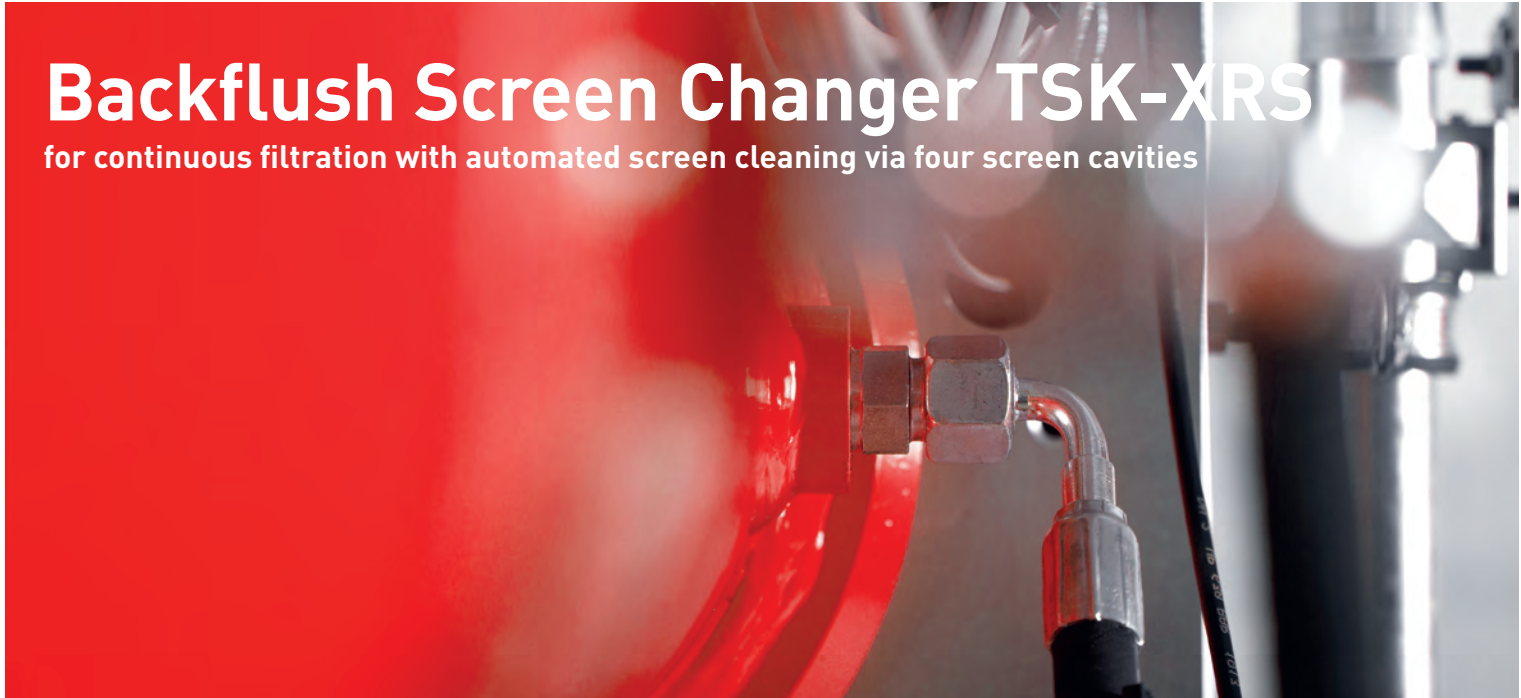
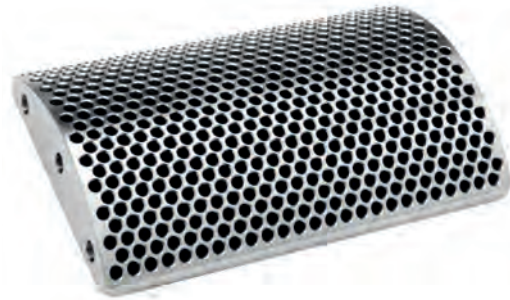


# Backflush Screen Changer TSK-XRS

for continuous filtration with automated screen cleaning via four screen cavities



- Four screen cavities
- Integrated backflush feature
- Rectangular breaker plate



Continuous screen changers from Trendelkamp are built to meet the highest quality standards in polymer melt filtration. TSK-XRS backflush screen changers are based on the proven dual bolt design and are highly reliable.

Unique to all Trendelkamp screen changers are the curved and rectangular breaker plates. Utilizing this rectangular design offers the largest screen area per bolt size, enabling smaller overall machine sizes to operate greater throughputs. Furthermore, our thin, curved breaker plate design optimizes strength while maintaining more uniform bore length throughout the plate. The TSK-XRS backflush screen changer consists of four screen cavities (two in each bolt) for maximum filtration area. It ensures greater efficiency in production at all times, thus stabilizing pressure fluctuations for highly sensitive polymer processing. The integrated backflush feature cleans each filtration screen pack when a predetermined level of contamination is reached. This feature increases the lifetime of filtration screen packs significantly, thus reducing overall operational costs.

