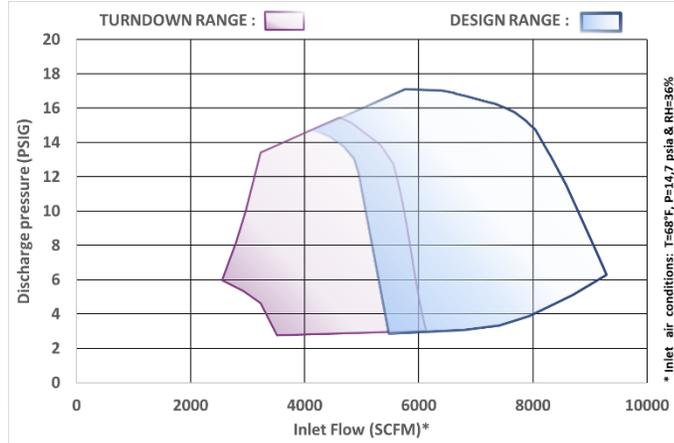




**MODEL TCB12.1 PLUG & PLAY**

**SINGLE STAGE TURBOCOMPRESSOR**



**Product Info**

Compressor Type	Integrally geared centrifugal single stage
Medium	Air
Frame family	TCB12.1 – Oil tank embedded with GearBox
GearBox	Vertical Split Single helical gears Ball 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
Bearings Fast Shaft	High precision ceramic angular ball bearings
Bearings Drive Shaft	Deep groove ball bearings
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	14" / 8" steel flanges with Stainless Steel or EPDM Bellows
Cone Diffuser	From Inlet 8" to Outlet 12" ~ 20"
Blow-off-valve	6", Electrically actuated
Check valve	12"to 20", dual flap wafer type
Oil for Gearbox	Approx 15 Gal US (ISO VG46)
Lube oil cooling	Air (water on demand)
Cooling Fan	IP55 – 50/60Hz

**Compressor Drive**

Drive	NEMA motor, 2 Poles
Motor Voltage	Low-medium
Input frequency	60 Hz
Motor speed	3600 rpm
Protection class	IP55

**Standard Quality**

Test Procedure	ISO 5389 & ASME PTC10
Mechanical Test	Internal Standard
Quality	ISO 9001:2015



## MODEL TCB12.1 PLUG & PLAY

Single Stage Turbocompressor in full package style assembly for minimal job site

Dimensions\* [inch]



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

### Performance data

Flow Range	4 200 to 9 000 SCFM (See Performance chart)
Pressure Range	6 to 17 PSIG (See Performance chart)
Turndown	100% - 45% of rated flow with combined control
Power Range	Up to 500 HP
Discharge Velocity	Below 65 ft/s after Cone
Vibration Level	Max 0.110 inch/s per ISO 20816
Noise Level **	100 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)	Allen Bradley Panel View Plus 7"
Option	Siemens KTP900 Basic 9"
Option	Siemens KTP1200 Basic 12"
Programmable Logic Controller (PLC)	Allen Bradley Compact Logix 1769-L series
Option	CPU Siemens SIMATIC 1510SP-1 PN
Instrumentation	Air Pressure transmitters 4-20 mA Air Temperature transmitters 4-20 mA Bearing Temperature RTDs Oil Temperature transmitter and Alarm Switch Oil Pressure transmitter and Alarm Switch Oil level Sight Glass Vibration Transmitter 4-20 mA Surge Switch Fast Shaft Bearing acceleration surveillance (in option)

