

WINMAN PO RELIEF VALVES

WVQ0.S10 Valve Series



**SAE10 Cartridge - 420 bar
Pilot Operated - Spool Type**

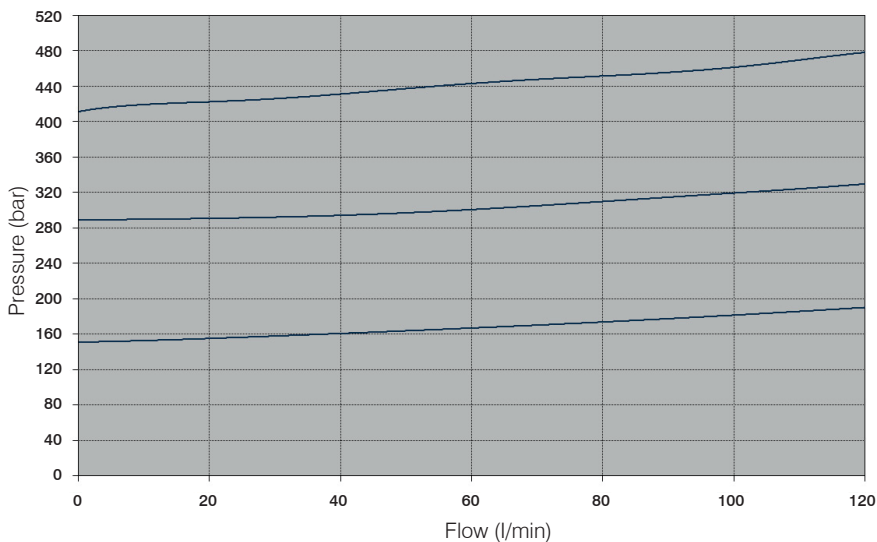
Description

A screw-in, cartridge style, pilot operated (2-stage), spool type, normally closed, hydraulic relief 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 (spool type) that throttles oil flow to tank (2). The cartridge offers smooth transition in response to load changes in demanding hydraulic circuits. Fast, smooth response and limited hysteresis.

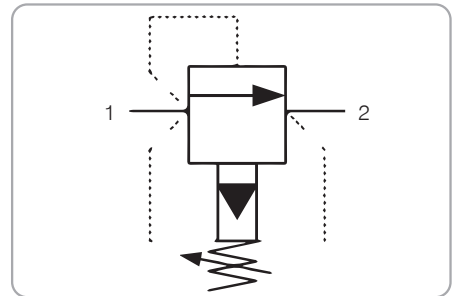
Technical Features

All external surfaces are zinc plated and corrosion-proof.
All valve parts are made of high strength steel. Spool and cage 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. Optional spring ranges 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. Industry common cavity.
Note: Standard sealing NBR (BUNA-N)

Performance Details



Symbol

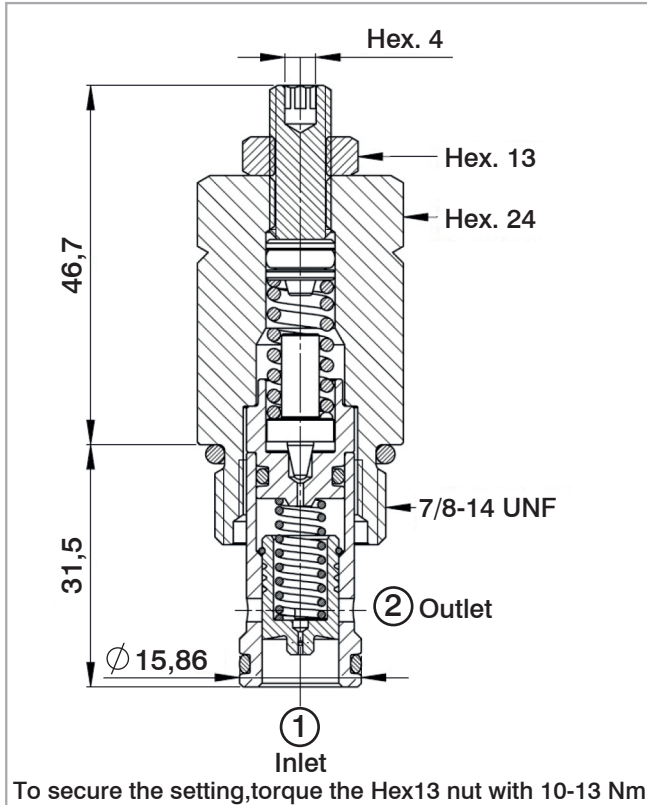


Technical Data

Maximum operating pressure: 420 bar
Maximum flow: 120 l/min
Maximum internal leakage checked
@ 80% of nominal set point: please see the table in the next page
Factory pressure settings established @5 l/min
Reseat pressure: nominal 90% of crack pressure
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: 55-65 Nm
Seal kit code: SK.052
Weight: 0.207 kg
NOTE: The performance chart illustrates flow handling capacity at maximum setting for each spring range option.
P/Q curves are recorded at TOil = 40°C and 46 cSt

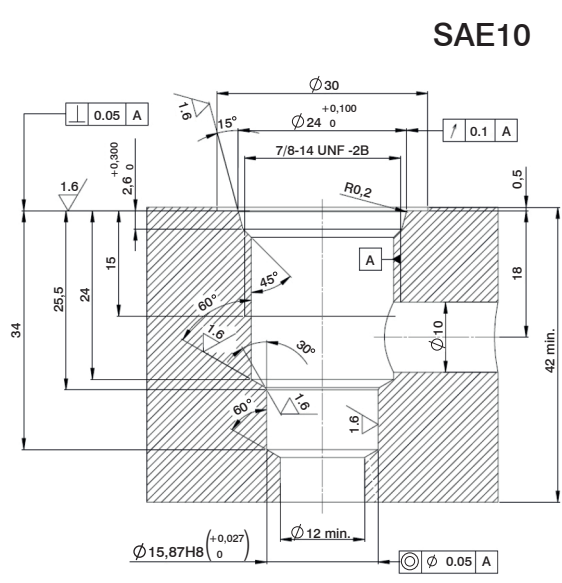
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Cross Section



To secure the setting, torque the Hex13 nut with 10-13 Nm

Cavity Details



Ordering Code

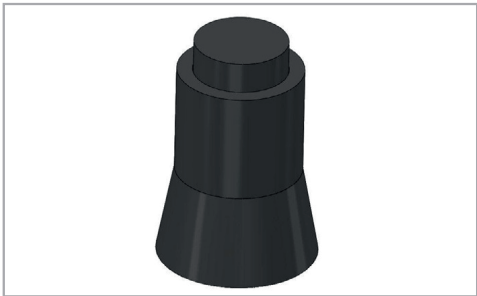
W
V
Q
0
•
S
1
0
•
0
*
•
*
*
*

Valve basic code
 Cavity
 S10= 7/8 - 14 UNF with Ø15,86 nose size
 Pressure settings in (bar)
 000=No specific setting required
 Spring range
 (See table below for available option.)
 Marking
 0=Standard factory marking
 Customized markings can be done upon request

Spring Ranges

Spring Model Code	Pressure setting range (bar)	Maximum internal Leakage [cm ³ /min]
Y	20-280	100
N	141-280	100
B	281-420	200

Options



Plastic tamper proof cap.
Ordering code:CTP.003