

QUIKCOUP

GROOVED PIPES CONNECTION SYSTEM

THE SOLID
INSTANT
CONNECTION



MODGAL METAL LTD.

THE COMPANY

Modgal Metal is the manufacturer of the elite QUIKCOUP grooved products line. ISO 9001:2008 Certified. With over 50 years of experience, Modgal has developed expertise, versatility. Combined with continuous research and development, enabling Modgal to design and produce superior grooved couplings and fittings for the worldwide market.

Modgal Metal operates an in-house CAD-CAM-system, as well sophisticated simulation pouring systems at the engineering and design department. A modern equipped foundry with up-to-date advanced technologies, hot-dip galvanizing, powder coating and modern machining departments.

All these facilities are intended for reliable, efficient and quick answers to the needs of the modern markets of today.



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QUIKCOUP

THE QUIKCOUP

GROOVED PIPES CONNECTION SYSTEM

The QUIKCOUP grooved couplings and fittings system, is one of the most advanced piping connection methods today. It is reliable, versatile and economical!

QUIKCOUP grooved products line incorporate a variety of grooved couplings and fittings, hole-cut and threaded components. Thanks to its quality, it is used in a large variety of systems. All products are available in with powder coating or galva coating.

THE ADVANTAGES

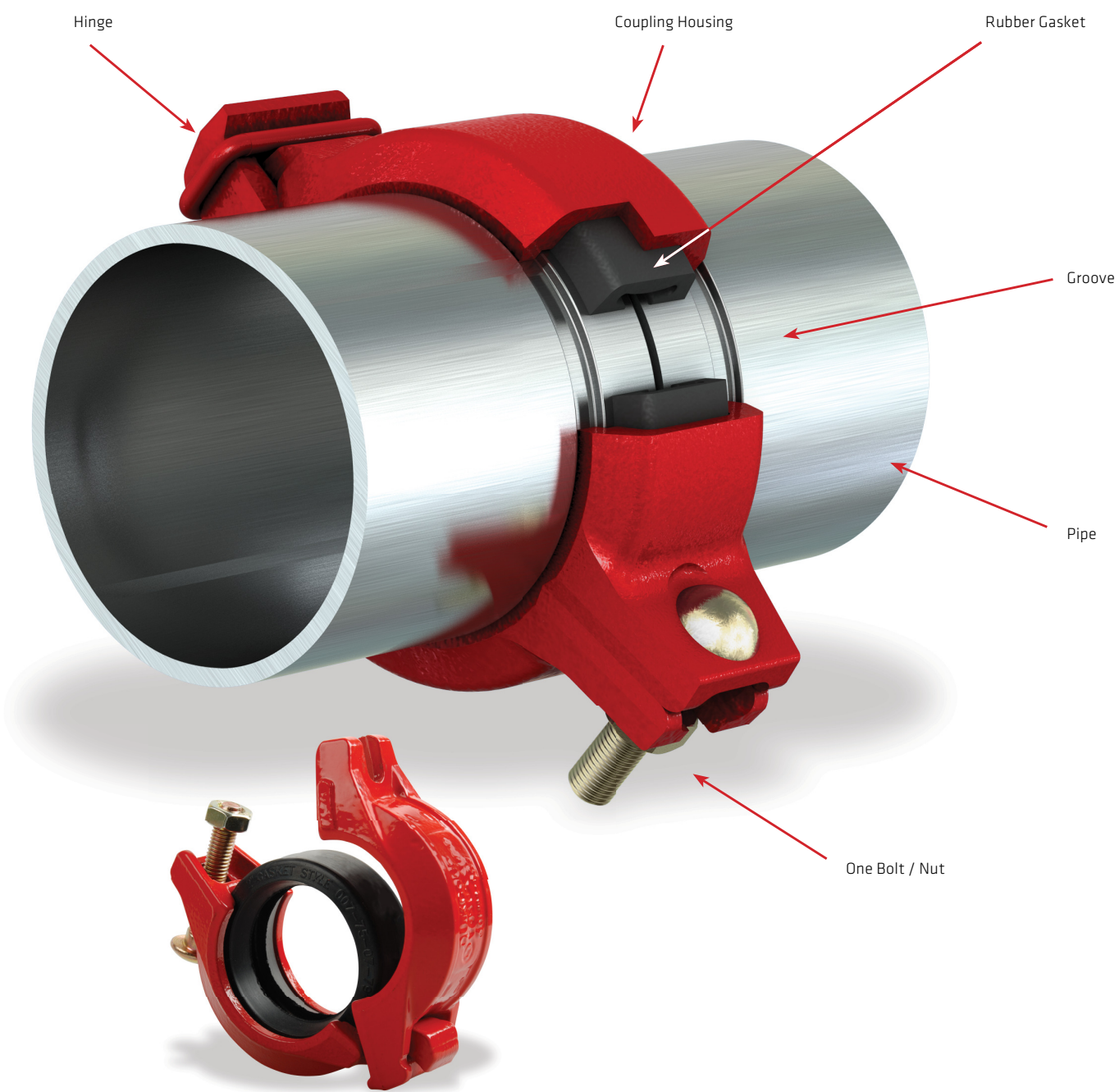
- Innovative design enables simple, fast and inexpensive installation, with no need for special tools or training.
- Fast assembly by using the unique single bolt Quikcoup style 007(RT) coupling.
- Substantial savings in both time and money resulting from elimination of the need for welding and threading.
- Reduce noise and vibration transmission and enable self restraining connections.
- Flexibility in layout of lines in difficult conditions.
- No risk of leaks due to temperature changes or movements caused by shaking or rocking.
- Enables use of thin-walled tubes, reducing both weight and price.
- Available in powdercoating or galvanized.

ONE SYSTEM FOR ALL APPLICATIONS

The Quikcoup grooved system is designed to enable a fast, reliable and economical pipe connection for:

- Sprinkler (wet and dry sprinkler systems, automatic sprinklers, hydrants lines)
- Industrial applications (process pipes, sewers, compressed air lines,...)
- Hot and cold water installations
- HVAC (heating, cooling water, and refrigerant lines)
- Waste-water systems
- Snow-making applications
- Tunnels
- and a lot more applications

Style 007
One Bolt Flexible Coupling
One Bolt / Nut





- Always read and understand the installation instructions before starting to work with Quikcoup products.
- Always depressurize and drain the piping system from all fluids before starting to work with Quikcoup products.
- Protect yourself during work. Wear safety clothing.
- Always check rubber gaskets carefully for defaults, cuts or holes before installing them in the system. Do not use damaged products!
- Not following these warnings and installation instructions can lead to system failure, personal injury and/or other damages.
- While every effort has been made to ensure the accuracy regarding the information in this catalog, anyone that uses the information contained in this catalog does so at their own risk and assumes any liability that results from such use.

FLEXIBLE COUPLINGS

Quikcoup flexible couplings can be used as expansion joints, allowing linear and angular movement of the pipe. Flexible couplings are designed to be installed without gripping the bottom of the grooves, while still providing a restrained mechanical joint. Therefore, flexible couplings allow pipe expansion and contraction, vibration absorption and misalignment of pipes.

WARNING

Always read and understand the installation instructions. Rubber gaskets have to be greased with Quikcoup Lubricant Type 27-XL on inside and outside before installation.

RIGID COUPLINGS

Quikcoup rigid couplings provide rigid transfixing of the pipes. The rigid couplings are designed to bring the pipe ends closely together and clamp the coupling firmly onto the pipes outside diameter. Rigid couplings clamp around the complete pipe surface, which provides resistance to flexural and tensional loads permitting longer spacing to installations in power piping systems, building service systems and sprinkler systems.

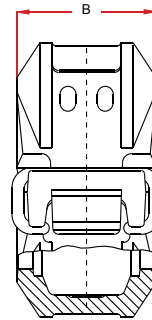
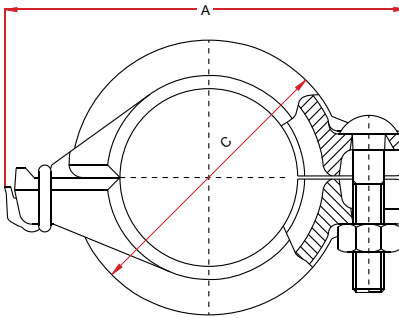
§ ALLOWED PIPE END SEPARATION

Figures indicating allowable pipe end separation refer to standard weight steel pipe with standard cut groove and in accordance with Quikcoup pipe Preparation and Installation Instructions. Figures for standard roll groove will be one half of the above values.

‡ MAXIMUM END LOAD

Figures indicating maximum end load refer to standard weight steel pipe with standard cut groove and in accordance with Quikcoup® pipe Preparations and Installation Instructions.

COUPLINGS / Style 007 QUIKHINGE™ (FLEXIBLE)

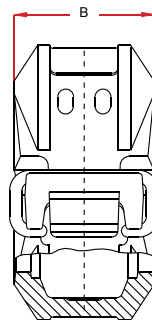
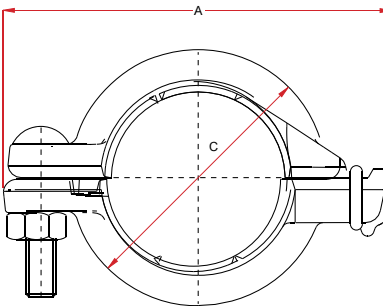


ONE BOLT FLEXIBLE COUPLING

Maximum working pressure: 230 psi. For fire protection equipment and approved pressure ratings please contact Modgal.

Nominal Size (Inches / DN)	Pipe Outside Diameter	Coupling Dimensions			Bolts				Max. End Load in Newton‡	Allowed Pipe End Separation §	Max. Deflection (from center line)	Weight Lbs	Approvals
		A	B	C	No.	Size x Length					Degrees per Cplg		
1" / 25	1.315	3.94	1.73	2.36	1	3/8	x	2	238	0 - 0.13	3°25'	1.17	FM / UL / VDS
1¼" / 32	1.660	4.33	1.73	2.68	1	3/8	x	2¼	379	0 - 0.13	3°	1.37	FM / UL / LPCB / VDS
1½" / 40	1.900	4.53	1.73	2.91	1	3/8	x	2¼	496	0 - 0.13	2°40'	1.35	FM / UL / LPCB / VDS
2" / 50	2.375	5.08	1.77	3.50	1	3/8	x	2¼	775	0 - 0.13	2°25'	1.52	FM / UL / LPCB / VDS
2½" / 65	2.875	5.59	1.77	3.86	1	3/8	x	2¼	1,135	0 - 0.13	2°	1.87	FM / UL*
3" OD	3.000	5.71	1.77	4.02	1	3/8	x	2¼	1,237	0 - 0.13	2°	1.92	FM / UL / VDS
3" / 80	3.500	6.50	1.81	4.61	1	3/8	x	2¼	1,684	0 - 0.13	1°50'	2.43	FM / UL / LPCB / VDS
4" / 100	4.500	7.80	1.97	5.87	1	3/8	x	2¾	2,783	0 - 0.25	2°25'	3.77	FM / UL / LPCB / VDS
5" OD	5.500	9.80	2.05	7.13	1	1/2	x	3½	4,158	0 - 0.25	2°	6.50	FM / LPCB / VDS
5" / 125	5.563	9.80	2.05	7.13	1	1/2	x	3½	4,158	0 - 0.25	2°	6.50	FM / UL*
6" / 150	6.625	10.71	2.05	8.19	1	1/2	x	3½	6,034	0 - 0.25	1°30'	6.84	FM / UL / LPCB / VDS

COUPLINGS / Style 007RT QUIKHINGE™ (RIGID)

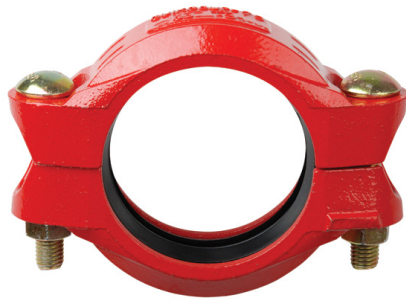


ONE BOLT RIGID COUPLING

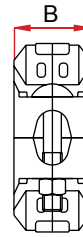
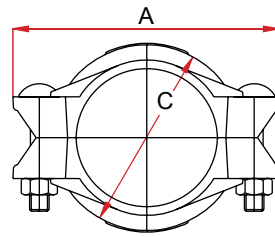
Maximum working pressure: 300 psi. For fire protection equipment and approved pressure ratings please contact Modgal.

Nominal Size (Inches / DN)	Pipe Outside Dia.	Coupling Dimensions			Bolts				Max. End Load in Lbs †	Allowed Pipe End Separation mm ‡	Weight Lbs	Approvals
		A	B	C	No.	Size x Length						
1¼" / 32	1.660	4.25	1.73	2.56	1	3/8	x	2	508	0 - 0.04	1.08	FM / VDS
1½" / 40	1.900	4.49	1.73	2.80	1	3/8	x	2	659	0 - 0.04	1.26	FM / UL / LPCB / VDS
2" / 50	2.375	5.08	1.77	3.35	1	3/8	x	2	1,027	0 - 0.04	1.54	FM / UL / LPCB / VDS
2½" / 65	2.875	5.59	1.77	3.74	1	3/8	x	2¼	1,506	0 - 0.04	1.65	FM / UL*
3" OD	3.000	5.71	1.77	3.82	1	3/8	x	2¼	1,641	0 - 0.04	1.59	FM / UL / VDS
3" / 80	3.500	6.53	1.83	4.45	1	3/8	x	2¼	2,232	0 - 0.04	2.21	FM / UL / LPCB / VDS
4" / 100	4.500	7.81	1.81	5.79	1	3/8	x	2¼	3,690	0 - 0.04	3.40	FM / UL / LPCB / VDS
5"OD	5.500	9.82	2.05	7.13	1	1/2	x	3	5,512	0 - 0.12	6.50	FM / UL / LPCB / VDS
5" / 125	5.563	9.82	2.05	7.13	1	1/2	x	3	5,512	0 - 0.12	6.50	FM / UL*
6" / 150	6.625	10.87	2.05	8.19	1	1/2	x	3	8,000	0 - 0.12	6.95	FM / UL / LPCB / VDS

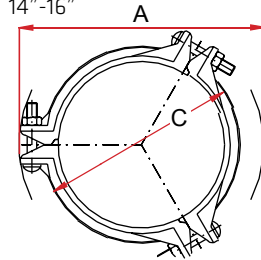
COUPLINGS / Style 75 (FLEXIBLE)



1 1/4" - 12"



14" - 16"

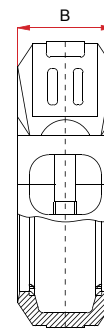
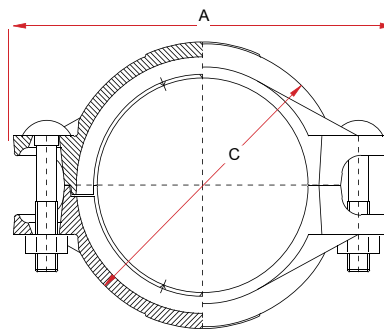
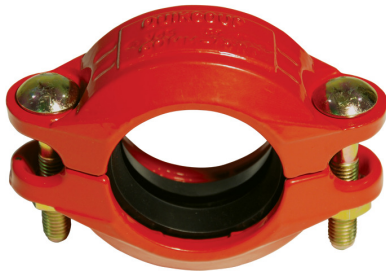


LIGHTWEIGHT FLEXIBLE COUPLING

Maximum working pressure: 500 psi. For fire protection equipment and approved pressure ratings please contact Modgal.

