

# **Cash Valve**

## **Industrial Valves and Controls**

ISSUED - 2001  
CAVMC-0507-US-0511  
ISO 9001 Certified



# Cash Valve

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## A-31, A-31S Small Pressure Regulating Valves For Water, Air, Light Oil

### Applications:

Drinking fountains, bubblers, water coolers, humidifiers, beverage dispensers, spray paint rigs, air tools, etc. For water, air, light oil.

**Sizes:** 1/8", 1/4", 3/8"

### Features:

Reduces high pressure to lower outlet pressure within close limits. Good for inlet pressures up to 300 psi. Maximum temperature 180°F [82°C].

### Options:

Forged brass body. Reduced pressure ranges from 2 to 180 psi. Available with composition seat, BUNA-N, in two or three way valve bodies, side inlet and outlet, and side gauge connection (A-31S). Fillister or hex head adjusting screw standard; also available with wing lock nut or T-handle. Can be furnished with balanced Piston design.

*For More Information, Write or Call For: CAVMC-0508.*



## A-31HC Pressure Regulating Valve For Mobile Homes

### Applications:

Mobile homes and recreational trailers.

**Sizes:** 3/8" only

### Features:

This modified regulator is specially designed for mobile homes and recreational trailer installations where space limitations are important and relatively low capacity is required.

### Options:

Standard brass hose connections and washers for connections to trailer and to water supply. Standard reduced pressure setting is 45 psi; for maximum temperature of 180°F [82°C]. See Type A-31 for further details.

*For More Information, Write or Call For: CAVMC-0508.*



## A-360, A-361, A-365 Small Commercial Pressure Regulating Valves

### Applications:

Recommended for regulating the flow of air, oils, gases and all non-corrosive fluids. **Not for use on steam.**

**Sizes:** 1/4", 3/8", 1/2" (A-362 1/4" and 3/8" only)

### Features:

The A-360 and A-361 incorporate an aspirating action to give exceptionally good regulation at high flow rates. Maximum initial pressure, 400 psi. Maximum delivery pressure, 175 psi. Maximum temperature, 180°F [82°C].

Type A-360 has one inlet and one outlet; furnished with forged brass body.

Type A-361 is designed for 3-way or 4-way use. One inlet, three outlets. Gauge tappings 1/4" NPT; cast bronze body.

Type A-362 is a special modification of the A-360 for pressures up to 1,100 psi inlet, to 250 psi outlet. Sizes 1/4" and 3/8" only.

### Options:

Can be furnished with T-handle adjusting screw or handwheel, or tamper-proof seal cap.

*For More Information, Write or Call For: CAVMC-0508.*



# Cash Valve

## B Pressure Regulating Valve



### Applications:

Water, air, light oil: spray equipment, dishwashers, air tanks, food, chemical and industrial process lines. Steam: unit heater, pressing irons, steam cookers, degreasers, sterilizers, vulcanizers.

### Sizes:

1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2" on NPT or BSPP Threads.

### Features:

Automatically maintains, within close limits, the desired reduced pressure in the service line. Threaded connections.

Iron body valves are for initial pressures up to 200 psi on water, air, oil, or other liquids, and for initial pressures up to 150 psi on steam. Maximum delivery pressure in all

cases is 125 psi. Bronze body valves are for initial pressures up to 400 psi on water, air, oil, etc. and for pressures up to 250 psi on steam. Maximum delivery pressure 150 psi. Teflon® Seat available for temperatures to 350° maximum on steam.

### Options:

Self-contained, easily cleaned strainer; large area diaphragm, renewable and readily accessible working parts; self-cleaning seat. Available with T-handle or handwheel. Can be modified to be used as a cryogenic control valve for liquid or gas service. See CAVMC-0514. Can be furnished with tapped spring chamber for differential and dome loaded applications.

*For More Information, Write or Call For: CAVMC-0509.*

## B-95 Pressure Reducing or Pressure Build Regulating Valve



### Applications:

Suitable for almost any service. Water, air, light oil, steam: suitable for chemical, food, pulp & paper industry, utility lines, and specialist OEM applications. Cryogenic: suitable for liquid or gas phase in the pressure build circuit of cryogenic storage tanks.

**Sizes:** 1/2", 3/4", 1" in NPT or BSPP Threads.

### Features:

Automatically maintains, within close limits, the desired reduced pressure in the service line. Threaded connections.

Investment cast carbon steel and stainless steel bodies, chambers and bottom plug, with stainless steel trim and a choice of metal-to-metal, Teflon® or BUNA-N-seating.

