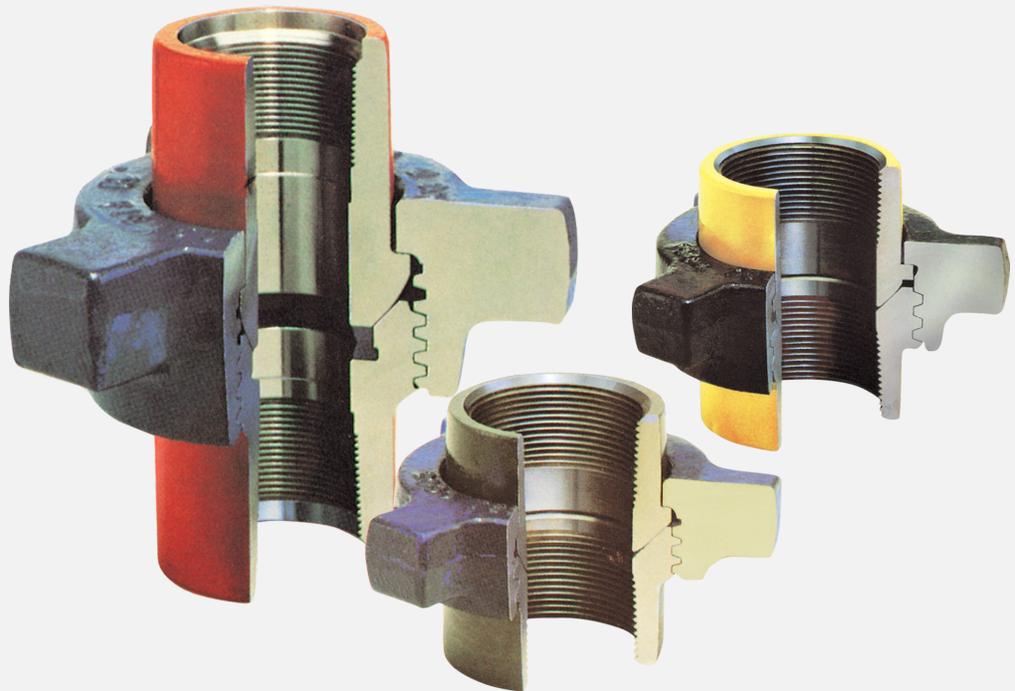


Building connections that last™



Catawissa™

Hammer Unions

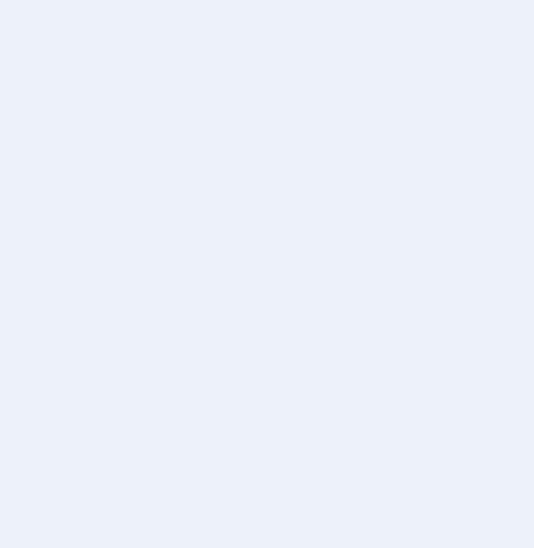


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Building Connections That Last

For over 160 years, Anvil has worked diligently to build a strong, vibrant tradition of making connections – from pipe to pipe and people to people.

We pride ourselves in providing the finest-quality pipe products and services with integrity and dedication to superior customer service at all levels.

We provide expertise and product solutions for a wide range of applications, from plumbing and mechanical, HVAC, industrial and fire protection to mining, and oil and gas. Our comprehensive line of products includes: grooved pipe couplings, grooved and plain-end fittings, valves, cast and malleable iron fittings, forged steel fittings, steel pipe nipples and couplings, pipe hangers and supports, channel and strut fittings, mining and oilfield fittings, along with much more.

As an additional benefit to our customers, Anvil offers a complete and comprehensive Design Services Analysis for mechanical equipment rooms, to help you determine the most effective and cost-efficient piping solutions for your pipe system.

At Anvil, we believe that responsive and accessible customer support is what makes the difference between simply delivering products – and delivering solutions.



