潍坊大海集团

FM APPROVED

c UL us LISTED

LBC®

Ductile Iron Grooved Fittings and Couplings

WEIFANG DAHAI LVBINGCHUAN MACHINERY GROUP CO.,LTD.

LBC, short for WEIFANG DAHAI LVBINGCHUAN 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 deigning, 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

Company Histo

2015

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

2012

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

2008

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

2007

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

2006

★ Established the branch WEIFANG HETE PIPE co., ltd. Professionally produced the grooved fittings and couplings.

2004

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

1994

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

1989

★ Grinding Cylpebs.

1987

★ Built casting factory, mainly produced wearable steel ball.

85

★ Mr chen longtian started a business

Fly our dream, Build power craftsmen

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

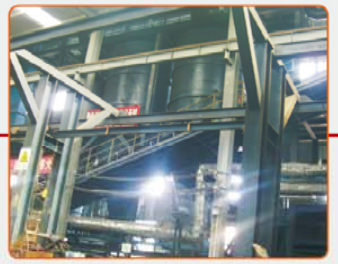
tate of
e Art
quipment

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


Disa Automatic Molding Line


Pouring


End Grinding Line


Threading and Air Pressure Test


Painting Line


Warehouse

eliable
uality
ssurance

Inspection facilities include spectrom-eter, carbon sulfur analyzer, metallurgical microscope, tensile strength gesting 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.Eash step of the manufacturing process is carefully documented,regularly reviewed for revision control and updating standard.Quqlity procedures are constantly monitored and updated to assure that only the highest and most consistent quality products are supplied to our valued customers.


Metallographical Microscope


Pressure Testing Machine


Metallographical 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


Mechanical Tension Testi

ertificates

roduct display

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

d Coupling | Flexible Coupling | Angle Pad Coupling | Reducing Coupling | Tee (long)

anical Tee ved Outlet | Mechanical Tee Threaded Outlet | U–bolt Mechanical Tee | Mechanical Cross Grooved Outlet | Mechanical Cross Threaded Outlet

ee | 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° E

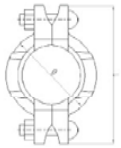
Grooved Eccentric Reducer | Threaded Eccentric Reducer | Grooved Concentric Reducer | Threaded Conc Reducer

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

Product size

Rigid Coupling

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



Rigid Coupling

Nominal Size	Pipe OD.	Working Pressure	Dimensions			Bolt Size
			mm/in			
mm/in	mm/in	psi/Mpa	A mm	B mm	C mm	No.-Size 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 1/4	1.669		2.68	4.17	1.77	
40	48.3		74	114	45	3/8*45-2
1 1/2	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
2 1/2	2.875		3.86	5.39	1.77	
65	76.1		103	141	45	3/8*55-2
2 1/2	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	9.69	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	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
65	76.1	—	6.35		
		—	5.08	35/500	15.7/3530
		—	3.81	35/500	15.7/3530
80	88.9	40	5.49	35/500	21.4/4800
		10	3.05	35/500	21.4/4800
100	114.3	40	6.02	35/500	35.4/7950
		10	3.05	35/500	35.4/7950
125	141.3	40	6.55	31/450	48.6/10930
		10	3.4	31/450	48.6/10930
150	165.1	—	6.35	31/450	66.4/14930
		—	5.08	31/450	66.4/14930
150	168.3	40	7.11	31/450	68.9/15500
		10	3.4	31/450	68.9/15500
200	219.1	40	8.18	31/450	116.9/26280
		30	7.04	31/450	116.9/26280
		10	4.77	20/300	77.8/17500
250	273	40	9.27	20/300	121.0/27210
		30	7.8	20/300	121.0/27210
		10	4.77	20/300	121.0/27210
300	323.9	40	10.31	20/300	170.3/38280
		STD	9.53	20/300	170.3/38280
		30	6.35	20/300	170.3/38280
		10	4.77	20/300	170.3/38280

Product size

Fexible 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 OD.	Working Pressure	Dimensions			Bolt Size
			mm/in			
mm/in	mm/in	psi/Mpa	A mm	B mm	C mm	No.-Size 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 1/4	1.669		2.68	4.17	1.77	
40	48.3		74	114	45	3/8*45-2
1 1/2	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
2 1/2	2.875		3.86	5.39	1.77	
65	76.1		103	141	45	3/8*55-2
2 1/2	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	9.69	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	

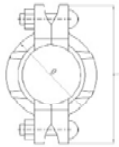
Pressure Ratings and End loads for Mech Couplings on Steel Pipe

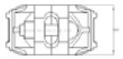
Nom. Size	Pipe O.D	Pipe Sched	Wall Thick	Max.Work Press	Max.End Load
DN/in	mm	(sch)	mm	Bar/Psi	KN/Lbs
25	33.7	40	3.38	35/500	3.0/680
		10	2.77	35/500	3.0/680
32	42.4	40	3.56	35/500	4.8/1080
		10	2.77	35/500	4.8/1080
40	48.3	40	3.68	35/500	6.3/1420
		10	2.77	35/500	6.3/1420
50	60.3	40	3.91	35/500	9.8/2210
		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
65	76.1	—	6.35		
		—	5.08	35/500	15.7/3530
		—	3.81	35/500	15.7/3530
80	88.9	40	5.49	35/500	21.4/4800
		10	3.05	35/500	21.4/4800
100	114.3	40	6.02	35/500	35.4/7950
		10	3.05	35/500	35.4/7950
125	141.3	40	6.55	31/450	48.6/10930
		10	3.4	31/450	48.6/10930
150	165.1	—	6.35	31/450	66.4/14930
		—	5.08	31/450	66.4/14930
150	168.3	40	7.11	31/450	68.9/15500
		10	3.4	31/450	68.9/15500
200	219.1	40	8.18	31/450	116.9/26280
		30	7.04	31/450	116.9/26280
		10	4.77	20/300	77.8/17500
250	273	40	9.27	20/300	121.0/27210
		30	7.8	20/300	121.0/27210
		10	4.77	20/300	121.0/27210
300	323.9	40	10.31	20/300	170.3/38280
		STD	9.53	20/300	170.3/38280
		30	6.35	20/300	170.3/38280
		10	4.77	20/300	170.3/38280

Product size

Reducing Flexible Coupling

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





Reducing Flexible Coupling

Nominal Size	Pipe OD.	Working Pressure	Dimensions			Bolt Size
mm/in	mm/in	psi/Mpa	mm/in A	B	C	No.-Size mm
50×32	60.3×42.4	300Psi 2.07Mpa	86	125	44	2-3/8×55
2×1 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 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 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 1/2×1 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 1/2×1 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 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 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 1/2×1 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 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 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 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 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 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 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 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
mm/in	mm/in	psi/Mpa	mm/in A mm	B mm	C mm	No.-Size mm
25	33.7	300Psi 2.07Mpa	58	98	45	3/8*45-2
1	1.327		2.28	3.85	1.77	
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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	9.69	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	

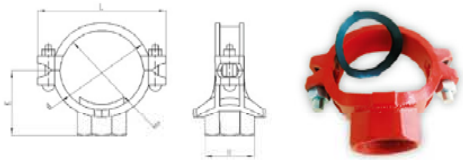
Pressure Ratings and End loads for Mech Couplings on Steel Pipe

Nom. Size	Pipe O.D	Pipe Sched	Wall Thick	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
65	76.1	—	6.35		
		—	5.08	35/500	15.7/3530
		—	3.81	35/500	15.7/3530
80	88.9	40	5.49	35/500	21.4/4800
		10	3.05	35/500	21.4/4800
100	114.3	40	6.02	35/500	35.4/7950
		10	3.05	35/500	35.4/7950
125	141.3	40	6.55	31/450	48.6/10930
		10	3.4	31/450	48.6/10930
150	165.1	—	6.35	31/450	66.4/14930
		—	5.08	31/450	66.4/14930
150	168.3	40	7.11	31/450	68.9/15500
		10	3.4	31/450	68.9/15500
200	219.1	40	8.18	31/450	116.9/26280
		30	7.04	31/450	116.9/26280
		10	4.77	20/300	77.8/17500
250	273	40	9.27	20/300	121.0/27210
		30	7.8	20/300	121.0/27210
		10	4.77	20/300	121.0/27210
300	323.9	40	10.31	20/300	170.3/38280
		STD	9.53	20/300	170.3/38280
		30	6.35	20/300	170.3/38280
		10	4.77	20/300	170.3/38280

Product size

Mechanical Tee
Threaded Outlet

According to different situation,the appearance
an be dealed with epoxy powder,hot-dipped
nc,paint,dacromet or your requirement.



