

Quik-Joint Steel Compression Pipe Couplings & Reducer Couplings



 **Guardian[®]**
Couplings

An Altra Industrial Motion Company

GUARDIAN QUIK-JOINT STEEL COMPRESSION PIPE COUPLINGS

For 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
Nominal Steel Pipe

Now Available in All Stainless Design

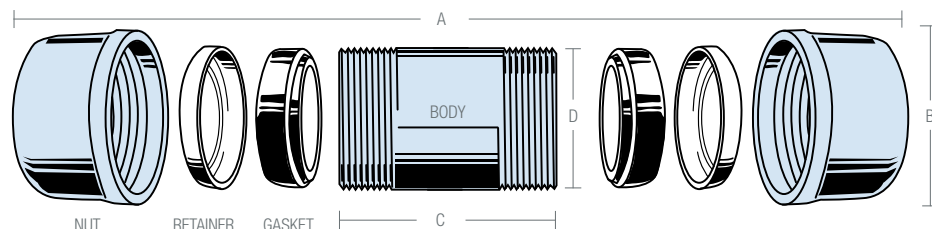
FEATURES & ADVANTAGES

- Join misaligned pipe. Quik-Joint allows 5° – 7° angular misalignment on each end nut for faster, lower cost installation of piping systems.
- Absorbs vibration. Elastomer gaskets reduce pipe vibration, noise and shock.
- Shortens installation time. Replaces threaded unions requiring close tolerance and bolted style compression joints. Install and adjust Quik-Joint by hand, tighten with a pipe wrench.
- Half-Couplings are available for weld installations.
- Compression nuts available in plain steel, stainless steel, or bright zinc. Body available in plain steel pipe, bright zinc finish or stainless steel.

BODY FEATURES

- Body is machined to customer length requirement providing a wider design tolerance for assembly.
- Standard body is schedule 40 carbon or stainless steel pipe, two sizes larger than customer's pipe, providing 10° – 14° of total angular misalignment. When ordering, simply specify your pipe size.
- Body section of steel pipe is ideal for welding to tanks, reservoirs, headers as a half coupling, or for through-the-wall construction with one nut on the inside and one on the outside.
- Custom bodies can be furnished in 304, 316 stainless steel, or schedule 40 aluminum.

DIMENSIONS

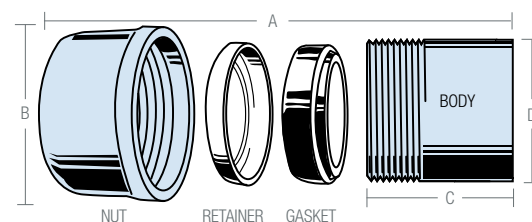


QUIK-JOINT FULL COUPLING

Quik-Joint Size (1)	Assembled Length A	Nut Diameter B	Body Length C	Body Diameter D	Allowance for nuts & Gaskets/cpig.	Weight
	Std. or Min. (2)		Std. or Min. (2)			Std.
1/2"	3-1/2"	1-11/16"	2-1/2"	1.32"	1"	11 oz.
3/4"	3-1/2"	2-1/32"	2-1/2"	1.66"	1"	16 oz.
1"	3-5/8"	2-1/4"	2-1/2"	1.90"	1-1/8"	1.25 lbs.
1-1/4"	3-5/8"	2-3/4"	2-1/2"	2.38"	1-1/8"	1.63 lbs.
1-1/2"	4"	3-5/16"	2-1/2"	2.88"	1-1/2"	2.75 lbs.
2"	4-5/16"	3-3/4"	2-11/16"	3.38"	1-5/8"	3.13 lbs.

(1) Nominal size of customer schedule 40 steel pipe I.P.S.

(2) No limit to longer than standard body lengths!



QUIK-JOINT HALF COUPLING (FOR WELD JOINTS)

When ordering specify: Quik-Joint size, assembled length, body length, body finish, gasket material, end nut finish.

