" ~ 8"(DN25 - DN200, Ø33 ~ Ø219) SCH10/40 carbon steel / stainless steel pipe
10" ~ 12"(DN250 ~ DN300, Ø254 ~ Ø325) SCH10/20 carbon steel / stainless steel pipe
Max. Wall Thickness: 8 mm
Output Speed: 23 R.P.M.
Packing Gross Weight:
GHM-5X: 118 kgs
GHM-5A: 172 kgs
Packing Dimension (L x W x H): GHM-5X: 730 x 730 x 770 mm GHM-5A: 1420 x 670 x 1350 mm

Item No.	Phase	Power	Voltage	Frequency
98055	Single Phase	1100W	110/120/220/230/240V	50/60Hz
98094	Three Phase	750W	220/380/415/440V	50/60Hz

Standard package

Item No.	Description	N.W (kgs)	Ref No.
99037	GHM-5X Electric Hydraulic Roll Grooving Machine	65	/
11106	Drive roller 1"~ 1½" (Ø 33 ~ Ø 48)	1.6	/
11107	Drive roller 2"~ 3" (Ø 60 ~ Ø 89)	1.2	/
11108	Drive roller 3½"~ 6" (Ø 101 ~ Ø 168)	1.8	/
11109	Drive roller 8"~ 12" (Ø 219 ~ Ø 325)	1.8	/
12041	Groove roller 1"~ 1½" (Ø 33 ~ Ø 48)	1	/
12042	Groove roller 2"~ 6" (Ø 60 ~ Ø 168)	0.9	/
12043	Groove roller 8"~ 12" (Ø 219 ~ Ø 325)	0.8	/
98026	Foot switch	1.5	(1)
98082	Pipe Stand for 1"~ 12" (Ø 33 ~ Ø 325)	6.9	(2)
98011	Pipe Stabilizer	2.8	(3)

Automatic Roll Groover GHM-ZD3 For 8"-24" pipes



Purpose

This grooving machine is engineered for high-volume mass production. It realizes fully automatic feeding, roll grooving and reset process with one-button operation. Labor-saving and user-friendly to operate. The interlock structure of grooving roller and driving roller ensures high-precision grooving.

Performance Parameters

GHM-ZD1: 2" - 12"(DN50 - DN300, Ø60 - Ø325) SCH10/40 steel / S.S. pipe
GHM-ZD2: 8" - 16"(DN200 - DN400, Ø219 - Ø426) SCH10/40 steel / S.S. pipe
18" - 24"(DN450 - DN600, Ø457 - Ø630) SCH10/20 steel / S.S. pipe
Max. Wall Thickness: GHM-ZD1 / ZD2 10 / 13 mm
Output Speed: GHM-ZD1 / ZD2 23 / 19 R.P.M.
Packing Gross Weight: GHM-ZD1 / ZD2 520 / 610 kgs
Packing Size (L x W x H):
GHM-ZD1: 1700 x 950 x 1120 mm
GHM-ZD2: 1950 x 1100 x 1200 mm

Application	Phase	Power	Voltage	Frequency
GHM-ZD1 Drive/Pump motor*	Single phase	1.1KW	110~240V	50/60Hz
GHM-ZD1 Drive/Pump motor*	Three phase	750KW	380~480V	50/60Hz
GHM-ZD2 Drive/Pump motor	Three phase	2.2KW	380~480V	50/60Hz

GHM-ZD1 Standard package

Item No.	Description	N.W(kgs)	Ref No.
11022	Drive roller 2"~3" (Ø 60 ~ Ø 89)	2.35	P3-(1)
11021	Drive roller 3½"~6" (Ø 101 ~ Ø 168)	3.4	P3-(2)
12020	Drive roller 8"~12" (Ø 219 ~ Ø 325)	3.5	P3-(3)
12039	Groove roller 2" ~ 3" (Ø 60 ~ Ø 89)	2.1	P3-(4)
12040	Groove roller 3½" ~ 6" (Ø 101 ~ Ø 168)	1.7	P3-(5)
12038	Groove roller 8" ~ 12" (Ø 219 ~ Ø 325)	1.9	P3-(6)
98164	Pipe stand for 2" ~ 12"	7	(1)
98163	Pipe stabilizer	2.8	(2)

