



INDUSTRIAL FLUID POWER COMPONENTS
AND SYSTEMS

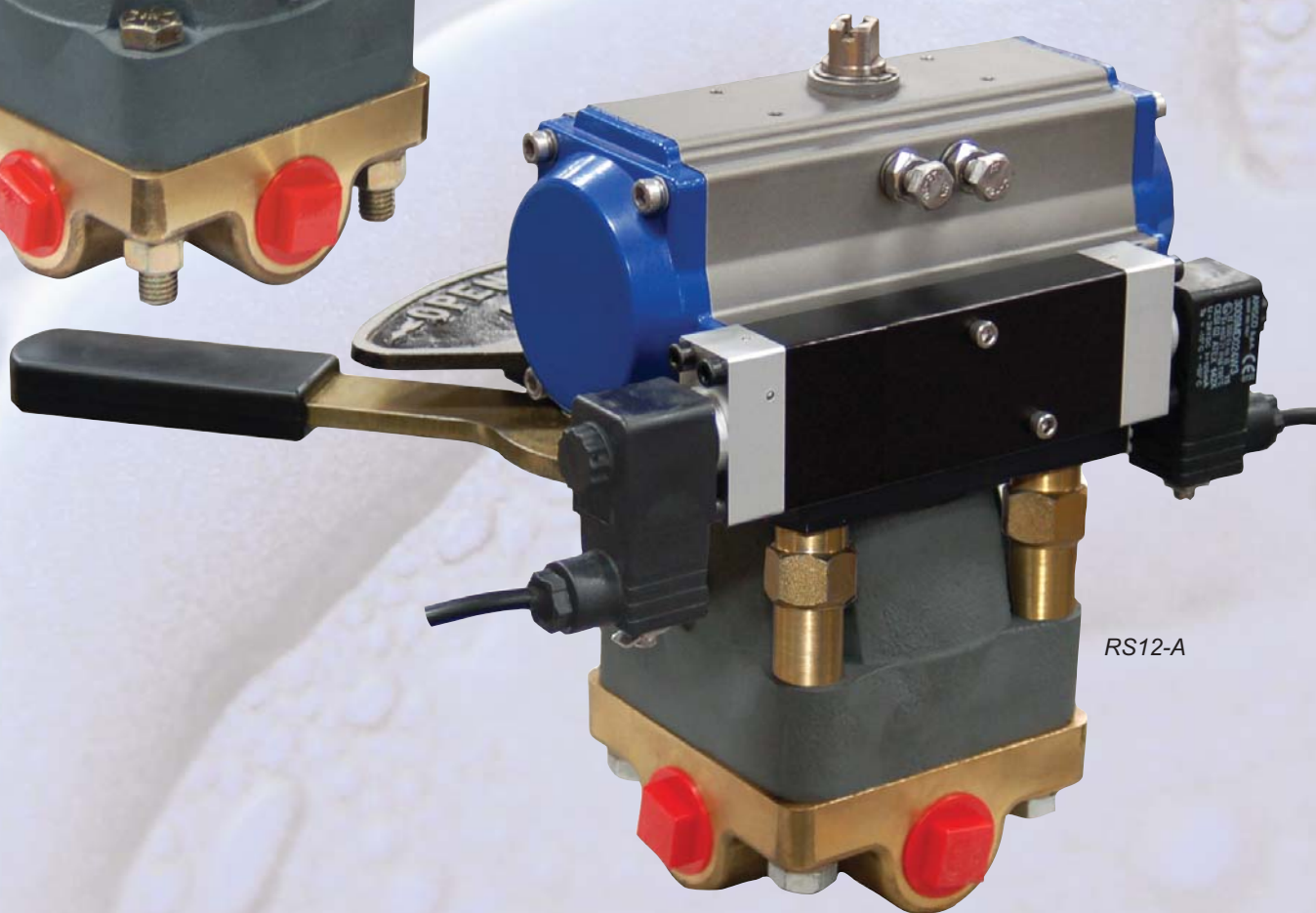


RS SERIES

Rotor Shear™ Zero Leakage Rotary Valves



RS12-M



RS12-A



RS Series

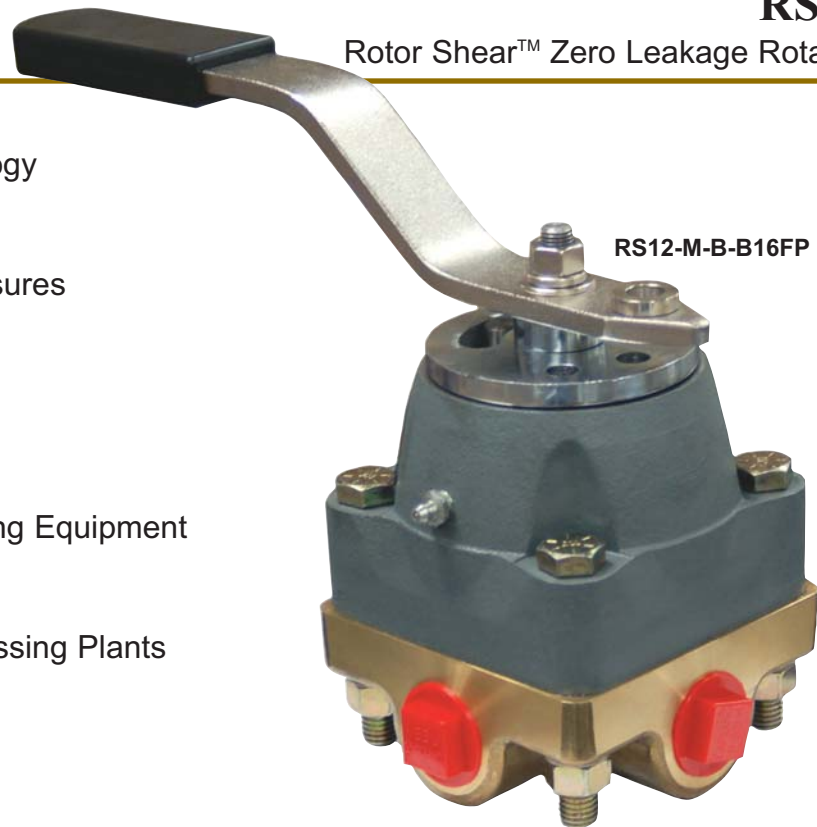
Rotor Shear™ Zero Leakage Rotary Valves

Standard Features

- Original Rotor Shear™ Technology
- High Velocity Flow
- Tolerates Contaminates
- Low Handle Load at High Pressures
- Spring Return Option
- Low Pressure Drop

Applications

- Land-Based and Offshore Drilling Equipment
- Steel Mills
- Nitrogen Charging Panels
- Refineries and Chemical Processing Plants
