# IOM RAF 6R

## Pressure Reducing Valve 1”- 14”

## RAPHAEL VALVES INDUSTRIES

Sep-24

## DESCRIPTION

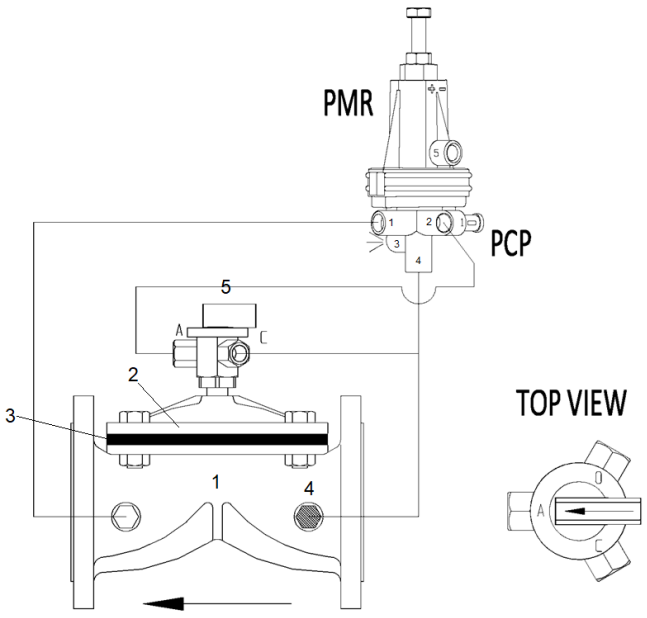
This pressure-reducing valve is an automatic control valve designed to reduce a higher upstream pressure into a preset lower downstream pressure, and to maintain this pressure constantly regardless of flowrate or upstream pressure fluctuations.

## INSTALLATION

- Before installing the valve, flush the pipeline to remove scale, dirt and other particles that might affect the valve's performance.
- Install the valve as indicated by the arrow on the valve's cover, showing flow direction.
- It is recommended to install isolation valves (butterfly valves type B7G) upstream and downstream the control valve.
- Turn the 3-way selector #5 to the "Close" position and turn on the water supply to the valve.
- Check for leaks; tighten bolts & fittings if necessary.

## PARTS LIST

1. Body
2. Cover
3. Diaphragm
4. Self-Flushing "Finger" Filter
5. 3-Way Selector
6. 3-Way "Positioning" Pilot Model P683
7. Pressure adjusting screw.



## OPERATING INSTRUCTIONS

1. Make sure that there is a downstream flow demand.
2. Turn adjusting screw #7 counterclockwise all the way.
3. Turn the 3-way selector #5 to the “Auto” position.
4. Turn adjusting screw #7 clockwise, until water will be discharged from the vent (3) of pilot #6 and the valve will start to open.
5. To increase downstream pressure, continue to turn adjusting screw #7 clockwise one (1) turn at a time, allowing some time between turns for the valve to respond. Check downstream pressure until required pressure is achieved.
6. To decrease downstream pressure, turn adjusting screw #7 counterclockwise one (1) turn at a time, allowing some time between turns for the valve to respond. Check downstream pressure until required pressure is achieved.

**To open the valve completely, turn the 3-way selector #5 to the “Open” position. Please note that by so doing the pressure downstream will be as high as the pressure upstream.**

**To close the valve, turn the 3-way selector #5 to the “Close” position.**

**To maintain preset pressure, turn the 3-way selector to the “Auto” position.**

## MAINTENANCE

- No maintenance is required. However, from time to time it is recommended to rotate the 3-way selector 360° to prevent sticking by sediments.
- Check downstream pressure. Adjust if required.
- It is recommended that the valve will be easily accessible as well as clearly marked to prevent damage.
- In freezing climates, the valve should be dismantled, and water drained during the winter months.

## TROUBLSHOOTING RAF 6R

| PROBLEM | CAUSE | CHECK | SOLUTION |
|---|---|---|---|
| The valve does not open. | 1. The 3-Way selector (5) is in the 'Close' position. | 1. Check state of selector. | 1. Turn selector to the 'Auto' position. |
| | 2. Blocked pilot. | 2. No water coming out of drain (3). | 2. Turn off water supply to the valve. Dismantle and clean drain connection in pilot.<br>Reassemble and activate. |
| The valve does not close. | 1. The 3-Way selector is in the '0pen' position. | 1. Check state of selector. | 1. Turn selector to the 'Auto' or 'Close' position. |
| | 2. Foreign object on diaphragm. | 1. Poor water flow downstream. | 2. Turn off water supply to the valve. Remove the cover and take away the foreign object.<br>Check that diaphragm body and cover are not damaged.<br>Reassemble and activate. |
| | 3. Blocked self flushing filter (4). | 2. 3. Very little flow from port # 4 when the tube is disconnected. | 3. Turn off water supply to the valve. Remove filter. Clean or replace if needed. Reassemble and activate. |
| Unstable pressure. | 1. Blocked or damaged pilot. | 1. Unstable pressure downstream of the valve. Constant leak from drain port. | 1. Turn off water supply to the valve. Dismantle and clean drains in pilot.<br>Check membrane.<br>In case of internal parts wear, change pilot.<br>Reassemble and activate. |

**RAPHAEL**, founded in 1949, is the first Israeli manufacturer of water control valves. RAPHAEL´s research department constantly strives to introduce new and innovative products and solutions for water control systems including water works, fire-protection and irrigation systems.

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