



**BALL VALVES**

**CHECK VALVES**

**PIGGING VALVES**

**THROTTLE VALVES**

**METAL SEATED VALVES**

**GAS MEASUREMENT FLANGES**

**MANIFOLD SYSTEMS  
AND COMPONENTS**



OUR GOAL IS TO PROVIDE

**BEST IN CLASS**

COMPACT BALL, CHECK & PIGGING VALVES THAT  
MEET OR EXCEED OUR CUSTOMER'S EXPECTATIONS

[WWW.ACECOVALVES.COM](http://WWW.ACECOVALVES.COM) • 918.827.3669

## BETTER DESIGN, BETTER PERFORMANCE

Aceco Valve is a leading manufacturer of quality compact ball and check valves as well as pigging valves. We are well established in the market with a vast installed base and utilized by many of the world’s largest energy companies for both offshore and onshore applications.

Aceco was purchased by Bill Neimann in 2018. Bill brings to Aceco more than 50 years of valve manufacturing industry experience. The Aceco team has been assembled to provide world class products and service to our customers. Our goal is to provide reliable valve solutions that meet or exceed our customers expectations.

### FLOATING BALL VALVES (SERIES BV1)

Floating Ball Valves (BV1) Standard .....	4
Metal Seated Valve (BV1-MS) .....	4
Throttle Valves Metal Seated (BV1-TVMS) .....	4
Double Ball Valves (BV1-DB) .....	6
Double Ball Valves Metal Seated (BV1-DBMS) .....	6
Ball & Check Valve Combo Metal Seated (BV1-BCCMS) ..	3
Ball & Check Valve Combo (BV1-BCC) .....	3

### TRUNNION MOUNTED BALL VALVES (SERIES BV2)

Trunnion Mounted Ball Valves (BV2) Standard .....	5
Metal Seated Valves (BV2-MS) .....	5
Throttle Valves Metal Seated (BV2-TVMS) .....	5
Double Ball Valves (BV2-DB) .....	6
Double Ball Valves Metal Seated (BV2-DBMS) .....	6
Ball & Check Valve Combo (BV2-BCC) .....	3
Ball & Check Valve Combo Metal Seated (BV2-BCCMS) ...	3

### CHECK VALVES (SERIES CV6)

Check Valves (CV6) Standard .....	8
Metal Seated Valve (CV6-MS) .....	8

### SUB SEA VALVES (SERIES SV1, SV2, SV6)

Sub Sea Valves Floating Ball Valve (SV1-SS) .....	9
Sub Sea Valves Trunnion Mounted Ball Valve (SV2-SS).....	9
Sub Sea Valves Check (SV6-SS) .....	9

### PIGGING VALVES (SERIES PV3 & PV4)

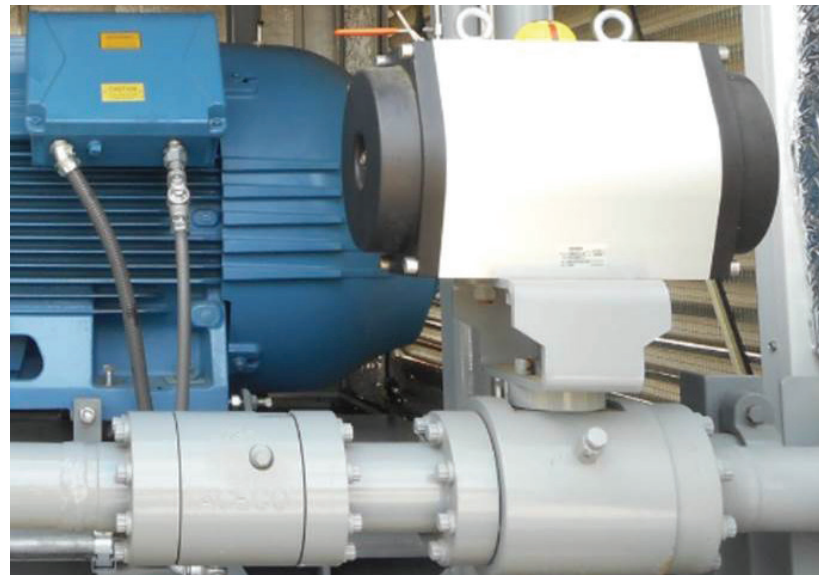
Floating By-pass Pigging Valve (PV3) .....	10
Positive Shut-off Trunnion Pigging Valve (PV4) .....	10

