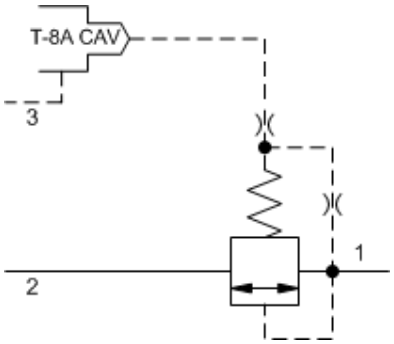
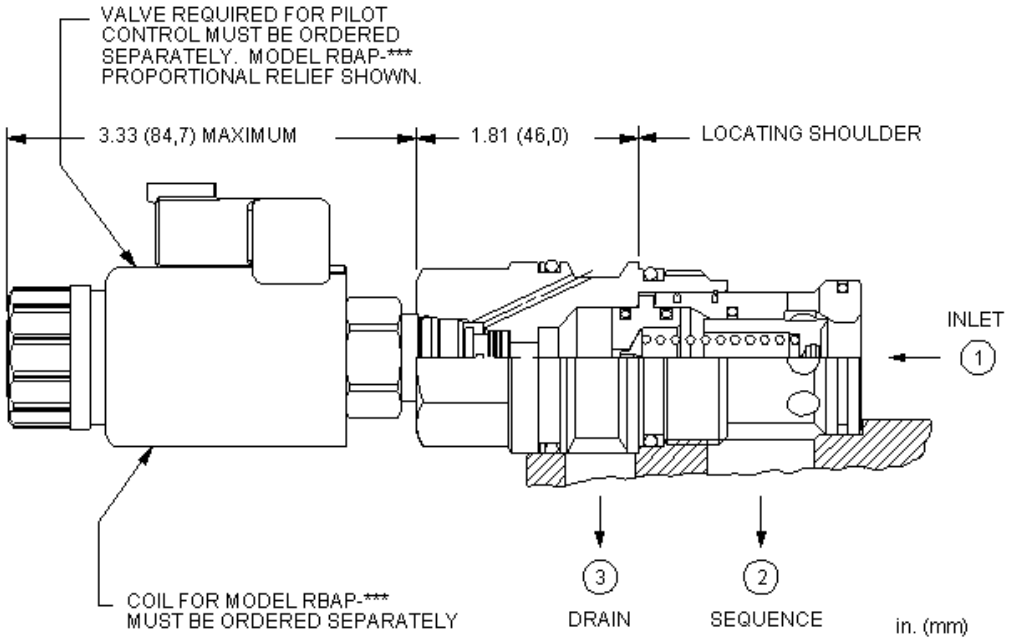
MODEL
RSHS8

Pilot-operated, balanced poppet sequence main stage with integral T-8A control cavity

SERIES 3 / CAPACITY: 60 gpm / CAVITY: T-17A

sunhydraulics.com/model/RSHS8





CONFIGURATION

W	Minimum Control Pressure	100 psi (7 bar)
N	Seal Material	Buna-N

This valve is a normally closed poppet element that incorporates an integral pilot control cavity. It is externally drained, and is a balanced poppet design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the poppet element starts to open to port 2, throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 3). These valves are insensitive to back pressure at port 2, up to the valve setting. They may be used to regulate pressure in place of 2-port relief valves if there is pressure in the return line.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Cavity	T-17A
Series	3
Capacity	60 gpm
Maximum Operating Pressure	5000 psi
Control Pilot Flow	15 - 20 in³/min.
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	20 - 25 lbf ft
Pilot Control Valve Hex Size	7/8 in.
Main stage leakage at reseat	10 drops/min.
Response Time - Typical	2 ms
Valve Hex Size	1 1/4 in.
Valve Installation Torque	150 - 160 lbf ft
Seal kit - Cartridge	Buna: 990217007
Seal kit - Cartridge	Polyurethane: 990217002
Seal kit - Cartridge	Viton: 990217006
Model Weight	1.11 lb.

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NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: RSHS8Array

MINIMUM CONTROL PRESSURE (W)

- **W** 100 psi (7 bar)
- **B** 50 psi (3,5 bar)

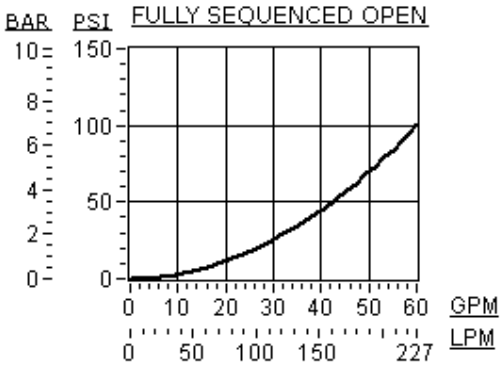
SEAL MATERIAL (N)

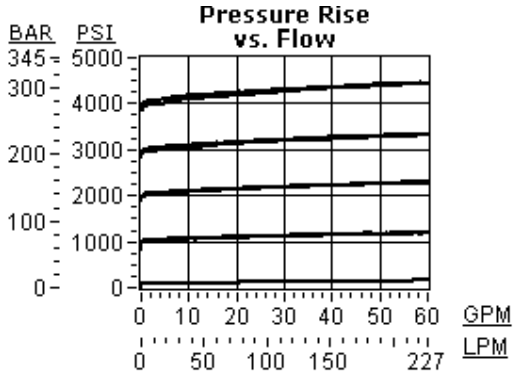
- **N** Buna-N
- **V** Viton

TECHNICAL FEATURES

- Pilot flow continues to increase as the pressure at port 1 (inlet), relative to the pressure at port 3 (drain), rises above the valve setting.
- The main stage orifice is protected by a 150 micron stainless steel screen.
- Pressure at port 3 is directly additive to the valve setting at a 1:1 ratio and should not exceed 5000 psi (350 bar).
- NOTE: With the -8 control option, the main stage valve should first be installed to the correct torque value. The T-8A pilot control valve should then be installed into the main stage valve to its required torque value.
- The -8 control option allows the pilot control valve to be incorporated directly into the end of the relief cartridge via the T-8A cavity. These pilot control cartridges are sold separately and include solenoid operation, air pilot operation, and hydraulic pilot operation. See Pilot Control Cartridges.
- Because the modulating occurs inside the cartridge these valves are immune to most of the problems associated with cavitation, namely noise and manifold erosion.
- Will accept maximum pressure at port 2; suitable for use in cross port relief circuits.
- All 3 port sequence cartridges are physically and functionally interchangeable (i.e. same flow path, same cavity for a given frame size).
- Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

PERFORMANCE CURVES





RELATED MODELS

- RSHS Pilot-operated, balanced poppet sequence valve

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