Nominal Size (Inches / DN)	Pipe Outside Dia.	Coupling Dimensions			Bolts				Max. End Load in Lbs ‡	Allowed Pipe End Separation §	Max. Deflection (from center line)	Weight Lbs	Approvals
		A	B	C	No.	Size x Length		Degrees per Cplg					
1¼" / 32	1.660	4.09	1.81	2.76	2	3/8	x	2¼	508	0 - 0.13	4°10'	1.50	FM / UL / LPCB / VDS
1½" / 40	1.900	4.49	1.85	3.07	2	3/8	x	2¼	659	0 - 0.13	3°56'	1.76	FM / UL / LPCB / VDS
2" / 50	2.375	4.92	1.85	3.58	2	3/8	x	2¼	1,027	0 - 0.13	3°25'	1.79	FM / UL / LPCB / VDS
2½" / 65	2.875	5.59	1.81	4.00	2	3/8	x	2¼	1,505	0 - 0.13	2°49'	2.16	FM / UL
3" OD	3.000	5.67	1.85	4.17	2	3/8	x	2¼	1,640	0 - 0.13	2°23'	2.25	FM / UL / VDS
3" / 80	3.500	6.36	1.85	4.67	2	1/2	x	3	2,232	0 - 0.13	1°05'	2.95	FM / UL / LPCB / VDS
4" / 100	4.500	7.80	1.97	5.91	2	1/2	x	3	3,690	0 - 0.25	3°23'	4.28	FM / UL / LPCB / VDS
5" OD	5.500	9.67	2.09	7.07	2	5/8	x	3½	5,512	0 - 0.25	2°45'	7.10	FM / LPCB / VDS
5" / 125	5.563	9.67	2.09	7.07	2	5/8		3½	5,512	0 - 0.25	2°45'	7.10	FM / UL*
6" / 150	6.625	10.85	2.13	7.99	2	5/8	x	3½	8,000	0 - 0.25	1°10'	7.06	FM / UL / LPCB / VDS
8" / 200	8.625	13.58	2.44	10.59	2	7/8	x	4¾	13,558	0 - 0.25	1°41'	15.74	FM / UL / LPCB / VDS
10" / 250	10.750	16.14	2.64	13.31	2	7/8	x	7⅞	15,878	0 - 0.25	0°40'	22.95	UL / VDS
12" / 300	12.705	18.46	2.60	14.80	2	7/8	x	7⅞	22,350	0 - 0.25	0°40'	24.98	UL / VDS
14" / 350	14,000	20.43	2.87	16.34	3	7/8	x	5½	26,939	0 - 0.25	-	39.09	-
16" / 400	16,000	22.83	2.87	18.50	3	7/8	x	5½	35,185	0 - 0.25	-	45.25	-

COUPLINGS / Style 75RT (RIGID)

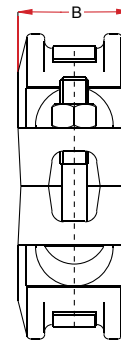
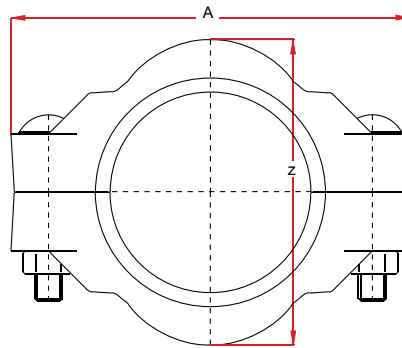


LIGHTWEIGHT RIGID COUPLING

Maximum working pressure: 500 psi. For fire protection equipment and approved pressure ratings please contact Modgal.

Nominal Size (Inches / DN)	Pipe Outside Diameter	Coupling Dimensions			Bolts			Max. End Load in Lbs ‡	Allowed Pipe End Separation mm §	Weight Lbs	Approvals
		A	B	C	No.	Size	x Length				
1 1/4" / 32	1.660	4.09	1.85	2.70	2	3/8	x 2	657	0 - 0.04	1.41	FM / UL*
1 1/2" / 40	1.900	4.49	1.85	3.07	2	3/8	x 2	851	0 - 0.04	1.72	FM / UL / LPCB / VDS
2" / 50	2.375	4.92	1.83	3.54	2	3/8	x 2	1,328	0 - 0.04	1.81	FM / UL / LPCB / VDS
2 1/2" / 65	2.875	5.59	1.85	4.09	2	3/8	x 2	1,946	0 - 0.04	2.11	FM / UL*
3" OD	3.000	5.67	1.85	4.17	2	3/8	x 2	2,211	0 - 0.04	2.25	FM / UL / LPCB / VDS
3" / 80	3.500	6.38	1.83	4.69	2	1/2	x 3	2,886	0 - 0.04	2.80	FM / UL / LPCB / VDS
4" / 100	4.500	7.80	1.97	5.87	2	1/2	x 3	4,771	0 - 0.04	4.23	FM / UL / LPCB / VDS
5" OD	5.500	9.65	2.13	7.09	2	5/8	x 3 1/2	7,127	0 - 0.12	6.8	FM / UL / LPCB / VDS
5" / 125	5.563	9.65	2.13	7.09	2	5/8	x 3 1/2	7,127	0 - 0.12	6.80	FM / UL*
6" / 150	6.625	10.83	2.13	7.95	2	5/8	x 3 1/2	10,345	0 - 0.12	7.06	FM / UL / LPCB / VDS
8" / 200	8.625	13.58	2.44	10.63	2	7/8	x 4 3/4	17,532	0 - 0.12	15.83	FM / UL / LPCB / VDS

COUPLINGS / Style 07 (HEAVY DUTY FLEXIBLE)

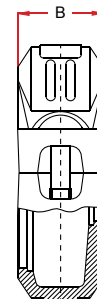
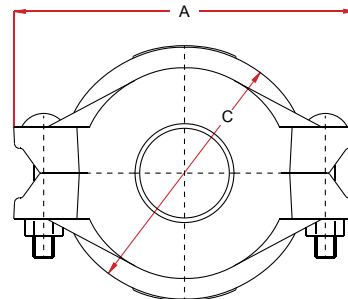
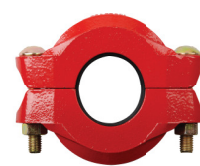
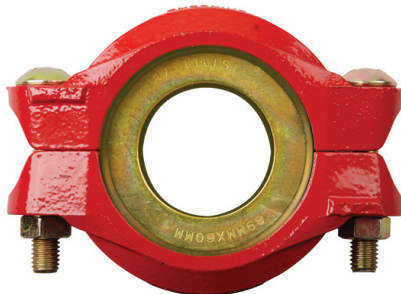


HEAVY DUTY FLEXIBLE COUPLING

Maximum working pressure: 1000 psi. For fire protection equipment and approved pressure ratings please contact Modgal.

Nominal Size (Inches / DN)	Pipe Outside Diameter	Coupling Dimensions			Bolts				Max. End Load in Lbs ‡	Allowed Pipe End Separation mm §	Max. Deflection (from center line)	Weight Lbs	Approvals
		A	B	C	No.	Size x Length					Degrees per Cplg		
1½" / 40	1.900	4.49	1.81	3.19	2	3/8	x	2 ^{1/4}	1,418	0.04	1°58'	1.96	FM
2" / 50	2.375	5.43	1.89	3.78	2	1/2	x	3	2,213	0.04	1°42'	3.30	FM / UL / LPCB
2½" / 65	2.875	5.75	1.89	4.33	2	1/2	x	3	3,525	0.04	1°22'	3.65	FM / UL
3" OD	3.000	5.75	1.89	4.33	2	1/2	x	3	3,830	0.04	1°22'	3.48	FM
3" / 80	3.500	6.69	1.89	5.12	2	1/2	x	3	4,810	0.04	1°05'	4.16	FM / UL / LPCB
4" / 100	4.500	8.27	2.20	6.38	2	5/8	x	3 ^{1/2}	7,952	0.12	1°40'	8.01	FM / UL / LPCB
5" OD	5.500	9.92	2.20	7.56	2	3/4	x	4 ^{3/4}	11,878	0.12	1°25'	11.95	FM
5" / 125	5.563	9.92	2.20	7.56	2	3/4	x	4 ^{3/4}	11,878	0.12	1°25'	11.73	FM / UL
6" / 150	6.625	11.10	2.20	8.78	2	3/4	x	4 ^{3/4}	17,242	0.12	1°10'	13.21	FM / UL / LPCB
8" / 200	8.625	13.86	2.52	11.18	2	7/8	x	5 ^{1/2}	29,220	0.12	0°51'	21.86	FM / UL / LPCB

COUPLINGS / Style 71 (REDUCING COUPLING)

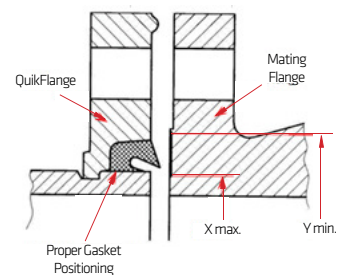
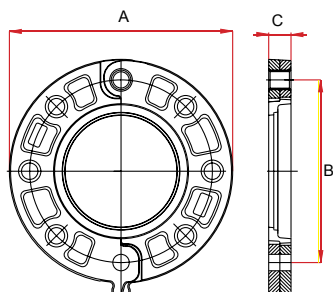


REDUCING COUPLING

Maximum working pressure: 500 psi. For fire protection equipment and approved pressure ratings please contact Modgal.

Nominal Size (Inches / DN)	Pipe Outside Diameter	Coupling Dimensions			Bolts				Max. End Load in Lbs ‡	Allowed Pipe End Separation §	Max. Deflection (from center line)	Weight Lbs	Approvals
		A	B	C	No.	Size x Length					Degrees per Cplg		
2" x 1½" / 50 x 40	2.375 x 1.900	4.92	1.81	3.58	2	3/8	x	2¼	659	0 - 0.04	3°25'	2.09	FM / UL / VDS
2½" x 2" / 60 x 50	2.875 x 1.900	5.55	1.81	3.98	2	3/8	x	2¼	1,027	0 - 0.04	2°49'	2.43	FM / UL *
3" OD x 2"	3,000 x 2,375	5.63	1.85	4.13	2	3/8	x	2¼	1,027	0 - 0.04	2°23'	2.54	FM / UL / VDS
3" x 2" / 80 x 50	3.500 x 2.375	6.34	1.81	4.72	2	1/2	x	3	1,027	0 - 0.04	1°05'	3.75	FM / UL / VDS
3"x 2½" / 80 x 65	3.500 x 2.875	6.34	1.81	4.76	2	1/2	x	3	1,505	0 - 0.04	1°05'	3.42	FM / UL *
3" x 3" OD	3,500 x 3,000	6.34	1.81	4.76	2	1/2	x	3	1,640	0 - 0.04	1°05'	3.31	FM / UL / VDS
4" x 2" / 100 x 50	4.500 x 2.375	7.80	1.97	5.87	2	1/2	x	3	1,027	0 - 0.12	3°23'	5.95	FM / UL / VDS
4"x 2½" / 100 x 65	4,500 x 2,875	7.80	1.97	4.67	2	1/2	x	3	1,505	0 - 0.12	2°49'	5.38	FM / UL *
4" x 3" OD	4,500 x 3,000	7.80	1.97	5.87	2	1/2	x	3	1,640	0 - 0.12	2°23'	5.51	FM / UL / VDS
4" x 3" / 100 x 80	4.500 x 3.500	7.80	1.97	5.87	2	5/8	x	3	2,232	0 - 0.12	1°05'	5.29	FM / UL / VDS
5" OD x 4"	5.500 x 4.500	9.65	2.09	7.05	2	5/8	x	3½	3,690	0 - 0.12	2°45'	8.16	FM
5" X 4" / 125 X 100	5.563 X 4.500	9.65	2.09	7.05	2	5/8	x	3½	3,690	0 - 0.12	2°45'	8.05	FM / UL *
6" x 3" / 150 x 80	6.625 x 3.500	10.83	2.09	8.35	2	5/8	x	3½	2,232	0 - 0.12	1°05'	11.70	FM / UL / VDS
6" x 4" / 150 x 100	6.625 x 4.500	10.83	2.09	8.35	2	5/8	x	3½	3,690	0 - 0.12	1°10'	9.70	FM / UL / VDS
8"x 6" / 200 x 150	8.625 x 6.625	13.54	2.40	10.55	2	3/4	x	4¾	8,000	0 - 0.12	1°10'	19.18	FM

QUIKFLANGE™ / Style 90



STYLE 90 QUIKFLANGE™

QUIKFLANGE™ two-piece hinged casing groove-to-flange adaptor is designed for direct connection of ANSI class 125,150 and ISO 7005-1 class PN10/16 standards flanged components into a grooved pipe system.

The hole-spacing is standard and enable standard flanged items to be easily and rapidly assembled to the grooved pipe. The hinged halves are drawn together into the pipe end-groove with a built-in arrangement especially required when the pipe end is out-of-round.

The unique design of the gasket inserted into the QUIKFLANGE™ ensures a closed seal between the pipe and the mating flange face.

QUIKFLANGE™ provides a rigid joint when all bolts have been tightened.

For special applications where the mating flange faces are not hard and smooth, use metal flange "washer plates". Please contact the factory for details.

Maximum working pressure: Acc. to standard
For fire protection equipment and approved pressure ratings please contact Modgal.

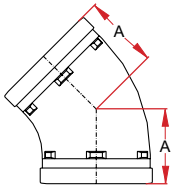
Nominal Size (Inches / DN)	Pipe Outside Diameter	Flange Dimensions			Sealing surface		Standard			Bolts		Weight Lbs	Approvals
		A	B	C	X (max.)	Y (min.)	ISO 7005-2	BSTD	ANSI	Qty.	Size		
2" / 50	2,375	6.50	4.92	0.79	2.36	3.39	PN10 / PN16	-	-	4	M16	3.88	FM / UL / VDS
2" / 50	2,375	6.02	4.74	0.91	2.36	3.39	-	-	ASA150	4	¾"	3.31	FM / UL
2½" / 65	2,875	7.01	5.50	0.75	2.99	4.02	-	-	ASA150	4	¾"	3.31	FM / UL
3" OD	3,000	7.28	5.71	0.87	2.99	4.02	PN10 / PN16	-	-	4	M16	5.29	FM / UL / VDS
3" / 80	3,500	7.40	5.75	0.79	3.50	4.53	-	16 Bar	-	4	¾"	4.41	FM / UL
3" / 80	3,500	7.50	6.00	0.94	3.50	4.53	-	-	ASA150	4	¾"	5.64	FM / UL
3" / 80	3,500	7.87	6.30	0.79	3.50	4.53	PN10 / PN16	-	-	8	M16	5.84	FM / UL / VDS
4" / 100	4,500	9.02	7.50	0.94	4.49	5.55	-	-	ASA150	8	¾"	7.72	FM / UL
4" / 100	4,500	8.66	7.09	0.87	4.49	5.55	PN10 / PN16	-	-	8	M16	6.57	FM / UL / VDS
5" OD	5,500	9.92	8.27	0.94	5.51	6.69	PN10 / PN16	-	-	8	M16	9.17	VDS
5" / 125	-	-	-	-	-	-	-	-	-	-	-	-	-
6" / 150	6,625	11.14	9.45	1.00	6.61	7.80	PN10 / PN16	-	-	8	M20	11.22	FM / UL / VDS
6" / 150	6,625	11.14	9.45	1.00	6.61	7.80	-	-	ASA150	8	¾"	11.22	FM / UL
8" / 200	8,625	13.46	11.75	1.18	8.62	9.92	-	-	ASA150	8	¾"	16.96	FM / UL
8" / 200	8,625	13.50	11.61	1.10	8.62	9.92	PN16	-	-	12	M20	17.64	FM / UL / VDS

FITTINGS / Style 64 - 65 - 66 SHORT RADIUS

GROOVED-END FITTINGS

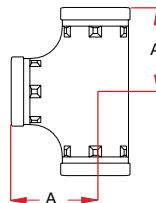
Maximum working pressure: 500 psi
For fire protection equipment and approved pressure ratings please contact Modgal.