### GAS MEASUREMENT FLANGES

Orifice Flanges .....	12
Female Flanges .....	12
Raised Face Flanges .....	12

### MANIFOLD SYSTEM AND COMPONENTS

Manifold Systems.....	11
3, 4, and 5 Way Blocks.....	11
Blind Flange.....	11
Crosses .....	11
Flanged Spool .....	11
Gaskets/Seals .....	11
Grayloc Connection.....	11
Hammer Union Connection.....	11
Nipples .....	11
Swivel Flange .....	11
Threaded Flange .....	11
Tube Connector.....	11
Weldneck Flange.....	11



## WHY SELECT OUR COMPACT DESIGN

Compact valves are specifically designed to operate where space and weight are of major concern when compared to conventional type valves. Compact design valves offer reduced space and weight as well as integral flange designs to accommodate a multitude of end connection options for all applications. All connections allow easy disassembly and valve body removal from the line when required.



8" 6000 PSI BV2 vs. 8FP CL 2500

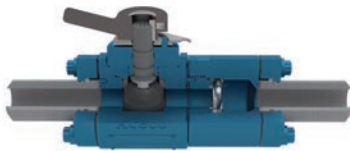
### COST SAVINGS WHEN BUILDING THE SYSTEM

#### Compact versus conventional valves:

- Weight = up to 70% less
- Length = up to 40% less
- Height = up to 25% less (relative to bonnet)
- Torque = up to 70% reduction trunnion design (BV2)
- Fewer Seal Areas (leak paths)



4" 5000 PSI BV2 vs. 4" 5000 PSI API 6A

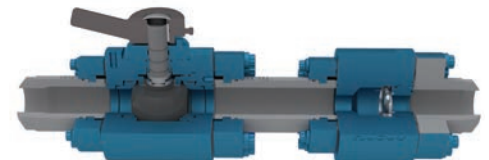


2" 6000 PSI BV1/CV6 Ball Check Combo

### BALL/CHECK COMBO DESIGNS

#### (optional)

These assemblies offer the shortest overall length available for maximum space and weight savings.



