

# ECOVENT® Valves

Compact Design, Reversible Actuator, 3A-conform





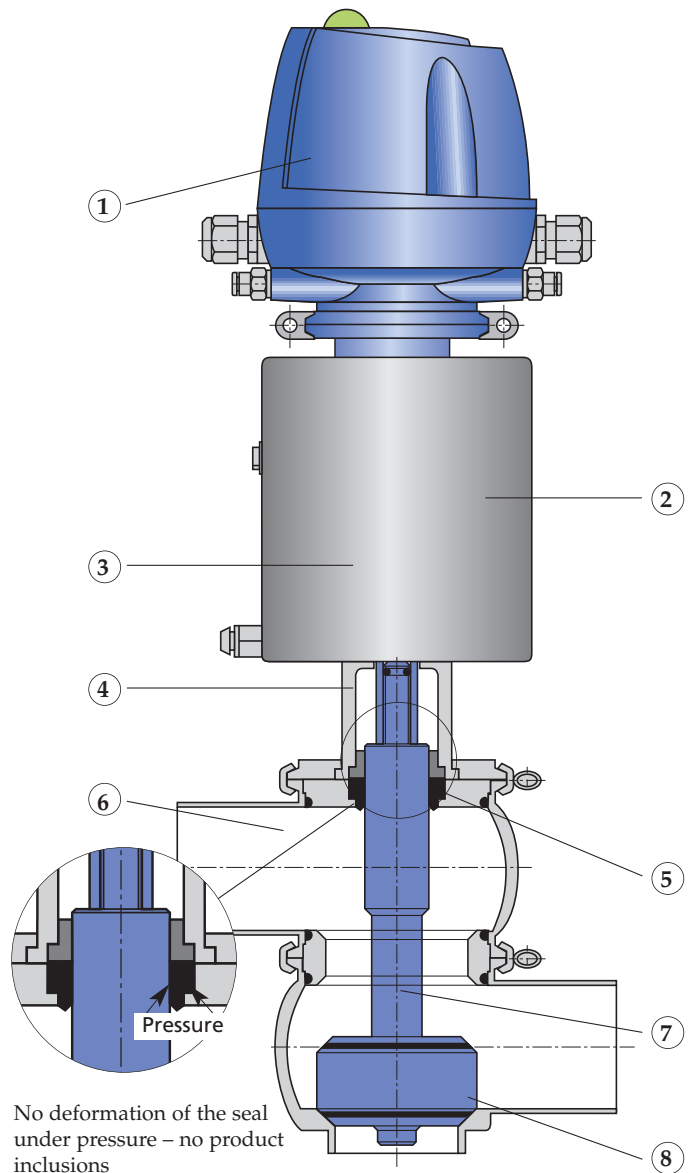
# ECOVENT® Single Seat Valves . . .

. . . represent a cost-effective alternative to our shut-off and shuttle valves for simple hygienic process applications. They form the next innovative generation of the proven ECOVENT® series.

They stand out by reliable function, CIP/SIP-ability and low maintenance - the fundamental factors for achieving consistent product quality, high output rates and economical operating, maintenance and service costs.

## Features of ECOVENT® valves

1. Electrical components in the control module are fully splash-water protected.
2. Sturdy and reversible actuator — spring-to-close/air-to-open or vice versa. Air backup of the spring is possible.
3. ECOVENT® actuators with direct internal air supply from the control module.
4. Open lantern for visual inspection of the stem seal and the valve's switching position.
5. The machine rolled valve spindle finish provides for excellent wiping action as it passes through the seal, ensuring long life of the stem seal.
6. The ECOVENT® System has optimal cleaning characteristics — without domes and pools.
7. The valve disks are, as a matter of principle, manufactured in a single piece.
8. The metallic stop of the valve disk provides a defined deformation of the seal, ensuring long seal life.





### Control and feedback systems

The valves can be equipped with the well-established Tuchenhausen control and feedback systems.



Proximity switch holder with two proximity switches



T.VIS® control system

### Actuator

The spring-to-close / spring-to-open action is freely selectable by reversing the actuator.

### Sight lantern

An open lantern as a separation between the actuator and the product section permits visual inspection of the valve stem seal and prevents temperature transfer from the pipe system to the actuator.

