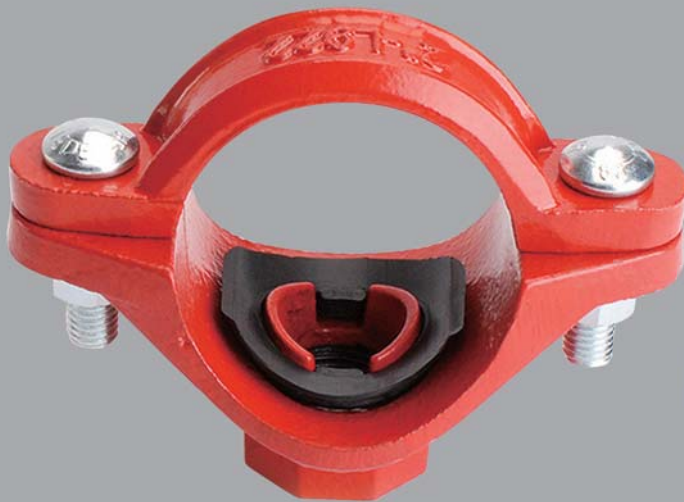


LEDE[®]

SHANDONG LEDE MACHINERY CO.,LTD.





INTERNATIONAL APPROVAL



Certificate of Compliance

This certificate is issued for the following:
Non-Gasketed Pipe Fittings for Aboveground Fire Protection Systems

Model J02R
Grooved Outlet Welded Pipe Outlet

Model J01
Threaded Outlet Welded Pipe Outlet with either NPT or BSPT Threads

Prepared for:
Shandong Leide Machinery Co., Ltd
Pang Zhang Zi
Southeast of Yantai County
Tangshan City, Hebei Province 064100
China

Manufactured at:
Shandong Leide Machinery Co., Ltd
Pang Zhang Zi
Southeast of Yantai County
Tangshan City, Hebei Province 064100
China

FM Approvals Class: 1920 - "Pipe Couplings and Fittings for Aboveground Fire Protection Systems"
Approval Identification: 3058013 Approval Granted: July 22, 2016

To verify the availability of the Approved product, please refer to www.approvalguide.com
 Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.



David B. Fuller
AVP, Manager of Fire Protection
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062 USA

CERTIFICATE OF COMPLIANCE

Certificate Number: 20160107-EX20601
 Report Reference: EX20601-0010107
 Issue Date: 2016-January-07

Issued to:
SHANDONG LEIDE MACHINERY CO.LTD
No. 3998
West Weihuan N Rd
Weicheng District
Weifang
Shandong 261057 CHINA

This is to certify that representative samples of:
FITTINGS, WELDED OUTLET PROTECTION
 Model: J01, J02R

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standards for Safety:
UL 2138 WELDED OUTLET FITTINGS FOR FIRE PROTECTION
ULC/ORD C273 WELDED OUTLET FITTINGS

Additional Information:
See the UL Online Certifications Directory at www.ul.com/ULIndex for additional information.

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Field Service.
 Look for the UL Certification Mark on the product.





Certificate of Environment Management System

Certificate No.: 1611220202018
SHANDONG LEIDE MACHINERY CO.,LTD.

Scope of Certification: WELDING
 Model: J01, J02R

Beijing Zhongliantianrun Certification Center
 Room 200, 2001, 20th Floor, Section B, No. 17th Street, Haidian District, Beijing 100088



Certificate of Compliance

This certificate is issued for the following:
PIPE COUPLINGS AND FITTINGS FOR ABOVEGROUND FIRE PROTECTION SYSTEMS

RIGID and FLEXIBLE COUPLINGS
 Models GKS (rigid), XGQT1 (rigid) and XGQT2 (flexible)
 SIZES 1 through 10 inch NPS

MECHANICAL TEES
 Model XGQT04
 SIZES 1-1/4 through 8 inch NPS

GROOVED SPLIT FLANGES
 Model XGQT09
 SIZES 2-1/2, 3 and 4 inch NPS

Prepared for:
Shandong Leide Machinery Co., Ltd
No 3998 West Weihuan N Road
Weicheng District
Weifang City, Shandong 261057
China

FM Approvals Class: 1920
Approval Identification: 3044463 Approval Granted: February 24, 2012

Said Approval is subject to satisfactory field performance, continuing Follow-up Facilities and Procedures Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

For more than 160 years FM Approvals has partnered with business and industry to reduce property losses.



Richard B. Dimec
Group Manager - Fire Protection
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062

CERTIFICATE OF COMPLIANCE

Certificate Number: 20140627-EX15228
 Report Reference: EX15228-20091223
 Issue Date: 2014-June-27

Issued to:
SHANDONG LEIDE MACHINERY CO.LTD
NO.3998 WEST WEIHUAN N RD
WEICHENG DISTRICT
WEIFANG, SHANDONG 261057 CHINA

This is to certify that representative samples of:
FITTINGS, RUBBER GASKETED
 See addendum page

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standards for Safety:
Rubber Gasketed Fittings for Fire-Protection Service, UL 2124.

Additional Information:
See the UL Online Certifications Directory at www.ul.com/ULIndex for additional information.

Only those products bearing the UL Listing Mark should be considered as being covered by UL's Listing and Field Service.
 This UL Listing Mark generally indicates the listing information, the symbol UL is a mark with the word "LISTED" a symbol number (may be abbreviations assigned by UL) and the product category name (product identifier) as indicated in the appropriate UL Directory.
 Look for the UL Listing Mark on the product.




QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No.: 06112220201807100
Shandong Leide Machinery Co., Ltd.

Quality Management System
 ISO9001:2008
 GB/T 19001-2008

China Quality Certification Center
 Room 200, 2001, 20th Floor, Section B, No. 17th Street, Haidian District, Beijing 100088



Certificate of Compliance

This certificate is issued for the following:
Pipe Couplings and Fittings for Aboveground Fire Protection Systems

Models XGQT01, XGQT011, XGQT03, XGQT06, XGQT06, XGQT05, XGQT03, GKS, XGQT1, XGQT2, L922
 Various sizes from 1-1/4 to 12 inch NPS

Prepared for:
Shandong Leide Machinery Co Ltd
No 3998 West Weihuan N Road
Weicheng District
Weifang City, Shandong 261057
China


FM Approvals Class: 1920
Approval Identification: 0903049909 Approval Granted: 12/17/2013

Said Approval is subject to satisfactory field performance, continuing Follow-up Facilities and Procedures Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

To verify the availability of the Approved product, please refer to www.approvalguide.com



Richard B. Dimec
Group Manager - Fire Protection
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062



the standard in safety

File: 015128 Vol 1 Issued: 2009/04/01 Revised: January 5, 2012

FOLLOW-UP SERVICE PROCEDURE
 TYPE: B
 FITTINGS, RUBBER GASKETED
 (1000-4420)

Manufacturer:
SHANDONG LEIDE MACHINERY CO.LTD
NO.3998 WEST WEIHUAN N RD
WEICHENG DISTRICT
WEIFANG, SHANDONG 261057 CHINA

Location:
SAME AS MANUFACTURER
(1000-4420)

Label:
SAME AS MANUFACTURER
(1000-4420)

This Procedure authorizes the above manufacturer to use the marking specified by Underwriters Laboratories Inc. (UL) on any authorized license of UL, only on products covered by this Procedure, in accordance with the applicable UL Service Agreement.


The prescribed Mark or Marking shall be used only on the above manufacturing location on such products which comply with this Procedure and any other applicable requirements.

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This PROCEDURE, and any subsequent revisions, is the property of Underwriters Laboratories Inc. (UL) and the authorized license of UL and is not transferable.

Underwriters Laboratories Inc.
 Stephen Dimec
Senior Fire Protection
Global Follow-Up Service Operations

William R. Corney
Director
North America Certification Program



the standard in safety

File: 015128 Vol 1 Issued: 2009/04/01 Revised: January 5, 2012

FOLLOW-UP SERVICE PROCEDURE
 TYPE: B
 FITTINGS, GROOVED END FLAN END
 (1000-4420)

Manufacturer:
SHANDONG LEIDE MACHINERY CO.LTD
NO.3998 WEST WEIHUAN N RD
WEICHENG DISTRICT
WEIFANG, SHANDONG 261057 CHINA

Location:
SAME AS MANUFACTURER
(1000-4420)

Label:
SAME AS MANUFACTURER
(1000-4420)

This Procedure authorizes the above manufacturer to use the marking specified by Underwriters Laboratories Inc. (UL) on any authorized license of UL, only on products covered by this Procedure, in accordance with the applicable UL Service Agreement.

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This PROCEDURE, and any subsequent revisions, is the property of Underwriters Laboratories Inc. (UL) and the authorized license of UL and is not transferable.

Underwriters Laboratories Inc.
 Stephen Dimec
Senior Fire Protection
Global Follow-Up Service Operations

William R. Corney
Director
North America Certification Program

- MOST RELIABLE SUPPLIER -



Shandong Lede Machinery Co.,Ltd. was founded in 2003,which owns 600 staffs and mainly engages in the production of Grooved Fittings, the annual production capacity can reach 30,000 tons. Now LEDE has been the leading manufacturer on grooved fittings in the world.

LEDE is committed to supplying the high price performance ratio products, for grooved fittings, LEDE has been approved by FM and UL, and in 2015, LEDE will get LPCB and VDS together too.

LEDE owns three big factories with advanced electric furnaces and automatic lines, the product is machined with CNC and the surface is coated with red epoxy powder, electrophoretic paint, orange paint or galvanization. The mold center keeps developing new products which can satisfy diverse requirements from different customers.

LEDE products have been sold to most of the countries and areas in the world like America, Canada, Europe, Russia, Australia, Middle East, Asia, Africa, etc., and LEDE is becoming one famous and reliable brand for the customers.

LEDE products are wildly used in various fields as follows:

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



Push-on Coupling
XGQT4
P10



Angle-pad Coupling
GKS
P10



Rigid Coupling
XGQT1
P11



Flexible Coupling
XGQT2
P12



Flexible Coupling (Heavy-duty)
1212
P13



Rigid Coupling (Heavy-duty)
1512
P13



Reducing Flexible Coupling
XGQT3
P14



HDPE Coupling
HDPE
P14



90° Elbow
XGQT01
P15



Grooved 45° Elbow
XGQT011
P16



Grooved 22.5° Elbow
XGQT012
P17



Grooved 11.25° Elbow
XGQT013
P17



Drain Elbow 90°
2601
P18



90° Reducing Elbow
XGQT014
P18



Grooved Tee
XGQT03
P19



Grooved Reducing Tee
XGQT03
P20



Bullhead Tee
XGQT03
P22



Threaded Reducing Tee
XGQT03S
P23



Grooved Cross
XGQT05
P25



Grooved Reducing Cross
XGQT05
P27



Threaded Reducing Cross
XGQT05S
P28



Grooved Mechanical Tee
XGQT04G
P30



Threaded Mechanical Tee
XGQT04
P32



U-Bolt Mechanical Tee
041
P35



Small Threaded Mechanical Tee
L922
P35



Grooved Reducer
XGQT07
P36



Threaded Reducer
XGQT07S
P38



Grooved Eccentric Reducer
XGQT072
P40



Grooved Flange PN16
XGQT09
P40



Grooved Flange ANSI125/150
L991
P41



Flange Adaptor PN16
XGQT08
P41



Flange Adaptor ANSI125/150
L981
P42



Grooved Cap
XGQT06
P42



Cap with Eccentric hole
XGQT061
P43



Threaded Outlet
J01
P44



Grooved Outlet
J02R
P45

TEST EQUIPMENT

Salt Spray Test



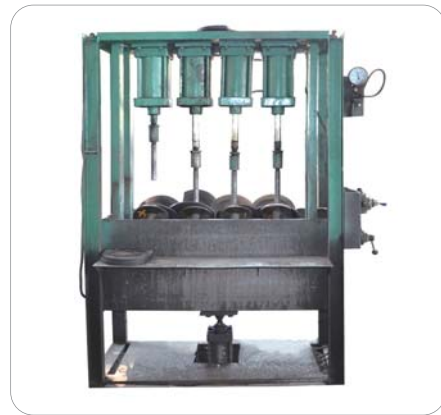
Gasket Test



Pressure Test



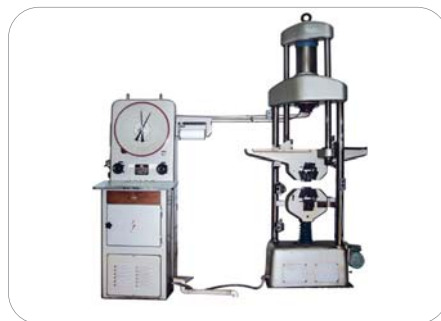
Air Test



Spectrom For Material



Strength Test





Casting Line

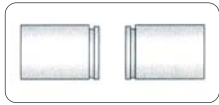




Painting Line



Warehouse



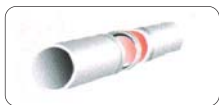
Grooved Pipe



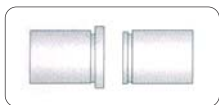
Gasket



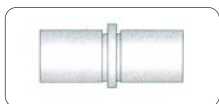
Lubricate the gasket



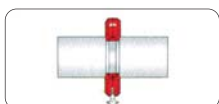
Slide another pipe end



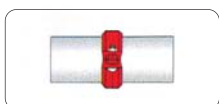
Close another pipe end



Slide another pipe end into the gasket

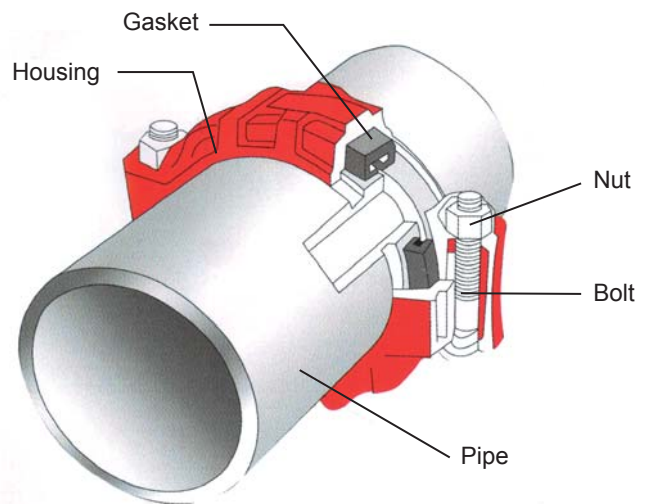


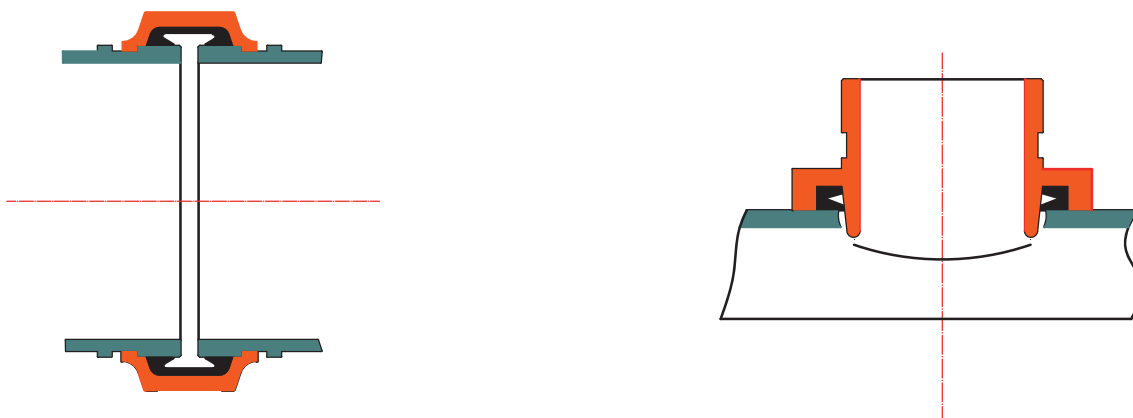
Place the housings over the gasket



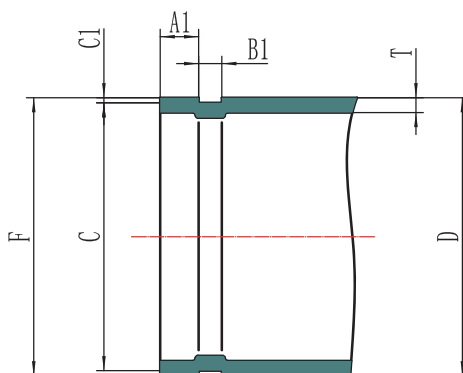
Tighten the bolts and nuts

Pipe Preparation



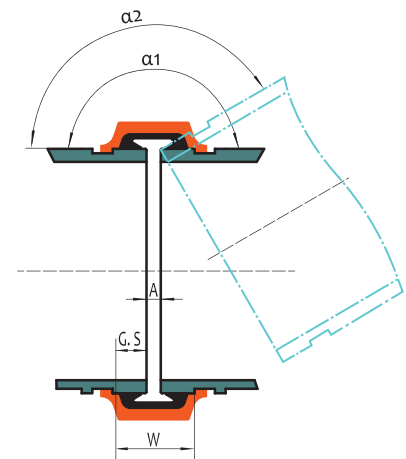


Nominal Diameter	O.D/in	O.D/mm	A1	B1	C1	C (mm)		T	F
						Basic Size	Tolerance		
mm	mm	mm	mm	mm	mm	Basic Size	Tolerance	mm	mm
DN25	1"	33.7	15.9	7.2	1.6	30.2	-0.38	1.8	34.5
DN32	1 1/4"	42.4	15.9	7.2	1.6	39	-0.38	1.8	43.3
DN40	1 1/2"	48.3	15.9	7.2	1.6	45.1	-0.38	1.8	49.4
DN50	2"	60.3	15.9	8.8	1.6	57.2	-0.38	1.8	62.2
DN65	2 1/2"	73	15.9	8.8	2	69.1	-0.46	2.3	75.2
DN65	2 1/2"	76.1	15.9	8.8	2	72.3	-0.46	2.3	77.7
DN80	3"	88.9	15.9	8.8	2	84.9	-0.46	2.3	90.6
DN100	4"	108	15.9	8.8	2.1	103.7	-0.51	2.3	109.7
DN100	4"	114.3	15.9	8.8	2.1	110.1	-0.51	2.3	116.2
DN125	5"	133	15.9	8.8	2.1	129.1	-0.51	2.9	134.9
DN125	5"	139.7	15.9	8.8	2.1	135.5	-0.51	2.9	141.7
DN125	5"	141.3	15.9	8.8	2.1	137	-0.56	2.9	143.5
DN150	6"	159	15.9	8.8	2.2	154.5	-0.56	2.9	161
DN150	6"	165.1	15.9	8.8	2.2	160.9	-0.56	2.9	167.1
DN150	6"	168.3	15.9	8.8	2.2	164	-0.56	2.9	170.7
DN200	8"	219.1	19.1	11.9	2.4	214.4	-0.64	2.9	221.5
DN250	10"	273	19.1	11.9	2.4	268.3	-0.69	3.6	275.4
DN300	12"	323.9	19.1	11.9	2.8	318.3	-0.76	4	326.2
DN350	14"	355.6	23.8	11.9	2.8	350	-0.7	4.5	359



Extra degrees of deflection angular is allowed for flexible coupling, but when the flexible coupling is assembled, the value must be no more than the maximum degree.

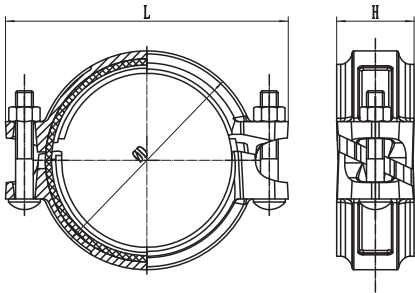
Normal Diameter	O.D/in	O.D/mm	Max Deflection Angular (α_1 - α_2)
DN25	1"	33.7	2.3
DN32	1 1/4"	42.4	2.3
DN40	1 1/2"	48.3	2.3
DN50	2"	60.3	2.3
DN65	2 1/2"	73	1.9
DN65	2 1/2"	76.1	1.9
DN80	3"	88.9	1.6
DN100	4"	108	1.7
DN100	4"	114.3	1.6
DN125	5"	133	1.4
DN125	5"	139.7	1.3
DN125	5"	141.3	1.3
DN150	6"	159	1.2
DN150	6"	165.1	1.1
DN150	6"	168.3	1.1
DN200	8"	219.1	0.8
DN250	10"	273	0.7
DN300	12"	323.9	0.5
DN350	14"	355.6	0.5
DN400	16"	406.4	0.5
DN450	18"	457.2	0.5
DN500	20"	508	0.5
DN600	24"	609.6	0.5



To ensure valid seal property, the torque of the bolts must be within the scope of the demands, Too big torque will damage the bolts and housing, too small torque will cause leakage.

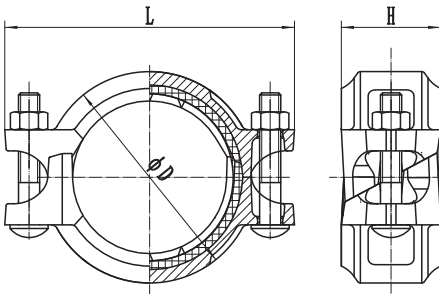
Bolt	Torque(N*M)
M8(5/16)	25-30
M10(3/8)	60-70
M12(1/2)	90-100
M14(9/16)	135-150
M16(5/8)	200-230
M20(3/4)	270-300
M22(7/8)	270-300
M24(1)	270-300

Push-on Coupling XGQT4



Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Bolt/Nut inch/mm	Working pressure Psi
		ΦD mm	L mm	H mm		
32 1¼	42.4 1.669	71.5	112	47	2-3/8×60 (2-M10×60)	300
40 1½	48.3 1.9		78	117		
50 2	60.3 2.375	90	132	48		
65 2½	76.1 3	106	150	48		
80 3	88.9 3.5	121	164	49	2-3/8×70 (2-M10×70)	
100 4	114.3 4.5	147	190	52		
125 5	139.7 5.5	174	222	52	2-1/2×75 (2-M12×75)	
150 6	165.1 6.5	203	262	51		
150 6	168.3 6.625	203	263	51	2-1/2×80 (2-M12×80)	
					2-5/8×85 (2-M16×85)	

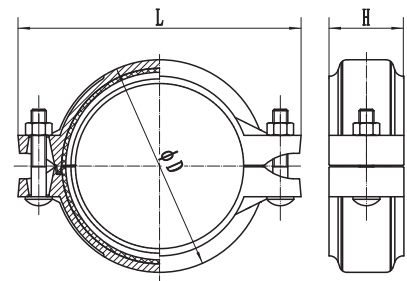
Angle-pad Coupling GKS



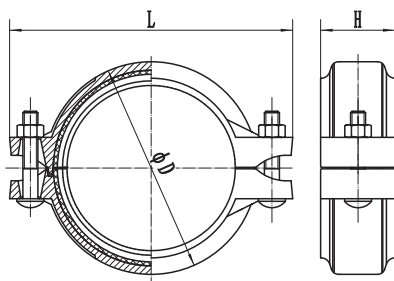
Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Bolt inch/mm	Working pressure Psi
		ΦD mm	L mm	H mm		
25 1	33.7 1.327	56	96	47	3/8×2-3/8 (M10×60)	300
32 1¼	42.4 1.669		64	106		
40 1½	48.3 1.9	69	113	47		
50 2	60.3 2.375	88	122	47		
65 2½	73 2.875	100	137	47		
65 2½	76.1 3	100	137	47		
80 3	88.9 3.5	116	154	47	3/8×2-3/4 (M10×70)	
100 4	114.3 4.5	142	188	52		
125 5	139.7 5.5	170	219	52	1/2×3-1/8 (M12×80)	
125 5	141.3 5.563	170	219	52		
150 6	159 6.25	196	244	52		
150 6	165.1 6.5	197	244	52		
150 6	168.3 6.625	199	246	52		
200 8	219.1 8.625	262	322	66		
250 10	273 10.75	325	400	66		
300 12	323.9 12.75	376	468	67		
350 14	355.6 14	410	500	75	5/8×4-3/4 (M16×120)	
400 16	406.4 16	459	550	75		
					3/4×6-7/10 (M20×170)	
					7/8×7-1/4 (M22×185)	
					7/8×7-1/2 (M22×190)	
					7/8×7-1/2 (M22×190)	

Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Bolt inch/mm	Working pressure Psi
		ΦD mm	L mm	H mm		
25	33.7	55	97	45	3/8×1-1/2 (M10×40)	300
1	1.327					
32	42.4	63.5	107.5	45	3/8×1-3/4 (M10×45)	
1 1/4	1.669					
40	48.3	69	114	45	3/8×2-1/8 (M10×55)	
1 1/2	1.9					
50	57	83.6	124	46	3/8×2-1/8 (M10×55)	
2	2.244					
50	60.3	83.6	124	46	3/8×2-1/8 (M10×55)	
2	2.375					
65	73	98	137	46	3/8×2-1/8 (M10×55)	
2 1/2	2.875					
65	76.1	98	139	46	3/8×2-1/8 (M10×55)	
2 1/2	3					
80	88.9	114	156	46	3/8×2-1/8 (M10×55)	
3	3.5					
100	108	138	186	50	1/2×2-5/8 (M12×65)	
4	4.25					
100	114.3	142	189	50	1/2×2-5/8 (M12×65)	
4	4.5					
125	133	164	213	50	1/2×2-5/8 (M12×65)	
5	5.25					
125	139.7	170	222	50	1/2×2-5/8 (M12×65)	
5	5.5					
125	141.3	170	218	50	1/2×2-5/8 (M12×65)	
5	5.563					
150	159	192	244	50	1/2×2-5/8 (M12×65)	
6	6.25					
150	165.1	196	244	50	1/2×2-5/8 (M12×65)	
6	6.5					
150	168.3	198	251	50	1/2×2-5/8 (M12×65)	
6	6.625					
200	216.3	254	340	62	3/4×3-1/2 (M20×90)	
8	8.515					
200	219.1	256	316	58	5/8×3-1/8 (M16×80)	
8	8.625					
250	267.4	313	400	64	3/4×3-1/2 (M20×90)	
10	10.527					
250	273	319	393	64	3/4×3-1/2 (M20×90)	
10	10.75					
300	318.5	368	464	64	7/8×4-1/3 (M22×110)	
12	12.539					
300	323.9	374	453	65	3/4×4-1/3 (M20×110)	
12	12.75					

**Rigid Coupling
XGQT1**



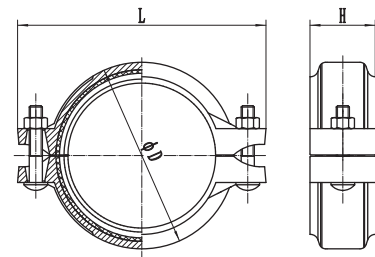
Flexible Coupling XGQT2



Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Bolt inch/mm	Working pressure Psi
		ΦD mm	L mm	H mm		
25	33.7	55	97	45	3/8×1-1/2 (M10×40)	300
1	1.327					
32	42.4	63.5	107.5	45	3/8×1-3/4 (M10×45)	
11/4	1.669					
40	48.3	69	114	45	3/8×2-1/8 (M10×55)	
11/2	1.9					
50	57	83.6	124	46	3/8×2-1/8 (M10×55)	
2	2.244					
50	60.3	83.6	124	46	3/8×2-1/8 (M10×55)	
2	2.375					
65	73	98	137	46	3/8×2-1/8 (M10×55)	
21/2	2.875					
65	76.1	98	139	46	3/8×2-1/8 (M10×55)	
21/2	3					
80	88.9	114	156	46	3/8×2-1/8 (M10×55)	
3	3.5					
100	108	138	186	50	1/2×2-5/8 (M12×65)	
4	4.25					
100	114.3	142	189	50	1/2×2-5/8 (M12×65)	
4	4.5					
125	133	164	213	50	1/2×2-5/8 (M12×65)	
5	5.25					
125	139.7	170	222	50	1/2×2-5/8 (M12×65)	
5	5.5					
125	141.3	170	218	50	1/2×2-5/8 (M12×65)	
5	5.563					
150	159	192	244	50	1/2×2-5/8 (M12×65)	
6	6.25					
150	165.1	196	244	50	1/2×2-5/8 (M12×65)	
6	6.5					
150	168.3	198	251	50	1/2×2-5/8 (M12×65)	
6	6.625					
200	216.3	254	340	62	3/4×3-1/2 (M20×90)	
8	8.515					
200	219.1	256	316	58	5/8×3-1/8 (M16×80)	
8	8.625					
250	267.4	313	400	64	3/4×3-1/2 (M20×90)	
10	10.527					
250	273.0	319	393	64	3/4×3-1/2 (M20×90)	
10	10.75					
300	318.5	368	464	64	7/8×4-1/3 (M22×110)	
12	12.539					
300	323.9	374	453	65	3/4×4-1/3 (M20×110)	
12	12.75					
350	355.6	410	510	75	7/8×4-1/3 (M22×110)	
14	14					
400	406.4	459	555	75	7/8×5-1/2 (M22×140)	
16	16					
450	457.2	516	606	78	7/8×5-1/2 (M22×140)	
18	18					
450	480.0	540	631	78	7/8×6-1/3 (M22×160)	
18	18.9					
500	508.0	567	674	78	7/8×5-1/2 (M22×140)	
20	20					
550	558.8	622	728	78	7/8×5-1/2 (M22×140)	
22	22					
600	609.6	674	778	78	1×5-9/10 (M24×150)	
24	24					

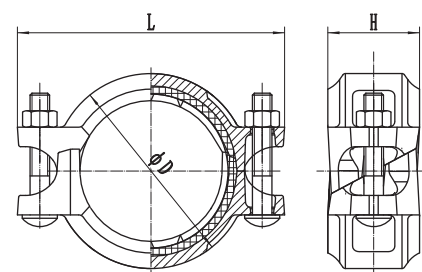
Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Bolt/Nut inch/mm	Working pressure Psi
		ΦD mm	L mm	H mm		
32	42.4	64	107.2	45	2-3/8×40 (2-M10×40)	500
1 1/4	1.669					
40	48.3	69.6	113	45	2-3/8×55 (2-M10×55)	
1 1/2	1.9					
50	60.3	83	124	46	2-1/2×65 (2-M12×65)	
2	2.375					
65	73	100	145	47	2-1/2×70 (2-M12×70)	
2 1/2	2.875					
65	76.1	101.6	146	47	2-5/8×80 (2-M16×80)	
2 1/2	3					
80	88.9	116	162	47	2-3/4×110 (2-M20×110)	
3	3.5					
90	101.6	129	175	47	2-7/8×140 (2-M22×140)	
3.5	4					
100	114.3	144.4	194	51	2-7/8×140 (2-M22×140)	
4	4.5					
125	139.7	171.6	230	52	2-5/8×80 (2-M16×80)	
5	5.5					
125	141.3	171.6	230	52	2-5/8×80 (2-M16×80)	
5	5.563					
150	165.1	198.6	260	53	2-5/8×80 (2-M16×80)	
6	6.5					
150	168.3	200	261	53	2-5/8×80 (2-M16×80)	
6	6.625					
200	219.1	263.4	336	63	2-5/8×80 (2-M16×80)	
8	8.625					
250	273.0	326	410	66	2-5/8×80 (2-M16×80)	
10	10.75					
300	323.9	381	469	66	2-5/8×80 (2-M16×80)	
12	12.75					