Initial pressure up to 720 psig, reduced pressures up to 400 psig and the operating temperature range is -320°F to +450°F depending on the trim options.

### Options:

Self contained, easily cleaned strainer, large area diaphragm, renewable and readily accessible working parts; self cleaning seat; stainless laminated diaphragms and can be furnished for differential and dome loaded use with a tapped spring chamber and a sealed closing cap over the adjusting screw.

*For More Information, Write or Call For: CAVMC-0509.*

## BBC Pressure Regulating Valve For Heavy Oil



### Applications:

Intended for Heavy Oil Service (Bunker C and other grades), dirty liquids, high viscosity fluids.

**Sizes:** 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2"

### Features:

Direct acting, single seat, spring loaded diaphragm. Maintains lower pressure within reasonably close limits.

Iron or bronze bodies, threaded connections,

Monel® or BUNA-N diaphragm. Stainless steel piston and seat, both of which are renewable. Standard valve equipped with square head adjusting screw. Maximum initial pressure in iron, 200 psi; maximum reduced pressure, 125 psi. In bronze, maximum initial pressure, 400 psi; maximum reduced pressure, 200 psi.

### Options:

T-handle or handwheel also available.

*For More Information, Write or Call For: CAVMC-0509.*

## E-55 High Capacity Pressure Regulating Valve



### Applications:

All types of water systems; various pneumatic, cryogenic and hydraulic systems, etc.

**Sizes:** 1/2", 3/4", 1", 1 1/4", 1 1/2", 2" in NPT and BSPT threads.

### Features:

Aspirated design for close pressure control. Handles high and variable flow rates well beyond the limitations of ordinary regulators.

Bronze body with stainless steel body seat. Brass built in strainer is easily removed for cleaning. Maximum initial pressure, 400 psi. Delivery pressure: maximum 300 psi; minimum 25 psi. Maximum temperature 180°F [82°C].

### Options:

Can be modified to be used as a cryogenic control valve for liquid or gas service. See CAVMC-0514.

*For More Information, Write or Call For: CAVMC-0510.*

# Cash Valve

## G-4 Pilot Operated Pressure Reducing Valve



### Applications:

Steam heating lines, dryers, ovens, sterilizers, oil heaters, steam jacketed equipment etc. and any other steam, air and gaseous application.

### Sizes:

1/2", 3/4", 1", 1 1/4", 1 1/2", 2" threaded  
 2 1/2", 3", 4", 5", 6" CL125 flange  
 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3", 4", 5", 6" CL150 and CL300 flanges

### Features:

Self actuated pilot operated pressure reducing valve providing very high capacity with less <1 psi fall-off. It is very compact in design, offers positive shut off and is available in iron, bronze, cast and stainless steel for pressures up to 600 psi inlet, between 1 and 300 psi outlet and temperatures up to 800°F. Stainless steel

seats are used for steam and where a tighter shut off is required for air and gases BUNA-N and TFE® seats are used. Also may be modified for oxygen gas service.

*For More Information, Write or Call For: CAVMC-0512.*

### Minimum Pressure Differential

The pressure differential is the difference between the inlet pressure and outlet (reduced) pressure. The minimum allowable pressure differential varies depending upon both the inlet pressure and the size of the valves

| Valve Size  | Inlet Pressure Range (psig) | Minimum Pressure Differential (psig) |
|-------------|-----------------------------|--------------------------------------|
| 1/2" - 2"   | 10-50                       | 5                                    |
|             | 50-120                      | 10                                   |
|             | 120 plus                    | 15                                   |
| 2 1/2" - 4" | 10-50                       | 10                                   |
|             | 50 plus                     | 15                                   |
| 5" - 6"     | Refer to sales office       | Refer to sales office                |

### Pressure Temperature Ratings

| Material                   |                               | End Connection          | Pressure (psig) |      |      |      |      |      |      |
|----------------------------|-------------------------------|-------------------------|-----------------|------|------|------|------|------|------|
| Description                | ASTM Spec.                    | ANSI Class              | 0 to 150F       | 250F | 300F | 400F | 450F | 500F | 750F |
| Cast Iron                  | A126 Class B                  | CL125 (Iron)            | 200             | 175  | 160  | 135  | 125  | —    | —    |
|                            |                               | CL150 (Bronze)          | 225             | 195  | 180  | 150  | —    | —    | —    |
| Bronze                     | B62 Alloy 836                 | CL300 (Bronze)          | 500             | 425  | 390  | 300  | —    | —    | —    |
|                            |                               | CL250 (Bronze Threaded) | 400             | 365  | 300  | 250  | —    | —    | —    |
|                            |                               | CL150 (Steel)           | 285             | 245  | 230  | 195  | 185  | 170  | *    |
| Carbon and Stainless Steel | A216 GR WCB<br>A351 CF* (304) | CL300 (Steel)           | 740             | 660  | 655  | 630  | 615  | 590  | 500  |
|                            |                               | CL250 (Steel Threaded)  | 600             | 530  | 525  | 500  | 490  | 470  | 460  |
|                            |                               | CL150 (Steel)           | 285             | 245  | 230  | 195  | 185  | 170  | *    |