Hammer Unions

Anvil is a leading manufacturer of quality industrial forged steel and oilfield hammer unions. Oilfield hammer union products range in size from 1" to 8" and include the standard ball-and-cone design, plus our unique Figure 300 Flat Face design, where space and pipeline separation is a consideration. Catawissa™ unions are available for standard service in threaded ends and butt weld ends.

All Catawissa oilfield wing unions are machined to rigid quality standards, ensuring that like components of same size, figure number, and pressure rating are fully interchangeable in the field. Catawissa oilfield unions are interchangeable with most other leading union manufacturers. All Catawissa products meet or exceed applicable industry standards: NACE, ISO, DNV, API, ASTM A-105, ASTM A29, ASTM A536 Grade 65-45-12, and ASME B1.20.1.

When you choose Catawissa, you receive the utmost quality, the widest selection, and unmatched on-time delivery. Our 106,000-square-foot Longview facility produces more than 460,000 forged steel fittings, hammer unions, and seamless nipples each month – with documented first article and in-process inspections every hour. Our meticulous Quality Control department also thread-gauges every 5–10 pieces and performs product audits according to a strict sampling plan.

Catawissa – Preferred the world over!

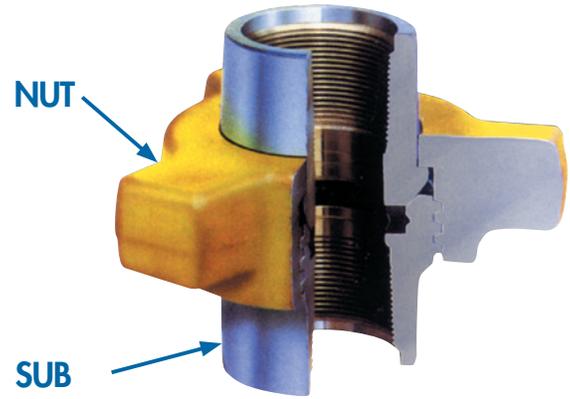


Table of Contents

Quick Reference Chart 4

Catawissa Hammer Unions

Figure 100.....5
 Figures 200 & 206 5
 Figure 2025
 Figure 211 6
 Figure 3006
 Figure 301..... 6
 Figure 400 7
 Figure 600 7
 Figure 602 7
 Figure 607 8
 Figure 1002.....8
 Figure 1502.....8
 Figure 100C Lug Union (Import)9
 Figure 200C Lug Union (Import).....9
 S1A High Speed Union9
 3L S1A Tri-Lug High Speed Union.....9
 Coated Products..... 10
 Brands..... 11



Product Availability Quick Reference Chart

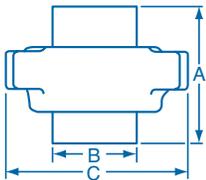
Fig No.	Standard Service		Pipe Size (in.)									End Connection
	CWP	Test	1	1¼	1½	2	2½	3	4	6	8	
	SUB	NUT										
100	1,000	1,500				✓	✓	✓	✓	✓	✓	T
200	2,000	3,000	✓	✓	✓	✓	✓	✓	✓	✓		T/BW
202	2,000	3,000							✓			T
206	2,000	3,000	✓	✓	✓	✓	✓	✓	✓	✓		T/BW
211	2,000	3,000	✓			✓						T/BW
300	2,000	3,000	✓			✓	✓	✓	✓			T
301	3,000	4,500	✓			✓		✓				T
400	4,000	6,000				✓		✓	✓			T/BW
600	6,000	9,000	✓		✓	✓		✓	✓			T/BW
602	6,000	9,000	✓		✓	✓		✓	✓			T/BW
607	6,000	9,000			✓	✓						T
1002	10,000	15,000	✓		✓	✓		✓	✓			T/BW
1502	15,000	22,500				✓		✓				T/BW
100C	1,000	1,500				✓						T
200C	2,000	3,000	✓			✓						T
S1A High Speed	3,000	4,500	✓			✓		✓				T
3L S1A Tri-Lug	3,000	4,500	✓		✓	✓						T

Notes:

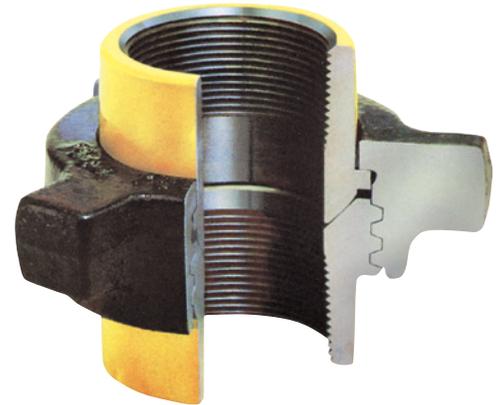
- Colors shown in sub and nut columns match the colors of the actual parts.
- End Connections: **T** - NPT Threaded End. *Consult factory for other profiles.* **BW** - Butt weld ends per ASME B16.25. *Consult factory for schedule.*

Figure 100* | 1,000 PSI CWP – 1,500 PSI TEST

Low pressure service. Manifold and general service. NPT Threaded Female ends. 2" available with 8RD threaded ends, consult factory.

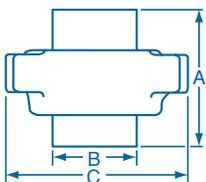


Size	Weight		A	B	C	ACME TPI	Material	
	IN	MM					Lbs	Nuts
2	50	6.25	3.940	2.840	6.250	3 MOD	DI	DI
2½	65	10.05	4.490	3.390	7.925	3 MOD	DI	DI
3	80	13.65	5.000	4.030	9.000	3 MOD	DI	DI
4	100	22.00	5.940	5.230	10.560	3 MOD	DI	DI
6	150	45.85	6.800	7.390	13.810	3 STD	DI	DI
8	200	66.65	7.230	9.700	16.125	3 STD	DI	DI



Figures 200* & 206 | 2,000 PSI CWP – 3,000 PSI TEST

Fig. 200 is a general purpose union, while the Fig. 206 has an O-ring in male sub for improved sealing. NPT threaded ends standard.



Size	Weight		A	▲B	C	ACME TPI	Material	
	IN	MM					Lbs	Nuts
1	25	1.75	2.670	1.640	4.065	6 STD	DI	SF
1¼	32	2.25	2.730	1.935	4.635	6 STD	DI	SF
1½	40	2.75	2.770	2.250	4.750	6 STD	DI	SF
½	50	4.90	3.275	2.825	5.900	4 STD	DI	†DI
2½	65	10.00	4.250	3.400	7.900	4 STD	DI	SF
3	80	13.25	4.660	4.170	8.100	4 STD	DI	SF
4	100	18.35	4.910	5.075	9.060	3 MOD	DI	SF
6	150	46.00	6.610	7.410	12.800	3 STD	DI	SF



Figure 202 | 2,000 PSI CWP – 3,000 PSI TEST

(Blanking Cap Only with O-Ring)

O-Ring seated dead-end cap. Perfect for transport, completion and stimulation services. Available in 4" size.



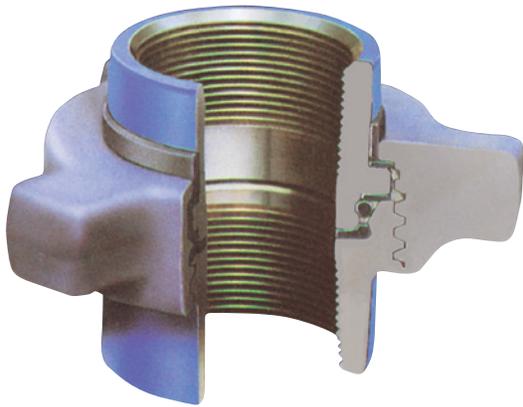
* FIG. 100 — 2. Also available in import. Contact your Anvil sales rep.
 ** FIG. 200 — 1-2. Also available in import. Contact your Anvil sales rep.

WARNINGS

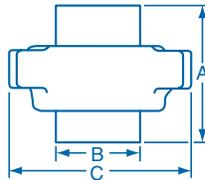
1. Do not mix Standard Service and Sour Gas Service Unions or parts.
2. Do not make up or break out Unions in pressurized lines.
3. Always use good safety practices, including use of safety glasses, when making up or breaking out Unions.