Quik-Joint Size (1)	Assembled Length A	Nut Diameter B	Body Length C	Body Diameter D	Allowance for nuts & Gaskets/cpig.	Weight	
	Minimum Recommended (1) (2)		Minimum Recommended			Std. Inch	Per Inch
1/2"	1-3/4"	1-11/16"	1-1/4"	1.32"	1/2"	6 oz.	2.2 oz.
3/4"	1-3/4"	2-1/32"	1-1/4"	1.66"	1/2"	8 oz.	3 oz.
1"	1-13/16"	2-1/4"	1-1/4"	1.90"	9/16"	10 oz.	3.6 oz.
1-1/4"	2-5/16"	2-3/4"	1-3/4"	2.38"	9/16"	13 oz.	5 oz.
1-1/2"	2-1/2"	3-5/16"	1-3/4"	2.88"	3/4"	22 oz.	7 oz.
2"	2-9/16"	3-3/4"	1-3/4"	3.38"	13/16"	25 oz.	8 oz.

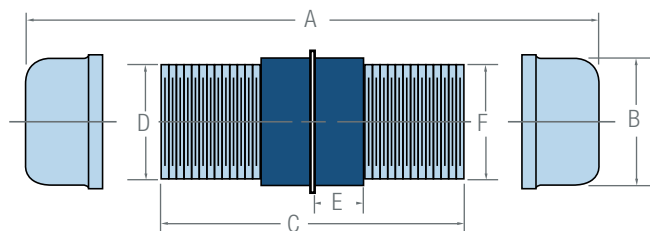
(1) Body length must allow for 5/8" long thread, weld zone and space to tighten nut.

(2) Body is machined from schedule 40 pipe and can be cut to any length required over minimum.

(3) Body end opposite threads furnished square cut with chamfered O.D. for welding.



BULKHEAD DESIGN

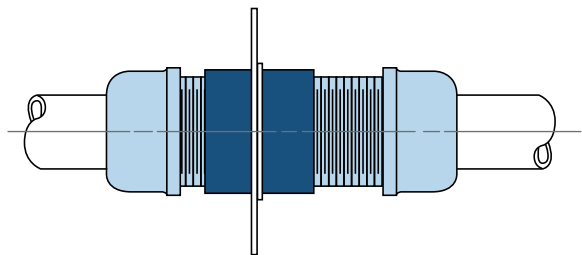


Quik-Joint Size (1)	Assembled Length A		Compression Nut Diameter B	Body Length C		Body O.D. D	Bulkhead Nut		Gaskets	
	Std.	Min.		Std.	Min.		Width E	O.D. F	O.D.	Width
1/2"	4-5/8"	4"	1.69"	3-5/8"	3"	1.32"	5/8"	1.53"	1.80"	3/32"
3/4"	4-5/8"	4-3/8"	2.03"	3-5/8"	3-3/8"	1.66"	3/4"	1.87"	2.15"	3/32"
1"	4-5/8"	4-5/8"	2.25"	3-1/2"	3-1/2"	1.90"	3/4"	2.16"	2.40"	3/32"
1-1/4"	5-1/4"	5-1/4"	2.75"	4-1/8"	4-1/8"	2.38"	7/8"	2.65"	2.90"	3/32"
1-1/2"	6"	6"	3.31"	4-1/2"	4-1/2"	2.88"	7/8"	3.25"	3.50"	3/32"
2"	6"	6"	3.75"	4-3/8"	4-3/8"	3.38"	7/8"	3.87"	4.25"	3/32"

