ECOTROL®
Operational Economy with Optimum Control

Energy Conservation | Environment | Process Efficiency
www.forbesmarshall.com
A new generation control valve - without any compromise. A fit-and-forget quality product with high efficiency, best in class performance and ease of maintenance - a valve with features which others claim impossible!

Reliability

Precision

Cost of Ownership

Universal

Reliability on highest priority. This product is backed by over 60 years of experience

State-of-the-art CNC manufacturing techniques avoid misalignment between actuator and valve guiding

Reduction in operating and maintenance cost. The quick changeable trim combination offers the advantage of a double-side use by reversing the seat ring

Design in accordance with ANSI.

A stem sealing that meets today's requirements by providing a corrosion resistant stuffing box area

A unique, compact, pipe-less and vibration resistant positioner mounting which guarantees quick assembly and high reliability for all actuator functions

Double use of auxiliary energy by using the tried and tested pneumatic multi-spring diaphragm actuator with the option of permanent spring case ventilation

Short delivery time, minimizing costs with superior technical value and quality

Environmental Awareness

Flexibility

Efficiency

Control of the “Magic Triangle”
RANGE

SERIES 8C
- Sizes ⅛” to 4” ANSI class 150 and 300

SERIES 6N
- Sizes 6” to 16” ANSI class 150 and 300

SERIES 6H
- Sizes ⅛” to 12” class 600 to 1500

Advantages of double sided thread-less seat

Due to the complete symmetrical shape of the seat, it is manufactured with a second seating surface on the opposite side of the seat. The same seat can be used from both sides.

Thread-less design ensures zero bypass leakage (leakage between body and seat)

As the seat is a "Drop In" design, there is no unscrewing of seats and all the accompanying maintenance problems.

The seat is installed and removed through the top of the valve body, again incorporating ease of maintenance and less downtime.

Pre-designed compression levels through cage keep the seat in place which ensures absolutely linear movement of spindle.

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Conventional Seat

Ecotrol® Seat

The Forbes Marshall ARCA ECOTROL® valves are robust, compact and quality engineered valves. The highlight of this valve series is the Forbes Marshall ARCA-double-life, quick-changeable trim combination with the advantage of a double-side use by reversing the seat ring. Because of its simple geometry, the valve seat can be economically produced in different materials suitable for process fluid. In comparison to conventional designs, the specialty of the ECOTROL's soft sealing is that the PTFE-element is flexibly supported by an additional Elastomer O-Ring. Both sealing elements are located in the seat ring and not as usual in the valve plug. The additional metal-to-metal sealing of plug and seat ring ensures that the PTFE-disc which is suitable for double sidde use is not plastically deformed by excessive loads.

Ecotrol® Seat

®
High life maintenance-free stuffing box

To prevent galvanic corrosion between the bonnet stuffing box (carbon steel) and the packing (graphite), all bonnets of valves larger than DN 50 (2”) offer a specially treated stainless steel bushing. For valves equal or less than DN 50, the bonnet is always made of stainless steel which avoids electrochemical corrosion. The bushing with a straight through bore allows a super finish of the surface which ensures perfect sealing between packing or sealing ring and bushing. The stainless steel bushing avoids or minimizes any corrosion and spoiling in the vicinity of the sealing.

Additional Benefits

- Extended lifetime due to double-side use by reversing seat
- Easy and fast assembly, maintenance without any special tools
- Multiple material options for valve body and trim as per process
- FM SMART positioner with tubeless mounting (NAMUR) and low air consumption
- Multi-spring compact diaphragm actuator (field reversible)
- Flow assisted valve body design, which offers minimum resistance to flow
- Optional double guided plug without need of fourth flange
- Tailormade trim designs for high pressure applications
- Wiper rings placed above packing ensures no sediment deposition
- Modular design reducing inventory of spares