A World Leader In Mechanical Piping Components

Shurjoint Piping Products

2008 General Catalog

SHURJOINT®

www.shurjoint.com

Contents

Water Treatment, USA

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SHURJOINT

A world leader in mechanical piping components

PAST TO PRESENT: Mechanical couplings were first developed in the United Kingdom in the early part of the 20th century and revolutionized pipe joining. Unlike the conventional pipe joining methods of the time, such as threading, flanging or welding, this early mechanical pipe joining method offered a fast and easy alternative, utilizing a rubber gasket and metal housings. With continued advances in metallurgy and synthetic elastomer gasket technology, the new era of mechanical pipe joining continues unprecedented growth into new and varied applications and industries by offering improved solutions and savings. Today's 21st century mechanical couplings include grooved couplings, shouldered and ring joint couplings, plain-end couplings and hole-cut couplings or mechanical tees.

SS 304 potable water line

A WORLD LEADER: With over three decades of experience Shurjoint is recognized as a world leader in the design and manufacturer of mechanical piping system components. We currently offer over 2500 individual piping components for use with a variety of pipe materials including carbon steel, stainless steel, copper, PVC, HDP, and ductile iron.

THE SHURJOINT MISSION: Our mission is to supply the highest quality products to customers worldwide with an unmatched level of customer service at a superior value. In addition to these hallmarks, we continually invest in research, engineering and development, which enable us to develop new and innovative solutions for the changing needs of industry.

Etisalat Tower, Dubai

Typical Applications

HVAC	Reverse Osmosis
Fire Protection	Desalination
Water Supply & Treatment	Mining
Plumbing	Marine
Municipal	Gas
Food Processing	Chemical
Pulp & Paper	Oil
Agriculture	Air

Hamilton Health Science Center, Canada

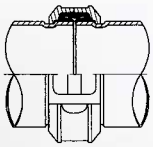
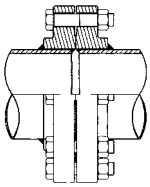
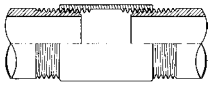
THE SHURJOINT CATALOG: This catalog features our general product offering. For the latest and most complete listing of products, news and additional information please visit our website www.shurjoint.com or contact one of our offices. We invite you to join with us and experience the *"Shurjoint Difference"*.

SHURJOINT GROOVED PIPING SYSTEM

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

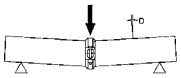
A coupling can be installed 3–4 times faster than a comparable welded or brazed joint and there is no need for a flame or welding torch on the job site. A coupling can be installed by fastening a pair of bolts and nuts while using only a wrench or spanner, whereas a comparable flanged joint requires the fastening of many bolts and nuts with a pair of wrenches. The grooved system allows for easy material take-offs and unlike a threaded system, there is no need to allow for added pipe length for thread engagement. With the removal of just a few bolts one can easily access the system for cleaning, maintenance, changes and or system expansion.

TYPICAL PIPE JOINING METHODS – QUICK COMPARISON

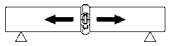
System Type	Grooved	Welded	Flanged	Threaded
Joint Construction				
Pipe End Preparation	Roll-grooving. Fast and easy	Beveled Ends	Welding of flanges by qualified welders	Threading by skillful operators is required
Equipment Required	Roll-grooving machine  RIDGID Model #918	Welding equipment 	Welding equipment 	Pipe threading machine  RIDGID Model #300
Installation	Easy fastening of bolts & nuts using only a wrench or spanner	Welding tools and supplies required on the jobsite. A skillful and proper weld can be time consuming.	A minimum of two wrenches or spanners required. Time consuming to tighten many bolts and nuts.	Pipe wrench required. As the pipe size increases so does the difficulty and force required for proper installation.
Allowance For Axial Displacement And Deflection	Yes – Couplings can allow for both.	No	No	No
Required Space For Installation	Can be installed in small spaces.	Adequate space is necessary for welding tools and welding around the entire O.D. of the pipe.	Adequate space is required as the flange O.D. is large and the wrenches require ample working space.	Adequate space is required for turning the pipe wrench.
Surface Corrosion Resistance	Easy to apply anti-corrosive paint	Difficult – Hard to paint inside of the pipe after welding	Easy to apply anti-corrosive paint	Easy to paint outside of the pipe after installation but inside threads are vulnerable to corrosion.
Ease of Prefabrication	Very Easy	Difficult	Difficult	Difficult
Quality Control	Product quality is easily controlled at the factory and or job site. Installation can be visually checked.	Quality of job site welding can be inconsistent. X-ray inspection may be required.	Quality of job site welding can be inconsistent.	Varies depending on skills of workers on the jobsite as all work is usually performed on site.
Maintenance and or Disassembly	Easy to dismantle and reinstall. System is flexible and forgiving.	Very difficult as no option but to cut away	Very difficult to dismantle and re-install due to limited space.	Difficult due to thread engagement, thread corrosion, limited space and need for a union.
Design & Cost Estimating	Easy take-offs and estimating. Most materials can be pre- fabricated.	Labor is difficult to estimate as the individual skill levels of welders is a determining factor.	Labor is difficult to estimate as the skill levels of welders and very accurate make-up is a determining factor.	Labor is difficult to estimate because prefabrication is not possible, all work is performed on the job site.

RIGID OR FLEXIBLE?

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



Angular movement



Axial displacement

Rotational movement

Type		Angular Movement deg.	Axial Displacement mm	Rotation after installation	Model Nos.
Flexible Coupling		≧ 1°	1.6 - 3.2	Yes	7705, 7706, 7707, SS-8, SS-8X
Rigid Coupling	Angle-pad design	< 1°	< 1.6	No	Z05, Z07, C305
	T&G design	< 1°	< 1.6	No	K9, 7771, SS-7, XH-70
	Butt-joint design	< 0.3°	< 0.8	No	R20

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

RIGID COUPLINGS

The most popular and most widely used couplings today

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

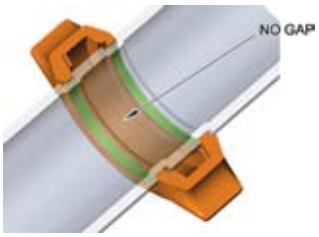
Shurjoint offers three different types of rigid couplings, the angle-pad design, the T&G (tongue and groove) design and the most recent innovation, the butt-joint design. The butt-joint design effectively eliminates the gap between pipe ends, offering increased rigidity.

#R-20 Butt-joint Rigid Coupling

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

- **T&G design:** The T&G (tongue & groove) mechanism provides a mechanical and frictional interlock resulting in a rigid joint which reduces undesired angular movement. *Shurjoint* precision casting techniques allow the coupling segments to meet metal-to-metal when installed on properly grooved pipe.

- **Butt-joint design:** The unique butt-joint design eliminates the gap in between pipe ends, thus eliminating not only angular and rotational movement but also axial displacement under normal service conditions*. Fluid flows through the pipe without interference of the pipe gap or gasket. The coupling segments will always come together forming metal-to-metal contact when properly installed.



(*Pipes must be cut true and square to achieve a butt-joint.)

FLEXIBLE COUPLINGS

Shurjoint flexible couplings allow for full design features in applications such as curved or deflected layouts and or when systems are exposed to outside forces beyond normal static conditions such as seismic events or where vibration and or noise attenuation are a concern. The ability to design in controlled flexibility is an advantageous feature when compared to traditional rigid joining methods such as threading, flanging and welding. When designing with flexible couplings you must allow for proper support to the system so as to eliminate undesired stress **(see Anchoring, hanging and supports on page 102)**.

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

NFPA 13 defines a flexible coupling as;

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

For sprinkler systems, NFPA 13 specifies the use of flexible couplings to protect the system against damage from earthquakes and sets some specific examples of how and where they should be used. Designers and installers should design their fire protection systems in compliance with this standard. See Typical Applications – Flexible Couplings on Page 98.

#7705 Flexible Coupling

Axial Displacement & Angular Movement (Models 7705 & 7707)

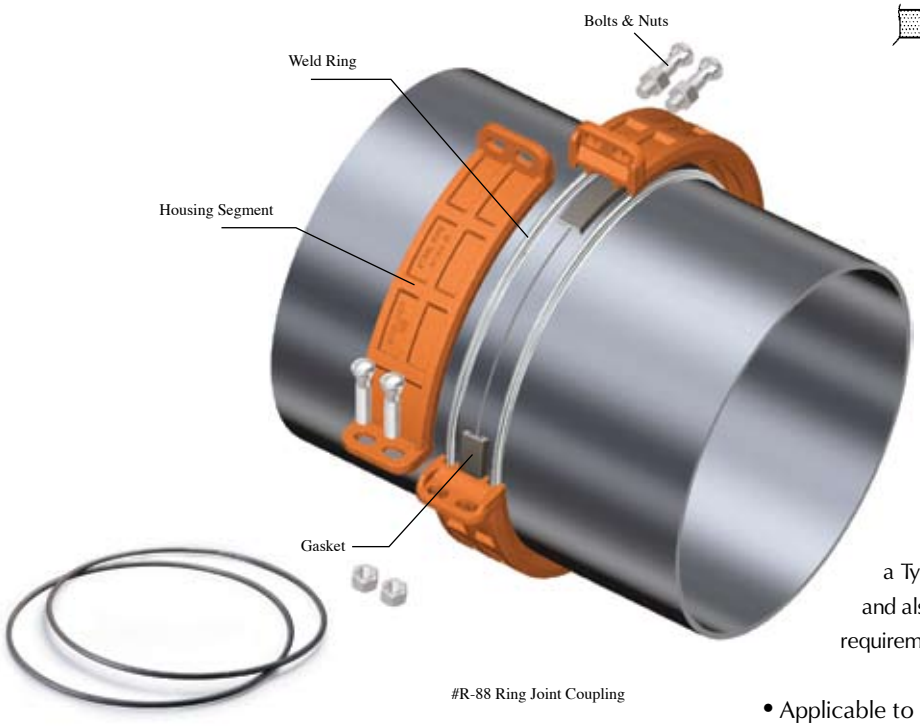
Size		Axial Displace -ment mm/in	Angular Movement (Deflection)		Size		Axial Displace -ment mm/in	Angular Movement (Deflection)	
Nom. Size mm/in	Actual OD mm/in		Per coupling degrees	Per pipe mm/m, in/ft	Nom. Size mm/in	Actual OD mm/in		Per coupling degrees	Per pipe mm/m, in/ft
20	26.7	1.6	6° - 46'	118	150	159.0	3.2	2° - 18'	40
0.75	1.050	0.0625		1.42	6	6.250	0.125		0.48
25	33.4	1.6	5° - 30'	96	150	165.1	3.2	2° - 14'	39
1	1.315	0.0625		1.16	6	6.500	0.125		0.47
32	42.4	1.6	4° - 20'	76	150	168.3	3.2	2° - 10'	38
1.25	1.660	0.0625		0.91	6	6.625	0.125		0.45
40	48.3	1.6	3° - 48'	66	200 JIS	216.3	3.2	1° - 42'	30
1.5	1.900	0.0625		0.80	8	8.516	0.125		0.36
50	60.3	1.6	3° - 01'	53	200	219.1	3.2	1° - 40'	29
2	2.375	0.0625		0.63	8	8.625	0.125		0.35
65	73.0	1.6	2° - 30'	44	250 JIS	267.4	3.2	1° - 22'	24
2.5	2.875	0.0625		0.52	10	10.528	0.125		0.29
65	76.1	1.6	2° - 24'	42	250	273.0	3.2	1° - 20'	23
2.5	3.000	0.0625		0.50	10	10.750	0.125		0.28
80	88.9	1.6	2° - 04'	36	300 JIS	318.5	3.2	1° - 10'	20
3	3.500	0.0625		0.43	12	12.539	0.125		0.25
90	101.6	1.6	1° - 48'	31	300	323.9	3.2	1° - 08'	20
3.5	4.000	0.0625		0.38	12	12.750	0.125		0.24
100	108.0	3.2	3° - 24'	59	350	355.6	3.2	1° - 02'	18
4	4.25	0.125		0.71	14	14.000	0.125		0.22
100	114.3	3.2	3° - 12'	55	400	406.4	3.2	0° - 54'	16
4	4.500	0.125		0.67	16	16.000	0.125		0.19
125	127.0	3.2	2° - 53'	50	450	457.0	3.2	0° - 48'	14
5	5.000	0.125		0.60	18	18.000	0.125		0.17
125	133.0	3.2	2° - 46'	48	500	508.0	3.2	0° - 44'	13
5	5.250	0.125		0.58	20	20.000	0.125		0.15
125	139.7	3.2	2° - 37'	46	550	559.0	3.2	0° - 38'	11
5	5.500	0.125		0.55	22	22.000	0.125		0.13
125	141.3	3.2	2° - 36'	45	600	610.0	3.2	0° - 36'	10
5	5.563	0.125		0.54	24	24.000	0.125		0.13

Note: Axial displacement is the maximum value when the system is pressurized to the maximum working pressure.
Angular movement is the maximum value that a coupling allows under no internal pressure.

SHURJOINT RING JOINT PIPING SYSTEM

An ideal pipe joining method where pipe is difficult to groove or when welding is not the preferred joining method

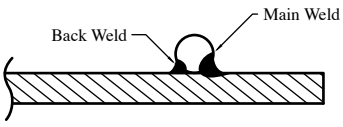
The processing of a roll groove on pipe becomes more difficult as the pipe O.D. and or wall thickness increases. Roll grooving pipe larger than 14" (350mm) can be difficult and requires the proper tools and equipment. Pipe having a wall thickness greater than .375" (9.5mm) may not be practical to roll groove. In such cases the Shurjoint ring joint piping system offers an excellent alternative.



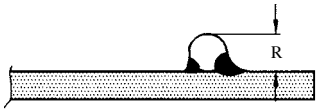
#R-88 Ring Joint Coupling

Factory Supplied Rings

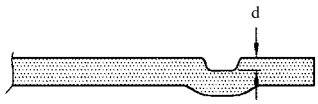
First weld a factory-supplied ring on each pipe end. Next mount the rubber gasket over the pipe ends and place the coupling segments over the gasket and fasten the bolts and nuts. The same C-shaped style gasket as used in the grooved system effectively seals the pipe ends. Rings can be welded in the fabrication shop or in the field and the coupling housings can be installed on the job site.



The ***Shurjoint Model R-88 ring joint coupling*** provides a much more secure joint than a comparable roll-grooved system, simply because the contact area of the rings is much greater than that of the roll groove profile. In addition the welded rings are able to withstand 2 – 3 times the shearing forces of roll grooves.



Ring Joint



Roll Groove

R > d

Ring welding requires only a structural weld, which, unlike pipe to pipe direct welding or flange welding, does not directly affect the sealing capability of the joint, thus eliminating the need to inspect the weld for leaks.

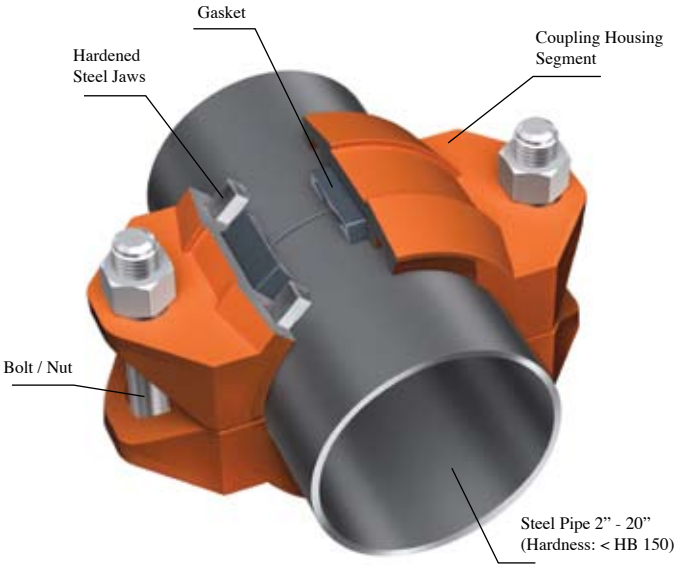
The *Shurjoint* ring joint coupling is classified as a Type II Class 1 mechanical coupling of ASTM F1476 and also meets or exceeds the design and performance requirements of AWWA C606.

- Applicable to plain-end and or beveled-end pipe
- The weld rings provide much better pressure restraint than that of a roll-grooved joint – 24 bars/350 psi working pressure for 350 mm to 600mm/14" to 24"
- Factory supplied weld rings are much more economical than type A, B, C, D, E or G shoulder rings
- No inside protrusion or flare at the pipe end as is often seen in a roll-grooved joint
- The wide housing segments assembled with two bolts and nuts at each segment provide a positive grip of the pipe

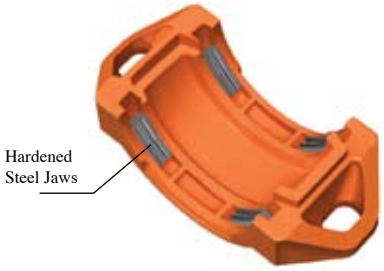
SHURJOINT PLAIN-END PIPING SYSTEMS

No grooving, welding, or threading required

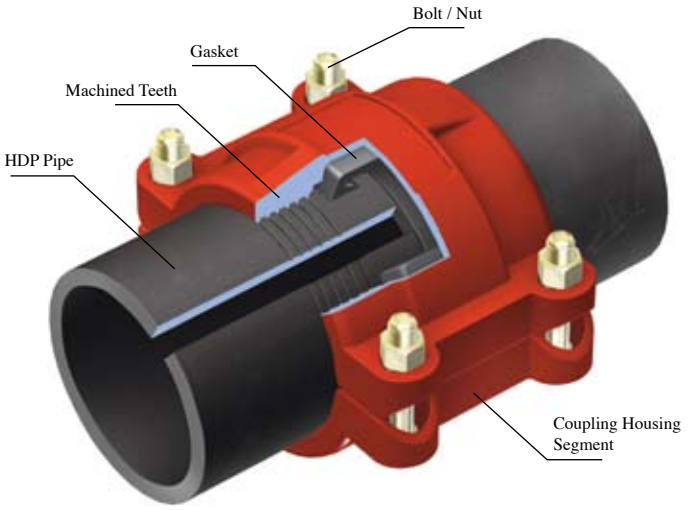
The Model 79 "Wildcat" coupling is designed to mechanically join steel pipe. The couplings feature case-hardened* jaws that securely grip the pipe incorporated with heavy duty ductile iron housing segments and heavy duty bolts and nuts. The C-shaped gasket effectively seals the pipe ends. (* For sizes larger than 350mm (14"), jaws are made of 17-4PH stainless steel.)



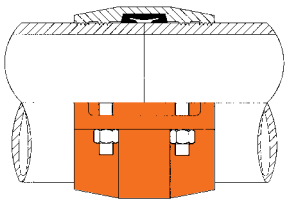
Model 79 Plain-End Coupling



- Recommended for use on steel pipe with a hardness less than HB 150
- Not recommended for plastic, HDP, cast iron or brittle pipe
- Pressure ratings up to 750 psi (52 bar) depending on sizes
- Available in sizes 2" through 20" (50mm through 500mm)
- Hardened steel jaws can be replaced and the coupling can be used again and again



Model H305 Plain-End HDP Coupling



Plain-End HDP Coupling

The *Shurjoint* HDP series couplings provide fast and easy installation of HDP (high density polyethylene or polybutylene) pipe. A series of sharply machined teeth positively grip the HDP pipe. The C-shaped gasket effectively seals the pipe ends. These couplings can eliminate the need for costly heat fusion equipment, solvent joining and complicated and or expensive adapters.

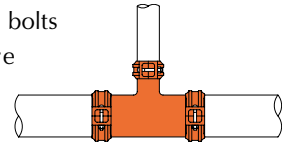
- Recommended for HDP pipe, SDR 32.5 – 7.3
- Not recommended for PVC or other materials
- Pressure ratings are limited to the SDR of the HDP pipe being connected (HDP couplings are designed to hold much higher pressures than the HDP pipe being connected).
- Available in sizes 2" through 20" (50mm through 500mm)

The ***Shurjoint Models 7721 and 7722 mechanical tees*** can be used on HDP pipe of ASTM standards*. (* Not applicable to HDP pipe of ISO standards.)

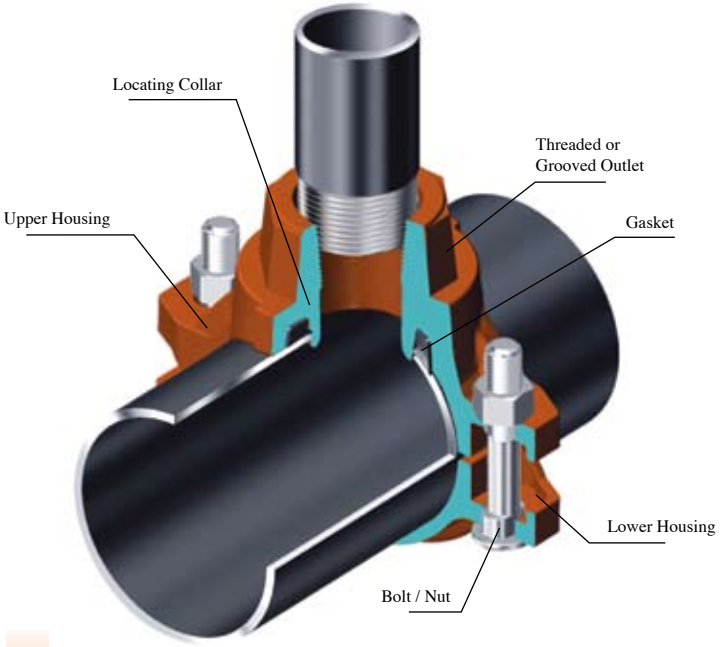
HOLE-CUT PIPING SYSTEMS

The Shurjoint hole-cut piping systems provide a fast and easy mid-point branch outlet, eliminating the need for multiple fittings and allows for easy expansion of the piping system.

The ***Shurjoint mechanical tees Models 7721 and 7722*** provide an easy take-out of a branch outlet without the need for welding. First a hole is cut or drilled at the desired location. The mechanical tee is then positioned so that the built-in locating collar fits within the hole. As the housing bolts are tightened, the pressure responsive gasket forms a leak-tight seal.

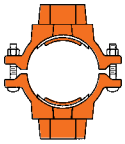


3 + 1 = 1
Couplings Reducing Tee Mechanical Tee



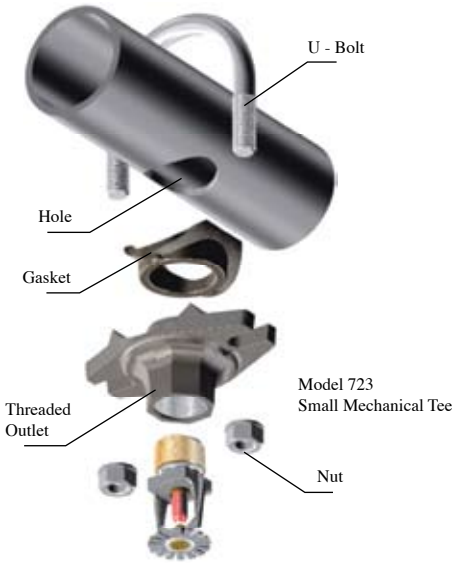
Model 7721 Mechanical Tee

- Grooved-end and threaded outlets are available
- A mechanical cross connection can be made by combining two upper housing segments



Model 7721C

The ***Model 723 Saddle-Let*** mechanical tee is the ideal outlet fitting for direct connection to sprinkler heads, short risers, drops, and or gauges.



Welding Outlet Fittings

The Shurjoint welding outlet fittings provide an easy threaded outlet at any desired location along the header.

The ***Shurjoint Model 74 universal outlet fitting*** is designed to fit a range of header sizes which will reduce costs associated with ordering, inventory and installation. The model 74 was designed for the fire protection industry where a high volume of 1/2", 3/4" and 1" sizes are used. These outlets can be welded manually or with automated equipment.

- Meets NFPA 13 requirements, UL listed and FM approved
- Shurjoint hole template is available for manual hole cutting
- Reduces welding time and the likelihood of burn through
- Reduces stock numbers by up to 70% over traditional outlets

For larger sizes and or grooved outlets see our Models 71, 72C and 72R outlets.

Model 74 Universal Outlet fitting

MATERIALS

HOUSINGS

The housing segments not only provide significant strength to the joint but they also compress and protect the gasket from exposure. *Shurjoint* coupling housings and components are cast in a variety of materials as shown below.

Ductile Iron: Standard coupling housings and fittings are made of ductile iron conforming to ASTM A536 Gr. 65-45-12. The properties of Grade 65-45-12 ductile iron are as follows; 65,000 psi (448 MPa) tensile strength, 45,000 psi (310 MPa) yield strength and 12% elongation. As an option we also offer ductile iron made to ASTM A395 Gr. 60-40-18, for applications where required or where boiler codes may apply.

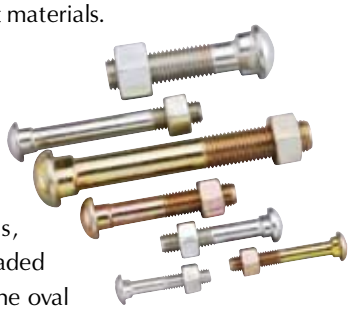
Stainless Steel: We offer a variety of stainless steel casting materials depending on your intended application. Standard coupling housing and fitting materials include CF8 (304), CF8M (316) or CF3M (316L) per ASTM A743. Optional materials include 2205 Duplex, 2507 Super Duplex and ASTM CK-3MCuN (UNS J93245), equivalent to 254SMO*.

(* 254SMO is a registered trademark of Avesta Polarit AQB.)

Bronze: Standard fittings are made of lead-free copper alloy per ASTM B584. The *Shurjoint* copper alloy is UL classified in accordance with ANSI/NSF 61 for cold +86°F (+30°C) and hot +180°F (+82°C) potable water use.

GASKETS

Shurjoint gaskets are available in a variety of configurations and compounds to meet your specific requirements. These gaskets have excellent self sealing capabilities and are designed to provide a leak tight seal. During assembly the gasket is first stretched over the pipe ends which forms the initial seal. As the housing segments are installed and secured the pressure responsive gasket is slightly compressed to form a leak-tight joint. The strength of the seal is further enhanced by internal line pressure that creates downward pressure on the lips of the gasket. The gasket also seals well under vacuum conditions up to 10 inHg (254 mmHg) which may occur when a system is drained. Please refer to the *Shurjoint* Gasket Selection Guide for additional details and gasket materials.



BOLTS AND NUTS

Shurjoint products utilize oval neck track bolts and heavy duty hex nuts, available either in UNC threaded or ISO metric threaded*. The oval neck track bolts mate into the oval holes in the housing segments to allow for easy tightening using only a single wrench/spanner. The UNC bolts and nuts are electro zinc plated in a silver chromate color and ISO bolts and nuts in a gold chromate color. Hot-dip galvanized bolts and nuts are also available upon request. (*M10 to M22 only)

Stainless steel track bolts and nuts, type 304 or 316, are supplied with *Shurjoint* stainless steel couplings. Stainless steel track bolts and nuts are molybdenum disulfide (MoS_2) coated to inhibit galling. As an option, silicone bronze nuts are also available to avoid galling.

A stainless steel bolt fastened with a silicone bronze nut

LUBRICANT

Shurjoint lubricant is a tan colored non-toxic paste which is NSF approved. The lubricant is recommended for proper gasket installation and helps prevent the gasket from being pinched during installation. The lubricant is applied in a thin coat to the gasket exterior, gasket lips and/or the coupling housing interiors.

GENERAL CODES, STANDARDS, SPECIFICATIONS, ASSOCIATIONS & APPROVAL BODIES

Shurjoint production facilities are certified to ISO 9001. Products are designed to conform to ASTM, AWWA and other standards where applicable and are listed, approved and or certified by cULus, ULC, FM, VdS, LPCB, NSF and others. *Shurjoint* is also active in industry membership organizations such as AFSA, AMTA, NFSA, CASA, NFPA, IFSA, WEF, USGBC and others.

ABS
American Bureau of Shipping

AFSA
American Fire Sprinkler Association

AMTA
American Membrane Technology Association

ANSI
American National Standards Institute

ANSI/AWWA
American Water Works Association
C606-04

ASHRAE
American Society of Heating, Refrigerating and Air Conditioning Engineers

ASME
American Society of Mechanical Engineers
- Power Piping, B31.1
- Building Services Piping, B31.9

ASTM
American Society of Testing and Materials
- F 1476-01 Couplings
- F 1548-01 Fittings
- F 1155 Shipbuilding

CAGBC
Canadian Green Building council

CASA
Canadian Automatic Sprinkler Association

CSA
Canadian Standards Association B-242

DLEG
State of Michigan Board of Mechanical Rules

FM
Factory Mutual Research Corp. -
Approved for fire protection services

IAMPO
International Association of Plumbing & Mechanical Officials

IFSA
International Fire Sprinkler Association

FESC
Japan Fire Equipment Safety Center

LLOYD
Lloyd's Register Quality Assurance
ISO-9001:2000

LPCB
Loss Prevention Certification Board
ISO -9001:2000
LPS-1219

NFSA
National Fire Sprinkler Association, Inc.

NFPA
National Fire Protection Association
NFPA 13

NSF
ANSI/NSF 61 Drinking Water System Components-Health Effects

NYC MEA
New York City Department of Buildings, Material & Equipment Acceptance

NYPA
New York Power Authority

PED
Pressure Equipment Directory 97/23/EC

UL
Underwriter's Laboratories, Inc.-UL213

ULC
Underwriter's Laboratories of Canada

USGBC
US Green Building Council

TSUS
Technick a skúobn ústav stavebn, n. o.

VdS
VdS Schadenverhuetung - VdS 2100-6 : 2003-5 (01)

WEF
Water Environment Federation

WRAS
WRAS Water Regulation Advisory Scheme

DATA CHART NOTES

Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Angular Movement		Dimensions			Bolt Size in	Bolt Torque N-m/Lbs-Ft	Weight Kgs/Lbs
					Degree Per Coupling(°)	Pipe mm/m in/ft	A mm/in	B mm/in	C mm/in			
1	2	3	4	5	6		7			8	9	10

1 **Nominal Size:** *Shurjoint* couplings and fittings are identified by the nominal IPS pipe size in inches or nominal diameter of pipe (DN) in millimeters.

2 **Pipe OD:** Actual outside diameter of pipe in inches and millimeters.

3 **Maximum Working Pressure:** Maximum working pressures listed are CWP (cold water pressure) or maximum allowed working pressure within the service temperature range of the gasket used in the coupling, based on standard wall or sch. 40 steel pipe, cut or roll-grooved to ANSI/AWWA C606-04 specifications.

These ratings may occasionally differ from maximum working pressures listed and/or approved by UL, ULC, and/or FM as testing conditions and test pipes differ. For performance data on other pipe schedules contact *Shurjoint*.

Note: For one time field test only the maximum joint working pressure may be increased 1.5 times the figures shown.

4 **Maximum End Load:** Maximum end loads listed are total of internal and external forces to which the joint can be subjected, based on standard wall or sch. 40 steel pipe, cut or roll-grooved to ANSI/AWWA C606-04 specifications.

5 **Axial Displacement:** Designed range of the gap between pipe ends based on roll grooved pipe.

6 **Angular Movement (Deflection):** Maximum allowable deflection of pipe from centerline when the joint is used with cut or roll-grooved steel pipe under no internal pressure.

7 **Dimensions:** "A", "B", "C" and so on are external dimensions for reference purpose only in millimeters and inches.

8 **Bolt Size:** UNC bolt size and length in inches and ISO metric bolt size and length in millimeters with numbers of bolts where applicable.

9 **Bolt Torque:** Recommended bolt fastening torque in Lbs-Ft and N-m.

10 **Approximate Weight:** Weight of a coupling complete with gasket, bolts and nuts or of a fitting in kilograms and pounds.

GENERAL NOTES

Service Fluid and Temperature: Service fluid and temperature limitations for *Shurjoint* couplings are primarily governed by the gasket used within the coupling. Always refer to and consult the *Shurjoint* Gasket Selection Guide.

Working Pressure: *Shurjoint* grooved couplings are generally engineered for use with standard or sch. 40 steel pipes (except for some high pressure models) and can be used within the rated working pressures as shown in the *Shurjoint* literature. A one time only field test at 1.5 times the working pressure is allowed.

As there are limitations in service temperatures, the *Shurjoint* couplings and fittings do not adopt the ANSI temperature-pressure ratings (Class 150, Class 300, etc.), ISO or JIS methods of pressure ratings (PN10, PN16, JIS 10K or 20K, etc.). All the published working pressures are CWP, non-shock cold water pressures, unless otherwise specified. Actual allowed working pressures for a specific coupling will vary depending on the coupling size, pipe material, pipe schedule (or thickness) and types of grooves used. Special attention is required when using thin wall stainless steel pipe such as sch. 10S and 5S. For further details request the performance data for specific thin wall pipe.

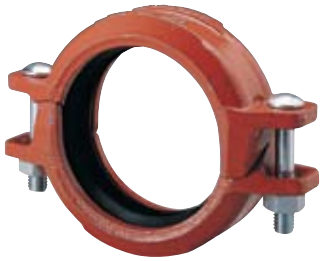
The dimensions, weights, performance data, and other specifications shown in this catalog supersede all previous published data. *Shurjoint* reserves the right to change product designs and or specifications without notice and without obligation.

Illustrations shown within this catalog are for illustrative purposes. They are not drawn to scale and may have been exaggerated for clarity. Any person who makes use of the information or materials contained herein shall do so at their own risk and shall be liable for any results arising from such use.

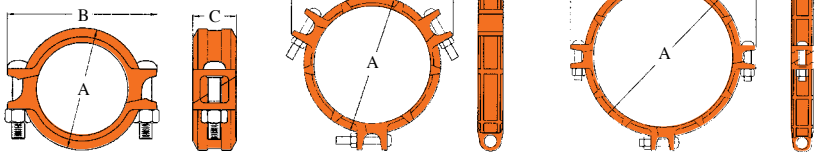
MODEL Z07 STANDARD RIGID COUPLING

- Angle-Pad Design –

The *Shurjoint* Model Z07 is an angle-pad design standard rigid coupling for general piping applications where rigidity is required including valve connections, mechanical rooms, fire mains and long straight runs. The angle-pad design allows the coupling housings to slide along the bolt pads when tightened. The result is an offset clamping action which provides a rigid joint that resists flexural and torsional loads. Support and hanging requirements correspond to ANSI B31.1, B31.9 and NFPA 13.



Sizes available: 32mm ~ 600mm / 1-1/4" ~ 24"
Working Pressure: Up to 52 bar / 750 psi



1-1/4" ~ 12" 14" ~ 18" 20" ~ 24"

Nominal Size mm/in	Pipe O. D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Dimensions			Bolts Size		Weight Kgs/Lbs
					A mm/in	B mm/in	C mm/in	No.	mm/in	
32	42.2	52	7.21	0 ~ 1.2	68	105	47		M10 x 55	0.7
1.25	1.660	750	1620	0 ~ 0.05	2.68	4.13	1.85	2	3/8 x 2-1/8	1.6
40	48.3	52	9.48	0 ~ 1.2	74	115	47		M10 x 55	0.9
1.5	1.900	750	2130	0 ~ 0.05	2.91	4.53	1.85	2	3/8 x 2-1/8	2.0
50	60.3	52	14.78	0 ~ 1.7	86	120	48		M10 x 70	1.1
2	2.375	750	3320	0 ~ 0.07	3.39	4.72	1.88	2	3/8 x 2-3/4	2.4
65	73.0	52	21.71	0 ~ 1.7	100	140	48		M10 x 70	1.1
2.5	2.875	750	4875	0 ~ 0.07	3.94	5.50	1.88	2	3/8 x 2-3/4	2.4
65	76.1	52	23.60	0 ~ 1.7	102	146	48		M10 x 70	1.2
2.5	3.000	750	5300	0 ~ 0.07	4.00	5.75	1.88	2	3/8 x 2-3/4	2.6
80	88.9	52	32.14	0 ~ 1.7	115	157	48		M12 x 75	1.4
3	3.500	750	7215	0 ~ 0.07	4.53	6.18	1.88	2	1/2 x 3	3.1
100	114.3	52	53.11	0 ~ 4.1	147	199	54		M12 x 75	2.0
4	4.500	750	11925	0 ~ 0.16	5.78	7.83	2.13	2	1/2 x 3	4.4
125	139.7	52	74.05	0 ~ 4.1	175	235	54		M16 x 90	3.0
5	5.500	750	16625	0 ~ 0.16	6.88	9.25	2.13	2	5/8 x 3-1/2	6.6
125	141.3	52	81.17	0 ~ 4.1	177	235	54		M16 x 90	3.0
5	5.563	750	18225	0 ~ 0.16	6.97	9.25	2.13	2	5/8 x 3-1/2	6.6
150	165.1	48	103.44	0 ~ 4.1	200	259	54		M16 x 90	3.2
6	6.500	700	23225	0 ~ 0.16	7.87	10.20	2.13	2	5/8 x 3-1/2	7.1
150	168.3	48	107.48	0 ~ 4.1	203	263	54		M16 x 90	3.2
6	6.625	700	24130	0 ~ 0.16	8.00	10.35	2.13	2	5/8 x 3-1/2	7.1
200 JIS	216.3	42	154.25	0 ~ 3.2	264	340	64		M20 x 120	6.9
8	8.516	600	34158	0 ~ 0.13	10.39	13.39	2.50	2	3/4 x 4-3/4	15.2
200	219.1	42	155.89	0 ~ 4.8	268	342	64		M20 x 120	7.1
8	8.625	600	35000	0 ~ 0.19	10.55	13.46	2.52	2	3/4 x 4-3/4	15.7
250 JIS	267.4	35	196.45	0 ~ 3.2	321	397	65		---	11.0
10	10.528	500	43504	0 ~ 0.13	12.63	15.63	2.56	2	7/8 x 6-1/2	24.2
250	273.0	35	202.21	0 ~ 3.2	327	431	65		---	10.3
10	10.750	500	45400	0 ~ 0.13	12.86	16.98	2.56	2	7/8 x 6-1/2	22.9
300 JIS	318.5	28	222.97	0 ~ 3.2	372	452	65		---	12.0
12	12.539	400	49369	0 ~ 0.13	14.65	17.80	2.56	2	7/8 x 6-1/2	26.4
300	323.9	28	227.15	0 ~ 3.2	377	480	65		---	11.8
12	12.750	400	51000	0 ~ 0.13	14.86	18.88	2.56	2	7/8 x 6-1/2	26.0
350	355.6	17	171.20	0 ~ 3.2	408	505	73		---	14.9
14	14.000	250	38485	0 ~ 0.13	16.06	19.89	2.87	3	7/8 x 5-1/2	32.8
400	406.4	17	223.60	0 ~ 3.2	467	554	73		---	18.7
16	16.000	250	50265	0 ~ 0.13	18.39	21.84	2.87	3	7/8 x 5-1/2	41.2
450	457.2	17	283.00	0 ~ 3.2	525	607	76		---	24.6
18	18.000	250	63615	0 ~ 0.13	20.68	23.89	3.00	3	7/8 x 5-1/2	54.2
500	508.0	17	349.30	0 ~ 3.2	582	698	76		---	30.5
20	20.000	250	78540	0 ~ 0.13	22.93	27.47	3.00	4	1 x 3-1/2	67.2
600	609.6	17	503.30	0 ~ 3.2	687	803	78		---	34.6
24	24.000	250	113000	0 ~ 0.13	27.05	31.61	3.06	4	1 x 3-1/2	46.2

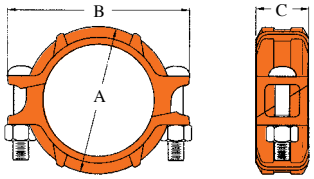
MODEL Z05 RIGID COUPLING

- Angle-Pad Design –

The *Shurjoint* Model Z05 is an angle-pad design rigid coupling for moderate pressure piping services including fire mains, long straight runs and valve connections. The angle-pad design allows the coupling housings to slide along the bolt pads when tightened. The result is an offset clamping action which provides a rigid joint which resists so-called 'snaking' of a long straight run. Support and hanging requirements correspond to ANSI B31.1, B31.9 and NFPA 13.

With the removal of only one bolt you can make a fast and easy 'swing-over' installation.

Sizes available: 32mm ~ 200mm / 1-1/4" ~ 8"
Working Pressure: Up to 24 bar / 350 psi



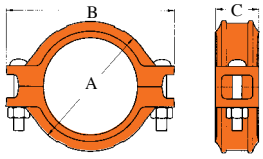
The angle pad design allows for fast and easy swing-over installation

Nominal Size mm/in	Pipe O. D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Dimensions			Bolts Size mm/in	Weight Kgs/Lbs
					A mm/in	B mm/in	C mm/in		
32	42.2	24	3.37	0 ~ 1.2	66	102	46	M10 X 55	0.6
1.25	1.660	350	757	0 ~ 0.05	2.60	4.00	1.81	3/8 x 2-1/8	1.4
40	48.3	24	4.42	0 ~ 1.2	72	109	46	M10 X 55	0.7
1.5	1.900	350	990	0 ~ 0.05	2.83	4.29	1.81	3/8 x 2-1/8	1.5
50	60.3	24	6.90	0 ~ 1.7	85	117	47	M10 X 70	0.8
2	2.375	350	1550	0 ~ 0.07	3.35	4.61	1.85	3/8 x 2-3/4	1.7
65	73.0	24	10.11	0 ~ 1.7	98	132	47	M10 X 70	0.9
2.5	2.875	350	2270	0 ~ 0.07	3.86	5.20	1.85	3/8 x 2-3/4	2.1
65	76.1	24	11.01	0 ~ 1.7	100	136	47	M10 X 70	1.0
2.5	3.000	350	2475	0 ~ 0.07	3.94	5.35	1.85	3/8 x 2-3/4	2.2
80	88.9	24	14.99	0 ~ 1.7	113	148	48	M10 X 70	1.2
3	3.500	350	3365	0 ~ 0.07	4.45	5.83	1.88	3/8 x 2-3/4	2.6
100	108.0	24	22.11	0 ~ 4.1	142	176	54	M10 X 70	1.6
4	4.250	350	4963	0 ~ 0.16	5.59	6.93	2.13	3/8 x 2-3/4	3.6
100	114.3	24	24.77	0 ~ 4.1	146	182	53	M10 X 70	1.9
4	4.500	350	5565	0 ~ 0.16	5.75	7.17	2.09	3/8 x 2-3/4	4.1
125	133.0	20	28.91	0 ~ 4.1	170	224	54	M12 X 75	2.3
5	5.250	300	6491	0 ~ 0.16	6.69	8.82	2.13	1/2 x 3	5.1
125	139.7	20	31.72	0 ~ 4.1	173	227	53	M12 X 75	2.6
5	5.500	300	7125	0 ~ 0.16	6.81	8.94	2.09	1/2 x 3	5.7
125	141.3	20	32.45	0 ~ 4.1	175	229	53	M12 X 75	2.6
5	5.563	300	7290	0 ~ 0.16	6.89	9.02	2.09	1/2 x 3	5.7
150	159.0	20	40.98	0 ~ 4.1	198	250	54	M12 X 75	2.8
6	6.250	300	9199	0 ~ 0.16	7.80	9.84	2.13	1/2 x 3	6.1
150	165.1	20	44.30	0 ~ 4.1	200	246	54	M12 X 75	3.1
6	6.500	300	9955	0 ~ 0.16	7.87	9.69	2.13	1/2 x 3	6.8
150	168.3	20	46.02	0 ~ 4.1	203	249	54	M12 X 75	3.1
6	6.625	300	10340	0 ~ 0.16	8.00	9.80	2.13	1/2 x 3	6.8
200	219.1	20	78.00	0 ~ 4.8	264	330	64	M16 X 135	6.1
8	8.625	300	17525	0 ~ 0.19	10.40	12.99	2.52	5/8 x 5-5/16	13.4
200JIS	216.3	20	76.08	0 ~ 4.8	260	340	64	M20 X 120	7.4
8	8.516	300	17079	0 ~ 0.19	10.24	13.39	2.50	3/4 x 4-3/4	16.2

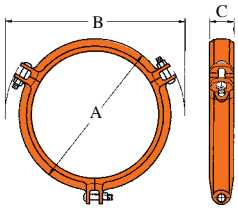
MODEL 7771 STANDARD RIGID COUPLING - T & G Design –

The *Shurjoint* Model 7771 is a T&G (tongue & groove) design standard rigid coupling for general piping applications where rigidity is required including valve connections, mechanical rooms, fire mains and long straight runs. The T&G mechanism provides a rigid, locked-in connection that resists flexural and torsional loads. Support and hanging requirements correspond to ANSI B31.1, B31.9 and NFPA 13.

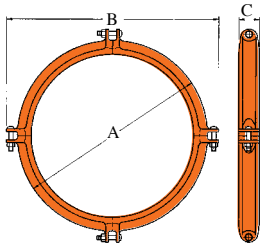
Sizes available: 40mm ~ 600mm / 1-1/2" ~ 24"
Working Pressure: Up to 52 bar / 750 psi



1-1/4" ~ 12"



14" ~ 18"



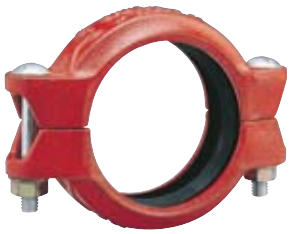
20" ~ 24"

Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Bolt Size mm/in	Weight Kgs/Lbs
40 1.5	48.3 1.900	52 750	9.52 2130	0-1.6 0-0.06	74 2.91	110 4.33	46 1.81	M10 x 55 3/8 x 2-1/8	0.7 1.5
50 2	60.3 2.375	52 750	14.84 3320	0-1.6 0-0.06	85 3.34	126 4.96	46 1.81	M10 x 55 3/8 x 2-1/8	0.9 1.9
65 2.5	73.0 2.875	52 750	21.75 4870	0-1.6 0-0.06	99 3.89	148 5.82	46 1.81	M10 x 55 3/8 x 2-1/8	1.2 2.6
65 2.5	76.1 3.000	52 750	23.64 5300	0-1.6 0-0.06	102 4.00	150 5.90	46 1.81	M10 x 55 3/8 x 2-1/8	1.2 2.6
80 3	88.9 3.500	52 750	32.26 7210	0-1.6 0-0.06	115 4.52	170 6.69	46 1.81	M12 x 75 1/2 x 3	1.5 3.3
100 4	108.0 4.250	52 750	47.61 10630	0-4.1 0-0.16	141 5.54	193 7.59	51 2.00	M12 x 75 1/2 x 3	2.2 4.8
100 4	114.3 4.500	52 750	53.33 11920	0-4.1 0-0.16	148 5.82	198 7.79	51 2.00	M12 x 75 1/2 x 3	2.2 4.8
125 5	133.0 5.250	48 700	66.65 15150	0-4.1 0-0.16	168 6.61	247 9.72	51 2.00	M16 x 90 5/8 x 3-1/2	2.7 6.0
125 5	139.7 5.500	48 700	73.54 16620	0-4.1 0-0.16	173 6.80	249 9.80	51 2.00	M16 x 90 5/8 x 3-1/2	2.9 6.4
125 5	141.3 5.563	48 700	81.5 17010	0-4.1 0-0.16	175 6.88	250 9.84	51 2.00	M16 x 90 5/8 x 3-1/2	2.9 6.4
150 6	159.0 6.250	48 700	95.26 21460	0-4.1 0-0.16	194 7.63	272 10.70	51 2.00	M16 x 90 5/8 x 3-1/2	3.6 8.0
150 6	165.1 6.500	48 700	102.71 23220	0-4.1 0-0.16	200 7.87	280 11.02	51 2.00	M16 x 90 5/8 x 3-1/2	3.5 7.7
150 6	168.3 6.625	48 700	106.73 24120	0-4.1 0-0.16	205 8.07	280 11.02	51 2.00	M16 x 90 5/8 x 3-1/2	3.5 7.7
200JIS 8	216.3 8.516	41 600	150.58 34160	0-4.1 0-0.16	254 10.00	346 13.62	61 2.40	M16 x 135 5/8 x 5-5/16	6.9 15.2
200 8	219.1 8.625	41 600	154.50 35040	0-4.1 0-0.16	261 10.27	346 13.62	61 2.40	M16 x 135 5/8 x 5-5/16	6.9 15.2
250 JIS 10	267.4 10.528	35 500	196.45 43500	0-4.1 0-0.16	310 12.20	386 15.20	64 2.50	M20 x 120 3/4 x 4-3/4	9.0 19.8
250 10	273.0 10.750	35 500	204.77 45360	0-4.1 0-0.16	316 12.44	414 16.29	64 2.50	M20 x 120 3/4 x 4-3/4	9.0 19.8
300 JIS 12	318.5 12.539	28 400	222.97 49370	0-4.1 0-0.16	354 13.94	444 17.48	64 2.50	--- 7/8 x 6-1/2	13.2 29.0
300 12	323.9 12.750	28 400	230.59 51040	0-4.1 0-0.16	360 14.17	468 18.42	64 2.50	--- 7/8 x 6-1/2	13.2 29.0
350 14	355.6 14.000	20 300	198.53 46160	0-3.2 0-0.13	413 16.25	502 19.76	76 3.00	--- 7/8 x 4	14.5 31.9
400 16	406.4 16.000	20 300	259.30 60290	0-3.2 0-0.13	460 18.11	565 22.24	76 3.00	--- 7/8 x 4	16.0 35.2
450 18	457.2 18.000	20 300	328.18 76300	0-3.2 0-0.13	521 20.51	619 24.37	79 3.11	--- 7/8 x 4	17.0 37.4
500 20	508.0 20.000	20 300	405.16 94200	0-3.2 0-0.13	581 22.87	683 26.88	79 3.11	--- 1 x 3-1/2	24.0 52.8
550 22	558.8 22.000	17 250	416.71 94985	0-3.2 0-0.13	622 24.49	720 28.35	79 3.11	--- 1 x 3-1/2	26.5 58.3
600 24	609.6 24.000	17 250	495.92 113040	0-3.2 0-0.13	689 27.12	784 30.86	79 3.11	--- 1 x 3-1/2	27.0 59.4

MODEL K-9 RIGID COUPLING

- T & G Design –

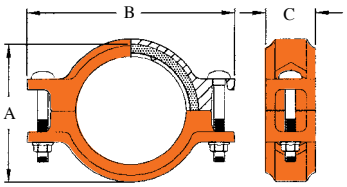
The *Shurjoint* Model K-9 is a T&G (tongue & groove) design rigid coupling for moderate pressure applications where rigidity is required including valve connections, mechanical rooms, fire mains and long straight runs. The built-in teeth and T&G mechanism firmly grasp the pipe ends to eliminate undesired flex. Support and hanging requirements correspond to ANSI B31.1, B31.9 and NFPA 13.

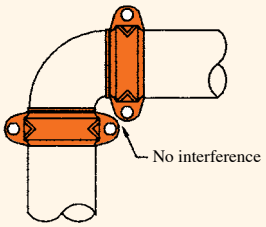


The precision casting allows metal-to-metal contact of bolt pads when properly installed. No torque wrench is required for installation.

All DIN size K-9 couplings up to DN150 and the DN200 K-9H coupling are VdS approved in addition to cULus and FM approvals.

Sizes available: 32mm ~ 200mm / 1-1/4" ~ 8"
Working Pressure: Up to 20 bar / 300 psi





No need to worry about bolt pad interference as the Model K-9 works well with both regular and short-radius elbows and tees.

Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Dimensions			Bolt Size mm/in	Weight Kgs/Lbs
					A mm/in	B mm/in	C mm/in		
32 1.25	42.2 1.660	20 300	2.80 650	0-1.6 0-0.06	65 2.56	102 4.00	45 1.77	M10 X 45 3/8 X 1-3/4	0.6 1.3
40 1.5	48.3 1.900	20 300	3.66 850	0-1.6 0-0.06	71 2.80	108 4.25	45 1.77	M10 X 55 3/8 X 2-1/8	0.6 1.3
50 2	60.3 2.375	20 300	5.71 1330	0-1.6 0-0.06	83 3.27	124 4.88	45 1.77	M10 X 55 3/8 X 2-1/8	0.7 1.5
65 2.5	73.0 2.875	20 300	8.37 1950	0-1.6 0-0.06	98 3.86	137 5.39	45 1.77	M10 X 55 3/8 X 2-1/8	0.8 1.8
65 2.5	76.1 3.000	20 300	9.09 2120	0-1.6 0-0.06	102 4.00	140 5.51	45 1.77	M10 X 55 3/8 X 2-1/8	0.8 1.8
80 3	88.9 3.500	20 300	12.41 2880	0-1.6 0-0.06	114 4.50	151 5.94	45 1.77	M10 X 70 3/8 X 2-3/4	1.2 2.7
100 4	108.0 4.250	20 300	18.31 4250	0-3.2 0-0.13	137 5.38	219 7.00	51 2.00	M10 X 70 3/8 X 2-3/4	1.7 3.6
100 4	114.3 4.500	20 300	20.51 4770	0-3.2 0-0.13	143 5.63	184 7.25	51 2.00	M10 X 70 3/8 X 2-3/4	1.7 3.6
125 5	133.0 5.250	20 300	27.77 6490	0-3.2 0-0.13	166 6.52	219 8.61	51 2.00	M12 X 75 1/2 X 3	2.1 4.6
125 5	139.7 5.500	20 300	30.64 7120	0-3.2 0-0.13	172 6.77	225 8.86	51 2.00	M12 X 75 1/2 X 3	2.1 4.6
125 5	141.3 5.563	20 300	31.35 7290	0-3.2 0-0.13	175 6.89	228 8.98	51 2.00	M12 X 75 1/2 X 3	2.1 4.6
150 6	159.0 6.250	20 300	39.69 9200	0-3.2 0-0.13	191 7.50	246 9.67	51 2.00	M12 X 75 1/2 X 3	2.0 4.4
150 6	165.1 6.500	20 300	42.80 9950	0-3.2 0-0.13	197 7.75	252 9.92	51 2.00	M12 X 75 1/2 X 3	2.4 5.3
150 6	168.3 6.625	20 300	44.47 10340	0-3.2 0-0.13	200 7.87	255 10.04	51 2.00	M12 X 75 1/2 X 3	2.7 5.9
200 8	219.1 8.625	20 300	75.37 17520	0-3.2 0-0.13	258 10.16	355 13.98	61 2.40	M16 X 90 5/8 X 3-1/2	4.4 9.7
200 (K-9H) 8	219.1 8.625	20 300	75.37 17520	0-3.2 0-0.13	261 10.29	339 13.34	63 2.48	M 20 X 120 3/4 X 4-3/4	7.2 15.8

MODEL R20 RIGID COUPLING

- Butt-Joint Design (patent pending) –

The *Shurjoint* Model R20 butt-joint rigid coupling is a truly rigid grooved pipe coupling which, unlike other grooved couplings, does not allow for any axial movement, angular movement and or rotational movement under normal service conditions. The butt-joint design (patent pending) eliminates the gap in between pipe ends to eliminate linear movement which previously had been considered a given in grooved piping systems. Support and hanging requirements correspond to ANSI B31.1, B31.9 and NFPA 13.

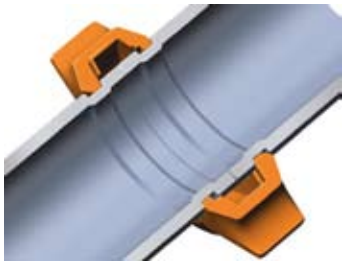
The fluid will not contact the rubber gasket directly nor stay in the gasket pocket as is often seen in conventional grooved pipe couplings.

Caution: Pipe ends must be cut square so that the pipe ends butt together.

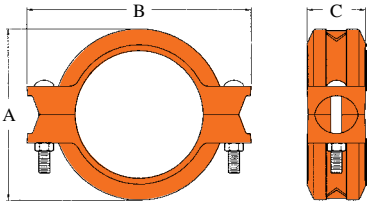
Applications:

- All piping including mechanical rooms where no angular or axial movement is desired
- Dry-system fire protection pipelines
- Stainless steel piping for potable water and food industries (epoxy coated housings with NSF61 certified gasket and type 316 bolts and silicone bronze nuts)
- Hot water systems

Sizes available: 32 – 150mm / 1-1/4″ – 6″
Working pressure: up to 20 Bar / 300 psi



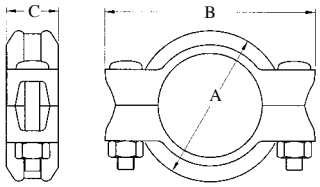
No gap between pipes after installation



Nominal Size mm/in	Pipe OD mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Dimensions			Bolt Size mm/in	Weight Kgs/Lbs
				mm/in	mm/in	mm/in		
32	42.2	20	3.37	67	105	46	M10 x 45	0.6
1.25	1.660	300	757	2.64	4.13	1.81	3/8 x 1 3/4	1.4
40	48.3	20	4.42	73	108	46	M10 x 55	0.7
1.5	1.900	300	992	2.87	4.25	1.81	3/8 x 2 1/8	1.5
50	60.3	20	5.71	86	125	46	M10 x 55	0.8
2	2.375	300	1330	3.39	4.92	1.81	3/8 x 2-1/8	1.8
65	73.0	20	8.37	99	138	46	M10 x 55	1.0
2.5	2.875	300	1950	3.90	5.43	1.81	3/8 x 2-1/8	2.1
65	76.1	20	9.09	102	141	46	M10 x 55	1.0
2.5	3.000	300	2120	4.00	5.55	1.81	3/8 x 2-1/8	2.1
80	88.9	20	12.41	115	157	46	M10 x 70	1.4
3	3.500	300	2880	4.53	6.18	1.81	3/8 x 2-3/4	3.0
100	114.3	20	18.31	146	191	51	M10 x 70	1.8
4	4.500	300	4770	5.75	7.52	2.00	3/8 x 2-3/4	3.9
125	139.7	20	30.64	170	234	51	M12 x 75	2.5
5	5.500	300	7120	6.69	9.21	2.00	1/2 x 3	5.5
125	141.3	20	31.35	171	236	51	M12 x 75	2.5
5	5.563	300	7290	6.73	9.29	2.00	1/2 x 3	5.5
150	165.1	20	42.80	198	252	51	M12 x 75	2.8
6	6.500	300	9950	7.80	9.92	2.00	1/2 x 3	6.1
150	168.3	20	44.47	201	256	51	M12 x 75	2.8
6	6.625	300	10340	7.91	10.08	2.00	1/2 x 3	6.1

MODEL XH-70 EXTRA HEAVY RIGID COUPLING

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

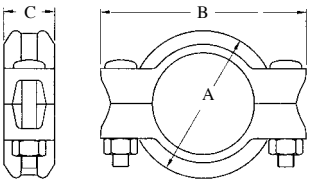


Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Dimensions			Bolts		Bolt Torque N-m Lbs-Ft	Weight Kgs/Lbs
					A mm/in	B mm/in	C mm/in	No.	Size in		
50	60.3	70	2.00	0 - 3.6	89	150	49	2	---	50 - 68	1.5
2	2.375	1000	4430	0 - 0.14	3.50	5.90	1.92		5/8 x 2-3/4	37 - 50	3.3
65	73.0	70	2.95	0 - 3.6	102	178	51	2	---	50 - 68	1.8
2.5	2.875	1000	6490	0 - 0.14	4.00	7.00	2.00		5/8 x 2-3/4	37 - 50	4.0
80	88.9	70	4.36	0 - 3.6	122	188	51	2	---	50 - 68	2.2
3	3.500	1000	9620	0 - 0.14	4.80	7.40	2.00		5/8 x 2-3/4	37 - 50	4.8
100	114.3	70	7.21	0 - 6.4	157	222	54	2	---	50 - 68	4.0
4	4.500	1000	15900	0 - 0.25	6.18	8.74	2.13		3/4 x 4-3/4	37 - 50	8.8
150	168.3	70	15.63	0 - 6.4	218	248	57	2	---	80 - 120	8.0
6	6.625	1000	34450	0 - 0.25	8.58	9.76	2.25		7/8 x 5-1/2	60 - 90	17.6
200	219.1	55	21.20	0 - 6.4	273	359	65	2	---	100 - 135	11.0
8	8.625	800	46720	0 - 0.25	10.25	14.15	2.56		1 x 5-1/2	74 - 100	24.2
250	273.0	55	32.94	0 - 6.4	336	431	70	2	---	170 - 275	14.0
10	10.750	800	72570	0 - 0.25	13.23	16.98	2.75		1 x 5-1/2	125 - 205	30.8
300	323.9	55	46.26	0 - 6.4	392	480	73	2	---	275 - 400	16.7
12	12.750	800	102090	0 - 0.25	15.43	18.93	2.88		1 x 5-1/2	205 - 300	36.7

MODEL XH-70 EXTRA HEAVY RIGID COUPLING WITH EP GASKET

The Model XH-70/EP is designed for use with plastic coated or cement lined pipe. The EP (end protection) gasket serves to form a continuous lined surface at the joint and also help protect the ends from corrosion. This coupling is rated up to 2500 psi (175 bar) when used in conjunction with engineered EP cut grooves and the applicable pipe. Always fasten the bolts to the required torque.

EP Gasket



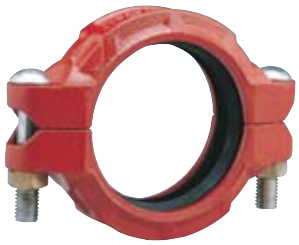
Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Dimensions			Bolts		Bolt Torque N-m Lbs-Ft	Weight Kgs/Lbs
					A mm/in	B mm/in	C mm/in	No.	Size mm/in		
50	60.3	175	5.03	0 - 4.8	89	150	49	2	---	50 - 68	1.5
2	2.375	2500	11070	0 - 0.19	3.50	5.90	1.92		5/8 x 2-3/4	37 - 50	3.3
65	73.0	175	7.37	0 - 4.8	102	178	51	2	---	50 - 68	1.8
2.5	2.875	2500	16220	0 - 0.19	4.00	7.00	2.00		5/8 x 2-3/4	37 - 50	4.0
80	88.9	175	10.93	0 - 4.8	122	188	51	2	---	50 - 68	2.2
3	3.500	2500	24040	0 - 0.19	4.80	7.40	2.00		5/8 x 2-3/4	37 - 50	4.8
100	114.3	175	18.06	0 - 4.8	157	222	54	2	---	50 - 68	4.0
4	4.500	2500	39740	0 - 0.19	6.18	8.74	2.13		3/4 x 4-3/4	37 - 50	8.8
150	168.3	140	31.32	0 - 6.8	218	248	57	2	---	80 - 120	8.0
6	6.625	2000	68910	0 - 0.27	8.58	9.76	2.25		7/8 x 5-1/2	60 - 90	17.6
200	219.1	105	39.82	0 - 6.8	273	359	70	2	---	100 - 135	11.9
8	8.625	1500	87595	0 - 0.27	10.25	14.15	2.75		1 x 5-1/2	74 - 100	26.2
250	273.0	85	51.94	0 - 7.1	336	431	76	2	---	170 - 275	14.9
10	10.750	1250	113395	0 - 0.28	13.23	16.98	3.00		1 x 5-1/2	125 - 205	30.8
300	323.9	85	72.51	0 - 7.1	392	480	76	2	---	275 - 400	21.0
12	12.750	1250	159515	0 - 0.28	15.43	18.93	3.00		1 x 5-1/2	205 - 300	46.0

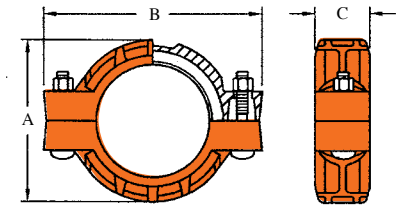
Pressure based on Sch. 80 EP cut-groove pipes.

MODEL 7707 HEAVY DUTY FLEXIBLE COUPLING

The Shurjoint Model 7707 heavy duty flexible coupling is designed for use in a variety of general piping applications of moderate or high pressure services. Working pressure is usually dictated by the wall thickness and rating of the pipe being used. The Model 7707 couplings feature flexibility that can deal with misalignment, distortion, thermal stress, vibration and noise and also resist seismic tremors. With the use of Model 7707 couplings you can even design a curved layout. See Typical Applications – Flexible Couplings on page 98.

Sizes available: 20mm ~ 200mm / 3/4" ~ 12"
Working Pressure: Up to 69 bar / 1000 psi





3/4"~12"

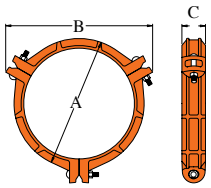
Nominal Size mm/in	Actual O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displace-ment mm/in	Angular Movement		Dimensions			Bolt		Weight Kgs/Lbs
					Per Coupling Degree (°)	Per Pipe in/ft	A mm/in	B mm/in	C mm/in	No.	Size mm/in	
20	26.9	69	3.79	1.6	6° - 46'	118	54	95	46	2	M10 X 45	0.6
0.75	1.050	1000	865	0.0625		1.42	2.13	3.74	1.81		3/8 X 1-3/4	1.3
25	33.7	69	6.15	1.6	5° - 30'	96	61	99	46	2	M10 X 55	0.8
1	1.315	1000	1360	0.0625		1.16	2.40	3.90	1.81		3/8 X 2-1/8	1.7
32	42.4	69	9.64	1.6	4° - 20'	76	70	108	46	2	M10 X 55	1.0
1.25	1.660	1000	2160	0.0625		0.91	2.76	4.25	1.81		3/8 X 2-1/8	2.1
40	48.3	69	12.64	1.6	3° - 48'	66	76	124	45	2	M12 X 60	1.0
1.5	1.900	1000	2830	0.0625		0.80	3.00	4.88	1.81		1/2 X 2-3/8	2.1
50	60.3	69	19.69	1.6	3° - 01'	53	90	133	46	2	M12 X 75	1.2
2	2.375	1000	4430	0.0625		0.63	3.50	5.24	1.81		1/2 X 3	2.6
65	73.0	69	28.86	1.6	2° - 30'	44	102	165	46	2	M12 X 75	1.3
2.5	2.875	1000	6490	0.0625		0.52	4.00	6.50	1.81		1/2 X 3	2.9
65	76.1	69	31.37	1.6	2° - 24'	42	103	167	46	2	M12 X 75	1.3
2.5	3.000	1000	7065	0.0625		0.5	4.06	6.56	1.81		1/2 X 3	2.9
80	88.9	69	42.81	1.6	2° - 04'	36	124	171	48	2	M12 X 75	1.5
3	3.500	1000	9620	0.0625		0.43	4.88	6.73	1.89		1/2 X 3	3.3
100	114.3	69	70.76	3.2	3° - 12'	55	157	213	54	2	M16 X 90	2.1
4	4.500	1000	15900	0.125		0.67	6.18	8.38	2.13		5/8 X 3-1/2	4.6
125	139.7	69	105.71	3.2	2° - 37'	46	186	241	54	2	M16 X 90	3.1
5	5.500	1000	23750	0.125		0.55	7.32	9.50	2.13		5/8 X 3-1/2	6.8
125	141.3	69	108.14	3.2	2° - 36'	45	186	241	54	2	M16 X 90	3.3
5	5.563	1000	24295	0.125		0.54	7.32	9.50	2.13		5/8 X 3-1/2	7.2
150	165.1	69	147.64	3.2	2° - 14'	39	211	286	54	2	M20 X 120	3.6
6	6.500	1000	33170	0.125		0.47	8.11	11.26	2.13		3/4 X 4-3/4	7.9
150	168.3	69	153.42	3.2	2° - 10'	38	214	289	54	2	M20 X 120	3.7
6	6.625	1000	34455	0.125		0.45	8.24	11.38	2.13		3/4 X 4-3/4	8.1
200 JIS	216.3	55	202.00	3.2	1° - 42'	30	276	356	62	2	M20 X 120	6.6
8	8.516	800	45545	0.125		0.36	10.86	14.00	2.44		3/4 X 4-3/4	14.5
200	219.1	55	207.26	3.2	1° - 40'	29	276	356	62	2	---	6.6
8	8.625	800	46720	0.125		0.35	10.86	14.00	2.44		7/8 X 5-1/2	14.5
250 JIS	267.4	55	308.71	3.2	1° - 22'	24	337	420	64	2	---	10.2
10	10.528	800	69610	0.125		0.29	13.27	16.54	2.52		7/8 X 6-1/2	22.4
250	273.0	55	321.78	3.2	1° - 20'	23	343	425	64	2	---	10.2
10	10.750	800	72575	0.125		0.28	13.50	16.73	2.52		1 X 6-1/2	22.4
300 JIS	318.5	55	437.98	3.2	1° - 10'	20	389	478	64	2	---	11.6
12	12.539	800	98740	0.125		0.25	15.31	18.81	2.52		7/8 X 6-1/2	25.5
300	323.9	55	452.95	3.2	1° - 08'	20	390	467	64	2	---	12.0
12	12.750	800	102090	0.125		0.24	15.35	18.39	2.52		1 X 6-1/2	26.4

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

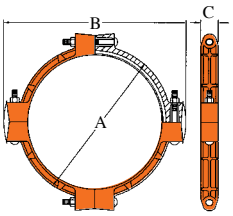
MODEL 7707 LARGE DIAMETER COUPLING

The *Shurjoint* Model 7707 large diameter couplings in sizes 350 – 1050mm / 14" – 42" are designed for joining large diameter IPS pipe that can be roll grooved. All couplings feature a three to eight segment design, incorporating one or two bolts at each segment joint to ensure a positive connection and seal.