\* 570F for 150 psig

## G-60 High Capacity Pressure Regulating Valve



### Applications:

Dryers, steam atomizing oil burners, plastic molding, cookers, degreasers, sterilizers. Also, liquid or gas cryogenic service.

**Sizes:** 1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2"

### Features:

Self-contained, self actuated, threaded connections. Produces exceptional control with high capacity. Its design offers a wide range of adjustment and exceptional sensitivity of control.

### Options:

Can be furnished with internal trim suitable for regulating steam, air, water, oils, gases, chemicals, and other fluids. A slightly modified G-60 is offered as a constant differential control valve or dome loaded

valve. Available in Iron, Bronze, Carbon Steel or Stainless Steel.

Can be modified to be used as a cryogenic control valve for liquid or gas service. See CAVMC-0514.

*For More Information, Write or Call For: CAVMC-0511.*

| Pressure and Temperature Ratings |                |                     |
|----------------------------------|----------------|---------------------|
| Body                             | Maximum        |                     |
|                                  | Inlet Pressure | Temperature °F [°C] |
| Iron                             | 400            | 180° [82°]          |
|                                  | 250            | 410° [210°]         |
| Bronze                           | 400            | 180° [82°]          |
|                                  | 300            | 500° [260°]         |
| Carbon Steel or St. Steel        | 450            | 750° [399°]         |
|                                  | 720            | 180° [82°]          |

## LS Series High Pressure Regulating Valve



### Applications:

Designed for use on air, water, light oil, oxygen, carbon dioxide and other gases and fluids.

**Sizes:** 3/8", 1/2", 3/4"

### Features:

Single seated, spring loaded, direct acting diaphragm type regulator. Maintains reduced pressure within reasonably close limits regardless of inlet fluctuations. Maximum initial pressure up to 2,400 psi. Delivery pressure: maximum, 500 psi; minimum, 40 psi.

Bronze body, spring chamber and bottom plug; stainless steel piston/piston assemblies, cylinders, seat ring and strainer screens; BUNA-N diaphragm and O-rings. Self-renewable seat ring may be flipped over and reinstalled rather than replaced.

### Options:

Up to 750 psi maximum delivery pressure with internal modification. Three versions of the valve are as follows:

**LS-1** is furnished with a metal seat piston and cylinder particularly designed for high or low temperature and high pressure drop applications.

**LS-2** is furnished with a Teflon® seat and balanced piston design for applications requiring higher capacities and/or tight shut-off. The balanced design assures close control regardless of inlet pressure fluctuations.

**LS-3** is furnished with a modified cylinder and no strainer screen for applications involving heavy or high viscosity fluids.

**LS-4** is furnished with construction for cryogenic service on liquid or gas.

*For More Information, Write or Call For: CAVMC-0513.*



# Cash Valve

## A Word About Cryogenics...



C-776 Safety Relief Valve



A.S.M.E. LISTED

Cryogenics — the science of materials at extremely low temperatures — has become more and more important to industry. One important aspect of this field is the liquification of normally gaseous elements, including the following, which are widely used throughout industry:

**Oxygen** - Used extensively in BOF furnaces in the steel industry, for metal cutting, as a rocket fuel and in medicine.

**Acetylene** - Widely used in welding.

**Nitrogen** - Used in refrigeration systems, for metal degassing, in aerosol packaging and in cryogenic surgery.

**Hydrogen** - Used as a rocket propellant and in the production of several metals.

**Argon** - Widely used in incandescent lamps and fluorescent tubes.

**Helium** - Used for arc welding, in the manufacture of electron tubes and in cryogenic research.

**Carbon Dioxide** - Used in refrigeration, to make aerosol tanks and in fire fighting.

Other cryogenic fluids include liquefied natural gas, fluorine, krypton, neon, methane and ethane.

Cash Valve has an extensive line of cryogenic valves and controls. Includes pressure reducing valves, pressure build-up regulators, back pressure valves, economizer valves, combination valves, low temperature cut-off valves, safety relief valves, shut-off valves, final line regulators, strainers and high purity valves. Full specifications of construction, dimensions and available pressure ranges are contained in separate Data Sheets.