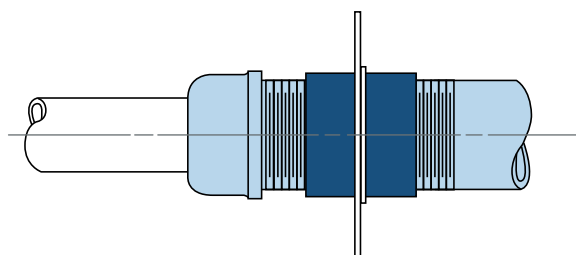
BULKHEAD FEATURES

- Eliminates welding cost and problems of heat distortion for a through-the-wall fitting.
- Compression nuts allow for 10° – 14° of angular misalignment between pipes to be connected.
- Complete fitting made from rugged steel with a plain or bright zinc finish.
- 304 or 316 stainless steel also available with chrome plated (1/2" size only) or stainless steel end nuts.
- Bulkhead nuts can be positioned anywhere along threaded body. Body can be any length required.
- Eliminates precision fit-up or pipe length when joining pipes or nipples. No threading required.
- Bulkhead hole can be close fit for effective sealing with gasket or liquid sealant.
- Bulkhead nuts can be tightened from either side.
- Bulkhead features can be added to the Quik-Joint Half-Couplings to provide a compression fitting on one side and any length of plain pipe on the other.

BULKHEAD nuts can be positioned anywhere along threaded body



QUIK-JOINT Half-Coupling with BULKHEAD nuts can be furnished to any length required.



PROPERTIES OF RUBBER

	Nitrile BUNA-N	Silicone	Fluoro- Elastomer (Viton)
ASTM/SAE Classification	BF	GE	HK
Tensile of Compounded Stocks	2500psi	800psi	3500psi
Durometer	70 ± 5 pts.	80 ± 5 pts.	70 ± 5 pts.
Elongation	Good	Fair	Good
Aging	Excel.	Excel.	Excel.
Heat Aging	Excel.	Excel.	Excel.
Sunlight Aging	Good	Excel.	Excel.
Lubricating Oil Resistance	Excel.	Fair	Good
Aromatic Oil Resistance	Good	Poor	Good
Animal-Vegetable Oils Resistance	Good	Good	Good
Flame Resistance	Poor	Fair	Good
Tear Resistance	Fair	Poor	Fair
Abrasion Resistance	Good	Poor	Fair
Compression Set Resistance	Good	Fair	Good
Permeability to Gasses	Fair	Fair	Good
Dielectric Strength	Poor	Good	Good
Freedom from Odor	Fair	Fair	Fair
Maximum Temperature, °F	260	400	500
Minimum Temperature, °F	-60	-180	-40
Gasket Color	BLACK	ORANGE	BROWN

NITRILE (Buna-N)

Gaskets available in all Quik-Joint sizes. Especially resistant to aromatic hydrocarbons, gasoline, petroleum oils, mineral and vegetable oils.

SILICONE

Gaskets available in all Quik-Joint sizes. Can withstand extreme heat or cold and retain flexibility—normal temperature range of -180°F to 400°F.

VITON

Gaskets available in 3/4", 1", 1-1/4", 1-1/2", 2" Quik-Joint sizes only. In addition to its ability to withstand extreme temperatures, it is also fuel and oil resistant.

PRESSURE TESTS

(Approved 1/1/06)

Quik-Joint Size	Hydrostatic Leakage	Hydrostatic Leakage With Safe-T Nut or Ring Option
1/2"	200 psi	300 psi
3/4"	200 psi	300 psi
1"	200 psi	300 psi
1-1/4"	200 psi	300 psi
1-1/2"	200 psi	300 psi
2"	200 psi	300 psi

NOTE: Never reuse worn gaskets and retainers



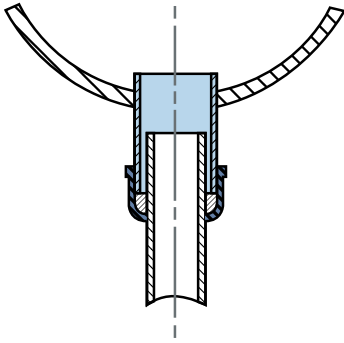
RETHREADING DIES

Guardian offers rethreading dies for our 3/4", 1", 1-1/4", 1-1/2", 2" Quik-Joint Body. These dies are commonly used to help remove weld splatter and corrosion.