- Power Generation Facilities



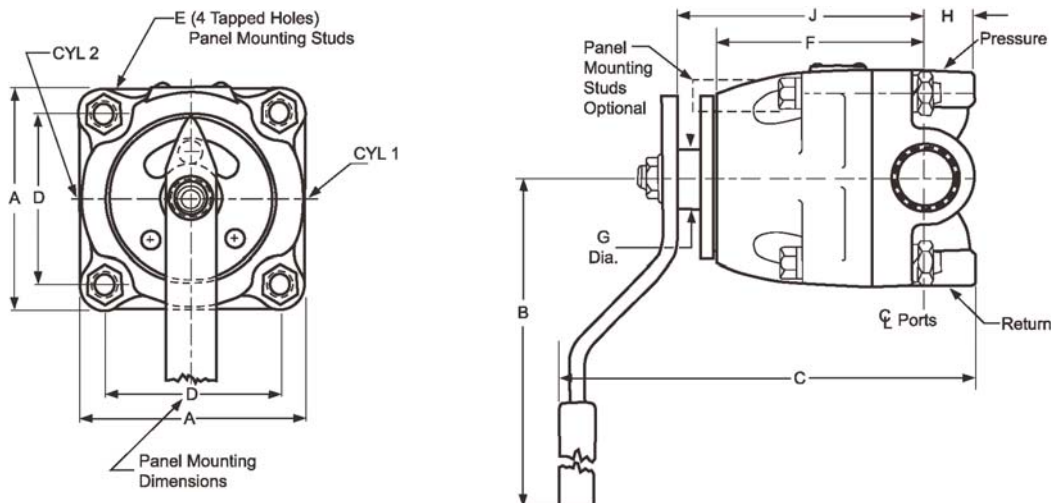
Specifications

- **Working Pressure:** 3,000 psi (207 bar)
Hydraulic Oil or Lubricated Water
- **Flow Capacity:** 75 gpm (284 l/min)
- **Back Pressure:** Must not exceed 250 psi (17.2 bar) at return port for satisfactory operation
- **Pressure Drop:** 14 psi (0.96 bar) at 20 ft/sec
- **Proof Pressure:** 1-1/2 times working pressure except at return port
- **Burst Pressure:** 2-1/2 times working pressure except at return port
- **Media Temperature Range:** -40° to +250°F (-40° to +121°C)