3" 6000 PSI BV2/CV6 Ball Check Combo

## APPLICATIONS FOR COMPACT VALVES

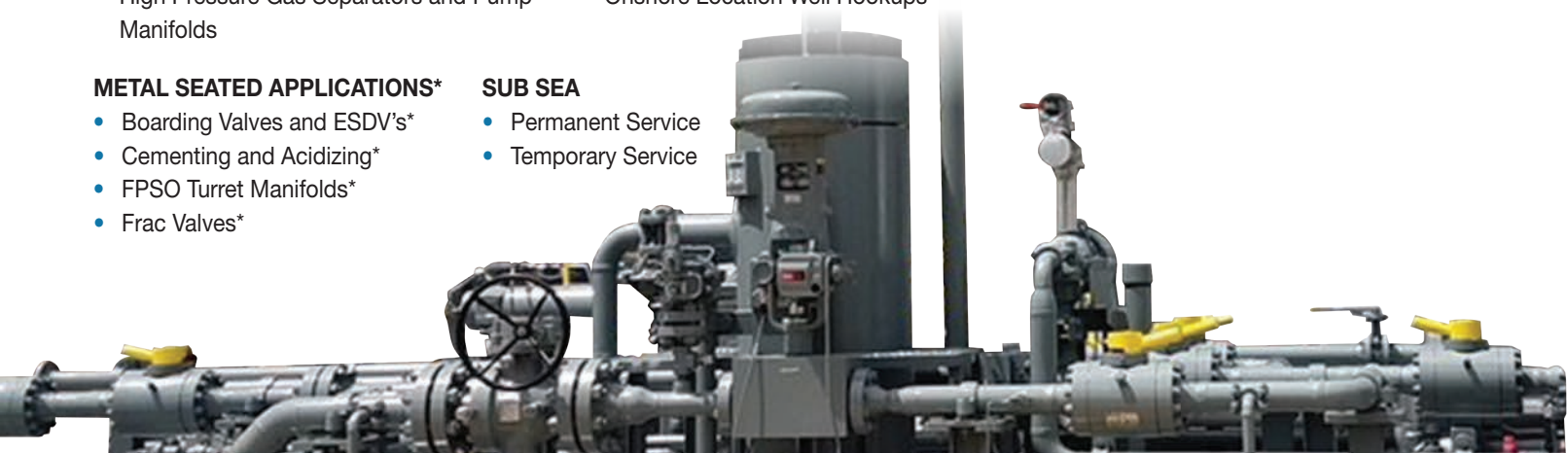
- 5 Valve Manifolds
- 3 Valve Dehydrator Separators
- Blow Down Applications
- Choke and Kill Manifolds
- Connector Systems
- Drilling
- Drilling Diverter Valves
- Flow Back Manifolds
- Flow Lines
- Gooseneck Connectors
- High Pressure Gas Separators and Pump Manifolds
- Hot Oil Trucks
- Hot Stabs
- Injection Heads
- Managed Pressure Drilling (MPD) (Systems Including Flow Spools, Bleed and Equalization Lines)
- Methanol Injection Service
- Mud Service
- Offshore Chemical Injection Packages
- Offshore Production and Test Manifolds
- Onshore Location Well Hookups
- Onshore Production and Separation Units
- Pig Launchers and Receivers (PLR)
- Pump Skids
- Sales Lines
- Separator Units
- Standpipe Manifold Service
- Trip Tank and Booster Line
- Water Flood and Co2 Injection
- Well Head Wing Valves

#### METAL SEATED APPLICATIONS\*

- Boarding Valves and ESDV's\*
- Cementing and Acidizing\*
- FPSO Turret Manifolds\*
- Frac Valves\*

#### SUB SEA

- Permanent Service
- Temporary Service



## MODEL BV1 FLOATING BALL VALVE

The Aceco Model BV1 compact floating ball valve provides advanced design, high quality material and superior craftsmanship for cost effective operation and durability. Aceco has designed the Model BV1 to be a rugged and reliable valve with standard compact end-to-end dimensions and bolt pattern, requiring minimal line spread to facilitate easy removal and replacement.

### STANDARD DESIGN FEATURES

- Sizes 1" - 3"
- Working Pressures up to 15,000 PSI
- Designed to API 6A & API 6D
- API 6FA, Fire tested & Certified
- NACE MR0175-Latest Edition\*
- Robust design for ease of operation and durability
- Body, Bonnet and End connections are constructed of Carbon, Alloy or Stainless steel
- End connections are designed to be welded directly into the line with no other fittings required
- Metal-to-metal face seal at the body connection with secondary O-ring seal
- Stub Acme Threaded seat retainer:
  - additional safety feature eliminates the potential for blow outs
  - enables the valve to be installed in either direction
- Integral stem lubrication fitting and channel
  - minimizes stem/bonnet corrosion
  - eliminates stem freeze-ups

