THE MOST TRUSTED CRYOGENIC VALVES IN NORTH AMERICA




ACME MODEL CV

- Exceeds the industry's highest standards for reliability and performance
- Available in the most standard models with the shortest lead times in the industry
- Exceptional quality – every Acme valve is individually tested prior to shipment

ACME CRYOGENICS
THE PINNACLE OF PERFORMANCE

ACME MODEL CV

The Acme Model CV delivers precise performance, long life, and exceptional reliability ensuring your process or facility's operation and safety, while minimizing downtime.

Built in the United States from a patented design by North America's leading cryogenic valve manufacturer, the Acme Model CV exceeds industry standards for reliability and performance, and has been field proven across industry applications by many of the world's leading companies, health systems, and manufacturers.

VERSATILE PERFORMANCE

The Acme Model CV is available in manual and actuated versions and comes in bellows sealed and non-bellows designs. Check valve and long stem fire control valve designs as well as high purity and ultra high purity designs are also available.

Common options include non-insulated or vacuum jacketed super-insulated valve sizes from ½" to 4" as well as quick-open, linear, and equal percentage valve trim styles.

Acme can customize the ends of any valve to add extended stubs or pipe flanges if requested and additional options create hundreds of possible configurations. Acme's skilled team of designers and technicians coupled with our extensive inventory ensures the industry's fastest delivery of standard and custom products.

PROVEN PERFORMANCE

The investment cast Acme Model CV has been proven over decades of reliable use in the most challenging applications. It remains the preferred choice for demanding cryogenic applications including vacuum insulated pipe installations, cryogenic trailers and tanks, cold boxes, as well as pumping systems.

The valve is designed for liquid nitrogen, argon, oxygen, hydrogen, helium and natural gas service.

PATENTED PERFORMANCE

The Acme Model CV's patented design builds on a conventional globe configuration by incorporating numerous unique features that decrease heat leak and increase the service life of the valve.

The valve is designed to fit precisely within conventional valve size envelopes, making it ideal for retrofits into existing designs, in addition to being an optimal choice for new installations. Our innovative vacuum jacket design allows the Acme valve to be serviced without disturbing the annular vacuum space. Common sized bodies allow for quick change over from standard valves to check valves.

CONSISTENT PERFORMANCE

The advanced features of the Acme Model CV provide exceptional versatility to meet the specific needs of our customers' processes and facilities. Because we stock the industry's most extensive inventory, Acme's delivery time for both standard and custom products is unrivalled. We deliver in days, not weeks.

Acme Cryogenics was established in 1969. Today we are North America's leading manufacturer of cryogenic gas equipment and systems with a proud history of innovation, responsive customer service, and responsible environmental stewardship. We provide engineering, design, fabrication, installation, and repair services to the Food Packaging, Pharmaceutical, Semi-Conductor, Medical Gas Pipe, and Industrial Gases industries. We welcome the opportunity to deliver for you.

Precisely What You Need
Exactly When You Need It

3" ACME CV3000
(shown with vacuum jacket)

HP VALVE

SPECIALIZED DESIGNS

In addition to our standard designs, Acme valves are available for specialized applications including fire control, lift check, high purity, and ultra high purity models.

Our ½" and 1" Fire Control Valves are bellows sealed with extra long stems and pneumatic actuators.

