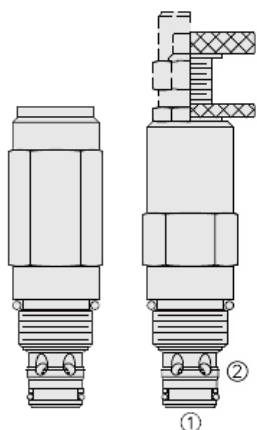




## Overview



### Description

RV50-26X is a screw in, cartridge style, pilot operated (two stage), spool type hydraulic relief valve, intended for use as a pressure limiting device in demanding hydraulic circuits which require fast response and low hysteresis

### Operation

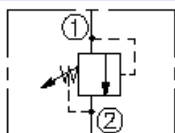
The RV50-26X blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to force the piloting relief off its seat, allowing the main (second stage) spool to shift, opening port 1 to port 2

**note:** this valve cannot be used in cross-over relief applications

### Features

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Hardened spool and cage for long life.
- Rapid, smooth response to pressure changes.
- Industry-common size.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	344.7 bar (5000 psi)	
Proof pressure	517.1 bar (7500 psi)	
Burst pressure	1037.7 bar (15050 psi)	
Relief pressure defined	Pressure evident at 7.57 lpm (2 gpm)	
Reseat pressure	Nominal 90% of crack	
Relief pressure range	20.7 to 344.7 bar (300 to 5000 psi)	- <b>Note:</b> From zero to maximum control current

### Flow Ratings

Flow rating	113.6 lpm (30 gpm)	- <b>Note:</b> At max pressure
Maximum internal leakage	147 ml/min (9 in <sup>3</sup> /min)	- <b>Note:</b> Port 2, at 85% of max crack

### Other Ratings

Cycle life	500000 cycles at 241.3 bar (3500 psi)
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### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With urethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

## Operating Parameters

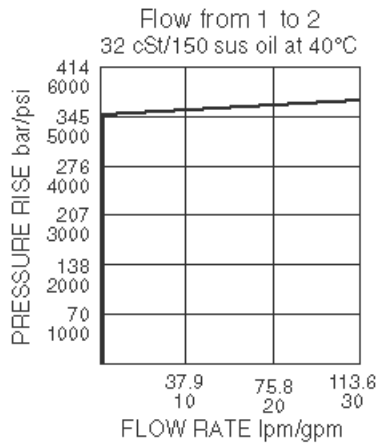
Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



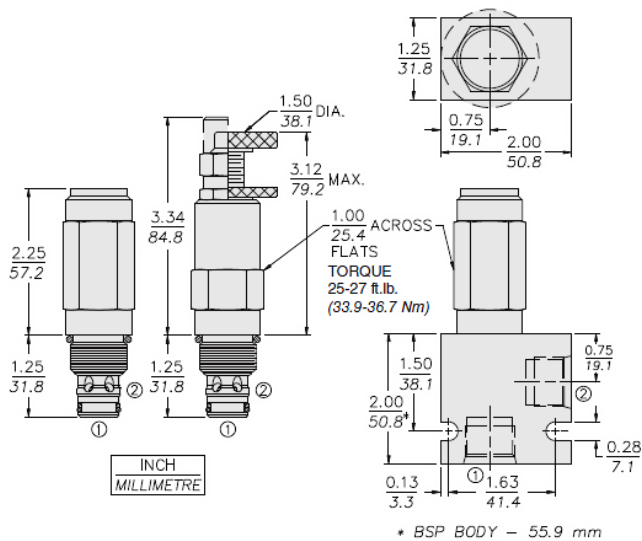
## Properties

Unit weight	0.25 kg (0.55 lb)	- <b>Note:</b> A
	0.27 kg (0.60 lb)	- <b>Note:</b> B
	0.29 kg (0.65 lb)	- <b>Note:</b> C I
	0.24 kg (0.53 lb)	- <b>Note:</b> F h
Internal wetted surface area	141 cm <sup>2</sup> (21.8 in <sup>2</sup> )	- <b>Note:</b> A b c I
	161 cm <sup>2</sup> (24.9 in <sup>2</sup> )	- <b>Note:</b> F h

## Performance



## Dimensions



## Materials

### Materials

**Cartridge:** Weight: 0.24-0.29 kg (0.53-0.65 lb) depending on adjustment option Steel with hardened work surfaces. Zinc-plated exposed surfaces. Polyurethane seals with Fluorocarbon back-ups for pressures over 240 bar (3500 psi). Anodized aluminum knobs.

**Ported Body:** Weight: 0.54 kg (1.2 lb) Ductile Iron (code "D") standard, consult factory for weight, dimensions may differ. Rated to 345 bar (5000 psi).

**Adjustment Option Details:** See [adjustment options](#)

## Installation Specifications

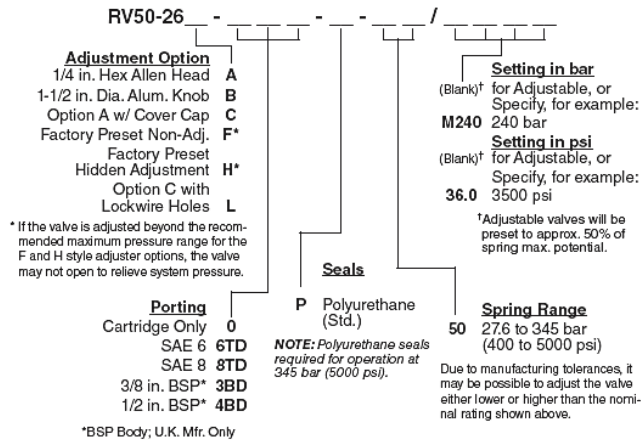
Cavity	VC10-2
Cartridge installation torque	47.6 to 50.2 N-m (35 to 37 ft-lb)
Maximum allowable torque	67.8 N-m (50 ft-lb)
H style plug torque	10.8 to 13.6 N-m (8 to 10 ft-lb)
Orientation restriction	None



## Accessories

Seal kit	SK10-2X-B	- <b>Note:</b> X=n,v,p
	SK10-2U-O	- <b>Note:</b> Urethane
Housings		

## Order Code



POSITION	CODE	DESCRIPTION
		RV50-26F-H-J-R/S
F		Adjustment Option
F	A	1/4" Hex Allen Head
F	B	1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob
F	C	1/4" Hex Allen Head with Cover Cap
F	F	Factory Preset Non-Adjustable
F	H	Factory Preset Hidden Adjustment
F	L	1/4" Hex Allen Head with Cover Cap and Lockwire Holes
H		Line Body
H	0	No Body
H	6T	Aluminum SAE 6
H	8T	Aluminum SAE 8
H	6TD	Ductile Iron SAE 6
H	8TD	Ductile Iron SAE 8
H	2B	Aluminum BSPP 1/4" (2)
H	3B	Aluminum BSPP 3/8" (3)
H	4B	Aluminum BSPP 1/2" (4)
H	4BD	Ductile Iron BSPP 1/2" (4)
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
R		Spring
R	50	27.6 to 344.7 bar (300 to 5000 psi) Spring Range
S		Setting
S	MXXX	Spring Setting in XXX bar
S	XX	Spring Setting in XX psi (x 100)