

# NEW

## DELTROL

*fluid products*

DIVISION OF DELTROL CORP



# RV SERIES

## RV SERIES

High Pressure Anti-Cavitation Relief Valves

## 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 to ① until the set crack pressure at ② is achieved. The valve unseats from the cavity allowing flow from ② to ①, 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

**RV - XXX - \* - \*\* / \*\*\* - \*\***

Relief  
Valve

Cavity 050  
Cavity 060  
Cavity 080

SEAL COMPOUND  
N = Buna N  
V = Viton

### SPRING RANGES

- 10 = 500 - 1700 psi (3.5-117 Bar)  
Preset: 100 psi (69 Bar)
- 20 = 1700 - 3000 psi (117 - 207 Bar)  
Preset: 2500 psi (172 Bar)
- 30 = 3000 - 3900 psi (207 - 269 Bar)  
Preset: 3500 psi (241 Bar)
- 40 = 4000 - 4200 psi (276 - 290 Bar)  
Preset: 4100 psi (283 Bar)
- 50 = 4200 - 5000 psi (290 - 345 Bar)  
Preset: 4500 psi (310 Bar)

PORTING  
4T = SAE 4  
6T = SAE 6  
Omit for  
Cartridge Only

FACTORY  
PRESET PSI  
Omit for Standard

( ) Parentheses = Millimeters

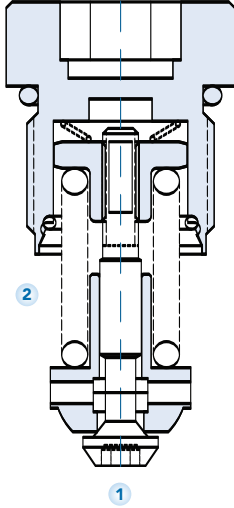
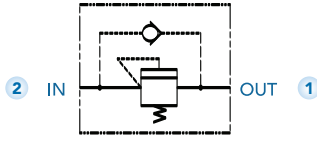
Other porting options available –  
Consult factory.

# RV-050

## Relief Valve Cartridge

# RV SERIES

### USASI/ISO

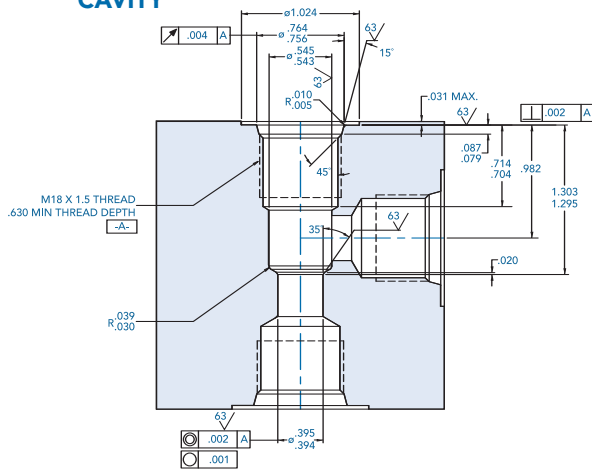


### SPECIFICATIONS

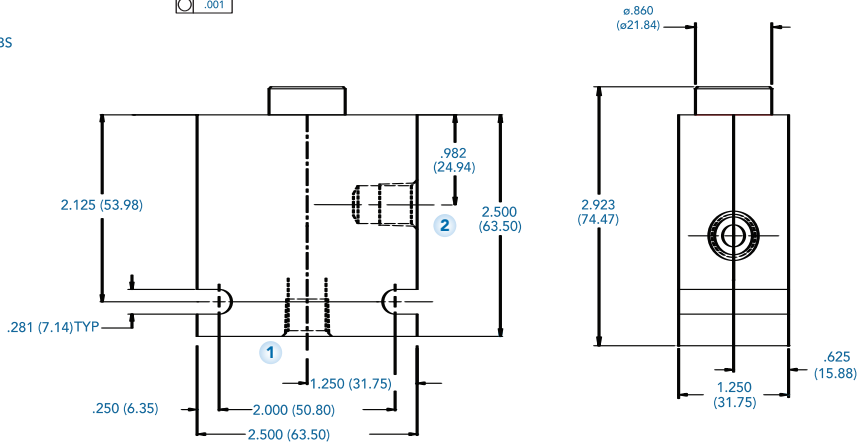
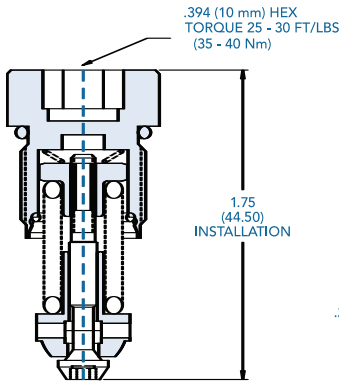
- Operating Pressure: 5500 psi (380 Bar)
- Max. Flow: 16 gpm (60 L/min)
- Internal Leakage: 1.0 cc/min at 80% set
- Crack Pressure Defined: Determined at .25 gpm (0.9 L/min)
- Reseat Pressure: Nominal 80% of crack pressure
- Temperature: -30°F to +220°F (-35°C to +104°C)
- Recommended Filtration: ISO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



