

# THALETEC PremiumValve

**Bottom outlet valves for  
glass-lined equipment  
and equipment made  
of stainless steel**

**in chemicals, fine chemicals  
and pharmaceuticals**



The THALETEC bottom outlet valve "PremiumValve" is a comprehensive new development, into which a lot of knowledge and numerous suggestions from our customers have flowed.

#### Features

- Bottom outlet valve for glass-lined equipment and equipment made of customer-specific steel alloys
- **Operating pressure:** -1/+10 bar
- **Operating temperature:** -60°C/+230°C
- **Glass-lining:** RAS GLASS blue, optional with abrasion-resistant glass ABRISIST blue
- **Nominal sizes:** DN 150/100, 100/80, 80/50 and 50/32. Other nominal sizes on request
- Also available as GMP version "PremiumValve Pharma" (leaflet k071)

#### Valve pistons



Standard



ConducTip



Sampling\*



Glass lining monitoring\*

The valve piston is at the heart of each bottom outlet valve. THALETEC bottom outlet valves are equipped as standard with a glass-lined valve piston into which a flexible **temperature probe, flexsens 100**, which can be removed laterally, can be inserted. The temperature probe enables the temperature in the tank to be measured quickly and accurately. In measured of a temperature probe the valve piston can be equipped with a **sampling pipe** used without a gasket and made of Hastelloy. A further alternative available is an **a glass-lining monitoring**. According to the European Use of Work Equipment Directive 89/655 EC and the Technical Regulations for Safety at Work

TRBS 2153 (avoidance of ignition risk as a consequence of **electrostatic charges**) it is necessary for highly and medium conductive liquids in glass-lined equipment to have electrical earthing. This requirement can be met by a valve piston with **ConducTip**.

The ConducTip is a contact point coated with an electrically conductive glass-lining on the valve piston. Inside the ConducTip there is room for a temperature probe of the type flexsens 100, which can be removed laterally with the valve closed. All valve pistons are **precision ground** on the sealing surfaces to ensure a secure seal under all operating conditions.



Bottom outlet valve with sampling

#### Valve seat



Standard valve seat



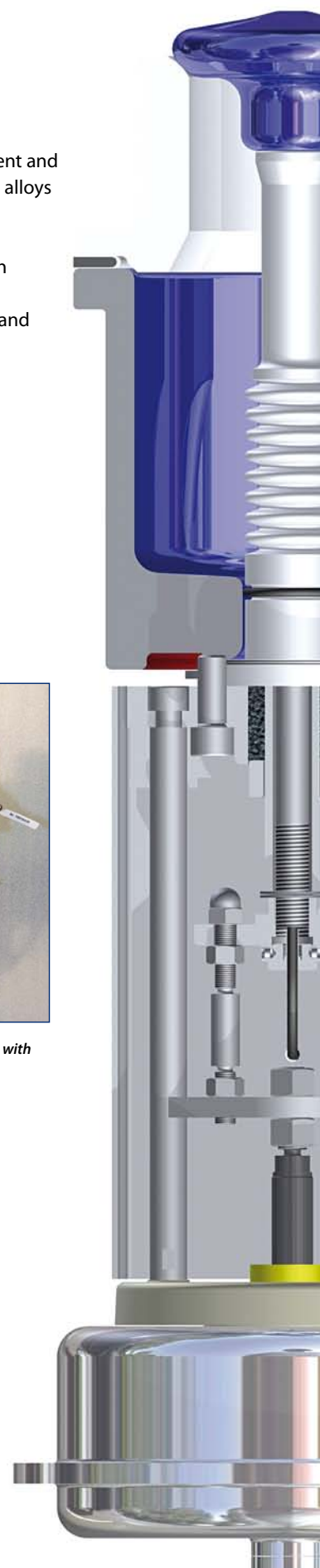
GMP-design with O-ring seal

The valve seat ensures a secure seal of the valve piston and thus a tightly sealed tank. THALETEC valve seats are made of a

high-quality, FDA approved and thermally stable PTFE compound.

