



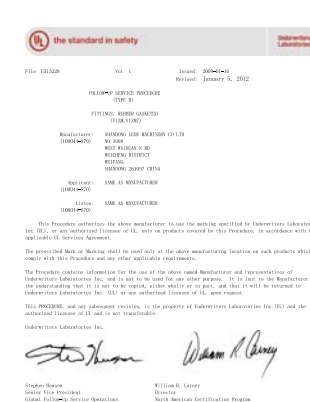
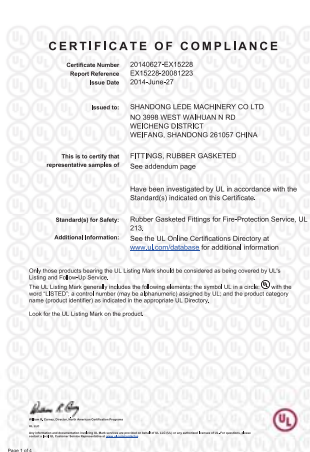
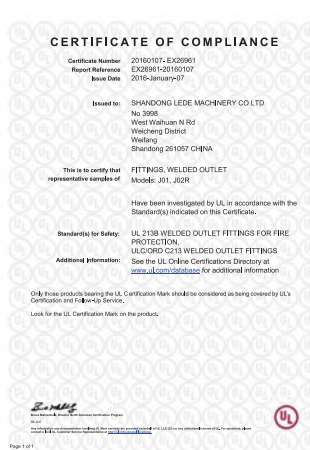
Shandong LEDE Machinery Co.Ltd

Most professional manufacturer of grooved fittings



ABOUT LEDE

INTERNATIONAL APPROVAL



- MOST RELIABLE SUPPLIER -



Shandong lede Machinery Co.,Ltd was founded in 2003 with fixed assets \$20 million, LEDE owns 700 staffs and covers 200 thousand square meters which mainly engages in the production of grooved fittings and valves, the annual production capacity can reach 30,000 tons.

LEDE is committed to supplying the high price-performance ratio products to the valued customers worldwide. LEDE products have been approved by FM, UL, CE, CNBOP, an LEDE will get VDS and LPCB together in 2017.

LEDE owns three big factories with advanced electric furnaces and automatic lines, all the products are machined with CNC and coated with epoxy powder, electrophoretic painting or galvanization. The mold center keeps developing new products which can satisfy diverse requirements from the customers.

LEDE products have been sold to most of the countries and areas in the world like America, South America, Europe, Russia, Canada, Australia, Middle East, Asia, Africa etc. Now LEDE products have been applied to many famous constructions. and LEDE has been one famous and respectable brand.



Casting Line



Warehouse



LEDE products are wildly used in various fields as follows:

1. Automatic sprinkler system for Fire Fighting Protection on Commercial, Civil and Municipal constructions like water supplying, gas supplying, heat supplying, drainage, air conditioning etc.
2. Industrial pipeline system on shipping, mine, oil field, textile, power plant, paper making, beverage and steel making etc.
3. Pipeline system on subway station, railway station , airport, seaport, bridge, channel etc.

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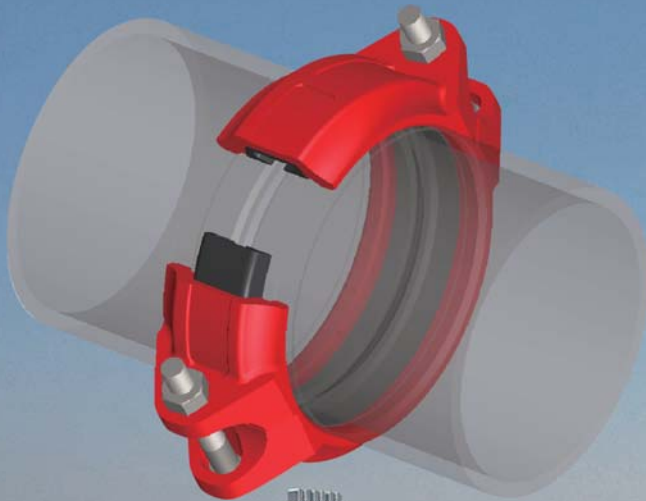


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LEDE GROOVED PIPING SYSTEM

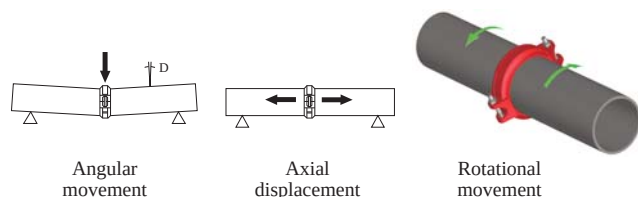
The Lede grooved piping system is one of the most advanced, versatile, economical and reliable systems available today. After the pipe ends are grooved a gasket is stretched over the pipe ends. The coupling segments are then placed over the gasket and the bolts and nuts are fastened resulting in a secure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



RIGID OR FLEXIBLE?

Lede grooved couplings are classified into two types, flexible and rigid. What are the differences? When and where should they be used? The following information is intended for system designers and installers to better understand the nature of the grooved piping systems. This will allow the designer and installer to make better use of the design features and advantages of grooved piping components and systems.



Type	Angular Movement deg.	Axial Displacement mm	Rotation after installation	Model Nos.
Flexible Coupling	$\geq 1^\circ$	1.6 - 3.2	Yes	XGQT2, XGQT3 1212

Note: 1) Angular movement of flexible coupling 8" and larger sizes should be 0.5° .
2) Axial displacement data based on roll-grooved pipe.

RIGID COUPLINGS

The most popular and most widely used couplings today

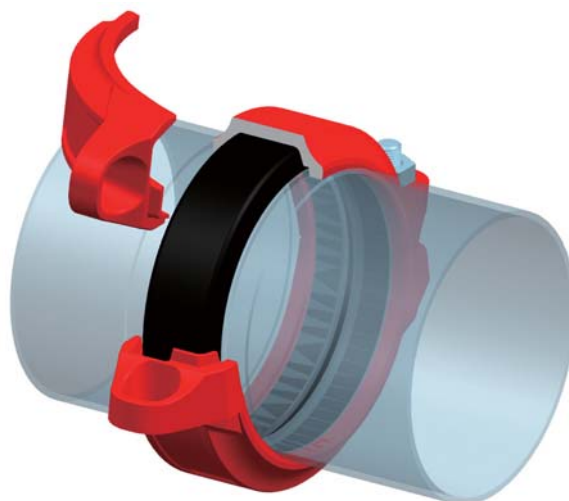
Lede rigid couplings can be used in applications where you require a rigid joint similar to that of a traditional flanged, welded and or threaded connection. You need not worry about the snaking of the pipe on straight runs, as all Lede rigid couplings utilize both a mechanical and frictional interlock design to provide rigidity. Rigid couplings eliminate or reduce undesired angular movement, axial displacement and rotation after installation as is required under normal service conditions. Rigid couplings are some of the most popular and most widely used today.

Lede offers two different types of rigid couplings, the angle-pad design, the T&G (tongue and groove) design.

- **Angle-pad design:** As the bolts are tightened, the angled bolt pads slide in opposite directions causing the couplings keys to tightly grip the pipe, while at the same time the pipe grooves are forced outward against the coupling keys.



- **T&G design:** The T&G (tongue & groove) mechanism provides a mechanical and frictional interlock resulting in a rigid joint which reduces undesired angular movement. Lede T&G design allow tiny gap between two coupling segments after installed on grooved pipe.



FLEXIBLE COUPLINGS

Lede flexible couplings allow for full design features in applications such as curved or deflected layouts and or when systems are exposed to outside forces beyond normal static conditions such as seismic events or where vibration and or noise attenuation are a concern. The ability to design in controlled flexibility is an advantageous feature when compared to traditional rigid joining methods such as threading, flanging and welding. When designing with flexible couplings you must allow for proper support to the system so as to eliminate undesired stress (**see Anchoring, hanging and supports on page 48**).

There are several published standards and codes covering grooved piping component. These codes or standards may vary as to the definition or standard for flexible couplings. System designers should confirm which standard (s) and or code(s) are required for the system being designed and they should select the applicable coupling for the application.

NFPA 13 defines a flexible coupling as;

“a listed coupling or fitting that allows axial displacement, rotation, and at least 1 degree of angular movement of the pipe without inducing harm on the pipe. For pipe diameters of 8 in. and larger, the angular movement shall be permitted to be less than 1 degree but not less than 0.5 degrees.” (NFPA 13-2007 3.5.4)

For sprinkler systems, NFPA 13 specifies the use of flexible couplings to protect the system against damage from earthquakes and sets some specific examples of how

and where they should be used. Designers and installers should design their fire protection systems in compliance with this standard. See Typical Applications – Flexible Couplings on Page 44.