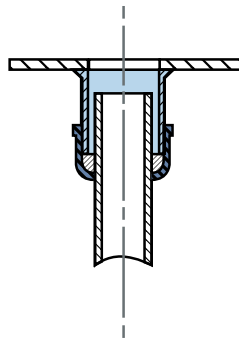
QUIK-JOINT STEEL COMPRESSION PIPE COUPLINGS MOUNTING ARRANGEMENTS

1. Half-Coupling



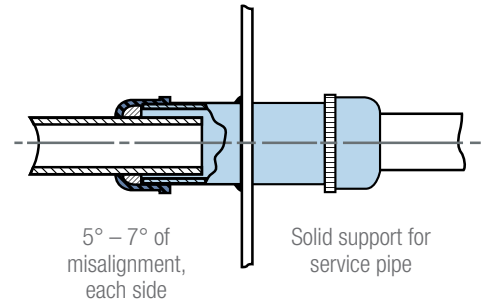
Connect to round tanks, manifolds, reservoirs, headers by boring a hole, inserting Quik-Joint half-body and welding in place.

2. Half-Coupling



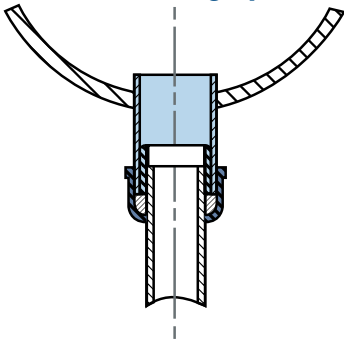
Weld Quik-Joint body directly to flat surface. Body will be supplied with O.D. chamfer weld prep.

3. Full Coupling Standard

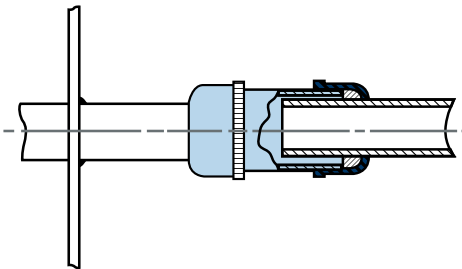


Complete Quik-Joint on welded pipe nipple. For disassembly, allow Quik-Joint to slide toward wall enough to clear opposite service pipe. Provides maximum misalignment.

4. Half Coupling—Standard with Safe-T Nut or Ring Option



5. Full Coupling Extra Long



For vertical mount with weight suspended from Quik-Joint, use Safe-T Nut to prevent pipe from pulling out. See below.

SAFE-T NUT OR RING OPTION

Prevents Customer Pipe From Pulling Out

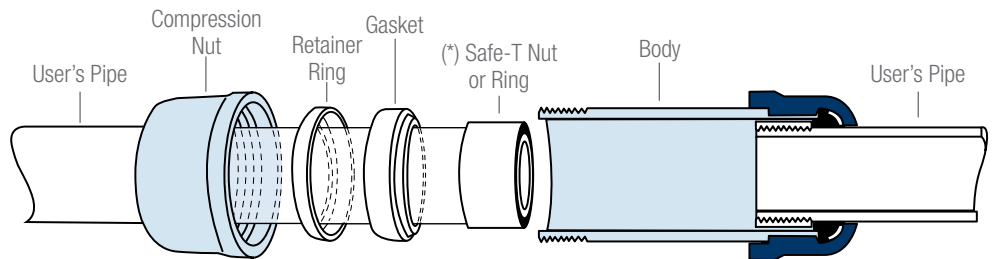
Assembly:

- Thread pipe ends (standard pipe thread).
- Slide Quik-Joint nut, retainer and gasket onto pipe over threads.
- Screw on Safe-T Nut or Ring—tighten to cover threads where they contact gasket.
- Slide parts into body and tighten Quik-Joint compression nut.

(*) Note: Safe-T Ring is zinc die cast, with (1) internal thread. Safe-T Nut is steel or stainless steel with (4) internal threads.

Advantages:

- Pipe will not pull out under excess pressure, pulsating loads, or pipe deflection. Pressure Rated to 300 PSI with Safe-T Nut or ring option.
- Quik-Joint nut, retainer and gasket will stay with pipe during disassembly, won't drop off in handling pipe section.
- Safety without sacrificing angular misalignment.
- Low cost solution to a difficult safety problem. No straps or restraining brackets needed.
- Elastomer gaskets absorb shock and vibration in the piping system.