GHM-ZD2 Standard package

Item No.	Description	N.W(kgs)	Ref No.
11087	Drive roller 8"~12" (Ø 219 ~ Ø 325)	6.7	P4-(1)
11088	Drive roller 14"~16" (Ø 355 ~ Ø 426)	6.70	P4-(2)
11089	Drive roller 18"~24" (Ø 457 ~ Ø 630)	6.7	P4-(3)
12029	Groove roller 8"~12" (Ø 219 ~ Ø 325)	2.3	P4-(4)
12030	Groove roller 14"~16" (Ø 355 ~ Ø 426)	2.4	P4-(5)
12031	Groove roller 18"~24" (Ø 457 ~ Ø 630)	2.5	P4-(6)
98194	Pipe stand for 8" ~ 24"	25	(3)
98193	Pipe stabilizer	7	(4)

FLUID TECH®

Manual Roll Groover G-1For 1"-12" pipes



Purpose

This grooving machine is engineered for high-volume mass production. It realizes fully automatic feeding, roll grooving and reset process with one-button operation. Labor-saving and user-friendly to operate. The interlock structure of grooving roller and driving roller ensures high-precision grooving.

Performance Parameters

GHM-ZD1: 2" - 12"(DN50 - DN300, Ø60 - Ø325) SCH10/40 steel / S.S. pipe
GHM-ZD2: 8" - 16"(DN200 - DN400, Ø219 - Ø426) SCH10/40 steel / S.S. pipe
18" - 24"(DN450 - DN600, Ø457 - Ø630) SCH10/20 steel / S.S. pipe
Max. Wall Thickness: GHM-ZD1 / ZD2 10 / 13 mm
Output Speed: GHM-ZD1 / ZD2 23 / 19 R.P.M.
Packing Gross Weight: GHM-ZD1 / ZD2 520 / 610 kgs
Packing Size (L x W x H):
GHM-ZD1: 1700 x 950 x 1120 mm
GHM-ZD2: 1950 x 1100 x 1200 mm

G-1X Standard package			
Item No.	Description	N.W(kgs)	Ref No.
99002	G-1X Combination Roll Groover	17.7	/
11010	Drive roller 1¼" ~ 1½" (Ø 42 ~ Ø 48)	0.9	(1)
11009	Drive roller 2" ~ 6" (Ø 60 ~ Ø 168)	1	(1)
11008	Drive roller 8" ~ 12" (Ø 219 ~ Ø 325)	1.1	(1)
12016	Groove roller 1" ~ 6" (Ø 33 ~ Ø 168)	0.3	(2)
12005	Groove roller 8" ~ 12" (Ø 219 ~ Ø 325)	0.3	(2)
98036	Ratchet with socket	1.5	(3)
G-2X Standard package			
Item No.	Description	N.W(kgs)	Ref No.
99018	G-2X Combination Roll Groover	12.5	/
11010	Drive roller 1¼" ~ 1½" (Ø 42 ~ Ø 48)	0.9	(1)
11009	Drive roller 2" ~ 6" (Ø 60 ~ Ø 168)	1	(1)
12016	Groove roller 1" ~ 6" (Ø 33 ~ Ø 168)	0.3	(2)
98036	Ratchet with socket	1.5	(3)
G-3X Standard package			
Item No.	Description	N.W(kgs)	Ref No.
99068	G-3X Combination Roll Groover	12.5	/
12018	Groove roller 2"~6" (Ø50~Ø168)	0.45	(1)
11221	Drive shaft 1¼"~6" (Ø42~Ø168)	1.3	(2)
98036	Ratchet with socket	1.5	(3)

Optional accessories			
Item No.	Description	N.W(kgs)	Ref No.
11011	Drive roller 1" (Ø33)	0.8	(1)
11016	Support arms (x2) for T-1X / RIDGID #300	1.4	/
11015	Drive bar adaptor	2.5	(4)
98034	HDPE tool case	2.7	(7)
98035	Nylon oxford tool bag	1.5	(5)
98114	Bracket set for horizontal threading machine	1	(6)

Application



Product Packaging



Electric Threading Machines T-3X / T-4X For ½" ~ 4"Pipes



Purpose

This electric threading machine T-3X / T-4X is designed for ½" ~ 4" pipes. It adopts robust cast iron body, featuring stable performance and easy-to-operate control panel. High-precision die heads ensure clean and accurate threads, delivering high working efficiency for on-site pipe threading tasks.