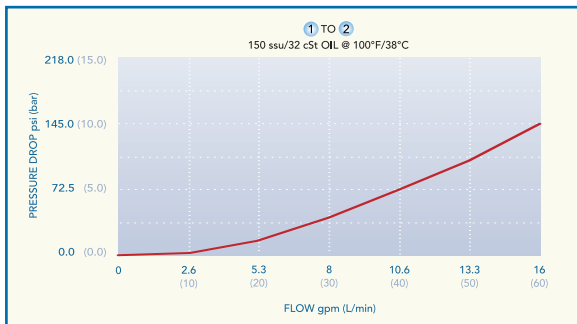
### CAVITY



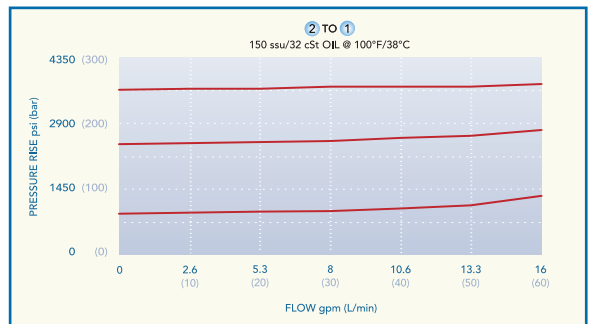
### INSTALLATION DIMENSIONS



### PRESSURE DROP VS. FLOW



### PRESSURE RISE VS. FLOW



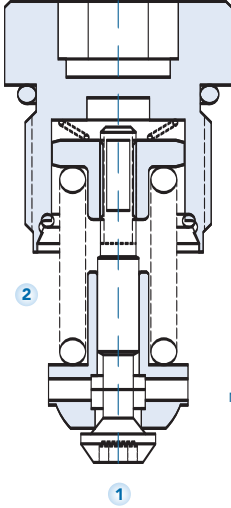
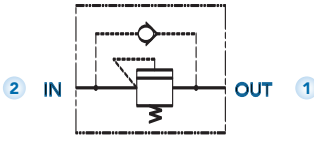


