Quality products backed by the industry’s leading warranty.

For over 60 years, OCV has been a trusted name in the military and commercial aviation industries, providing quality products and backing them up with outstanding service and an industry-leading 5-year warranty. Nothing speaks louder of our commitment to quality and performance, and to the customers we serve around the globe.

Global performance. Personal touch.

Over the years, we’ve learned what’s important to our customers. You want a quality product that’s been tested and tested again, then backed by the leading 5-year warranty in the business. You want service that’s personal, built on responsiveness, integrity and trust. And you want it all at a price that’s competitive. That’s why engineers, construction professionals and end users are choosing OCV Control Valves. With our modern facilities and expanding global presence, we’re the smart choice for fluid system control.

We proudly service the waterworks, fire protection, terminal services, aviation fueling, commercial plumbing and mining industries, offering our customers, the highest quality control valves and fluid control solutions worldwide.
Smart Solutions for Military and Commercial Aviation

We offer a wide range of valve designs and custom solutions to meet the needs of the aviation industry. Our valves offer solutions from start to finish. All our control valves are high performance and designed to operate to spec. From truck loading, fuel filtration and back pressure control, our valves will help improve your fueling systems. Our quality and availability have made us the standard in aviation fueling.
OUR VALUES

All valves are not created equal. OCV Control Valves proves that day in and day out. We stand behind our valves and are ready to serve your needs.

Committed to the work they do, our employees average over 15 years of service. This wealth of knowledge allows us to provide quality engineering, expert support, exacting control and the know-how to create valves known for their long life.

Being ISO 9001 certified means we are committed to a quality assurance program. Our policy is to supply each customer with consistent quality products and ensure that the process is right every time. Our valves meet and exceed industry standards around the world.

OCV control valves are hydraulically operated, diaphragm actuated globe or angle valves that operate automatically from either line pressure or an independent hydraulic source. Internal moving parts are minimal and all valves can be adjusted and serviced without removal from the line, creating the lowest total cost of ownership.

FILTER SEPARATOR VALVES

Model 119 Filter Separator Shut-Off Valve

Model 119

The Model 119 Slug Valve (FSCV) interfaces with filter separators via OCV’s filter-mounted float pilot. When too much water accumulates in the sump of a filter, the float rises up and shuts down the slug valve to prevent water from contaminating the hydrant system. This valve can be trimmed with a wide variety of features. Some of the more common features used are: Check, Flow-limiting, Emergency Shutdown, and Max-Differential Shutdown.

FEATURES

- High capacity pilot system provides quick closing
- Valve position indicator

Model 119-5 Filter Separator Rate of Flow/Shut-Off Valve

The Model limits the flow of fuel through a filter separator and, in the event of high water levels in the filter separator sump, closes fully. It operates in conjunction with one of the OCV 800 Series interface float pilots.

FEATURES

- Controls or limits flow to a predetermined rate
- Built-in orifice plate for sensing flow rate
- Extra-sensitive differential pilot
- Flow rate is adjustable with single screw
- High capacity pilot system provides quick closing
- Valve position indicator
- Meets the UFGS-33 52 43.14 Guide Specifications for a Filter Separator Control Valve with a Flow Limiting Feature
Model 119-15 Filter Separator Rate of Flow/Shut-Off/Check Valve

The Model 119-15 is designed to limit the flow of fuel through a filter separator, close fully in the event of high water levels in the filter separator sump and to prevent reverse flow. It operates in conjunction with one of the OCV 800 Series interface float pilots.

**FEATURES**
- Controls or limits flow to a predetermined rate
- Built-in orifice plate for sensing flow rate
- Extra-sensitive differential pilot
- Flow rate is adjustable with single screw
- High capacity pilot system provides quick closing on water slug
- Check feature integral to pilot system
- Optional solenoid can be added for emergency shut-off functions
- Meets the UFGS-33 52 43.14 Guide Specifications for a Filter Separator Control Valve

Model 800D-MTW Interface Float Pilot-Side Mounted

The Model 800D-MTW is the key control element of all OCV filter separator float controls, the sole purpose of which is to allow only the discharge of clean, water-free fuel from the filter separator.

