A cartridge valve designed to combine a shock relief valve (direct acting), and anti-cavitation function through the check valve.

**OPERATION**

The RV Series prevents flow from 2 → 1 until the seat crack pressure at 2 is achieved. The valve unseats from the cavity allowing flow from 2 → 1, protecting the circuit from over pressurization.

The RV Series allows free flow from 1 → 2. As pressure at 1 exceeds pressure at 2, the valve unseats from the cavity allowing flow from 1 → 2.

**FEATURES AND BENEFITS**

- Rapid response to pressure surges.
- Anti-cavitation function through the check valve.
- Hardened precision poppet and seat for long life.
- Fast opening and closing.
- Low hysteresis.
- Compact size.

**DESCRIPTION**

A cartridge valve designed to combine a shock relief valve (direct acting), and anti-cavitation function through the check valve.

**OPERATION**

The RV Series prevents flow from 2 → 1 until the seat crack pressure at 2 is achieved. The valve unseats from the cavity allowing flow from 2 → 1, protecting the circuit from over pressurization.

The RV Series allows free flow from 1 → 2. As pressure at 1 exceeds pressure at 2, the valve unseats from the cavity allowing flow from 1 → 2.

**FEATURES AND BENEFITS**

- Rapid response to pressure surges.
- Anti-cavitation function through the check valve.
- Hardened precision poppet and seat for long life.
- Fast opening and closing.
- Low hysteresis.
- Compact size.

**DESCRIPTION**

A cartridge valve designed to combine a shock relief valve (direct acting), and anti-cavitation function through the check valve.

**OPERATION**

The RV Series prevents flow from 2 → 1 until the seat crack pressure at 2 is achieved. The valve unseats from the cavity allowing flow from 2 → 1, protecting the circuit from over pressurization.

The RV Series allows free flow from 1 → 2. As pressure at 1 exceeds pressure at 2, the valve unseats from the cavity allowing flow from 1 → 2.

**FEATURES AND BENEFITS**

- Rapid response to pressure surges.
- Anti-cavitation function through the check valve.
- Hardened precision poppet and seat for long life.
- Fast opening and closing.
- Low hysteresis.
- Compact size.
Please visit us at www.deltrolfluid.com for information on these other Deltrol product lines:

• High Performance Hydraulic Cartridge Valves
• Hydraulic Integrated Circuit Manifolds
• In-Line Flow Control, Needle, Check and Accessory Valves
• Custom Solutions for Your Fluid Power and Fluid Control Demands

Or Contact Us and Request a Free Catalog.

A cartridge valve designed to combine a shock relief valve (direct acting), and anti-cavitation function through the check valve.

DESCRIPTION
The RV Series prevents flow from 2 to 1 until the set crack pressure at 2 is achieved. The valve unseats from the cavity allowing flow from 1 to 2, protecting the circuit from over pressurization.

The RV Series allows free flow from 1 to 2. As pressure at 1 exceeds pressure at 2, the valve unseats from the cavity allowing flow from 1 to 2.

FEATURES AND BENEFITS
• Rapid response to pressure surges.
• Anti-cavitation function through the check valve.
• Hardened precision poppet and seat for long life.
• Fast opening and closing
• Low hysteresis.
• Compact size.

HOW TO ORDER

Please visit us at www.deltrolfluid.com

DELTROL FLUID PRODUCTS
A Division of Deltrol Corp.
3001 Grant Avenue
Bellwood, IL 60104
(708) 547-0500

www.deltrolfluid.com

DELTROL FLUID PRODUCTS
A Division of Deltrol Corp.
3001 Grant Avenue
Bellwood, IL 60104
(708) 547-0500

www.deltrolfluid.com

RV SERIES
High Pressure Anti-Cavitation Relief Valves

tm
**RV SERIES**

**RV-050 Relief Valve Cartridge**

**SPECIFICATIONS**
- Operating Pressure: 5500 psi (380 Bar)
- Max. Flow: 16 gpm (60 L/min)
- Internal Leakage: 1.0 cc/min at 80% set

**Crack Pressure**
- Defined: Determined at 25 gpm (9.9 L/min)
- Retest Pressure: Nominal 80% of crack pressure
- Temperature: -30°F to +220°F (-35°C to +104°C)

**Recommended Filtration**
- ISO 20/18/14

**Fluids**
- Mineral-based fluids

**Cavity/Cavity Tool**
- R05-2

**INSTALLATION DIMENSIONS**

**PRESSURE DROP VS. FLOW**

**PRESSURE RISE VS. FLOW**

---

**RV-060 Relief Valve Cartridge**

**SPECIFICATIONS**
- Operating Pressure: 5500 psi (380 Bar)
- Max. Flow: 20 gpm (77 L/min)
- Internal Leakage: 1.0 cc/min at 80% set

**Crack Pressure**
- Defined: Determined at 25 gpm (9.9 L/min)
- Retest Pressure: Nominal 80% of crack pressure
- Temperature: -30°F to +220°F (-35°C to +104°C)

**Recommended Filtration**
- ISO 20/18/14

**Fluids**
- Mineral-based fluids

**Cavity/Cavity Tool**
- R06-2

**INSTALLATION DIMENSIONS**

**PRESSURE DROP VS. FLOW**

**PRESSURE RISE VS. FLOW**

---

**RV-080 Relief Valve Cartridge**

**SPECIFICATIONS**
- Operating Pressure: 5500 psi (380 Bar)
- Max. Flow: 24 gpm (91 L/min)
- Internal Leakage: 1.0 cc/min at 80% set