Materials

- **Rotor:** Stainless Steel
- **Pressure Seals:** Stainless Steel
- **Shaft:** Stainless Steel
- **Body:** Bronze
- **Housing:** Ductile Iron
- **Standard O-ring:** Buna N
- **Weight:** 21.5 lbs (9.8 kg)

Dimensional Data

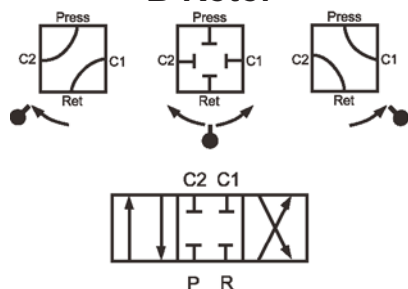


SIZE	A	B	C	D	E	F	G Dia.	H	J
3/4" & 1"	116.8 (4.6)	254.0 (10.0)	221.0 (8.7)	91.4 (3.6)	1/2 - 13 NC	121.9 (4.8)	33.0 (1.3)	25.4 (1.0)	132.1 (5.2)

Units: mm (inches)

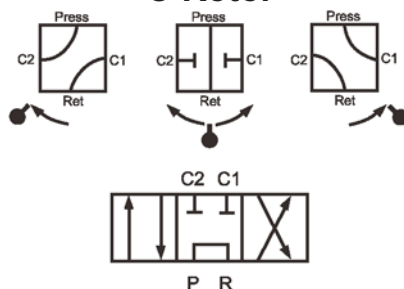
Rotor Flow Patterns

B Rotor



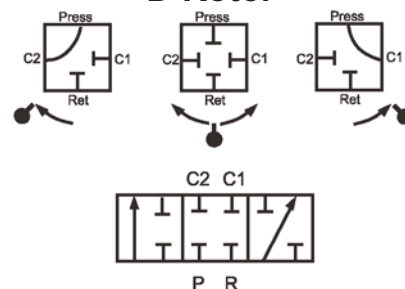
BLOCKED CENTER
4-Way 3- Position
Closed Center
3 position detent
(Also called Selector)

C Rotor



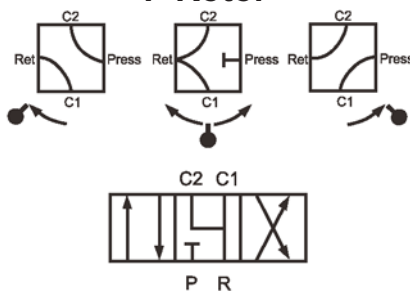
TANDEM CENTER
4-Way 3- Position
3 position detent

D Rotor



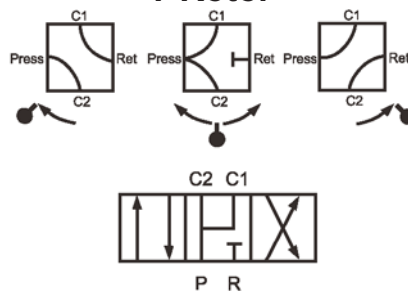
SELECTOR
3-Way 3- Position
Bypass
3 position detent
(Also called Diverter)