**Flexible Coupling (Heavy-duty)
1212**

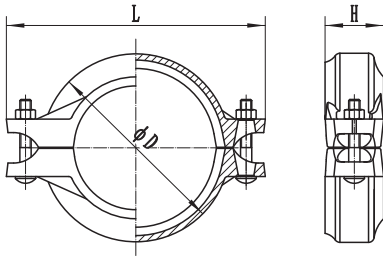


Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Bolt/Nut inch/mm	Working pressure Psi
		ΦD mm	L mm	H mm		
32	42.4	64	106	47	2-3/8×40 (2-M10×40)	500
1 1/4	1.669					
40	48.3	69.4	113	47	2-3/8×60 (2-M10×60)	
1 1/2	1.9					
50	60.3	88	122	47	2-1/2×70 (2-M12×70)	
2	2.375					
65	73	100	141	47	2-1/2×70 (2-M12×70)	
2 1/2	2.875					
65	76.1	101.6	142	47	2-5/8×80 (2-M16×80)	
2 1/2	3					
80	88.9	116	158	47	2-5/8×80 (2-M16×80)	
3	3.5					
100	114.3	144.4	194	51	2-3/4×120 (2-M20×120)	
4	4.5					
125	139.7	171.6	230	52	2-3/4×120 (2-M20×120)	
5	5.5					
125	141.3	171.6	230	52	2-3/4×120 (2-M20×120)	
5	5.563					
150	165.1	198.6	255	53	2-3/4×120 (2-M20×120)	
6	6.5					
150	168.3	200	256	53	2-3/4×120 (2-M20×120)	
6	6.625					
200	219.1	263.4	334	63	2-7/8×190 (2-M22×190)	
8	8.625					
250	273	326	404	65	2-7/8×190 (2-M22×190)	
10	10.75					
300	323.9	381	468	65	2-7/8×190 (2-M22×190)	
12	12.75					

**Rigid Coupling (Heavy-duty)
1512**

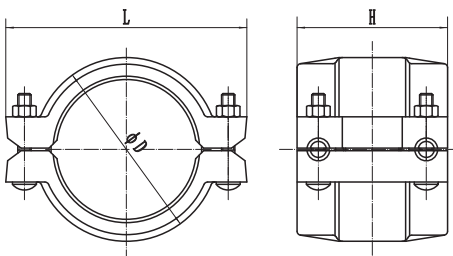


Reducing Flexible Coupling XGQT3



Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Bolt inch/mm	Working pressure Psi
		ΦD mm	L mm	H mm		
50×40 2×1½	60.3×48.3 2.375×1.9	82	130	46	3/8×2-1/8 (M10×55)	300
65×25 2½×1	73×33.7 2.875×1.327					
65×32 2½×1¼	73×42.4 2.875×1.669	97	151	46		
65×40 2½×1½	73×48.3 2.875×1.9					
65×50 2½×2	73×60.3 2.875×2.375	97	151	46		
65×50 2½×2	76.1×60.3 3×2.375					
80×40 3×1½	88.9×48.3 3.5×1.9	112	166.6	46		
80×50 3×2	88.9×60.3 3.5×2.375					
80×65 3×2½	88.9×73.0 3.5×2.875	123.6	166.6	46		
80×65 3×2½	88.9×76.1 3.5×3					
100×50 4×2	114.3×60.3 4.5×2.375	151.2	200	50		
100×65 4×2½	114.3×73.0 4.5×2.875					
100×65 4×2½	114.3×76.1 4.5×3.0	151.2	200	50		
100×80 4×3	114.3×88.9 4.5×3.5					
125×100 5×4	141.3×114.3 5.563×4.5	167	230	52		
150×80 6×3	165.1×88.9 6.5×3.5					
150×100 6×4	165.1×114.3 6.5×4.5	197	275	52		
150×65 6×2½	168.3×73 6.525×2.875					
150×80 6×3	168.3×88.9 6.525×3.5	199.4	275	52		
150×100 6×4	168.3×114.3 6.525×4.5					
150×100 6×5	168.3×141.3 6.625×5.563	199.4	275	52		
200×150 8×6	219.1×168.3 8.625×6.525					

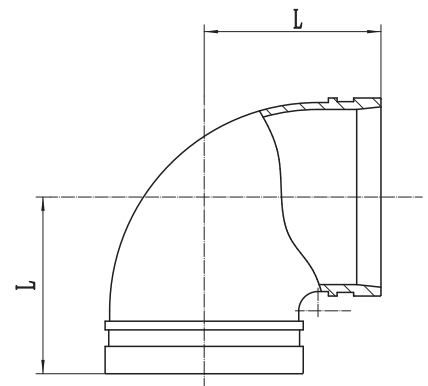
HDPE Coupling HDPE



Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Bolt/Nut Size (mm)
		ΦD mm	L mm	H mm	
50 2	63 2.5	85	128	105	3/8×2-1/8 (M10×55)
80 3	90 3.5				
100 4	110 4.3	110	169	105	1/2×3 (M12×75)
150 6	160 6.3				
200 8	200 7.9	138	181	113	1/2×3 (M12×75)
250 10	250 9.8				
300 12	315 12.4	190	261	147	5/8×3-1/2 (M16×90)
200 8	200 7.9				
250 10	250 9.8	233	319	154	5/8×3-1/2 (M16×90)
300 12	315 12.4				
250 10	250 9.8	287	351	136	5/8×4-3/4 (M16×120)
300 12	315 12.4				
250 10	250 9.8	351	442	136	3/4×4-3/4 (M20×120)
300 12	315 12.4				

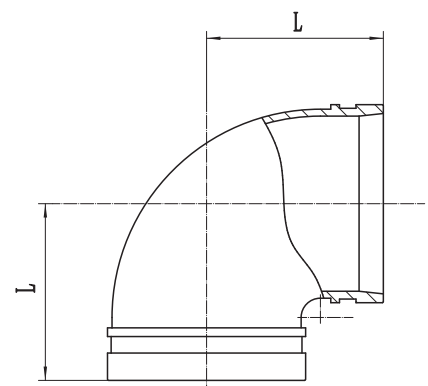
Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working Pressure (psi)
		L (mm)	
50	60.3	70	300
2	2.375		
65	73	76	
2½	2.875		
65	76.1	76	
2½	3		
80	88.9	85	
3	3.5		
100	108	102	
4	4.25		
100	114.3	102	
4	4.5		
125	133	121	
5	5.25		
125	139.7	121	
5	5.5		
125	141.3	121	
5	5.563		
150	159	130	
6	6.25		
150	165.1	130	
6	6.5		
150	168.3	140	
6	6.625		
200	219.1	175	
8	8.625		
250	273	215	
10	10.75		
300	323.9	220	
12	12.75		

Grooved 90° Elbow Short XGQT01

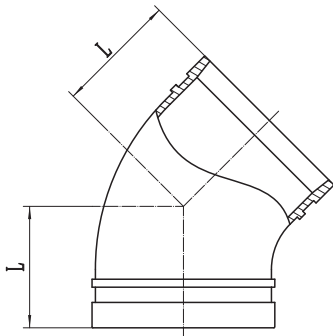


Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working Pressure (psi)
		L (mm)	
25	33.7	57	300
1	1.327		
32	42.4	70	
1¼	1.669		
40	48.3	70	
1½	1.9		
50	60.3	83	
2	2.375		
65	73	95	
2½	2.875		
65	76.1	95	
2½	3		
80	88.9	108	
3	3.5		
100	114.3	127	
4	4.5		
125	139.7	140	
5	5.5		
125	141.3	140	
5	5.563		
150	159	165	
6	6.25		
150	165.1	165	
6	6.5		
150	168.3	165	
6	6.625		
200	219.1	197	
8	8.625		

Grooved 90° Elbow Standard XGQT01L

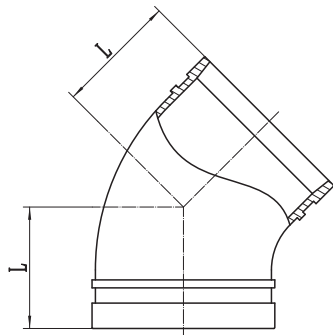


Grooved 45° Elbow Short XGQT011



Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working Pressure (psi)
		L (mm)	
65	76.1	48	300
2 1/2	3		
80	88.9	53	
3	3.5		
100	108	60	
4	4.25		
100	114.3	60	
4	4.5		
125	133	68	
5	5.25		
125	139.7	68	
5	5.5		
125	141.3	68	
5	5.563		
150	159	75.5	
6	6.25		
150	165.1	75.5	
6	6.5		
150	168.3	75.5	
6	6.625		
200	219.1	95	
8	8.625		
250	273	112	
10	10.75		
300	323.9	135	
12	12.75		

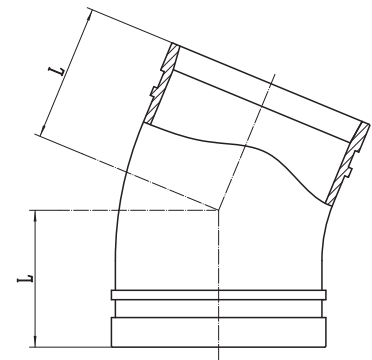
Grooved 45° Elbow Standard XGQT011L



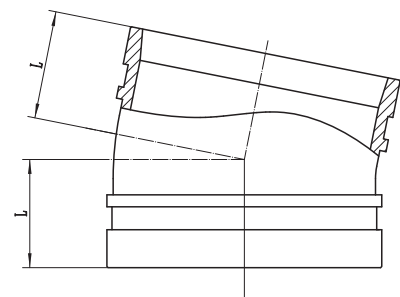
Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working Pressure (psi)
		L (mm)	
25	33.7	45	300
1	1.327		
32	42.4	45	
1 1/4	1.669		
40	48.3	45	
1 1/2	1.9		
50	60.3	51	
2	2.375		
65	73	62	
2 1/2	2.875		
65	76.1	62	
2 1/2	3		
80	88.9	70	
3	3.5		
100	108	76	
4	4.25		
100	114.3	76	
4	4.5		
125	133	83	
5	5.25		
125	139.7	83	
5	5.5		
125	141.3	83	
5	5.563		
150	159	89	
6	6.25		
150	165.1	89	
6	6.5		
150	168.3	89	
6	6.625		
200	219.1	108	
8	8.625		

Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working pressure (Psi)
		L (mm)	
50	60.3	48	300
2	2.375		
65	73	51	
2 1/2	2.875		
65	76.1	51	
2 1/2	3		
80	88.9	57	
3	3.5		
100	108	73	
4	4.25		
100	114.3	73	
4	4.5		
125	133	73	
5	5.25		
125	139.7	73	
5	5.5		
125	141.3	73	
5	5.563		
150	159	79	
6	6.25		
150	165.1	79	
6	6.5		
150	168.3	79	
6	6.625		
200	219.1	98	
8	8.625		

Grooved 22.5° Elbow XGQT012

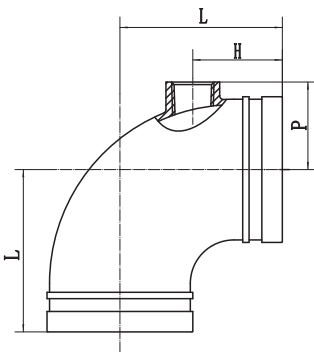


Grooved 11.25° Elbow XGQT013



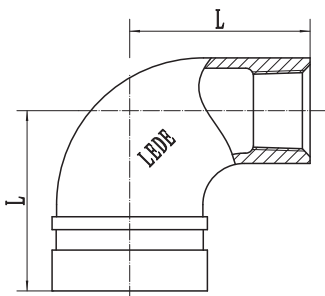
Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working pressure (Psi)
		L (mm)	
50	60.3	35	300
2	2.375		
65	73	38	
2 1/2	2.875		
65	76.1	38	
2 1/2	3		
80	88.9	38	
3	3.5		
100	108	45	
4	4.25		
100	114.3	45	
4	4.5		
125	133	51	
5	5.25		
125	139.7	51	
5	5.5		
125	141.3	51	
5	5.563		
150	159	51	
6	6.25		
150	165.1	51	
6	6.5		
150	168.3	51	
6	6.625		
200	219.1	51	
8	8.625		

Drain Elbow 90° 2601



Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Working pressure
		L mm	H mm	P mm	
50	60.3	83	70	37.5	2.5MPa (300PSI)
2	2.375				
65	73	95	70	45	
2½	2.875				
65	76.1	95	70	45	
2½	3				
80	88.9	108	70	55	
3	3.5				
100	114.3	127	70	68.5	
4	4.5				
125	139.7	140	70	82	
5	5.5				
125	141.3	140	70	82	
5	5.563				
150	165.1	165	70	95.5	
6	6.5				
150	168.3	165	70	95.5	
6	6.625				

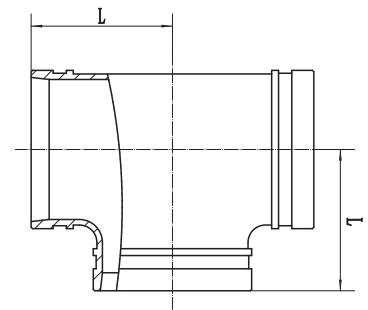
90° Reducing Elbow XGQT014



Nominal Size (mm/in)	Dimensions L (mm)	Working Pressure (psi)
32×15	61	300
1¼×½		
32×20		
1¼×¾		
32×25	64	
1¼×1		
40×15		
1½×½		
40×20	70	
1½×¾		
40×25		
1½×1		
50×15	76	
2×½		
50×20		
2×¾		
50×25	76	
2×1		
65×15		
2½×½		
65×20	76	
2½×¾		
65×25		
2½×1		

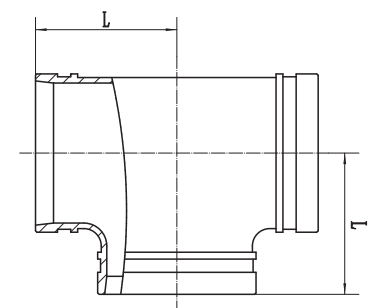
Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working Pressure (psi)
		L (mm)	
50	60.3	70	300
2	2.375		
65	73	76	
2½	2.875		
65	76.1	76	
2½	3		
80	88.9	85	
3	3.5		
100	108	102	
4	4.25		
100	114.3	102	
4	4.5		
125	133	121	
5	5.25		
125	139.7	121	
5	5.5		
125	141.3	121	
5	5.563		
150	159	130	
6	6.25		
150	165.1	130	
6	6.5		
150	168.3	140	
6	6.625		
200	219.1	175	
8	8.625		
250	273	215	
10	10.75		
300	323.9	220	
12	12.75		