**FEATURES**
- Ballasted manual tester verifies integrity of float ball
- Side-mount flange fits most brands of filter separators
- Pilot float “rides” the interface between water and fuel
- Four-way control to actuate discharge slug valve and/or automatic water drain valve
- Uses OCV’s time-proven 800 pilot block design
- Stainless Steel pilot and float assembly (no red metals)
- Meets the UFGS-33 52 43.14 Guide Specifications for a Filter Separator Float Control Valve and Tester

Model 120-16

The Model 120-16 is applicable anywhere the flow rate must be controlled or limited. Typical examples include pump systems and fuel metering systems (FSCV).

**FEATURES**
- Modulates as required to prevent flow rate from exceeding a predetermined maximum
- Opens and closes via discrete electrical signals
- Closes to prevent backflow in the event of pressure reversal
- Built-in orifice plate for sensing flow rate
- Extra-sensitive differential pilot
- Flow rate is adjustable with single screw
- Adjustable response speed
Model 94-1QC Non-Surge Check Valve

The Model 94-1QC non-surge check valve is a simple on/off valve which effectively minimizes pump start up surges. The 94-1QC opens at an adjustable speed to allow forward flow and closes quickly and tightly to prevent reverse flow (CV).

FEATURES

- Opens slowly on pump start
- Closes quickly on pump shut-down
- Visual indicator enables operator to determine valve position at a glance
- Meets the UFGS-33 52.43.14 Guide Specifications for a Non-Surge Check Valve

Model 120-6 Rate of Flow/Non-Surge Check Valve

The Model 120-6 is applicable where the flow rate must be controlled or limited and reverse flow must be prevented, and is therefore ideal as a pump discharge control valve (CV).

FEATURES

- Controls or limits flow to a predetermined rate
- Built-in orifice plate for sensing flow rate
- Check feature closes valve on pressure reversal
- Extra-sensitive differential pilot
- Flow rate is adjustable with single screw
- Adjustable response speed
- Optional solenoid can be added for emergency shut-off functions
- Meets the UFGS-33 52.43.14 Guide Specifications for a Non-Surge Check Valve with Flow Control

PUMP DISCHARGE VALVES
SYSTEM PRESSURE CONTROL VALVES

Model 108-3

The Model 108-3 is applicable anywhere a system must be protected from pressures that are too high (relief) or too low (sustaining) and reverse flow must be prevented. Typical examples include pump systems and fuel distribution systems (PCV).

FEATURES
• Pressure Sustaining: prevents inlet pressure from dropping below a predetermined minimum
• Automatic closure on pressure reversal
• Operates over a wide flow range
• Set pressure is adjustable with single screw
• Quick opening and adjustable closing speed

Model 108-34 Backpressure/Check/Solenoid Shut-Off Valve

The Model 108-34 is used to maintain a minimum back pressure, combined with the requirement of backflow prevention and an on/off electrical operation. Typical application examples include pump systems, fuel distribution systems and hydrant refueling system back pressure control valve (BPCV, PCV, D/FV).

Backpressure Control Valves (BPCV) are activated via solenoid and maintain a hydrant system pressure during aircraft fueling operations. Pressure Control Valves (PCV) lower hydrant system pressure during low usage or zero-demand times. Defuel/Flush Valves (D/FV) are used while either defueling aircraft or flushing hydrant system of debris.

FEATURES
• Pressure Sustaining: Prevents inlet pressure from dropping below a predetermined minimum
• Electrically operated solenoid allows valve to open (control pressure) or shut off (close)
• Automatic closure on pressure reversal
• Operates over a wide flow range
• Meets the UFGS-33 52 43.14 Guide Specifications for a Backpressure Control Valve in a Type III System, for a Pressure Control Valve in a Type III System and an Air Block Valve/Non-Surge Check Valve
• Set pressure is adjustable with single screw
• Quick opening and adjustable closing speed
• Can be specialized for Type III and Type IV Systems
Model 115-2 Solenoid Shut-Off/Flushing Valve

The Model 115-2 is used to open and close a valve electrically. Typical application examples include process control, petroleum loading terminals and storage tank level control (FV).