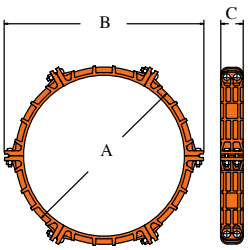
Sizes available: 350mm ~ 1050mm / 14" ~ 42"
Working Pressure: Up to 20 bar / 300 psi



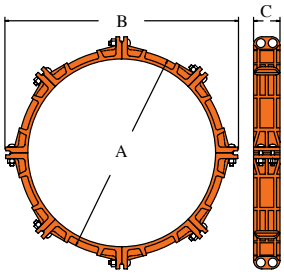
14"



16"~ 24"



26"~ 36"



40"~ 42"


30" chilled waterlines

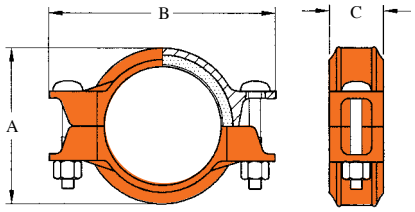
Nominal Size mm/in	Actual O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displace-ment mm/in	Angular Movement		Dimensions			Bolt		Weight Kgs/Lbs
					Degree per Coupling (°)	Pipe in/ft	A mm/in	B mm/in	C mm/in	No.	Size mm/in	
350	355.6	20	206	3.2	1° - 02'	18	423	508	73	3	---	16.8
14	14	300	46158	0.125		0.22	16.65	20.00	2.87		7/8 X 4	37.0
400	406.4	20	269	3.2	0° - 54'	16	483	568	73	4	---	19.0
16	16	300	60288	0.125		0.19	19.00	22.36	2.87		1 X 3-1/2	41.8
450	457.0	20	340	3.2	0° - 48'	14	540	619	76	4	---	20.8
18	18	300	76302	0.125		0.17	21.25	24.37	3.00		1 X 3-1/2	45.8
500	508.0	20	420	3.2	0° - 44'	13	597	698	76	4	---	24.9
20	20	300	94220	0.125		0.15	23.50	27.48	3.00		1 X 3-1/2	54.8
550	559.0	17	508	3.2	0° - 38'	11	618	742	80	4	---	28.5
22	22	250	113982	0.125		0.13	24.31	29.21	3.15		1 X 3-1/2	62.7
600	610.0	17	503	3.2	0° - 36'	10	702	797	80	4	---	29.0
24	24	250	113040	0.125		0.13	27.64	31.38	3.15		1 X 3-1/2	63.8
650	660.4	17	591	3.2	---	---	756	860	127	12		66.0
26	26	250	132665	0.125			29.80	33.90	5.00		7/8 X 4	145.0
700	711.2	17	685	3.2	---	---	813	920	127	12		82.0
28	28	250	153860	0.125			32.00	36.30	5.00		7/8 X 4	180.0
750	762	17	787	3.2	---	---	864	972	127	12		95.0
30	30	250	176625	0.125			34.00	38.30	5.00		7/8 X 4	209.0
800	812.8	14	895	3.2	---	---	914	1022	127	12		85.0
32	32	200	200960	0.125			36.00	40.30	5.00		7/8 X 4	187.0
850	863.6	14	808	3.2	---	---	974	1066	127	12		90.0
34	34	200	181492	0.125			38.30	42.00	5.00		7/8 X 4	198.0
900	914.4	14	906	3.2	---	---	1016	1124	127	12		96.0
36	36	200	203472	0.125			40.00	44.30	5.00		7/8 X 4	211.0
1000	1016	10	839	3.2	---	---	1105	1245	146	16		123.0
40	40	150	188400	0.125			43.50	49.00	5.80		1 X 3 –1/2	271.0
1050	1066.8	10	925	3.2	---	---	1156	1295	146	16		140.0
42	42	150	207711	0.125			45.50	51.50	5.80		1 X 3-1/2	308.0

Figures listed are based on roll-grooved carbon steel standard wall pipe (0.375"/9.5mm thick).
Deflection or angular movement is the maximum value that a coupling allows under no internal pressure.

MODEL 7705 STANDARD FLEXIBLE COUPLING

The *Shurjoint* Model 7705 is a standard flexible coupling for use in a variety of general piping applications of moderate pressure services. The Model 7705 couplings features flexibility that can deal with misalignment, distortion, thermal stress, vibration and noise and also resist seismic tremors. With the use of Model 7705 couplings you can even design a curved layout. See Typical Applications – Flexible Couplings on page 98.

Sizes available: 25mm ~ 300mm / 1" ~ 12"
Working Pressure: Up to 35 bar / 500 psi



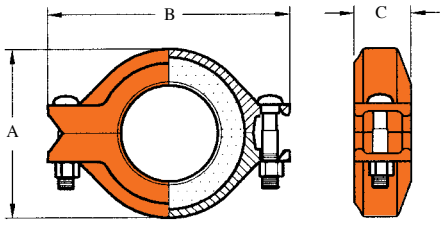
Nominal Size mm/in	Actual O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displace-ment mm/in	Angular Movement		Dimensions			Bolt	Weight Kgs/Lbs
					Per Coupling Degree (°)	Per Pipe in/ft	A mm/in	B mm/in	C mm/in	Size mm/in	
25	33.7	35	3.0	1.6	5° - 30'	96	57	100	46	M10 X 45	0.6
1	1.315	500	680	0.0625		1.16	2.24	3.94	1.81	3/8 X 1-3/4	1.3
32	42.4	35	4.9	1.6	4° - 20'	76	66	103	46	M10 X 55	0.7
1.25	1.660	500	1080	0.0625		0.91	2.6	4.06	1.81	3/8 X 2-1/8	1.5
40	48.3	35	6.3	1.6	3° - 48'	66	72	108	46	M10 X 55	0.7
1.5	1.900	500	1420	0.0625		0.80	2.83	4.25	1.81	3/8 X 2-1/8	1.6
50	60.3	35	9.9	1.6	3° - 01'	53	84	129	48	M10 X 55	0.8
2	2.375	500	2210	0.0625		0.63	3.31	5.08	1.89	3/8 X 2-1/8	1.8
65	73.0	35	14.4	1.6	2° - 30'	44	99	142	48	M10 X 55	0.9
2.5	2.875	500	3240	0.0625		0.52	3.9	5.59	1.89	3/8 X 2-1/8	2.0
65	76.1	35	15.7	1.6	2° - 24'	42	102	147	48	M10 X 55	1.0
2.5	3.000	500	3530	0.0625		0.50	4.02	5.79	1.89	3/8 X 2-1/8	2.1
65	88.9	35	21.4	1.6	2° - 04'	36	116	169	48	M12 X 75	1.3
2.5	3.500	500	4810	0.0625		0.43	4.57	6.65	1.89	1/2 X 3	2.8
90	101.6	35	28.0	1.6	1° - 48'	31	129	200	52	M12 X 75	1.5
3.5	4.000	500	6300	0.0625		0.38	5.07	7.9	2.05	1/2 X 3	3.3
100	108.0	35	31.5	3.2	3° - 24'	59	138	192	52	M12 X 75	1.9
4	4.250	500	7090	0.125		0.71	5.43	7.56	2.05	1/2 X 3	4.1
100	114.3	35	35.4	3.2	3° - 12'	55	145	197	52	M12 X 75	1.9
4	4.500	500	7950	0.125		0.67	5.71	7.76	2.05	1/2 X 3	4.1
125	133.0	31	43.3	3.2	2° - 46'	48	165	231	52	M16 X 90	2.3
5	5.236	450	9740	0.125		0.58	6.5	9.09	2.05	5/8 X 3-1/2	5.1
125	139.7	31	47.6	3.2	2° - 37'	46	170	233	52	M16 X 90	2.6
5	5.500	450	10690	0.125		0.55	6.69	9.17	2.05	5/8 X 3-1/2	5.7
125	141.3	31	48.6	3.2	2° - 36'	45	172	234	52	M16 X 90	2.6
5	5.563	450	10930	0.125		0.54	6.77	9.21	2.05	5/8 X 3-1/2	5.7
150	159.0	31	61.4	3.2	2° - 18'	40	190	253	54	M16 X 90	3.0
6	6.250	450	13800	0.125		0.48	7.48	9.96	2.13	5/8 X 3-1/2	6.6
150	165.1	31	66.4	3.2	2° - 14'	39	196	261	54	M16 X 90	3.1
6	6.500	450	14930	0.125		0.47	7.72	10.28	2.13	5/8 X 3-1/2	6.8
150	168.3	31	69.0	3.2	2° - 10'	38	200	268	62	M16 X 90	3.2
6	6.625	450	15500	0.125		0.45	7.87	10.55	2.44	5/8 X 3-1/2	7.0
200 JIS	216.3	31	114.00	3.2	1° - 42'	30	254	348	62	M20 X 120	5.8
8	8.516	450	25620	0.125		0.36	10	13.7	2.44	3/4 X 4-3/4	12.8
200	219.1	31	116.9	3.2	1° - 40'	29	260	350	64	M16 X 90	5.8
8	8.625	450	26280	0.125		0.35	10.24	13.78	2.52	5/8 X 3-1/2	12.8
200 (7705H)	219.1	31	116.9	3.2	1° - 40'	29	266	343	63	M20 X 120	7.5
8	8.625	450	26280	0.125		0.35	10.47	13.50	2.48	3/4 X 4-3/4	16.5
250 JIS	267.4	24	134.6	3.2	1° - 22'	24	337	420	64	M20 X 120	8.0
10	10.528	350	30450	0.125		0.29	13.27	16.54	2.52	3/4 X 4-3/4	17.6
250	273.0	24	141.3	3.2	1° - 20'	23	343	425	64	M20 X 120	8.2
10	10.750	350	31750	0.125		0.28	13.5	16.73	2.52	3/4 X 4-3/4	18.0
300 JIS	318.5	24	192.2	3.2	1° - 10'	20	389	478	64	---	10.4
12	12.539	350	43200	0.125		0.25	15.31	18.81	2.52	7/8 X 6-1/2	22.9
300	323.9	24	198.8	3.2	1° - 08'	20	390	467	64	---	10.8
12	12.750	350	44660	0.125		0.24	15.35	18.39	2.52	7/8 X 6-1/2	23.8

Deflection or angular movement is the maximum value that a coupling allows under no internal pressure.
All DIN size 7705 couplings up to DN150 size and the DN200 7705H coupling are VdS approved in addition to cULus and FM approvals.

MODEL 7706 REDUCING COUPLING

The *Shurjoint* Model 7706 reducing coupling allows for direct reduction on a piping run and eliminates the need for a concentric reducer and couplings. The specially designed rubber gasket helps prevent small pipe from telescoping into larger pipe during vertical assembly.

Caution: The Model 7706 couplings should not be used with an end cap, as the end cap may be sucked into the pipe when draining the system.

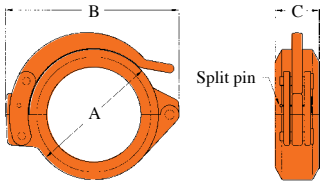


Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Axial Displacement mm/in	Deflection		Dimensions			Bolt Size mm/in	Weight Kgs/Lbs
					Degree Per Coupling(°)	Pipe mm/m in/ft	A mm/in	B mm/in	C mm/in		
40 x 32	48.3 x 42.2	24	2.80	0 - 3.2	3° - 48'	33.0	72	108	46	M10 X 55	0.9
1.5 x 1.25	1.900 x 1.660	350	990	0 - 0.13		0.40	2.83	4.25	1.81	3/8 x 2-1/8	2.0
50 x 40	60.3 x 48.3	24	4.40	0 - 3.2	3° - 02'	26.0	85	122	48	M10 X 55	0.9
2 x 1.5	2.375 x 1.900	350	1550	0 - 0.13		0.31	3.35	4.80	1.89	3/8 x 2-1/8	2.0
65 x 50	73.0 x 60.3	24	6.85	0 - 3.2	2° - 30'	22.0	96	144	48	M10 X 55	1.2
2.5 x 2	2.875 x 2.375	350	2270	0 - 0.13		0.26	3.78	5.67	1.89	3/8 x 2-1/8	2.6
65 x 50	76.1 x 60.3	24	6.85	0 - 3.2	2° - 24'	21.0	102	138	48	M10 X 55	1.2
2.5 x 2	3.000 x 2.375	350	2480	0 - 0.13		0.25	4.02	5.43	1.89	3/8 x 2-1/8	2.6
80 x 50	88.9 x 60.3	24	6.85	0 - 3.2	2° - 04'	18.0	116	168	48	M12 X 75	1.5
3 x 2	3.500 x 2375	350	3370	0 - 0.13		0.22	4.57	6.61	1.89	1/2 x 3	3.3
80 x 65	88.9 x 73.0	24	10.04	0 - 3.2	2° - 04'	18.0	116	168	48	M12 X 75	1.7
3 x 2.5	3.500 x 2.875	350	3370	0 - 0.13		0.22	4.57	6.61	1.89	1/2 x 3	3.7
80 x 65	88.9 x 76.1	24	10.91	0 - 3.2	2° - 04'	18.0	116	168	48	M12 X 75	1.7
3 x 2.5	3.500 x 3.000	350	3370	0 - 0.13		0.22	4.57	6.61	1.89	1/2 x 3	3.7
100 x 50	114.3 x 60.3	24	6.85	0 - 4.8	2° - 04'	21.0	146	198	52	M12 X 75	2.4
4 x 2	4.500 x 2.375	350	5560	0 - 0.19		0.25	5.75	7.80	2.05	1/2 x 3	5.3
100 x 65	114.3 x 73.0	24	10.04	0 - 4.8	2° - 24'	21.0	146	198	52	M12 X 75	2.6
4 x 2.5	4.500 x 2.875	350	5560	0 - 0.19		0.25	5.75	7.80	2.05	1/2 x 3	5.7
100 x 65	114.3 x 76.1	24	10.91	0 - 4.8	2° - 24'	21.0	146	198	52	M12 X 75	2.6
4 x 2.5	4.500 x 3.000	350	5560	0 - 0.19		0.25	5.75	7.80	2.05	1/2 x 3	5.7
100 x 80	114.3 x 88.9	24	14.89	0 - 4.8	2° - 24'	21.0	146	198	52	M12 X 75	2.4
4 x 3	4.500 x 3.500	350	5560	0 - 0.19		0.25	5.75	7.80	2.05	1/2 x 3	5.3
125 x 100	141.3 x 114.3	24	24.61	0 - 6.4	2° - 36'	23.0	160	250	52	M16 X 90	3.8
5 x 4	5.500 x 4.500	350	8310	0 - 0.25		0.27	6.30	9.84	2.05	5/8 x 3-1/2	8.4
150 x 80	165.1 x 88.9	24	14.89	0 - 6.4	2° - 14'	20.0	202	269	52	M16 X 90	4.6
6 x 3	6.500 x 3.500	350	11610	0 - 0.25		0.23	7.95	10.59	2.05	5/8 x 3-1/2	10.1
150 x 80	168.3 x 88.9	24	14.89	0 - 6.4	2° - 12'	19.0	208	275	52	M16 X 90	4.6
6 x 3	6.625 x 3.500	350	12060	0 - 0.25		0.23	8.19	10.83	2.05	5/8 x 3-1/2	10.1
150 x 100	165.1 x 114.3	24	24.61	0 - 6.4	2° - 14'	20.0	202	269	52	M16 X 90	4.5
6 x 4	6.500 x 4.500	350	11610	0 - 0.25		0.23	7.95	10.59	2.05	5/8 x 3-1/2	9.9
150 x 100	168.3 x 114.3	24	24.61	0-6.4	2° - 12'	19.0	208	275	52	M16 X 90	4.5
6 x 4	6.625 x 4.500	350	12060	0-0.25		0.23	8.19	10.83	2.05	5/8 x 3-1/2	9.9
200 x 150	219.1 x 168.3	24	53.35	0 - 6.4	1° - 40'	15.0	260	334	57	M20 X 120	7.6
8 x 6	8.625 x 6.625	350	20440	0 - 0.25		0.18	10.24	13.15	2.24	3/4 x 4-3/4	16.7
200 x 150	219.1 x 165.1	24	51.35	0 - 6.4	1° - 40'	15.0	260	334	57	M20 X 120	7.6
8 x 6	8.625 x 6.500	350	20440	0 - 0.25		0.18	10.24	13.15	2.24	3/4 x 4-3/4	16.7

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

MODEL G-28 HINGED LEVER COUPLING

The Model G-28 Hinged Lever Coupling is designed for quick connect and disconnect services. The housing segments are hinged with a locking lever handle for easy assembly. Use of the split pin can prevent the accidental opening of the coupling.



EXPANSION PIPE

Lever handles are factory assembled tight for safety. The use of an expansion pipe will aid for easy opening and closing. Expansion pipes are available upon request.

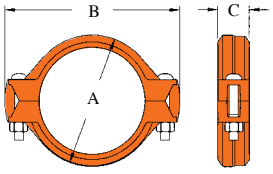
Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Axial Displacement mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Deflection Degree (°)	Weight Kgs/Lbs
40	48.3	20	0 – 1.6	75	118	47	3° - 48'	1.0
1.5	1.900	300	0 – 0.06	2.95	4.65	1.85		2.2
50	60.3	20	0 – 1.6	86	121	48	3° - 01'	1.1
2	2.375	300	0 – 0.06	3.39	4.76	1.89		2.4
65	73.0	20	0 – 1.6	92	150	48	2° - 30'	1.4
2.5	2.875	300	0 – 0.06	3.62	5.91	1.89		3.1
65	76.1	20	0 – 1.6	92	150	48	2° - 24'	1.4
2.5	3.000	300	0 – 0.06	3.62	5.91	1.89		3.1
80	88.9	20	0 – 1.6	119	163	48	2° - 14'	1.8
3	3.500	300	0 – 0.06	4.69	6.42	1.89		4.0
100	114.3	20	0 – 3.2	165	205	52	3° - 12'	2.7
4	4.500	300	0 – 0.13	6.50	8.07	2.05		5.9
125	139.7	20	0 – 3.2	189	253	52	2° - 37'	4.9
5	5.500	300	0 – 0.13	7.44	9.96	2.05		10.8
125	141.3	20	0 – 3.2	189	253	52	2° - 36'	4.9
5	5.563	300	0 – 0.13	7.44	9.96	2.05		10.8
150	165.1	20	0 – 3.2	213	278	52	2° - 14'	5.8
6	6.500	300	0 – 0.13	8.39	10.94	2.05		12.8
150	168.3	20	0 – 3.2	216	281	52	2° - 10'	5.8
6	6.625	300	0 – 0.13	8.50	11.06	2.05		12.8
200	219.1	20	0 – 3.2	278	356	62	1° - 40'	9.3
8	8.625	300	0 – 0.13	10.95	14.02	2.44		20.5
250	273.0	20	0 – 3.2	343	452	64	1° - 20'	12.5
10	10.750	300	0 – 0.13	13.50	17.80	2.52		28.0
300	323.9	20	0 – 3.2	390	494	64	1° - 08'	28.2
12	12.750	300	0 – 0.13	15.35	19.45	2.52		62.0

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

MODEL 7771-T TRANSITION COUPLING

The *Shurjoint* Model 7771T Transition Coupling provides a direct transition from IPS pipe sizes to JIS pipe sizes. Any combination of pipe, valves or fittings of different pipe OD's of nominal sizes 6" through 12" can be connected with a single coupling. Bolt pads are designed to make metal-to-metal contact, thus providing a rigid and positive joint.

The stepped exterior design of the housings aids in correct positioning of IPS and JIS sides of the housings.

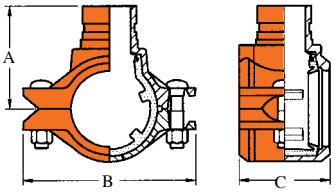



Stepped Design

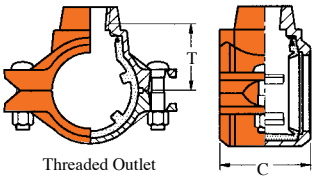
Nominal Size mm/in	Actual Pipe O.D. IPS mm/in	Actual Pipe O.D. JIS mm/in	Max. Working Pressure MPa/PSI	Max. End Load kN/Lbs	Total Axial Displacement mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Bolt Size mm	Weight Kgs/Lbs
150	168.3	165.1	2.4	25	6.4	200	270	53	M16 X 90	4.5
6	6.625	6.500	350	12060	0.25	7.87	10.63	2.09		9.9
200	219.1	216.3	2.1	79	3.2	259	335	63	M16 X 135	7.0
8	8.625	8.515	300	17520	0.13	10.20	13.19	2.50		15.4
250	273.0	267.4	2.1	123	3.2	316	386	63	M20 X 120	9.0
10	10.750	10.528	300	27190	0.13	12.46	15.20	2.50		19.8
300	323.9	318.5	2.1	173	3.2	367	448	63	M22 X 165	11.0
12	12.750	12.539	300	38264	0.13	14.45	17.64	2.50		24.2

MODEL C-7 OUTLET COUPLING

The Model C-7 Outlet Coupling combines the features of a coupling and a reducing outlet. The C-7 facilitates an easy reducing branch outlet without the need of a mechanical tee or reducing tee and couplings. The C-7 is available with grooved, male threaded or female threaded outlets. This fitting is recommended for fire sprinkler and other pipelines of moderate pressure. The C-7 Outlet Coupling can be used for dry pipe systems or vacuum services up to -10 inHg or 254 mmHg, which may occur when the system is drained.



Grooved Outlet



Threaded Outlet

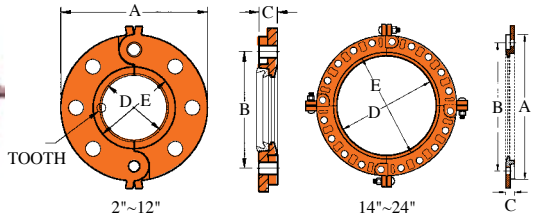
Nominal Size			Max. Working Pressure Bar/PSI	Axial Displacement mm/in	Max. End Load kN/Lbs	Dimensions				Bolt Size mm/in	Weight Kgs/Lbs
Run pipe mm/in	Outlet FPT mm/in	Outlet Gr/MPT mm/in				T* mm/in	A mm/in	B mm/in	C mm/in		
	15	----	20	20-22		52	----	114	70		1.2
	1/2	----	300	0.81-0.88		2.06	----	4.50	2.75		2.6
40	20	----	20	20-22	3.7	52	----	114	70	M10 X 55	1.2
1.5	3/4	----	300	0.81-0.88	850	2.06	----	4.50	2.75	3/8 x 2-1/8	2.6
	25	----	20	20-22		49	----	114	70		1.3
	1	----	300	0.81-0.88		1.94	----	4.50	2.75		2.9
	15	----	20	20-22		59	----	127	70		1.4
	1/2	----	300	0.81-0.88		2.32	----	5.00	2.75		3.1
50	20	----	20	20-22	5.7	59	----	127	70	M10 X 55	1.4
2	3/4	----	300	0.81-0.88	1330	2.32	----	5.00	2.75	3/8 x 2-1/8	3.1
	25	33.4	20	20-22		56	89	127	70		1.5
	1	1	300	0.81-0.88		2.20	3.50	5.00	2.75		3.3
	15	----	20	32-38		56	----	161	83		2.2
	1/2	----	300	1.25-1.50		2.20	----	6.33	3.25		4.8
	20	----	20	32-38		65	----	161	83		2.1
	3/4	----	300	1.25-1.50		2.56	----	6.33	3.25		4.6
65	25	----	20	32-38	8.4	62	----	161	83	M12 X 60	2.2
2.5	1	----	300	1.25-1.50	2120	2.44	----	6.33	3.25	1/2 x 2-3/8	4.4
	32	42.2	20	32-38		----	94	161	83		2.3
	1-1/4	1-1/4	300	1.25-1.50		----	3.70	6.33	3.25		5.1
	40	48.3	20	32-38		----	94	161	83		2.4
	1-1/2	1-1/2	300	1.25-1.50		----	3.70	6.33	3.25		5.9
	20	----	20	32-38		72	----	175	83		2.7
	3/4	----	300	1.25-1.50		2.83	----	6.87	3.25		5.9
80	25	33.4	20	32-38	12.4	70	102	175	83	M12 X 75	2.8
3	1	1	300	1.25-1.50	2890	2.75	4.00	6.87	3.25	1/2 x 3	6.2
	----	48.3	20	32-38		----	102	175	83		2.9
	----	1-1/2	300	1.25-1.50		----	4.00	6.87	3.25		6.4
	20	----	20	41-46		94	----	211	93		4.2
	3/4	----	300	1.63-1.81		3.70	----	8.31	3.66		9.2
	25	33.4	20	41-46		91	----	211	93		4.3
100	1	1	300	1.63-1.81	20.5	3.58	----	8.31	3.66	M16 X 90	9.5
4	40	48.3	20	41-46	4770	----	124	211	93	5/8 x 3-1/2	4.3
	1-1/2	1-1/2	300	1.63-1.81		----	4.88	8.31	3.66		9.5
	----	60.3	20	41-46		----	124	211	93		4.5
	----	2	300	1.63-1.81		----	4.88	8.31	3.66		9.9
	20	----	20	41-46		121	----	276	94		6.0
	3/4	----	300	1.63-1.81		4.76	----	10.86	3.70		13.2
	25	----	20	41-46		121	----	276	94		6.0
150	1	----	300	1.63-1.81	44.5	4.76	----	10.86	3.70	M16 X 90	13.2
6	40	48.3	20	41-46	9950	121	154	276	94	5/8 x 3-1/2	6.2
	1-1/2	1-1/2	300	1.63-1.81		4.76	6.06	10.86	3.70		13.6
	----	60.3	20	41-46		----	154	276	94		6.5
	----	2	300	1.63-1.81		----	6.06	10.86	3.70		14.3

FPT: Female pipe threaded outlet Gr: Grooved outlet MPT: Male pipe threaded outlet

*T: Center of run pipe to end of outlet pipe (dimensions approximate). Female threaded outlet only.

MODEL 7041-A FLANGE
ANSI CLASS 125/150

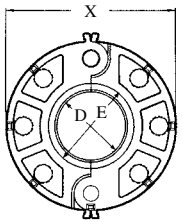
The Model 7041-A Flange allows for direct connection of grooved system to ANSI class 125/150 flanged components. 2" through 8" Model 7041-A flanges are supplied hinged as a single assembly, while larger sizes are supplied with separate segments.

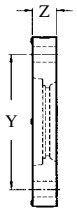


Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Dimensions			Sealing Surface		Bolt		Weight Kgs/Lbs
				A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	Size mm/in	No.	
50	60.3	20	5.7	152	121	19	60	87	---	4	2.0
2	2.375	300	1330	6.00	4.75	0.75	2.36	3.42	5/8		4.4
65	73.0	20	8.4	178	140	22	73	102	---	4	2.5
2.5	2.875	300	1950	7.00	5.50	0.87	2.87	4.00	5/8		5.5
80	88.9	20	12.3	190	152	24	89	116	---	4	3.4
3	3.500	300	2890	7.50	6.00	0.94	3.50	4.56	5/8		7.5
100	114.3	20	20.5	229	191	24	114	141	---	8	4.0
4	4.500	300	4770	9.00	7.50	0.94	4.50	5.56	5/8		8.8
125	141.3	20	31.3	254	216	24	141	171	---	8	4.5
5	5.563	300	7290	10.00	8.50	0.94	5.56	6.73	3/4		9.9
150	168.3	20	44.5	279	241	25	168	198	---	8	5.5
6	6.625	300	10340	11.00	9.50	1.00	6.62	7.79	3/4		12.1
200	219.1	20	75.3	343	298	28	219	254	---	8	8.0
8	8.625	300	17520	13.50	11.75	1.12	8.62	10.00	3/4		17.6
250	273.0	20	117.0	406	362	30	273	308	---	12	13.8
10	10.750	300	27210	16.00	14.25	1.18	10.75	12.12	7/8		30.4
300	323.9	20	164.7	482	432	32	324	359	---	12	19.0
12	12.750	300	38280	19.00	17.00	1.25	12.75	14.13	7/8		41.8
350	355.6	20	198.5	533	476	37	356	416	---	12	31.8
14	14.000	300	46160	21.00	18.75	1.44	14.0	16.40	1		70.0
400	406.4	20	259.2	597	540	37	406	467	---	16	41.4
16	16.000	300	60290	23.50	21.25	1.44	16.0	18.40	1		91.0
450	457.2	20	328.2	645	578	40	457	508	---	16	44.5
18	18.000	300	76300	25.50	22.75	1.56	18.0	20.00	1-1/8		98.0
500	508.0	20	405.2	699	635	43	508	572	---	20	52.3
20	20.000	300	94200	27.50	25.00	1.69	20.0	22.50	1-1/8		115.0
600	609.6	20	583.5	813	749	49	610	706	---	20	75.0
24	24.000	300	135650	32.00	29.50	1.94	24.0	27.80	1-1/4		165.0

MODEL 7043 FLANGE - ANSI CLASS 300

The Model 7043 Flange allows for a direct connection or a grooved system to ANSI class 300 flanges or flanged components. 2" through 8" Model 7043 flanges are supplied hinged as a single assembly, while larger sizes are supplied with separate segments.

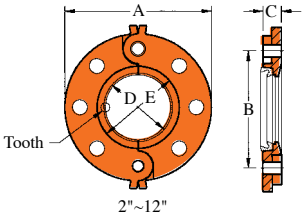




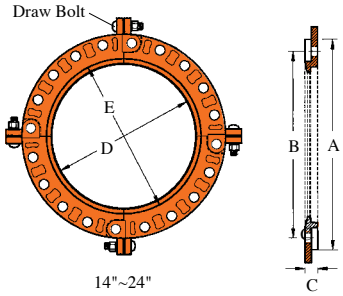
Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Dimensions			Sealing Surface		Bolt		Weight Kgs/Lbs
				X mm/in	Y mm/in	Z mm/in	D mm/in	E mm/in	Size mm/in	No.	
50	60.3	50	13.7	165	127	24	60	87	---	8	2.2
2	2.375	720	3190	6.50	5.00	0.94	2.38	3.41	5/8		4.8
65	73.0	50	20.1	191	149	27	73	99	---	8	3.4
2.5	2.875	720	4670	7.50	5.88	1.06	2.88	3.91	3/4		7.4
80	88.9	50	29.8	210	168	30	89	115	---	8	4.1
3	3.500	720	6925	8.25	6.63	1.19	3.50	4.53	3/4		9.1
100	114.3	50	49.2	254	202	33	114	140	---	8	7.0
4	4.500	720	11445	10.00	7.95	1.31	4.50	5.53	3/4		15.3
125	141.3	50	75.3	279	235	37	141	171	---	8	8.0
5	5.563	720	17500	11.00	9.25	1.44	5.56	6.72	3/4		17.7
150	168.3	50	106.7	318	270	38	168	198	---	12	10.6
6	6.625	720	24805	12.50	10.63	1.50	6.63	7.78	3/4		23.4
200	219.1	50	180.8	381	330	43	219	252	---	12	15.6
8	8.625	720	42045	15.00	13.00	1.69	8.63	9.94	7/8		34.3
250	273.0	50	280.9	445	387	49	273	313	---	16	22.0
10	10.750	720	65315	17.50	15.25	1.94	10.75	12.31	1		48.3
300	323.9	50	395.2	521	451	51	324	364	---	16	32.0
12	12.750	720	91880	20.50	17.75	2.00	12.75	14.31	1-1/8		70.5

MODEL 7041-B FLANGE - PN10 / PN16

The model 7041-B Flange allows for a direct connection with PN10/PN16 flanges. The unique shaped gasket allows for the transition from a flanged system to a grooved system with a single flange. 2" through 8" Model 7041-B flanges are supplied hinged as a single assembly, while larger sizes are supplied with separate segments. The Model 7041-B Flange in sizes 14"-24" (350-600mm) are comprised of four identical segments that when assembled with the draw bolts form a complete unit.



2"~12"



14"~24"

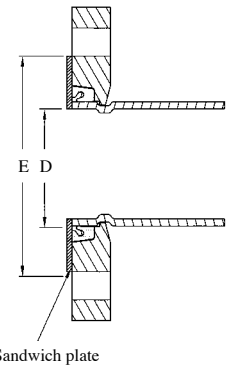
Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Dimensions			Sealing Surface		Bolt		Weight Kgs/Lbs
				A mm	B mm	C mm	D mm	E mm	Size	No.	
50 2	60.3 2.375	16 225	4.6 1000	165	125	22	60	87	M16	4	2.3 5.1
65 2.5	76.1 3.000	16 225	7.3 1590	185	145	22	76	105	M16	4	2.8 6.2
80 3	88.9 3.500	16 225	9.9 2165	200	160	24	89	116	M16	8	3.4 7.5
100 4	114.3 4.500	16 225	16.4 3580	220	180	24	114	141	M16	8	3.6 7.9
150 6	165.1 6.500	16 225	34.2 7460	285	240	24	165	195	M20	8	4.6 10.1
150 6	168.3 6.625	16 225	35.6 7750	285	240	24	168	198	M20	8	4.6 10.1
200 8	219.1 8.625	16 225	60.3 13140	340	295	24	219	254	M20	12	8.4 18.5
250 10	273.0 10.750	16 225	93.6 20410	405	355	26	273	308	M24	12	11.7 25.7
300 12	323.9 12.750	16 225	131.8 28710	460	410	28	324	359	M24	12	17.7 38.9
350 14	355.6 14.000	16 225	158.8 34620	520	470	30	356	416	M24	16	23.0 50.6
400 16	406.4 16.000	16 225	207.4 45220	580	525	32	406	467	M27	16	28.0 61.6
450 18	457.2 18.000	16 225	262.15 57230	640	585	36	457	508	M27	20	44.5 97.9
500 20	508.0 20.000	16 225	324.0 70650	715	650	36	508	572	M30	20	45.0 99.0
600 24	609.6 24.000	16 225	466.7 101740	840	770	40	610	706	M33	20	73.0 160.6

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

MODEL 49 SANDWICH PLATES

The Model 7041 Flange requires a hard flat surface for effective gasket sealing. A sandwich plate is required and should always be used when the mating surface is not adequate as seen with the serrated faces of some valves or the rubber-faced or rubber-lined flange of a wafer valve.

Material: Mild-steel, electro-zinc plated. Stainless steel type 304 or 316 is available upon request.

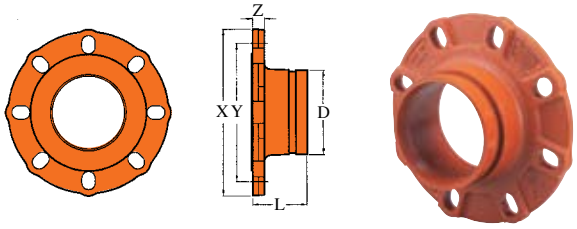


Sandwich plate

Nominal Size mm/in	E mm/in	D mm/in
50	95	54
2	3.74	2.13
65	118	67
2.5	4.65	2.64
80	130	81
3	5.12	3.19
100	158	105
4	6.22	4.13
125	188	128
5	7.40	5.00
150	216	155
6	8.50	6.10
200	271	205
8	10.67	8.07
250	326	258
10	12.83	10.15
300	381	305
12	15.00	12.00
350	414	305
14	16.30	12.01

MODEL 7180 UNIVERSAL FLANGE ADAPTER

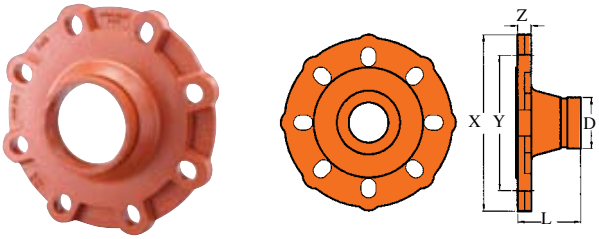
The Model 7180 Universal Flange Adapter provides a rigid transition from a flanged component to a grooved system. The single unit is compatible for a range of flange types including ANSI Class 125/150, PN10, PN16, and JIS 10K.



Nominal Size mm/in	Pipe O.D. mm/in	L mm/in	X mm/in	Y : Flange Drilling			Z mm/in	Bolts Size		Weight Kgs/Lbs
				ANSI 125/150 mm/in	PN 10,16 mm/in	JIS 10K mm/in		Dia mm/in	No.	
50	60.3	64	165	121	125	120	16	M16	4	2.3
2	2.375	2.50	6.50	4.75	4.92	4.72	0.63	5/8	4	5.1
65	73.0	70	185	140	145	140	16	M16	4	2.9
2.5	2.875	2.75	7.28	5.50	5.70	5.50	0.63	5/8	4	6.4
65	76.1	70	185	140	145	140	16	M16	4	2.9
2.5	3.000	2.75	7.28	5.50	5.70	5.50	0.63	5/8	4	6.4
80	88.9	70	200	152	160	150	16	M16	8	3.4
3	3.500	2.75	7.87	6.00	6.30	5.90	0.63	5/8	4	7.4
100	114.3	76	229	191	180	175	16	M16	8	3.9
4	4.500	3.00	9.00	7.50	7.09	6.89	0.63	5/8	8	8.5
125	139.7	89	250	216	210	210	22	M16/M20	8	6.0
5	5.500	3.50	9.84	8.50	8.27	8.27	0.87	5/8 / 3/4	8	13.2
125	141.3	89	250	216	210	210	22	M16/M20	8	6.0
5	5.563	3.50	9.84	8.50	8.27	8.27	0.87	5/8 / 3/4	8	13.2
150	165.1	89	291	241	240	240	24	M20	8	6.3
6	6.500	3.50	11.46	9.50	9.45	9.45	0.94	3/4	8	13.9
150	168.3	89	291	241	240	240	24	M20	8	6.3
6	6.625	3.50	11.46	9.50	9.45	9.45	0.94	3/4	8	13.9
200	219.1	102	343	298	295	290	29	M20	8 / 12	13.7
8	8.625	4.00	13.50	11.75	11.61	11.42	1.14	3/4	8 / 12	30.0
200 JIS	216.3	102	343	298	295	290	29	M20	8 / 12	13.7
8	8.516	4.00	13.50	11.75	11.61	11.42	1.14	3/4	8 / 12	30.0

MODEL 7181 UNIVERSAL REDUCING FLANGE ADAPTER

The Model 7181 Universal Reducing Flange Adapter provides for a rigid transition between a flanged piping system and a one or two-size reduced grooved system without the need of a concentric reducer. The flange drilling is compatible to ANSI 125/150, PN10/16, BS-10E and JIS 10K.



Nominal Size mm/in	Pipe OD mm/in	L mm/in	X mm/in	Z mm/in	Y: Flange Drilling			D mm/in	Bolts		Weight Kgs/Lbs
					ANSI 125 / 150 mm/in	PN 10, 16 mm/in	JIS 10K mm/in		Dia. in	No.	
80 x 50	88.9 x 60.3	75.0	208.0	16.0	152	160	150	60.3	M16	8	3.4
3 x 2	3.500 x 2.375	2.95	8.19	0.63	8.00	6.30	5.90	2	5/8		7.4
100 x 80	114.3 x 88.9	75.0	225.5	16.0	191	180	175	88.9	M16	8	3.9
4 x 3	4.500 x 3.500	2.95	8.88	0.63	7.50	7.09	6.89	3	5/8		8.5
150 x 100	168.3 x 114.3	75.0	291.0	24.0	241	240	240	114.3	M20	8	6.3
6 x 4	6.625 x 4.500	2.95	11.46	0.95	9.50	9.45	9.45	4	3/4		13.9

SPECIFICATIONS

Shurjoint offers a wide range of grooved-end fittings in sizes through 24" (600 mm). Fittings are available in a number of styles and configurations to support a variety of applications. *Shurjoint* grooved-end fittings are designed to meet the ASTM F1548-01 and ANSI/AWWA C606-04 requirements. For other pipe sizes not specified in these standards, refer to applicable groove specifications shown in this catalog. Most fittings are provided in ductile iron conforming to ASTM A536 Gr. 65-45-12. Some styles and sizes are fabricated of segmentally welded steel. Fittings are painted orange or red, or as an option can be supplied hot-dip galvanized or epoxy coated. Pressure ratings conform to couplings and/or pipe being used.

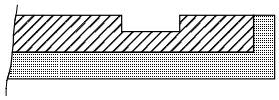
Painted

Hot Dip Galvanized

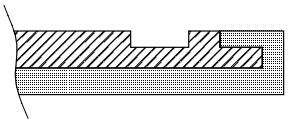
Epoxy Coated

RUBBER LINED FITTINGS

Shurjoint ductile iron grooved end fittings are also available with rubber lining for abrasive services. The lining is available covering the interior and ends of the fittings for abrasive services or the lining can be further wrapped around the seating area of the fitting for abrasive and corrosive service applications. Contact *Shurjoint* for details.



For abrasive services



For abrasive and corrosive services

GROOVED ELBOWS

MODEL 7110 90° ELBOW
MODEL 7111 45° ELBOW
MODEL 7112 22-1/2° ELBOW
MODEL 7113 11-1/4° ELBOW

Shurjoint grooved fittings are cast of ductile iron except where indicated (SW).

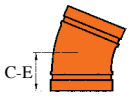


Fig. 7112
22-1/2° Elbow

Fig. 7113
11-1/4° Elbow

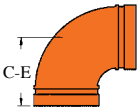


Fig. 7110
90° Elbow

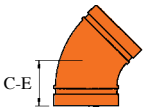


Fig. 7111
45° Elbow

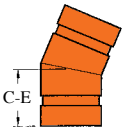


Fig. 7112
22-1/2° Elbow (Welded)

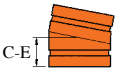


Fig. 7113
11-1/4° Elbow (Welded)

Nominal Size mm/in	Pipe O.D. mm/in	#7110 90° Elbow		#7111 45° Elbow		#7112 22-1/2° Elbow		#7113 11-1/4° Elbow	
		C - E	Kgs/Lbs	C - E	Kgs/Lbs	C - E	Kgs/Lbs	C - E	Kgs/Lbs
25	33.4	57	0.3	45	0.2	---	---	---	---
1	1.315	2.25	0.7	1.75	0.4	---	---	---	---
32	42.2	70	0.5	45	0.3	45	0.3	35	0.2
1.25	1.660	2.75	1.1	1.75	0.7	1.75 SW	0.7	1.38 SW	0.4
40	48.3	70	0.7	45	0.4	45	0.6	35	0.3
1.5	1.900	2.75	1.5	1.75	0.9	1.75	1.3	1.38 SW	0.7
50	60.3	83	0.9	51	0.7	48	0.8	35	0.8
2	2.375	3.25	2.0	2.00	1.5	1.88	1.8	1.38	1.8
65	73.0	95	1.2	57	0.9	51	1.0	38	1.0
2.5	2.875	3.75	2.6	2.25	2.0	2.01	2.2	1.50	2.2
65	76.1	95	1.4	57	1.0	51	1.0	38	1.0
2.5	3.000	3.75	3.1	2.25	2.2	2.01	2.2	1.50	2.2
80	88.9	108	2.1	64	1.3	57	1.4	38	1.1
3	3.500	4.25	4.6	2.50	2.9	2.25	3.1	1.50	2.4
90	101.6	114	2.5	---	---	---	---	---	---
3.5	4.000	4.50	5.6	---	---	---	---	---	---
100	108.0	127	3.5	76	2.0	---	---	---	---
4	4.250	5.00	7.7	3.00	4.4	---	---	---	---
100	114.3	127	2.8	76	2.0	73	2.0	45	1.5
4	4.500	5.00	6.2	3.00	4.4	2.88	4.4	1.75	3.3
125	141.3	140	5.0	83	3.5	73	3.3	51	2.7
5	5.563	5.50	11.0	3.25	7.7	2.88	7.3	2.00 SW	5.9
125	133.0	140	4.1	83	2.7	---	---	---	---
5	5.250	5.50	9.0	3.25	5.9	---	---	---	---
125	139.7	140	5.0	83	3.5	73	3.3	51	2.7
5	5.500	5.50	11.0	3.25	7.7	2.88	7.3	2.00 SW	5.9
150	168.3	165	6.4	89	4.4	79	5.0	51	3.4
6	6.625	6.50	14.1	3.50	9.7	3.12	11.0	2.00	7.5
150	159.0	165	6.0	89	3.8	---	---	---	---
6	6.250	6.50	13.2	3.50	8.4	---	---	---	---
150	165.1	165	5.7	89	4.4	79	5.0	51	3.4
6	6.500	6.50	12.5	3.50	9.7	3.12	11.0	2.00	7.5
200	219.1	197	12.5	108	9.0	98	10.0	51	5.5
8	8.625	7.75	27.5	4.25	19.8	3.88	22.0	2.00	12.1
200JIS	216.3	197	12.5	108	9.0	98	10.0	---	---
8	8.516	7.75	27.5	4.25	19.8	3.88	22.0	---	---
250	273.0	229	24.0	121	17.0	111	13.6	54	6.6
10	10.750	9.00	52.8	4.75	37.4	4.38	29.9	2.13	14.5
250JIS	267.4	229	24.0	121	17.0	111	13.6	54	6.6
10	10.528	9.00	52.8	4.75	37.4	4.38	29.9	2.13	14.5
300	323.9	254	35.0	133	22.5	124	18.3	57	8.5
12	12.750	10.00	77.0	5.25	49.5	4.88 SW	40.3	2.25	18.7
300JIS	318.5	254	35.0	133	22.5	124	18.3	57	8.5
12	12.539	10.00	77.0	5.25	49.5	4.88 SW	40.3	2.25	18.7
350	355.6	280	35.0	152	22.0	127	21.0	89	14.6
14	14.000	11.00	77.0	6.00	48.4	5.00 SW	46.2	3.50 SW	32.1
400	406.4	305	43.0	184	44.0	127	24.0	102	19.0
16	16.000	12.00	94.6	7.25	96.8	5.00 SW	52.8	4.00 SW	41.8
450	457.2	394	75	203	46.6	140	30.0	114	24.0
18	18.000	15.50	165.0	8.00	102.5	5.50 SW	66.0	4.50 SW	52.8
500	508.0	438	92.0	229	47.6	152	36.3	127	30.0
20	20.000	17.25	202.4	9.00	104.7	6.00 SW	79.9	5.00 SW	66.0
550	558.8	508	129.0	280	80.0	178	51.0	152	46.0
22	22.000	20.00 SW	283.8	11.00 SW	176.0	7.00 SW	112.2	6.00 SW	101.2
600	609.6	508	129.0	280	80.0	178	51.0	152	46.0
24	24.000	20.00	283.8	11.00	176.0	7.00 SW	112.2	6.00 SW	101.2

SW: Segment-welded steel.

MODEL 7120 TEE
MODEL 7135 CROSS
MODEL 7130 45° LATERAL

Shurjoint grooved fittings are cast of ductile iron except where indicated (SW).

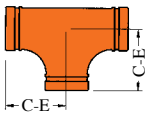


Fig. 7120 Tee

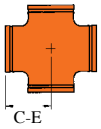


Fig. 7135 Cross

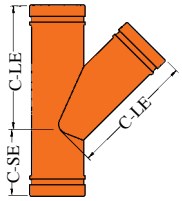


Fig. 7130 45° Lateral

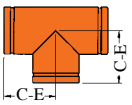


Fig. 7120 Tee (Welded)

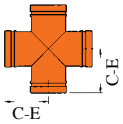


Fig. 7135 Cross (Welded)

Nominal Size mm/in	Pipe O.D. mm/in	#7120 Tee		#7135 Cross		#7130 45° Lateral		
		C - E	Kgs/Lbs	C - E	Kgs/Lbs	C - LE	C - SE	Kgs/Lbs
25 1	33.4 1.315	57 2.25	0.4 0.9	57 2.25SW	0.6 1.3	---- ----	---- ----	---- ----
32 1.25	42.2 1.660	70 2.75	0.7 1.5	70 2.75SW	1.0 2.2	146 5.75SW	64 2.50	1.1 2.4
40 1.5	48.3 1.900	70 2.75	0.9 2.0	70 2.75SW	1.1 2.5	159 6.25SW	70 2.75	1.6 3.5
50 2	60.3 2.375	83 3.25	1.3 2.9	83 3.25	1.7 3.8	178 7.00	70 2.75	2.3 5.1
65 2.5	73.0 2.875	95 3.75	2.2 4.8	95 3.75	2.8 6.2	197 7.75	76 3.00	2.8 6.2
65 2.5	76.1 3.000	95 3.75	2.3 5.1	95 3.75	2.8 6.2	197 7.75	76 3.00	2.8 6.2
80 3	88.9 3.500	108 4.25	3.1 6.8	108 4.25	4.8 10.6	216 8.50	83 3.25	4.2 9.2
100 4	114.3 4.500	127 5.00	4.6 10.1	127 5.00	7.2 15.9	267 10.50	95 3.75	8.0 17.6
100 4	108.0 4.250	127 5.00	4.1 9.0	---- ----	---- ----	---- ----	---- ----	---- ----
125 5	141.3 5.563	140 5.50	6.5 14.3	140 5.50	9.1 20.0	318 12.50	102 4.00	12.5 27.5
125 5	133.0 5.250	140 5.50	6.0 13.2	---- ----	---- ----	---- ----	---- ----	---- ----
125 5	139.7 5.500	140 5.50	6.5 14.3	140 5.50	9.0 19.8	318 12.50	102 4.00	12.5 27.5
150 6	168.3 6.625	165 6.50	10.0 22.0	165 6.50	12.7 27.9	356 14.00	114 4.50	18.5 40.7
150 6	159.0 6.250	165 6.50	8.6 18.9	---- ----	---- ----	---- ----	---- ----	---- ----
150 6	165.1 6.500	165 6.50	8.5 18.7	165 6.50	12.0 26.4	356 14.00	114 4.50	18.5 40.7
200 8	219.1 8.625	197 7.75	20.0 44.0	197 7.75	22.0 48.4	457 18.00	152 6.00	32.0 70.4
200A 8	216.3 8.516	197 7.75	20.0 44.0	197 7.75	21.0 46.2	457 18.00	152 6.00	32.0 70.4
250 10	273.0 10.750	229 9.00	31.0 68.2	229 9.00SW	32.0 70.4	521 20.50	165 6.50	47.6 104.7
250A 10	267.4 10.528	229 9.00	31.0 68.2	229 9.00SW	32.0 70.4	521 20.50	165 6.50	47.6 104.7
300 12	323.9 12.750	254 10.00	45.0 99.0	254 10.00SW	50.0 110.0	584 23.00	178 7.00	75.0 165.0
300A 12	318.5 12.539	254 10.00	45.0 99.0	254 10.00SW	50.0 110.0	584 23.00	178 7.00	75.0 165.0
350 14	355.6 14.000	280 11.00	54.0 118.8	280 11.00SW	91.0 200.2	673 26.50SW	191 7.50	125.0 275.0
400 16	406.4 16.000	305 12.00	66.0 145.2	305 12.00SW	113.8 250.4	737 29.00SW	203 8.00	156.0 343.2
450 18	457.2 18.000	394 15.50SW	124.3 273.5	394 15.50SW	165.7 364.5	813 32.00SW	216 8.50	195.0 429.0
500 20	508.0 20.000	438 17.25SW	153.9 338.6	438 17.25SW	205.2 451.4	889 35.00SW	229 9.00	227.0 499.4
550 22	558.8 22.000	483 19.00SW	150.0 330.0	483 19.00SW	242.8 534.2	965 38.00SW	241 9.50	280.0 616.0
600 24	609.6 24.000	508 20.00SW	215.1 473.2	508 20.00SW	286.8 631.0	1016 40.00SW	254 10.00	324.0 712.8

SW: Segment-welded steel.

MODEL 7121 REDUCING TEE

Shurjoint reducing tees are cast of ductile iron except where indicated (SW).

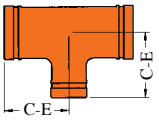


Fig. 7121 Reducing Tee

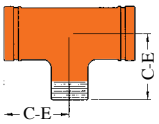


Fig. 7121 Reducing Tee (Threaded)

Nominal Size mm/in	Pipe O.D. mm/in	#7121 Reducing Tee Standard C - E mm/in	#7121 Reducing Tee Threaded Br. C - E mm/in	Weight Kgs/Lbs	Nominal Size mm/in	Pipe O.D. mm/in	#7121 Reducing Tee Standard C-E mm/in	#7121 Reducing Tee Threaded Br. C-E mm/in	Weight Kgs/Lbs
50 x 50 x 20 2 x 2 x 0.75	60.3 x 60.3 x 26.7 2.375 x 2.375 x 1.050	83 3.25 SW	83 3.25 SW	1.1 2.5	250 x 250 x 50 10 x 10 x 2	273.0 x 273.0 x 60.3 10.750 x 10.750 x 2.375	229 9.00 SW	229 9.00 SW	28.0 61.6
50 x 50 x 25 2 x 2 x 1	60.3 x 60.3 x 33.4 2.375 x 2.375 x 1.315	83 3.25 SW	83 3.25 SW	1.2 2.7	250 x 250 x 80 10 x 10 x 3	273.0 x 273.0 x 88.9 10.750 x 10.750 x 3.500	229 9.00 SW	229 9.00 SW	28.5 62.8
50 x 50 x 40 2 x 2 x 1.5	60.3 x 60.3 x 48.3 2.375 x 2.375 x 1.900	83 3.25	83 3.25	1.2 2.6	250 x 250 x 100 10 x 10 x 4	273.0 x 273.0 x 114.3 10.750 x 10.750 x 4.500	229 9.00	229 9.00	28.5 62.8
65 x 65 x 25 2.5 x 2.5 x 1	73.0 x 73.0 x 33.4 2.875 x 2.875 x 1.315	95 3.75	95 3.75	1.7 3.8	250 x 250 x 150 10 x 10 x 6	273.0 x 273.0 x 168.3 10.750 x 10.750 x 6.625	229 9.00	---- ----	30.0 66.0
65 x 65 x 40 2.5 x 2.5 x 1.5	76.1 x 76.1 x 48.3 3.000 x 3.000 x 1.900	95 3.75	95 3.75	1.8 3.9	250 x 250 x 200 10 x 10 x 8	273.0 x 273.0 x 219.1 10.750 x 10.750 x 8.625	229 9.00	---- ----	31.5 69.3
65 x 65 x 50 2.5 x 2.5 x 2	73.0 x 73.0 x 60.3 2.875 x 2.875 x 2.375	95 3.75	95 3.75	2.0 4.4	300 x 300 x 80 12 x 12 x 3	323.9 x 323.9 x 88.9 12.750 x 12.750 x 3.500	254 10.00	254 10.00	36.0 79.2
65 x 65 x 50 2.5 x 2.5 x 2	76.1 x 76.1 x 60.3 3.000 x 3.000 x 2.375	95 3.75	95 3.75	2.0 4.4	300 x 300 x 100 12 x 12 x 4	323.9 x 323.9 x 114.3 12.750 x 12.750 x 4.500	254 10.00	254 10.00	36.0 79.2
80 x 80 x 25 3 x 3 x 1	88.9 x 88.9 x 33.4 3.500 x 3.500 x 1.315	108 4.25	108 4.25	2.8 6.1	300 x 300 x 150 12 x 12 x 6	323.9 x 323.9 x 168.3 12.750 x 12.750 x 6.625	254 10.00	---- ----	38.0 83.6
80 x 80 x 40 3 x 3 x 1.5	88.9 x 88.9 x 48.3 3.500 x 3.500 x 1.900	108 4.25	108 4.25	2.9 6.5	300 x 300 x 200 12 x 12 x 8	323.9 x 323.9 x 219.1 12.750 x 12.750 x 8.625	254 10.00	---- ----	38.0 83.6
80 x 80 x 50 3 x 3 x 2	88.9 x 88.9 x 60.3 3.500 x 3.500 x 2.375	108 4.25	108 4.25	2.8 6.2	300 x 300 x 250 12 x 12 x 10	323.9 x 323.9 x 273.0 12.750 x 12.750 x 10.750	254 10.00	---- ----	40.0 88.0
80 x 80 x 65 3 x 3 x 2.5	88.9 x 88.9 x 73.0 3.500 x 3.500 x 2.875	108 4.25	108 4.25	2.8 6.2	350 x 350 x 200 14 x 14 x 8	355.6 x 355.6 x 219.1 14.000 x 14.000 x 8.625	279 11.00 SW	---- ----	57.5 126.5
80 x 80 x 65 3 x 3 x 2.5	88.9 x 88.9 x 76.1 3.500x 3.500 x 3.000	108 4.25	108 4.25	2.8 6.2	350 x 350 x 250 14 x 14 x 10	355.6 x 355.6 x 273.0 14.000 x 14.000 x 10.750	279 11.00 SW	---- ----	62.4 137.3
100 x 100 x 25 4 x 4 x 1	114.3 x 114.3 x 33.4 4.500 x 4.500 x 1.315	95 3.75	95 3.75	3.5 7.8	350 x 350 x 300 14 x 14 x 12	355.6 x 355.6 x 323.9 14.000 x 14.000 x 12.750	279 11.00 SW	---- ----	66.2 145.6
100 x 100 x 50 4 x 4 x 2	114.3 x 114.3 x 60.3 4.500 x 4.500 x 2.375	127 5.00	127 5.00	4.2 9.2	400 x 400 x 200 16 x 16 x 8	406.4 x 406.4 x 219.1 16.000 x 16.000 x 8.625	305 12.00 SW	---- ----	69.9 153.8
100 x 100 x 65 4 x 4 x 2.5	114.3 x 114.3 x 73.0 4.500 x 4.500 x 2.875	127 5.00	127 5.00	4.3 9.5	400 x 400 x 250 16 x 16 x 10	406.4 x 406.4 x 273.0 16.000 x 16.000 x 10.750	305 12.00 SW	---- ----	75.3 165.7
100 x 100 x 65 4 x 4 x 2.5	114.3 x 114.3 x 76.1 4.500 x 4.500 x 3.000	127 5.00	127 5.00	4.3 9.5	400 x 400 x 300 16 x 16 x 12	406.4 x 406.4 x 323.9 16.000 x 16.000 x 12.750	305 12.00 SW	---- ----	79.4 174.7
100 x 100 x 80 4 x 4 x 3	114.3 x 114.3 x 88.9 4.500 x 4.500 x 3.500	127 5.00	127 5.00	4.5 9.9	450 x 450 x 250 18 x 18 x 10	457.2 x 457.2 x 273.0 18.000 x 18.000 x 10.750	394 15.50 SW	---- ----	105.6 234.5
125 x 125 x 50 5 x 5 x 2	141.3 x 141.3 x 60.3 5.563 x 5.563 x 2.375	140 5.50	140 5.50	6.6 14.5	450 x 450 x 300 18 x 18 x 12	457.2 x 457.2 x 323.9 18.000 x 18.000 x 12.750	394 15.50 SW	---- ----	112.0 246.4
125 x 125 x 100 5 x 5 x 4	141.3 x 141.3 x 114.3 5.563 x 5.563 x 4.500	140 5.50	140 5.50	6.2 13.6	450 x 450 x 350 18 x 18 x 14	457.2 x 457.2 x 355.6 18.000 x 18.000 x 14.000	394 15.50 SW	---- ----	114.9 252.8
150 x 150 x 50 6 x 6 x 2	168.3 x 168.3 x 60.3 6.625 x 6.625 x 2.375	165 6.50	165 6.50	8.0 17.6	450 x 450 x 400 18 x 18 x 16	457.2 x 457.2 x 406.4 18.000 x 18.000 x 16.000	394 15.50 SW	---- ----	119.6 263.1
150 x 150 x 65 6 x 6 x 2.5	168.3 x 168.3 x 73.0 6.625 x 6.625 x 2.875	165 6.50	165 6.50	8.5 18.7	500 x 500 x 350 20 x 20 x 14	508.0 x 508.0 x 355.6 20.000 x 20.000 x 14.000	438 17.25 SW	---- ----	138.2 304.0
150 x 150 x 80 6 x 6 x 3	168.3 x 168.3 x 88.9 6.625 x 6.625 x 3.500	165 6.50	165 6.50	9.2 20.2	500 x 500 x 400 20 x 20 x 16	508.0 x 508.0 x 406.4 20.000 x 20.000 x 16.000	438 17.25 SW	---- ----	143.5 315.7
150 x 150 x 100 6 x 6 x 4	168.3 x 168.3 x 114.3 6.625 x 6.625 x 4.500	165 6.50	165 6.50	8.8 19.4	500 x 500 x 450 20 x 20 x 18	508.0 x 508.0 x 457.2 20.000 x 20.000 x 18.000	438 17.25 SW	---- ----	148.7 327.1
150 x 150 x 50 6 x 6 x 2	165.1 x 165.1 x 60.3 6.500 x 6.500 x 2.375	165 6.50	165 6.50	8.0 17.6	600 x 600 x 200 24 x 24 x 8	609.6 x 609.6 x 219.1 24.000 x 24.000 x 8.625	508 20.00 SW	---- ----	165.2 363.4
150 x 150 x 65 6 x 6 x 2.5	165.1 x 165.1 x 76.1 6.500 x 6.500 x 3.000	165 6.50	165 6.50	8.5 18.7	600 x 600 x 250 24 x 24 x 10	609.6 x 609.6 x 273.0 24.000 x 24.000 x 10.750	508 20.00 SW	---- ----	174.0 382.8
150 x 150 x 80 6 x 6 x 3	165.1 x 165.1 x 88.9 6.500 x 6.500 x 3.500	165 6.50	165 6.50	9.2 20.2	600 x 600 x 300 24 x 24 x 12	609.6 x 609.6 x 323.9 24.000 x 24.000 x 12.750	508 20.00 SW	---- ----	180.9 398.0
150 x 150 x 100 6 x 6 x 4	165.1 x 165.1 x 114.3 6.500 x 6.500 x 4.500	165 6.50	165 6.50	8.8 19.4	600 x 600 x 350 24 x 24 x 14	609.6 x 609.6 x 355.6 24.000 x 24.000 x 14.000	508 20.00 SW	---- ----	184.7 406.3
200 x 200 x 50 8 x 8 x 2	219.1 x 219.1 x 60.3 8.625 x 8.625 x 2.375	197 7.75	197 7.75	17.0 37.4	600 x 600 x 400 24 x 24 x 16	609.6 x 609.6 x 406.4 24.000 x 24.000 x 16.000	508 20.00 SW	---- ----	190.8 419.8
200 x 200 x 80 8 x 8 x 3	219.1 x 219.1 x 88.9 8.625 x 8.625 x 3.500	197 7.75	197 7.75	16.8 37.0	600 x 600 x 450 24 x 24 x 18	609.6 x 609.6 x 457.2 24.000 x 24.000 x 18.000	508 20.00 SW	---- ----	196.8 433.0
200 x 200 x 100 8 x 8 x 4	219.1 x 219.1 x 114.3 8.625 x 8.625 x 4.500	197 7.75	197 7.75	20.0 44.0	600 x 600 x 500 24 x 24 x 20	609.6 x 609.6 x 508.0 24.000 x 24.000 x 20.000	508 20.00 SW	---- ----	202.9 446.4
200 x 200 x 150 8 x 8 x 6	219.1 x 219.1 x 168.3 8.625 x 8.625 x 6.625	197 7.75	---- ----	21.0 46.2					

SW: Segment-welded steel.

MODEL 7110LR 1.5D 90° ELBOW
MODEL 7111LR 1.5D 45° ELBOW
MODEL 7137 TRUE-Y

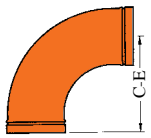


Fig. 7110LR
LR 90° Elbow, 1.5D

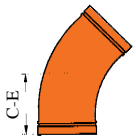


Fig. 7111LR
LR 45° Elbow, 1.5D

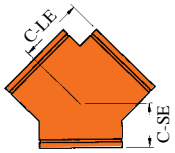
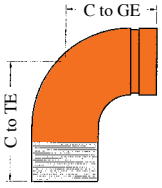
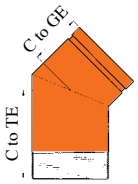


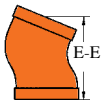
Fig. 7137
True-Y

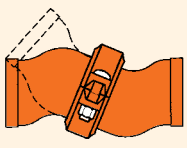
Nominal Size mm/in	Pipe O.D. mm/in	#7110LR 1.5D LR 90° Elbow		#7111LR 1.5D LR 45° Elbow		#7137 TRUE-Y		
		C - E	Kgs/Lbs	C - E	Kgs/Lbs	C - LE	C - SE	Kgs/Lbs
50	60.3	111	1.1	70	0.8	83	70	1.1
2	2.375	4.38	2.4	2.75	1.8	3.25	2.75	2.5
65	73.0	127	1.8	76	1.3	95	76	2.0
2.5	2.875	5.0	4.0	3.00	2.9	3.75	3.00	4.3
65	76.1	127	1.8	76	1.3	95	76	2.0
2.5	3.000	5.0	4.0	3.00	2.9	3.75	3.00	4.3
80	88.9	149	2.5	86	2.2	108	83	2.8
3	3.500	5.88	5.5	3.38	4.9	4.25	3.25	6.1
100	114.3	191	4.7	102	3.5	127	95	4.5
4	4.500	7.50	10.3	4.00	7.7	5.00	3.75	10.0
125	141.3	241	8.3	127	6.7	140	102	6.8
5	5.563	9.50	18.3	5.0	14.7	5.50	4.00	15.0
125	139.7	241	8.3	127	6.7	140	102	6.8
5	5.500	9.50	18.3	5.0	14.7	5.50	4.00	15.0
150	168.3	273	11.5	140	8.2	165	114	10.1
6	6.625	10.75	25.3	5.50	18.0	6.50	4.50	22.3
150	165.1	273	11.5	140	8.2	165	114	10.1
6	6.500	10.75	25.3	5.50	18.0	6.50	4.50	22.3
200	219.1	362	22.0	184	16.3	197	152	16.3
8	8.625	14.25	48.4	7.25	36.0	7.75	6.00	36.0
250	273.0	438	48.5	216	25.9	229	165	30.8
10	10.750	17.25	107.0	8.50	57.0	9.00	6.50	70.0
300	323.9	521	71.5	254	40.8	254	178	36.3
12	12.750	20.50	157.3	10.00	90.0	10.00	7.00	80.0

MODEL 7118 90° ADAPTER ELBOW
MODEL 7119 45° ADAPTER ELBOW
7112G GOOSE NECK 22-1/2° ELBOW









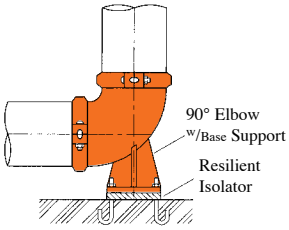
The use of two 22-1/2° goose neck elbows and a coupling works as a universal joint and is ideal for instances where a pipe line and or system is in need of a slight adjustment.

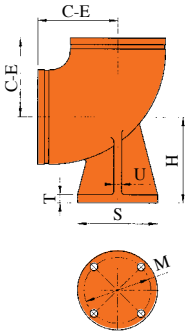
Nominal Size mm/in	Pipe O.D. mm/in	7118			7119			7112G	
		C - GE mm/in	C - TE mm/in	Weight Kgs/Lbs	C - GE mm/in	C - TE mm/in	Weight Kgs/Lbs	E - E mm/in	Weight Kgs/Lbs
20	26.9	57	57	0.2	38	38	0.2	---	---
0.75	1.050	2.25	2.25	0.5	1.50	1.50	0.5	---	---
25	33.7	57	57	0.2	44	44	0.3	---	---
1	1.315	2.25	2.25	0.5	1.75	1.75	0.6	---	---
32	42.4	70	70	0.4	44	44	0.3	---	---
1.25	1.660	2.75	2.75	0.9	1.75	1.75	0.6	---	---
40	48.3	70	70	0.5	44	44	0.4	95	0.6
1.5	1.900	2.75	2.75	1.1	1.75	1.75	0.9	3.75	1.3
50	60.3	83	108	1.1	51	76	0.9	95	0.8
2	2.375	3.25	4.25	2.5	2.00	3.00	1.9	3.75	1.3
65	73.0	95	120	1.4	57	57	1.0	102	1.0
2.5	2.875	3.75	4.75	3.0	2.25	2.25	2.3	4.00	2.2
80	88.9	108	152	2.6	64	108	2.3	114	1.4
3	3.500	4.25	6.00	5.8	2.50	4.25	5.0	4.50	3.1
90	101.6	114	159	3.6	---	---	4.0	---	---
3.5	4.000	4.50	6.25	8.0	---	---	8.8	---	---
100	114.3	127	184	5.4	76	133	4.0	127	2.0
4	4.500	5.00	7.25	12.0	3.00	5.25	8.8	5.00	4.4
150	6.625	165	165	8.0	89	140	5.8	159	5.0
6	168.3	6.50	6.50	17.6	3.50	5.50	12.7	6.25	11.0
200 JIS	216.3	---	---	---	---	---	---	197	10.0
8	8.516	---	---	---	---	---	---	7.75	22.0
200	219.1	---	---	---	---	---	---	197	10.0
8	8.625	---	---	---	---	---	---	7.75	22.0

#7119 SW: Segment-welded steel.

MODEL 7110-B 90° ELBOW
WITH BASE SUPPORT

The Model 7110-B is a ductile iron 90° grooved-end elbow with base support, designed for installation at the bottom of a riser system. An anchor can be placed in conjunction with the base to support the weight of the pipe, coupling and fluid.

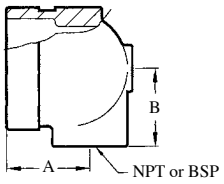




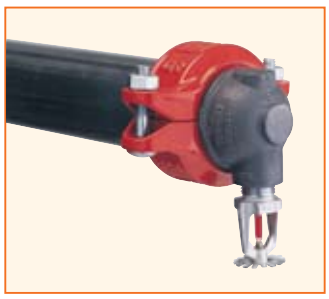
Nominal Size mm/in	Pipe O. D. mm/in	Dimensions						Weight Kgs/Lbs
		C - E mm/in	H mm/in	U mm/in	T mm/in	S mm/in	M mm/in	
80	88.9	108	124	13	14	127	99	8.0
3	3.500	4.25	4.88	0.50	0.56	5.00	3.88	17.6
100	114.3	127	140	13	16	152	121	9.5
4	4.500	5.00	5.50	0.50	0.62	6.00	4.75	20.9
150	168.3	165	178	16	18	178	140	17.5
6	6.625	6.50	7.00	0.62	0.69	7.00	5.50	38.5
200	219.1	197	213	22	24	229	191	46.1
8	8.625	7.76	8.38	0.88	0.94	9.00	7.50	101.4
250	273.0	229	248	22	24	229	191	5834
10	10.750	9.02	9.75	0.88	0.94	9.00	7.50	128.5
300	323.9	254	286	25	25	279	241	89.6
12	12.750	10.00	11.25	1.00	1.00	11.00	9.50	197.1

MODEL 899 END-ALL FITTING

The Model 899 End-All fitting is a unique domed end cap fitting available with 1/2", 3/4" and 1" NPT or BSP threaded outlets. Designed as an end of line fitting the End-All features two multi-function bosses which can be used for the direct connection of sprinkler heads, sprigs, drops, drains and or gauges.



Nominal Size Grooved X Threaded mm/in	Dimensions		Weight Kgs/Lbs
	A mm/in	B mm/in	
32 x 15	44.5	30.1	0.3
1.25 x 0.5	1.750	1.190	0.7
32 x 20	44.5	30.1	0.3
1.25 x 0.75	1.750	1.190	0.7
32x 25	48.3	31.8	0.3
1.25 x 1	1.900	1.250	0.7
40 x 15	44.5	33.3	0.4
1.5 x 0.5	1.750	1.313	0.9
40 x 20	44.5	33.3	0.4
1.5 x 0.75	1.750	1.313	0.9
40 x 25	48.3	34.9	0.4
1.5 x 1	1.900	1.375	0.9
50 x 15	44.5	39.7	0.5
2 x 0.5	1.750	1.562	1.1
50 x 20	44.5	39.7	0.5
2 x 0.75	1.750	1.562	1.1
50 x 25	48.3	41.3	0.5
2 x 1	1.900	1.625	1.1
65 x 15	44.5	44.5	0.6
2.5 x 0.5	1.750	1.750	1.3
65 x 20	44.5	44.5	0.6
2.5 x 3/4	1.750	1.750	1.3
65 x 25	48.3	46.0	0.6
2.5 x 1	1.900	1.813	1.3



MODEL 7150 CONCENTRIC REDUCER
MODEL 7151 ECCENTRIC REDUCER

Shurjoint concentric reducers and eccentric reducers are cast of ductile iron except where indicated (SW). The end-to-end dimensions of these reducers are less than that of fabricated reducers.

