

# PO Relief and Anti-cavitation Valves

## RVP0.M28 Valve Series

**METRIC Cartridge - 420 bar**

**Pilot Operated with anticavitation - Poppet Type**

### Description

The RVP valve combines in one compact cartridge the typical function of relief valve and anticavitation through the check valve.

It's a screw-in, pilot operated (2-stage), poppet type, normally closed valve. When the pressure at the Inlet (1) reaches the valve setting, the pilot poppet starts to open from its seat and determines the shifting of the main stage poppet that throttles oil flow to tank (2).

In the free reverse flow function a light bias spring allows for ease of flow passage from side to nose (2 to 1).

The cartridge offers smooth transition in response to load changes in demanding hydraulic circuits.

Smooth response, reduced pressure rise and limited hysteresis.

### Technical Features

All external surfaces are zinc plated and corrosion-proof.

All valve parts are made of high strength steel. Poppets are hardened and micron finished in order to guarantee minimal wear and to extend service life.

Adjustment screw cannot be backed out of the valve.

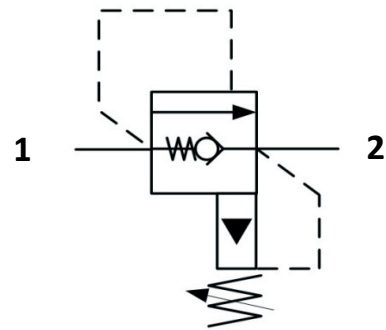
Spring range up to 420 bar (6100 psi).

Back pressure on the tank port (port 2) is directly additive to the valve setting at a 1:1 ratio.

Metric cavity.