Flexible Coupling

Axial Displacement & Angular Movement (Models XGQT2 & 1212)

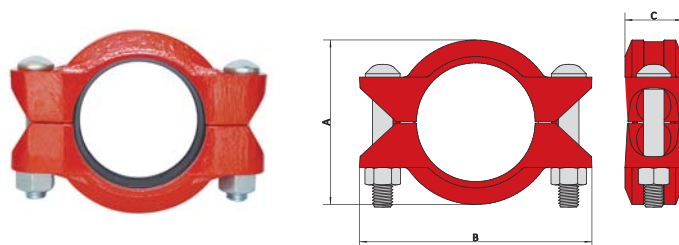
Size		Axial Displacement mm/in	Angular Movement (Deflection)	
Nom. Size mm/in	Actual OD mm/in		Per coupling degrees	Per pipe mm/m, in/ft
20	26.7	1.6	6°-46'	118
0.75	1.050	0.0625		1.42
25	33.4	1.6	5°-30'	96
1	1.315	0.0625		1.16
32	42.4	1.6	4°-20'	76
1.25	1.660	0.0625		0.91
40	48.3	1.6	3°-48'	66
1.5	1.900	0.0625		0.80
50	60.3	1.6	3°-01'	53
2	2.375	0.0625		0.63
65	73	1.6	2°-30'	44
2.5	2.875	0.0625		0.52
65	76.1	1.6	2°-24'	42
2.5	3.000	0.0625		0.50
80	88.9	1.6	2°-04'	36
3	3.500	0.0625		0.43
90	101.6	1.6	1°-48'	31
3.5	4.000	0.0625		0.38
100	108.0	3.2	3°-24'	59.0
4	4.25	0.125		0.71
100	114.3	3.2	3°-12'	55
4	4.500	0.125		0.67
125	127.0	3.2	2°-53'	50.0
5	5.000	0.125		0.60
125	133	3.2	2°-46'	48
5	5.250	0.125		0.58
125	139.7	3.2	2°-37'	46
5	5.500	0.125		0.55
125	141.3	3.2	2°-36'	45
5	5.563	0.125		0.54
150	159.0	3.2	2°-18'	40
6	6.250	0.125		0.48
150	165.1	3.2	2°-14'	39
6	6.500	0.125		0.47
150	168.3	3.2	2°-10'	38
6	6.625	0.125		0.45
200 JIS	216.3	3.2	1°-42'	30
8	8.516	0.125		0.36
200	219.1	3.2	1°-40'	29
8	8.625	0.125		0.35
250 JIS	267.4	3.2	1°-22'	24
10	10.528	0.125		0.29
250	273.0	3.2	1°-20'	23
10	10.750	0.125		0.28
300 JIS	318.5	3.2	1°-10'	20
12	12.539	0.125		0.25
300	323.9	3.2	1°-08'	20
12	12.750	0.125		0.24
350	355.6	3.2	1°-02'	18
14	14.000	0.125		0.22
400	406.4	3.2	0°-54'	16
16	16.000	0.125		0.19
450	457.0	3.2	0°-48'	14
18	18.000	0.125		0.17
500	508.0	3.2	0°-44'	13
20	20.000	0.125		0.15
550	559.0	3.2	0°-38'	11
22	22.000	0.125		0.13
600	610.0	3.2	0°-36'	10
24	24.000	0.125		0.13

Note: Axial displacement is the maximum value when the system is pressurized to the maximum working pressure.

Angular movement is the maximum value that a coupling allows under no internal pressure.

MODEL 31HP EXTRA HEAVY RIGID COUPLING

The Model 31HP is an extra heavy rigid coupling designed for high pressure services up to 1000 psi (70 bar). The wider housing keys grip the grooved with the aid of heavy duty bolts and nuts. The bolts and nuts must be tightened to the required torque to achieve rigidity.



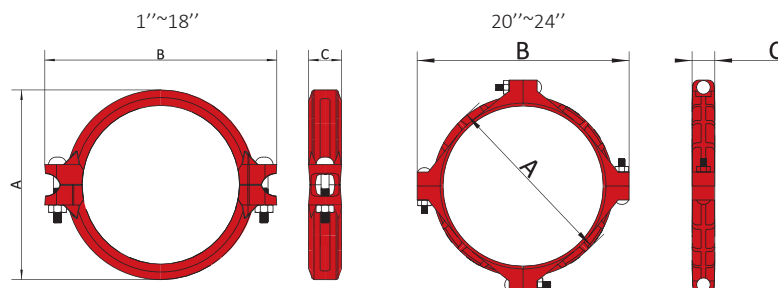
Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	Max.End Load KN/Lbs	Axial Displacement mm/in	Dimensions			Bolts	
					A mm/in	B mm/in	C mm/in	No.	Size mm/in
50	60.3	70	19.98	0-3.6	90	145	49	2	M16x80
2	2.375	1000	4420	0.014	3.54	5.71	1.93		5/8x3-1/8
65	73	70	29.28	0-3.6	102	168	49	2	M16x80
2 1/2	2.875	1000	6480	0.014	4.02	6.61	1.93		5/8x3-1/8
80	88.9	70	43.43	0-3.6	123	188	49	2	M16x80
3	3.5	1000	9610	0.014	4.84	7.40	1.93		5/8x3-1/8
100	114.3	70	71.79	0-6.4	153	216	54	2	M20x110
4	4.5	1000	15890	0-0.25	6.02	8.50	2.13		3/4x4-1/3
150	168.3	70	155.65	0-6.4	218	295	57	2	M22x130
6	6.625	1000	34450	0-0.25	8.58	11.61	2.24		7/8x5-1/8
200	219.1	55	207.26	0-6.4	275	364	70	2	M24x90
8	8.625	800	46710	0-0.25	10.83	14.33	2.76		1x3-1/2
250	273	55	321.78	0-6.4	334	424	75	2	M24x90
10	10.75	800	72570	0-0.25	13.15	16.69	2.95		1x3-1/2
300	323.9	55	452.95	0-6.4	390	480	75	2	M24x90
12	12.75	800	102080	0-0.25	15.35	18.90	2.95		1x3-1/2

MODEL XGQT2 LIGHT FLEXIBLE COUPLING

The Lede Model XGQT2 is a standard flexible coupling for use in a variety of general piping applications of moderate pressure services. The Model XGQT2 couplings features flexibility that can deal with misalignment, distortion, thermal stress, vibration and noise and also resist seismic tremors. With the use of Model XGQT2 couplings you can even design a curved layout.

Sizes available: 25mm-600mm / 1"~24"

Working Pressure: Up to 20 bar / 300 psi



GROOVED COUPLINGS

Nominal Size mm/in	Actual O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load KN/Lbs	Axial Displacement mm/in	Angular Movement		Dimensions			Bolt
					Per Coupling Degree (°)	Per Pipe in/ft	A mm/in	B mm/in	C mm/in	
25	33.7	20	1.80	1.6	2°-45'	0.58	55	97	45	M10x40
1	1.327	300	405	0.0625		48	2.17	3.82	1.77	3/8x1-1/2
32	42.4	20	2.92	1.6	2°-10'	0.46	63.5	107.5	45	M10x45
11/4	1.669	300	656	0.0625		38	2.50	4.23	1.77	3/8x1-3/4
40	48.3	20	3.79	1.6	1°-54'	0.4	69	114	45	M10x45
11/2	1.9	300	852	0.0625		33	2.72	4.49	1.77	3/8x1-3/4
50	60.3	20	5.91	1.6	1°-31'	0.32	83.6	124	46	M10x55
2	2.375	300	1327	0.0625		27	3.29	4.88	1.81	3/8x2-1/8
65	73	20	8.66	1.6	1°-15'	0.26	98	137	46	M10x55
21/2	2.875	300	1945	0.0625		22	3.86	5.39	1.81	3/8x2-1/8
65	76.1	20	9.41	1.6	1°-12'	0.25	98	139	46	M10x55
21/2	3	300	2114	0.0625		21	3.86	5.47	1.81	3/8x2-1/8
80	88.9	20	12.84	1.6	1°-02'	0.22	114	156	46	M10x55
3	3.5	300	2885	0.0625		18	4.49	6.14	1.81	3/8x2-1/8
100	108	20	18.94	3.2	1°-42'	0.36	138	186	50	M12x65
4	4.25	300	4258	0.125		30	5.43	7.32	1.97	1/2x2-5/8
100	114.3	20	21.22	3.2	1°-36'	0.34	142	189	50	M12x65
4	4.5	300	4769	0.125		28	5.59	7.44	1.97	1/2x2-5/8
125	133	20	28.73	3.2	1°-23'	0.29	164	213	50	M12x65
5	5.25	300	6457	0.125		24	6.46	8.39	1.97	1/2x2-5/8
125	139.7	20	31.70	3.2	1°-18'	0.27	170	222	50	M12x65
5	5.5	300	7124	0.125		23	6.69	8.74	1.97	1/2x2-5/8
125	141.3	20	32.43	3.2	1°-18'	0.27	170	218	50	M12x65
5	5.563	300	7288	0.125		23	6.69	8.58	1.97	1/2x2-5/8
150	159	20	41.06	3.2	1°-09'	0.24	192	244	50	M12x65
6	6.25	300	9229	0.125		20	7.56	9.61	1.97	1/2x2-5/8
150	165.1	20	44.27	3.2	1°-07'	0.24	196	244	50	M12x65
6	6.5	300	9950	0.125		20	7.72	9.61	1.97	1/2x2-5/8
150	168.3	20	46.00	3.2	1°-05'	0.23	198	251	50	M12x65
6	6.625	300	10340	0.125		19	7.80	9.88	1.97	1/2x2-5/8
200	216.3	20	75.99	3.2	0°-50'	0.18	254	340	62	M20x90
8	8.515	300	17079	0.125		15	10.00	13.39	2.44	3/4x3-1/2
200	219.1	20	77.97	3.2	0°-50'	0.18	256	316	60	M16x80
8	8.625	300	17524	0.125		15	10.08	12.44	2.36	5/8x3-1/8
250	267.4	20	116.13	3.2	0°-50'	0.14	313	400	64	M20x90
10	10.527	300	26101	0.125		12	12.32	15.75	2.52	3/4x3-1/2
250	273.0	20	121.05	3.2	0°-50'	0.14	319	393	64	M20x90
10	10.75	300	27206	0.125		12	12.56	15.47	2.52	3/4x3-1/2
300	318.5	20	164.76	3.2	0°-50'	0.12	368	464	64	M22x110
12	12.539	300	37031	0.125		10	14.49	18.27	2.52	7/8x4-1/3
300	323.9	20	170.39	3.2	0°-50'	0.12	374	453	65	M20x110
12	12.75	300	38297	0.125		10	14.72	17.83	2.56	3/4x4-1/3
350	355.6	20	198.53	3.2	0°-31'	0.06	410	510	75	M22x110
14	14	300	46150	0.125		4.5	16.14	20.08	2.95	7/8x4-1/3
350	377	20	230.84	3.2	0°-29'	0.06	428	520	75	M22x140
14	14.843	300	51883	0.125		4.5	16.85	20.47	2.95	7/8x5-1/2
400	406.4	20	259.30	3.2	0°-27'	0.05	459	555	75	M22x140
16	16	300	60280	0.125		4	18.07	21.85	2.95	7/8x5-1/2
400	426	20	294.74	3.2	0°-25'	0.05	480	572	75	M22x140
16	16.771	300	66246	0.125		4	18.90	22.52	2.95	7/8x5-1/2
450	457.2	20	327.89	3.2	0°-24'	0.04	516	606	78	M22x140
18	18	300	76300	0.125		3.5	20.31	23.86	3.07	7/8x5-1/2
450	480.0	20	374.20	3.2	0°-22'	0.04	540	631	78	M22x160
18	18.9	300	84106	0.125		3	21.26	24.84	3.07	7/8x6-1/3
500	508.0	20	490.60	3.2	0°-19'	0.04	567	674	78	M22x140
20	20	300	113980	0.125		3	22.32	26.54	3.07	7/8x5-1/2
550	558.8	20	584.20	3.2	0°-18'	0.03	622	728	78	M22x140
22	22	300	135640	0.125		2.5	24.49	28.66	3.07	7/8x5-1/2
600	609.6	20	684.72	3.2	0°-17'	0.03	674	778	78	M24x150
24	24	300	159190	0.125		2.5	26.54	30.63	3.07	1x5-9/10