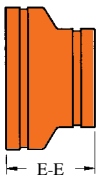


Fig. 7150 Conc. Reducer

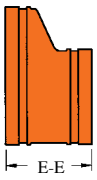
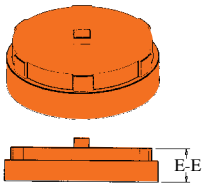


Fig. 7151 Ecc. Reducer

Nominal Size mm/in	Pipe O.D. mm/in	#7150 Conc. Reducer E - E mm/in	#7150 Conc. Reducer Weight kgs/Lbs	#7151 Ecc. Reducer E - E mm/in	#7151 Ecc. Reducer Weight kgs/Lbs	Nominal Size mm/in	Pipe O.D. mm/in	#7150 Conc. Reducer E - E mm/in	#7150 Conc. Reducer Weight kgs/lbs	#7151 Ecc. Reducer E - E mm/in	#7151 Ecc. Reducer Weight kgs/lbs
32 x 25	42.2 x 33.4	64	0.3	---	---	250 x 150	273.0 x 168.3	152	9.0	152	11.5
1.25 x 1	1.660 x 1.315	2.50	0.7	---	---	10 x 6	10.750 x 6.625	6.00	19.8	6.00	25.3
40 x 25	48.3 x 33.4	64	0.4	---	---	250 x 200	273.0 x 219.1	152	9.5	330	12.0
1.5 x 1	1.900 x 1.315	2.50	0.9	---	---	10 x 8	10.750 x 8.625	6.00	20.9	13.00 SW	26.4
40 x 32	48.3 x 42.2	64	0.4	---	---	300 x 150	323.9 x 168.3	178	12.0	178	18.0
1.5 x 1.25	1.900 x 1.660	2.50	0.9	---	---	12 x 6	12.750 x 6.625	7.00	26.4	7.00	39.6
50 x 25	60.3 x 33.4	64	0.4	---	---	300 x 200	323.9 x 219.1	178	14.0	178	29.3
2 x 1	2.375 x 1.315	2.50	0.9	---	---	12 x 8	12.750 x 8.625	7.00	30.8	7.00	53.5
50 x 32	60.3 x 42.2	64	0.4	---	---	300 x 250	323.9 x 273.0	178	15.0	178	20.2
2 x 1.25	2.375 x 1.660	2.50	0.9	---	---	12 x 10	12.750 x10.750	7.00	33.0	7.00	44.0
50 x 40	60.3 x 48.3	64	0.4	---	---	350 x 150	355.6 x 168.3	330	19.5	330	28.0
2 x 1.5	2.375 x 1.900	2.50	0.9	---	---	14 x 6	14.000 x6.625	13.00 SW	42.9	13.00 SW	62.0
65 x 50	73.0 x 60.3	64	0.5	89	0.7	350 x 200	355.6 x 219.1	203	19.0	330	28.0
2.5 x 2	2.875 x 2.375	2.50	1.1	3.50	1.5	14 x 8	14.000 x 8.625	8.00	41.8	13.00 SW	62.0
65 x 50	76.1 x 60.3	64	0.5	89	0.7	350 x 250	355.6 x 273.0	203	32.5	330	28.0
2.5 x 2	3.000 x 2.375	2.50	1.1	3.50	1.5	14 x 10	14.000 x 10.750	8.00	71.5	13.00 SW	62.0
80 x 50	88.9 x 60.3	64	0.6	89	1.0	350 x 300	355.6 x 323.9	203	23.0	330	28.0
3 x 2	3.500 x 2.375	2.50	1.3	3.50	2.2	14 x 12	14.000 x 12.750	8.00	50.6	13.00 SW	62.0
80 x 65	88.9 x 73.0	64	0.6	89	1.0	400 x 150	406.4 x 168.3	356	29.7	356	29.7
3 x 2.5	3.500 x 2.875	2.50	1.3	3.50	2.2	16 x 6	16.000 x 6.625	14.00 SW	654	14.00 SW	65.4
80 x 65	88.9 x 76.1	64	0.6	89	1.0	400 x 200	406.4 x 219.1	229	32.0	356	35.0
3 x 2.5	3.500 x 3.000	2.50	1.3	3.50	2.2	16 x 8	16.000 x 8.625	9.00	70.4	14.00 SW	77.0
100 x 50	114.3 x 60.3	76	1.1	102	1.4	400 x 250	406.4 x 273.0	356	29.5	356	35.0
4 x 2	4.500 x 2.375	3.00	2.2	4.00	3.1	16 x 10	16.000 x 10.750	14.00 SW	64.9	14.00 SW	77.0
100 x 65	114.3 x 73.0	76	1.0	102	1.5	400 x 300	406.4 x 323.9	229	30.0	229	31.0
4 x 2.5	4.500 x 2.875	3.00	2.2	4.00	3.3	16 x 12	16.000 x 12.750	9.00	66.0	9.00	68.2
100 x 65	114.3 x 76.1	76	1.0	102	1.5	400 x 350	406.4 x 355.6	229	29.0	229	35.0
4 x 2.5	4.500 x 3.000	3.00	2.2	4.00	3.3	16 x 14	16.000 x 14.000	9.00	63.8	9.00	77.0
100 x 80	114.3 x 88.9	76	1.0	102	1.6	450 x 250	457.2 x 273.0	381	36.0	381	45.0
4 x 3	4.500 x 3.500	3.00	2.2	4.00	3.5	18 x 10	18.000 x 10.750	15.00 SW	79.2	15.00 SW	99.0
125 x 100	141.3 x 114.3	89	2.0	102	2.7	450 x 300	457.2 x 323.9	241	35.5	381	45.0
5 x 4	5.563 x 4.500	3.50	4.4	4.00	6.0	18 x 12	18.000 x 12.750	9.50	78.1	15.00 SW	99.0
150 x 50	168.3 x 60.3	102	1.9	102	3.1	450 x 350	457.2 x 355.6	381	36.0	381	45.0
6 x 2	6.625 x 2.375	4.00	4.2	4.00	6.9	18 x 14	18.000 x 14.000	15.00 SW	79.2	15.00 SW	99.0
150 x 80	168.3 x 88.9	102	2.0	102	3.5	450 x 400	457.2 x 406.4	381	36.0	381	45.0
6 x 3	6.625 x 3.500	4.00	4.4	4.00	7.7	18 x 16	18.000 x 16.000	15.00 SW	79.2	15.00 SW	99.0
150 x 100	168.3 x 114.3	102	2.1	102	3.8	500 x 300	508.0 x 323.9	254	43.0	508	68.0
6 x 4	6.625 x 4.500	4.00	4.6	4.00	8.4	20 x 12	20.000 x 12.750	10.00	94.6	20.00 SW	149.6
150 x 125	168.3 x 141.3	102	2.5	102	4.5	500 x 350	508.0 x 355.6	508	44.8	508	68.0
6 x 5	6.625 x 5.563	4.00	5.5	4.00	9.9	20 x 14	20.000 x 14.000	20.00 SW	98.6	20.00 SW	149.6
150 x 50	165.1 x 60.3	102	1.9	102	3.1	500 x 400	508.0 x 406.4	254	46.0	508	68.0
6 x 2	6.500 x 2.375	4.00	4.2	4.00	6.9	20 x 16	20.000 x 16.000	10.00	101.2	20.00 SW	149.6
150 x 80	165.1 x 88.9	102	2.0	102	3.5	500 x 450	508.0 x 457.2	508	58.0	508	68.0
6 x 3	6.500 x 3.500	4.00	4.4	4.00	7.7	20 x 18	20.000 x 18.000	20.00 SW	127.6	20.00 SW	149.6
150 x 100	165.1 x 114.3	102	2.1	102	3.8	600 x 300	609.6 x 323.9	305	70.0	305	79.0
6 x 4	6.500 x 4.500	4.00	4.6	4.00	8.4	24 x 12	24.000 x 12.750	12.00	154.0	12.00	173.8
150 x 125	168.3 x 114.3	102	2.5	102	4.5	600 x 350	609.6 x 355.6	508	70.0	356	79.0
6 x 5	6.525 x 5.563	4.00	5.5	4.00	9.9	24 x 14	24.000 x 14.00	20.00 SW	154.0	14.00	173.8
200 x 100	219.1 x 114.3	127	5.1	305	5.4	600 x 400	609.6 x 406.4	305	70.0	508	79.0
8 x 4	8.625 x 4.500	5.00	11.2	12.00 SW	11.9	24 x 16	24.000 x 16.000	12.00	154.0	20.00 SW	173.8
200 x 150	219.1 x 168.3	127	5.2	127	8.0	600 x 450	609.6 x 457.2	508	70.0	508	79.0
8 x 6	8.625 x 6.625	5.00	11.4	5.00	17.6	24 x 18	24.000 x 18.000	20.00 SW	154.0	20.00 SW	173.8
250 x 100	273.0 x 114.3	152	9.0	152	12.0	600 x 500	609.6 x 508.0	305	71.0	508	79.0
10 x 4	10.750 x 4.500	6.00	19.8	6.00	26.4	24 x 20	24.000 x 20.000	12.00	156.2	20.00 SW	173.8

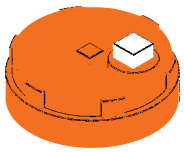
SW: Segment-welded steel.

MODEL 7160 END CAP



1-1/4" ~ 12"

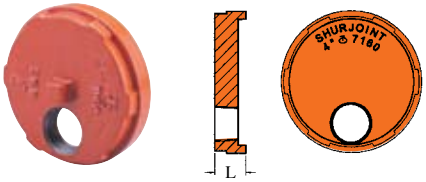
MODEL 7160P END CAP WITH PLUG



Nominal Size mm/in	Pipe O.D. mm/in	#7160 End Cap		#7160P
		E - E mm/in	Kgs/Lbs	Plug Size mm/in
32	42.2	25	0.2	----
1.25	1.660	1.00	0.4	----
40	48.3	25	0.2	----
1.5	1.900	1.00	0.4	----
50	60.3	25	0.3	15
2	2.375	1.00	0.7	0.5
65	73.0	25	0.4	15
2.5	2.875	1.00	0.9	0.5
65	76.1	25	0.4	15
2.5	3.000	1.00	0.9	0.5
80	88.9	25	0.7	15
3	3.500	1.00	1.5	0.5
100	114.3	25	1.0	25
4	4.500	1.00	2.2	1
100	108.0	25	1.1	----
4	4.250	1.00	2.4	----
125	141.3	25	1.7	25
5	5.563	1.00	3.7	1
125	133.0	25	1.7	----
5	5.250	1.00	3.7	----
125	139.7	25	1.7	25
5	5.500	1.00	3.7	1
150	168.3	25	3.0	25
6	6.625	1.00	6.6	1
150	159.0	25	2.3	----
6	6.250	1.00	5.1	----
150	165.1	25	3.0	25
6	6.500	1.00	6.6	1
200	219.1	30	5.5	40
8	8.625	1.18	12.1	1.5
200JIS	216.3	30	4.6	----
8	8.516	1.18	10.1	----
250	273.0	32	7.0	40
10	10.750	1.25	15.4	1.5
250JIS	267.4	32	7.0	----
10	10.528	1.25	15.4	----
300	323.9	32	10.0	40
12	12.750	1.25	22.0	1.5
300JIS	318.5	32	10.0	----
12	12.539	1.25	22.0	----

MODEL 7160T TRANSITION FITTING (Gr X FT)

Shurjoint Model 7160T is an ideal transition fitting when a large reduction is required such as 6" x 1", 4" x 1" etc. The 7160T can be used as an alternative to expensive swaged nipples.

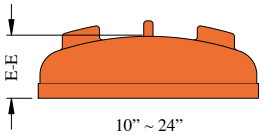


7160T

Nominal Size Grooved X Threaded mm/in	7160T	
	L mm/in	Weight Kgs/Lbs
50 x 25	23.8	0.2
2 x 1	0.94	0.4
50 x 32	23.8	0.2
2 x 1.25	0.94	0.4
65 x 25	23.8	0.4
2.5 x 1	0.94	0.9
65 x 32	23.8	0.3
2.5 x 1.25	0.94	0.7
65 x 40	23.8	0.3
2.5 x 1.5	0.94	0.7
80 x 25	25.4	0.6
3 x 1	1.00	1.3
80 x 32	25.4	0.5
3 x 1.25	1.00	1.1
80 x 40	25.4	0.6
3 x 1.5	1.00	1.3
80 x 50	25.4	0.4
3 x 2	1.00	0.9
100 x 25	25.4	0.8
4 x 1	1.00	1.8
100 x 32	25.4	0.8
4 x 1.25	1.00	1.8
100 x 40	25.4	0.9
4 x 1.5	1.00	2.0
100 x 50	25.4	0.6
4 x 2	1.00	1.3
150 x 25	25.4	2.6
6 x 1	1.00	5.7
150 x 32	25.4	2.6
6 x 1.25	1.00	5.7
150 x 40	25.4	2.5
6 x 1.5	1.00	5.5
150 x 50	25.4	2.5
6 x 2	1.00	5.5

MODEL 7160H DOMED END CAP

Shurjoint 7160H end caps are cast of ductile iron and are designed to withstand pressure evenly over the entire spherical surface. The Model 7160H End Cap is designed for use on 10" - 24" mechanical pipeline applications.

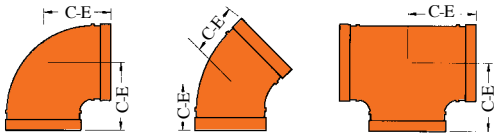


10" ~ 24"

Nominal Size mm/in	Pipe O.D. mm/in	#7160H Domed End Cap	
		E - E mm/in	Kgs/Lbs
250	273.0	76.1	5.5
10	10.750	3.00	12.1
300	323.9	76.1	7.4
12	12.750	3.00	16.3
350	355.6	102	11.6
14	14.000	4.00	25.5
400	406.4	102	14.6
16	16.000	4.00	32.1
450	457.2	127	20.5
18	18.000	5.00	45.1
500	508.0	152	24.5
20	20.000	6.00	53.9
550	558.8	152	44.0
22	22.000	6.00	97.0
600	609.6	152	34.5
24	24.000	6.00	75.9

MODEL 901 SHORT RADIUS 90° ELBOW
MODEL 7111 45° ELBOW
MODEL 903 SHORT RADIUS TEE

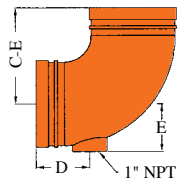
Shurjoint short radius fittings, while primarily designed for fire protection applications, can also be used for general service requirements. The Model K-9 rigid coupling can be used with short radius fittings without the worry of bolt pad interference.



Nominal Size mm/in	Pipe O.D. mm/in	#901 SR 90° Elbow		#7111 45° Elbow		#903 SR Straight Tee	
		C - E (mm/in)	Kgs/Lbs	C - E (mm/in)	Kgs/Lbs	C - E (mm/in)	Kgs/Lbs
50 2	60.3 2.375	70 2.75	0.7 1.5	51 2.00	0.7 1.5	70 2.75	1.0 2.2
65 2.5	73.0 2.875	76 3.00	0.9 2.0	57 2.25	0.9 2.0	76 3.00	1.3 2.9
65 2.5	76.1 3.000	76 3.00	0.9 2.0	57 2.25	1.0 2.2	76 3.00	1.3 2.9
80 3	88.9 3.500	86 3.38	1.4 3.1	64 2.50	1.3 2.9	86 3.38	2.0 4.4
100 4	114.3 4.500	102 4.00	1.7 3.7	76 3.00	2.0 4.4	102 4.00	3.6 7.9
125 5	139.7 5.500	124 4.88	3.5 7.7	83 3.25	3.5 7.7	124 4.88	4.6 10.1
125 5	141.3 5.563	124 4.88	3.5 7.7	83 3.25	3.5 7.7	124 4.88	4.6 10.1
150 6	165.1 6.500	140 5.50	5.5 12.1	89 3.50	4.4 9.7	140 5.50	8.6 18.9
150 6	168.3 6.625	140 5.50	5.5 12.1	89 3.50	4.4 9.7	140 5.50	8.6 18.9
200 8	219.1 8.625	176 6.94	11.0 24.2	108 4.25	9.0 19.8	176 6.94	16.5 36.3

MODEL 7110DR DRAIN ELBOW

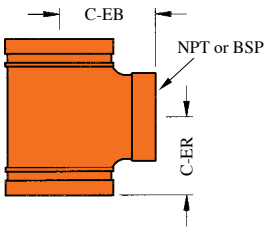
The Model 7110DR is a grooved-end ductile iron cast elbow with an integral 1" NPT or BSP drain. The 7110DR was primarily designed for, but not limited to, use on fire protection standpipes.



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions C - E mm/in	Dimensions D mm/in	Dimensions E mm/in	Weight Kgs/Lbs
65	73.0	95	70	40	1.3
2.5	2.875	3.75	2.75	1.57	2.8
65	76.1	95	70	40	1.3
2.5	3.000	3.75	2.75	1.57	2.8
80	88.9	108	70	49	2.0
3	3.500	4.25	2.75	1.93	4.4
100	114.3	127	70	63	3.0
4	4.500	5.00	2.75	2.48	6.6
150	165.1	165	70	90	7.0
6	6.500	6.50	2.75	3.54	15.4
150	168.3	165	70	90	7.0
6	6.625	6.50	2.75	3.54	15.4

MODEL 7127 STANDPIPE TEE

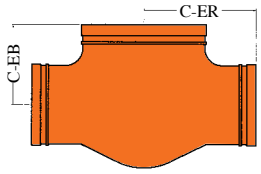
The Model 7127 is a grooved-end tee with a 2-1/2" NPT/BSP threaded branch, specially designed for use on fire protection standpipes.



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions C - ER mm/in	Dimensions C - EB mm/in	Weight Kgs/Lbs
100 x 100 x 65	114.3 x 114.3 x 73.0	83	102	3.4
4 x 4 x 2.5	4.500 x 4.500 x 2.875	3.25	4.00	7.5
150 x 150 x 65	168.3 x 168.3 x 73.0	83	127	5.1
6 x 6 x 2.5	6.625 x 6.625 x 2.875	3.25	5.00	11.2

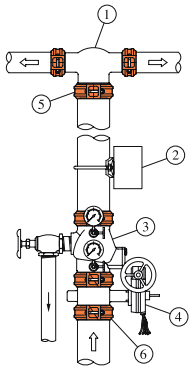
MODEL 7125 BULLHEAD TEE

The Model 7125 is a grooved-end bullhead tee, specially designed for use on fire protection systems. Allows you to directly split the flow into two reduced branch lines without the need for concentric reducers and multiple couplings.



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions C - ER mm/in	Dimensions C - EB mm/in	Weight Kgs/Lbs
50 x 50 x 65	60.3 x 60.3 x 73.0	95	83	1.2
2 x 2 x 2.5	2.375 x 2.375 x 2.875	3.74	3.27	2.6
50 x 50 x 80	60.3 x 60.3 x 88.9	108	95	1.4
2 x 2 x 3	2.375 x 2.375 x 3.500	4.25	3.74	3.1
50 x 50 x 100	60.3 x 60.3 x 114.3	127	102	2.4
2 x 2 x 4	2.375 x 2.375 x 4.500	5.00	4.02	5.3
65x 65 x 80	73.0 x 73.0 x 88.9	108	95	2.6
2.5 x 2.5 x 3	2.875 x 2.875 x 3.500	4.25	3.75	5.7
65 x 65 x 100	73.0 x 73.0 x 114.3	127	102	3.2
2.5 x 2.5 x 4	2.875 x 2.875 x 4.500	5.00	4.00	7.0
80 x 80 x 100	88.9 x 88.9 x 114.3	127	102	3.8
3 x 3 x 4	3.500 x 3.500 x 4.500	5.00	4.00	8.4
100 x 100 x 150	114.3x x 114.3 x 168.3	165	127	7.5
4 x 4 x 6	4.500 x 4.500 x 6.625	6.50	5.00	16.5
125 x 125 x 200	141.3 x 141.3 x 219.1	197	140	14.0
5 x 5 x 8	5.563 x 5.563 x 8.625	7.75	5.50	31.0
150 x 150 x 200	168.3 x 168.3 x 219.1	197	165	17.0
6 x 6 x 8	6.625 x 6.625 x 8.625	7.75	6.50	37.4

Fire Protection Applications



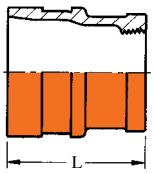
1. 7125 Bullhead Tee
2. Waterflow Indicator
3. RCV Riser Check Valve With Trim Kit
4. SJ-700W Butterfly Valve
5. 7707/7705 Flexible Couplings
6. Z07/7771 Rigid Couplings

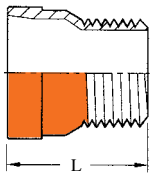
MODEL 7150F REDUCING SOCKET (Gr X FT)
MODEL 7150M REDUCING NIPPLE (Gr X MT)

The *Shurjoint* Models 7150F & 7150M are designed for making a direct reduction from a grooved system to a female or male threaded system without the need for expensive swaged nipples.

7150F

7150M

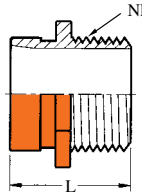




Nominal Size Grooved X Threaded mm/in	7150F L mm/in	7150F Weight Kgs/Lbs	7150M L mm/in	7150M Weight Kgs/Lbs
40 x 25	63.5	0.3	63.5	0.4
1.5 x 1	2.50	0.7	2.50	0.9
50 x 32	63.5	0.5	63.5	0.6
2 x 1.25	2.50	1.1	2.50	1.3
50 x 40	63.5	0.5	63.5	0.6
2 x 1.5	2.50	1.1	2.50	1.3
65 x 32	63.5	0.5	63.5	0.68
2.5 x 1.25	2.50	1.1	2.50	1.5
65 x 40	63.5	0.5	63.5	0.68
2.5 x 1.5	2.50	1.1	2.50	1.5
65 x 50	63.5	0.7	63.5	0.68
2.5 x 2	2.50	1.5	2.50	1.5
80 x 32	63.5	0.8	63.5	0.7
3 x 1.25	2.50	1.8	2.50	1.6
80 x 40	63.5	0.7	63.5	0.7
3 x 1.5	2.50	1.5	2.50	1.6
80 x 50	63.5	0.7	63.5	0.7
3 x 2	2.50	1.5	2.50	1.6
100 x 40	76.1	0.9	76.1	1.1
4 x 1.5	3.00	2.0	3.00	2.5
100 x 50	76.1	1.1	76.1	1.1
4 x 2	3.00	2.4	3.00	2.5
100 x 65	76.1	1.1	76.1	1.1
4 x 2.5	3.00	2.4	3.00	2.5
125 x 40	88.9	2.7	88.9	2.7
5 x 1.5	3.50	6.0	3.50	6.0
150 x 40	101.6	2.2	101.6	2.7
6 x 1.5	4.00	4.8	4.00	6.0
150 x 50	101.6	2.4	101.6	2.7
6 x 2	4.00	5.3	4.00	6.0
150 x 65	101.6	2.7	101.6	2.7
6 x 2.5	4.00	5.9	4.00	6.0
150 x 100	101.6	2.7	101.6	2.7
6 x 4	4.00	5.9	4.00	6.0

MODEL 55 NIPPLE ADAPTER (Gr X MT)

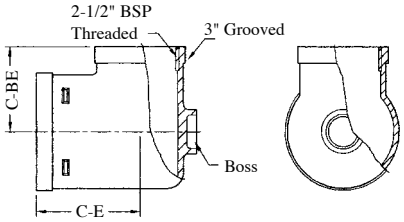
The *Shurjoint* Model 55 is a cast adapter that allows for a direct transition from grooved system to a male threaded system. For other sizes, see page 38 models 57 through 59 pipe nipples.



Nominal Size Grooved X Threaded mm/in	L mm/in	Weight Kgs/Lbs
40 x 40M	63.5	0.4
1.5 x 1.5M	2.50	0.9
50 x 50M	63.5	0.4
2 x 2M	2.50	0.9

MODEL 7114 HYDRANT ELBOW

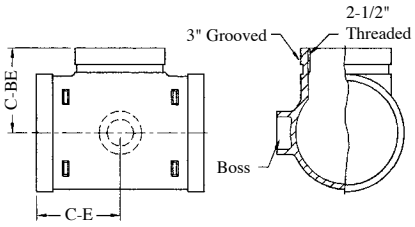
The Model 7114 Hydrant Elbow is designed for use on fire protection systems. The small end of the elbow is 2-1/2" BSP threaded and also grooved to 3" pipe size. The boss can be factory tapped to 1" BSP on request.



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions		Weight Kgs/Lbs
		C - E mm/in	C - BE mm/in	
100 x 80 x 25	114.3 x 88.9 x 33.4	102	95	2.5
4 x 3 x 1	4.500 x 3.500 x 1.315	4.00	3.75	5.5
150 x 80 x 25	165.1 x 88.9 x 33.4	130	130	4.0
6 x 3 x 1	6.500 x 3.500 x 1.315	5.13	5.13	8.8

MODEL 7122 HYDRANT TEE

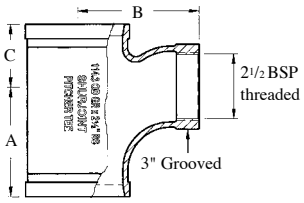
The Model 7122 Hydrant Tee is designed for use on fire protection systems. The 7122 tee is supplied with a 2-1/2" BSP threaded and 3" grooved outlet. The boss can be factory tapped to 1" BSP on request.



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions		Weight Kgs/Lbs
		C - E mm/in	C - BE mm/in	
100 x 100 x 80	114.3 x 114.3 x 88.9	102	102	2.6
4 x 4 x 3	4.500 x 4.500 x 3.500	4.00	4.00	5.8
150 x 150 x 80	165.1 x 165.1 x 88.9	130	130	4.2
6 x 6 x 3	6.500 x 6.500 x 3.500	5.13	5.13	9.2

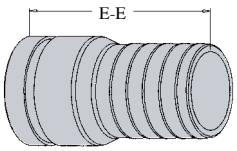
MODEL 7133 PITCHER TEE

The *Shurjoint* pitcher tee provides a quick and easy connection and transition from a grooved riser system to a threaded hydrant valve outlet. The pitcher tee is designed for 3", 4" and 6" steel pipe risers with a 2-1/2" BSP threaded or 3" grooved hydrant connection outlet.



Nominal Size mm/in	Pipe O.D. mm/in	Hydrant Outlet	Dimensions			Weight Kgs/Lbs
			A mm/in	B mm/in	C mm/in	
80 x 80 x 65	88.9 x 88.9 x 76.1	BSP	121	121	69	2.8
3 x 3 x 2.5	3.50 x 3.50 x 3.00	Taper	4.75	4.75	2.72	6.2
100 x 100 x 65	114.3 x 114.3 x 76.1	BSP	121	133	69	3.4
4 x 4 x 2.5	4.50 x 4.50 x 3.00	Taper	4.75	5.25	2.72	7.5
150 x 150 x 65	165.1 x 165.1 x 76.1	BSP	121	159	69	8.7
6 x 6 x 2.5	6.50 x 6.50 x 3.00	Taper	4.75	6.25	2.72	19.1

MODEL 56 HOSE NIPPLE



Nominal Size mm/in	Pipe O. D. mm/in	E - E mm/in	Weight Kgs/Lbs
25	33.4	83	0.2
1	1.315	3.3	0.4
32	42.2	92	0.3
1.25	1.660	3.6	0.7
40	48.3	102	0.4
1.5	1.900	4.0	0.9
50	60.3	117	0.6
2	2.375	4.6	1.3
65	73.0	140	1.0
2.5	2.875	5.5	2.2
80	88.9	152	1.5
3	3.500	6.0	3.3

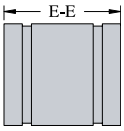
Nominal Size mm/in	Pipe O. D. mm/in	E - E mm/in	Weight Kgs/Lbs
100	114.3	184	2.5
4	4.500	7.25	5.5
125	141.3	248	3.7
5	5.563	9.75	8.1
150	168.3	279	6.0
6	6.625	11.0	13.2
200	219.1	318	10.9
8	8.625	12.5	24.0
250	273.1	356	13.2
10	10.750	14.0	29.0
300	323.9	406	20.9
12	12.750	16.0	46.0

MODEL 57 NIPPLE,
Groove X Groove

MODEL 58 NIPPLE,
Groove X Bevel

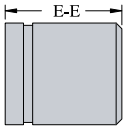
MODEL 59 NIPPLE,
Groove X Thread

Fig. 57



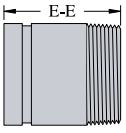
Gr. x Gr.

Fig. 58



Gr. x Bev.

Fig. 59

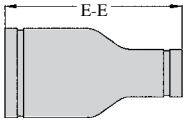


Gr. x Th.

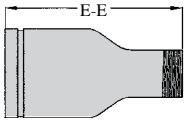
Nominal Size mm/in	Pipe O. D. mm/in	57 (Gr x Gr)		58 (Gr x Bev)		59 (Gr x Th)	
		E - E mm/in	Weight Kgs/Lbs	E - E mm/in	Weight Kgs/Lbs	E - E mm/in	Weight Kgs/Lbs
20	26.7	76	0.13	76	0.13	76	0.13
0.75	1.050	3	0.29	3	0.29	3	0.29
25	33.4	76	0.19	76	0.19	76	0.19
1	1.315	3	0.42	3	0.42	3	0.42
32	42.2	102	0.31	102	0.32	102	0.30
1.25	1.660	4	0.68	4	0.70	4	0.66
40	48.3	102	0.37	102	0.38	102	0.36
1.5	1.900	4	0.82	4	0.84	4	0.79
50	60.3	102	0.60	102	0.60	102	0.50
2	2.375	4	1.32	4	1.32	4	1.10
65	73.0	102	0.90	102	0.90	102	0.72
2.5	2.875	4	1.98	4	1.98	4	1.54
65	76.1	102	0.90	102	0.90	102	0.90
2.5	3.000	4	1.98	4	1.98	4	1.98
80	88.9	102	1.20	102	1.20	102	1.20
3	3.500	4	2.64	4	2.64	4	2.64
100	114.3	152	2.50	152	2.50	152	2.50
4	4.500	6	5.50	6	5.50	6	5.50
125	141.3	152	3.30	152	3.30	152	3.30
5	5.563	6	7.26	6	7.26	6	7.26
125	139.7	152	3.30	152	3.30	152	3.30
5	5.500	6	7.26	6	7.26	6	7.26
150	168.3	152	4.30	152	4.30	152	4.30
6	6.625	6	9.46	6	9.46	6	9.46
150	165.1	152	4.30	152	4.30	152	4.30
6	6.500	6	9.46	6	9.46	6	9.46
200	219.1	152	6.50	152	6.50		
8	8.625	6	14.30	6	14.30		
200JIS	216.3	152	6.50	152	6.50		
8	8.516	6	14.30	6	14.30		
250	273.0	203	12.30	203	12.30		
10	10.750	8	27.06	8	27.06		
250JIS	267.4	203	12.30	203	12.30		
10	10.528	8	27.06	8	27.06		
300	323.9	203	16.20	203	16.20		
12	12.750	8	35.64	8	35.64		
300JIS	318.5	203	16.20	203	16.20		
12	12.539	8	35.64	8	35.64		

SWAGED ADAPTER NIPPLE (Steel)

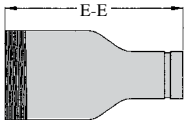
MODEL 7153 GR X GR
MODEL 7154 GR X MT
MODEL 7155 MT X GR
MODEL 7156 GR X BEV



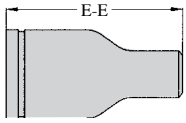
#7153
Gr x Gr



#7154
Gr x MT



#7155
MT x Gr



#7156
Gr x Bev

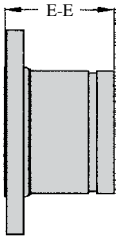
Nominal Size mm/in	Pipe O. D. mm/in	E - E mm/in	Weight Kgs/Lbs	E - E mm/in	Weight Kgs/Lbs	E - E mm/in	Weight Kgs/Lbs
50 X 25	60.3 X 33.4	150	0.9	100 X 50	114.3 X 60.3	229	3.4
2 X 1	2.375 X 1.315	6.50	2.0	4 X 2	4.500 X 2.375	9.00	7.5
50 X 32	60.3 X 42.4	150	0.9	100 X 65	114.3 X 73.0	229	3.4
2 X 1.25	2.375 X 1.660	6.50	2.0	4 X 2.5	4.500 X 2.875	9.00	7.5
50 X 40	60.3 X 48.3	150	0.9	100 X 65	114.3 X 76.1	229	3.4
2 X1.5	2.375 X 1.900	6.50	2.0	4 X 2.5	4.500 X 3.000	9.00	7.5
65 X 25	73.0 X 33.4	178	1.4	100 X 80	114.3 X 88.9	229	3.4
2.5 X 1	2.875 X 1.315	7.00	3.0	4 X 3	4.500 X 3.500	9.00	7.5
65 X 32	73.0 X 42.4	178	1.4	125 X 50	141.3 X 60.3	279	5.2
2.5 X 1.25	2.875 X 1.660	7.00	3.0	5 X 2	5.563 X 2.375	11.00	11.5
65 X 40	76.1 X 48.3	178	1.4	125 X 80	141.3 X 88.9	279	5.2
2.5 X 1.5	3.000 X 1.900	7.00	3.0	5 X 3	5.563 X 3.500	11.00	11.5
65 X 50	73.0 X 60.3	178	1.4	125 X 100	141.3 X 114.3	279	5.2
2.5 X 2	2.875 X 2.375	7.00	3.0	5 X 4	5.563 X 4.500	11.00	11.5
65 X 50	76.1 X 60.3	178	1.4	150 X 25	168.3 X 33.4	305	7.7
2.5 X 2	3.000 X 2.375	7.00	3.0	6 X 1	6.625 X 1.315	12.00	17.0
80 X 25	88.9 X 33.4	203	2.0	150 X 32	168.3 X 42.2	305	7.7
3 X 1	3.500 X 1.315	8.00	4.5	6 X 1.25	6.625 X 1.660	12.00	17.0
80 X 32	88.9 X 42.2	203	2.0	150 X 40	168.3 X 48.3	305	7.8
3 X 1.25	3.500 X 1.660	8.00	4.5	6 X 1.5	6.625 X 1.900	12.00	17.2
80 X 40	88.9 X 48.3	203	2.0	150 X 50	168.3 X 60.3	305	7.9
3 X 1.5	3.500 X 1.900	8.00	4.5	6 X 2	6.625 X 2.375	12.00	17.4
80 X 50	88.9 X 60.3	203	2.0	150 X 65	168.3 X 73.0	305	7.9
3 X 2	3.500 X 2.375	8.00	4.5	6 X 2.5	6.625 X 2.875	12.0	17.4
80 X 65	88.9 X 73.0	203	2.0	150 X 80	168.3 X 88.9	305	7.9
3 X 2.5	3.500 X 2.875	8.00	4.5	6 X 3	6.625 X 3.500	12.0	17.4
80 X 65	88.9 X 76.1	203	2.0	150 X 100	168.3 X 114.3	305	7.9
3 X 2.5	3.500 X 3.000	8.00	4.5	6 X 4	6.625 X 4.500	12.0	17.4
100 X 25	114.3 X 33.4	229	3.4	150 X 125	168.3 X 141.3	305	7.9
4 X 1	4.500 X 1.315	9.00	7.5	6 X 5	6.625 X 5.563	12.0	17.4
100 X 32	114.3 X 42.2	229	3.4	200 X 150	219.1 X 168.3	305	9.1
4 X 1.25	4.500 X 1.660	9.00	7.5	8 X 6	8.625 X 6.625	12.0	20.0
100 X 40	114.3 X 48.3	229	3.4				
4 X 1.5	4.500 X 1.900	9.00	7.5				

* Only available in U.S.A. and Canada

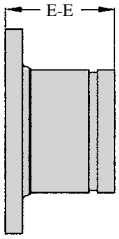
FLANGED ADAPTER NIPPLE (Steel)

MODEL 7145F ANSI CLASS 150 FLAT FACE
MODEL 7145R ANSI CLASS 150 RAISED FACE
MODEL 7146F ANSI CLASS 300 FLAT FACE
MODEL 7146R ANSI CLASS 300 RAISED FACE

Flanged adapter nipples are fabricated from forged steel flanges and cut or roll grooved carbon steel pipe. When ordering, specify the desired pipe schedule and end-preparation, roll-grooved or cut-grooved. Machining for rubber lining is also available.



Raised Face



Flat Face

Nominal Size mm/in	Pipe O.D.	E - E mm/in	Approx. Wt. 7145F(7145R) Kgs/Lbs	Approx. Wt. 7146F(7146R) Kgs/Lbs
20	26. 9	76	1.0	1.5
0.75	1.050	3	2.3	3.3
25	33.7	76	1.2	1.8
1	1.315	3	2.7	3.9
32	42.4	102	1.5	2.2
1.25	1.660	4	3.3	4.8
40	48.3	102	1.8	3.1
1.5	1.900	4	3.9	6.9
50	60.3	102	2.8	3.7
2	2.375	4	6.2	8.2
65	73.0	102	4.5	5.4
2.5	2.875	4	9.9	11.9
80	88.9	102	5.2	7.5
3	3.500	4	11.4	16.5
90	101.6	102	6.8	9.1
3.5	4.000	4	15.1	20.1
100	114.3	152	8.3	12.4
4	4.500	6	18.4	27.4
125	141.3	152	9.7	16.0
5	5.563	6	21.3	35.3
150	168.3	152	12.5	21.5
6	6.625	6	27.5	47.5
200	219.1	152	18.8	31.9
8	8.625	6	41.3	70.3
250	273.0	203	27.1	45.7
10	10.750	8	59.8	100.8
300	323.9	203	40.0	66.3
12	12.750	8	88.2	146.2

* Only available in U.S.A. and Canada

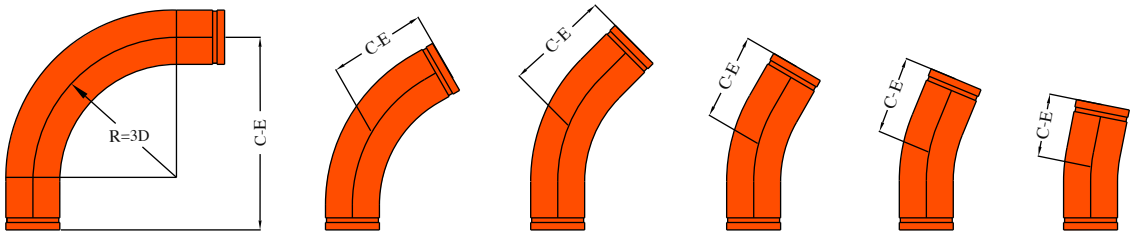
LONG RADIUS ELBOWS

MODEL L90-3D WROUGHT 3D 90° ELBOW
L60-3D WROUGHT 3D 60° ELBOW
L45-3D WROUGHT 3D 45° ELBOW

1. Long radius elbows 3D, 5D, and 6D in sizes up to and including 4" are provided with 4" (101.6 mm) long integral tangents. Remaining sizes provided with integral tangents with lengths equal to nominal pipe size.
2. Grooved or plain-end available – specify choice on order.

L30-3D WROUGHT 3D 30° ELBOW
L22-3D WROUGHT 3D 22-1/2° ELBOW
L11-3D WROUGHT 3D 11-1/4° ELBOW

3. Material: standard wall steel pipe to ASTM A53, Grade B. (Other materials available on request).
4. C to E tolerances: 2" through 6" ± 1/8" (3.2mm); 8" through 16"± 1/4" (6.4mm); 18" through 24" ± 3/8" (9.5mm).
5. All weights are approximate, based on calculated weight of pipe.
6. For C - E dimensions of 5D and 6D elbows, contact Shurjoint.



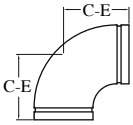
L90-3D L60-3D L45-3D L30-3D L22-3D L11-3D

Nominal Size	Pipe OD	L90-3D 90° Elbow C-E	L90-3D 90° Elbow Weight	L60-3D 60° Elbow C-E	L60-3D 60° Elbow Weight	L45-3D 45° Elbow C-E	L45-3D 45° Elbow Weight	L30-3D 30° Elbow C-E	L30-3D 30° Elbow Weight	L22-3D 22½° Elbow C-E	L22-3D 22½° Elbow Weight	L11-3D 11¼° Elbow C-E	L11-3D 11¼° Elbow Weight
mm	mm	mm	Kgs	mm	Kgs	mm	Kgs	mm	Kgs	mm	Kgs	mm	Kgs
in	in	in	Lbs	in	Lbs	in	Lbs	in	Lbs	in	Lbs	in	Lbs
50	60.3	254	2.4	191	2.0	165	1.8	146	1.5	133	1.5	114	1.3
2	2.375	10.0	5.3	7.50	4.3	6.50	3.9	5.75	3.4	5.25	3.2	4.50	2.8
65	73.0	292	4.3	210	3.5	184	3.0	152	2.6	140	2.4	121	2.1
2½	2.875	11.5	9.5	8.25	7.7	7.25	6.7	6.00	5.8	5.50	5.3	4.75	4.6
80	88.9	330	6.4	235	5.0	197	4.3	165	3.6	146	3.3	127	2.8
3	3.500	13.0	14.0	9.25	11.0	7.75	9.5	6.50	8.0	5.75	7.3	5.00	6.2
90	101.6	368	8.4	254	6.5	216	5.6	171	4.6	152	4.2	127	3.4
3½	4.000	14.5	18.6	10.00	14.4	8.50	12.0	6.75	10.2	6.00	9.2	5.00	7.6
100	114.3	406	10.9	279	8.4	229	7.1	184	5.8	165	5.2	133	4.2
4	4.500	16.0	24.1	11.00	18.5	9.00	15.7	7.25	12.8	6.50	11.4	5.25	9.3
125	141.3	508	18.6	349	14.2	286	12.0	229	9.9	203	8.8	165	7.2
5	5.563	20.0	40.9	13.75	31.3	11.25	26.5	9.00	21.8	8.00	19.4	6.50	15.8
150	168.3	610	28.9	419	22.1	343	18.7	273	15.4	241	13.7	197	11.2
6	6.625	24.0	63.7	16.50	48.8	13.50	41.3	10.75	3.9	9.50	30.1	7.75	24.6
200	219.1	813	58.0	559	44.4	457	37.6	368	30.8	324	27.4	267	22.4
8	8.625	32.0	127.8	22.00	97.9	18.00	82.9	14.50	68.0	12.75	60.5	10.50	49.3
250	273.1	1016	102.7	692	78.7	572	66.6	457	54.7	406	48.6	330	39.6
10	10.750	40.0	226.4	27.25	173.4	22.50	146.9	18.00	120.5	16.00	107.2	13.00	87.3
300	323.9	1219	150.9	832	115.6	686	97.9	552	80.3	489	71.4	394	58.2
12	12.750	48.0	332.7	32.75	254.8	27.00	215.9	21.75	177.0	19.25	157.5	15.50	128.3
350	355.6	1422	193.8	972	148.5	800	103.1	641	103.1	572	91.8	464	74.8
14	14.000	56.0	427.3	38.25	327.3	31.50	227.3	25.25	227.3	22.50	202.3	18.25	164.8
400	406.4	1626	254.1	1111	194.6	914	164.9	737	135.1	648	120.3	527	98.0
16	16.000	64.0	560.1	43.75	429.0	36.00	363.5	29.00	297.9	25.25	265.2	20.75	216.0
450	457.2	1829	322.4	1251	246.9	1029	209.2	826	171.5	730	152.6	593	124.3
18	18.000	72.0	710.7	49.25	544.4	40.25	461.3	32.50	378.1	28.75	336.5	23.35	274.1
500	508.0	2032	398.8	1391	305.5	1143	245.3	914	212.2	813	188.8	660	153.9
20	20.000	80.0	879.3	54.75	673.5	45.00	540.7	36.00	467.8	32.00	416.3	26.00	339.2
600	609.6	2438	576.2	1664	441.3	1365	373.9	1099	306.5	972	272.8	787	222.3
24	24.000	96.0	1270.3	65.50	973.0	53.75	824.4	43.25	675.7	38.25	601.4	31.00	490.0

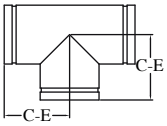
EXTRA HEAVY "EP" END PROTECTION CUT GROOVE FITTINGS

MODEL 10EP 90° ELBOW
11EP 45° ELBOW
20EP TEE
35EP CROSS

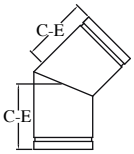
Shurjoint offers a variety of fittings with extra heavy (Sch. 80) wall thickness and "EP" cut grooves available for use with XH-70/EP couplings. These fittings must be used with XH-70/EP couplings in high pressure systems where the system pressure exceeds the published ratings for XH-70 or Style 7707 couplings.



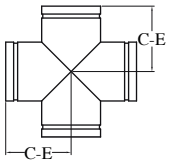
#10EP



#20EP



#11EP



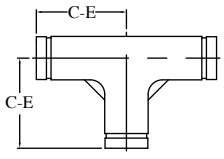
#35EP

Nominal Size mm/in	Pipe O.D. mm/in	#10EP 90° Elbows		#11EP 45° Elbows		#20EP Tee		#35EP Cross	
		C-E mm/in	Weight Kgs/Lbs	C-E mm/in	Weight Kgs/Lbs	C-E mm/in	Weight Kgs/Lbs	C-E mm/in	Weight Kgs/Lbs
50	**60.3**	**83**	**1.1**	**51**	**0.8**	**83**	**1.9**	**83**	**1.8**
2	2.375	3.25	2.5	2.00	1.8	3.25	4.2	3.25	3.9
65	73.0	95	2.3	57	1.3	95	3.6	95	3.0
2.5	2.875	3.75	5.0	2.25	2.9	3.75	7.9	3.75	6.6
80	88.9	108	2.7	64	1.9	108	7.3	108	6.4
3	3.500	4.25	6.0	2.50	4.3	4.25	16.0	4.25	14.2
100	114.3	127	4.7	76	3.9	127	10.7	127	7.2
4	4.500	5.00	10.3	3.00	8.5	5.00	23.5	5.00	15.8
150	168.3	165	12.3	89	7.5	165	12.2	165	20.9
6	6.625	6.50	27.2	3.50	16.5	6.50	27.0	6.50	46.0

*Steel Fabricated

MODEL 22EP HEADER TEE

Shurjoint Header Tees #22EP are specially designed for use in oilfield production headers where the top (test) line is 2" (50mm) and the bottom production line is 3" (80mm) or 4" (100mm).



#22EP

Fitting Size Mated C to E		#22EP Header Tee	
Nominal Pipe Size mm/in	Pipe O.D. mm/in	C-E mm/in	Weight Kgs/Lbs
50 to 80	60.3	108	1.5
2 to 3	2.375	4.25	3.4
50 to 100	73.0	127	1.9
2 to 4	2.875	5.00	4.1

MODEL R-88 RING JOINT COUPLING

The *Shurjoint* ring joint piping system is an ideal pipe joining method where pipe is difficult to groove or when grooving is not the preferred method. First weld a factory-supplied ring on each pipe end, next mount the rubber gasket over the pipe ends, place coupling segments over the gasket and fasten bolts and nuts. The *Shurjoint* Model R-88 ring joint coupling is supplied with a pair of factory rings.

The R-88 is a shouldered type coupling that meets or exceeds the design and performance requirements of the AWWA C606 standard.

Size: 12"

Size: 24"

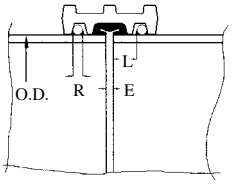
Standard applications include:

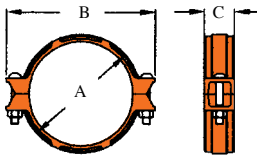
Water & waste water treatment plants, mining, pulp & paper, hydroelectric plants, Co-Gen electric plants, food and beverage, and compressed air

Working pressures:

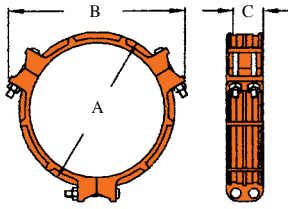
24 Bar / 350 psi (200mm – 600mm / 8" – 24")
(Factory test pressure: 72 Bars / 1050 psi)

The R-88 coupling can be used on stainless steel pipe where applicable. Stainless steel rings of the same grade as the pipe should be used and are available as an option.

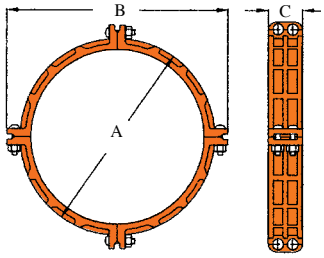




8" ~ 12"



14" ~ 18"



20" ~ 26"

Nominal Size mm/in	Pipe OD mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Bolts No.	Bolts in	Sealing Surface L mm/in	Ring Size R mm/in	Separation E (max) mm/in	Pipe End Deflection Deg.	Weight Kgs/Lbs
200	216.3	253	327	79	2	M20 x 120	23	6	4.8	1° - 51'	8.0
8 JIS	8.516	9.96	12.87	3.11			0.91	0.24	0.19		17.6
200	219.1	256	330	79	2	3/4 x 4 - 3/4	23	6	4.8	1° - 51'	8.2
8	8.625	10.08	13	3.11			0.91	0.24	0.19		18.0
250	267.4	306	380	83	2	M20 x 120	23	6	4.8	1° - 29'	10
10 JIS	10.528	12.05	14.96	3.25			0.91	0.24	0.19		22.0
250	273.0	312	386	83	2	3/4 x 4 - 3/4	23	6	4.8	1° - 29'	10.5
10	10.750	12.29	15.2	3.25			0.91	0.24	0.19		23.1
300	318.5	369	450	86	2	M22 x 165	26	7	4.8	1° - 15'	14.8
12 JIS	12.539	14.53	17.72	3.39			1.02	0.28	0.19		32.6
300	323.9	374	455	86	2	7/8 x 6-1/2	26	7	4.8	1° - 15'	13.3
12	12.750	14.72	17.90	3.39			1.02	0.28	0.19		29.3
350	355.6	420	502	115	6	5/8 x 5-5/16	26	8	9.5	1° - 17'	17.2
14	14.000	16.50	19.73	4.52			1.02	5/16	0.375		37.9
400	406.4	470	552	115	6	5/8 x 5-5/16	26	8	9.5	1° - 16'	17.8
16	16.000	18.50	21.69	4.52			1.02	5/16	0.375		39.2
450	457.2	521	603	115	6	3/4 x 4-3/4	30	8	9.5	1° - 7'	29.3
18	18.000	20.50	23.70	4.52			1.18	5/16	0.375		64.5
500	508.0	585	676	122	8	7/8 x 3-1/2	30	9.5	9.5	1° - 0'	37.0
20	20.000	23.00	26.60	4.79			1.18	3/8	0.375		81.4
600	609.6	686	781	122	8	7/8 x 3-1/2	30	12.7	9.5	0° - 54'	54.0
24	24.000	27.00	30.69	4.79			1.18	1/2	0.375		118.8

*Dimensions are subject to change without notice. Other sizes are available upon request.

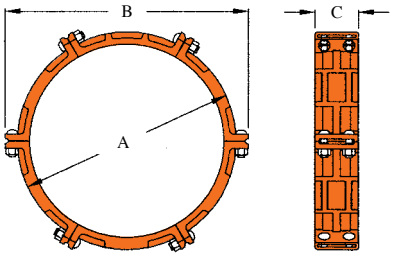
MODEL R-88 RING JOINT COUPLING

(Large diameter pipe use)

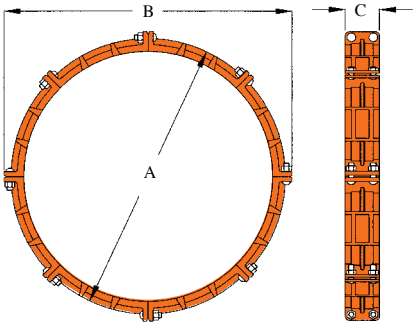
The *Shurjoint* R-88 ring joint coupling is available in sizes to 96" / 2400mm. The larger size couplings are comprised of 4 to 8 housing segments depending on the size and feature two bolts at each joint segment to ensure a positive connection.

Working pressure: up to 14 Bar / 200 psi depending on the pipe schedule and pipe size

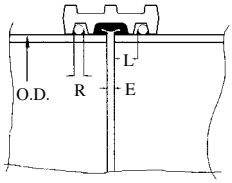
Size: 48"



28" ~ 38"



40" ~ 96"



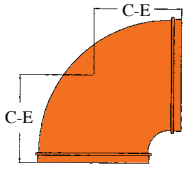
Nominal Size mm/in	Pipe OD mm/in	Dimensions A mm/in	B mm/in	C mm/in	Bolts No.	Bolts in	Sealing Surface L mm/in	Ring Size R mm/in	Separation E (max) mm/in	Pipe End Deflection Deg.	Weight Kgs/Lbs
650	660.4	726	815	122	8	7/8 x 3-1/2	30	12.7	9.5	0° - 49′	59.0
26	26.000	28.58	32.09	4.80			1.18	1/2	0.375		130.0
700	711.2	806	902	171	12	1 x 3-1/2	50	12.7	12.7	1° - 0′	101.0
28	28.000	31.75	35.5	6.73			2.00	1/2	0.50		222.2
750	762.0	857	955	171	12	1 x 3-1/2	50	12.7	12.7	0° - 57′	98.8
30	30.000	33.75	37.60	6.73			2.00	1/2	0.50		217.4
800	812.8	908	1003	171	12	1 x 3-1/2	50	12.7	12.7	0° - 54′	110.0
32	32.000	35.75	39.5	6.73			2.00	1/2	0.50		242.0
850	863.4	959	1054	171	12	1 x 3-1/2	50	12.7	12.7	0° - 51′	115.0
34	34.000	37.75	41.5	6.73			2.00	1/2	0.50		253.0
900	914.4	1010	1103	171	12	1 x 3-1/2	50	12.7	12.7	0° - 48′	115.4
36	36.000	39.75	43.5	6.73			2.00	1/2	0.50		253.9
950	965.2	1060	1156	171	12	1 x 3-1/2	50	12.7	12.7	0° - 45′	125.0
38	38.000	41.75	45.5	6.73			2.00	1/2	0.50		275.0
1000	1016.0	1135	1229	198	16	1 x 3-1/2	60	15.9	15.9	0° - 54′	180.6
40	40.000	44.69	48.39	7.80			2.37	5/8	0.625		397.3
1050	1066.8	1186	1280	198	16	1 x 3-1/2	60	15.9	15.9	0° - 51′	148.6
42	42.000	46.70	50.39	7.80			2.37	5/8	0.625		326.9
1100	1117.6	1236	1318	198	16	1 x 3-1/2	60	15.9	15.9	0° - 49′	156.0
44	44.000	48.66	51.89	7.80			2.37	5/8	0.625		343.2
1200	1219.2	1338	1420	198	16	1 x 3-1/2	60	15.9	15.9	0° - 45′	204.4
48	48.000	52.68	55.91	7.80			2.37	5/8	0.625		449.6
1300	1320.8	1555	1539	198	16	1-1/4 x 5	60	15.9	15.9	0° - 41′	206.0
52	52.000	61.25	60.60	7.80			2.37	5/8	0.625		453.2
1350	1371.6	1606	1590	198	16	1-1/4 x 5	60	15.9	15.9	0° - 40′	214.6
54	54.000	63.25	62.60	7.80			2.37	5/8	0.625		472.1
1400	1422.4	1660	1641	198	16	1-1/4 x 5	60	15.9	15.9	0° - 38′	222.0
56	56.000	65.38	64.60	7.80			2.37	5/8	0.625		488.2
1500	1524.0	1762	1742	198	16	1-1/4 x 5	60	15.9	15.9	0° - 36′	244.2
60	60.000	69.38	68.60	7.80			2.37	5/8	0.625		537.2
1650	1676.4	1932	1925	216	16	1-1/2 x 5	60	19.1	19.1	0° - 30′	278.4
66	66.000	76.00	75.79	8.50			2.37	3/4	0.75		612.5
1700	1727.2	1994	1976	216	16	1-1/2 x 5	60	19.1	19.1	0° - 38′	357.0
68	68.000	78.50	77.79	8.50			2.37	3/4	0.75		785.4
1800	1828.8	2095	2078	216	16	1-1/2 x 5	60	19.1	19.1	0° - 36′	335.3
72	720.00	82.50	81.81	8.50			2.37	3/4	0.75		737.7
2100	2133.6	2406	2383	216	16	1-1/2 x 5	60	19.1	19.1	0° - 30′	354.7
84	84.000	94.75	93.81	8.50			2.37	3/4	0.75		780.3
2400	2438.4	2711	2662	216	16	1-1/2 x 5	60	19.1	19.1	0° - 24′	374.2
96	96.000	106.75	105.79	8.50			2.37	3/4	0.75		823.2

*Dimensions are subject to change without notice. Other sizes are available upon request.

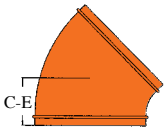
RING JOINT FITTINGS

Standard *Shurjoint* ring joint fittings are available in ductile iron or carbon steel for use with the *Shurjoint* R-88 coupling.

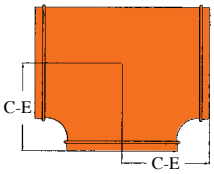
- 200mm – 600mm / 8" – 24" 90° elbows, 45° elbows and end caps & 200mm – 400mm / 8"- 16" equal tees: Ductile iron ASTM A536 Gr. 65-45-12.
- Larger sizes than above: Carbon steel pipe ASTM A53 Gr. B standard weight or fabricated.



RJ-10



RJ-11



RJ-20

RJ-60

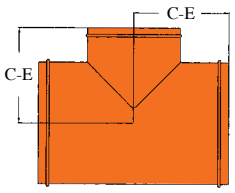
Nominal Size mm/in	Pipe O.D. mm/in	RJ-10 90° Elbow		RJ-11 45° Elbow		RJ-20 Tee		RJ-60 Cap	
		C - E mm/in	Weight Kgs/Lbs	C - E mm/in	Weight Kgs/Lbs	C - E mm/in	Weight Kgs/Lbs	E-E mm/in	Weight Kgs/Lbs
200	216.3	197	13.0	108	9.5	197	21.0	76	5.5
8 JIS	8.516	7.75	28.6	4.25	20.9	7.75	46.2	3.00	12.1
200	219.1	197	13.0	108	9.5	197	21.0	76	5.5
8	8.625	7.75	28.6	4.25	20.9	7.75	46.2	3.00	12.1
250	267.4	229	25.0	121	18.0	229	33.0	76	6.0
10 JIS	10.528	9.00	55.0	4.75	39.6	9.00	72.6	3.00	13.2
250	273.0	229	25.0	121	18.0	229	33.0	76	6.0
10	10.750	9.00	55.0	4.75	39.6	9.00	72.6	3.00	13.2
300	318.5	254	35.0	133	23.0	254	47.0	76	8.0
12 JIS	12.539	10.00	77.0	5.25	50.6	10.00	103.4	3.00	17.6
300	323.9	254	35.0	133	23.0	254	47.0	76	8.0
12	12.750	10.00	77.0	5.25	50.6	10.00	103.4	3.00	17.6
350	355.6	280	37.0	152	24	280	54.0	102	12.0
14	14.000	11.00	81.4	6.00	52.8	11.00	118.8	4.00	26.4
400	406.4	305	45.0	184	46	305	70.0	102	15.0
16	16.000	12.00	99.0	7.25	101.2	12.00	154.0	4.00	33.0
450	457.2	394	106.0	208	48	394	122	127	21.0
18	18.000	15.50	233.0	8.00	105.6	15.50	268	5.00	46.2
500	508.0	438	133.0	229	50	438	153	152	25.0
20	20.000	17.25	293.0	9.00	110.0	17.25	337	6.00	55.0
600	609.6	508	220.0	280	80	508	212	152	35.0
24	24.000	20.00	485.0	11.00	176.0	20.00	466	6.00	77.0
650	660.4	991	237	406	119	572	348	267	50
26	26.000	39.00	521	16.00	262	22.50	766	10.50	110
700	711.2	1067	275	438	138	597	392	267	56
28	28.000	42.00	605	17.25	304	23.50	862	10.50	123
750	762.0	1143	316	480	158	635	451	267	62
30	30.000	45.00	695	18.50	348	25.00	992	10.50	136
800	812.8	1219	360	502	180	673	516	267	68
32	32.000	48.00	792	19.75	396	26.50	1135	10.50	150
850	863.4	1295	407	533	204	711	584	267	75
34	34.000	51.00	895	21.00	449	28.00	1285	10.50	165
900	914.4	1372	457	565	229	762	657	267	82
36	36.000	54.00	1005	22.25	504	30.00	1445	10.50	180
1000	1016.0	1524	564	632	282	838	814	305	102
40	40.000	60.00	1241	24.88	620	33.00	1790	12.00	224
1050	1066.8	1600	622	660	311	889	837	305	110
42	42.000	63.00	1368	26.00	684	35.00	1841	12.00	242
1100	1117.6	1676	683	696	342	914	943	343	126
44	44.000	66.00	1503	27.39	752	36.00	2075	13.50	277
1200	1219.2	1829	814	759	407	1016	1131	343	143
48	48.000	72.00	1790	29.88	895	40.00	2488	13.50	315

RING JOINT FITTINGS

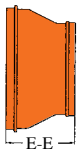
Standard *Shurjoint* ring joint fittings are available in ductile iron or carbon steel for use with the *Shurjoint* R-88 couplings.

- Concentric reducers marked (*) are made of ductile iron to ASTM A536 Gr. 65-45-12.
- Other sizes are made of carbon steel pipe ASTM A53 Gr. B standard weight or fabricated.
- 200mm – 600mm / 8" – 24" Flange adapters: Drilling to ANSI B16.5 Class 150.
- Larger sizes than above: Drilling to 125# American standard.

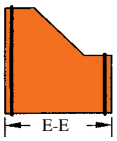
Other configurations of ring joint fittings are also available to accommodate any connection, ring joint to grooved, ring joint to flange or special connections where required. Contact *Shurjoint* for details.



RJ-21

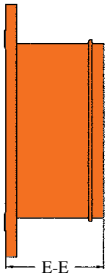


RJ-50



RJ-51

Nominal Size mm/in	Pipe O.D. mm/in	RJ-21 Reducing Tee		RJ-50 Conc. Reducer		RJ-51 Ecc. Reducer	
		E-E mm/in	Weight Kgs/Lbs	E-E mm/in	Weight Kgs/Lbs	E-E mm/in	Weight Kgs/Lbs
350 X 300	355.6 X 323.9	279	66.0	203*	23.0	203*	23.0
14 X 12	14.000 X 12.750	11.00	145.0	8.00	51.0	8.00	51.0
400 X 300	406.4 X 323.9	305	78.0	229*	29.0	229*	29.0
16 X12	16.000 X 12.750	12.00	172.0	9.00	64.0	9.00	64.0
400 X 350	406.4 X 355.6	305	80.0	229*	29.0	229*	29.0
16 X 14	16.000 X 14.000	12.00	176.0	9.00	64.0	9.00	64.0
450 X 300	457.2 X 323.9	394	112.0	241*	35.0	241*	35.0
18 X 12	18.000 X 12.750	15.50	246.0	9.50	78.0	9.50	78.0
450 X 350	457.2 X 355.6	394	115.0	381	36.0	381	36.0
18 X 14	18.000 X 14.000	15.50	253.0	15.00	79.0	15.00	79.0
450 X 400	457.2 X 406.4	394	120.0	381	36.0	381	36.0
18 X 16	18.000 X 16.000	15.50	264.0	15.00	79.0	15.00	79.0
500 X 300	508.0 X 323.9	438	135.0	254*	43.0	254*	43.0
20 X 12	20.000 X 12.750	17.25	297.0	10.00	95.0	10.00	95.0
500 X 350	508.0 X 355.6	438	138.0	508	45.0	508	45.0
20 X 14	20.000 X 14.000	17.25	304.0	20.0	99.0	20.0	99.0
500 X 400	508.0 X 406.4	438	144.0	254	46.0	254	46.0
20 X 16	20.000 X 16.000	17.25	317.0	10.00	101.0	10.00	101.0
500 X 450	508.0 X 457.2	438	149.0	508	58.0	508	58.0
20 X 18	20.000 X 18.000	17.25	328.0	20.00	128.0	20.00	128.0
600 X 300	609.6 X 323.9	508	180.0	305*	70.0	305*	70.0
24 X 12	24.000 X 12.750	20.00	396.0	12.00	154.0	12.00	154.0
600 X 350	609.6 X 355.6	508	185.0	508	70.0	508	70.0
24 X 14	24.000 X 14.000	20.00	407.0	20.00	154.0	20.00	154.0
600 X 400	609.6 X 406.4	508	190.0	305*	70.0	305*	70.0
24 X 16	24.000 X 16.000	20.00	418.0	12.00	154.0	12.00	154.0
600 X 450	609.6 X 457.2	508	197.0	508	70.0	508	70.0
24 X 18	24.000 X 18.000	20.00	433.0	20.00	154.0	20.00	154.0
600 X 500	609.6 X 508.0	508	202.0	305*	71.0	305*	71.0
24 X 20	24.000 X 20.000	20.00	444.0	12.00	156.0	12.00	156.0



RJ-70

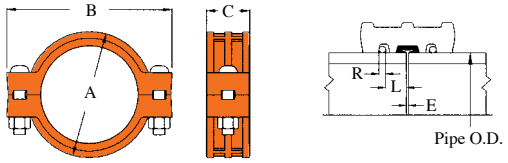
Nominal Size mm/in	Pipe O.D. mm/in	RJ-70 Flange Adapter	
		E-E mm/in	Weight Kgs/Lbs
200	219.1	152	20.4
8	8.625	6	44.9
250	273.0	203	30.5
10	10.750	8	67.1
300	323.9	203	44.6
12	12.750	8	98.1
350	355.6	203	54.0
14	14.000	8	118.8
400	406.4	203	66.8
16	16.000	8	147.0
450	457.0	203	78.8
18	18.000	8	173.4
500	508.0	203	101.3
20	20.000	8	222.9
600	610.0	203	130.4
24	24.000	8	286.9

MODEL RH-1000 1000 PSI RING JOINT COUPLING

The *Shurjoint* Model RH-1000 coupling is a high pressure ring joint coupling for use with Sch. 40, Sch. 80 or heavier wall carbon steel pipe.

The coupling is comprised of two ductile iron heavy-wall housings, rubber gasket (EPDM or Nitrile) and two heat-treated track bolts and nuts which provide a fully restrained joint with maximum working pressure up to 1,000 psi (69 Bar) depending on the pipe used.

Two steel rings are factory supplied with the coupling. Steel rings must always be fully welded on both sides.



Nominal Size mm/in	Pipe OD mm/in	Max. Working Pressure Bar/PSI	Dimensions			Bolt / Nut		Deflection	Pipe-end Preparation			Approx. Weight Kgs/Lbs
			A mm/in	B mm/in	C mm/in	No.	Size in	Deg.	R mm/in	L mm/in	E (max) mm/in	
200	219.1	69	282	372	98	2	1" x 140	0° – 18'	12	25	3.2	20.0
8	8.625	1000	11.10	14.65	3.86				0.47	1	0.13	44.0
250	273	69	360	430	102	2	1" x 165	0° – 38'	12	25	3.2	26.0
10	10.750	1000	14.17	16.93	4.00				0.47	1	0.13	57.2
300	323.9	69	415	510	106	2	1" x 165	0° – 32'	12	25	3.2	33.0
12	12.750	1000	16.33	20.07	4.17				0.47	1	0.13	72.6

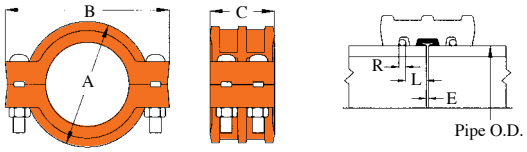
*Bolt & nuts are UNC threaded. *Test Pressure: Two times the working pressure.

MODEL RX-3000 3000 PSI RING JOINT COUPLING

The *Shurjoint* Model RX-3000 coupling is a high pressure ring joint coupling for use with Sch. 80, 120 or heavier wall carbon steel pipe.

The coupling is comprised of two ductile iron heavy-wall housings, rubber gasket (EPDM or Nitrile) and four heat-treated track bolts and nuts which provide a fully restrained joint with maximum working pressure up to 3,000 psi (207 Bar) depending on the pipe used.

Two steel rings are factory supplied with the coupling. Steel rings must always be fully welded on both sides.

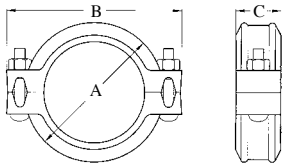


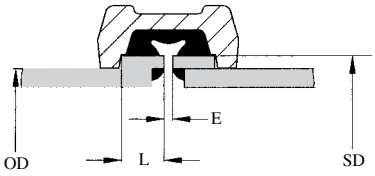
Nominal Size mm/in	Pipe OD mm/in	Max. Working Pressure Bar/PSI	Dimensions			Bolt / Nut		Pipe-end Preparation			Approx. Weight Kgs/Lbs
			A mm/in	B mm/in	C mm/in	No.	Size in	R mm/in	L mm/in	E mm/in	
100	114.3	207	172	218	108	4	7/8" x 100	9	23	3	15.0
4	4.500	3000	6.77	8.59	4.25			0.35	0.91	1/8	33.0
150	165.1	207	246	325	128	4	7/8" x 140	9	28	3	36.0
6	6.500	3000	9.69	12.79	5.04			0.35	1.10	1/8	80.0
150	168.3	207	246	325	128	4	7/8" x 140	9	28	3	36.0
6	6.625	3000	9.69	12.79	5.04			0.35	1.10	1/8	80.0
200	219.1	207	313	400	148	4	1" x 140	12	31	3	60.0
8	8.625	3000	12.33	15.75	5.83			0.47	1.22	1/8	132.0
250	273.0	207	394	520	160	4	1-1/2" x 160	15	31	3	95.0
10	10.750	3000	15.51	20.47	6.30			0.59	1.22	1/8	209.0
300	323.9	207	470	592	173	4	1-1/2" x 160	15	31	3	145.0
12	12.750	3000	18.50	23.30	6.81			0.59	1.22	1/8	319.0

*Bolt & nuts are UNC threaded. *Test Pressure: Two times the working pressure.