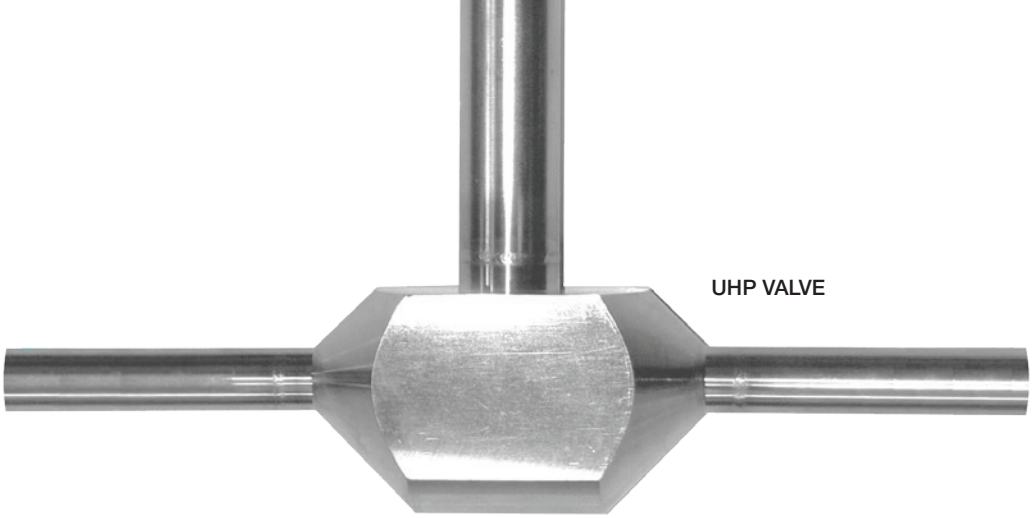
Acme Lift Check Valves are available in ½" through 2" sizes and are intended for jacketed pipe installations.

Our High Purity (HP) Valve is available in ½" through 2". Similar to the Model CV but fabricated with butt weld connections instead of socket weld connections, the HP valve eliminates the small areas in the socket where particles may become trapped.

Also available in ½" through 2" tube sizes, our Ultra High Purity (UHP) Valve is built entirely from machined parts. All connections are butt welded and all stainless steel parts are electropolished to an internal surface finish of 7RA average/14RA maximum. A lift check version is also available.

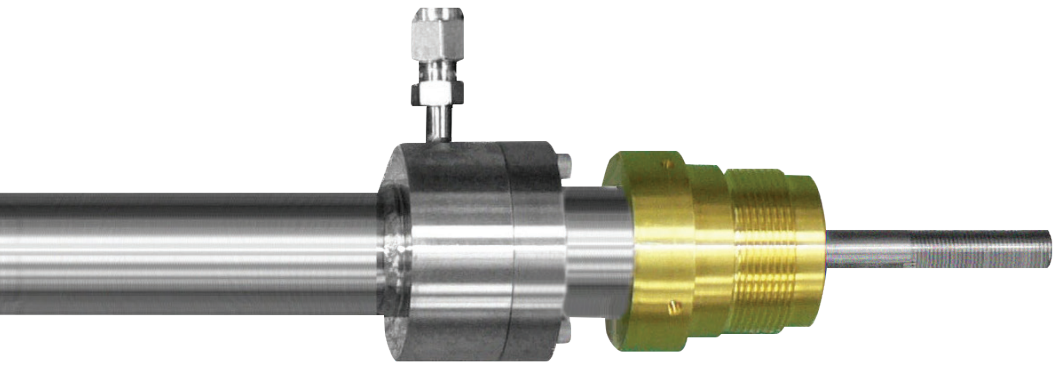
The VSV73 Vacuum Seal-Off Valve and PRV74 Pressure Relief Valve provide rugged, safe and reliable vacuum closure and pressure relief in vacuum insulated applications such as storage or transport containers, transfer lines and pipe.

FIRE CONTROL VALVE
(actuator not shown)



