

Whether PCR, TBR, OTR, BIAS or other tires, the conditions in tire curing presses are extreme. Valves are challenged especially with respect to their service life and reliable functioning. Also their control accuracy plays an important role for precise temperature control. For decades we have been a trusted partner for tire manufacturers and offer customized solutions for your individual application.

Schubert & Salzer - Your Partner in Tire Manufacturing

# On/Off Valves

**Angle seat valve 7010** in stainless steel, distinguishes itself by high  $C_{vs}$  values at a very compact construction, a variety of possible connections, and very easy maintenance. High-temperature versions, developed especially for tire curing presses, ensure a high degree of tightness and long service life even in nitrogen, steam and hot-water applications up to 220 °C. The special seat construction proves to be particularly robust, especially also with vacuum and drain.

## Summary of your benefits:

- Long service life with over 1 million switch cycles and highly leakproof even with slightly contaminated media.
- Very simple maintenance: The valve body can remain installed in the pipeline during valve maintenance. The actuator with including the plug can be easily unscrewed.
- This easy-to-maintain design optionally allows an economic and space-saving welded-in construction that prevents any leakage at the connections.
- Every part of the valve is available as a replacement part.
- A temperature range of -100 °C to 220 °C is possible.
- Available in nominal sizes DN8 to DN80, up to pressure rating PN40.
- Easy handling and reduced storage: The identic valve body is the basis for line strainers, check valves, manual valves, pneumatic valves and control valves.
- Flexible pilot air connection thanks to an actuator bonnet which can rotate 360°.
- Valve position indication, even in the “normally open“ versions.



In comparison with conventional seat valves the 7010 valves have significantly larger  $C_{vs}$  values:

Comparison of $C_{vs}$ values ( $K_{vs} = C_{vs} / 1,16$ )		
Nominal size	Conventional Seat globe valve	Schubert & Salzer 7010 valve
DN 15	2.9	4.1
DN 20	5.4	9.3
DN 25	8.6	17.4 - 18.6*
DN 32	13.2	24.4 - 27.8*
DN 40	22.1	34.8 - 40.6*
DN 50	28.8	46.4 - 63.8*
DN 65	49.5	92.8
DN 80	79.2	129.9

\* Depending on the size of the drive

Thus, not only the nominal sizes of the valves, but also the nominal sizes of the pipes, can be reduced by at least one nominal size. A 7010 valve in nominal size 32 can even replace a conventional valve with a nominal size 50 without reducing the flow rate. The entire steam package is thus more compact and more economical.  $C_{vs}$  advantages over other solutions are also available with 3-way valves and flanged globe valves from Schubert & Salzer.




Alternatively to a conventional solution with individual valves we can also provide manifolds, which save space, simplify maintenance and reduce heat losses.

Schubert & Salzer manifolds are the most compact on the market. They will be customised to your heating process, please contact us for detailed discussions.



# Control Valves

 The GS-Valve and its applications – See the movie at: [controlsystems.schubert-salzer.com/en/gs-film](http://controlsystems.schubert-salzer.com/en/gs-film)

The unique **sliding gate valve** of Schubert & Salzer has proven itself as the superior control valve solution in tire curing presses all over the world.

The GS valves 8043 and 8021 product line controls steam, hot water and nitrogen precisely, quickly and economically.

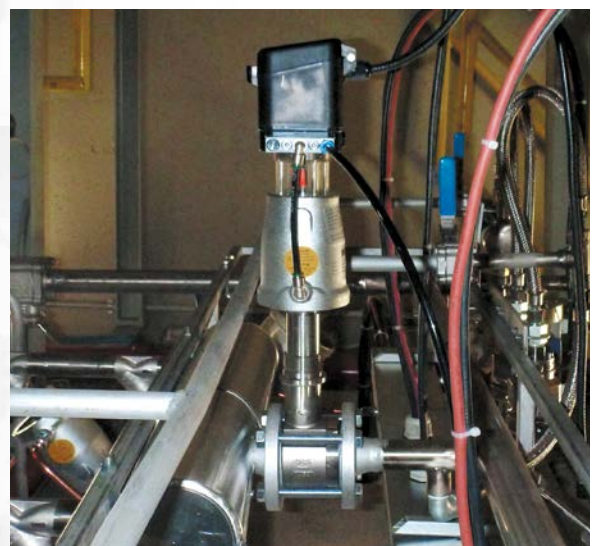
## Summary of your benefits:

- Compact construction and simple installation.
- 10 times less actuation force reduces energy consumption and is kinder for the climate and environment.
- Very easy maintenance through the simple replacement of the easily accessible disc pair; this reduces service time and down time of the curing press.
- Minimised stocking of spare parts.
- Very high control accuracy through intelligent positioners and quick reaction times due to the short stroke. The accuracy that can be achieved in the temperature control often allows the curing time per tire to be reduced!
- A more compact and integrated positioner requires no additional, remote I/P converter, resulting in no continuous consumption of control air.
- Regulation can be optimised or adjusted by changing the  $C_{vs}$  value by means of replacing the fixed disc only.
- The quick opening time allows the time-optimised filling of the bladder.
- Short control paths reduce wear on packing and actuator and thus increase the service life.
- Minimised wear in cavitation applications is facilitated through optimised flow guidance.
- Also high differential pressures can be regulated by the same valve; additional pressure reducers are not required.
- Maintenance-friendly replacement of the integrated positioner. Smart diagnostics software in the positioner as a valuable aid.

Our valves are not only used in tire curing presses, but of course also in the main steam control system / steam header or in the central steam, hot water or nitrogen supply, on the mixer and on the calenders in the pre-product production, etc.

## Functionality of Sliding Gate Valves:

A sealing plate (2) fixed in the housing (1) perpendicular to the direction of flow has a defined number of transverse slots (3) of the same size. A rotationally fixed disc (4) with the same arrangement of slots is moved vertically and thus changes the flow cross-section. The subsequent pressure difference presses the moving disc (4) onto the fixed disc (2).



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