



Osos Irtekaz For Safety Devices Est
IFFCO For Fire Fighting & Fire Alarm Systems.

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E-mail: info@iffcoksa.com

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Ductile Iron Grooved Fittings and Couplings

WEIFANG DAHAI LVBINGCHUAN MACHINERY GROUP CO.,LTD.



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IFFCO For Fire Fighting & Fire Alarm Systems.

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LBC, short for WEIFANG DAHAI LBINGCHUAN MACHINERY GROUP CO., LTD., is located in the World Kite Capital-Weifang City with a beautiful scenery which is within a short distance around 200 km to Qingdao & Huangdao ports. We, LBC Group, are a delicate manufacturer committed to pipe fittings & couplings designing, casting and world-wide supplying business. Right now, LBC has 4 subsidiaries with 3 casting foundries(disamatic molding & casting lines) occupying more than 150 acres and two new inventory facilities along with testing labs under construction which cover more than 40 acres. In total, we have more than 300 employees, including more than 120 highly skilled workers,nearly 30 technical support staffs, 7 qualified casting engineers with a strong lab team. We also have an independent research institute(CNC pattern center) and metallurgical laboratory with the full capability to continuously improve our product design, reliable quality and safety to meet the market dynamic demand and also the on growing global demand.

Since the founding stage of our company, we've been repeating and applying the concept of military-like systematic management and we combine regulations for human and procedures for production together to achieve our steady growth in the past 3 decades. Through this concept, we gain not only great benefits of utility, accuracy and efficiency in our manufacturing processes, but also the safety for our workers-Zero fatal incidence ever. Weifang City Government reward us as the 'Outstanding Private Enterprise'for many years and we've also been rated as the 'Remarkable Brand'by Shandong Provence Government.

Our strictness in the systematic management with the scientific methods has been a excellent help for our production, also helped us smoothly certified for the British SGS ISO9002 and ISO9001:2008 Quality Management System Certifications.

With the collaboration of the Beijing Xien Management Consultant, we developed and applied the military-like systematic management aiming at higher and higher unity in team work and efficiency in production. To gain our high product's reputation, we not just strictly follow the industry standard GB5135.11-2006 and different regional standards in the development and production of our products, but also take the international advanced technology in melting and casting, especially the accurate temperature control systems and the furnace component analysis systems for the raw material analysis and control which guarantee our internal quality stability and relatively low cost.



The introducing of the'day-day'management by the scientific mode, which is known as 6S concept, ensures that products from raw materials to the plant laboratory are flawlessly following the procedures under gradual control and regular check, for the solid absolute that every part and every seal are safe to use and effective in a long term for our customers. As the result of all the effort, LBC has been listed on the National Construction Standard Association Recommend Brands Rank.

LBC grooved pipe fittings and couplings with its high quality from the military-like systematic production management have been certified and accepted not only by the domestic market but also the global market. From the year 2012 to 2015, our products have successfully passed the U.S. FM Approval certification and UL certification, as while as the Europe CE verification.

In the advantage of reliable quality and outstanding services, LBC fittings have been widely applied to over 1500 projects. With our reputation, we have been recommended for the overseas OEMs due to our stable production capacity and quick reaction towards the regional market. Right now, we attract many customers from allover the world, such as intermediaries from the Europe and UEA. We also supply to the North America OEM market with our capability of fully meeting the customizing demands from our customers. With all the trust from our global customers, we LBC steadily move towards the global markets; With all the reputation we earned through all three decades, we gradually become one of the top finest supplier in the pipe fittings and couplings; With all the partners from our suppliers and buyers, we have and will keep our promises for the growth and great vision in our future.

LBC,
A Professional Pipe Fittings and Couplings Manufacturer
A Qualified Supplier





Grand and magnificent integrity of the world

Company History

1985

1987

1989

1994

2004

2006

2007

2008

2012

2015

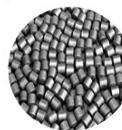
★ Mr chen longlian started a business.

★ Built casting factory, mainly produced wearable steel ball.

★ Grinding Cylpebs.

★ Weifang dahai casting development co., ltd was established in 2004. Air compressor wheel.

★ Established JULONG Steel shot factory, produced Decarburization steel grit.



**Work with perseverance, Hundreds of years only one industry
Reputation first, Generations to create world famous brand**

Fly our dream, Build power craftsmen



★ WEIFANG DAHAI LVBINGCHUAN machinery group co., It had 3 branch, include Weifang halidaer technology co., ltd, Weifang hete pipe co., ltd and Beijing hongtaiborou technology co., ltd.

★ Equipped the most advanced CNC vertical machining center, products had the certificate of ISO9001, FM, UL etc.

★ Established the branch BEIJING HONGTAIBORUI DEVELOPMENT CO., LTD. Professionally produced the grooved fittings and couplings for water supply.

★ Established the branch WEIFANG HALIDAER CO.,LTD. Professionally produced the grooved fittings and couplings.



State of the Art Equipment

High precision equipment is quality assurance.

Weifang dahai lvbingchuan machinery Group is equipped with the most advanced facilities and equipment in the industry. The main production facilities include Disa automatic molding line,automatic molding sand mixers,electric furnaces,CNC vertical machining centers, CNC machines, automatic box sealing line, stereoscopic warehouse and so on.



Pattern



Core Making



Sand Mulling



Melting



End Grinding Line



Pouring



Disa Automatic Molding Line



Threading and Air Pressure Test



Painting Line



Warehouse



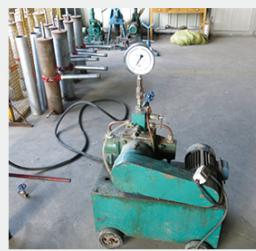
Reliable Quality Assurance

Inspection facilities include spectrometer, carbon sulfur analyzer, metallurgical microscope, tensile strength testing equipment, pressure testing equipment, adhesive force testing equipment, hardness tester, etc.

From incoming inspection to finished product, quality is checked and monitored in the whole process. Each step of the manufacturing process is carefully documented, regularly reviewed for revision control and updating standard. Quality procedures are constantly monitored and updated to assure that only the highest and most consistent quality products are supplied to our valued customers.



Metallurgical Microscope



Pressure Testing Machine



Metallurgical Polisher



Gasket Grinding Machine



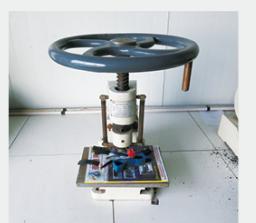
Thickness Testing Instrument



Rubber Aging Testing Machine



Rubber Tensile Testing Instrument



Rubber Sheet-punching Machine



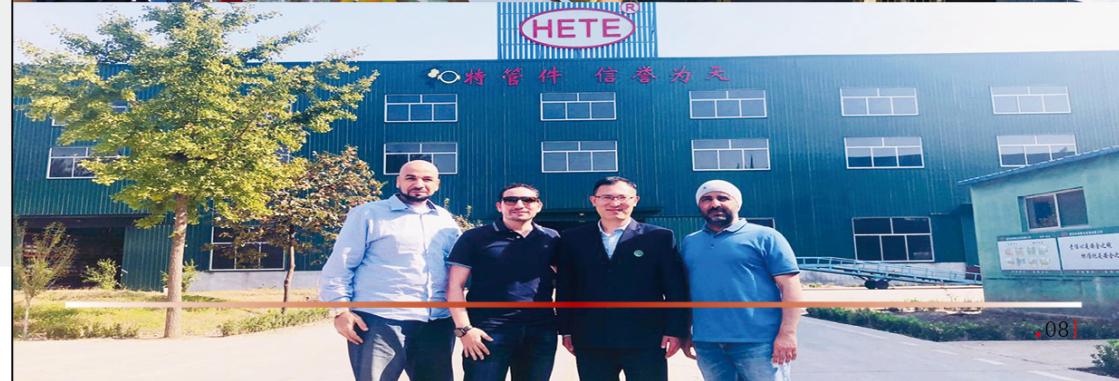
Element Testing Instrument



Bending Moment Testing Machine



Mechanical Tension Testing Machine

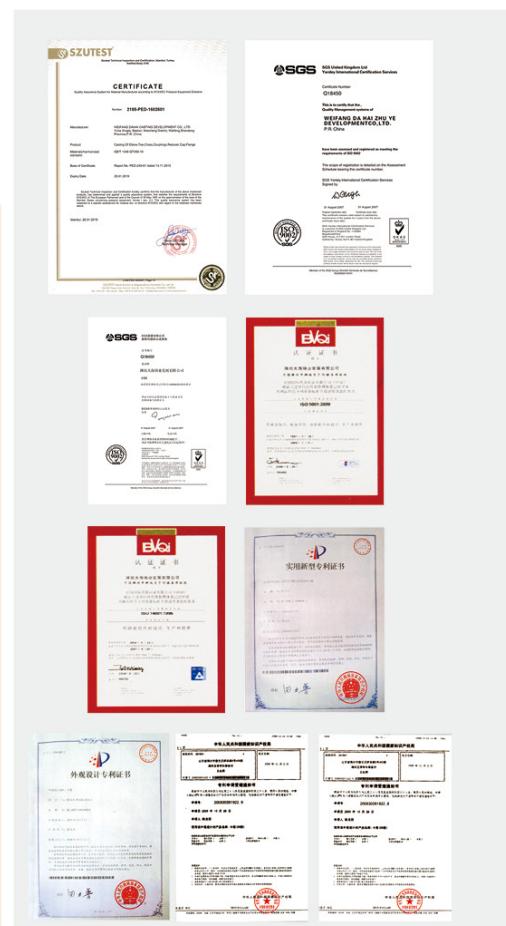


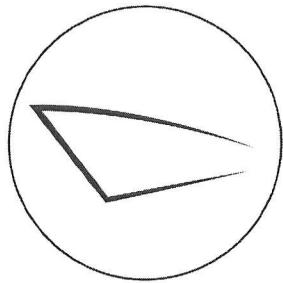


Ductile Iron Grooved Fittings and Couplings
Weifang dahai lvbingchuan machinery group co.,ltd.



Certificates





WEIFANG DAHAI LVBINGCHUAN MACHINERY GROUP CO., LTD.

Sole Agency Certification

This is to certify that Osos Irtekaz For Safety Devices Est, with office address at King Saud St. Alkulaibi Tower, Dammam, KSA. Is officially authorized the sole agency in the Saudi Arabian market.

The validity of this certification depends on the period of validity of the contract.

(the final interpretation right of this certification is reserved by Weifang Dahai LBC Company)
WEIFANG DAHAI LVBINGCHUAN MACHINERY GROUP CO., LTD.

Signature:



Title: General Manager.

Date: 18 / 10 / 2018

شركة داهاي ليوبينغتشوان المحدودة لآلات الميكانيكية بويفانغ

شهادة وكالة وحيدة

يشهد أن تكون رسمياً شركة أسس ارتکاز لأجهزة السلامة، عنوانها برج القليبي، شارع الملك سعود، الدمام، المملكة العربية السعودية، مفوضة بصفتها الوكالة الوحيدة في السوق العربية السعودية.

تعتمد صحة هذه الشهادة على فتررة صحة العقد.

(إن حقالتفسير النهائياً لهذه الشهادة يكون محفوظاً لشركة داهاي ليوبينغتشوان المحدودة لآلات الميكانيكية بويفانغ)
شركة داهاي ليوبينغتشوان المحدودة لآلات الميكانيكية بويفانغ

الإمضاء:



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(SEAL FOR TRANSLATION ONLY)



Ductile Iron Grooved Fittings and Couplings
Weifang dahai lvbingchuan machinery group co.,ltd.

Product display

Material:ASTM A536, GRADE 65-45-12, QT450-10



Rigid Coupling Flexible Coupling Angle Pad Coupling Reducing Flexible Coupling Tee (long)



Mechanical Tee Grooved Outlet Mechanical Tee Threaded Outlet U-bolt Mechanical Tee Mechanical Cross Grooved Outlet Mechanical Cross Threaded Outlet



Tee Grooved Reducing Tee Threaded Reducing Tee cross Grooved Reducing Cross Threaded Reducing Cross



Material:ASTM A536, GRADE 65-45-12, QT450-10



90° Elbow (long) 90° Elbow 45° Elbow 22.5° Elbow 11.25° Elbow



Grooved Eccentric Reducer Threaded Eccentric Reducer Grooved Concentric Reducer Threaded Concentric Reducer



Cap Cap with Eccentric Hole Cap with Concentric Hole Adaptor Flange Split Flange



→ Product size

Rigid Coupling

This couplings available where moderate pressures are expected or weight considerations are a factor. this style couplings are designed with cross-ribbed construction to provide strong component for pressure piping systems and usually used in fire protection, feed water, oil or gas and etc.



