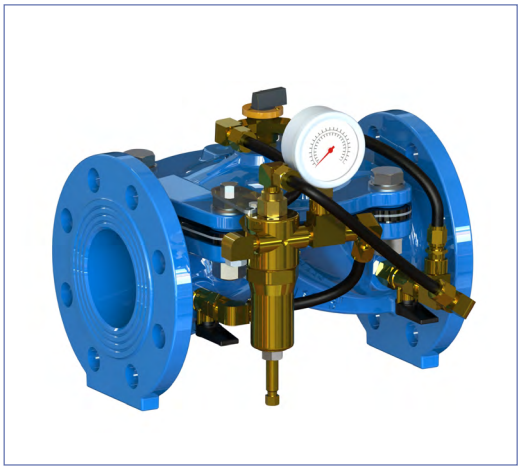
RAF 63B

Pressure Reducing Control Valve, 3-W Metal Pilot



The RAF 63B 3-W pressure reducing valve is line pressure hydraulically actuated, 3-W pilot.

The RAF 63B maintains a constant downstream pressure, as set on the 3-W reducing pilot, regardless of flow, ot upstream pressure changes. The 3-W pilot configuration together with Raphael's patented diaphragm enable smooth and precise downstream pressure control.

Maximal Nominal Pressure: 16 bar

Setting Range: 0.5 - 16 bar

MARKETS

Open field Irrigation | Water Transmission | Pump Station

TECHNICAL DATA

Fluid: raw water or filtered water

Nominal Diameter (DN): from 25 to 400 mm (1" to 16")

Available connections: Flanged, Threaded or Grooved

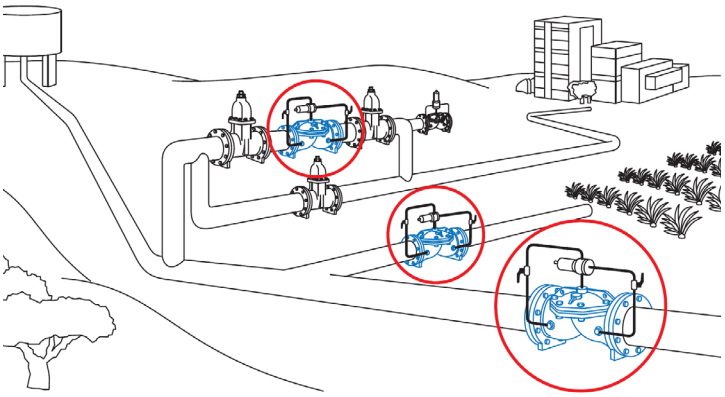
Nominal Pressure (PN): 16 bar

Setting Range: 0.5 to 16 bar

Medium Temperature: up to 70 °C

Body material: Ductile Iron

Standard Controls: RAF 63B pressure reducing valve controls with Raphael's 3-W brass pilot reinforced plastic tubing and brass fittings.



TYPICAL APPLICATIONS

- Water supply systems with medium pressure rating.
- Irrigation water distribution water treatment circulation and filtration network.
- The 3-W plastic pilot has a simple design that provides high corrosion resistance and cost effective prices

ADJUSTMENT

Downstream pressure adjustment up to 16 bars.

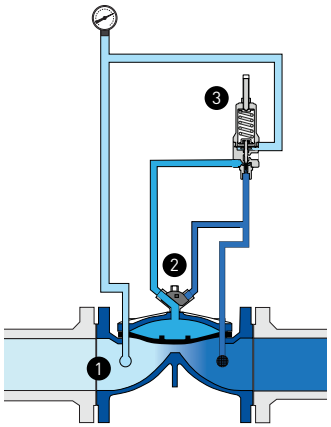
For pressure setting by pilot screw adjustment, please refer to available springs list.

AUTOMATIC OPERATION:

RAF Pressure Reducing Valve is activated by line pressure and controlled by a pilot valve. The pilot includes a spring -loaded membrane, which is exposed to the downstream [controlled) pressure. The displacement of the membrane due to downstream fluctuations defines the flow inside the pilot.

When the downstream pressure is lower than desired, the RAF valve is automatically directed to open. In the opposite case, it is automatically directed to close. When line pressure is inserted into the control chamber of the RAF valve [above its diaphragm] the valve closes.

When the control chamber drains the RAF valve opens due to the line pressure from below its diaphragm. As in three-way control configurations, the control chamber drains out, enabling the valve to open fully.



RAF-63B 3-W Pressure Reducing Control Valve

Ref	Name
1	Self-cleaning screen filter
2	3-W valve
3	3-W pilot P-683

SPRING SELECTION

Pilot P-683

Setting range [Bar]	Color of spring
2-12 (standard)	Green
0.5-8	Red
3-16	Yellow

RECOMMENDED FLOW

Nominal Diameter		Recommended Flow Rate [m³/h]		Recommended Flow Rate [gpm]	
mm	inch	Min.	Max.	Min.	Max.
25	1	1	22	4	97
40	1.5	1	25	4	110
50	2	3	41	13	180
65	2.5	4	70	18	308
80-65-80	3D	4	70	18	308
80	3	7	95	31	418
100-80-100	4D	7	95	31	418
100	4	15	177	66	779
125-100-125	5	15	177	66	779
150-100-150	6D	15	177	66	779
150	6	15	240	66	1056
200	8	40	430	176	1893
250	10	80	822	352	3618
300	12	100	822	440	3618
350-300-350	14D	100	822	440	3618
350	14	200	1170	880	5150
400	16	200	1233	880	5428

Nominal diameter only, For full dimensions please refer to engineering department.

FEATURES

- RAF valve two-layered Epoxy-polyester coated
- Self-cleaning screen filter
- 3-W pilot P-683
- 3-W Selecting cock valve
- Reinforced plastic tubing
- Glycerin filled pressure gauge
- Power source - 24V (AC) 50/60 Hz

OPTIONAL FEATURES:

- Rilsan coating
- Large capacity external filter
- Stainless steel pilot and needle valve
- Copper and stainless steel tubing
- Pressure check point

PLEASE SPECIFY:

- Minimum & maximum flow rates
- Normal line pressure
- Set point (dowmstream) pressure