# RV-060

## Relief Valve Cartridge

# RV SERIES

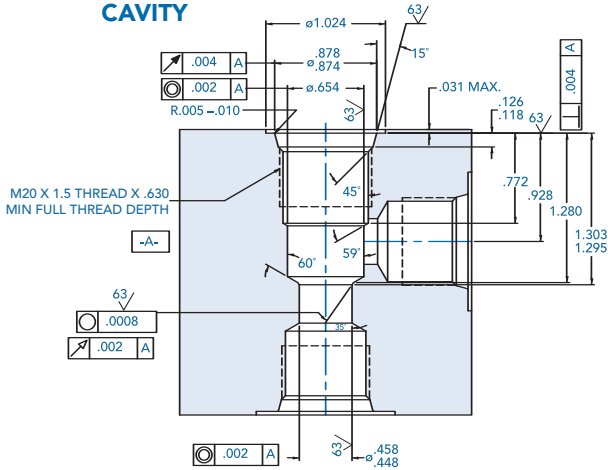
### USASI/ISO



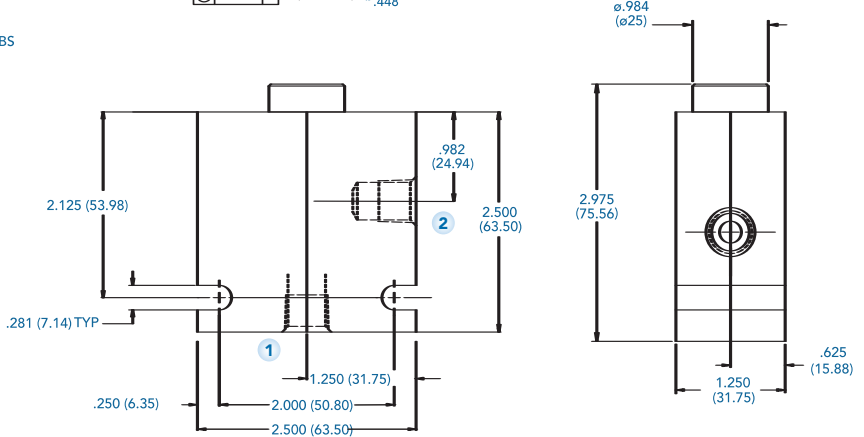
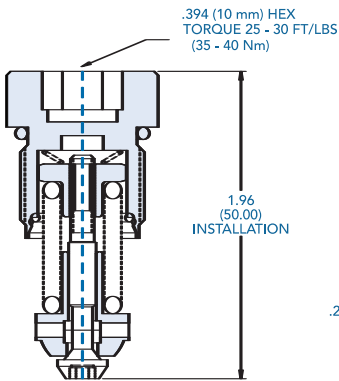
### SPECIFICATIONS

- 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 (0.9 L/min)
- Reseat 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

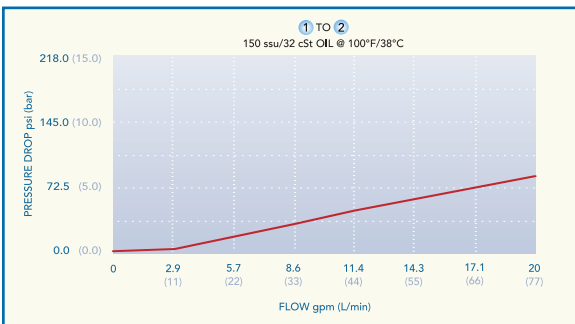
### CAVITY



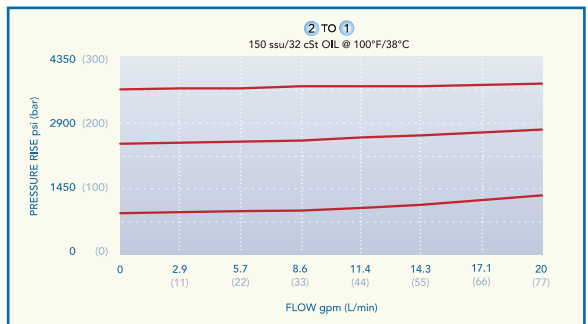
### INSTALLATION DIMENSIONS



### PRESSURE DROP VS. FLOW



### PRESSURE RISE VS. FLOW

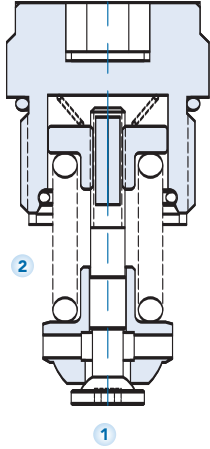
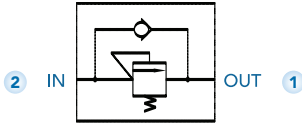