STYLE 64 Elbow 45°



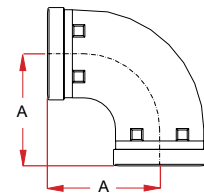
Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimen- sion A	Weight Lbs	Approvals
1" / 25	1.315	-	-	-
1¼" / 32	1.660	1.75	0.66	FM / UL LPCB / VDS
1½" / 40	1.900	1.75	0.79	FM / UL LPCB / VDS
2" / 50	2.375	2.01	1.12	FM / UL LPCB / VDS
2½" / 65	2.875	2.24	1.81	FM / UL LPCB
3" OD	3.000	2.24	1.90	FM / UL LPCB / VDS
3" / 80	3.500	2.50	2.56	FM / UL LPCB / VDS
4" / 100	4.500	2.99	3.64	FM / UL LPCB / VDS
5"OD	5.500	2.99	4.08	FM / UL LPCB / VDS
5" / 125	5.563	3.24	6.88	FM / UL LPCB
6" / 150	6.625	3.50	8.60	FM / UL LPCB / VDS
8" / 200	8.625	4.25	16.76	FM / UL VDS
10" / 250	10.750	4.72	36.71	FM / UL VDS
12" / 300	12.750	5.24	51.82	FM / UL VDS

STYLE 65 Equal Tee



Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimen- sion A	Weight Lbs	Approvals
1" / 25	1.315	2.28	0.79	LPCB / VDS
1¼" / 32	1.660	2.76	1.46	FM / LPCB VDS
1½" / 40	1.900	2.76	1.65	FM / LPCB VDS
2" / 50	2.375	2.76	1.98	FM / UL LPCB / VDS
2½" / 65	2.875	3.03	3.09	FM / UL LPCB
3" OD	3.000	2.99	2.98	FM / UL LPCB / VDS
3" / 80	3.500	3.37	3.97	FM / UL LPCB / VDS
4" / 100	4.500	3.98	5.95	FM / UL LPCB / VDS
5"OD	5.500	3.98	5.84	FM / UL LPCB / VDS
5" / 125	5.563	4.88	11.03	FM / UL LPCB
6" / 150	6.625	5.51	16.01	FM / UL LPCB / VDS
8" / 200	8.625	6.85	30.05	FM / UL LPCB / VDS
10" / 250	10.750	-	-	-
12" / 300	12.750	-	-	-

STYLE 66 Elbow 90°



Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimen- sion A	Weight Lbs	Approvals
1" / 25	1.315	2.28	0.56	LPCB / VDS
1¼" / 32	1.660	2.76	0.92	FM / LPCB VDS
1½" / 40	1.900	2.76	1.12	FM / LPCB VDS
2" / 50	2.375	2.76	1.29	FM / UL LPCB / VDS
2½" / 65	2.875	3.03	1.98	FM / UL LPCB
3" OD	3.000	2.99	2.01	FM / UL LPCB / VDS
3" / 80	3.500	3.37	2.76	FM / UL LPCB / VDS
4" / 100	4.500	3.98	5.73	FM / UL LPCB / VDS
5"OD	5.500	3.98	4.81	FM / UL LPCB / VDS
5" / 125	5.563	4.88	8.82	FM / UL LPCB
6" / 150	6.625	5.51	11.30	FM / UL LPCB / VDS
8" / 200	8.625	6.85	18.31	FM / UL LPCB / VDS
10" / 250	10.750	-	-	-
12" / 300	12.750	-	-	-

For use with higher than stated maximum working pressure, please contact Modgal Metal.

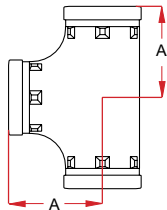
FITTINGS / Style 05 - 06 LONG RADIUS

GROOVED-END FITTINGS

Maximum working pressure: 500 psi
For fire protection equipment and approved pressure ratings please contact Modgal.

STYLE 05

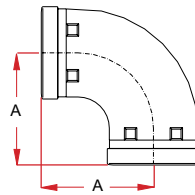
Equal Tee



Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimen- sion	Weight Lbs	Approvals
		A		
1" / 25	1.315	-	-	-
1¼" / 32	1.660	-	-	-
1½" / 40	1.900	-	-	-
2" / 50	2.375	3.25	2.15	FM / UL LPCB / VDS
2½" / 65	2.875	3.74	3.75	FM / UL LPCB / VDS
3" OD	3,000	3.74	3.99	FM / UL LPCB / VDS
3" / 80	3.500	4.25	5.42	FM / UL LPCB
4" / 100	4.500	5.00	8.38	FM / UL LPCB / VDS
5"OD	5,500	5.00	8.82	FM / UL LPCB / VDS
5" / 125	5.563	5.51	14.62	FM / UL LPCB
6" / 150	6.625	6.50	20.18	FM / UL LPCB / VDS
8" / 200	8.625	7.72	36.71	FM / UL LPCB / VDS
10" / 250	10.750	9.02	79.82	FM / UL VDS
12" / 300	12.750	10.00	110.69	UL
14" / 350	14,000	11.10	140.02	-
16" / 400	16,000	12.01	233.73	-

STYLE 06

Elbow 90°



Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimen- sion	Weight Lbs	Approvals
		A		
1" / 25	1.315	-	-	-
1¼" / 32	1.660	-	-	-
1½" / 40	1.900	-	-	-
2" / 50	2.375	3.25	1.57	FM / UL LPCB / VDS
2½" / 65	2.875	3.74	2.60	FM / UL LPCB / VDS
3" OD	3,000	3.74	3.00	FM / UL LPCB
3" / 80	3.500	4.25	3.75	FM / UL LPCB / VDS
4" / 100	4.500	5.00	5.73	FM / UL LPCB / VDS
5"OD	5,500	5.00	5.95	FM / UL LPCB / VDS
5" / 125	5.563	5.51	9.48	FM / UL LPCB
6" / 150	6.625	6.50	12.83	FM / UL LPCB / VDS
8" / 200	8.625	7.72	23.37	FM / UL LPCB / VDS
10" / 250	10.750	9.02	58.65	FM / UL VDS
12" / 300	12.750	10.00	81.59	UL
14" / 350	14,000	11.10	100.33	-
16" / 400	16,000	12.01	176.40	-

For use with higher than stated maximum working pressure, please contact Modgal Metal.

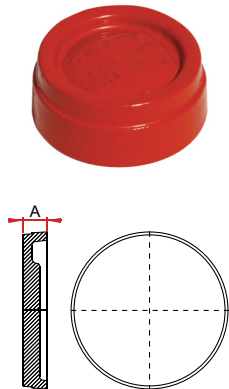
FITTINGS / Style 02 - 02D - 41

GROOVED-END FITTINGS

Maximum working pressure: 500 psi
For fire protection equipment and approved pressure ratings please contact Modgal.

STYLE 02

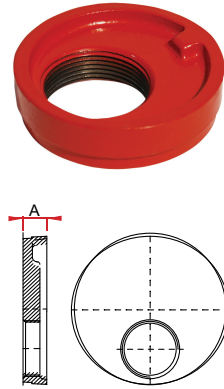
End-Cap



Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimen- sion	Weight Lbs	Approvals
		A		
1¼" / 32	1.660	0.94	0.28	FM / UL LPCB / VDS
1½" / 40	1.900	0.98	0.35	FM / UL LPCB / VDS
2" / 50	2.375	0.94	0.47	FM / UL LPCB / VDS
2½" / 65	2.875	0.94	0.73	FM / UL LPCB
3" OD	3.000	0.98	0.79	FM / UL LPCB / VDS
3" / 80	3.500	0.98	1.10	FM / UL LPCB / VDS
4" / 100	4.500	1.10	1.68	FM / UL LPCB / VDS
5" OD	5.500	1.06	3.04	FM / UL LPCB / VDS
5" / 125	5.563	1.02	3.04	FM / UL LPCB
6" / 150	6.625	1.02	3.75	FM / UL LPCB / VDS
8" / 200	8.625	1.22	8.16	FM / UL LPCB / VDS
10" / 250	10.750	1.34	14.27	FM / UL VDS
12" / 300	12.750	1.34	20.29	UL
14" / 350	14.000	1.50	63.72	-
16" / 400	16.000	1.50	82.91	-

STYLE 02D

End-Cap with Drain



Nominal Size (Inches / DN)	Pipe Outside Diameter	Out- let	Dimen- sion	Weight Lbs	Approvals
			A		
1¼" / 32	1.660	-	-	-	-
1½" / 40	1.900	-	-	-	-
2" / 50	2.375	1"	0.94	0.60	VDS
2½" / 65	2.875	1½"	0.96	0.88	FM
3" OD	3.000	1½" 2"	0.98	0.88	FM / UL VDS
3" / 80	3.500	1½" 2"	0.98	1.10	FM / UL VDS
4" / 100	4.500	1½" 2"	1.10	1.98	FM / UL VDS
5" OD	5.500	1½" 2"	1.02	2.98	FM / VDS
5" / 125	5.563	1½" 2"	1.02	2.98	FM
6" / 150	6.625	1½" 2"	1.02	4.28	FM / UL VDS
8" / 200	8.625	1½" 2"	1.22	8.45	FM / UL VDS
10" / 250	10.750	-	-	-	-
12" / 300	12.750	-	-	-	-

STYLE 41

Elbow 11¼°



Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimen- sion	Weight Lbs	Approvals
		A		
1¼" / 32	1.660	1.38	0.57	FM
1½" / 40	1.900	1.38	0.68	FM
2" / 50	2.375	1.38	0.88	FM
2½" / 65	2.875	1.50	1.32	FM
3" OD	3.000	1.50	1.32	FM
3" / 80	3.500	1.50	2.01	FM
4" / 100	4.500	1.73	2.65	FM
5" OD	5.500	2.01	4.41	FM
5" / 125	5.563	2.01	4.41	FM
6" / 150	6.625	2.01	6.84	FM
8" / 200	8.625	2.01	9.26	FM

For use with higher than stated maximum working pressure, please contact Modgal Metal.

FITTINGS / Style 42 - 91

GROOVED-END FITTINGS

Maximum working pressure: 500 psi
For fire protection equipment and approved pressure ratings please contact Modgal.

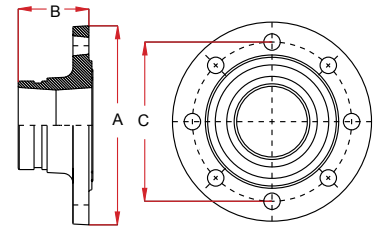
STYLE 42

Elbow 22½°



STYLE 91

Grooved Flange Adaptor



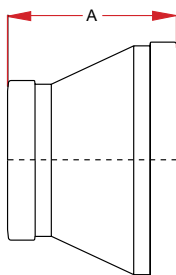
Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimen- sion	Weight Lbs	Approvals
		A		
1¼" / 32	1.660	1.77	0.66	-
1½" / 40	1.900	1.77	0.75	FM
2" / 50	2.375	1.89	1.17	FM
2½" / 65	2.875	2.01	1.83	FM
3" OD	3.000	2.01	1.83	FM
3" / 80	3.500	2.24	2.43	FM
4" / 100	4.500	2.87	4.19	FM
5" OD	5.500	3.11	6.17	FM
5" / 125	5.563	2.87	6.17	FM
6" / 150	6.625	3.11	10.45	FM
8" / 200	8.625	3.86	16.32	FM

Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimensions			Standards		Bolts		Weight Lbs	Approvals
		A	B	C	ISO 7005-2	ANSI	Qty.	Size		
2" / 50	2.375	6.50	2.56	4.75	PN10 PN16	-	4	M16	3.31	FM / UL / VDS
2½" / 65	2.875	7.28	2.44	5.50	-	ASA 150	4	5/8"	4.08	UL
3" OD	3.000	7.28	2.56	5.50	PN10 PN16	-	4	M16	3.35	FM / UL / VDS
3" / 80	3.500	7.87	2.56	6.00	PN10 PN16	-	8	M16	8.33	FM / UL / VDS
3" / 80	3.500	7.56	2.80	6.00	-	ASA 150	4	5/8"	8.29	FM / UL
4" / 100	4.500	9.02	3.90	7.50	-	ASA 150	8	5/8"	14.55	FM / UL
4" / 100	4.500	9.01	2.76	7.50	PN10 PN16	-	8	M16	12.57	FM / UL / VDS
5" OD	5.500	9.84	2.76	8.50	PN10 PN16	-	8	M16	12.57	FM / UL / VDS
5" / 125	5.563	9.84	2.76	8.50	-	ASA 150	8	M16	12.57	-
6" / 150	6.625	11.18	2.68	9.45	-	ASA 150	8	¾"	22.27	FM / UL
6" / 150	6.625	11.10	2.76	9.50	PN10 PN16	-	8	M20	22.27	FM / UL / VDS
8" / 200	8.625	13.39	3.15	11.75	PN16	-	12	M20	38.80	FM / UL / VDS
8" / 200	8.625	13.50	4.27	11.61	-	ASA 150	8	¾"	26.68	FM / UL

For use with higher than stated maximum working pressure, please contact Modgal Metal.

REDUCING FITTINGS / Style 15

STYLE 15



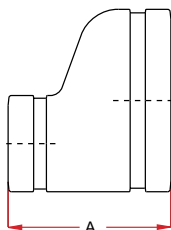
CONCENTRIC REDUCER

Maximum working pressure: 500 psi
For fire protection equipment and approved pressure ratings please contact Modgal.

Nominal Size (Inches / DN)	Pipe Outside Diameter	Coupling Dimensions	Weight Lbs	Approvals
		A		
1½" x 1¼" / 40 x 32	1,900 x 1,660	2.52	0.58	FM / UL / VDS
2" x 1¼" / 50 x 40	2,375 x 1,660	2.52	0.64	-
2" x 1½" / 50 x 40	2,375 x 1,900	2.52	0.66	FM / UL / VDS
2½" x 1½" / 65 x 40	2,875 x 1,900	2.52	1.10	In progress
2½" x 2" / 65 x 50	2,875 x 2,375	2.52	0.99	In progress
3" OD x 1½"	3,000 x 1,900	2.60	1.10	FM / UL / VDS
3" OD x 2"	3,000 x 2,375	2.56	0.99	FM / UL / VDS
3" x 1¼" / 80 x 40	3,500 x 1,660	2.56	1.21	-
3" x 1½" / 80 x 40	3,500 x 1,900	2.60	0.55	UL
3" x 2" / 80 x 50	3,500 x 2,375	2.60	1.26	FM / UL / VDS
3 x 3" OD	3,500 x 3,000	2.60	1.54	UL / VDS
4" x 2" / 100 x 50	4,500 x 2,375	2.99	1.92	FM / UL / VDS
4" x 3" OD	4,500 x 3,000	2.99	2.05	FM / UL
4" x 3" / 100 x 80	4,500 x 3,500	2.99	2.21	FM / UL / VDS
5" OD x 3" OD	5,500 x 3,000	3.62	3.31	VDS
5" OD x 3"	5,500 x 3,500	3.62	3.53	FM / VDS
5" OD x 4"	5,500 x 4,500	3.62	3.53	FM / VDS
5" x 2½" / 125 x 65	5,563 x 2,875	3.50	3.31	In progress
5" x 3" / 125 x 80	5,563 x 3,500	3.50	3.53	In progress
5" x 4" / 125 x 100	5,563 x 4,500	3.50	3.53	In progress
6" x 2" / 150 x 50	6,625 x 2,375	4.06	5.07	FM / UL / VDS
6" x 3" OD	6,625 x 3,000	4.06	6.17	VDS
6" x 3" / 150 x 80	6,625 x 3,500	4.06	4.41	FM / UL / VDS
6" x 4" / 150 x 100	6,625 x 4,500	4.06	5.95	FM / UL / VDS
6" x 5" OD	6,625 x 5,500	4.06	5.07	FM / VDS
8" x 3" / 200 x 80	8,625 x 3,500	5.04	8.38	FM
8" x 4" / 200 x 100	8,625 x 4,500	5.04	10.58	FM / UL / VDS
8" x 5" OD	8,625 x 5,500	5.04	12.13	FM / VDS
8" x 6" / 200 x 150	8,625 x 6,625	5.04	9.26	FM / UL / VDS
10" x 6" / 250 x 150	10,750 x 8,625	6.06	15.44	-
10" x 8" / 250 x 200	10,750 x 8,625	6.06	19.73	FM / VDS
12" x 10" / 300 x 250	12,750 x 10,750	7.09	30.87	-

REDUCING FITTINGS / Style 16 - 55

STYLE 16

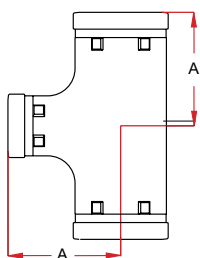


ECCENTRIC REDUCER

Maximum working pressure: 500 psi
For fire protection equipment and approved pressure ratings please contact Modgal.