Deflection or angular movement is the maximum value that a coupling allows under no internal pressure.

MECHANICAL TEE

The Lede hole-cut mechanical tee provides a fast and easy mid-point branch outlet without welding. First a hole is cut or drilled at the desired outlet location. The mechanical tee is then positioned so that the built-in locating collar fits within the hole. As the housing bolts are tightened the pressure moulded gasket forms a leak-tight seal. Use of the Lede mechanical tee can eliminate the need for multiple couplings and fittings.



Lede offers a full range of mechanical tees:

Model XGQT04: Threaded outlet, NPT or BSPT (ISO 7-1) pipe threads

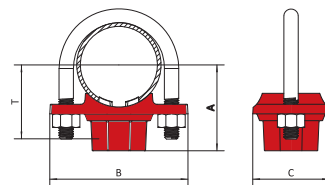
Model XGQT04G: Cut-grooved outlet (machined)

Model L922 and 041: Saddle-Let; Small mechanical tee with threaded outlet, NPT or BSPT (ISO 7-1) pipe threads

Caution: Piping practices require that main and branch connections are at a true 90° angle. Also be certain that the locating collar is securely positioned inside the outlet hole before tightening the housing. When mechanical tees or mechanical crosses are used as transition pieces between two runs, the tees or crosses shall be assembled prior to making the branch connections.

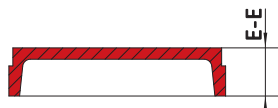
MODEL 041 SADDLE-LET (U bolt Mechanical Tee)

The Model 041 Saddle-Lets is the ideal outlet fitting for direct connections to sprinkler heads, drop nipples and or gauges. No need for welding, just cut or drill a hole at the desired outlet location. Position the Saddle-Let so that the locating collar fits within the hole and secure with the U-bolt and nuts. The Saddle-Let comes with a standard black finish or as an option can be supplied electro zinc plated or painted orange. The Saddle-Let allows full bore flow and is pressure rates to 300 psi (20 bar).



Nominal Size mm/in	Hole Dia. $\pm$ +1,-0 / +0.04,-0	Dimensions - mm/in			Take-Out T/D mm/in	Bolt Size in	Bolt Torque N-M/Lbs-Ft
		A	B	C			
25x15	24	46	74	44	40	5/16Φ	25-30
1x1/2	0.95	1.81	2.91	1.73	1.57	U-Bolt	18-22
25x20	24	46	74	44	40	5/16Φ	25-30
1x3/4	0.95	1.81	2.91	1.73	1.57	U-Bolt	18-22
32x15	30	53	89	56	44	3/8Φ	30-40
11/4x1/2	1.18	2.09	3.50	2.20	1.73	U-Bolt	22-29
32x20	30	53	89	56	44	3/8Φ	30-40
11/4x3/4	1.18	2.09	3.50	2.20	1.73	U-Bolt	22-29
32x25	30	56	89	56	47	3/8Φ	30-40
11/4x1	1.18	2.20	3.50	2.20	1.85	U-Bolt	22-29
40x15	30	55	89	56	46	3/8Φ	30-40
11/2x1/2	1.18	2.17	3.50	2.20	1.81	U-Bolt	22-29
40x20	30	55	89	56	46	3/8Φ	30-40
11/2x3/4	1.18	2.17	3.50	2.20	1.81	U-Bolt	22-29
40x25	30	58	89	56	49	3/8Φ	30-40
11/2x1	1.18	2.28	3.50	2.20	1.93	U-Bolt	22-29
50x15	30	64	98	56	53	3/8Φ	30-40
2x1/2	1.18	2.52	3.86	2.20	2.09	U-Bolt	22-29
50x20	30	64	98	56	53	3/8Φ	30-40
2x3/4	1.18	2.52	3.86	2.20	2.09	U-Bolt	22-29
50x25	30	67	98	56	56	3/8Φ	30-40
2x1	1.18	2.64	3.86	2.20	2.20	U-Bolt	22-29
65x15	30	69	111	56	58	3/8Φ	30-40
21/2x1/2	1.18	2.72	4.37	2.20	2.28	U-Bolt	22-29
65x20	30	69	111	56	58	3/8Φ	30-40
21/2x3/4	1.18	2.72	4.37	2.20	2.28	U-Bolt	22-29
65x25	30	72	111	56	61	3/8Φ	30-40
21/2x1	1.18	2.83	4.37	2.20	2.40	U-Bolt	22-29
80x25	30	80.5	128	56	67	3/8Φ	30-40
3x1	1.18	3.17	5.04	2.20	2.64	U-Bolt	22-29

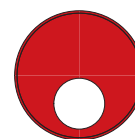
MODEL XGQT06 END CAP



Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	E - E mm/in
25	33.7	20	23.8
1	1.327	300	0.94
32	42.4	20	23.8
1 1/4	1.669	300	0.94
40	48.3	20	23.8
1 1/2	1.9	300	0.94
50	60.3	20	23.8
2	2.375	300	0.94
65	76.1	20	23.8
2 1/2	3	300	0.94
80	88.9	20	23.8
3	3.5	300	0.94
100	108	20	25.4
4	4.25	300	1.00
100	114.3	20	25.4
4	4.5	300	1.00
125	133	20	25.4
5	5.25	300	1.00
125	139.7	20	25.4
5	5.5	300	1.00
125	141.3	20	25.4
5	5.563	300	1.00
150	159	20	25.4
5	6.25	300	1.00
150	165.1	20	25.4
6	6.5	300	1.00
150	168.3	20	25.4
6	6.625	300	1.00
200	219.1	20	30.2
8	8.625	300	1.19
250	273	20	32
10	10.75	300	1.26
300	323.9	20	32
12	12.75	300	1.26

MODEL XGQT061 TRANSITION CAP (Gr X FT)

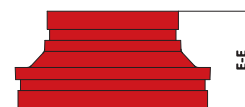
Lede Model XGQT061 is an ideal transition fitting when a large reduction is required such as 6"×1", 4"×1" etc. The XGQT061 can be used as an alternative to expensive swaged nipples.



Nominal Size Grooved X Threaded mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	E - E mm/in
50×25	60.3×33.7	20	23.8
2×1	2.375×1.327	300	0.94
50×32	60.3×42.4	20	23.8
2×1 1/4	2.375×1.669	300	0.94
50×40	60.3×48.3	20	23.8
2×1 1/2	2.375×1.9	300	0.94
65×25	73×33.7	20	23.8
2 1/2×1	2.875×1.327	300	0.94
65×32	73×42.4	20	23.8
2 1/2×1 1/4	2.875×1.669	300	0.94
65×40	73×48.3	20	23.8
2 1/2×1 1/2	2.875×1.9	300	0.94
65×50	73.0×60.3	20	23.8
2 1/2×2	2.875×2.375	300	0.94
65×25	76.1×33.7	20	23.8
2 1/2×1	3×1.327	300	0.94
65×32	76.1×42.4	20	23.8
2 1/2×1 1/4	3×1.669	300	0.94
65×40	76.1×48.3	20	23.8
2 1/2×1 1/2	3×1.9	300	0.94
65×50	76.1×60.3	20	23.8
2 1/2×2	3×2.375	300	0.94
80×25	88.9×33.7	20	23.8
3×1	3.5×1.327	300	0.94
80×32	88.9×42.4	20	23.8
3×1 1/4	3.5×1.669	300	0.94
80×40	88.9×48.3	20	23.8
3×1 1/2	3.5×1.9	300	0.94
80×50	88.9×60.3	20	23.8
3×2	3.5×2.375	300	0.94
100×25	114.3×33.7	20	25.4
4×1	4.5×1.327	300	1.00
100×32	114.3×42.4	20	25.4
4×1 1/2	4.5×1.669	300	1.00
100×40	114.3×48.3	20	25.4
4×1 1/2	4.5×1.9	300	1.00
100×50	114.3×60.3	20	25.4
4×2	4.5×2.375	300	1.00
125×50	139.7×60.3	20	25.4
5×2	5.5×2.375	300	1.00
125×50	141.3×60.3	20	25.4
5×2	5.563×2.375	300	1.00
150×25	165.1×33.7	20	25.4
6×1	6.5×1.327	300	1.00
150×50	165.1×60.3	20	25.4
6×2	6.5×2.375	300	1.00
150×32	168.3×42.4	20	25.4
6×1 1/4	6.625×1.669	300	1.00
150×40	168.3×48.3	20	25.4
6×1 1/2	6.63×1.9	300	1.00
150×50	168.3×60.3	20	25.4
6×2	6.63×2.375	300	1.00
200×50	219.1×60.3	20	30.2
8×2	8.625×2.375	300	1.19

MODEL XGQT07 GROOVED CONCENTRIC REDUCER

Lede concentric reducer is cast of ductile iron. The end-to-end dimensions of these reducers are less than that of fabricated reducers.

