

## WHY ABCO HAMMER UNIONS?

ABCO provides a full line of Hammer Unions ranging from 1" to 12" withstanding pressures up to 22,500 psi. These Unions are available with line pipe, tubing, butt-weld or seal end connections. The unions are manufactured using modern techniques to obtain high quality product.

ABCO builds custom Unions for your special applications, such as spark free environment (bronze) and fuel handling service (*special seals*).








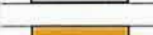





The Unions are **interchangeable** with other name brand manufacturers adhering to industry standards. Various ABCO seal designs **provide positive** sealing for all pressures and applications.

- ▶ For low pressure services the conical and spherical faces of the male and female subs respectively form an effective metal to metal seal.
- ▶ For medium pressures a Nitrile O-Ring is additionally provided in the male sub (using the metal to metal as a zero clearance extrusion gap).
- ▶ For high pressure o Lip type seal ring of Nitrile with a metal to metal backup is provided.
- ▶ The seals protect the secondary metal from corrosion and also limit fluid flow turbulence.
- ▶ Viton seals are provided for sour gas service. Other elastomers are available on special request.

ABCO Unions undergo **strict quality control** measures. Our Unions are manufactured from the **highest** quality raw materials in the form of forgings and custom elastomers. We utilize state-of-the-art heat treatment processes to ensure greater reliability of the unions.

ABCO low pressure Unions are manufactured from ASTM A-105 and high pressure unions (6000PSI and Above) are manufactured from weldable grade AISI 4130 material.

- ▶ Our **sour gas service** unions meets **NACE-MR-01-75**.
- ▶ Our specially modified materials are designed to meet Charpy requirements and at -30 °C or -50 °C.

Figure Number	Assembly Color Key Standard Service	Pressure Rating (PSI)				Nominal Pipe Size												
		Standard Service		Sour Gas Service		(in)	1	1¼	1½	2	2½	3	4	5	6	8	10	12
		Cold Working	Test	Cold Working	Test	(mm)	25	32	40	50	65	80	100	125	150	200	250	300
100		1,000	1,500	n/a	n/a					•	•	•	•		•	•		
200		2,000	3,000	n/a	n/a		•	•	•	•	•	•	•					
206		2,000	3,000	n/a	n/a		•	•	•	•	•	•	•		•	•	•	
207		2,000	3,000	n/a	n/a						•	•			•	•	•	
300		2,000	3,000	n/a	n/a		•			•	•	•	•					
400		2,500	3,750	2,500	3,750									•	•	•	•	•
400		4,000	6,000	4,000	6,000					•	•	•	•					
600		6,000	9,000	n/a	n/a		•		•	•	•	•	•					
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					•		•	•	•				
1502		15,000	22,500	10,000	15,000		•		•	•	•	•	•					
2202		n/a	n/a	15,000	22,500					•	•	•						

n/o= Not Available

- ABCO recommends butt weld unions for sour gas service.
- Sour gas unions will feature viton seals as standard. Other elastomers are special order.
- Sour gas unions will be painted green.