*For More Information, Write or Call For: CAVMC-0514 and CAVMC-0515.*

*Contact Factory For Additional Information on Shut-off and Combination Valves.*



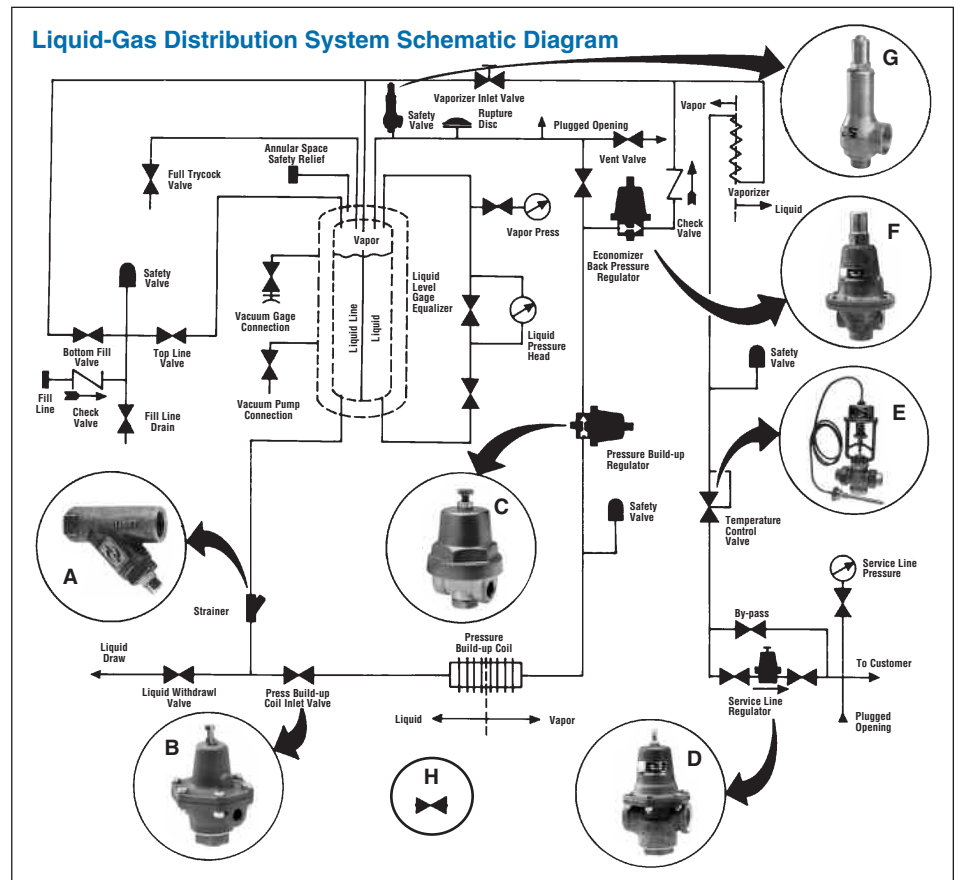
PBE-1 Valve



PBE-2 Valve

Combination Pressure Builder/Economizer Valves

### Liquid-Gas Distribution System Schematic Diagram



- A. Cash Valve Type SY-70C
- B. Cash Valve Type B
- C. Cash Valve Type A-32
- D. Cash Valve Type E-55

- E. Cash Valve Type LTC
- F. Cash Valve Type FR
- G. Cash Valve Type C-776
- H. Cash Valve Shut-off Valves  
(Consult Factory for availability)



## DR-A Low Pressure Back Pressure Valve



### Applications:

For service on air, water, oil and other non-corrosive liquids and gases.

**Sizes:** 1/2", 3/4", 1", 1 1/4"

### Features:

Controls up to 25 psi. Automatically maintains desired pressure in a line or system by discharging excess pressure to the atmosphere or to a lower pressure system. All bronze, neoprene-nylon

diaphragm, composition disc, sensitive adjusting spring. On installation, a "T" is placed in the inlet line and a sensing connection is run from it to the top of the valve.

### Options:

Can be furnished to control down to 1 psi on the inlet.

## FR, FR-6, FR-10 0 to 600 psi Back Pressure Valves



### Applications:

Centrifugal, regenerative turbine, reciprocating or rotary pump bypass valve. Protects pump systems from over pressure.