Rigid Coupling

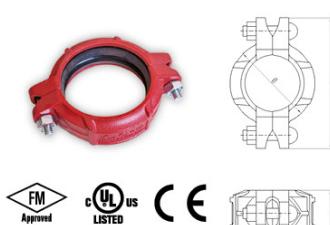
Nominal Size	Pipe OD.	Working Pressure	Dimensions			Bolt Size
mm/in	mm/in	psi/Mpa	mm	mm	mm	No.-Size mm
25	33.7		58	98	45	3/8*45-2
1	1.327		2.28	3.85	1.77	
32	42.4		68	106	45	3/8*45-2
1½	1.669		2.68	4.17	1.77	
40	48.3		74	114	45	3/8*45-2
1¾	1.9		2.91	4.49	1.77	
50	60.3		86	126	45	3/8*55-2
2	2.375		3.39	4.96	1.77	
65	73		98	137	45	3/8*55-2
2½	2.875		3.86	5.39	1.77	
65	76.1		103	141	45	3/8*55-2
2½	3		4.06	5.55	1.77	
80	88.9		114	158	45	3/8*55-2
3	3.5		4.49	6.22	1.77	
100	108		140	186	49	1/2*65-2
4	4.25		5.51	7.32	1.93	
100	114.3		143	192	49	1/2*65-2
4	4.5		5.63	7.56	1.93	
125	133		164	216	50	1/2*75-2
5	5.25		6.46	8.5	1.96	
125	139.7		172	223	50	1/2*75-2
5	5.5		6.77	8.78	1.96	
125	141.3		173	225	50	1/2*75-2
5	5.563		6.81	8.86	1.96	
150	159		193	246	50	1/2*75-2
6	6.25		7.59	9.68	1.96	
150	165.1		199	252	50	1/2*75-2
6	6.5		7.83	9.92	1.96	
150	168.3		202	252	50	1/2*75-2
6	6.625		7.95	9.92	1.96	
200	219.1		255	322	58	5/8*95-2
8	8.625		10.04	12.67	2.28	
250	273		318	400	62	3/4*110-2
10	10.75		12.51	15.74	2.44	
300	323.9		372	454	64	3/4*120-2
12	12.75		14.64	17.87	2.51	

Pressure Ratings and End loads for Mech Couplings on Steel Pipe

Nom. Size	Pipe O.D.	Pipe Sched	Wall Thick	Working Pressure		Dimensions	Bolt Size
				mm	psi/Mpa	mm	No.-Size mm
25	33.7	40	3.38	35/500	3.0/680	58	98 45 3/8*45-2
1	1.327	10	2.77	35/500	3.0/680	2.28	3.85 1.77
32	42.4	40	3.56	35/500	4.8/1080	68	106 45 3/8*45-2
1½	44.9	10	2.77	35/500	4.8/1080	2.68	4.17 1.77
40	48.3	40	3.68	35/500	6.3/1420	74	114 45 3/8*45-2
1¾	49.9	10	2.77	35/500	6.3/1420	2.91	4.49 1.77
50	60.3	40	3.91	35/500	9.8/2210	86	126 45 3/8*55-2
2	2.375	10	2.77	35/500	9.8/2210	3.39	4.96 1.77
65	73	40	5.16	35/500	14.4/3240	98	137 45 3/8*55-2
2½	76.1	10	3.05	35/500	14.4/3240	3.86	5.39 1.77
80	88.9	—	6.35			65	73 2.875 3/8*55-2
3	3.5	—	5.08	35/500	15.7/3530	65	76.1 3 3/8*55-2
100	108	40	5.49	35/500	21.4/4800	103	141 45 3/8*55-2
4	4.25	10	3.05	35/500	21.4/4800	4.06	5.55 1.77
100	114.3	40	6.02	35/500	35.4/7950	80	88.9 3 3/8*55-2
4	4.5	10	3.05	35/500	35.4/7950	3	3.5
125	133	40	6.55	31/450	48.6/1030	100	108 4.25 1/2*65-2
5	5.25	10	3.4	31/450	48.6/1030	140	186 49 1/2*65-2
125	139.7	—	6.35	31/450	66.4/14830	143	192 49 1/2*65-2
5	5.5	—	5.08	31/450	66.4/14930	164	216 50 1/2*65-2
125	141.3	40	7.11	31/450	68.9/15500	125	133 5.25 1/2*75-2
5	5.563	10	3.4	31/450	68.9/15500	125	139.7 5.5 1/2*75-2
150	159	40	8.18	31/450	116.9/26280	172	223 50 1/2*75-2
6	6.25	30	7.04	31/450	116.9/26280	173	225 50 1/2*75-2
150	165.1	10	4.77	20/300	77.8/17500	150	159 6.25 1/2*75-2
6	6.5	40	9.27	20/300	121.0/27210	150	165.1 6.5 1/2*75-2
150	168.3	30	7.8	20/300	121.0/27210	175	246 50 1/2*75-2
6	6.625	10	4.77	20/300	121.0/27210	175	223 58 5/8*95-2
200	219.1	40	10.31	20/300	170.3/38280	199	252 50 1/2*75-2
8	8.625	STD	9.53	20/300	170.3/38280	7.83	9.92 1.96
200	223.9	255	322	58	170.3/38280	202	252 50 1/2*75-2
8	8.265	10	4.77	20/300	170.3/38280	7.95	9.92 1.96
250	273	40	10.31	20/300	170.3/38280	255	322 58 5/8*95-2
10	10.75	STD	12.51	15.74	2.44	10.04	12.67 2.28 5/8*95-2
300	323.9	30	6.35	20/300	170.3/38280	318	400 62 3/4*110-2
12	12.75	10	4.77	20/300	170.3/38280	12.51	15.74 2.44 3/4*110-2

Flexible Coupling

This kind of coupling is designed for the pipe bearing moderate pressure. It allows controlled angular, linear and rotational movement at each joint and provides the added advantages of expansion, contraction and deflection. This is useful to accommodate uneven laying surfaces, and movement from thermal changes, settling, seismic effect or other causes. Flexible coupling can be used in fire protection system, feed water, natural gas system and etc.



Flexible Coupling

Nominal Size	Pipe O.D.	Pipe Sched	Wall Thick	Working Pressure		Dimensions	Bolt Size
				mm	psi/Mpa	mm	No.-Size mm
25	33.7	40	3.38	35/500	3.0/680	58	98 45 3/8*45-2
1	1.327	10	2.77	35/500	3.0/680	2.28	3.85 1.77
32	42.4	40	3.56	35/500	4.8/1080	68	106 45 3/8*45-2
1½	44.9	10	2.77	35/500	4.8/1080	2.68	4.17 1.77
40	48.3	40	3.68	35/500	6.3/1420	74	114 45 3/8*45-2
1¾	49.9	10	2.77	35/500	6.3/1420	2.91	4.49 1.77
50	60.3	40	3.91	35/500	9.8/2210	86	126 45 3/8*55-2
2	2.375	10	2.77	35/500	9.8/2210	3.39	4.96 1.77
65	73	40	5.16	35/500	14.4/3240	98	137 45 3/8*55-2
2½	76.1	10	3.05	35/500	14.4/3240	3.86	5.39 1.77
80	88.9	—	6.35	31/450	15.7/3530	65	76.1 3 3/8*55-2
3	3.5	—	5.08	31/450	15.7/3530	103	141 45 3/8*55-2
100	108	40	6.02	35/500	21.4/4800	4.06	5.55 1.77
4	4.25	10	3.05	35/500	21.4/4800	140	186 49 1/2*65-2
100	114.3	40	6.02	35/500	35.4/7950	143	192 49 1/2*65-2
4	4.5	10	3.05	35/500	35.4/7950	164	216 50 1/2*65-2
125	133	40	6.55	31/450	48.6/1030	125	133 5.25 1/2*75-2
5	5.25	10	3.4	31/450	48.6/1030	172	223 50 1/2*75-2
125	139.7	—	6.35	31/450	66.4/14830	173	225 50 1/2*75-2
5	5.5	—	5.08	31/450	66.4/14930	150	141.3 5.563 1/2*75-2
150	159	40	7.11	31/450	68.9/15500	175	246 50 1/2*75-2
6	6.25	10	3.4	31/450	68.9/15500	175	223 58 5/8*95-2
150	165.1	40	8.18	31/450	116.9/26280	199	252 50 1/2*75-2
6	6.5	30	7.04	31/450	116.9/26280	7.83	9.92 1.96
150	168.3	10	4.77	20/300	77.8/17500	202	252 50 1/2*75-2
6	6.625	40	9.27	20/300	121.0/27210	7.95	9.92 1.96
200	219.1	30	7.8	20/300	121.0/27210	200	219.1 6.625 1/2*75-2
8	8.625	10	4.77	20/300	121.0/27210	255	322 58 5/8*95-2
250	273	40	10.31	20/300	170.3/38280	10.04	12.67 2.28 5/8*95-2
10	10.75	STD	9.53	20/300	170.3/38280	318	400 62 3/4*110-2
300	323.9	30	6.35	20/300	170.3/38280	12.51	15.74 2.44 3/4*110-2
12	12.75	10	4.77	20/300	170.3/38280	372	454 64 3/4*120-2

Nominal Size	Pipe O.D.	Pipe Sched	Wall Thick	Working Pressure		Dimensions	Bolt Size
				mm	psi/Mpa	mm	No.-Size mm
25	33.7	40	3.38	35/500	3.0/680	58	98 45 3/8*45-2
1	1.327	10	2.77	35/500	3.0/680	2.2	



→ Product size

Reducing Flexible Coupling

According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



Reducing Flexible Coupling

Nominal Size	Pipe OD.	Working Pressure	Dimensions			Bolt Size
			A	B	C	
50×32	60.3×42.4	300Psi 2.07Mpa	86	125	44	2-3/8×55
2×1 $\frac{1}{4}$	2.375×1.660		3.39	4.93	1.74	2-M10×57
50×40	60.3×48.3		86	125	44	2-3/8×55
2×1 $\frac{1}{2}$	2.375×1.900		3.39	4.93	1.74	2-M10×57
65×25	73.0×33.7		100	138	45	2-3/8×55
2 $\frac{1}{2}$ ×1	2.875×1.327		3.94	5.44	1.78	2-M10×57
65×32	73.0×42.4		100	138	45	2-3/8×55
2 $\frac{1}{2}$ ×1 $\frac{1}{4}$	2.875×1.660		3.94	5.44	1.78	2-M10×57
65×40	73.0×48.3		100	138	45	2-3/8×55
2 $\frac{1}{2}$ ×1 $\frac{1}{2}$	2.875×1.900		3.94	5.44	1.78	2-M10×57
65×50	73.0×60.3		100	138	45	2-3/8×55
2 $\frac{1}{2}$ ×2	2.875×2.375		3.94	5.44	1.78	2-M10×57
65×25	76.0×33.7		102	140	45	2-3/8×55
2 $\frac{1}{2}$ ×1	3.000×1.327		4.02	5.51	1.78	2-M10×57
65×40	76.1×48.3		102	140	45	2-3/8×55
2 $\frac{1}{2}$ ×1 $\frac{1}{2}$	3.000×1.900		4.02	5.51	1.78	2-M10×57
65×50	76.1×60.3		102	140	45	2-3/8×55
2 $\frac{1}{2}$ ×2	3.000×2.375		4.02	5.51	1.78	2-M10×57
80×25	88.9×33.7		115	168	46	2-1/2×70
3×1	3.500×1.327		4.53	6.61	1.81	2-M12×70
80×40	88.9×48.3		115	168	46	2-1/2×70
3×1 $\frac{1}{2}$	3.500×1.900		4.53	6.61	1.81	2-M12×70
80×50	88.9×60.3		115	168	46	2-1/2×70
3×2	3.500×2.375		4.53	6.61	1.81	2-M12×70
80×65	88.9×73.0		115	168	46	2-1/2×70
3×2 $\frac{1}{2}$	3.500×2.875		4.53	6.61	1.81	2-M12×70
80×65	88.9×76.1		115	168	46	2-1/2×70
3×2 $\frac{1}{2}$	3.500×3.000		4.53	6.61	1.81	2-M12×70
100×25	114.3×33.7		144	198	50	2-1/2×70
4×1	4.500×1.327		5.67	7.8	1.97	2-M12×70
100×40	114.3×48.3		144	198	50	2-1/2×70
4×1 $\frac{1}{2}$	4.500×1.900		5.67	7.8	1.97	2-M12×70
100×50	114.3×60.3		144	198	50	2-1/2×70
4×2	4.500×2.375		5.67	7.8	1.97	2-M12×70
100×65	114.3×73.0		144	198	50	2-1/2×70
4×2 $\frac{1}{2}$	4.500×2.875		5.67	7.8	1.97	2-M12×70
100×65	114.3×76.1		144	198	50	2-1/2×70
4×2 $\frac{1}{2}$	4.500×3.000		5.67	7.8	1.97	2-M12×70
100×80	114.3×88.9		144	198	50	2-1/2×70
4×3	4.500×3.500		5.67	7.8	1.97	2-M12×70
150×80	165.1×88.9		200	260	51	2-5/8×85
6×3	6.500×3.500		7.87	10.24	2.01	2-M16×85
150×100	165.1×88.9		200	260	51	2-5/8×85
6×4	6.500×4.500		7.87	10.24	2.01	2-M16×85
150×80	165.1×88.9		202.5	268	52.5	2-5/8×85
6×3	6.500×3.500		7.97	10.55	2.07	2-M16×85
150×100	165.1×114.3		202.5	268	52.5	2-5/8×85
6×4	6.500×4.500		7.97	10.55	2.07	2-M16×85
200×150	219.1×165.1		260	338	60	2-3/4×115
8×6	8.625×6.500		10.24	13.31	2.36	2-M20×115
200×150	219.1×168.3		260	338	60	2-3/4×115
8×6	8.625×6.625		10.24	13.31	2.36	2-M20×115



Product size ←

Angle Pad Coupling

This couplings available where moderate pressures are expected or weight considerations are a factor. this style couplings are designed with cross-ribbed construction to provide strong component for pressure piping systems and usually used in fire protection, feed water, oil or gas and etc.