▲ Weld ends available – Consult Factory
 † Steel Forging Subs available/Consult Factory

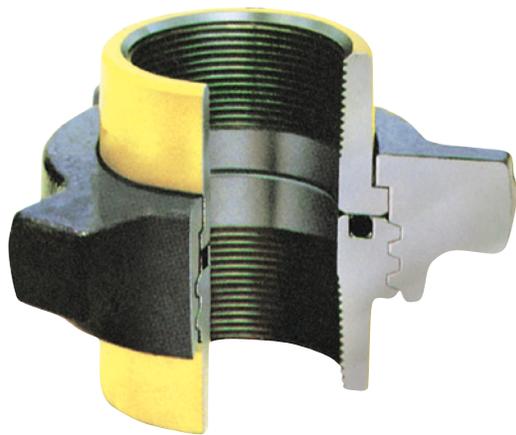
TPI = Threads per inch
 DI = Ductile Iron
 SF = Steel Forging


Figure 211 | 2,000 PSI CWP – 3,000 PSI TEST

Insulating Union. Laminated rings provide electrical isolation from galvanic corrosion, with a total of 35 million ohms resistance. An O-Ring in male sub and a seal ring in female sub provide primary and secondary seals. All seal rings are field-replaceable.



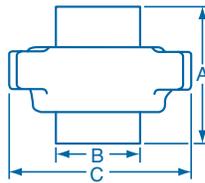
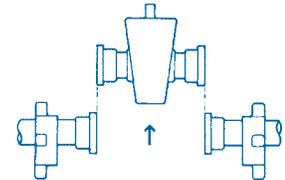
Size	Weight		A	B	C	ACME TPI	Material	
	IN	MM					Nuts	Subs
1	25	2.34	2.830	1.560	4.660	6 STD	SF	SF
2	50	6.24	3.510	2.880	6.250	6 STD	SF	SF


Figure 300 | 2,000 PSI CWP – 3,000 PSI TEST

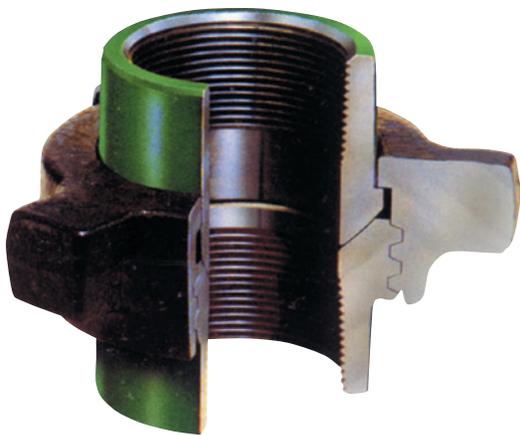
“Flat Face” design for straight breakout. Unlike Standard Unions, spreading of the line is not required, allowing quick breakout. The Unions seal equally well in low or high pressure liquid or vapor service.

Straight Away Breakout

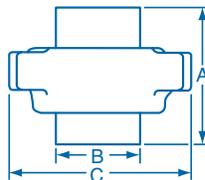
Flat Face Fig. 300 Unions permit lateral removal of valves and other fittings for easy replacement or inspection.



Size	Weight		A	▲B	C	Material	
	IN	MM				Nuts	Subs
1	25	2.00	2.625	1.560	4.250	DI	SF
2	50	5.50	3.750	2.780	5.750	DI	SF
2½	65	9.00	4.625	3.410	7.000	DI	SF
3	80	12.00	5.000	4.30	8.000	DI	SF
4	100	21.00	5.750	5.110	8.875	DI	SF


Figure 301 | 3,000 PSI CWP – 4,500 PSI TEST

Ideal Steam Service Union.



Size	Weight		A	B	C	ACME TPI	Material	
	IN	MM					Nuts	Subs
1	25	1.75	2.670	1.640	4.065	6 STD	SF	SF
2	50	4.90	3.275	2.825	5.900	3½ STD	SF	SF
3	80	13.25	4.660	4.170	8.100	4 STD	SF	SF

WARNINGS

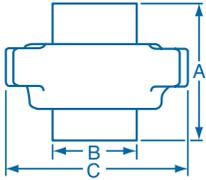
1. Do not mix Standard Service and Sour Gas Service Unions or parts.
2. Do not make up or break out Unions in pressurized lines.
3. Always use good safety practices, including use of safety glasses, when making up or breaking out Unions.

TPI = Threads per inch
DI = Ductile Iron
SF = Steel Forging

▲ Weld ends available

Figure 400 | 4,000 PSI CWP – 6,000 PSI TEST

Ideal for manifold and pumping service.