FEATURES
- Electrically operated solenoid allows valve to open or close
- Adjustable response speed

REFUELING & DEFUELING CONTROL VALVES

Model 114-1 Hydrant Control Valve for Hose Truck Systems

The OCV Model 114-1 is a control valve specifically designed for aircraft refueling service. Known as either a refueling or a hydrant control valve, it is the typical control valve for hydrant refueling systems and is used in conjunction with a hydrant hose truck or refueler. It opens and closes via pneumatic deadman control, modulates to control downstream pressure at a predetermined set point while open and closes rapidly to prevent undue pressure buildup due to a rapid reduction in demand (HCV).

FEATURES
- Pneumatic deadman control
- Pressure reducing pilot senses valve outlet or pressure compensating venturi
- High capacity surge control minimizes pressure buildup on reduction of flow
- Opening speed control
- Automatically opens for downstream thermal relief or defueling
- Equipped with visual indicator to monitor valve position
- Meets the UFGS-33 52 43.14 Guide Specifications for a Hydrant Control Valve for Hose Truck Systems (HHT) and Pantograph Systems
Model 114-3 Hydrant Control Valve for Pantograph Systems

The OCV Model 114-3 is a control valve specifically designed for aircraft refueling service. Known as either a refueling or a hydrant control valve, it is the typical control valve used on pantograph refueling systems. It opens and closes via hydraulic deadman control, while open modulates to control downstream pressure at a predetermined set point, limits flow rate to a predetermined maximum and closes rapidly to prevent undue pressure buildup due to a rapid reduction in demand (HCV).

FEATURES
- Hydraulic deadman control
- Pressure reducing pilot senses valve outlet or pressure compensating venturi
- High capacity surge control minimizes pressure buildup on reduction of flow
- Rate of flow pilot limits maximum flow
- Opening speed control
- Automatically opens for downstream thermal relief or defueling
- Equipped with visual indicator to monitor valve position

Model 114-2 control valve

The OCV Model 114-2 is a control valve specifically designed for aircraft refueling service. Known as either a refueling or a hydrant control valve, it is the typical control valve used on pantograph refueling systems. It opens and closes via hydraulic deadman control, while open modulates to control downstream pressure at a predetermined set point, limits flow rate to a predetermined maximum and closes rapidly to prevent undue pressure buildup due to a rapid reduction in demand (HCV).

FEATURES
- Hydraulic deadman control
- Pressure reducing pilot senses valve outlet or pressure compensating venturi
- High capacity surge control minimizes pressure buildup on reduction of flow
- Rate of flow pilot limits maximum flow
- Opening speed control
- Automatically opens for downstream thermal relief or defueling
- Equipped with visual indicator to monitor valve position
Model 114-1E Refueling Control Valve

The OCV Model 114-1E is a control valve specifically designed for aircraft refueling service. Known as either a refueling or a hydrant control valve, it opens and closes electrically via a solenoid pilot, modulates to control downstream pressure at a predetermined set point while open and closes rapidly to prevent undue pressure buildup due to a rapid reduction in demand.

FEATURES
• Electrical deadman control
• Pressure reducing pilot senses valve outlet or pressure compensating venturi
• High capacity surge control minimizes pressure buildup on reduction of flow
• Opening speed control
• Automatically opens for downstream thermal relief or defueling
• Equipped with visual indicator to monitor valve position
• Designed for Hose Truck Systems (HHT) and Pantograph Systems

Model 8121-ETR Overfill Valve for Product Recovery Tank

The Model 8121-ETR Overfill Valve (OV) is a normally open valve that allows flow into a fuel reclaim reservoir. The OV is controlled via an OCV float pilot remotely mounted on the fuel reclaim reservoir. When the reservoir is full, the OV will close to prevent overfilling. A valve mounted thermal relief valve prevents upstream pressure build-up when the OV is closed due to a full reservoir.