Angle Pad Coupling

Nominal Size	Pipe OD.	Working Pressure	Dimensions			Bolt Size
			A mm	B mm	C mm	
25	33.7	300Psi 2.07Mpa	58	98	45	3/8*45-2
1	1.327		2.28	3.85	1.77	
32	42.4		68	106	45	3/8*45-2
	1.669		2.68	4.17	1.77	
40	48.3		74	114	45	3/8*45-2
	1.9		2.91	4.49	1.77	
50	60.3		86	126	45	3/8*55-2
	2.375		3.39	4.96	1.77	
65	73		98	137	45	3/8*55-2
	2.875		3.86	5.39	1.77	
80	88.9		103	141	45	3/8*55-2
	3.500		4.06	5.55	1.77	
100	114.3		114	158	45	3/8*55-2
	4.5		4.49	6.22	1.77	
125	141.3		140	186	49	1/2*65-2
	5.5		5.51	7.32	1.93	
140	165.1		143	192	49	1/2*65-2
	6.5		5.63	7.56	1.93	
164	186.5		164	216	50	1/2*75-2
	6.5		6.46	8.5	1.96	
172	209.1		172	223	50	1/2*75-2
	7.78		6.77	8.78	1.96	
173	235.5		173	225	50	1/2*75-2
	8.78		6.81	8.86	1.96	
193	264.5		193	246	50	1/2*75-2
	9.78		7.59	9.69	1.96	
199	292.5		199	252	50	1/2*75-2
	10.78		7.83	9.92	1.96	
202	320.5		202	252	50	1/2*75-2
	11.78		7.95	9.92	1.96	
255	322.5		255	322	58	5/8*95-2
	12.78		10.04	12.67	2.28	
318	400		318	400	62	3/4*110-2
	13.78		12.51	15.74	2.44	
372	454		372	454	64	3/4*120-2
	14.78		14.64	17.87	2.51	
300	323.9		12	12.75		

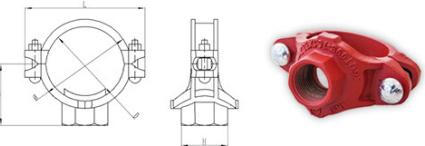
Nom. Size	Pipe O.D.	Pipe Sched	Wall Thick	Max. Work Press	Max. End Load
DN/in	mm	(sch)	mm	Bar/Psi	KN/lbs
25	33.7	40	3.38	35/500	3.0/680
		10	2.77	35/500	3.0/680
32	42.4	40	3.56	35/500	4.8/1080
		10	2.77	35/500	4.8/1080
40	48.3	40	3.68	35/500	6.3/1420
		10	2.77	35/500	6.3/1420
50	60.3	40	3.91	35/500	9.8/2210
		10	2.77	35/500	9.8/2210
65	73	40	5.16	35/500	14.4/3240
		10	3.05	35/500	14.4/3240
80	88.9	40	6.02	35/500	35.4/7950
		10	3.05	35/500	35.4/7950
100	114.3	40	7.11	31/450	68.9/15500
		10	3.05	35/500	68.9/15500
125	141.3	40	8.18	31/450	116.9/26280
		10	3.4	31/450	116.9/26280
150	165.1	40	9.35	31/450	66.4/14930
		10	5.08	31/450	66.4/14930
160	186.3	40	7.11	31/450	68.9/15500
		10	3.4	31/450	68.9/15500
150	168.3	40	8.18	31/450	116.9/26280
		10	4.77	20/300	77.8/17500
200	219.1	40	9.27	20/300	121.0/27210
		10	4.77	20/300	121.0/27210
250	273	40	10.31	20/300	170.3/38280
		10	4.77	20/300	170.3/38280
300	323.9	40	10.31	20/300	170.3/38280
		10	4.77	20/300	170.3/38280
300	323.9	STD	9.53	20/300	170.3/38280
		30	6.35	20/300	170.3/38280
300	323.9	10	4.77	20/300	170.3/38280



→ Product size

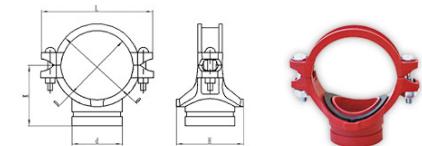
Mechanical Tee Threaded Outlet

According to different situation, the appearance can be dealt with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



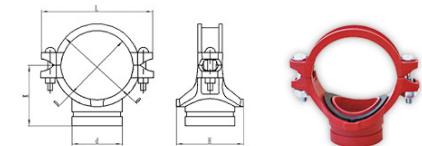
Mechanical Tee Threaded Outlet

Nominal Size	Pipe OD.	Working Pressure	Head.	Dimensions				Bolt Size
				A	B	C	D	
50×25	60.3×33.7			38	118	74	60	M10×55-2
2×1	2.375×1.315			1.5	4.64	2.91	2.38	1.57
50×32	60.3×42.4			51	118	74	60	M10×55-2
2×1 $\frac{1}{4}$	2.375×1.660			2.01	4.64	2.91	2.38	1.57
50×40	60.3×48.3			51	118	74	60	M10×55-2
2×1 $\frac{1}{2}$	2.375×1.900			2.01	4.64	2.91	2.38	1.57
65×25	73.0×33.7			38	132	74	64	M12×70-2
2 $\frac{1}{2}$ ×1	2.875×1.315			1.5	5.2	2.91	2.52	1.85
65×32	73.0×42.4			51	132	74	64	M12×70-2
2 $\frac{1}{2}$ ×1 $\frac{1}{4}$	2.875×1.660			2.01	5.2	2.91	2.52	1.85
65×40	73.0×48.3			51	132	80	64	M12×70-2
2 $\frac{1}{2}$ ×1 $\frac{1}{2}$	2.875×1.900			2.01	5.2	3.15	2.52	1.85
65×25	76.1×33.7			38	144	74	64	M12×70-2
2 $\frac{1}{2}$ ×1	3.000×1.315			1.5	5.87	2.91	2.52	1.93
65×32	76.1×42.4			51	144	74	64	M12×70-2
2 $\frac{1}{2}$ ×1 $\frac{1}{4}$	3.000×1.660			2.01	5.87	2.91	2.52	1.93
65×40	76.1×48.3			51	144	80	64	M12×70-2
2 $\frac{1}{2}$ ×1 $\frac{1}{2}$	3.000×1.900			2.01	5.87	3.15	2.52	1.93
80×15	88.9×21.3	300Psi		30	146	74	70	M12×70-2
3 $\frac{1}{2}$ ×1	3.500×0.825			1.18	5.75	2.91	2.76	2.17
80×20	88.9×26.9			30	146	74	70	M12×70-2
3 $\frac{1}{2}$ ×1 $\frac{1}{4}$	3.500×1.060			1.18	5.75	2.91	2.76	2.17
80×25	88.9×33.7			38	146	74	70	M12×70-2
3×1	3.500×1.315			1.5	5.75	2.91	2.76	2.17
80×32	88.9×42.4			51	146	86	73	M12×70-2
3 $\frac{1}{2}$ ×1 $\frac{1}{2}$	3.500×1.660			2.01	5.75	2.91	2.76	2.17
80×40	88.9×48.3			51	146	86	77	M12×70-2
3 $\frac{1}{2}$ ×1 $\frac{1}{4}$	3.500×1.900			2.01	5.75	3.39	2.03	2.17
80×50	88.9×60.3			64	146	96	80	M12×70-2
3×2	3.500×2.375			2.52	5.75	3.78	3.15	2.17
100×25	108.0×33.7			38	172	72	64	M12×75-2
4×1	4.250×1.315			1.5	8.77	2.63	2.99	2.52
100×32	108.0×42.4			51	172	82	64	M12×75-2
4×1 $\frac{1}{4}$	4.250×1.660			2.01	6.77	3.23	2.99	2.52
100×40	108.0×48.3			51	172	95	76	M12×75-2
4×1 $\frac{1}{2}$	4.250×1.900			2.01	6.77	3.74	3.19	2.52
100×50	108.0×60.3			51	172	95	78	M12×75-2
4×2	4.250×2.375			2.52	6.77	3.74	3.19	2.52



Mechanical Tee Grooved Outlet

According to different situation, the appearance can be dealt with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



Mechanical Tee Grooved Outlet

Nominal Size	Pipe OD.	Working Pressure	Head.	Dimensions				Bolt Size
				A	B	C	D	
50×25	60.3×33.7			64	213	100	106	M16×85-2
2×1	4.500×1.315			1.5	5.563	2.91	4.17	3.19
125×50	141.3×60.3			70	213	100	110	M16×85-2
2×1 $\frac{1}{4}$	4.500×1.660			2.01	7.63	4.25	4.33	3.19
125×65	141.3×76.1			70	213	100	110	M16×85-2
2×1 $\frac{1}{2}$	5.563×3.000			2.01	9.41	4.25	4.33	3.19
150×25	165.1×33.7			70	239	74	112	M16×105-2
6×1	6.500×1.315			1.5	9.41	2.91	4.17	3.74
150×32	165.1×42.4			70	239	86	113	M16×105-2
6×1 $\frac{1}{4}$	6.500×1.660			2.01	9.41	3.39	4.37	3.74
150×40	165.1×48.3			70	239	86	115	M16×105-2
6×1 $\frac{1}{2}$	6.500×1.900			2.01	9.41	3.39	4.37	3.74
150×50	165.1×60.3			70	239	108	120	M16×105-2
6×2	6.500×2.375			2.01	9.41	3.94	4.27	3.74
150×65	165.1×76.1			70	239	108	124	M16×105-2
6×2 $\frac{1}{4}$	6.500×3.000			2.01	9.41	4.25	4.87	3.74
150×80	165.1×88.9			70	239	128	123	M16×105-2
6×3	6.500×3.500			3.5	9.41	4.96	4.84	3.74
150×90	165.1×100.0			70	239	128	125	M16×105-2
6×3 $\frac{1}{2}$	6.500×3.800			2.01	9.41	3.23	4.03	3.74
150×100	165.1×120.0			70	239	128	126	M16×105-2
6×4	6.625×1.315			2.01	9.41	3.94	4.27	3.74
150×125	168.3×33.7			70	239	128	126	M16×105-2
6×4 $\frac{1}{2}$	6.625×1.660			2.01	9.41	3.94	4.27	3.74
150×140	168.3×42.4			70	239	128	126	M16×105-2
6×5	6.625×2.000			2.01	9.41	4.25	4.87	3.74
150×160	168.3×50.0			70	239	128	126	M16×105-2
6×6	6.625×2.375			2.01	9.41	3.23	4.03	3.74
150×180	168.3×60.3			70	239	128	126	M16×105-2
6×7	6.625×2.750			2.01	9.41	3.23	4.03	3.74
150×200	168.3×70.0			70	239	128	126	M16×105-2
6×8	6.625×3.000			2.01	9.41	3.23	4.03	3.74
150×220	168.3×80.0			70	239	128	126	M16×105-2
6×9	6.625×3.250			2.01	9.41	3.23	4.03	3.74
150×240	168.3×90.0			70	239	128	126	M16×105-2
6×10	6.625×3.500			2.01	9.41	3.23	4.03	3.74
150×260	168.3×100.0			70	239	128	126	M16×105-2
6×11	6.625×3.750			2.01	9.41	3.23	4.03	3.74
150×280	168.3×110.0			70	239	128	126	M16×105-2
6×12	6.625×4.000			2.01	9.41	3.23	4.03	3.74
150×300	168.3×120.0			70	239	128	126	M16×105-2
6×13	6.625×4.250			2.01	9.41	3.23	4.03	3.74
150×320	168.3×130.0			70	239	128	126	M16×105-2
6×14	6.625×4.500			2.01	9.41	3.23	4.03	3.74
150×340	168.3×140.0			70	239	128	126	M16×105-2
6×15	6.625×4.750			2.01	9.41	3.23	4.03	3.74
150×360	168.3×150.0			70	239	128	126	M16×105-2
6×16	6.625×5.000			2.01	9.41	3.23	4.03	3.74
150×380	168.3×160.0			70	239	128	126	M16×105-2
6×17	6.625×5.250			2.01	9.41	3.23	4.03	3.74
150×400	168.3×170.0			70	239	128	126	M16×105-2
6×18	6.625×5.500			2.01	9.41	3.23	4.03	3.74
150×420	168.3×180.0			70	239	128	126	M16×105-2
6×19	6.625×5.750			2.01	9.41	3.23	4.03	3.74
150×440	168.3×190.0			70	239	128	126	M16×105-2
6×20	6.625×6.000			2.01	9.41	3.23	4.03	3.74
150×460	168.3×200.0			70	239	128	126	M16×105-2
6×21	6.625×6.250			2.01	9.41	3.23	4.03	3.74
150×480	168.3×210.0			70	239	128	126	M16×105-2
6×22	6.625×6.500			2.01	9.41	3.23	4.03	3.74
150×500	168.3×220.0			70	239	128	126	M16×105-2
6×23	6.625×6.750			2.01	9.41	3.23	4.03	3.74
150×520	168.3×230.0			70	239	128	126	M16×105-2
6×24	6.625×7.000			2.01	9.41	3.23	4.03	3.74
150×540	168.3×240.0			70	239	128	126	M16×105-2
6×25	6.625×7.250			2.01	9.41	3.23	4.03	3.74
150×560	168.3×250.0			70	239	128	126	M16×105-2
6×26	6.625×7.500			2.01	9.41	3.23	4.03	3.74
150×580	168.3×260.0			70	239	128	126	M16×105-2
6×27	6.625×7.750			2.01	9.41	3.23	4.03	3.74
150×600	168.3×270.0			70	239	128	126	M16×105-2
6×28	6.625×8.000			2.01	9.41	3.23	4.03	3.74
150×620	168.3×280.0			70	239	128	126	M16×105-2
6×29	6.625×8.250			2.01	9.41	3.23	4.03	

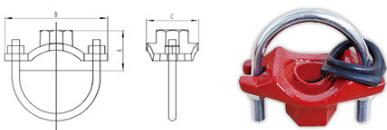


Ductile Iron Grooved Fittings and Couplings
Weifang dahai lvbingchuan machinery group co.,ltd.

