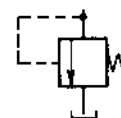


CROSS HYDRAULIC RELIEF VALVES

DIFFERENTIAL TYPE
RD SERIES
Specification Sheet



The CROSS series RD differential-poppet type relief valves have been designed to give long life and smooth performance at an economical price. The hydraulically dampened poppet uses differential areas to provide minimum variation between opening and full flow pressures.

GENERAL SPECIFICATIONS

Pressure range..... 500 psi (34 bar) to 3000 psi (207 bar)
Maximum flow capacity 30 gpm (114 l/m)
Weight..... 2½ lbs. (1.1 Kg)

MATERIAL SPECIFICATIONS

Housing..... High tensile gray iron
Poppet..... Hardened and ground steel
Seals..... Buna N

STANDARD FEATURES

- 1¹/₁₆ - 12 (¾" SAE #12) straight thread o-ring ports
- Adjustable type, screw adjustment with acorn nut
Two ranges: 500 to 1499 psi
1500 to 3000 psi
- Non-Adjustable type, factory pre-set
- Bodied, "in-line" mounting, with mounting holes for ¼" diameter bolts

OPTIONAL FEATURES

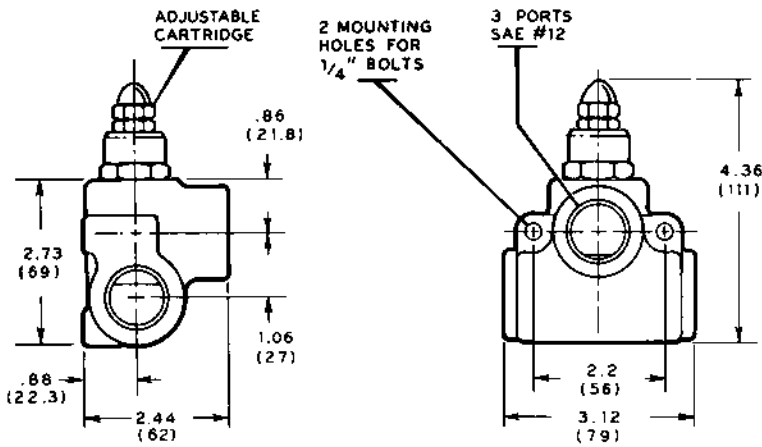
- ¾ - 16 (½" SAE #8) straight thread o-ring ports
- 7/8 - 14 (⅝" SAE #10) straight thread o-ring ports
- ½" NPTF dry seal pipe thread ports
- ¾" NPTF dry seal pipe thread ports
- Cartridge style, for installation in machined housing

STYLES AVAILABLE

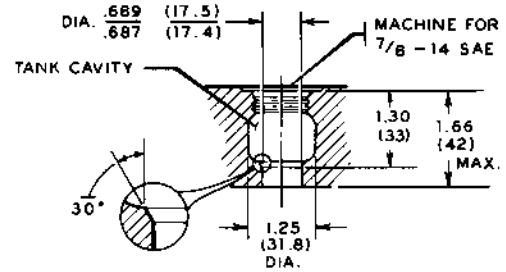
RD1: RD series, with body, adjustable (500 to 1499 or 1500 to 3000 psi)
RD2: RD series, with body, non-adjustable (500 to 1499 or 1500 to 3000 psi)
1R0016: RD series, cartridge only, adjustable (500 to 1499 psi)
1R0017: RD series, cartridge only, adjustable (1500 to 3000 psi)
1R0021: RD series, cartridge only, non-adjustable (500 to 1499 psi)
1R0037: RD series, cartridge only, non-adjustable (1500 to 3000 psi)



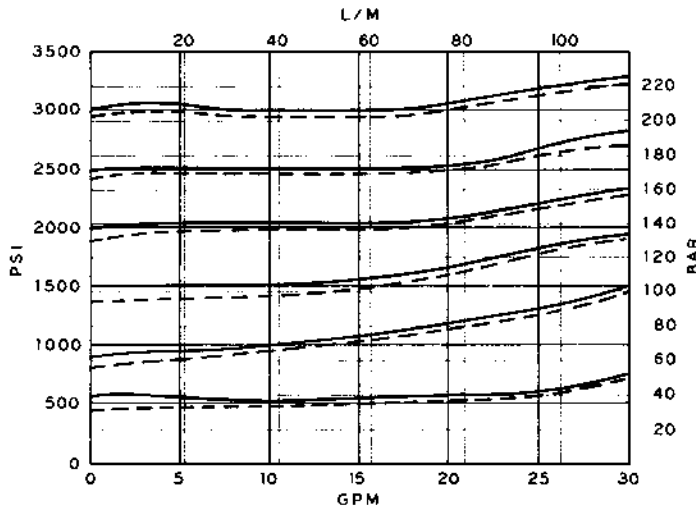
DIMENSIONAL DATA in inches and (millimeters)



MACHINING DIMENSIONS FOR CARTRIDGE UNIT



TYPICAL PERFORMANCE DATA



100 SSU oil at 120° F

— Opening
- - - Closing

ORDERING DATA

SERIES	ADJUSTMENT	PORT SIZE & TYPE	PRESSURE SETTING (psi) (at 10 gpm)
RD	1 Adjustable	1-1/2" NPTF 2-3/4" NPTF 3-1/2" SAE #8	A - 500 psi B - 1000 psi (1) C - 1500 psi D - 2000 psi (2) E - 2500 psi F - 3000 psi G - Other psi
	2 Non-Adjustable	3/4 - 16 4-5/8" SAE #10 7/8 - 14 *5-3/4" SAE #12 1 1/16 - 12	

*Standard
(1) Standard setting for 500 - 1500 psi Adjustable units
(2) Standard setting for 1500 - 3000 psi Adjustable units



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