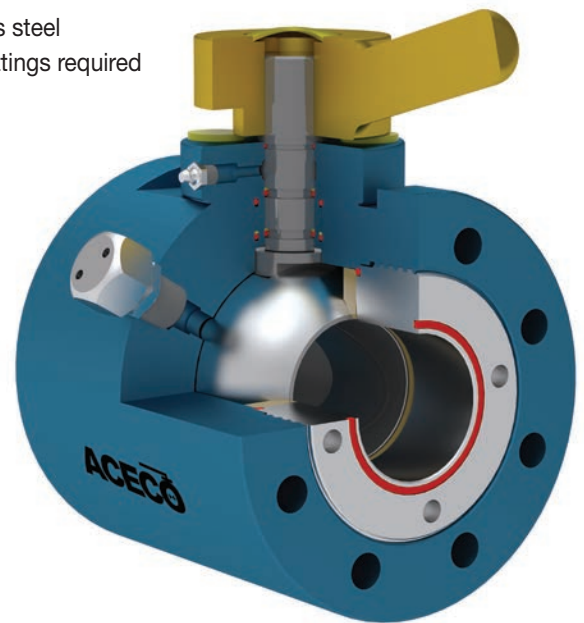
### OPTIONAL DESIGN FEATURES

- Metal Seated
- Throttling
- Lip Seal
- Locking Device
- Complete Automated Packages
- Internal/External Coatings

\* Consult factory for full details



Model BV1



## MODEL BV2 TRUNNION MOUNTED BALL VALVE

The Aceco Model BV2 quarter-turn trunnion mounted ball valve combines advanced trunnion design and quality manufacturing to obtain superior performance and reduced operating torques. The Aceco Model BV2 design allows for easy testing, maintenance and extended service life while reducing total cost of ownership.

The BV2 has proven to be a reliable, robust design with many standard features, including a bleed valve for double block and bleed capability as well as injection fitting for valve lubrication.

### STANDARD DESIGN FEATURES

- Sizes 2" - 12"
- Working Pressures up to 15,000 PSI
- Designed to API 6A & API 6D
- API 6FA Fire tested & Certified
- NACE MR0175-Latest Edition\*
- Up to 70% Reduction in Torque\* as compared to floating design
- Robust design for ease of operation and durability
- Body, Bonnet and End connections are constructed of Carbon, Alloy or Stainless steel
- End connections are designed to be welded directly into the line with no other fittings required
- Metal-to-metal face seal at the body connection with secondary O-ring seal
- Double block and bleed
- Stub Acme Threaded seat retainer:
  - additional safety feature eliminates the potential for blow outs
  - enables the valve to be installed in either direction
- Integral stem lubrication fitting and channel
  - minimizes stem/bonnet corrosion
  - eliminates stem freeze-ups

