

HAMMER UNIONS



FLUID TRANSFER TECHNOLOGY

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HAMMER UNIONS

PRODUCT RANGE

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Please Note: We reserve the right to make technical changes without notice.

HAMMER UNIONS

THREADED & BUTT WELD

HAMMER UNIONS

Comprehensive range of standard and sour gas Hammer Unions. Each union is thoroughly inspected to ensure long, dependable service in the most extreme conditions.

- Three lug nuts and self-locking ACME threads provide quick make-up and break-out.
- Colour coded for quick identification.
- Unique identification for sour gas unions.
- Meet or exceed National Association of Corrosion Engineers standard NACE MR-01-75 and API RP-14E.
- Manufactured from quality steel meeting ASTM and / or AISI standards.
- All unions provide pressure-tight and positive sealing for low-pressure services (500 to 2,000 psi).
- The spherical surface male sub and angular surface female sub form a metal-to-metal seal, the ball and tangent provides a perfect seal.
- Range from 1/2" to 12" with cold working pressures from 500 to 20,000 psi.
- Fully interchangeable with most major brands of Hammer Unions.



Specifications for Threaded and Butt Weld Hammer Unions

#	Assembly Colour Code for Standard Service	Pressure Rating (psi)				Normal Pipe Sizes																
		Standard Service		Sour Gas Service		inch	1/2	1	1 1/4	1 1/2	2	1 1/2	3	4	5	6	8	10	12			
		Cold Working	Test	Cold Working	Test	mm	13	25	32	38	50	65	80	100	125	150	200	250	300			
50		500	750	N/A	N/A																	
100		1,000	1,500	N/A	N/A																	
101		1,000	1,500	N/A	N/A																	
200		2,000	3,000	2,000	3,000																	
201		2,000	3,000	2,000	3,000																	
206		2,000	3,000	2,000	3,000																	
207		2,000	3,000	2,000	3,000																	
211		2,000	3,000	N/A	N/A																	
300		2,000	3,000	N/A	N/A																	
400		4,000	6,000	4,000	6,000																	
602		6,000	9,000	6,000	9,000																	
1002		10,000	15,000	7,500	11,250																	
1003		10,000	15,000	7,500	11,250																	
1004		10,000	15,000	7,500	11,250																	
1502		15,000	22,500	10,000	15,000																	
2002		20,000	30,000	N/A	N/A																	
2202		N/A	N/A	15,000	22,500																	
6666		6,000	9,000	N/A	N/A																	

* Indicates different Cold Working Pressure due to other design factor - Difference as shown below:

5", 6", 12" : Figure 400, Cold Working Pressure 2,500 psi and Test Pressure 4,000 psi

5", 6" : Figure 1002 Butt weld, Cold Working Pressure 7,500 psi and Test Pressure 11,250 psi Std. Service

4", 5" : Figure 1003 Butt weld, Cold Working Pressure 7,500 psi and Test Pressure 11,250 psi Std. Service

5", 6" : Figure 1002 Butt weld, Cold Working Pressure 5,000 psi and Test Pressure 7,500 psi Sour Service

4", 5" : Figure 1003 Butt weld, Cold Working Pressure 5,000 psi and Test Pressure 7,500 psi Sour Service

1/2" : Figure 300, Cold Working Pressure 15,000 psi and Test Pressure 20,000 psi, Zinc Plated

Please Note: We reserve the right to make technical changes without notice.

HAMMER UNIONS

INTEGRAL BLIND SUBS

INTEGRAL BLIND SUBS

Blind Male and Female Subs with NPT ports, with or without SS chain for all sizes ranging from 1" to 10" for all pressure ratings.

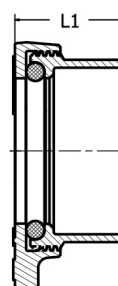
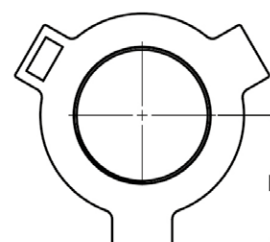


HAMMER SEAL UNIONS

- Designed to quickly connect mud tanks with flanged connections.
- Nitrile o-ring provides a compressive non leak seal that limits the line fluid pressure to 150 psi.
- Tank Unions accept up to 7° of pipe misalignment.
- The female sub of the hammer seal union welds to a schedule 40 / 80 pipe.