Grooved Tee Short XGQT03

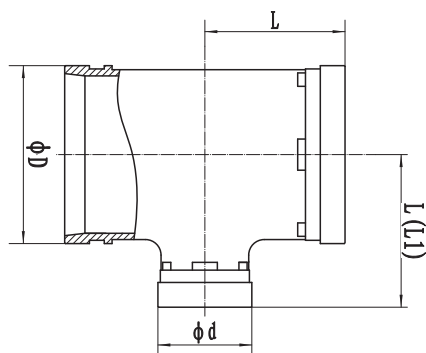


Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working Pressure (psi)
		L (mm)	
25	33.7	57	300
1	1.327		
32	42.4	70	
1¼	1.669		
40	48.3	70	
1½	1.9		
50	60.3	84	
2	2.375		
65	73	95	
2½	2.875		
65	76.1	95	
2½	3		
80	88.9	108	
3	3.5		
100	114.3	127	
4	4.5		
125	139.7	140	
5	5.5		
125	141.3	140	
5	5.563		
150	159	165	
6	6.25		
150	165.1	165	
6	6.5		
150	168.3	165	
6	6.625		
200	219.1	197	
8	8.625		

Grooved Tee Standard XGQT03L

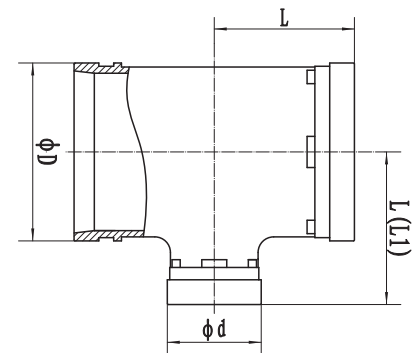


Grooved Reducing Tee XGQT03



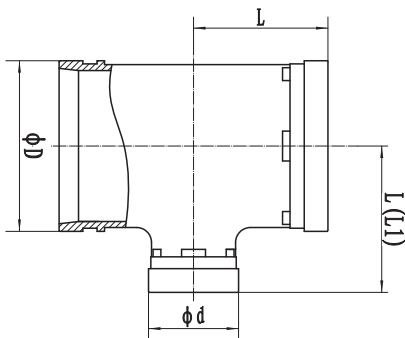
Nominal Size mm/in	Pipe O.D mm/in	Dimensions				Working pressure (Psi)
		L (mm)		D mm	d mm	
		L	L1			
50×32	60.3×42.4					300
2×1¼	2.375×1.669			70	60	
50×40	60.3×48.3				60	
2×1½	2.375×1.9			70	60	
65×32	73×42.4				73	
2½×1¼	2.875×1.669			76	73	
65×40	73×48.3				73	
2½×1½	2.875×1.9			76	73	
65×50	73×60.3				73	
2½×2	2.875×2.375			76	73	
65×32	76.1×42.4				76	
2½×1¼	3×1.669			76	76	
65×40	76.1×48.3				76	
2½×1½	3×1.9			76	76	
65×50	76.1×60.3				76	
2½×2	3×2.375			76	76	
80×32	88.9×42.4				89	
3×1¼	3.5×1.669			86	89	
80×40	88.9×48.3				89	
3×1½	3.5×1.9			86	89	
80×50	88.9×60.3				89	
3×2	3.5×2.375			86	89	
80×65	88.9×73				89	
3×2½	3.5×2.875			86	89	
80×65	88.9×76.1				89	
3×2½	3.5×3			86	89	
100×50	108×60.3				108	
4×2	4.25×2.375	90	98	102	108	
100×65	108×73				108	
4×2½	4.25×2.875	90	98	102	108	
100×65	108×76.1				108	
4×2½	4.25×3	90	98	102	108	
100×80	108×88.9				108	
4×3	4.25×3.5	90	98	102	108	
100×32	114.3×42.4				114	
4×1¼	4.5×1.669	90	98	102	114	
100×40	114.3×48.3				114	
4×1½	4.5×1.9	90	98	102	114	
100×50	114.3×60.3				114	
4×2	4.5×2.375	90	98	102	114	
100×65	114.3×73				114	
4×2½	4.5×2.875	90	98	102	114	
100×65	114.3×76.1				114	
4×2½	4.5×3	90	98	102	114	
100×80	114.3×88.9				114	
4×3	4.5×3.5	90	98	102	114	
125×65	133×76.1				133	
5×2½	5.25×3			105	121	
125×80	133×88.9				133	
5×3	5.25×3.5			105	121	
125×100	133×108				133	
5×4	5.25×4.25			105	121	
125×100	133×114.3				133	
5×4	5.25×4.5			105	121	
125×50	139.7×60.3				140	
5×2	5.5×2.375			105	121	
125×65	139.7×76.1				140	
5×2½	5.5×3			105	121	
125×80	139.7×88.9				140	
5×3	5.5×3.5			105	121	
125×100	139.7×108				140	
5×4	5.5×4.25			105	121	

**Grooved Reducing Tee
XGQT03**



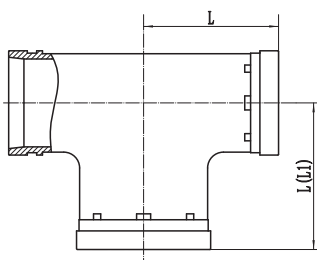
Nominal Size mm/in	Pipe O.D mm/in	Dimensions				Working pressure (Psi)	
		L (mm)			D mm		d mm
		L SHORT	L1	L SHORT (+)			
125×100 5×4	139.7×114.3 5.5×4.5	105	121	140	114	300	
125×125 5×5	139.7×133 5.5×5.25	105	121	140	133		
125×50 5×2	141.3×60.3 5.563×2.375	105	121	141	60		
125×65 5×2½	141.3×73 5.563×2.875	105	121	141	73		
125×80 5×3	141.3×88.9 5.563×3.5	105	121	141	89		
125×100 5×4	141.3×114.3 5.563×4.5	105	121	141	114		
150×65 6×2½	159×76.1 6.25×3	110	120	130	76		
150×80 6×3	159×88.9 6.25×3.5	110	120	130	89		
150×100 6×4	159×108 6.25×4.25	110	120	130	108		
150×100 6×4	159×114.3 6.25×4.5	110	120	130	114		
150×125 6×5	159×133 6.25×5.25	110	120	130	133		
150×125 6×5	159×139.7 6.25×5.5	110	120	130	140		
150×50 6×2	165.1×60.3 6.5×2.375	110	120	130	60		
150×65 6×2½	165.1×76.1 6.5×3	110	120	130	76		
150×80 6×3	165.1×88.9 6.5×3.5	110	120	130	89		
150×100 6×4	165.1×108 6.5×4.25	110	120	130	108		
150×100 6×4	165.1×114.3 6.5×4.5	110	120	130	114		
150×125 6×5	165.1×133 6.5×5.25	110	120	130	133		
150×125 6×5	165.1×139.7 6.5×5.5	110	120	130	140		
150×50 6×2	168.3×60.3 6.625×2.375	110	120	140	60		
150×65 6×2½	168.3×76.1 6.625×3	110	120	140	76		
150×80 6×3	168.3×88.9 6.625×3.5	110	120	140	89		
150×100 6×4	168.3×108 6.625×4.25	110	120	140	108		
150×100 6×4	168.3×114.3 6.625×4.5	110	120	140	114		
150×125 6×5	168.3×133 6.625×5.25	110	120	140	133		
150×125 6×5	168.3×139.7 6.625×5.5	110	120	140	140		
200×65 8×2½	219.1×76.1 8.625×3	146	174	219	76		
200×80 8×3	219.1×88.9 8.625×3.5	146	174	219	89		
200×100 8×4	219.1×108 8.625×4.25	146	174	219	108		
200×100 8×4	219.1×114.3 8.625×4.5	146	174	219	114		
200×125 8×5	219.1×133 8.625×5.25	146	174	219	133		

Grooved Reducing Tee XGQT03



Nominal Size mm/in	Pipe O.D mm/in	Dimensions				Working pressure (Psi)
		L (mm)		D mm	d mm	
		L SHORT	L1 SHORT (+)			
200×125	219.1×139.7	146	174	219	140	300
8×5	8.625×5.5					
200×150	219.1×159	146	174	219	159	
8×6	8.625×6.25					
200×150	219.1×165.1	146	174	219	165	
8×6	8.625×6.5					
250×80	273×88.9	190		273	89	
10×3	10.75×3.5					
250×100	273×108	190		273	108	
10×4	10.75×4.25					
250×100	273×114.3	190		273	114	
10×4	10.75×4.5					
250×125	273×133	190		273	133	
10×5	10.75×5.25					
250×125	273×139.7	190		273	140	
10×5	10.75×5.5					
250×125	273×141.3	190		273	141	
10×5	10.75×5.563					
250×150	273×159	190		273	159	
10×6	10.75×6.25					
250×150	273×165.1	190		273	165	
10×6	10.75×6.5					
250×150	273×168.3	190		273	168	
10×6	10.75×6.625					
250×200	273×219.1	190		273	219	
10×8	10.75×8.625					
300×150	323.9×159	220		325	159	
12×6	12.75×6.25					
300×150	323.9×165.1	220		325	165	
12×6	12.75×6.5					
300×150	323.9×168.3	220		325	168	
12×6	12.75×6.625					
300×200	323.9×219.1	220		325	219	
12×8	12.75×8.625					
300×250	323.9×273	220		325	273	
12×10	12.75×10.75					

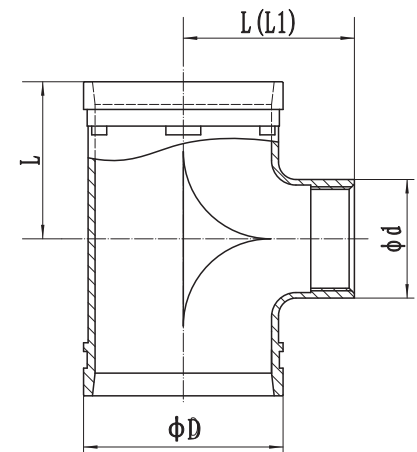
Bullhead Tee XGQT03



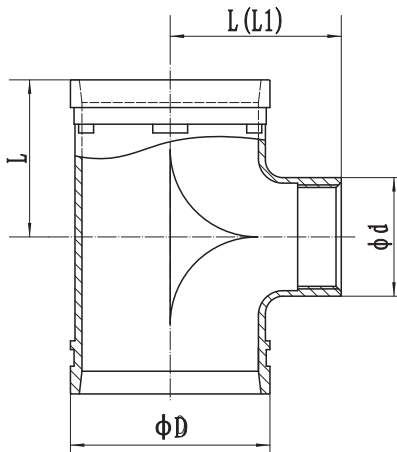
Nominal Size mm/in	Pipe O.D mm/in	Dimensions				Working Pressure (psi)
		L (mm)		D mm	d mm	
		L	L1			
80×100	88.9×114.3	115	125	89	114	2.5MPa (300PSI)
3×4	3.5×4.5					
100×150	114.3×165.1	140		114	165	
4×6	4.5×6.5					

Nominal Size mm/in	Pipe O.D mm/in	Dimensions				Working pressure Psi
		L (mm)		D	d	
		L	L1	mm	mm	
50×25	60.3×33.7	70		60	43	300
2×1	2.375×1.327					
50×32	60.3×42.4	70		60	52	
2×1¼	2.375×1.669					
50×40	60.3×48.3	70		60	58	
2×1½	2.375×1.9					
65×25	73.0×33.7	76		73	43	
2½×1	2.875×1.327					
65×32	73.0×42.4	76		73	52	
2½×1¼	2.875×1.669					
65×40	73.0×48.3	76		73	58	
2½×1½	2.875×1.9					
65×50	73.0×60.3	76		73	70	
2½×2	2.875×2.375					
65×25	76.1×33.7	76		76	43	
2½×1	3×1.327					
65×32	76.1×42.4	76		76	52	
2½×1¼	3×1.669					
65×40	76.1×48.3	76		76	58	
2½×1½	3×1.9					
65×50	76.1×60.3	76		76	70	
2½×2	3×2.375					
80×25	88.9×33.7	86		89	43	
3×1	3.5×1.327					
80×32	88.9×42.4	86		89	52	
3×1¼	3.5×1.669					
80×40	88.9×48.3	86		89	56	
3×1½	3.5×1.9					
80×50	88.9×60.3	86		89	70	
3×2	3.5×2.375					
80×65	88.9×76.1	86		89	86	
3×2½	3.5×3					
100×40	108.0×48.3	90	98	108	58	
4×1½	4.25×1.9					
100×50	108.0×60.3	90	98	108	70	
4×2	4.25×2.375					
100×65	108.0×76.1	90	98	108	86	
4×2½	4.25×3					
100×80	108×88.9	90	98	108	99	
4×3	4.25×3.5					
100×25	114.3×33.7	90	98	114	43	
4×1	4.5×1.327					
100×32	114.3×42.4	90	98	114	52	
4×1¼	4.5×1.669					
100×40	114.3×48.3	90	98	114	58	
4×1½	4.5×1.9					
100×50	114.3×60.3	90	98	114	70	
4×2	4.5×2.375					
100×65	114.3×76.1	90	98	114	86	
4×2½	4.5×3					
100×80	114.3×88.9	90	98	114	99	
4×3	4.5×3.5					
125×50	133.0×60.3	105		133	70	
5×2	5.25×2.375					
125×65	133.0×76.1	105		133	86	
5×2½	5.25×3					
125×80	133.0×88.9	105		133	99	
5×3	5.25×3.5					
125×100	133.0×114.3	105		133	124	
5×4	5.25×4.5					
125×40	139.7×48.3	105		140	58	
5×1½	5.5×1.9					

Threaded Reducing Tee
XGQT03S



Threaded Reducing Tee XGQT03S

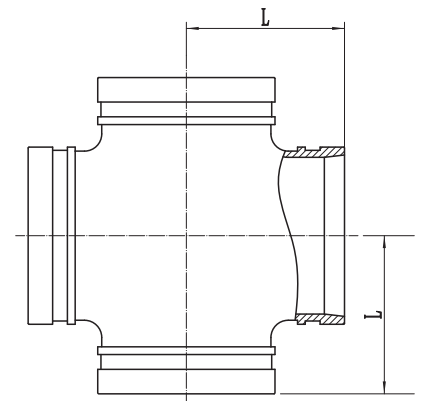


Nominal Size mm/in	Pipe O.D mm/in	Dimensions				Working pressure Psi
		L (mm)		D	d	
		L	L1	mm	mm	
125×50	139.7×60.3	105		140	70	300
5×2	5.5×2.375					
125×65	139.7×76.1	105		140	86	
5×2½	5.5×3					
125×80	139.7×88.9	105		140	99	
5×3	5.5×3.5					
125×100	139.7×114.3	105		140	124	
5×4	5.5×4.5					
125×40	141.3×48.3	105		141	58	
5×1½	5.563×1.9					
125×50	141.3×60.3	105		141	70	
5×2	5.563×2.375					
125×65	141.3×76.1	105		141	86	
5×2½	5.563×3					
125×80	141.3×88.9	105		141	99	
5×3	5.563×3.5					
125×100	141.3×114.3	105		141	124	
5×4	5.563×4.5					
150×40	159.0×48.3	110	120	159	58	
6×1½	6.25×1.9					
150×50	159.0×60.3	110	120	159	70	
6×2	6.25×2.375					
150×65	159.0×76.1	110	120	159	86	
6×2½	6.25×3					
150×80	159.0×88.9	110	120	159	99	
6×3	6.25×3.5					
150×100	159.0×114.3	110	120	159	124	
6×4	6.25×4.5					
150×40	165.1×48.3	110	120	165	58	
6×1½	6.5×1.9					
150×50	165.1×60.3	110	120	165	70	
6×2	6.5×2.375					
150×65	165.1×76.1	110	120	165	86	
6×2½	6.5×3					
150×80	165.1×88.9	110	120	165	99	
6×3	6.5×3.5					
150×100	165.1×114.3	110	120	165	124	
6×4	6.5×4.5					
150×40	168.3×48.3	110	120	168	58	
6×1½	6.625×1.9					
150×50	168.3×60.3	110	120	168	70	
6×2	6.625×2.375					
150×65	168.3×76.1	110	120	168	86	
6×2½	6.625×3					
150×80	168.3×88.9	110	120	168	99	
6×3	6.625×3.5					
150×100	168.3×114.3	110	120	168	124	
6×4	6.625×4.5					
200×50	219.1×60.3	146		219	70	
8×2	8.625×2.375					
200×50	219.1×76.1	146		219	86	
8×2½	8.625×3					
200×80	219.1×88.9	146		219	99	
8×3	8.625×3.5					
200×100	219.1×114.3	146		219	124	
8×4	8.625×4.5					