F Rotor



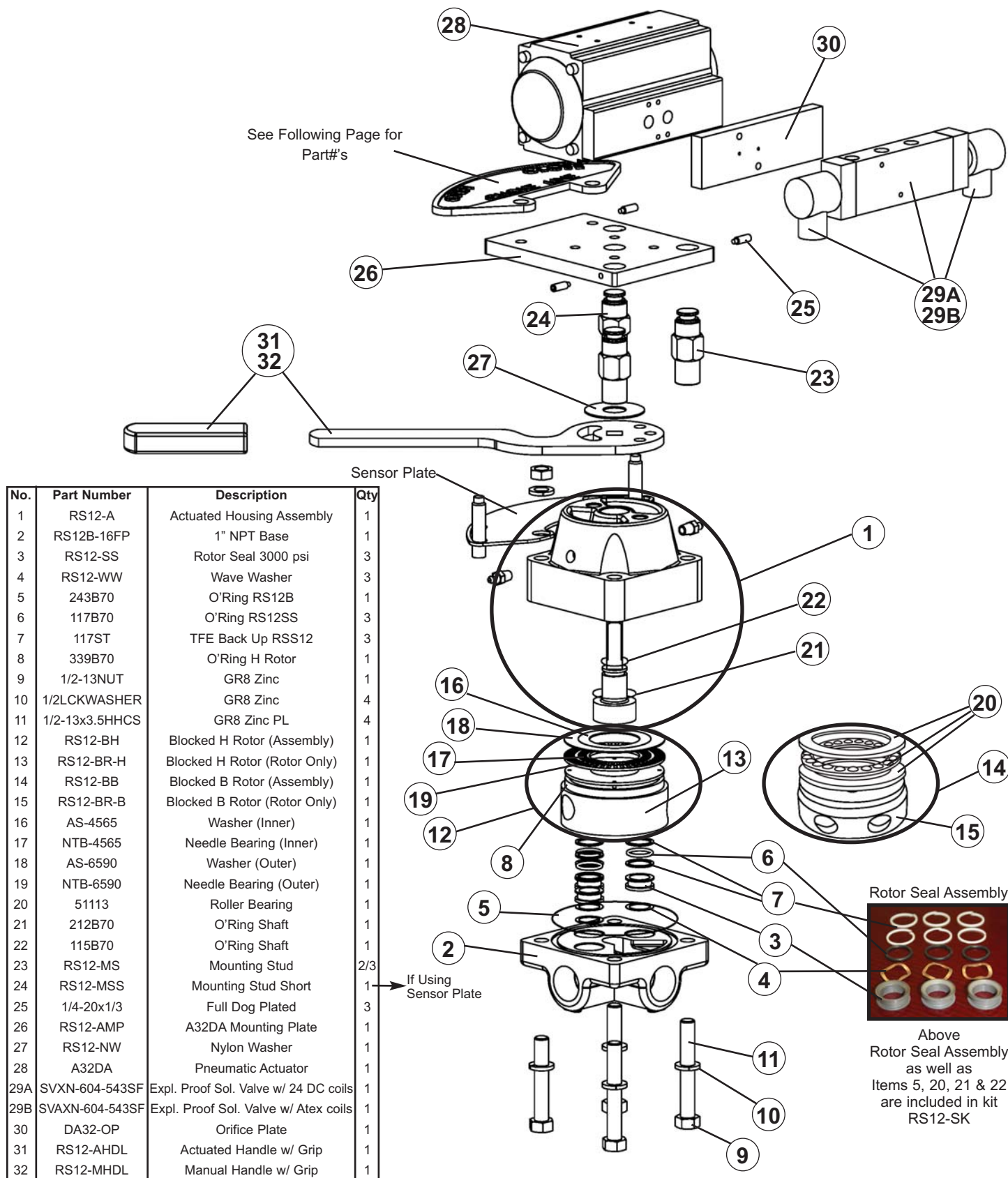
VENTED CENTER
4-Way 3- Position
3 position detent
(Also called Manipulator)