Performance Parameters

Pipe Size: T-3X ½" ~ 3" (DN15~DN80, Ø20 ~ Ø80)
T-4X ½" ~ 4" (DN15~DN100, Ø20 ~ Ø114)
Output Speed: 15 / 32 R.P.M.
Packing Gross Weight: T-3X / T-4X 110 / 145 kgs
Packing Size (L x W x H): 1000 x 620 x 620 mm

Item No.	Phase	Power	Voltage	Frequency
62020	Single	1300W	220V	50/60Hz
62021	Single	1300W	110V	50/60Hz

Standard package

Item No.	Description	N.W (kgs)	Ref No.
621022	Automatic die head ½" - 2"	5.3	(1)
621023	Manual die head 2 ½" - 4"	6.80	(2)
621017	Alloy dies ½" - ¾"	0.75	(3)
621018	Alloy dies 1" - 2"	0.75	(3)
621028	Alloy dies 2½" - 4"	0.75	(3)
98026	Foot Switch	1.5	(3)

Hole Cutting Machine KM-1Cutting range: 25-114 mm





Purpose

This pipe hole cutting machine adopts aluminum body, featuring light weight and simple operation. Horizontal structural design enables hole drilling in confined narrow spaces. Equipped with moderate rotating speed to achieve excellent working efficiency.

Performance Parameters

Pipe Size: 2" ~ 8" (DN50 – DN200, Ø60 ~ Ø219)
Hole Size: 3/4" ~ 4" (Ø19 ~ Ø114)
Wall Thickness Range: 3 ~ 10 mm
Motor capacity: 1800W, single phase 220V
Output Speed: 220 R.P.M.
Packing Gross Weight: 15.5 kgs
Packing Size (L x W x H): 350 x 310 x 350 mm

Standard package

Item No.	Description	N.W (kgs)	Ref No.
99012	KM-1X Electric Hole Cutting Machine	13	/
98040	China 0.85m / 2.8 feet	2.30	(1)
98126	Chuck head	0.5	-2

Pipe Cutting Machine CHM-2X Cutting range: 60-325 mm







Purpose

This pipe cutting machine generates no sparks, metal chips or burrs during cutting. It adopts HSS blades for prolonged service life. Driven by gear-reducing induction motor, the machine delivers high torque with low operating noise.

Performance Parameters

Fabrication Capacity: 2" ~ 12" (DN50 – DN300, Ø60 ~ Ø325) steel / S.S. pipe
Max. Wall Thickness: 10 mm
Output Speed: 23 R.P.M.
Packing Gross Weight: 120 kgs
Packing Size (L x W x H): 750 x 590 x 1000 mm

Item No.	Phase	Power	Voltage	Frequency
98052	Single Phase	1100W	110/120/220/230/240V	50/60Hz
98046	Three Phase	750W	220/380/415/440V	50/60Hz
Standard package				
Item No.	Description		N.W (kgs)	Ref No.
99026	CHM-2X Electric Cutting Machine		120	/
98041	Pipe stand for 2" ~ 12" (Ø 60 ~ Ø 325)		4.00	(2)
12019	Cut blade		1.25	(1)

FLUID TECH®

Key Advantages

· Cold cutting process – no heat-affected zone, no sparks, no open flame

· Safe for use in explosive or flammable atmospheres

· Hydraulic feed control for smooth, steady cutting action

· Portable, durable design for rugged job-site conditions

· Easy blade replacement and low maintenance

Important Safety & Operating Precautions

· Keep work area clean, dry, and well-lit; do not use in wet or explosive environments

· Wear safety goggles; secure loose clothing and long hair away from moving parts

· Use pipe supports for lengths ≥ 1 meter to prevent sagging

· Check blade is firmly mounted and lubricated before each use

· Control feed rate by pumping the hydraulic handle slowly – never force the cut

· Disconnect power before blade changes, cleaning, or maintenance

· Use only genuine GRUVMASTER spare parts to ensure safety and performance