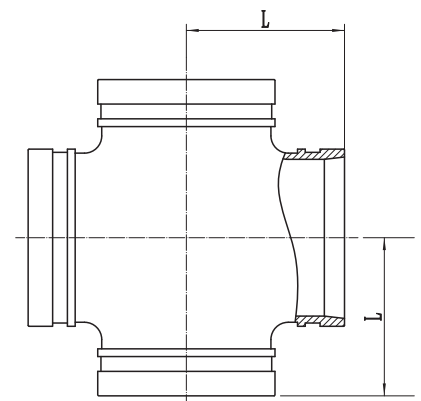
Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working Pressure (psi)
		L (mm) Short	
50	60.3	70	300
2	2.375		
65	73	76	
2½	2.875		
65	76.1	76	
2½	3		
80	88.9	86	
3	3.5		
100	108	102	
4	4.25		
100	114.3	102	
4	4.5		
125	133	121	
5	5.25		
125	139.7	121	
5	5.5		
150	159	130	
6	6.25		
150	165.1	130	
6	6.5		
150	168.3	140	
6	6.625		
200	219.1	174	
8	8.625		
250	273	215	
10	10.75		
300	323.9	245	
12	12.75		

Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working Pressure (psi)
		L (mm) Standard	
50	60.3	83	300
2	2.375		
65	73	95	
2½	2.875		
65	76.1	95	
2½	3		
80	88.9	108	
3	3.5		
100	108	127	
4	4.25		
100	114.3	127	
4	4.5		
125	133	140	
5	5.25		
125	139.7	140	
5	5.5		
150	159	165	
6	6.25		
150	165.1	165	
6	6.5		
150	168.3	165	
6	6.625		
200	219.1	197	
8	8.625		
250	273	229	
10	10.75		
300	323.9	254	
12	12.75		

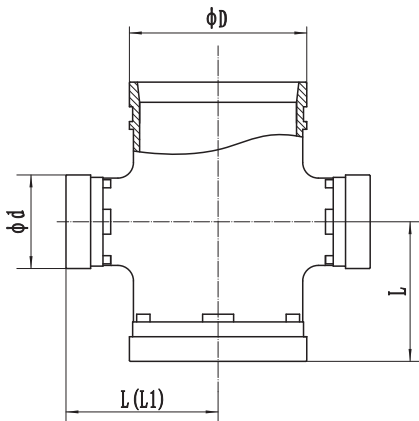
Grooved Cross Short XGQT05



Grooved Cross Standard XGQT05



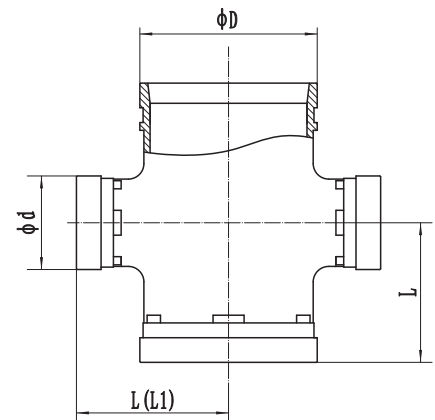
Grooved Reducing Cross XGQT05



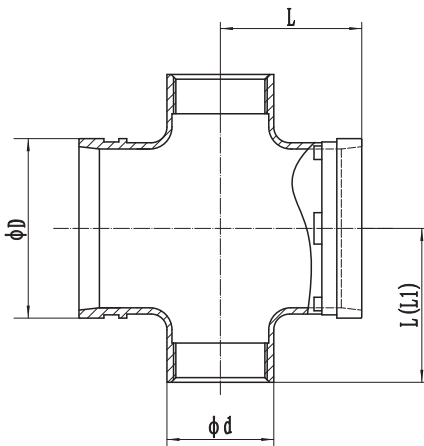
Nominal Size mm/in	Pipe O.D mm/in	Dimensions				Working pressure (Psi)
		L (mm)		D	d	
		L	L1	mm	mm	
65×32	73×42.4	76		73	42	300
2½×1¼	2.875×1.669	76		73	48	
65×40	73×48.3	76		73	60	
2½×1½	2.875×1.9	76		76	42	
65×50	73×60.3	76		76	48	
2½×2	2.875×2.375	76		76	60	
65×32	76.1×42.4	76		76	42	
2½×1¼	3×1.669	76		76	48	
65×40	76.1×48.3	76		76	60	
2½×1½	3×1.9	76		89	42	
65×50	76.1×60.3	76		89	48	
2½×2	3×2.375	76		89	60	
80×32	88.9×42.4	86		89	42	
3×1¼	3.5×1.669	86		89	48	
80×40	88.9×48.3	86		89	60	
3×1½	3.5×1.9	86		89	76	
80×50	88.9×60.3	86		108	60	
3×2	3.5×2.375	86		108	76	
80×65	88.9×76.1	86		108	89	
3×2½	3.5×3	90		108	42	
100×50	108×60.3	90		108	48	
4×2	4.25×2.375	90		108	60	
100×65	108×76.1	90		108	76	
4×2½	4.25×3	90		108	89	
100×80	108×88.9	90		108	42	
4×3	4.25×3.5	90		108	48	
100×32	114.3×42.4	90		114	60	
4×1¼	4.5×1.669	90		114	76	
100×40	114.3×48.3	90		114	89	
4×1½	4.5×1.9	90		114	108	
100×50	114.3×60.3	90		114	114	
4×2	4.5×2.375	90		114	140	
100×65	114.3×76.1	90		114	140	
4×2½	4.5×3	90		114	108	
100×80	114.3×88.9	90		114	114	
4×3	4.5×3.5	90		114	140	
125×65	133×76.1	105		133	76	
5×2½	5.25×3	105		133	89	
125×80	133×88.9	105		133	108	
5×3	5.25×3.5	105		133	114	
125×100	133×108	105		133	140	
5×4	5.25×4.25	105		133	140	
125×100	133×114.3	105		133	108	
5×4	5.25×4.5	105		133	114	
125×50	139.7×60.3	105		140	60	
5×2	5.5×2.375	105		140	76	
125×65	139.7×76.1	105		140	89	
5×2½	5.5×3	105		140	108	
125×80	139.7×88.9	105		140	114	
5×3	5.5×3.5	105		140	140	
125×100	139.7×108	105		140	140	
5×4	5.5×4.25	105		140	140	
125×100	139.7×114.3	105		140	140	
5×4	5.5×4.5	105		140	140	
125×50	141.3×60.3	105		141	60	
5×2	5.563×2.375	105		141	73	
125×65	141.3×73	105		141	89	
5×2½	5.563×2.875	105		141	108	
125×80	141.3×88.9	105		141	108	
5×3	5.563×3.5	105		141	108	
125×100	141.3×108	105		141	108	
5×4	5.563×4.25	105		141	108	

Nominal Size mm/in	Pipe O.D mm/in	Dimensions				Working pressure (Psi)
		L (mm)		D	d	
		L	L1	mm	mm	
125×100 5×4	141.3×114.3 5.563×4.5	105		141	114	300
150×65 6×2½	159×76.1 6.25×3	110	120	159	76	
150×80 6×3	159×88.9 6.25×3.5	110	120	159	89	
150×100 6×4	159×108 6.25×4.25	110	120	159	108	
150×100 6×4	159×114.3 6.25×4.5	110	120	159	114	
150×125 6×5	159×133 6.25×5.25	110	120	159	133	
150×50 6×2	165.1×60.3 6.5×2.375	110	120	165	60	
150×65 6×2½	165.1×76.1 6.5×3	110	120	165	76	
150×80 6×3	165.1×88.9 6.5×3.5	110	120	165	89	
150×100 6×4	165.1×108 6.5×4.25	110	120	165	108	
150×100 6×4	165.1×114.3 6.5×4.5	110	120	165	114	
150×125 6×5	165.1×133 6.5×5.25	110	120	165	133	
150×125 6×5	165.1×139.7 6.5×5.5	110	120	165	140	
150×50 6×2	168.3×60.3 6.625×2.375	110	120	168	60	
150×65 6×2½	168.3×76.1 6.625×3	110	120	168	76	
150×80 6×3	168.3×88.9 6.625×3.5	110	120	168	89	
150×100 6×4	168.3×108 6.625×4.25	110	120	168	108	
150×100 6×4	168.3×114.3 6.625×4.5	110	120	168	114	
150×125 6×5	168.3×133 6.625×5.25	110	120	168	133	
150×125 6×5	168.3×139.7 6.625×5.5	110	120	168	140	
200×65 8×2½	219.1×76.1 8.625×3	146		219	76	
200×80 8×3	219.1×88.9 8.625×3.5	146		219	89	
200×100 8×4	219.1×108 8.625×4.25	146		219	108	
200×100 8×4	219.1×114.3 8.625×4.5	146		219	114	
200×125 8×5	219.1×133 8.625×5.25	146		219	133	
200×125 8×5	219.1×139.7 8.625×5.5	146		219	140	
200×150 8×6	219.1×159 8.625×6.25	146		219	159	
200×150 8×6	219.1×165.1 8.625×6.5	146		219	165	

Grooved Reducing Cross
XGQT05



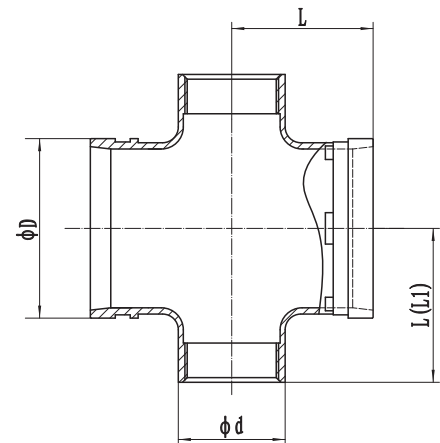
Threaded Reducing Cross XGQT05S



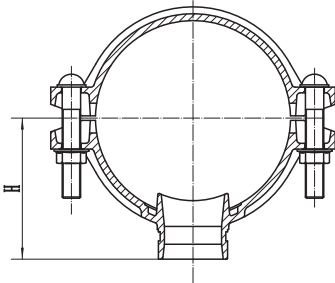
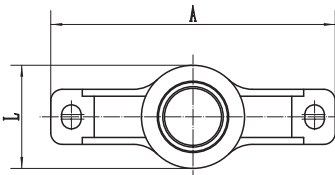
Nominal Size mm/in	Pipe O.D mm/in	Dimensions				Working pressure Psi
		L (mm)		D	d	
		L	L1	mm	mm	
50×25	60.3×33.7	70		60	43	230
2×1	2.375×1.327					
50×32	60.3×42.4	70		60	52	
2×1¼	2.375×1.669					
50×40	60.3×48.3	70		60	58	
2×1½	2.375×1.9					
65×25	73.0×33.7	76		73	43	
2½×1	2.875×1.327					
65×32	73.0×42.4	76		73	52	
2½×1¼	2.875×1.669					
65×40	73.0×48.3	76		73	58	
2½×1½	2.875×1.9					
65×50	73.0×60.3	76		73	70	
2½×2	2.875×2.375					
65×25	76.1×33.7	76		76	43	
2½×1	3×1.327					
65×32	76.1×42.4	76		76	52	
2½×1¼	3×1.669					
65×40	76.1×48.3	76		76	58	
2½×1½	3×1.9					
65×50	76.1×60.3	76		76	70	
2½×2	3×2.375					
80×25	88.9×33.7	86		89	43	
3×1	3.5×1.327					
80×32	88.9×42.4	86		89	52	
3×1¼	3.5×1.669					
80×40	88.9×48.3	86		89	58	
3×1½	3.5×1.9					
80×50	88.9×60.3	86		89	70	
3×2	3.5×2.375					
80×65	88.9×76.1	86		89	86	
3×2½	3.5×3					
100×50	108.0×60.3	90	98	108	70	
4×2	4.25×2.375					
100×65	108.0×76.1	90	98	108	86	
4×2½	4.25×3					
100×80	108×88.9	90	98	108	99	
4×3	4.25×3.5					
100×25	114.3×33.7	90	98	114	43	
4×1	4.5×1.327					
100×32	114.3×42.4	90	98	114	52	
4×1¼	4.5×1.669					
100×40	114.3×48.3	90	98	114	58	
4×1½	4.5×1.9					
100×50	114.3×60.3	90	98	114	70	
4×2	4.5×2.375					
100×65	114.3×76.1	90	98	114	86	
4×2½	4.5×3					
100×80	114.3×88.9	90	98	114	99	
4×3	4.5×3.5					
125×40	139.7×48.3	105		140	58	
5×1½	5.5×1.9					
125×50	139.7×Rc2	105		140	70	
5×2	5.5×2.375					
125×65	139.7×76.1	105		140	86	
5×2½	5.5×3					
125×80	139.7×88.9	105		140	99	
5×3	5.5×3.5					
125×100	139.7×114.3	105		140	124	
5×4	5.5×4.5					
125×40	141.3×48.3	105		141	58	
5×1½	5.563×1.9					

Nominal Size mm/in	Pipe O.D mm/in	Dimensions				Working pressure Psi
		L (mm)		D	d	
		L	L1	mm	mm	
125×50	141.3×60.3	105		141	70	230
5×2	5.563×2.375	105		141	70	
125×65	141.3×73	105		141	86	
5×2½	5.563×2.875	105		141	86	
125×80	141.3×88.9	105		141	99	
5×3	5.563×3.5	105		141	99	
125×100	141.3×114.3	105		141	124	
5×4	5.563×4.5	105		141	124	
150×50	159.0×60.3	110	120	159	70	
6×2	6.250×2.375	110	120	159	70	
150×65	159.0×76.1	110	120	159	86	
6×2½	6.25×3	110	120	159	86	
150×80	159.0×88.9	110	120	159	99	
6×3	6.25×3.5	110	120	159	99	
150×100	159×114.3	110	120	159	124	
6×4	6.25×4.5	110	120	159	124	
150×40	165.1×48.3	110	120	165	58	
6×1½	6.5×1.9	110	120	165	58	
150×50	165.1×60.3	110	120	165	70	
6×2	6.5×2.375	110	120	165	70	
150×65	165.1×76.1	110	120	165	86	
6×2½	6.5×3	110	120	165	86	
150×80	165.1×88.9	110	120	165	99	
6×3	6.5×3.5	110	120	165	99	
150×100	165.1×114.3	110	120	165	124	
6×4	6.5×4.5	110	120	165	124	
150×40	168.3×48.3	110	120	168	58	
6×1½	6.625×1.9	110	120	168	58	
150×50	168.3×60.3	110	120	168	70	
6×2	6.625×2.375	110	120	168	70	
150×65	168.3×76.1	110	120	168	86	
6×2½	6.625×3	110	120	168	86	
150×80	168.3×88.9	110	120	168	99	
6×3	6.625×3.5	110	120	168	99	
150×100	168.3×Rc4	110	120	168	124	
6×4	6.625×4.5	110	120	168	124	
200×50	219.1×60.3	146		219	70	
8×2	8.625×2.375	146		219	70	
200×50	219.1×76.1	146		219	86	
8×2½	8.625×3	146		219	86	
200×80	219.1×88.9	146		219	99	
8×3	8.625×3.5	146		219	99	
200×100	219.1×114.3	146		219	124	
8×4	8.625×4.5	146		219	124	