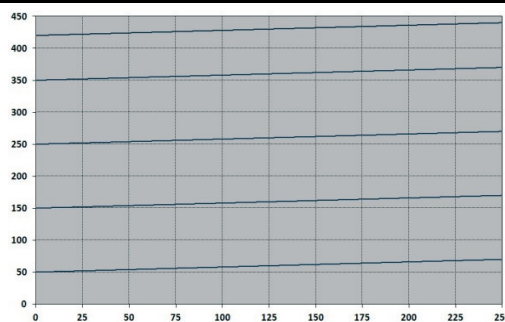


## Symbols

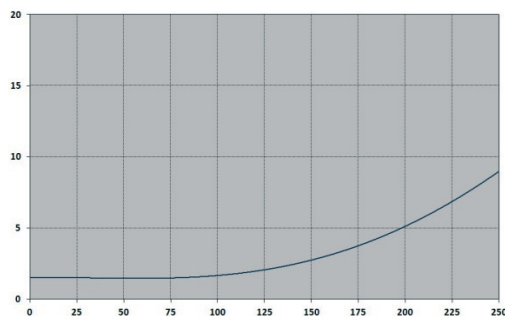


## Performance Details

**Pressure Relief function  
(side to nose)**



**Anti-cavitation function  
(nose to side)**



### Technical Data

Maximum operating pressure: 420 bar

Maximum flow: 250 l/min

Maximum internal leakage: 1 cc/min @ 100 bar

Factory pressure settings established @ 10 l/min

Reseat pressure: nominal 90% of crack pressure

Anti-cav cracking pressure: < 2 bar

Temperature: -30°C to 110°C

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt

Orientation: no restrictions

Installation torque: 90-100 Nm

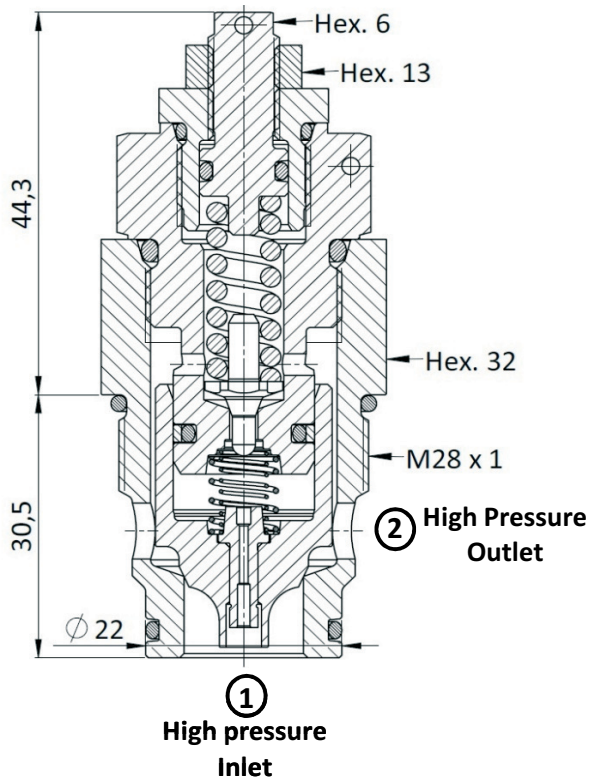
Seal kit code: SK.050

Weight: 0.267 kg

NOTE: The performance chart illustrates flow handling capacity at various settings.

P/Q curves are recorded at  $T_{oil} = 40^{\circ}C$  and 46 cSt

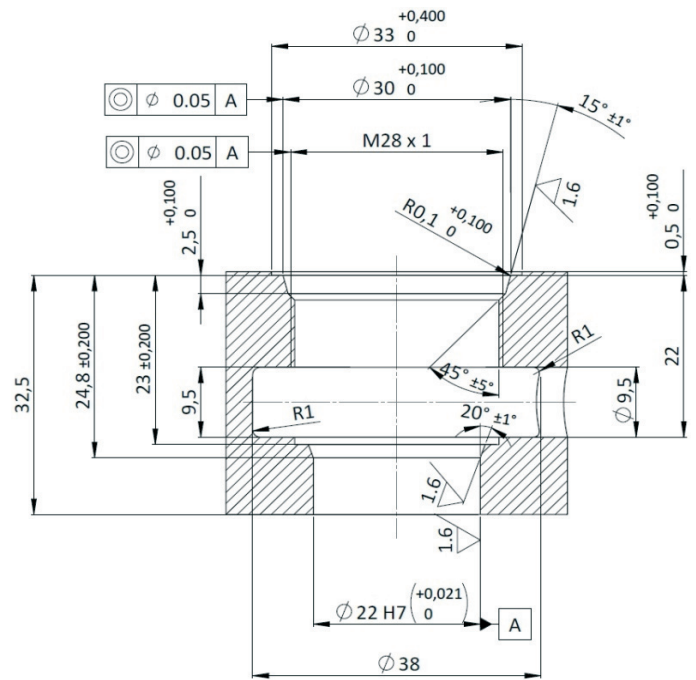
## Cross Section



To secure the setting, torque the Hex13 nut with 15-20 Nm

## Cavity Details

VH091



See Page 290

## Ordering Code

**R V P 0** . **M 2 8** . **0 N** . **\* \* \***

↓  
**Valve Basic Code**

**Options** ←

5 = Seal Lock  
See cross section below.

↓  
**Cavity**

M28 = Metric M28 x 1  
UNF cavity available upon request

↓  
**Marking**

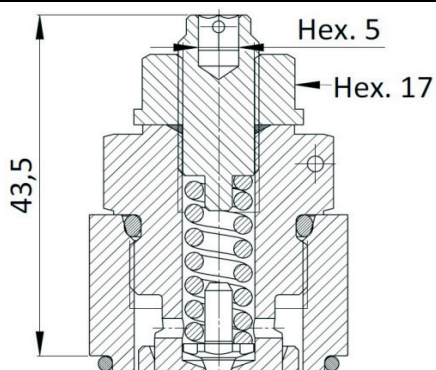
0 = Standard factory marking  
Customized markings can be done upon request

→ **Pressure setting in [bar]**

000 = no specific setting required

→ **Spring Range (50 - 420bar)**

## Options



Specifications may change without notice.