Size	Weight		A	▲B	C	ACME TPI	Material	
	IN	MM					Lbs	Nuts
2	50	11.40	5.225	3.000	7.125	3 STD	SF	SF
3	80	20.00	6.110	4.250	8.750	3 STD	SF	SF
4	100	29.15	8.200	5.275	9.160	3 STD	SF	SF

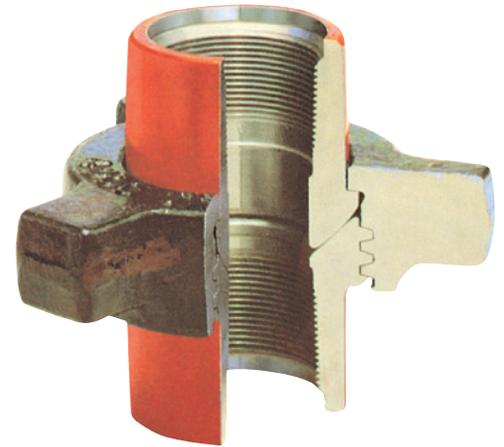
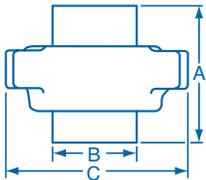


Figure 600 | 6,000 PSI CWP – 9,000 PSI TEST

Features a bronze seat for the primary seal to prevent rust and corrosion in well servicing and drilling.



Size	Weight		A	▲B	C	ACME TPI	Material	
	IN	MM					Lbs	Nuts
1	25	3.65	3.565	1.750	4.500	6 STD	SF	BS
1½	40	**	**	**	**	4 STD	SF	BS
2	50	15.64	6.440	3.010	7.160	2 STD	SF	(F)ST (M)SF
3	80	27.25	8.875	4.1875	8.750	2 STD	SF	SF
4	100	40.00	10.0625	5.250	10.625	2 STD	SF	SF

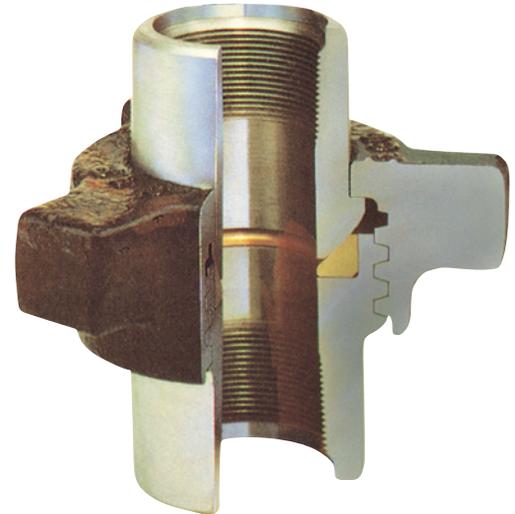
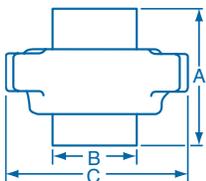
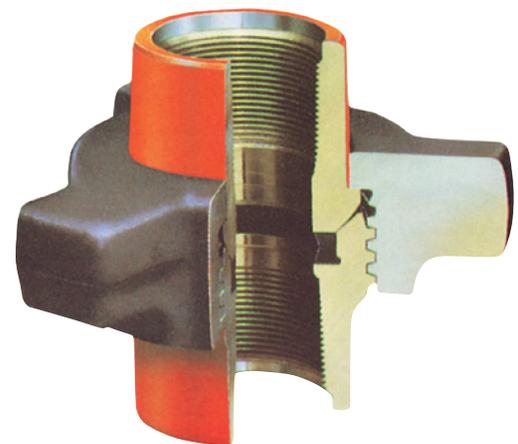


Figure 602 | 6,000 PSI CWP – 9,000 PSI TEST

Compact design is well-suited for manifold service. Employs a double seal that combines an elastomeric gasket with a metal-to-metal connection.



Size	Weight		A	▲B	C	ACME TPI	Material	
	IN	MM					Lbs	Nuts
1	25	3.55	6.625	1.750	4.500	6 STD	SF	SF
1½	40	9.54	4.600	2.570	5.520	4 STD	SF	SF
2	50	12.25	5.300	2.970	6.875	3MOD	SF	SF
3	80	22.30	6.310	4.250	8.875	3MOD	SF	SF
4	100	32.18	8.300	5.200	10.040	3MOD	SF	SF



** Consult Factory
▲ Weld ends available

TPI = Threads per inch
DI = Ductile Iron
SF = Steel Forging
BS = Bar Stock
ST = Steel Tubing

WARNINGS

1. Do not mix Standard Service and Sour Gas Service Unions or parts.
2. Do not make up or break out Unions in pressurized lines.
3. Always use good safety practices, including use of safety glasses, when making up or breaking out Unions.

