

6343 RIVER ROAD SE ■ CLEAR LAKE, MN 55319 USA
 Telephone: 320-743-2276 ■ Fax: 320-743-3723
 mailbox@doering.com ■ www.doering.com



DOERING

DESCRIPTION
 A 2 or 3-Way, shop air pilot to shift, spring-return, screw-in, directional hydraulic cartridge valve, spool design.

FEATURES
 Pilot to System Ratio of 108:1 applies to port No. 1 only. Ports 2 & 3 are balanced. Higher Pilot to System ratios are available.
 Actuator area is isolated from system ports. The isolation area is vented to atmosphere through a 10 Micron sintered filter. There are two small vent holes located within the spanner holes on the perimeter of the valve body.

OPERATION
 This is a metal to metal (SST.) Spool and cage design. Some leakage across the ports is normal. Valve is designed for Shop Air Pilot (Max. 150 PSI) to control standard Hydraulic Oil at ports 1, 2, and 3 (Max. 3000 PSI).

Pilot Pressure Requirements:
 With System pressure of 3000 PSI, Recommended Pilot Pressure is 80 PSI Air. Minimum 50 PSI, Maximum 150 PSI.
 Pilot to System Ratio is 108:1 at Port 1. Ports 2 & 3 are balanced. Spring is 10 to 15 PSI.

RATINGS
 Pressures to 3,000 PSIG, Ports 1, 2 & 3
 Air Pilot Pressure 50 to 150 PSIG, (X) Pilot Port.

DOERING CARTRIDGE VALVE

Pilot Port, 1/8 NPT Standard (Optional Porting Available)

Piston O-Ring Seal

Piston Guide Ring, UHMW

Atmosphere Filter, 10 Micron

Vent to Atmosphere (2 Places)

Spool return Spring, SST

1" Wrench Hex, SST.

7/8-14 Mounting Thread, SST.

CAVITY INFO.

Cavity C-8543 (Industry 10-3)
 Reference Cavity Spec. Sheet No. 1200634 for
 Cavity Drawing C-8543 at www.doering.com
 Form Tool: FT-8543 Call for source information.

HOUSING & MANIFOLD INFO.

Single Station Housings (Sub-Plates) illustrated Reference Housing Spec. Sheet No. 1200673 for Housing Drawing S8543 at www.doering.com.
 Choose from Aluminum or Stainless materials. Multi Station and Custom Housings or Manifolds also available.

Try to add Spanner valve to same spec. sheet

RATINGS

INSTALLATION

Install Cartridge valve using 1" wrench
 Valve should screw in freely to the Mount Seal.
 Final tightening 20 to 30 foot pounds torque.
 Use lubricant on external oil seals and mounting threads.

OPTIONS

All Stainless Steel option, add -SS to Part Number.
 Stainless Steel Wetted Area Only, add -S to Part Number.
 Stainless Steel Actuator Area Only, add -PS to Part Number.
 Standard seals are Buna-N with Teflon back up rings.
 Optional seals include EP, Viton, Teflon and others.
 Vents to atmosphere (2 Places 180° apart).
 T Option provides 10-32 Threaded ports at these locations. With T option, Key 6. Sintered Bronze filter, is omitted from the assembly.

CARTRIDGE VALVE ORDERING INFORMATION:

Order P/N 54H237108#

└─ SPOOL DESIGNATION:

Spool Designation = 0

Spool Designation = 1

Spool Designation = 2

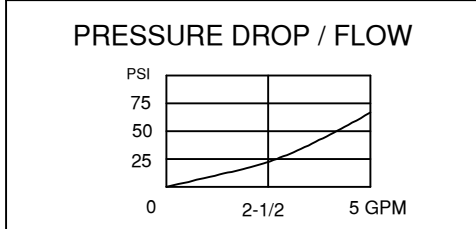
Spool Designation = 5

Spool Designation = 6

Spool Designation = 7

Spool Designation = 8
 N/C 2 Way Spool
 Connect 1 to Drain

Spool Designation = 9
 N/O 2 Way Spool
 Connect 1 to Drain



3PS SERIES

2 and 3 Way Spool, Directional Control,
 Air Pilot Operated, Hydraulic Control

SPEC. SHEET NO. 1202968 REV. 000