MODEL S35 SHOULDERED COUPLING

The *Shurjoint* Model S35 coupling is a classic shouldered coupling for general applications, featuring full flow characteristics and providing speed of assembly, flexibility and reduced vibration. The pipe end shoulder is normally achieved with Type A weld-on rings, manufactured from mild steel.



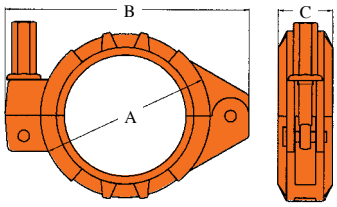


Nominal Size mm/in	Pipe OD mm/in	Max. Working Pressure* Bar/psi	Coupling Dimensions A mm/in	B mm/in	C mm/in	Pipe End Dimensions SD mm/in	L mm/in	E Max mm/in	Bolts Size mm/in	Deflection degrees	Approx Weight Kgs/Lbs
100	114.3	35	165	232	56	122.0	16.0	3.2	1/2 x 3	1° – 36′	2.40
4	4.500	500	5.50	9.13	2.20	4.81	0.63	0.13	M12 x 75		5.30
150	165.1	35	216	277	56	175.0	16.0	3.2	5/8 x 3 1/2	1° – 6′	4.20
6	6..500	500	8.50	10.90	2.20	6.89	0.63	0.13	M16 x 90		9.24
200	219.1	35	292	356	64	232.0	20.5	3.2	3/4 x 4 3/4	0° – 50′	7.20
8	8.625	500	11.50	14.00	2.50	9.13	0.81	0.13	M20 x 120		15.84

For sizes unlisted contact *Shurjoint*.

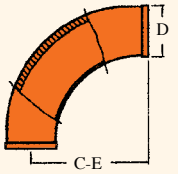
MODEL S58 CONCRETE COUPLING

The *Shurjoint* Model S58 is a shouldered coupling designed for concrete pumping and other applications where frequent assembly and disassembly are desired or required. The long box nut protects the bolt threads.



MODEL S10 CONCRETE ELBOW

Abrasive resistant long radius 90° elbows for concrete pumping



Nominal Size mm/in	Shoulder Diameter D mm/in	C - E mm/in	Weight Kgs/Lbs
125	148.0	339	11.0
5	5.83	13.35	24.2
150	175.0	269	13.0
6	6.89	10.59	28.6
150	178.0	269	13.0
6	7.00	10.59	28.6

Nominal Size mm/in	Pipe O.D. mm/in	Shoulder Diameter mm/in	Dimensions A mm/in	B mm/in	C mm/in	Bolt Size	Max Working Pressure Bar/PSI	Deflection Degrees	Weight Kgs/Lbs
125	139.7	148.0	190.0	266.0	55.0	M16	35	1° - 14'	4.50
5	5.500	5.831	7.49	10.48	2.17		500		9.90
150	165.1	175.0	218.0	294.0	55.0	M16	35	1° - 03'	5.20
6	6.500	6.895	8.59	11.58	2.17		500		11.44
150	168.3	178.0	222.0	298.0	55.0	5/8"	35	1° - 02'	5.40
6	6.625	7.013	8.75	11.74	2.17		500		11.88

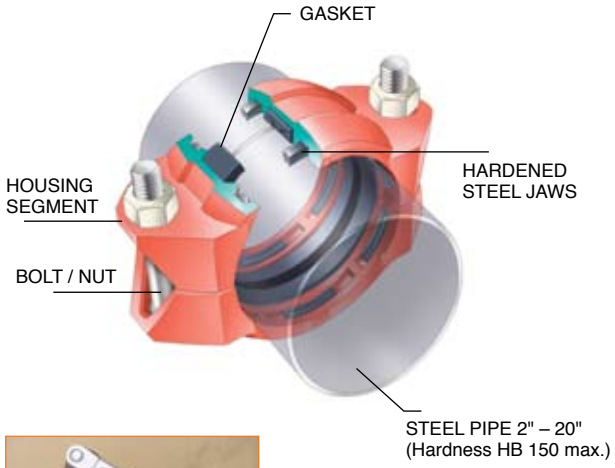
For sizes unlisted contact Shurjoint.

PLAIN-END PIPING SYSTEM FOR STEEL PIPE - MODEL 79 WILDCAT™ COUPLING

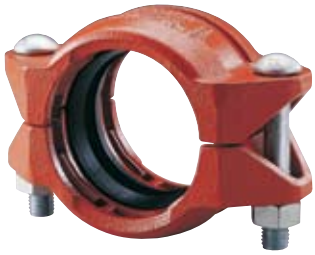
The *Shurjoint* Model 79 Wildcat™ coupling is designed to mechanically join plain-end or beveled end carbon steel pipe. The Wildcat™ couplings can be used for a variety of applications including mining, process piping, manifold piping and oilfield services. The Wildcat™ couplings feature case-hardened jaws* within the housings and large diameter heat treated track bolts that when tightened securely grip the pipe surface. As with grooved couplings, a C-shaped rubber gasket effectively seals the pipe ends (* For sizes larger than 350mm (14"), jaws are made of 17-4PH stainless steel.)

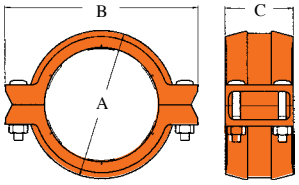
The *Shurjoint* Wildcat™ coupling is recommended for use on steel pipe with a hardness less than HB 150, not recommended for plastic, HDP, cast iron or other brittle pipe.

Gaskets are available either in Grade E EPDM for water services of -29°F to + 230°F (-34°C to + 110°C) or Grade T Nitrile for oil services -20°F to + 180°F (-29°C to +82°C).

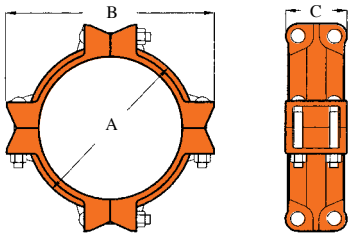


Bolts and nuts must always be tightened to the required torque.





2"~ 16"



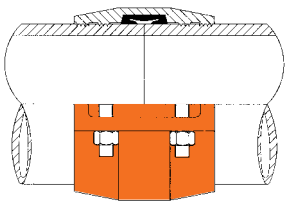
18"~ 20"

Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load KN/Lbs	Required Bolt Torque N-m/Lbs-Ft.	Bolt		Dimensions			Weight Kgs/Lbs
					No.	Size in	A mm/in	B mm/in	C mm/in	
50	60.3	52	1.51	200	2	5/8 x 3-1/2	95	171	98	3.2
2	2.375	750	3320	150			3.75	6.75	3.86	7.0
65	73.0	42	1.77	200	2	5/8 x 3-1/2	108	181	98	3.3
2.5	2.875	600	3890	150			4.25	7.13	3.86	7.3
80	88.9	42	2.62	270	2	3/4 x 4-3/4	127	216	98	5.0
3	3.500	600	5770	200			5.00	8.50	3.86	11.0
100	114.3	32	3.25	270	2	3/4 x 4-3/4	154	223	102	6.5
4	4.500	450	7153	200			6.14	8.78	4.00	14.3
125	141.3	21	3.31	340	2	7/8 x 6-1/2	187	262	111	11.0
5	5.563	300	7288	250			7.36	10.31	4.38	24.2
150	168.3	21	4.70	340	2	7/8 x 6-1/2	216	292	111	13.0
6	6.625	300	10336	250			8.50	11.50	4.38	28.6
200	219.1	17.5	6.64	270	4	3/4 x 4-3/4	276	361	127	19.0
8	8.625	250	14599	200			10.88	14.21	5.00	41.8
250	273.0	17.5	10.31	400	4	7/8 x 6-1/2	320	406	127	24.0
10	10.750	250	22679	300			12.60	16.00	5.00	52.8
300	323.9	17.5	14.50	470	4	1 x 6-1/2	371	457	135	28.7
12	12.750	250	31902	350			14.60	18.00	5.30	63.1
350	355.6	14.0	13.99	470	4	1 x 6-1/2	424	508	156	36.0
14	14.000	200	30772	350			16.70	20.00	6.15	79.2
400	406.4	10.5	13.70	470	4	1 x 6-1/2	475	559	156	40.0
16	16.000	150	30144	350			18.70	22.00	6.15	88.0
450	457.2	10.5	17.34	470	8	1 x 6-1/2	527	610	156	58.0
18	18.000	150	38150	350			20.75	24.00	6.15	127.6
500	508.0	10.5	21.41	470	8	1 x 6-1/2	578	660	156	80.0
20	20.000	150	47100	350			22.75	26.00	6.15	176.0

PLAIN-END HDP PIPING SYSTEM

The *Shurjoint* HDP series of piping components are designed to provide a fast and easy way to mechanically join HDP (high density polyethylene/polybutylene) pipe.

These components are designed to join HDP pipe and fittings conforming to ASTM D2447, D3000, D3035 or F-714, at ambient temperatures with wall thicknesses from SDR 32.5 to 7.3. This method eliminates the need for costly heat fusion equipment, solvent joining and or complicated adapters. *Shurjoint* HDP piping components are rated to the same pressure as that of the HDP pipe they are used in conjunction with.



Note: The Shurjoint HDP couplings are not intended for use on PVC or other materials.

MARKING: Use a marking pen or other marking tool and measuring tape to place marks on each pipe end, 1" from each end.

GASKET MOUNTING: Place a gasket over the pipe ends and center the gasket in between the marks*. The pipe ends should always be butted against each other.

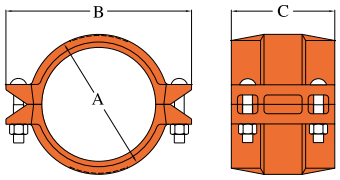
HOUSING MOUNTING: Place the housings over gasket and insert bolts. Then apply nuts finger tight.

NUT TIGHTENING: Tighten the nuts alternatively until the housing bolt pads meet metal to metal.

* *Shurjoint* recommends the use of a silicone based lubricant for use with the HDP series.

MODEL H305 HDP COUPLING

The *Shurjoint* Model H305 HDP couplings feature four bolt housings and a series of sharply machined teeth which positively grip the pipe as the coupling housing is tightened. The result is a leak-tight joint that is as strong or stronger than the pipe itself. The H305 also features a contoured housing with integral ramps along the outside diameter to help the coupling slide over most obstacles during the relocation of pipe runs.

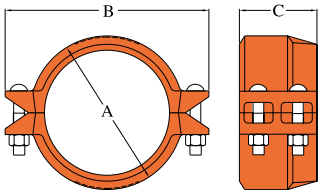


Nominal Size mm/in	Pipe O.D. mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Bolt No.	Bolt Size in	Weight Kgs/Lbs
50	60.3	86	133	117	4	1/2 x 2-3/8	2.6
2	2.375	3.39	5.24	4.61			5.7
80	88.9	117	165	102	4	1/2 x 2-3/4	3.6
3	3.500	4.61	6.50	4.02			7.9
100	114.3	146	203	146	4	1/2 x 3	5.2
4	4.500	5.75	7.99	5.75			11.4
150	168.3	200	273	149	4	5/8 x 3-1/2	8.2
6	6.625	7.87	10.75	5.87			18.0
200	219.1	264	333	152	4	5/8 x 3-1/2	12.5
8	8.625	10.39	13.11	5.98			27.5
250	273.1	318	397	165	4	3/4 x 4-3/4	20.0
10	10.750	12.52	15.63	6.50			44.0
300	323.9	365	448	200	4	3/4 x 4-3/4	25.5
12	12.750	14.37	17.64	7.87			56.1
350	355.6	413	492	257	4	1 x 6	36.7
14	14.000	16.26	19.37	10.12			80.7
400	406.4	467	543	257	4	1 x 6	45.5
16	16.000	18.39	21.38	10.12			100.1
450	457.2	515	595	260	4	1 x 6	57.7
18	18.000	20.28	23.43	10.24			126.9
500	508.0	568	651	260	4	1 x 6	64.5
20	20.000	22.36	25.63	10.24			141.9

Shurjoint recommends the use of a silicone based lubricant for use with the HDP series.

MODEL H307 HDP TRANSITION COUPLING

The *Shurjoint* Model H307 transition coupling provides for a fast, easy and direct transition from HDP pipe and or fittings to grooved end steel pipe (IPS).

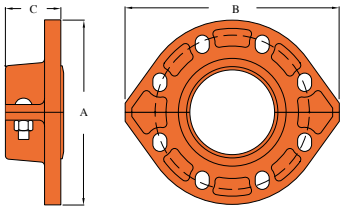


Nominal Size mm/in	Pipe O.D. mm/in	Dimensions A mm/in	B mm/in	C mm/in	Bolt No.	Bolt Size in	Weight Kgs/Lbs
50	60.3	86	152	79	4	1/2 x 2-3/8	2.0
2	2.375	3.39	5.99	3.11			4.4
80	88.9	114	181	79	4	1/2 x 3	2.7
3	3.500	4.49	7.13	3.11			5.9
100	114.3	146	216	95	4	1/2 x 3	3.8
4	4.500	5.75	8.50	3.74			8.4
150	168.3	203	286	95	4	5/8 x 3-1/2	5.7
6	6.625	8.00	11.26	3.74			12.5
200	219.1	267	346	108	4	5/8 x 3-1/2	9.7
8	8.625	10.51	13.63	4.25			21.3
250	273.1	321	432	127	4	3/4 x 4-3/4	16.0
10	10.750	12.64	17.01	5.00			35.2
300	323.9	375	495	127	4	3/4 x 4-3/4	19.6
12	12.750	14.76	19.49	5.00			43.1

**Shurjoint* recommends the use of a silicone based lubricant for use with the HDP series.

MODEL H312 HDP FLANGE

The *Shurjoint* Model H312 HDP flange provides for the direct transition from HDP pipe and or fittings to ANSI Class 125 or 150 flanged components.

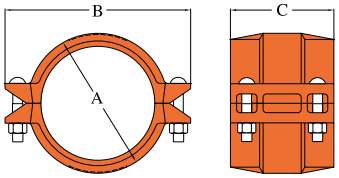


Nominal Size mm/in	Pipe O.D. mm/in	Dimensions A mm/in	B mm/in	C mm/in	Bolt No.	Bolt Size in	Weight Kgs/Lbs
100	114.3	229	260	79	8	5/8 x 3-1/4	6.8
4	4.500	9.00	10.25	3.10			15.0
150	168.3	279	311	95	8	3/4 x 3-1/2	9.8
6	6.625	11.00	12.25	3.75			21.5
200	219.1	343	375	87	8	3/4 x 3-3/4	13.1
8	8.625	13.50	14.75	3.42			28.8
250	273.0	406	533	108	12	7/8 x 4	19.5
10	10.750	16.00	21.0	4.25			42.9
300	323.9	483	670	108	12	7/8 x 4-1/4	28.5
12	12.750	19.02	24.0	4.25			62.7

**Shurjoint* recommends the use of a silicone based lubricant for use with the HDP series.

MODEL H305 ISO HDP COUPLING

Shurjoint Model H305 ISO HDP couplings are designed for use with metric size HDP pipe conforming to ISO 161/1, AS 1159 and DIN 8074, SDR 32.5 to 7.3. The coupling is comprised of four bolts, gasket and ductile iron housings. A series of sharply machined teeth positively grips the plastic pipe as bolts are tightened.

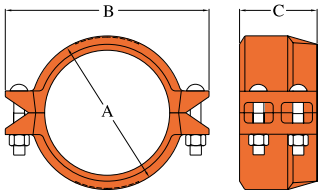


Pipe O.D.		Dimensions			Coupling Bolts		Approx. Weight Kgs
Minimum mm	Maximum mm	A mm	B mm	C mm	No.	mm	
50	50.5	72	115	105	4	M10 x 55	1.50
63	63.6	85	128	105	4	M10 x 55	1.90
75	75.7	97	140	105	4	M10 x 55	2.40
90	90.9	113	169	105	4	M12 x 75	3.30
110	111.0	139	181	112	4	M12 x 75	4.10
160	161.5	190	232	118	4	M12 x 75	5.60
180	181.7	211	253	118	4	M12 x 75	7.50
200	201.8	236	305	127	4	M16 x 90	9.40
250	252.3	289	351	134	4	M16 x 120	15.00
315	317.9	354	438	134	4	M20 x 120	19.00

*Shurjoint recommends the use of a silicone based lubricant for the HDP series.

MODEL H307 ISO HDP TRANSITION COUPLING

The *Shurjoint* Model H307 ISO HDP transition coupling provides for a fast, easy and direct transition from HDP pipe and or fittings to grooved end steel pipe (IPS).



Pipe O.D.		Dimensions			Coupling Bolts		Approx. Weight Kgs
Minimum mm	Maximum mm	A mm	B mm	C mm	No.	mm	
63.0	60.3	86	146	73	4	M10 x 55	1.90
90.0	88.9	114	178	73	4	M12 x 75	2.80
110.0	114.3	144	203	76	4	M12 x 75	3.70

*Shurjoint recommends the use of a silicone based lubricant for the HDP series.

MECHANICAL TEES

MECHANICAL TEE

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

Shurjoint offers a full range of mechanical tees:

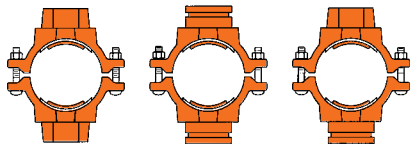
Model 7721: Threaded outlet, NPT or BSPT (ISO 7-1) pipe threads

Model 7722: Cut-grooved outlet (machined)

Model 723 : Saddle-Let; Small mechanical tee with threaded outlet, NPT or BSPT (ISO 7-1) pipe threads

MECHANICAL CROSS

A mechanical cross connection can be made by combining two mechanical tee upper housing segments. While the housing segments must be the same size, the branch outlets can be of the same or differing sizes or configurations.

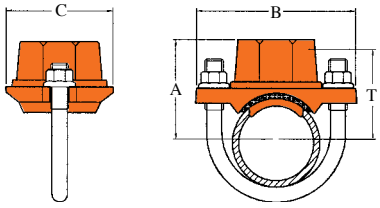


Threaded x Threaded Model 7721C | Grooved x Grooved Model 7722C | Threaded x Grooved Model 7723C

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

MODEL 723 SADDLE-LET (Small Mechanical Tee)

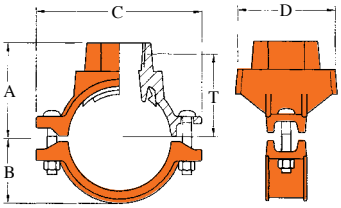
The Model 723 Saddle-Let is the ideal outlet fitting for direct connections to sprinkler heads, drop nipples and or gauges. No need for welding, just cut or drill a hole at the desired outlet location. Position the Saddle-Let so that the locating collar fits within the hole and secure with the U-bolt and nuts. The Saddle-Let comes with a standard black finish or as an option can be supplied electro zinc plated or painted orange. The Saddle-Let allows full bore flow and is pressure rated to 300 psi (20 bar).



Nominal Size mm/in	Hole Dia. +1.6, -0/+0.063, -0 mm/in	Dimensions-mm/in A	B	C	Take-Out T mm/in	Bolt Size in	Bolt Torque N-M/Lb-Ft	Weight Kgs/Lbs
32 x 15	30	53.0	89.0	56.0	35.0	3/8ø	20 - 30	0.4
1.25 x 0.5	1.18	2.08	3.50	2.20	1.38	U-Bolt	15 - 22	0.9
32 x 20	30	53.0	89.0	56.0	35.0	3/8ø	20 - 30	0.4
1.25 x 0.75	1.18	2.08	3.50	2.20	1.38	U-Bolt	15 - 22	0.9
32 x 25	30	56.0	89.0	56.0	38.0	3/8ø	20 - 30	0.4
1.25 x 1	1.18	2.20	3.50	2.20	1.50	U-Bolt	15 - 22	0.9
40 x 15	30	55.0	89.0	56.0	35.0	3/8ø	20 - 30	0.4
1.5 x 0.5	1.18	2.16	3.50	2.20	1.38	U-Bolt	15 - 22	0.9
40 x 20	30	55.0	89.0	56.0	35.0	3/8ø	20 - 30	0.4
1.5 x 0.75	1.18	2.16	3.50	2.20	1.38	U-Bolt	15 - 22	0.9
40 x 25	30	58.0	89.0	56.0	38.0	3/8ø	20 - 30	0.4
1.5 x 1	1.18	2.28	3.50	2.20	1.50	U-Bolt	15 - 22	0.9
50 x 15	30	64.0	98.0	56.0	42.0	3/8ø	20 - 30	0.4
2 x 0.5	1.18	2.51	3.85	2.20	1.65	U-Bolt	15 - 22	0.9
50 x 20	30	64.0	98.0	56.0	42.0	3/8ø	20 - 30	0.4
2 x 0.75	1.18	2.51	3.85	2.20	1.65	U-Bolt	15 - 22	0.9
50 x 25	30	67.0	98.0	56.0	45.0	3/8ø	20 - 30	0.4
2 x 1	1.18	2.63	3.85	2.20	1.77	U-Bolt	15 - 22	0.9
65 x 15	30	69.0	111.0	56.0	51.0	3/8ø	20 - 30	0.4
2.5 x 0.5	1.18	2.71	4.37	2.20	2.00	U-Bolt	15 - 22	0.9
65 x 20	30	69.0	111.0	56.0	51.0	3/8ø	20 - 30	0.4
2.5 x 0.75	1.18	2.71	4.37	2.20	2.00	U-Bolt	15 - 22	0.9
65 x 25	30	72.0	111.0	56.0	54.0	3/8ø	20 - 30	0.5
2.5 x 1	1.18	2.83	4.37	2.20	2.13	U-Bolt	15 - 22	1.1

MODEL 7721 MECHANICAL TEE THREADED OUTLET

The Model 7721 Mechanical Tee provides a fast and easy mid-pipe threaded branch outlet. The 7721 eliminates the need for welding or multiple fittings. The mechanical tee utilizes ductile iron housings, a grade E moulded gasket and heat-treated carbon steel track bolts and nuts. Housings are painted orange or red, or as an option can be supplied hot-dipped zinc galvanized or epoxy coated. Pressure rated to 300 psi (20 bar).

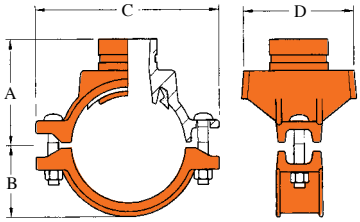


Nominal Size Run x Branch mm/in	Hole Dia. +3.2, -0 /+0.13, -0 mm/in	Dimensions - mm/in					Bolt Size in	Weight Kgs/Lbs
		T*	A	B	C	D		
50 x 15 2 x 0.5	38 1.50	50 1.97	64 2.50	40 1.57	128 5.04	73 2.87	M10 X 55 3/8 X 2-1/8	1.1 2.4
50 x 20 2 x 0.75	38 1.50	50 1.97	64 2.50	40 1.57	128 5.04	73 2.87	M10 X 55 3/8 X 2-1/8	1.1 2.4
50 x 25 2 x 1	38 1.50	51 2.00	68 2.68	40 1.57	128 5.04	73 2.87	M10 X 55 3/8 X 2-1/8	1.2 2.6
50 x 32 2 x 1.25	[45] [1.75]	53 2.08	71 2.80	40 1.57	128 5.04	82 3.22	M10 X 55 3/8 X 2-1/8	1.3 2.9
50 x 40 2 x 1.5	[45] [1.75]	53 2.08	71 2.80	40 1.57	128 5.04	82 3.22	M10 X 55 3/8 X 2-1/8	1.3 2.9
65 x 15 2.5 x 0.5	38 1.50	57 2.25	71 2.80	48 1.89	146 5.75	73 2.87	M12 X 75 1/2 X 3	1.4 3.1
65 x 20 2.5 x 0.75	38 1.50	59 2.32	73 2.88	48 1.89	146 5.75	73 2.87	M12 X 75 1/2 X 3	1.4 3.1
65 x 25 2.5 x 1	38 1.50	58 2.28	75 2.95	48 1.89	146 5.75	73 2.87	M12 X 75 1/2 X 3	1.5 3.3
65 x 32 2.5 x 1.25	51 2.00	61 2.40	79 3.11	48 1.89	146 5.75	82 3.22	M12 X 75 1/2 X 3	1.6 3.5
65 x 40 2.5 x 1.5	51 2.00	61 2.40	79 3.11	48 1.89	146 5.75	82 3.22	M12 X 75 1/2 X 3	1.6 3.5
80 x 15 3 x 0.5	38 1.50	63 2.47	81 3.19	56 2.20	160 6.39	67 2.63	M12 X 75 1/2 X 3	1.6 3.5
80 x 20 3 x 0.75	38 1.50	62 2.44	81 3.19	56 2.20	160 6.39	67 2.63	M12 X 75 1/2 X 3	1.6 3.5
80 x 25 3 x 1	38 1.50	64 2.50	81 3.19	56 2.20	160 6.39	67 2.63	M12 X 75 1/2 X 3	1.7 3.7
80 x 32 3 x 1.25	51 2.00	71 2.80	89 3.50	56 2.20	160 6.39	88 3.46	M12 X 75 1/2 X 3	1.9 4.2
80 x 40 3 x 1.5	51 2.00	71 2.80	89 3.50	56 2.20	160 6.39	88 3.46	M12 X 75 1/2 X 3	2.0 4.4
80 x 50 3 x 2	64 2.50	72 2.83	91 3.58	56 2.20	160 6.39	101 3.98	M12 X 75 1/2 X 3	2.3 5.1
100 x 15 4 x 0.5	38 1.50	76 3.00	94 3.70	72 2.83	190 7.48	67 2.63	M12 X 75 1/2 X 3	1.9 4.2
100 x 20 4 x 0.75	38 1.50	75 2.95	94 3.70	72 2.83	190 7.48	67 2.63	M12 X 75 1/2 X 3	1.9 4.2
100 x 25 4 x 1	38 1.50	77 3.03	94 3.70	72 2.83	190 7.48	67 2.63	M12 X 75 1/2 X 3	2.0 4.4
100 x 32 4 x 1.25	51 2.00	81 3.19	99 3.89	72 2.83	190 7.48	85 3.35	M12 X 75 1/2 X 3	2.2 4.8
100 x 40 4 x 1.5	51 2.00	81 3.19	99 3.89	72 2.83	190 7.48	85 3.35	M12 X 75 1/2 X 3	2.3 5.1
100 x 50 4 x 2	64 2.50	86 3.38	105 4.13	72 2.83	190 7.48	101 3.98	M12 X 75 1/2 X 3	2.7 5.9
100 x 65 4 x 2.5	70 2.75	82 3.23	111 4.37	72 2.83	190 7.48	112 4.40	M12 X 75 1/2 X 3	3.3 7.3
100 x 80 4 x 3	89 3.50	82 3.23	112 4.40	72 2.83	190 7.48	136 5.35	M16 X 90 5/8 X 3-1/2	5.6 12.3
125 x 50 5 x 2	64 2.50	105 4.13	124 4.88	86 3.39	236 9.29	102 4.00	M16 X 90 5/8 X 3-1/2	4.2 9.2
125 x 65 5 x 2.5	70 2.75	99 3.89	127 5.00	86 3.39	236 9.29	118 4.65	M16 X 90 5/8 X 3-1/2	4.5 9.9
150 x 32 6 x 1.25	51 2.00	109 4.29	127 5.00	98 3.86	256 10.07	93 3.66	M16 X 135 5/8 X 5-5/16	4.4 9.7
150 x 40 6 x 1.5	51 2.00	109 4.29	127 5.00	98 3.86	256 10.07	93 3.66	M16 X 135 5/8 X 5-5/16	4.4 9.7
150 x 50 6 x 2	64 2.50	113 4.45	132 5.92	98 3.86	256 10.07	101 3.98	M16 X 135 5/8 X 5-5/16	4.8 10.6
150 x 65 6 x 2.5	70 2.75	111 4.37	140 5.50	98 3.86	256 10.07	118 4.65	M16 X 135 5/8 X 5-5/16	5.4 11.9
150 x 80 6 x 3	89 3.50	110 4.33	140 5.50	98 3.86	256 10.07	137 5.39	M16 X 135 5/8 X 5-5/16	6.0 13.2
150 x 100 6 x 4	114 4.50	107 4.21	140 5.50	98 3.86	256 10.07	164 6.46	M16 X 135 5/8 X 5-5/16	6.6 14.5
200 x 50 8 x 2	[70] [2.75]	135 5.31	166 6.54	120 4.72	327 12.87	101 3.98	M20 X 120 3/4 X 4-3/4	6.2 13.6
200 x 65 8 x 2.5	70 2.75	137 5.39	166 6.54	120 4.72	327 12.87	104 4.09	M20 X 120 3/4 X 4-3/4	6.3 13.9
200 x 80 8 x 3	89 3.50	136 5.35	166 6.54	120 4.72	327 12.87	128 5.04	M20 X 120 3/4 X 4-3/4	7.1 15.6
200 x 100 8 x 4	114 4.50	133 5.24	166 6.54	120 4.72	327 12.87	164 6.46	M20 X 120 3/4 X 4-3/4	8.0 17.6

1. Hole diameters listed are suggested hole saw diameters. *T: Take-out (Center of run to end of pipe to be engaged)
2. Special caution is required to some exceptional hole sizes shown in [ ].

MODEL 7722 MECHANICAL TEE GROOVED OUTLET

The Model 7722 Mechanical Tee provides a fast and easy mid-pipe grooved branch outlet. The mechanical tee utilizes ductile iron housings, a grade E gasket and heat-treated carbon steel track bolts and nuts. Housings are painted orange or red, or as an option can be supplied hot-dipped zinc galvanized or epoxy coated. Maximum working pressure: 300 psi (20 bar). Gaskets are interchangeable between Models 7721 and 7722.

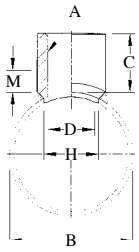


Nominal Size Run x Branch mm/in	Pipe O.D. mm/in	Hole Dia. +3.2, -0 /+0.13, -0 mm/in	Dimensions-mm/in				Bolt Size in	Weight Kgs/Lbs
			A	B	C	D		
50 X 25	60.3 X 33.4	38	68	40	128	73	M10 X 55	1.0
2 X 1	2.375 X 1.315	1.50	2.68	1.57	5.04	2.87	3/8 X 2-1/8	2.2
50 X 32	60.3 X 42.2	[45]	71	40	128	82	M10 X 55	1.0
2 X 1.25	2.375 X 1.660	[1.75]	2.80	1.57	5.04	3.22	3/8 X 2-1/8	2.2
50 X 40	60.3 X 48.3	[45]	71	40	128	82	M10 X 55	1.2
2 X 1.5	2.375 X 1.900	[1.75]	2.80	1.57	5.04	3.22	3/8 X 2-1/8	2.6
65 X 25	73.0/76.1 X 33.4	38	75	48	146	73	M12 X 75	1.8
2.5 X 1	2.875/3.000 X1.315	1.50	2.95	1.89	5.75	2.87	1/2 X 3	4.0
65 X 32	73.0/76.1 X 42.2	51	79	48	146	82	M12 X 75	1.7
2.5 X 1.25	2.875/3.000 X 1.660	2.00	3.11	1.89	5.75	3.22	1/2 X 3	3.7
65 X 40	73.0/76.1 X 48.3	51	79	48	146	82	M12 X 75	1.9
2.5 X 1.5	2.875/3.000 X 1.900	2.00	3.11	1.89	5.75	3.22	1/2 X 3	4.2
80 X 25	88.9 X 33.4	38	81	56	160	67	M12 X 75	1.7
3 X 1	3.500 X 1.315	1.50	3.19	2.20	6.30	2.63	1/2 X 3	3.7
80 X 32	88.9 X 42.2	51	89	56	160	88	M12 X 75	1.8
3 X 1.25	3.500 X 1.660	2.00	3.50	2.20	6.30	3.46	1/2 X 3	4.0
80 X 40	88.9 X 48.3	51	89	56	160	88	M12 X 75	1.9
3 X 1.5	3.500 X 1.900	2.00	3.50	2.20	6.30	3.46	1/2 X 3	4.2
80 X 50	88.9 X 60.3	64	91	56	160	101	M12 X 75	2.2
3 X 2	3.500 X 2.375	2.50	3.58	2.20	6.30	3.98	1/2 X 3	4.8
100 X 25	114.3 X 33.4	38	94	72	190	67	M12 X 75	2.0
4 X 1	4.500 X 1.315	1.50	3.89	2.83	7.48	2.63	1/2 X 3	4.4
100 X 32	114.3 X 42.2	51	99	72	190	85	M12 X 75	2.1
4 X 1.25	4.500 X 1,660	2.00	3.89	2.83	7.48	3.35	1/2 X 3	4.6
100 X 40	114.3 X 48.3	51	99	72	190	85	M12 X 75	2.2
4 X 1.5	4.500 X 1.900	2.00	3.89	2.83	7.48	3.35	1/2 X 3	4.8
100 X 50	114.3 X 60.3	64	105	72	190	101	M12 X 75	2.7
4 X 2	4.500 X 2.375	2.50	4.13	2.83	7.48	3.98	1/2 X 3	5.9
100 X 65	114.3 X 73.0/76.1	70	111	72	190	112	M12 X 75	3.0
4 X 2.5	4.500 X 2.875/3.000	2.75	4.37	2.83	7.48	4.40	1/2 X 3	6.6
100 X 80	114.3 X 88.9	89	112	72	190	136	M16 X 90	5.2
4 X 3	4.500 X 3.500	3.50	4.40	2.83	7.48	5.35	5/8 X 3-1/2	11.4
125 X 50	139.7/141.3 X 60.3	64	124	86	236	102	M16 X 90	4.2
5 X 2	5.500/5.563 X2.375	2.50	4.88	3.39	9.29	4.00	5/8 X 3-1/2	9.2
125 X 65	141.3 X 73.0	70	127	86	236	118	M16 X 90	4.2
5 X 2.5	5.563 X 2.875	2.75	5.00	3.39	9.29	4.65	5/8 X 3-1/2	9.5
125 X 65	139.7 X 76.1	70	127	86	236	118	M16 X 90	4.3
5 X 2.5	5.500 X 3.000	2.75	5.00	3.39	9.29	4.65	5/8 X 3-1/2	9.5
150 X 32	165.1/168.3 X 42.2	51	127	98	256	93	M16 X 135	4.2
6 X 1.25	6.500/6.625 X 1.660	2.00	5.00	3.86	10.08	3.66	5/8 X 5-5/16	9.2
150 X 40	165.1/168.3 X 48.3	51	127	98	256	93	M16 X 135	4.3
6 X 1.5	6.500/6.625 X 1.900	2.00	5.00	3.86	10.08	3.66	5/8 X 5-5/16	9.5
150 X 50	165.1/168.3 X 60.3	64	132	98	256	101	M16 X 135	4.8
6 X 2	6.500/6.625 X 2.375	2.50	5.20	3.86	10.08	3.98	5/8 X 5-5/16	10.6
150 X 65	168.3 X 73.0	70	140	98	256	118	M16 X 135	5.5
6 X 2.5	6.625 X 2.875	2.75	5.50	3.86	10.08	4.65	5/8 X 5-5/16	12.1
150 X 65	165.1 X 76.1	70	140	98	256	118	M16 X 135	5.5
6 X 2.5	6.500 X3.000	2.75	5.50	3.86	10.08	4.65	5/8 X 5-5/16	12.1
150 X 80	165.1/168.3 X 88.9	89	140	98	256	137	M16 X 135	5.6
6 X 3	6.500/6.625 X 3.500	3.50	5.50	3.86	10.08	5.39	5/8 X 5-5/16	12.3
150 X 100	165.1/168.3 X 114.3	114	140	98	256	164	M16 X 135	7.0
6 X 4	6.500/6.625 X 4.500	4.50	5.50	3.86	10.08	6.46	5/8 X 5-5/16	15.4
200 X 50	219.1 X 60.3	[70]	166	120	327	104	M20 X 120	5.8
8 X 2	8.625 X 2.375	[2.75]	6.54	4.72	12.87	3.89	3/4 X 4-3/4	12.8
200 X 65	219.1 X 73.0/76.1	70	166	120	327	104	M20 X 120	6.0
8 X 2.5	8.625 X 2.875/3.000	2.75	6.54	4.72	12.87	4.09	3/4 X 4-3/4	13.2
200 X 80	219.1 X 88.9	89	166	120	327	128	M20 X 120	7.2
8 X 3	8.625 X 3.500	3.50	6.54	4.72	12.87	5.04	3/4 X 4-3/4	15.8
200 X 100	219.1 X 114.3	114	166	120	327	164	M20 X 120	7.5
8 X 4	8.625 X 4.500	4.50	6.54	4.72	12.87	6.46	3/4 X 4-3/4	16.5

Notes:
1. Hole diameters listed are suggested hole saw diameters.
2. Special caution is required to some exceptional hole sizes shown in [ ].

MODEL 74 UNIVERSAL THREADED OUTLET FITTING

The *Shurjoint* Model 74 universal outlet fitting is designed to fit a range of header sizes which will reduce costs associated with ordering, inventory and installation. The Model 74 outlet fitting features an insert ring which serves to properly position the fitting, eliminate fitting header gap and serve as a chill ring to help eliminate weld or burn through and associated obstructions.



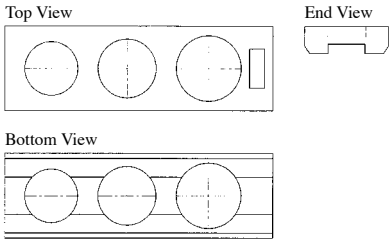
- UL/cUL listed and FM approved for 300 psi services
- Meets NFPA 13 requirements
- Only one 1/2" and 3/4" outlet is required for header sizes 1-1/4" - 8".
- Only three 1" outlets are required for header sizes 1-1/4" - 1-1/2" 2" - 2-1/2" & 3" – 8".
- Reduces stock numbers by up to 70% over traditional outlets
- Reduces welding time and likelihood of burn through
- Reduces or eliminates the need for grinding or hole clean-up
- The design provides maximum weld strength with low weld volume
- Designed for automatic or manual weld operation

Outlet Size A mm/in	Header Size Range B mm/in	Outlet Dimension Length C mm/in	Outlet Dimension Inside Diameter D mm/in	Hole Size H mm/in	Make-UP M mm/in	Weight kgs/Lbs
15	32 – 200	26.9	17.8	22 - 23	12.7	0.06
1/2	1-1/4 – 8	10.6	0.70	7/8	0.5	0.14
20	32 - 200	28.6	22.9	27 - 28	12.7	0.10
3/4	1-1/4 – 8	1.13	0.90	1-1/16	0.5	0.22
25	32 – 40	31.8	29.1	34	12.7	0.14
1	1-1/4 – 1-1/2	1.25	1.15	1-5/16	0.5	0.31
25	50 – 65	31.8	29.1	34	12.7	0.14
1	2 – 2-1/2	1.25	1.15	1-5/16	0.5	0.31
25	80 – 200	31.8	29.1	34	12.7	0.14
1	3 – 8	1.25	1.15	1-5/16	0.5	0.31

MODEL HT-74 HAND-HELD HOLE TEMPLATE

The *Shurjoint* Hand-Held Hole Template is designed to be used with air plasma cutting systems with standard torch cups measuring 1.1" (28mm) in diameter.

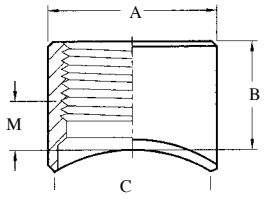
- The hand-held hole template fits on a range of branch or header pipes.
- The template is sized for *Shurjoint* #74 Universal Threaded Outlet Fittings.
- The template features a bubble level and V-Block mounting.
- Manufactured from non-conductive NEMA C Rated, glass impregnated, impact resistant plastic.

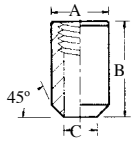


Outlet Size mm/in	Header Size Range mm/in
15, 20, 25	ALL (32 - 200)
1/2, 3/4, 1	ALL (1-1/4 - 8)

MODEL 71 FEMALE THREADED OUTLET FITTING

The Model 71 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 71 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 71 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 liklihood of any burn through or distortion that might be caused by excessive heat. The Model 71 is UL / cUL listed and FM approved for services up to 300 psi (20 bar).





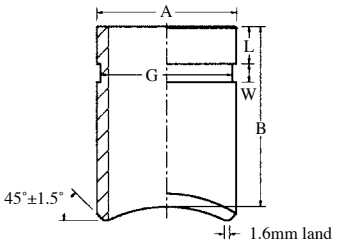
1/4" x Flat

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
0.25		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
0.5	2 – 2-1/2	1.125	1.063	0.70	0.500	0.17
	2-1/2 – 8					
	1-1/4 - 1-1/2					
20	1-1/2 - 2	34.9	28.6	22.9	12.7	0.12
0.75	2 – 2-1/2	1.375	1.125	0.900	0.500	0.26
	2-1/2 – 8					
	1-1/4 - 1-1/2					
	1-1/2 - 2					
25	2 - 2-1/2	40.5	31.86	29.1	12.7	0.13
1	2-1/2 - 3	1.600	1.250	1.145	0.500	0.29
	3 - 4					
	5 - 8					
	1-1/4 - 1-1/2					
	1-1/2 - 2					
32	2 - 2-1/2	49.5	34.9	37.8	12.7	0.19
1.25	2-1/2 - 3	1.950	1.375	1.490	0.500	0.42
	3 - 4					
	5 - 8					
	1-1/2					
	2					
40	2-1/2	55.9	41.3	40.9	22.2	0.22
1.5	3 - 4	2.203	1.625	1.610	0.875	0.47
	4					
	5 - 8					
	2					
	2.5					
	3					
50	4	68.6	44.5	52.5	22.2	0.38
2	5	2.703	1.750	2.067	0.875	0.57
	6					
	8					
	2-1/2					
	3					
65	4	80.4	54.0	62.7	28.6	0.55
2.5	5	3.165	2.215	2.469	1.125	1.15
(73.0OD)	6					
	8					
	2.5					
	3					
65	4	83.5	54.0	62.7	28.6	0.55
2.5	5	3.290	2.215	2.469	1.125	1.15
(76.1OD)	6					
	8					
	3					
	4					
80	5	98.0	63.5	77.9	38.1	0.77
3	6	3.861	2.500	3.068	1.500	1.70
	8					
	4					
100	5	125.2	76.2	102.3	50.8	1.32
4	6	4.933	3.000	4.026	2.000	2.80
	8					

MODEL 72C CUT GROOVED OUTLET FITTING

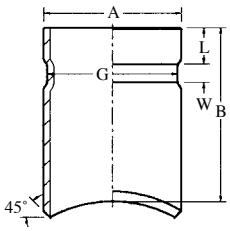
The Model 72C outlet fittings are designed to provide you with a cut grooved outlet at any desired location along the header. Made from ASTM A106 Sch. 40 pipe, the 72C features cut grooves to AWWA C606 and 1.6 mm lands around the full circumference of the mouth. UL/cUL listed and FM approved to 300 psi (20 bar).



Outlet Size mm/in	Run Pipe in	Dimensions A mm/in	B mm/in	L mm/in	W mm/in	G mm/in	Weight Kgs/Lbs
	2						
	2.5						
50	3	60.3	76.2	15.88	7.95	57.15	0.45
2	4	2.375	3.000	0.625	0.312	2.250	1.00
	5						
	6 - 8						
	2.5						
65	4	73.0	76.2	15.88	7.95	69.09	0.73
2-1/2	5	2.875	3.000	0.625	0.312	2.722	1.60
	6 - 8						
	3						
80	4	88.9	76.2	15.88	7.95	84.94	0.91
3	5	3.500	3.000	0.625	0.312	3.346	2.00
	6 - 8						
100	4	114.3	101.6	15.88	9.53	110.08	1.73
4	5	4.500	4.000	0.625	0.375	4.337	3.80
	6 - 8						
150	6	168.3	101.6	15.88	9.53	163.96	3.18
6	8	6.625	4.000	0.625	0.375	6.460	7.00
200	8	219.1	101.6	19.05	11.13	214.40	4.32
8	10	8.625	4.000	0.750	0.438	8.440	9.50

MODEL 72R ROLL GROOVED OUTLET FITTING

The Model 72R outlet fitting 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 72R features roll grooves to AWWA C606, ideal for use with light wall pipe. The Model 72R 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 A mm/in	B mm/in	L mm/in	W mm/in	G mm/in	Weight Kgs/Lbs
	1.25 - 1.5						
	2						
	2.5						
32	3	42.2	63.5	15.88	7.14	38.99	0.21
1.25	4	1.660	2.500	0.625	0.281	1.535	1.46
	5						
	6 - 8						
	1.5						
	2						
	2.5						
40	3	48.3	63.5	15.88	7.14	45.09	0.24
1.25	4	1.900	2.500	0.625	0.281	1.775	0.53
	5						
	6 - 8						
	2						
	2.5						
50	3	60.3	76.2	15.88	8.74	57.15	0.41
2	4	2.375	3.000	0.625	0.344	2.250	0.90
	5						
	6 - 8						
	2.5						
65	3	73.0	76.2	15.88	8.74	69.09	0.64
2.5	4	2.875	3.000	0.625	0.344	2.720	1.41
(73.0OD)	5						
	6 - 8						
	2-1/2						
65	3	76.1	76.2	15.88	8.74	72.26	0.64
2.5	4	3.000	3.000	0.625	0.344	2.845	1.41
(76.0OD)	5						
	6 - 8						
	3						
80	4	88.9	76.2	15.88	8.74	84.94	0.77
3	5	3.500	3.000	0.625	0.344	3.440	1.69
	6 - 8						
	4						
100	5	114.3	101.6	15.88	8.74	110.08	1.45
4	6 - 8	4.500	4.000	0.625	0.344	4.314	3.19

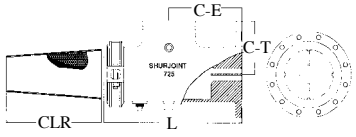
MODEL 725F/725G SUCTION DIFFUSER

The Model 725 Suction Diffuser features a space saving design, ductile iron body and integral vanes that effectively reduce turbulence and provide optimum flow conditions at the inlet side of the pump.

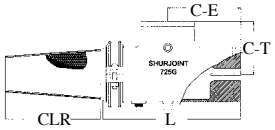
The suction diffuser's inlet is supplied with a grooved end to AWWA C606-04. The Model 725 is available with either a flanged outlet (725F) or a grooved end outlet (725G). The 725F allows for direct connection to a flanged end pump. Flange drilling is available to the following standards; ANSI Class 150, Class 300, PN10, PN16, JIS 10K or 20K. The 725G can be connected directly to a grooved end pump or to a flanged end pump if used in combination with a Model 7041 flange or a Model 7180 universal flange adapter.

If a distance adjustment is required a nipple adapter can be used between the pump and the suction diffuser. The 725G also allows for a reduction on the outlet when used in combination with a Model 7150 concentric reducer and a Model 7041 flange or Model 7181 Reducing Flange Adapter.

The Model 725 is supplied with a 304 stainless steel running strainer and a disposable fine mesh screen to protect the pump during start-up operation.

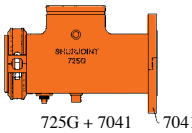


Model 725F
When ordering, specify the desired flange drilling.

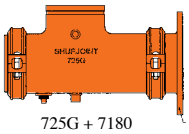


Model 725G

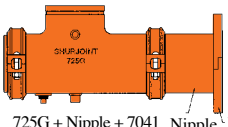
Nominal Size System Side X Pump Side mm/in	Working Pressure Bar/Psi	Dimensions				Drain in	725F Approx. Weight Kgs/Lbs	725G Approx. Weight Kgs/Lbs
		L mm/in	C-E mm/in	CLR mm/in	C-T mm/in			
65 x 65	20	224	127	145	95	1/2	6.6	4.0
2.5 x 2.5	300	8.82	5.00	5.70	3.75		14.5	8.8
80 x 80	20	265	160	179	108	1	9.8	5.9
3 x 3	300	10.43	6.30	7.05	4.25		21.6	13.0
100 x 100	20	312	187	221	127	1	14.5	9.4
4 x 4	300	12.28	7.36	8.70	5.00		31.9	20.9
125 x 125	20	352	213	251	140	1	21.3	13.0
5 x 5	300	13.86	8.39	9.88	5.50		46.9	28.6
150 x 150	20	385	229	273	165	1	30.3	19.7
6 x 6	300	15.16	9.02	10.75	6.50		66.7	43.3
200 x 200	20	464	260	323	229	1-1/4	47.6	34.3
8 x 8*	300	18.27	10.24	12.72	9.02		104.7	75.5
250 x 250	20	562	315	398	229	1-1/4	79.4	56.0
10 x 10	300	22.11	12.40	15.67	9.02		174.7	123.2
300 x 300	20	668	329	474	254	1-1/4	104.1	76.4
12 x 12	300	26.30	12.95	18.66	10.00		229.0	168.1
350 x 350	20	829	410	533	279	1-1/4	129.2	90.0
14 x 14	300	32.62	16.14	21.00	11.00		284.2	198.0
400 x 400	20	940	497	648	305	1-1/4	166.2	112.0
16 x 16	300	37.00	19.57	25.50	12.00		365.6	246.4



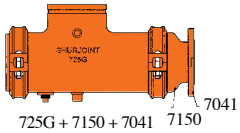
725G + 7041
For flanged connection



725G + 7180
With a universal flange

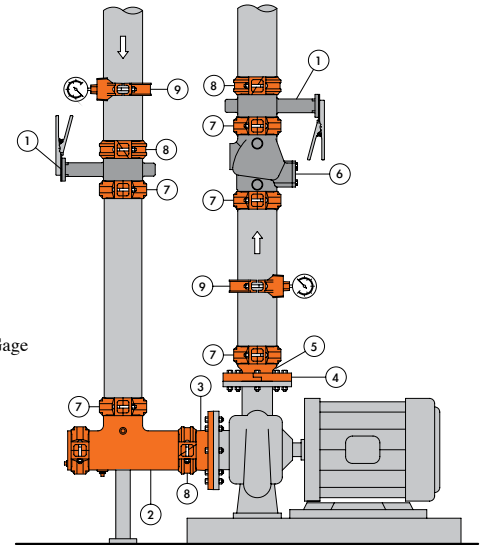


725G + Nipple + 7041
Extension



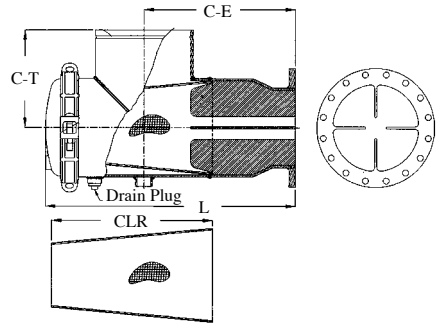
725G + 7150 + 7041
Reduction

① SJ-300L Butterfly Valve
② 725-G Suction Diffuser
③ 7180 Universal Flange Adapter
④ 7041 Flange
⑤ 7150 Concentric Reducer
⑥ SJ-900 Check Valve
⑦ 7707 Flexible Coupling
⑧ Z07 Rigid Coupling
⑨ 7721 Mechanical Tee With Pressuer Gage



MODEL 725-F SUCTION DIFFUSER (FABRICATED)

Shurjoint offers large diameter suction dffusers with reduced outlet sizes that are made of segment welded steel. The factory standard #725-F suction diffusers come with a grooved inlet and flanged outlet to ANSI class 125 /150, PN10 or JIS 10K.



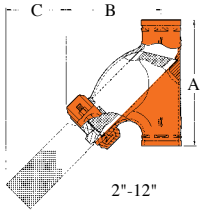
Nominal Size System Side X Pump Side mm/in	Working Pressure Bar/Psi	Dimensions				Drain in	Approx. Weight Kgs/Lbs
		L mm/in	C-E mm/in	CLR mm/in	C-T mm/in		
300 x 250	10	682	394	479	335	1-1/2	133
12 x 10	150	26.85	15.50	18.86	13.19		293
300 x 200	10	682	394	479	335	1-1/2	128
12 x 8	150	26.85	15.50	18.86	13.19		282
350 x 300	10	963	578	633	365	1-1/2	182
14 x 12	150	37.91	22.75	24.92	14.37		400
350 x 250	10	963	578	633	365	1-1/2	177
14 x 10	150	37.91	22.75	24.92	14.37		389
400 x 350	10	1038	629	682	403	1-1/2	231
16 x 14	150	40.86	24.75	26.85	15.87		508
400 x 300	10	1038	629	682	403	1-1/2	220
16 x 12	150	40.86	24.75	26.85	15.87		484
450 x 400	10	1206	711	825	459	1-1/2	298
18 x 16	150	47.48	28.00	32.48	18.07		656
450 x 350	10	1206	711	825	459	1-1/2	292
18 x 14	150	47.48	28.00	32.48	18.07		642
500 x 400	10	1409	864	901	508	1-1/2	360
20 x 16	150	55.47	34.00	35.47	20.00		792
500 x 350	10	1409	864	901	508	1-1/2	354
20 x 14	150	55.47	34.00	35.47	20.00		779

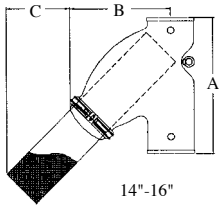
When ordering, specify the desired flange drilling.

MODEL 726 Y-STRAINER

The Model 726 Grooved-end Y-Strainers are designed to strain foreign matter and debris from piping systems and provide inexpensive protection for costly pumps, meters and other pipeline components. The straight flow through design provides lower pressure drop. The Model 726 Y-Strainer can be installed quickly and easily with two mechanical couplings. The stainless steel screen is secured with an end-cap and a mechanical coupling. Cleaning of the screen can be done easily by removing the two nuts and bolts of the coupling. The Model 726 Y-Strainer is suitable for both vertical and horizontal installations.

Standard Screen: 1/16" (1.6mm) perforated for 2"–3" sizes and 1/8" (3.2mm) perforated for 4"–16". Other customized screen perforations are available on request.

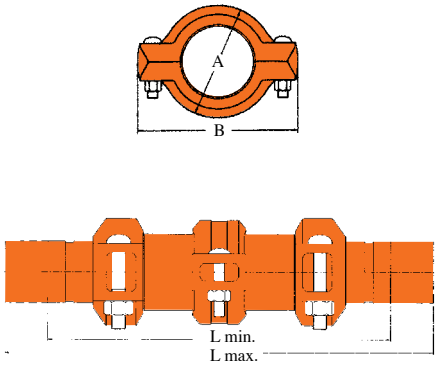




Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/Psi	Dimensions			Drain Plug Size mm/in	Weight Kgs/Lbs
			A mm/in	B mm/in	C mm/in		
50	60.3	20	248	181	116	15	4.2
2	2.375	300	9.75	7.13	4.56	0.5	9.3
65	73.0	20	273	199	122	15	6.0
2.5	2.875	300	10.75	7.83	4.80	0.5	13.2
65	76.1	20	273	199	122	15	7.6
2.5	3.000	300	10.75	7.83	4.80	0.5	16.7
80	88.9	20	299	221	129	25	8.2
3	3.500	300	11.75	8.70	5.08	1	18.0
100	114.3	20	362	269	168	25	12.0
4	4.500	300	14.25	10.59	6.61	1	26.4
125	139.7	20	419	330	258	25	22.0
5	5.500	300	16.50	13.00	10.16	1	48.4
125	141.3	20	419	330	258	25	22.0
5	5.563	300	16.50	13.00	10.16	1	48.4
150	168.3	20	470	357	219	25	32.0
6	6.625	300	18.50	14.05	8.62	1	70.4
150	165.1	20	470	357	219	25	32.0
6	6.500	300	18.50	14.05	8.62	1	70.4
200 JIS	216.3	12	610	454	284	40	55.0
8	8.516	175	24.00	17.87	11.18	1.5	121.0
200	219.1	12	610	454	284	40	55.0
8	8.625	175	24.00	17.87	11.18	1.5	121.0
250 JIS	267.4	12	686	522	320	40	83.0
10	10.528	175	27.00	20.55	12.60	1.5	182.6
250	273.0	12	686	522	320	40	83.0
10	10.750	175	27.00	20.55	12.60	1.5	182.6
300 JIS	318.5	12	762	609	366	40	126.0
12	12.539	175	30.00	24.00	14.40	1.5	277.2
300	323.9	12	762	609	366	40	126.0
12	12.750	175	30.00	24.00	14.40	1.5	277.2
350	355.6	12	1016	760	480	40	190.0
14	14.000	175	40.00	29.92	18.90	1.5	418.0
400	406.4	12	1067	777	483	40	225.0
16	16.000	175	42.00	30.60	19.00	1.5	495.0

MODEL 650N EXPANSION JOINT

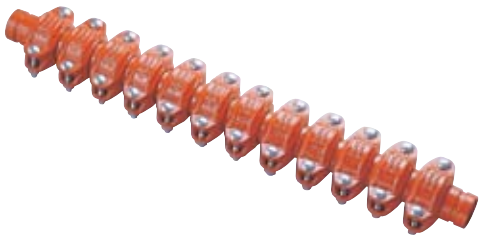
The *Shurjoint* Model 650N Expansion Joint is a slide-type expansion joint which provides 0 to 3" (0 to 76mm) of axial end movement. The components are supplied epoxy coated (RAL3000 red) for easier use and longer life. An integral safety device prevents excess movement and or the accidental pull-out of the grooved end pieces. The Model 650N can also be supplied with plain-ends for use with the Model 79 Wildcat plain-end coupling.

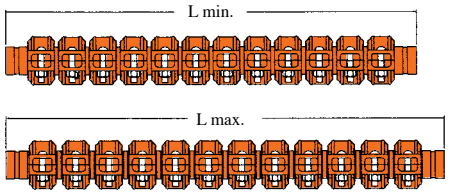


Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. Movement mm/in	Dimensions				Weight Kgs/Lbs
				A mm/in	B mm/in	L min. mm/in	L max. mm/in	
50	60.3	25	76	96	144	304	381	7.2
2	2.375	350	3	3.78	5.67	12.00	15.00	15.8
65	73.0	25	76	116	168	304	381	9.6
2.5	2.875	350	3	4.57	6.61	12.00	15.00	21.1
65	76.1	25	76	116	168	304	381	9.6
2.5	3.000	350	3	4.57	6.61	12.00	15.00	21.1
80	88.9	25	76	146	198	304	381	12.5
3	3.500	350	3	5.76	7.80	12.00	15.00	27.5
100	114.3	25	76	160	250	359	435	18.0
4	4.500	350	3	6.30	9.84	14.13	17.13	39.6
150	165.1	25	76	260	334	406	482	34.0
6	6.500	350	3	10.25	13.15	16.00	19.00	74.8
150	168.3	25	76	260	334	406	482	34.0
6	6.625	350	3	10.25	13.15	16.00	19.00	74.8

MODEL 651 EXPANSION JOINT

The Model 651 Expansion Joint is a combination of couplings and specially machined pipe nipples that are joined in a series to accommodate the expansion and or contraction of a piping system. Standard units are comprised of either Model 7705 or Model 7707 flexible couplings and cut-grooved Sch. 40 pipe nipples. Customized units are available.

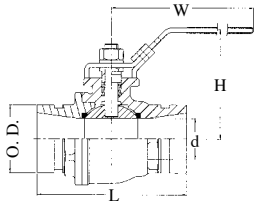




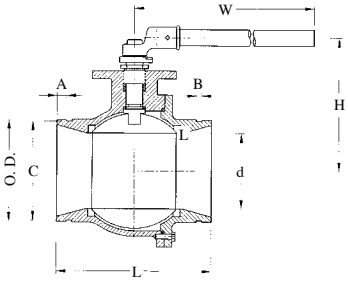
Nominal Size mm/in	Pipe O.D. mm/in	Max. Movement mm/in	L min. mm/in	L max. mm/in	Weight Kgs/Lbs
40	48.3	58	718	776	11.0
1.5	1.900	2.25	28.25	30.13	24.2
50	60.3	58	718	776	12.2
2	2.375	2.25	28.25	30.13	27.0
65	73.0	58	718	776	16.3
2.5	2.875	2.25	28.25	30.13	36.0
65	76.1	58	718	776	16.3
2.5	3.000	2.25	28.25	30.13	36.0
80	88.9	58	718	776	20.9
3	3.500	2.25	28.25	30.13	46.0
100	114.3	45	667	712	24.5
4	4.500	1.75	26.25	28.00	54.0
125	133.0	45	667	712	32.7
5	5.250	1.75	26.25	28.00	72.0
150	165.1	45	667	712	32.7
6	6.500	1.75	26.25	28.00	72.0
150	168.3	45	667	712	40.8
6	6.625	1.75	26.25	28.00	90.0
200	219.1	45	724	769	68.0
8	8.625	1.75	28.50	30.25	150.0

MODEL SJ-500L BALL VALVE

The Model SJ-500L is a ductile iron, grooved-end, two-piece, regular port ball valve designed and tested in conformance with MSS SP-110 and SP-72. The lever handle is equipped with tamper resistant locking holes. The SJ-500L is comprised of a ductile iron body and end cap, virgin TFE seats and chrome-plated carbon steel trim. Also available with stainless steel trim as an option.



1-1/2" - 4" size



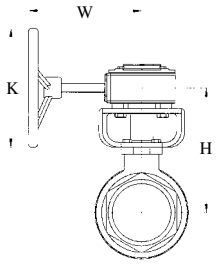
6" size

Nominal Size mm/in	Pipe O.D. mm/in	Working Pressure Bar/Psi	Operating Torque* N-m/Lb-in	Dimensions							Weight Kgs/Lbs
				L mm/in	H mm/in	W mm/in	d mm/in	A mm/in	B mm/in	C mm/in	
40	48.3	70	7	130	86	178	32	15.9	7.9	45.1	2.2
1.5	1.900	1000	62	5.12	3.39	7.00	1.25	0.625	0.312	1.775	4.8
50	60.3	70	17	140	95	178	38	15.9	7.9	57.2	2.9
2	2.375	1000	150	5.50	3.75	7.00	1.50	0.625	0.312	2.250	6.4
65	73.0	70	21	159	132	265	50	15.9	7.9	69.1	4.8
2.5	2.875	1000	186	6.25	5.20	10.43	2.00	0.625	0.312	2.720	10.6
65	76.1	70	21	159	132	265	50	15.9	7.9	72.3	4.8
2.5	3.000	1000	186	6.25	5.20	10.43	2.00	0.625	0.312	2.845	10.6
80	88.9	70	28	167	143	265	63	15.9	7.9	84.9	6.1
3	3.500	1000	248	6.56	5.63	10.43	2.50	0.625	0.312	3.344	13.4
100	114.3	55	45	240	94	265	90	15.9	7.9	110.0	25.0
4	4.500	800	398	9.45	3.70	10.43	3.50	0.625	0.312	4.334	55.0
150	165.1	40	60	258	221	600	125	15.9	9.5	163.9	36.0
6	6.500	600	531	10.15	8.68	23.60	4.92	0.625	0.374	6.453	79.2
150	168.3	40	60	258	221	600	125	15.9	9.5	163.9	36.0
6	6.625	600	531	10.15	8.68	23.60	4.92	0.625	0.374	6.453	79.2

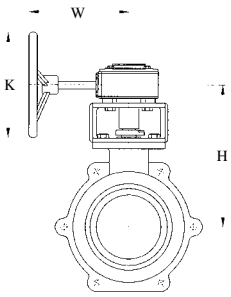
* When first opening or closing the valve when not continuosly operated.

MODEL SJ-500W BALL VALVE WITH GEAR OPERATOR

The Model SJ-500W can be equipped with a worm gear operator. The standard gear operator is supplied with a bracket and extension sleeve. The ISO 5211 mounting pad allows for the mounting of power actuators.



1-1/2" - 4" size



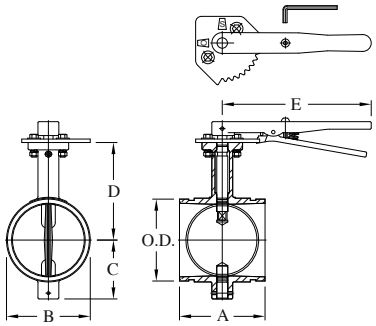
6" size

Nominal Size mm/in	Pipe O.D. mm/in	Dimensions			Approx. Weight Kgs/Lbs
		K mm/in	H mm/in	W mm/in	
40	48.3	152	124	203	7
1.5	1.900	6	4.88	8	15
50	60.3	152	137	203	8
2	2.375	6	5.38	8	18
65	73.0	152	145	203	10
2.5	2.875	6	5.68	8	22
65	76.1	152	145	203	10
2.5	3.000	6	5.68	8	22
80	88.9	152	182	203	14
3	3.500	6	7.16	8	168
100	114.3	152	203	203	33
4	4.500	6	8.00	8	73
150	165.1	305	277	356	56
6	6.500	12	10.89	14	123
150	168.3	305	277	356	56
6	6.625	12	10.89	14	123

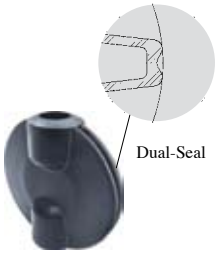
MODEL SJ-300N BUTTERFLY VALVE

The *Shurjoint* Model SJ-300N Butterfly Valve is a grooved-end shut-off valve with outstanding flow characteristics. The valve features an epoxy coated ductile iron body and dual seal disc with a rated working pressure of 300 psi (20 bar). The disc encapsulation is available in EPDM or Nitrile.

The Model SJ-300N is available either with a 10 position locking lever handle or worm gear operator.



SJ-300N-L
w / lever handle

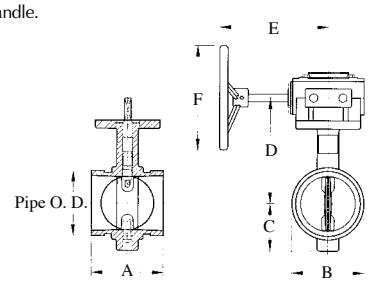


Nominal Size mm/in	Pipe O.D. mm/in	Dimensions A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	Operating N-m/In-Lb	Weight Kgs/Lbs
50	60.3	81	64	63	106	192	9.0	3.1
2	2.375	3.189	2.520	2.480	4.173	7.56	80	6.8
65	73.0	97	80	68	111	192	13.7	3.6
2.5	2.875	3.818	3.150	2.677	4.370	7.56	120	7.9
65	76.1	97	80	68	111	192	13.7	3.8
2.5	3.000	3.818	3.150	2.677	4.370	7.56	120	8.4
80	88.9	97	92	76	126	192	18.1	4.2
3	3.500	3.818	3.622	2.992	4.961	7.56	160	9.2
100	114.3	116	118	89	135	252	50.9	5.7
4	4.500	4.567	4.646	3.504	5.315	9.92	450	12.5
125	139.7	148	145	102	168	252	79.1	8.9
5	5.500	5.827	5.709	4.016	6.614	9.92	700	19.6
125	141.3	148	145	102	168	252	79.1	9.2
5	5.563	5.827	5.709	4.016	6.614	9.92	700	20.2
150	165.1	148	172	114	184	252	101.7	10.9
6	6.500	5.827	6.772	4.488	7.244	9.92	900	24.0
150	168.3	148	172	114	184	252	101.7	11.3
6	6.625	5.827	6.772	4.488	7.244	9.92	900	25.0
200JIS	216.3	133	222	140	208	356	135.6	16.7
8	8.516	5.236	8.740	5.512	8.189	14.02	1200	36.7
200	219.1	133	222	140	208	356	135.6	16.8
8	8.625	5.236	8.740	5.512	8.189	14.02	1200	37.0
250	273.0	160	284	186	260	356	203.4	28.3
10	10.750	6.300	11.181	7.323	10.236	14.00	1800	62.2
300	323.9	166	334	213	285	356	282.5	36.4
12	12.750	6.535	13.150	8.386	11.220	14.00	2500	80.1
350	355.6	178	359	224	276	200	254	56
14	14.000	7.008	14.134	8.819	10.866	7.874	10.00	123.4

* The weight includes the lever handle.

MODEL SJ-300N BUTTERFLY VALVE WITH GEAR OPERATOR

The Model SJ-300N can be equipped with a worm gear operator. The ISO 5211 mounting pad allows for the mounting of power actuators.



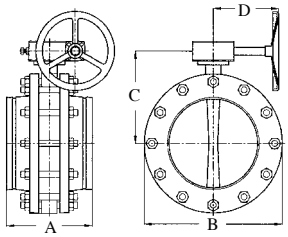
SJ-300N-W
w / worm gear

Nominal Size mm/in	Pipe O.D. mm/in	Dimensions A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	F mm/in	Weight Kgs/Lbs
50	60.3	81	64	63	106	153	154	8.14
2	2.375	3.189	2.520	2.480	4.173	6.02	6.06	17.90
65	73.0	97	80	68	111	153	154	8.80
2.5	2.875	3.818	3.150	2.677	4.370	6.02	6.06	17.90
65	76.1	97	80	68	111	153	154	8.80
2.5	3.000	3.818	3.150	2.677	4.370	6.02	6.06	17.90
80	88.9	97	92	76	126	153	154	9.20
3	3.500	3.818	3.622	2.992	4.961	6.02	6.06	20.25
100	114.3	116	118	89	135	153	154	10.60
4	4.500	4.567	4.646	3.504	5.315	6.02	6.06	23.35
125	139.7	148	145	102	168	153	154	14.34
5	5.500	5.827	5.709	4.016	6.614	6.02	6.06	31.55
125	141.3	148	145	102	168	153	154	14.34
5	5.563	5.827	5.709	4.016	6.614	6.02	6.06	31.55
150	165.1	148	172	114	184	153	154	16.14
6	6.500	5.827	6.772	4.488	7.244	6.02	6.06	35.50
150	168.3	148	172	114	184	153	154	16.14
6	6.625	5.827	6.772	4.488	7.244	6.02	6.06	35.50
8 JIS	216.3	133	222	140	208	200	254	22.04
8	8.516	5.236	8.740	5.512	8.189	7.87	10.00	48.50
200	219.1	133	222	140	208	200	254	22.04
8	8.625	5.236	8.740	5.512	8.189	7.87	10.00	48.50
250	273.0	160	284	186	260	200	254	33.42
10	10.750	6.300	11.181	7.323	10.236	7.87	10.00	73.50
300	323.9	166	334	213	285	200	254	41.52
12	12.750	6.535	13.150	8.386	11.220	7.87	10.00	91.35
350	355.6	178	359	224	276	200	254	62
14	14.000	7.008	14.134	8.819	10.866	7.874	10.00	136.6

* The weight includes the worm gear operator.