Nominal Size (Inches /DN)	Pipe Outside Diameter	Coupling Dimensions	Weight Lbs	Approvals
		A		
3" x 2" / 80 x 50	3.500 x 2.375	3.54	1.76	-
4" x 2" / 100 x 50	4.500 x 2.375	4.13	2.98	-
4" x 3" / 100 x 80	4.500 x 3.500	4.02	3.09	-
6" x 3" / 150 x 80	6.625 x 3.500	5.63	7.28	-
6" x 4" / 150 x 100	6.625 x 4.500	5.55	6.17	-

STYLE 55



REDUCING TEE

Maximum working pressure: 500 psi
For fire protection equipment and approved pressure ratings please contact Modgal.

Nominal Size (Inches /DN)	Pipe Outside Diameter	Coupling Dimensions	Weight Lbs	Approvals
		A		
2½" x 1½" / 65 x 40	2,875 x 1,900	2.99	2.65	-
2½" x 2" / 65 x 50	2,875 x 2,375	2.99	2.65	FM / UL*
3" OD x 2"	3,000 x 2,375	2.99	2.65	FM / UL
3" x 2" / 80 x 50	3,500 x 2,375	3.35	3.97	FM / UL*
3" x 3" OD	3,500 x 3,000	3.35	4.19	FM / UL
4" x 2" / 100 x 50	4,500 x 2,375	3.78	6.06	FM / UL*
4" x 3" OD	4,500 x 3,000	3.98	6.62	FM / UL
4" x 3" / 100 x 80	4,500 x 3,500	3.98	6.62	FM / UL*
5" OD x 3 OD	5,500 x 3,000	4.88	10.36	FM / UL
5" OD x 3"	5,500 x 3,500	3.98	10.58	FM / UL
5" OD x 4"	5,500 x 4,500	4.84	11.24	FM / UL
5" x 3 OD	5,563 x 3,000	4.88	10.36	FM / UL
5" x 2½" / 125 x 65	5,563 x 2,875	4.88	10.36	In progress
5" x 3" / 125 x 80	5,563 x 3,500	4.88	10.58	In progress
5" x 4" / 125 x 100	5,563 x 4,500	4.88	11.02	In progress
6" x 2" / 150 x 50	6,625 x 2,375	6.61	24.26	FM / UL
6" x 3" OD	6,625 x 3,000	5.47	15.88	FM / UL
6" x 3" / 150 x 80	6,625 x 3,500	5.47	14.33	FM / UL
6" x 4" / 150 x 100	6,625 x 4,500	5.47	15.44	FM / UL
8" x 3" / 200 x 80	8,625 x 3,500	6.89	28.67	FM / UL
8" x 4" / 200 x 100	8,625 x 4,500	6.89	28.22	FM / UL
8" x 5" OD	8,625 x 5,500	6.89	27.65	FM / UL
8" x 6" / 200 x 150	8,625 x 6,625	6.89	29.11	FM / UL
10" x 6" / 250 x 150	10,750 x 6,625	9.02	65.93	-
10" x 8" / 250 x 200	10,750 x 8,625	9.02	66.15	-
12" x 10" / 300 x 250	12,750 x 10,750	10.00	112.46	-

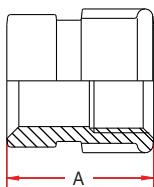
GROOVED END ADAPTORS / Style 24 - 25 - 27

GROOVED-END ADAPTORS

Maximum working pressure: 360 psi
For fire protection equipment and approved pressure ratings please contact Modgal.

STYLE 24

Reducing Adaptor

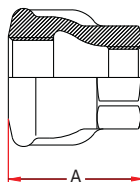


Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimen- sion	Weight Lbs	Approvals
		A		
1 1/4" G x 1" T 32G x 25T	1,660 x 1,315	1.85	0.42	-
1 1/2" G x 1" T 40G x 25T	1,900 x 1,315	1.85	0.46	FM / UL
2" G x 1 1/2" T 50G x 40T	2,375 x 1,900	2.17	0.90	UL
2" G x 2" T 50G x 50T	2,375 x 2,375	2.72	1.23	-

T = Threaded
G = Grooved

STYLE 25

Sprinkler Adaptor

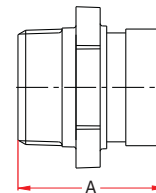


Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimen- sion	Weight Lbs	Approvals
		A		
1" x 1/2" 25 x 15	1,315 x 839	1.77	0.39	UL
1" x 3/4" 25 x 20T	1,315 x 1,050	1.77	0.44	UL

T = Threaded
G = Grooved

STYLE 27

Nipple Adaptor



Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimen- sion	Weight Lbs	Approvals
		A		
1 1/4" G x 1 1/4" T 32G x 32T	1,660 x 1,660	2.44	0.66	-
1 1/2" G x 1 1/2" T 40G x 40T	1,900 x 1,900	2.36	0.77	FM / UL
2" G x 2" T 50G x 50T	2,735 x 2,735	2.64	1.21	UL
2 1/2" G x 2 1/2" T 65G x 65T	2,875 x 2,875	2.97	1.98	-
3" G x 3" T 80G x 80T	3,500 x 3,500	3.35	2.43	-
4" G x 4" T 100G x 100T	4,500 x 4,500	3.15	2.87	-

T = Threaded
G = Grooved

For use with higher than stated maximum working pressure, please contact Modgal Metal.

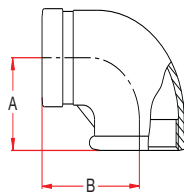
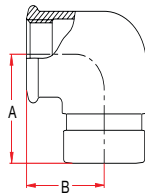
GROOVED END ADAPTORS / Style 26 - 29

GROOVED-END ADAPTORS

Maximum working pressure: 360 psi
For fire protection equipment and approved pressure ratings please contact Modgal.

STYLE 26

Reducing Elbow **STYLE 29**
Elbow



Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimension		Weight Lbs	Approvals
		A	B		
1 1/4"G x 1/2"T 32G x 15T	1,660 x 839	1.73	1.50	0.53	-
1 1/4"G x 3/4"T 32G x 20T	1,660 x 1,050	1.83	1.50	0.62	-
1 1/2"G x 1/2"T 40G x 15T	1,900 x 839	1.81	1.57	0.66	UL
1 1/2"G x 3/4"T 40G x 20T	1,900 x 1,050	1.89	1.65	0.75	UL
1 1/2"G x 1"T 40G x 25T	1,900 x 1,315	2.09	1.69	0.88	UL
2"G x 1/2"T 50G x 15T	2,375 x 839	1.69	1.77	0.93	UL
2"G x 3/4"T 50G x 20T	2,375 x 1,050	1.77	1.81	0.99	UL
2"G x 1"T 50G x 25T	2,375 x 1,315	1.91	1.81	1.15	UL

T = Threaded
G = Grooved

Nominal Size (Inches / DN)	Pipe Outside Diameter	Dimension		Weight Lbsg.	Approvals
		A	B		
2"G x 2"T 50G x 50T	2,375 x 2,375	2.95	2.32	1.76	-

T = Threaded
G = Grooved

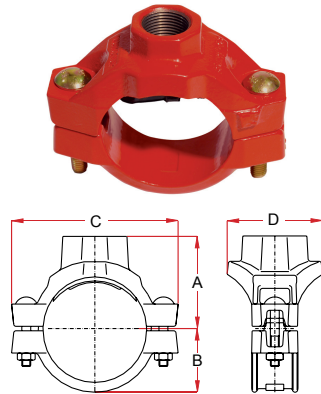
For use with higher than stated maximum working pressure, please contact Modgal Metal.

BRANCH OUTLETS / Style 08T / 08G

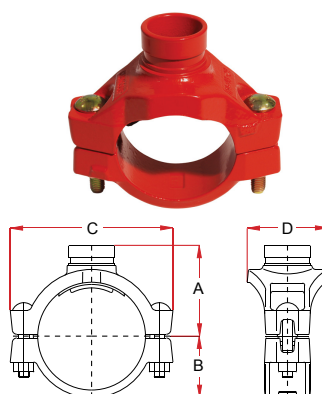
QUIK-T™ BRANCH OUTLETS

Maximum working pressure: 300 psi
For fire protection equipment and approved pressure ratings please contact Modgal.

STYLE 08T Threaded



STYLE 08G Grooved



Nominal Size (Inches / DN)		Pipe Outside Diameter	Outlet		Quik-T™ Dimensions					Hole Diameter	Bolts			Weight Lbs	Approvals
Run	Outlet		Size	Type	A		B	C	D	Tolerance +1/8"	Qty.	Size	Length		
					Thrd.	Grv.									
2" / 50	½" / 15	2,375	½"	T	2.28	-	1.63	5.31	2.99	1½"	2	3/8"	2¼"	3.01	FM / UL / LPCB / VDS
	¾" / 20	2,375	¾"	T	2.28	-	1.63	5.31	2.99	1½"	2	3/8"	2¼"	3.02	FM / UL / LPCB / VDS
	1" / 25	2,375	1"	T	2.58	-	1.63	5.31	2.99	1½"	2	3/8"	2¼"	3.20	FM / UL / LPCB / VDS
	1¼" / 32	2,375	1¼"	T or G	2.74	3.01	1.63	5.31	3.23	1¾"	2	3/8"	2¼"	3.25	FM / UL / LPCB / VDS
	1½" / 40	2,375	1½"	T or G	2.74	3.01	1.63	5.31	3.23	1¾"	2	3/8"	2¼"	3.21	FM / UL / LPCB / VDS
2½" / 65	½" / 15	2,875	½"	T	2.64	-	1.89	5.91	3.62	1½"	2	½"	3"	4.01	FM / UL
	¾" / 20	2,875	¾"	T	2.72	-	1.89	5.91	3.62	1½"	2	½"	3"	3.92	FM / UL
	1" / 25	2,875	1"	T	2.83	-	1.89	5.91	3.62	1½"	2	½"	3"	3.86	FM / UL
	1¼" / 32	2,875	1¼"	T or G	2.99	3.23	1.89	5.91	3.62	2"	2	½"	3"	3.79	FM / UL
	1½" / 40	2,875	1½"	T or G	2.99	3.23	1.89	5.91	3.62	2"	2	½"	3"	3.98	FM / UL
3" OD	½" / 15	3,000	½"	T	2.64	-	1.89	5.91	3.62	1½"	2	½"	3"	4.01	FM / UL / LPCB / VDS
	¾" / 20	3,000	¾"	T	2.72	-	1.89	5.91	3.62	1½"	2	½"	3"	3.92	FM / UL / LPCB / VDS
	1" / 25	3,000	1"	T	2.83	-	1.89	5.91	3.62	1½"	2	½"	3"	3.86	FM / UL / LPCB / VDS
	1¼" / 32	3,000	1¼"	T or G	2.99	3.23	1.89	5.91	3.62	2"	2	½"	3"	3.90	FM / UL / LPCB / VDS
	1½" / 40	3,000	1½"	T or G	2.99	3.23	1.89	5.91	3.62	2"	2	½"	3"	3.81	FM / UL / LPCB / VDS
3" / 80	½" / 15	3,500	½"	T	2.80	-	2.20	6.30	3.15	1½"	2	½"	3"	4.19	FM / UL / LPCB / VDS
	¾" / 20	3,500	¾"	T	2.99	-	2.20	6.30	3.15	1½"	2	½"	3"	4.44	FM / UL / LPCB / VDS
	1" / 25	3,500	1"	T	3.05	-	2.20	6.30	3.15	1½"	2	½"	3"	4.26	FM / UL / LPCB / VDS
	1¼" / 32	3,500	1¼"	T or G	3.44	3.74	2.20	6.30	3.70	2"	2	½"	3"	4.37	FM / UL / LPCB / VDS
	1½" / 40	3,500	1½"	T or G	3.44	3.74	2.20	6.30	3.70	2"	2	½"	3"	4.26	FM / UL / LPCB / VDS
4" / 100	2" / 50	3,500	2"	T or G	3.54	3.66	2.20	6.30	4.02	2½"	2	½"	3"	5.01	FM / UL / LPCB / VDS
	½" / 15	4,500	½"	T	3.43	-	2.72	7.36	3.78	1½"	2	½"	3"	5.06	FM / LPCB / VDS
	¾" / 20	4,500	¾"	T	3.50	-	2.72	7.36	3.78	1½"	2	½"	3"	4.98	FM / LPCB / VDS
	1" / 25	4,500	1"	T	3.62	-	2.72	7.36	3.78	1½"	2	½"	3"	4.93	FM / LPCB / VDS
	1¼" / 32	4,500	1¼"	T or G	4.09	4.09	2.72	7.36	3.78	2"	2	½"	3"	5.03	FM / UL / LPCB / VDS
5" OD	1½" / 40	4,500	1½"	T or G	4.09	4.09	2.72	7.36	3.78	2"	2	½"	3"	4.79	FM / UL / LPCB / VDS
	2" / 50	4,500	2"	T or G	4.09	4.09	2.72	7.36	4.21	2½"	2	½"	3"	5.50	FM / UL / LPCB / VDS
	2½" / 65	4,500	2½"	T or G	4.09	4.09	2.72	7.36	4.17	2¾"	2	½"	3"	5.57	FM / UL
	3" OD	4,500	3" OD	T or G	4.09	4.09	2.72	7.36	4.17	2¾"	2	½"	3"	5.57	FM / UL / VDS
	3" / 80	4,500	3"	T or G	4.41	4.45	2.72	7.36	5.12	3½"	2	½"	3"	7.77	FM / UL / VDS
6" / 150	1¼" / 32	5,500	1¼"	T or G	4.67	4.69	3.21	8.50	3.94	2"	2	5/8"	3½"	7.36	FM / VDS
	1½" / 40	5,500	1½"	T or G	4.67	4.69	3.21	8.50	3.94	2"	2	5/8"	3½"	7.21	FM / VDS
	2" / 50	5,500	2"	T or G	4.74	4.69	3.21	8.50	4.17	2½"	2	5/8"	3½"	7.65	FM / VDS
	3" OD	5,500	3" OD	G	-	4.69	3.21	8.50	4.21	2¾"	2	5/8"	3½"	7.72	FM / VDS
	1¼" / 32	6,625	1¼"	T or G	5.24	5.24	3.74	9.65	3.78	2"	2	5/8"	4¾"	7.99	FM / UL / LPCB / VDS
8" / 200	1½" / 40	6,625	1½"	T or G	5.24	5.14	3.74	9.65	3.78	2"	2	5/8"	4¾"	8.01	FM / UL / LPCB / VDS
	2" / 50	6,625	2"	T or G	5.12	5.18	3.74	9.65	4.21	2½"	2	5/8"	4¾"	8.65	FM / UL / LPCB / VDS
	2½" / 65	6,625	2½"	G	-	5.22	3.74	9.65	4.21	2¾"	2	5/8"	4¾"	8.94	FM / UL
	3" OD	6,625	3" OD	T or G	5.53	5.22	3.74	9.65	4.21	2¾"	2	5/8"	4¾"	8.94	FM / UL / LPCB / VDS
	3" / 80	6,625	3"	T or G	5.41	5.45	3.74	9.72	5.51	3½"	2	5/8"	4¾"	10.69	FM / UL / VDS
8" / 200	4" / 100	6,625	4"	T or G	5.67	5.49	3.86	9.72	6.42	4½"	2	5/8"	4¾"	9.57	FM / UL / LPCB / VDS
	2½" / 65	8,625	2½"	G	-	6.10	4.84	12.60	4.72	2¾"	2	¾"	4¾"	10.46	-
	3" OD	8,625	3" OD	T or G	6.20	6.10	4.84	12.60	4.72	2¾"	2	¾"	4¾"	10.46	-
	3" / 80	8,625	3"	T or G	6.34	6.34	4.84	12.60	5.43	3½"	2	¾"	4¾"	12.18	VDS
4" / 100	8,625	4"	T or G	6.73	6.34	4.84	12.60	6.46	4½"	2	¾"	4¾"	12.33	VDS	

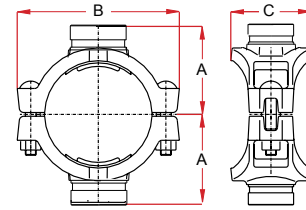
BRANCH OUTLETS / Style 87G

QUIK-T™ BRANCH OUTLETS

Maximum working pressure: 300 psi
For fire protection equipment and approved
pressure ratings please contact Modgal.