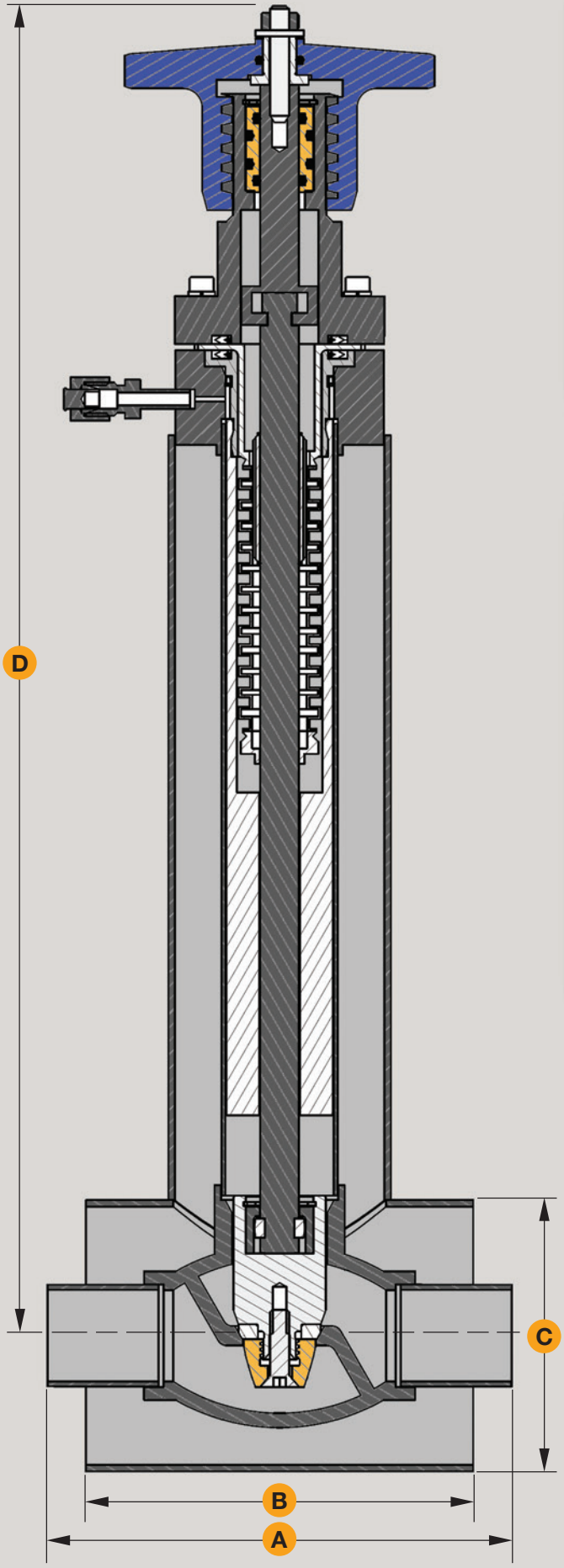
UHP VALVE

MODEL CV FEATURES	BENEFITS
300 PSI MAWP - Bellows 600 PSI MAWP - Non-Bellows	Exceeds Pressure Requirements of Most Cryogenic Applications at 100°F
External Acme Stem Threads	Minimizes Contamination in Valve
Dual Viton O-Ring Seals	Superior Performance in Pumping Applications
Designed and Cleaned for Oxygen Service	Compatible with Oxygen Systems
Guided Non-Rotating Valve Stem	Minimizes Wear and Increases Service Life
Low Heat Leak Design	Reduced Boil-off Loss of Cryogen
High Valve Opening Torque	Resists Opening Due to Vibration
Low Profile and Weight	Conveniently Retrofits to Other Cryogenic Valves
Self-Centering Kel-F Seat	Longer Seat Life; Lower Seat Leakage
Weldable in Place, No Disassembly Required	Reduced Installation Time
Proprietary Bellows Design	High Cycle Life
Low Valve Weight	Lower Cool Down Heat Leak
Metal to Metal Secondary Seat Seal	Fire Safe Design
Minimum Dead Volume in Stem	High Sealing Reliability in Pressure Swing Applications
Actuator Adapter Kit	Easy Conversion to Acuated Design
ANSI Class 6 Leak Rate	Meets or Exceeds Highest Industry Standards for Valve Seat Integrity



PRV74 PRESSURE RELIEF VALVE

VSV73 VACUUM SEAL-OFF VALVE



Model CV shown with Bellows Seal and Vacuum Jacket.

