



Irrigation

## Weir-type Diaphragm, 3-way Pressure Reducing Globe Valve

DOROT S90 PR/M (3W), is a Weir-type diaphragm, 3-way, automatic, pilot-controlled, pressure reducing globe valve, with a selector valve for manual override. The valve reduces high upstream pressure to a steady, preset, lower downstream pressure; regardless of fluctuations in upstream pressure or flow rate. In cases where the downstream pressure exceeds the set value, the valve will close drip-tight.

### Features and Benefits

|                                      |                                                                                                                       |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| High flow irrigation design          | Optimized for high flow irrigation plots and flood tables, ensuring effective water delivery                          |
| Direct installation on PVC pipelines | Reduces installation costs and friction losses, by eliminating the need for elbow joints in aboveground setups        |
| Flexible diaphragm                   | Handles raw water with high levels of solids                                                                          |
|                                      | Enables trouble-free operation and excellent regulation capabilities, even at zero flow                               |
| Corrosion resistant                  | High resistance to corrosive fluids and aggressive media; suitable for various irrigation and industrial applications |
| Wide selection of end connections    | Offers versatility using: Threaded, Solvent Welded and Flanged options                                                |
| Resistant to impurities              | Operates effectively even in water with high levels of solids or impurities                                           |

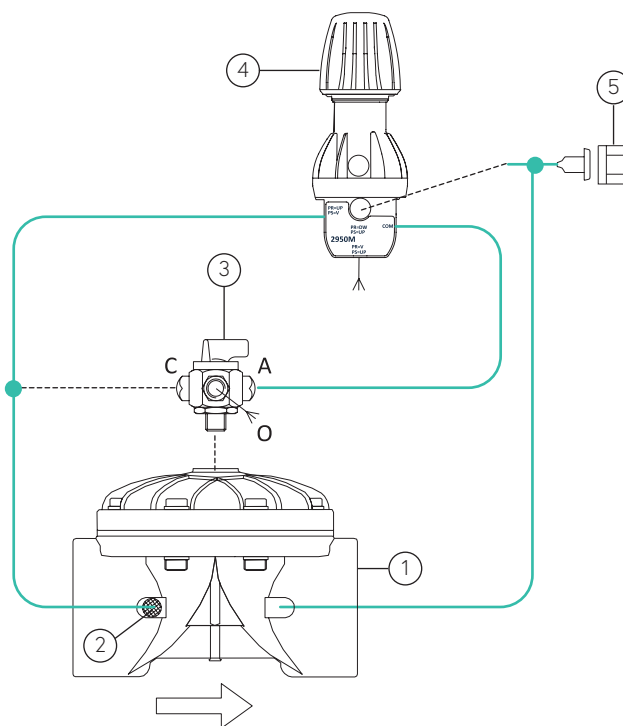
## Technical Specifications

|                        |                                 |                                           |
|------------------------|---------------------------------|-------------------------------------------|
| Size Range             |                                 | 3"-6" / DN80, DN90, DN100, DN110, DN 160  |
| Working Pressure       |                                 | 8 bar / 100 psi , 10 bar / 145 psi        |
| Max. Water Temperature |                                 | 45° C / 113° F                            |
| End Connections        |                                 | Threaded BSP / NPT                        |
|                        |                                 | Solvent-welded                            |
| Construction Materials | Body & Cover                    | PVC & Glass Reinforced Polyamide          |
|                        | Spring                          | Stainless Steel 302 / Stainless Steel 316 |
|                        | Diaphragm                       | NR / ALD 70                               |
|                        | Fittings & Control Trim Devices | Glass Reinforced Polyamide, Polypropylene |
|                        | Control Trim Tubes              | Polyethylene                              |

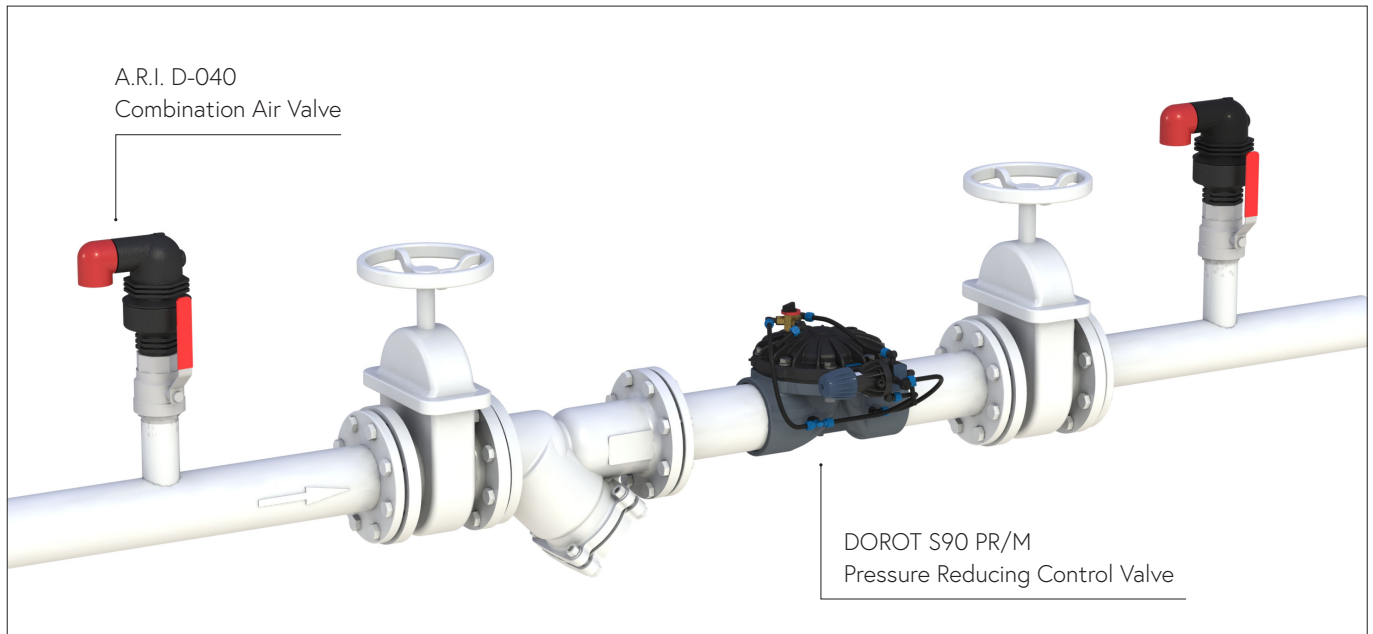
\* Other options are available upon request.

## Main Control System Components

| No. | Component                           |
|-----|-------------------------------------|
| 1   | Main Valve                          |
| 2   | Self-flushing filter                |
| 3   | 3-way Position Selector Valve       |
| 4   | 3-way Pressure Reducing Pilot Valve |
| 5   | Pressure Test Device                |



## Typical Installation



## Purchase Specifications

- Weir-type Diaphragm, 3-way Pressure Reducing Globe Valve.
- No stem, shaft or guide bearing inside the water passage.
- Operated by line pressure or external hydraulic/pneumatic actuation.
- Maintains accurate regulation across the full flow range, without a bypass or throttling plug.
- Controlled by a pressure-reducing pilot valve, to ensure constant outlet pressure regardless of upstream conditions.

## Design Considerations

- Select valve size based on expected maximum flow and acceptable head loss.
- Large pressure differentials may cause cavitation – consult Aquestia for solutions.