→ Product size

U Bolt Mechanical Tee

According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.

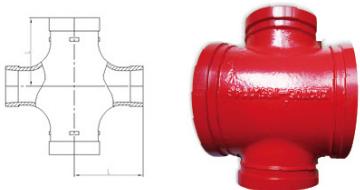


U Bolt Mechanical Tee

Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	HeleDia Mm/in +140/-2000	Dimensions mm/in			Bolt Size mm
				A mm	L mm	H mm	
32×15 1½×1½	42.4×21.3 1.660×0.825	300Psi 2.07Mpa	30 1.18	43	90	56	M10×42U
				1.69	3.54	2.2	
32×20 1½×2½	42.4×26.9 1.660×1.050	300Psi 2.07Mpa	30 1.18	43	90	56	M10×42U
				1.69	3.54	2.2	
32×25 1½×3½	42.4×33.7 1.660×1.315	300Psi 2.07Mpa	30 1.18	51	90	56	M10×42U
				2.01	3.54	2.2	
40×15 1½×1½	48.3×21.3 1.900×0.825	300Psi 2.07Mpa	30 1.18	46	90	56	M10×48U
				1.81	3.54	2.2	
40×20 1½×2½	48.3×26.9 1.900×1.050	300Psi 2.07Mpa	30 1.18	49	90	56	M10×48U
				1.93	3.54	2.2	
40×25 1½×3½	48.3×33.7 1.900×1.315	300Psi 2.07Mpa	30 1.18	54	90	56	M10×48U
				2.13	3.54	2.2	
50×15 2×1½	60.3×21.3 2.375×0.825	300Psi 2.07Mpa	30 1.18	52	96	56	M10×60U
				2.05	3.78	2.2	
50×20 2×2½	60.3×26.9 2.375×1.050	300Psi 2.07Mpa	30 1.18	52	96	56	M10×60U
				2.05	3.78	2.2	
50×25 2×3½	60.3×33.7 2.375×1.315	300Psi 2.07Mpa	30 1.18	60	96	56	M10×60U
				2.36	3.78	2.2	
65×15 2½×1½	76.1×21.3 3.000×0.825	300Psi 2.07Mpa	30 1.18	60	112	56	M10×76U
				2.36	4.41	2.2	
65×20 2½×2½	76.1×26.9 3.000×1.050	300Psi 2.07Mpa	30 1.18	60	112	56	M10×76U
				2.36	4.41	2.2	
65×25 2½×3½	76.1×33.7 3.000×1.315	300Psi 2.07Mpa	30 1.18	68	112	56	M10×76U
				2.68	4.41	2.2	

Grooved Reducing Cross

According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



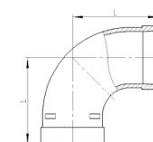
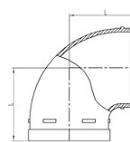
Grooved Reducing Cross

Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	Dimensions		Dimensions mm/in
			L1mm/in	L2mm/in	
100×50 4×2	114.3×60.3 4.500×2.375	300Psi 2.07Mpa	127	127	5 5
			5	5	
100×65 4×2½	114.3×76.1 4.500×3.000	300Psi 2.07Mpa	127	127	5 5
			5	5	
100×80 4×3	114.3×88.9 4.500×3.500	300Psi 2.07Mpa	127	127	5 5
			5	5	
150×100 6×4	165.1×114.3 6.500×4.500	300Psi 2.07Mpa	165	165	6.5 6.5
			6.5	6.5	
150×50 6×2	168.3×60.3 6.625×2.375	300Psi 2.07Mpa	165	165	6.5 6.5
			6.5	6.5	
150×65 6×2½	168.3×76.1 6.625×3.000	300Psi 2.07Mpa	165	165	6.5 6.5
			6.5	6.5	
150×80 6×3	168.3×88.9 6.625×3.500	300Psi 2.07Mpa	165	165	6.5 6.5
			6.5	6.5	
150×100 6×4	168.3×114.3 6.625×4.500	300Psi 2.07Mpa	165	165	6.5 6.5
			6.5	6.5	



Product size ←

90° Elbow



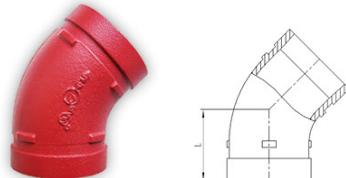
Nominal Size	Pipe OD	Working Pressure	Dimensions
mm/in	mm/in	Mpa	mm
25	33.7		57
1	1.327		2.24
32	42.4		60
1½	1.669		2.36
40	48.3		60
1½	1.9		2.36
50	60.3		70
2	2.375		2.76
65	73		76
2½	2.875		2.99
65	76.1		76
2½	3		2.99
80	88.9		86
3	3.5		3.39
100	108		102
4	4.25		4.02
100	114.3		102
4	4.5		4.02
125	133		121
5	5.25		4.76
125	139.7		121
5	5.5		4.76
125	141.3		121
5	5.563		4.76
150	159		140
6	6.25		5.51
150	165.1		140
6	6.5		5.51
150	168.3		140
6	6.625		5.51
200	219.1		175
8	8.625		6.89
250	273		215
10	10.75		8.46
300	323.9		245
12	12.75		9.65

Nominal Size	Pipe OD	Working Pressure	Dimensions
mm/in	mm/in	Mpa	mm
25	33.7		70
1	1.327		2.76
32	42.4		70
1½	1.669		2.76
40	48.3		70
1½	1.9		2.76
50	60.3		82
2	2.375		3.23
65	73		95
2½	2.875		3.74
65	76.1		95
2½	3		3.74
80	88.9		108
3	3.5		4.25
100	108		127
4	4.25		5
100	114.3		127
4	4.5		5
125	133		140
5	5.25		5.51
125	139.7		140
5	5.5		5.51
125	141.3		140
5	5.563		5.51
150	159		165
6	6.25		6.5
150	165.1		165
6	6.5		6.5
150	168.3		165
6	6.625		6.5
200	219.1		197
8	8.625		7.76
250	273		229
10	10.75		9.02
300	323.9		254
12	12.75		10



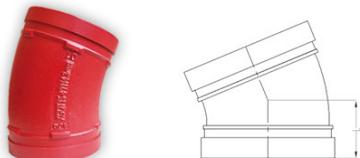
→ Product size

45° Elbow



FM Approved cUL us LISTED CE

22.5° Elbow

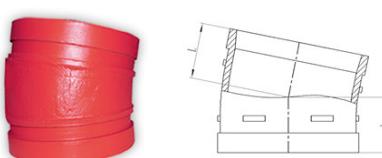


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45° Elbow

Nominal Size	Pipe OD.	Working Pressure	Dimensions
mm/in	mm/in	psi/Mpa	Lmm/in
25	33.7		45
1	1.327		1.77
32	42.4		45
1 $\frac{1}{4}$	1.669		1.77
40	48.3		45
1 $\frac{1}{2}$	1.9		1.77
50	60.3		50
2	2.375		1.97
65	73		50
2 $\frac{1}{2}$	2.875		1.97
65	76.1		50
2 $\frac{1}{2}$	3		1.97
80	88.9		60
3	3.5		2.36
100	108		70
4	4.25	300Psi 2.07Mpa	2.76
100	114.3		70
4	4.5		2.76
125	133		70
5	5.25		2.76
125	139.7		70
5	5.5		2.76
125	141.3		70
5	5.563		2.76
150	159		89
6	6.25		3.5
150	165.1		89
6	6.5		3.5
150	168.3		89
6	6.625		3.5
200	219.1		98
8	8.625		3.85
250	273		120
10	10.75		4.72
300	323.9		120
12	12.75		4.72

11.25° Elbow



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11.25° Elbow

Nominal Size	Pipe OD.	Working Pressure	Dimensions
mm/in	mm/in	psi/Mpa	Lmm/in
32	42.4		35
1 $\frac{1}{4}$	1.669		1.38
40	48.3		40
1 $\frac{1}{2}$	1.9		1.57
50	60.3		40
2	2.375		1.57
65	73		40
2 $\frac{1}{2}$	2.875		1.57
65	76.1		40
2 $\frac{1}{2}$	3		1.57
80	88.9		40
3	3.5		1.57
100	108		45
4	4.25	300Psi 2.07Mpa	1.77
100	114.3		45
4	4.5		1.77
125	133		50
5	5.25		1.97
125	139.7		50
5	5.5		1.97
150	159		50
6	6.25		1.97
150	165.1		50
6	6.5		1.97
150	168.3		50
6	6.625		1.97
200	219.1		50
8	8.625		1.97
250	273		80
10	10.75		3.15
300	323.9		80
12	12.75		3.15

Cap



Cap

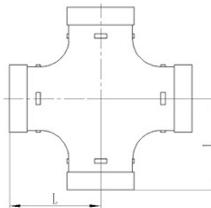
Nominal Size	Pipe OD.	Working Pressure	Dimensions
mm/in	mm/in	psi/Mpa	Lmm/in
25	33.7		25
1	1.327		0.98
32	42.4		25
1 $\frac{1}{4}$	1.669		0.98
40	48.3		25
1 $\frac{1}{2}$	1.9		0.98
50	60.3		25
2	2.375		0.98
65	73		25
2 $\frac{1}{2}$	2.875		0.98
65	76.1		25
2 $\frac{1}{2}$	3		0.98
80	88.9		25
3	3.5		0.98
100	108		27
4	4.25	300Psi 2.07Mpa	1.06
100	114.3		27
4	4.5		1.06
125	133		27
5	5.25		1.06
125	139.7		27
5	5.5		1.06
125	141.3		27
5	5.563		1.06
150	159		27
6	6.25		1.06
150	165.1		27
6	6.5		1.06
150	168.3		27
6	6.625		1.06
200	219.1		31
8	8.625		1.22
250	273		33
10	10.75		1.3
300	323.9		33
12	12.75		1.3



→ **Product size**

Cross

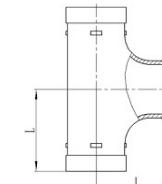
According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



Cross

Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	Dimensions Lmm/in
25	33.7	300Psi 2.07Mpa	70
1	1.327		2.76
32	42.4		70
1 $\frac{1}{4}$	1.669		2.76
40	48.3		70
1 $\frac{1}{2}$	1.9		2.76
50	60.3		82
2	2.375		3.23
65	73		95
2 $\frac{1}{2}$	2.875		3.74
65	76.1		95
2 $\frac{1}{2}$	3		3.74
80	88.9		108
3	3.5		4.25
100	108		127
4	4.25		5
100	114.3		127
4	4.5		5
125	133		140
5	5.25		5.51
125	139.7		140
5	5.5		5.51
125	141.3		140
5	5.563		5.51
150	159		165
6	6.25		6.5
150	165.1		165
6	6.5		6.5
150	168.3		165
6	6.625		6.5
200	219.1		197
8	8.625		7.76
250	273		229
10	10.75		9.02
300	323.9		254
12	12.75		10

Tee



Tee(LONG)

Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	Dimensions Lmm/in
25	33.7	300Psi 2.07Mpa	70
1	1.327		2.76
32	42.4		70
1 $\frac{1}{4}$	1.669		2.76
40	48.3		70
1 $\frac{1}{2}$	1.9		2.76
50	60.3		82
2	2.375		3.23
65	73		95
2 $\frac{1}{2}$	2.875		3.74
65	76.1		95
2 $\frac{1}{2}$	3		3.74
80	88.9		108
3	3.5		4.25
100	108		127
4	4.25		5
100	114.3		127
4	4.5		5
125	133		140
5	5.25		5.51
125	139.7		140
5	5.5		5.51
125	141.3		140
5	5.563		5.51
150	159		165
6	6.25		6.5
150	165.1		165
6	6.5		6.5
150	168.3		165
6	6.625		6.5
200	219.1		197
8	8.625		7.76
250	273		229
10	10.75		9.02
300	323.9		254
12	12.75		10

Tee(SHORT)

Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	Dimensions Lmm/in
25	33.7	300Psi 2.07Mpa	57
1	1.327		2.24
32	42.4		60
1 $\frac{1}{4}$	1.669		2.36
40	48.3		60
1 $\frac{1}{2}$	1.9		2.36
50	60.3		70
2	2.375		2.76
65	73		76
2 $\frac{1}{2}$	2.875		2.99
65	76.1		76
2 $\frac{1}{2}$	3		2.99
80	88.9		86
3	3.5		3.39
100	108		102
4	4.25		4.02
100	114.3		102
4	4.5		4.02
125	133		121
5	5.25		4.76
125	139.7		121
5	5.5		4.76
125	141.3		121
5	5.563		4.76
150	159		140
6	6.25		5.51
150	165.1		140
6	6.5		5.51
150	168.3		140
6	6.625		5.51
200	219.1		175
8	8.625		6.89
250	273		215
10	10.75		8.46
300	323.9		245
12	12.75		9.65

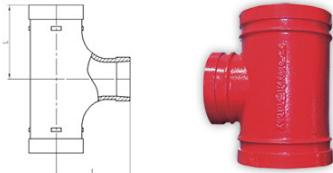
According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



→ Product size

Grooved Reducing Tee

According to different situation, the appearance can be dealt with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



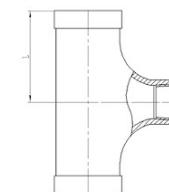
Grooved Reducing Tee

Nominal Size	Pipe OD.	Working Pressure	Dimensions	
			L1mm/in	L2mm/in
50×25	60.3×33.7	82	82	
2×1	2.375×1.315	3.23	3.23	
50×32	60.3×42.4	82	82	
2×1	2.375×1.660	3.23	3.23	
50×40	60.3×48.3	82	82	
2×1	2.375×1.900	3.23	3.23	
65×32	73.0×42.4	95	95	
2×1	2.875×1.660	3.74	3.74	
65×40	73.0×48.3	95	95	
2×1	2.875×1.900	3.74	3.74	
65×50	73.0×60.3	95	95	
2×1	2.875×2.375	3.74	3.74	
65×32	76.1×42.4	95	95	
2×1	3.000×1.660	3.74	3.74	
65×40	76.1×48.3	95	95	
2×1	3.000×1.900	3.74	3.74	
65×50	76.1×60.3	95	95	
2×1	3.000×2.375	3.74	3.74	
80×50	88.9×60.3	108	108	
3×1	3.500×1.900	4.25	4.25	
80×60	88.9×63.0	108	108	
3×2	3.500×2.375	4.25	4.25	
80×65	88.9×76.1	108	108	
3×2	3.500×3.000	4.25	4.25	300Psi
100×65	108.0×76.1	127	127	2.07Mpa
4×2	4.250×3.000	5	5	
100×80	108.0×88.9	127	127	
4×3	4.250×3.500	5	5	
100×100	114.3×60.3	127	127	
4×2	4.500×2.375	5	5	
100×65	114.3×76.1	127	127	
4×2	4.500×3.000	5	5	
100×80	114.3×88.9	127	127	
4×3	4.500×3.500	5	5	
125×50	133.0×60.3	140	140	
5×2	5.250×2.375	5.51	5.51	
125×60	133.0×76.1	140	140	
5×2	5.250×3.000	5.51	5.51	
125×100	133.0×108.0	140	140	
5×4	5.250×4.250	5.51	5.51	
125×100	133.0×114.3	140	140	
5×4	5.250×4.500	5.51	5.51	
125×50	139.7×60.3	140	140	
5×4	5.500×2.375	5.51	5.51	
125×65	139.7×76.1	140	140	
5×2	5.500×3.000	5.51	5.51	
125×80	139.7×88.9	140	140	
5×3	5.500×3.500	5.51	5.51	
125×100	139.7×114.3	140	140	
5×4	5.500×4.500	5.51	5.51	

Nominal Size	Pipe OD.	Working Pressure	Dimensions	
			L1mm/in	L2mm/in
125×50	141.3×60.3	140	140	
5×2	5.563×2.375	5.51	5.51	
125×65	141.3×73.0	140	140	
5×2	5.563×2.875	5.51	5.51	
125×80	141.3×76.1	140	140	
5×2	5.563×3.000	5.51	5.51	
125×100	141.3×89.9	140	140	
5×3	5.563×3.500	5.51	5.51	
125×100	141.3×114.3	140	140	
5×2	5.563×4.500	5.51	5.51	
150×65	159.0×76.1	165	165	
6×2	6.250×3.000	6.5	6.5	
150×80	159.0×88.9	165	165	
6×3	6.250×3.500	6.5	6.5	
150×100	159.0×108.0	165	165	
6×4	6.250×4.250	6.5	6.5	
150×100	159.0×114.3	165	165	
6×4	6.250×4.500	6.5	6.5	
150×50	165.1×60.3	165	165	
6×2	6.500×2.375	6.5	6.5	
150×65	165.1×76.1	165	165	
6×2	6.500×3.000	6.5	6.5	
150×80	165.1×88.9	165	165	
6×3	6.500×3.500	6.5	6.5	
150×100	165.1×114.3	165	165	
6×4	6.500×4.500	6.5	6.5	
150×125	165.1×139.7	165	165	
6×5	6.500×5.500	6.5	6.5	
150×50	168.3×60.3	165	165	
6×2	6.625×2.375	6.5	6.5	
150×65	168.3×76.1	165	165	
6×3	6.625×3.000	6.5	6.5	
150×80	168.3×88.9	165	165	
6×4	6.625×3.500	6.5	6.5	
150×100	168.3×114.3	165	165	
6×4	6.625×4.500	6.5	6.5	
150×125	168.3×139.7	165	165	
6×5	6.625×5.500	6.5	6.5	
150×150	168.3×165.1	165	165	
6×6	6.625×6.500	6.76	6.76	
150×150	168.3×188.3	165	165	
6×3	6.625×3.500	6.76	6.76	
200×100	210.1×114.3	197	197	
8×4	8.625×4.500	7.76	7.76	
200×125	210.1×139.7	197	197	
8×5	8.625×5.500	7.76	7.76	
200×150	210.1×165.1	197	197	
8×6	8.625×6.500	7.76	7.76	
200×150	210.1×188.3	197	197	
8×6	8.625×6.625	7.76	7.76	
250×100	273.0×114.3	229	229	
10×4	10.750×4.500	9.02	9.02	
250×125	273.0×139.7	229	229	
10×5	10.750×5.500	9.02	9.02	
250×150	273.0×165.1	229	229	
10×6	10.750×6.500	9.02	9.02	

Threaded Reducing Tee

According to different situation, the appearance can be dealt with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



Threaded Reducing Tee

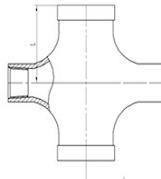
Nominal Size	Pipe OD.	Working Pressure	Dimensions	
			L1mm/in	L2mm/in
40×25	48.3×33.7		70	70
1½×1	1.900×1.315		2.76	2.76
40×32	48.3×42.4		70	70
1½×1	1.900×1.660		2.76	2.76
50×25	60.3×33.7		82	82
2×1	2.375×1.315		3.23	3.23
50×32	60.3×42.4		82	82
2×1	2.375×1.660		3.23	3.23
50×40	60.3×48.3		82	82
2×1	2.375×1.900		3.23	3.23
65×25	73.0×33.7		95	95
2½×1	2.875×1.315		3.74	3.74
65×32	73.0×42.4		95	95
2½×1	2.875×1.660		3.74	3.74
65×40	73.0×48.3		95	95
2½×1	2.875×1.900		3.74	3.74
65×50	73.0×60.3		95	95
2½×1	2.875×2.375		3.74	3.74
65×65	73.0×76.1		95	95
3×2	2.875×3.000		3.74	3.74
65×80	76.1×33.7	300Psi	95	95
2½×2	2.875×2.375	2.07Mpa	3.74	3.74
80×25	88.9×33.7		108	108
3×1	3.500×1.315		4.25	4.25
80×32	88.9×42.4		108	108
3×2	3.500×1.660		4.25	4.25
80×40	88.9×48.3		108	108
3×3	3.500×1.900		4.25	4.25
80×50	88.9×60.3		108	108
3×4	3.500×2.375		4.25	4.25
80×65	88.9×76.1		108	108
3×5	3.500×3.000		4.25	4.25
100×65	108.0×60.3		127	127
6×2	6.250×2.375		5	5
100×80	108.0×88.9		127	127
6×3	6.250×3.000		5	5
100×100	114.3×60.3		127	127
6×4	6.250×2.375		5	5
100×125	114.3×114.3		127	127
6×5	6.250×4.250		5	5
100×150	114.3×139.7		127	127
6×6	6.250×5.500		5	5
100×200	114.3×165.1		127	127
6×7	6.250×6.500		5	5
100×250	114.3×188.3		127	127
6×8	6.250×6.625		5	5
125×65	139.7×60.3		140	140
8×4	8.625×4.500		7.76	7.76
125×80	139.7×88.9		140	140
8×5	8.625×5.500		7.76	7.76
125×100	139.7×114.3		140	140
8×6	8.625×6.500		7.76	7.76
125×125	139.7×139.7		140	140
8×7	8.625×7.500		7.76	7.76
125×150	139.7×165.1		140	140
8×8	8.625×8.500		7.76	7.76
125×200	139.7×188.3		140	140
8×9	8.625×8.625		7.76	7.76
125×250	139.7×211.9		140	140
8×10	8.625×9.500		7.76	7.76
125×300	139.7×235.7		140	140
8×11	8.625×10.500		7.76	7.76
125×350	139.7×259.5		140	140
8×12	8.625×11.500		7.76	7.76
125×400	139.7×283.3		140	140
8×13	8.625×12.500		7.76	7.76
125×450	139.7×307.1		140	140
8×14	8.625×13.500		7.76	7.76
125×500	139.7×330.9		140	140
8×15	8.625×14.500		7.76	7.76
125×550	139.7×354.7		140	140
8×16	8.625×15.500		7.76	7.76
125×600	139.7×378.5		140	140
8×17	8.625×16.500		7.76	7.76
125×650	139.7×392.3		140	140
8×18	8.625×17.500		7.76	7.76
125×700	139.7×406.1		140	140
8×19	8.625×18.500		7.7	



→ Product size

Threaded Reducing Cross

According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.

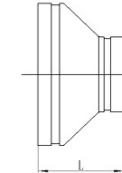


Threaded Reducing Cross

Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	Dimensions L1mm/in	Dimensions L2mm/in
100×25 4×1	114.3×33.7 4.500×1.315		127 5	127 5
100×32 4×1½	114.3×42.4 4.500×1.315		127 5	127 5
100×40 4×1½	114.3×48.3 4.500×1.900		127 5	127 5
100×50 4×2	114.3×60.3 4.500×2.375		127 5	127 5
100×65 4×2½	114.3×76.1 4.500×3.000		127 5	127 5
100×80 4×3	114.3×88.9 4.500×3.500		127 5	127 5
125×32 5×1¼	139.7×42.4 5.500×1.315	300Psi 2.07Mpa	140 5.51	140 5.51
125×40 5×1½	139.7×48.3 5.500×1.900		140 5.51	140 5.51
125×50 5×2	139.7×60.3 5.500×2.375		140 5.51	140 5.51
125×65 5×2½	139.7×76.1 5.500×3.000		140 5.51	140 5.51
125×80 5×3	139.7×88.9 5.500×3.500		140 5.51	140 5.51
150×25 6×1	165.1×33.7 6.500×1.315		165 6.5	165 6.5
150×32 6×1½	165.1×42.4 6.500×1.315		165 6.5	165 6.5
150×40 6×1½	165.1×48.3 6.500×1.900		165 6.5	165 6.5
150×50 6×2	165.1×60.3 6.500×2.375		165 6.5	165 6.5
150×65 6×2½	165.1×76.1 6.500×3.000		165 6.5	165 6.5
150×80 6×3	165.1×88.9 6.500×3.500		165 6.5	165 6.5