Specifications

Size	Nut Radius	Total Length	Weight
Inch	Inch / L	Inch / L1	lbs / Approx.
4	5.31	3.67	22.05
6	6.57	5.22	33.07
8	7.71	5.24	43.65
10	8.86	5.24	52.03
12	9.84	5.19	63.71
14	10.59	4.67	73.48



Gray Nut
Gray Sub



Please Note: We reserve the right to make technical changes without notice.

HAMMER UNIONS

ADAPTORS, CROSSOVERS, CLAMPS & HUBS

ADAPTORS AND CROSSOVERS

Crossovers are available in high quality forged construction with threaded, integral and welding hammer lug union end connection.

Specifications

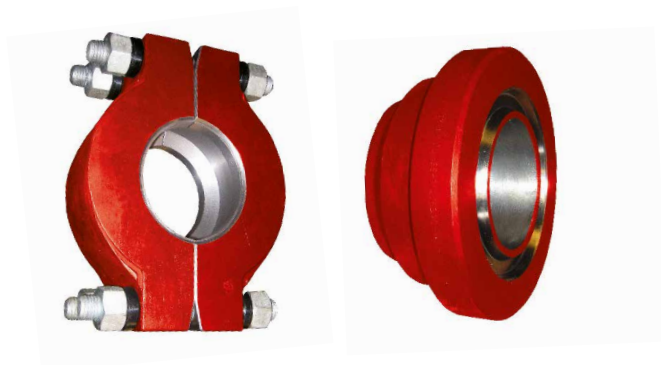
Size	Configuration	End Connection	CWP	Weight
Inch		Inch / L1	psi	lbs
2	M x M	1502	15,000	17
2	M x F	1502	15,000	22
2	F x F	1502	15,000	11
2 x 3	M x M	1502	15,000	38
2 x 3	M x F	1502	15,000	32
2 x 3	F x M	1502	15,000	31
2 x 3	F x F	1502	15,000	30
3	M x M	1502	15,000	41
3	F x F	1502	15,000	41

Note: Also available in other configuration on request.



CLAMPS AND HUBS

- Clamps allow fast and easy make up even in limited space. All Clamps have 360° adjustability.
- Hubs and Clamps are designed and manufactured in accordance with the following specifications:
 - Temperature rating (T-0, T-20, T-40).
 - Physical properties comply to API 16A requirement.
- Type 16B and 16BX Hubs are of the ring joint type and are designed for face to face make-up.



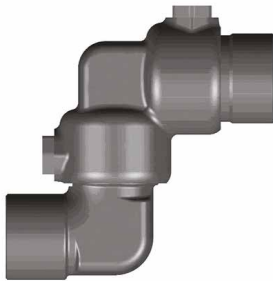
Please Note: We reserve the right to make technical changes without notice.

HAMMER UNIONS

SWIVEL JOINTS

SWIVEL JOINTS

- Smooth rotation and movement without sacrificing strength and integrity of the steel.
- Streamlined bore minimizes flow restrictions, turbulence and pressure drop.
- Long-sweep Swivel Joints have extra-long radius elbows for better flow characteristics.
- Manufactured specifically for high pressure applications.
- Dual and tri-race ball bearing Swivel Joints are matched to load capacities and service conditions.
- All ball races are either flame hardened, carburized and hardened or snap-in stainless steel.
- All Swivel Joints are field repairable and easy to use. Repair kits are available.
- Eight short radius Swivel Joint styles and configurations are available.
- Threaded, integral wing union, beveled for welding or flanged end connections are available.
- Sizes available 1" to 4" furnished with high nitrile packing and brass or stainless steel ring.
- All joints are specially heat treated to achieve optimal hardness.
- All materials meet ASTM and / or AISI standards.
- 100% quality control and testing.
- Sour gas Swivel Joints are manufactured in accordance with the National Association of Corrosion Engineers (NACE) standard MR-01-75 and the American Petroleum Institutes (API) standard RP-14-E.



Specifications

Models	Colour Code	Cold Working Pressure	Material	End Connections	Sizes						
					inch						
		psi			3/4	1	1 1/4	1 1/2	2	3	4
Low Pressure Swivel Joints	Blue	1,000	Carbon Steel	NPT						x	
				Beveled for welding						x	
High Pressure Swivel Joints	Silver	6,000	Alloy Steel	Female line pipe threads	x	x	x	x	x	x	
				Figure 602 Union	x	x	x	x	x	x	
Long Sweep Swivel Joints	Olive Green (Sour Gas)	7,500	Alloy Steel	Figure 1002 Union					x	x	x
	Olive Green (Sour Gas)	10,000	Alloy Steel	Figure 1502 Union					x	x	x
	Black	10,000	Alloy Steel	Female line pipe threads					x	x	x
				Figure 1002 Union					x	x	x
	Olive Green (Sour Gas)	15,000	Alloy Steel	Figure 2202 Union					x	x	
	Red	15,000	Alloy Steel	Figure 1502 Union					x	x	x
	Light Blue	20,000	Alloy Steel	Figure 2002 Union					x	x	

Please Note: We reserve the right to make technical changes without notice.