**Sizes:** 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"

### Features:

Protects against periodic high pressures; maintains a desired inlet pressure by relieving to a lower variable pressure, or to atmosphere. Relieves dependably at adjusted pressures; shuts tight after relieving. Features unique "Floating Ring" seating arrangement that produces perfect seat contact. The FR valves afford unusually close regulation, repeatability of opening pressure and close reseating pressures. The

FR-10 is for more economical, lower pressure applications — maximum pressure setting 250 psi. (Provided with iron body and spring housing only). Type FR is available in iron, bronze, steel or stainless steel body; threaded connections; monel, stainless steel or BUNA-N diaphragm. Pressure settings from 0 to 400 psi. The FR-6 is available for 200 to 600 psi.

### Options:

Can be used with two side inlets, bottom outlet, or angle type with side inlet, bottom outlet. And can be furnished for differential and dome loaded applications.

*For More Information, Write or Call For: CAVMC-0516.*

## FRM, FRM-2 Small Back Pressure Valves



### Applications:

For service on liquids, air and gases not corrosive to brass. Recommended for bypass regulation on fuel oil systems, compressor governor pilot control, and many small to medium pumping system bypass jobs. Ideally suited for many applications in the cryogenic field.

### Sizes:

1/8", 1/4", 3/8" FRM  
1/4", 3/8", 1/2" FRM-2

### Features:

Automatically maintains a constant inlet or back pressure. Functions as a pressure limiting regulator, not as a safety device. Bronze body, stainless steel seat ring and disc.

### Options:

Furnished with either neoprene diaphragm (max. temp. 180°F [82°C]) or metal diaphragms (max. temp. 500°F [255°C]), in three body styles: side inlet, side outlet; side inlet, bottom outlet; and two side inlets, one bottom outlet. Available with stainless steel wetted parts. FRM maximum control pressure of 175 psi, FRM-2 maximum control pressure of 250 psi (may be modified for higher pressures to 600 psi).

*For More Information, Write or Call For: CAVMC-0516.*

# Cash Valve

## K-5, K-5C Angle Back Pressure Valves

### Applications:

Suitable for pump systems of all kinds. Applicable on water, other fluids and especially oils of all grades.

**Sizes:** 1", 1 1/4", 1 1/2", 2"

### Features:

High-capacity valves. For flow up to 200 gallons per minute in the larger sizes.

Bronze body and trim, threaded connections, bottom and side female connections, brass spring chamber, stainless steel adjusting spring, high temperature gaskets. K-5 has a metal seat. K-5C has a soft seat for tight shut-off. Relief pressures range from 5 to 150 psi.

*For More Information, Write or Call For: CAVMC-0517.*



## K-10 Piston Type Back Pressure Valve

### Applications:

For water, other liquids, and light fuel oils. Not for steam. Designed to limit a specific pump discharge pressure on machine tool hydraulic systems, oil burning equipment, rams, presses, lifts, etc.

**Sizes:** 1/4", 3/8", 1/2", 3/4", 1", 1 1/4"

### Features:

Bronze angle body, stainless steel trim, threaded connections, single metal-to-metal

seat only, bottom female inlet, side female outlet. Relief pressure ranges from 15 to 600 psi. Maximum temperature is 450°F [232°C].

*For More Information, Write or Call For: CAVMC-0517.*



## K-15 High Pressure, Angle By-pass Valve

### Applications:

Suited for by-pass applications on high pressure pumps or any system requiring automatic regulation of pump discharge pressure. Many applications in the chemical and process field (waste treatment-desalination) and car washes.

**Sizes:** 1/4", 3/8", 1/2", 3/4"

### Features:

Angle type by-pass valve handles high pressure up to 1500 psi in brass body. Threaded connections. Maximum temperature 450°F [232°C].

### Options:

Employs a replaceable stainless steel seat and piston for longer valve life at minimal cost. Does not have to be removed from the line for servicing.

*For More Information, Write or Call For: CAVMC-0517.*



## KP Pilot Operated Back Pressure Valve



### Applications:

Suitable for air or water service.

**Sizes:** 1", 1 1/4", 1 1/2", 2"

### Features:

Offers high-capacity, extremely accurate control. Main valve features brass construction, BUNA-N diaphragm and seat disc, stainless steel spring. Pilot is brass with stainless steel spring, seat disc and

seat ring; bronze diaphragms for air service or neoprene diaphragms for water. Pressure setting 15 to 200 psi.

### Options:

Available with modifications for high temperature (to 400°F [204°C]), high pressure (to 400 psi).

*For More Information, Write or Call For: CAVMC-0518.*

## MC Small By-pass Valve



### Applications:

For water, oil, and other fluids.