Mechanical Tee Threaded Outlet

Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	HoleDia. mm/in	Dimensions mm/in A mm	B mm	C mm	D mm	Bolt Size
25	60.3×33.7	300Psi 2.07Mpa	38	118	74	60	40	M10×55-2
1	2.375×1.315		1.5	4.64	2.91	2.36	1.57	
32	60.3×42.4		51	118	74	60	40	M10×55-2
1¼	2.375×1.660		2.01	4.64	2.91	2.36	1.57	
40	60.3×48.3		51	118	74	60	40	M10×55-2
1½	2.375×1.900		2.01	4.64	2.91	2.36	1.57	
25	73.0×33.7		38	132	74	64	47	M12×70-2
1	2.875×1.315		1.5	5.2	2.91	2.52	1.85	
32	73.0×42.4		51	132	74	64	47	M12×70-2
1¼	2.875×1.660		2.01	5.2	2.91	2.52	1.85	
40	73.0×48.3		51	132	80	64	47	M12×70-2
1½	2.875×1.900		2.01	5.2	3.15	2.52	1.85	
25	76.1×33.7		38	144	74	64	49	M12×70-2
1	3.000×1.315		1.5	5.67	2.91	2.52	1.93	
32	76.1×42.4		51	144	74	64	49	M12×70-2
1¼	3.000×1.660		2.01	5.67	2.91	2.52	1.93	
40	76.1×48.3		51	144	80	64	49	M12×70-2
1½	3.000×1.900		2.01	5.67	3.15	2.52	1.93	
15	88.9×21.3		30	146	74	70	55	M12×70-2
¾	3.500×0.825		1.18	5.75	2.91	2.76	2.17	
20	88.9×26.9		30	146	74	70	55	M12×70-2
¾	3.500×1.050		1.18	5.75	2.91	2.76	2.17	
25	88.9×33.7		38	146	74	70	55	M12×70-2
1	3.500×1.315		1.5	5.75	2.91	2.76	2.17	
32	88.9×42.4		51	146	86	73	55	M12×70-2
1¼	3.500×1.660		2.01	5.75	3.39	2.87	2.17	
40	88.9×48.3		51	146	86	77	55	M12×70-2
1½	3.500×1.900		2.01	5.75	3.39	3.03	2.17	
50	88.9×60.3		64	146	96	80	55	M12×70-2
2	3.500×2.375		2.52	5.75	3.78	3.15	2.17	
25	108.0×33.7		38	172	72	76	64	M12×75-2
1	4.250×1.315		1.5	6.77	2.83	2.99	2.52	
32	108.0×42.4		51	172	82	76	64	M12×75-2
1¼	4.250×1.660		2.01	6.77	3.23	2.99	2.52	
40	108.0×48.3		51	172	84	76	64	M12×75-2
1½	4.250×1.900		2.01	6.77	3.31	2.99	2.52	
50	108.0×60.3		64	172	95	78	64	M12×75-2
2	4.250×2.375		2.52	6.77	3.74	3.07	2.52	

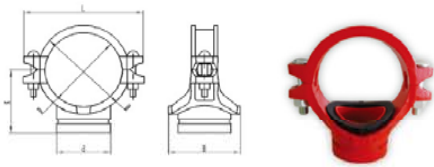
Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	HoleDia. mm/in	Dimensions mm/in A mm	B mm	C mm	D mm	Bolt Size
100×25	114.3×33.7	300Psi 2.07Mpa	38	178	74	86	69	M12×75-2
4×1	4.500×1.315		1.5	7.01	2.91	3.39	2.72	
100×32	114.3×42.4		51	178	86	87	69	M12×75-2
4×1¼	4.500×1.660		2.01	7.01	3.39	3.43	2.72	
100×40	114.3×48.3		51	178	86	89	69	M12×75-2
4×1½	4.500×1.900		2.01	7.01	3.39	3.51	2.72	
100×50	114.3×60.3		64	178	100	94	69	M12×75-2
4×2	4.500×2.375		2.52	7.01	3.94	3.7	2.72	
100×65	114.3×76.1		70	178	106	100	69	M12×75-2
4×2½	4.500×3.000		2.76	7.01	4.17	3.94	2.72	
100×80	114.3×88.9		89	178	124	99	69	M12×75-2
4×3	4.500×3.500		3.5	7.01	4.88	3.9	2.72	
125×25	133.0×33.7		38	200	72	88.5	77	M16×85-2
5×1	5.250×1.315		1.5	7.87	2.83	3.48	3.03	
125×32	133.0×42.4		51	200	82	88.5	77	M16×85-2
5×1¼	5.250×1.660		2.01	7.87	3.23	3.48	3.03	
125×40	133.0×48.3		51	200	82	88.5	77	M16×85-2
5×1½	5.250×1.900		2.01	7.87	3.23	3.48	3.03	
125×50	133.0×60.3		64	200	95	89.5	77	M16×85-2
5×2	5.250×2.375		2.52	7.87	3.74	3.52	3.03	
125×25	139.7×33.7		38	213	74	98	81	M16×85-2
5×1	5.500×1.315		1.5	8.39	2.91	3.86	3.19	
125×32	139.7×42.4		51	213	86	99	81	M16×85-2
5×1¼	5.500×1.660		2.01	8.39	3.39	3.9	3.19	
125×40	139.7×48.3		51	213	86	111	81	M16×85-2
5×1½	5.500×1.900		2.01	8.39	3.39	4.37	3.19	
125×50	139.7×60.3		64	213	100	106	81	M16×85-2
5×2	5.500×2.375		2.52	8.39	3.94	4.17	3.19	
125×65	139.7×76.1		70	213	108	110	81	M16×85-2
5×2½	5.500×3.000		2.76	8.39	4.25	4.33	3.19	
125×80	139.7×88.9		89	213	126	110	81	M16×85-2
5×3	5.500×3.500		3.5	8.39	4.96	4.33	3.19	
125×25	141.3×33.7		38	213	74	98	81	M16×85-2
5×1	5.563×1.315		1.5	8.39	2.91	3.86	3.19	
125×32	141.3×42.4		51	213	86	99	81	M16×85-2
5×1¼	5.563×1.660		2.01	8.39	3.39	3.9	3.19	
125×40	141.3×48.3		51	213	86	111	81	M16×85-2
5×1½	5.563×1.900		2.01	8.39	3.39	4.37	3.19	

Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	HoleDia. mm/in	Dimensions mm/in A mm	B mm	C mm	D mm	Bolt Size
125×50	141.3×60.3	300Psi 2.07Mpa	64	213	100	106	81	M16×85-2
5×2	5.563×2.375		2.52	8.39	2.91	4.17	3.19	
125×65	141.3×76.1		70	213	108	110	81	M16×85-2
5×2½	5.563×3.000		2.76	8.39	4.25	4.33	3.19	
150×25	165.1×33.7		38	239	74	112	95	M16×105-2
6×1	6.500×1.315		1.5	9.41	2.91	4.41	3.74	
150×32	165.1×42.4		51	239	86	113	95	M16×105-2
6×1¼	6.500×1.660		2.01	9.41	3.39	4.45	3.74	
150×40	165.1×48.3		51	239	86	115	95	M16×105-2
6×1½	6.500×1.900		2.01	9.41	3.39	4.53	3.74	
150×50	165.1×60.3		64	239	100	120	95	M16×105-2
6×2	6.500×2.375		2.52	9.41	3.94	4.72	3.74	
150×65	165.1×76.1		70	239	108	124	95	M16×105-2
6×2½	6.500×3.000		2.76	9.41	4.25	4.88	3.74	
150×80	165.1×88.9		89	239	126	123	95	M16×105-2
6×3	6.500×3.500		3.5	9.41	4.96	4.84	3.74	
150×25	168.3×33.7		38	239	74	112	95	M16×105-2
6×1	6.625×1.315		1.5	9.41	2.91	4.41	3.74	
150×32	168.3×42.4		51	239	86	113	95	M16×105-2
6×1¼	6.625×1.660		2.01	9.41	3.39	4.45	3.74	
150×40	168.3×48.3		51	239	86	115	95	M16×105-2
6×1½	6.625×1.900		2.01	9.41	3.39	4.53	3.74	
150×50	168.3×60.3		64	239	100	120	95	M16×105-2
6×2	6.625×2.375		2.52	9.41	3.94	4.72	3.74	
150×65	168.3×76.1		70	239	108	124	95	M16×105-2
6×2½	6.625×3.000		2.76	9.41	4.25	4.88	3.74	
150×80	168.3×88.9		89	239	126	123	95	M16×105-2
6×3	6.625×3.500		3.5	9.41	4.96	4.84	3.74	
200×25	219.1×33.7		38	310	73	135.5	115	M20×115-2
8×1	8.625×1.315		1.5	12.21	2.87	5.35	4.53	
200×32	219.1×42.4		51	310	82	135.5	115	M20×115-2
8×1¼	8.625×1.660		2.01	12.21	3.23	5.35	4.53	
200×40	219.1×48.3		51	310	86	135.5	115	M20×115-2
8×1½	8.625×1.900		2.01	12.21	3.39	5.35	4.53	
200×50	219.1×60.3		64	310	97	138	115	M20×115-2
8×2	8.625×2.375		2.52	12.21	3.82	5.43	4.53	
200×65	219.1×76.1		70	310	115	138	115	M20×115-2
8×2½	8.625×3.000		2.76	12.21	4.53	5.43	4.53	
200×80	219.1×88.9		89	310	127	140	115	M20×115-2
8×3	8.625×3.500		3.5	12.21	5	5.51	4.53	