STYLE 87G

Cross Grooved



Nominal Size (Inches / DN)		Pipe Outside Diameter	Outlet	Quik-T™ Dimensions			Hole Diameter	Bolts			Weight Lbs	Approvals
Run	Outlet		Size	A	B	C	Tolerance +1/8"	Qty.	Size	Length		
2" / 50	1¼" / 32	2.375	1¼"	3.01	5.31	3.23	1¾"	2	3/8"	2¼"	4.31	FM / UL / LPCB / VDS
	1½" / 40	2.375	1½"	3.01	5.31	3.23	1¾"	2	3/8"	2¼"	4.35	FM / UL / LPCB / VDS
2½" / 65	1¼" / 32	2.875	1¼"	3.23	5.91	3.62	2"	2	½"	3"	4.74	FM / UL
	1½" / 40	2.875	1½"	3.23	5.91	3.62	2"	2	½"	3"	5.12	FM / UL
3" OD	1¼" / 32	3.000	1¼"	3.23	5.91	3.62	2"	2	½"	3"	4.75	FM / UL / LPCB / VDS
	1½" / 40	3.000	1½"	3.23	5.91	3.62	2"	2	½"	3"	5.11	FM / UL / LPCB / VDS
3" / 80	1¼" / 32	3.500	1¼"	3.74	6.30	3.74	2"	2	½"	3"	5.62	FM / UL / LPCB / VDS
	1½" / 40	3.500	1½"	3.74	6.30	3.70	2"	2	½"	3"	5.82	FM / UL / LPCB / VDS
	2" / 50	3.500	2"	3.66	6.30	4.13	2½"	2	½"	3"	5.31	FM / UL / LPCB / VDS
4" / 100	1¼" / 32	4.500	1¼"	4.09	7.36	3.78	2"	2	½"	3"	6.13	FM / UL / LPCB / VDS
	1½" / 40	4.500	1½"	4.09	7.36	3.78	2"	2	½"	3"	6.16	FM / UL / LPCB / VDS
	2" / 50	4.500	2"	4.09	7.36	4.21	2½"	2	½"	3"	7.09	FM / UL / LPCB / VDS
	2½" / 65	4.500	2½"	4.09	7.36	4.17	2¾"	2	½"	3"	7.88	FM / UL
	3" OD	4.500	3" OD	4.09	7.36	4.17	2¾"	2	½"	3"	7.88	FM / UL / VDS
	3" / 80	4.500	3"	4.45	7.36	5.12	3½"	2	½"	3"	12.26	FM / UL / VDS
5" OD	1¼" / 32	5.500	1¼"	4.69	8.50	3.94	2"	2	5/8"	3½"	8.78	FM / VDS
	1½" / 40	5.500	1½"	4.69	8.50	3.94	2"	2	5/8"	3½"	8.95	FM / VDS
	2" / 50	5.500	2"	4.69	8.50	4.17	2½"	2	5/8"	3½"	9.48	FM / VDS
	3" OD	5.500	3" OD	4.69	8.50	4.21	2¾"	2	5/8"	3½"	10.15	FM / VDS
6" / 150	1¼" / 32	6.625	1¼"	5.24	9.65	3.78	2"	2	5/8"	4¾"	9.33	FM / UL / LPCB / VDS
	1½" / 40	6.625	1½"	5.14	9.65	3.78	2"	2	5/8"	4¾"	9.55	FM / UL / LPCB / VDS
	2" / 50	6.625	2"	5.18	9.65	4.21	2½"	2	5/8"	4¾"	10.84	FM / UL
	2½" / 65	6.625	2½"	5.22	9.65	4.21	2¾"	2	5/8"	4¾"	11.36	FM / UL / LPCB / VDS
	3" OD	6.625	3" OD	5.22	9.65	4.21	2¾"	2	5/8"	4¾"	11.36	FM / UL / LPCB / VDS
	3" / 80	6.625	3"	5.45	9.72	5.51	3½"	2	5/8"	4¾"	15.91	FM / UL / VDS
	4" / 100	6.625	4"	5.49	9.72	6.42	4½"	2	5/8"	4¾"	13.77	FM / UL / LPCB / VDS
8" / 200	2½" / 65	8.625	2½"	6.10	12.60	4.72	2¾"	2	¾"	4¾"	13.75	-
	3" OD	8.625	3" OD	6.10	12.60	4.72	2¾"	2	¾"	4¾"	13.75	-
	3" / 80	8.625	3"	6.34	12.60	5.43	3½"	2	¾"	4¾"	16.83	VDS
	4" / 100	8.625	4"	6.34	12.60	6.46	4½"	2	¾"	4¾"	17.19	VDS

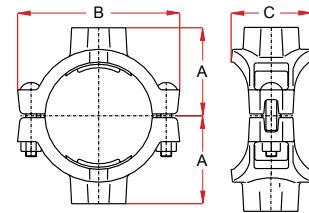
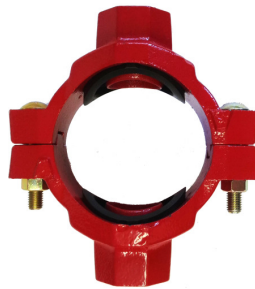
BRANCH OUTLETS / Style 88T

QUIK-T™ BRANCH OUTLETS

Maximum working pressure: 300 psi
For fire protection equipment and approved
pressure ratings please contact Modgal.

STYLE 88T

Cross Threaded



Nominal Size (Inches / DN)		Pipe Outside Diameter	Outlet	Quik-T™ Dimensions			Hole Diameter	Bolts			Weight Lbs	Approvals
Run	Outlet		Size	A	B	C	Tolerance +1/8"	Qty.	Size	Length		
2" / 50	1/2" / 15	2.375	1/2"	2.28	5.31	2.99	1 1/2"	2	3/8"	2 1/4"	3.75	FM / UL / LPCB / VDS
	3/4" / 20	2.375	3/4"	2.28	5.31	2.99	1 1/2"	2	3/8"	2 1/4"	3.84	FM / UL / LPCB / VDS
	1" / 25	2.375	1"	2.58	5.31	2.99	1 1/2"	2	3/8"	2 1/4"	4.16	FM / UL / LPCB / VDS
	1 1/4" / 32	2.375	1 1/4"	2.74	5.31	3.23	1 3/4"	2	3/8"	2 1/4"	4.25	FM / UL / LPCB / VDS
	1 1/2" / 40	2.375	1 1/2"	2.74	5.31	3.23	1 3/4"	2	3/8"	2 1/4"	4.21	FM / UL / LPCB / VDS
2 1/2" / 65	1/2" / 15	2.875	1/2"	2.64	5.91	3.62	1 1/2"	2	1/2"	3"	5.09	FM / UL
	3/4" / 20	2.875	3/4"	2.72	5.91	3.62	1 1/2"	2	1/2"	3"	4.98	FM / UL
	1" / 25	2.875	1"	2.83	5.91	3.62	1 1/2"	2	1/2"	3"	4.87	FM / UL
	1 1/4" / 32	2.875	1 1/4"	2.99	5.91	3.62	2"	2	1/2"	3"	4.94	FM / UL
	1 1/2" / 40	2.875	1 1/2"	2.99	5.91	3.62	2"	2	1/2"	3"	4.78	FM / UL
3" OD	1/2" / 15	3.000	1/2"	2.64	5.91	3.62	1 1/2"	2	1/2"	3"	5.10	FM / UL / LPCB / VDS
	3/4" / 20	3.000	3/4"	2.72	5.91	3.62	1 1/2"	2	1/2"	3"	4.99	FM / UL / LPCB / VDS
	1" / 25	3.000	1"	2.83	5.91	3.62	1 1/2"	2	1/2"	3"	4.87	FM / UL / LPCB / VDS
	1 1/4" / 32	3.000	1 1/4"	2.99	5.91	3.62	2"	2	1/2"	3"	4.93	FM / UL / LPCB / VDS
	1 1/2" / 40	3.000	1 1/2"	2.99	5.91	3.62	2"	2	1/2"	3"	4.78	FM / UL / LPCB / VDS
3" / 80	1/2" / 15	3.500	1/2"	2.80	6.30	3.15	1 1/2"	2	1/2"	3"	5.50	FM / UL / LPCB / VDS
	3/4" / 20	3.500	3/4"	2.99	6.30	3.15	1 1/2"	2	1/2"	3"	6.00	FM / UL / LPCB / VDS
	1" / 25	3.500	1"	3.05	6.30	3.15	1 1/2"	2	1/2"	3"	5.72	FM / UL / LPCB / VDS
	1 1/4" / 32	3.500	1 1/4"	3.44	6.30	3.70	2"	2	1/2"	3"	5.70	FM / UL / LPCB / VDS
	1 1/2" / 40	3.500	1 1/2"	3.44	6.30	3.70	2"	2	1/2"	3"	5.70	FM / UL / LPCB / VDS
	2" / 50	3.500	2"	3.54	6.30	4.02	2 1/2"	2	1/2"	3"	6.76	FM / UL / LPCB / VDS
4" / 100	1/2" / 15	4.500	1/2"	3.43	7.36	3.78	1 1/2"	2	1/2"	3"	6.80	FM / LPCB / VDS
	3/4" / 20	4.500	3/4"	3.50	7.36	3.78	1 1/2"	2	1/2"	3"	6.73	FM / LPCB / VDS
	1" / 25	4.500	1"	3.62	7.36	3.78	1 1/2"	2	1/2"	3"	6.51	FM / LPCB / VDS
	1 1/4" / 32	4.500	1 1/4"	4.09	7.36	3.78	2"	2	1/2"	3"	6.76	FM / UL / LPCB / VDS
	1 1/2" / 40	4.500	1 1/2"	4.09	7.36	3.78	2"	2	1/2"	3"	6.39	FM / UL / LPCB / VDS
	2" / 50	4.500	2"	4.09	7.36	4.21	2 1/2"	2	1/2"	3"	7.68	FM / UL / LPCB / VDS
	3" OD	4.500	3" OD	4.09	7.36	4.17	2 3/4"	2	1/2"	3"	10.80	FM / UL / VDS
5" OD	3" / 80	4.500	3"	4.41	7.36	5.12	3 1/2"	2	1/2"	3"	12.37	FM / UL / VDS
	1 1/4" / 32	5.500	1 1/4"	4.67	8.50	3.94	2"	2	5/8"	3 1/2"	9.39	FM / VDS
	1 1/2" / 40	5.500	1 1/2"	4.67	8.50	3.94	2"	2	5/8"	3 1/2"	9.12	FM / VDS
6" / 150	2" / 50	5.500	2"	4.74	8.31	4.17	2 1/2"	2	5/8"	3 1/2"	10.02	FM / VDS
	1 1/4" / 32	6.625	1 1/4"	5.24	9.65	3.78	2"	2	5/8"	4 3/4"	9.92	FM / LPCB / VDS
	1 1/2" / 40	6.625	1 1/2"	5.24	9.65	3.78	2"	2	5/8"	4 3/4"	9.91	FM / LPCB / VDS
	2" / 50	6.625	2"	5.12	9.65	4.21	2 1/2"	2	5/8"	4 3/4"	11.62	FM / LPCB / VDS
	3" OD	6.625	3" OD	5.53	9.72	4.61	2 3/4"	2	5/8"	4 3/4"	14.59	FM / LPCB / VDS
	3" / 80	6.625	3"	5.41	9.72	5.51	3 1/2"	2	5/8"	4 3/4"	14.56	FM / UL / VDS
8" / 200	4" / 100	6.625	4"	5.67	9.72	6.30	4 1/2"	2	5/8"	4 3/4"	17.75	FM / UL / VDS
	3" OD	8.625	3" OD	6.20	12.60	4.72	2 3/4"	2	3/4"	4 3/4"	15.41	-
	3" / 80	8.625	3"	6.34	12.60	5.55	3 1/2"	2	3/4"	4 3/4"	16.72	VDS
	4" / 100	8.625	4"	6.73	12.80	6.73	4 1/2"	2	3/4"	4 3/4"	23.48	VDS

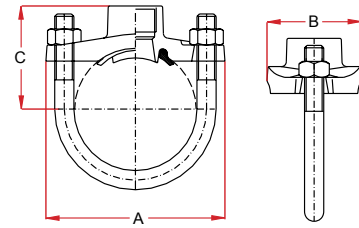
BRANCH OUTLETS / Style 99

QUIK-T™ BRANCH OUTLETS

Maximum working pressure: 300 psi
For fire protection equipment and approved pressure ratings please contact Modgal.