Threaded Reducing Cross XGQT05S

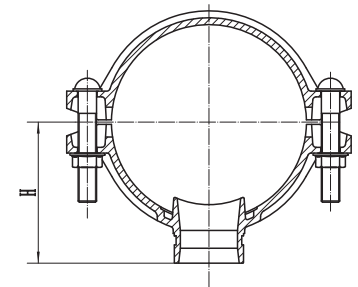
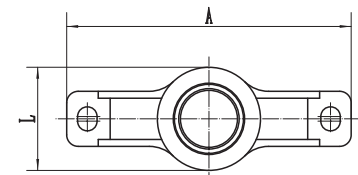


Grooved Mechanical Tee XGQT04G



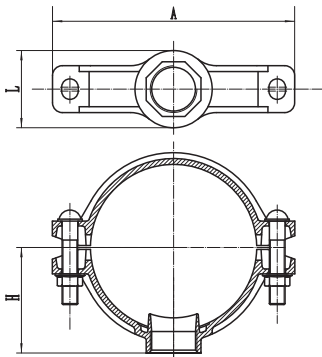
Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Hole Dimension (Φ-mm)	Bolt/Nut No.-size (mm)	Working pressure Psi
		A mm	L mm	H mm			
50×25 2×1	60.3×33.7 2.375×1.327	120	64	70	38	3/8×2 (M10×50)	300
50×32 2×1¼	60.3×42.4 2.375×1.669						
50×40 2×1½	60.3×48.3 2.375×1.9						
65×25 2½×1	73×33.7 2.875×1.327	139	64	73	38		
65×32 2½×1¼	73×42.4 2.875×1.669						
65×40 2½×1½	73×48.3 2.875×1.9	139	72	73	46		
65×25 2½×1	76.1×33.7 3×1.327						
65×32 2½×1¼	76.1×42.4 3×1.669	139	72	73	46		
65×40 2½×1½	76.1×48.3 3×1.9						
80×25 3×1	88.9×33.7 3.5×1.327	155	64	82	38		
80×32 3×1¼	88.9×42.4 3.5×1.669						
80×40 3×1½	88.9×48.3 3.5×1.9	155	79	82	53		
80×50 3×2	88.9×60.3 3.5×2.375						
100×50 4×2	108×60.3 4.25×2.375	172	90	92.5	64		
100×65 4×2½	108×76.1 4.25×3						
100×25 4×1	114.3×33.7 4.5×1.327	181	64	95.5	38		
100×32 4×1¼	114.3×42.4 4.5×1.669						
100×40 4×1½	114.3×48.3 4.5×1.9	181	72	95.5	46		
100×50 4×2	114.3×60.3 4.5×2.375						
100×65 4×2½	114.3×73 4.5×2.875	181	117	99	70		
100×65 4×2½	114.3×76.1 4.5×3						
100×80 4×3	114.3×88.9 4.5×3.5	181	136	99	89		
125×40 5×1½	133×48.3 5.25×1.9						
125×50 5×2	133×60.3 5.25×2.375	205	100	105.5	64		
125×65 5×2½	133×76.1 5.25×3						
125×80 5×3	133×88.9 5.25×3.5	205	129	105.5	92		
125×40 5×1½	139.7×48.3 5.5×1.9						
125×50 5×2	139.7×60.3 5.5×2.375	212	90	109	53		
125×65 5×2½	139.7×76.1 5.5×3						
125×80 5×3	139.7×88.9 5.5×3.5	212	129	109	89		
125×100 5×4	139.7×114.3 5.5×4.5						

**Grooved Mechanical Tee
XGQT04G**



Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Hole Dimension (Φ-mm)	Bolt/Nut No.-size (mm)	Working pressure Psi
		A mm	L mm	H mm			
125×40	141.3×48.3	212	90	109	53	1/2×3 (M12×75)	300
5×1½	5.563×1.9						
125×50	141.3×60.3	212	100	109	64		
5×2	5.563×2.375						
125×65	141.3×73	212	117	113	70		
5×2½	5.563×2.875						
125×80	141.3×88.9	212	136	113	89		
5×3	5.563×3.5						
150×50	159×60.3	233	100	118	64		
6×2	6.25×2.375						
150×65	159×76.1	233	117	118	80		
6×2½	6.25×3						
150×80	159×88.9	233	129	118	92		
6×3	6.25×3.5						
150×100	159×108	233	143	119.5	104		
6×4	6.25×4.25						
150×100	159×114.3	233	153	119.5	111		
6×4	6.25×4.5						
150×50	165.1×60.3	239	100	121	64		
6×2	6.5×2.375						
150×65	165.1×76.1	248	107	126	70		
6×2½	6.5×3						
150×80	165.1×88.9	239	129	121	89		
6×3	6.5×3.5						
150×100	165.1×108	239	143	122	104		
6×4	6.5×4.25						
150×100	165.1×114.3	239	153	122.5	114		
6×4	6.5×4.5						
150×32	168.3×42.4	248	72	121	46		
6×1¼	6.625×1.669						
150×40	168.3×48.3	248	79	121	53		
6×1½	6.625×1.9						
150×50	168.3×60.3	239	100	121	64		
6×2	6.625×2.375						
150×65	168.3×73	248	117	127	70		
6×2½	6.625×2.875						
150×65	168.3×76.1	248	117	127	70		
6×2½	6.625×3						
150×80	168.3×88.9	248	136	127	89		
6×3	6.625×3.5						
150×100	168.3×114.3	248	162	129	114		
6×4	6.625×4.5						
200×50	219.1×60.3	311	100	147.5	64		
8×2	8.625×2.375						
200×65	219.1×73	311	117	154	70		
8×2½	8.625×2.875						
200×65	219.1×76.1	311	117	154	70		
8×2½	8.625×3						
200×80	219.1×88.9	311	136	154	89		
8×3	8.625×3.5						
200×100	219.1×108	311	143	148.5	104		
8×4	8.625×4.25						
200×100	219.1×114.3	311	162	156	114		
8×4	8.625×4.5						
200×125	219.1×133	311	168	149	129		
8×5	8.625×5.25						
200×125	219.1×139.7	311	178	149	135		
8×5	8.625×5.5						
250×100	273×114	379	147	177	104		
10×4	10.75×4.5						

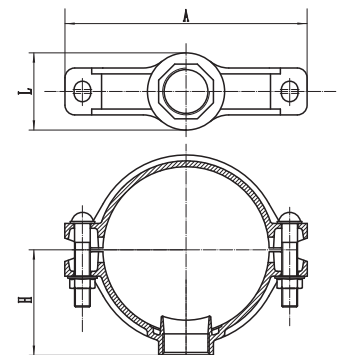
Threaded Mechanical Tee XGQT04



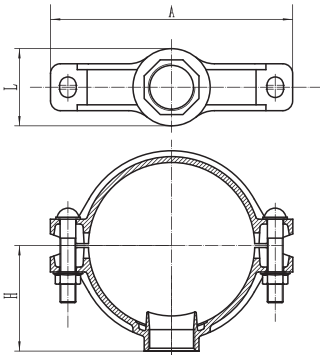
Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Pipehole Dia (Φ-mm)	Bolt/Nut Size (mm)	Working pressure Psi
		A mm	L mm	H mm			
50×15 2×1/2	60.3×21.3 2.375×0.825	120	54	50	30	3/8×2 (M10×50)	300
50×20 2×3/4	60.3×26.7 2.375×1.05						
50×25 2×1	60.3×33.7 2.375×1.327	120	64	50	38		
50×32 2×1 1/4	60.3×42.4 2.375×1.669						
50×40 2×1 1/2	60.3×48.3 2.375×1.9	120	72	55	46		
65×15 2 1/2×1/2	73×21.3 2.375×0.825						
65×20 2 1/2×3/4	73×26.7 2.875×1.05	139	54	58	30		
65×25 2 1/2×1	73.0×33.7 2.875×1.327						
65×32 2 1/2×1 1/4	73.0×42.4 2.875×1.669	139	72	60	46		
65×40 2 1/2×1 1/2	73.0×48.3 2.875×1.9						
65×15 2 1/2×1/2	76.1×21.3 3×0.825	139	54	58	30		
65×20 2 1/2×3/4	76.1×26.7 3×1.05						
65×25 2 1/2×1	76.1×33.7 3×1.327	139	65	60	38		
65×32 2 1/2×1 1/4	76.1×42.4 3×1.669						
65×40 2 1/2×1 1/2	76.1×48.3 3×1.9	139	79	60	53		
80×15 3×1/2	88.9×21.3 3.5×0.825						
80×20 3×3/4	88.9×26.7 3.5×1.05	155	59	66.5	30		
80×25 3×1	88.9×33.7 3.5×1.327						
80×32 3×1 1/4	88.9×42.4 3.5×1.669	155	72	67	46		
80×40 3×1 1/2	88.9×48.3 3.5×1.9						
80×50 3×2	88.9×60.3 3.5×2.375	155	90	67	64		
100×25 4×1	108.1×33.7 4.250×1.327						
100×32 4×1 1/4	108.0×42.4 4.25×1.669	167	83	76	46		
100×40 4×1 1/2	108.0×48.3 4.25×1.9						
100×50 4×2	108.0×60.3 4.25×2.375	167	100	78	64		

Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Pipehole Dia (Φ-mm)	Bolt/Nut Size (mm)	Working pressure Psi
		A mm	L mm	H mm			
100×65 4×2½	108.0×76.1 4.25×3	167	117	105	80	1/2×2-5/8 (M12×65)	300
100×25 4×1	114.3×33.7 4.5×1.327	181	64	79	38		
100×32 4×1¼	114.3×42.4 4.5×1.669	181	72	79	46		
100×40 4×1½	114.3×48.3 4.5×1.9	181	79	79	53		
100×50 4×2	114.3×60.3 4.5×2.375	181	90	79	64		
100×65 4×2½	114.3×76.1 4.5×3	181	117	105	70		
100×80 4×3	114.3×88.9 4.5×3.5	181	129	83	89		
125×25 5×1	133.0×33.7 5.250×1.327	205	76	89	38		
125×32 5×1¼	133.0×42.4 5.25×1.669	205	83	89	46		
125×40 5×1½	133.0×48.3 5.25×1.9	205	90	89	53		
125×50 5×2	133.0×60.3 5.25×2.375	205	100	89	64		
125×65 5×2½	133.0×76.1 5.25×3	205	117	92	80		
125×80 5×3	133.0×88.9 5.25×3.5	205	129	94	92		
125×25 5×1	139.7×33.7 5.5×1.327	212	76	93	38	1/2×3 (M12×75)	
125×32 5×1¼	139.7×42.4 5.5×1.669	212	83	93	46		
125×40 5×1½	139.7×48.3 5.5×1.9	212	90	93	53		
125×50 5×2	139.7×60.3 5.5×2.375	212	100	93	64		
125×65 5×2½	139.7×76.1 5.5×3	212	117	93	70		
125×80 5×3	139.7×88.9 5.5×3.5	212	129	95	89		
125×25 5×1	141.3×33.7 5.563×1.327	212	76	93	38		
125×32 5×1¼	141.3×42.4 5.563×1.669	212	83	93	46		
125×40 5×1½	141.3×48.3 5.563×1.9	212	90	93	53		
125×50 5×2	141.3×60.3 5.563×2.375	212	100	93	64		
125×65 5×2½	141.3×76.1 5.563×3	212	117	115	70		
125×80 5×3	141.3×88.9 5.563×3.5	212	136	118	89		

**Threaded Mechanical Tee
XGQT04**



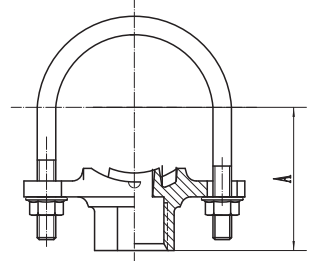
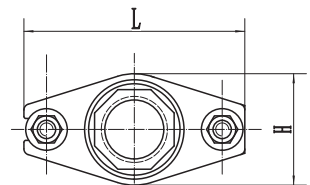
Threaded Mechanical Tee XGQT04



Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Pipehole Dia (Φ-mm)	Bolt/Nut Size (mm)	Working pressure Psi
		A mm	L mm	H mm			
150×25	159×33.7	233	76	101.5	38	9/16×3 (M14×75)	300
6×1	6.250×1.327						
150×32	159.0×42.4	233	83	101.5	46		
6×1¼	6.250×1.669						
150×40	159.0×48.3	233	90	101.5	53		
6×1½	6.250×1.9						
150×50	159.0×60.3	233	100	101.5	64		
6×2	6.250×2.375						
150×65	159.0×76.1	233	117	105.5	80		
6×2½	6.250×3						
150×80	159.0×88.9	233	129	105.5	92		
6×3	6.250×3.5						
150×100	159.0×114.3	233	157	110	118		
6×4	6.250×4.5						
150×25	165.1×33.7	248	64	106	38		
6×1	6.5×1.327						
150×32	165.1×42.4	248	72	106	46		
6×1¼	6.5×1.669						
150×40	165.1×48.3	248	79	106	53		
6×1½	6.5×1.9						
150×50	165.1×60.3	248	90	106	64		
6×2	6.5×2.375						
150×65	165.1×76.1	248	107	106	70		
6×2½	6.5×3						
150×80	165.1×88.9	248	118	108	89		
6×3	6.5×3.5						
150×100	165.1×114.3	239	157	110	114		
6×4	6.5×4.5						
150×25	168.3×33.7	248	64	106	38		
6×1	6.625×1.327						
150×32	168.3×42.4	248	72	106	46		
6×1¼	6.625×1.669						
150×40	168.3×48.3	248	79	106	53		
6×1½	6.625×1.9						
150×50	168.3×60.3	248	90	106	64		
6×2	6.625×2.375						
150×65	168.3×76.1	248	117	128	70		
6×2½	6.625×3						
150×80	168.3×88.9	248	136	131	89		
6×3	6.625×3.5						
150×100	168.3×Rc4	248	162	139.5	114		
6×4	6.625×4.5						
200×25	219.1×33.7	311	76	131	38		
8×1	8.625×1.327						
200×32	219.1×42.4	311	83	134	46		
8×1¼	8.625×1.669						
200×40	219.1×48.3	311	90	134	53		
8×1½	8.625×1.9						
200×50	219.1×60.3	311	100	134	64		
8×2	8.625×2.375						
200×65	219.1×76.1	311	117	156	70		
8×2½	8.625×3						
200×80	219.1×88.9	311	136	158.5	89		
8×3	8.625×3.5						
200×100	219.1×114.3	311	162	167	114		
8×4	8.625×4.5						
250×65	273.0×76.1	379	117	159	80		
10×2½	10.75×3						
250×80	273.0×88.9	379	129	162	92		
10×3	10.75×3.5						