Product size

Mechanical Tee
Grooved Outlet

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



Mechanical Tee Grooved Outlet

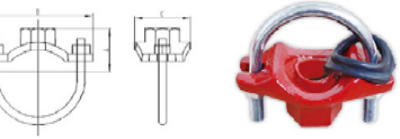
Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	HoleDia. mm/in	Dimensions 凡:寸 mm/in A mm	B mm	G mm	D mm	Bolt Size
50×32	60.3×42.4	300Psi 2.07Mpa	45	116	69	68	40	M10×55-2
2×1¼	2.375×1.660		1.77	4.57	2.72	2.68	1.57	
50×40	60.3×48.3		45	116	69	68.5	40	M10×55-2
2×1½	2.375×1.900		1.77	4.57	2.72	2.7	1.57	
65×25	76.1×33.7		38	144	69	76	49	M12×70-2
2½×1	3.000×1.315		1.5	5.67	2.72	2.99	1.93	
65×32	76.1×42.4		51	144	69	76	49	M12×70-2
2½×1¼	3.000×1.660		2.01	5.67	2.72	2.99	1.93	
65×40	76.1×48.3		51	144	80	76	49	M12×70-2
2½×1½	3.000×1.900		2.01	5.67	3.15	2.99	1.93	
80×32	88.9×42.4		51	146	86	85	55	M12×70-2
3×1¼	3.500×1.660		2.01	5.75	3.39	3.35	2.17	
80×40	88.9×48.3		51	146	86	85	55	M12×70-2
3×1½	3.500×1.900		2.01	5.75	3.39	3.35	2.17	
80×50	88.9×60.3		64	146	96	85	55	M12×70-2
3×2	3.500×2.375		2.52	5.75	3.78	3.35	2.17	
100×32	114.3×42.4		51	178	82	96	69	M12×75-2
4×1¼	4.500×1.660		2.01	7.01	3.23	3.78	2.72	
100×40	114.3×48.3		51	178	82	96	69	M12×75-2
4×1½	4.500×1.900		2.01	7.01	3.23	3.78	2.72	
100×50	114.3×60.3		64	178	95	97	69	M12×75-2
4×2	4.500×2.375		2.52	7.01	3.74	3.82	2.72	
100×65	114.3×73.0		70	178	113	97	69	M12×75-2
4×2½	4.500×2.875		2.76	7.01	4.45	3.82	2.72	
100×65	114.3×76.1		70	178	113	97	69	M12×75-2
4×2½	4.500×3.000		2.76	7.01	4.45	3.82	2.72	
125×32	139.7×42.4		51	204	82	110	81	M16×85-2
5×1¼	5.500×1.660		2.01	8.03	3.23	4.33	3.19	
125×40	139.7×48.3		51	204	82	110	81	M16×85-2
5×1½	5.500×1.900		2.01	8.03	3.23	4.33	3.19	
125×50	139.7×60.3		64	204	95	110	81	M16×85-2
5×2	5.500×2.375		2.52	8.03	3.74	4.33	3.19	
125×65	139.7×73.0		70	204	113	110	81	M16×85-2
5×2½	5.500×2.875		2.76	8.03	4.45	4.33	3.19	
125×65	139.7×76.1		70	204	113	110	81	M16×85-2
5×2½	5.500×3.000		2.76	8.03	4.45	4.33	3.19	

Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	HoleDia. mm/in	Dimensions mm/in A mm	B mm	C mm	D mm	Bolt Size
125×32	141.3×42.4	300Psi 2.07Mpa	51	204	82	110	81	M16×85-2
5×1¼	5.563×1.660		2.01	8.03	3.23	4.33	3.19	
125×40	141.3×48.3		51	204	82	110	81	M16×85-2
5×1½	5.563×1.900		2.01	8.03	3.23	4.33	3.19	
125×50	141.3×60.3		64	204	95	110	81	M16×85-2
5×2	5.563×2.375		2.52	8.03	3.74	4.33	3.19	
125×65	141.3×73.0		70	204	113	110	81	M16×85-2
5×2½	5.563×2.875		2.76	8.03	4.45	4.33	3.19	
125×65	141.3×76.1		70	204	113	110	81	M16×85-2
5×2½	5.563×3.000		2.76	8.03	4.45	4.33	3.19	
150×32	165.1×42.4		51	238	82	121	95	M16×105-2
6×1¼	6.500×1.660		2.01	9.37	3.23	4.76	3.74	
150×40	165.1×48.3		51	238	82	121	95	M16×105-2
6×1½	6.500×1.900		2.01	9.37	3.23	4.76	3.74	
150×50	165.1×60.3		64	238	95	122	95	M16×105-2
6×2	6.500×2.375		2.52	9.37	3.74	4.8	3.74	
150×65	165.1×73.0		70	238	113	122	95	M16×105-2
6×2½	6.500×2.875		2.76	9.37	4.45	4.8	3.74	
150×65	165.1×76.1		70	238	113	122	95	M16×105-2
6×2½	6.500×3.000		2.76	9.37	4.45	4.8	3.74	
150×32	168.3×42.4		51	238	82	121	95	M16×105-2
6×1¼	6.625×1.660		2.01	9.37	3.23	4.76	3.74	
150×40	168.3×48.3		51	238	82	121	95	M16×105-2
6×1½	6.625×1.900		2.01	9.37	3.23	4.76	3.74	
150×50	168.3×60.3		64	238	95	122	95	M16×105-2
6×2	6.625×2.375		2.52	9.37	3.74	4.8	3.74	
150×65	168.3×73.0		70	238	113	122	95	M16×105-2
6×2½	6.625×2.875		2.76	9.37	4.45	4.8	3.74	
150×65	168.3×76.1		70	238	113	122	95	M16×105-2
6×2½	6.625×3.000		2.76	9.37	4.45	4.8	3.74	
200×32	219.1×42.4		51	310	82	152	124	M20×115-2
8×1¼	8.625×1.660		2.01	12.21	3.23	5.98	4.88	
200×40	219.1×48.3		51	310	82	152	124	M20×115-2
8×1½	8.625×1.900		2.01	12.21	3.23	5.98	4.88	
200×50	219.1×60.3		64	310	97	152	124	M20×115-2
8×2	8.625×2.375		2.52	12.2	3.82	5.98	4.88	
200×65	219.1×73.0		70	310	115	152	124	M20×115-2
8×2½	8.625×2.875		2.76	12.2	4.53	5.98	4.88	
200×65	219.1×76.1		70	310	115	152	124	M20×115-2
8×2½	8.625×3.000		2.76	12.2	4.53	5.98	4.88	
200×80	219.1×88.9		89	310	127	152	124	M20×115-2
8×3	8.625×3.500		3.5	12.2	5	5.98	4.88	

Product size

U Bolt Mechanical Tee

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

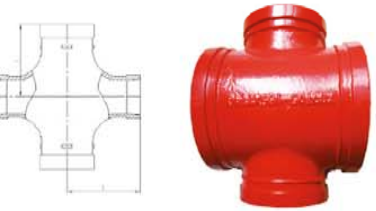


U Bolt Mechanical Tee

Nominal Size	Pipe OD.	Working Pressure	HeieDia	Dimensions mm/in				Bolt Size
mm/in	mm/in	psi/Mpa	Mm/in	A mm	L mm	H mm		mm
32 × 15	42.4 × 21.3	300Psi 2.07Mpa	30	43	90	56		M10 × 42U
1 1/4 × 1/2	1.660 × 0.825		1.18	1.69	3.54	2.2		
32 × 20	42.4 × 26.9		30	43	90	56		M10 × 42U
1 1/4 × 3/4	1.660 × 1.050		1.18	1.69	3.54	2.2		
32 × 25	42.4 × 33.7		30	51	90	56		M10 × 42U
1 1/4 × 1	1.660 × 1.315		1.18	2.01	3.54	2.2		
40 × 15	48.3 × 21.3		30	46	90	56		M10 × 48U
1 1/2 × 1/2	1.900 × 0.825		1.18	1.81	3.54	2.2		
40 × 20	48.3 × 26.9		30	49	90	56		M10 × 48U
1 1/2 × 3/4	1.900 × 1.050		1.18	1.93	3.54	2.2		
40 × 25	48.3 × 33.7		30	54	90	56		M10 × 48U
1 1/2 × 1	1.900 × 1.315		1.18	2.13	3.54	2.2		
50 × 15	60.3 × 21.3		30	52	96	56		M10 × 60U
2 × 1/2	2.375 × 0.825		1.18	2.05	3.78	2.2		
50 × 20	60.3 × 26.9		30	52	96	56		M10 × 60U
2 × 3/4	2.375 × 1.050		1.18	2.05	3.78	2.2		
50 × 25	60.3 × 33.7		30	60	96	56		M10 × 60U
2 × 1	2.375 × 1.315		1.18	2.36	3.78	2.2		
65 × 15	76.1 × 21.3		30	60	112	56		M10 × 76U
2 1/2 × 1/2	3.000 × 0.825		1.18	2.36	4.41	2.2		
65 × 20	76.1 × 26.9		30	60	112	56		M10 × 76U
2 1/2 × 3/4	3.000 × 1.050		1.18	2.36	4.41	2.2		
65 × 25	76.1 × 33.7		30	68	112	56		M10 × 76U
2 1/2 × 1	3.000 × 1.315		1.18	2.68	4.41	2.2		

Grooved Reducing Cross

According to different situation,the
pearance can be dealed with epoxy powder,
t-dipped zinc,paint,dacromet or your
quirement.



