GEMÜ®

VALVES, MEASUREMENT AND CONTROL SYSTEMS

Integration of GEMÜ iComLine into housing and tank walls

The valve block solution offers more than just a compact valve arrangement that integrates several valve seats, fittings and connections as well as a sensor system in a space-saving and above all cost-effective manner. Additionally, these system solutions can be integrated into housing and tank walls.

Example: Substrate transport system

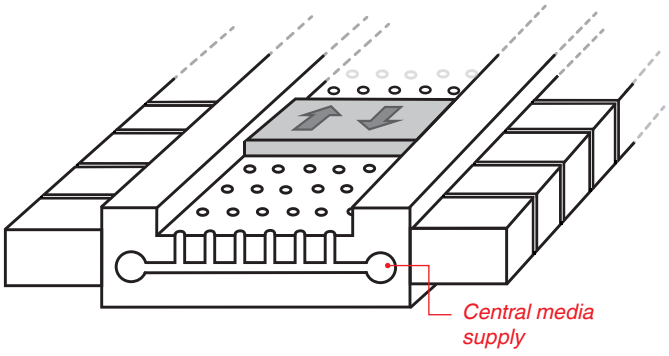
Substrates, such as wafers or solar cells, are transported via a fluid layer. The fluid layer is created by injecting the liquid into the flat tank through holes running obliquely with respect to the bottom of the flat transport tank. The holes are arranged alternately in rows with one pointing in one direction and the other in the opposite direction. This enables the substrates to be lifted and transported forwards and backwards. Mechanical damage to the substrate surface is reliably avoided in this way.

This design is used for more than just transportation. Because fluid flows around the substrates evenly, they can also be wet-chemically treated or cleaned during the transport process.

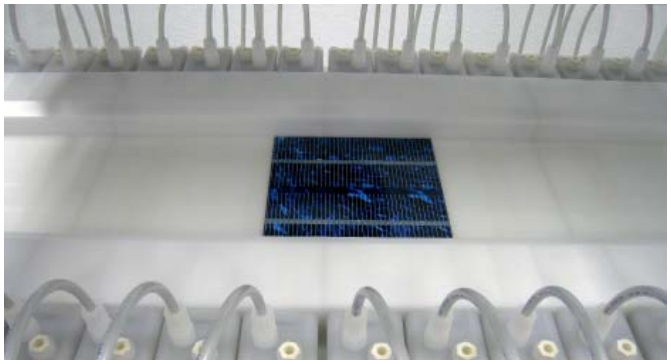
The design

GEMÜ iComLine multi-port valve block systems are used to control the liquid. These run along the side of the transport system. This integrated design means the blocks here can have two functions simultaneously: They are a compact unit, which reduces the footprint of the overall system, and, at the same time, also form the tank edges of the transport system.

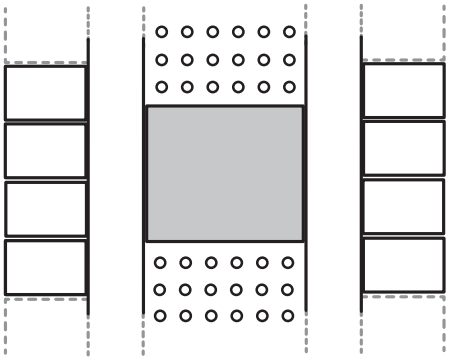
Substrate transport system



Cross-section of the transport tank



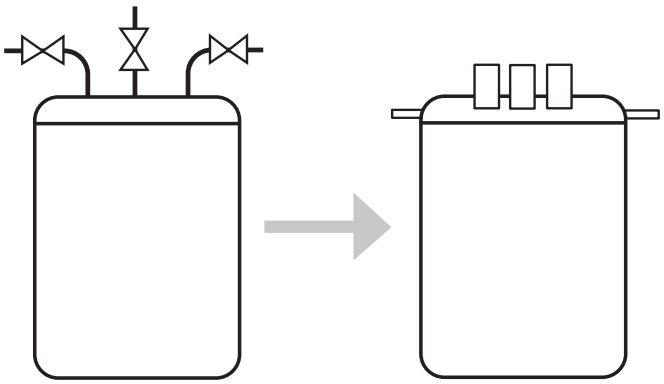
Transport tank with wafers



Top view of the transport tank

Additional examples for housing integration

Multi-port valve block systems with GEMÜ iComLine can also be integrated into the tank cover. A more compact design is possible because the piping systems are scaled down. The reduced number of weld or solvent-cemented joints increases system reliability.



Conventional design *Integrated block design*

The benefits of GEMÜ iComLine multi-port valve block systems

- *Full integration of the multi-port valve block*
- *Individual, customized solutions*
- *Ready-to-install delivery of the multi-port valve block*
- *Cost savings through lower installation costs*
- *Increased system reliability due to fewer weld and solvent-cemented joints*
- *Smaller footprint of the overall system thanks to the compact design*

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