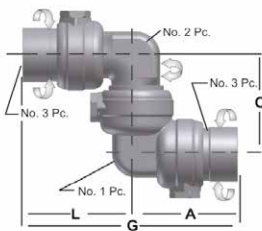
HAMMER UNIONS SWIVEL JOINTS

HIGH PRESSURE SHORT RADIUS SWIVEL JOINTS

Available in sizes 3/4" through 3" for 6,000 psi, non-shock cold working pressure. All sizes available in eight styles for 3600 rotation in one, two or three planes. These Swivel Joints are recommended for hydraulic control lines, mud lines, rotary, line connections, BOP lines, test lines, water lines, offshore wellhead connections, cementing, circulating hoses and choke-kill lines.

- Smooth rotation and movement without sacrificing strength and integrity of the steel.
- Streamlined bore minimizes flow restrictions, turbulence and pressure drop.
- End connections are threaded or union ends.
- All joints are specially heat treated to maintain optimal hardness and undergo strict quality control.
- All material meets ASTM and/or AISI standards.

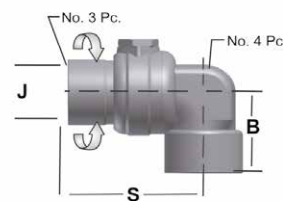
Style 10-3 Plane



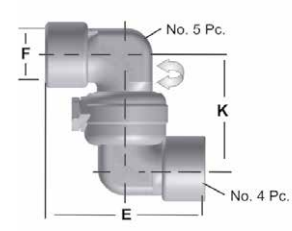
Style 20-1 Plane



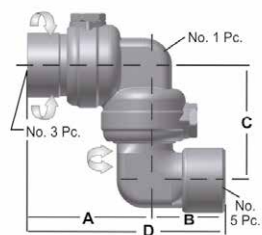
Style 30-1 Plane



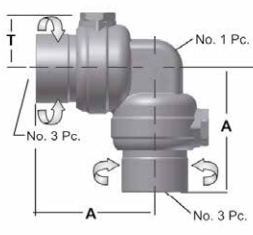
Style 40-1 Plane



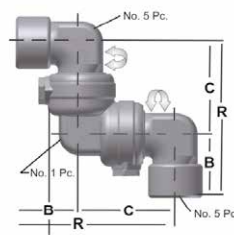
Style 50-2 Plane



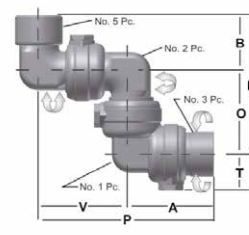
Style 60-2 Plane



Style 70-2 Plane



Style 80-3 Plane



Size Chart

Size	A	B	C	D	E	F	G	H	J
Inch									
3/4-1	4-5/8	2-23/32	4-7/32	7-11/32	5-7/16	1-3/4	9-1/4	2-7/16	1-3/4
1-1/4 / 1-1/2	4-23/32	3-3/16	4-9/32	7-29/32	6-3/8	2-1/2	10-1/32	2-7/8	2-3/8
2	5-27/32	4-1/32	5-7/8	9-7/8	8-1/16	3-1/8	12-5/16	4-1/8	3-5/16
3	8-5/8	4-5/8	7-15/16	13-1/4	9-1/4	4-5/16	18-1/16	5-13/16	4-1/2

Size	K	L	M	N	O	P	R	S	T	V
Inch										
3/4-1	4-7/32	4-5/8	5-3/16	6-15/16	4-7/32	8-27/32	6-15/16	4-5/8	1-7/8	4-7/32
1-1/4 / 1-1/2	4-9/32	5-5/16	5-15/32	7-15/32	4-9/32	9-9/16	7-15/32	4-23/32	2-1/8	4-27/32
2	5-7/8	6-15/32	6-21/32	10-1/32	6	12-11/32	9-29/32	5-27/32	2-21/32	6-1/2
3	8-3/4	9-7/16	9-1/8	12-9/16	7-15/16	17-3/8	12-9/16	9-7/16	3-3/8	8-3/4

Please Note: We reserve the right to make technical changes without notice.