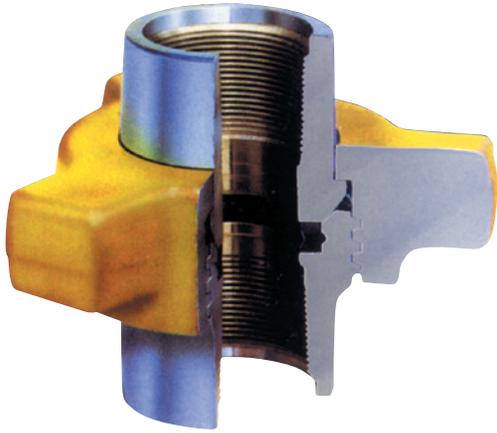
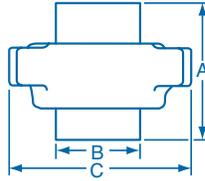


Figure 607 | 6,000 PSI CWP – 9,000 PSI TEST

Ideal for hot oil trucks and manifold service. Extended Subs allow for quick breakout on trucks and manifolds. Employs a double seal that combines an elastomeric gasket with a metal-to-metal connection.



SizeWeight			A	B	C	ACME TPI	Material	
IN	MM	Lbs					Nuts	Subs
1½	40	8.96	4.150	2.600	6.525	5 STD	SF	SF
2	50	14.64	5.850	3.080	7.330	3 STD	SF	SF

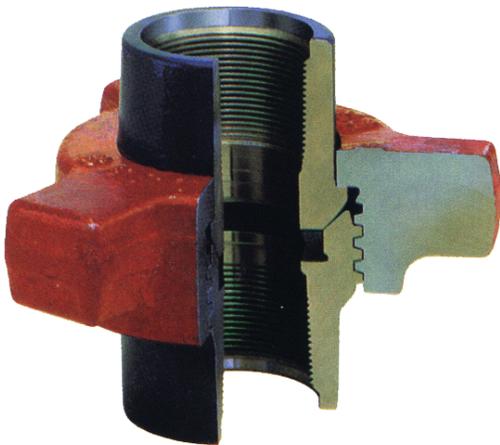
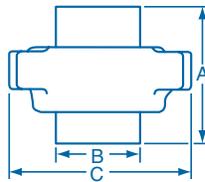


Figure 1002 | 10,000 PSI CWP – 15,000 PSI TEST

Alloy steel forgings for high-pressure manifold and treating connections, such as cementing, fracturing, and acidizing. Employs a double seal that combines an elastomeric gasket with a metal-to-metal connection.



SizeWeight			A	▲B	C	ACME TPI	Material	
IN	MM	Lbs					Nuts	Subs
1	25	3.62	3.620	1.750	4.500	6 STD	All Alloy Steel Forging	
1½	40	9.54	4.600	2.570	5.520	4 STD		
2	50	13.00	5.200	3.000	7.375	3 MOD		
3	80	22.40	6.200	4.240	9.320	4 STD		
4	100	33.82	8.280	5.250	10.700	4 STD		

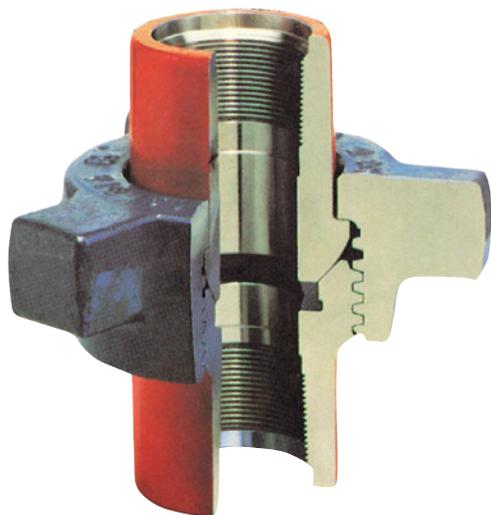
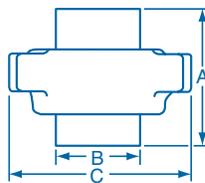


Figure 1502 | 15,000 PSI CWP – 22,500 PSI TEST

Alloy steel forgings for high-pressure manifold and treating connections. Employs a double seal that combines an elastomeric gasket with a metal-to-metal connection.