### Housing connections

Clamp connections between the individual components facilitate rapid installation. Housing body connections with detachable clamp ferrules allow for unrestricted freedom of choice of the socket position.

- Optional: welded seat ring available without surcharge



Welded seat ring



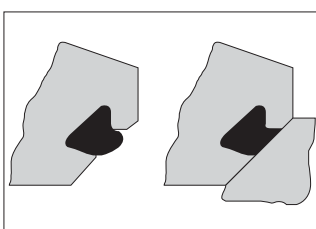
Clamp connection

### ECOVENT® single seat valves reduce your costs!

The very favourably priced Tuchenhausen ECOVENT® single seat valves enable you to considerably reduce your plant investment costs!

As the ECOVENT® series is based on the VARIVENT® sealing philosophy, it also reduces your operating costs. The metallic stop of the valve disk ensures defined deformation of the seal, which provides a long service life of the seals.

The combination of low investment costs and the potential to reduce operating costs in the long run clearly shows how ECOVENT® valves can help you to reduce your costs!



Constant compression seal



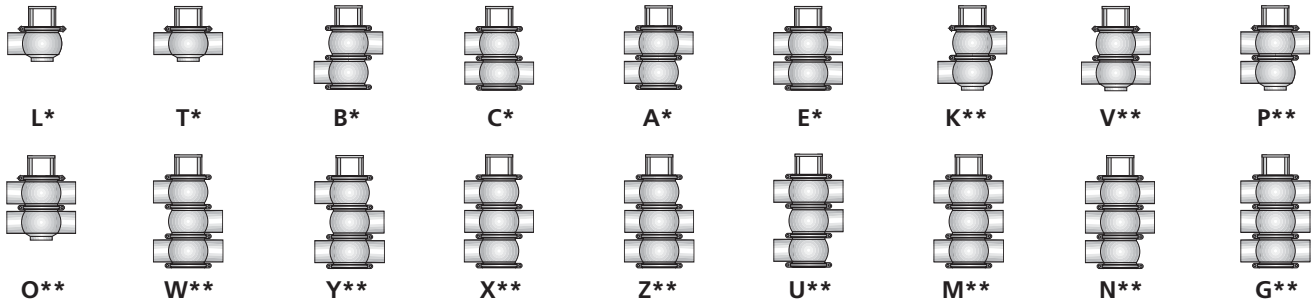
Diffusion of stress in the seal

### Advantages of ECOVENT® valves:

- Cost-effective single seat valves
- Reduces operating costs thanks to the long service life of the seals (metallic stop)
- Compact design, low overall height
- Flexible actuator design
- Can be combined with all proven Tuchenhausen feedback systems
- No product can creep behind the special-contour seal

## Housing combinations for ECOVENT® Valves

The housing configuration of the VARIVENT® System is used and allows any conceivable housing combination.



\* for valve type N only; \*\* for valve type W only

## Technical Data and Materials

### Materials

#### Product contact

housing  
1.4404 (AISI 316 L)  
interior parts  
1.4404 (AISI 316 L)

#### No product contact

1.4301 (AISI 304)

### Surface finish

#### Product contact

inside  
 $R_a \leq 0.8 \mu\text{m}$   
other surface finishes  
on request

#### No product contact

outside  
matt finish  
optional  
housing as rolled

### Seals

#### Standard

EPDM (FDA)

#### Operating temperature

135 °C

#### Sterile temperature

150 °C (1 hour max.)

### Optional

FPM (FDA)  
HNBR (FDA)  
FFPM (on request)

### Operating pressure

#### Standard 5 bar

higher pressures  
on request

### Control air

#### Standard 6 bar

min. 4.8, max. 8 bar  
due to process data

ECOVENT® valves are available in the following pipe connection sizes and nominal widths:

### Metric

Outside diameter acc. to DIN 11850, Row II,  
DIN 11866, Row A  
Metric: DN 10 to DN 100

### Inch OD

Outside diameter following ASME-BPE-a-2004,  
DIN 11866, Row C  
Inch OD: 1" to 4"

**DIN ISO 9001 / EN 29001**



ECOVENT® valves meet the regulations according to 3A, FDA, LMBG 4/94 and EN 93