MODEL SJ-202 14" – 24" BUTTERFLY VALVE

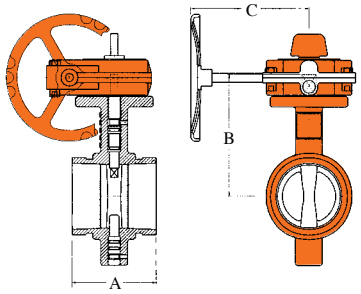
The *Shurjoint* Model SJ-202 Butterfly Valve is a wafer type butterfly valve furnished with grooved-end flange adapters at both ends and a gear operator. The rated working pressure is 150 psi (10 bar).



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions				Weight Kgs/Lbs
		A mm/in	B mm/in	C mm/in	D mm/in	
350	355.6	330	533	356	242	172
14	14.000	13.00	21.00	14.00	9.50	378
400	406.4	356	597	394	242	210
16	16.000	14.00	23.50	15.50	9.50	462
450	457.2	394	635	419	242	250
18	18.000	15.50	25.00	16.50	9.50	550
500	508.0	410	699	478	280	330
20	20.000	16.13	27.50	18.82	11.00	726
600	609.6	453	813	280	568	500
24	24.000	18.00	32.00	22.36	11.00	1100

MODEL SJ-700W BUTTERFLY VALVE WITH GEAR OPERATOR

The Model SJ-700W is a grooved-end shut-off valve with outstanding flow characteristics. SJ-700W features a worm drive gear operator, pre-wired internal supervisory switch, nylon (Rilsan) coated ductile iron body and EPDM encapsulated disc. Working Pressure (UL): 175 psi (12 bar).



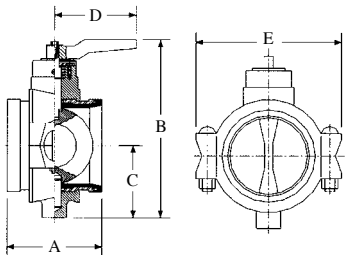
Nominal Size mm/in	Pipe O.D. mm/in	Dimensions-mm/in			Weight Kgs/Lbs
		A	B	C	
50 2	60.3 2.375	86 3.386	148 5.827	132 5.196	8.1 17.9
65 2.5	73.0 2.875	97 3.818	156 6.142	132 5.196	8.8 17.9
80 3	88.9 3.500	97 3.818	162 6.378	132 5.196	9.2 20.3
100 4	114.3 4.500	116 4.567	179 7.047	132 5.196	10.6 23.4
125 5	141.3 5.563	134 5.276	202 7.953	192 7.559	14.4 31.6
150 6	168.3 6.625	134 5.276	213 8.386	192 7.559	16.1 35.5
200 8	219.1 8.625	148 5.826	235 9.252	192 7.559	22.1 48.5
250 10	273.0 10.750	160 6.300	260 10.236	242 9.528	33.4 73.5
300 12	323.9 12.750	166 6.535	313 12.320	242 9.528	41.5 91.4

* The weight includes the worm gear operator.

MODEL SJ-100 LOW-PROFILE BUTTERFLY VALVE

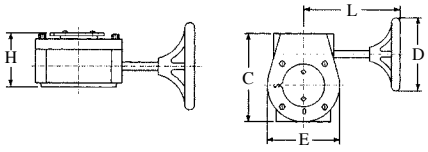
The *Shurjoint* Model SJ-100 Butterfly Valve has been designed to conform to MSS SP-67 and EN 593 (BS 5155). It features a rubber lined carbon steel body with a streamlined stainless steel disc, assembled with ductile iron housings. The low profile design fits into applications where space is limited.

EPDM body liner is applicable for water services up to +230°F (+110°C) and Nitrile body liner for oil services up to 180°F (+82°C). Valves are available 2" through 8" (50 - 200mm) supplied standard with a ductile iron lever handle.



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions					Weight Kgs/Lbs
		A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	
50	60.3	81	151	46	155	103	1.5
2	2.375	3.18	5.94	1.81	6.10	4.05	3.3
65	73.0	97	210	70	155	124	2.9
2-1/2	2.875	3.81	8.26	2.75	6.10	4.88	6.4
65	76.1	97	210	70	155	124	2.9
2-1/2	3.000	3.81	8.26	2.75	6.10	4.88	6.4
80	88.9	97	210	70	205	145	3.1
3	3.500	3.81	8.26	2.75	8.07	5.70	6.8
100	114.3	116	245	89	245	178	5.5
4	4.500	4.56	9.65	3.50	9.64	7.00	12.1
125	139.7	148	292	102	245	216	11.8
5	5.500	5.82	11.50	4.01	9.64	8.50	26.1
125	141.3	148	292	102	245	216	11.8
5	5.563	5.82	11.50	4.01	9.64	8.50	26.1
150	165.1	148	335	113	310	240	14.7
6	6.500	5.82	13.19	4.44	12.20	9.44	32.5
150	168.3	148	335	113	310	240	14.7
6	6.625	5.82	13.19	4.44	12.20	9.44	32.5
200	219.1	135	398	140	310	343	23.5
8	8.625	5.31	15.66	5.51	12.20	13.50	51.7

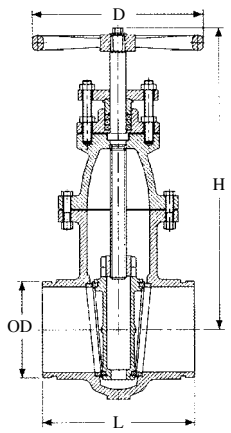
GEAR OPERATOR



Valve Size mm/in	Part Number	Ratio	L mm/in	H mm/in	D mm/in	E mm/in	C mm/in
50 - 150	2000 - 24	24:1	160	65	195	108	130
2 - 6			6.30	2.56	7.68	4.25	5.12
200	2000 - 30	30:1	238	85	297	153	177
8			9.37	3.35	11.70	6.02	6.97

MODEL SJ-721G NRS GATE VALVE

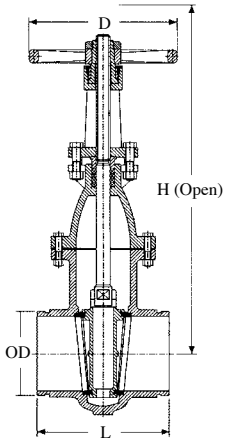
The *Shurjoint* Model SJ-721G is a grooved-end NRS (non-rising stem) gate valve with its basic design conforming to MSS SP-70 and EN 1171 (BS 5150). The body and wedge gate are trimmed with gunmetal C83600 providing a long service life in a wide temperature range. The SJ-721G is available in sizes 2 to 12" (50mm to 300mm).



Nominal Size mm/in	Pipe O. D. mm/in	Dimensions L mm/in	H mm/in	D mm/in	Drain Plug Size mm/in	Approx. Weight Kgs/Lbs
50	60.3	178	327	178	15	15.0
2	2.375	7.00	12.87	7.00	1/2	33.1
65	73.0	191	322	178	25	20.0
2.5	2.875	7.52	12.68	7.00	1	44.1
65	76.1	191	322	178	25	20.0
2.5	3.000	7.52	12.68	7.00	1	44.1
80	88.9	203	340	190	25	22.0
3	3.500	7.99	13.39	7.48	1	48.5
100	114.3	229	420	250	40	41.0
4	4.500	9.02	16.54	9.84	1	90.4
125	139.7	254	477	300	50	50.0
5	5.500	10.00	18.78	11.81	2	110.2
125	141.3	254	477	300	50	50.0
5	5.563	10.00	18.78	11.81	2	110.2
150	168.3	267	542	300	50	71.5
6	6.625	10.51	21.34	11.81	2	157.6
150	165.1	267	542	300	50	71.5
6	6.500	10.51	21.34	11.81	2	157.6
200	219.1	292	668	356	50	110.7
8	8.625	11.49	26.29	14.01	2	243.5
250	273.0	330	750	400	50	147.6
10	10.748	12.99	29.52	15.74	2	324.8
300	323.9	356	835	457	50	235.8
12	12.751	14.01	32.87	17.99	2	518.8

MODEL SJ-722G OS&Y GATE VALVE

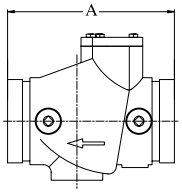
The *Shurjoint* Model SJ-722G is a grooved-end OS&Y (outside screw & yoke) gate valve with its basic design conforming to MSS SP-70 and EN 1171 (BS 5150). The body and wedge gate are trimmed with gunmetal C83600 providing a long service life in a wide temperature range. The SJ-722G is available in sizes 2 to 12" (50mm to 300mm).

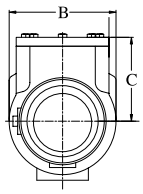


Nominal Size mm/in	Pipe O. D. mm/in	Dimensions A mm/in	H (Open) mm/in	C mm/in	Approx. Weight Kgs/Lbs
50	60.3	178	405	178	16.2
2	2.375	7.00	15.94	7.00	35.7
65	73.0	191	415	178	22.0
2.5	2.875	7.51	16.33	7.00	48.5
65	76.1	191	415	178	22.0
2.5	3.000	7.51	16.33	7.00	48.5
80	88.9	203	486	190	23.5
3	3.500	7.99	19.13	7.48	51.8
100	114.3	229	632	250	45.0
4	4.500	9.02	24.89	9.84	99.2
125	139.7	254	710	300	56.0
5	5.500	10.00	27.95	11.81	123.4
125	141.3	254	710	300	56.0
5	5.563	10.00	27.95	11.81	123.4
150	165.1	267	842	300	85.0
6	6.500	10.51	33.14	11.81	187.3
150	168.3	267	842	300	85.0
6	6.625	10.51	33.14	11.81	187.3
200	219.1	292	1100	356	125.5
8	8.625	11.49	43.30	14.02	276.6
250	273.0	330	1228	400	180.0
10	10.748	12.99	48.34	15.74	396.0
300	323.9	356	1373	457	256.5
12	12.751	14.01	54.05	17.99	564.3

MODEL SJ-900 SWING CHECK VALVE

The *Shurjoint* Model SJ-900 Swing Check Valve is a grooved-end check valve featuring a spring-loaded wide-open clapper and a non-stick leak tight EPDM rubber seal with a rated working pressure of 300 psi (20 bar). The valve can be installed in the horizontal or vertical position (upward flow only).

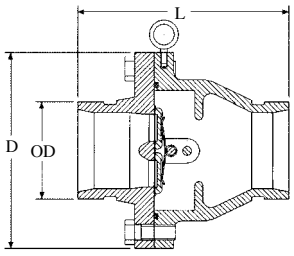




Nominal Size mm/in	Pipe O.D. mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Weight Kgs/Lbs
65	73.0	190	114	95	4.9
2.5	2.875	7.48	4.50	3.75	10.8
65	76.1	190	114	95	4.9
2.5	3.000	7.48	4.50	3.75	10.8
80	88.9	178	114	95	4.7
3	3.500	7.00	4.50	3.75	10.3
100	114.3	216	146	117	7.9
4	4.500	8.50	5.75	4.60	17.4
125	139.7	330	210	178	22.0
5	5.500	13.00	8.25	7.00	48.0
125	141.3	330	210	178	22.0
5	5.563	13.00	8.25	7.00	48.0
150	165.1	305	210	178	22.5
6	6.500	12.00	8.25	7.00	49.5
150	168.3	305	210	178	22.5
6	6.625	12.00	8.25	7.05	49.5
200 JIS	216.3	365	260	217	29.0
8	8.516	14.37	10.23	8.54	63.8
200	219.1	365	260	217	29.0
8	8.625	14.37	10.23	8.54	63.8
250 JIS	267.4	508	365	273	43.0
10	10.528	20.00	14.37	10.75	95.0
250	273.0	508	365	273	43.0
10	10.750	20.00	14.37	10.75	95.0
300 JIS	318.5	610	398	327	64.0
12	12.539	24.00	15.67	12.87	140.0
300	323.9	610	398	327	64.0
12	12.750	24.00	15.67	12.87	140.0

MODEL SJ-920 DOUBLE DOOR CHECK VALVE

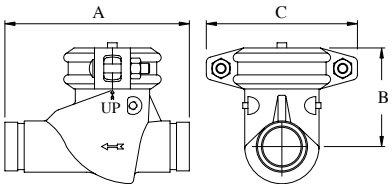
The *Shurjoint* Model SJ-920 Double Door Check Valve is designed to provide positive protection against backflow in piping systems. The SJ-920 features a grooved-end ductile iron body and Type 304 stainless steel dual discs. Seating surfaces are EPDM (or optionally NBR or Viton) and the hinge pin is type 420 stainless steel.



Nominal Size mm/in	Pipe O. D. mm/in	Dimensions L mm/in	Dimensions D mm/in	Approx. Weight Kgs/Lbs
65	73.0	140	178	7.0
2.5	2.875	5.51	7.01	15.4
65	76.1	140	178	7.0
2.5	3.000	5.51	7.01	15.4
80	88.9	150	191	10.0
3	3.500	5.91	7.52	22.0
100	114.3	197	235	18.0
4	4.500	7.76	9.26	39.6
125	139.7	211	254	19.0
5	5.500	8.31	10.0	41.8
125	141.3	211	254	19.0
5	5.563	8.31	10.0	41.8
150	165.1	211	280	22.0
6	6.500	8.31	11.02	48.5
150	168.3	211	280	22.0
6	6.625	8.31	11.02	48.5
200	219.1	232	372	49.0
8	8.625	9.13	14.65	108.0
250	273.0	260	406	60.0
10	10.748	10.24	15.98	132.2
300	323.9	323.9	457	106.0
12	12.751	12.75	17.99	233.6

MODEL SJ-930
HORIZONTAL SWING CHECK VALVE

The *Shurjoint* Model SJ-930 horizontal swing check valves are supplied with grooved ends and are designed for general services including mining and oilfield applications. The valves are cast of ductile iron and are rated from 300 psi (20 bar) to 1000 psi (70 bar) depending on the pipe and couplings used in conjunction with. The SJ-930 features a bonnet cap which is drilled, tapped (1/2" NPT) and plugged and secured using a *Shurjoint* XH-70 coupling. The valve seat is epoxy coated and the 316 stainless steel clapper is supplied standard encapsulated with EPDM or Nitrile, as an option we offer Fluoroelastomer or Teflon encapsulations to meet your service requirements.

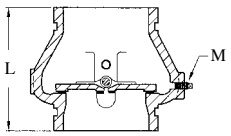


Nominal Size mm/in	Pipe O.D. mm/in	Max Working Pressure Bar/Psi	Dimensions			Weight Kgs/Lbs
			A mm/in	B mm/in	C mm/in	
60	60.3	70	229	124	150	5.6
2	2.375	1000	9.00	4.88	5.90	12.3
65	73.0	70	235	140	178	8.5
2.5	2.875	1000	9.25	5.50	7.00	18.7
80	88.9	41	273	146	188	11.0
3	3.500	600	10.75	5.75	7.40	24.2
100	114.3	41	305	194	222	18.0
4	4.500	600	12.00	7.63	8.74	39.6

* Pressure ratings are based on cut-grooved sch. 40 or thicker pipe connected with *Shurjoint* XH-70 extra heavy rigid couplings.

MODEL 453UG
DUAL PLATE CHECK VALVE

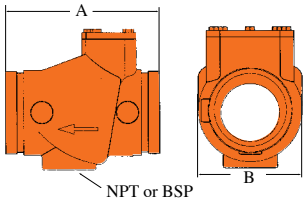
The Model 453UG is a dual-plate check valve. The valve body is made of ductile iron and is fully epoxy coated. The 453UG features a dual plate bronze disc. Working pressure (UL/FM): 200 psi (14 bar).



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions		Weight Kgs/Lbs
		L mm/in	M in	
80	88.9	130	1/2	4.0
3	3.500	5.13		8.8
100	114.3	143	1/2	5.6
4	4.500	5.63		12.3
150	165.1	178	3/4	12.6
6	6.500	7.00		27.7
150	168.3	178	3/4	12.6
6	6.625	7.00		27.7
200	219.1	210	3/4	22.0
8	8.625	8.25		48.4

MODEL RCV RISER CHECK VALVE

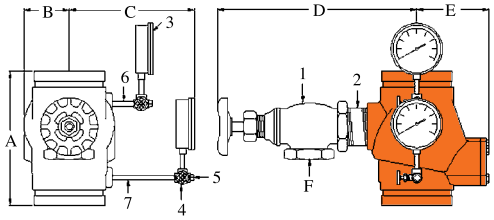
The Model RCV is a grooved-end ductile iron body check valve, designed for use in the risers of wet type fire protection systems. The single clapper design features dual springs for non-slamming operation and the streamlined body provides for low friction loss. The valve can be installed in the vertical or horizontal position. Working pressure (UL/FM): 300 psi (20 Bar).



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions			Weight Kgs/Lbs
		A mm/in	B mm/in	Drain NPT/in	
65	73.0	190	114	1-1/4	4.9
2.5	2.875	7.48	4.50		10.8
80	88.9	178	114	1-1/4	7.0
3	3.500	7.00	4.50		15.4
100	114.3	216	146	2	11.0
4	4.500	8.50	5.75		24.2
125	141.3	330	210	2	22.0
5	5.563	13.00	8.25		48.0
150	168.3	305	210	2	21.0
6	6.625	12.00	8.25		46.2
200	219.1	365	260	2	29.0
8	8.625	14.37	10.23		63.8

MODEL RCV RISER CHECK VALVE WITH TRIM KIT

The model RCV is also available with a riser trim kit, contact *Shurjoint* for further details.



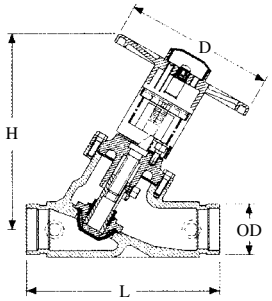
Riser Trim Kit

1. 1 1/4" angle valve (for 2"~3"), 2" angle valve (4" - 8")
2. 1 1/4" close nipple (for 2"~3"), 2" close nipple (4" - 8")
3. 300 psi (21 Bar) pressure gauges
4. 1/4" gauges test valve (2)
5. 1/4" plugs (2)
6. 1/4" x 1 - 1/2" nipple
7. 1/4" x 4" nipple

MODEL SJ-980 BALANCING VALVE

The *Shurjoint* Model SJ-980 Balancing Valve is a grooved-end throttling and flow measuring device designed to achieve flow rates in heating and cooling systems. Pre-setting of the desired flow rate helps save time and energy costs in hydronic systems. The streamline body design provides precise balancing and low pressure drop.

The SJ-980 is available in sizes 2″ to 8″ (50mm to 200mm).

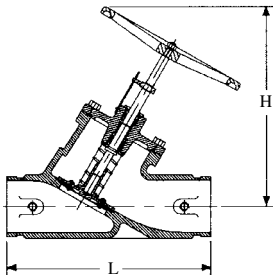


Nominal Size mm/in	Pipe O. D. mm/in	Dimensions L mm/in	H mm/in	D mm/in	Weight Kgs/Lbs
50	60.3	230	260	180	11.7
2	2.374	9.05	10.23	7.08	25.7
65	73.0	290	293	180	13.5
2.5	2.875	11.41	11.53	7.08	29.7
65	76.1	290	293	180	13.5
2.5	3.000	11.41	11.53	7.08	29.7
80	88.9	310	305	180	23.4
3	3.500	12.20	12.00	7.08	51.5
100	114.3	350	323	180	39.6
4	4.500	13.77	12.71	7.08	87.3
125	139.7	400	353	260	63.9
5	5.500	15.74	13.89	10.23	140.8
125	141.3	400	353	260	63.9
5	5.563	15.74	13.89	10.23	140.8
150	165.1	480	388	260	80.1
6	6.500	18.89	15.27	10.23	176.5
150	168.3	480	388	260	80.1
6	6.625	18.89	15.27	10.23	176.5
200	219.1	600	453	260	142.2
8	8.625	26.62	17.83	10.23	313.4

MODEL SJ-990 TRIPLE DUTY VALVE

The *Shurjoint* Model SJ-990 Triple Duty Valve is a grooved-end multifunction valve primarily used for pump protection. The SJ-990 functions as a spring loaded silent check valve, balancing valve and shut-off valve operating automatically and silently. The graduated position indicator provides accurate visual check of the valve position.

The SJ-990 is available in sizes 2 to 12″ (50mm to 300mm).



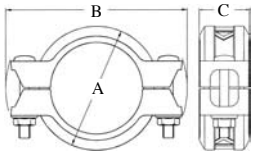
Nominal Size mm/in	Pipe O. D. mm/in	Max. Working Pressure Bar/PSI	Dimensions L mm/in	H mm/in	Approx. Weight Kgs/Lbs
50	60.3	14	230	300	11.7
2	2.375	200	9.05	11.81	25.7
65	73.0	14	290	320	13.5
2.5	2.875	200	11.41	12.59	29.7
65	76.1	14	290	320	13.5
2.5	3.000	200	11.41	12.59	29.7
80	88.9	14	310	350	23.4
3	3.500	200	12.20	13.78	51.5
100	114.3	14	350	455	39.6
4	4.500	200	13.78	17.91	87.3
125	139.7	14	400	515	63.9
5	5.500	200	15.74	20.27	140.8
125	141.3	14	400	515	63.9
5	5.563	200	15.74	20.27	140.8
150	165.1	14	480	565	80.1
6	6.500	200	18.89	20.24	176.5
150	168.3	14	480	565	80.1
6	6.625	200	18.89	22.24	176.5
200	219.1	14	600	710	142.2
8	8.625	200	23.62	27.95	313.4
250	273.0	14	730	895	193.5
10	10.748	200	28.74	32.23	426.5
300	323.9	14	850	1000	268.2
12	12.751	200	33.46	39.37	591.2

GROOVED COUPLINGS

Shurjoint offers a full range of both rigid and flexible stainless steel couplings available in sizes from 3/4" - 24". These couplings are designed for use with Schedule 5S, 10S, 20S, 40S and 80S stainless steel pipe and for a variety of service applications. Couplings are supplied standard in CF8 (304) and CF8M (316) with type 304 and 316 track bolts and nuts. In addition couplings are also available on request in CF3M (316L), 316Ti, 2205 Duplex, 2507 Super Duplex and ASTM CK-3MCuN (UNS J93245) the cast equivalent to 254SMO®, (254SMO is a registered trademark of Avesta Polarit AB.) to meet your specific service requirements. Pressure ratings for individual couplings will vary depending on the size and schedule of pipe used. Please refer to the performance data on page 73.

MODEL SS-7 STAINLESS STEEL RIGID COUPLING

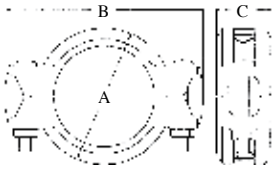
The Model SS-7 is a T&G type rigid coupling designed for use on stainless steel pipe. The SS-7 couplings tongue and groove design provides a positive rigid joint. Always fasten the bolts to the required torque.



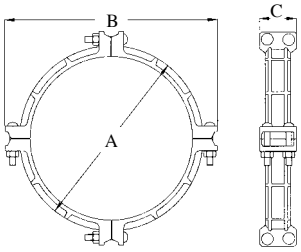
Nominal Size mm/in	Pipe O.D. mm/in	Pipe End Separation mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Bolt Size in	Bolt Torque N-m/Lbs-Ft	Weight Kgs/Lbs
32	42.2	0-1.6	68	105	45	3/8 x 2	25-30	0.7
1.25	1.660	0-0.06	2.68	4.13	1.75		18-22	1.5
40	48.3	0-1.6	74	108	46	3/8 x 2	25-30	0.8
1.5	1.900	0-0.06	2.91	4.25	1.81		18-22	1.8
50	60.3	0-1.6	86	125	46	3/8 x 2	25-30	0.9
2	2.375	0-0.06	3.39	4.92	1.81		18-22	2.0
65	73.0	0-1.6	99	138	46	3/8 x 2	25-30	1.0
2.5	2.875	0-0.06	3.90	5.43	1.81		18-22	2.2
65	76.1	0-1.6	102	141	46	3/8 x 2	25-30	1.0
2.5	3.000	0-0.06	4.00	5.55	1.81		18-22	2.2
80	88.9	0-1.6	115	157	46	3/8 x 3	25-30	1.4
3	3.500	0-0.06	4.53	6.18	1.81		18-22	3.0
100	114.3	0-3.2	146	191	51	3/8 x 3	25-30	2.1
4	4.500	0-0.13	5.75	7.52	2.00		18-22	4.6
125	139.7	0-3.2	170	234	51	1/2 x 3	50-68	2.8
5	5.500	0-0.13	6.69	9.21	2.00		37-50	6.2
125	141.3	0-3.2	171	236	51	1/2 x 3	50-68	2.5
5	5.563	0-0.13	6.73	9.29	2.00		37-50	5.5
150	165.1	0-3.2	198	252	51	1/2 x 3	50-68	3.1
6	6.500	0-0.13	7.80	9.92	2.00		37-50	6.8
150	168.3	0-3.2	201	256	51	1/2 x 3	50-68	2.8
6	6.625	0-0.13	7.91	10.08	2.00		37-50	6.2
200 JIS	216.3	0-3.2	261	330	62	5/8 x 3-1/2	80-120	5.0
8	8.516	0-0.13	10.28	12.99	2.44		60-90	11.0
200	219.1	0-3.2	264	333	62	5/8 x 3-1/2	80-120	5.5
8	8.625	0-0.13	10.39	13.11	2.44		60-90	12.1

MODEL SS-7X STAINLESS STEEL HEAVY DUTY RIGID COUPLING

The *Shurjoint* Model SS-7X is designed for use with cut or roll grooved stainless steel pipe from 10″ through 24″. 10″ through 14″ sizes feature a two-segment design with heavy duty bolts and nuts and 16″ through 24″ sizes a four-segment design incorporating two bolts at each joint segment to provide a positive connection and seal. Always fasten the bolts to the required torque.



10" ~ 14"

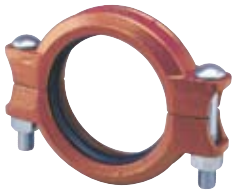


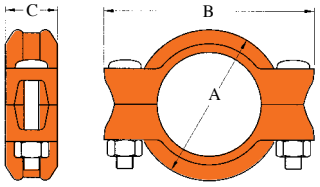
16" ~ 24"

Nominal Size mm/in	Pipe O.D. mm/in	Pipe End Separation mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Bolt Size in	Bolt Torque N-m/Lbs-Ft	Weight Kgs/Lbs
250 JIS	267.4	0-3.2	321	395	62	7/8 x 6-1/2	170-275	8.5
10	10.528	0-0.13	12.28	15.55	2.44		125-200	18.7
250	273.0	0-3.2	318	406	65	7/8 x 6-1/2	170-275	10.5
10	10.750	0-0.13	12.52	15.98	2.56		125-200	23.1
300 JIS	318.5	0-3.2	365	445	62	7/8 x 6-1/2	170-275	9.8
12	12.539	0-0.13	14.37	17.51	2.44		125-200	22.5
300	323.9	0-3.2	374	452	65	7/8 x 6-1/2	170-275	11.5
12	12.750	0-0.13	14.72	17.78	2.56		125-200	23.3
350	355.6	0-3.2	412	485	75	7/8 x 6-1/2	170-275	15.5
14	14.000	0-0.13	16.24	19.09	1.19		125-200	33.0
400	406.4	0-3.2	463	536	75	5/8 x 3-1/2	80-120	19.6
16	16.000	0-0.13	18.22	21.10	1.91		60-90	43.1
450	457.2	0-3.2	514	587	75	5/8 x 3-1/2	80-120	25.0
18	18.000	0-0.13	20.24	23.11	1.91		60-90	55.0
500	508.0	0-3.2	571	669	79	3/4 x 4-3/4	100-135	31.0
20	20.000	0-0.13	22.48	26.34	3.11		75-100	68.2
550	558.8	0-3.2	622	720	79	3/4 x 4-3/4	100-135	33.0
22	22.000	0-0.13	24.49	28.35	3.11		75-100	72.6
600	609.6	0-3.2	673	771	79	3/4 x 4-3/4	100-135	34.7
24	24.000	0-0.13	26.47	30.35	3.11		75-100	76.3

MODEL DS-7X RIGID COUPLING (FOR STAINLESS STEEL PIPE)

The *Shurjoint* Model DS-7X is an extra heavy duty ductile iron coupling providing a reliable, durable and economical method of joining stainless steel pipe. The wide housing keys securely grip the grooves with the aid of heavy duty bolts and nuts. Always fasten the bolts to the required torque.

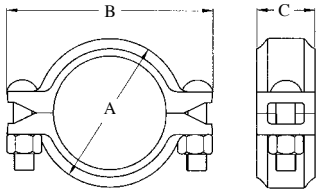




Nominal Size mm/in	Pipe O.D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Pipe End Separation mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Bolt Torque N-m Lbs-Ft	Bolt Size in	Weight Kgs/Lbs
50	60.3	52	14.84	3.6	89.0	150.0	48.6	50 - 68	5/8 x 2-3/4	1.4
2	2.375	750	3320	0.14	3.50	5.90	1.92	37 - 50		3.0
65	73.0	52	21.75	3.6	102.0	178.0	50.8	50 - 68	5/8 x 2-3/4	1.8
2.5	2.875	750	4870	0.14	4.00	7.00	2.00	37 - 50		4.0
80	88.9	52	32.26	3.6	122.0	188.0	50.8	50 - 68	5/8 x 2-3/4	2.0
3	3.500	750	7210	0.14	4.80	7.40	2.00	37 - 50		4.4
100	114.3	52	47.61	6.4	157.0	222.0	54.0	50 - 68	3/4 x 4-3/4	3.4
4	4.500	750	10630	0.25	6.18	8.74	2.13	37 - 50		7.5
150	168.3	52	115.73	6.4	218.0	248.0	57.0	80 - 120	7/8 x 5-1/2	7.0
6	6.625	750	25840	0.25	8.58	9.76	2.25	60 - 90		15.5
200	219.1	42	157.00	6.4	273.0	359.0	65.0	100 - 135	1 x 5-1/2	11.0
8	8.625	600	35037	0.25	10.25	14.15	2.56	74 - 100		24.2
250	273.0	42	244.00	6.4	336.0	431.0	70.0	170 - 275	1 x 5-1/2	14.0
10	10.750	600	54429	0.25	13.23	16.98	2.75	125 - 205		31.0
300	323.9	42	343.00	6.4	392.0	480.0	73.0	275 - 400	1 x 5-1/2	20.0
12	12.750	600	76566	0.25	15.43	18.93	2.88	205 - 300		44.0

MODEL SS-8 STAINLESS STEEL FLEXIBLE COUPLING

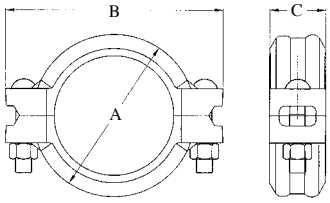
The Model SS-8 Flexible Coupling provides a fast easy and durable method of joining stainless steel pipe for a variety of service applications.



Nominal Size mm/in	Pipe O.D. mm/in	Pipe End Separation mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Deflection degree	Bolt Size in	Weight Kgs/Lbs
25	33.4	0 - 1.6	55.7	87.5	44.0	2° - 45'	5/16 x1-1/2	0.5
1	1.315	0 - 0.06	2.19	3.45	1.73			1.1
32	42.2	0 - 1.6	64.6	97.8	44.0	2° - 10'	5/16 x1-1/2	0.5
1.25	1.660	0 - 0.06	2.54	3.85	1.73			1.1
40	48.3	0 - 1.6	70.8	105.1	44.0	1° - 54'	5/16 x1-1/2	0.5
1.5	1.900	0 - 0.06	2.79	4.14	1.73			1.1
50	60.3	0 - 1.6	83.0	124.0	44.0	1° - 31'	3/8 x 2	0.7
2	2.375	0 - 0.06	3.28	4.88	1.73			1.5
65	73.0	0 - 1.6	96.2	139.9	44.0	1° - 15'	3/8 x 2	0.8
2.5	2.875	0 - 0.06	3.79	5.51	1.73			1.8
65	76.1	0 - 1.6	99.2	141.5	44.0	1° - 12'	3/8 x 2	0.8
2.5	3.000	0 - 0.06	3.91	5.57	1.73			1.8
80	88.9	0 - 1.6	111.4	155.0	44.0	1° - 02'	3/8 x 2	1.0
3	3.500	0 - 0.06	4.39	6.10	1.73			2.2
100	114.3	0 - 3.2	142.8	195.8	50.0	1° - 36'	1/2 x 3	1.7
4	4.500	0 - 0.13	5.62	7.71	1.97			3.7
125	141.3	0 - 3.2	170.8	226.1	50.0	1° - 18'	1/2 x 3	2.2
5	5.563	0 - 0.13	6.72	8.90	1.97			4.8
150	165.1	0 - 3.2	194.8	249.9	53.0	1° - 07'	1/2 x 3	2.7
6	6.500	0 - 0.13	7.67	9.84	2.09			5.9
150	168.3	0 - 3.2	198.0	253.1	53.0	1° - 05'	1/2 x 3	2.9
6	6.625	0 - 0.13	7.80	9.96	2.09			6.4
200 JIS	216.3	0 - 3.2	251.0	334.0	61.0	0° - 51'	5/8 x 3-1/2	5.1
8	8.516	0 - 0.13	10.00	13.15	2.40			11.3
200	219.1	0 - 3.2	255.0	337.0	62.0	0° - 50'	5/8 x 3-1/2	6.4
8	8.625	0 - 0.13	10.04	13.27	2.44			14.1

MODEL SS-8X STAINLESS STEEL HEAVY DUTY FLEXIBLE COUPLING

The Model SS-8X Heavy Duty Flexible Coupling is designed for use with stainless steel pipe for higher pressure applications.



Nominal Size mm/in	Pipe O.D. mm/in	Pipe End Separation mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Deflection degree	Bolt Size in	Weight Kgs/Lbs
20	26.7	0 - 1.6	56.0	95.0	46.0	3° - 23'	3/8 x 2	0.7
0.75	1.050	0 - 0.06	2.20	3.75	1.81			1.5
25	33.4	0 - 1.6	63.0	99.0	46.0	2° - 45'	3/8 x 2	0.8
1	1.315	0 - 0.06	2.45	3.91	1.81			1.8
32	42.2	0 - 1.6	72.0	111.0	46.0	2° - 10'	3/8 x 2	0.9
1.25	1.660	0 - 0.06	2.82	4.37	1.81			2.0
40	48.3	0 - 1.6	78.0	123.0	46.0	1° - 54'	3/8 x 2	1.0
1.5	1.900	0 - 0.06	3.06	4.82	1.81			2.2
50	60.3	0 - 1.6	88.0	134.0	47.0	1° - 31'	3/8 x 2	1.2
2	2.375	0 - 0.06	3.46	5.28	1.85			2.6
65	73.0	0 - 1.6	153.0	103.0	47.0	1° - 15'	3/8 x 2	1.3
2.5	2.875	0 - 0.06	6.02	4.06	1.85			2.9
80	88.9	0 - 1.6	120.0	171.0	47.0	1° - 02'	1/2 x 3	1.8
3	3.500	0 - 0.06	4.71	6.74	1.85			4.0
100	114.3	0 - 3.2	152.0	201.0	52.0	1° - 36'	1/2 x 3	2.4
4	4.500	0 - 0.13	5.98	7.90	2.03			5.3
125	141.3	0 - 3.2	181.0	249.0	53.0	1° - 18'	5/8 x 3-1/2	3.3
5	5.563	0 - 0.13	7.13	9.80	2.09			7.2
150	168.3	0 - 3.2	208.0	276.0	53.0	1° - 05'	5/8 x 3-1/2	3.6
6	6.625	0 - 0.13	8.19	10.85	2.09			7.9
200 JIS	216.3	0 - 3.2	264.0	338.0	62.0	0° - 51'	3/4 x 4-3/4	6.5
8	8.516	0 - 0.13	10.39	13.31	2.44			14.3
200	219.1	0 - 3.2	267.0	341.0	62.0	0° - 50'	3/4 x 4-3/4	6.8
8	8.625	0 - 0.13	10.53	13.43	2.44			15.0

PRESSURE RATINGS OF DUCTILE IRON & STAINLESS STEEL COUPLINGS USED ON STAINLESS STEEL PIPE

Ductile iron couplings are also applicable to stainless steel piping in a non- or less-corrosive environment, as fluid does not contact the housing segments directly. Pressure ratings vary depending on the pipe wall thickness.

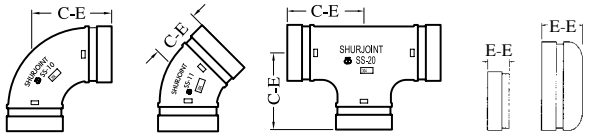
Nominal Size (mm / inch)	Pipe Sch. Grv Type (Sch / Roll)	Wall Thickness (mm / inch)	Z05 K-9 (Bar / Psi)	Z07 7771 (Bar / Psi)	7707 (Bar / Psi)	7705 (Bar / Psi)	7041 (Bar / Psi)	G-28 (Bar / Psi)	XH-70 DS-7X (Bar / Psi)	SS-7 SS-7X (Bar / Psi)	SS-8 (Bar / Psi)	SS-8X (Bar / Psi)
	80S	5.54	52	69	69	52	21	21	103	52	52	69
	Cut	0.218	750	1000	1000	750	300	300	1500	750	750	1000
	40S	3.91	35	52	52	35	19	21	69	35	35	52
50	Cut/Roll	0.154	500	750	750	500	275	300	1000	500	500	750
2	10S	2.77	28	35	35	28	19	21	35	21	21	35
	Roll	0.109	400	500	500	400	275	300	500	300	300	500
	5S	1.65	17	22	22	17	12	14	22	14	14	24
	Roll	0.065	250	325	325	250	175	200	325	200	200	350
	80S	7.01	52	69	69	52	21	21	103	52	52	69
	Cut	0.276	750	1000	1000	750	300	300	1500	750	750	1000
	40S	5.16	35	52	52	35	19	21	69	35	35	52
65	Cut/Roll	0.203	500	750	750	500	275	300	1000	500	500	750
2.5	10S	3.05	28	35	35	28	19	21	35	21	21	35
	Roll	0.120	400	500	500	400	275	300	500	300	300	500
	5S	2.11	17	22	22	17	12	14	22	14	14	24
	Roll	0.083	250	325	325	250	175	200	325	200	200	350
	80S	7.62	52	69	69	52	21	21	103	52	52	69
	Cut	0.300	750	1000	1000	750	300	300	1500	750	750	1000
	40S	5.49	35	52	52	35	19	21	69	35	35	52
80	Cut/Roll	0.216	500	750	750	500	275	300	1000	500	500	750
3	10S	3.05	28	35	35	28	19	21	35	21	21	35
	Roll	0.120	400	500	500	400	275	300	500	300	300	500
	5S	2.11	17	22	22	17	12	14	22	14	14	24
	Roll	0.083	250	325	325	250	175	200	325	200	200	350
	80S	8.56	52	69	69	52	21	21	103	52	52	69
	Cut	0.337	750	1000	1000	750	300	300	1500	750	750	1000
	40S	6.02	35	52	52	35	19	21	69	35	35	52
100	Cut/Roll	0.237	500	750	750	500	275	300	1000	500	500	750
4	10S	3.05	21	28	28	21	19	12	28	21	21	28
	Roll	0.120	300	400	400	300	275	175	400	300	300	400
	5S	2.11	14	17	17	14	12	7	17	14	14	17
	Roll	0.083	200	250	250	200	175	100	250	200	200	250
	40S	6.55	35	52	52	31	17	21		35	35	52
	Cut	0.258	500	750	750	450	250	300	N.A.	500	500	750
	40S	6.55	28	35	35	21	17	17		28	28	52
125	Roll	0.258	400	500	500	300	250	250	N.A.	400	400	750
5	10S	3.40	17	21	21	14	14	10		17	19	24
	Roll	0.134	250	300	300	200	200	150	N.A.	250	275	350
	5S	2.77	8.6	14	14	8.6	8.6	5.2		8.6	12	19
	Roll	0.109	125	200	200	125	125	75	N.A.	125	175	275
	40S	7.11	35	48	52	35	17	21	69	35	35	52
	Cut	0.280	500	700	750	500	250	300	1000	500	500	750
	40S	7.11	28	35	35	28	10	17	41	28	24	35
150	Roll	0.280	400	500	500	400	150	250	600	400	350	500
6	10S	3.40	17	17	17	17	8.6	10	21	17	17	17
	Roll	0.134	250	250	250	250	125	150	300	250	250	250
	5S	2.77	8.6	10	10	8.6	5.2	7	10	10	10	10
	Roll	0.109	125	150	150	125	75	100	150	150	150	150
	40S	8.18	31	41	41	31	17	21	41	28	24	41
	Cut	0.322	450	600	600	450	250	300	600	400	350	600
	40S	8.18	21	28	28	21	10	14	28	28	17	28
200	Roll	0.322	300	400	400	300	150	200	400	400	250	400
8	10S	3.76	14	17	17	14	8.6	10	17	17	8.6	17
	Roll	0.148	200	250	250	200	125	150	250	250	125	250
	5S	2.77	5.2	7	7	5.2	5.2	3.4	7	8.6	5.2	8.6
	Roll	0.109	75	100	100	75	75	50	100	125	75	125
	40S	9.27		28	28	24	17	21	41	28		
	Cut	0.365	N.A.	400	400	350	250	300	600	400	N.A.	N.A.
	40S	9.27		17	21	14	10	14	28	21		
250	Roll	0.365	N.A.	250	300	200	150	200	400	300	N.A.	N.A.
10	10S	4.19		8.6	8.6	8.6	8.6		8.6	8.6		
	Roll	0.165	N.A.	125	125	125	125	N.A.	125	125	N.A.	N.A.
	5S	3.4		5.2	5.2	5.2	5.2		5.2	5.2		
	Roll	0.134	N.A.	75	75	75	75	N.A.	75	75	N.A.	N.A.
	STD	9.53		28	28	24	17	21	41	28		
	Cut	0.375	N.A.	400	400	350	250	300	600	400	N.A.	N.A.
	STD	9.53		17	21	14	10	14	28	21		
300	Roll	0.375	N.A.	250	300	200	150	200	400	300	N.A.	N.A.
12	10S	4.57		8.6	8.6	8.6	8.6		8.6	8.6		
	Roll	0.180	N.A.	125	125	125	125	N.A.	125	125	N.A.	N.A.
	5S	3.96		5.2	5.2	5.2	5.2		5.2	5.2		
	Roll	0.156	N.A.	75	75	75	75	N.A.	75	75	N.A.	N.A.

1. Pressure ratings for the size less than 2" are same as 2".
2. For the size larger than 12", contact Shurjoint.

STAINLESS STEEL GROOVED FITTINGS
MODEL SS-10 90° ELBOW
MODEL SS-11 45° ELBOW
MODEL SS-20 TEE
MODEL SS-60 CAP

The Shurjoint Model SS-10, SS-11, SS-20 and SS-60 stainless steel grooved fittings are investment cast in sizes 1" - 8", and sand cast or wrought in sizes 10"–24". These fittings are supplied in ASTM A351 or A743 austenitic grades CF8 (304) and CF8M (316). In addition fittings are also available on request in CF3M (316L), 316Ti, 2205 Duplex, 2507 Super Duplex and ASTM CK-3MCuN (UNS J93245) the cast equivalent to 254SMO®, (254SMO is a registered trademark of Avesta Polarit AB.) to meet your specific service requirements.

All cast fittings feature full flow characteristics and are designed to the same center to end dimensions of standard ductile iron fittings. All groove dimensions conform to ANSI /AWWA C606-04.

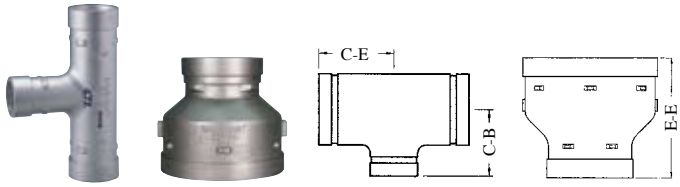


Investment Casting

1"-2" 2½"-12"

Nominal Size mm/in	Pipe O.D. mm/in	SS-10 90°Elbow		SS-11 45°Elbow		SS-20 Tee		SS-60 Cap	
		C - E mm/in	Weight Kgs/Lbs	C - E mm/in	Weight Kgs/Lbs	C - E mm/in	Weight Kgs/Lbs	E-E mm/in	Weight Kgs/Lbs
25	33.4	57	0.3	45	0.2	57	0.4	24	0.1
1	1.315	2.25	0.7	1.75	0.4	2.25	0.9	0.94	0.2
32	42.2	70	0.4	45	0.3	70	0.7	24	0.1
1.25	1.660	2.75	0.9	1.75	0.7	2.75	1.5	0.94	0.2
40	48.3	70	0.4	45	0.4	70	0.8	24	0.2
1.5	1.900	2.75	0.9	1.75	0.9	2.75	1.8	0.94	0.4
50	60.3	83	0.6	51	0.5	83	1.1	24	0.2
2	2.375	3.25	1.3	2.00	1.1	3.25	2.4	0.94	0.4
65	73.0	95	1.4	57	1.0	95	2.5	45	0.4
2.5	2.875	3.75	3.1	2.25	2.2	3.75	5.5	1.75	0.9
65	76.1	95	1.6	57	1.0	95	2.5	45	0.4
2.5	3.000	3.75	3.5	2.25	2.2	3.75	5.5	1.75	0.9
80	88.9	108	1.3	64	1.0	108	2.1	51	0.7
3	3.500	4.25	2.9	2.50	2.2	4.25	4.6	2.00	1.5
100	114.3	127	2.2	76	1.6	127	3.4	51	0.9
4	4.500	5.00	4.8	3.00	3.5	5.00	7.5	2.00	2.0
125	139.7	140	4.0	83	2.8	140	5.0	60	1.6
5	5.500	5.50	8.8	3.25	6.2	5.50	11.0	2.38	3.5
125	141.3	140	4.2	83	2.9	140	5.2	60	1.6
5	5.563	5.50	9.2	3.25	6.4	5.50	11.4	2.38	3.5
150	165.1	165	6.2	89	4.1	165	9.0	76	2.6
6	6.500	6.50	13.6	3.50	9.0	6.50	19.8	3.00	5.7
150	168.3	165	6.5	89	4.2	165	9.7	76	2.6
6	6.625	6.50	14.3	3.50	9.2	6.50	21.3	3.00	5.7
200 JIS	216.3	197	10.0	108	7.4	197.	17.8	90	4.2
8	8.516	7.75	22.0	4.25	16.3	7.75	39.2	3.50	9.2
200	219.1	197	10.7	108	6.9	197	15.0	90	5.2
8	8.625	7.75	23.5	4.25	15.2	7.75	33.0	3.50	11.4
250 JIS	267.4	229	18.8	121	16.3	229	30.0	127	20.0
10	10.528	9.00	41.4	4.75	35.9	9.00	66.0	5.00	44.0
250	273.0	229	19.0	121	16.5	229	30.5	127	20.0
10	10.750	9.00	41.8	4.75	23.4	9.00	67.1	5.00	44.0
300 JIS	318.5	254	31.0	133	22.5	254	43.0	145	13.9
12	12.539	10.00	68.2	5.25	49.5	10.00	94.6	5.71	29.7
300	323.9	254	31.0	133	22.5	254	43.0	145	13.9
12	12.750	10.00	68.2	5.25	49.5	10.00	94.6	5.71	29.7
350	355.6	280	35.0	152	28.6	280	54.0	----	----
14	14.000	11.00	77.0	6.00	62.9	11.00	118.8	----	----
400	406.4	305	43.0	184	34.0	305	66.0	----	----
16	16.000	12.00	94.6	7.25	74.8	12.00	145.2	----	----
450	457.2	394	75.0	208	44.0	394	99.0	----	----
18	18.000	15.50	165.0	8.00	96.8	15.50	217.8	----	----
500	508.0	438	92.0	229	55.0	438	125.0	----	----
20	20.000	17.25	202.4	9.00	121.0	17.25	275.0	----	----
600	609.6	508	129.0	280	80.0	508	172.0	----	----
24	24.000	20.00	283.8	11.00	176.0	20.00	378.4	----	----

MODEL SS-21 REDUCING TEE
MODEL SS-50 CONCENTRIC REDUCER

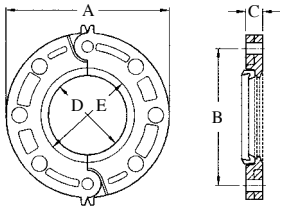


The *Shurjoint* Model SS-21 and SS-50 stainless steel fittings are investment cast in sizes to 8" and sand cast or wrought in sizes 10"-24".

Nominal Size mm/in	Pipe O.D. mm/in	SS-21 Reducing Tee C - E mm/in	SS-21 Reducing Tee C - B mm/in	Weight Kgs/Lbs	SS-50 Conc. Reducer E - E mm/in	Weight Kgs/Lbs
40 x 25	48.3 x 33.4	83	83	0.7	64	0.3
1.5 x 1	1.900 x 1.315	3.25	3.25	1.5	2.50	0.6
40 x 32	48.3 x 42.2	83	83	0.7	64	0.3
1.5 x 1.25	1.900 x 1.660	3.25	3.25	1.5	2.50	0.7
50 x 25	60.3 x 33.4	83	83	0.8	64	0.3
2 x 1	2.375 x 1.315	3.25	3.25	1.8	2.50	0.8
50 x 32	60.3 x 42.2	83	83	0.8	64	0.4
2 x 1.25	2.375 x 1.660	3.25	3.25	1.8	2.50	0.8
50 x 40	60.3 x 48.3	83	83	1.2	64	0.4
2 x 1.5	2.375 x 1.900	3.25	3.25	2.6	2.50	0.8
65 x 25	73.0/76.1 x 33.4	95	95	1.7	64	0.5
2.5 x 1	2.875/3.000 x 1.315	3.74	3.74	3.8	2.50	1.1
65 x 32	73.0/76.1 x 42.2	95	95	1.8	64	0.5
2.5 x 1.25	2.875/3.000 x 1.660	3.74	3.74	3.9	2.50	1.1
65 x 40	73.0/76.1 x 48.3	95	95	1.8	64	0.5
2.5 x 1.5	2.875/3.000 x 1.900	3.74	3.74	4.0	2.50	1.2
65 x 50	73.0/76.1 x 60.3	95	95	1.9	64	0.7
2.5 x 2	2.875/3.000 x 2.375	3.74	3.74	4.1	2.50	1.2
80 x 32	88.9 x 42.2	108	108	1.8	64	0.6
3 x 1.25	3.500 x 1.660	4.25	4.25	4.3	2.50	1.3
80 x 40	88.9 x 48.3	108	108	2.5	64	0.6
3 x 1.5	3.500 x 1.900	4.25	4.25	5.6	2.50	1.4
80 x 50	88.9 x 60.3	108	108	2.6	64	0.7
3 x 2	3.500 x 2.375	4.25	4.25	5.8	2.50	1.4
80 x 65	88.9 x 73.0/76.1	108	108	2.7	64	0.8
3 x 2.5	3.500 x 2.875/3.000	4.25	4.25	6.0	2.50	1.8
100 x 50	114.3 x 60.3	127	127	4.0	76	1.1
4 x 2	4.500 x 2.375	5.00	5.00	8.8	3.00	2.5
100 x 65	114.3 x 73.0/76.1	127	127	4.1	76	1.2
4 x 2.5	4.500 x 2.875/3.000	5.00	5.00	9.0	3.00	2.7
100 x 80	114.3 x 88.9	127	127	4.5	76	1.5
4 x 3	4.500 x 3.500	5.00	5.00	9.9	3.00	3.3
125 x 100	141.3/139.7 x 114.3	140	140	6.2	89	2.0
5 x 4	5.563/5.500 x 4.500	5.50	5.50	13.6	3.50	4.4
150 x 80	168.3/165.1 x 88.9	165	165	9.2	102	2.7
6 x 3	6.625/6.500 x 3.500	6.50	6.50	20.2	4.00	6.0
150 x 100	168.3/165.1 x 114.3	165	165	9.2	102	2.8
6 x 4	6.625/6.500 x 4.500	6.50	6.50	20.2	4.00	6.2
150 x 125	168.3/165.1 x 141.3/139.7	165	165	9.2	102	2.8
6 x 5	6.625/6.500 x 5.563/5.500	6.50	6.50	20.2	4.00	6.2
200 x 100	219.1/216.3 x 114.3	197	197	8.9	127	4.9
8 x 4	8.625/8.516 x 4.500	7.76	7.76	19.6	5.00	10.8
200 x 125	219.1/216.3 x 141.3/139.7	197	197	15.7	127	5.3
8 x 5	8.625/8.516 x 5.563/5.500	7.76	7.76	34.5	5.00	11.7
200 x 150	219.1/216.3 x 168.3/165.1	197	197	16.3	127	5.0
8 x 6	8.625/8.516 x 6.625/6.500	7.76	7.76	35.9	5.00	11.0
250 x 150	273.0/267.4 x 168.3/165.1	229	229	27.1	152	9.0
10 x 6	10.750/10.528 x 6.625/6.500	9.02	9.02	59.5	6.00	19.8
250 x 200	273.0/267.4 x 219.1/216.3	229	229	27.7	152	10.0
10 x 8	10.750/10.528 x 8.625/8.516	9.02	9.02	61.0	6.00	22.0
300 x 200	323.9/318.5 x 219.1/216.3	254	254	38.7	178	15.0
12 x 8	12.750/12.539 x 8.625/8.516	10.00	10.00	85.2	7.00	33.0
300 x 250	318.5/323.9 x 273.0/267.4	254	254	39.6	178	17.0
12 x 10	12.539/12.750 x 10.750/10.528	10.00	10.00	87.2	7.00	37.4
350 x 250	355.6 x 273.0	279	203	62.4	203	27.0
14 x 10	14.000 x 10.750	11.00	8.00	137.2	8.00	59.4
400 x 300	406.4 x 323.9	305	229	79.4	229	32.0
16 x 12	16.000 x 12.750	12.00	9.00	174.7	9.00	70.4
450 x 350	457.2 x 355.6	394	241	114.9	241	39.0
18 x 14	18.000 x 14.000	15.50	9.50	252.8	9.50	85.8
500 x 400	508.0 x 406.4	438	254	143.5	254	57.0
20 x 16	20.000 x 16.000	17.25	10.00	315.7	10.00	125.4
600 x 500	609.6 x 508.0	508	305	202.9	305	68.0
24 x 20	24.000 x 20.000	20.00	12.00	446.4	12.00	149.6

MODEL SS-41 FLANGE - ANSI 125/150

The Model SS-41 stainless steel flange allows for a direct connection with ANSI Class 125/150 flanges. The SS-41 is investment cast in grades CF8 (304) or CF8M (316). Integral closure tabs located on the flange OD help facilitate alignment and assembly.

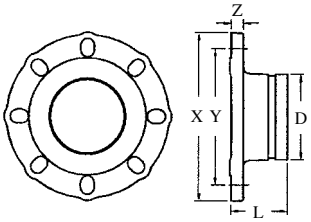


Nominal Size mm/in	Pipe OD mm/in	Max. Working Pressure* Bar/PSI	Max. End Load KN/Lbs	Dimensions			Sealing Surface		Bolts		Weight Kgs/Lbs
				A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	Size in	No.	
50	60.3	20	5.4	152	121	21	60	87	5/8 X 3	4	2.1
2	2.375	300	1220	6.00	4.75	0.83	2.36	3.42			4.6
65	73.0	20	7.9	178	140	22	73	102	5/8 X 3	4	2.7
2.5	2.875	300	1785	7.00	5.50	0.87	2.87	4.00			6.0
80	88.9	20	11.8	190	152	24	89	116	5/8 X 3	4	3.1
3	3.500	300	2645	7.50	6.00	0.94	3.50	4.56			6.8
100	114.3	20	19.5	229	191	24	114	141	5/8 X 3	8	4.5
4	4.500	300	4375	9.00	7.50	0.94	4.50	5.56			9.9
150	168.3	14	30.7	279	241	25	168	198	3/4 X 3-1/2	8	5.8
6	6.625	200	6895	11.00	9.50	1.00	6.62	7.79			12.9
200	219.1	14	52.0	343	298	28	219	254	3/4 X 3-1/2	8	8.0
8	8.625	200	11679	13.50	11.75	1.12	8.62	10.00			17.6

* Based on Sch. 10S pipe.

MODEL SS-80 STAINLESS STEEL UNIVERSAL FLANGE ADAPTER

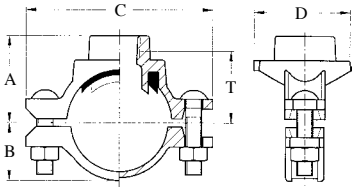
The Model SS-80 Universal Flange Adapter provides for a rigid transition between a grooved piping system and a flanged piping system or component. The SS-80 can mate to ANSI 125/150, PN 10/16, BS-10E or JIS 10K, and is available standard in CF8 (304) or CF8M (316).



Nominal Size mm/in	Pipe O.D. mm/in	L mm/in	X mm/in	Y : Flange Drilling			Z mm/in	Bolt		Weight Kgs/Lbs
				ANSI 125/150 mm/in	PN 10,16 mm/in	JIS 10K mm/in		Size mm/in	No.	
50	60.3	64	165	121	125	120	16	M16	4	2.0
2	2.375	2.50	6.50	4.75	4.92	4.72	0.63	5/8	4	4.4
65	73.0	70	185	140	145	140	16	M16	4	2.9
2.5	2.875	2.75	7.28	5.50	5.70	5.50	0.63	5/8	4	6.4
65	76.1	70	185	140	145	140	16	M16	4	3.0
2.5	3.000	2.75	7.28	5.50	5.70	5.50	0.63	5/8	4	6.6
80	88.9	70	200	152	160	150	16	M16	8	3.4
3	3.500	2.75	7.78	6.00	6.30	5.90	0.63	5/8	8	7.5
100	114.3	76	229	191	180	175	16	M16	8	3.9
4	4.500	3.00	9.00	7.50	7.09	6.89	0.63	5/8	8	8.6
125	139.7	89	250	216	210	210	22	M16/M20	8	6.9
5	5.500	3.50	9.84	8.50	8.27	8.27	0.87	5/8 / 3/4	8	15.2
125	141..3	89	250	216	210	210	22	M16/M20	8	6.9
5	5.563	3.50	9.84	8.50	8.27	8.27	0.87	5/8 / 3/4	8	15.2
150	165.1	89	291	241	240	240	24	M20	8	6.9
6	6.500	3.50	11.46	9.50	9.45	9.45	0.94	3/4	8	15.2
150	168.3	89	291	241	240	240	24	M20	8	6.8
6	6.625	3.50	11.46	9.50	9.45	9.45	0.94	3/4	8	15.0
200 JIS	216.3	102	343	298	295	N/A	29	M20	8 / 12	10.7
8	8.516	4.00	13.50	11.75	11.61		1.14	3/4	8 / 12	23.5
200	219.1	102	343	298	295	N/A	29	M20	8 / 12	14.5
8	8.625	4.00	13.50	11.75	11.61		1.14	3/4	8 / 12	31.9

MODEL SS-723 STAINLESS STEEL MECHANICAL TEE

The *Shurjoint* Model SS-723 stainless steel mechanical tee is the ideal fitting for branch or direct outlet connections to sprinkler heads, drop nipples and or gauges on stainless steel pipe. No need for welding, simply cut or drill a hole at the desired location, position the housing so that the locating collar fits within the hole and secure with the bolts and nuts.

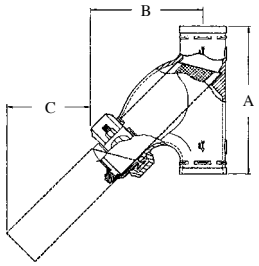


Nominal Size mm/in	Hole Dia. +1.6, -0/+0.063, -0 mm/in	Dimensions A mm/in	B mm/in	C mm/in	D mm/in	T* mm/in	Bolt Size in	Weight Kgs/Lbs
32 X 15	30	41	26	87	49	27	5/16 X 1-1/2	0.3
1.25 X 0.5	1.18	1.60	1.02	3.44	1.93	1.06		0.7
32 X 20	30	44	26	87	49	29	5/16 X 1-1/2	0.3
1.25 X 0.75	1.18	1.70	1.02	3.44	1.93	1.14		0.7
32 X 25	30	51	26	87	49	34	5/16 X 1-1/2	0.3
1.25 X 1	1.18	2.00	1.02	3.44	1.93	1.34		0.7
40 X 15	30	44	29	90	49	30	5/16 X 1-1/2	0.3
1.5 X 0.5	1.18	1.70	1.13	3.54	1.93	1.18		0.7
40 X 20	30	46	29	90	49	31	5/16 X 1-1/2	0.3
1.5 X 0.75	1.18	1.81	1.13	3.54	1.93	1.22		0.7
40 X 25	30	53	29	90	49	36	5/16 X 1-1/2	0.4
1.5 X 1	1.18	2.09	1.13	3.54	1.93	1.42		0.9
50 X 15	30	51	36	109	51	37	5/16 X 1-1/2	0.5
2 X 0.5	1.18	2.00	1.42	4.28	2.00	1.46		1.1
50 X 20	30	53	36	109	51	28	5/16 X 1-1/2	0.5
2 X 0.75	1.18	2.09	1.42	4.28	2.00	1.10		1.1
50 X 25	30	60	36	109	51	43	5/16 X 1-1/2	0.5
2 X 1	1.18	2.37	1.42	4.28	2.00	1.69		1.1

T*: Take-out (Center of run to end of pipe to be engaged).

MODEL SS-726 STAINLESS STEEL Y-STRAINER

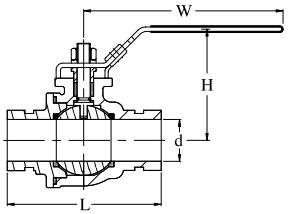
The Model SS-726 Stainless Steel Grooved-end Y-Strainers are designed to strain debris and foreign matter from piping systems and thus provide inexpensive protection for costly pumps, meters and other components. Cleaning and maintenance of the screen can be accomplished easily by removing the coupling. The Model SS-726 Stainless Steel Y-Strainer is suitable for vertical or horizontal installations.



Nominal Size mm/in	Pipe O.D. mm/in	Max Working Pressure mm/in	Dimensions A mm/in	B mm/in	C mm/in	Drain plug Siz mm/in	Approx. Weight Kgs/Lbs
65	73.0	20	273	199	122	15	6.0
2.5	2.875	300	10.75	7.83	4.80	1/2	13.2
80	88.9	20	299	221	129	25	8.2
3	3.500	300	11.75	8.70	5.08	1	18.0
100	114.3	20	362	269	168	25	12.0
4	4.500	300	14.25	10.59	6.61	1	26.4
150	168.3	20	470	357	219	25	32.0
6	6.625	300	18.50	14.05	8.62	1	70.4

MODEL SJ-600L BALL VALVE

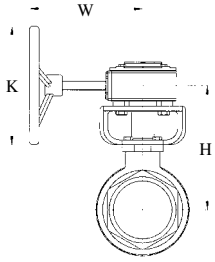
The Model SJ-600L is a two-piece, full-port stainless steel ball valve rated at 600 psi (40 bar) and is available in CF8 (304) or CF8M (316). The SJ-600L features a floating ball for lower torque and is supplied with a lever handle as well as ISO mounting holes to accommodate a full range of gear or power actuators.



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions L mm/in	H mm/in	W mm/in	d mm/in	Weight Kgs/Lbs
40	48.3	140	94	193	38	3.0
1.5	1.900	5.50	3.70	7.60	1.50	6.6
50	60.3	156	105	193	50	4.0
2	2.375	6.15	4.13	7.60	1.97	8.8
65	73.0	180	110	250	61	7.0
2.5	2.875	7.09	4.33	9.84	2.40	15.4
65	76.1	180	110	250	65	7.0
2.5	3.000	7.09	4.33	9.84	2.56	15.4
80	88.9	214	152	250	78	15.0
3	3.500	8.42	6.00	9.84	3.07	33.0
100	114.3	240	167	290	100	25.0
4	4.500	9.45	6.57	11.42	3.94	55.0

MODEL SJ-600W BALL VALVE

The Model SJ-600W can be also supplied with a worm gear operator. The standard gear operator is supplied with a bracket and extension sleeve.

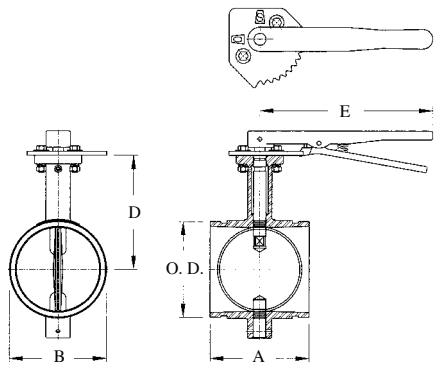


1-1/2" - 4"

Nominal Size mm/in	Pipe O.D. mm/in	K mm/in	H mm/in	W mm/in
40	48.3	152	124	203
1.5	1.900	6	4.88	8
50	60.3	152	137	203
2	2.375	6	5.38	8
65	73.0	152	145	203
2.5	2.875	6	5.68	8
65	76.1	152	145	203
2.5	3.000	6	5.68	8
80	88.9	152	182	203
3	3.500	6	7.16	8
100	114.3	152	203	203
4	4.500	6	8.00	8

MODEL SJ-400L BUTTERFLY VALVE

The *Shurjoint* Model SJ-400L is a grooved end stainless steel butterfly valve rated to 300 psi (20 bar). The SJ-400L features a type 316 body and integrally cast neck which will acomodate up to 2" (50 mm) of insulation. The SJ-400L is supplied standard with a 10 position lever handle. The dual-seal disc is available with EPDM or Nitrile encapsulation for a variety of service applications.



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions A mm/in	B mm/in	D mm/in	E mm/in	Operating Torque In-Lb/N-m	Weight Kgs/Lbs
50	60.3	81	64	106	192	8.80	2.1
2	2.375	3.19	2.520	4.17	7.56	78	4.7
65	73.0	97	80	111	192	9.50	2.6
2.5	2.875	3.81	3.150	4.28	7.56	84	5.7
65	76.1	97	80	111	192	9.50	2.6
2.5	3.000	3.81	3.150	4.28	7.56	84	5.7
80	88.9	97	92	126	192	10.7	2.8
3	3.500	3.81	3.622	4.97	7.56	95	6.2
100	114.3	116	118	135	252	22.6	4.6
4	4.500	4.56	4.646	5.33	9.92	200	10.2
150	165.1	148	172	168	252	34.9	12.9
6	6.500	5.81	6.772	6.62	9.92	310	28.4
150	168.3	148	172	184	342	34.9	12.9
6	6.625	5.81	6.772	7.25	13.46	310	28.4
200JIS	216.3	133	222	208	342	45.1	19.7
8	8.516	5.24	8.740	8.20	13.46	400	43.4
200	219.1	133	222	208	342	45.1	19.7
8	8.625	5.24	8.740	8.20	13.46	400	43.4

* The weight includes the lever handle.

GROOVED COUPLINGS & FITTINGS FOR COPPER TUBING

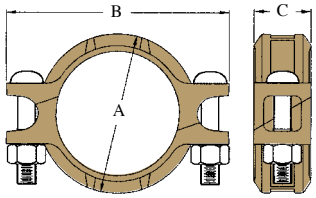
The *Shurjoint* grooved copper series is the most complete line available for installation on copper tubing (CTS) in sizes 2" – 8" . *Shurjoint* grooved couplings and flanges provide a fast, easy, economical and durable method of joining copper tubing without the use of heat or lead. The pressure responsive EPDM ***GapSeal***® gasket seals both the outside of the tubing and the gap between the tubing ends isolating the fluid from coupling housings.

Fittings are supplied in lead-free 'G' bronze castings, per ASTM B-584 copper alloy C90500 (88-10-0-2) or wrought copper, depending on the fitting size and or configuration.

'G' bronze castings and EPDM gaskets are UL classified in accordance with ANSI/NSF61 for potable water use.

MODEL C305 RIGID COUPLING FOR COPPER TUBING (CTS)

The Model C305 features an angle pad design for a rigid joint and easy swing-over installation. The C305 couplings are comprised of epoxy coated ductile iron housings and EPDM GapSeal® gaskets and are rated up to 300 psi (20 bar), depending on the type and size of copper tubing used.



TYPE K, L, M (ASTM B-88) & TYPE DWV (ASTM B306)

Nominal Size mm/in	Pipe O.D. mm/in	Pipe End Separation mm/in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Bolt Size in	Weight Kgs/Lbs
50	54.0	1.5	81	118	48	3/8 x 2-1/8	0.9
2	2.125	0.06	3.17	4.63	1.89		1.9
65	66.7	1.5	93	134	48	3/8 x 2-1/8	1.0
2.5	2.625	0.06	3.66	5.28	1.89		2.2
80	79.4	1.5	107	154	48	1/2 x 3	1.3
3	3.125	0.06	4.21	6.06	1.89		2.8
100	104.8	1.5	132	185	48	1/2 x 3	1.5
4	4.125	0.06	5.20	7.28	1.89		3.3
125	130.2	1.5	159	220	48	5/8 x 3-1/2	2.4
5	5.125	0.06	6.26	8.66	1.89		5.3
150	155.6	1.5	184	248	48	5/8 x 3-1/2	2.5
6	6.125	0.06	7.24	9.76	1.89		5.5
200	206.4	1.5	238	305	50	5/8 x 5-1/2	5.5
8	8.125	0.06	9.38	12.00	1.97		12.1

BS EN 1057

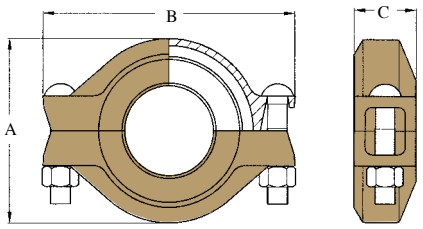
Nominal Size mm	Pipe O.D. mm	Pipe End Separation mm	Dimensions A mm	Dimensions B mm	Dimensions C mm	Bolt Size mm	Weight Kgs
50	54.0	1.5	81	118	48	M10 x 55	0.9
65	66.7	1.5	93	134	48	M10 x 55	1.0
80	76.1	1.5	104	141	48	M10 x 55	1.3
100	108.0	3.2	138	192	48	M12 x 75	1.5
125	133.0	3.2	165	231	48	M16 x 90	2.4
150	159.0	3.2	190	253	48	M16 x 90	2.5

AS1432 TYPE "A" , "B" AND "D"

Nominal Size mm	Pipe O.D. mm	Pipe End Separation mm	Dimensions A mm	Dimensions B mm	Dimensions C mm	Bolt Size mm	Weight Kgs
50	50.80	1.5	77	115	48	M10 x 55	0.9
65	63.50	1.5	90	134	48	M10 x 55	1.0
80	76.20	1.5	103	154	48	M12 x 75	1.3
100	101.60	1.5	129	183	48	M12 x 75	1.5
125	127.00	1.5	156	220	48	M16 x 90	2.4
150	152.40	1.5	181	249	48	M16 x 90	2.5
200	203.20	1.5	224	288	48	M16 x 140	5.5

MODEL C306 REDUCING COUPLING FOR COPPER TUBING (CTS)

The Model C306 Reducing Coupling allows direct reduction on a piping run and eliminates the need for a concentric reducer and couplings. The epoxy coated ductile iron coupling housings help eliminate galvanic local cell and stray current problems. The specially designed rubber gasket prevents the smaller pipe from telescoping into the larger pipe during vertical installation.