HAMMER UNIONS

SWIVEL JOINTS

EXTRA HIGH PRESSURE LONG SWEEP SWIVEL JOINTS

Our tri-race code black swivels are available in 10,000 psi working pressure with female line pipe thread and connections.

Our tri-race code red Swivel Joints are designed for the critical service conditions that exist in fracturing, cementing, acidizing and well testing. They are available in 2", 3" and 4" sizes with 15,000 psi working pressure and 22,500 psi test pressure. With 1502 union ends for fast, easy make-up.

- Long sweep joints have extra long radius elbows for better flow characteristics.
- Manufactured specifically for high pressure applications.
- All Swivel Joints are field repairable and easy to use. Repair kits are available.
- Tri-race ball bearing Swivel Joints are matched to load capacities and service conditions.
- All ball races are either flame hardened or snap-in stainless steel.

Style 10



Style 20



Style 30



Style 40



Style 50



Style 60



Style 70



Style 80



Style 100



Styles and Types

2" Union Ends	3" Union Ends	4" Union Ends, 1002	4" Union Ends, 1502
STYLE NO. 10 - Male x Female	STYLE NO. 10 - Male x Female	STYLE NO. 10 - Male x Male	STYLE NO. 10 - Male x Female
STYLE NO. 10 - Male x Male	STYLE NO. 10 - Male x Male	STYLE NO. 10 - Male x Female	STYLE NO. 10 - Male x Male
STYLE NO. 10 - Female x Female	STYLE NO. 10 - Female x Female	STYLE NO. 20 - Male x Female	STYLE NO. 50 - Male x Female
STYLE NO. 20 - Male x Female	STYLE NO. 30 - Male x Female	STYLE NO. 30 - Male x Female	STYLE NO. 60 - Male x Female
STYLE NO. 30 - Male x Female	STYLE NO. 50 - Male x Female	STYLE NO. 50 - Male x Female	-
STYLE NO. 40 - Male x Female	STYLE NO. 50 - Female x Female	-	-
STYLE NO. 50 - Male x Female	STYLE NO. 60 - Male x Female	-	-
STYLE NO. 50 - Female x Female	STYLE NO. 80 - Male x Female	-	-
STYLE NO. 60 - Male x Female	-	-	-
STYLE NO. 70 - Male x Female	-	-	-
STYLE NO. 80 - Male x Female	-	-	-
STYLE NO. 100 - Male x Female	-	-	-

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HAMMER UNIONS INTEGRAL FITTINGS

INTEGRAL FITTINGS

High quality forged construction with wing union end connections and can be combined to suit virtually any installation. All Integral Fittings come with full material traceability.

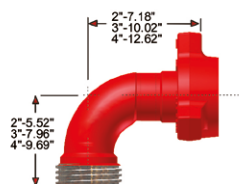
Quick Reference Chart

Integral Fitting Sizes	Hammer Union Figure No.	Long Sweep Elbows		Block Elbows		
		F x M / lbs	M x M / lbs	F x M / lbs	M x M / lbs	F x F / lbs
2	602	23	28	28	34	23
	1002	23	28	28	34	23
	1502	29	35	34	40	28
3	602	51	59	64	73	55
	1002	51	59	64	73	55
	1502	56	69	70	83	57
4	602	89	102	-	-	-
	1002	89	102	-	-	-
	1502	122	162	-	-	-

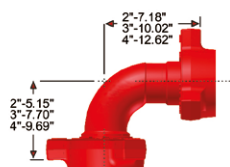
Integral Fitting Sizes	Hammer Union Figure No.	Tees						Wyes
		F x F x F / lbs	F x F x M / lbs	M x F x F / lbs	M x F x M / lbs	M x M x F / lbs	M x M x M / lbs	M x F x F / lbs
2	602	27	34	34	39	39	44	30
	1002	27	34	34	39	39	44	30
	1502	33	39	39	45	45	51	33
3	602	60	69	69	77	77	86	-
	1002	60	69	69	77	77	86	-
	1502	61	74	74	86	86	100	-

Dimensions

Longsweep Elbow (M x F)



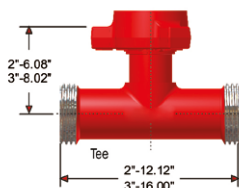
Longsweep Elbow (M x M)