**Crack Pressure**
- Defined: Determined at 25 gpm (9.9 L/min)
- Retest Pressure: Nominal 80% of crack pressure
- Temperature: -30°F to +220°F (-35°C to +104°C)

**Recommended Filtration**
- ISO 20/18/14

**Fluids**
- Mineral-based fluids

**Cavity/Cavity Tool**
- R08-2

**INSTALLATION DIMENSIONS**

**PRESSURE DROP VS. FLOW**

**PRESSURE RISE VS. FLOW**

---
RV SERIES RV-050 Relief Valve Cartridge
RV SERIES RV-060 Relief Valve Cartridge
RV SERIES RV-080 Relief Valve Cartridge

SPECIFICATIONS
- Operating Pressure: 5500 psi (380 Bar)
- Max. Flow: 16 gpm (60 L/min)
- Internal Leakage: 1.0 cc/min at 80% set
- Crack Pressure Defined: Determined at 25 gpm (9.1 L/min)
- Re-seat Pressure: Nominal 40% of crack pressure
- Temperature: -30°F to +220°F (-35°C to +104°C)
- Recommended Filtration: ISO 20/18/14
- Fluids: Mineral-based fluids
- Cavity/Cavity Tool: R05-2

USASI/ISO

SPECIFICATIONS
- Operating Pressure: 5500 psi (380 Bar)
- Max. Flow: 20 gpm (77 L/min)
- Internal Leakage: 1.0 cc/min at 80% set
- Crack Pressure Defined: Determined at 25 gpm (9.1 L/min)
- Re-seat Pressure: Nominal 40% of crack pressure
- Temperature: -30°F to +220°F (-35°C to +104°C)
- Recommended Filtration: ISO 20/18/14
- Fluids: Mineral-based fluids
- Cavity/Cavity Tool: R06-2

USASI/ISO

SPECIFICATIONS
- Operating Pressure: 5500 psi (380 Bar)
- Max. Flow: 24 gpm (91 L/min)
- Internal Leakage: 1.0 cc/min at 80% set
- Crack Pressure Defined: Determined at 25 gpm (9.1 L/min)
- Re-seat Pressure: Nominal 40% of crack pressure
- Temperature: -30°F to +220°F (-35°C to +104°C)
- Recommended Filtration: ISO 20/18/14
- Fluids: Mineral-based fluids
- Cavity/Cavity Tool: R08-2

USASI/ISO
RV SERIES

RV-050
Relief Valve Cartridge

USASI/ISO

SPECIFICATIONS
- Operating Pressure: 5500 psi (380 Bar)
- Max. Flow: 16 gpm (60 L/min)
- Internal Leakage: 1.0 cc/min at 80% set
- Crack Pressure: Defined at 25 gpm (0.9 L/min)
- Pressure Drop vs. Flow: -30°F to +220°F (-35°C to +104°C)
- Recommended Filtration: ISO 20/18/14
- Fluids: Mineral-based fluids
- Cavity/Cavity Tool: R05-2

PRESSURE DROP VS. FLOW

PRESSURE RISE VS. FLOW

RV-060
Relief Valve Cartridge

USASI/ISO

SPECIFICATIONS
- Operating Pressure: 5500 psi (380 Bar)
- Max. Flow: 20 gpm (77 L/min)
- Internal Leakage: 1.0 cc/min at 80% set
- Crack Pressure: Defined at 25 gpm (0.9 L/min)
- Pressure Drop vs. Flow: -30°F to +220°F (-35°C to +104°C)
- Recommended Filtration: ISO 20/18/14
- Fluids: Mineral-based fluids
- Cavity/Cavity Tool: R06-2

PRESSURE DROP VS. FLOW

PRESSURE RISE VS. FLOW

RV-080
Relief Valve Cartridge

USASI/ISO

SPECIFICATIONS
- Operating Pressure: 5500 psi (380 Bar)
- Max. Flow: 24 gpm (91 L/min)
- Internal Leakage: 1.0 cc/min at 80% set
- Crack Pressure: Defined at 25 gpm (0.9 L/min)
- Pressure Drop vs. Flow: -30°F to +220°F (-35°C to +104°C)
- Recommended Filtration: ISO 20/18/14
- Fluids: Mineral-based fluids
- Cavity/Cavity Tool: R08-2

PRESSURE DROP VS. FLOW

PRESSURE RISE VS. FLOW
Please visit us at www.deltrolfluid.com for information on these other Deltrol product lines:

• High Performance Hydraulic Cartridge Valves
• Hydraulic Integrated Circuit Manifolds
• In-Line Flow Control, Needle, Check and Accessory Valves
• Custom Solutions for Your Fluid Power and Fluid Control Demands

Or Contact Us and Request a Free Catalog.

DESCRIPTION
A cartridge valve designed to combine a shock relief valve (direct acting), and anti-cavitation function through the check valve.

OPERATION
The RV Series prevents flow from $\overline{2}$ to $\overline{1}$ until the set crack pressure at $\overline{2}$ is achieved. The valve unseats from the cavity allowing flow from $\overline{2}$ to $\overline{1}$, protecting the circuit from over pressurization.

The RV Series allows free flow from $\overline{1}$ to $\overline{2}$. As pressure at $\overline{1}$ exceeds pressure at $\overline{2}$, the valve unseats from the cavity allowing flow from $\overline{1}$ to $\overline{2}$.

FEATURES AND BENEFITS
• Rapid response to pressure surges.
• Anti-cavitation function through the check valve.
• Hardened precision poppet and seat for long life.
• Fast opening and closing.
• Low hysteresis.
• Compact size.

HOW TO ORDER

Other porting options available – Consult factory.