**Sizes:** 1/2", 3/4", 1"

### Features:

Small, economical bypass valve for pressure control of a less-critical nature. Bronze body,

stainless steel ball seat. Metal-to-metal seat — does not close off drip tight. Leak-proof cover cap and gasket. Male inlet, female side outlet. Pressure ranges 10 to 250 psi.

## NSW Adjustable Angle By-pass Valve



### Applications:

An inexpensive solution to installations requiring frequent changes in the set point. Designed for bypass and overpressure protection in pumping systems such as weed sprayers, etc. that are non-corrosive to bronze.

**SIZE:** 1/2" only

### Features:

Bronze body, BUNA-N disc and stainless steel spring. One of three pressure springs is used, providing an adjustable range of 10 to 60 lbs., 0 to 125 lbs., or 20 to 200 lbs. Male inlet, female outlet.

## CP & CP2 Compressor Pilot Valve



Types CP and CP-2 are used as pilot valves in Rotary Screw Compressors to control receiver pressure or compressor discharge pressure. The Pilot Valves provide a regulated output pressure that increases on a desired ratio to provide input pressure to the air intake valve. Benefits of the Types CP and CP-2 are savings in energy, quieter Compressor operation, and reduced wear.

**SIZE:** 1/4"

### Features:

Bronze body, bronze trim, with stainless steel seat ring and disc. Maximum Controlled pressure of 400 psig.

# Cash Valve

## TA Temperature Regulating Valve



### Applications:

Designed for use in installations where a certain temperature must be maintained in heating or cooling fluids.

**Sizes:** 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"

### Features:

Bronze body with union ends, direct or reverse acting, stainless steel trim. Also available as a 3-way valve for diverting or mixing applications. Brass thermal systems standard. Stainless steel, Teflon® or PVC coated thermal system available as special option. Temperature ranges from -15°F [-25°C] to 415°F [252°C]. As temperature rises in the bulb, liquid in the bulb vaporizes and transmits power through the tubing to a

bellows in the control valve. Heating or cooling fluid passing through the valve is thus modulated to maintain a desired temperature in the process being controlled.

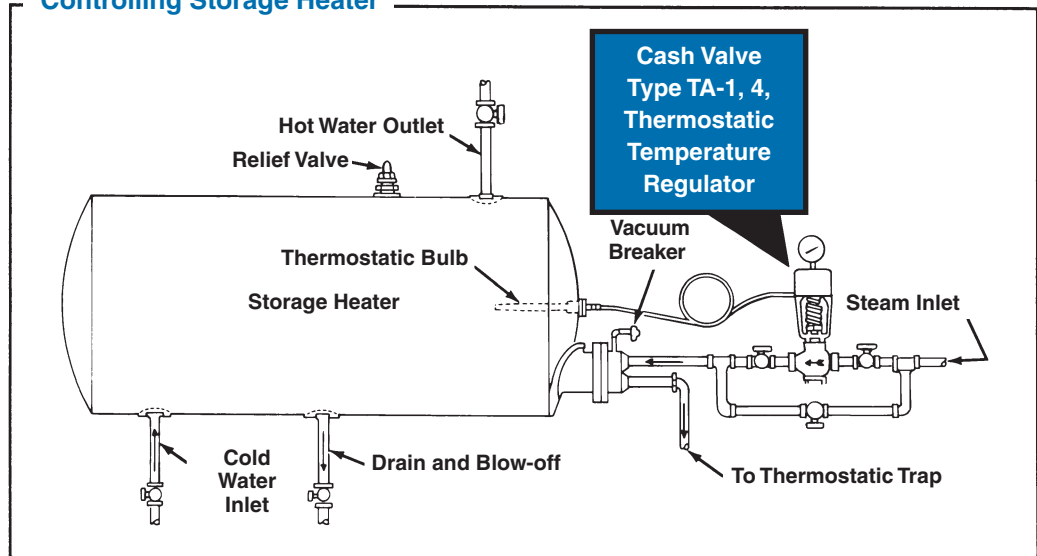
### Options:

Different bulb sizes available.