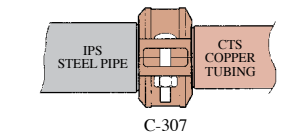


Nominal Size mm/in	Pipe O.D. mm/in	Max.Working Pressure Bar/PSI	Max. End Load kN/Lbs	End Pipe Separation mm/in	Deflection		Dimensions			Bolt Size in	Weight Kgs/Lbs
					Deg. per Coupling (°)	Pipe mm/m in/ft	A mm/in	B mm/in	C mm/in		
65 x 50	66.7 x 54.0	20	6.98	1.6	1° – 22'	24.0	94	141	45	1/2 x 3	1.1
2.5 x 2	2.625 x 2.215	300	1622	0.06		0.29	3.70	5.55	1.77		2.4
80 x 50	79.4 x 54.0	20	9.89	1.6	1° – 09'	20.0	107	152	45	1/2 x 3	1.5
3 x 2	3.125 x 2.125	300	2300	0.06		0.24	4.21	5.98	1.77		3.3
80 x 65	79.4 x 66.7	20	9.89	1.6	1° – 09'	20.0	107	152	45	1/2 x 3	1.5
3 x 2.5	3.125 x 2.625	300	2300	0.06		0.24	4.21	5.98	1.77		3.3
100 x 65	104.8 x 66.7	20	17.23	1.6	0° – 53'	15.0	132	183	45	1/2 x 3	1.7
4 x 2.5	4.125 x 2.625	300	4007	0.06		0.18	5.20	7.20	1.77		3.7
100 x 80	104.8 x 79.4	20	17.23	1.6	0° – 53'	15.0	132	183	45	1/2 x 3	1.7
4 x 3	4.125 x 3.125	300	4007	0.06		0.18	5.20	7.20	1.77		3.7
125 x 100	130.2 x 104.8	20	26.60	1.6	0° – 42'	12.0	160	224	45	5/8 x 3-1/2	2.4
5 x 4	5.125 x 4.125	300	6186	0.06		0.15	6.30	8.82	1.77		5.3
150 x 100	155.6 x 104.8	20	37.99	1.6	0° – 36'	10.3	185	251	45	5/8 x 3-1/2	2.8
6 x 4	6.125 x 4.125	300	8835	0.06		0.13	7.28	9.88	1.77		6.2

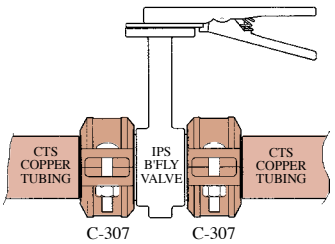
Notes/Options: Couplings with rubber gaskets are likely to function as an insulator. Where electrical continuity is required, the Shurjoint Model #96 Continuity Clip will restore electrical continuity to the system.

MODEL C307 TRANSITION COUPLING (IPS X CTS)

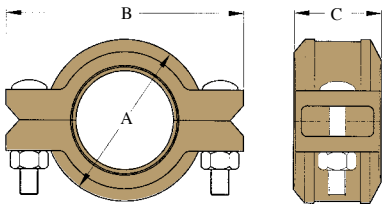
The Model C307 Transition Coupling provides for a direct connection between grooved end IPS steel pipe, fittings or valves and grooved end CTS copper tubing. The rubber gasket isolates the fluid from coupling housings and the epoxy coated housings help eliminate galvanic local cell and stray current problems. The C307 is rated to 300 psi (20 bar).



C-307



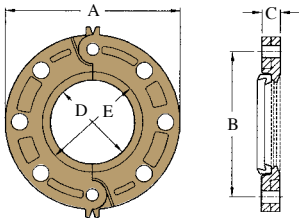
C-307 C-307



Nominal Size mm/in	O.D. IPS x CTS mm/in	Pipe End Separation mm/in	Deflection degree	Dimensions			Bolt Size in	Weight Kgs/Lbs
				A mm/in	B mm/in	C mm/in		
50	60.3 x 54.0	0 - 1.6	1° - 31'	84	129	48	3/8 x 2-1/8	0.9
2	2.375 x 2.125	0 - 0.06		3.31	5.08	1.89		2.0
65	73.0 x 66.7	0 - 1.6	1° - 15'	99	142	48	3/8 x 2-1/8	1.2
2.5	2.875 x 2.625	0 - 0.06		3.90	5.59	1.89		2.6
80	88.9 x 79.4	0 - 1.6	1° - 02'	116	169	48	1/2 x 3	1.6
3	3.500 x 3.125	0 - 0.06		4.57	6.65	1.89		3.5
100	114.3 x 104.8	0 - 1.6	1° - 36'	145	197	52	1/2 x 3	2.4
4	4.500 x 4.125	0 - 0.06		5.71	7.76	2.05		5.3

MODEL C341 FLANGE FOR COPPER TUBING (CTS)

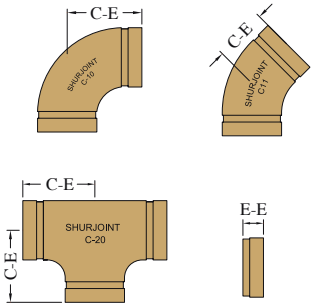
The *Shurjoint* Model C341 Flange allows for the direct connection of grooved-end copper tubing with ANSI class 125/150 (steel) or ASME B16.24 (copper) class 150 flanged components without the need for heat or lead. The pressure responsive gasket seals on the outside diameter of the copper tubing and isolates the flange segments from the internal fluid.



Nominal Size mm/in	Pipe O.D. mm/in	Dimensions			Sealing Surface		Bolts		Weight Kgs/Lbs
		A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	Size in	No.	
50	54.0	152	121	19	54	81	5/8 x 3	4	2.2
2	2.125	6.00	4.75	0.75	2.13	3.20			4.8
65	66.7	178	140	22	67	99	5/8 x 3	4	3.0
2.5	2.625	7.00	5.50	0.87	2.63	3.91			6.6
80	79.4	190	152	24	80	115	5/8 x 3	4	3.6
3	3.125	7.50	6.00	0.94	3.13	4.53			7.9
100	104.8	229	191	24	105	140	5/8 x 3	8	4.5
4	4.125	9.00	7.50	0.94	4.13	5.53			16.9
125	130.2	254	216	24	130	170	3/4 x 3-1/2	8	6.0
5	5.125	10.00	8.50	0.94	5.13	6.71			13.2
150	155.6	279	241	25	156	198	3/4 x 3-1/2	8	6.6
6	6.125	11.00	9.50	1.00	6.13	7.79			14.5

Please note that 2", 2-1/2" and 3" Model C341 Flanges cannot be used for making direct connections to Model SJ-C300 Butterfly Valves due to bolt pad interference with the valve.

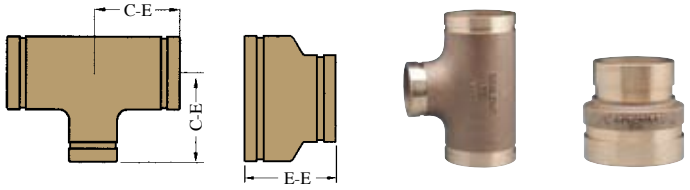
MODEL C10 90° ELBOW
MODEL C11 45° ELBOW
MODEL C20 TEE
MODEL C60 CAP



Nominal Size mm/in	Pipe O.D. mm/in	C10 90° Elbow		C11 45° Elbow		C20 Tee		C60 Cap	
		C - E mm/in	Weight Kgs/Lbs	C - E mm/in	Weight Kgs/Lbs	C - E mm/in	Weight Kgs/Lbs	E - E mm/in	Weight Kgs/Lbs
50	54.0	74	0.4 w / 0.9 c	56	0.3 w / 0.8 c	62	0.9 c	24	0.3 c
2	2.125	2.91	0.9 / 1.9	2.19	0.6 / 1.7	2.44	2.0	0.96	0.6
65	66.7	84	0.8 w / 1.2 c	59	0.5 w / 1.0 c	81	1.8 c	24	0.4 c
2.5	2.625	3.31	1.4 / 2.7	2.31	0.9/ 2.1	3.20	4.0	0.96	0.9
80	79.4	97	1.7 c	66	1.4 c	89	2.4 c	24	0.6 c
3	3.125	3.81	3.8	2.59	3.2	3.50	5.3	0.96	1.2
100	104.8	121	2.7 c	81	2.5 c	108	3.8 c	24	1.0 c
4	4.125	4.75	5.9	3.19	5.5	4.25	8.3	0.96	2.1
125	130.2	151	5.2 c	83	3.6 c	151	7.8 c	24	1.6 c
5	5.125	5.94	11.5	3.25	7.9	5.94	17.2	0.96	3.5
150	155.6	176	8.3 c	92	4.6 c	176	12.2 c	24	2.0 c
6	6.125	6.94	18.3	3.63	10.2	6.94	26.8	0.96	4.4
200	206.4	197	11.8 c	108	8.0 c	197	17.0 c	24	4.5
8	8.125	7.75	26.0	4.25	17.6	7.75	37.4	0.96	9.9

c= Bronze casting; w=Wrought copper

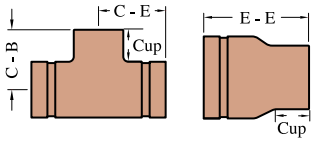
MODEL C21 REDUCING TEE (GR X GR X GR)
MODEL C50 CONCENTRIC REDUCER (GR X GR)



Nominal Size mm/in	Pipe O.D. mm/in	C21 Reducing Tee		C50 Concentric Reducer	
		C - E mm/in	Weight Kgs/Lbs	E - E mm/in	Weight Kgs/Lbs
65 x 50	66.7 x 54.0	81	1.6 c	64	0.6c
2.5 x 2	2.625 x 2.125	3.20	3.6	2.50	1.2
80 x 50	79.4 x 54.0	89	2.2 c	64	0.7c
3 x 2	3.125 x 2.125	3.50	4.8	2.50	1.5
80 x 65	79.4 x 66.7	89	2.2 c	64	0.7c
3 x 2.5	3.125 x 2.625	3.50	4.8	2.50	1.5
100 x 50	104.8 x 54.0	108	3.5 c	76	1.2c
4 x 2	4.125 x 2.125	4.25	7.7	3.00	2.5
100 x 65	104.8 x 66.7	108	3.6 c	76	1.2c
4 x 2.5	4.125 x 2.625	4.25	7.9	3.00	2.6
100 x 80	104.8 x 79.4	108	3.7 c	76	1.1c
4 x 3	4.125 x 3.125	4.25	8.1	3.00	2.5
125 x 80	130.2 x 79.4	151	7.4 c	89	2.0c
5 x 3	5.125 x 3.125	5.94	16.3	3.50	4.4
125 x 100	130.2 x 104.8	151	7.5 c	89	2.0c
5 x 4	5.125 x 4.125	5.94	16.5	3.50	4.4
150 x 65	155.6 x 66.7	176	8.0 c	102	2.7c
6 x 2.5	6.125 x 2.625	6.94	17.6	4.00	6.0
150 x 80	155.6 x 79.4	176	8.0 c	102	2.7c
6 x 3	6.125 x 3.125	6.94	17.6	4.00	5.9
150 x 100	155.6 x 104.8	176	8.3 c	102	2.7c
6 x 4	6.125 x 4.125	6.94	18.3	4.00	5.8
150 x 125	155.6 x 130.2	176	8.4 c	102	2.7c
6 x 5	6.125 x 5.125	6.94	18.5	4.00	5.9

c= Bronze casting

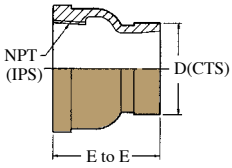
MODEL C26 REDUCING TEE (GR X GR X CUP)
MODEL C52 CONCENTRIC REDUCER (GR X CUP)



Nominal Size mm/in	C26 Red. Tee (Gr X Gr X Cup)				C52 Conc. Reducer (Gr X Cup)		
	C - E mm/in	C - B mm/in	Cup mm/in	Weight Kgs/Lbs	E - E mm/in	Cup mm/in	Weight Kgs/Lbs
50 x50 x 20	56	51	19	0.7 c	---	---	---
2 x2 x 0.75	2.20	2.00	0.75	1.6	---	---	---
50 x50 x 25	59	55	23	0.7 c	69	23	0.3 c
2 x2 x 1	2.33	2.16	0.91	1.6	2.70	0.91	0.7
50 x50 x 32	63	56	25	0.8 c	76	25	0.4 c
2 x2 x 1.25	2.48	2.22	0.97	1.7	3.00	0.97	0.8
50 x50 x 40	66	59	28	0.9 c	75	28	0.4 c
2 x2 x 1.5	2.60	2.34	1.09	2.0	2.94	1.09	0.8
65 x 65 x 20	58	57	34	0.9 c	---	---	---
2.5 x 2.5 x 0.75	2.28	2.25	1.34	1.9	---	---	---
65 x 65 x 25	61	61	23	1.0 c	83	23	0.5 c
2.5 x 2.5 x 1	2.40	2.41	0.91	2.2	3.25	0.91	1.2
65 x 65 x 32	64	63	25	1.1 c	89	25	0.5 c
2.5 x 2.5 x 1.25	2.52	2.47	0.97	2.3	3.52	0.97	1.2
65 x 65 x 40	69	66	28	1.2 c	88	28	0.5 c
2.5 x 2.5 x 1.5	2.70	2.59	1.09	2.6	3.45	1.09	1.2
65 x 65 x 50	75	72	34	1.2 c	84	34	0.5 c
2.5 x 2.5 x 2	2.95	2.84	1.34	2.6	3.30	1.34	1.2
80 x80 x 20	62	64	19	1.3 c	---	---	---
3 x3 x 0.75	2.44	2.50	0.75	2.9	---	---	---
80 x80 x 25	65	66	23	1.3 c	---	---	---
3 x3 x 1	2.54	2.60	0.91	2.9	---	---	---
80 x80 x 32	67	69	25	1.4 c	---	---	---
3 x3 x 1.25	2.63	2.72	0.97	3.1	---	---	---
80 x80 x 40	72	72	28	1.5 c	93	28	0.8 c
3 x3 x 1.5	2.85	2.85	1.09	3.3	3.68	1.09	1.7
80 x80 x 50	79	78	34	2.6 c	104	34	0.9 c
3 x3 x 2	3.11	3.09	1.34	5.7	4.10	1.34	1.9
100 x100 x 20	76	76	19	2.2 c	---	---	---
4 x 4 x 0.75	3.00	3.00	0.75	4.8	---	---	---
100 x100 x 25	79	80	23	2.3 c	---	---	---
4 x 4 x 1	3.10	3.16	0.91	5.1	---	---	---
100 x100 x 32	83	82	25	2.5 c	---	---	---
4 x 4 x 1.25	3.25	3.22	0.97	5.5	---	---	---
100 x100 x 40	85	85	28	2.5 c	---	---	---
4 x 4 x 1.5	3.35	3.34	1.09	5.6	---	---	---
100 x100 x 50	92	91	34	4.1 c	121	34	1.4c
4 x 4 x 2	3.62	3.59	1.34	9.0	4.75	1.34	3.2

c= Bronze casting

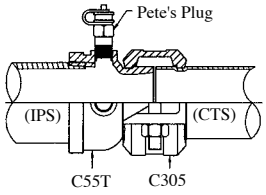
MODEL C55 TRANSITION ADAPTER (IPS/FT X CTS/GR)

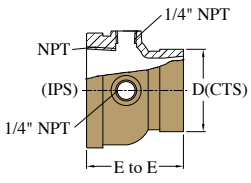


Nominal Pipe Size IPS (NPT) x CTS (GRV) mm/in	Actual Pipe O.D.		E - E mm/in	Weight Kgs/Lbs
	Steel Pipe (IPS) O.D. mm/in	Copper Tubing (CTS) O.D. mm/in		
40 x 50	48.3	54.0	63	0.6
1.5 x 2	1.900	2.125	2.50	1.3
50 x 50	60.3	54.0	63	0.7
2 x 2	2.375	2.125	2.50	1.4
65 x 65	73.0	66.7	70	0.8
2.5 x 2.5	2.875	2.625	2.75	1.8
80 x 80	88.9	79.4	76	1.0
3 x 3	3.500	3.125	3.00	2.2

MODEL C55T TRANSITION ADAPTER WITH 1/4" TAPS (IPS/FT X CTS/GR)

Allows for the installation of gauges or Pete's Plugs for measuring temperature and or pressure.

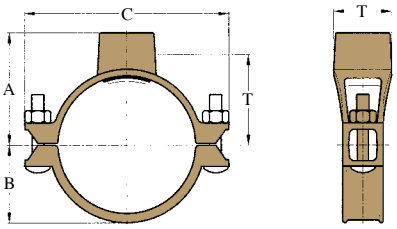




Nominal Pipe Size IPS (NPT) x CTS (GRV) mm/in	Steel Pipe (IPS) O.D. mm/in	Copper Tubing (CTS)		Weight Kgs/Lbs
		D mm/in	E - E mm/in	
40 x 50	48.3	54.0	63	0.6
1.5 x 2	1.900	2.125	2.50	1.3
50 x 50	60.3	54.0	63	0.7
2 x 2	2.375	2.125	2.50	1.4
65 x 65	73.0	66.7	70	0.8
2.5 x 2.5	2.875	2.625	2.75	1.8
80 x 80	88.9	79.4	76	1.0
3 x 3	3.500	3.125	3.00	2.2

MODEL C723 BRONZE MECHANICAL TEE FOR COPPER TUBING (CTS)

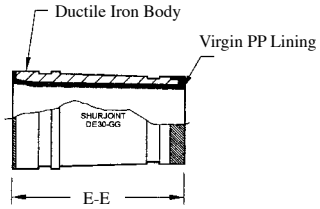
The *Shurjoint* Model C723 provides a fast, easy and reliable branch connection from copper tubing (CTS). The fitting consists of bronze upper housing, ductile iron lower housing, o-ring and carbon steel track bolts and nuts. The lead-free bronze castings conform to ASTM B-584 copper alloy C90500 (88-10-0-2), which is UL classified in accordance with ANSI/NSF61 for potable water use. The fitting is available with a female threaded outlet, NPT or BSPT. Working pressure: 200 psi (14 Bar).



Nominal CTS x NPT mm/in	Hole Dia. +1.6,-0 /+0.063,-0 mm/in	Dimensions A mm/in	B mm/in	C mm/in	D mm/in	T* mm/in	Bolt Size in	Weight Kgs/Lbs
65 x 20	30	66	40	118	44	52	3/8" x 2-1/8"	0.65
2.5 x 0.75	1.18	2.60	1.57	4.65	1.73	2.05		1.43
65 x 25	30	66	40	118	44	49	3/8" x 2-1/8"	0.65
2.5 x 1	1.18	2.60	1.57	4.65	1.73	1.93		1.43
65 x 32	45	73	40	118	63	55	3/8" x 2-1/8"	0.80
2.5 x 1.25	1.77	2.87	1.57	4.65	2.48	2.15		1.76
80 x 20	30	73	45	130	44	58	3/8" x 2-1/8"	0.70
3 x 0.75	1.18	2.87	1.77	5.12	1.73	2.28		1.54
80 x 25	30	73	45	130	44	56	3/8" x 2-1/8"	1.70
3 x 1	1.18	2.87	1.77	5.12	1.73	2.20		1.54
80 x 32	45	84	45	130	63	66	3/8" x 2-1/8"	1.00
3 x 1.25	1.77	3.31	1.77	5.12	2.48	2.59		2.20
100 x 20	30	86	60	158	44	71	3/8" x 2-1/8"	0.80
4 x 0.75	1.18	3.39	2.36	6.22	1.73	2.80		1.76
100 x 25	30	86	60	158	44	79	3/8" x 2-1/8"	0.80
4 x 1	1.18	3.39	2.36	6.22	1.73	3.11		1.76
100 x 32	45	97	60	158	63	79	3/8" x 2-1/8"	1.20
4 x 1.25	1.77	3.81	2.36	6.22	2.48	3.09		2.64

MODEL DE30-GG DIELECTRIC TRANSITION FITTING (IPS X CTS)

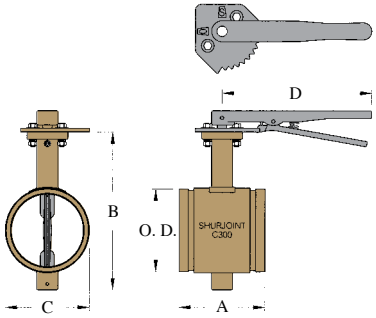
The Model DE30-GG Dielectric Transition Fitting provides a direct transition between grooved-end steel pipe (IPS) and grooved-end copper tubing (CTS). The internal PP lining effectively eliminates galvanic local cell and stray current problems.



Nominal Size mm/in	Actual Pipe O.D. IPS mm/in	CTS mm/in	E - E mm/in	Weight Kgs/Lbs
50	60.3	54.0	102	0.6
2	2.375	2.125	4.00	1.3
65	73.0	66.7	102	1.5
2.5	2.875	2.625	4.00	3.3
80	88.9	79.4	102	2.0
3	3.500	3.125	4.00	4.5
100	114.3	104.8	102	2.6
4	4.500	4.125	4.00	5.8
125	141.3	130.2	102	3.5
5	5.563	5.125	4.00	7.8
150	168.3	155.6	102	4.6
6	6.625	6.125	4.00	10.1
200	219.1	206.4	102	6.9
8	8.625	8.125	4.00	15.1

MODEL SJ-C300 BUTTERFLY VALVE FOR COPPER TUBING (CTS)

The *Shurjoint* Model SJ-C300 is a lever handle bronze body butterfly valve designed for use with grooved copper tubing (CTS), fittings and couplings. The SJ-C300 is rated to 300 psi (20 bar).

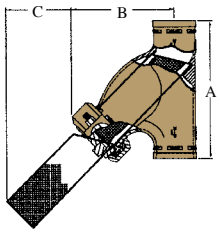


Nominal Size mm/in	Pipe O.D. mm/in	Dimensions A mm/in	B mm/in	C mm/in	D mm/in	Weight Kgs/Lbs
50	54.0	81	135	57	254	2.2
2	2.125	3.19	5.31	2.45	10.0	4.9
65	66.7	97	149	73	254	2.7
2.5	2.625	3.82	5.87	2.87	10.0	5.9
80	79.4	97	163	83	254	3.0
3	3.125	3.82	6.42	3.27	10.0	6.6
100	104.8	116	208	111	254	5.0
4	4.125	4.57	8.19	4.37	10.0	11.0
125	130.2	148	248	136	254	8.0
5	5.125	5.83	9.77	5.36	10.0	17.6
150	155.6	148	274	163	254	9.8
6	6.125	5.83	10.79	6.42	10.0	21.6

Please note that 2", 2-1/2" and 3" Model C341 Flanges cannot be used for making direct connections to Model SJ-C300 Butterfly Valves due to bolt pad interference with the valve.

MODEL C726 Y - STRAINER FOR COPPER TUBING (CTS)

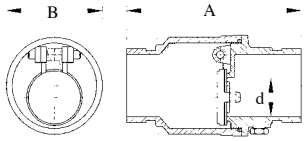
The *Shurjoint* C726 Y-Strainer can be installed quickly and easily with two mechanical couplings and the straight flow through design provides for lower pressure drop.



Nominal Size mm/in	Pipe OD mm/in	Max. Working Pressure Bar/Psi	Dimensions A mm/in	B mm/in	C mm/in	Drain Plug Size mm/in	Weight Kgs/Lbs
50	54.0	20	222	162	81	15	4.0
2	2.125	300	8.75	6.38	3.18	1/2	8.8
65	66.7	20	248	170	96	15	5.1
2.5	2.625	300	9.75	6.69	3.78	1/2	11.3
80	79.4	20	270	196	114	15	6.8
3	3.125	300	10.63	7.71	4.50	1/2	15.0
100	104.8	20	330	244	152	25	12.5
4	4.125	300	13.00	9.60	6.00	1	27.5
150	155.6	20	432	328	203	25	26.9
6	6.125	300	17.00	12.91	8.00	1	59.3

MODEL BH-22C BRASS SWING CHECK VALVE

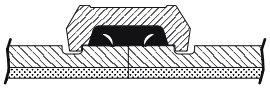
The Model BH-22C swing check valve is a grooved-end brass check valve featuring a spring-loaded clapper with a rated working pressure of 250 psi (16 bar). UL listed and FM approved.



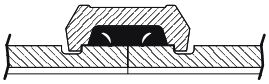
Nominal Size mm/in	Pipe O.D. mm/in	Dimensions A mm/in	B mm/in	d mm/in	Weight kgs/Lbs
50	54.0	145	83	35	1.6
2	2.125	5.70	3.25	1.38	3.5
65	66.7	165	107	48	2.9
2.5	2.625	6.50	4.21	1.88	6.5
80	79.4	194	124	62	4.6
3	3.125	7.64	4.88	2.44	10.2
100	104.8	202	142	84	5.3
4	4.125	7.95	5.59	3.31	11.7

AWWA DUCTILE IRON SERIES

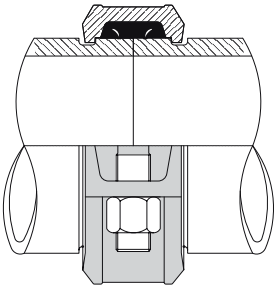
Shurjoint offers a variety of grooved couplings and fittings for AWWA ductile iron pipe in sizes 3" to 12". Couplings feature a two-piece housing and ***GapSeal***® gasket for a leak -tight seal on a variety lined AWWA ductile iron pipes.



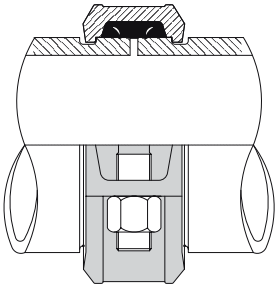
Cement Lined Pipe



Glass Lined



Rigid Radius Cut Groove



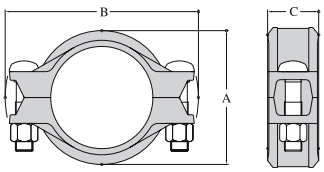
Flexible Radius Cut Groove

The gaskets have been specifically designed to seal on ductile iron surfaces and are available in three grades to meet your service applications.

Grade	Temp. Range	Compound	Color Code	General Service Recommendations
S	-20°F to + 180°F (-29°C to +71°C)	Nitrile	Red Stripe	Specially formulated to seal on ductile pipe surfaces. Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range; except hot dry air over 60°C (+140°F) and water over 65°C (+150°F) **NOT RECOMMENDED FOR HOT WATER SERVICES.**
M	-20°F to + 200°F (-29°C to +93°C)	Halogenated Butyl	Brown Stripe	Specially formulated to seal on ductile iron pipe surfaces. Recommended for water service plus a variety of dilute acids, oil-free air and other chemical services within the specified temperature range. The compound is UL classified per ANSI/NSF61 for potable water applications. **NOT RECOMMENDED FOR PETROLEUM SERVICES.**
L	-30°F to + 350°F (-34°C to +177°C)	Silicone	Red Gasket	Recommended for dry heat, air without hydrocarbons to 350°F (177°C) and certain chemical services.

MODEL A505 COUPLING

The *Shurjoint* Model A505 couplings are designed for connecting grooved ductile iron pipe and fittings of ANSI/AWWA C151/ A21.51, Class 54 dimensions. The same coupling can be used either as a flexible coupling or a rigid coupling depending on the groove processed. The Model A505 coupling is recommended for service up to 35 bar (500 psi) depending on the size. The ***GapSeal***® gasket fits flush over the pipe ends and prevents fluids from entering into the gasket cavity.

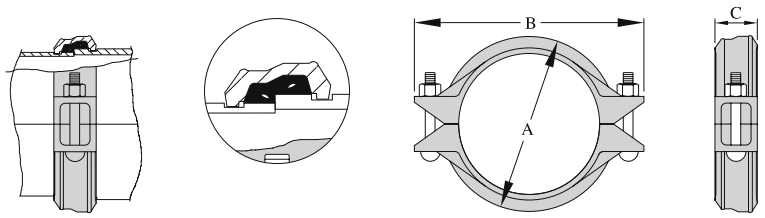


Nominal Size mm/in	Pipe O. D. mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/tonf	Axial Displace-ment mm/in	Bolt Size no.	Bolt Size in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Weight Kgs/Lbs
80	100.6	35	27.5	0 - 2.4	2	1/2 x 3	141	194	56	2.2
3	3.96	500	2.80	0 - 0.09			5.55	7.64	2.20	4.8
100	121.9	35	40.0	0 - 2.4	2	5/8 x 3-1/2	164	221	57	3.3
4	4.80	500	4.78	0 - 0.09			6.46	8.70	2.25	7.3
150	175.3	28	66.5	0 - 2.4	2	5/8 x 3-1/2	218	265	57	4.1
6	6.90	400	6.78	0 - 0.09			8.58	10.43	2.25	9.0
200	229.9	28	113.9	0 - 4.0	2	3/4 x 4-3/4	275	354	67	7.0
8	9.05	400	11.60	0 - 0.16			10.83	13.94	2.64	15.4
250	281.9	24	150.6	0 - 4.0	2	3/4 x 4-3/4	332	406	70	10.0
10	11.10	350	15.35	0 - 0.16			13.07	16.00	2.76	22.0
300	335.3	24	213.1	0 - 4.0	2	7/8 x 6-1/2	390	480	70	13.5
12	13.20	350	21.72	0 - 0.16			15.35	18.90	2.76	29.7
350	388.6	17	204.5	0 - 4.0	4	1 x 3-1/2	441	530	73	16.0
14	15.30	250	20.84	0 - 0.16			17.36	20.87	2.88	35.2
400	442.0	17	264.3	0 - 6.4	4	1 x 3-1/2	504	604	89	26.4
16	17.40	250	26.93	0 - 0.25			19.84	22.78	3.50	58.0
450	495.3	17	332.2	0 - 6.4	4	1 x 3-1/2	560	660	89	35.0
18	19.50	250	33.85	0 - 0.25			22.05	26.00	3.50	77.0
500	548.6	10	244.3	0 - 6.4	4	1-1/8 x 4	610	720	89	38.0
20	21.60	150	24.89	0 - 0.25			24.37	28.35	3.50	83.6
600	655.3	10	348.9	0 - 6.4	4	1-1/8 x 4	740	840	89	49.0
24	25.80	150	35.55	0 - 0.25			29.14	33.07	3.50	107.8

* only when connected or plus groove

MODEL A507 TRANSITION COUPLING

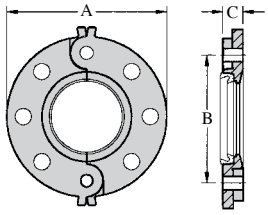
The Model A507 Transition Coupling provides for a direct connection between grooved end IPS steel pipe and grooved end AWWA ductile iron pipe, fittings and or valves. The A507 will accommodate roll or cut grooved IPS steel pipe and rigid or flexible AWWA ductile iron cut grooves.



Nominal Size mm/in	Pipe O. D. IPS mm/in	Pipe O. D. AWWA Ductile mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lb s	Pipe End Separation mm/in	Bolt Size in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Weight Kgs/Lbs
80	88.9	100.6	35	21.4	1	1/2 x 2-3/4	140	187	53	2.7
3	3.500	3.96	500	4810	0.03		5.50	7.38	2.07	6.0
100	114.3	121.9	35	35.4	1	1/2 x 3-1/4	162	229	56	3.6
4	4.500	4.80	500	7950	0.03		6.38	9.00	2.19	8.0
150	168.3	175.3	28	61.3	1	5/8 x 3-1/4	214	283	59	4.1
6	6.625	6.90	400	13780	0.03		8.44	11.13	2.31	9.0
200	219.1	229.9	28	104.0	1	3/4 x 5	279	353	67	8.2
8	8.625	9.05	400	23370	0.03		11.00	13.88	2.63	18.0
250	273.0	281.9	24	141.3	1	7/8 x 6-1/2	334	419	67	10.0
10	10.750	11.10	350	31760	0.03		13.13	16.50	2.63	22.0
300	323.9	335.3	24	198.8	1	7/8 x 6-1/2	391	481	67	14.1
12	12.750	13.20	350	44680	0.03		15.38	18.94	2.63	31.0

MODEL A512 FLANGE ADAPTER

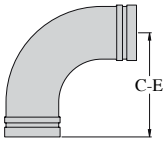
The Model A512 Flange Adapter provides for the direct connection between AWWA ductile iron radius pipe grooves and flanged components. The two part flange features integral closure tabs to aid in assembly. Note: Like with other flange adapters the A512 requires a sufficient smooth flat mating area for proper sealing, please reference the A512 cut sheet or contact *Shurjoint* for details.



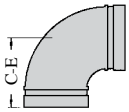
Nominal Size mm/in	Pipe OD mm/in	Max. Working Pressure Bar/PSI	Max. End Load kN/Lbs	Bolt No	Bolt Size in	Dimensions A mm/in	Dimensions B mm/in	Dimensions C mm/in	Weight Kgs/Lbs
80	100.6	24	13.8	4	5/8 x 3	191	152	24	2.4
3	3.96	250	3100			7.50	6.00	0.94	5.4
100	121.9	24	20.6	8	5/8 x 3	229	191	24	3.7
4	4.80	250	4500			9.00	7.50	0.94	8.2
150	175.3	24	41.4	8	3/4 x 3-1/2	279	241	25	5.4
6	6.90	250	9300			11.00	9.49	1.00	12.0
200	229.9	24	71.2	8	3/4 x 3-1/2	343	298	29	7.9
8	9.05	250	16000			13.50	11.75	1.13	17.4
250	281.9	24	105.5	12	7/8 x 4	406	362	30	11.2
10	11.10	250	23700			16.00	14.25	1.19	24.6
300	335.3	24	151.3	12	7/8 x 4	483	432	32	15.6
12	13.20	250	34000			19.00	17.00	1.25	34.4

AWWA GROOVED FITTINGS

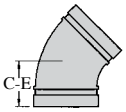
Shurjoint AWWA grooved end fittings are supplied with rigid radius grooves as per ANSI / AWWA C-606. The fittings also conform to ANSI A21.10 / AWWA C-110 for center to end (C to E) dimensions and AWWA C-153 or ANSI A21.10 / AWWA C-110 for wall thickness. Fittings are supplied painted black. Other coatings including 'non-coated' and cement/ mortar lining Type II are available on request.



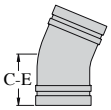
A100
90° Long Rad. Elbow



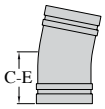
A10
90° Elbow



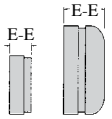
A11
45° Elbow



A12
22-1/2° Elbow

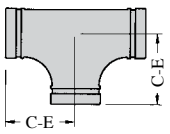


A13
11-1/4° Elbow

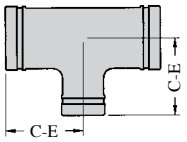


4"-8" 10"-12"
A60 Cap

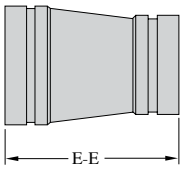
AWWA D. I. Pipe		A100 90° Long Rad. El.		A10 90° Elbow		A11 45° Elbow		A12 22-1/2° Elbow		A13 11-1/4° Elbow		A60 Cap	
Nom. Size mm/in	O. D. mm/in	C - E mm/in	Weight Kgs/Lbs	C - E mm/in	Weight Kgs/Lbs	C - E mm/in	Weight Kgs/Lbs	C - E mm/in	Weight Kgs/Lbs	C - E mm/in	Weight Kgs/Lbs	E - E mm/in	Weight Kgs/Lbs
80	100.6	197	8.8	140	3.9	76	2.6	76	5.7	76	4.1	-	-
3	3.96	7.75	19.3	5.50	8.6	3.00	5.8	3.00	12.5	3.00	9.0	-	-
100	121.9	229	12.7	165	5.4	102	3.8	102	5.2	102	5.2	29	2.3
4	4.80	9.00	28.0	6.50	12.0	4.00	8.4	4.00	11.5	4.00	11.5	1.16	5.0
150	175.3	292	25.0	203	10.0	127	6.8	127	11.3	127	9.8	29	4.1
6	6.90	11.50	55.0	8.00	22.0	5.00	15.0	5.00	25.0	5.00	21.5	1.16	9.0
200	229.9	356	37.7	229	17.2	140	13.1	140	17.9	140	17.7	34	7.3
8	9.05	14.00	83.0	9.00	38.0	5.50	28.8	5.50	39.5	5.50	39.0	1.34	16.0
250	281.9	419	72.6	279	34.5	165	19.6	165	30.4	165	34.9	39	16.9
10	11.10	16.50	160.0	11.00	76.0	6.50	43.3	6.50	67.0	6.50	77.0	1.53	37.2
300	335.3	483	95.3	305	41.7	191	32.7	191	49.0	191	54.0	39	23.6
12	13.20	19.00	210.0	12.00	92.0	7.50	72.0	7.50	108.0	7.50	120.0	1.53	52.0



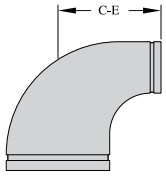
A20 Tee



A25 Reducing Tee



A50 Conc. Reducer



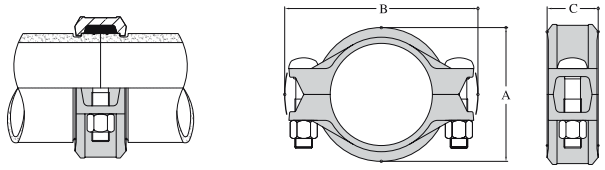
A10R Reducing Elbow

AWWA D. I. Pipe		A20 Tee	
Nom. Size mm/in	O. D. mm/in	C - E mm/in	Weight Kgs/Lbs
80	100.6	140	6.4
3	3.96	5.50	14.2
100	121.9	165	8.6
4	4.80	6.50	19.0
150	175.3	203	15.4
6	6.90	8.00	34.0
200	229.9	229	26.8
8	9.05	9.00	59.0
250	281.9	279	50.4
10	11.10	11.00	111.0
300	335.3	305	61.7
12	13.20	12.00	136.0

AWWA D. I. Pipe		A25 Reducing Tee		A50 Concentric Reducer		A10R 90° Reducing Elbow	
Nom. Size mm/in	O. D. mm/in	C - E mm/in	Weight Kgs/Lbs	E - E mm/in	Weight Kgs/Lbs	C - E mm/in	Weight Kgs/Lbs
100 x 80	121.9 x 100.6	165	12.0	178	4.5	165	7.7
4 x 3	4.80 x 3.96	6.50	26.4	7.00	10.0	6.50	17.0
150 x 100	175.3 x 229.9	203	20.9	229	7.5	203	13.4
6 x 4	6.90 x 4.80	8.00	46.0	9.00	16.5	8.00	29.6
200 x 100	229.9 x 121.9	229	35.4	279	12.7	229	21.1
8 x 4	9.05 x 4.80	9.00	78.0	11.00	28.0	9.00	46.5
200 x 150	229.9 x 175.3	229	36.3	279	15.4	229	22.0
8 x 6	9.05 x 6.90	9.00	80.0	11.00	34.0	9.00	48.5
250 x 100	281.9 x 121.9	279	54.4	305	19.1	-	-
10 x 4	11.10 x 4.80	11.00	120.0	12.00	42.0	-	-
250 x 150	281.9 x 175.3	279	58.1	305	20.9	279	34.9
10 x 6	11.10 x 6.90	11.00	128.0	12.00	46.0	11.00	77.0
250 x 200	281.9 x 229.9	279	59.0	305	22.7	279	39.9
10 x 8	11.10 x 9.05	11.00	130.0	12.00	50.0	11.00	88.0
300 x 100	335.3 x 121.9	305	50.8	356	27.2	-	-
12 x 4	13.20 x 4.80	12.00	112.0	14.00	60.0	-	-
300 x 150	335.3 x 175.3	305	81.7	356	31.8	305	49.9
12 x 6	13.20 x 6.90	12.00	180.0	14.00	70.0	12.00	110.0
300 x 200	335.3 x 229.9	305	84.4	356	33.6	305	57.2
12 x 8	13.20 x 9.05	12.00	186.0	14.00	74.0	12.00	126.0
300 x 250	335.3 x 281.9	305	87.1	356	38.1	305	68.0
12 x 10	13.20 x 11.10	12.00	192.0	14.00	84.0	12.00	150.0

MODEL A505-BS COUPLING

The Model A505-BS Coupling is designed for connecting ductile iron pipe of BS EN 545 Class K9, K-12 and or ISO 2531 dimensions. The A505-BS can serve as a rigid or flexible coupling based on the type of grooves processed on the pipe. The A505-BS is supplied painted black. Other coatings are available on request.

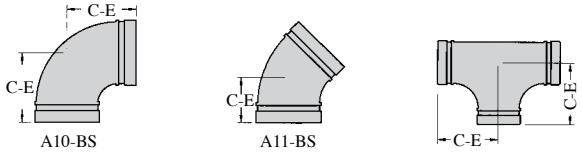


Nominal Size mm	Pipe OD mm	Max. Working Pressure Bar	Max. End Load kN	Pipe End Sep. mm	Deflection		Dimensions			Weight Kgs
					Per Cplg Deg (°)	Pipe mm/m	A mm	B mm	C mm	
80	98.0	16	12.1	0 - 2.4	1° - 19'	23	129	184	56	2.4
100	118.0	16	17.5	0 - 2.4	1° - 6'	17	151	207	57	3.2
150	170.0	16	36.3	0 - 2.4	0° - 46'	12	219	265	57	4.0

BRITISH STANDARD DUCTILE IRON GROOVED END FITTINGS

Shurjoint British Standard grooved end fittings are supplied with rigid radius grooves.

Additional fitting configurations are available on request.



A10-BS 90° Elbow

A11-BS 45° Elbow

A20-BS Tee

Nominal Size mm	Pipe O. D. mm	A10-BS 90° Elbow		A11-BS 45° Elbow		A20-BS Tee	
		C - E mm	Weight Kgs	C - E mm	Weight Kgs	C - E mm	Weight Kgs
80	98.0	165.0	5.5	130.0	5.1	165.0	9.4
100	118.0	180.0	7.2	140.0	6.5	180.0	12.5
150	170.0	220.0	13.3	160.0	11.4	220.0	22.5

Threaded Fittings

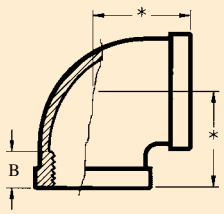
The *Shurjoint* 800 series includes a complete line of ductile iron threaded fittings in a wide variety of configurations in sizes from 1/2" to 2-1/2". These fittings are all 100% air tested underwater and are rated for 300 psi (CWP). The 800 series fittings are UL listed and FM approved making them the ideal threaded fitting for fire protection and other applications.

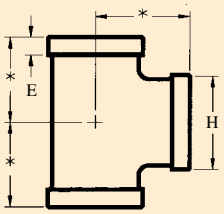
Materials: Ductile iron ASTM A536 Gr. 65-45-12.
Max. Working Pressure (UL listed/FM approved): 300 psi (CWP)
General Dimensions: ANSI B16.3 class 150*
Threads: NPT or BSPT
Finish: Black, hot dip galvanized or electro-zinc plated

* Except bushings & plugs (B16.14), unions (B16.39 Class 150) & companion flanges (B16.42 Class 150).

GENERAL SPECIFICATIONS AND DIMENSIONS

These dimensions apply to all standard fittings, both straight and reducing. For center-to-face dimensions (marked with *), see fitting tables.

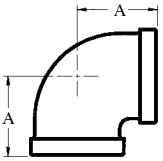




Unit: Inch

Pipe Size in	O. D. of Band (H)	Width of Band (E)	Thread Length (min.) (B)
1/2	1.02	0.25	0.43
3/4	1.46	0.27	0.50
1	1.77	0.30	0.58
1-1/4	2.15	0.34	0.67
1-1/2	2.43	0.37	0.70
2	2.96	0.42	0.75
2-1/2	3.59	0.48	0.92

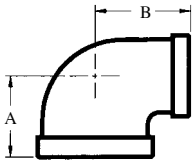
MODEL 811 90° ELBOW



Unit: Inch

Nominal Size in	A in	Weight Lbs	Box Q'ty Pcs
1/2	1.12	0.25	240
3/4	1.31	0.40	120
1	1.50	0.64	70
1-1/4	1.75	0.95	40
1-1/2	1.94	1.24	30
2	2.25	1.74	20
2-1/2	2.70	3.28	10

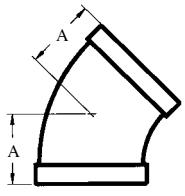
MODEL 812 REDUCING 90° ELBOW



Unit: Inch

Nominal Size in	A in	B in	Weight Lbs	Box Q'ty Pcs
3/4 x 1/2	1.20	1.22	0.33	160
1 x 1/2	1.26	1.36	0.44	110
1 x 3/4	1.18	1.45	0.53	90
1-1/4 x 1/2	1.34	1.53	0.64	75
1-1/4 x 3/4	1.45	1.62	0.75	60
1-1/4 x 1	1.58	1.67	0.77	55
1-1/2 x 1/2	1.41	1.66	0.92	45
1-1/2 x 3/4	1.52	1.75	0.95	45
1-1/2 x 1	1.65	1.80	0.99	40
1-1/2 x 1-1/4	1.82	1.88	1.14	35
2 x 3/4	1.60	1.97	1.28	30
2 x 1	1.73	2.02	1.58	25
2 x 1-1/2	2.02	2.16	1.67	20
2-1/2 x 2	2.39	2.60	3.01	15

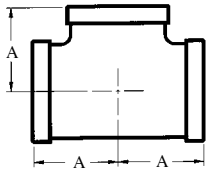
MODEL 813 45° ELBOW



Unit: Inch

Nominal Size in	A in	Weight Lbs	Box Q'ty Pcs
1/2	0.88	0.22	250
3/4	0.98	0.33	150
1	1.12	0.49	90
1-1/4	1.29	0.73	50
1-1/2	1.43	0.93	35
2	1.68	1.54	18
2-1/2	1.95	2.71	12

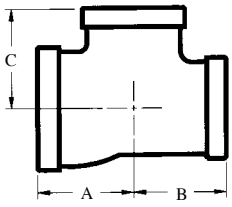
MODEL 814 TEE



Unit: Inch

Nominal Size in	A in	Weight Lbs	Box Q'ty Pcs
1/2	1.12	0.33	150
3/4	1.31	0.51	90
1	1.50	0.86	60
1-1/4	1.75	1.30	35
1-1/2	1.94	1.63	24
2	2.25	2.64	12
2-1/2	2.70	4.51	8

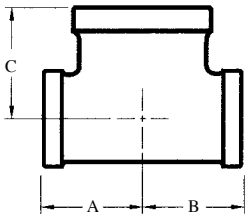
MODEL 815 REDUCING TEE



Unit: Inch

Nominal Size in			A in	B in	C in	Weight Lbs	Box Q'ty Pcs
3/4	3/4	1/2	1.20	1.20	1.22	0.46	95
1	1/2	1	1.50	1.36	1.50	0.71	55
	3/4	1/2	1.26	1.20	1.36	0.58	80
		3/4	1.37	1.31	1.45	0.68	65
		1	1.50	1.45	1.50	0.77	55
	1	1/2	1.26	1.26	1.36	0.66	65
		3/4	1.37	1.37	1.45	0.73	60
1-1/4	1	1/2	1.34	1.26	1.53	0.82	50
		3/4	1.45	1.37	1.62	0.90	50
		1	1.58	1.50	1.67	1.04	45
		1-1/4	1.75	1.67	1.75	1.10	40
	1-1/4	1/2	1.34	1.34	1.53	0.88	45
		3/4	1.45	1.45	1.62	0.97	45
		1	1.58	1.58	1.67	1.10	40
1-1/2	1	1/2	1.44	1.31	1.69	0.97	40
		3/4	1.50	1.37	1.75	1.15	40
		1	1.65	1.50	1.80	1.15	30
		1-1/4	1.82	1.67	1.88	1.47	30
		1-1/2	1.94	1.80	1.94	1.52	30
	1-1/4	1/2	1.41	1.34	1.66	1.04	40
		3/4	1.52	1.45	1.75	1.10	40
		1	1.65	1.58	1.80	1.32	30
	1-1/2	1/2	1.41	1.41	1.66	1.15	35
		3/4	1.52	1.52	1.75	1.23	35
		1	1.65	1.65	1.80	1.39	30
		1-1/4	1.82	1.82	1.88	1.50	30
2	1	2	2.25	2.02	2.25	2.18	15
	1-1/4	2	2.25	2.10	2.25	2.31	15
	1-1/2	1/2	1.49	1.41	1.88	1.50	30
		3/4	1.60	1.52	1.97	1.61	25
		1	1.73	1.65	2.02	1.65	20
		1-1/2	2.02	1.94	2.16	2.02	20
	2	2	2.25	2.16	2.25	2.31	15
		1/2	1.49	1.49	1.88	1.54	30
		3/4	1.60	1.60	1.97	1.67	20
		1	1.73	1.73	2.02	1.92	20
		1-1/4	1.90	1.90	2.10	2.05	20
		1-1/2	2.02	2.02	2.16	2.11	15
2-1/2	2	3/4	1.74	1.60	2.32	2.22	15

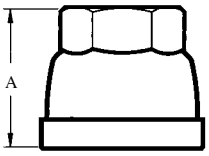
MODEL 815 BULLHEAD TEE



Unit: Inch

Nominal Size in			A in	B in	C in	Weight Lbs	Box Q'ty Pcs
3/4	3/4	1	1.45	1.45	1.37	0.66	65
1	1	1-1/4	1.67	1.67	1.58	0.97	45
		1-1/2	1.80	1.80	1.65	1.15	35
1-1/4	1	1-1/2	1.88	1.80	1.82	1.43	30
	1-1/4	1-1/2	1.88	1.88	1.82	1.52	30
		2	2.10	2.10	1.90	1.80	24
1-1/2	1-1/4	2	2.16	2.10	2.02	1.94	20
	1-1/2	2	2.16	2.16	2.02	2.00	20
2	2	2-1/2	2.60	2.60	2.39	3.61	10

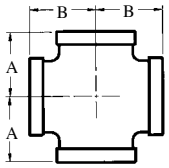
MODEL 816 REDUCING COUPLING



Unit: Inch

Nominal Size in	A in	Wrench Size in	Weight Lbs	Box Q'ty Pcs
3/4 x 1/2	1.63	1-1/4	0.36	150
1 x 1/2	1.69	1-1/4	0.37	140
1 x 3/4	1.37	1-1/2	0.53	120
1-1/4 x 3/4	2.06	1-1/2	0.69	80
1-1/4 x 1	2.06	-	0.66	60
1-1/2 x 1	2.31	-	0.84	50
1-1/2 x 1-1/4	2.31	-	0.90	45
2 x 1	2.81	-	1.34	35
2 x 1-1/4	2.81	-	1.39	30
2 x 1-1/2	2.81	-	1.41	30
2-1/2 x 2	3.25	-	2.44	18

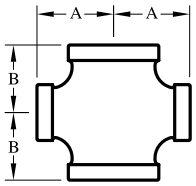
MODEL 817 CROSS / REDUCING CROSS



MODEL 817 CROSS

Unit: Inch

Nominal Size (NPT) in	A in	B in	Weight Lbs	Box Q'ty Pcs
1/2	1.12	1.12	0.40	90
3/4	1.31	1.31	0.80	60
1	1.50	1.50	0.97	45
1-1/4	1.75	1.75	1.58	25
1-1/2	1.94	1.94	1.89	20
2	2.25	2.25	2.93	10

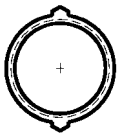


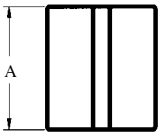
MODEL 817 REDUCING CROSS

Unit: Inch

Nominal Size (NPT) in	A in	B in	Weight Lbs	Box Q'ty Pcs
1-1/4x1-1/4x1x1	1.67	1.58	1.25	30
1-1/2x1-1/2x1x1	1.80	1.65	1.47	24
2 x 2 x 1 x 1	2.02	1.73	2.64	10

MODEL 818 STRAIGHT COUPLING

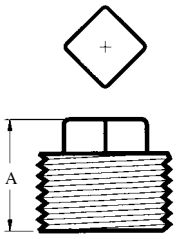




Unit: Inch

Nominal Size (NPT) in	A in	Wrench Size in	Weight Lbs	Box Q'ty Pcs
1/2	1.38	1-1/8	0.18	360
3/4	1.61	1-3/8	0.26	200
1	1.77	1-11/16	0.44	110
1-1/4	2.00	2	0.55	75
1-1/2	2.20	2-1/4	0.71	60
2	2.60	2-3/4	1.15	30
2-1/2	3.00	3-3/8	2.29	18

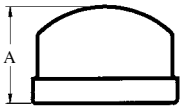
MODEL 819 PLUG



Unit: Inch

Nominal Size (NPT) in	A in	Weight Lbs	Box Q'ty Pcs
1/2	0.93	0.09	500
3/4	1.13	0.18	300
1	1.25	0.25	200
1-1/4	1.36	0.51	110
1-1/2	1.45	0.71	80
2	1.50	0.99	45

MODEL 820 CAP

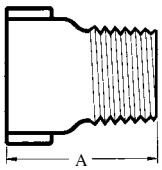


Unit: Inch

Nominal Size (NPT) in	A in	Weight Lbs	Box Q'ty Pcs
1/2	0.89	0.14	500
3/4	1.00	0.20	300
1	1.18	0.33	180
1-1/4	1.32	0.46	110
1-1/2	1.38	0.57	80
2	1.48	0.88	45
2-1/2	1.77	1.54	25

Standard Box:
12" x 10" x 8"

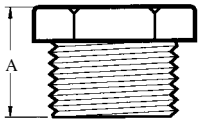
MODEL 825 EXTENSION PIECE



Unit: Inch

Nominal Size in	A in	Weight Lbs	Box Q'ty Pcs
1/2 x 1-1/2L	1.50	0.20	300
1/2 x 2L	2.00	0.26	250
3/4 x 1-1/2L	1.50	0.22	250
3/4 x 2L	2.00	0.31	200

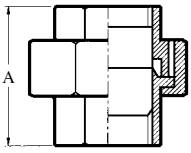
MODEL 827 HEX BUSHING



Unit: Inch

Nominal Size in	A in	Weight Lbs	Box Q'ty Pcs
1 x 1/2	1.06	0.22	280
1 x 3/4	1.06	0.18	280
1-1/4 x 1	1.18	0.31	150
1-1/2 x 1	1.26	0.53	100
1-1/2 x 1-1/4	1.26	0.35	100
2 x 1	1.34	0.68	80
2 x 1-1/4	1.34	0.66	80
2 x 1-1/2	1.34	0.62	80

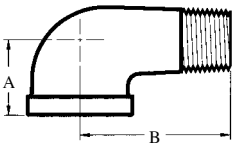
MODEL 830 BRASS SEAT UNION



Unit: Inch

Nominal Size in	A in	Weight Lbs	Box Q'ty Pcs
1/2	1.81	0.46	110
3/4	1.99	0.66	80
1	2.17	1.08	50
1-1/4	2.52	1.54	35
1-1/2	2.64	2.02	25
2	3.15	3.15	18

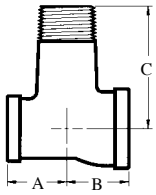
MODEL 831 LONG STREET 90° ELBOW



Unit: Inch

Nominal Size in	A in	B in	Weight Lbs	Box Q'ty Pcs
1 x 1/2M	1.50	3.00	0.68	80
1 x 1M	1.50	3.00	0.73	60

MODEL 832 LONG STREET TEE

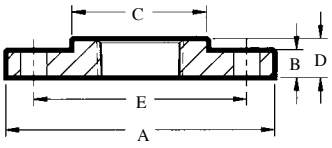


Unit: Inch

Nominal Size in	A in	B in	C in	Weight Lbs	Box Q'ty Pcs
1 x 1/2x1M	1.50	1.40	3.00	0.91	50
1 x 1 x 1M	1.50	1.50	3.00	0.99	45

MODEL 841 COMPANION FLANGE

The Model 841 is a traditional companion flange used for transition from a flanged to a threaded piping system.



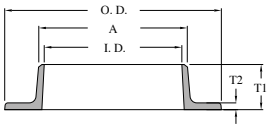
Unit: Inch

Nominal Size in	A in	B in	C in	D in	E in	Weight Lbs
1	4.25	0.56	1.94	0.69	3.12	1.75
1-1/4	4.62	0.62	2.31	0.81	3.50	2.20
1-1/2	5.00	0.69	2.56	0.88	3.88	2.55
2	6.00	0.75	3.06	1.00	4.75	4.20
2-1/2	7.00	0.88	3.56	1.12	5.50	5.85
3	7.50	0.94	4.25	1.19	6.00	6.60
4	9.00	0.94	5.31	1.31	7.50	11.75
6	11.00	1.00	7.56	1.56	9.50	16.50
8	13.50	1.12	9.69	1.75	11.75	26.00

MODEL 738-SO STAINLESS STEEL ANGLE FACE RING

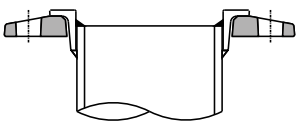
The *Shurjoint* Model 738-SO stainless steel angle face ring, used with a Model 739-SO back-up flange, offers an economical alternative to costly stainless steel slip-on, lap joint flanges and stub ends. The stainless steel ring and back-up flange provides a fast and easy method for making repairs, modifications or use in a new piping system.

- Designed to weld to IPS stainless pipe and fittings
- Machined face for dependable gasket sealing
- Slip-on design allows for easy length adjustment
- Material thickness and angle face design add reinforcement
- Cast in CF-3M (316L) and CG-3M (317L)
- Designed for use with #739-SO Flanges

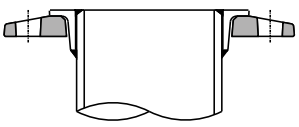


Nominal PipeSize mm/in	Pipe OD mm/in	Dimensions					Weight Kgs/Lbs
		OD mm/in	ID mm/in	T1 mm/in	T2 mm/in	A mm/in	
50	60.3	92	62	32	4.8	70	0.2
2	2.375	3.63	2.44	1.25	0.19	2.75	0.4
65	73.0	105	75	32	4.8	83	0.3
2.5	2.875	4.13	2.94	1.25	0.19	3.25	0.7
80	88.9	127	90	32	4.8	98	0.4
3	3.500	5.00	3.56	1.25	0.19	3.87	0.8
100	114.3	157	116	32	4.8	124	0.5
4	4.500	6.19	4.56	1.25	0.19	4.87	1.1
150	168.3	216	170	35	4.8	178	0.8
6	6.625	8.50	6.69	1.37	0.19	7.00	1.7
200	219.1	270	221	38	6.3	230	1.4
8	8.625	10.63	8.69	1.50	0.25	9.06	3.1
250	273.0	324	275	41	6.3	284	1.7
10	10.750	12.75	10.81	1.63	0.25	11.19	3.8
300	323.9	381	325	41	7.9	335	4.2
12	12.750	15.00	12.81	1.63	0.31	13.19	9.3
350	355.6	413	357	45	7.9	367	5.4
14	14.000	16.25	14.06	1.75	0.31	14.44	12.0
400	406.4	470	408	45	7.9	418	7.6
16	16.000	18.50	16.06	1.75	0.31	16.44	16.8
450	457.2	533	459	51	9.4	468	8.3
18	18.000	21.00	18.06	2.00	0.37	18.44	18.4
500	508.0	584	510	51	9.4	519	9.8
20	20.000	23.00	20.06	2.00	0.37	20.44	21.6
600	609.6	692	612	51	9.4	622	12.8
24	24.000	27.25	24.11	2.00	0.37	24.49	28.3

Note: Sizes under 12" are investment casting, and sizes larger than 12" are fabricated.



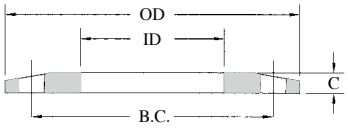
Recommended welding configuration allowing maximum length adjustment



Recommended welding configuration when interior finish is critical.

MODEL 739-SO DUCTILE IRON BACK-UP FLANGE

- Made of ductile iron to ASTM A536 gr. 65-45-12
- Tapered face reduces weight and aids installation
- Drilling to ANSI B16.5 Class 150 (ANSI B16.1 Class 125)
- Hot-dip galvanized (epoxy and other coatings available)
- Designed for use with #738-SO Stainless Steel Rings



Nominal Size mm/in	Pipe OD mm/in	Dimensions						Weight Kgs/Lbs
		OD mm/in	ID mm/in	Width C mm/in	Bolt Circle B.C. mm/in	Bolts		
						No. mm/in	Size in	
50	60.3	152	76.2	16	120.7	4	5/8	1.2
2	2.375	6.00	3.00	0.63	4.75			2.7
65	73.0	178	88.9	16	139.7	4	5/8	1.9
2.5	2.875	7.00	3.50	0.63	5.50			4.1
80	88.9	191	104.8	16	152.4	4	5/8	2.0
3	3.500	7.50	4.13	0.63	6.00			4.4
100	114.3	229	130.2	16	190.5	8	5/8	2.7
4	4.500	9.00	5.13	0.63	7.50			5.9
150	168.3	279	187.2	19	241.3	8	3/4	3.3
6	6.625	11.00	7.37	0.75	9.50			7.3
200	219.1	343	238	19	298.5	8	3/4	4.6
8	8.625	13.50	9.37	0.75	11.75			10.2
250	273.0	406	295.4	22	362.0	12	7/8	8.5
10	10.750	16.00	11.63	0.88	14.25			18.8
300	323.9	483	346.2	22	431.8	12	7/8	12.0
12	12.750	19.00	13.63	0.88	17.00			26.6
350	355.6	533	381.0	25	476.3	12	1	12.9
14	14.000	21.00	15.00	1.00	18.75			28.5
400	406.4	597	431.8	25	539.8	16	1	18.3
16	16.000	23.50	17.00	1.00	21.25			40.3
450	457.2	635	482.6	29	577.9	16	1-1/8	18.8
18	18.000	25.00	19.00	1.13	22.75			41.6
500	508.0	699	533.4	29	635.0	20	1-1/8	26.8
20	20.000	27.50	21.00	1.13	25.00			59.2
600	609.6	813	635.0	29	749.3	20	1-1/4	37.8
24	24.000	32.00	25.00	1.13	29.50			83.4

MODEL B20 STANDARD TOP BEAM CLAMP
MODEL B24 WIDE MOUTH TOP BEAM CLAMP

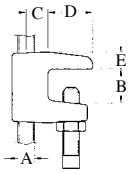
Size Range: 3/8" and 1/2" rod.

Material: Ductile iron casting with a hardened steel cup-point set screw and lock nut.

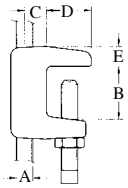
Application: Designed for structural attachment to the top of metal beams, channel or other structural shapes to support hanger rod. The universal design allows clamps to be installed in the top or bottom beam position.

Conforms to: Federal Specification WW-H-171 (Type 23) Manufacturers Standardization Society ANSI/ MSS-SP-58 (type 19 & 23), install in accordance with ANSI/ MSS-SP-69. Exceeds requirements of NFPA-13.

Finish: Black or electro zinc plated.



B20



B24

Model No.	Rod Size A mm/in	Dimensions B mm/in	C mm/in	D mm/in	E mm/in	Pipe Size mm/in	Max. Recom. Load Top Kgs/Lbs	Max. Recom. Load Bottom Kgs/Lbs	Weight per 100 pcs. Kgs/Lbs
B20-3	M10	19.1	12.5	25.4	9.5	20 - 100	227	114	16.2
	3/8	3/4	0.49	1	3/8	3/4 – 4	500	250	35.7
B20-4	M12	19.1	12.5	25.4	9.5	125, 150, 200	432	340	16.2
	1/2	3/4	0.49	1	3/8	5, 6, 8	950	750	35.7
B24-3	M10	28.6	12.5	25.4	11.1	20 - 100	227	114	19.6
	3/8	1-1/8	0.49	1	7/16	3/4 – 4	500	250	43.2
B24-4	M12	28.6	12.5	25.4	11.1	125, 150, 200	432	340	19.6
	1/2	1-1/8	0.49	1	7/16	5, 6, 8	950	750	43.2

MODEL 96 CONTINUITY CLIP

Couplings with rubber gaskets are likely to function as an insulator. Where electrical continuity is required, the *Shurjoint* continuity clip will restore electrical continuity to the system. The electrical continuity clip satisfies IEE Wiring Regulations. Material: Copper or Brass plate

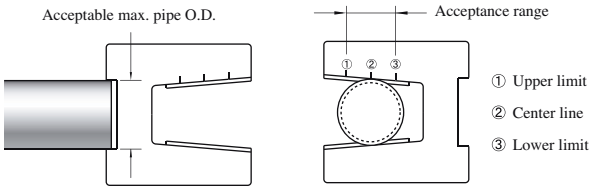
Model	Coupling Size	Box Q'ty/pcs
96-1	1" - 3"	125
96-2	4" - 6"	125
96-3	8" - 12"	100

Note: The pipe surface where continuity clips come in contact must be conductive. If the surface is painted, the paint should be removed to expose bare metal.

MODEL 95 GROOVE GAUGE

The *Shurjoint* groove gauge is a handy and helpful tool in checking both the groove diameter and pipe OD.

Sizes available: 1-1/4″ (32 mm) through 36″ (900 mm).



Pipe O.D. check (Before grooving) Groove diameter check

MODEL GR GROOVE RULE

The *Shurjoint* groove diameter rule is a simple and easy to use steel tape rule used for taking circumferential measurements. The Model GR rules are designed to accurately measure the standard groove dimensions of pipe and are available for measuring, sizes 25mm through 1050mm (1"- 42"). The double sided direct reading diameter rule features two scales and a quick check reference which indicates the acceptable groove range for all pipe sizes.

GR12: 120cmL x 6mmW	-for 25mm-300mm (1"- 12") pipe
GR24: 200cmL x 9.5mmW	-for 200mm-600mm (8"- 24") pipe
GR42: 350cmL x 9.5mmW	-for 200mm-1050mm (8"- 42") pipe

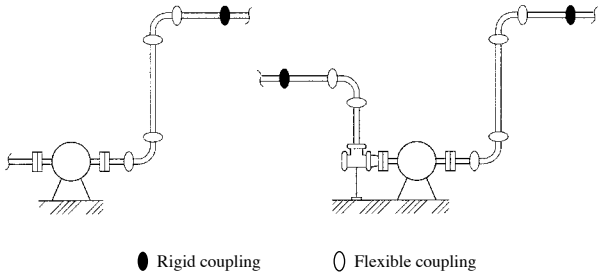
LUBRICANT MODEL 550H

Shurjoint lubricant Model 550H is a tan colored non-toxic paste. The lubricant is recommended for proper gasket installation and to help prevent the gasket from being pinched. The lubricant is applied in a thin coat to the gasket exterior, the gasket lips and/or the housing interiors. *Shurjoint* lubricant is available in one quart (2 Lbs) containers as well as 4.5 ounce tubes.

TYPICAL APPLICATIONS - FLEXIBLE COUPLINGS
- GENERAL SYSTEMS -

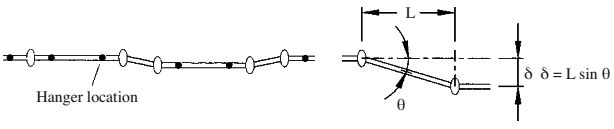
1. Absorption of vibration and noise

When a pump operates with frequent starts and stops, the piping system is affected by the noise and vibration of the equipment. The entire system may develop a large sway, referred to as sympathetic vibration, as a result of the frequent cycling. *Shurjoint* flexible couplings will help reduce such vibration and noise. The system should always be properly designed with steel angle sway braces to protect the system from large sways.



2. Adjustment of misalignment

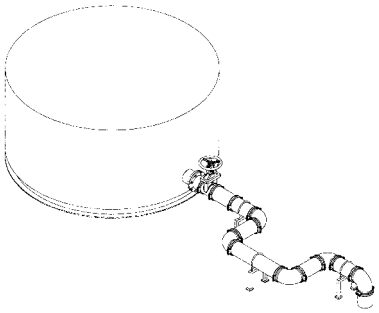
When a straight run has need for a slight adjustment of alignment on the jobsite as shown in the diagram, you can accomplish this with the use of two flexible couplings. The following table shows the deflection value (θ) of the *Shurjoint* 7705 flexible couplings.



Amount of deflection (δ)						
Nominal Size	Deflection Angle(θ)	Distance between couplings (L) mm				
		600	1200	1500	2000	3000
2" / 50	3° 02'	32	64	79	106	159
2 1/2" / 65	2° 30'	26	52	65	87	131
3" / 80	2° 04'	22	43	54	72	108
4" / 100	3° 12'	34	67	84	112	168
5" / 125	2° 36'	27	54	68	91	136
6" / 150	1° 10'	12	24	31	41	61
8" / 200	1° 40'	17	35	44	58	87
10" / 250	1° 20'	14	28	35	47	70
12" / 300	1° 08'	12	24	30	40	59

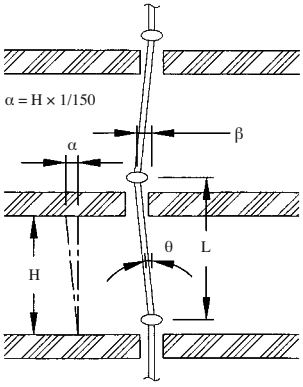
3. Absorption of distortion

With the use of an assembly as shown below, ground sinking or movement around a tank or reservoir can be effectively absorbed, avoiding damage to the tank, reservoir and or the piping system.