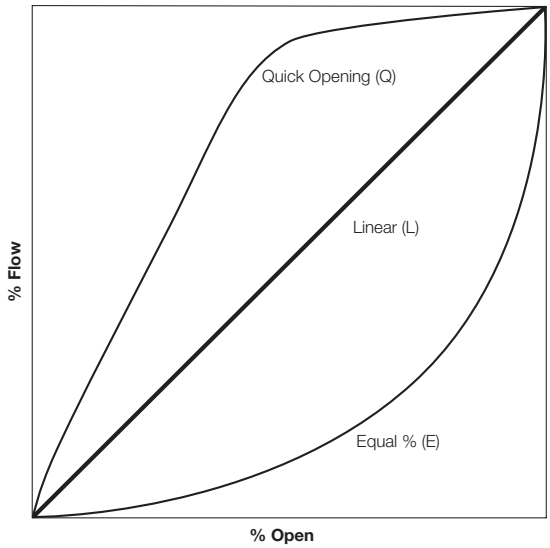
MODEL CV DIMENSION TABLE					
Size	Pipe Ends A	Tube Ends A	B	C	(Open) D
½"	4.75"	8.5"	3.75"	2.875"	17.8"
1"	6"	9"	5"	3.5"	17.8"
1½"	8"	10"	6"	4.5"	20.2"
2"	8.5"	11"	6.5"	5.563"	21.9"
3"	15.5"	TBD	13.25"	5.563"	25.25"
4"	15.5"	TBD	13.25"	6.625"	25.25"

PERFORMANCE CHARACTERISTICS VACUUM JACKETED VALVE				
Valve Size	Model No.	Flow Coefficient (Cv)	Conductive Heat Leak (BTU/HR)	Cool Down Weight (LBS)
½"	0500	6.6	6.4	2.6
1"	1000	14	9.2	3.3
1½"	1500	34	10.0	6.1
2"	2000	50	14.3	9.0
3"	3000	139	63.6	32.5
4"	4000	250	78.8	46.5

WORKING PRESSURE & TEMPERATURE	
Temperature	-425°F to 100°F
Pressure: Bellows Design	300 psi MAWP
Pressure: Non-Bellows	585 psi MAWP Jacketed 600 psi MAWP Non-Jacketed

Acme Model CV valves are designed to ASME B16.34 and are CSA B51 compliant. CRN pending.

REPRESENTATIVE FLOW CHARACTERISTICS



OPTIONS

Valve Trims	Quick Opening (Q), Linear (L), Equal Percentage (E)
Actuators	Fisher Pneumatic Spring and Diaphragm Type Standard, other styles and types available.
	Positioners, Hand Wheels, Limit Switches, Solenoids, and other accessories are available
Valve End Connections	Pipe Stub (P), Tube Stub (T), Pipe Sockets (SP), Tube Sockets (ST), Custom
Vacuum Jacketed Super Insulated	Multilayer Insulation with Welded 304 Stainless Steel Jacket

SPARE PARTS*

Soft Goods Kits	Flow Plug Conversion Kits
Complete Top Works Kits	Manual to Pneumatic Conversion Kits

*Contact factory for part numbers and specifications

HOW TO ORDER THE MODEL CV

Valve Size
CV0500 = ½"
CV1000 = 1"
CV1500 = 1½"
CV2000 = 2"
CV3000 = 3"
CV4000 = 4"

Series
A = Non-Bellows
H = Bellows

Gas Service
AR = Argon
HE = Helium
HY = Hydrogen
NG = Natural Gas
NT = Nitrogen
OX = Oxygen

Jacket
O = Non-Jacketed
V = Vacuum Jacketed

End Connection
T = Tube Stub
P = Pipe Stub, Schedule 5
P10 = Pipe Stub, Schedule 10
ST = Socket, Tube
SP = Socket, Pipe
C = Custom (Factory)

Valve Flow Control Plug
Q = Quick Opening
L = Linear
E = Equal Percent

Actuator
M = Manual
A = Actuated

ORDER EXAMPLE

Model No. CV1000HHYVP10LM
1" Globe Valve, Bellows Design, Hydrogen Service, Vacuum Jacketed,
1" Schedule 10 Pipe Stubs, Linear Flow Plug, Manual.

Custom configurations available — contact Acme for more information.

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