QUIK-JOINT REDUCER COUPLINGS

FEATURES & ADVANTAGES

- QUIK-JOINT pipe couplings connect to existing pipe without the need for threading or welding.
- Join misaligned pipe. QUIK-JOINT allows for 5 to 7 degrees angular misalignment on each end nut for faster, lower cost installation of piping systems.
- Absorbs vibrations. Elastomer gaskets reduce pipe vibration, noise and shock.
- Shorten installation time and lost parts. Replaces threaded unions requiring close tolerance and bolted style compression joints. Install and adjust QUIK-JOINT by hand, tighten with a pipe wrench.
- Half Couplings are available for weld joints. Ideal for welding to tanks, reservoirs, or air headers.
- Compression nuts are available in plain steel, bright zinc, or stainless steel.
- Bodies are available in plain steel pipe, bright zinc finish or stainless steel.
- Custom body materials available upon request.
- Bodies are machined to customer length requirement providing a wider design tolerance for assembly.
- Standard body is schedule 40 carbon steel pipe, two sizes larger than customer's pipe, providing 10-14 degrees of total angular misalignment. When ordering, simply specify your pipe size.
- Standard Lengths in Stock.
- Components always available for same day shipping. Standard and special length coupling bodies in stock, too!
- Available Lengths to 20 Feet.
- QUIK-JOINT end nut, retainer and gasket will stay with the pipe coupling during disassembly from the user's pipe.
- Ready for welding.
- No straps or restraining brackets needed.



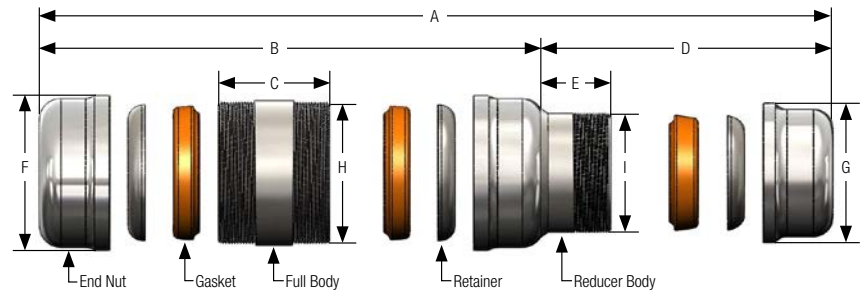
APPLICATIONS

- Pneumatic Piping Systems
- Air Header Connection (Half Couplings)
- Through-Wall Design Full Couplings
 - Standard Long Couplings, Welded In Place
 - Adjustable Threaded Bulkhead
- Vessel Ports (Half Couplings)
- Hydraulic Tank Porting
- Food Industry Electrical Bulkhead Connection
- Probe Positioning

INDUSTRIES

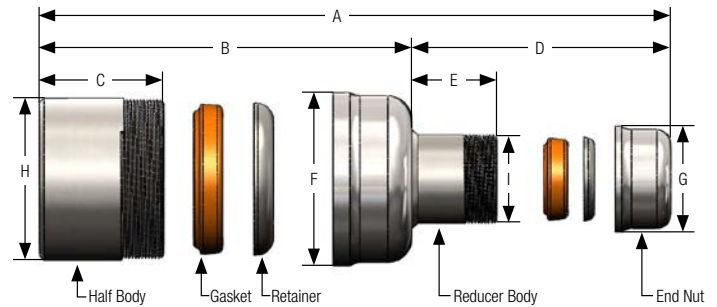
- Hydraulic Systems
- Cement Industry
- Coal Fired Power Plants
- Waste To Energy Facilities
- Water Treatment Plants
- Pollution Control Baghouse Equipment

