



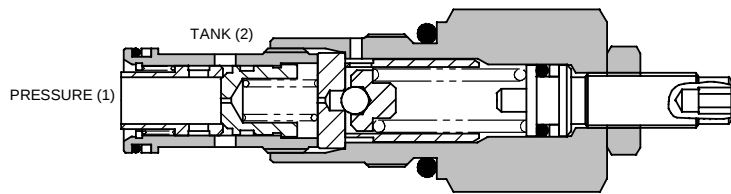
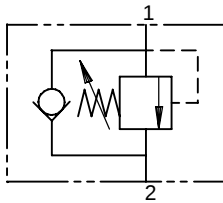
1ARC SERIES RELIEF VALVE

PILOT OPERATED WITH ANTI-CAVITATION CHECK

1ARC100

SLIDING SPOOL TYPE

2



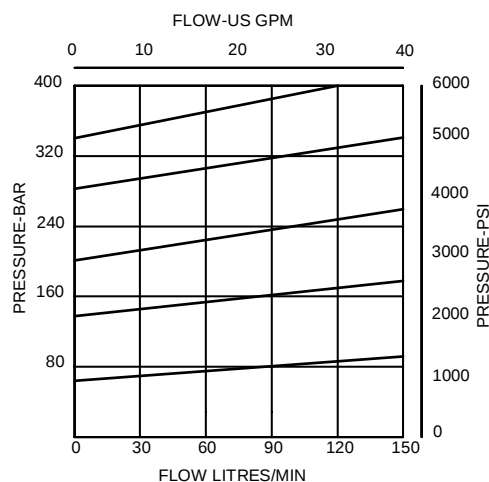
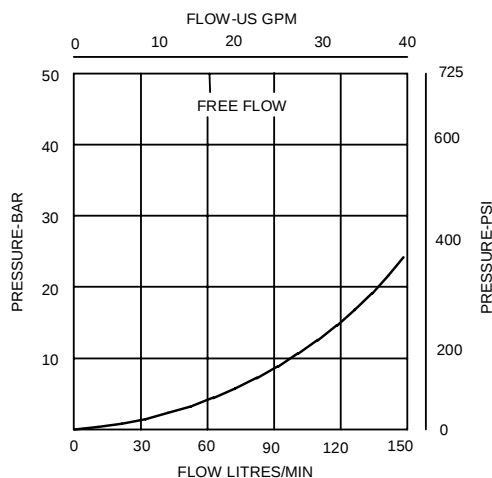
APPLICATION

To limit pressure in a system. Ideal for continuous duty providing accurate pressure control with constant or varying flows. 1ARC100 provides make up flow through an inbuilt check.

OPERATION

When the inlet reaches the valve setting, the pilot section opens, causing a small flow across the orifice in the spool. The subsequent pressure drop moves the spool, opening a ring of radial holes in the sleeve, allowing relief flow to tank.

PRESSURE DROP



FEATURES

Very low pressure rise for any increase in flow giving accurate pressure control. Hardened working parts give long, reliable, trouble-free life. Cartridge construction giving maximum flexibility in mounting.

SPECIFICATIONS

Figures based on: Oil Temp = 40°C Viscosity = 40 cSt

Rated Flow	150 litres/min (40 US GPM)
Max Setting	400 bar (5800 psi)
Cartridge Material	Working parts hardened and ground steel. External surfaces zinc plated
Body Material	Standard aluminium (up to 210 bar*) Add Suffix '377' for steel option
Mounting Position	Unrestricted
Cavity Number	A881 (See Section 17)
Torque Cartridge into Cavity	60 Nm (44 lbs ft)
Weight	1ARC100 0.14 kg (0.3 lbs) 1ARC145 0.54 kg (1.2 lbs) 1ARC150 0.65 kg (1.4 lbs) 1ARC155 0.91 kg (2.0 lbs)
Seal Kit Number	SK164 (Nitrile) SK164V (Viton)
Recommended Filtration Level	BS5540/4 Class 18/13 (25 micron nominal)
Operation Temp	-20°C to +90°C (Standard seals)
Leakage	125 millilitres/min @ 280 bar
Nominal Viscosity Range	5 to 500 cSt

*For applications above 210 bar please consult our technical department or use the steel body option.