Grooved Reducing Cross

Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	Dimensions L1mm/in	Dimensions L2mm/in
100 × 50	114.3 × 60.3	300Psi 2.07Mpa	127	127
4 × 2	4.500 × 2.375		5	5
100 × 65	114.3 × 76.1		127	127
4 × 2 1/2	4.500 × 3.000		5	5
100 × 80	114.3 × 88.9		127	127
4 × 3	4.500 × 3.500		5	5
150 × 100	165.1 × 114.3		165	165
6 × 4	6.500 × 4.500		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 × 2 1/2	6.625 × 3.000		6.5	6.5
150 × 80	168.3 × 88.9		165	165
6 × 3	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

Product size

90° Elbow

90° Elbow(SHORT)

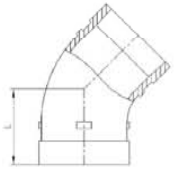
Nominal Size	Pipe OD	Working Pressure	Dimensions
mm/in	mm/in	Mpa	mm
25	33.7	300Psi 2.07Mpa	57
1	1.327		2.24
32	42.4		60
1 1/4	1.669		2.36
40	48.3		60
1 1/2	1.9		2.36
50	60.3		70
2	2.375		2.76
65	73		76
2 1/2	2.875		2.99
65	76.1		76
2 1/2	3		2.99
80	88.9		86
3	3.5		3.39
100	108		102
4	4.25		4.02
100	114.3		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

90° Elbow(LONG)

Nominal Size	Pipe OD	Working Pressure	Dimensions
mm/in	mm/in	Mpa	mm
25	33.7	300Psi 2.07Mpa	70
1	1.327		2.76
32	42.4		70
1 1/4	1.669		2.76
40	48.3		70
1 1/2	1.9		2.76
50	60.3		82
2	2.375		3.23
65	73		95
2 1/2	2.875		3.74
65	76.1		95
2 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

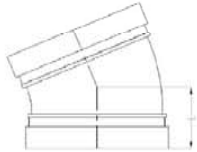
Product size

45° Elbow



45° Elbow			
Nominal Size	Pipe OD.	Working Pressure	Dimensions
mm/in	mm/in	psi/Mpa	Lmm/in
25	33.7	300Psi 2.07Mpa	45
1	1.327		1.77
32	42.4		45
1 1/4	1.669		1.77
40	48.3		45
1 1/2	1.9		1.77
50	60.3		51
2	2.375		2.01
65	73		57
2 1/2	2.875		2.24
65	76.1		57
2 1/2	3		2.24
80	88.9		64
3	3.5		2.51
100	108		76
4	4.25		3
100	114.3		76
4	4.5		3
125	133		82.5
5	5.25		3.24
125	139.7		82.5
5	5.5		3.24
125	141.3		82.5
5	5.563		3.24
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		108
8	8.625		4.25
250	273		120.5
10	10.75		4.74
300	323.9		133
12	12.75		5.23

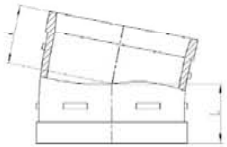
22.5° Elbow



22.5° Elbow			
Nominal Size	Pipe OD.	Working Pressure	Dimensions
mm/in	mm/in	psi/Mpa	Lmm/in
32	42.4	300Psi 2.07Mpa	40
1 1/4	1.669		1.57
40	48.3		45
1 1/2	1.9		1.77
50	60.3		50
2	2.375		1.97
65	73		50
2 1/2	2.875		1.97
65	76.1		50
2 1/2	3		1.97
80	88.9		60
3	3.5		2.36
100	108		70
4	4.25		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
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

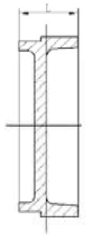
Product size

11.25° Elbow



11.25° Elbow			
Nominal Size	Pipe OD.	Working Pressure	Dimensions
mm/in	mm/in	psi/Mpa	Lmm/in
32	42.4	300Psi 2.07Mpa	35
1 1/4	1.669		1.38
40	48.3		40
1 1/2	1.9		1.57
50	60.3		40
2	2.375		1.57
65	73		40
2 1/2	2.875		1.57
65	76.1		40
2 1/2	3		1.57
80	88.9		40
3	3.5		1.57
100	108		45
4	4.25		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

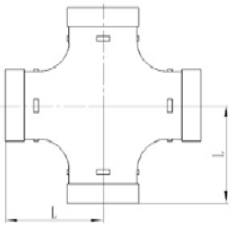


Cap			
Nominal Size	Pipe OD	Working Pressure	Dimensions
mm/in	mm/in	psi/Mpa	Lmm/in
25	33.7	300Psi 2.07Mpa	25
1	1.327		0.98
32	42.4		25
1 1/4	1.669		0.98
40	48.3		25
1 1/2	1.9		0.98
50	60.3		25
2	2.375		0.98
65	73		25
2 1/2	2.875		0.98
65	76.1		25
2 1/2	3		0.98
80	88.9		25
3	3.5		0.98
100	108		27
4	4.25		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 dealed with epoxy powder, hot-dipped zinc,paint,dacromet or your requirement.

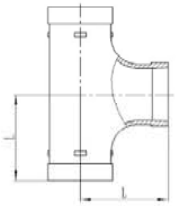


Cross

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 1/4	1.669		2.76
40	48.3		70
1 1/2	1.9		2.76
50	60.3		82
2	2.375		3.23
65	73		95
2 1/2	2.875		3.74
65	76.1		95
2 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

Product size

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 1/4	1.669		2.76
40	48.3		70
1 1/2	1.9		2.76
50	60.3		82
2	2.375		3.23
65	73		95
2 1/2	2.875		3.74
65	76.1		95
2 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(SHOT)

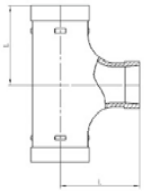
Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	Dimensions Lmm/in
25	33.7	300Psi 2.07Mpa	57
1	1.327		2.24
32	42.4		60
1 1/4	1.669		2.36
40	48.3		60
1 1/2	1.9		2.36
50	60.3		70
2	2.375		2.76
65	73		76
2 1/2	2.875		2.99
65	76.1		76
2 1/2	3		2.99
80	88.9		86
3	3.5		3.39
100	108		102
4	4.25		4.02
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 dealed with epoxy powder, hot-dipped zinc,paint,dacromet or your requirement.

Product size

Grooved Reducing Tee

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



Grooved Reducing Tee

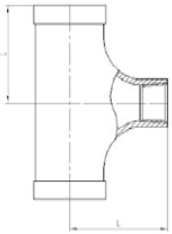
Nominal Size	Pipe OD.	Working Pressure	Dimensions	
mm/in	mm/in	psi/Mpa	L1mm/in	L2mm/in
50×25	60.3×33.7	300Psi 2.07Mpa	82	82
2×1	2.375×1.315		3.23	3.23
50×32	60.3×42.4		82	82
2×1¼	2.375×1.660		3.23	3.23
50×40	60.3×48.3		82	82
2×1½	2.375×1.900		3.23	3.23
65×32	73.0×42.4		95	95
2½×1¼	2.875×1.660		3.74	3.74
65×40	73.0×48.3		95	95
2½×1½	2.875×1.900		3.74	3.74
65×50	73.0×60.3		95	95
2½×2	2.875×2.375		3.74	3.74
65×32	76.1×42.4		95	95
2½×1¼	3.000×1.660		3.74	3.74
65×40	76.1×48.3		95	95
2½×1½	3.000×1.900		3.74	3.74
65×50	76.1×60.3		95	95
2½×2	3.000×2.375		3.74	3.74
80×40	88.9×48.3		108	108
3×1½	3.500×1.900		4.25	4.25
80×50	88.9×60.3		108	108
3×2	3.500×2.375		4.25	4.25
80×65	88.9×76.1		108	108
3×2½	3.500×3.000		4.25	4.25
100×65	108.0×76.1		127	127
4×2½	4.250×3.000		5	5
100×80	108.0×88.9		127	127
4×3	4.250×3.500		5	5
100×50	114.3×60.3		127	127
4×2	4.500×2.375		5	5
100×65	114.3×76.1		127	127
4×2½	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
125×65	133.0×76.1		140	140
5×2½	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
5×2	5.500×2.375		5.51	5.51
125×65	139.7×76.1		140	140
5×2½	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	
mm/in	mm/in	psi/Mpa	L1mm/in	L2mm/in
125×50	141.3×60.3	300Psi 2.07Mpa	140	140
5×2	5.563×2.375		5.51	5.51
125×65	141.3×73.0		140	140
5×2½	5.563×2.875		5.51	5.51
125×65	141.3×76.1		140	140
5×2½	5.563×3.000		5.51	5.51
125×80	141.3×88.9		140	140
5×3	5.563×3.500		5.51	5.51
125×100	141.3×114.3		140	140
5×2½	5.563×4.500		5.51	5.51
150×65	159.0×76.1		165	165
6×2½	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
6×2½	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
6×2½	6.625×3.000		6.5	6.5
150×80	168.3×88.9		165	165
6×3	6.625×3.500		6.5	6.5
200×65	219.1×76.1		197	197
8×2½	8.625×3.000		7.76	7.76
200×80	219.1×88.9		197	197
8×3	8.625×3.500		7.76	7.76
200×100	219.1×114.3		197	197
8×4	8.625×4.500		7.76	7.76
200×125	219.1×139.7		197	197
8×5	8.625×5.500		7.76	7.76
200×150	219.1×165.1		197	197
8×6	8.625×6.500		7.76	7.76
200×150	219.1×168.3		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