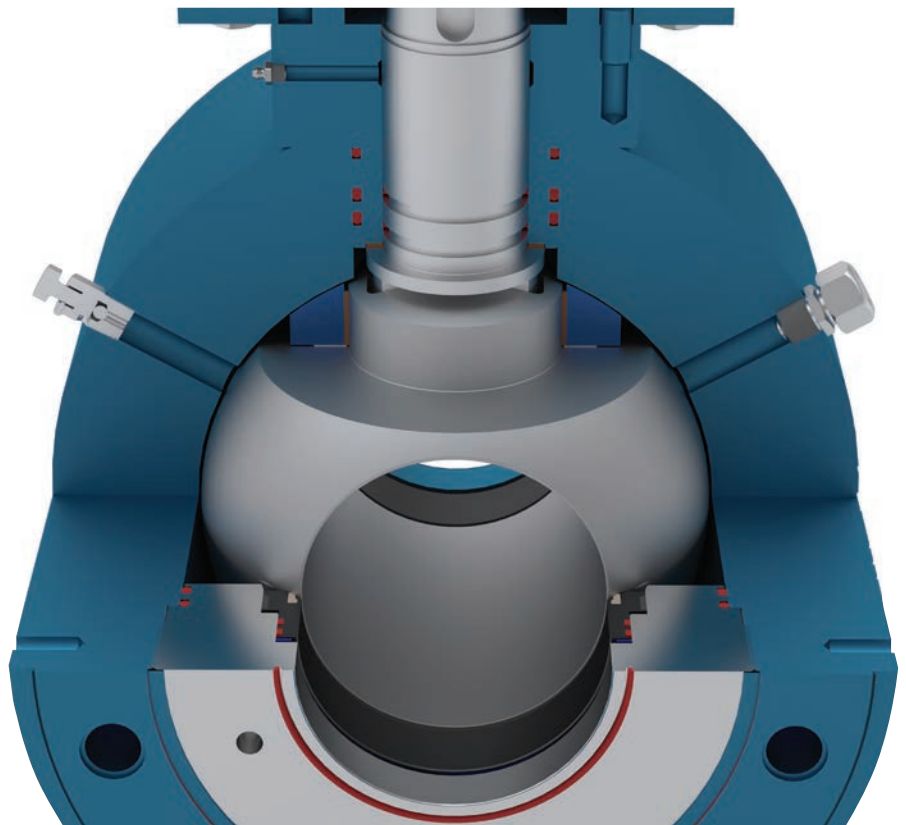
### OPTIONAL DESIGN FEATURES

- Metal Seated
- Throttling
- Lip Seal
- Locking Device
- Complete Automated Packages
- Internal/External Coatings

\* Consult factory for full details



Model BV2



## FLOATING OR TRUNNION DOUBLE BALL VALVE DESIGNS

The Aceco Model BV1 and BV2 ball valves are available in Double Ball Designs. This option provides the unique advantage of two valves contained in one solid body eliminating a possible leak path, reducing the amount of end connections required as well as provide for maximum space and weight savings. The double ball valve design provides double isolation as well as true double block and bleed capabilities for safety and seat integrity checks allowing for peace of mind. This is accomplished through the two physical barriers to retain pressure while working downstream of the closed valve.

### STANDARD DESIGN FEATURES

- Sizes 1" - 3" Floating and 2"-12" Trunnion
- Working Pressures up to 15,000 PSI
- Robust end connections allow for limited bending loads fully compliant with ASME B31.3
- Valve bore sizes are chosen to closely match the most popular pipe bores, minimizing flow turbulence in the valve bore
- NACE MR0175-Latest Edition
- Minimal line spread for ease of reparability or replacement
- Stub Acme Threaded seat retainer:
  - additional safety feature eliminates the potential for blowouts
  - enables the valve to be installed in either direction
- Integral stem lubrication fitting and channel
  - minimizes stem/bonnet corrosion
  - eliminates stem freeze-ups
- The center bleed port between the balls permits seat integrity before conducting any maintenance work downstream of the valve.
- Trunnion design allows Double Isolation and Bleed contained in one valve



Model BV1 Double Ball



Model BV2 Double Ball Comparison to Conventional Flanged  
8" 6000 PSI BV2 vs. 8FP CL 2500



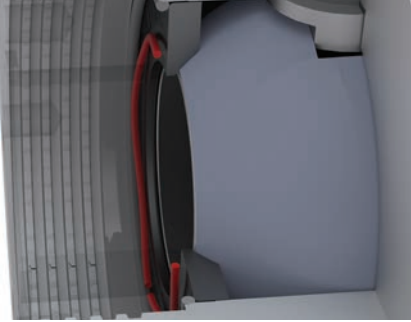
Model BV2 Double Ball



## OPTIONAL DESIGN FEATURES

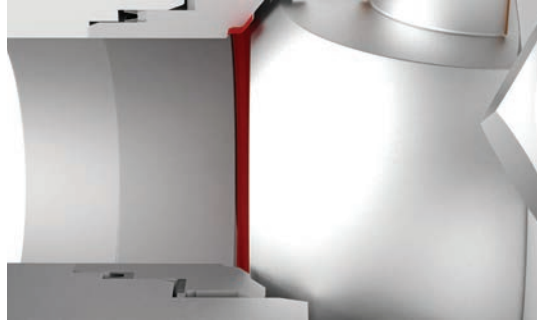
Optional design features are readily available for either the floating or trunnion mounted valves in single or double ball designs: Metal Seated, Lip Seals, Throttling, Trim.