Grooved Concentric Reducer

According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



Product size ←

Grooved Concentric Reducer

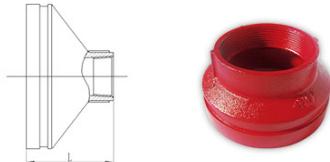
Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimensions Lmm/in	Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimensions Lmm/in	Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimensions Lmm/in
32×25 1½×1	42.4×33.7 1.660×1.315		64 2.51	100×40 1½×1	114.3×48.3 4.500×1.900		76 2.99	150×65 6×2½	165.1×76.1 6.500×3.000		102 4.01
40×25 1½×1	48.3×33.7 1.900×1.315		64 2.51	100×50 4×2	114.3×60.3 4.500×2.375		76 2.99	150×80 6×3	165.1×88.9 6.500×3.500		102 4.01
40×32 1½×1½	48.3×42.4 1.900×1.660		64 2.51	100×65 4×2½	114.3×76.1 4.500×3.000		76 2.99	150×100 6×4	165.1×114.3 6.500×4.500		102 4.01
50×25 2×1	60.3×33.7 2.375×1.315		64 2.51	100×80 4×3	114.3×88.9 4.500×3.500		76 2.99	150×125 6×5	165.1×139.7 6.500×5.500		102 4.01
50×32 2×1½	60.3×42.4 2.375×1.660		64 2.51	125×50 5×2	139.7×60.3 5.500×2.375		89 3.5	150×50 6×6	168.3×60.3 6.625×2.375		102 4.01
50×40 2×1½	60.3×48.3 2.375×1.900		64 2.51	125×65 5×2½	139.7×76.1 5.500×3.000		89 3.5	150×65 6×7	168.3×76.1 6.625×3.000		102 4.01
65×25 2½×1	73.0×33.7 2.875×1.315		64 2.51	125×80 5×3	139.7×88.9 5.500×3.500		89 3.5	150×80 6×8	168.3×88.9 6.625×3.500		102 4.01
65×32 2½×1½	73.0×42.4 2.875×1.660		64 2.51	125×100 5×4	139.7×114.3 5.500×4.500		89 3.5	150×100 6×9	168.3×114.3 6.625×4.500		102 4.01
65×40 2½×1½	73.0×48.3 2.875×1.900		64 2.51	125×50 5×2	141.3×60.3 5.563×2.375		89 3.5	150×125 6×10	168.3×139.7 6.625×5.500		102 4.01
65×50 2½×2	73.0×60.3 2.875×2.375		64 2.51	125×65 5×2½	141.3×76.1 5.563×3.000		89 3.5	200×50 8×2	219.1×60.3 8.625×2.375		127 5
65×65 2½×2½	76.1×48.3 3.000×1.900		64 2.51	125×80 5×3	141.3×86.9 5.563×3.500		89 3.5	200×65 8×3	219.1×88.9 8.625×3.500		127 5
65×80 2½×3	76.1×60.3 3.000×2.375		64 2.51	125×100 5×4	141.3×114.3 5.563×4.500		89 3.5	200×80 8×4	219.1×114.3 8.625×4.500		127 5
80×32 3×1½	88.9×42.4 3.500×1.660		64 2.51	125×50 5×2½	141.3×60.3 5.563×2.375		89 3.5	200×100 8×5	219.1×139.7 8.625×5.500		127 5
80×40 3×1½	88.9×48.3 3.500×1.900		64 2.51	125×65 6×2	159.0×60.3 6.250×2.375		102 4.01	200×80 8×6	219.1×165.1 8.625×6.250		127 5
80×50 3×2	88.9×60.3 3.500×2.375		64 2.51	125×80 6×3	159.0×76.1 6.250×3.000		102 4.01	200×100 8×7	219.1×108.0 8.625×4.250		127 5
80×65 3×2½	88.9×76.1 3.500×3.000		64 2.51	125×100 6×4	159.0×88.9 6.250×4.250		102 4.01	200×125 8×8	219.1×114.3 8.625×4.500		127 5
100×65 4×2½	108.0×76.1 4.250×3.000		76 2.99	125×50 6×5	159.0×114.3 6.250×5.250		102 4.01	200×100 8×9	219.1×139.7 8.625×5.500		127 5
100×80 4×3	108.0×88.9 4.250×3.500		76 2.99	125×65 6×6	159.0×133.0 6.250×5.250		102 4.01	200×125 8×10	219.1×166.3 8.625×6.250		127 5
100×100 4×4	108.0×108.0 4.250×4.250		76 2.99	125×80 6×7	159.0×139.7 6.250×5.500		102 4.01	200×100 8×11	219.1×165.1 8.625×6.500		127 5
100×125 4×5	108.0×133.0 4.250×5.250		76 2.99	125×100 6×8	159.0×159.0 6.250×6.250		102 4.01	200×125 8×12	219.1×168.3 8.625×6.625		127 5



→ Product size

Threaded Concentric Reducer

According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



Threaded Concentric Reducer

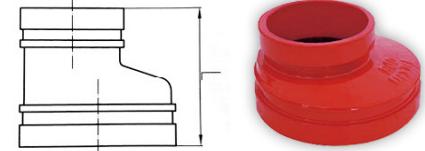
Nominal Size	Pipe OD	Working Pressure	Dimensions	Nominal Size	Pipe OD	Working Pressure	Dimensions	Nominal Size	Pipe OD	Working Pressure	Dimensions
mm/in	mm/in	psi/Mpa	Lmm/in	mm/in	mm/in	psi/Mpa	Lmm/in	mm/in	mm/in	psi/Mpa	Lmm/in
32×25	42.4×33.7	64		100×25	114.3×33.7	76	150×32	159.0×42.4	102		
1½×1	1.660×1.315	2.51		4×1	4.500×1.315	2.99	6×1½	6.250×1.660	4.01		
40×32	48.3×42.4	64		100×32	114.3×42.4	76	150×40	159.0×48.3	102		
1½×1½	1.900×1.660	2.51		4×1½	4.500×1.660	2.99	6×1½	6.250×1.900	4.01		
50×25	60.3×33.7	64		100×40	114.3×48.3	76	150×50	159.0×60.3	102		
2×1	2.375×1.315	2.51		100×50	114.3×60.3	76	6×2	6.250×2.375	4.01		
50×32	60.3×42.4	64		100×60	114.3×88.9	76	150×65	159.0×76.1	102		
2×1½	2.375×1.660	2.51		4×2	4.500×2.375	2.99	6×2½	6.250×3.000	4.01		
50×40	60.3×48.3	64		5×1	5.250×1.315	3.5	150×80	159.0×88.9	102		
2×1½	2.375×1.900	2.51		125×32	133.0×33.7	89	6×3	6.250×3.500	4.01		
65×25	73.0×33.7	64		5×1½	5.250×1.660	3.5	150×40	165.1×48.3	102		
2½×1	2.875×1.315	2.51		100×80	114.3×88.9	76	150×25	165.1×33.7	102		
65×32	73.0×42.4	64		4×3	4.500×3.500	2.99	6×1	6.500×1.315	4.01		
2½×1½	2.875×1.660	2.51		125×50	133.0×33.7	89	150×65	165.1×42.4	102		
65×40	73.0×48.3	64		5×2	5.250×2.375	3.5	6×1½	6.500×1.660	4.01		
2½×1½	2.875×1.900	2.51		125×60	133.0×42.4	89	150×80	165.1×88.9	102		
65×50	73.0×60.3	64		5×1	5.250×1.660	3.5	6×3	6.500×1.900	4.01		
2½×2	2.875×2.375	2.51		125×80	139.7×42.4	89	150×100	165.1×114.3	102		
65×25	76.1×33.7	64		5×1½	5.500×1.660	3.5	6×4	6.500×4.500	4.01		
2½×1	3.000×1.315	2.51		125×40	139.7×48.3	89	150×25	168.3×33.7	102		
65×32	76.1×42.4	64		5×1½	5.500×1.900	3.5	6×1	6.625×1.315	4.01		
2½×1½	3.000×1.660	2.51		125×50	139.7×60.3	89	150×50	168.3×42.4	102		
65×40	76.1×48.3	64	300Psi	5×2	5.500×2.375	3.5	6×2	6.625×3.000	4.01		
2½×1½	3.000×1.900	2.51	2.07Mpa	125×60	139.7×42.4	89	150×80	168.3×88.9	102		
65×50	76.1×60.3	64	300Psi	5×1	5.500×1.660	3.5	6×4	6.625×4.500	4.01		
2½×2	3.000×2.375	2.51	2.07Mpa	125×80	139.7×48.3	89	150×100	168.3×114.3	102		
80×25	88.9×33.7	64		5×1½	5.500×1.900	3.5	6×1	6.625×1.315	4.01		
3×1	3.500×1.315	2.51		125×100	139.7×60.3	89	150×125	176.3×76.1	102		
80×32	88.9×42.4	64		5×2	5.500×2.375	3.5	6×2	6.625×1.660	4.01		
3×1½	3.500×1.660	2.51		125×125	139.7×76.1	89	6×3	6.625×3.500	4.01		
80×40	88.9×48.3	64		5×1	5.500×3.000	3.5	6×4	6.625×4.500	4.01		
3×1½	3.500×1.900	2.51		125×150	139.7×88.9	89	150×150	176.3×114.3	102		
80×50	88.9×60.3	64		5×2	5.500×1.900	3.5	6×2	6.625×3.500	4.01		
3×2	3.500×2.375	2.51		125×175	139.7×114.3	89	6×5	6.625×5.500	4.01		
80×65	88.9×76.1	64		5×1	5.500×3.000	3.5	6×4	6.625×4.500	4.01		
3×2½	3.500×3.000	2.51		125×200	141.3×33.7	89	150×175	176.3×142.4	102		
100×25	108.0×33.7	76		5×1½	5.563×1.315	3.5	6×1	6.625×1.660	4.01		
4×1	4.250×1.315	2.99		125×32	141.3×42.4	89	150×200	179.0×48.3	102		
100×32	108.0×42.4	76		5×1½	5.563×1.660	3.5	6×1½	6.625×1.900	5		
4×1½	4.250×1.660	2.99		125×40	141.3×48.3	89	150×50	179.0×60.3	102		
100×40	108.0×48.3	76		5×1	5.563×1.900	3.5	6×2	6.625×2.375	5		
4×1½	4.250×1.900	2.99		125×50	141.3×60.3	89	150×80	179.0×88.9	102		
100×50	108.0×60.3	76		5×2	5.563×2.375	3.5	6×3	6.625×3.500	5		
4×2	4.250×2.375	2.99		125×60	141.3×76.1	89	150×100	179.0×108.0	102		
100×65	108.0×76.1	76		5×1½	5.563×3.000	3.5	6×2	6.625×4.500	5		
4×2½	4.250×3.000	2.99		125×80	141.3×88.9	89	150×125	179.0×139.7	102		
100×80	108.0×86.9	76		5×3	5.563×3.500	3.5	6×4	6.625×4.500	5		
4×3	4.250×3.500	2.99		125×100	150.9×33.7	102	100×32	114.3×42.4	76		
				6×1	6.250×1.315	4.01	4×1½	4.500×1.660	2.99		



Product size ←

Grooved Eccentric Reducer

According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



Grooved Eccentric Reducer

Nominal Size	Pipe OD	Working Pressure	Dimensions	Nominal Size	Pipe OD	Working Pressure	Dimensions	Nominal Size	Pipe OD	Working Pressure	Dimensions
mm/in	mm/in	psi/Mpa	Lmm/in	mm/in	mm/in	psi/Mpa	Lmm/in	mm/in	mm/in	psi/Mpa	Lmm/in
32×25	42.4×33.7	64		100×25	114.3×33.7	76	150×32	159.0×42.4	102		
1½×1	1.660×1.315	2.51		4×1	4.500×1.315	2.99	6×1½	6.250×1.660	4.01		
40×32	48.3×42.4	64		100×32	114.3×42.4	76	150×40	159.0×48.3	102		
1½×1½	1.900×1.660	2.51		4×1½	4.500×1.660	2.99	6×1½	6.250×1.900	4.01		
50×25	60.3×33.7	64		100×40	114.3×48.3	76	150×50	159.0×60.3	102		
2×1	2.375×1.315	2.51		100×50	114.3×60.3	76	6×2	6.250×2.375	4.01		
50×32	60.3×42.4	64		100×60	114.3×88.9	76	150×65	159.0×76.1	102		
2×1½	2.375×1.660	2.51		4×2	4.500×2.375	2.99	6×3	6.250×3.000	4.01		
50×40	60.3×48.3	64		5×1	5.250×1.315	3.5	150×80	159.0×88.9	102		
2×1½	2.375×1.900	2.51		125×32	133.0×33.7	89	6×4	6.250×3.500	4.01		
65×25	73.0×33.7	64		5×2	5.250×2.375	3.5	150×100	165.1×42.4	102		
2½×1	2.875×1.315	2.51		125×50	133.0×60.3	89	6×1	6.625×1.315	4.01		
65×32	73.0×42.4	64		5×1½	5.250×1.660	3.5	150×125	165.1×76.1	102		
2½×1½	2.875×1.660	2.51		125×60	133.0×88.9	89	6×2	6.625×3.000	4.01		
65×40	73.0×48.3	64		5×3	5.250×2.375	3.5	150×150	165.1×114.3	102		
2½×2	2.875×1.900	2.51		125×80	139.7×42.4	89	6×4	6.625×4.500	4.01		
65×50	73.0×60.3	64		5×1	5.250×1.900	3.5	150×175	176.3×76.1	102		
2×2½	3.000×1.315	2.51		125×100	139.7×88.9	89	6×5	6.625×5.500	4.01		
65×65	73.0×76.1	64		5×2	5.250×2.375	3.5	150×200	179.0×88.9	102		
2×3	3.500×1.315	2.51		125×125	139.7×114.3	89	6×6	6.625×4.500	4.01		
65×80	73.0×86.9	64		5×1½	5.250×3.000	3.5	150×150	179.0×139.7	102		
2×4	3.500×1.660	2.51		125×150	141.3×33.7	89	6×7	6.625×6.250	4.01		
65×100	73.0×108.0	64		5×2½	5.250×4.500	3.5	150×175	179.0×165.1	102		
2×5	3.500×2.375	2.51		125×175	141.3×88.9	89	6×8	6.625×6.500	5		
65×125	73.0×133.0	64		5×3	5.250×3.500	3.5	150×200	179.0×188.9	102		
2×6	3.500×3.000	2.51		125×200	141.3×114.3	89	6×9	6.625×4.250	5		
65×165	73.0×165.1	64		5×4	5.250×4.500	3.5	150×225	179.0×200.0	102		
2×7	3.500×4.500	2.51		125×225	141.3×142.4	89	6×10	6.625×5.500	5		
65×225	73.0×200.0	64		5×5	5.250×6.250	3.5	150×250	179.0×225.0	102		
2×8	3.500×6.250	2.51		125×250	141.3×168.3	89	6×11</				

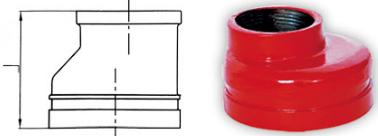


Ductile Iron Grooved Fittings and Couplings
Weifang dahai lvbingchuan machinery group co.,ltd.