FEATURES
• Automatically opens to allow flow to the tank when the tank is less than full (float down)
• Closes when the tank is full (float up)
• Relieves upstream thermal pressure buildup into the tank regardless of tank level
HIGH LEVEL CONTROL VALVES

Model 8101

The Model 8101 is applicable anywhere it is necessary to automatically control the high level in storage tanks where the float pilot can be mounted inside the tank.

FEATURES
- Allows tank filling and shuts off on high level
- Remote-mounted float pilot (inside tank)
- Two field-installed lines between valve and float pilot
- Adjustable response speed
- Manual tester available on float pilot

Model 8104 High Level Shut-Off Valve

The Model 8104 automatically controls the high level in storage tanks where the float pilot can be mounted inside the tank, such as below ground tanks.

FEATURES
- Allows tank filling and shuts off on high level
- Remote-mounted float pilot (inside tank)
- Two field-installed lines between valve and float pilot
- Adjustable response speed
- Manual tester available on float pilot
Model 8106-6 High Level Shut-Off Valve

The Model 8106-6, with its chamber-mounted float pilot, is specifically designed for high level shut-off use on floating pan tanks. It opens to allow the tank to fill, automatically closing when the tank high level is reached and closes tightly to prevent flow if the tank head should exceed inlet pressure.

- Optional pressure sensitive closing feature can be added
- Optional quick opening solenoid can be added
- Meets the UFGS-33 52 43.14 Guide Specifications for a High Level Shut-Off Valve with Check Feature

TANK SAFETY VALVES

The Model 66TS Tank Safety Valve

The Model 66TS Tank Safety Valve is designed to automatically isolate a fuel storage tank from its loading terminal or product transfer point. Hydraulically linked to the delivery pump, the valve is open only when the pump is running and is effectively producing pressure. The valve will automatically close when the pump is off, fails to produce pressure, or in the event of a line rupture.

FEATURES

- Totally hydraulic operation; no electrical connections
- Dual chamber, full open, low pressure drop design
- Thermal relief of excess downstream pressure
- Provides anti-siphon protection
- Capable of manual operation
- Valve position indicator standard

controlvalves.com
# SPECIFICATIONS

## Valve Body & Bonnet

<table>
<thead>
<tr>
<th>End Connections</th>
<th>Ductile Iron</th>
<th>Cast Steel WCB</th>
<th>Cast Steel WCB</th>
<th>Stainless Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flange Standard (also available in metric)</td>
<td>ANSI B16.42</td>
<td>ANSI B16.5</td>
<td>ANSI B16.5</td>
<td>ANSI B16.5</td>
</tr>
<tr>
<td>Flange Class</td>
<td>150#</td>
<td>300#</td>
<td>150#</td>
<td>300#</td>
</tr>
<tr>
<td>Flange Face</td>
<td>Flat</td>
<td>Raised</td>
<td>Raised</td>
<td>Raised</td>
</tr>
<tr>
<td>Maximum Working Pressure (at 100°F)</td>
<td>250 psi</td>
<td>640 psi</td>
<td>285 psi</td>
<td>740 psi</td>
</tr>
</tbody>
</table>

## Internals

- **Stem**: Stainless Steel
- **Spring**: Stainless Steel
- **Spool**: Ductile Iron (epoxy coated) / OPTIONAL - Stainless Steel
- **Seat Disc Retainer**: Ductile Iron (epoxy coated) (10” & Larger) / Stainless Steel (8” & Smaller / Optional - All Sizes)
- **Diaphragm Plate**: Ductile Iron (epoxy coated) / OPTIONAL - Stainless Steel
- **Seat Ring (Trim)**: Stainless Steel / Optional - Bronze / Stainless Steel
- **Upper Stem Bushing**: Bronze or Teflon®
- **Lower Stem Bushing**: Not Applicable for Bronze Seat Rings / Teflon® for Stainless Steel Seat Rings

## Elastomers Parts (Rubber)

- **Diaphragm/Seat Disc/O-Rings**: BUNA-N or VITON® or Fluorosilicon or EPDM
- **Operating Temperature**: -40°F to 180°F / 20°F to 230°F / -40°F to 150°F / 0°F to 230°F

*Consult factory when temperatures approach low or high temperature allowance.