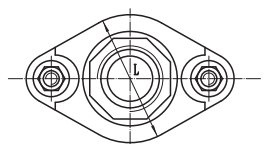
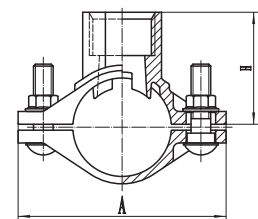
Nominal Size mm/in	Hole Cut mm/in	Dimensions			Bolt inch/mm	Working pressure Psi	
		A mm	L mm	H mm			
25x15 1x1/2	24.00 0.95	46	74	44	5/16x1-3/4 (M8x44)	300	
25x20 1x3/4	24.00 0.95						
32x15 1 1/4x1/2	30.00 1.18	53	89	56	3/8x3-1/8 (M10x78)		
32x20 1 1/4x3/4	30.00 1.18						
32x25 1 1/4x1	30.00 1.18	56	89	56			
40x15 1 1/2x1/2	30.00 1.18						
40x20 1 1/2x3/4	30.00 1.18	55	89	56			
40x25 1 1/2x1	30.00 1.18						
50x15 2x1/2	30.00 1.18	64	98	56			3/8x3-3/5 (M10x92)
50x20 2x3/4	30.00 1.18						
50x25 2x1	30.00 1.18	67	98	56			
65x15 2 1/2x1/2	30.00 1.18						
65x20 2 1/2x3/4	30.00 1.18	69	111	56	3/8x4-1/4 (M10x108)		
65x25 2 1/2x1	30.00 1.18						
80x25 3x1	30.00 1.18	80.5	128	56			

**U-Bolt Mechanical Tee
041**

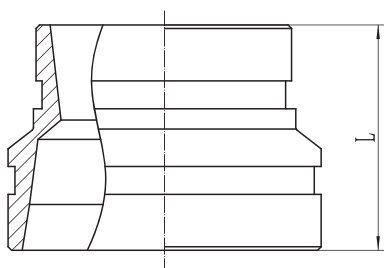


Nominal Size mm/in	Hole Cut mm/in	Dimensions			Bolt inch/mm	Working pressure Psi
		A mm	L mm	H mm		
25x15 1x1/2	24.00 0.95	93	48	28	3/8x1-1/2 (M10x40)	300
32x15 1 1/4x1/2	30.00 1.18					
32x20 1 1/4x3/4	30.00 1.18	98	65	45		
32x25 1 1/4x1	30.00 1.18					
40x15 1 1/2x1/2	30.00 1.18	105.6	65	48		
40x20 1 1/2x3/4	30.00 1.18					
40x25 1 1/2x1	30.00 1.18	105.6	65	57		
50x15 2x1/2	30.00 1.18					
50x20 2x3/4	30.00 1.18	125	65	54		
50x25 2x1	30.00 1.18					
65x15 2 1/2x1/2	30.00 1.18	139	65	61		
65x20 2 1/2x3/4	30.00 1.18					
65x25 2 1/2x1	30.00 1.18	139	65	71		

**Small Threaded
Mechanical Tee
L922**



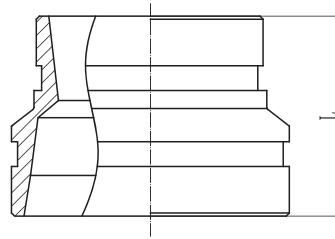
Grooved Reducer XGQT07



Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working pressure (Psi)
		L (mm)	
40×32	48.3×42.4	64	300
1½×1¼	1.9×1.669		
50×32	60.3×42.4		
2×1¼	2.375×1.669	64	
50×40	60.3×48.3		
2×1½	2.375×1.9	64	
65×32	73×42.4		
2½×1¼	2.875×1.669		
65×40	73×48.3	64	
2½×1½	2.875×1.9		
65×50	73×60.3	64	
2½×2	2.875×2.375		
65×40	76.1×48.3		
2½×1½	3×1.9		
65×50	76.1×60.3	64	
2½×2	3×2.375		
80×32	88.9×42.4	64	
3×1¼	3.5×1.669		
80×40	88.9×48.3		
3×1½	3.5×1.9		
80×50	88.9×60.3	64	
3×2	3.5×2.375		
80×65	88.9×73		
3×2½	3.5×2.875		
80×65	88.9×76.1	64	
3×2½	3.5×3		
100×50	108×60.3		76
4×2	4.25×2.375		
100×65	108×73	76	
4×2½	4.25×2.875		
100×65	108×76.1	76	
4×2½	4.25×3		
100×80	108×88.9		76
4×3	4.25×3.5		
100×32	114.3×42.4	76	
4×1¼	4.5×1.669		
100×40	114.3×48.3		76
4×1½	4.5×1.9		
100×50	114.3×60.3	76	
4×2	4.5×2.375		
100×65	114.3×73		76
4×2½	4.5×2.875		
100×65	114.3×76.1	76	
4×2½	4.5×3		
100×80	114.3×88.9		76
4×3	4.5×3.5		
125×50	133×60.3	85	
5×2	5.25×2.375		
125×65	133×73		85
5×2½	5.25×2.875		
125×65	133×76.1	85	
5×2½	5.25×3		
125×80	133×88.9		85
5×3	5.25×3.5		
125×100	133×108	85	
5×4	5.25×4.25		
125×100	133×114.3		85
5×4	5.25×4.5		
125×50	139.7×60.3	85	
5×2	5.5×2.375		
125×65	139.7×73		85
5×2½	5.5×2.875		

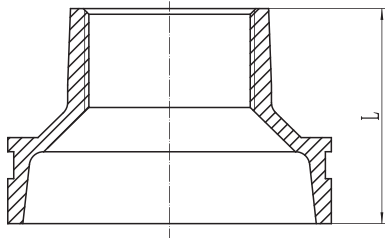
**Grooved Reducer
XGQT07**

Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working pressure (Psi)
		L (mm)	
125×65	139.7×76.1	85	300
5×2½	5.5×3		
125×80	139.7×88.9	85	
5×3	5.5×3.5		
125×100	139.7×108	85	
5×4	5.5×4.25		
125×100	139.7×114.3	85	
5×4	5.5×4.5		
125×50	141.3×60.3	85	
5×2	5.563×2.375		
125×65	141.3×73	85	
5×2½	5.563×2.875		
125×65	141.3×76.1	85	
5×2½	5.563×3		
125×80	141.3×88.9	85	
5×3	5.563×3.5		
125×100	141.3×114.3	85	
5×4	5.563×4.5		
150×50	159×60.3	85	
6×2	6.25×2.375		
150×65	159×73	85	
6×2½	6.25×2.875		
150×65	159×76.1	85	
6×2½	6.25×3		
150×80	159×88.9	85	
6×3	6.25×3.5		
150×100	159×108	85	
6×4	6.25×4.25		
150×100	159×114.3	85	
6×4	6.25×4.5		
150×125	159×133	85	
6×5	6.25×5.25		
150×125	159×139.7	85	
6×5	6.25×5.5		
150×50	165.1×60.3	85	
6×2	6.5×2.375		
150×65	165.1×73	85	
6×2½	6.5×2.875		
150×65	165.1×76.1	85	
6×2½	6.5×3		
150×80	165.1×88.9	85	
6×3	6.5×3.5		
150×100	165.1×108	85	
6×4	6.5×4.25		
150×100	165.1×114.3	85	
6×4	6.5×4.5		
150×125	165.1×133	85	
6×5	6.5×5.25		
150×125	165.1×139.7	85	
6×5	6.5×5.5		
150×50	168.3×60.3	85	
6×2	6.63×2.375		
150×65	168.3×73	85	
6×2½	6.625×2.875		
150×65	168.3×76.1	85	
6×2½	6.625×3.375		
150×80	168.3×88.9	85	
6×3	6.625×3.5		
150×100	168.3×114.3	85	
6×4	6.625×4.5		
150×125	168.3×139.7	85	
6×5	6.625×5.5		



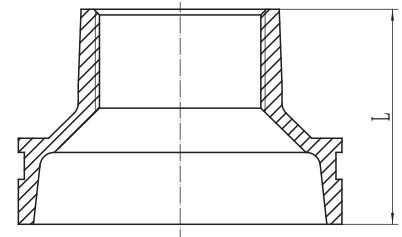
Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working pressure (Psi)
		L (mm)	
200×65	219.1×76.1	85	300
8×2½	8.63×3		
200×80	219.1×88.9	85	
8×3	8.625×3.5		
200×100	219.1×108	85	
8×4	8.625×4.25		
200×100	219.1×114.3	85	
8×4	8.625×4.5		
200×125	219.1×139.7	85	
8×5	8.625×5.5		
200×150	219.1×159	85	
8×6	8.625×6.25		
200×150	219.1×165.1	85	
8×6	8.63×6.5		
200×150	219.1×168.3	85	
8×6	8.625×6.63		
250×100	273×108	90	
10×4	10.75×4.25		
250×100	273×114.3	90	
10×4	10.75×4.5		
250×125	273×133	90	
10×5	10.75×5.25		
250×125	273×139.7	90	
10×5	10.75×5.5		
250×150	273×159	90	
10×6	10.75×6.25		
250×150	273×165.1	90	
10×6	10.75×6.5		
250×200	273×219.1	90	
10×8	10.75×8.625		
300×100	323.9×114.3	90	
12×4	12.75×4.5		
300×125	323.9×133	90	
12×5	12.75×5.25		
300×125	323.9×139.7	90	
12×5	12.75×5.5		
300×150	323.9×159	90	
12×6	12.75×6.25		
300×150	323.9×165.1	90	
12×6	12.75×6.625		
300×200	323.9×219.1	90	
12×8	12.75×8.63		
300×250	323.9×273	90	
12×10	12.75×10.75		

Threaded Reducer XGQT07S



Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working pressure (Psi)
		L (mm)	
50×25	60.3×33.7	64	300
2×1	2.375×1.327		
50×32	60.3×42.4	64	
2×1¼	2.375×1.669		
50×40	60.3×48.3	64	
2×1½	2.375×1.9		
65×25	73×33.7	64	
2½×1	2.875×1.327		
65×32	73×42.4	64	
2½×1¼	2.875×1.669		
65×40	73×48.3	64	
2½×1½	2.875×1.9		
65×50	73×60.3	64	
2½×2	2.875×2.375		
65×25	76.1×33.7	64	
2½×1	3×1.327		
65×32	76.1×42.4	64	
2½×1¼	3×1.669		
65×40	76.1×48.3	64	
2½×1½	3×1.9		
65×50	76.1×60.3	64	
2½×2	3×2.375		
80×25	88.9×33.7	64	
3×1	3.5×1.327		
80×32	88.9×42.4	64	
3×1¼	3.5×1.669		
80×40	88.9×48.3	64	
3×1½	3.5×1.9		
80×50	88.9×60.3	64	
3×2	3.5×2.375		
80×65	88.9×76.1	64	
3×2½	3.5×3		
100×25	108.0×33.7	76	
4×1	4.25×1.327		
100×32	108.0×42.4	76	
4×1¼	4.25×1.669		
100×40	108.0×48.3	76	
4×1½	4.25×1.9		
100×50	108.0×60.3	76	
4×2	4.25×2.375		
100×65	108.0×76.1	76	
4×2½	4.25×3		
100×80	108×88.9	76	
4×3	4.25×3.5		
100×25	114.3×33.7	76	
4×1	4.5×1.327		
100×32	114.3×42.4	76	
4×1¼	4.5×1.669		
100×40	114.3×48.3	76	
4×1½	4.5×1.9		
100×50	114.3×60.3	76	
4×2	4.5×2.375		
100×65	114.3×76.1	76	
4×2½	4.5×3		
100×80	114.3×88.9	76	
4×3	4.5×3.5		
125×25	133.0×Rc1	85	
5×1	5.25×1.327		
125×32	133.0×42.4	85	
5×1¼	5.25×1.669		
125×40	133.0×48.3	85	
5×1½	5.25×1.9		

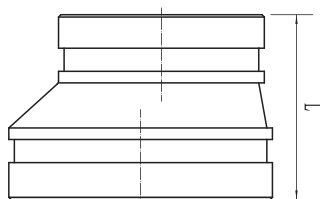
**Threaded Reducer
XGQT07S**



Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working pressure (Psi)
		L (mm)	
125×50	133.0×60.3	85	300
5×2	5.25×2.375		
125×65	133.0×76.1	85	
5×2½	5.25×3		
125×80	133.0×88.9	85	
5×3	5.25×3.5		
125×25	139.7×33.7	85	
5×1	5.5×1.327		
125×32	139.7×42.4	85	
5×1¼	5.5×1.669		
125×40	139.7×48.3	85	
5×1½	5.5×1.9		
125×50	139.7×60.3	85	
5×2	5.5×2.375		
125×65	139.7×76.1	85	
5×2½	5.5×3		
125×80	139.7×88.9	85	
5×3	5.5×3.5		
125×100	139.7×114.3	85	
5×4	5.5×4.5		
125×25	141.3×33.7	85	
5×1	5.563×1.327		
125×32	141.3×42.4	85	
5×1¼	5.563×1.669		
125×40	141.3×48.3	85	
5×1½	5.563×1.9		
125×50	141.3×60.3	85	
5×2	5.563×2.375		
125×65	141.3×76.1	85	
5×2½	5.563×3		
125×80	141.3×88.9	85	
5×3	5.563×3.5		
125×80	141.3×Rc	85	
5×3	5.563×4.5		
150×25	159×33.7	85	
6×1	6.25×1.327		
150×32	159.0×42.4	85	
6×1¼	6.25×1.669		
150×40	159.0×48.3	85	
6×1½	6.25×1.9		
150×50	159.0×60.3	85	
6×2	6.25×2.375		
150×65	159.0×76.1	85	
6×2½	6.250×3		
150×80	159.0×88.9	85	
6×3	6.25×3.5		
150×100	159.0×114.3	85	
6×4	6.25×4.5		
150×25	165.1×33.7	85	
6×1	6.5×1.327		
150×32	165.1×42.4	85	
6×1¼	6.5×1.669		
150×40	165.1×48.3	85	
6×1½	6.5×1.9		
150×50	165.1×60.3	85	
6×2	6.5×2.375		
150×65	165.1×76.1	85	
6×2½	6.5×3		
150×80	165.1×88.9	85	
6×3	6.5×3.5		
150×100	165.1×114.3	85	
6×4	6.5×4.5		

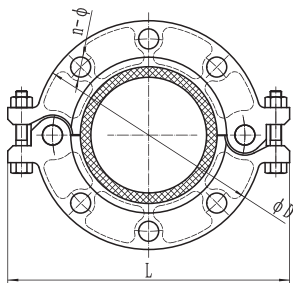
Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working pressure (Psi)
		L (mm)	
150×25	168.3×33.7	85	300
6×1	6.625×1.327		
150×32	168.3×42.4	85	
6×1¼	6.625×1.669		
150×40	168.3×48.3	85	
6×1½	6.625×1.9		
150×50	168.3×60.3	85	
6×2	6.625×2.375		
150×65	168.3×76.1	85	
6×2½	6.625×3		
150×80	168.3×88.9	85	
6×3	6.625×3.5		
150×100	168.3×114.3	85	
6×4	6.625×4.5		
200×25	219.1×33.7	85	
8×1	8.625×1.327		
200×32	219.1×42.4	85	
8×1¼	8.625×1.669		
200×40	219.1×48.3	85	
8×1½	8.625×1.9		
200×50	219.1×60.3	85	
8×2	8.625×2.375		
200×65	219.1×76.1	85	
8×2½	8.625×3		
200×80	219.1×88.9	85	
8×3	8.625×3.5		
200×100	219.1×114.3	85	
8×4	8.625×4.5		