STYLE 99 QUIKLET™

Sprinkler Fitting



Nominal Size (Inches / DN)		Pipe Outside Diameter	Outlet	Quik-T™ Dimensions			Hole Diameter	U-Bolt			Weight Lbs	Approvals
Run	Outlet		Type	A	B	C	Tolerance +1/16"	Nut Qty.	Size	Length		
1 1/4" / 32	3/8" / 10	1,660	BSP	3.58	2.28	1.69	1 3/16"	2	3/8"	2 1/2"	0.80	-
	1/2" / 15	1,660	BSP / NPT	3.58	2.28	1.69	1 3/16"	2	3/8"	2 1/2"	0.80	FM / UL / VDS
	3/4" / 20	1,660	BSP / NPT	3.58	2.28	1.97	1 3/16"	2	3/8"	2 1/2"	0.90	FM / UL / VDS
	1" / 25	1,660	BSP / NPT	3.58	2.28	2.20	1 3/16"	2	3/8"	2 1/2"	0.96	FM / VDS
1 1/2" / 40	3/8" / 10	1,900	BSP	3.58	2.28	1.74	1 3/16"	2	3/8"	2 1/2"	0.79	-
	1/2" / 15	1,900	BSP / NPT	3.58	2.28	1.74	1 3/16"	2	3/8"	2 1/2"	0.79	FM / UL / VDS
	3/4" / 20	1,900	BSP / NPT	3.58	2.28	2.01	1 3/16"	2	3/8"	2 1/2"	0.83	FM / UL / VDS
	1" / 25	1,900	BSP / NPT	3.58	2.28	2.26	1 3/16"	2	3/8"	2 1/2"	0.93	FM / VDS
2" / 50	3/8" / 10	2,375	BSP	3.80	2.28	1.97	1 3/16"	2	3/8"	3 1/4"	0.84	-
	1/2" / 15	2,375	BSP / NPT	3.80	2.28	1.97	1 3/16"	2	3/8"	3 1/4"	0.84	FM / UL / VDS
	3/4" / 20	2,375	BSP / NPT	3.80	2.28	2.26	1 3/16"	2	3/8"	3 1/4"	0.88	FM / UL / VDS
	1" / 25	2,375	BSP / NPT	3.80	2.28	2.50	1 3/16"	2	3/8"	3 1/4"	0.98	FM / UL / VDS
2 1/2" / 65	1/2" / 15	2,875	BSP / NPT	4.41	2.24	2.50	1 3/16"	2	1/2"	4 1/2"	1.46	FM / UL*
	3/4" / 20	2,875	BSP / NPT	4.41	2.24	2.54	1 3/16"	2	1/2"	4 1/2"	1.46	FM / UL*
	1" / 25	2,875	BSP / NPT	4.41	2.24	2.85	1 3/16"	2	1/2"	4 1/2"	1.59	FM / UL*
3" OD	1/2" / 15	3,000	BSP	4.41	2.24	2.50	1 3/16"	2	1/2"	4 1/2"	1.32	FM / UL / VDS
	3/4" / 20	3,000	BSP	4.41	2.24	2.54	1 3/16"	2	1/2"	4 1/2"	1.32	FM / UL / VDS
	1" / 25	3,000	BSP	4.41	2.24	2.85	1 3/16"	2	1/2"	4 1/2"	1.41	FM / UL / VDS



Warning!

- Always read and understand the installation instructions before starting to work with Quikcoup products.
- Always depressurize and drain the piping system from all fluids before starting to work with Quikcoup products.



- Protect yourself during work. Wear safety clothing.
- Always check rubber gaskets carefully for defaults, cuts or holes before installing them in the system. Do not use damaged products!



- Not following these warnings and installation instructions can lead to system failure, personal injury and/or other damages.
- While every effort has been made to ensure the accuracy regarding the information in this catalog, anyone that uses the information contained in this catalog does so at their own risk and assumes any liability that results from such use.

Caution during installation!

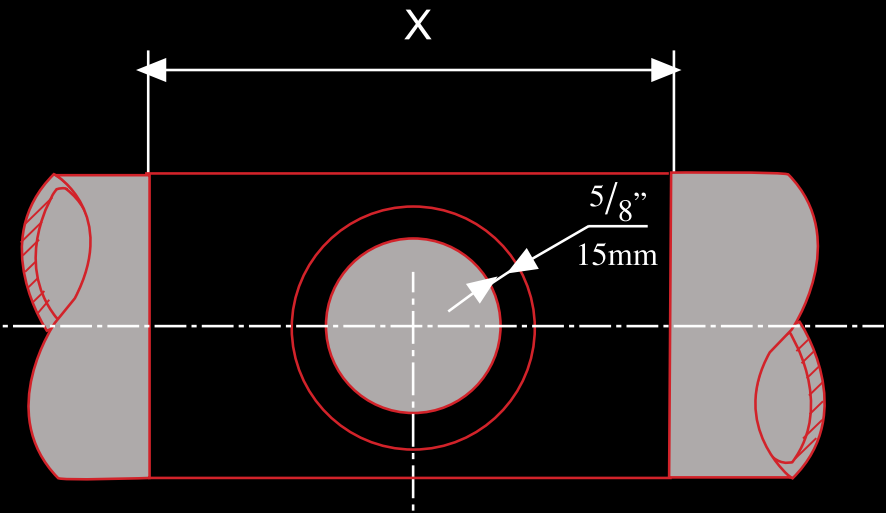
- Make sure gaskets are not pinched during installation. Pinched gaskets must be replaced immediately!
- Make sure oversized pipe or fittings were not used.
- Make sure the bolts have been tightened fully.

- Make sure coupling keys are engaged in the grooves. Coupling keys must not rest on the outside surface of the pipe.
- Always re-inspect joints before and after the field test to identify points of possible failure. If any questionable joints exist, depressurize the system, and replace these joints.

- A successful initial system pressure test does not validate proper installation and is not a guarantee of long-term performance.
- Modgal Metal will not assume any liability for pipe joint leakage that may result from an installer's failure to follow Quikcoup's installation instructions.

Pipe preparation for
Style 08T/08G/87G/88T & Style 99

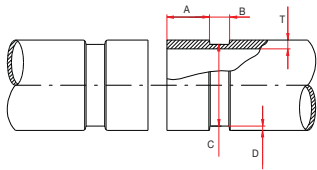
- Check for the required hole diameter size, the tables on pages 18-21 for Quik-T™ or Quiklet™.
- Cut a hole in the pipe wall at the desired location. The center of the hole must be on the center line of the pipe. To ensure a good seal and satisfactory service, make sure that the hole diameter is in accordance with the specified dimensions.
- Smooth the edges of the hole carefully to ensure that the throat will fit correctly within the pipe hole for proper functioning.
- Remove burrs and be sure that the pipe surface is free of dirt about 5/8" around the hole to ensure proper sealing. The band "X" shown in the drawing below around the entire pipe must be likewise clean and smooth to ensure proper sealing.



Bolt torques

- All Quikcoup couplings with standard ANSI or Metric Bolts and Nuts should be equally torqued, unless stated otherwise, conform the specifications mentioned in the table below.
- The table below shows the recommended torque for each bolt size for all Quikcoup products mentioned in this catalogue.

Boltsize	Bolt Torque (Nm: Newton meter)
	Min. - Max.
3/8" x 2"	41Nm - 68Nm
3/8" x 2.1/4"	41Nm - 68Nm
3/8" x 2.3/8"	41Nm - 68Nm
1/2" x 3"	120Nm - 150Nm
5/8" x 3.1/2"	135Nm - 175Nm
5/8" x 4.3/4"	135Nm - 175Nm
3/4" x 4.3/4"	200Nm - 270Nm
3/4" x 5.1/2"	200Nm - 270Nm
7/8" x 7.1/8"	270Nm - 340Nm



Nominal Size (Inches/DN)	Pipe Outside Diameter			Gasket Seat A	Groove Width B	Groove Diameter C		Groove Depth D	Min. Allow. Wall Thick. T
	Basic	Tolerance				±0.03"	±0.03"		
1" / 25	1,315	+ 0.013	- 0.013	0.625	0.313	1.190	- 0.015	0.063	0.133
1¼" / 32	1,660	+ 0.016	- 0.016	0.625	0.313	1.535	- 0.015	0.063	0.140
1½" / 40	1,900	+ 0.019	- 0.019	0.625	0.313	1.775	- 0.015	0.063	0.145
2" / 50	2,375	+ 0.024	- 0.024	0.625	0.313	2.250	- 0.015	0.063	1.154
2½" / 65	2,875	+ 0.029	- 0.029	0.625	0.313	2.720	- 0.018	0.078	0.188
3" OD	3,000	+ 0.030	- 0.030	0.625	0.313	2.845	- 0.018	0.078	0.188
3" / 80	3,500	+ 0.035	- 0.035	0.625	0.313	3.344	- 0.018	0.078	0.188
4" OD	4,250	+ 0.043	- 0.043	0.625	0.375	4.084	- 0.020	0.083	0.213
4" / 100	4,500	+ 0.045	- 0.045	0.625	0.375	4.334	- 0.020	0.083	0.203
5" OD	5,250	+ 0.053	- 0.053	0.625	0.375	5.084	- 0.020	0.083	0.213
5" OD	5,500	+ 0.056	- 0.056	0.625	0.375	5.334	- 0.020	0.083	0.203
5" / 125	5,563	+ 0.056	- 0.056	0.625	0.375	5.395	- 0.020	0.084	0.203
6" OD	6,250	+ 0.063	- 0.063	0.625	0.375	6.032	- 0.022	0.085	0.219
6" OD	6,500	+ 0.063	- 0.063	0.625	0.375	6.330	- 0.022	0.085	0.219
6" / 150	6,625	+ 0.063	- 0.063	0.625	0.375	6.455	- 0.022	0.085	0.219
8" / 200	8,625	+ 0.063	- 0.063	0.750	0.438	8.441	- 0.025	0.092	0.238
10" / 250	10,750	+ 0.063	- 0.063	0.750	0.500	10.562	- 0.027	0.094	0.250
12" / 300	12,750	+ 0.063	- 0.063	0.750	0.500	12.531	- 0.030	0.109	0.279
14" / 350	14,000	+ 0.063	- 0.063	0.938	0.500	13.781	- 0.030	0.109	0.281
16" / 400	16,000	+ 0.063	- 0.063	0.938	0.500	15.781	- 0.030	0.109	0.312

All sizes in inches unless otherwise stated.

QUICKCOUP grooved-end pipe couplings are designed for use with pipe groove to meet Quikcoup pipe preparation instructions. The following notes are to clarify the headings and data listed in tables, pages 26 and 27.

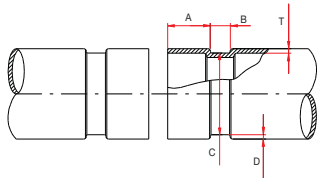
Column 1
Nominal pipe size.

Column 2
Pipe Outside Diameter. The outside diameter of grooved pipe shall not vary more than the tolerance listed. Internal or external weld bead or seams, must be ground flush with the pipe surface, extending 50mm back from the pipe end. Squariness of pipe ends (Max. Deviation from square cut ends):

- up to 3" -> 0.031" (0.8mm)
- 4" to 6" -> 0.047" (1.2mm)
- Over 6" -> 0.062" (1.6mm)

Column 3
"A" Dimension- The "A" dimension or distance from pipe ends to groove provides gasket seating area. This area must be free from indentations, rust or roll marks from the end of the pipe to the groove to provide leaktight seat for the gasket.

Column 4
"B" Dimension - The "B" dimension or groove width controls expansion and angular deflection by the distance it is located from the end of the pipe and its width in relation to the housing "key" width.



Nominal Size (Inches/DN)	Pipe Outside Diameter			Gasket Seat A	Groove Width B	Groove Diameter C		Groove Depth D	Min. Allow. Wall Thick. T	Max. Allow. Flare Diam.
	Basic	Tolerance				±0.03"	±0.03"			
1" / 25	1,315	+ 0.013	- 0.013	0.625	0.281	1.190	- 0.015	0.063	0.065	1.430
1¼" / 32	1,660	+ 0.016	- 0.016	0.625	0.281	1.535	- 0.015	0.063	0.065	1.770
1½" / 40	1,900	+ 0.019	- 0.019	0.625	0.281	1.775	- 0.015	0.063	0.065	2.010
2" / 50	2,375	+ 0.024	- 0.024	0.625	0.344	2.250	- 0.015	0.063	0.065	2.480
2½" / 65	2,875	+ 0.029	- 0.029	0.625	0.344	2.720	- 0.018	0.078	0.083	2.980
3" OD	3,000	+ 0.030	- 0.030	0.625	0.344	2.845	- 0.018	0.078	0.083	3.100
3" / 80	3,500	+ 0.035	- 0.035	0.625	0.344	3.344	- 0.018	0.078	0.083	3.600
4" OD	4,250	+ 0.043	- 0.043	0.625	0.344	4.084	- 0.020	0.083	0.091	4.350
4" / 100	4,500	+ 0.045	- 0.045	0.625	0.344	4.334	- 0.020	0.083	0.083	4.600
5" OD	5,250	+ 0.053	- 0.053	0.625	0.344	5.084	- 0.020	0.083	0.109	5.350
5" OD	5,500	+ 0.056	- 0.056	0.625	0.344	5.334	- 0.020	0.083	0.109	5.600
5" / 125	5,563	+ 0.056	- 0.056	0.625	0.344	5.395	- 0.020	0.084	0.109	5.660
6" OD	6,250	+ 0.063	- 0.063	0.625	0.344	6.032	- 0.022	0.085	0.109	6.350
6" OD	6,500	+ 0.063	- 0.063	0.625	0.344	6.330	- 0.022	0.085	0.109	6.600
6" / 150	6,625	+ 0.063	- 0.063	0.625	0.344	6.455	- 0.022	0.085	0.109	6.730
8" / 200	8,625	+ 0.063	- 0.063	0.750	0.469	8.441	- 0.025	0.092	0.109	8.800
10" / 250	10,750	+ 0.063	- 0.063	0.750	0.469	10.562	- 0.027	0.094	0.134	10.920
12" / 300	12,750	+ 0.063	- 0.063	0.750	0.469	12.531	- 0.030	0.109	0.156	12.920
14" / 350	14,000	+ 0.063	- 0.063	0.938	0.469	13.781	- 0.030	0.109	0.156	14.100
16" / 400	16,000	+ 0.063	- 0.063	0.938	0.469	15.781	- 0.030	0.109	0.156	16.100

All sizes in inches unless otherwise stated.

Column 5

"C" Dimension - The "C" dimension is the proper diameter at the base of the groove. This must be within diameter tolerance and concentric with the O.D. for proper coupling fit. The groove must be of uniform depth for the entire pipe circumference.

Column 6

"D" Dimension - The "D" dimension is the nominal depth of the groove and is reference for a Trial Groove Only. This dimension must be altered if necessary to keep dimension "c" within stated tolerance. The Groove must Conform to the "C" dimension.

Column 7

T Dimension - Minimum wall ("T" dimension) is the lightest grade or thickness of pipe suitable for roll grooving or for cut grooving.

Column 8

FLARE Standard (Roll Groove Only)
- Maximum allowable pipe end flare diameter measured at the most extreme pipe end diameter.

The tables below provide assistance (not as guarantee), in selecting the optional gasket grade for the intended service. The range of applications shown is of general nature only. It should be noted that there are specific services for which the gaskets are not recommended.

In order to assure maximum gasket service life for each specific service, the optimal gasket grade requires consideration of the following factors: fluid temperature, fluid concentration and continuity of service.

Unless otherwise noted, all gasket recommendations are based upon ambient working temperature service condition. For unusual or unspecified services, please contact Modgal Metal Ltd. for evaluation and recommendation.

Specifications				
Grade	Working temp. range	Gasket material	Marking	Service recommendations \ applications
EP	-30°F to +230°F -34°C to +110°C	EPDM	Green Strip	For use in cold & hot water (up to +230°F / +110 °C), variety of diluted acids, oil free air and other chemical services. (Not recommended for petroleum services).
NT	-20°F to +180°F -29°C to +82°C	Nitrile	Orange Strip	For use in variety of petroleum products, hydrocarbons, air with oil vapor (up to +150°F / +65°C) mineral oil and water waste (Not recommended for hot water services).
L	-30°F to +350°F -34°C to +177°C	Silicone	Red Gasket	For use in dry heat, air without hydrocarbons to +177 °C and high temperature chemical services.
O	+20°F to +300°F -7°C to +149°C	Fluoro-elastomer (Viton)	Bleu Stripe	Recommended for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic fluids and air with hydrocarbons.
EP*	-30°F to +230°F -34°C to +110°C	EPDM	Violet Stripe	Pre-lubricated gaskets for use in sprinkler systems.
D	-30°F to +150°F -34°C to +66°C	Sunflex T8184	White Stripe	For drinking water applications. Approved by DVGW & OVGW.