4. Absorption of inter-floor deflection

Risers of high-rise flexible structure buildings are subjected to lateral sways (inter-floor deflection) when an earthquake occurs. If we assume the inter-floor deflection (α) as 1/150 and the floor height (H) as 4 meters, the estimated inter-floor deflection (α) will be;



α = H x 1/150 = 4000 x 1/150 = 27mm

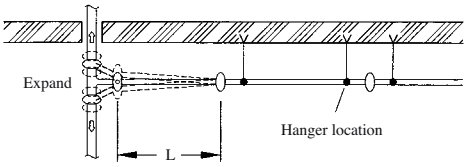
If we use a 200mm (8") 7707 coupling for each floor, the maximum deflection (β) that each coupling can accommodate will be;

β = L x tan θ = 4000 x 0.02915 = 4.56" = 116mm (θ = 1.67°)

The example shows a flexible coupling would be sufficient enough to absorb this scale of seismic sways.

5. Absorption of misalignment

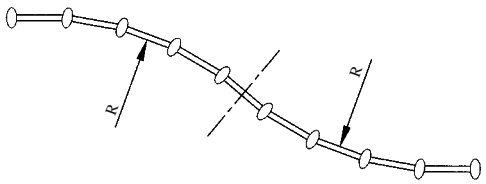
As shown in the diagram, each branch connection to the free riser will be subjected to serious shearing forces as pressure thrusts or thermal movement increases. By using two flexible couplings, you can solve this problem.



6. Curved layout

With *Shurjoint* flexible couplings you can design a slowly curved layout for a system along a curved tunnel, winding road or curved building.

$$R = \frac{L}{(2 \times \tan \theta/2)}$$ (where: R is radius of curvature, L is pipe length, and θ is max. allowed deflection of a coupling)



Example: When using model 7705 100mm (4") couplings for the layout as shown in the diagram, the max. allowed deflection (θ) of the coupling is 3.4°, and the pipe length (L) is 5.5 meters, the radius of curvature (R) will be 92.7 meters.

7. Absorption of Thermal Stress

Thermal stress is caused by changes in temperature, resulting in either expansion or contraction. With the use of *Shurjoint* flexible couplings you can design your system to accommodate such movement without the need for costly expansion joints. The thermal expansion or contraction (μ) is determined by the length of pipe (L) and temperature difference (ΔT).

$$\mu = \alpha \times L \times \Delta T$$

Thermal Expansion (Metric)						
Temperature Difference ΔT (°C)	Pipe Length L (meters)					
	1	5.5*	10	20	30	40
	Thermal Expansion (millimeters)					
1	0.012	0.07	0.12	0.24	0.36	0.48
5	0.06	0.33	0.6	1.2	1.8	2.4
10	0.12	0.66	1.2	2.4	3.6	4.8
20	0.24	1.3	2.4	4.8	7.2	9.6
30	0.36	2	3.6	7.2	11	15
40	0.48	2.6	4.8	9.6	14	20
50	0.6	3.3	6	12	18	24
60	0.72	4	7.2	14	22	29
70	0.84	4.6	8.4	17	25	34
80	0.96	5.3	9.6	19	29	39

* 5.5 meters is the standard length of commercial carbon steel pipe.

As the liner expansion coefficient for steel (α) is 1.2 x 10^{-5}, you can use the table above to determine the thermal expansion.

Example:

- Pipe size: 100mm (4")
- Max. pipe end separation (E) : 3.2mm
- Pipe length (L) : 5.5 M
- Temperature difference (ΔT) : 40° C (+5° C to +45° C)

$\mu = \alpha \times L \times \Delta T = 1.2 \times 10^{-5} \times 5500 \times 40 = 2.64mm$

The thermal expansion of a 5.5 meter standard length of pipe (μ) is within the allowance (= max. pipe end separation) of a flexible coupling. In other words, if you use a coupling for each pipe length of 5.5 meters, the coupling will accommodate the thermal expansion or contraction expected to take place for a 40° C temperature change. When you calculate the necessary number of couplings (N) for an anchored system, you should place a clearance of N x E x 1/2 as a safety factor.

Whether it is thermal expansion, contraction, or a combination thereof, the system requires suitable anchor installations with properly space alignment guides and weight support devices. Where and when larger thermal movement is anticipated, you should use supplementary expansion joint(s).

For installers who use the imperial units of measure, the following table will be more convenient.

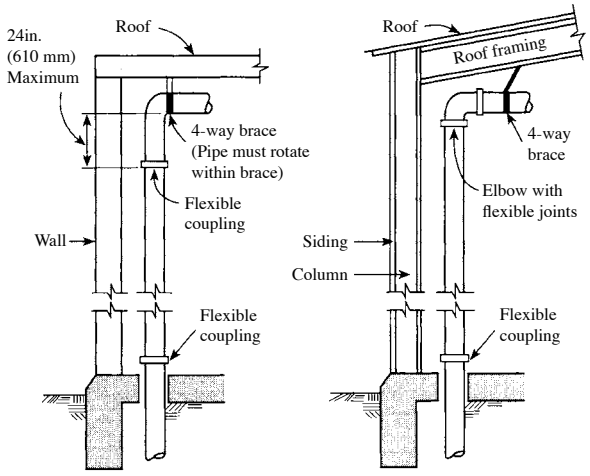
Thermal Expansion (Imperial)				
Temp (°F)	Pipe Lenght L (feet)			
	20	40	60	100
	Thermal Expansion between 70° F and indicated temperature (inch)			
0	-0.10	-0.20	-0.29	-0.49
25	-0.06	-0.13	-0.19	-0.32
50	-0.03	-0.06	-0.08	-0.14
70	0	0	0	0
100	0.05	0.09	0.14	0.23
125	0.08	0.17	0.25	0.42
150	0.12	0.24	0.37	0.61
175	0.16	0.32	0.48	0.80
200	0.20	0.40	0.59	0.99
225	0.24	0.48	0.73	1.21

* Coefficient of thermal expansion of steel pipe = 6.33 in/in, °F x 10^{-6}

TYPICAL APPLICATIONS - FLEXIBLE COUPLINGS – SPRINKLER SYSTEMS (NFPA 13)

The following illustrations are part of NFPA 13 – 2007 Annex A Explanatory Material. These are for informational purposes only and not a mandatory requirement. For specific requirements for any other areas of sprinkler systems, refer to the latest version of NFPA 13.

1. Flexible couplings for main risers and branch line riser



Note to Detail A: The four-way brace should be attached above the upper flexible coupling required for the riser and preferably to the roof structure if suitable. The brace should not be attached directly to a plywood or metal deck.

FIGURE A.9.3.2(a) Riser Details.

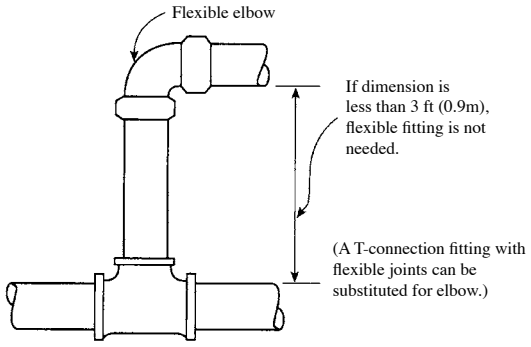


FIGURE A.9.3.2(b) Detail at Short Riser

2. Flexible couplings on horizontal portion of Tie-In

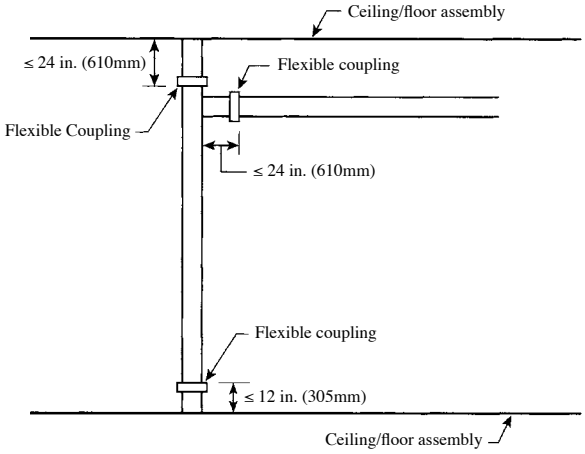


FIGURE A.9.3.2.3(2) (a) Flexible Coupling on Horizontal Portion of Tie-In.

3. Flexible Coupling on Main Riser and Branch Line Riser

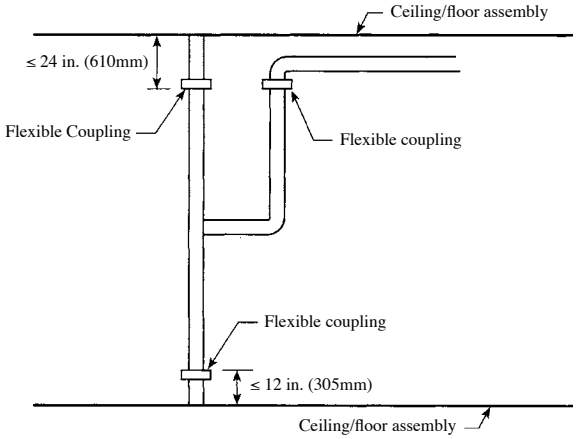


FIGURE A.9.3.2.3(2) (b) Flexible Coupling on Main Riser And Branch Line Riser

4. Flexible couplings for drops

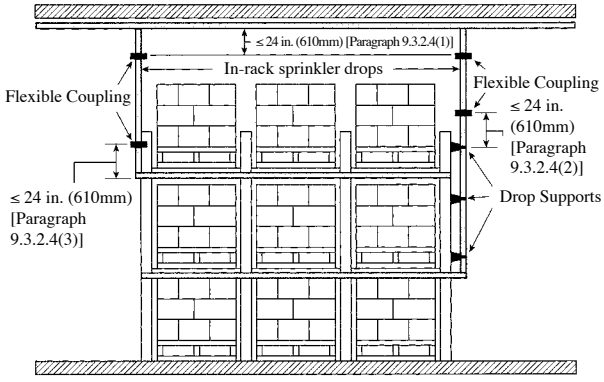


FIGURE A.9.3.2.4 Flexible Coupling for Drops

5. Seismic Separation Assembly

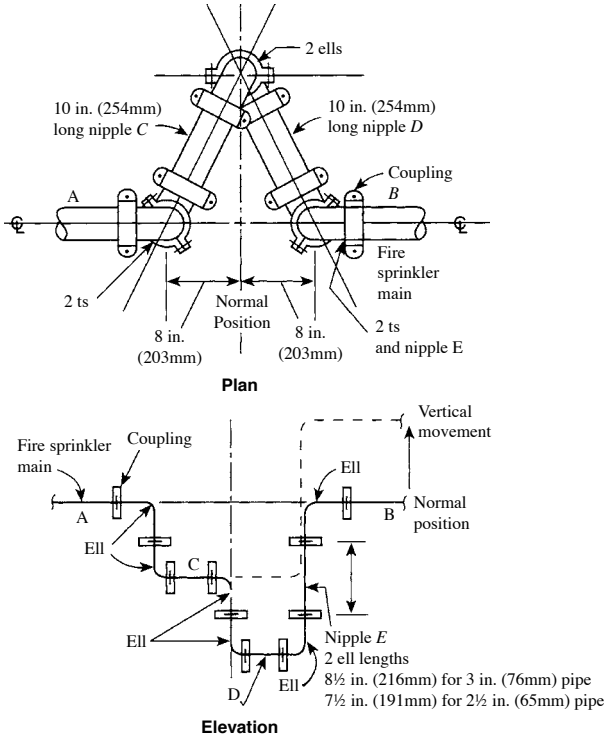
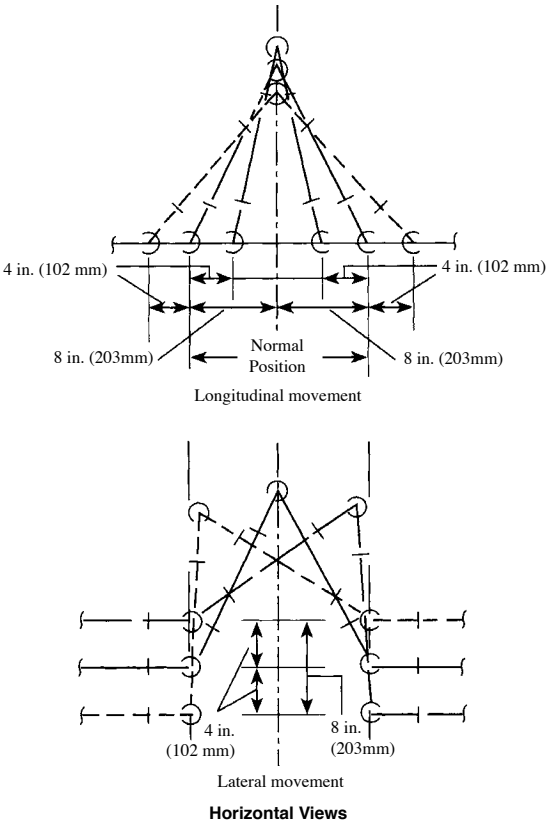


FIGURE A.9.3.3(a) Seismic Separation Assembly. Shown are an 8 in. (203 mm) Separation Crossed by Pipes up to 4 in. (102mm) in Nominal Diameter. For other separation distances and pipe sizes, lengths and distances should be modified proportionally.



6. Earthquake protection for sprinkler piping

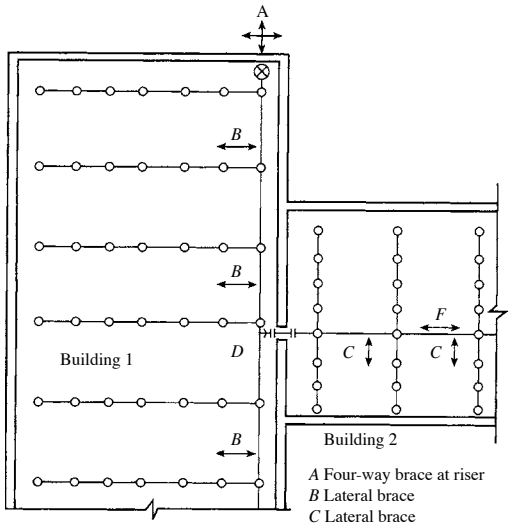
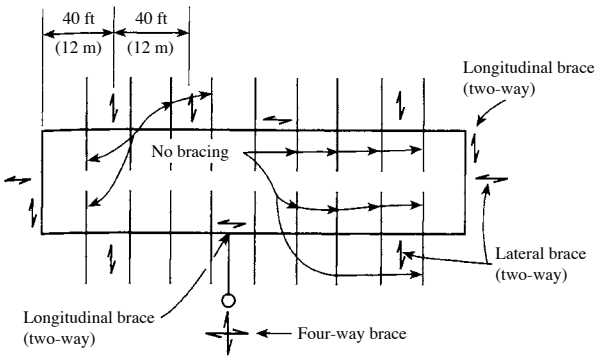


FIGURE A.9.3.5.6 (a)

7. Typical Location of Bracing on a Looped System



FIRURE A.9.3.5.6 (d)
Typical Location of Bracing on a Looped System.

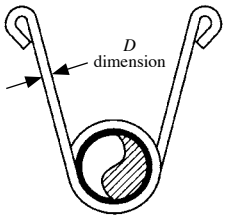
Systems having more flexible couplings than required above shall be provided with additional sway bracing. A lateral brace shall be provided within 24″ (600mm) of every other coupling unless pipes are supported by rods less than 6″ (152mm) long from the ceiling or by U-type hooks underside of the structural element. (NFPA 13 – 2007 9.3.2. & 9.3.5.)

ANCHORING, HANGING AND SUPPORTS

Shurjoint grooved couplings are designed to hold axial thrusts 4–5 times their rated working pressure, though the strength against bending movements is less than that of steel pipe. The joint may be damaged when a bending movement greater than the allowed deflection occurs. System designers should provide anchors (main and intermediate) and pipe guides with proper spacing to protect the system from unexpected large bending movements.

These illustrations are examples only, and are not intended to be used for all installations as conditions and requirements vary from job to job. Reliance on general data or information contained herein shall be at the user's sole risk and without obligation to *Shurjoint*.

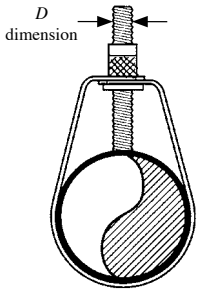
Hangers shall be designed to support five times the weight of water-filled pipe plus 250 lb (115 kgs) at each point of pipe support (NFPA 13 9.1.1.1.). The following illustrations are examples of acceptable hanger types and sizes per NFPA 13.



Wraparound U-hook

U-Hook sizes

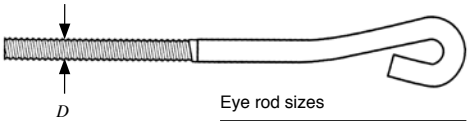
Pipe size in	*D* dimension in/mm
~ 2	5/16 (7.9)
2-1/2 ~ 6	3/8 (9.5)
8	1/2 (12.7)



Adjustable swivel Ring - rod tight to pipe

Rod sizes

Pipe size in	*D* dimension in/mm
~ 4	3/8 (9.5)
5 ~ 4	1/2 (12.7)
10 ~ 12	5/8 (15.9)



Eye rod sizes

Pipe size in	*D* dimension in/mm
~ 4	3/8 (9.5)
5 ~ 6	1/2 (12.7)
10 ~ 12	3/4 (15.1)

Hangers for straight runs

For straight runs, you can use both flexible and rigid couplings. When rigid couplings are used, the same hanger spacing as other piping methods can be applied. You can refer to the hanger spacing standards of *ANSI B31.1 Power Piping Code, B31.9 Building Services Piping Code, NFPA 13 Sprinkler Systems, or Mechanical Equipment Construction Guide (Japan). See the table below.*

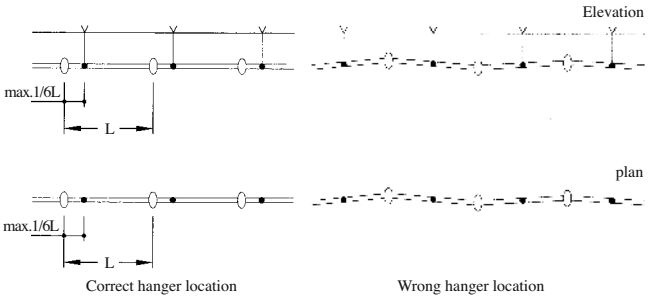
Suggested Max. Span between Supports (steel pipe)

Nominal Pipe Size in/mm	Water Service (meters)				Gas or Air Service (meters)	
	1)	2)	3)	4)	1)	2)
1 / 25	2.1	2.7	3.7	2.0	2.7	2.7
1.25 / 32	2.1	3.4	3.7	2.0	2.7	3.4
1.5 / 40	2.1	3.7	4.6	2.0	2.7	4.0
2 / 50	3.1	4.0	4.6	2.0	4.0	4.6
3 / 80	3.7	4.6	4.6	2.0	4.6	5.2
4 / 100	4.3	5.2	4.6	2.0	5.2	6.4
6 / 150	5.2	6.1	4.6	3.0	6.4	7.6
8 / 200	5.8	6.4	4.6	3.0	7.3	8.5
10 / 250	5.8	6.4		3.0	7.3	9.5
12 / 300	7.0	6.4		3.0	9.1	10.1
14 / 350	7.0	6.4			9.1	10.1
16 / 400	8.2	6.4			10.7	10.1
18 / 450	8.2	6.4			10.7	10.1
20 / 500	9.1	6.4			11.9	10.1
24 / 600	9.8	6.4			12.8	10.1

1) ANSI B31.1 Power Piping Code 2) ANSI B31.9 Building Services Piping Code
3) NFPA 13 Sprinkler systems
4) Ministry of Land & Transportation of Japan: Mechanical Equipment Construction Guide

Hanger locations on straight runs where flexible couplings are used

When flexible couplings are used on straight runs, location of hangers shall be designed as close to each coupling as possible, or within a distance of less than 1/6 the span.

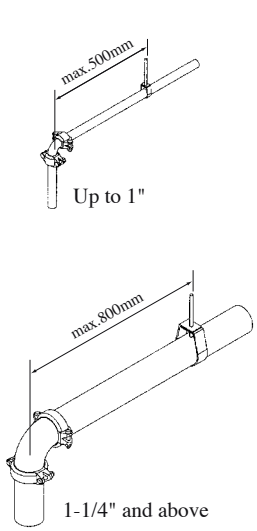


Correct hanger location

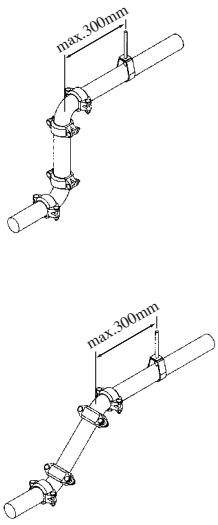
Wrong hanger location

Hanger locations on curved pipe runs and branch lines

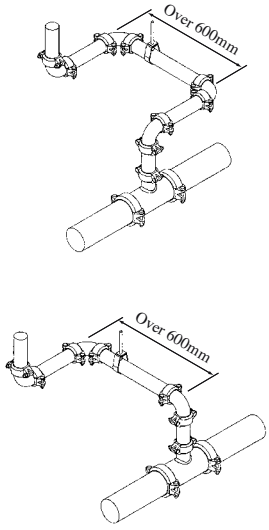
Additional hangers or supports shall be provided where runs are curved, connected to a branch line or on short risers or drops.



Curved pipe runs



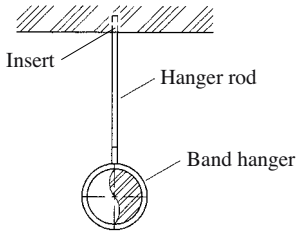
Short riser (or short drop)



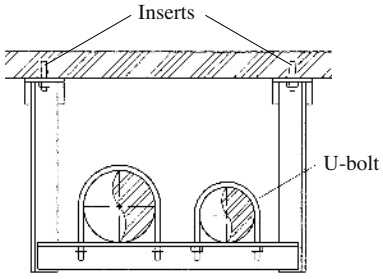
Branch line

Typical designs of hangers and sway braces for pipe runs

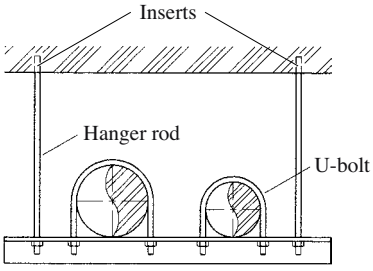
Pipe runs shall be adequately suspended by rod hangers or steel angles that are directly attached to the building structure to restrict the movement of the piping. Hangers and their components shall be ferrous. The maximum distance between hangers shall not exceed that specified in the table of previous page.



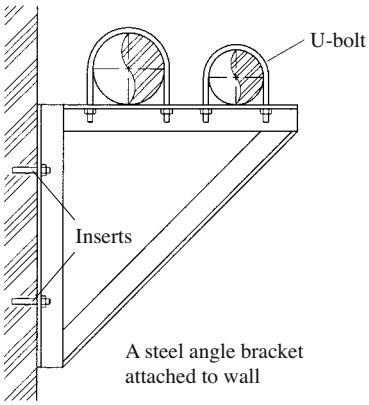
A rod hanger for a single pipe run



A trapeze hanger suspended from ceiling



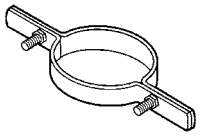
A trapeze hanger for multiple pipe runs



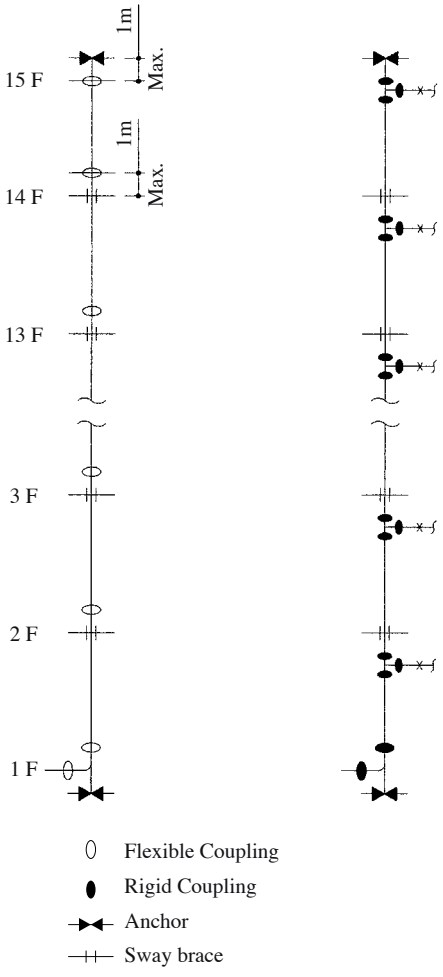
A steel angle bracket attached to wall

Supports for risers

In multi-story buildings, risers shall be fixed (or anchored) at the lowest level and at the top of the riser and shall be supported by riser clamps or U-bolts at each floor level to prevent the risers from swaying. If risers are braced by the penetration floors, the number of riser clamps or U-bolts may be reduced to one at each three stories. For risers, either flexible or rigid couplings can be used as long as proper anchoring and support is provided.

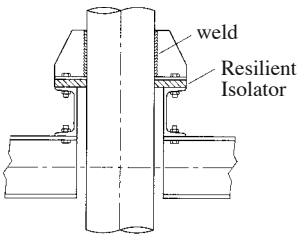


Riser clamp

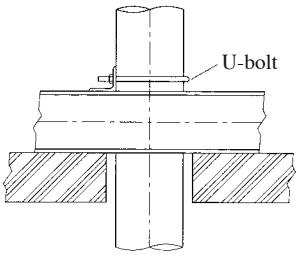


- Anchors should be sufficient to hold the weight of water-filled pipe and pressure thrusts.
- Pipe guides (sway braces) should be such as to brace lateral movement of the system.

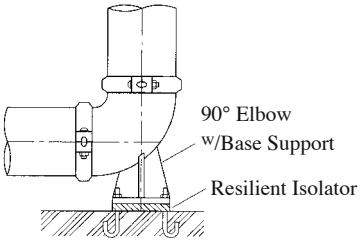
Anchors for risers ( )



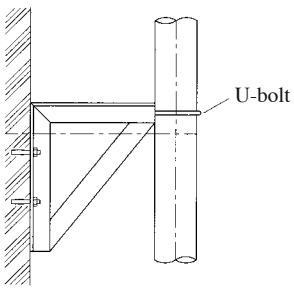
Sway braces for risers ( )



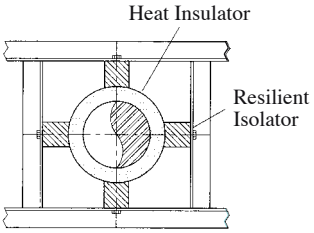
Anchor ( )



Sway brace ( )



Sway brace ( )



GASKET SELECTION GUIDE

Shurjoint utilizes the finest gasket materials available in our products. Over the past 50 years great advances have been made in synthetic elastomer technologies, allowing us to offer a full range of synthetic rubber gasket materials for a wide variety of piping applications. *Shurjoint* gaskets are engineered and designed to meet and exceed standards such as ASTM D2000, AWWA C606, NSF 61 and IAPMO. Our own stringent internal laboratory testing confirms this. Our continual research, development and testing are designed to advance the elastomer field and to develop new and better solutions for our ever changing industry.

Chemical resistance is primarily determined by the grade and or the compound of the gasket. The color coding identifies the gasket grade and or compound. Always verify that the gasket selected is correct for the intended service.

Service temperature is controlled by factors including the gasket compound, fluid medium (air, water, oils, etc.), and continuity (continuous or intermittent) of service. Under no circumstances should gaskets be exposed to temperatures above or below their individual ratings. For additional information or specific applications contact *Shurjoint* for recommendations.

Standard Gaskets

Compound	Grade	Color Code	Recommended Services	Maximum Temp. Range
EPDM	**E**	Green Stripe	Good for cold & hot water up to +230°F (+110°C). Also good for services for water with acid, water with chlorine, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals. Not recommended for petroleum oils, mineral oils, solvents and aromatic hydrocarbons.	-29°F (-34°C) to +230°F (+110°C)
Nitrile	**T**	Orange Stripe	Good for petroleum oils, mineral oils, vegetable oils, aromatic hydrocarbons, many acids and water ≤ +150°F (+65°C).	-20°F (-29°C) to +180°F (+82°C)

Special Gaskets

Compound	Grade	Color Code	Recommended Services	Maximum Temp. Range
EPDM	**E-pw**	Double Green Stripes	Specially compounded for cold +86°F (+30°C) and hot +180°F (+82°C) potable water services. The compound is UL classified per ANSI/NSF 61.	≤ +180°F (+82°C)
White Nitrile	**A**	White Gasket	Good for oily and greasy food products and processing, as well as pharmaceutical and cosmetics manufacturing. Compounded from FDA approved ingredients (CFR Title 21 Part 177.2600).	+20°F (-7°C) to +180°F (+82°C)
Silicone	**L**	Red Gasket	Good for dry, hot air without hydrocarbons and some high temperature chemical services. May also be used for fire protection dry systems.	-29°F (-34°C) to +350°F (+177°C)
Neoprene	**V**	Yellow Stripe	Good for hot lubricating oils and certain chemicals.	+30°F (-1°C) to+180°F (+82°C)
Fluoro-elastomer (Viton)	**O**	Blue Stripe	Good for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air with hydrocarbons to +300°F (+149°C).	+20°F (-7°C) to +300°F (+149°C)
Epichloro-hydrin	**M2**	White Stripe	Good for aromatic fuels at low temperatures and also for ambient temperature water.	-40°F (-40°C) to +160°F (+71°C)

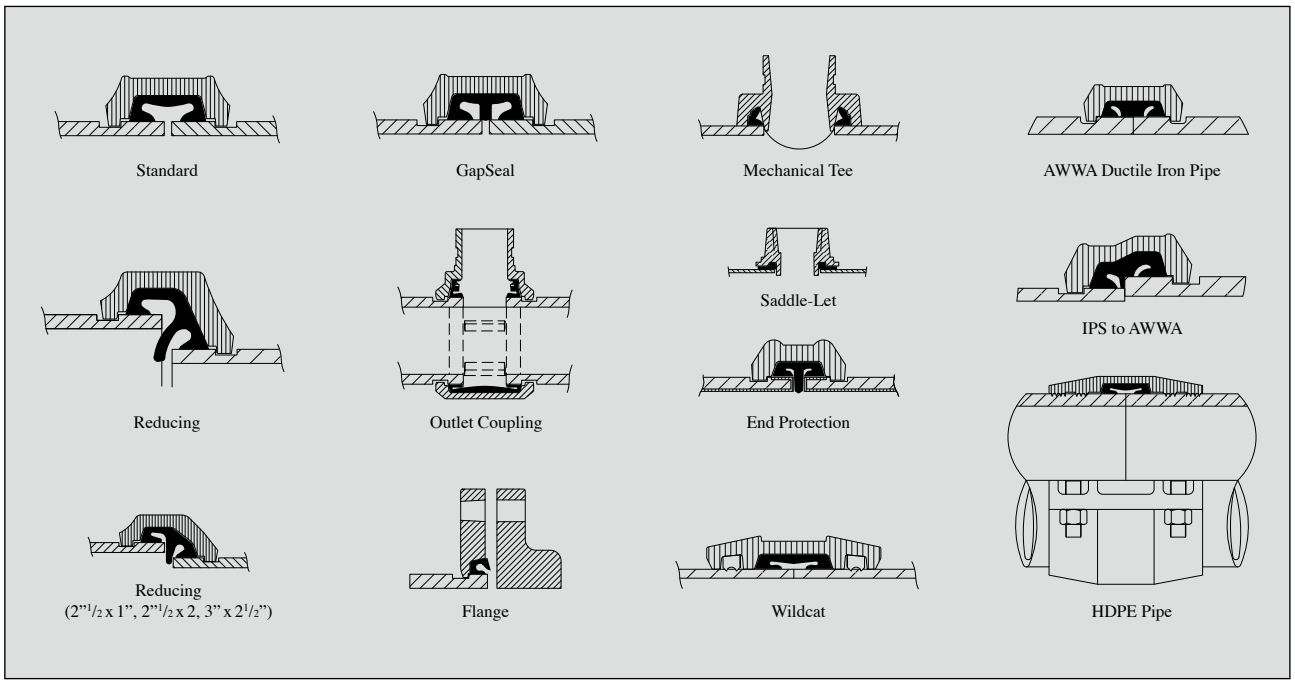
Special Gaskets for AWWA ductile iron pipe

Nitrile	**S**	Red Stripe	Specially compounded for use with AWWA ductile iron pipe and used for petroleum products, mineral oils, vegetable oils and air with oil vapors.	-20°F (-29°C) to +180°F (+82°C)
Halogenated Butyl	**M**	Brown Stripe	Good for water services, mild dilute acids, oil-free air and many chemicals. The compound is UL classified per ANSI/NSF 61. (AWWA ductile iron pipe use)	-20°F (-29°C) to +200°F (+93°C)

GASKET SELECTION GUIDE

GASKET STYLES

Due to the number of Shurjoint products offered and the variety of service applications, a wide variety of gaskets are available. Even though the products and gaskets may look different the sealing principles remain the same. The following are some of the most common gasket styles.

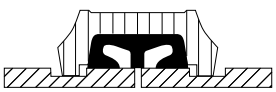


VACUUM SERVICE

Shurjoint standard gaskets are designed to seal well under vacuum conditions up to 10 inHg (254 mmHg) which may occur when a system is drained. For continuous services greater than 10 inHg (254 mmHg), the use of ***GapSeal***® gaskets or EP (end protection) gaskets in combination with rigid style couplings is recommended. Contact *Shurjoint* for specific recommendations.

DRY PIPE AND FREEZER SERVICES

Shurjoint recommends the use of ***GapSeal***® Grade E gaskets for dry pipe fire protection systems and freezer applications. The ***GapSeal***® gasket closes off the gap between the pipes or gasket cavity. This will prevent any remaining liquid from entering the cavities and freezing when the temperature drops.



GapSeal Gasket

Do not use the *Shurjoint* standard lubricant for dry pipe and freezer systems. Always use a petroleum free silicone based lubricant.

Rigid couplings are preferred for dry pipe, freezer and vacuum applications. Reducing couplings are not recommended for these applications.

CHEMICAL RESISTANCE

The following are general service recommendations only and are provided to aid you in selecting the proper gaskets. Unless otherwise noted, the recommendations are based upon 38°C (100°F) maximum temperature service conditions. For unusual and or severe services, or services not listed please contact *Shurjoint* for a recommendation.

Number= Max. Recommended Temp. (°F) NR= Not Recommended --- = Incomplete Data

Chemical Name	EPDM	Nitrile	Silicone	Neoprene	Viton
Acetaldehyde	200	---	---	NR	NR
Acetamide	200	150	---	NR	120
Acetic Acid, to 10%	180	100	180	NR	NR
Acetic Acid, 10 - 50%	140	---	100	NR	NR
Acetic Acid, Glacial	100	---	100	NR	NR
Acetic Anhydride	100	100	---	70	NR
Acetone	130	---	---	NR	NR
Acetonitrile	NR	100	---	70	NR
Acetophenone	140	---	---	NR	NR
Acetyl Chloride	NR	---	---	NR	185
Acetylene	200	150	100	70	200
Acrylic Resin	NR	100	---	100	NR
Acrylonitrile	NR	NR	NR	NR	NR
Adipic Acid, Saturated	200	150	---	200	200
Air, oil free	230	140	350	NR	300
Air with vapored oil	NR	150	---	NR	300
Alkalis	Good	NR	---	---	---
Allyl Alcohol	70	---	---	70	100
Allyl Chloride	NR	NR	NR	NR	70
Aluminum Acetate	200	100	NR	NR	NR
Aluminum Ammonium	200	---	---	160	200
Aluminum Chloride	200	150	NR	160	200
Aluminum Chrome	200	---	---	160	200
Aluminum Fluoride	200	150	NR	160	200
Aluminum Hydroxide	200	NR	100	100	200
Aluminum Nitrate	200	150	73	100	100
Aluminum Phosphate	200	---	100	---	---
Aluminum Potassium Sulfate	200	100	100	160	200
Aluminum Salts	200	---	100	---	---
Aluminum Sulfate	200	150	100	140	185
Alums	200	150	---	160	NR
Ammmonia	175	---	NR	150	NR
Ammonia Anhydrous (Pure Ammonia)	NR	NR	NR	NR	NR
Ammonia, Gas	140	100	---	140	NR
Ammonia, Aqua, 10 - 25%	140	---	---	---	NR
Ammonia Hydroxide	175	---	---	150	NR
Ammonium Acetate	140	---	100	140	73
Ammonium Bifluoride	200	150	---	---	200
Ammonium Carbonate	200	---	NR	140	200
Ammonium Chloride	200	150	NR	160	200
Ammonium Fluoride, to 10%	200	100	---	100	---
Ammonium Hydroxide	200	---	NR	150	70
Ammonium Metaphosphate	200	---	---	---	200
Ammonium Nitrate	200	150	NR	160	100
Ammonium Nitrite	200	100	73	---	---
Ammonium Persulfate	200	NR	100	70	---
Ammonium Phosphate	200	150	100	140	185
Ammonium Sulfamate	---	150	---	---	---
Ammonium Sulfate	200	150	NR	160	200
Ammonium Sulfide	200	100	---	---	200
Ammonium Thiocyanate	---	---	---	70	185
Amyl Acetate	70	---	NR	NR	NR
Amyl Alcohol	200	---	NR	140	185
Amyl Borate	NR	100	---	---	---
Amyl Chloride	NR	NR	NR	NR	200
Amyl Chloronaphthalene	NR	70	NR	---	---
Aniline	140	---	NR	NR	140
Aniline Hydrochloride	NR	NR	NR	NR	185
Aniline Oil	100	---	---	---	---
Animal Fats	NR	Gr. A	100	---	---
Anthraquinone	NR	NR	NR	NR	200
Anthraquinone Sulfonic Acid	NR	NR	NR	NR	200
Antimony Chloride	100	---	---	---	---
Antimony Tricholoride	140	---	100	140	185
Anyiline Hydrochloride	---	NR	---	---	185
Argon Gas	200	NR	100	100	200

Chemical Name	EPDM	Nitrile	Silicone	Neoprene	Viton
Aroclors	NR	NR	---	---	100
Arsenic Acid, to 75%	185	150	100	NR	200
Arylsulfonic Acid	140	NR	NR	NR	185
ASTM #1, 2 & 3 Oil	NR	150	NR	NR	100
Aviation Fuel	NR	150	NR	NR	---
Barium Carbonate	200	100	100	160	200
Barium Chloride	200	150	100	160	200
Barium Hydroxide	180	150	NR	150	200
Barium Nitrate	200	100	---	160	200
Barium Sulfide	140	150	NR	160	200
Beer	200	Gr. A	NR	140	200
Beet Sugar liquors	200	Gr. A	100	160	185
Benzaldehyde	140	NR	NR	NR	NR
Benzene	NR	NR	NR	NR	150
Benzene Benzol	200	---	---	---	200
Benzene Sulfonic Acid	NR	NR	NR	160	185
Benzine	NR	NR	NR	NR	150
Benzoic Acid (Saturated)	NR	---	NR	160	---
Benzol	NR	NR	NR	NR	150
Benzyl Alcohol	NR	NR	NR	NR	140
Benzyl Benzoate	140	NR	---	---	---
Black Liquor	180	---	---	70	200
Black Sulfate Liquor	100	150	100	---	---
Blast Furnance Gas	NR	150	100	---	---
Bleach, Industrial (15% Cl2)	70	---	---	---	185
Borax	140	---	---	140	185
Bordeaux Mixture	200	---	---	---	---
Boric Acid	140	100	100	140	185
Brine, Acid	200	---	---	160	200
Bromobenzene	NR	NR	NR	NR	150
Bromotoluene	NR	NR	NR	NR	NR
Butadiene	NR	NR	NR	140	185
Butane	NR	100	NR	70	185
Butanol (see Butyl Alcohol)	200	150	---	140	75
Butter	NR	Gr.A	NR	NR	NR
"Butyl "Cellosolve Adipate"	100	100	100	---	NR
Butyl Acetate	140	NR	NR	NR	NR
Butyl Acetyl Ricinoleate	200	100	---	---	---
Butyl Alcohol	200	150	73	140	75
Butyl Cellosolve	140	NR	---	---	NR
Butyl Stearate	NR	150	---	NR	200
Butylene	NR	150	---	NR	100
Butylene Glycol	150	150	---	---	---
Butyne Diol	NR	NR	NR	NR	NR
Butyric Acid	140	NR	NR	NR	70
Cadmium Cyanide	---	---	---	70	---
Calcium Acetate	NR	100	NR	---	---
Calcium Bisulfate	NR	100	NR	---	---
Calcium Bisulfide	NR	100	NR	---	185
Calcium Bisulfite	100	100	73	70	185
Calcium Carbonate	200	100	100	70	200
Calcium Chlorate	140	---	100	70	185
Calcium Chloride	200	150	100	160	200
Calcium Hydrochloride	200	---	---	---	---
Calcium Hydroxide	200	100	NR	70	200
Calcium Hypochlorite	70	100	NR	---	185
Calcium Nitrate	200	150	100	100	200
Calcium Oxide	200	100	NR	160	---
Calcium Sulfate	200	150	100	160	200
Calcium Sulfide	200	100	100	---	---
Caliche Liquors	200	100	100	---	---
Camphor Crystals	200	---	---	NR	200
Cane Sugar Liquors	200	Gr. A	100	160	200
Carbitol™	140	100	73	70	70
Carbon Dioxide, Dry	140	150	---	160	200
Carbon Dioxide, Wet	140	150	---	160	200

Chemical Name	EPDM	Nitrile	Silicone	Neoprene	Viton
Carbon Disulphide	NR	---	---	NR	200
Carbon Monoxide	200	100	100	70	200
Carbon Tetrachloride	NR	NR	NR	NR	185
Carbonic Acid, Phenol	200	100	100	70	200
Caster Oil	140	Gr. A	NR	100	---
Caustic Potash	140	---	---	160	NR
Cellosolve	140	NR	NR	---	NR
Cellulose Acetate	140	NR	NR	NR	NR
Cellulube 220 (Tri-Aryl-Phosphate)	200	---	100	---	---
Cellulube Hydraulic Fluids	200	---	---	---	---
China Wood Oil, Tung Oil	NR	150	---	---	---
Chloralhydrate	NR	NR	NR	70	NR
Chloric Acid, to 20%	NR	---	---	140	140
Chlorine Gas, Dry or Wet	NR	---	---	NR	185
Chloroacetone	200	NR	NR	---	---
Chlorobenzene	NR	NR	NR	NR	70
Chlorobromomethane	NR	NR	NR	NR	NR
Chloroform	NR	NR	NR	NR	70
Chlorosulphonic Acid	NR	NR	NR	NR	NR
Chrome Alum	100	100	100	---	---
Chromic Acid, to 10%	70	---	NR	NR	140
Chromium Potassium Nitrate	140	---	NR	160	200
Citric Acid, Saturated	200	100	NR	140	200
Coconut Oil	NR	Gr. A	NR	100	185
Cod Liver Oil	NR	Gr. A	100	---	---
Coke Oven Gas	70	150	100	---	185
Copper Acetate, Saturated	100	---	NR	160	140
Copper Carbonate	200	---	---	---	185
Copper Chloride	200	150	100	160	200
Copper Cyanide	200	150	100	160	185
Copper Fluoride	200	100	---	140	185
Copper Nitrate	200	150	100	160	200
Copper Sulfate	200	150	NR	160	200
Corn Oil	NR	Gr. A	73	NR	200
Corn Syrup	---	Gr. A	100	100	185
Corrosion Inhibitors (for heating systems)	NR	---	---	---	---
Cotton Seed Oil	NR	Gr. A	NR	---	185
Creosote	NR	100	---	NR	73
Creosote, Coal Tar	NR	---	---	---	140
Creosote, Wood	NR	---	---	---	140
Cresol	NR	NR	NR	NR	100
Cresylic Acid, to 50%	NR	---	---	---	185
Crude Oil	NR	---	NR	---	200
Crude Oil, Sour	NR	150	---	---	200
Cumene	NR	---	---	NR	200
Cupric Fluoride	200	150	---	---	---
Cupric Sulfate	200	150	---	160	200
Cuprous Chloride	200	---	---	70	200
Cyclohexane Alycyclic (Hydrocarbon)	NR	100	NR	NR	185
Cyclohexanol	NR	100	NR	NR	185
Cyclohexanone	70	NR	NR	NR	NR
Detergents	200	100	73	160	200
Dextrin	NR	150	---	---	200
Dextrose	140	---	---	160	200
Diacetone Alcohol	70	73	NR	NR	NR
Dibutoxy Ethyl Phthalate	70	---	---	NR	200
Dibutyl Phthalate	70	73	NR	NR	NR
Dichloro Difloro Methane	---	150	---	---	---
Dichloroethylene	NR	---	---	NR	185
Dicyclohexylamine	---	73	---	---	---
Diesel Oil	NR	150	NR	NR	185
Diethyl Cellosolve	NR	---	---	100	200
Diethyl Ether	NR	73	NR	---	NR
Diethyl Sebacate	100	100	100	---	---
Diethylamine	70	100	NR	---	NR
Diethylene Glycol	200	150	NR	---	---

CHEMICAL RESISTANCE

Chemical Name	EPDM	Nitrile	Silicone	Neoprene	Viton
Digester Gas	NR	150	---	---	---
Dimethylamine	140	150	---	NR	NR
Dioctyl Phthalate	70	NR	NR	NR	70
Dioxane	70	NR	---	NR	NR
Dipentene (Terpene-Hydrocarbon)	NR	73	73	---	---
Diproplylene Glycol	---	100	---	---	---
Disodium Phosphate	200	---	---	---	---
Divinylbenzene	NR	---	---	---	200
Dowtherm A	NR	NR	NR	---	140
Dowtherm E	NR	NR	NR	---	140
Dowtherm SR-1	100	100	---	---	---
Epsom Salt	200	100	---	---	---
Ethanolamine	140	NR	---	---	---
Ethers	NR	NR	NR	NR	NR
"Ethyl "Cellusolve"	100	NR	NR	---	---
Ethyl Acetoacetate	100	NR	73	---	NR
Ethyl Acrylate	70	NR	100	NR	NR
Ethyl Alcohol (Ethanol)	200	150	NR	---	---
Ethyl Cellulose	NR	73	NR	---	---
Ethyl Chloride	70	100	NR	70	140
Ethyl Ether	NR	70	---	NR	NR
Ethyl Oxalate	100	NR	NR	---	---
Ethyl Silicate	100	100	---	---	---
Ethylene	NR	100	NR	NR	140
Ethylene Chlorohydrin	70	NR	NR	70	NR
Ethylene Diamine	70	100	---	100	---
Ethylene Dichloride (Dichloroethane)	NR	---	---	NR	120
Ethylene Glycol	200	150	73	160	200
Ethylene Oxide	NR	NR	NR	NR	NR
Fatty Acid	NR	Gr. A	NR	140	185
Ferric Chloride, to 35%	200	150	NR	160	200
Ferric Hydroxide	180	---	---	100	180
Ferric Nitrate	200	100	100	160	200
Ferric Sulfate	200	100	NR	140	185
Ferrous Chloride	200	100	NR	---	200
Ferrous Hydroxide	180	---	---	---	180
Ferrous Nitrate	180	---	---	160	200
Ferrous Sulfate	200	150	100	160	200
Fire Fighting Form (AFFF)	180	---	---	---	---
Fish Oils (Solubles)	NR	Gr. A	73	---	70
Fluboric Acid	140	---	NR	160	140
Fluorine Gas, Wet	NR	NR	NR	NR	NR
Fluorosilicic Acid, to 30%	140	100	---	100	200
Fly Ash	180	---	---	---	---
FM200	200	---	200	200	---
Foam	180	---	---	---	---
Fog Oil	NR	100	---	---	---
Formaldehyde	140	100	NR	140	NR
Formanide	NR	100	---	---	---
Formic Acid, to 25%	200	100	---	140	NR
Freon F-11	NR	130	NR	NR	70
Freon F-113	NR	130	NR	130	130
Freon F-114	NR	130	NR	70	NR
Freon F-12	NR	130	NR	130	NR
Freon 123	NR	NR	NR	NR	NR
Freon 134a	NR	NR	NR	NR	NR
Freon F-21	NR	NR	NR	NR	NR
Freon F-22	NR	NR	---	130	NR
Fructose	175	150	---	160	200
Fruit Juice, Pulp	---	Gr. A	---	---	200
Fuel Oil	NR	150	NR	---	100
Fumaric Acid	100	100	---	---	100
Furan	NR	NR	NR	NR	NR
Furfural	140	---	---	70	NR
Furfuryl Alcohol	140	NR	---	---	---
Gallic Acid	70	100	NR	70	185
Gasoline, Leaded	NR	---	---	70	100
Gasoline, Refined	NR	100	---	---	---
Gasoline, Sour	NR	---	---	---	100
Gasoline, Unleaded	NR	100	---	---	100
Gelatin	200	Gr. A	73	160	200
Glucose	200	Gr. A	100	160	200

Chemical Name	EPDM	Nitrile	Silicone	Neoprene	Viton
Glue	150	150	73	---	---
Glycerine	200	150	100	160	200
Glycerol	150	100	---	---	---
Glycol	180	100	73	---	---
Glycolic Acid	NR	73	73	70	NR
Grape Sugar, Juice	200	Gr. A	---	160	185
Grease	NR	150	NR	---	185
Green Sulfate Liquor	180	150	100	70	---
Halon 1301	180	NR	---	---	140
Heptane	NR	100	---	70	185
Hexaldehyde	180	NR	100	---	---
Hexane	NR	70	NR	70	70
Hexanol	NR	---	---	70	160
Hexanol Tertiary	NR	100	---	---	---
Hexyl Alcohol	NR	100	NR	100	185
Hexylene Glycol	NR	100	---	---	---
Hydraulic Oil	NR	---	NR	70	200
Hydrobromic Acid, to 50%	140	100	---	70	185
Hydrochloric Acid, to 37%	75	NR	NR	---	158
Hydrocyanic Acid, to 10%	200	NR	---	---	185
Hydrofluoric Acid, to 30%	NR	NR	NR	70	150
Hydrofluosilicic Acid, to 50%	140	150	---	---	200
Hydrogen Gas	200	73	NR	160	100
Hydrogen Peroxide, to 30%	140	NR	100	NR	200
Hydrogen Phosphide	NR	NR	NR	NR	NR
Hydrogen Sulfide.	100	NR	NR	NR	140
Hydroquinone	NR	150	100	NR	185
Hydroxylamine Sulfate	70	---	---	70	---
Hypochlorous Acid	70	---	---	---	70
Iodine Solution, to 10%	150	---	---	---	200
Isobutyl Alcohol	180	100	NR	---	---
Isododecane	NR	100	NR	100	---
Isooctane	NR	100	NR	70	185
Isooctyle Alcohol	140	---	---	---	---
Isopropyl Acetate	140	NR	NR	---	---
Isopropyl Alcohol	140	100	NR	70	160
Isopropyl Ether	NR	100	NR	NR	NR
Jet Fuel, JP-4	NR	150	NR	NR	200
Jet Fuel, JP-5	NR	150	NR	NR	200
Kerosene	NR	150	NR	70	200
Ketones	NR	NR	NR	NR	NR
Lactic Acid	70	Gr. A	---	140	70
Lard Oil	NR	Gr. A	---	70	185
Latex (1% Styrene & Butadiene)	NR	NR	NR	NR	140
Lauric Acid	NR	100	NR	NR	100
Lauryl Chloride	140	NR	NR	NR	200
Lavender Oil	NR	100	NR	---	---
Lead Acetate	200	150	NR	160	NR
Lead Chloride	NR	---	---	70	140
Lead Nitrate	175	100	100	140	200
Lead Sulfamate	140	73	100	---	---
Lead Sulfate	200	150	---	140	200
Lemon Oil	---	Gr. A	NR	100	200
Ligroine	---	100	NR	70	100
Lime and H_O	180	150	---	---	---
Lime Sulfur	200	NR	100	100	185
Linoleic Acid	70	73	NR	---	140
Linseed Oil	70	Gr. A	NR	70	200
Lithium Bromide (Brine)	---	100	---	---	200
Lithium Chloride	100	100	---	---	140
Lubricating Oil, ASTM#1,#2,#3	NR	150	---	180	150
Magnesium Ammonium Sulfate	NR	NR	NR	70	NR
Magnesium Carbonate	170	100	100	140	200
Magnesium Chloride	170	150	100	160	170
Magnesium Citrate	175	---	---	---	200
Magnesium Fluoride	140	---	---	---	200
Magnesium Hydroxide	200	150	100	---	200
Magnesium Nitrate	200	100	100	160	---
Magnesium Oxide	140	73	---	160	---
Magnesium Sulfate	175	150	100	160	200
Maleic Acid, Saturated	70	100	---	NR	200
Malic Acid	---	100	100	---	---

Chemical Name	EPDM	Nitrile	Silicone	Neoprene	Viton
Manganese Sulfate	175	---	---	160	200
Mercuric Chloride	200	150	100	140	185
Mercuric Cyanide	70	100	100	70	70
Mercurous Nitrate	70	100	---	NR	70
Mercury	200	150	100	140	185
Methane	NR	70	NR	70	185
Methyl Acetate	140	NR	NR	140	---
Methyl Alcohol, Methanol	140	140	NR	140	NR
Methyl Amine	70	---	---	70	100
Methyl Butyle Ketone	140	---	---	---	---
Methyl Bromide	NR	100	NR	NR	185
Methyl Cellosolve	70	NR	NR	70	NR
Methyl Chloride	NR	NR	NR	NR	70
Methyl Cyclopentane	NR	NR	NR	70	70
Methyl Ethyl Ketone	70	NR	NR	NR	NR
Methyl Formate	100	NR	100	70	NR
Methyl Isobutyl Ketone	NR	NR	NR	NR	NR
Methylene Chloride	NR	NR	---	NR	73
Methylene Chlorobromide	NR	NR	NR	NR	NR
Methylene Dichloride	NR	---	---	---	100
Methylene Iodine	200	---	---	---	---
MIL-05606	NR	NR	---	---	100
MIL-08515	NR	NR	---	---	100
MIL-L7808	NR	NR	NR	---	100
Milk	200	Gr. A	100	160	200
Mineral Oils	NR	150	NR	70	200
Molasses	100	100	100	150	185
Monochloroacetic Acid, to 50%	NR	---	---	NR	70
Monoethanolamine	70	NR	NR	NR	185
Motor Oil	NR	150	NR	---	200
Naphta	NR	NR	NR	NR	160
Naphtalene	NR	NR	NR	NR	170
Naphtenic Acid	NR	100	NR	---	---
Natural Gas	NR	150	100	140	185
Nickel Acetate	70	NR	NR	100	NR
Nickel Ammonium Sulfate	70	---	---	100	---
Nickel Chloride	200	150	100	160	200
Nickel Nitrate	180	100	100	160	200
Nickel Sulfate	200	150	---	160	200
Nicotine	NR	---	---	70	---
Nicotine Acid	70	---	---	70	---
Nitric Acid, to 10%	75	---	100	NR	185
Nitric Acid, 10 - 50%	NR	---	100	NR	160
Nitric Acid, Red Fuming	NR	---	---	NR	100
Nitrobenzene	70	NR	NR	---	70
Nitrocellulose	---	100	100	100	---
Nitroethane	100	NR	NR	---	---
Nitrogen	180	150	---	---	---
Nitromethane	70	NR	NR	---	---
Nitrous Acid, to 10%	NR	---	100	---	100
Nitrous Oxide	NR	100	100	NR	70
Octyl Alcohol	NR	100	100	100	---
Ogisogiric Acid, to 75%	NR	NR	NR	NR	150
Oleic Acid	70	100	NR	70	185
Oleum	NR	NR	100	NR	NR
Olive Oil	---	Gr. A	NR	140	150
Oronite 8200 Silicate Ester Fluid	NR	NR	---	---	150
Orthodichlorobenzene	NR	NR	NR	---	150
OS-45 Silicate Ester Fluid	NR	NR	---	---	150
OS-45-1	NR	NR	NR	---	150
Oxalic Acid	150	---	---	100	100
Oxygen	200	NR	NR	140	185
Ozone (100 ppm)	200	100	100	NR	185
Palm Oil	NR	Gr. A	---	---	70
Palmitic Acid	70	150	---	NR	185
Paraffin	NR	100	NR	140	200
Peanut Oil	NR	Gr. A	100	---	150
Pentachlorophenol	NR	---	---	NR	200
Pentane	---	100	---	---	---
Perchloric Acid, to 10%	70	NR	NR	70	70
Perchloric Acid, to 70%	70	NR	NR	NR	185
Perchloroethylene	---	---	---	---	150

Chemical Name	EPDM	Nitrile	Silicone	Neoprene	Viton
Petroleum Ether (see Benzene)	NR	NR	NR	NR	150
Petroleum Oils	NR	150	NR	---	200
Phenol (Carbolic Acid)	70	NR	NR	NR	200
Phenylhydrazine	NR	---	---	---	NR
Phenylhydrazine Hydrochloride	70	---	---	---	---
Phosohoric Acid, to 10%	140	100	NR	140	200
Phosohoric Acid, 10 - 50%	70	100	NR	70	200
Phosphorous Pentoxide	200	---	---	---	200
Photographic Solutions	100	150	100	---	185
Phthalic Anhydride	100	NR	NR	---	---
Picric Acid	140	100	NR	70	140
Pine Oil	---	NR	NR	NR	70
Plating Solutions, Brass	70	---	---	100	70
Plating Solutions, Cadmium	70	---	---	100	70
Plating Solutions, Chrome	---	---	---	NR	140
Plating Solutions, Copper	70	---	---	100	70
Plating Solutions, Gold	70	---	---	125	70
Plating Solutions, Lead	70	---	---	70	70
Plating Solutions, Nickel	125	---	---	70	70
Plating Solutions, Silver	70	---	---	100	70
Plating Solutions, Tin	100	---	---	100	140
Plating Solutions, Zinc	70	---	---	100	70
Polyvinyl Acetate, Solid in Liquid State is 50% solution of Methanol or 60% solution of (H_2O)	180	---	---		
Potash	---	---	---	160	200
Potassium Acetate	170	150	NR	---	---
Potassium Alum	200	100	---	160	200
Potassium Aluminum Sulfate	200	---	---	160	200
Potassium Bicarbonate	170	150	---	160	200
Potassium Bisulfate	170	---	---	140	200
Potassium Borate	200	---	---	---	200
Potassium Bromate	---	---	---	140	200
Potassium Bromide	170	150	---	160	200
Potassium Carbonate	170	150	100	160	200
Potassium Chlorate	140	100	100	100	140
Potassium Chloride	200	150	100	160	200
Potassium Chromate	170	150	---	70	200
Potassium Cyanide	140	100	100	160	185
Potassium Dichromate	170	100	100	---	200
Potassium Ferrocyanide	140	NR	---	150	140
Potassium Fluoride	140	---	---	---	---
Potassium Hydroxide	140	150	NR	160	NR
Potassium Iodide	140	---	100	160	180
Potassium Nitrate	200	150	100	140	200
Potassium Perborate	---	---	---	70	---
Potassium Perchlorate	140	150	---	---	150
Potassium Permanganate, to 10%	200	150	---	100	140
Potassium Permanganate, to 25%	140	100	---	100	140
Potassium Persulfate	200	150	---	140	200
Potassium Silicate	200	150	---	140	---
Potassium Sulfate	200	150	NR	140	200
Prestone	---	100	---	---	---
Propane Gas	NR	100	NR	70	70
Propanol	---	---	---	---	---
Propargyl Alcohol	140	---	---	NR	140
Propyl Acetate	NR	NR	NR	140	---
Propyl Alcohol	140	150	100	140	---
Propylene Dichloride	NR	---	70	NR	70
Propylene Glycol	200	100	100	100	140
Propylene Oxide	70	NR	NR	NR	NR
Pydraul F-9 and 150	NR	NR	NR	NR	NR
Pyranol 1467	NR	100	100	---	---
Pyranol 1476	NR	100	100	---	---
"Pyroguard "C"	---	100	100	---	---
"Pyroguard "D"	---	100	100	---	---
Pyroguard 55	180	---	NR	---	---
Pyrrole	100	NR	73	---	---
Rapeseed Oil	NR	Gr. A	NR	---	---
Ref. Fuel (ISO Octane, 30 Toluene)	---	150	---	---	---
Rosin Oil	NR	100	---	100	---
Salicylic Acid	200	100	100	NR	185

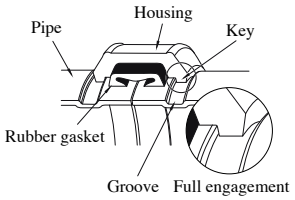
Chemical Name	EPDM	Nitrile	Silicone	Neoprene	Viton
Secondary Butyl Alcohol	---	100	---	---	---
Sewage	200	150	100	---	---
Silicic Acid	140	---	---	140	200
Silicone Oil	140	100	NR	70	185
Silver Cyanide	140	---	---	70	140
Silver Nitrate	200	NR	100	160	200
Silver Sulfate	170	---	---	---	200
Skydrol 200	200	---	200	---	---
Skydrol 500 Phosphate Ester	170	---	---	---	---
Soap Solutions	200	150	100	140	200
Soda Ash, Sodium Carbonate	180	100	---	---	---
Sodium Acetate	170	NR	NR	---	NR
Sodium Alum	170	150	---	140	200
Sodium Aluminate	200	100	---	140	200
Sodium Benzoate	200	150	100	---	200
Sodium Bicarbonate	200	150	NR	160	200
Sodium Bichromate	140	---	---	70	200
Sodium Bisulfate	200	150	NR	140	200
Sodium Bisulfite (Black Liquor)	200	150	NR	140	200
Sodium Borate	140	100	NR	100	140
Sodium Bromide	200	150	---	70	200
Sodium Carbonate	140	150	100	140	200
Sodium Chlorate	140	NR	100	140	100
Sodium Chloride	140	100	NR	160	200
Sodium Cyanide	140	100	NR	140	140
Sodium Dichromate	140	100	---	NR	200
Sodium Ferricyanide	140	100	---	---	140
Sodium Ferrocyanide	140	100	---	---	140
Sodium Fluoride	140	100	NR	70	140
Sodium Hydroxide, to 15%	180	NR	NR	160	NR
Sodium Hypochlorite, to 20%	70	100	---	NR	185
Sodium Metaphosphate	70	100	---	---	70
Sodium Nitrate	200	NR	NR	140	200
Sodium Nitrile	170	150	---	140	200
Sodium Perborate	70	70	NR	70	70
Sodium Peroxide	140	NR	NR	70	185
Sodium Phosphate, Acid	170	---	---	140	200
Sodium Phosphate, Alkaline	170	---	---	140	200
Sodium Phosphate, Neutral	170	---	---	140	200
Sodium Silicate	200	150	---	140	200
Sodium Sulfate	140	100	100	140	200
Sodium Sulfide	140	100	100	140	200
Sodium Sulfite	140	100	100	140	200
"Sodium Thiosulfate "hypo"	200	150	100	160	200
Sohovis 47	---	100	---	---	---
Sohovis 78	---	100	---	---	---
Solvasol #1,2 & 3	---	100	---	---	---
Solvasol #73	---	70	---	---	---
Solvasol #74	NR	NR	NR	NR	NR
Soybean Oil	NR	Gr. A	73	---	200
Spindle Oil	NR	100	---		
Stannic Chloride	100	100	100	NR	200
Stannous Chloride	70	NR	NR	160	200
Starch	170	100	---	160	200
Steam	NR	NR	NR	NR	NR
Stearic Acid	NR	100	NR	70	100
Stoddard Solvent	NR	100	NR	NR	185
Styrene	NR	NR	NR	NR	100
Sucrose Solutions	---	Gr. A	---	---	---
Sulfamic Acid	NR	---	---	70	NR
Sulfite Liquor	140	---	---	70	140
Sulfer Dioxide, Dry	140	100	---	---	---
Sulfonic Acid	150	---	---	---	---
Sulfur	140	NR	NR	70	200
Sulfur Chloride	NR	NR	NR	NR	70
Sulfur Dioxide, Dry	70	NR	---	NR	100
Sulfur Dioxide, Wet	140	NR	---	---	140
Sulfur Trioxide	70	NR	NR	NR	140
Sulfuric Acid, 10 - 30%	150	NR	73	100	200
Sulfuric Acid, Fuming	NR	NR	NR	NR	100
Sulfuric Acid, Oleum	NR	NR	NR	NR	100
Sulfurous Acid	75	NR	NR	NR	100

Chemical Name	EPDM	Nitrile	Silicone	Neoprene	Viton
Tall Oil	NR	70	---	70	70
Tannic Acid, all conc.	70	100	73	100	100
Tannic Acid, Liquors	100	---	---	70	200
Tanning Liquors(50g. alum. Solution, 50g. dichromate solution)	NR	150	---	70	200
Tar	NR	100	100	70	185
Terpienol	NR	NR	---	70	185
Tertiary Butyl Alcohol	140	100	---	70	150
Tetrabutyl Tinanate	140	100	---	---	185
Tetrachloroethylene	NR	---	---	---	150
Tetrahydrofuran	NR	NR	NR	NR	NR
Tetralin	NR	NR	NR	NR	NR
Tetraric Acid	140	---	---	---	---
Thionyl Chloride	NR	NR	100	NR	100
Thiopene	NR	NR	NR	NR	NR
Thread Cutting Oil	NR	NR	NR	NR	70
Titanium Tetracholoride	NR	NR	NR	---	185
Toluene, to 30%	NR	100	---	---	70
Tomato Juice	200	Gr. A	---	70	200
Transformer Oil	140	150	---	NR	140
Transmission Fluid, Type A	NR	150	---	---	140
Triacetin	NR	100	---	---	---
Trichloroethane	NR	NR	NR	---	200
Trichloroethylene	NR	---	---	NR	200
Tricresyl Phosphate	NR	NR	NR	---	---
Triethanolamine	70	70	NR	70	NR
Triethylamine	---	100	NR	70	200
Trimethylpropane	180	---	---	160	---
Trisodium Phosphate	70	---	100	70	185
Tung Oil	NR	100	---	---	---
Turbo Oil #15 Diester Lubricant	NR	NR	---	---	150
Turpentine	NR	100	---	NR	150
Urea	200	150	100	140	185
Urine	200	100	---	140	70
Vaseline	NR	---	---	140	70
Vegetable Oils	NR	Gr. A	100	70	200
Vinegar	180	Gr. A	100	70	NR
Vinyl Acetate	70	NR	NR	NR	NR
Vinyl Chloride	NR	NR	NR	NR	70
Vi-Pex	---	100	---	---	---
Water	230	150	100	160	200
Water, Acid Mine	200	150	---	160	---
Water, Bromine	NR	NR	NR	NR	185
Water, Chlorinated, to 3500ppm	100	---	---	NR	185
Water, Chlorinated, above 3500ppm	NR	---	---	NR	185
Water, Deionized	200	150	100	160	---
Water, Demineralized	200	150	---	160	200
Water, Distilled	200	150	100	160	---
Water, Potable	Gr. E-pw	Gr. A	---	160	---
Water, Salt	200	150	---	160	---
Water, Sewage	200	150	---	---	---
Water, Seawater	200	150	---	160	---
Water, Swimming Pool	200	150	---	---	---
Water, waste	200	150	---	---	---
Whiskey	200	Gr. A	100	140	140
White Liquor	170	Gr. A	---	140	---
Wines	170	Gr. A	100	140	140
Wood Oil	NR	100	NR	---	---
Xylene	NR	NR	NR	NR	150
Zinc Acetate	180	100	NR	160	70
Zinc Chloride	180	100	100	160	200
Zinc Nitrate	180	---	---	---	200
Zinc Sulfate	180	100	100	140	200

PIPE END PREPARATION

How to process roll-grooves

Shurjoint **grooved piping systems require the processing of a roll or cut groove to the pipe ends being connected. The engagement of the housing keys in the grooves is integral in providing a secure and leak-tight joint. It is essential that the grooves are properly processed for optimum joint performance.**



Nominal pipe size

Shurjoint couplings and fittings are identified by the nominal IPS pipe size in inches or nominal diameter of pipe (DN) in millimeters. Always check the actual O.D. of the pipe and fittings to be connected, as in some markets it is customary to refer to different O.D. pipes with the same nominal size.

IPS Sizes - Inches		Metric Sizes - millimeters	
Nominal size	Actual size	Nominal size	Actual size
1/2	0.840	15	21.3
3/4	1.050	20	26.7
1	1.315	25	33.4
1-1/4	1.660	32	42.2
1-1/2	1.900	40	48.3
2	2.375	50	60.3
2-1/2	2.875	65	73.0
3 O.D.	3.000	65	76.1
3	3.500	80	88.9
3-1/2	4.000	90	101.6
4-1/4 O.D.	4.250	100	108.0
4	4.500	100	114.3
5	5.563	125	141.3
5-1/4 O.D.	5.250	125	133.0
5-1/2 O.D.	5.500	125	139.7
6-1/4 O.D.	6.250	150	159.0
6-1/2 O.D.	6.500	150	165.1
6	6.625	150	168.3
8 JIS	8.516	200	216.3*
8	8.625	200	219.1
10 JIS	10.528	250	267.4*
10	10.750	250	273.0
12 JIS	12.539	300	318.5*
12	12.750	300	323.9
14	14.000	350	355.6
16	16.000	400	406.4
18	18.000	450	457.2
20	20.000	500	508.0
22	22.000	550	558.8
24	24.000	600	609.6
28	28.000	700	711.2
30	30.000	750	762.0
32	32.000	800	812.8
36	36.000	900	914.4
40	40.000	1000	1016.0
42	42.000	1050	1066.8

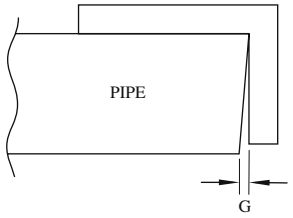
*JIS/KS

Roll groove standard

Roll grooves must meet the specifications and requirements of ANSI/AWWA C-606-04 Table 5. For other pipe sizes not specified in this standard, refer to the applicable groove specifications shown in this catalog or *Shurjoint* installation manual.