→ Product size

Threaded Eccentric Reducer

According to different situation, the appearance can be dealled with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



Threaded Eccentric Reducer

Nominal Size	Pipe OD	Working Pressure	Dimensions	Nominal Size	Pipe OD	Working Pressure	Dimensions	Nominal Size	Pipe OD	Working Pressure	Dimensions
mm/in	mm/in	psi/Mpa	Lmm/in	mm/in	mm/in	psi/Mpa	Lmm/in	mm/in	mm/in	psi/Mpa	Lmm/in
32 x 25	42.4 x 33.7			64	100 x 25	114.3 x 33.7		76	150 x 32	159.0 x 42.4	
1½" x 1	1.660 x 1.315			2.51	4 x 1	4.500 x 1.315		2.99	6 x 1½"	6.250 x 1.660	4.01
40 x 32	48.3 x 42.4			64	100 x 32	114.3 x 42.4		76	150 x 40	159.0 x 48.3	
1½" x 1¼"	1.900 x 1.660			2.51	4 x 1½"	4.500 x 1.660		2.99	6 x 1½"	6.250 x 1.900	4.01
50 x 25	60.3 x 33.7			64	100 x 40	114.3 x 48.3		76	150 x 50	159.0 x 60.3	
2 x 1	2.375 x 1.315			2.51	4 x 1½"	4.500 x 1.900		2.99	6 x 2	6.250 x 2.375	4.01
50 x 32	60.3 x 42.4			64	100 x 50	114.3 x 60.3		76	150 x 65	159.0 x 76.1	
2 x 1½"	2.375 x 1.660			2.51	4 x 2	4.500 x 2.375		2.99	6 x 2½"	6.250 x 3.000	4.01
50 x 40	60.3 x 48.3			64	100 x 65	114.3 x 76.1		76	150 x 80	159.0 x 86.9	
2 x 1½"	2.375 x 1.900			2.51	4 x 2½"	4.500 x 3.000		2.99	6 x 3	6.250 x 3.500	4.01
65 x 25	73.0 x 33.7			64	100 x 80	114.3 x 88.9		76	150 x 25	165.1 x 33.7	
2½" x 1	2.875 x 1.315			2.51	4 x 3	4.500 x 3.500		2.99	6 x 1	6.500 x 1.315	4.01
65 x 32	73.0 x 42.4			64	125 x 25	133.0 x 33.7		89	150 x 32	165.1 x 42.4	
2½" x 1½"	2.875 x 1.660			2.51	5 x 1	5.250 x 1.315		3.5	6 x 1½"	6.500 x 1.660	4.01
65 x 40	73.0 x 48.3			64	125 x 32	133.0 x 42.4		89	150 x 40	165.1 x 48.3	
2½" x 1½"	2.875 x 1.900			2.51	5 x 1½"	5.250 x 1.660		3.5	6 x 1½"	6.500 x 1.900	4.01
65 x 50	73.0 x 60.3			64	125 x 40	133.0 x 48.3		89	150 x 50	165.1 x 60.3	
2½" x 2	2.875 x 2.375			2.51	5 x 1½"	5.250 x 1.900		3.5	6 x 2	6.500 x 2.375	4.01
65 x 25	76.1 x 33.7			64	125 x 50	133.0 x 60.3		89	150 x 65	165.1 x 76.1	
2½" x 1	3.000 x 1.315			2.51	5 x 2	5.250 x 2.375		3.5	6 x 2½"	6.500 x 3.000	4.01
65 x 32	76.1 x 42.4			64	125 x 25	139.7 x 33.7		89	150 x 80	165.1 x 86.9	
2½" x 1¼"	3.000 x 1.660			2.51	5 x 1	5.500 x 1.315		3.5	6 x 3	6.500 x 3.500	4.01
65 x 40	76.1 x 48.3			64	125 x 32	139.7 x 42.4		89	150 x 100	165.1 x 114.3	
2½" x 1½"	3.000 x 1.900	300Psi 2.07Mpa	2.07Mpa	2.51	5 x 1½"	5.500 x 1.660		3.5	6 x 4	6.500 x 4.500	4.01
65 x 50	76.1 x 60.3			64	125 x 40	139.7 x 48.3		89	150 x 25	168.3 x 33.7	
2½" x 2	3.000 x 2.375			2.51	5 x 1½"	5.500 x 1.900		3.5	6 x 1	6.625 x 1.315	4.01
80 x 25	88.9 x 33.7			64	125 x 50	139.7 x 60.3		89	150 x 32	168.3 x 42.4	
3 x 1	3.500 x 1.315			2.51	5 x 2	5.500 x 2.375		3.5	6 x 1½"	6.625 x 1.660	4.01
80 x 32	88.9 x 42.4			64	125 x 65	139.7 x 76.1		89	150 x 40	168.3 x 48.3	
3 x 1½"	3.500 x 1.660			2.51	5 x 2½"	5.500 x 3.000		3.5	6 x 1½"	6.625 x 1.900	4.01
80 x 40	88.9 x 48.3			64	125 x 80	139.7 x 88.9		89	150 x 50	168.3 x 60.3	
3 x 1½"	3.500 x 1.900			2.51	5 x 3	5.500 x 3.500		3.5	6 x 2	6.625 x 2.375	4.01
80 x 50	88.9 x 60.3			64	125 x 100	139.7 x 114.3		89	200 x 25	219.1 x 33.7	
3 x 2	3.500 x 2.375			2.51	5 x 4	5.500 x 4.500		3.5	8 x 1	8.625 x 1.315	5
80 x 65	88.9 x 76.1			64	125 x 25	141.3 x 33.7		89	200 x 32	219.1 x 42.4	
3 x 2½"	3.500 x 3.000			2.51	5 x 1	5.563 x 1.315		3.5	8 x 1½"	8.625 x 1.660	5
100 x 25	108.0 x 33.7			76	125 x 32	141.3 x 42.4		89	200 x 40	219.1 x 48.3	
4 x 1	4.250 x 1.315			2.99	5 x 1½"	5.563 x 1.660		3.5	8 x 1½"	8.625 x 1.900	5
100 x 32	108.0 x 42.4			76	125 x 40	141.3 x 48.3		89	200 x 50	219.1 x 60.3	
4 x 1½"	4.250 x 1.660			2.99	5 x 1½"	5.563 x 1.900		3.5	8 x 2	8.625 x 2.375	5
100 x 40	108.0 x 48.3			76	125 x 50	141.3 x 60.3		89	200 x 50	219.1 x 60.3	
4 x 1½"	4.250 x 1.900			2.99	5 x 2	5.563 x 2.375		3.5	8 x 2	8.625 x 2.375	5
100 x 50	108.0 x 60.3			76	125 x 65	141.3 x 76.1		89	200 x 65	219.1 x 76.1	
4 x 2	4.250 x 2.375			2.99	5 x 2½"	5.563 x 3.000		3.5	8 x 2½"	8.625 x 3.000	5
100 x 65	108.0 x 76.1			76	125 x 80	141.3 x 88.9		89	200 x 80	219.1 x 88.9	
4 x 2½"	4.250 x 3.000			2.99	5 x 3	5.563 x 3.500		3.5	8 x 3	8.625 x 3.500	5
100 x 80	108.0 x 88.9			76	125 x 100	159.0 x 33.7		102	200 x 100	219.1 x 114.3	
4 x 3	4.250 x 3.500			2.99	6 x 1	6.250 x 1.315		4.01	8 x 4	8.625 x 4.500	5



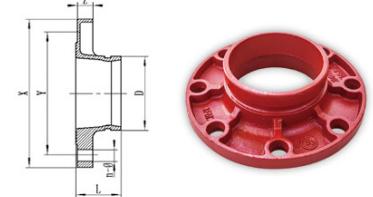
Product size ←

PN16 Adaptor Flange

All usual measurements of bolts and nuts of flanges in this handbook are the fitting measurement of international flange rated pressure 1.6Mpa. According to installation, you can choose other rated flange, i.e. 1.0Mpa, 2.5Mpa or others, please make a note when ordering.

According to different situation, the appearance can be dealied with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.

The weight refers to casting weight, not include the weight of bolt and nut or gasket ring.



Adaptor Flange

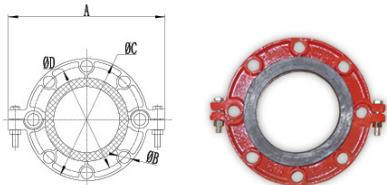
Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	Dimensions mm/in				Bolt Size No.-Size mm
			L mm/in	X mm/in	Y mm/in	Z mm/in	
50	60.3	300Psi 2.07Mpa	50	165	125	13	4- ϕ 16
2	2.375		1.97	6.02	4.92	0.51	
65	73		50	185	145	13	4- ϕ 16
2 $\frac{1}{2}$	2.875		1.97	6.89	5.71	0.51	
65	76.1		50	185	145	13	4- ϕ 16
2 $\frac{1}{2}$	3		1.97	6.89	5.71	0.51	
80	88.9		60	200	160	13	8- ϕ 16
3	3.5		2.36	7.48	6.3	0.51	
100	108		70	220	180	18	8- ϕ 16
4	4.25		2.76	8.27	7.09	0.71	
100	114.3		70	220	180	18	8- ϕ 16
4	4.5		2.76	8.58	7.09	0.71	
125	133		70	250	210	18	8- ϕ 16
5	5.25		2.76	8.58	7.09	0.71	
125	139.7		70	250	210	18	8- ϕ 16
5	5.5		2.76	8.58	7.09	0.71	
125	141.3		70	250	210	18	8- ϕ 16
5	5.563		2.76	8.58	7.09	0.71	
150	159		70	285	240	18	8- ϕ 20
6	6.25		2.76	11.1	9.44	0.71	
150	165.1		70	285	240	18	8- ϕ 20
6	6.5		2.76	11.1	9.44	0.71	
150	168.3		70	285	240	18	8- ϕ 20
6	6.625		2.76	11.1	9.44	0.71	
200	219.1		80	340	295	19	12- ϕ 20
8	8.625		3.15	13.11	11.61	0.75	
250	273		90	405	355	20	12- ϕ 20
10	10.75		3.54	15.63	13.98	0.79	
300	323.9		100	460	410	23	12- ϕ 20
12	12.75		3.94	18.11	16.14	0.91	



→ **Product size**

PN16 Split Flange

According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



Split Flange

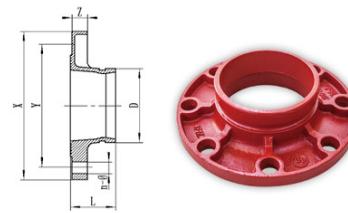
Nominal Size	Pipe O.D	Working Pressure		Dimensions				Bolt / Nut
		mm/in	mm/in	PSI/MPa	A mm/in	B mm/in	C mm/in	
40 1½	48.3 1.9	300 2.07	1.6	195 7.68	18 0.71	150 5.90	110 4.33	4-φ 16
50 2	60.3 2.375	300 2.07	1.6	220 8.66	18 0.71	165 6.50	125 4.92	4-φ 16
65 2½	76.1 4.500	300 2.07	1.6	238 9.37	18 0.71	185 7.28	145 5.71	4-φ 16
76.1 3	88.9 3.5	300 2.07	1.6	252 9.92	18 0.71	195 7.68	160 6.30	8-φ 16
100 4	108 4.25	300 2.07	1.6	277 10.91	18 0.71	220 8.66	180 7.09	8-φ 16
108.0 4.25	114.3 4.5	300 2.07	1.6	277 10.91	18 0.71	224 8.82	180 7.09	8-φ 16
125 5	133 5.25	300 2.07	1.6	310 12.20	18 0.71	250 9.84	210 8.27	8-φ 16
125 5	139.7 5.5	300 2.07	1.6	320 12.60	18 0.71	250 9.84	210 8.27	8-φ 16
150 6	159 6.25	300 2.07	1.6	346 13.62	22 0.87	280 11.00	240 9.45	8-φ 20
150 6	165.1 6.25	300 2.07	1.6	346 13.62	22 0.87	280 11.00	240 9.45	8-φ 20
150 6	168.3 6.625	300 2.07	1.6	346 13.62	22 0.87	280 11.00	240 9.45	8-φ 20
200 8	219.1 8.625	300 2.07	1.6	404 15.90	22 0.87	340 13.39	295 11.61	12-φ 20
250 10	273 10.75	300 2.07	1.6	480 18.90	25.5 1.00	405 15.94	355 13.98	12-φ 24
300 12	323.9 12.75	300 2.07	1.6	530.5 20.88	25.5 1.00	460 18.11	410 16.14	12-φ 24



→ **Product size** ←

Class 150 Adaptor Flange

According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.