### METAL SEATED FLOATING DESIGN



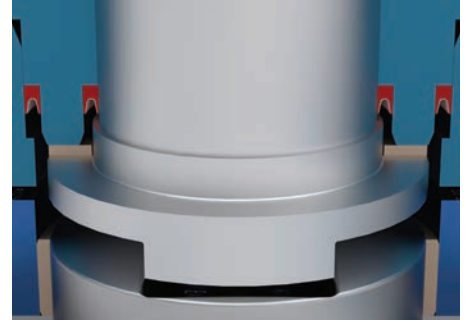
- Energized with wavo style Inconel X750 nickel alloy springs (red), to ensure low pressure and gas seal
- Nitride coated ball & seat
- Tungsten Carbide Coating for Severe service

### METAL SEATED TRUNNION DESIGN



- Tungsten Carbide coated ball and seat are Mate lapped for superior sealing (red)

### LIP SEAL TRUNNION DESIGN



- Recommended for critical High Pressure Applications
- Superior Chemical resistance
- Expands Temperature range compared to elastomers



### THROTTLING DESIGN

- 1" - 4" for pressures ranging from 3,705 up to 15,000 PSI
- Designed to meet the demands of virtually all throttling applications
- Flow bore contour is engineered specifically for high pressure drop throttling service with precise linear control throughout the operating range
- Delivers higher flow rates than most positive chokes, when full open
- Flow indicator for precise flow control
- Ball design minimizes seat erosion

### TRIM OPTIONS

- Acetal and Peek Seat Materials
- Multiple elastomers available
- Exotic Materials available
- Metal Seated
- Throttling
- Lip Seal
- Locking Device
- Complete Automated Packages
- Internal/External Coatings



## ACECO CHECK VALVE

The Aceco Model CV6 swing type check valve is designed for high pressure applications while incorporating the compact design feature for space and weight savings.

The Model CV6 will work in most applications to prevent backflow. Our seat design allows for the seal to be out of the flow path providing for long life.

The CV6 can be paired with either the BV1 or BV2 ball valve for a ball/check combo that allows for maximum space savings.

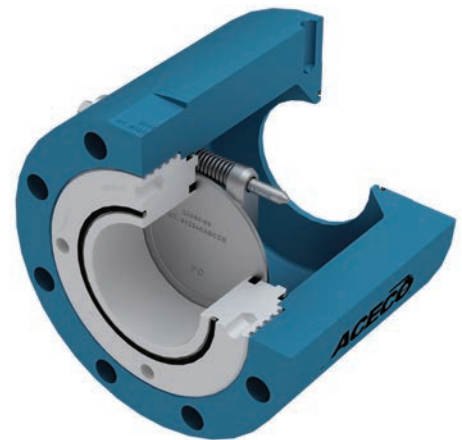
The CV6 is a good replacement for other compact check valves as no changes in flowline spacing or flange replacement is required.

### STANDARD DESIGN FEATURES

- Sizes 1" to 12" up to 15,000 PSI
- Full opening clapper passage through the valve
- Positive backflow protection
- Valve sealing is out of flow path
- API 6FD Firesafe certified
- Metal Seated hard face material available as an option
- The clapper is held to the closed position by a spring but will swing up and out of the flow path



Model CV6  
Shown with Optional port and plug



Model CV6 MS Metal Seated (optional)





## ACECO SUB SEA VALVES

Floating or Trunnion Mounted Compact Ball and Check Valves designed specifically for temporary (5 years) or permanent (25 years) Sub Sea service.