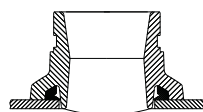
Air, Water and Petroleum Applications	
Applications	Recommended Gasket Grade
Air, oil-free, temp. -30°F to +230°F / -34°C to +110°C	EP
Air, oil vapor, temp -20°F to +180°F / -18°C to +82°C	NT
Air (no oil vapors) -30°F to +350°F / -34°C to +177°C	L
Water, temp, upto +150°F / +66°C	EP/NT
Water, temp, upto +230°F / +110°C	EP
Water acid mine	EP/NT
Water, seawater	EP
Water, waste	EP/NT
Water, steam	Not Recommended
Petrol / Gasoline (leaded)	NT/O
Petroleum oils	NT/O

GASKET TYPES

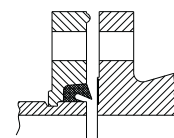
QUIKCOUP offers a variety of gaskets types for a wide range of applications and services. Each gasket type serves a specific application. The sealing effect is enhanced by pressure or vacuum in the line.



Standard



Quik-T for style 08, 88

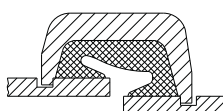


Style 90

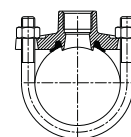


Flush Seal

Flush Seal Gasket is recommended in vacuum services and dry sprinkler piping systems. Available in sizes range DN32 to DN 200, with all QUIKCOUP couplings types.



Style 71



Quiklet for style 99

INSTALLATION INSTRUCTIONS / Gasket Grade & Gasket Selection

Unless otherwise noticed, all gasket listings are based on ambient temperature service conditions.

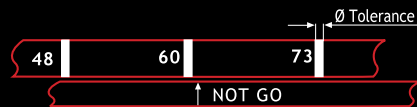
Where its possible, materials should be subjected to simulated service conditions for determining their suitability to the service

intended. For service not listed, please contact the factory for recommendations.

Chemical Application	Gasket Grade	Chemical Application	Gasket Grade	Chemical Application	Gasket Grade	Chemical Application	Gasket Grade	Chemical Application	Gasket Grade
acetic acid 50%	EP	calcium liquors	EP	fluoroboric acid	EP	nickel nitrate	EP	sodium silicate	EP
acetone	EP	cane suger liquors	NT	fluorosilicic acid	EP	c max nitric acid to 10% 24	EP	sodium sulphide	EP
acetaldehyde	EP	carbitol	EP	fly ash	EP	nitrous oxide	EP	sodium sulphite solution to 20%	EP
acethlene	EP	carbon dioxide , dry	EP	formadehyde	EP	octyl alcohol	NT	stannous chloride to 15%	EP
alkalis	EP	carbon dioxide , wet	EP	formic acid	EP	olive oil	NT	strach	EP
alums	EP	carbon monoxide	EP	freon 11 , 54° c max	NT	oxalic acid	EP	stearic acid	NT
aluminium chloride	EP	carbon tetrachloride	L	freon 12, 113,114,115 54° c max	NT	ozone	NT	styrenez	L
aluminum fluoride	EP	castor oil	N T	fructose	NT	phosphate ester	EP	sucrose solutions	NT
aluminum hydroxide	EP	cellosolve	EP	gasoline, refined	NT	phosphoric acid to 75% and 21° c max	EP	sulphor	EP
aluminum nitrate	EP	chlorobenzene	L	glucose	EP	phosphoric acid to 85% and 66° c max	L	sulphric acid to 25% 66° c max	EP
aluminum salts	EP	chlorobenzene chloride	L	glue	NT	photographic solutions	NT	tetrachlorethylene	L
ammonia gas, cold	EP	chloroform	L	glycerin	EP	plating solutions (gold, brass, cadium, copper, lead, silver, tin, zinc)	EP	toluene	L
ammonia liquid	EP	chrome alum	EP	glycerol	EP	potassium bromide	EP	trichloroethylen 93° c max	L
ammonium chloride	EP	chrome plating solutions	L	glycol	EP	potassium carbonate	EP	triethanolamine	EP
ammonuim fluoride	EP	citric acid	L	halon 1301	EP	potassium chloride	EP	turpentine 70° c max	NT
ammonium hydroxide	EP	coconut oil	NT	hepatane	NT	potassium chromate	NT	urea	EP
ammonium nitrate	EP	coke oven gas	NT	hexaldehyde	EP	potassium cyanide	EP	vegtable oils	NT
amyl acetate	EP	copper carbonate	EP	hexane	NT	potassium ferricyanide	EP	vinegar	NT
amyl alcohol	EP	coppo chloride	EP	hexylane glycol	NT	potassium ferrocyanide	EP	white liquor	EP
aniline	EP	copper cyanide	EP	hydrochloric acid , to 36% , 24° c max	EP	potassium hydroxide	NT	xylene(xylol) 70° c max	L
animal fats	NT	copper silphate	EP	hydrofluosilicic acid	NT	potassium iodide	EP	zinc sulphate	NT
arsenic acid , to 75%	NT	corn oil	NT	hydrogen peroxide , to 50%	EP	potassium nitrate	EP		
barium carbonate	EP	cotton seed oil	NT	hydroquinone	NT	potassium permanganate , saturated to 25%	EP		
barium chloride	EP	cresole, cresylic acid	NT	hydrogen sulfide	EP	potassium sulphate	EP		
barium hydroxide	EP	cresole wood	NT	isooctane	NT	propanol	EP		
barium nitrate	EP	cupric chloride	EP	isobutyl alcohol	EP	propyl alcohol	EP		
barium sulphide	EP	cupric fluoride	EP	isopropyl alcohol	EP	propylene glycol	EP		
beet sugar liquors	NT	cupric sulphate	EP	lactic acid	NT	pydraul 312c	L		
benzene	L	cychohexanol	L	lead acetate	EP	pyroguard 55	EP		
benzoic acid	L	diacetone alcohol	EP	linseed oil	NT	pyrrole	EP		
benzyl alcohol	EP	dichlorobenzene	L	lithium bromide	NT	salicylic acid	EP		
benzyl chloride	EP	dichloroethylene	L	magnesium chloride	EP	silver cyanide	EP		
black sulfate liquor	NT	diesel oil	NT	magnesium hydroxide	EP	silver nitrate	EP		
borax	EP	epson salt	EP	magnesium nitrate	EP	soda ash, sodium carbonate	EP		
boric acid	EP	ethane	EP	magnesium sulphate	EP	sodium bicarbonate	EP		
bromine	L	ethanolamine	EP	malonyl nitrile	EP	sodium bisulphate	EP		
butyl alcohol	EP	ethyl alcohol	EP	mercuric chloride	EP	sodium bisulphate (black liquor)	EP		
butyl stearate	EP	ethyl chloride	EP	mercuric cyanide	EP	sodium bromide	EP		
bulyene	NT	ethylene chlorohydrin	EP	mercury	EP	sodium chlorate	EP		
calcium bisulphate	NT	ethylene dimine	EP	methyl alcohol methanol	EP	sodium chloride	EP		
calcium bisuphide	NT	ethylene dichloride (dichloroethane)	L	methyl cellosolve(ether)	EP	sodium cyanide	EP		
calcium bisulphite	NT	ethylene glycol	EP	methyl formate	EP	sodium hydroxide to 50%	EP		
calcium carbonate	EP	ferric chloride, to 35%	EP	methyl isobutyl carbinol	EP	sodium hypochlorite to 20%	EP		
calcium chloride	EP	ferric nitrate	EP	mineral oils	NT	sodium metaphosphate	EP		
calcium hydroxide (lime)	EP	ferric sulphate	EP	naphtha 71° c max	L	sodium nitrate	EP		
calcium sulfate	EP	ferrous chloride	EP	naphthalene 80° c	L	sodium peroxide	EP		
calcium sulfide	EP	fish oils	NT	nickel chloride	EP	sodium phosphate	EP		

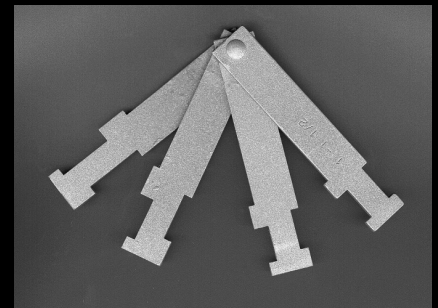
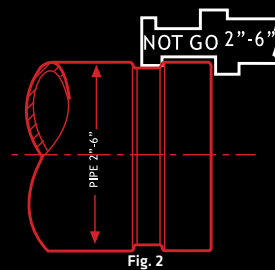
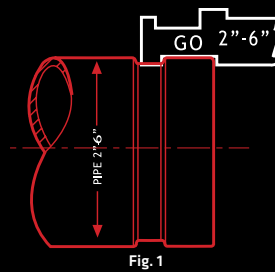
Groove Diameter Gauge

- This simple and efficient gauge was designed to control the pipe groove diameter "C" of roll grooved steel pipes at Nominal Size up to 24" (610mm).
- 1 Pull out enough band from the meter to create a ring of a diameter similar to that of the pipe being checked.
 - 2 Place the band into the groove and firmly pull the band on each end.
 - 3 Determine if the origin arrow is within the "groove diameter range"-band for the applicable pipe size. The origin arrow must be within this black band for conformance to Quikcoup groove specifications (see figure).



Gasket Seat Width Gauge

- This useful "Go/Not Go" blades gauge was Design for controlling gasket seat "A" and groove width "B" dimensions, of Roll grooved steel pipes up to 16" (400mm) Nominal Size (Inches / DN) in compliance with Quikcoup Roll Groove engineering data (listed on page 33).
- 1 Select one of the blades that is suitable to the pipe diameter you intend to check.
 - 2 Hold the gauge so that lettering "Go" is faced toward you.
 - 3 Position the gauge over the groove and gasket seat. The gauge should fit in and clamp the gasket seat (see figure No. 1).
 - 4 Turn the blade so that the letting "Not Go" is faced towards you.
 - 5 Position the gauge so that the projections tooth touching the edge of the pipe. The tooth at the edge of the gauge should not fit into the groove (see figure No. 2).



Quikcoup Lubricant

- Lubricant Type 27-XL, Water Dispersible
- Quikcoup Lubricant type 27-XL must always be used for proper coupling installation. The lubricant prevents the gasket from being pinched during coupling assembly, which will result to leakages.
- Suitable for most types of pipelines, including portable water pipelines.
- Will not impart taste, color or odor to water in pipelines flushed in accordance with recommended AWWA procedures.
- Contains no petroleum.
- Will not support bacteria.
- Will not deteriorate natural or synthetic rubber, or plastic gaskets.
- Stable from 0°C - 104°C
- Not toxic.
- No objectionable odor.

For dry pipe and freezer applications, use a petroleum-free silicon based lubricant.

Use instructions

1. Clean all dirt, burrs or foreign matter from joint surface.
2. Apply an even coating of lubricant to gasket lips, gasket exterior and/or housing interiors
3. Assemble the joint according to Quikcoup assembly instructions.

Quikcoup Lubricant type 27-XL contains:
Potassium Oleate, Diethylene, Glycol and Mica.

Petroleum based lubricant must not be used on gasket grade EA or EP.



- Check the pipes ends. The groove must be of uniform depth and its dimensions conform to Quikcoup specifications. Both pipes end should be free of indentations, rust or roll marks from the end of pipe to the groove.
- Loosen the nut, swing the coupling halves open and take out the gasket.



- Check the color code of gasket to make sure it is the correct type for service intended. Coat with a thin layer of Quikcoup 27-XL lubricant the gasket lips, gasket exterior. (CAUTION: Guard lubricant surfaces against dirt setting on them.)
- Slip gasket on pipe, ensuring that it does not protrude over the end of the pipe.



- Bring the two pipe ends together and align them.
- Slide gasket forward so that it covers the gap and rests at an equal distance from each groove.
- The grooves must be clear to receive the coupling.



- Open the coupling halves to the maximum and place the coupling over the gasket so that couplings keys (tenons) make good contact in the grooves.
- Swing the bolt and nut to the intended bolt-slot.

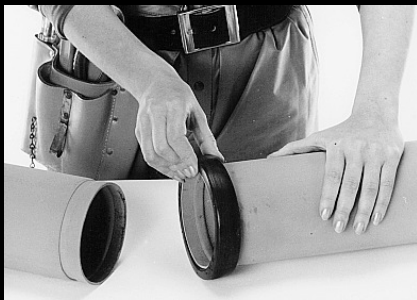


- Tighten the nut bringing coupling halves together (metal to metal), then apply specified torque to ensure proper contact between coupling halves.
- Important: Make sure that the coupling halves make good contact in the groove.



- Check the pipes ends. The groove must be of uniform depth and its dimensions conform to Quikcoup specifications. Both pipes end should be free of indentations, rust or roll marks from the end of pipe to the groove.

- Loosen the nuts, swing the coupling halves open and take out the gasket.



- Check the color code of gasket to make sure it is the correct type for service intended. Coat with a thin layer of Quikcoup 27-XL lubricant the gasket lips, gasket exterior. (CAUTION: Guard lubricant surfaces against dirt setting on them.)

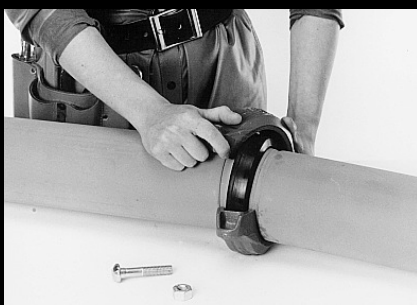
- Slip gasket on pipe, ensuring that it does not protrude over the end of the pipe.



- Bring the two pipe ends together and align them.

- Slide gasket forward so that it covers the gap and rests at an equal distance from each groove.

- The grooves must be clear to receive the coupling.



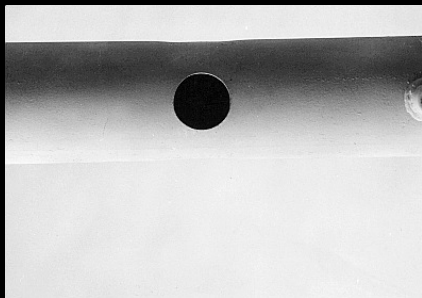
- Put the coupling halves over the gasket so that couplings keys (tenons) make good contact in the grooves.

- Insert the bolts into their holes and turn nuts until finger-tight.



- Tighten the nuts alternately and equally bringing coupling halves together (metal to metal*), then apply specified torque to ensure proper contact between coupling halves. Important: Make sure that the coupling halves make good contact in the groove.

* For style 75RT and S2-75RT couplings, an intended gap of up to 0.078" is permitted at each pad to allow for positive rigid gripping onto the pipe..



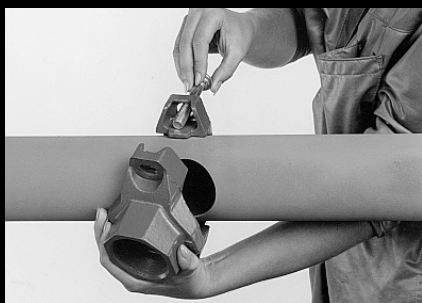
- Check the pipe surface. The hole must be cut or drilled on centerline of pipe and in dimensions conform Quikcoup specifications. (pages 20-22)
- The area within 15mm of hole must be clean and perfectly smooth to ensure sealing. A band of 26mm from each side of the hole must be free of dirt and rust projections to ensure tight sealing around the pipe.



- Remove one nut completely, while the other nut should be loosened enough to enable the Quik-T™ to be opened sufficiently wide to slip over pipe.



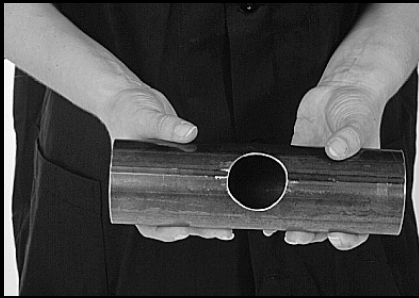
- Remove the gasket and check the color code of gasket to make sure it is the correct type for service intended. Coat with a thin layer of QUICKCOUP 27-XL lubricant all surfaces of the gasket. CAUTION: Guard lubricant surfaces against dirt setting on them.
- Re-insert gasket into casing using the alignment bulges for proper positioning.