# RV-080

## Relief Valve Cartridge

# RV SERIES

### USASI/ISO

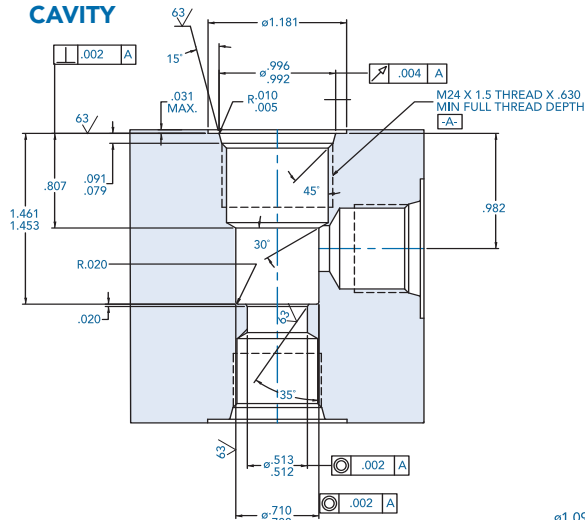


### SPECIFICATIONS

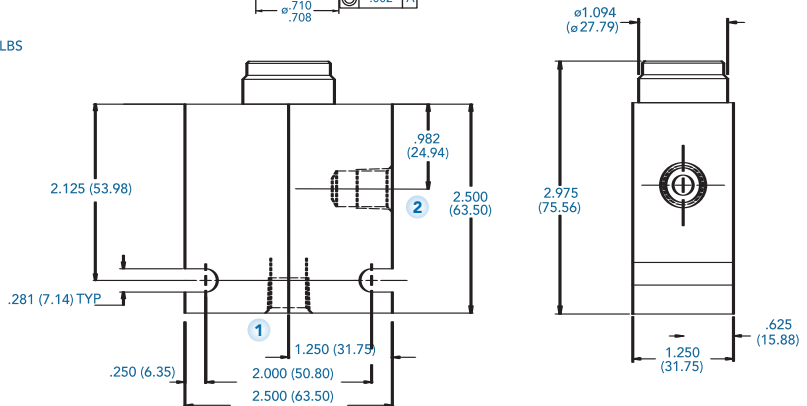
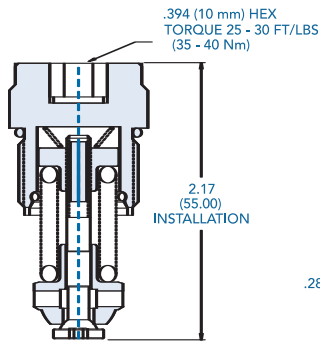
- Operating Pressure: 5500 psi (380 Bar)
- Max. Flow: 24 gpm (91 L/min)
- Internal Leakage: 1.0 cc/min at 80% set
- Crack Pressure Defined: Determined at .25 gpm (0.9 L/min)
- Reseat Pressure: Nominal 80% of crack pressure
- Temperature: -30°F to +220°F (-35°C to +104°C)
- Recommended Filtration: ISO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



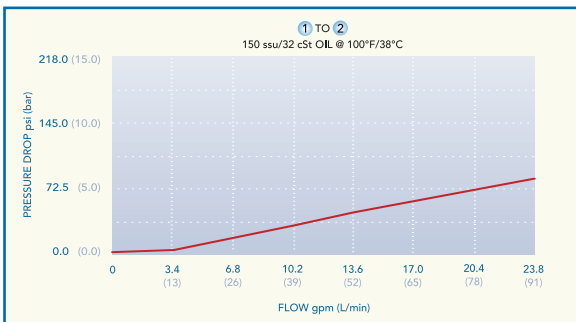
### CAVITY



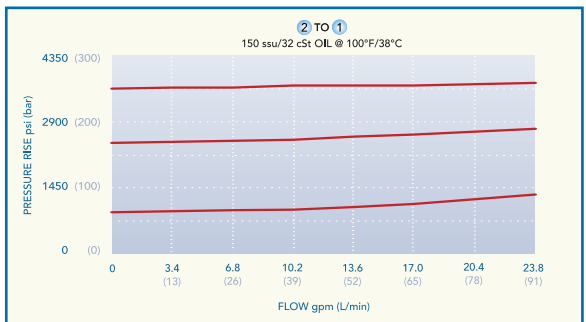
### INSTALLATION DIMENSIONS



### PRESSURE DROP VS. FLOW



### PRESSURE RISE VS. FLOW



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