### STANDARD DESIGN FEATURES

- Rugged proven valve designs
- Pipe sizes from 1" to 12", with the valve bores closely matching the piping inside diameter
- Working pressures up to 15,000 PSI
- Performance-tested at ocean depths up to 10,000 feet
- Provided with either flanged, buttweld or customer-specific end connections
- A wide range of metallic and elastomeric materials available.
- Permanent service options include metal seating and spring loaded Lip seals as well as Inconel cladding
- Multiple coating systems as required by the application
- Designed to be used with a broad range of operator/actuator devices such as: API 17H Receptacles for ROV's, Knock-Over handles, Sub Sea Gear operators, Sub Sea Hydraulic Actuators or Bare stem for customer specific methods
- Designed to meet the requirements of: API 6A and API 17H for material control, design stresses, testing, dimensions and Sub Sea drive train requirements
- Compact and versatile design allows for easy inclusion in manifolds, pipe runs and tight locations



Compact Trunnion Ball Valve with  
API 17H Torque Receptacle for ROV's



Compact Floating Ball Valve with  
Travel Stop and Position Indicator



Compact Ball Valve with  
Knock-Over Handle

## ACECO PIGGING VALVES PV3 & PV4

Sizes ranging from 3" – 12", Multiple End Configurations Including ANSI CL150 – CL1500 and API 6A.

### PV3 FLOATING BY-PASS DESIGN

- Compact body style for bolting between line flanges
- During pig loading and retrieving, by-pass design permits minimum of 72 percent of product flow, depending on pipe schedule
- No additional tools required for removing or replacing entry plug
- Vent/bleeder valve permits the relieving of pressure from the entry pig chamber for safety before removing entry plug
- Equalizer valve opens to pressurize entry pig chamber to create low torque operation
- Pig launching and removal is performed easily and safely
- Back-seated stem prevents blowout
- Stem lubrication fitting standard
- Locking plates standard
- Pig receiver in the ball contains pig stop plate rigidly positioned to stop pig
- Lower seat is spring energized to initial seal
- In-line field repairable
- Materials comply with options available for many requirements
- NACE MR0175 Latest Edition
- Pig entry plug color coded for proper field installation "green" for launching valves "red" for receiving valves
- Designed to use spherical style pigs

### PV4 POSITIVE SHUT-OFF TRUNNION DESIGN

- Trunnion mounted ball for reduced operating torque
- No additional tools required for removing or replacing entry plug
- Optional body cavity pressure indicator for additional safety
- Body cavity venting for safety
- Design is more compact and lighter weight than competitive pigging valves resulting in lower costs
- Double block and bleed design
- May be used as a positive shut-off flowline valve
- NACE MR0175 Latest Edition
- Can accommodate bullet and spherical style pigs
- Stem lubrication capability standard
- Materials available for most media requirements
- Pig entry plug color coded for proper field installation. "Green" for launching valves. "Red" for receiving valves



Model PV3



Model PV4

## ACECO MANIFOLD SYSTEMS

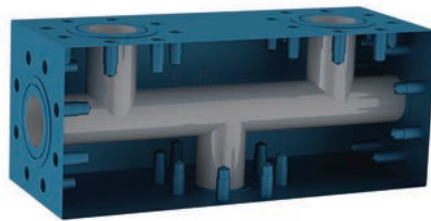
Manifold systems are used extensively throughout the oil and gas industry for the distribution of fluids and gases. They are designed to converge multiple junctions into a single channel or diverge a single channel into multiple junctions.