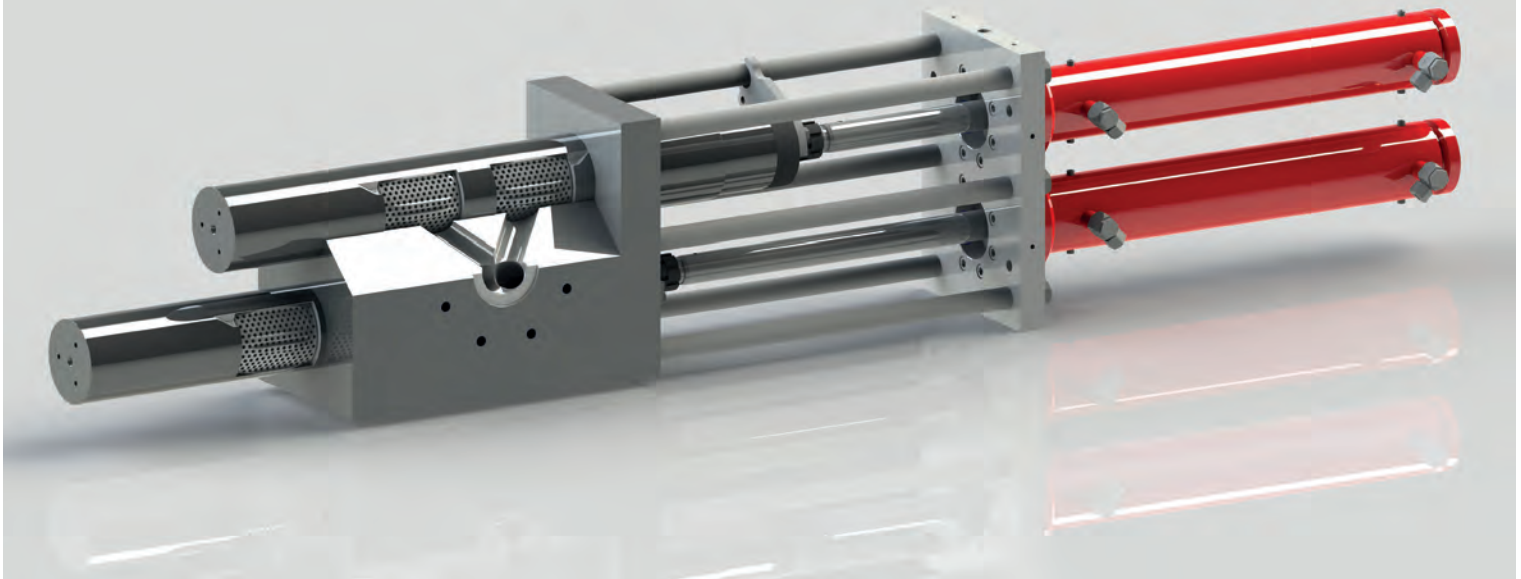
#### Benefits:

- Reliable continuous operation
- Lower screen cost
- Reduced shear stress on product
- Reduced pressure drop across screen changer
- Safe, easy operations and reduced maintenance
- Extended screen life
- 75% of filtration area in production at all times
- Extremely low pressure fluctuations during backflush and screen change

#### Design Options:

- Oil, steam, or electrical heating
- High-temperature design, up to 450°C
- Special coating for abrasive/corrosive applications
- Stainless steel design
- Hazardous area design

## Backflush Screen Changer TSK-XRS



### Functional Principle:

A rheological optimized flow channel divides the incoming polymer melt into four screen cavities equally. Inside the screen cavity a breaker plate is equipped with a filtration screen pack suitable for the required filtration fineness. Downstream of the screens the filtered melt streams converge and flow out of the screen changer housing as a single stream.

When a predetermined level of contamination is reached, a bolt moves so that one of the two screens is in backflush position while the second screen remains in production mode. Within the backflush position, a small portion of the downstream polymer melt is pushed through the screen pack from the opposite direction, thus removing contamination from the screen. After the first screen has been backflushed it moves back into the production position just as the second screen is then positioned for backflush. Once the second screen completes the process the entire bolt resumes full production and the second bolt with dual screens repeats the above mentioned process.

When a screen change is required, one bolt is moved hydraulically out of the housing to expose one screen enabling it to be changed while the other screen in that bolt remains in production. After the screen is changed the bolt moves to a venting position to prevent air from entering the production process before resuming operation. These steps are then repeated for the other screen within the bolt as well as the other bolt with dual screens.

### Control Options:

- PLC control system (automatic venting)
- Control system preparation for external PLC
- Heating control system
- Pressure and temperature monitoring

### Design Features:

- Hydraulically operated
- Operating limits: 400 bar/400°C
- Differential pressure: up to 100 bar
- Energy efficient due to insulated housing
- LED Heating status indicator (from TSK 6-2)
- LED Bolt maintenance indicator (from TSK 6-2)

### Applications:

- Compounding
- Recycling
- Masterbatch
- Polymerization
- Fiber
- Sheet/Film
- Profile/Pipe