



Technical data



BAVARIA TSO 270 - 450 SEMISILENT PROFESSIONAL

Maximum performance, maximum safety, absolute reliability.

Made in Bavaria

Technical Data TSO Semisilent	
Filling capacity / delivery: This is calculated from the time required to fill a 10 l tank from 0 to 200 bar. The calculation is based on a barometric pressure of approx. 1013 mbar.	TSO 270= 270 L/min - 16.2 m³= 9.53 cfm Filling time 7.40 min, TSO 320 = 320 L/min - 19.2 m³ = 11.30 cfm filling time 6.25 min, TSO 380 = 380 L/min - 21.8 m³ = 13.42 cfm Filling time 5.70 min, TSO 450 = 450 L/min - 27 m³ = 15.0 cfm Filling time 4.35 min.
Intake pressure, operating pressure	Atmospheric (0.5-1.2 bar), 90 to 350 bar (1305 to 5076 PSI), with surcharge 420 bar (6091 PSI) version possible
Number of stages/cylinders	270-320 3 stages, 380-450 4 stages
Intermediate pressure safety valves	In each compression stage
Reverse direction	Counter clockwise
Cooling, air-cooled, requires cooling air	TSO 270/ 320 1980 m³/h, TSO 380-450 2700 m³/h
Lubrication	low-pressure oil pump with oil filter)
Oil quantity, oil type	TSO 270-450 2.6 liters, special synthetic with safety data sheet
Max. permissible ambient temperature	+5°C to +45°C (+43°F to +113°F)
Motor: Three-phase squirrel cage 400 V, protection class IP 55, IE3, 2850 rpm, 50 Hz/60 Hz	TSO 270-320 5.5 kW, TSO 380-450 7.5 kW
Semi-soundproofed compressor cabin, frame made of folded, welded 3 mm steel sheet, cladding and closures made of folded, welded 2 mm - 4 steel sheet. Compressor frame with shock absorbers, bare block and drive decoupled with silent blocks, compressor block and drive decoupled with silent blocks	Powder-coated RAL 9005/ 9007, Silent block and anti-vibration rubber-bound metal feet 50 x 40 mm Rubber-bound metal elements 45x50 mm
Compressor dimensions: L x W x H, weight, noise dbA at a distance of 1.5 m	90 x 110 x 155 cm, approx. 2358 250 kg, approx. 82 dbA
Intake filter	Micronic Superfine
IDE high-end compressor control	Star-delta soft start, start/stop button, main switch, emergency stop button
Automatic condensate drain with two/three condensate separators and silencer	Automatic every 15-20 minutes, including 10 liter tank
Unloader, compressor start and automatic stop at final pressure	Automatic
Pressure maintaining valve/check valves/ End pressure valve ventable,	set to 120 bar/2/1 final pressure Safety valve, ventable with type examination certificate

Model Operating pressure	Drive	FAD	Stages	Motor		Dryer system	Dimensions cm			Weight
				kW	HP		L	W	H	
350 bar-420 bar	Voltage	l/min				Type/m³ @15 °C				
TSO 270 350 bar	400 V 50/60 Hz	270	3	5.5	7.5	FT 160/ 760	110	72	155	200
TSO 320 350 bar	400 V 50/60 Hz	320	3	5.5	7.5	FT 160/ 760	110	72	155	205
TSO 380 350 bar TSO 380 420 bar	400 V 50/60 Hz	380	3	7.5	10	FT 160/ 760	110	72	155	215
TSO 450 350 bar TSO 450 420 bar	400 V 50/60 Hz	450	3	7.5	10	FT 160/ 760	110	72	155	215

Equipment details - Technical data	270-320	380-450
200 or 300 bar version	•	•
1 main air outlet for connecting an external filling ramp	•	•
Possible rocker arm filling connections with hose and holder (max. 4 pieces) per connection	o	o
AIRSAVE PRO E Monitoring of the saturation of the dryer cartridge	•	•
AIRSAVEULTIMATE Air quality control for CO, CO2, O2, humidity/water in mg/m³, temperature, dew point (integrated)	o	o
AIRSAVE ULTIMATE OIL GUARD * Residual oil and aerosols measure fixed values of 0.1 or 0.5 mg/m³ in accordance with DIN EN12021	o	o
AIRSAVE ULTIMATE OIL CONTROL* Residual oil measurement down to 0.001 mg/m³ according to DIN EN12021+DIN 8573	o	o
Activated carbon adsorber for removing all oil vapors and hydrocarbons for Aisave Oil Control	o	o
FT 160 dryer system, other larger dryer systems available as options	•	•
FT 410 Aisave dryer system= 1400 m³ @ 20°C, larger dryer systems available as an option	o	o
IDE HIGH END compressor control Automatic star/delta control/motor protection relay and automatic stop at final pressure	•	•
HMI TCC-CONTROL, Android-based CAN bus compressor control with 7" touch screen (*1)	o	o
Temperature per compressor stage, additional costs per stage/sensor HMI TCC-Control	o	o
Temperature of last compressor stage CC-CONTROL and HMI-TCC Control	o	o
Temperature silent cabin HMI TCC control	o	o
Oil temperature control HMI TCC-CONTROL	o	o
Oil pressure control CC-CONTROL and HMI TCC-Control	o	o
Oil level monitoring	•	•
Intermediate stage pressure HMI TCC-CONTROL per stage	o	o
Intermediate stage pressure analog with pressure gauges per stage	o	o
Remote control max. 300 m HMI TCC CONTROL	o	o
Communication module for sending SMS error messages to two different phone numbers.	o	o
Automatic condensate drain with silencer and 5-liter collection tank (automatically every 15-20 minutes)	•	•
30 l collection tank with level control and silencer	o	o
Condensate tank overflow protection HMI TCC-CONTROL	o	o
Automatic flushing of CO2 from the dryer housing HMITCC-Control	•	•
AIRSCRUBBER reduces the CO² concentration in the intake air by up to - 800 L/min.	o	o
Air HEPA filter at 300 bar outlet with fine dust separation up to 1 µ	o	o

• =Standard O=optional X=not possible;

Subject to technical changes.
Illustrations may contain optional equipment.

www.ide.de



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