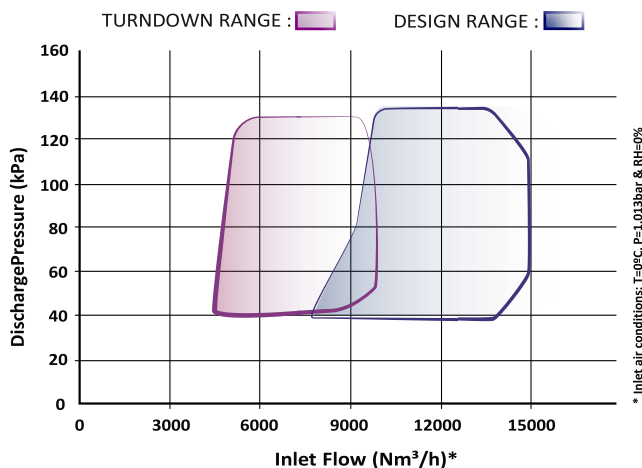




MODEL TCH15.1

SINGLE STAGE TURBOCOMPRESSOR



Product Info

Compressor Type	Integrally geared centrifugal single stage
Medium	Air
Frame family	TCH15.1 – Oil tank embedded in base frame
GearBox	Vertical Split Single helical gears Journal bearings Forced lubrication
Control System	I – Inlet Guide Vanes O – Variable Diffuser Vanes CC – Combined Control (IGV + VDV)

Material specification

Main castings	Cast iron EN GJL-250
Impeller	Aluminium alloy (2618A) or stainless steel
Vanes	Aluminium alloy, Stainless steel, Bronze
GearWheels	High tensile 18CrNiMo7
Fast Shaft	High tensile 18CrNiMo7
Drive Shaft	High tensile 34CrNiMo6
Journal Bearings, Fast Shaft	4-lobes, Steel Alloy & white metal film (babbit)
Journal Bearings, Drive Shaft	Cylindrical, Steel Alloy & white metal film (babbit)
Base Frame	Structural Steel
Coupling	Flexible compact type

Auxiliaries

Inlet Filter/Silencer	95% filtration as per Filter Class EU G4 & baffle type silencer
IGV/VDV Actuation	Electric linear actuator
Expansion Joints	DN400 / 250 steel flanges with Stainless Steel or EPDM Bellows
Cone Diffuser	From Inlet DN250 to Outlet DN350 ~ DN500
Blow-off-valve	DN 150, Electrically actuated
Check valve	DN350 ~ 500, dual flap wafer type
Oil for Gearbox	Approx 210 liters (ISO VG46)
Lube oil cooling	Air (water on demand)
Cooling Fan	IP55 – 50/60Hz

Compressor Drive

Drive	Electrical-motor, 2 Poles
Motor Voltage	Low-medium, or high voltage
Input frequency	50/60 Hz
Motor speed	3000 rpm or 3600 rpm
Protection class	IP55

Standard Quality

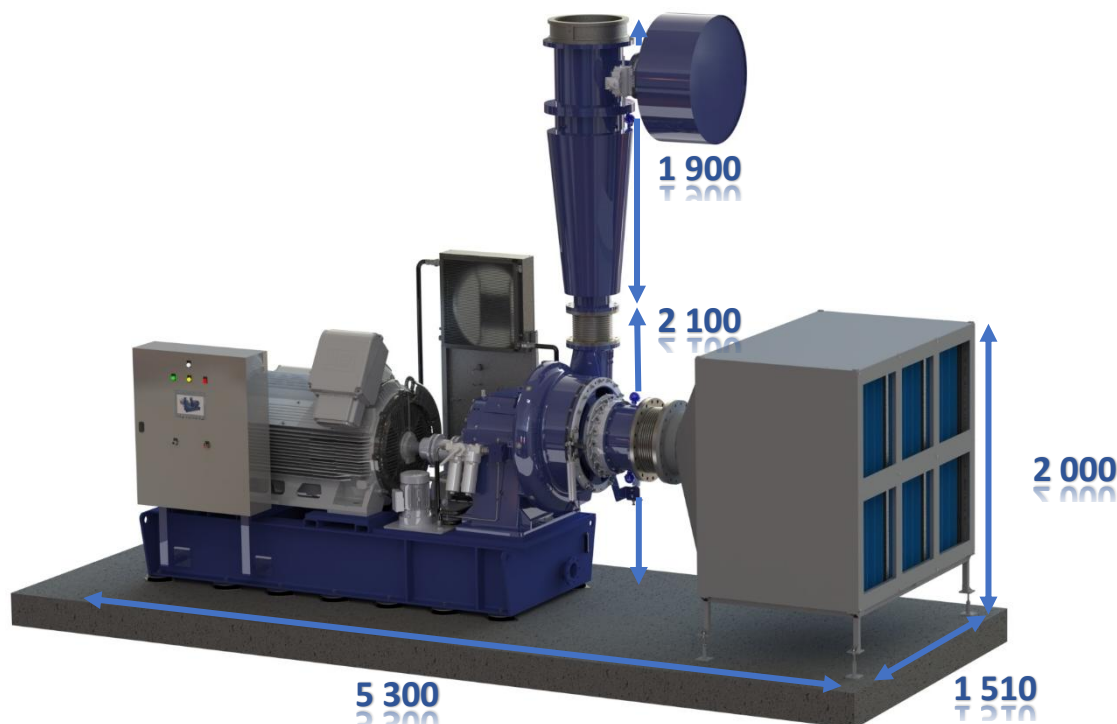
Test Procedure	ISO 5389 & ASME PTC10
Mechanical Test	Internal Standard
Quality	ISO 9001:2015
In Option	API 617/672



MODEL TCH15.1

Single Stage Turbocompressor

Dimensions* [mm]



* Values, dimensions, and reference in this brochure are approximate and intended as a guide only

Performance data

Flow Range	8 000 to 15 000 Nm ³ /h (See Performance chart)
Pressure Range	0.4 to 1.3 barg (See Performance chart)
Turndown	100% - 45% of rated flow with combined control
Power Range	250 to 450 kW
Discharge Velocity	Below 20 m/s after Cone
Vibration Level	Max 4.5 mm/s per ISO 20816
Noise Level **	95 dB(A) Without enclosure
	85 dB(A) With standard enclosure
	75 dB(A) With high performance enclosure (in option)

** Enclosure dimensions may be adapted based upon client specific requirements

Panels

Human Machine Interface (HMI)	Siemens KTP900 Basic 9"
Option	Siemens KTP1200 Basic 12"
Option	Allen Bradley Panel View Plus 7"
Programmable Logic Controller (PLC)	CPU Siemens SIMATIC 1510SP-1 PN
Option	Allen Bradley Compact Logix 1769-L series
Instrumentation	Air Pressure transmitters 4-20 mA
	Air Temperature transmitters 4-20 mA
	Bearing Temperature RTDs
	Oil Temperature transmitter and Alarm Switches
	Oil Pressure transmitter and Alarm Switches
	Oil level Sight Glass and Alarm Switch
	Vibration Transmitter 4-20 mA
	Surge Switch
	Fast Shaft X, Y, Z displacement surveillance (in option)