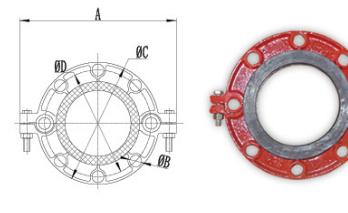


Adaptor Flange

Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Dimensions				Bolt/Nut No.-Size mm
			L mm/in	X mm/in	Y mm/in	Z mm/in	
50 2	60.3 2.375	300 2.07	2.0	65 2.559	152 6.0	120.5 4.74	16 4-φ 16
65 2½	73.0 2.875	300 2.07	2.0	65 2.559	185 7.28	139.7 5.50	16 4-φ 16
80 3	88.9 3.500	300 2.07	2.0	65 2.559	200 7.87	152.4 6.00	16 4-φ 16
100 4	114.3 4.500	300 2.07	2.0	70 2.756	229 9.01	190.5 7.50	16 8-φ 16
150 6	168.3 6.625	300 2.07	2.0	70 2.756	282 11.10	241.3 9.50	18 8-φ 20
200 8	219.1 8.625	300 2.07	2.0	75 2.95	340 13.39	286.5 11.75	19 8-φ 20
250 10	273.0 10.75	300 2.07	2.0	85 3.35	406 15.98	362 14.25	21 12-φ 24

Class 150 Split Flange

According to different situation, the appearance can be deal with epoxy powder, hot-dipped zinc, paint, dacromet or your requirement.



Split Flange

Nominal Size mm/in	Pipe O.D mm/in	Working Pressure PSI/MPa	Dimensions				Bolt / Nut No.-Size mm
			A mm/in	B mm/in	C mm/in	D mm/in	
50 2	60.3 2.375	300 2.07	2.0	206 8.11	152 0.71	121 5.98	16 4-φ 16
65 2½	73.0 2.875	300 2.07	2.0	230 9.05	19 0.75	178 7	16 4-φ 16
80 3	88.9 3.500	300 2.07	2.0	252 9.92	18 0.71	191 7.52	16 4-φ 16
100 4	114.3 4.500	300 2.07	2.0	277 10.90	18 0.71	191 9	18 8-φ 16
125 5	141.3 5.563	300 2.07	2.0	320 12.60	22 0.87	254 10	8-φ 20
150 6	168.3 6.625	300 2.07	2.0	346 13.62	22 0.87	280 11	8-φ 20
200 8	219.1 8.625	300 2.07	2.0	404 15.90	22 0.87	341.4 13.44	20 8-φ 20
250 10	273.0 10.75	300 2.07	2.0	481.2 18.94	30.3 1.19	361.95 15.97	20 12-φ 24
300 12	323.9 12.75	300 2.07	2.0	553.3 21.78	30.4 1.2	482.6 19	20 12-φ 24



→ Product size

Gasket Data



Material Composition	Applicable temperature	Application Scops
EPDM	-34°C → +150°C	Cold an hot water,non-oil gas,diluted acid,alkaline salt,and multi-chemicals(free of hydrocarbon).Oil-like mediums are forbidden.
Silicon rubber	-40°C → +177°C	Drinking water,hot water,high-temperature air and some high-temperature chemicals. Oil-like mediums are forbidden.
Nitrile rubber	-29°C → +82°C	Oil,oil-gas,mineral oil,vegetable oil,hot water,water with temperature of not than 65°C are forbidden.
Notes: 1. Gasket rings of different materials will be used for different liquid mediums. 2. Products can be supplied as per Customers requirements.		

Bolt and Nut

Bolt and Nut is designed for nozzle. The neck of bolt is oval. It can prevent slipping when screwing. The nut is the filling piece type. Installs only needs a spanner.

Bolt dimension	M10	M12	M16	M20	M22
Spanner dimension	16	22	24	30	34

Material: The material of bolts is 40Cr or 35# steel. The material of nuts is 35# steel. The nut performance rating conforms to GB/T3098.1-2000 9.8 level of above request. The nut machine capability conforms to GB/T3098.2-2000 stipulation 8.8 levels of requests.



Product installation procedure ←



Installation instruction for rigid & flexible coupling

1、Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.

2、Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.

3、Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.

4、Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.

5、Housing installation

Remove one bolt & nut and loosen the other nut. Place one housing over the gasket, making sure the housing keys fit into the pipe grooves. Swing the other housing over the gasket and into the grooves on both pipes. Re-insert the bolt and connect two housings.

6、Tighten nuts

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.

7a. Assembly completed - flexible coupling

For flexible coupling, two housings should be iron to iron connected. Gaskets can't be seen visually.

7b. Assembly completed - rigid coupling

For rigid coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.



→ Product installation procedure

Installation instruction for threaded U-bolt mechanical tee & grooved mechanical tee

1. Pipe preparation

Clean the gasket sealing surface within 16mm of the hole and visually inspect the sealing surface for defects that may prevent proper sealing of the gasket. Don't drill the hole on weld line.

2. Remove burrs

If any burrs or slug exists at the pipe hole, please remove them before assembly. To protect the gasket and avoid leakage.

3. Gasket installation

Insert the gasket into outlet housing making sure the tab in the gasket line up with the tab recesses in the housing. Align outlet housing over the pipe hole making sure that the locating collar is in the pipe hole.

4. Alignment

Align the strap around the pipe, insert the bolts and tighten the nuts finger tight.

5. Tighten nuts

Alternatively and evenly tighten the nuts to the specified bolt torque.

6. Assembly completed

There should be even gaps on two sides between upper and lower housings.



Product installation procedure ←

Installation instruction for grooved flange

1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.

2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.

3. Gasket installation

Slip the gasket over pipe end, with the gasket opening side towards "A". make sure the gasket sealing lip is even with pipe end.

4. Housing installation

Remove bolts and nuts, place two housings over the gasket, making sure the housing keys fit into the pipe grooves. Re-insert the bolts and hand tighten the nuts.

5. Tighten nuts

Securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.

6. Connect mating flange

Align flange bolt holes with mating flange(or valve) bolt holes. Insert a standard flange bolt through bolt hole and hand tighten a nut. Insert another bolt opposite the first and hand tighten a nut. Continue this until all bolt holes are fitted. Tighten nuts evenly to specified bolt torque, so flange faces remain parallel. Assembly completed.



→ Engineering Test

NO.	Item	Standard Requirements
1	Vacuum Test	Grooved couplings, grooved split couplings, grooved split flanges, mechanical tees, and plain end couplings shall be able to withstand the effects of vacuum conditions encountered when sprinkler system are drained. Samples of each nominal size and style of gasketed coupling and fitting shall be subjected to an internal vacuum of 25 inHg (85 KPA) for a duration of 5 minutes. Following the vacuum test, the test assembly shall be pneumatically pressurized from zero to 50 psi(345kpa) while submerged in water bath. There shall be no leakage or permanent deformation as a result of this test.
2	Hydrostatic Strength Test	All items shall be able to withstand an internal hydrostatic pressure equal to three–five times the rated working pressure without cracking, rupture, or permanent distortion. The test shall be conducted for a duration of 1 minute.(Test Size ≤6, “five time;8” –10, “4 time;≥12”, 3 times).
3	Air Leakage Test	The coupling assembly shall be pressurized with air to 3 bar +0.5/-0bar.The assembly shall be immersed in water to establish that there is no visible leakage.
4	Moment Test	The moment resistance shall be demonstrated while the test assembly is internally pressurized to the rated working pressure. Then a force was applied to the test assembly. There shall be no leakage, cracking, or fitting or coupling pull off as a result of this test.
5	Hot Gasket Test	Standard gaskets shall be assembly to short length of pipe, and subjective to 275° F(135°C) for a duration of 45 days. After exposure, the test assembly shall be submerged in a water bath and subjected to an air under water leakage test from zero to 50psi(0 to 345kpa) in order to evaluate for leakage. After the air under water testing is completed, the test assembly shall be disassembled and the gasket shall not crack when squeezed together from any two diametrically opposite points, or twisted into a figure-eight shape. The gasket shall then be visually inspected for signs of cracking, tearing, or excessive degradation as a result of this test.
6	Gold Gasket Test	The low temperature exposure shall consist of -40F° (-40°C) air exposure for 4 days. After exposure, the assembly while submerged in -40F° (-40°C) antifreeze, shall be allowed to warm to ambient temperature and then be disassembled. The gasket, after removal from the assembly, shall not crack when squeezed together from any two diametrically opposite points, or twisted into a figure eight shape.
7	Flame test	The test shall be conducted in a room free from air draught. The test joint is mounted, U-bent on the test apparatus an filled with water. The angle corresponds to the angle documented as a result of the test Subsequently the test joint is drained. The fuel pan is placed centrally below the pipe joint Fuel is filled into the pan and the fuel is ignited. Burning of the smaller nominal diameter < DN100; 8min for nominal diameters ≥DN100 for reducer couplings the dimension of the smaller nominal diameter shall apply for the determination of the burning time . The flame shall be extinguished immediately once the burning time has expired (5min or 8min) and the test joint shall be cooled down. For cooling the joint is then filled completely with water until steam formation is no longer visible, but at least for 3min. The test joint is then filled completely with water and exposed to a test pressure which corresponds to the maximum permissible pressure and is checked visibly for leaks. Water may leak in form of drops, however, not in form of flowing water or a water spray. The test joint is then pressure relieved (force and internal pressure).
8	Cycling Pressure Resistance (Water Hammer test)	Prior to the cycling, assemblies shall be subjected to a hydrostatic strength test to the rated working pressure,175 psi (1205kpa) minimum, for a duration of 5 minutes. Without leakage or cracking. Assemblies shall then be subjected to 20000cycles from zero pressure to the rated working poressure, 175psi(1205kpa) minimum. After cycling, the test assembly shall be tested Hydrostatic Strength and maintain 5 minutes without leakage and cracking.

Engineering Test ←

NO.	Item	Standard Requirements
9	Friction Loss Determination	The construction and installation of the coupling or fitting shall be such that obstruction to the passage of water through the coupling or fitting body is minimal . The loss in pressure through the coupling or fitting shall not exceed 5.0psi(35kpa) at a flow producing a velocity of 20ft/s (6.1m/s) in Schedule 40 steel pipe of the same nominal diameter as the coupling or fitting .
10	Leakage Test Assembly without Gasket	Leakage from a gasket-less coupling assembly or fitting shall not exceed that an operating sprinkler head whose discharge associated with over-head piping ,less than or equal to 12 in NPS(300mm).
11	Torsion test	This test relates to pipe joints ≤DN40 only .The test joint is filled with water an exposed once to the maximum permissible pressure and is then pressure relieved again. Subsequently the test joint is fixed on one pipe end and an increasing torque of up to 80Nm from one pipe end without any torsion of the pipe ends against each other.
12	Flexibility test for Flexible fittings	With the assembly pressurized to its rated pressure ,a bending moment is to be applied to deflect the joint to the maximum angle specified by the manufacturer, while not less than 1 degree for nominal pipe diameters less than 8 inches (203.2mm) or 0.5degree for 8 inches (203.2mm) and larger. Observations are to be made for leakage or pipe damage.
13	Seismic Evaluation	In order to evaluate the use of grooved couplings in Earthquake zones 50 through 500 years ,test assemblies utilizing flexible coupling and short lengths of steel pipe, in the same nominal size, will be subjected to cyclic testing . The test will deflect the assembly to the manufacturer’ s maximum recommended angle in the forward and reverse direction for a total 15cycles with the internal pressure equal to the rated working pressure. the shall be no leakage, cracking , or rupture as a result of this test.
14	Lateral Displacement	The coupling shall not leak during any of the test ,within the manufacturer’ s stated limitations for angular deflection or lateral displacement of associated pipe work.
15	Hydrostatic fluctuation pressure test	The coupling assembly shall be pressurized with water to a gauge pressure of 10bar ± 1bar for 2min,+30s/-0s to establish a datum . The assembly shall then be drained before being subjected to the greatest vacuum attainable to a maximum of 600mm a/mercury or -0.8bar +0bar /-0.1bar for 2min +30s/-0s, and allowed to return to atmospheric pressure in not less than 5s.The assembly shall then be pressurized with water to 10bar ± 1bar +0bar /-0.1bar for 2min +30s/-0s.The assembly shall be examined for leakage throughout the test .The relative movement of each pipe shall be recorded at the greatest vacuum and at each pressure. There shall be no leakage .
16	Fire Test	If a gasketed pipe coupling or fitting employs non–ferrous materials for its substantial structural components, or if in the judgment of FM Approvals , the design is otherwise suspect with respect to fire resistance, a fire test shall be conducted. A representative size assembled joint without a gasket shall be exposed to a 1000° F(532°C) fire environment for 5 minutes. The assembly shall be dry for the duration of this exposure. Immediately after the exposure, a water flow shall be introduced through the joint and sustained until the assembly is cool to the touch. No cracking or distortion of any component of the coupling or fitting shall occur . The coupling or fitting shall then be disassembled and the gasket installed . After reassembly, the joint shall be hydrostatically tested, as described in to the hydrostatic test .