SizeWeight			A	▲B	C	ACME TPI	Material	
IN	MM	Lbs					Nuts	Subs
2	50	19.50	7.060	3.230	7.860	3 STD	All Alloy Steel Forging	
3	80	30.48	7.630	4.400	9.900	3½ STD		

WARNINGS

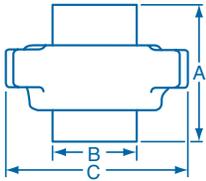
1. Do not mix Standard Service and Sour Gas Service Unions or parts.
2. Do not make up or break out Unions in pressurized lines.
3. Always use good safety practices, including use of safety glasses, when making up or breaking out Unions.

TPI = Threads per inch
 DI = Ductile Iron
 SF = Steel Forging

** Consult Factory
 ▲ Weld ends available

IMPORT
Figure 100C | Lug Union 2"
1,000 PSI CWP – 1,500 PSI TEST

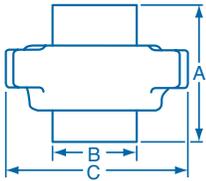
Ideal for low-pressure service manifold and general service. NPT female threaded ends.



SizeWeight			A	B	C	ACME TPI	Material	
IN	MM	Lbs					Nuts	Subs
2	50	6.25	3.940	2.840	6.250	3 MOD	SF	SF


IMPORT
Figure 200C | Lug Union 1" & 2"
2,000 PSI CWP – 3,000 PSI TEST

General purpose union. Available in NPT threaded ends.



SizeWeight			A	B	C	ACME TPI	Material	
IN	MM	Lbs					Nuts	Subs
1	25	1.75	2.670	1.640	4.065	6 STD	SF	SF
2	50	4.90	3.275	2.825	5.900	4 STD	SF	SF


S1A | High Speed Union 1", 2" & 3"
3,000 PSI CWP – 4,500 PSI TEST

3000# FS UNION. Female threaded ends.


3L S1A | Tri-Lug High Speed Union 1", 1 1/2" & 2"
3,000 PSI CWP – 4,500 PSI TEST

3000# FS UNION. Tri-Lug with female threaded ends.

** Consult Factory

 TPI = Threads per inch
 SF = Steel Forging

WARNINGS

1. Do not mix Standard Service and Sour Gas Service Unions or parts.
2. Do not make up or break out Unions in pressurized lines.
3. Always use good safety practices, including use of safety glasses, when making up or breaking out Unions.



Coated Products

Anvil's coated products protect pipes against the corrosive conditions found in oil and gas pipelines. They are effective on all grades of pipe, and can be used to coat malleable, cast iron, forged steel, and ductile metals.

Anvil provides two stock coatings, Scotchcote 134 and Corvel 1660, which are durable, reliable and field-tested. Scotchcote 134 is a fusion-bonded epoxy coating designed to protect metal surfaces

from corrosion. It is resistant to wastewater, corrosive acids, hydrocarbons, harsh chemicals, brine, and saltwater. Corvel 1660 is specially designed to protect the inside diameter of tubular goods in applications such as fittings, valves, drill pipes, sucker rods, and metering systems. Corvel 1660 is resistant to H₂S, CO₂, harsh chemicals, brine, and salt water.

Anvil also offers a range of specialty coatings, available upon request, including nickel coating, chrome plating, Teflon coating, Nap-Guard coating, and powder coating.

About ASC Engineered Solutions

ASC Engineered Solutions is defined by quality—in its products, services and support. With more than 1,400 employees, the company’s portfolio of precision-engineered piping support, valves and connections provides products to more than 4,000 customers across industries, such as mechanical, industrial, fire protection, oil and gas, and commercial and residential construction. Its portfolio of leading brands includes ABZ Valve®, AFCON®, Anvil®, Anvil EPS, Anvil Services, Basic-PSA, Beck®, Catawissa, Cooplet®, FlexHead®, FPPI®, Gruvlok®, J.B. Smith, Merit®, North Alabama Pipe, Quadrant®, SCI®, Sharpe®, SlideLOK®, SPF® and SprinkFLEX®. With headquarters in Commerce, CA, and Exeter, NH, ASC also has ISO 9001:2015 certified production facilities in PA, TN, IL, TX, AL, LA, KS, and RI.

Building connections that last™