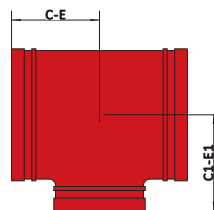


Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	E - E mm/in
40x32	48.3x42.4	20	64
11/2x11/4	1.9x1.669	300	2.52
50x32	60.3x42.4	20	64
2x11/4	2.375x1.669	300	2.52
50x40	60.3x48.3	20	64
2x11/2	2.375x1.9	300	2.52
65x32	73x42.4	20	64
21/2x11/4	2.875x1.669	300	2.52
65x40	73x48.3	20	64
21/2x11/2	2.875x1.9	300	2.52
65x50	73x60.3	20	64
21/2x2	2.875x2.375	300	2.52
65x40	76.1x48.3	20	64
21/2x11/2	3x1.9	300	2.52
65x50	76.1x60.3	20	64
21/2x2	3x2.375	300	2.52
80x32	88.9x42.4	20	64
3x11/4	3.5x1.669	300	2.52
80x40	88.9x48.3	20	64
3x11/2	3.5x1.9	300	2.52
80x50	88.9x60.3	20	64
3x2	3.5x2.375	300	2.52
80x65	88.9x73	20	64
3x21/2	3.5x2.875	300	2.52
80x65	88.9x76.1	20	64
3x21/2	3.5x3	300	2.52
100x32	114.3x42.4	20	76
4x11/4	4.5x1.669	300	2.99
100x40	114.3x48.3	20	76
4x11/2	4.5x1.9	300	2.99
100x50	114.3x60.3	20	76
4x2	4.5x2.375	300	2.99
100x65	114.3x73	20	76
4x21/2	4.5x2.875	300	2.99
100x65	114.3x76.1	20	76
4x21/2	4.5x3	300	2.99
100x80	114.3x88.9	20	76
4x3	4.5x3.5	300	2.99
125x50	133x60.3	20	85
5x2	5.25x2.375	300	3.35
125x50	139.7x60.3	20	85
5x2	5.5x2.375	300	3.35
125x65	139.7x73	20	85
5x21/2	5.5x2.875	300	3.35
125x65	139.7x76.1	20	85
5x21/2	5.5x3	300	3.35
125x80	139.7x88.9	20	85
5x3	5.5x3.5	300	3.35
125x100	139.7x108	20	85
5x4	5.5x4.25	300	3.35
125x100	139.7x114.3	20	85
5x4	5.5x4.5	300	3.35
125x50	141.3x60.3	20	85
5x2	5.563x2.375	300	3.35
125x65	141.3x73	20	85
5x21/2	5.563x2.875	300	3.35
125x65	141.3x76.1	20	85
5x21/2	5.563x3	300	3.35
125x80	141.3x88.9	20	85
5x3	5.563x3.5	300	3.35
125x100	141.3x114.3	20	85
5x4	5.563x4.5	300	3.35
150x50	159x60.3	20	85
6x2	6.25x2.375	300	3.35
150x100	159x108	20	85
6x4	6.25x4.25	300	3.35

Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	E - E mm/in
150x100	159x114.3	20	85
6x4	6.25x4.5	300	3.35
150x125	159x139.7	20	85
6x5	6.25x5.5	300	3.35
150x50	165.1x60.3	20	85
6x2	6.5x2.375	300	3.35
150x65	165.1x73	20	85
6x21/2	6.5x2.875	300	3.35
150x65	165.1x76.1	20	85
6x21/2	6.5x3	300	3.35
150x100	165.1x108	20	85
6x4	6.5x4.25	300	3.35
150x100	165.1x114.3	20	85
6x4	6.5x4.5	300	3.35
150x125	165.1x133	20	85
6x5	6.5x5.25	300	3.35
150x125	165.1x139.7	20	85
6x5	6.5x5.5	300	3.35
150x50	168.3x60.3	20	85
6x2	6.63x2.375	300	3.35
150x65	168.3x73	20	85
6x21/2	6.625x2.875	300	3.35
150x65	168.3x76.1	20	85
6x21/2	6.625x2.375	300	3.35
150x80	168.3x88.9	20	85
6x3	6.625x3.5	300	3.35
150x100	168.3x114.3	20	85
6x4	6.625x4.5	300	3.35
150x125	168.3x139.7	20	85
6x5	6.625x5.5	300	3.35
200x65	219.1x76.1	20	85
8x21/2	8.63x3	300	3.35
200x80	219.1x88.9	20	85
8x3	8.625x3.5	300	3.35
200x100	219.1x114.3	20	85
8x4	8.625x4.5	300	3.35
200x125	219.1x139.7	20	85
8x5	8.625x5.5	300	3.35
200x150	219.1x159	20	85
8x6	8.625x6.25	300	3.35
200x150	219.1x165.1	20	85
8x6	8.63x6.5	300	3.35
200x150	219.1x168.3	20	85
8x6	8.625x6.63	300	3.35
250x100	273x114.3	20	90
10x4	10.75x4.5	300	3.54
250x125	273x139.7	20	90
10x5	10.75x5.5	300	3.54
250x150	273x159	20	90
10x6	10.75x6.25	300	3.54
250x150	273x165.1	20	90
10x6	10.75x6.5	300	3.54
250x200	273x219.1	20	90
10x8	10.75x8.625	300	3.54
300x100	323.9x114.3	20	90
12x4	12.75x4.5	300	3.54
300x125	323.9x139.7	20	90
12x5	12.75x5.5	300	3.54
300x150	323.9x159	20	90
12x6	12.75x6.25	300	3.54
300x150	323.9x165.1	20	90
12x6	12.75x6.625	300	3.54
300x200	323.9x219.1	20	90
12x8	12.75x8.63	300	3.54
300x250	323.9x273	20	90
12x10	12.75x10.75	300	3.54

MODEL XGQT03R3 GROOVED REDUCING TEE

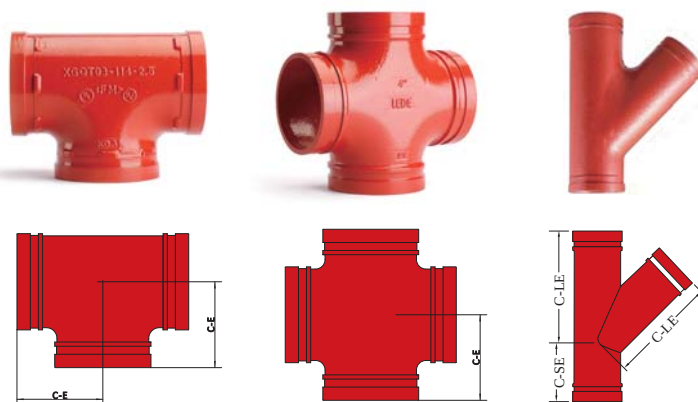
Lede grooved reducing tees are cast of ductile iron.



Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	Dimensions		Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	Dimensions	
			C-E mm/in	C1-E1 mm/in				C-E mm/in	C1-E1 mm/in
50x32	60.3x42.4	20	70	70	150x50	165.1x60.3	20	130	130
2x11/4	2.375x1.669	300	2.76	2.76	6x2	6.5x2.375	300	5.12	5.12
50x40	60.3x48.3	20	70	70	150x65	165.1x76.1	20	130	130
2x11/2	2.375x1.9	300	2.76	2.76	6x21/2	6.5x3	300	5.12	5.12
65x32	73x42.4	20	76	76	150x80	165.1x88.9	20	130	130
21/2x11/4	2.875x1.669	300	2.99	2.99	6x3	6.5x3.5	300	5.12	5.12
65x40	73x48.3	20	76	76	150x100	165.1x114.3	20	130	130
21/2x11/2	2.875x1.9	300	2.99	2.99	6x4	6.5x4.5	300	5.12	5.12
65x50	73x60.3	20	76	76	150x125	165.1x139.7	20	130	130
21/2x2	2.875x2.375	300	2.99	2.99	6x5	6.5x5.5	300	5.12	5.12
65x32	76.1x42.4	20	76	76	150x50	168.3x60.3	20	140	140
21/2x11/4	3x1.669	300	2.99	2.99	6x2	6.625x2.375	300	5.51	5.51
65x40	76.1x48.3	20	76	76	150x65	168.3x76.1	20	140	140
21/2x11/2	3x1.9	300	2.99	2.99	6x21/2	6.625x3	300	5.51	5.51
65x50	76.1x60.3	20	76	76	150x80	168.3x88.9	20	140	140
21/2x2	3x2.375	300	2.99	2.99	6x3	6.625x3.5	300	5.51	5.51
80x32	88.9x42.4	20	86	86	150x100	168.3x114.3	20	140	140
3x11/4	3.5x1.669	300	3.39	3.39	6x4	6.625x4.5	300	5.51	5.51
80x40	88.9x48.3	20	86	86	150x125	168.3x139.7	20	140	140
3x11/2	3.5x1.9	300	3.39	3.39	6x5	6.625x5.5	300	5.51	5.51
80x50	88.9x60.3	20	86	86	200x65	219.1x76.1	20	174	174
3x2	3.5x2.375	300	3.39	3.39	8x21/2	8.625x3	300	6.85	6.85
80x65	88.9x73	20	86	86	200x80	219.1x88.9	20	174	174
3x21/2	3.5x2.875	300	3.39	3.39	8x3	8.625x3.5	300	6.85	6.85
80x65	88.9x76.1	20	86	86	200x100	219.1x114.3	20	174	174
3x21/2	3.5x3	300	3.39	3.39	8x4	8.625x4.5	300	6.85	6.85
100x32	114.3x42.4	20	90	98*	00x125	219.1x139.7	20	174	174
4x11/4	4.5x1.669	300	3.54	3.86	8x5	8.625x5.5	300	6.85	6.85
100x40	114.3x48.3	20	90	98*	200x150	219.1x159	20	174	174
4x11/2	4.5x1.9	300	3.54	3.86	8x6	8.625x6.25	300	6.85	6.85
100x50	114.3x60.3	20	102	102	200x150	219.1x165.1	20	174	174
4x2	4.5x2.375	300	4.02	4.02	8x6	8.625x6.5	300	6.85	6.85
100x65	114.3x73	20	102	102	250x80	273x88.9	20	190	190
4x21/2	4.5x2.875	300	4.02	4.02	10x3	10.75x3.5	300	7.48	7.48
100x65	114.3x76.1	20	102	102	250x100	273x114.3	20	190	190
4x21/2	4.5x3	300	4.02	4.02	10x4	10.75x4.5	300	7.48	7.48
100x80	114.3x88.9	20	102	102	250x125	273x133	20	190	190
4x3	4.5x3.5	300	4.02	4.02	10x5	10.75x5.25	300	7.48	7.48
125x50	139.7x60.3	20	105	105	250x125	273x139.7	20	190	190
5x2	5.5x2.375	300	4.13	4.13	10x5	10.75x5.5	300	7.48	7.48
125x65	139.7x76.1	20	105	105	250x125	273x141.3	20	190	190
5x21/2	5.5x3	300	4.13	4.13	10x5	10.75x5.563	300	7.48	7.48
125x80	139.7x88.9	20	105	105	250x150	273x159	20	190	190
5x3	5.5x3.5	300	4.13	4.13	10x6	10.75x6.25	300	7.48	7.48
125x100	139.7x108	20	105	105	250x150	273x165.1	20	190	190
5x4	5.5x4.25	300	4.13	4.13	10x6	10.75x6.5	300	7.48	7.48
125x100	139.7x114.3	20	105	105	250x150	273x168.3	20	190	190
5x4	5.5x4.5	300	4.13	4.13	10x6	10.75x6.625	300	7.48	7.48
125x125	139.7x133	20	105	105	250x200	273x219.1	20	190	190
5x5	5.5x5.25	300	4.13	4.13	10x8	10.75x8.625	300	7.48	7.48
125x50	141.3x60.3	20	105	105	300x150	323.9x159	20	220	220
5x2	5.563x2.375	300	4.13	4.13	12x6	12.75x6.25	300	8.66	8.66
125x65	141.3x73	20	105	105	300x150	323.9x165.1	20	220	220
5x21/2	5.563x2.875	300	4.13	4.13	12x6	12.75x6.5	300	8.66	8.66
125x80	141.3x88.9	20	105	105	300x150	323.9x168.3	20	220	220
5x3	5.563x3.5	300	4.13	4.13	12x6	12.75x6.625	300	8.66	8.66
125x100	141.3x114.3	20	105	105	300x200	323.9x219.1	20	220	220
5x4	5.563x4.5	300	4.13	4.13	12x8	12.75x8.625	300	8.66	8.66
150x65	159x76.1	20	110	120*	300x250	323.9x273	20	220	220
6x21/2	6.25x3	300	4.33	4.72	12x10	12.75x10.75	300	8.66	8.66
150x80	159x88.9	20	110	120*					
6x3	6.25x3.5	300	4.33	4.72					

MODEL XGQT03L STANDARD TEE
MODEL XGQT05 SHORT RADIOUS CROSS
MODEL 5101 STANDARD CROSS
MODEL 450 45° LATERAL

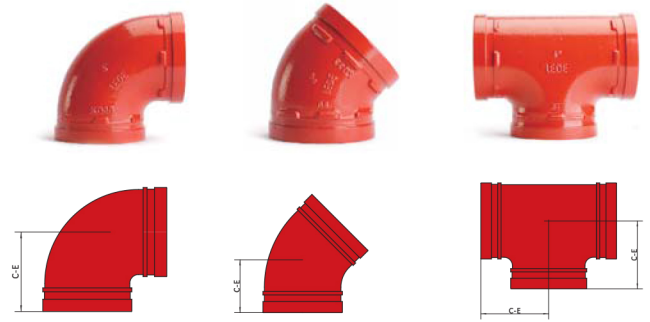
Lede grooved fittings are cast of ductile iron.



Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	XGQT03L Tee	XGQT05 Cross	5101 Cross	450 45° Lateral	
			C- E	C- E	C- E	C- LE	C- SE
25	33.7	20	57	---	57	---	---
1	1.327	300	2.24	---	2.24	---	---
32	42.4	20	70	---	70	---	---
1 1/4	1.669	300	2.76	---	2.76	---	---
40	48.3	20	70	---	70	---	---
1 1/2	1.9	300	2.76	---	2.76	---	---
50	60.3	20	84	70	84	178	70
2	2.375	300	3.31	2.76	3.31	7.00	2.75
65	73	20	95	76	95	197	76
2 1/2	2.875	300	3.74	2.99	3.74	7.75	3.00
65	76.1	20	95	76	95	197	76
2 1/2	3	300	3.74	2.99	3.74	7.75	3.00
80	88.9	20	108	86	108	216	83
3	3.5	300	4.25	3.39	4.25	8.50	3.25
100	108	20	127	102	127	---	---
4	4.25	300	5.00	4.02	5.00	---	---
100	114.3	20	127	102	127	267	95
4	4.5	300	5.00	4.02	5.00	10.50	3.75
125	133	20	140	121	140	318	102
5	5.25	300	5.51	4.76	5.51	12.50	4.00
125	139.7	20	140	121	140	318	102
5	5.5	300	5.51	4.76	5.51	12.50	4.00
125	141.3	20	140	121	140	---	---
5	5.563	300	5.51	4.76	5.51	---	---
150	159	20	165	130	165	---	---
6	6.25	300	6.50	5.12	6.50	---	---
150	165.1	20	165	130	165	356	114
6	6.5	300	6.50	5.12	6.50	14.00	4.50
150	168.3	20	165	140	165	---	---
6	6.625	300	6.50	5.51	6.50	---	---
200	219.1	20	197	174	197	457	152
8	8.625	300	7.76	6.85	7.76	18.00	6.00
250	273	20	229	215	229	521	165
10	10.75	300	9.02	8.46	9.02	20.50	6.50
300	323.9	20	254	245	254	584	178
12	12.75	300	10.00	9.65	10.00	23.00	7.00

MODEL XGQT01 SHORT RADIUS 90° ELBOW MODEL XGQT011 SHORT 45° ELBOW MODEL XGQT03 SHORT RADIUS TEE

Lede short radius fittings, while primarily designed for fire protection applications, can also be used for general service requirements.

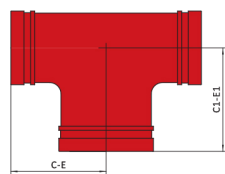


Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	XGQT01 SR 90° Elbow	XGQT011 45° Elbow	XGQT03 SR Straight Tee
			C- E (mm/in)	C- E (mm/in)	C- E (mm/in)
50	60.3	20	70	---	70
2	2.375	300	2.76	---	2.76
65	73	20	76	62	76
21/2	2.875	300	2.99	2.44	2.99
65	76.1	20	76	62	76
21/2	3	300	2.99	2.44	2.99
80	88.9	20	85	53	85
3	3.5	300	3.35	2.09	3.35
100	108	20	102	60	102
4	4.25	300	4.02	2.36	4.02
100	114.3	20	102	60	102
4	4.5	300	4.02	2.36	4.02
125	133	20	121	68	121
5	5.25	300	4.76	2.68	4.76
125	139.7	20	121	68	121
5	5.5	300	4.76	2.68	4.76
125	141.3	20	121	68	121
5	5.563	300	4.76	2.68	4.76
150	159	20	130	75.5	130
6	6.25	300	5.12	2.97	5.12
150	165.1	20	130	75.5	130
6	6.5	300	5.12	2.97	5.12
150	168.3	20	140	75.5	140
6	6.625	300	5.51	2.97	5.51
200	219.1	20	175	95	175
8	8.625	300	6.89	3.74	6.89
250	273	20	215	112	215
10	10.75	300	8.46	4.41	8.46
300	323.9	20	220	135	220
12	12.75	300	8.66	5.31	8.66

MODEL XGQT03 BULLHEAD TEE

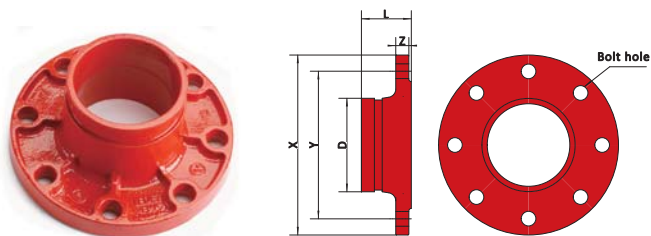
The Model XGQT03 is a grooved-end bullhead tee, specially designed for use on fire protection systems allows you to directly split the flow into two reduced branch lines without the need for concentric reducers and multiple couplings.

Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	Dimensions	
			C- E mm/in	C1 - E1 mm/in
80×80×100	88.9×88.9×114.3	20	115	125
3×3×4	3.5×3.5×4.5	300	4.53	4.92
100×100×150	114.3×114.3×165.1	20	140	140
4×4×6	4.5×4.5×6.5	300	5.5	5.5



MODEL L981 FLANGE ADAPTER CLASS 125/150

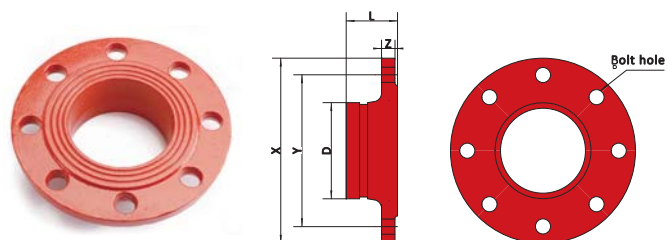
The Model L981 Universal Flange Adapter provides a rigid transition from a flanged component to a grooved system.



Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	X mm/in	Y mm/in	Z mm/in	L mm/in	Bolts Size mm/in	Bolts No.
50	60.3	20	155	120.5	16	65	M16	4
2	2.375	300	6.10	4.74	0.63	2.56	5/8	4
65	73.00	20	180	140	16	65	M16	4
21/2	2.875	300	7.09	5.51	0.63	2.56	5/8	4
80	88.90	20	190	153	18	65	M16	4
3	3.50	300	7.48	6.02	0.71	2.56	5/8	4
100	114.30	20	230	191	22	70	M16	8
4	4.50	300	9.06	7.52	0.87	2.76	5/8	8
125	141.3	20	255	216	22	70	M20	8
5	5.563	300	10.04	8.50	0.87	2.76	3/4	8
150	168.30	20	280	241	22	70	M20	8
6	6.625	300	11.02	9.49	0.87	2.76	3/4	8
200	219.1	20	345	299	25	80	M20	8
8	8.625	300	13.58	11.77	0.98	3.15	3/4	8
250	273	20	405	362	26	85	M24	12
10	10.75	300	15.94	14.25	1.02	3.35	1	12
300	323.9	20	485	432	28	90	M24	12
12	12.75	300	19.09	17.01	1.10	3.54	1	12

MODEL XGQT08 FLANGE ADAPTER PN10/16

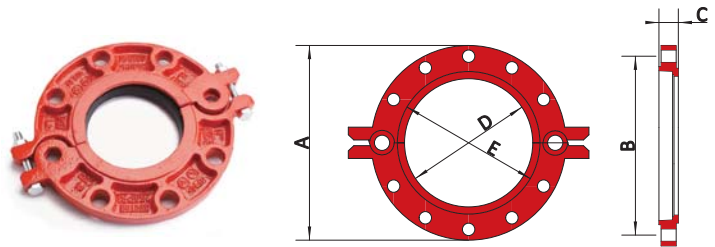
The Model XGQT08 Flange Adapter provides for a rigid transition between a flanged piping system and grooved system.



Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	X mm	Y mm	Z mm	L mm	Bolts Size mm/in	Bolts No.
50	60.30	15	165	125	15	60	M16	4
2	2.38	230	165	125	15	60	M16	4
65	73.00	15	185	145	15	60	M16	4
21/2	2.88	230	185	145	15	60	M16	4
65	76.10	15	185	145	15	60	M16	4
21/2	3.00	230	185	145	15	60	M16	4
80	88.90	15	200	160	16	60	M16	8
3	3.50	230	200	160	16	60	M16	8
100	108.00	15	220	180	16	60	M16	8
4	4.25	230	220	180	16	60	M16	8
100	114.30	15	220	180	16	60	M16	8
4	4.50	230	220	180	16	60	M16	8
125	133.00	15	250	210	18	65	M16	8
5	5.25	230	250	210	18	65	M16	8
125	139.70	15	250	210	18	65	M16	8
5	5.50	230	250	210	18	65	M16	8
125	141.30	15	250	210	18	65	M16	8
5	5.56	230	250	210	18	65	M16	8
150	159.00	15	285	240	18	65	M20	8
6	6.25	230	285	240	18	65	M20	8
150	165.10	15	285	240	18	65	M20	8
6	6.50	230	285	240	18	65	M20	8
150	168.30	15	285	240	18	65	M20	8
6	6.63	230	285	240	18	65	M20	8
200	219.10	15	340	295	19	70	M20	12
8	8.63	230	340	295	19	70	M20	12
250	273.00	15	405	355	25	85	M24	12
10	10.75	230	405	355	25	85	M24	12
300	323.90	15	460	410	27	85	M24	12
12	12.75	230	460	410	27	85	M24	12

MODEL L991 FLANGE ANSI CLASS 125/150

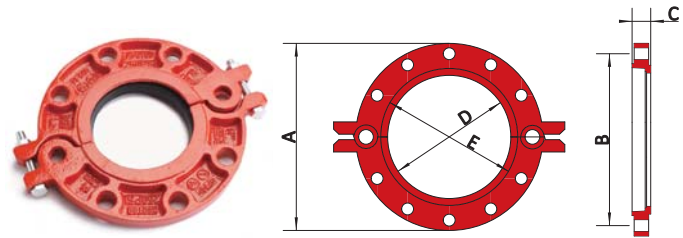
The Model L991 Flange allows for direct connection of grooved system to ANSI class 125/150 flanged components.



Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	Max. End Load KN/Lbs	Dimensions					Bolt	
				A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	No.	Size mm/in
50	60.3	17	5.71	155	120.5	25	60	78	4	M16
2	2.375	250	1330	6.10	4.74	0.98	2.36	3.07	4	5/8
65	73.0	17	8.37	180	140	25	73	93	4	M16
2.5	2.875	250	1950	7.09	5.51	0.98	2.87	3.66	4	5/8
80	88.9	17	12.41	190	153	25	89	107	4	M16
3	3.500	250	2880	7.48	6.02	0.98	3.50	4.21	4	5/8
100	114.3	17	20.51	230	191	25	114	131	8	M16
4	4.500	250	4770	9.06	7.52	0.98	4.49	5.16	8	5/8
125	141.3	17	31.35	255	216	25	141	157	8	M20
5	5.563	250	7290	10.04	8.50	0.98	5.55	6.18	8	3/4
150	168.3	17	44.47	280	241	25	168	185	8	M20
6	6.625	250	10340	11.02	9.49	0.98	6.61	7.28	8	3/4
200	219.1	17	75.37	345	299	27	219	234	8	M20
8	8.625	250	17520	13.58	11.77	1.06	8.62	9.21	8	3/4
250	273.0	17	164.71	405	362	30	273	294	12	M24
10	10.750	250	27210	15.94	14.25	1.18	10.75	11.57	12	1
300	323.9	17	164.71	485	432	32	324	341	12	M24
12	12.75	250	38280	19.09	17.01	1.26	12.76	13.43	12	1

MODEL XGQT09 FLANGE – PN10/PN16

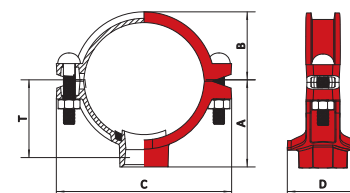
The Model XGQT09 Flange allows for a direct connection with PN10/PN16 flanges. The unique shaped gasket allows for the transition from a flanged system to a grooved system to a grooved system with a single flange.



Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	Max. End Load KN/Lbs	Dimensions			Sealing Surface		Bolt	
				A mm	B mm	C mm	D mm	E mm	No.	Size mm
50	60.3	16	4.60	164	125	25	60	78	4	M16
2	2.375	225	1000	164	125	25	60	78	4	M16
65	73	16	6.64	182	145	25	73	93	8	M16
2 1/2	2.875	225	1491	182	145	25	73	93	8	M16
65	76.1	16	7.30	182	145	25	76	93	8	M16
2 1/2	3	225	1590	182	145	25	76	93	8	M16
80	88.9	16	9.90	194	160	25	89	107	8	M16
3	3.5	225	2165	194	160	25	89	107	8	M16
100	108	16	14.52	216	180	25	108	130	8	M16
4	4.25	225	3264	216	180	25	108	130	8	M16
100	114.3	16	16.40	216	180	25	114	131	8	M16
4	4.5	225	3580	216	180	25	114	131	8	M16
125	133	16	22.03	247	210	25	133	156	8	M16
5	5.25	225	4951	247	210	25	133	156	8	M16
125	139.7	16	24.50	247	210	25	140	157	8	M16
5	5.5	225	5340	247	210	25	140	157	8	M16
125	141.3	16	24.86	247	210	25	141	157	8	M16
5	5.563	225	5588	247	210	25	141	157	8	M16
150	159	16	31.48	282	240	25	159	184	8	M20
6	6.25	225	7075	282	240	25	159	184	8	M20
150	165.1	16	34.20	282	240	25	165	185	8	M20
6	6.5	225	7460	282	240	25	165	185	8	M20
150	168.3	16	35.60	282	240	25	168	185	8	M20
6	6.625	225	7750	282	240	25	168	185	8	M20
200	219.1	16	60.30	335	295	27	219	234	12	M20
8	8.625	225	13140	335	295	27	219	234	12	M20

Note: 2" - 6" flange drilling to PN10 / PN16 and 8" and above to PN16.