## Coatings

Wide range of coating fluid applications. Coatings handle petroleum and refined products. Electroless nickel plating is standard for military applications.

## Electrical Solenoids

- **Bodies**: Brass or Stainless Steel
- **Enclosures**: Explosion proof solenoids available. ATEX/IECEx Optional
- **Power**: AC, 60Hz - 24, 120, 480 Volts / AC, 50Hz - In 110 Volt Multiples / DC, 12, 24, 125, 240 Volts
- **Operation**: Energize To Open (Normally Closed) / De-Energize To Open (Normally Open)

**VITON® and TEFLOMN®** are registered trademarks of DuPont Dow Elastomers.

## Control Pilots

<table>
<thead>
<tr>
<th>Bodies</th>
<th>Stainless Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>Stainless Steel</td>
</tr>
</tbody>
</table>

## Control Circuits

<table>
<thead>
<tr>
<th>Tubing</th>
<th>Stainless Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fittings</td>
<td>Stainless Steel</td>
</tr>
</tbody>
</table>

Stainless Steel is standard for Control pilot and control circuit tubing unless requested otherwise by the customer.

## Globe Flanged Sizes

<table>
<thead>
<tr>
<th>1.25&quot;</th>
<th>1.5&quot;</th>
<th>2&quot;</th>
<th>2.5&quot;</th>
<th>3&quot;</th>
<th>4&quot;</th>
<th>6&quot;</th>
<th>8&quot;</th>
<th>10&quot;</th>
<th>12&quot;</th>
<th>14&quot;</th>
<th>16&quot;</th>
<th>18&quot;</th>
<th>20&quot;</th>
<th>24&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>32MM</td>
<td>40MM</td>
<td>50MM</td>
<td>65MM</td>
<td>80MM</td>
<td>100MM</td>
<td>150MM</td>
<td>200MM</td>
<td>250MM</td>
<td>300MM</td>
<td>350MM</td>
<td>400MM</td>
<td>450MM</td>
<td>500MM</td>
<td>600MM</td>
</tr>
</tbody>
</table>

*Consult Factory

## Angle Flanged Sizes

<table>
<thead>
<tr>
<th>1.25&quot;</th>
<th>1.5&quot;</th>
<th>2&quot;</th>
<th>2.5&quot;</th>
<th>3&quot;</th>
<th>4&quot;</th>
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<td>32MM</td>
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<td>80MM</td>
<td>100MM</td>
<td>150MM</td>
<td>200MM</td>
<td>250MM</td>
<td>300MM</td>
<td>400MM</td>
</tr>
</tbody>
</table>
For maximum efficiency, the OCV control valve should be mounted in a piping system so that the valve bonnet (cover) is in the top position. Other positions are acceptable but may not allow the valve to function to its fullest and safest potential. In particular, please consult the factory before installing 8" and larger valves, or any valves with a limit switch, in positions other than described. Space should be taken into consideration when mounting valves and their pilot systems.

A routine inspection & maintenance program should be established and conducted yearly by a qualified technician. Consult our factory @ 1-888-628-8258 for parts and service.

**How to order your valve.**

When ordering please provide:  - Series Number - Valve Size - Globe or Angle - Pressure Class - Screwed, Flanged, Grooved - Trim Material - Adjustment Range - Pilot Options - Fluid to be Controlled - Elastomer Material - Special Needs / or Installation Requirements.
A plant powered by our people.

In 2010, we transitioned from a family-owned company to an Employee Stock Ownership Plan (ESOP), extending our ownership to workers who now have a direct stake in our success. It’s that pride and personal investment that have empowered us to become worldwide leaders in valve manufacturing and sales.

Our state-of-the-art manufacturing campus and corporate headquarters are located in Tulsa, Oklahoma.

OCV World Headquarters