Depending on requirements there is a choice of different designs:

- **Standard design** for general applications in the chemical industry with Labyrinth lip seals to make a seal between the valve seat and the tank nozzle
- **GMP design** with soft-sealed, FEP-coated O-ring





### Corrugated bellows

The valve piston is hermetically sealed with newly developed **corrugated bellows** optimised in terms of ease of **cleaning** and operational **life** and made of a high-quality PTFE compound. Contrary to conventional bellows the corrugated bellows are less susceptible to material fatigue and are optimal for cleaning. Product residues cannot get caught because of the shape of the corrugations. In accordance with **GMP guidelines** the corrugated bellows are also sealed to the valve body, the glass-lining of

which is precision ground in the seal area. With the **safety stuffing box** the valve is also designed in compliance with the German technical instructions on air quality control (TA Luft). FDA certificates are available as an option for all synthetic materials in contact with the product. Apart from the valve size 50/32 the corrugated bellows are the same for all valve sizes to facilitate spare parts stocks.

### Valve body



*Standard: glass-lined  
60° outlet angle*



*Glass-lined, 60° outlet  
additional nozzle DN 25\**



*Glass-lined with  
heating/cooling jacket\**



*Glass-lined, 45°  
outlet angle*



*Stainless steel  
special alloys*

The valve body is designed as a **welded** construction which facilitates extensive variations and customer-specific adjustments. **Thus valves** with an outlet angle of 60° and 45° can be executed. An additional **side nozzle** DN 25 or a design with integrated heating/cooling jacket are also

available. Besides the **standard nominal sizes 150/100, 100/80, 80/50 and 50/32** **any connection combinations** desired can be achieved.

On request valve bodies can also be made from **stainless steel** or **high-alloy materials**, such as Hastelloy or titanium.



*Temperature probe, flexsens  
100, can be removed laterally  
without having to dismantle or  
open the valve*

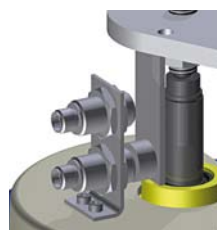
### Actuator



*Standard: Inline actuator unit  
with stainless steel cover*



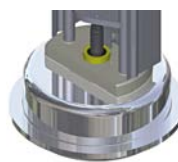
*Pneumatic actuator unit,  
lateral (low height)*



*Limit switches on/off*



*Manual actuator  
handwheel*



*Pneumatic actuator made  
of stainless steel*



*Lateral emergency handwheel*

The valve actuator is available »**Inline**« or as a **lateral actuator**. The »inline-design« is protected against contamination by a **covering** of stainless steel in accordance with GMP guidelines and is easy to clean. In addition, a **manual actuator** with a **hand-**

**wheel** and a **spring-force** closing pneumatic actuator for control pressure up to 6 bar is available. There are optional accessories such as **limit switches**, **position controllers** and an **emergency handwheel** (for the pneumatic actuator).

*\* Not available in all sizes*



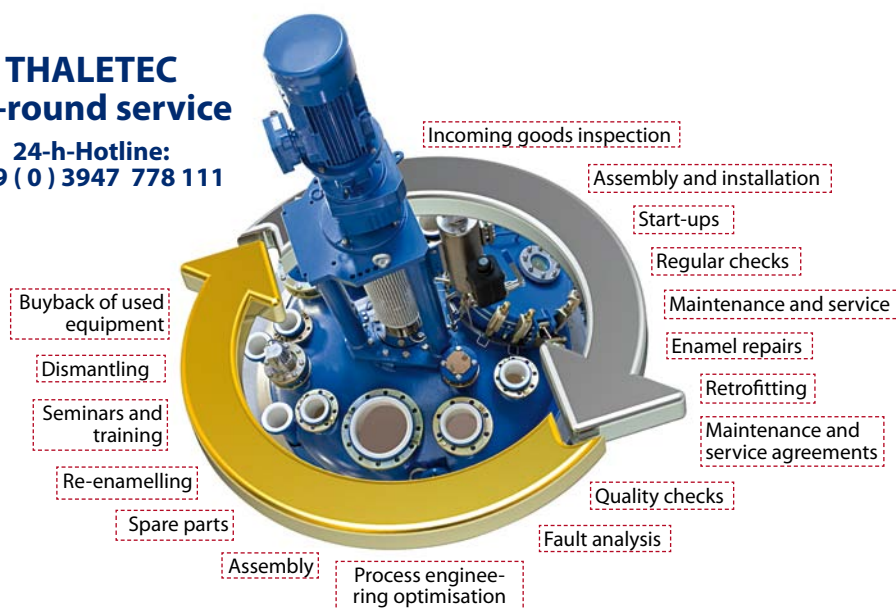
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