

Polymer Technology











Continuous screen changers from Trendelkamp are built to meet the highest quality standards in polymer melt filtration. TSK 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 a large screen area for the required bolt size, enabling smaller overall machine size to operate greater throughputs. Furthermore, our thin, curved breaker plate design optimizes strength while maintaining more uniform bore length throughout the plate.

Benefits:

- Reliable continuous operation
- Fewer screen changes and lower screen cost
- Reduced shear stress on product
- Reduced pressure drop across the screen changer
- Safe, easy operations and reduced maintenance

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



Screen Changer TSK



Production





Functional Principle:

A rheological optimized flow channel divides the incoming polymer melt into two 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 screen change is required, one bolt is moved hydraulically out of the housing so the screen pack can be changed. The other bolt remains in operating position and continues the melt flow. Before the bolt resumes operation, it moves to a venting position to prevent air from entering the process. These steps are then repeated for the other bolt.

Control Options:

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

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
- EVA, Hot Melt Adhesives

Model	Filter Area	Extruder Throughput	Heating Power	Hydraulic Power
TSK 2-2L	2 x 26 cm ²	150 kg/h	2.4 kW	1.1 kW
TSK 3-2	2 x 48 cm ²	80 - 300 kg/h	4.5 kW	3.0 kW
TSK 3-2L	2 x 61 cm ²	140 - 400 kg/h	4.5 kW	3.0 kW
TSK 4-2	2 x 87 cm ²	180 - 500 kg/h	6.0 kW	3.0 kW
TSK 4-2L	2 x 112 cm ²	230 - 650 kg/h	6.0 kW	3.0 kW
TSK 5-2	2 x 161 cm ²	350 - 1,100 kg/h	9.0 kW	3.0 kW
TSK 5-2L	2 x 196 cm ²	550 - 1,350 kg/h	9.0 kW	3.0 kW
TSK 6-2	2 x 270 cm ²	700 - 1,650 kg/h	16.0 kW	5.5 kW
TSK 6-2L	2 x 341 cm ²	850 - 2,000 kg/h	16.0 kW	5.5 kW
TSK 7-2	2 x 437 cm ²	1,000 - 3,000 kg/h	18.0 kW	5.5 kW
TSK 7-2L	2 x 470 cm ²	1,500 - 4,000 kg/h	19.0 kW	5.5 kW
TSK 8-2	2 x 538 cm ²	2,000 - 5,000 kg/h	25.6 kW	5.5 kW
TSK 8-2L	2 x 614 cm ²	2,400 - 6,000 kg/h	28.8 kW	5.5 kW
TSK 9-2	2 x 759 cm ²	2,800 - 7,500 kg/h	41.6 kW	7.5 kW
TSK 9-2L	2 x 825 cm²	3,100 - 8,500 kg/h	43.2 kW	7.5 kW
TSK 10-2	2 x 875 cm²	3,500 - 10,000 kg/h	51.2 kW	7.5 kW
TSK 10-2L	2 x 972 cm ²	4,100 - 11,500 kg/h	54.4 kW	7.5 kW