*For More Information, Write or Call For: CAVMC-0519.*

| Valve Model | Specifications                          |
|-------------|---|
| TA-1        | Direct Acting, Single Seat, Indicating  |
| TA-2        | Reverse Acting, Single Seat, Indicating |
| TA-3        | 3-Way, Single Seat, Indicating          |
| TA-4        | Direct Acting, Double Seat, Indicating  |
| TA-5        | Reverse Acting, Double Seat, Indicating |

### Controlling Storage Heater



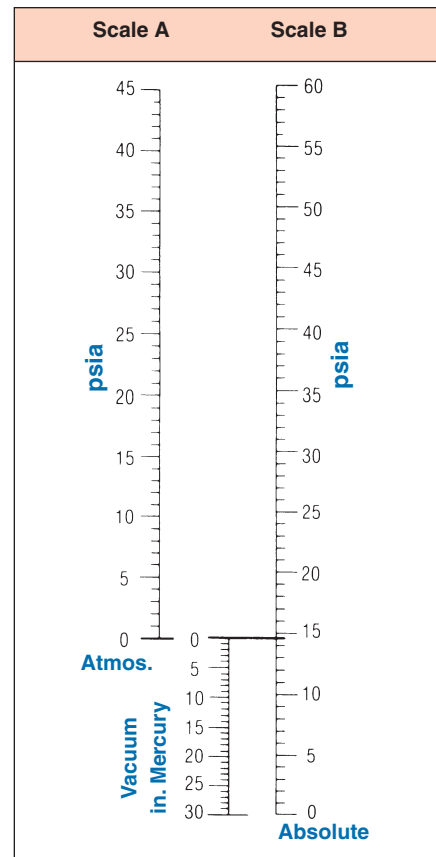
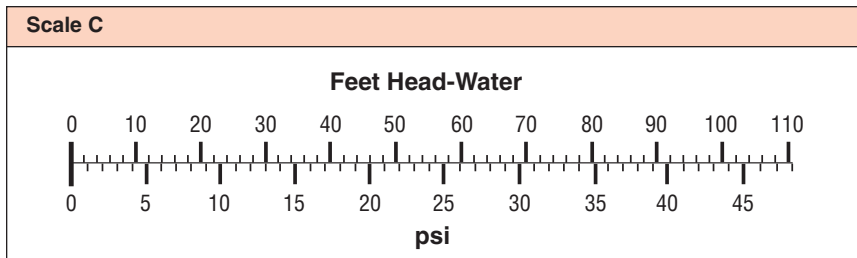
## A Word About Vacuum Measurement...

Vacuum is simply pressure below atmospheric pressure, or in a sense a "negative pressure." It is measured in terms of inches of mercury (Abbreviated - Hg, as in 21" Hg), in

terms of absolute pressure (psia) or in terms of inches of water column. Below are some simple conversion figures which at times may be useful

| Vacuum Conversion Figures |         |                        |
|---------------------------|---------|------------------------|
| Multiply:                 | By:     | To Obtain:             |
| Pounds Per Square Inch    | 27.686  | Inches of Water        |
| Pounds Per Square Inch    | 2.036   | Inches of Mercury      |
| Inches of Water           | 0.07355 | Inches of Mercury      |
| Inches of Mercury         | 13.596  | Inches of Water        |
| Inches of Water           | 0.03613 | Pounds Per Square Inch |
| Inches of Mercury         | 0.4912  | Pounds Per Square Inch |

| Pressure Conversion Figures |                    |          |                           |             |                          |         |         |
|-----------------------------|--------------------|----------|---------------------------|-------------|--------------------------|---------|---------|
| psi                         | kg/cm <sup>2</sup> | ATM.     | Columns of Mercury at 0°C |             | Columns of Water at 15°C |         |         |
|                             |                    |          | inches                    | millimeters | inches                   | feet    | meters  |
| 1.00                        | 0.07031            | 0.06804  | 2.036                     | 51.71       | 27.70                    | 2.309   | 0.7037  |
| 14.22                       | 1.00               | 0.9678   | 28.96                     | 735.5       | 394.1                    | 32.84   | 10.01   |
| 14.70                       | 1.033              | 1.00     | 29.92                     | 760.0       | 407.1                    | 33.93   | 10.34   |
| 0.4912                      | 0.03453            | 0.03342  | 1.00                      | 25.40       | 13.61                    | 1.134   | 0.3456  |
| 0.01934                     | 0.001360           | 0.001316 | 0.03937                   | 1.00        | 0.5357                   | 0.04464 | 0.01361 |
| 0.03609                     | 0.002538           | 0.002456 | 0.07349                   | 1.367       | 1.00                     | 0.08333 | 0.0254  |
| 0.4331                      | 0.03045            | 0.02947  | 0.8819                    | 22.40       | 12.00                    | 1.00    | 0.3048  |
| 1.421                       | 0.09901            | 0.09901  | 2.893                     | 73.49       | 39.37                    | 3.281   | 1.00    |



To convert pounds per square inch gauge (psig) or pressure below atmosphere (vacuum, inches of mercury) to absolute pressure, read horizontally from A to B. Conversely, to convert absolute pressure to psig or inches of mercury, read from B to A.