T Rotor



PRESSURE CENTER
4-Way 3- Position
3 position detent

RS 12A - Parts

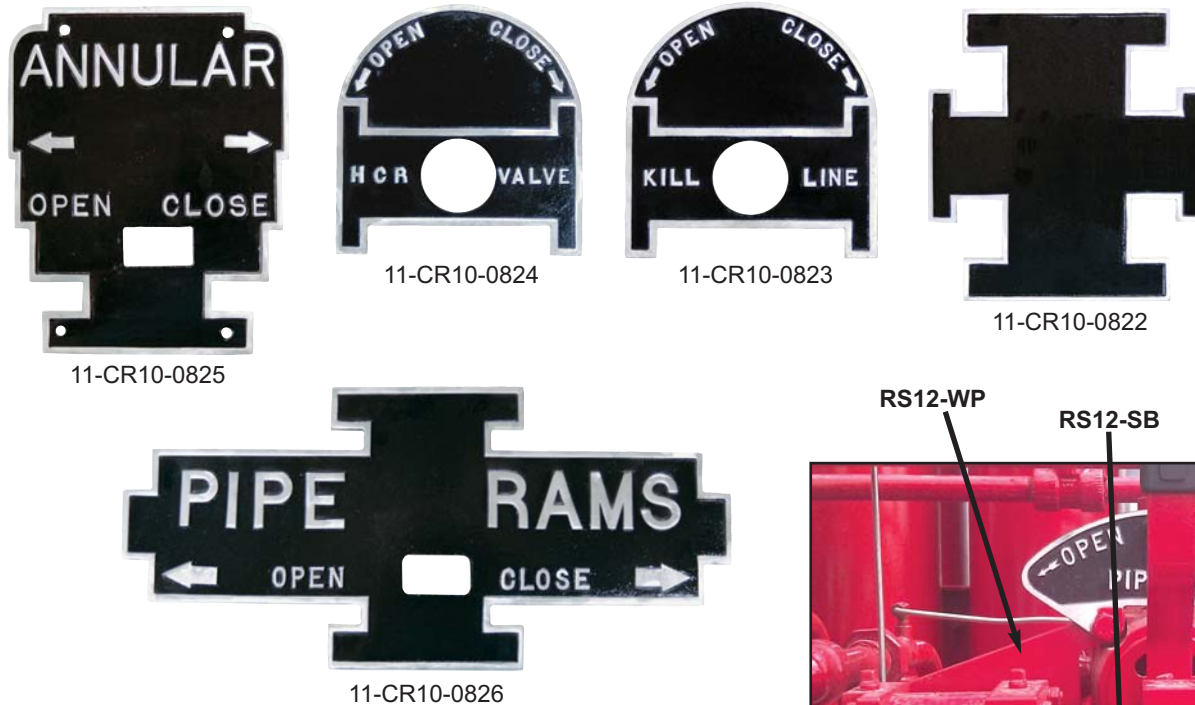


Parts/ Accessories

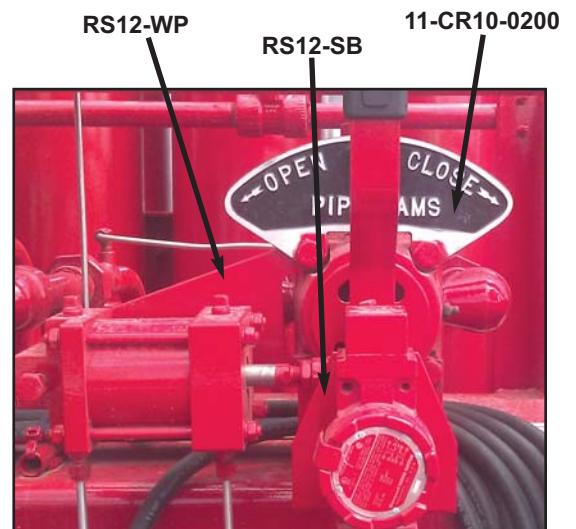
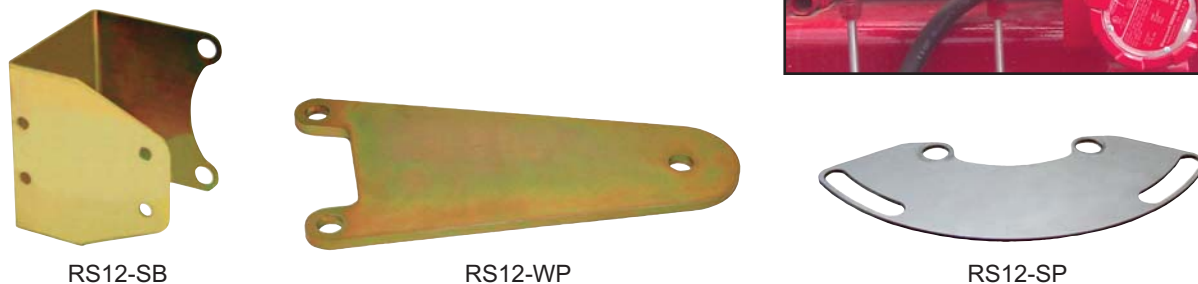
CRESCENT MOON PLATES



NAMEPLATES



SWITCH BRACKETS, WING PLATES, SENSOR PLATES



Ordering Information

RS12 M - B - B - OMIT - 16FP - AN 24D

RS12 Series
Rotor Shear™
Valve
(Basic 3/4" Size)

Rotor Flow Patterns

B = Blocked
D = Diverter (Bypass)
F = A&B to T, P Blocked (Manipulator)
C = Open Center (Tandem)

Type of Operator

A = Pneumatic Actuated
M = Manual
AS = Pneumatic Actuated/ Spring Return
MS = Manual/ Spring Return

Rotor Treatment

Omit = Standard/ Heat Treated
N = Nitrited (Black)

Port Size

12FP = 3/4" FNPT
16FP = 1" FNPT

Namur Valve Coils

AN = Atex Approved Explosion Proof
UN = UL Approved Explosion Proof

Voltage

12D
24D
110A

Rotor Type

H = Thick Rotor/ Needle Bearing
B = Thin Rotor/ Roller Bearing



H Type Rotor



B Type Rotor