Product size

Threaded Reducing Tee

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



Threaded Reducing Tee

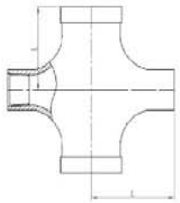
Nominal Size	Pipe OD.	Working Pressure	Dimensions	
mm/in	mm/in	psi/Mpa	L1mm/in	L2mm/in
40×25	48.3×33.7	300Psi 2.07Mpa	70	70
1½×1	1.900×1.315		2.76	2.76
40×32	48.3×42.4		70	70
1½×1¼	1.900×1.660		2.76	2.76
50×25	60.3×33.7		82	82
2×1	2.375×1.315		3.23	3.23
50×32	60.3×42.4		82	82
2×1¼	2.375×1.660		3.23	3.23
50×40	60.3×48.3		82	82
2×1½	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
2½×1¼	2.875×1.660		3.74	3.74
65×40	73.0×48.3		95	95
2½×1½	2.875×1.900		3.74	3.74
65×50	73.0×60.3		95	95
2½×2	2.875×2.375		3.74	3.74
65×25	76.1×33.7		95	95
2½×1	3.000×1.315		3.74	3.74
65×32	76.1×42.4		95	95
2½×1¼	3.000×1.660		3.74	3.74
65×40	76.1×48.3		95	95
2½×1½	3.000×1.900		3.74	3.74
65×50	76.1×60.3		95	95
2½×2	3.000×2.375		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
3×1¼	3.500×1.660		4.25	4.25
80×40	88.9×48.3		108	108
3×1½	3.500×1.900		4.25	4.25
80×50	88.9×60.3		108	108
3×2	3.500×2.375		4.25	4.25
80×65	88.9×76.1		108	108
3×2½	3.500×3.000		4.25	4.25
100×65	108.0×76.1		127	127
4×2½	4.250×3.000		5	5
100×80	108.0×88.9		127	127
4×3	4.250×3.500		5	5
100×25	114.3×33.7		127	127
4×1	4.500×1.315		5	5
100×32	114.3×42.4		127	127
4×1¼	4.500×1.660		5	5
100×40	114.3×48.3		127	127
4×1½	4.500×1.900		5	5
100×50	114.3×60.3		127	127
4×2	4.500×2.375		5	5
100×65	114.3×76.1		127	127
4×2½	4.500×3.000		5	5
100×80	114.3×88.9		127	127
4×3	4.500×3.500		5	5
125×25	139.7×33.7		140	140
5×1	5.500×1.315		5.51	5.51

Nominal Size	Pipe OD.	Working Pressure	Dimensions	
mm/in	mm/in	psi/Mpa	L1mm/in	L2mm/in
125×32	139.7×42.4	300Psi 2.07Mpa	140	140
5×1¼	5.500×1.660		5.51	5.5
125×40	139.7×48.3		140	140
5×1½	5.500×1.900		5.51	5.5
125×50	139.7×60.3		140	140
5×2	5.500×2.375		5.51	5.5
125×65	139.7×76.1		140	140
5×2½	5.500×3.000		5.51	5.5
125×80	139.7×88.9		140	140
5×3	5.500×3.500		5.51	5.5
125×25	141.3×33.7		140	140
5×1	5.563×1.315		5.51	5.5
125×32	141.3×42.4		140	140
5×1¼	5.563×1.315		5.51	5.5
125×40	141.3×48.3		140	140
5×1½	5.563×1.900		5.51	5.5
125×50	141.3×60.3		140	140
5×2	5.563×2.375		5.51	5.5
125×65	141.3×73.0		140	140
5×2½	5.563×2.875		5.51	5.5
125×65	141.3×76.1		140	140
5×2½	5.563×3.000		5.51	5.5
150×65	159.0×76.1		165	165
6×2½	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
150×25	165.1×33.7		165	165
6×1	6.500×1.315		6.5	6.5
150×32	165.1×42.4		165	165
6×1¼	6.500×1.660		6.5	6.5
150×40	165.1×48.3		165	165
6×1½	6.500×1.900		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
6×2½	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
150×25	168.3×33.7		165	165
6×1	6.625×1.315		6.5	6.5
150×32	168.3×42.4		165	165
6×1¼	6.625×1.660		6.5	6.5
150×40	168.3×48.3		165	165
6×1½	6.625×1.900		6.5	6.5
150×50	168.3×60.3		165	165
6×2	6.625×2.375		6.5	6.5
200×50	219.1×60.3		197	197
8×2	8.625×2.375		7.76	7.76
200×65	219.1×76.1		197	197
8×2½	8.625×3.000		7.76	7.76
200×80	219.1×88.9		197	197
8×3	8.625×3.500		7.76	7.76

Product size

Threaded Reducing Cross

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



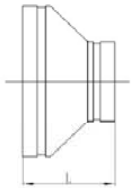
Threaded Reducing Cross

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

Product size

Grooved Concentric Reducer

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



Grooved Concentric Reducer

Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions Lmm/in
32×25	42.4×33.7	300Psi 2.07Mpa	64
1 1/4×1	1.660×1.315		2.51
40×25	48.3×33.7		64
1 1/2×1	1.900×1.315		2.51
40×32	48.3×42.4		64
1 1/2×1 1/4	1.900×1.660		2.51
50×25	60.3×33.7		64
2×1	2.375×1.315		2.51
50×32	60.3×42.4		64
2×1 1/4	2.375×1.660		2.51
50×40	60.3×48.3		64
2×1 1/2	2.375×1.900		2.51
65×25	73.0×33.7		64
2 1/2×1	2.875×1.315		2.51
65×32	73.0×42.4		64
2 1/2×1 1/4	2.875×1.660		2.51
65×40	73.0×48.3		64
2 1/2×1 1/2	2.875×1.900		2.51
65×50	73.0×60.3		64
2 1/2×2	2.875×2.375		2.51
65×32	76.1×42.4		64
2 1/2×1 1/4	3.000×1.660		2.51
65×40	76.1×48.3		64
2 1/2×1 1/2	3.000×1.900		2.51
65×50	76.1×60.3		64
2 1/2×2	3.000×2.375		2.51
80×32	88.9×42.4		64
3×1 1/4	3.500×1.660		2.51
80×40	88.9×48.3		64
3×1 1/2	3.500×1.900		2.51
80×50	88.9×60.3		64
3×2	3.500×2.375		2.51
80×65	88.9×76.1		64
3×2 1/2	3.500×3.000		2.51
100×65	108.0×76.1		76
4×2 1/2	4.250×3.000		2.99
100×80	108.0×88.9		76
4×3	4.250×3.500		2.99
100×32	114.3×42.4		76
4×1 1/4	4.500×1.660		2.99

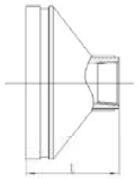
Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions Lmm/in
100×40	114.3×48.3	300Psi 2.07Mpa	76
4×1 1/2	4.500×1.900		2.99
100×50	114.3×60.3		76
4×2	4.500×2.375		2.99
100×65	114.3×76.1		76
4×2 1/2	4.500×3.000		2.99
100×80	114.3×88.9		76
4×3	4.500×3.500		2.99
125×50	139.7×60.3		89
5×2	5.500×2.375		3.5
125×65	139.7×76.1		89
5×2 1/2	5.500×3.000		3.5
125×80	139.7×88.9		89
5×3	5.500×3.500		3.5
125×100	139.7×114.3		89
5×4	5.500×4.500		3.5
125×50	141.3×60.3		89
5×2	5.563×2.375		3.5
125×65	141.3×76.1		89
5×2 1/2	5.563×3.000		3.5
125×80	141.3×88.9		89
5×3	5.563×3.500		3.5
125×100	141.3×114.3		89
5×2 1/2	5.563×4.500		3.5
150×50	159.0×60.3		102
6×2	6.250×2.375		4.01
150×65	159.0×76.1		102
6×2 1/2	6.250×3.000		4.01
150×80	159.0×88.9		102
6×3	6.250×3.500		4.01
150×100	159.0×108.0		102
6×4	6.250×4.250		4.01
150×100	159.0×114.3		102
6×4	6.250×4.500		4.01
150×125	159.0×133.0		102
6×5	6.250×5.250		4.01
150×125	159.0×139.7		102
6×5	6.250×5.500		4.01
150×50	165.1×60.3		102
6×2	6.500×2.375		4.01

Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions Lmm/in
150×65	165.1×76.1	300Psi 2.07Mpa	102
6×2 1/2	6.500×3.000		4.01
150×80	165.1×88.9		102
6×3	6.500×3.500		4.01
150×100	165.1×114.3		102
6×4	6.500×4.500		4.01
150×125	165.1×139.7		102
6×5	6.500×5.500		4.01
150×50	168.3×60.3		102
6×2	6.625×2.375		4.01
150×65	168.3×76.1		102
6×2 1/2	6.625×3.000		4.01
150×80	168.3×88.9		102
6×3	6.625×3.500		4.01
150×100	168.3×114.3		102
6×4	6.625×4.500		4.01
150×125	168.3×139.7		102
6×5	6.625×5.500		4.01
200×50	219.1×60.3		127
8×2	8.625×2.375		5
200×65	219.1×76.1		127
8×2 1/2	8.625×3.000		5
200×80	219.1×88.9		127
8×3	8.625×3.500		5
200×100	219.1×108.0		127
8×4	8.625×4.250		5
200×100	219.1×114.3		127
8×4	8.625×4.500		5
200×125	219.1×139.7		127
8×5	8.625×5.500		5
200×150	219.1×159.0		127
8×6	8.625×6.250		5
200×150	219.1×165.1		127
8×6	8.625×6.500		5
200×150	219.1×168.3		127
8×6	8.625×6.625		5