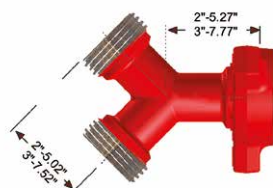
Block Elbow (M x F)



Tee (F x F x M)



Wye (M x F x F)



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HAMMER UNIONS

STEEL HOSE ASSEMBLIES & PUP JOINTS

STEEL HOSE ASSEMBLIES

- Used in a variety of high pressure well service applications.
- Utilize swivel joint and hammer union end connections for fast and secure make up and breakout operations.
- Made to with stand cold working pressures up to 15,000 psi for standard service and 10,000 psi for sour service.
- Steel Hoses Assemblies eliminate the need for exact alignment when installing to facilitate the routing of lines around fixed objects and simplify folding, transporting and storage of equipment.



Size	Swivel Joint Style	Quantity of Wing Unions	Weight lbs
2" x 10"	50, 10	1	147
2" x 12"	50, 10	1	170
2" x 12"	(2) 50	2	179
2" x 12"	(2) 50	4	207
3" x 12"	(2) 50	4	454

PUP JOINTS

Pup Joints with integral hammer lug union end connections. This enables faster, easier make-up and break-out of temporary flow lines.

- Integrally forged hammer lug union end connections eliminate welding or threading.
- Lightest Pup Joint available for fast, easy handling.
- Available in butt weld, integral, threaded (LPT and NPST).
- Sizes from 2" to 4". Integral Pup Joint available in lengths up to 12 feet while threaded / butt weld is available up to 20 feet.
- Available in 6,000 to 20,000 psi pressure rating.
- All products manufactured from forged steel which meets ASTM and / or AISI standards.
- Available in both standard and H2S service.
- Pup Joints with integral hammer lug union end connections. This enables faster, easier make-up.



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HAMMER UNIONS PLUG & CHECK VALVES

PLUG VALVES

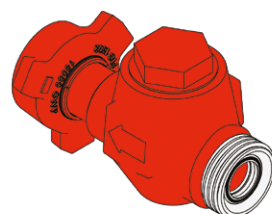
- High pressure low torque Plug Valves are available in 2" x 2" and 2" x 1". They come in multiple bores and are available up to 15,000 psi for standard service and 10,000 PSI for H₂S or sour gas service. Our plug valves are pressure balanced type and have replaceable metal liners between the body and plug. Repair kits are also available to increase their life and make them perform safely for longer. These manually operated valves are fitted with high stem torques and manual gearboxes.
- These Plug Valves are designed to meet the needs and requirements of the oilfield. They can withstand the high erosion rates and pressures encountered in today's operating environment.



CHECK VALVES

Designed and manufactured primarily for use in portable and temporary flow lines, and are used to isolate well servicing equipment from high pressure treating fluids during fracturing applications.

- Standard Specifications
 - 2" nominal bore size.
 - Standard service applications.
 - Maximum CWP up to 15,000 psi.
 - Comes standard with female and male union end connections.
- Features
 - Suitable for in-line maintenance in fixed applications.
 - Forged alloy steel body and stainless steel valve seats.
 - Easy maintenance and high quality construction ensures long product life and low total cost of ownership.
 - Ideal for use in portable and temporary flow lines.



FLANGES, TEES & CROSSES

- Weld Neck Flange
- Adapter Flange
- Blind Flange
- Companion Flange

Products are supplied per customer requirement of PSL level, material class and temperature class. They come with full material traceability documents.

Sizes and Pressure Ratings

Size Inch	Pressure					
	2,000 psi	5,000 psi	5,000 psi	10,000 psi	15,000 psi	20,000 psi
1-13/16				x	x	x
2-1/16	x	x	x	x	x	x
2-9/16	x	x	x	x	x	x
3-1/16				x	x	x
3-1/8	x	x	x			
4-1/16	x	x	x	x	x	x
5-1/8	x	x	x	x	x	
7-1/16	x	x	x	x	x	x
9	x	x	x	x	x	x
11	x	x	x	x	x	x
13-5/8	x	x	x	x	x	x
16-3/4	x	x	x	x		
18-3/4			x	x	x	
20-3/4		x				
21-1/4	x		x	x		
26-3/4	x	x				
30	x	x				

API 6A Companion Flanges and rated up to 5,000 psi.



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FLUID TRANSFER TECHNOLOGY

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