Square cut

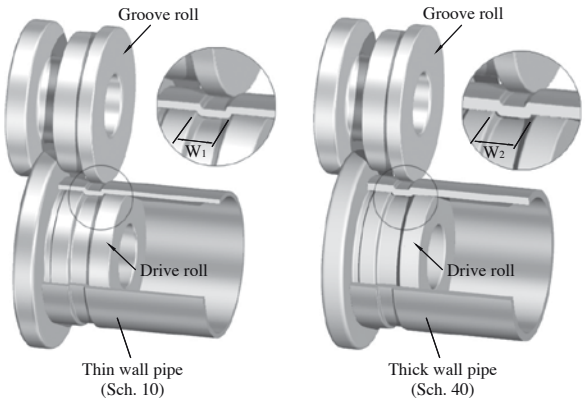
Pipe ends must be square cut. Always use a pipe band-saw or automatic round-saw for cutting pipe. The maximum allowable tolerances from square ends are .03"/0.8mm for sizes up to 3-1/2"/ 90 mm; .045"/1.2mm for 4" thru 6"/100mm thru 150mm and .060"/1.6mm for sizes 8"/200mm and above.



Pipe Sizes	G (max)
~31/2"	0.8 (0.030")
4 ~ 6"	1.2 (0.045")
8" ~	1.6 (0.060")

Applicable pipe wall thickness

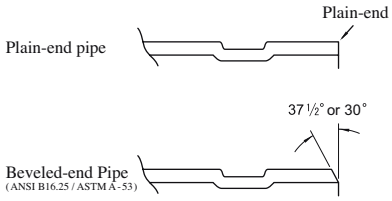
Roll grooves are generally applicable to .375"/9.5mm thick or thinner wall carbon steel pipe, stainless steel pipe, copper tube, aluminum pipe and PVC pipe depending on the type of roll-grooving machine and roll set being used. Different wall thicknesses and sizes require the use of different roll sets as with Sch. 10 and Sch. 40 pipe as shown.



Different roll set (Groove & Drive roll)
W2 should be wider than W1

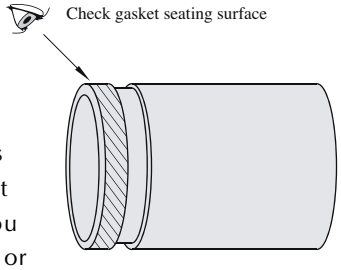
Plain end pipe and beveled end pipe

While plain-end pipe is preferred, the use of beveled end pipe is acceptable providing that the wall thickness is .375"/9.5mm or thinner and the bevel is 37-1/2 ±2-1/2° or 30° as specified in ANSI B16.25 and ASTM A-53 respectively.



Galvanized pipe

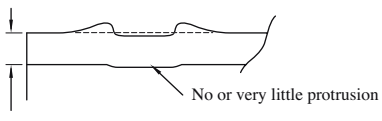
Galvanized pipe is acceptable as long as the gasket seating surface is smooth and free from scale and imperfections that could affect gasket sealing. Whenever you remove welding beads or projections from the sealing surface of galvanized pipe, use caution so as to not over-grind the surface. After grinding, always apply a proper rust-prevention coating to this area.



Galvanized Pipe

Heavy wall pipe

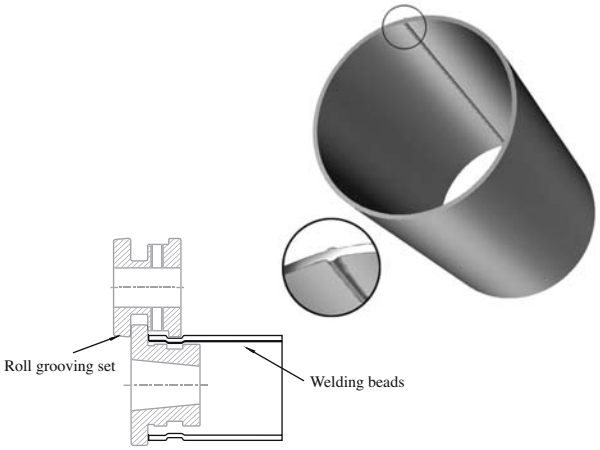
When you attempt to roll-groove pipe thicker than .375"/9.5mm, the metal may deform and heap up on both sides of the groove rather than radially deforming and protruding on the inside of the pipe. The extra heaped metal on the sealing surface may preclude the coupling housings from making metal-to-metal contact, which could lead to joint failure. In such a case, you should grind off any such extra metal to achieve a flat and smooth sealing surface. A proper rust preventative coating must be applied on the ground surface. Shurjoint strongly recommends the processing of cut-grooves on heavy or thick wall pipe.



Thicker than 9.5mm (0.375")

Weld Beads

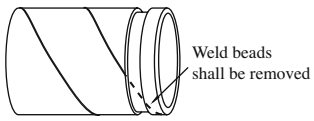
ERW pipe is one of the most popular types of pipe used today. Depending on the individual pipe and manufacturer, welding beads may remain on the surface (inside and out) of the pipe. Always remove harmful weld beads near the pipe ends as they can cause rattling of the roll grooving machine resulting in inaccurate grooves.



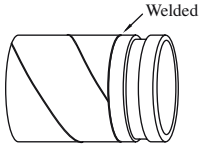
Weld beads

Spiral welded pipe

Spiral welded pipe may be used as long as the weld beads are removed from the gasket seating surface. It is also acceptable and recommended to weld a grooved end nipple to the pipe end as shown below. Whenever you remove weld beads or projections from the gasket seating surface, use caution so as to not over-grind the surface. After grinding, always apply a proper rust-prevention coating to this area.



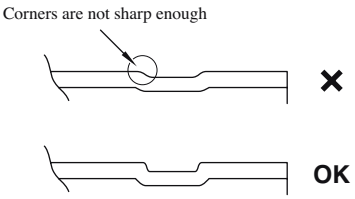
Spiral pipe



Spiral pipe with
a grooved nipple

Stainless steel pipe

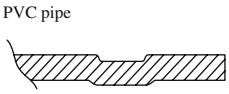
Stainless steel pipe in general is more difficult to groove than carbon steel pipe, as it is more difficult to achieve defined groove corners on stainless pipe. Grooves that are not defined and have too much of a radius could result in joint failure. Care must be taken to process grooves as defined as possible. For this reason, roll-groove machine manufacturers offer a variety of roll sets depending on the pipe material and wall thickness being grooved. Always select the correct roll set for the pipe being grooved



Caution: If the same roll-set that has been used for carbon steel pipe is used on stainless steel pipe, rust or scale may be transferred to the stainless steel pipe during processing of the groove. Thus we recommend the use of a separate roll set specifically for use with stainless steel pipe. Also use caution to keep roll grooved stainless steel pipe dry prior to installation.

PVC pipe

The same roll set used for carbon steel pipe can be used on applicable PVC pipe. Because PVC is much softer than carbon steel, care must be taken to groove the pipe slowly and with less pressure.

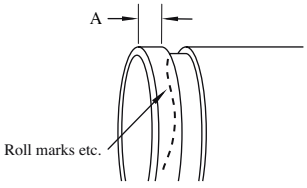


Copper tubing

As copper tubing is thinner than carbon steel pipe, always use a roll set specifically designed for use on copper tubing.

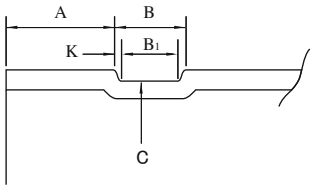
Gasket seating surface (A)

The exterior surface of the gasket seating area shall be free from any indentations, projections, roll marks or other harmful defects such as loose paint, scale, dirt, chips, grease and rust.



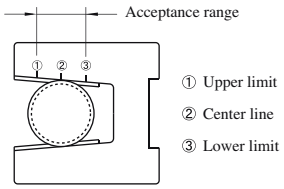
Roll groove profile

Roll grooves should be as defined as possible. To achieve optimum joint performance the "K" dimension should be as small as possible. When processing a roll groove the machine operator should manage the feed pressure of the upper roll set so as to achieve the best possible groove profile.

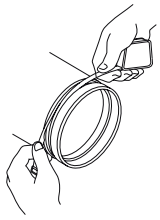


Groove diameter (C)

The groove diameters are average values. The groove must be of uniform depth around the entire pipe circumference. Use a Shurjoint groove gage or groove measuring tape to check the groove diameter.

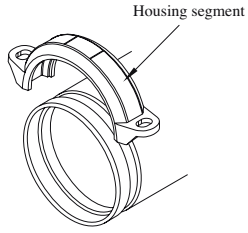


Groove diameter check



Groove measuring tape

Or you can use a coupling housing for a quick check after verification of the groove dimensions. When using a housing segment as a reference always make up a sample and verify the diameter is within the acceptable range. If the housing fits well you may choose to use this as a reference gauge.



Quick check with a housing segment

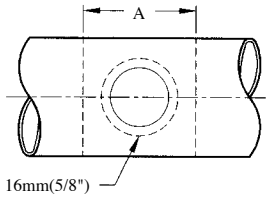
RIDGID® Roll Grooving Machines & Tools – Ratings & Capacity

Tool Model No.	Pipe Material	Pipe Schedule	Pipe size Range	Roll Set
915 	Steel	Sch. 10	1¼" – 12"	(Standard) 2" – 6" Sch. 10 (2"-3½" Sch. 40) steel, stainless,
		Sch. 40	1¼" – 6"	PVC
	Stainless	Sch. 10	1¼" – 12"	(Optional) 1¼" – 1½" Sch. 10, 40 steel, stainless, PVC
		Sch. 40	1¼" – 6"	(Optional) 4" – 6" Sch. 40 steel, stainless, PVC
	PVC	Sch. 40	1¼" – 6"	(Optional) 8" – 12" Sch. 10 steel, stainless, PVC
		Sch. 80	1½" – 3"	
	Copper	K, L, M, DWV	2" – 8"	(Optional) 2" – 8" copper tube K, L, M & DWV
960 	Steel	Sch. 40	1" – 6"	(Standard) 1¼" – 6" Sch. 10, 40 steel
		Sch. 80	1" – 6"	(Optional) 1" Sch. 10, 40 steel
	Copper	K, L, M, DWV	2" – 6"	(Optional) 2" – 6" copper tube K, L, M & DWV
916 	Steel	Sch. 10	1¼" – 6"	(Standard) 1¼" – 6" Sch. 10, 40 steel
		Sch. 40	1¼" – 3"	(Optional) 1" Sch. 10, 40 steel
	Stainless	Sch. 10	1¼" – 6"	
		Sch. 40	1¼" – 3"	
	PVC	Sch. 10	1¼" – 6"	
		Sch. 40	1¼" – 3"	
	Copper	K, L, M. DWV	2" – 6"	(Optional) 2" – 6" copper tube K, L, M & DWV
918 	Steel	Sch. 10	1" – 12"	(Standard) 2" – 6" Sch. 10, 40 steel, stainless, PVC
		Sch. 40	1" – 8"	(Standard) 8" – 12" Sch. 10 (8" Sch. 40) steel, stainless, PVC
	Stainless	Sch. 10	1" – 12"	(Optional) 1¼" – 1½" Sch. 10, 40 steel, stainless, PVC
		Sch. 40	1" – 2"	
	PVC	Sch. 40	1" – 8"	
		Sch. 80	2½" – 6"	
	Copper	K, L, M. DWV	2" – 6"	(Optional) 2" – 6" copper tube K, L, M & DWV
918-1 	Steel	Sch. 10	1" – 12"	(Standard) 2" – 6" Sch. 10, 40 steel, stainless, PVC
		Sch. 40	1" – 8"	(Standard) 8" – 12" Sch. 10 (8" Sch. 40) steel, stainless, PVC
	PVC	Sch. 80	2½" – 6"	(Optional) 1¼" – 1½" Sch. 10, 40 steel, stainless, PVC
	Copper	K, L, M. DWV	2" – 6"	(Optional) 2" – 6" copper tube K, L, M & DWV
920 	Steel	Sch. 10	2" – 24"	(Standard) 2" – 6" Sch. 10, 40 steel, stainless
		Sch. 40	2" – 12"	(Standard) 8" – 12" Sch. 10, 40 steel, stainless
		Standard Wall	14" – 16"	(Standard) 14" – 16" Standard wall (.375") steel, stainless
	Stainless	Sch. 10	2" – 24"	(Optional) 4"- 6" Sch. 40 steel, stainless
		Sch. 40	2" – 12"	(Optional) 18"- 20" Sch. 10 steel, stainless
		Standard Wall	14" – 16"	(Optional) 22"- 24" Sch. 10 steel, stainless
	Copper	K, L, M. DWV	2" – 8"	(Optional) 2"- 8" copper tube K, L, M & DWV

Caution: Please contact Ridgid Tool Company – www.ridgid.com – for updated information on roll sets. For other roll grooving machines, always refer to the installation instructions of the machine and roll set you are going to use before operating.

HOLE-CUTTING

The hole-cut method of pipe preparation is required when using mechanical tees, mechanical crosses, and saddle-lets. The method of pipe preparation requires the cutting



or drilling of a specified hole size on the centerline of the pipe. Always use the correct hole saw size as shown in this catalog and never use a torch for cutting a hole. After the hole has been cut all rough edges must be removed and the area within 5/8" (16mm) of the hole should be inspected to ensure a clean smooth surface, free of any indentations or projections that could affect proper gasket sealing. The area within the "A" dimension should also be inspected and must be free of dirt, scale or any imperfection that could affect proper seating or assembly of the fitting.

Ridgid Model No. RB214

Hole Size: The hole sizes are dictated by the branch size of the mechanical tee.

Table 1 Hole Sizes for Mechanical Tees

Model 7721/7722 Mechanical Tee			
Mechanical Tees Branch Size	Hole Dimensions		Surface Preparation "A"
	Hole Saw Size	Max Dia. Allowed	
15, 20, 25 1/2, 3/4, 1	38 1-1/2	41 1-5/8	89 3-1/2
32, 40 1-1/4, 1-1/2	51* 2	54* 2-1/8	102 4
50 2	64 2-1/2	67 2-5/8	114 4-1/2
65 2-1/2	70 2-3/4	73 2-7/8	121 4-3/4
80 3	89 3-1/2	92 3-5/8	140 5-1/2
100 4	114 4-1/2	118 4-5/8	165 6-1/2

*See Table 1-b for exception.

Table 1-b Exception

Model 7721 Mechanical Tee Run x Branch	Hole Dimensions		Surface Preparation "A"
	Hole Saw Size	Max Dia. Allowed	
50 x 32 / 50 x 40 2 x11/4 / 2 x 11/2	45 1-3/4	47 1-7/8	102 4

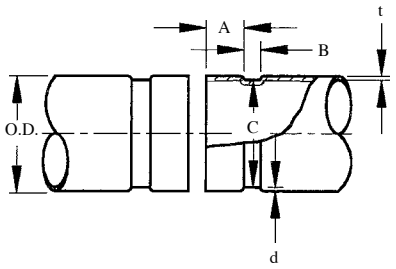
Table 2

Model 723 Saddle-Let Model SS-723 Mechanical Tee			
Mechanical Tee Branch Size	Hole Dimensions		Surface Preparation "A"
	Hole Saw Size	Max Dia. Allowed	
15, 20, 25 1/2, 3/4, 1	30 1-3/16	32 1-1/4	89 3-1/2

Table 3

Model C-723 Mechanical Tee			
Mechanical Tee Branch Size	Hole Dimensions		Surface Preparation "A"
	Hole Saw Size	Max Dia. Allowed	
15, 20, 25 1/2, 3/4, 1	30 1-3/16	32 1-1/4	89 3-1/2
32 1-1/4	45 1-3/4	47 1-7/8	102 4

Standard Roll Groove for ANSI B36.10 and Other IPS Pipe

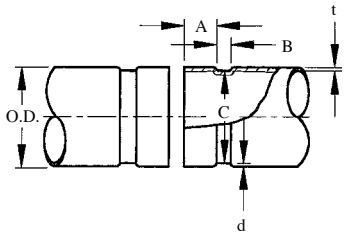


1	2			3	4	5	6	7	8
Nominal Size mm/in	Pipe O.D.			A ±0.76 ±0.030	B ±0.76 ±0.030	C +0.00 +0.000	Min. Wall t mm/in	Groove Depth d (ref.) mm/in	Max. Allowed Flare Dia. mm/in
	Basic mm/in	Tolerance							
20	26.7	+0.25	-0.25	15.88	7.14	23.83-0.38	1.65	1.42	29.2
0.75	1.050	+0.010	-0.010	0.625	0.281	0.938-0.015	0.065	0.056	1.15
25	33.4	+0.33	-0.33	15.88	7.14	30.23-0.38	1.65	1.60	36.3
1	1.315	+0.013	-0.013	0.625	0.281	1.190-0.015	0.065	0.063	1.43
32	42.2	+0.41	-0.41	15.88	7.14	38.99-0.38	1.65	1.60	45.0
1.25	1.660	+0.016	-0.016	0.625	0.281	1.535-0.015	0.065	0.063	1.77
40	48.3	+0.48	-0.48	15.88	7.14	45.09-0.38	1.65	1.60	51.1
1.5	1.900	+0.019	-0.019	0.625	0.281	1.775-0.015	0.065	0.063	2.01
50	60.3	+0.61	-0.61	15.88	8.74	57.15-0.38	1.65	1.60	63.0
2	2.375	+0.024	-0.024	0.625	0.344	2.250-0.015	0.065	0.063	2.48
65	73.0	+0.74	-0.74	15.88	8.74	69.09-0.46	2.11	1.98	75.7
2.5	2.875	+0.029	-0.029	0.625	0.344	2.720-0.018	0.083	0.078	2.98
80	88.9	+0.89	-0.79	15.88	8.74	84.94-0.46	2.11	1.98	91.4
3	3.500	+0.035	-0.31	0.625	0.344	3.344-0.018	0.083	0.078	3.60
90	101.6	+1.02	-0.79	15.88	8.74	97.38-0.51	2.11	2.11	104.1
3.5	4.000	+0.040	-0.031	0.625	0.344	38.34-0.020	0.083	0.083	4.10
100	114.3	+1.14	-0.79	15.88	8.74	110.08-0.51	2.11	2.11	116.8
4	4.500	+0.045	-0.031	0.625	0.344	4.334-0.020	0.083	0.083	4.60
125	141.3	+1.42	-0.79	15.88	8.74	137.03-0.56	2.77	2.11	143.8
5	5.563	+0.056	0.031	0.625	0.344	5.395-0.022	0.109	0.083	5.66
150	168.3	+1.60	-0.79	15.88	8.74	163.96-0.56	2.77	2.16	170.9
6	6.625	+0.063	0.031	0.625	0.344	6.455-0.022	0.109	0.085	6.73
200	219.1	+1.60	-0.79	19.05	11.91	214.40-0.64	2.77	2.34	223.5
8	8.625	+0.063	-0.031	0.750	0.469	8.441-0.025	0.109	0.092	8.80
250	273.0	+1.60	-0.79	19.05	11.91	268.27-0.69	3.40	2.39	277.4
10	10.750	+0.063	0.031	0.750	0.469	10.562-0.027	0.134	0.094	10.92
300	323.9	+1.60	-0.79	19.05	11.91	318.29-0.76	3.96	2.77	328.2
12	12.750	+0.063	0.031	0.750	0.469	12.531-0.030	0.156	0.109	12.92
350	355.6	+1.60	-0.79	23.83	11.91	350.04-0.76	3.96	2.77	358.1
14	14.000	+0.063	-0.031	0.938	0.469	13.781-0.030	0.156	0.109	14.10
400	406.4	+1.60	-0.79	23.83	11.91	400.84-0.76	4.19	2.77	408.9
16	16.000	+0.063	0.031	0.938	0.469	15.781-0.030	0.165	0.109	16.10
450	457.2	+1.60	-0.79	25.40	11.91	451.64-0.76	4.19	2.77	461.3
18	18.000	+0.063	0.031	1.000	0.469	17.781-0.030	0.165	0.109	18.16
500	508.0	+1.60	-0.79	25.40	11.91	502.44-0.76	4.78	2.77	512.1
20	20.000	+0.063	-0.031	1.000	0.469	19.781-0.030	0.188	0.109	20.16
550	558.8	+1.60	-0.79	25.40	12.70	550.06-0.76	4.78	4.37	563.9
22	22.000	+0.063	0.031	1.000	0.500	21.656-0.030	0.188	0.172	22.20
600	609.6	+1.60	-0.79	25.40	12.70	600.86-0.76	4.78	4.37	614.7
24	24.000	+0.063	0.031	1.000	0.500	23.656-0.030	0.188	0.172	24.20

Pipe OD (Column 2):
Maximum allowable tolerances from square cut ends is 0.03" for sizes up to 3 1/2"; 0.045" for 4" thru 6"; and 0.060" for sizes 8" and above.
Gasket Seating Surface (Column 3):
The gasket seating surface shall be free from deep scores, marks, or ridges that could prevent a positive seal.
Groove Width (Column 4):
Groove width is to be measured between vertical flanks of the groove side walls.
Groove Diameter (Column 5):
The 'C' diameters are average values. The groove must be of uniform depth around the entire pipe circumference.
Minimum Wall Thickness (Column 6):
The 't' is the minimum allowable wall thickness that may be roll-grooved.
Groove Depth (Column 7):
The 'd' is for reference use only. The groove dimension shall be determined by the groove diameter 'C'.
Flare Diameter (Column 8):
The pipe end that may flare when the groove is rolled shall be within this limit when measured at the extreme end of the pipe.

ROLL GROOVE SPECIFICATIONS

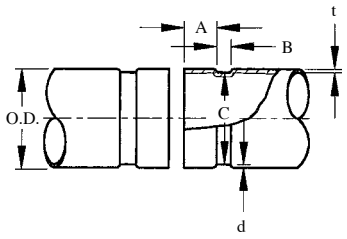
Standard Roll Groove for Large Diameter IPS Pipe



Pipe OD (Column 2):
Maximum allowable tolerances from square cut ends is 0.060".
Gasket Seating Surface (Column 3):
The gasket seating surface shall be free from deep scores, marks, or ridges that could prevent a positive seal.
Groove Width (Column 4):
Groove width is to be measured between vertical flanks of the groove side walls.
Groove Diameter (Column 5):
The 'C' diameters are average values. The groove must be of uniform depth around the entire pipe circumference.
Minimum Wall Thickness (Column 6):
The 't' is the minimum allowable wall thickness that may be roll-grooved.
Groove Depth (Column 7):
The 'd' is for reference use only. The groove dimension shall be determined by the groove diameter 'C'.
Flare Diameter (Column 8):
The pipe end that may flare when the groove is rolled shall be within this limit when measured at the extreme end of the pipe.

1	2			3	4	5	6	7	8
Nom. Size mm/in	Pipe O. D. Basic mm/in	Tolerances mm/in	mm/in	A +0.8,-1.6 +0.03,-0.06	B ±0.8 ±0.03	C +0,-1.6 +0,-0.063	Min. Allow Wall thick t mm/in	Groove Depth d (ref) mm/in	Max. Allowed Flare Dia. mm/in
650	660.4	+2.36	-0.79	44.5	15.9	647.7	6.4	6.4	665.5
26 OD	26.0	+0.093	-0.031	1.75	0.625	25.5	0.25	0.25	26.2
700	711.2	+2.36	-0.79	44.5	15.9	698.5	6.4	6.4	716.3
28 OD	28.0	+0.093	-0.031	1.75	0.625	27.5	0.25	0.25	28.2
750	762.0	+2.36	-0.79	44.5	15.9	749.3	6.4	6.4	767.1
30 OD	30.0	+0.093	-0.031	1.75	0.625	29.5	0.25	0.25	30.2
800	812.8	+2.36	-0.79	44.5	15.9	800.1	6.4	6.4	817.9
32 OD	32.0	+0.093	-0.031	1.75	0.625	31.5	0.25	0.25	32.2
850	863.6	+2.36	-0.79	44.5	15.9	850.9	6.4	6.4	868.7
34 OD	34.0	+0.093	-0.031	1.75	0.625	33.5	0.25	0.25	34.2
900	914.4	+2.36	-0.79	44.5	15.9	901.7	6.4	6.4	919.5
36 OD	36.0	+0.093	-0.031	1.75	0.625	35.5	0.25	0.25	36.2
1000	1016.0	+2.36	-0.79	50.8	15.9	1003.3	6.4	6.4	1026.2
40 OD	40.0	+0.093	-0.031	2.00	0.625	39.5	0.25	0.25	40.4
1050	1066.8	+2.36	-0.79	50.8	15.9	1054.1	6.4	6.4	1071.9
42 OD	42.0	+0.093	-0.031	2.00	0.625	41.5	0.25	0.25	42.2

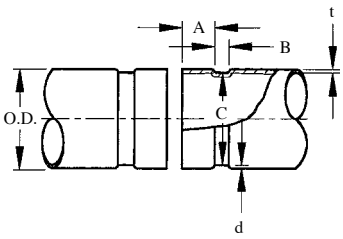
Standard Roll Groove for BS1387 (ISO 65) Carbon Steel Pipe



Pipe OD (Column 2):
Maximum allowable tolerances from square cut ends is 0.03" for sizes up to 3 1/2"; 0.045" for 4" thru 6"; and 0.060" for sizes 8" and above.
Gasket Seating Surface (Column 3):
The gasket seating surface shall be free from deep scores, marks, or ridges that could prevent a positive seal.
Groove Width (Column 4):
Groove width is to be measured between vertical flanks of the groove side walls.
Groove Diameter (Column 5):
The 'C' diameters are average values. The groove must be of uniform depth around the entire pipe circumference.
Minimum Wall Thickness (Column 6):
The 't' is the minimum allowable wall thickness that may be roll-grooved.
Groove Depth (Column 7):
The 'd' is for reference use only. The groove dimension shall be determined by the groove diameter 'C'.
Flare Diameter (Column 8):
The pipe end that may flare when the groove is rolled shall be within this limit when measured at the extreme end of the pipe.

1	2			3	4	5	6	7	8
Nominal Size mm	Pipe O.D. Basic mm	Max mm	Min mm	A +0.38/-0.76 mm	B +0.76/-0.38 mm	C +0.00 mm	Min. Wall t mm	Groove Depth d (ref.) mm	Max. Allowed Flare Dia. mm
20	26.9	27.3	26.5	15.88	7.14	23.83-0.38	1.65	1.42	29.2
25	33.7	34.2	33.3	15.88	7.14	30.23-0.38	1.65	1.60	36.3
32	42.4	42.9	42.0	15.88	7.14	38.99-0.38	1.65	1.60	45.0
40	48.3	48.8	47.9	15.88	7.14	45.09-0.38	1.65	1.60	51.1
50	60.3	60.8	59.7	15.88	8.74	57.15-0.38	1.65	1.60	63.0
65	76.1	76.6	75.3	15.88	8.74	72.26-0.46	2.11	1.98	78.7
80	88.9	89.5	88.0	15.88	8.74	84.94-0.46	2.11	1.98	91.4
100	114.3	115.0	113.1	15.88	8.74	110.08-0.51	2.11	2.11	116.8
125	139.7	140.8	138.5	15.88	8.74	135.48-0.56	2.77	2.16	142.2
150	165.1	166.5	163.9	15.88	8.74	160.78-0.56	2.77	2.16	167.6

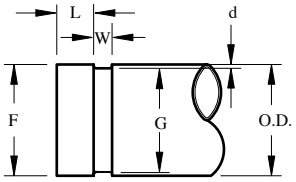
Standard Roll Groove for DIN 2440 & DIN 2448 (ISO 4200) Carbon Steel Pipe



1	2			3	4	5		6	7	8
Pipe or Tube mm	Pipe O.D.			Gasket Seat A ±0.76 mm	Groove Width B ±0.76 mm	Groove Diameter		Groove Depth d (ref) mm	Min. allow. Wall Thickness t mm	Max. Flare f mm
	Basic mm	Tolerance				Basic C mm	Tolerance +0.00 mm			
25	33.7	+0.41	-0.68	15.88	7.14	30.23	-0.38	1.70	1.8	34.5
32	42.4	+0.50	-0.60	15.88	7.14	38.99	-0.38	1.70	1.8	43.3
40	48.3	+0.44	-0.52	15.88	7.14	45.09	-0.38	1.60	1.8	49.4
50	60.3	+0.61	-0.61	15.88	8.74	57.15	-0.38	1.60	1.8	62.2
65	76.1	+0.76	-0.76	15.88	8.74	72.26	-0.46	1.93	2.3	77.7
80	88.9	+0.89	-0.79	15.88	8.74	84.94	-0.46	1.98	2.3	90.6
100	108.0	+1.07	-0.79	15.88	8.74	103.73	-0.51	2.11	2.3	109.7
100	114.3	+1.14	-0.79	15.88	8.74	110.08	-0.51	2.11	2.3	116.2
125	133.0	+1.32	-0.79	15.88	8.74	129.13	-0.51	1.93	2.9	134.9
125	139.7	+1.40	-0.79	15.88	8.74	135.48	-0.51	2.11	2.9	141.7
150	159.0	+1.60	-0.79	15.88	8.74	154.50	-0.56	2.20	2.9	161.0
150	168.3	+1.60	-0.79	15.88	8.74	163.96	-0.56	2.16	2.9	170.7
200	219.1	+1.60	-0.79	19.05	11.91	214.40	-0.64	2.34	2.9	221.5
250	273.0	+1.60	-0.79	19.05	11.91	268.28	-0.69	2.39	3.6	275.4
300	323.9	+1.60	-0.79	19.05	11.91	318.29	-0.76	2.77	4.0	326.2

Pipe OD (Column 2):
Maximum allowable tolerances from square cut ends is 0.03" for sizes up to 3 1/2"; 0.045" for 4" thru 6"; and 0.060" for sizes 8" and above.
Gasket Seating Surface (Column 3):
The gasket seating surface shall be free from deep scores, marks, or ridges that could prevent a positive seal.
Groove Width (Column 4):
Groove shoulder shall be free from burs metal removed up to max. 0.3mm x 45°.
Groove Diameter (Column 5):
The 'C' diameters are average values. The groove must be of uniform depth around the entire pipe circumference. Groove bottom with radius up to max. 0.8mm.
Groove Depth (Column 6):
The 'd' is for reference use only. The groove dimension shall be determined by the groove diameter 'C'.
Minimum Wall Thickness (Column 7):
The 't' is the minimum allowable wall thickness that may be roll-grooved.
Flare Diameter (Column 8):
The pipe end that may flare when the groove is rolled shall be within this limit when measured at the extreme end of the pipe.

Standard Roll Groove for JIS G3452 Carbon Steel Pipe



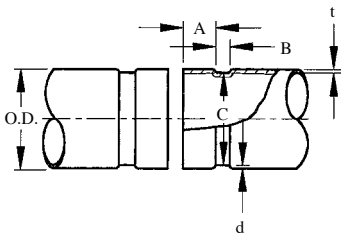
$C = \pi G$

Nominal Size		Pipe O.D.	Gasket Seat L		Groove Width W		Groove Dia G		Groove Circumference C		Groove Depth d (ref)	Max. Flare f
A mm	B mm	mm	mm		mm		mm		mm		mm	mm
25	1	34.0	16.0	+0.4 -0.9	7.1	±0.8	30.4	0 -1.0	95.5	0 -3.1	1.80	35.5
32	1.25	42.7	16.0	+0.4 -0.9	7.1	±0.8	39.1	0 -1.0	122.8	0 -3.1	1.80	44.2
40	1.5	48.6	16.0	+0.4 -0.9	7.1	±0.8	45.0	0 -1.0	141.4	0 -3.1	1.80	50.1
50	2	60.5	16.0	+0.4 -0.9	8.7	±0.8	56.9	0 -1.0	178.8	0 -3.1	1.80	62.0
65	2.5	76.3	16.0	+0.4 -0.9	8.7	±0.8	72.2	0 -1.0	226.8	0 -3.1	2.05	77.8
80	3	89.1	16.0	+0.4 -0.9	8.7	±0.8	84.9	0 -1.0	266.7	0 -3.1	2.10	90.6
100	4	114.3	16.0	+0.4 -0.9	8.7	±0.8	110.1	0 -1.0	345.9	0 -3.1	2.10	116.8
125	5	139.8	16.0	+0.4 -0.9	8.7	±0.8	135.5	0 -1.0	425.7	0 -3.1	2.15	142.3
150	6	165.2	16.0	+0.4 -0.9	8.7	±0.8	160.8	0 -1.0	505.2	0 -3.1	2.20	167.7
200	8	216.3	19.0	±0.8	11.9	±0.8	(211.6)		664.8	0 -3.1	2.35	219.8
250	10	267.4	19.0	±0.8	11.9	±0.8	(262.6)		825.0	0 -3.1	2.40	270.9
300	12	318.5	19.0	±0.8	11.9	±0.8	(312.9)		983.0	0 -3.1	2.80	322.0

Groove Diameter:
Groove diameters 'G' are only applicable to pipe sizes 150A or smaller. Grooves for 200A thru 300A are to be determined by the groove circumference.
Groove Depth:
The 'd' is for reference use only.
Flare Diameter:
The maximum flare diameters (f) are target values.

ROLL GROOVE SPECIFICATIONS

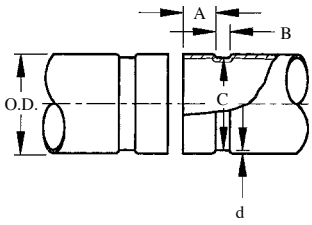
Standard Roll Groove for U.S. Standard Copper Tubing



Pipe OD (Column 2):
Maximum allowable tolerances from square cut ends is 0.03" for 2" thru 3"; 0.045" for 4" thru 6"; and 0.060" for sizes 8".
Gasket Seating Surface (Column 3):
The gasket seating surface shall be free from deep scores, marks, or ridges that could prevent a positive seal.
Groove Width (Column 4):
Groove width is to be measured between vertical flanks of the groove side walls.
Groove Diameter (Column 5):
The 'C' diameters are average values. The groove must be of uniform depth around the entire pipe circumference.
Groove Depth (Column 6):
The 'd' is for reference use only. The groove dimension shall be determined by the groove diameter 'C'.
Minimum Wall Thickness (Column 7):
The DWV pipe (ASTM B-306) is minimum wall thickness that may be roll grooved.
Flare Diameter (Column 8):
The pipe end that may flare when the groove is rolled shall be within this limit when measured at the extreme end of the pipe.

1	2	3	4	5	6	7	8
Nominal Size mm/in	Pipe O. D. mm/in	Gasket Seat A ±0.79 ±0.03	Groove Width B ±0.79 ±0.03	Groove Dia. C +0/-0.51 +0/-0.02	Groove Depth d (ref) mm/in	Min.Allow Wall Thick t mm/in	Max. Allowed Flare Dia. mm/in
50	54.0	15.5	7.6	51.5	1.2	1.6	56.4
2	2.125	0.610	0.300	2.029	0.048	0.064	2.220
65	66.7	15.5	7.6	64.1	1.3	1.7	69.1
2.5	2.625	0.610	0.300	2.525	0.050	0.065	2.720
80	79.4	15.5	7.6	76.8	1.3	DWV	81.8
3	3.125	0.610	0.300	3.025	0.050		3.220
100	104.8	15.5	7.6	102.1	1.4	DWV	107.2
4	4.125	0.610	0.300	4.019	0.053		4.220
125	130.2	15.5	7.6	127.0	1.4	DWV	132.6
5	5.125	0.610	0.300	4.999	0.053		5.220
150	155.6	15.5	7.6	152.3	1.6	DWV	158.0
6	6.125	0.610	0.300	5.999	0.063		6.220
200	206.4	15.5	7.6	202.2	2.1	DWV	208.8
8	8.125	0.610	0.300	7.959	0.083		8.220

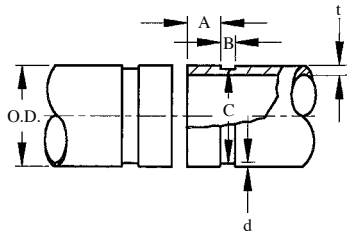
Standard Roll Groove for BS EN 1057 Copper Tubing



Pipe OD (Column 1):
Maximum allowable tolerances from square cut ends is 0.03" for 2" thru 3"; 0.045" for 4" thru 6"; and 0.060" for sizes 8".
Gasket Seating Surface (Column 2):
The gasket seating surface shall be free from deep scores, marks, or ridges that could prevent a positive seal.
Groove Width (Column 3):
Groove width is to be measured between vertical flanks of the groove side walls.
Groove Diameter (Column 4):
The 'C' diameters are average values. The groove must be of uniform depth around the entire pipe circumference.
Groove Depth (Column 5):
The 'd' is for reference use only. The groove dimension shall be determined by the groove diameter 'C'.
Flare Diameter (Column 6):
The pipe end that may flare when the groove is rolled shall be within this limit when measured at the extreme end of the pipe.

1		2	3	4	5	6
Actual Outside Diameter Min. mm	Actual Outside Diameter Max. mm	Gasket Seat " A " ±0.8 mm	Groove Width " B " + 0.8/-0 mm	Groove Diameter " C " + 0/-0.5 mm	Groove Depth d (ref) mm	Max. Allowed Flare Diameter mm
53.99	54.07	15.87	7.6	51.53	1.25	56.39
66.60	66.75	15.87	7.6	64.14	1.27	69.09
76.15	76.30	15.87	7.6	73.53	1.35	78.61
108.00	108.25	15.87	7.6	104.93	1.60	110.54
133.25	133.50	15.87	7.6	129.67	1.85	135.79
159.25	159.50	15.87	7.6	155.68	1.85	161.80

Standard Cut Groove Specifications for IPS / BS / ISO / JIS Pipe

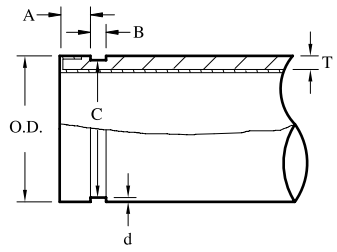


Gasket Seating Surface (Column 3):
The gasket seating surface shall be free from deep scores, marks, or ridges that could prevent a positive seal.
Groove Width (Column 4):
Groove width is to be measured between vertical flanks of the groove side walls.
Groove Diameter (Column 5):
The 'C' diameters are average values. The groove must be of uniform depth around the entire pipe circumference.
Minimum Wall Thickness (Column 6):
The 't' is the minimum allowable wall thickness that may be roll-grooved.
Groove Depth (Column 7):
The 'd' is for reference use only. The groove dimension shall be determined by the groove diameter 'C'.

1	2			3	4	5	6	7
Nominal Size mm/in	Pipe O.D.			A ±0.79 ±0.031	B ±0.79 ±0.031	C +0.00 +0.000	Min. Wall t mm/in	Groove Depth d (ref.) mm/in
	Basic mm/in	Tolerance						
20	26.7	+0.25	-0.25	15.88	7.95	23.83-0.38	2.87	1.42
0.75	1.050	+0.010	-0.010	0.625	0.313	0.938-0.015	0.113	0.056
25	33.4	+0.33	-0.33	15.88	7.95	30.23-0.38	3.38	1.60
1	1.315	+0.013	-0.013	0.625	0.313	1.190-0.015	0.133	0.063
32	42.2	+0.41	-0.41	15.88	7.95	38.99-0.38	3.56	1.60
1.25	1.660	+0.016	-0.016	0.625	0.313	1.535-0.015	0.140	0.063
40	48.3	+0.48	-0.48	15.88	7.95	45.09-0.38	3.68	1.60
1.5	1.900	+0.019	-0.019	0.625	0.313	1.775-0.015	0.145	0.063
50	60.3	+0.61	-0.61	15.88	7.95	57.15-0.38	3.91	1.60
2	2.375	+0.024	-0.024	0.625	0.313	2.250-0.015	0.154	0.063
65	73.0	+0.74	-0.74	15.88	7.95	69.09-0.46	4.78	1.98
2.5	2.875	+0.029	-0.029	0.625	0.313	2.720-0.018	0.188	0.078
65	76.1	+0.76	-0.76	15.88	7.95	72.26-0.46	4.78	1.93
2.5	3.000	+0.030	-0.030	0.625	0.313	2.845-0.018	0.188	0.076
80	88.9	+0.89	-0.79	15.88	7.95	84.94-0.46	4.78	1.98
3	3.500	+0.035	-0.031	0.625	0.313	3.344-0.018	0.188	0.078
90	101.6	+1.02	-0.79	15.88	7.95	97.38-0.51	4.78	1.98
3.5	4.000	+0.040	-0.031	0.625	0.313	3.834-0.020	0.188	0.078
100	108.0	+1.04	-0.79	15.88	9.53	103.73-0.51	5.16	2.11
4	4.250	+0.043	-0.031	0.625	0.375	4.084-0.020	0.203	0.083
100	114.3	+1.14	-0.79	15.88	9.53	110.08-0.51	5.16	2.11
4	4.500	+0.045	-0.031	0.625	0.375	4.334-0.020	0.203	0.083
125	133.0	+1.70	-0.79	15.88	9.53	129.13-0.51	5.16	1.93
5	5.250	+0.053	-0.031	0.625	0.375	5.084-0.020	0.203	0.076
125	139.7	+1.42	-0.79	15.88	9.53	135.48-0.51	5.16	2.11
5	5.500	+0.055	-0.031	0.625	0.375	5.334-0.020	0.203	0.083
125	141.3	+1.42	-0.79	15.88	9.53	137.03-0.56	5.16	2.11
5	5.563	-0.056	-0.031	0.625	0.375	5.395-0.022	0.203	0.083
150	159.0	+1.60	-0.79	15.88	9.53	154.43-0.76	5.56	2.20
6	6.250	+0.063	-0.031	0.625	0.375	6.080-0.030	0.219	0.087
150	165.1	+1.60	-0.79	15.88	9.53	160.80-0.56	5.56	2.16
6	6.500	+0.063	-0.031	0.625	0.375	6.330-0.022	0.219	0.085
150	168.3	+1.60	-0.79	15.88	9.53	163.96-0.56	5.56	2.16
6	6.625	+0.063	-0.031	0.625	0.375	6.455-0.022	0.219	0.085
200A	216.3	+1.60	-0.79	19.05	11.13	211.60-0.64	6.05	2.34
8	8.516	+0.063	-0.031	0.750	0.438	8.331-0.025	0.238	0.092
200	219.1	+1.60	-0.79	19.05	11.13	214.40-0.64	6.05	2.34
8	8.625	+0.063	-0.031	0.750	0.438	8.441-0.025	0.238	0.092
250A	267.4	+1.60	-0.79	19.05	12.70	262.60-0.69	6.35	2.39
10	10.528	+0.063	-0.031	0.750	0.500	10.339-0.027	0.250	0.094
250	273.0	+1.60	-0.79	19.05	12.70	268.27-0.69	6.35	2.39
10	10.750	+0.063	-0.031	0.750	0.500	10.562-0.027	0.250	0.094
300A	318.5	+1.60	-0.79	19.05	12.70	312.90-0.76	7.09	2.77
12	12.539	+0.063	-0.031	0.750	0.500	12.319-0.030	0.279	0.109
300	323.9	+1.60	-0.79	19.05	12.70	318.29-0.76	7.09	2.77
12	12.750	+0.063	-0.031	0.750	0.500	12.531-0.030	0.279	0.109
350	355.6	+1.60	-0.79	23.83	12.70	350.04-0.76	7.14	2.77
14	14.000	+0.063	-0.031	0.938	0.500	13.781-0.030	0.281	0.109
400	406.4	+1.60	-0.79	23.83	12.70	400.84-0.76	7.92	2.77
16	16.000	+0.063	-0.031	0.938	0.500	15.781-0.030	0.312	0.109
450	457.2	+1.60	-0.79	25.40	12.70	451.64-0.76	7.92	2.77
18	18.000	+0.063	-0.031	1.000	0.500	17.781-0.030	0.312	0.109
500	508.0	+1.60	-0.79	25.40	12.70	502.44-0.76	7.92	2.77
20	20.000	+0.063	-0.031	1.000	0.500	19.781-0.030	0.312	0.109
550	558.8	+1.60	-0.79	25.40	14.30	550.06-0.76	9.53	4.37
22	22.000	+0.063	-0.031	1.000	0.563	21.656-0.030	0.375	0.172
600	609.6	+1.60	-0.79	25.40	14.30	600.86-0.76	9.53	4.37
24	24.000	+0.063	-0.031	1.000	0.563	23.656-0.030	0.375	0.172

CUT GROOVE SPECIFICATIONS

"EP" End Protection Cut Groove for XH-70 Couplings



Pipe OD (Column 2):
Maximum allowable tolerances from square cut ends is 0.03" for sizes up to 3 1/2"; 0.045" for 4" thru 6"; and 0.060" for sizes 8" and above.

Gasket Seating Surface (Column 3):
The gasket seating surface shall be free from deep scores, marks, or ridges that could prevent a positive seal. Always use square cut pipe with the EP (End Protection) gasket. Do not use beveled end pipe. Roll grooving may damage the inside coating or lining of the pipe and may result in unacceptable pipe end flare.

Groove Width (Column 4):
Groove width is to be measured between vertical flanks of the groove side walls. Corners at bottom of roll groove must be radiused 0.04R on 2" thru 12".

Groove Diameter (Column 5):
The 'C' diameters are average values. The groove must be of uniform depth around the entire pipe circumference.

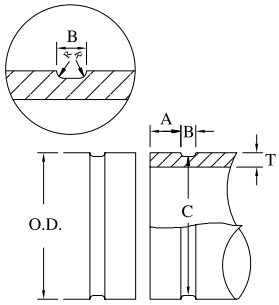
Groove Depth (Column 6):
The 'd' is for reference use only. The groove dimension shall be determined by the groove diameter 'C'.

Minimum Wall Thickness (Column 7):
The 't' is the minimum allowable wall thickness that may be roll-grooved.

1	2		3		4		5		6	7
Nominal Size mm/in	Pipe O.D.		Gasket Seat A		Groove Width B		Groove Dia. C		Grv. Depth d (ref.)	Min. Wall thickness T
	Basic mm/in	Tolerance	Basic	Tol. ±	Basic	Tol. +0.25/+0.010	Basic	Tol. +0/+0		
50	60.3	+0.61 -0.61	14.27	±0.25	6.48	-0.13	57.15	-0.38	1.60	3.91
2	2.375	+0.024 -0.024	0.562	±0.010	0.255	-0.005	2.250	-0.015	0.063	0.154
65	73.0	+0.74 -0.74	14.27	±0.25	6.48	-0.13	69.09	-0.46	1.98	4.78
2.5	2.875	+0.029 -0.29	0.562	±0.010	0.255	-0.005	27.20	-0.018	0.078	0.188
80	88.9	+0.89 -0.79	14.27	±0.25	6.48	-0.13	84.94	-0.46	1.98	4.78
3	3.500	+0.035 -0.031	0.562	±0.010	0.255	-0.005	3.344	-0.018	0.078	0.188
100	114.3	+1.14 -0.79	15.37	±0.38	7.75	-0.13	110.08	-0.51	2.11	5.16
4	4.500	+0.045 -0.031	0.605	±0.015	0.305	-0.005	4.334	-0.020	0.083	0.203
150	168.3	+1.60 -0.79	15.37	±0.38	7.75	-0.13	163.96	-0.56	2.16	5.56
6	6.625	+0.063 -0.031	0.605	±0.015	0.305	-0.005	6.455	-0.022	0.085	0.219
200	219.1	+1.60 -0.79	18.14	±0.38	10.16	-0.25	214.4	-0.64	2.34	6.05
8	8.625	+0.063 -0.031	0.714	±0.015	0.400	-0.010	8.441	-0.025	0.092	0.238
250	273.0	+1.60 -0.79	18.14	±0.38	10.16	-0.25	268.28	-0.69	2.39	6.35
10	10.750	+0.063 -0.031	0.714	±0.015	0.400	-0.010	10.562	-0.027	0.094	0.250
300	323.9	+1.60 -0.79	18.14	±0.38	10.16	-0.25	318.29	-0.76	2.77	7.09
12	12.750	+0.063 -0.031	0.714	±0.015	0.400	-0.010	12.531	-0.030	0.109	0.279

Note: For roll groove specification requirements, contact *shurjoint.*

Radius Cut Groove Specification - Ductile Iron Pipe



Gasket Seating Surface (Column 3):
The same coupling can be used either as a rigid joint or a flexible joint depending on the groove. Gasket seat "A Rigid" is for rigid joints and Gasket seat "A Flex." for flexible joints.
The gasket seating surface shall be free from deep scores, marks, or ridges that could prevent a positive seal.

Groove Diameter (Column 5):
The 'C' diameters are average values. The groove must be of uniform depth around the entire pipe circumference.

Radius (Column 6):
The groove must be cut with a radius "R" at the corners of the groove to reduce stress concentration.

Minimum Wall Thickness (Column 7):
"T" is the minimum allowable wall thickness that may be cut-grooved; tolerances are to conform to ANSI /AWWA C151/A21.51.

AWWA Ductile Iron Pipe

1	2			3		4	5		6	7	
Nominal Size	Pipe O. D.			Gasket Seat A		Groove Width B	Groove Dia. C		Radius R	Min. Allow Wall Thick T	
	Basic	Tolerance +	Tolerance -	Rigid +0/-0.51 +0/-0.02	Flex. +0/-0.51 +0/-0.02	+0.79/-0.41 +0.031/-0.016	Basic	Tol. +0 +0		Cast Iron	Ductile Iron
mm/in	mm/in	mm/in	mm/in	mm/in	mm/in	mm/in	mm/in	mm/in	mm/in	mm/in	mm/in
80	100.6	+1.14	-1.14	21.34	19.05	9.53	94.56	-0.51	3.05	8.1	7.9
3	3.96	+0.045	-0.045	0.840	0.750	0.375	3.723	-0.020	0.120	0.32	0.31
100	121.9	+1.14	-1.14	21.34	19.05	9.53	115.90	-0.51	3.05	8.9	8.1
4	4.80	+0.045	-0.045	0.840	0.750	0.375	4.563	-0.020	0.120	0.35	0.32
150	175.3	+1.52	-1.52	21.34	19.05	9.53	169.06	-0.51	3.05	9.7	8.6
6	6.90	+0.060	-0.060	0.840	0.750	0.375	6.656	-0.020	0.120	0.38	0.34
200	229.9	+1.52	-1.52	24.13	22.23	12.70	223.04	-0.64	3.68	10.4	9.1
8	9.05	+0.060	-0.060	0.950	0.875	0.500	8.781	-0.025	0.145	0.41	0.36
250	281.9	+1.52	-1.52	25.78	23.83	12.70	274.65	-0.64	3.68	11.9	9.7
10	11.10	+0.060	-0.060	1.015	0.938	0.500	10.813	-0.025	0.145	0.44	0.38
300	335.3	+1.52	-1.52	25.78	23.83	12.70	327.81	-0.76	3.68	12.2	10.2
12	13.20	+0.060	-0.060	1.015	0.938	0.500	12.906	-0.030	0.145	0.48	0.40

BS Ductile Iron Pipe

1	2			3		4	5		6	7
Nominal Size	Pipe O. D.	Tol.		Gasket Seat A		Groove Width B	Groove Dia. C		Radius R	Min. Allow Wall Thick T
	Basic	Max.	Min.	Rigid +0/-0.51	Flex. +0/-0.51	+0.78/-0.41	Basic	Tol. +0.00		
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
80	98.0	99	97	20.6	18.6	10	93	-0.51	3	4.8
100	118.0	119	117	20.6	18.6	10	114	-0.51	3	4.8
150	170.0	171	169	20.6	18.6	10	166	-0.51	3	4.8

APPROVALS & LISTINGS

Model No.	Product Description	Approval Body
Grooved Piping Systems		
#7705	Standard Flexible Coupling	cULus / FM / VdS / LPCB
#7707	Flexible Coupling	cULus / FM
#7771	Standard Rigid Coupling	cULus / FM
#K9	Rigid Coupling	cULus / FM / VdS / LPCB
#R20	Rigid Coupling	cULus / FM
#Z05	Rigid Coupling	cULus / FM / VdS / LPCB
#Z07	Standard Rigid Coupling	cULus / FM / VdS / LPCB
#7706	Reducing Coupling	cULus / FM / VdS / LPCB
#7041	Flange – ANSI 125/150, PN10/16	cULus / FM / LPCB
#7043	Flange – ANSI 300	cULus / FM
#7170	Flange Adapter	cULus / FM
#7180	Universal Flange Adapter	cULus / FM
#7181	Universal Red. Flange Adapter	cULus / FM
#C-7	Outlet Coupling	cULus / FM
#7721	Mech. Tee, Threaded Outlet	cULus / FM / VdS / LPCB
#7722	Mech. Tee, Grooved Outlet	cULus / FM / VdS / LPCB
#723	Saddle-Let	cULus / FM / VdS / LPCB
#7110	90° Elbow, Regular Radius	cULus / FM / VdS / LPCB
#7110LR	1.5D L. R. 90° Elbow	cULus / FM
#7110DR	Drain Elbow	cULus / FM
#7111	45° Elbow, Regular Radius	cULus / FM / VdS / LPCB
#7112	22-1/2° Elbow	cULus / FM
#7113	11-1/4° Elbow	cULus / FM
#7120	Tee	cULus / FM / VdS / LPCB
#7121	Reducing Tee	cULus / FM / LPCB
#7125	Bull Head Tee	cULus / FM
#7127	Standpipe Tee	cULus / FM
#7135	Cross	cULus / FM
#7130	45° Lateral	cULus / FM
#7133	Ptticher Tee	LPCB
#7150	Conc. Reducer	cULus / FM / VdS / LPCB
#7150F	Reducing Socket Adapter	cULus / FM
#7150M	Reducing Nipple	cULus / FM
#7151	Eccentric Reducer	cULus / FM
#7160	End Cap	cULus / FM / VdS / LPCB
#7160H	Domed End Cap	cULus / FM
#7160T	Transition Fitting	cULus / FM
#899	End-All Fitting	cULus / FM
#901	Short Radius 90° Elbow	cULus / FM / VdS
#903	Short Radius Tee	cULus / FM / VdS
#55	Nipple Adapter	cULus / FM
Hole-Cut Piping System		
#71	Female Threaded Outlet Fitting	cULus / FM
#72C	Cut Grooved Outlet Fitting	cULus / FM
#72R	Roll Grooved Outlet Fitting	cULus / FM
#74	Universal Threaded Outlet Fitting	cULus / FM
Flow Control Components		
#726	Y-Strainer	cULus
#RCV	Riser Check Valve	cULus / FM
Stainless Steel Series		
#SS-7	Rigid Coupling	cULus / FM
#SS-8	Flexible Coupling	cULus / FM
#SS-10	90° Elbow	cULus / FM
#SS-11	45° Elbow	cULus / FM
#SS-20	Tee	cULus / FM
#SS-60	Cap	cULus / FM
#SS-21	Reducing Tee	cULus / FM
#SS-50	Conc. Reducer	cULus / FM
#SS-41	Flange - ANSI 125/150	cULus / FM
#SS-80	Flange Adapter	cULus / FM
#SS-723	Mechanical Tee	cULus / FM
#SJ-400	Butterfly Valve	NSF61
Copper Tubing Series		
#C341	Flange	cULus
#C10	90° Elbow	cULus / FM / NSF61
#C11	45° Elbow	cULus / FM / NSF61
#C20	Tee	cULus / FM / NSF61
#C60	Cap	cULus / FM / NSF61
#C21	Reducing Tee	cULus / FM / NSF61
#C50	Conc. Reducer	cULus / FM / NSF61
#C26	Reducing Tee	cULus / FM / NSF61
#C52	Conc. Reducer	cULus / FM / NSF61
#SJ-C300	Butterfly Valve	NSF61
#C55	Transition Adapter	NSF61
#C726	Y-Strainer	NSF61
AWWA Ductile Iron Series		
#A505	Coupling	ULC
#A507	Transition Coupling	ULC
#A512	Flange Adapter	ULC
Ductile Iron Threaded Fittings		
#811	90° Elbow	UL / ULC / FM
#812	Reducing 90° Elbow	UL / ULC / FM
#813	45° Elbow	UL / ULC / FM
#814	Tee	UL / ULC / FM
#815	Reducing Tee	UL / ULC / FM
#815	Bullhead Tee	UL / ULC / FM
#816	Reducing Coupling	UL / ULC / FM
#817	Cross/Reducing Cross	UL / ULC / FM
#818	Straight Coupling	UL / ULC / FM
#819	Plug	UL / ULC / FM
#820	Cap	UL / ULC / FM
#825	Extension Piece	UL / ULC / FM
#827	Hex Bushing	UL / ULC / FM
#830	Brass Seat Union	UL / ULC / FM
#831	Long Street 90° Elbow	UL / ULC / FM
#832	Long Street Tee	UL / ULC / FM
#B20	Standard Top Beam Clamp	cULus / FM
#B24	Wide Mouth Beam Clamp	cULus / FM

Contact *Shurjoint* for Details.

BOLT TORQUES

Shurjoint couplings and mechanical tees are supplied complete with factory bolts and nuts. The bolt and nut torque is primarily a function of the bolt and nut size. The following table shows guidelines for nut and bolt torque and can be used when setting the torque on power drivers.

Design Bolt Torques

Bolt Size in	N-m Lbs – ft
5/16	15 – 20
M8	11 – 15
3/8	25 – 30
M10	18 – 22
1/2	50 – 68
M12	37 – 50
5/8	80 – 120
M16	60 – 90
3/4	100 – 135
M20	74 – 100
7/8	170 – 275
M22	125 – 200
1	275 – 400
M24	200 – 300

Do not exceed the design torque guidelines by more than 25%, as excessive torque could lead to joint failure. Always tighten nuts evenly and equally by alternating sides to prevent the gasket from being pinched and always check to make sure the coupling keys are fully engaged in the grooves.

FLEXIBLE COUPLINGS

The bolt pads on flexible couplings have been designed to meet metal to metal when properly installed. Bolt pad gaps, regardless of their size, are not acceptable on flexible couplings. The listed values in the table 1 are guideline torque values listed by the coupling size. Please note these are only guidelines and that the actual torque value may be less than those listed to achieve a proper assembly. Actual torques for assembly of flexible couplings are normally as little as 15 – 20 N-m (11 – 15 Lbs-ft) for the bolt size of M10 (3/8″) and 30 – 40 N-m (22 to 30 Lbs-ft) for the M12 (1/2″) bolt size. Do not attempt to add further torque after the bolt pads make metal to metal contact.

If the bolt pads do not make full metal to metal contact, increase the torque to the listed guideline in table 1. Do not exceed the listed torque by more than 25%, as excessive torque could lead to joint failure. If bolt pad gaps still exist after bolts and nuts have been tightened to the guideline torque, then this would indicate a problem in the assembly, pipe and or groove dimensions.

Table 1
Flexible Coupling Torque Guidelines

Size in	7705 N-m/Lbs-ft	7707 N-m/Lbs-ft	SS-8 N-m/Lbs-ft	SS-8X N-m/Lbs-ft
3/4	N.A.	25 - 30	N.A.	25 - 30
		18 - 22		18 - 22
1	N.A.	25 - 30	15 - 20	25 - 30
		18 - 22	11 - 15	18 - 22
1-1/4	25 - 30	25 - 30	15 - 20	25 - 30
	18 - 22	18 - 22	11 - 15	18 - 22
1-1/2	25 - 30	25 - 30	15 - 20	25 - 30
	18 - 22	18 - 22	11 - 15	18 - 22
2	25 - 30	25 - 30	25 - 30	25 - 30
	18 - 22	18 - 22	18 - 22	18 - 22
2-1/2	25 - 30	25 - 30	25 - 30	25 - 30
	18 - 22	18 - 22	18 - 22	18 - 22
3	50 - 68	50 - 68	25 - 30	50 - 68
	37 - 50	37 - 50	18 - 22	37 - 50
4	50 - 68	50 - 68	50 - 68	50 - 68
	37 - 50	37 - 50	37 - 50	37 - 50
5	80 - 120	80 - 120	50 - 68	80 - 120
	60 - 90	60 - 90	37 - 50	60 - 90
6	80 - 120	100 - 135	50 - 68	80 - 120
	60 - 90	24 - 100	37 - 50	60 - 90
8	80 - 120	170 - 275	80 - 120	100 - 135
	60 - 90	125 - 205	60 - 90	75 - 100
10	100 - 135	275 - 400	N.A.	N.A.
	74 - 100	200 - 300		
12	170 - 275	275 - 400	N.A.	N.A.
	125 - 205	200 - 300		

ANGLE-PAD & BUTT-JOINT RIGID COUPLINGS

The bolt pads on angle-pad rigid couplings and butt-joint rigid couplings have been designed to meet metal to metal when properly installed. In addition as the bolts are tightened the bolt pads will slide against one another creating a slight off-set. This offset should be equal on each side and is your visual indication that the coupling has been installed properly for a rigid connection. Bolt pad gaps, regardless of their size, are not acceptable on angle-pad couplings. The listed values in the table 2 are guideline torque values listed by the coupling size. Please note these are only guidelines and that the actual torque value may be less than those listed to achieve a proper assembly.

Table 2
Torque Guidelines for Angle-pad & Butt-joint Rigid Couplings

Size in	Z07 N-m/Lbs-ft	Z05 N-m/Lbs-ft	C305 N-m/Lbs-ft	R20* N-m/Lbs-ft
1-1/4	25 - 30	25 - 30	N.A.	25 - 30
	18 - 22	18 - 22		18 - 22
1-1/2	25 - 30	25 - 30	N.A.	25 - 30
	18 - 22	18 - 22		18 - 22
2	25 - 30	25 - 30	25 - 30	25 - 30
	18 - 22	18 - 22	18 - 22	18 - 22
2-1/2	25 - 30	25 - 30	25 - 30	25 - 30
	18 - 22	18 - 22	18 - 22	18 - 22
3	50 - 68	25 - 30	50 - 68	25 - 30
	37 - 50	18 - 22	37 - 50	18 - 22
4	50 - 68	25 - 30	50 - 68	25 - 30
	37 - 50	18 - 22	37 - 50	18 - 22
5	80 - 120	50 - 68	80 -120	50 - 68
	60 - 90	37 - 50	60 - 90	37 - 50
6	80 - 120	50 - 68	80 - 120	50 - 68
	60 - 90	37 - 50	60 - 90	37 - 50
8	100 - 135	80 - 120	80 - 120	N.A.
	75 - 100	60 - 90	60 - 90	
10	170 - 275	N.A.	N.A.	N.A.
	125 - 205			
12	170 - 275	N.A.	N.A.	N.A.
	125 - 205			

* R20 is a butt-joint type rigid coupling.

Do not attempt to add further torque after the bolt pads make metal to metal contact.

If the bolt pads do not make full metal to metal contact, increase the torque to the listed guideline in table 2. Do not exceed the listed torque by more than 25%, as excessive torque could lead to joint failure. If bolt pad gaps still exist after bolts and nuts have been tightened to the guideline torque, then this would indicate a problem in the assembly, pipe and or groove dimensions.

T&G (Tongue & Groove) RIGID COUPLINGS

The T&G style rigid coupling features a mechanical interlock mechanism and, while the bolt pads have been designed to meet metal to metal, a slight and equal gap between the bolt pads is acceptable as the T&G mechanism fully protects the gasket. The listed values in the table 3 are guideline torque values listed by the coupling size. Please note these are only guidelines and that the actual torque value may be less than those listed to achieve a proper assembly. Do not attempt to add further torque after the bolt pads make metal to metal contact.

If the bolt pads do not make full metal to metal contact, increase the torque to the listed guideline in table 3. Do not exceed the listed torque by more than 25%, as excessive torque could lead to joint failure. If excessive bolt pad gaps (in excess of 1/8" or 3.2mm) still exist after bolts and nuts have been tightened to the guideline torque, then this would indicate a problem in the assembly, pipe and or groove dimensions.

Table 3
Torque Guidelines for T&G Rigid Couplings

Size in	7771 N-m/Lbs-ft	K9 N-m/Lbs-ft	SS-7 N-m/Lbs-ft	XH-70/DS-7X N-m/Lbs-ft
1-1/4	25 - 30	25 - 30	25 - 30	N.A.
	18 - 22	18 - 22	18 - 22	
1-1/2	25 - 30	25 - 30	25 - 30	N.A.
	18 - 22	18 - 22	18 - 22	
2	25 - 30	25 - 30	25 - 30	50 - 68
	18 - 22	18 - 22	18 - 22	37 - 50
2-1/2	25 - 30	25 - 30	25 - 30	50 - 68
	18 - 22	18 - 22	18 - 22	37 - 50
3	50 - 68	25 - 30	25 - 30	50 - 68
	37 - 50	18 - 22	18 - 22	37 - 50
4	50 - 68	25 - 30	25 - 30	50 - 68
	37 - 50	18 - 22	18 - 22	37 - 50
5	80 - 120	50 - 68	50 - 68	N.A.
	60 - 90	37 - 50	37 - 50	
6	80 - 120	50 - 68	50 - 68	80 - 120
	60 - 90	37 - 50	37 - 50	60 - 90
8	80 - 120	80 - 120	80 - 120	100 - 135
	60 - 90	60 - 90	60 - 90	74 - 100
10	100 - 135	N.A.	N.A.	170 - 275
	74 - 100			125 - 205
12	170 - 275	N.A.	N.A.	275 - 400
	125 - 205			205 - 300

PLAIN-END COUPLINGS

Always tighten the bolts and nuts to the torques listed in the Table 4. Please note that the "Torque Requirements" are actual requirements for proper joint assembly and performance. These requirements values should not be exceeded by more than 25%, as excessive torque could lead joint failure.

Table 4
Torque Requirements for Plain-End Couplings

Size in	79 N-m/Lbs-ft
2	200
	150
2-1/2	200
	150
3	270
	200
4	270
	200
5	340
	250
6	340
	250
8	275
	200
10	400
	300
12	470
	350
14	470
	350
16	470
	350
18	470
	350
20	470
	350

For items and or sizes not listed, contact *Shurjoint* or refer to the Shurjoint installation instructions.

IMPORTANT CHECK POINTS

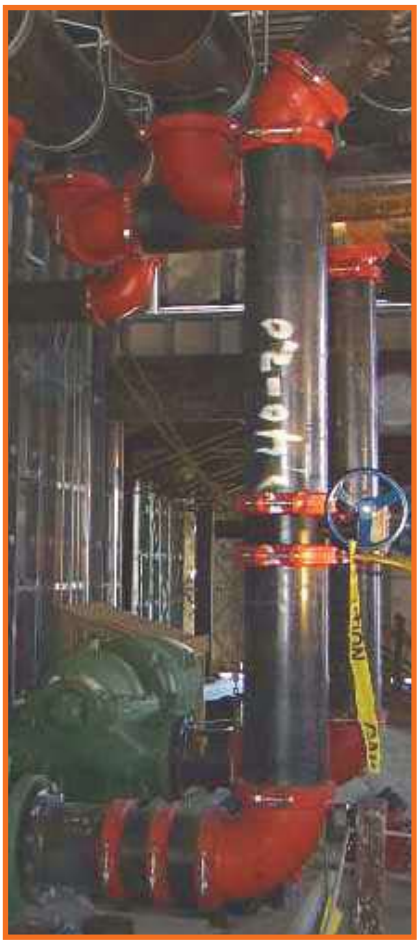
- **Check to make sure the coupling is the correct size for the pipe and or fitting being connected.**
- **Check to make sure the coupling keys are fully engaged in the grooves.**
- **Check to ensure the gasket is not pinched, if so disassemble and reinstall.**
- **Check to ensure the bolts and nuts are fully tightened.**
- **Check to ensure the grooves conform to the applicable specification. If the groove is found to be too shallow or too deep, replace this section of pipe with one that conforms to the applicable groove specification.**

PROJECT REFERENCE

CSO (Combined Sewer Overflow)
Tunnel, WA, USA

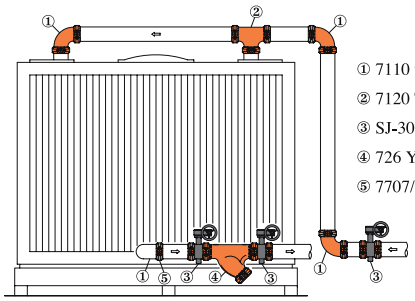
Westside Regional Wastewater
Treatment Plant, BC, Canada

IMC Regional Medical Center, UT, USA



24" Chilled Water Line – Rashid Mall, Riyadah, KSA

Microsoft Facility, Puerto Rico



① 7110 90° Elbow
② 7120 Tee
③ SJ-300W Butterfly Valve
④ 726 Y-Strainer
⑤ 7707/7705 Flexible Coupling

Glycol pipeline - Ski Dome, Dubai, UAE

Edipower 800 – Power Plant, Italy

Fire protection line - Festival City, Dubai, UAE

Ik-san E-Mart, Seoul, Korea

Incheon International Airport, Korea

Expansion project - Dubai Airport, UAE

TERMS AND CONDITIONS

Controlling Provisions:

These terms and conditions shall control with respect to any and all purchase orders or sales of *Shurjoint* products.

No alteration, modification or waiver of these terms and conditions whether on the customer's purchase order or otherwise shall be valid unless the alteration, modification or waiver is specifically accepted in writing by an authorized representative of *Shurjoint* Piping Products, Inc.

Shipping Terms:

All orders are quoted F.O.B. shipping point unless otherwise agreed upon in writing.

Orders are accepted subject to approval by our Head Office and Credit Department and are contingent upon acts of God, war, civil unrest or disturbance, strikes, labor difficulties, governmental regulations or rulings, delays of carriers (land, air or ocean), inability to obtain materials, accidents or any other cause beyond our control.

Shipping dates are estimated, and we will do our best to ship within the time estimated. We cannot guarantee shipping dates, and in the event of a production or shipment delay, we reserve the right to change the estimated shipping date. Under no circumstances shall *Shurjoint* be liable for damages of any kind, including but not limited to incidental or consequential damages for lost sales or profits or liquidated damages, directly or indirectly arising from delays or failure to meet shipping dates.

Orders accepted cannot be changed or cancelled without our written consent.

Orders for special (non-standard) goods may not be cancelled, nor will we accept return of these goods for credit.

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.

Weights:

All weights are approximate and subject to change without notice.

Always specify gasket grade when ordering and double check the gasket grade received to be sure it is suited for the service intended.

Shurjoint reserves the right to change or modify product designs, specifications and/or standard equipment without notice and without incurring obligation. Prices and Terms and Conditions of Sale are subject to change without notice.

Warranty:

We warrant all *Shurjoint* 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 or replacing 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.

Shurjoint 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 *Shurjoint*'s factory or designated facility or which has been used in a manner contrary to *Shurjoint*'s instructions, recommendations or generally accepted practices. *Shurjoint* shall not be responsible for design errors due to inaccurate or incomplete information supplied by the buyer or his representatives. (Effective July 1, 1998)