Integrated Hydraulics Ltd

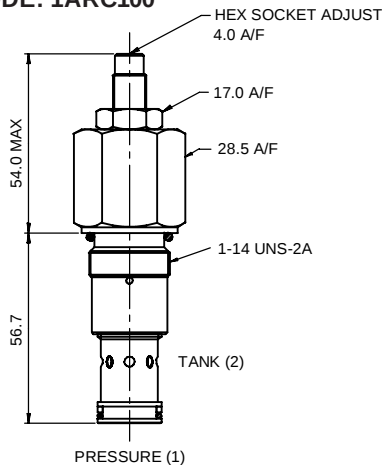
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CARTRIDGE ONLY

BASIC CODE: 1ARC100



COMPLETE VALVE

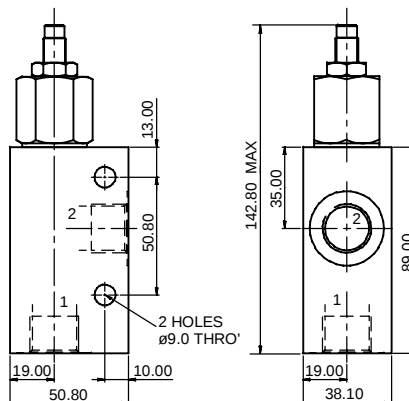
1/2" 3/4" PORTS

BASIC CODE: 1ARC145

Body ONLY part numbers

BSP, aluminium
1/2" B4851
3/4" B3954

SAE, aluminium
1/2" B19403
3/4" B19404



2

COMPLETE VALVE 3/8" 1/2" 3/4" PORTS

BASIC CODE: 1ARC150

Body ONLY part numbers

BSP, aluminium
3/8" C1084
1/2" C1044
3/4" C1086

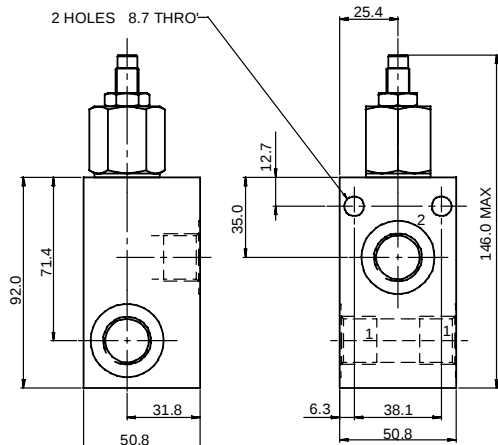
SAE, aluminium
3/8" B10784
1/2" C7140
3/4" B10506

BSP, steel

1/2" C593
3/4" C4917

SAE, steel

3/4" B10742



COMPLETE VALVE 1" PORTS

BASIC CODE: 1ARC155

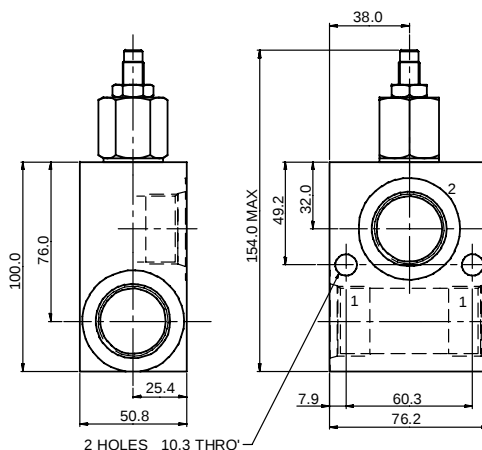
Body ONLY part numbers

BSP, aluminium
1" B1617

SAE, aluminium
1" B1037

BSP, steel
1" B4596

SAE, steel
1" B24040



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

1ARC***

P

3W

40

S

Basic Code

1ARC100 = Cartridge Only

1ARC150 = Cartridge and Body

1ARC155 = Cartridge and Body Through ported

Adjustment Means

P = Leakproof Screw Adjustment

R = Handknob Adjustment

G = Tamperproof Cap

(See page 2-102 for dimensions)

Port Sizes - Bodied Valves Only

3W = 3/8" BSP 6T = 3/8" SAE

4W = 1/2" BSP 8T = 1/2" SAE

6W = 3/4" BSP 12T = 3/4" SAE

8W = 1" BSP 16T = 1" SAE

Seals

S = Nitrile (For use with most industrial hydraulic oils)

SV = Viton (For high temperature and most special fluid applications)

Pressure Range @ 14 l/min

7 = 10-70 bar. Std setting 35 bar

20 = 10-210 bar. Std setting 100 bar

40 = 50-400 bar. Std setting 280 bar

Std setting made at 14 litres/min

We reserve the right to change specifications without notice