Product size

Threaded Concentric Reducer

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



Threaded Concentric Reducer

Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions Lmm/in
32×25	42.4×33.7	300Psi 2.07Mpa	64
1 1/2×1	1.660×1.315		2.51
40×32	48.3×42.4		64
1 1/2×1 1/4	1.900×1.660		2.51
50×25	60.3×33.7		64
2×1	2.375×1.315		2.51
50×32	60.3×42.4		64
2×1 1/4	2.375×1.660		2.51
50×40	60.3×48.3		64
2×1 1/2	2.375×1.900		2.51
65×25	73.0×33.7		64
2 1/2×1	2.875×1.315		2.51
65×32	73.0×42.4		64
2 1/2×1 1/4	2.875×1.660		2.51
65×40	73.0×48.3		64
2 1/2×1 1/2	2.875×1.900		2.51
65×50	73.0×60.3		64
2 1/2×2	2.875×2.375		2.51
65×25	76.1×33.7		64
2 1/2×1	3.000×1.315		2.51
65×32	76.1×42.4		64
2 1/2×1 1/4	3.000×1.660		2.51
65×40	76.1×48.3		64
2 1/2×1 1/2	3.000×1.900		2.51
65×50	76.1×60.3		64
2 1/2×2	3.000×2.375		2.51
80×25	88.9×33.7		64
3×1	3.500×1.315		2.51
80×32	88.9×42.4		64
3×1 1/4	3.500×1.660		2.51
80×40	88.9×48.3		64
3×1 1/2	3.500×1.900		2.51
80×50	88.9×60.3		64
3×2	3.500×2.375		2.51
80×65	88.9×76.1		64
3×2 1/2	3.500×3.000		2.51
100×25	108.0×33.7		76
4×1	4.250×1.315		2.99
100×32	108.0×42.4		76
4×1 1/4	4.250×1.660		2.99
100×40	108.0×48.3		76
4×1 1/2	4.250×1.900		2.99
100×50	108.0×60.3		76
4×2	4.250×2.375		2.99
100×65	108.0×76.1		76
4×2 1/2	4.250×3.000		2.99
100×80	108.0×88.9		76
4×3	4.250×3.500		2.99

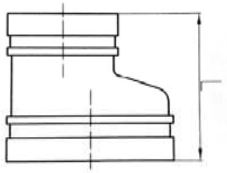
Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions Lmm/in
100×25	114.3×33.7	300Psi 2.07Mpa	76
4×1	4.500×1.315		2.99
100×32	114.3×42.4		76
4×1 1/4	4.500×1.660		2.99
100×40	114.3×48.3		76
4×1 1/2	4.500×1.900		2.99
100×50	114.3×60.3		76
4×2	4.500×2.375		2.99
100×65	114.3×76.1		76
4×2 1/2	4.500×3.000		2.99
100×80	114.3×88.9		76
4×3	4.500×3.500		2.99
125×25	133.0×33.7		89
5×1	5.250×1.315		3.5
125×32	133.0×42.4		89
5×1 1/4	5.250×1.660		3.5
125×40	133.0×48.3		89
5×1 1/2	5.250×1.900		3.5
125×50	133.0×60.3		89
5×2	5.250×2.375		3.5
125×25	139.7×33.7		89
5×1	5.500×1.315		3.5
125×32	139.7×42.4		89
5×1 1/4	5.500×1.660		3.5
125×40	139.7×48.3		89
5×1 1/2	5.500×1.900		3.5
125×50	139.7×60.3		89
5×2	5.500×2.375		3.5
125×65	139.7×76.1		89
5×2 1/2	5.500×3.000		3.5
125×80	139.7×88.9		89
5×3	5.500×3.500		3.5
125×100	139.7×114.3		89
5×4	5.500×4.500		3.5
125×25	141.3×33.7		89
5×1	5.563×1.315		3.5
125×32	141.3×42.4		89
5×1 1/4	5.563×1.660		3.5
125×40	141.3×48.3		89
5×1 1/2	5.563×1.900		3.5
125×50	141.3×60.3		89
5×2	5.563×2.375		3.5
125×65	141.3×76.1		89
5×2 1/2	5.563×3.000		3.5
125×80	141.3×88.9		89
5×3	5.563×3.500		3.5
150×25	159.0×33.7		102
6×1	6.250×1.315		4.01

Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions Lmm/in
150×32	159.0×42.4	300Psi 2.07Mpa	102
6×1 1/4	6.250×1.660		4.01
150×40	159.0×48.3		102
6×1 1/2	6.250×1.900		4.01
150×50	159.0×60.3		102
6×2	6.250×2.375		4.01
150×65	159.0×76.1		102
6×2 1/2	6.250×3.000		4.01
150×80	159.0×88.9		102
6×3	6.250×3.500		4.01
150×25	165.1×33.7		102
6×1	6.500×1.315		4.01
150×32	165.1×42.4		102
6×1 1/4	6.500×1.660		4.01
150×40	165.1×48.3		102
6×1 1/2	6.500×1.900		4.01
150×50	165.1×60.3		102
6×2	6.500×2.375		4.01
150×65	165.1×76.1		102
6×2 1/2	6.500×3.000		4.01
150×80	165.1×88.9		102
6×3	6.500×3.500		4.01
150×100	165.1×114.3		102
6×4	6.500×4.500		4.01
150×25	168.3×33.7		102
6×1	6.625×1.315		4.01
150×32	168.3×42.4		102
6×1 1/4	6.625×1.660		4.01
150×40	168.3×48.3		102
6×1 1/2	6.625×1.900		4.01
150×50	168.3×60.3		102
6×2	6.625×2.375		4.01
200×25	219.1×33.7		127
8×1	8.625×1.315		5
200×32	219.1×42.4		127
8×1 1/4	8.625×1.660		5
200×40	219.1×48.3		127
8×1 1/2	8.625×1.900		5
200×50	219.1×60.3		127
8×2	8.625×2.375		5
200×50	219.1×60.3		127
8×2	8.625×2.375		5
200×65	219.1×76.1		127
8×2 1/2	8.625×3.000		5
200×80	219.1×88.9		127
8×3	8.625×3.500		5
200×100	219.1×114.3		127
8×4	8.625×4.500		5

Product size

Grooved Eccentric Reducer

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



Grooved Eccentric Reducer

Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions Lmm/in
32×25	42.4×33.7	300Psi 2.07Mpa	64
1 1/4×1	1.660×1.315		2.51
40×25	48.3×33.7		64
1 1/2×1	1.900×1.315		2.51
40×32	48.3×42.4		64
1 1/2×1 1/4	1.900×1.660		2.51
50×25	60.3×33.7		64
2×1	2.375×1.315		2.51
50×32	60.3×42.4		64
2×1 1/4	2.375×1.660		2.51
50×40	60.3×48.3		64
2×1 1/2	2.375×1.900		2.51
65×25	73.0×33.7		64
2 1/2×1	2.875×1.315		2.51
65×32	73.0×42.4		64
2 1/2×1 1/4	2.875×1.660		2.51
65×40	73.0×48.3		64
2 1/2×1 1/2	2.875×1.900		2.51
65×50	73.0×60.3		64
2 1/2×2	2.875×2.375		2.51
65×32	76.1×42.4		64
2 1/2×1 1/4	3.000×1.660		2.51
65×40	76.1×48.3		64
2 1/2×1 1/2	3.000×1.900		2.51
65×50	76.1×60.3		64
2 1/2×2	3.000×2.375		2.51
80×32	88.9×42.4		64
3×1 1/4	3.500×1.660		2.51
80×40	88.9×48.3		64
3×1 1/2	3.500×1.900		2.51
80×50	88.9×60.3		64
3×2	3.500×2.375		2.51
80×65	88.9×76.1		64
3×2 1/2	3.500×3.000		2.51
100×65	108.0×76.1		76
4×2 1/2	4.250×3.000		2.99
100×80	108.0×88.9		76
4×3	4.250×3.500		2.99
100×32	114.3×42.4		76
4×1 1/4	4.500×1.660		2.99

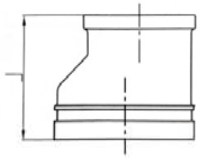
Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions Lmm/in
100×40	114.3×48.3	300Psi 2.07Mpa	76
4×1 1/2	4.500×1.900		2.99
100×50	114.3×60.3		76
4×2	4.500×2.375		2.99
100×65	114.3×76.1		76
4×2 1/2	4.500×3.000		2.99
100×80	114.3×88.9		76
4×3	4.500×3.500		2.99
125×50	139.7×60.3		89
5×2	5.500×2.375		3.5
125×65	139.7×76.1		89
5×2 1/2	5.500×3.000		3.5
125×80	139.7×88.9		89
5×3	5.500×3.500		3.5
125×100	139.7×114.3		89
5×4	5.500×4.500		3.5
125×50	141.3×60.3		89
5×2	5.563×2.375		3.5
125×65	141.3×76.1		89
5×2 1/2	5.563×3.000		3.5
125×80	141.3×88.9		89
5×3	5.563×3.500		3.5
125×100	141.3×114.3		89
5×4	5.563×4.500		3.5
150×50	159.0×60.3		102
6×2	6.250×2.375		4.01
150×65	159.0×76.1		102
6×2 1/2	6.250×3.000		4.01
150×80	159.0×88.9		102
6×3	6.250×3.500		4.01
150×100	159.0×108.0		102
6×4	6.250×4.250		4.01
150×100	159.0×114.3		102
6×4	6.250×4.500		4.01
150×125	159.0×133.0		102
6×5	6.250×5.250		4.01
150×125	159.0×139.7		102
6×5	6.250×5.500		4.01
150×50	165.1×60.3		102
6×2	6.500×2.375		4.01

Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions Lmm/in
150×65	165.1×76.1	300Psi 2.07Mpa	102
6×2 1/2	6.500×3.000		4.01
150×80	165.1×88.9		102
6×3	6.500×3.500		4.01
150×100	165.1×114.3		102
6×4	6.500×4.500		4.01
150×125	165.1×139.7		102
6×5	6.500×5.500		4.01
150×50	168.3×60.3		102
6×2	6.625×2.375		4.01
150×65	168.3×76.1		102
6×2 1/2	6.625×3.000		4.01
150×80	168.3×88.9		102
6×3	6.625×3.500		4.01
150×100	168.3×114.3		102
6×4	6.625×4.500		4.01
150×125	168.3×139.7		102
6×5	6.625×5.500		4.01
200×50	219.1×60.3		127
8×2	8.625×2.375		5
200×65	219.1×76.1		127
8×2 1/2	8.625×3.000		5
200×80	219.1×88.9		127
8×3	8.625×3.500		5
200×100	219.1×108.0		127
8×4	8.625×4.250		5
200×100	219.1×114.3		127
8×4	8.625×4.500		5
200×125	219.1×139.7		127
8×5	8.625×5.500		5
200×150	219.1×159.0		127
8×6	8.625×6.250		5
200×150	219.1×165.1		127
8×6	8.625×6.500		5
200×150	219.1×168.3		127
8×6	8.625×6.625		5

Product size

Threaded Eccentric Reducer

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



Threaded Eccentric Reducer

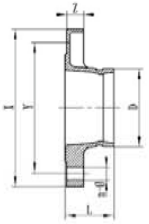
Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions L mm/in
32×25	42.4×33.7	300Psi 2.07Mpa	64
1 1/2×1	1.660×1.315		2.51
40×32	48.3×42.4		64
1 1/2×1 1/4	1.900×1.660		2.51
50×25	60.3×33.7		64
2×1	2.375×1.315		2.51
50×32	60.3×42.4		64
2×1 1/4	2.375×1.660		2.51
50×40	60.3×48.3		64
2×1 1/2	2.375×1.900		2.51
65×25	73.0×33.7		64
2 1/2×1	2.875×1.315		2.51
65×32	73.0×42.4		64
2 1/2×1 1/4	2.875×1.660		2.51
65×40	73.0×48.3		64
2 1/2×1 1/2	2.875×1.900		2.51
65×50	73.0×60.3		64
2 1/2×2	2.875×2.375		2.51
65×25	76.1×33.7		64
2 1/2×1	3.000×1.315		2.51
65×32	76.1×42.4		64
2 1/2×1 1/4	3.000×1.660		2.51
65×40	76.1×48.3		64
2 1/2×1 1/2	3.000×1.900		2.51
65×50	76.1×60.3		64
2 1/2×2	3.000×2.375		2.51
80×25	88.9×33.7		64
3×1	3.500×1.315		2.51
80×32	88.9×42.4		64
3×1 1/4	3.500×1.660		2.51
80×40	88.9×48.3		64
3×1 1/2	3.500×1.900		2.51
80×50	88.9×60.3		64
3×2	3.500×2.375		2.51
80×65	88.9×76.1		64
3×2 1/2	3.500×3.000		2.51
100×25	108.0×33.7		76
4×1	4.250×1.315		2.99
100×32	108.0×42.4		76
4×1 1/4	4.250×1.660		2.99
100×40	108.0×48.3		76
4×1 1/2	4.250×1.900		2.99
100×50	108.0×60.3		76
4×2	4.250×2.375		2.99
100×65	108.0×76.1		76
4×2 1/2	4.250×3.000		2.99
100×80	108.0×88.9		76
4×3	4.250×3.500		2.99

Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions L mm/in
100×25	114.3×33.7	300Psi 2.07Mpa	76
4×1	4.500×1.315		2.99
100×32	114.3×42.4		76
4×1 1/4	4.500×1.660		2.99
100×40	114.3×48.3		76
4×1 1/2	4.500×1.900		2.99
100×50	114.3×60.3		76
4×2	4.500×2.375		2.99
100×65	114.3×76.1		76
4×2 1/2	4.500×3.000		2.99
100×80	114.3×88.9		76
4×3	4.500×3.500		2.99
125×25	133.0×33.7		89
5×1	5.250×1.315		3.5
125×32	133.0×42.4		89
5×1 1/4	5.250×1.660		3.5
125×40	133.0×48.3		89
5×1 1/2	5.250×1.900		3.5
125×50	133.0×60.3		89
5×2	5.250×2.375		3.5
125×25	139.7×33.7		89
5×1	5.500×1.315		3.5
125×32	139.7×42.4		89
5×1 1/4	5.500×1.660		3.5
125×40	139.7×48.3		89
5×1 1/2	5.500×1.900		3.5
125×50	139.7×60.3		89
5×2	5.500×2.375		3.5
125×65	139.7×76.1		89
5×2 1/2	5.500×3.000		3.5
125×80	139.7×88.9		89
5×3	5.500×3.500		3.5
125×100	139.7×114.3		89
5×4	5.500×4.500		3.5
125×25	141.3×33.7		89
5×1	5.563×1.315		3.5
125×32	141.3×42.4		89
5×1 1/4	5.563×1.660		3.5
125×40	141.3×48.3		89
5×1 1/2	5.563×1.900		3.5
125×50	141.3×60.3		89
5×2	5.563×2.375		3.5
125×65	141.3×76.1		89
5×2 1/2	5.563×3.000		3.5
125×80	141.3×88.9		89
5×3	5.563×3.500		3.5
150×25	159.0×33.7		102
6×1	6.250×1.315		4.01

Nominal Size mm/in	Pipe OD mm/in	Working Pressure psi/Mpa	Dimen-sions L mm/in
150×32	159.0×42.4	300Psi 2.07Mpa	102
6×1 1/4	6.250×1.660		4.01
150×40	159.0×48.3		102
6×1 1/2	6.250×1.900		4.01
150×50	159.0×60.3		102
6×2	6.250×2.375		4.01
150×65	159.0×76.1		102
6×2 1/2	6.250×3.000		4.01
150×80	159.0×88.9		102
6×3	6.250×3.500		4.01
150×25	165.1×33.7		102
6×1	6.500×1.315		4.01
150×32	165.1×42.4		102
6×1 1/4	6.500×1.660		4.01
150×40	165.1×48.3		102
6×1 1/2	6.500×1.900		4.01
150×50	165.1×60.3		102
6×2	6.500×2.375		4.01
150×65	165.1×76.1		102
6×2 1/2	6.500×3.000		4.01
150×80	165.1×88.9		102
6×3	6.500×3.500		4.01
150×100	165.1×114.3		102
6×4	6.500×4.500		4.01
150×25	168.3×33.7		102
6×1	6.625×1.315		4.01
150×32	168.3×42.4		102
6×1 1/4	6.625×1.660		4.01
150×40	168.3×48.3		102
6×1 1/2	6.625×1.900		4.01
150×50	168.3×60.3		102
6×2	6.625×2.375		4.01
200×25	219.1×33.7		127
8×1	8.625×1.315		5
200×32	219.1×42.4		127
8×1 1/4	8.625×1.660		5
200×40	219.1×48.3		127
8×1 1/2	8.625×1.900		5
200×50	219.1×60.3		127
8×2	8.625×2.375		5
200×50	219.1×60.3		127
8×2	8.625×2.375		5
200×65	219.1×76.1		127
8×2 1/2	8.625×3.000		5
200×80	219.1×88.9		127
8×3	8.625×3.500		5
200×100	219.1×114.3		127
8×4	8.625×4.500		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 dealed 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.

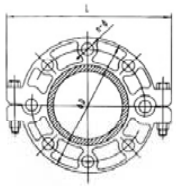
Adaptor Flange

Nominal Size mm/in	Pipe OD. mm/in	Working Pressure psi/Mpa	Dimensions mm/in L mm/in	X mm/in	Y mm/in	Z mm/in	Bolt Size No.-Size mm
50	60.3	300Psi 2.07Mpa	50	165	125	13	4-ϕ16
2	2.375		1.97	6.02	4.92	0.51	
65	73		50	185	145	13	4-ϕ16
2 1/2	2.875		1.97	6.89	5.71	0.51	
65	76.1		50	185	145	13	4-ϕ16
2 1/2	3		1.97	6.89	5.71	0.51	
80	88.9		60	200	160	13	8-ϕ16
3	3.5		2.36	7.48	6.3	0.51	
100	108		70	220	180	18	8-ϕ16
4	4.25		2.76	8.27	7.09	0.71	
100	114.3		70	220	180	18	8-ϕ16
4	4.5		2.76	8.58	7.09	0.71	
125	133		70	250	210	18	8-ϕ16
5	5.25		2.76	8.58	7.09	0.71	
125	139.7		70	250	210	18	8-ϕ16
5	5.5		2.76	8.58	7.09	0.71	
125	141.3		70	250	210	18	8-ϕ16
5	5.563		2.76	8.58	7.09	0.71	
150	159		70	285	240	18	8-ϕ20
6	6.25		2.76	11.1	9.44	0.71	
150	165.1		70	285	240	18	8-ϕ20
6	6.5		2.76	11.1	9.44	0.71	
150	168.3		70	285	240	18	8-ϕ20
6	6.625		2.76	11.1	9.44	0.71	
200	219.1		80	340	295	19	12-ϕ20
8	8.625		3.15	13.11	11.61	0.75	
250	273		90	405	355	20	12-ϕ20
10	10.75		3.54	15.63	13.98	0.79	
300	323.9		100	460	410	23	12-ϕ20
12	12.75		3.94	18.11	16.14	0.91	

Product size

PN16 Split Flange

According to different situation,the
earance can be dealed with epoxy powder,
-dipped zinc,paint,dacromet or your
uirement.