- Turn the lower casing away from the upper one. Place the outlet part on the pipe axially aligned with the hole. Turn the lower part until it fits snugly round the pipe and align it with the upper part. Place the throat properly in the hole.
- Re-insert the removed bolt and tighten the nuts until finger-tight.



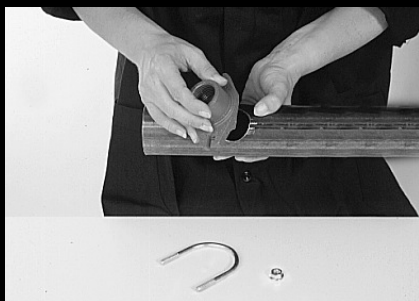
- Tighten the nuts alternately and equally leaving equal gaps between the bolt pads. Apply specified torque to ensure proper sealing.



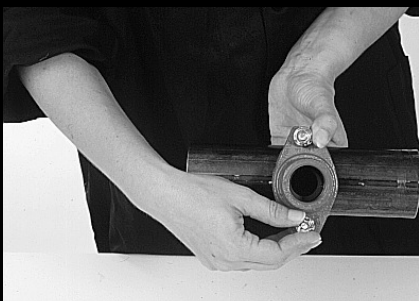
- Check the pipe surface. The hole must be cut or drilled on centerline of pipe and in dimensions conform Quikcouple specifications. (page 23)
- The area within 15mm of hole must be clean and perfectly smooth to ensure sealing. A band of 26mm from each side of the hole must be free of dirt and rust projections to ensure tight sealing around the pipe.



- Remove one nut in order to remove the U-bolt from the Quiklet™ in order to place it on the pipe.
- Remove the gasket and check the color code of gasket to make sure it is the correct type for service intended.



- CAUTION: For wet based applications do NOT coat the gasket with lubricant! For dry pipe and freezer applications, use a petroleum-free silicon based lubricant.
- Re-insert gasket into casing using the alignment bulges for proper positioning.



- Place the Quiklet™ over the hole on the pipe axially aligned with the hole. Make sure the leading edge of the gasket does not intersect with the hole and sits smoothly over the pipe's surface. the throat properly placed inside the hole. Check this by gently moving the Quiklet™, pushing it down at the same time.



- Hold the coupling in position and tighten the nuts alternately and equally leaving equal gaps between the U-bolt pads. Apply specified torque to ensure proper sealing.



- Check the pipes ends. The groove must be of uniform depth and its dimensions conform to Quikcoup specifications. Both pipes end should be free of indentations, rust or roll marks from the end of pipe to the groove.
- Loosen the nuts, swing the coupling halves open and take out the gasket.



- Check the color code of gasket to make sure it is the correct type for service intended. Coat with a thin layer of QUIKCOUP 27-XL lubricant the gasket lips, gasket exterior. (CAUTION: Guard lubricant surfaces against dirt setting on them.)



- Assemble the larger side of the reducing gasket over the larger pipe end until the Steel Washer touches the pipe end. (Make sure the steel washer is inside the reducing gasket.)
- Insert the smaller pipe end in the reducing gasket with a slightly twisting motion of the pipe. The pipe end will stop on the steel washer.



- Place the coupling halves over the reducing gasket so that couplings keys (tenons) make good contact in the grooves
- Place the bolts and nuts into the intended bolt-slots.



- Tighten the nuts alternately, bringing coupling halves together (metal to metal). Then apply specified torque to ensure proper contact between coupling halves.
- Important: Make sure that the coupling halves make good contact in the grooves.



- Check the pipes ends. The groove must be of uniform depth and its dimensions conform to Quikcoup specifications. The pipe end should be free of indentations, rust or roll marks from the end of pipe to the groove.

- Open the Quikflange™ halves to the maximum and place it around the grooved pipe end with the flange keys (tenon) into the groove. The gasket cavity should face the pipe end.



- Insert standard bolt through mating bolt holes opposite the hinge to ensure that the Quikflange™ rests firmly in the groove.

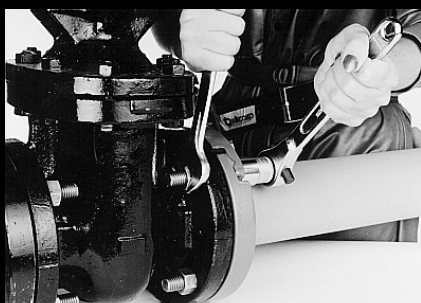


- Check the color code of gasket to make sure it is the correct type for service intended. Coat with a thin layer of Quikcoup 27-XL lubricant the gasket lips, gasket exterior. (CAUTION: Guard lubricant surfaces against dirt setting on them.)



- Stretch the gasket around the pipe end and press it into the cavity between the pipe OD and the Quikflange™. The gasket is properly inserted when the sealing lips face the pipe end and the mating flange.

The part of the gasket in contact with the pipe should not protrude over the end of the pipe. Apply additional Quikcoup 27-XL lubricant to the outer lip which seals the mating flange.



- Make sure the mating flange face is free of any indentation which may prevent a good sealing. Align the Quikflange™ bolt throughout the hole of the mating flange. Handtighten the nut.

Insert the next bolt opposite to the first, and add the remaining bolts in the same way. Make sure the gasket is properly positioned between the flanges. Tighten all nuts evenly with a minimum of 200Nm torque.

PIPE SUPPORT
FLEXIBLE COUPLINGS

Piping systems require that the support system accommodate the weight of all system components among which pipe, couplings, fluids, etc. In addition, reducing stresses, accommodation for thermal expansion or contraction, seismic movement, building settlement and others must be considered.

The tables below provide guidelines for steel piping systems with the use of grooved couplings and fittings without concentrated loads between pipe supports.

WHERE LINEAR MOVEMENT IS NEEDED

For pipe runs where linear movement is provided by the flexible couplings, the table below depicts the number of needed pipe supports per length of pipe.

Nominal Size (Inches / DN)	Pipe length in ft.							
	11	12	15	21	24	29	35	40
Up to 2" / 50	2	2	2	3	4	4	5	6
2½" / 65 up to 4" / 100	1	2	2	2	2	3	4	4
5" / 125 up to 16" / 400	1	1	2	2	2	3	3	3

WITHOUT LINEAR MOVEMENT

For pipe runs where linear movement provided by the flexible couplings is not needed, the table below depicts the maximum distance between pipe supports.

Nominal Size (Inches / DN)	Pipe length in ft.
Up to 1½" / 40	12
2" / 50 up to 8" / 200	15
10" / 250 up to 12" / 300	16
14" / 350 up to 16" / 400	18

PIPE SUPPORT RIGID COUPLINGS

For pipe runs with rigid couplings, the table below depicts the maximum distance between pipe supports.

Nominal Size (Inches / DN)	Water services in ft.			Air services in ft.		
	A	B	C	A	B	C
1¼" / 32	7	9	12	9	9	12
1½" / 40	7	11	12	9	11	12
2" / 50	10	13	15	13	15	15
2½" / 65	11	14	15	14	16	15
3" / 80	12	15	15	15	17	15
4" / 100	14	17	15	17	21	15
5" / 125	16	19	15	20	24	15
6" / 150	17	20	15	21	25	15
8" / 200	19	21	15	24	27	15
10" / 250	19	21	15	24	32	15
12" / 300	23	21	15	30	33	15
14" / 350	23	21	15	30	33	15
16" / 400	27	21	15	35	33	15

- A. Spacing by ANSI B31.1 - Power piping code
 B. Spacing by ANSI B39.1 - Building piping code
 C. Spacing by NFPA 13 - Sprinkler systems code

FRICTIONAL RESISTANCE DATA

The chart below expresses the frictional resistance of Quikcoup Grooved End Fittings as equivalent meter of straight pipe.

Fittings that are not listed can be interpolated from the data given.

For example: a Style 42 - 22½° elbow is approximately one-half resistance of a Style 64 - 45° elbow of the same size.

Nominal Size (Inches / DN)	Pipe Outside Diameter	Style 64 Elbow 45°	Style 04 Elbow 45°	Style 66 Elbow 45°	Style 06 Elbow 90°	Style 05 Tee		Style 65 Tee	
		ft.	ft.	ft.	ft.	Main line	Branch line	Main line	Branch line
						ft.	ft.	ft.	ft.
1" / 25	1,315	-	-	1.9	1.9	1.6	4.3	1.6	4.3
1¼" / 32	1,660	1.0	1.0	1.9	1.9	1.9	4.8	1.9	4.8
1½" / 40	1,900	1.2	1.2	2.3	2.3	2.3	5.8	2.3	5.8
2" / 50	2,375	1.6	1.6	3.2	3.2	3.2	8.0	3.2	8.0
2½" / 65	2,875	2.0	2.0	3.9	3.9	3.9	9.8	3.9	9.8
3" OD	3,000	2.1	2.1	4.1	4.1	4.1	10.3	4.1	10.3
3" / 80	3,500	2.4	2.4	4.9	4.9	4.9	12.2	4.9	12.2
4" OD	4,250	3.3	3.3	6.5	6.5	6.5	16.3	6.5	16.3
4" / 100	4,500	3.3	3.3	6.5	6.5	6.5	16.3	6.5	16.3
5" OD	5,250	4.0	4.0	8.0	8.0	8.0	20.0	8.0	20.0
5" OD	5,500	4.1	4.1	8.0	8.0	8.0	20.0	8.0	20.0
5" / 125	5,563	4.1	4.1	8.2	8.2	8.2	20.5	8.2	20.5
6" OD	6,250	4.8	4.8	9.5	9.5	9.5	23.8	9.5	23.8
6" OD	6,500	4.8	4.8	9.5	9.5	9.5	23.8	9.5	23.8
6" / 150	6,625	5.0	5.0	9.9	9.9	9.9	24.8	9.9	24.8
8" / 200	8,625	6.6	6.6	13.1	13.1	13.1	32.8	13.1	32.8
10" / 250	10,750	8.3	8.3	16.5	16.5	16.5	41.3	16.5	41.3
12" / 300	12,750	9.9	9.9	23.0	23.0	19.9	49.7	19.9	49.7

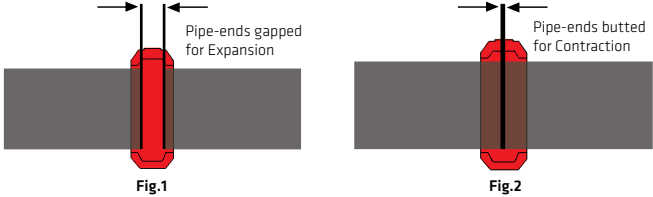
LINEAR MOVEMENT WITH FLEXIBLE QUIKCOUP COUPLINGS

In case thermal expansion is needed, the pipe ends at each joint should be fully gapped (fig. 1) to the maximum end gap. This can be achieved by pressurizing the system before anchoring the system.

In case of thermal contraction, the pipe ends at each joint should be fully butted (fig. 2). This system can be anchored in place to prevent the pipe ends from opening up to the maximum end gap when pressurized.

For design purposes, the maximum pipe end gap should be reduced to account for field practices as follows:

Nominal Size (Inches / DN)	Maximum pipe-end gap reduction
1¼" / 32 up to 3" / 80	50%
4" / 100 up to 16" / 400	25%



Therefore the following values should be used as available pipe end movements for Style 007, 75 and 07 flexible couplings:

Nominal Size (Inches / DN)	Pipe end movements	
	Cut grooves (inches)	Roll grooves* (inches)
1¼" / 32 up to 3" / 80	0 - 0.063	0 - 0.031
4" / 100 up to 16" / 400	0 - 0.189	0 - 0.945

* Roll groove joints provide half of the available movement of cut grooved joints.

THREE METHODS TO ACCOMODATE THERMAL EXPANSION/CONTRACTION

1. Design the system with rigid couplings and place expansion joints at the relevant locations. Expansion joints may be a series of flexible couplings of a sufficient quantity to accomodate the required movement.
2. Design the system with flexible and/ or rigid couplings in such way that allows the pipes to move in desired directions, with the use of anchors and guides. It is important to ensure that movement at branch connections, changes of direction, equipment hookup, etc. will not cause damage or excessive stresses.
3. Design the system with flexible couplings utilizing the expansion/contraction capabilities of these couplings. The following example illustrates this method:

FLEXIBLE COUPLINGS CAN ACCOMMODATE VIBRATION ABSORPTION

Vibration and noise in connected piping can be generated by equipment (e.g., pumps, chillers, etc.). Any vibrating, reciprocating, or rotating equipment should be mounted such that it does not transmit significant levels of vibration into the surrounding or supporting structure. Hence, it is important to provide vibration isolation for all attachments to a vibrating machine, including structural mounts and the connections to piping. Quikcoup flexible couplings can be used as a substitute for vibration compensators at device connections.

At least 3 pieces of Quikcoup style 75 or 007 flexible couplings should be installed consecutively at the source of vibration. Ensure proper installation of the flexible couplings and follow the Quikcoup installation instructions. Contact your engineering department or contact Modgal for questions.

OXYGEN DIFFUSION IN HYDRONIC SYSTEMS

Oxygen in a heating system can cause corrosion of piping, pumps, boilers and other components. Oxygen diffusion is the ability of oxygen molecules to pass through a material due to the material's molecular structure and a difference in the partial pressure of oxygen on each side of the material. Diffusion does not depend on system pressure, but on the partial pressure of the oxygen molecules across the permeable membrane. So under the right conditions atmospheric oxygen can enter a piping system filled with pressurized water.

Metal pipes and the housing of couplings and fittings (i.e. carbon steel, stainless steel, copper, aluminium and ductile iron) are not permeable. Testing by Modgal with Quikcoup couplings with standard EPDM gaskets has shown that Quikcoup couplings demonstrate oxygen diffusion characteristics equivalent to other metallic systems (i.e. welded). Quikcoup couplings do not contribute to oxygen concentrations in hydronic heating systems.

QUIKCOUP / Grooved Pipes Connection System



WARRANTY

MODGAL METAL (99) LTD. WARRANTY FOR QUIKCOUP

Modgal Metal (99) Ltd. ("Modgal") warrant its products against defects in materials and workmanship when paid for and properly installed and maintained, under normal conditions of use and service, for a period of five (5) years following the receipt of the products by the buyer. Products found by Modgal to be defective shall be either replaced or repaired, at Modgal's sole option.

THE BUYER'S SOLE AND EXCLUSIVE REMEDY SHALL BE FOR THE REPAIR OR REPLACEMENT OF DEFECTIVE PRODUCTS AS PROVIDED HEREIN.

This warranty shall not apply to any product which has been subject to misuse, negligence or accident, which has been repaired or altered outside of Modgal's factory, or which has not been installed or maintained in accordance with Modgal's then-current installation manuals, instructions or recommendations. Modgal shall not be responsible for design errors due to inaccurate or incomplete information supplied by buyer or its representatives. Items and/or components purchased by Modgal and resold to the buyer will have the original equipment manufacturer's warranty extended to the buyer.

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 AGREES THAT NO OTHER REMEDY, INCLUDING, BUT NOT LIMITED, TO INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES, SHALL BE AVAILABLE FOR HIM, REGARDLESS OF WHETHER MODGAL WAS INFORMED ON THE POSSIBILITY OF SUCH DAMAGES.

Modgal neither assumes nor authorizes any person to assume for it any liability in connection with the sale or use of such products, other than as specifically mentioned herein. As a pre-condition to receiving any remedy hereunder, buyer must take all reasonable actions to mitigate its claimed damages and cooperate with Modgal in order to enable Modgal to grant buyer the remedy hereunder, including visiting the sites where the claimed damaged product is installed.

QUIKCOUP



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