### KEY FEATURES

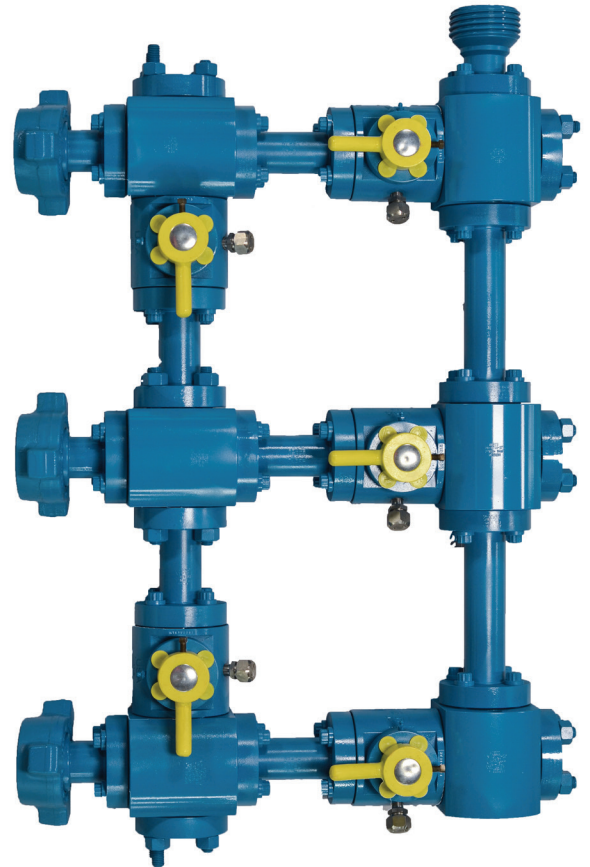
- Designed to accommodate High Pressure service up to 15,000 PSI, available in nominal sizes from 1" to 12".
- Building block design allows for a wide variety of connection options and design configurations.
- Blocks, Tees, crosses, valves and end connections are designed to minimize transition areas and erosion points.
- Bolted connections and minimal line spread allow for ease of disassembly for maintenance and/or repair work.

### SYSTEM COMPONENTS

- Ball Valves
- Check Valves
- Throttle Ball Valves
- Tube Connectors
- 3-Way Blocks
- 4-Way Blocks
- 5-Way Blocks



5 Way Block



5 Valve Manifold

## ACECO COMPACT VALVE END CONNECTIONS

Connections are designed for easy valve removal without significant line spread.

- Blind Flange
- Crosses
- Flanged Spool
- Gaskets/Seals\*
- Grayloc Connection
- Hammer Union Connection
- Nipples
- Swivel Flange
- Threaded Flange
- Tube Connector
- Weldneck Flange

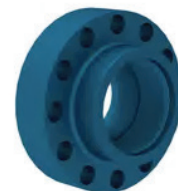
\* Available for all connections listed



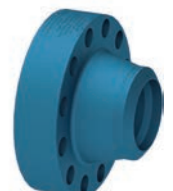
Blind Flange with Test Port



Blind Flange



Threaded Flange



Weldneck Flange



Grayloc Connection



Hammer Union Connection



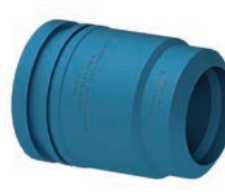
Tube Connector



Swivel Flange



Split Ring



Butt Weld Nipple



Flanged Spool

## ACECO GAS MEASUREMENT FLANGES

Orifice flanges are used with orifice flow meters for the purpose of measuring the flow rate of either liquid or gases in the inspection pipeline. Pairs of pressure “tappings”, mostly on two sides, directly opposite each other, are machined into the orifice flange. This makes separate orifice carriers or tappings in the pipe wall unnecessary.

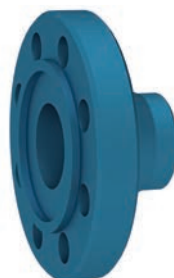
Aceco manufactures a wide range of steel orifice and companion flanges for the energy industry.

### STANDARD DESIGN FEATURES

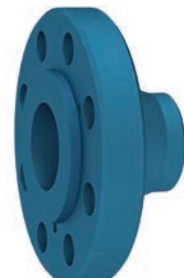
- Sizes: 2” - 8”
- Pressure Class: 150, 300, & 600
- Produced with precision machining with bore tolerance capability of  $\pm .001$
- Meets or exceeds ASME B16.36, B16.5\*, and AGA specifications
- Orifice Flanges
- Female Face Flanges\*
- Raised Face Flanges\* with or without dowel holes



Orifice Flanges



Female Face Flanges



Raised Face Flanges

For more information call us direct or contact our local Representative.



**PHONE: 918.827.3669 • 2300 ALT 75, MOUNDS, OK 74047**

**SALES@ACECOVALVES.COM • WWW.ACECOVALVES.COM**