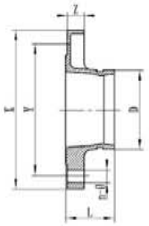
Split Flange

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	D mm/in	E mm/in	No.-Size mm
40 1 1/2	48.3 1.9	300 2.07	1.6	195 7.68	18.5 0.73	150 5.90	110 4.33	45.4 1.78	4-ϕ16
50 2	60.3 2.375	300 2.07	1.6	220 8.66	18.5 0.73	165 6.50	125 4.92	57.5 2.26	4-ϕ16
65 76.1	76.1 3	300 2.07	1.6	235 9.25	18.5 0.73	185 7.28	145 5.71	72.7 2.86	4-ϕ16
80 3	88.9 3.5	300 2.07	1.6	255 10.04	18.5 0.73	195 7.68	160 6.30	85.5 3.37	8-ϕ16
100 108.0	108 4.25	300 2.07	1.6	279 10.98	18.5 0.73	220 8.66	180 7.09	104.5 4.11	8-ϕ16
100 4	114.3 4.5	300 2.07	1.6	279 10.98	18.5 0.73	224 8.82	180 7.09	110.5 4.35	8-ϕ16
125 5	133 5.25	300 2.07	1.6	312 12.28	21.5 0.85	250 9.84	210 8.27	129.2 5.08	8-ϕ16
125 5	139.7 5.5	300 2.07	1.6	320 12.60	23 0.91	250 9.84	210 8.27	135.5 5.33	8-ϕ16
150 6	159 6.25	300 2.07	1.6	346 13.62	21.5 0.85	280 11.00	240 9.45	154.8 6.10	8-ϕ20
150 6	165.1 6.5	300 2.07	1.6	346 13.62	21.5 0.85	280 11.00	240 9.45	160.8 6.33	8-ϕ20
150 6	168.3 6.625	300 2.07	1.6	346 13.62	24 0.94	280 11.00	240 9.45	164.3 6.47	8-ϕ20
200 8	219.1 8.625	300 2.07	1.6	414.3 16.31	30 1.18	340 13.39	295 11.61	214.9 8.46	12-ϕ20
250 10	273 10.75	300 2.07	1.6	480 18.90	25.5 1.00	405 15.94	355 13.98	268.9 10.59	12-ϕ24
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	318.9 12.56	12-ϕ24

Product size

Class 150 Adaptor Flange

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

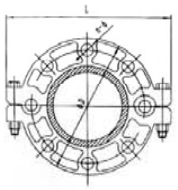


Adaptor Flange

Nominal Size	Pipe O.D	Working Pressure		Dimensions				Bolt/Nut
mm/in	mm/in	PSI/Mpa		L mm/in	X mm/in	Y mm/in	Z mm/in	No.-SIZ mm
50 2	60.3 2.375	300 2.07	2.0	65 2.559	152 6.0	120.5 4.74	16 0.63	4-ϕ16
65 2 1/2	73.0 2.875	300 2.07	2.0	65 2.559	185 7.28	139.7 5.50	16 0.63	4-ϕ16
80 3	88.9 3.500	300 2.07	2.0	65 2.559	200 7.87	152.4 6.00	16 0.63	4-ϕ16
100 4	114.3 4.500	300 2.07	2.0	70 2.756	229 9.01	190.5 7.50	16 0.63	8-ϕ16
150 6	168.3 6.625	300 2.07	2.0	70 2.756	282 11.10	241.3 9.50	18 0.71	8-ϕ20
200 8	219.1 8.625	300 2.07	2.0	75 2.95	340 13.39	298.5 11.75	19 0.75	8-ϕ20
250 10	273.0 10.75	300 2.07	2.0	85 3.35	406 15.98	362 14.25	21 0.826	12-ϕ24

Class 150 Split Flange

According to different situation,the appearance can be dealed 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	D mm/in	E mm/in	No.-Size mm
50 2	60.3 2.375	300 2.07	2.0	206 8.11	19 0.75	152 5.98	121 4.76	57.5 2.26	4-ϕ16
65 2 1/2	73.0 2.875	300 2.07	2.0	230 9.05	19 0.75	178 7	140 5.51	69.8 2.74	4-ϕ16
80 3	88.9 3.5	300 2.07	2.0	246 9.68	19 0.75	191 7.52	152 5.98	85.5 3.37	4-ϕ16
100 4	114.3 4.5	300 2.07	2.0	280 11.02	19 0.75	229 9	191 7.52	110.5 4.35	8-ϕ16
125 5	141.3 4.5	300 2.07	2.0	320 12.60	22 0.87	254 10	216 8.5	137.4 5.41	8-ϕ20
150 6	168.3 6.625	300 2.07	2.0	346 13.62	24 0.94	280 11	241.3 9.5	164.3 6.47	8-ϕ20
200 8	219.1 8.625	300 2.07	2.0	414.3 16.31	30 1.18	341.4 13.44	298.5 11.75	214.9 8.46	8-ϕ20
250 10	273 10.75	300 2.07	2.0	481.2 18.94	30.3 1.19	405.6 15.97	361.95 14.25	268.9 10.59	12-ϕ24
300 12	323.9 12.75	300 2.07	2.0	553.3 21.78	30.4 1.2	482.6 19	431.8 17	318.9 12.56	12-ϕ24

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.
Nir rile 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、Gaslet rings of different materials will be used for different liquid mediums.
2、Produsts can be supplied as per Customers requirments.

Bolt and Nut

Bolt and Nut is designed for nozzle. The neck of bolt is oval. It can provent slipping when screwing. The nut is the 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 orms to in GB/T3098.1−2000 9.8 level of above request.The nut machine capability conforms to GB/T3098.2−2000 lation 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 assu that pipe end is free of indentations and projections that wou prevent proper sealing.

2、Lubricate gasket

Check gasket to be sure it' s compatible for the intende service. Apply thin lubricant to the outside and sealing lips of t gasket.

3、Gasket installation

Slip the gasket over one pipe, making sure the gasket lip do not over−hang the pipe end.

4、Alignment

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

5、Housing installation

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

6、Tighten nuts

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

7a、Assembly completed− flexible coupling

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

7b、Assembly completed− rigid coupling

For rigid coupling, keep the gaps at bolt pads evenly space 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 groove flange

1、Pipe preparation

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

2、Lubricate gasket

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

3、Gasket installation

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

4、Housing installation

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

5、Tighten nuts

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

6、Connect mating flange

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

Engineering Test

O.	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 subjective 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 in 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℃) 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℃)air exposure for 4 days. After exposure, the assembly while submerged in -40F° (-40℃) 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 join 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 (5minor 8min) and the test joint shall be cooled down. For cooling the4 joint is then filled completely with water until steam formation is no longer visible, but at least foe 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 from 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 passa of water through the coupling or fitting body is minimal . The loss in pressure through the coupling fitting shall not exceed 5.0psi(35kpa) at a flow producing a velocity of 20ft/s (6.1m/s) in Schedule 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 springk 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 maximum permissible pressure and is then pressure relieved again. Subsequently the test joint is fix on one pipe end and an increasing torque of up to 80Nm from one pipe end without any torsion of 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 joint to the maximum angle specified by the manufacturer, while not less than 1 degree for nominal p diameters less than 8 inches (203.2mm) or 0.5degree for 8 inches (203.2mm) and larger. Observatio 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 ,t assemblies utilizing flexible coupling and short lengths of steel pipe, in the same nominal size, be subjected to cyclic testing . The test will deflect the assembly to the manufacturer' s maxim recommended angle in the forward and reverse direction for a total 15cycles with the internal pressu equal to the rated working pressure. the shall be no leakage, cracking , or rupture as a result of t test.
14	Lateral Displacement	The coupling shall not leak during any of the test ,within the manufacturer' s stated limitations 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 2min,+30s/-0s to establish a datum . The assembly shall then be drained before being subjected the greatest vacuum attainable to a maximum of 600mm a /mercury or -0.8bar +0bar /-0.1bar for 2r +30s/-0s,and allowed to return to atmospheric pressure in not less than 5s.The assembly shall th be pressurized with water to 10bar ±1bar +0bar /-0.1bar for 2min +30s/-0s.The assembly shall examined for leakage throughout the test .The relative movement of each pipe shall be recorded at 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 structu components, or if in the judgment of FM Approvals , the design is otherwise suspect with respect fire resistance, a fire test shall be conducted. A representative size assembled joint without a gas shall be exposed to a 1000° F(532℃) fire environment for 5 minutes. The assembly shall be dry for duration of this exposure. Immediately after the exposure, a water flow shall be introduced through joint and sustained until the assembly is cool to the touch. No cracking or distortion of any compon of the coupling or fitting shall occur . The coupling or fitting shall then be disassembled and the gas installed . After reassembly, the joint shall be hydrostatically tested, as described in to the hydrosta test .