## A-31VR Small Vacuum Regulating Valve

### Applications:

Suitable for surgical equipment, lab or manufacturing processes, and other applications requiring accurate and sensitive vacuum regulation at low flows.

**Size:** 1/4" only

### Features:

Furnished in forged brass, with neoprene seat and diaphragm. Two adjustable ranges of 2" to 16" and 10" to 30" mercury vacuum. All connections are 1/4" IPS. Standard valve is plain brass. Closely controls low capacity vacuum systems. The vacuum source is

connected to the bottom of the valve, one side connection is for a gauge, the other side connects to the system in which vacuum is to be controlled. The sensitive top screw automatically adjusts the vacuum source to maintain the desired vacuum in the system.

Cut Sheet on A-31VR provide for your reference.



# Cash Valve

## D-51, D-52 Vacuum Regulating or Breaker Valves



### Applications:

Designed for use where a predetermined vacuum is to be accurately maintained in a closed system (D-51 Vacuum Regulator) or by automatically admitting atmosphere when the vacuum level exceeds the valve setting (D-52 Vacuum Breaker).

**Sizes:** 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"

### Features:

Fully adjustable and furnished with bronze bodies, threaded connections and internal parts, neoprene-nylon diaphragms, stainless steel body seats and composition discs. Two ranges - 2" to 30" mercury.

Cut Sheet provide for your reference.

## FRM-V Vacuum Breaker Valve



### Applications:

A small sized vacuum breaker for controlling vacuum in a system by admitting atmosphere when the vacuum level exceeds the valve setting.

**Sizes:** 1/8", 1/4", 3/8"

### Features:

Features full adjustability by means of a top adjusting screw. The adjusting screw is turned clockwise for a higher setting and counterclockwise for a lower setting. Forged brass body, stainless steel valve seat and valve disc, stainless steel or rust-proofed steel pressure spring, and neoprene or phosphor bronze diaphragms. Adjustable spring range 2" to 30" mercury vacuum.

Cut Sheet provide for your reference.



## D-53 Two Position Control Valve



### Applications:

Cooling water control valve for water cooled air compressors, air compressor dump valve, explosive atmosphere valve, substitute for expensive electric solenoids. Available normally open or normally closed.

### Sizes:

1/2", 3/4", 1", 1 1/4", 1 1/2", 2" - threaded connections (top connection 1/8" for 1/2" and 3/4" body sizes; all other sizes have 1/4" top connection).

### Features:

All bronze, with renewable stainless steel valve seat of full port diameter, renewable

composition seat disc, neoprene-nylon diaphragm. Rust-proof steel bolting. Full port diameter means full capacity and low pressure drop through the valve. For maximum hook-up flexibility, diaphragm pressure connection may be indexed to any of four positions: over inlet, over outlet, or either side. Maximum body pressure 250 psi; diaphragm pressure 300 psi. Maximum temperature 180°F (82°C).

### Options:

Numerous options for OEM applications.

*For More Information, Write or Call For: CAVMC-0520.*

## LIMITED WARRANTY

Cash Valve warrants each of their products against defects in material and workmanship for a period of one year from the date of shipment. In the event of any defect within the warranty period, Cash Valve will, at its option, replace or recondition the product without charge providing the product is returned, prepaid to Black Mountain. This shall constitute the exclusive remedy for any alleged defect. **Cash Valve shall not be responsible for any incidental, indirect, contingent or consequential damages, including, without limitation, damages or other costs resulting from labor charges, delays, loss**

**of use, revenue or profit, vandalism, negligence, fouling caused by foreign material, damage from peculiar water conditions, chemicals, or other circumstances over which Cash Valve has no control. Cash Valve makes no other warranties, express or implied, except as provided in this limited warranty. This warranty becomes voided by any misapplication, misuse, abuse or improper installation of the product.** This warranty gives you specific legal rights and you may also have other rights which may vary.

## STATEMENT OF POLICY

We reserve the right to make changes or improvements in our products without obligation to incorporate such changes or improvements in stock already manufactured. We will not replace or exchange new or improved products for older styles on customers' shelves. We also reserve the right to make substitutions in material of construction where necessary because of government regulations or availability of material. Necessary changes will not, however, affect performance or proper functioning of valves.

We also reserve the right to withdraw or drop a product from our line without notice.

It is our sincere desire to maintain full cooperation with customers and upon any questions arising in our transactions, we solicit your correspondence.

For over seventy years Cash Valve has demonstrated its integrity, responsibility, and technical skill, as evidenced by the continued patronage of its many customers and friends.