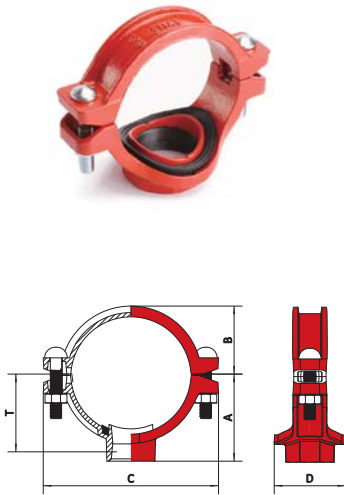
Nominal Size mm/in	Pipe O.D.	Hole Dia. $\pm$ +3.2,-0 /+0.13,-0	Dimensions - mm/in					Bolt Size mm/in
			T $\ddagger$	A	B	C	D	
125x50	133.0x60.3	64	95	89	74	205	100	M12x75
5x2	5.25x2.375	2.52	3.74	3.50	2.91	8.07	3.94	1/2x3
125x65	133.0x76.1	80	97	92	74	205	117	M12x75
5x2 1/2	5.25x3	3.15	3.82	3.62	2.91	8.07	4.61	1/2x3
125x80	133.0x88.9	92	106	94	74	205	129	M12x75
5x3	5.25x3.5	3.62	4.17	3.70	2.91	8.07	5.08	1/2x3
125x25	139.7x33.7	38	97	96.5	77	219	76	M16x85
5x1	5.5x1.327	1.50	3.82	3.80	3.03	8.62	2.99	5/8x3-1/3
125x32	139.7x42.4	44.5	97	107	77	219	84	M16x85
5x1 1/4	5.5x1.669	1.75	3.82	4.21	3.03	8.62	3.31	5/8x3-1/3
125x40	139.7x48.3	50.8	102	107	77	219	90	M16x85
5x1 1/2	5.5x1.9	2.00	4.02	4.21	3.03	8.62	3.54	5/8x3-1/3
125x50	139.7x60.3	63.5	102	108	77	219	101	M16x85
5x2	5.5x2.375	2.50	4.02	4.25	3.03	8.62	3.98	5/8x3-1/3
125x65	139.7x76.1	70	92	115	77	219	117	M16x85
5x2 1/2	5.5x3	2.76	3.62	4.53	3.03	8.62	4.61	5/8x3-1/3
125x80	139.7x88.9	89	97	118	77	219	136	M16x85
5x3	5.5x3.5	3.50	3.82	4.65	3.03	8.62	5.35	5/8x3-1/3
125x25	141.3x33.7	38	77	96.5	77	219	76	M16x85
5x1	5.563x1.327	1.50	3.03	3.80	3.03	8.62	2.99	5/8x3-1/3
125x32	141.3x42.4	44.5	77	107	77	219	84	M16x85
5x1 1/4	5.563x1.669	1.75	3.03	4.21	3.03	8.62	3.31	5/8x3-1/3
125x40	141.3x48.3	50.8	83	107	77	219	90	M16x85
5x1 1/2	5.563x1.9	2.00	3.27	4.21	3.03	8.62	3.54	5/8x3-1/3
125x50	141.3x60.3	63.5	83	108	77	219	101	M16x85
5x2	5.563x2.375	2.50	3.27	4.25	3.03	8.62	3.98	5/8x3-1/3
125x65	141.3x76.1	70	93	115	77	219	117	M16x85
5x2 1/2	5.563x3	2.76	3.66	4.53	3.03	8.62	4.61	5/8x3-1/3
125x80	141.3x88.9	89	97	118	77	219	136	M16x85
5x3	5.563x3.5	3.50	3.82	4.65	3.03	8.62	5.35	5/8x3-1/3
150x25	159.0x33.7	38	113	101.5	91	233	76	M14x75
6x1	6.250x1.327	1.50	4.45	4.00	3.58	9.17	2.99	9/16x3
150x32	159.0x42.4	46	113	101.5	91	233	83	M14x75
6x1 1/4	6.250x1.669	1.81	4.45	4.00	3.58	9.17	3.27	9/16x3
150x40	159.0x48.3	53	112	101.5	91	233	90	M14x75
6x1 1/2	6.250x1.9	2.09	4.41	4.00	3.58	9.17	3.54	9/16x3
150x50	159.0x60.3	64	111	101.5	91	233	100	M14x75
6x2	6.250x2.375	2.52	4.37	4.00	3.58	9.17	3.94	9/16x3
150x65	159.0x76.1	80	111	105.5	91	233	117	M16x85
6x2 1/2	6.250x3	3.15	4.37	4.15	3.58	9.17	4.61	5/8x3-1/3
150x80	159.0x88.9	92	110	105.5	91	233	129	M16x85
6x3	6.250x3.5	3.62	4.33	4.15	3.58	9.17	5.08	5/8x3-1/3
150x100	159.0x114.3	118	96.8	110	91	233	157	M16x85
6x4	6.250x4.5	4.65	3.81	4.33	3.58	9.17	6.18	5/8x3-1/3
150x25	165.1x33.7	38	99	108.5	94	248	76	M16x85
6x1	6.5x1.327	1.50	3.90	4.27	3.7	9.76	2.99	5/8x3-1/3
150x32	165.1x42.4	44.5	112	120	94	248	84	M16x85
6x1 1/4	6.5x1.669	1.75	4.41	4.72	3.7	9.76	3.31	5/8x3-1/3
150x40	165.1x48.3	50.8	112	120	94	248	90	M16x85
6x1 1/2	6.5x1.9	2.00	4.41	4.72	3.7	9.76	3.54	5/8x3-1/3
150x50	165.1x60.3	63.5	111	121	94	248	101	M16x85
6x2	6.5x2.375	2.50	4.37	4.76	3.7	9.76	3.98	5/8x3-1/3
150x65	165.1x76.1	70	110	126.5	94	248	117	M16x85
6x2 1/2	6.5x3	2.76	4.33	4.98	3.7	9.76	4.61	5/8x3-1/3
150x80	165.1x88.9	89	110	129.5	94	248	136	M16x85
6x3	6.5x3.5	3.50	4.33	5.10	3.7	9.76	5.35	5/8x3-1/3
150x100	165.1x114.3	114	97	136	94	248	162	M16x85
6x4	6.5x4.5	4.49	3.82	5.35	3.7	9.76	6.38	5/8x3-1/3
150x25	168.3x33.7	38	112	108.5	97	248	76	M16x85
6x1	6.625x1.327	1.50	4.41	4.27	3.82	9.76	2.99	5/8x3-1/3
150x32	168.3x42.4	44.5	112	120	97	248	84	M16x85
6x1 1/4	6.625x1.669	1.75	4.41	4.72	3.82	9.76	3.31	5/8x3-1/3
150x40	168.3x48.3	50.8	112	120	97	248	90	M16x85
6x1 1/2	6.625x1.9	2.00	4.41	4.72	3.82	9.76	3.54	5/8x3-1/3
150x50	168.3x60.3	63.5	111	121	97	248	101	M16x85
6x2	6.625x2.375	2.50	4.37	4.76	3.82	9.76	3.98	5/8x3-1/3
150x65	168.3x76.1	70	110	128	97	248	117	M16x85
6x2 1/2	6.625x3	2.76	4.33	5.04	3.82	9.76	4.61	5/8x3-1/3
150x80	168.3x88.9	89	110	131	97	248	136	M16x85
6x3	6.625x3.5	3.50	4.33	5.16	3.82	9.76	5.35	5/8x3-1/3
150x100	168.3x114.3	114	97	139.5	97	248	162	M16x85
6x4	6.625x4.5	4.49	3.82	5.49	3.82	9.76	6.38	5/8x3-1/3
200x25	219.1x33.7	38	152	136	125	322	76	M20x90
8x1	8.625x1.327	1.50	5.98	5.35	1.92	12.68	2.99	5/8x3-1/2
200x32	219.1x42.4	44.5	152	147	125	322	84	M20x90
8x1 1/4	8.625x1.669	1.75	5.98	5.79	1.92	12.68	3.31	5/8x3-1/2
200x40	219.1x48.3	50.8	152	147	125	322	90	M20x90
8x1 1/2	8.625x1.9	2.00	5.98	5.79	1.92	12.68	3.54	5/8x3-1/2
200x50	219.1x60.3	63.5	138	147	125	322	101	M20x90
8x2	8.625x2.375	2.50	5.43	5.79	1.92	12.68	3.98	5/8x3-1/2
200x65	219.1x76.1	70	129	156	125	322	117	M20x90
8x2 1/2	8.625x3	2.76	5.08	6.14	1.92	12.68	4.61	5/8x3-1/2
200x80	219.1x88.9	89	135	158.5	125	322	136	M20x90
8x3	8.625x3.5	3.50	5.31	6.24	1.92	12.68	5.35	5/8x3-1/2
200x100	219.1x114.3	114	122	167	125	322	162	M20x90
8x4	8.625x4.5	4.49	4.80	6.57	1.92	12.68	6.38	5/8x3-1/2



MODEL XGQT04 MECHANICAL TEE THREADED OUTLET

The Model XGQT04 Mechanical Tee provides a fast and easy mid-pipe threaded branch outlet. The XGQT04 eliminates the need for welding or multiple fittings. The mechanical tee utilizes ductile iron housings, a grade E

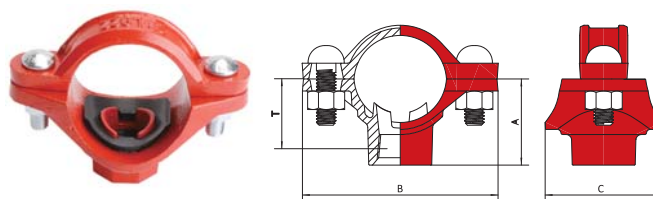
moulded gasket and heat-treated carbon steel track bolts and nuts. Housings are painted orange or red, or as an option can be supplied hot-dipped zinc galvanized or epoxy coated. Pressure rated to 300 psi (20 bar).