DIMENSIONS



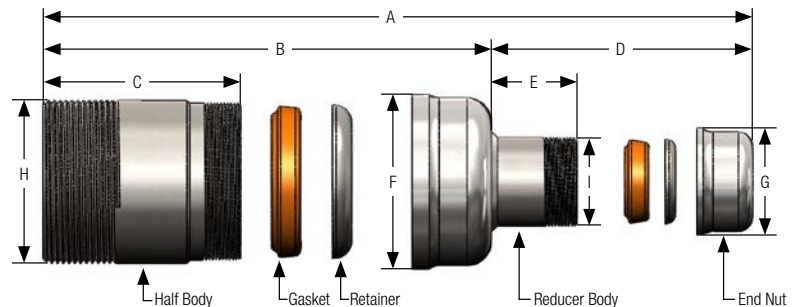
QJR-Full

QUIK-JOINT Reducer Size	A	B	C	D	E	F	G	H	I
	Min. Overall Length	Full Coupling Length	Min. Full Body Length	Reducer Length	Min. Reducer Body Length	Full End Nut Diameter	Reducer End Nut Diameter	Full Body Diameter	Reducer Body Diameter
2 to 1-1/2	6.81	4.31	2.69	2.50	1.75	3.75	3.31	3.38	2.88
2 to 1-1/4	6.63	4.31	2.69	2.31	1.75	3.75	2.75	3.38	2.38
2 to 1	6.63	4.31	2.69	2.31	1.75	3.75	2.25	3.38	1.91
2 to 3/4	6.56	4.31	2.69	2.25	1.75	3.75	2.03	3.38	1.66
1-1/2 to 1-1/4	6.31	4.00	2.50	2.31	1.75	3.31	2.75	2.88	2.38
1-1/2 to 1	6.31	4.00	2.50	2.31	1.75	3.31	2.25	2.88	1.91
1-1/2 to 3/4	6.25	4.00	2.50	2.25	1.75	3.31	2.03	2.88	1.66



QJR-Half

QUIK-JOINT Reducer Size	A	B	C	D	E	F	G	H	I
	Min. Overall Length	Half Coupling Length	Min. Half Body Length	Reducer Length	Min. Reducer Body Length	Half End Nut Diameter	Reducer End Nut Diameter	Half Body Diameter	Reducer Body Diameter
2 to 1-1/2	6.75	4.25	2.69	2.50	1.75	3.75	3.31	3.38	2.88
2 to 1-1/4	6.56	4.25	2.69	2.31	1.75	3.75	2.75	3.38	2.38
2 to 1	6.56	4.25	2.69	2.31	1.75	3.75	2.25	3.38	1.91
2 to 3/4	6.50	4.25	2.69	2.25	1.75	3.75	2.03	3.38	1.66
1-1/2 to 1-1/4	5.81	3.50	2.50	2.31	1.75	3.31	2.75	2.88	2.38
1-1/2 to 1	5.81	3.50	2.50	2.31	1.75	3.31	2.25	2.88	1.91
1-1/2 to 3/4	5.75	3.50	2.50	2.25	1.75	3.31	2.03	2.88	1.66



QJR-Half W/NPT

QUIK-JOINT Reducer Size	A	B	C	D	E	F	G	H	I
	Min. Overall Length	Half Coupling Length	Min. Half Body Length	Reducer Length	Min. Reducer Body Length	Half End Nut Diameter	Reducer End Nut Diameter	Half Body Diameter	Reducer Body Diameter
2 to 1-1/2	6.75	4.25	2.69	2.50	1.75	3.75	3.31	3.38	2.88
2 to 1-1/4	6.56	4.25	2.69	2.31	1.75	3.75	2.75	3.38	2.38
2 to 1	6.56	4.25	2.69	2.31	1.75	3.75	2.25	3.38	1.91
2 to 3/4	6.50	4.25	2.69	2.25	1.75	3.75	2.03	3.38	1.66
1-1/2 to 1-1/4	5.81	3.50	2.50	2.31	1.75	3.31	2.75	2.88	2.38
1-1/2 to 1	5.81	3.50	2.50	2.31	1.75	3.31	2.25	2.88	1.91
1-1/2 to 3/4	5.75	3.50	2.50	2.25	1.75	3.31	2.03	2.88	1.66

While Guardian Industries makes every effort to ensure the accuracy of the information provided, we make no warranty as to the accuracy or completeness of said information.