

5 1/8" - 10,000 Spherical Annular B.O.P.

Academy Petroleum is proud to offer the first 5 1/8" - 10,000 Spherical BOP to market. This BOP was developed to fill a gap in the market and avoid the need to use a larger BOP with a crossover spool. Academy's Spherical Blowout Preventer is a compact annular BOP designed to seal reliably on virtually any size or shape of object in the wellbore and is capable of Complete Shut Off (CSO) at rated working pressure. It can also be used to maintain pressure control while stripping pipe in or out of the hole and is well suited for Coiled Tubing and Snubbing applications. Academy BOP's are rugged, reliable and are proven performers in some of the toughest oilfield environments on the planet.



Features

- **Safety & Reliability**
 - Designed, manufactured, and tested in accordance with API Specification 16A
 - Rated for Sour H₂S Service as defined by API 16A & NACE MR-0175
 - Manufactured in Canada using high quality low alloy steel forgings
 - Suitable for low temperature applications
- **Reduced Maintenance Costs**
 - Simple, reliable design and construction makes for easy service & maintenance
 - BOP design consists of only five major components
 - Sacrificial wear rings between sliding parts maximize the life of steel components and seals
 - Seal elements can be changed without opening and contaminating the hydraulic system
- **Reduced Setup Time**
 - No crossover spool required for use on a 5 1/8" – 10,000 stack
 - Simple hydraulic system requires only two connections
 - Compact design with low overall height
 - Full opening 5 1/8" through bore

Principle of Operation

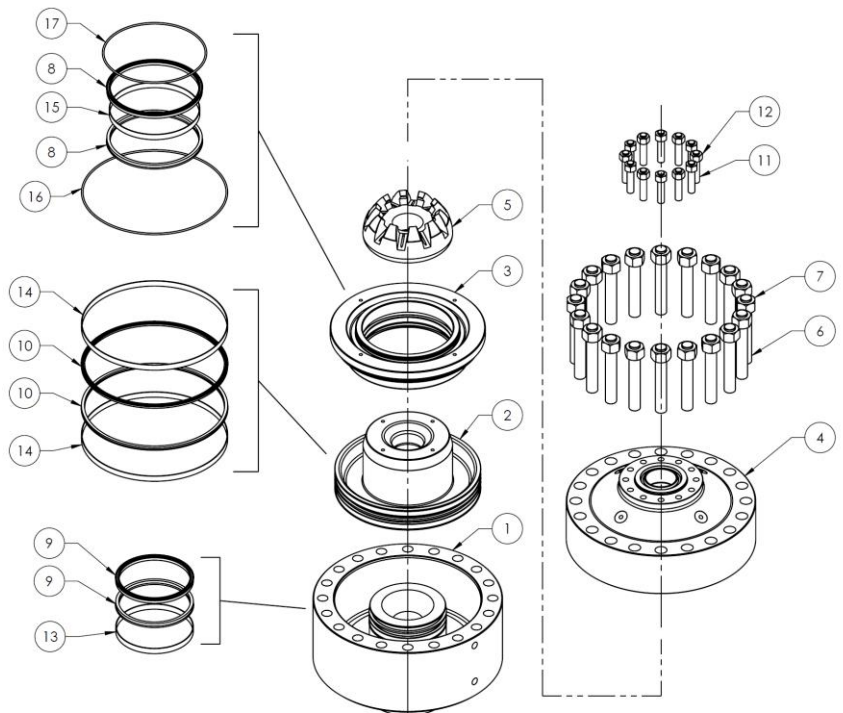
Hydraulic fluid is pumped into the closing port, filling the closing chamber below the piston, moving the piston upwards. The piston forces the seal element upwards and is guided inwards by the spherical profile of the upper housing. As the sealing element is squeezed toward the well bore, it contacts the tubular and seals off the annular area. Due to the flexible design of the seal element, it will seal on virtually any size or shape of object in the well bore. If there is no object in the bore, the sealing element will continue to squeeze closed until it seals off the entire bore.

Specifications & Parts List

**Technical Information for Academy Petroleum
 5 1/8" – 10,000 Spherical Annular BOP**

Top Connection	5 1/8" – 10,000 BX-169 Studded
Bottom Connection	5 1/8" – 10,000 BX-169 Flanged
Rated Working Pressure (Well Bore)	10,000 psi (69.0 MPa)
Fluid Service Rating	Sour Service per NACE MR-0175 / API 16A
Temperature Rating (Metal Components)	API 16A 'T75/250': -75F to 250F (-59C to 121C)
Temperature Rating (Non-Metallic Seals)	API 16A 'AA': -15F to 180F (-26C to 82C)
Overall Height (Excluding Flange Studs)	31.93 inches (811 mm)
Maximum Outside Diameter	31.75 inches (806 mm)
Weight – Dry (Including Sealing Element)	4,320 lbs (1,960 kg)
Hydraulic System Rated Working Pressure	1,500 psi (10.3 MPa)
Hydraulic Closing Chamber Volume	5.8 gal (US) (21.9 L)
Hydraulic Opening Chamber Volume	5.0 gal (US) (19.0 L)

Parts List		
Item	Qty	Description
1	1	Lower Housing
2	1	Piston
3	1	Adapter Ring
4	1	Upper Housing
5	1	Packing Element
6	20	Housing Closure Studs
7	20	Housing Closure Hex Nuts
8	2	Seal, Adapter Ring*
9	2	Seal, Lower Housing*
10	2	Seal, Piston*
11	12	Flange Studs
12	12	Flange Hex Nuts
13	1	Wear Strip, Lower Housing*
14	2	Wear Strip, Piston*
15	1	Wear Strip, Adapter Ring*
16	1	O-Ring Seal*
17	1	O-Ring Seal*



*Available as a kit from Academy Petroleum