Nominal Size mm/in	Pipe O.D.	Hole Dia. T +3.2, -0 /+0.13, -0	Dimensions - mm/in					Bolt Size mm/in
			T#	A	B	C	D	
50x15	60.3x21.3	38	50	56	42	120	76	M10x60
2x1/2	2.375x0.825	1.50	1.97	2.20	1.65	4.72	2.99	3/8x2-3/8
50x20	60.3x26.7	38	50	56	42	120	76	M10x60
2x3/4	2.375x1.05	1.50	1.97	2.20	1.65	4.72	2.99	3/8x2-3/8
50x25	60.3x33.7	38	47	56	42	120	76	M10x60
2x1	2.375x1.327	1.50	1.85	2.20	1.65	4.72	2.99	3/8x2-3/8
50x32	60.3x42.4	44.5	52	68	42	120	84	M10x60
2x11/4	2.375x1.669	1.75	2.05	2.68	1.65	4.72	3.31	3/8x2-3/8
50x40	60.3x48.3	44.5	52	71	42	120	84	M10x60
2x11/2	2.375x1.9	1.75	2.05	2.80	1.65	4.72	3.31	3/8x2-3/8
65x15	73x21.3	38	56	61.5	47	143	76	M12x65
21/2x1/2	2.375x0.825	1.50	2.20	2.42	1.85	5.63	2.99	1/2x2-5/8
65x20	73x26.7	38	56	61.5	47	143	76	M12x65
21/2x3/4	2.875x1.05	1.50	2.20	2.42	1.85	5.63	2.99	1/2x2-5/8
65x25	73.0x33.7	38	53	61.5	47	143	76	M12x65
21/2x1	2.875x1.327	1.50	2.09	2.42	1.85	5.63	2.99	1/2x2-5/8
65x32	73.0x42.4	44.5	58	73.5	47	143	84	M12x65
21/2x11/4	2.875x1.669	1.75	2.28	2.89	1.85	5.63	3.31	1/2x2-5/8
65x40	73.0x48.3	50.8	58	73.5	47	143	90	M12x65
21/2x11/2	2.875x1.9	2.00	2.28	2.89	1.85	5.63	3.54	1/2x2-5/8
65x15	76.1x21.3	38	56	61.5	48	143	76	M12x65
21/2x1/2	3x0.825	1.50	2.20	2.42	1.89	5.63	2.99	1/2x2-5/8
65x20	76.1x26.7	38	56	61.5	48	143	76	M12x65
21/2x3/4	3x1.05	1.50	2.20	2.42	1.89	5.63	2.99	1/2x2-5/8
65x25	76.1x33.7	38	53	61.5	48	143	76	M12x65
21/2x1	3x1.327	1.50	2.09	2.42	1.89	5.63	2.99	1/2x2-5/8
65x32	76.1x42.4	44.5	58	73.5	48	143	84	M12x65
21/2x11/4	3x1.669	1.75	2.28	2.89	1.89	5.63	3.31	1/2x2-5/8
65x40	76.1x48.3	50.8	58	75	48	143	90	M12x65
21/2x11/2	3x1.9	2.00	2.28	2.95	1.89	5.63	3.54	1/2x2-5/8
80x15	88.9x21.3	38	64	69.5	55	158	76	M12x65
3x1/2	3.5x0.825	1.50	2.52	2.74	2.17	6.22	2.99	1/2x2-5/8
80x20	88.9x26.7	38	63	69.5	55	158	76	M12x65
3x3/4	3.5x1.05	1.50	2.48	2.74	2.17	6.22	2.99	1/2x2-5/8
80x25	88.9x33.7	38	61	69.5	55	158	76	M12x65
3x1	3.5x1.327	1.50	2.40	2.74	2.17	6.22	2.99	1/2x2-5/8
80x32	88.9x42.4	44.5	65	81	55	158	84	M12x65
3x11/4	3.5x1.669	1.75	2.56	3.19	2.17	6.22	3.31	1/2x2-5/8
80x40	88.9x48.3	50.8	71	81	55	158	90	M12x65
3x11/2	3.5x1.9	2.00	2.80	3.19	2.17	6.22	3.54	1/2x2-5/8
80x50	88.9x60.3	63.5	70	81	55	158	101	M12x65
3x2	3.5x2.375	2.50	2.76	3.19	2.17	6.22	3.98	1/2x2-5/8
100x25	108.1x33.7	38	73	76	62	167	76	M12x65
4x1	4.250x1.327	1.50	2.87	2.99	2.44	6.57	2.99	1/2x2-5/8
100x32	108.0x42.4	46	78	76	62	167	83	M12x65
4x11/4	4.25x1.669	1.81	3.07	2.99	2.44	6.57	3.27	1/2x2-5/8
100x40	108.0x48.3	53	83	76	62	167	90	M12x65
4x11/2	4.25x1.9	2.09	3.27	2.99	2.44	6.57	3.54	1/2x2-5/8
100x50	108.0x60.3	64	83	78	62	167	100	M12x65
4x2	4.25x2.375	2.52	3.27	3.07	2.44	6.57	3.94	1/2x2-5/8
100x65	108.0x76.1	80	73	105	62	167	117	M12x65
4x21/2	4.25x3	3.15	2.87	4.13	2.44	6.57	4.61	1/2x2-5/8
100x15	114.3x21.3	38	77	79	65	181	76	M12x70
4x1/2	4.5x0.825	1.50	3.03	3.11	2.56	7.13	2.99	1/2x2-3/4
100x20	114.3x26.7	38	76	79	65	181	76	M12x70
4x3/4	4.5x1.05	1.50	2.99	3.11	2.56	7.13	2.99	1/2x2-3/4
100x25	114.3x33.7	38	73	82	65	181	76	M12x70
4x1	4.5x1.327	1.50	2.87	3.23	2.56	7.13	2.99	1/2x2-3/4
100x32	114.3x42.4	44.5	78	94	65	181	84	M12x70
4x11/4	4.5x1.669	1.75	3.07	3.70	2.56	7.13	3.31	1/2x2-3/4
100x40	114.3x48.3	50.8	83	94	65	181	90	M12x70
4x11/2	4.5x1.9	2.00	3.27	3.70	2.56	7.13	3.54	1/2x2-3/4
100x50	114.3x60.3	63.5	83	94	65	181	101	M12x70
4x2	4.5x2.375	2.50	3.27	3.70	2.56	7.13	3.98	1/2x2-3/4
100x65	114.3x76.1	70	73	99	65	181	117	M12x70
4x21/2	4.5x3	2.76	2.87	3.90	2.56	7.13	4.61	1/2x2-3/4
100x80	114.3x88.9	89	84	100	65	181	136	M12x70
4x3	4.5x3.5	3.50	3.31	3.94	2.56	7.13	5.35	1/2x2-3/4
125x25	133.0x33.7	38	85	89	74	205	76	M12x75
5x1	5.250x1.327	1.50	3.35	3.50	2.91	8.07	2.99	1/2x3
125x32	133.0x42.4	46	90	89	74	205	83	M12x75
5x11/4	5.25x1.669	1.81	3.54	3.50	2.91	8.07	3.27	1/2x3
125x40	133.0x48.3	53	95	89	74	205	90	M12x75
5x11/2	5.25x1.9	2.09	3.74	3.50	2.91	8.07	3.54	1/2x3

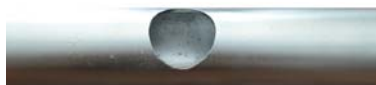
MODEL L922 SADDLE-LET (Small Mechanical Tee)

The Model L922 Saddle-Lets is the ideal outlet fitting for direct connections to sprinkler heads, drop nipples and or gauges. No need for welding, just cut or drill a hole at the desired outlet location. Position the Saddle-Let so that the locating collar fits within the hole, then tighten the upper and lower housings with bolts and nuts. The Saddle-Let comes with a standard black finish or as an option can be supplied electro zinc plated or painted orange. The Saddle-Let allows full bore flow and is pressure rates to 300 psi (20 bar).



Nominal Size mm/in	Hole Dia. $\pm$ +1,-0 / +0.04,-0	Dimensions - mm/in			Take-Out T/D mm/in	Bolt Size in	Bolt Torque N-M/Lb-Ft
		A	B	C			
25x15	24	28	93	48	29	3/8 Φ	30-40
1x1/2	0.95	1.10	3.66	1.89	1.14	U-Bolt	22-29
32x15	30.00	45	98	65	33	3/8 Φ	30-40
11/4x1/2	1.18	1.77	3.86	2.56	1.30	U-Bolt	22-29
32x20	30.00	45	98	65	32.5	3/8 Φ	30-40
11/4x3/4	1.18	1.77	3.86	2.56	1.28	U-Bolt	22-29
32x25	30.00	54	98	65	38.6	3/8 Φ	30-40
11/4x1	1.18	2.13	3.86	2.56	1.52	U-Bolt	22-29
40x15	30.00	48	105.6	65	36.1	3/8 Φ	30-40
11/2x1/2	1.18	1.89	4.16	2.56	1.42	U-Bolt	22-29
40x20	30.00	48	105.6	65	35.6	3/8 Φ	30-40
11/2x3/4	1.18	1.89	4.16	2.56	1.40	U-Bolt	22-29
40x25	30.00	57	105.6	65	41.7	3/8 Φ	30-40
11/2x1	1.18	2.24	4.16	2.56	1.64	U-Bolt	22-29
50x15	30.00	54	125	65	42.2	3/8 Φ	30-40
2x1/2	1.18	2.13	4.92	2.56	1.66	U-Bolt	22-29
50x20	30.00	54	125	65	41.7	3/8 Φ	30-40
2x3/4	1.18	2.13	4.92	2.56	1.64	U-Bolt	22-29
50x25	30.00	62	125	65	47.8	3/8 Φ	30-40
2x1	1.18	2.44	4.92	2.56	1.88	U-Bolt	22-29
65x15	30.00	61	139	65	48.5	3/8 Φ	30-40
21/2x1/2	1.18	2.40	5.47	2.56	1.91	U-Bolt	22-29
65x20	30.00	61	139	65	48	3/8 Φ	30-40
21/2x3/4	1.18	2.40	5.47	2.56	1.89	U-Bolt	22-29
65x25	30.00	71	139	65	54.1	3/8 Φ	30-40
21/2x1	1.18	2.80	5.47	2.56	2.13	U-Bolt	22-29

1. Drill a hole on the pipe according to the hole sizes requirements, ensure all the burrs are removed, and no deep pits or swells are found within 20mm around the hole.



2. Put the gasket into the upper housing, and make sure it is suitable for the intended service.



3. Put the upper parts above the pipe hole, then put the location collar fit into the hole, ensure the gasket to cover the hole evenly.



4. Place the lower housing opposite to the pipe, align the upper housing and lower housing, then insert the bolts.



5. Tighten the nuts evenly until the upper housing touches the pipe well, the torque of the nuts should be in accordance with the requirements of LEIDE company.



6. After installation, check it carefully to make sure the gap between upper part and lower part is equal and tiny.



When mechanical cross is installed, make sure the deflection of the upper housing and lower housing cannot beyond 1.0mm, and the both location collar are in the center of the hole, when nuts tightened, the torque must be in accordance with the LEIDE requirements.