Grooved Eccentric Reducer XGQT072



Nominal Size mm/in	Pipe O.D mm/in	Dimensions		Working pressure (Psi)
		L (mm/in)		
100×80	114.3×88.9	80		300
4×3	4.5×3.5	80		
125×100	139.7×114.3	102		
5×4	5.5×4.5	102		
150×100	165.1×114.3	102		
6×4	6.5×4.5	102		
150×125	165.1×139.7	102		
6×5	6.5×5.5	102		
200×100	219.1×114.3	127		
8×4	8.625×4.5	127		
200×150	219.1×165.1	127		
8×6	8.625×6.5	127		
250×150	273×165.1	152		
10×6	10.75×6.5	152		
250×200	273×219.1	152		
10×8	10.75×8.625	152		

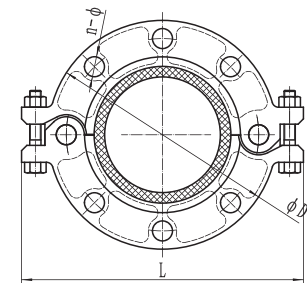
Grooved Flange PN16 XGQT09



Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Bolt/Nut No.-size (mm)	Working pressure (Psi)
		D mm	L mm	n-Φ		
50	60.3	164	210	4-18	3/8×2-3/4 (M10×70)	230
2	2.375					
65	73	182	240	8-18		
2 1/2	2.875					
65	76.1	182	240	8-18		
2 1/2	3					
80	88.9	194	250	8-18		
3	3.5					
100	108	216	266	8-18		
4	4.25					
100	114.3	216	266	8-18		
4	4.5					
125	133	247	300	8-18		
5	5.25					
125	139.7	247	300	8-18		
5	5.5					
125	141.3	247	300	8-18		
5	5.563					
150	159	282	336	8-22		
6	6.25					
150	165.1	282	336	8-22		
6	6.5					
150	168.3	282	336	8-22		
6	6.625					
200	219.1	335	395	12-22		
8	8.625					
250	273	404	470	12-26		
10	10.75					

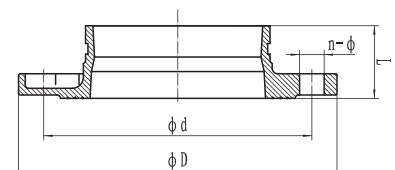
Nominal Size mm/in	Pipe O.D mm/in	Dimensions			Bolt/Nut No.-size (mm)	Working pressure (Psi)
		D mm	L mm	n-Φ		
50	60.3	164	210	4-18	3/8×2-1/8 (M10×55)	250
2	2.375					
65	73	176	240	4-18	3/8×2-3/4 (M10×70)	
2 1/2	2.875					
80	88.9	192	250	4-18		
3	3.5					
100	114.3	224	278	8-18		
4	4.5					
125	141.3	254	310	8-22		
5	5.563					
150	168.3	282	336	8-22	1/2×3-1/8 (M12×80)	
6	6.625					
200	219.1	343	395	8-22		
8	8.625					
250	273	362	503	12-26	1/2×4 (M16×100)	
10	10.75					
300	323.9	432	580	12-26		
12	12.75					

Grooved Flange ANSI125/150 L991

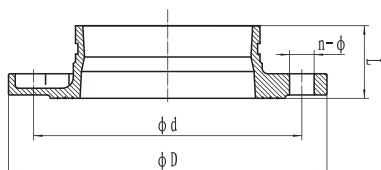


Nominal Size mm/in	Pipe O.D mm/in	Dimensions				Working pressure (Psi)
		ΦD mm	Φd mm	H mm	n-Φ mm	
50	60.30	165	125	60	4-18	300
2	2.38					
65	73.00	185	145	60	4-18	
2 1/2	2.88					
65	76.10	185	145	60	4-18	
2 1/2	3.00					
80	88.90	200	160	60	8-18	
3	3.50					
100	108.00	220	180	60	8-18	
4	4.25					
100	114.30	220	180	60	8-18	
4	4.50					
125	133.00	250	210	65	8-18	
5	5.25					
125	139.70	250	210	65	8-18	
5	5.50					
125	141.30	250	210	65	8-18	
5	5.56					
150	159.00	285	240	65	8-22	
6	6.25					
150	165.10	285	240	65	8-22	
6	6.50					
150	168.30	285	240	65	8-22	
6	6.63					
200	219.10	340	295	70	12-22	
8	8.63					
250	273.00	405	355	72	12-26	
10	10.75					
300	323.90	460	410	72	12-26	
12	12.75					

Flange Adaptor PN16 XGQT08

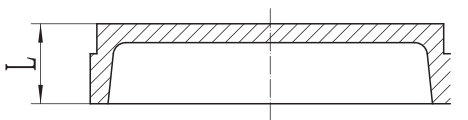


Flange adaptor ANSI125/150 L981



Nominal Size mm/in	Pipe O.D mm/in	Dimensions (mm)				Working Pressure (psi)
		ΦD	Φd	L	n-Φ	
50	60.3	155	120.5	65	4-Φ18	300
2	2.375					
65	73.00	178	140	65	4-Φ18	
2 1/2	2.875					
80	88.90	191	153	65	4-Φ18	
3	3.50					
100	114.30	229	191	70	8-Φ18	
4	4.50					
125	141.3	255	216	70	8-Φ22	
5	5.563					
150	168.30	280	241	70	8-Φ22	
6	6.625					
200	219.1	345	299	80	8-Φ22	
8	8.625					
250	273	405	362	85	12-Φ26	
10	10.75					
300	323.9	485	432	90	12-Φ26	
12	12.75					

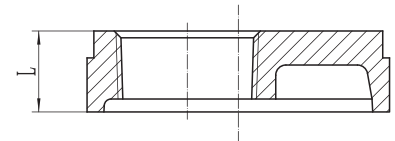
Grooved Cap XGQT06



Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working pressure (Psi)
		L (mm)	
25	33.7	23.8	300
1	1.327		
32	42.4	23.8	
1 1/4	1.669		
40	48.3	23.8	
1 1/2	1.9		
50	60.3	23.8	
2	2.375		
65	76.1	23.8	
2 1/2	3		
80	88.9	23.8	
3	3.5		
100	108	25.4	
4	4.25		
100	114.3	25.4	
4	4.5		
125	133	25.4	
5	5.25		
125	139.7	25.4	
5	"5.5"		
125	141.3	25.4	
5	5.563		
150	159	25.4	
5	6.25		
150	165.1	25.4	
6	6.5		
150	168.3	25.4	
6	6.625		
200	219.1	32	
8	8.625		
250	273	32	
10	10.75		
300	323.9	32	
12	12.75		

Nominal Size mm/in	Pipe O.D mm/in	Dimensions	Working pressure (Psi)
		L (mm)	
50×25	60.3×33.7	23.8	300
2×1	2.375×1.327		
50×32	60.3×42.4	23.8	
2×1¼	2.375×1.669		
50×40	60.3×48.3	23.8	
2×1½	2.375×1.9		
65×50	73.0×60.3	23.8	
2½×2	2.875×2.375		
65×25	76.1×33.7	23.8	
2½×1	3×1.327		
65×32	76.1×42.4	23.8	
2½×1¼	3×1.669		
65×40	76.1×48.3	23.8	
2½×1½	3×1.9		
65×50	76.1×60.3	23.8	
2½×2	3×2.375		
80×25	88.9×33.7	23.8	
3×1	3.5×1.327		
80×32	88.9×42.4	23.8	
3×1¼	3.5×1.669		
80×40	88.9×48.3	23.8	
3×1½	3.5×1.9		
80×50	88.9×60.3	23.8	
3×2	3.5×2.375		
100×40	114.3×48.3	25.4	
4×1½	4.5×1.9		
100×50	114.3×60.3	25.4	
4×2	4.5×2.375		
125×50	139.7×60.3	25.4	
5×2	5.5×2.375		
125×50	141.3×60.3	25.4	
5×2	5.563×2.375		
150×50	165.1×60.3	25.4	
6×2	6.5×2.375		
150×40	168.3×48.3	25.4	
6×1½	6.63×1.9		
150×50	168.3×60.3	25.4	
6×2	6.63×2.375		
200×50	219.1×60.3	28	
8×2	8.625×2.375		

Cap with Eccentric hole
XGQT061



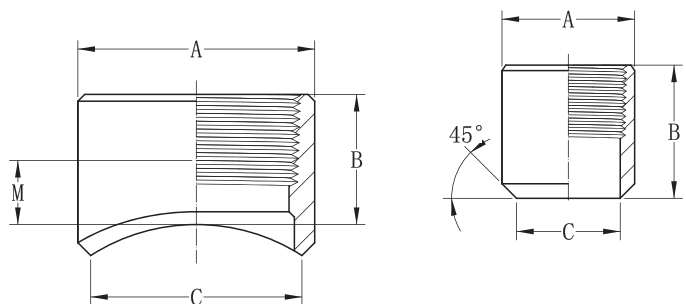
Threaded Outlet J01

The Model J01 outlet fittings are designed to provide you with a threaded outlet at any desired location along the header. Made of highly weldable SAE J403 forged steel the Model J01 is designed for single pass welding. The precision machined mouth is designed to fit the first listed header size perfectly, and allows only a small gap along the longitudinal centerline of the second listed header size. The Model J01 features a counter bore (dim. C) and a 1.6mm land around the full circumference of the mouth, which helps ensure full penetration welds and minimize the likelihood of any burn through or distortion that might be caused by excessive heat. The Model J01 is UL / cUL listed and FM approved for service up to 300 psi (20 bar).



The hole cut in the header pipe can be cut prior to or subsequent to welding of the fitting. If holes are cut prior to welding, as some codes require, follow the recommended welding procedures to avoid shrinkage and/or distortion of the header pipe. Caution: Excessive heat may cause the threads to distort and or leak. When holes are cut after welding, the pipe remains intact and thus may reduce shrinkage or pipe distortion.

Outlet Size mm/in	Header Size Range in	Outlet OD A mm/in	Outlet Length B mm/in	Counter-bore C mm/in	Make-Up M mm/in	Weight Kgs/Lbs
8	Flat	19.1	31.8	10.7	18.0	0.05
		0.750	1.250	0.421	0.789	0.11
15	1-1/2-2	28.6	27.0	17.8	12.7	0.08
	2-2-1/2					
	2-1/2-8					
0.5	1-1/4-1-1/2	1.125	1.063	0.70	0.500	0.17
	1-1/2-2					
	2-2-1/2					
20	2-2-1/2	34.9	28.6	22.9	12.7	0.12
	2-1/2-8					
	1-1/4-1-1/2					
0.75	1-1/2-2	1.375	1.125	0.900	0.500	0.26
	2-2-1/2					
	2-1/2-3					
25	3-4	40.5	31.86	29.1	12.7	0.13
	5-8					
	1-1/4-1-1/2					
	1-1/2-2					
1	2-2-1/2	1.600	1.250	1.145	0.500	0.29
	3-4					
	5-8					
32	1-1/2-2	49.5	34.9	37.8	12.7	0.19
	2-2-1/2					
	2-1/2-3					
	3-4					
	5-8					
1.25	1-1/2	1.950	1.375	1.490	0.500	0.42
	2					
	2-1/2					
40	3-4	55.9	41.3	40.9	22.2	0.22
	4					
	5-8					
1.5	2	2.203	1.625	1.610	0.875	0.47
	2.5					
	3					
50	4	68.6	44.5	52.5	22.2	0.38
	5					
	6					
	8					
	2-1/2					
2	3	2.703	1.750	2.067	0.875	0.57
	4					
	5					
65	5	80.4	54.0	62.7	28.6	0.55
	6					
	8					
2.5 (73.0OD)	2.5	3.165	2.215	2.469	1.125	1.15
	3					
	4					
65	5	83.5	54.0	62.7	28.6	0.55
	6					
	8					
2.5 (76.1OD)	3	3.290	2.215	2.469	1.125	1.15
	4					
	5					
80	5	98.0	63.5	77.9	38.1	0.77
	6					
	8					
3	4	3.861	2.500	3.068	1.500	1.70
	5					
	6					
100	6	125.2	76.2	102.3	50.8	1.32
	8					
4	8	4.933	3.000	4.026	2.000	2.80

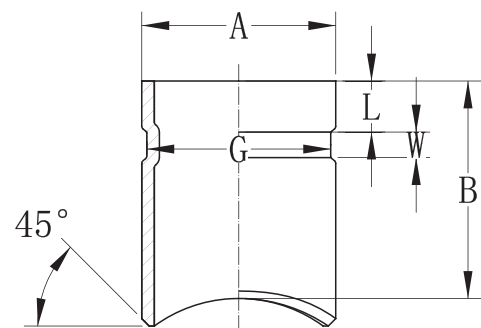


**Grooved Outlet
J02R**

The Model J02R outlet fittings is designed to provide you with a roll grooved outlet at any desired location along the header. Made from ASTM A53 or equivalent Sch. 10 pipe, the J02R features roll grooves to AWWA C606, ideal for use with light wall pipe. The Model J02R minimizes the likelihood of burn through or distortion. UL/cUL listed and FM approved to 300 psi (20 bar).



Outlet Size mm/in	Run Pipe in	Dimensions					Weight Kgs/Lbs
		A mm/in	B mm/in	L mm/in	W mm/in	G mm/in	
32 1.25	1.25-1.5	42.2 1.660	63.5 2.500	15.88 0.625	7.14 0.281	38.99 1.535	0.21 1.46
	2						
	2.5						
	3						
	4						
	5						
40 1.25	6-8	48.3 1.900	63.5 2.500	15.88 0.625	7.14 0.281	45.09 1.775	0.24 0.53
	1.5						
	2						
	2.5						
	3						
	4						
50 2	5	60.3 2.375	76.2 3.000	15.88 0.625	8.74 0.344	57.15 2.250	0.41 0.90
	6-8						
	2.5						
	3						
	4						
	5						
65 2.5 (73.00D)	6-8	73.0 2.875	76.2 3.000	15.88 0.625	8.74 0.344	69.09 2.720	0.64 1.41
	2.5						
	3						
	4						
	5						
	6-8						
65 2.5 (76.00D)	2-1/2	76.1 3.000	76.2 3.000	15.88 0.625	8.74 0.344	72.26 2.845	0.64 1.41
	3						
	4						
	5						
	6-8						
	80 3						
4							
5							
6-8							
100 4	4	114.3 4.500	101.6 4.000	15.88 0.625	8.74 0.344	110.08 4.314	1.45 3.19
	5						
	6-8						



Claims For Shortages:

All claims for shortages must be made within 10 days of receipt of goods. Our responsibility ceases when the goods are delivered to the carrier in good condition. Carriers are responsible for goods lost, damaged or delayed in transit. For your own protection have the transportation company's agent verify any damage, shortage or delay and note them on the freight bill over his/her signature.

**Warranty:**

We warrant all Lede products to be free from defects in materials and workmanship under normal conditions of use and service. Our obligation under this warranty is limited to repairing at our option at our factory or designated facility any product which shall within 10 years after delivery to the original buyer be returned with transportation charges prepaid, and which our examination and inspection shall show to our satisfaction to have been defective.

This warranty is made expressly in lieu of any other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular purpose. The buyer's sole and exclusive remedy shall be for the replacement or repair of defective products as provided herein. The buyer agrees that no other remedy (including but not limited of), incidental or consequential damages for lost profits, lost sales, injury to person or property or any other incidental or consequential loss shall be available to him/her.

Lede neither assumes nor authorizes any person to assume for it any other liability in connection with the sale of such products.

This warranty shall not apply to any product which has been the subject to misuse, negligence or accident, which has been repaired or altered in any manner outside of Lede's factory or designated facility or which has been used in a manner contrary to Lede's instructions, recommendations or generally accepted practices. Lede shall not be responsible for design errors due to inaccurate or incomplete information supplied by the buyer or his representatives.



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