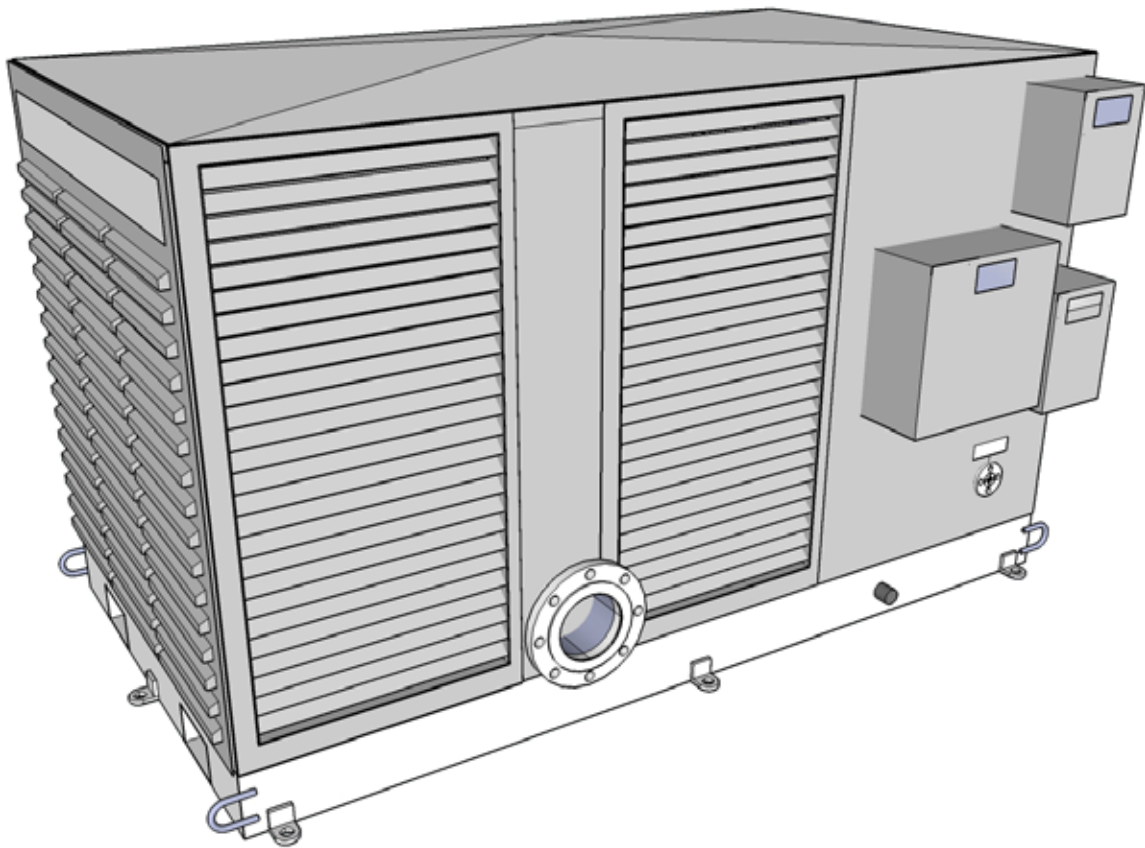


CAPA INDUSTRIAL

CAPA Industrial Compressors with Charge Air Cooling

**For Oil Refinery and General Industry
Air Requirements**



General Information

Overview

CAPA Industrial Compressors with Charge Cooling are designed to produce air for burner aeration in the petroleum industry. The Compressor is suitable for high flow, low pressure applications.

Performance	1500cfm @ 5.5psi Discharge Temperature no more than 15°C above Ambient Support Ambient Temperature up to 50°C
Enclosure Dimensions	2200mm x 1200mm x 1400mm (L x W x H)
Enclosure Material	Galvanised Steel Frame and Roof, Aluminium Panels
Weight	1400kg
Compressor	Vortron Z80
Fan	800mm Fan
Air Cooler	2x Cores at 450mm x 900mm x 100mm (W x H x D)
Other Features	VFD Controllers for Compressor and Fan



Compressor Information

A Vortron Z80 Compressor is driven by a 37kW Motor. The Motor is controlled by a VFD. The Vortron Compressor is mounted in an enclosed Air Box with an Air Filter mounted on the end of the Enclosure.

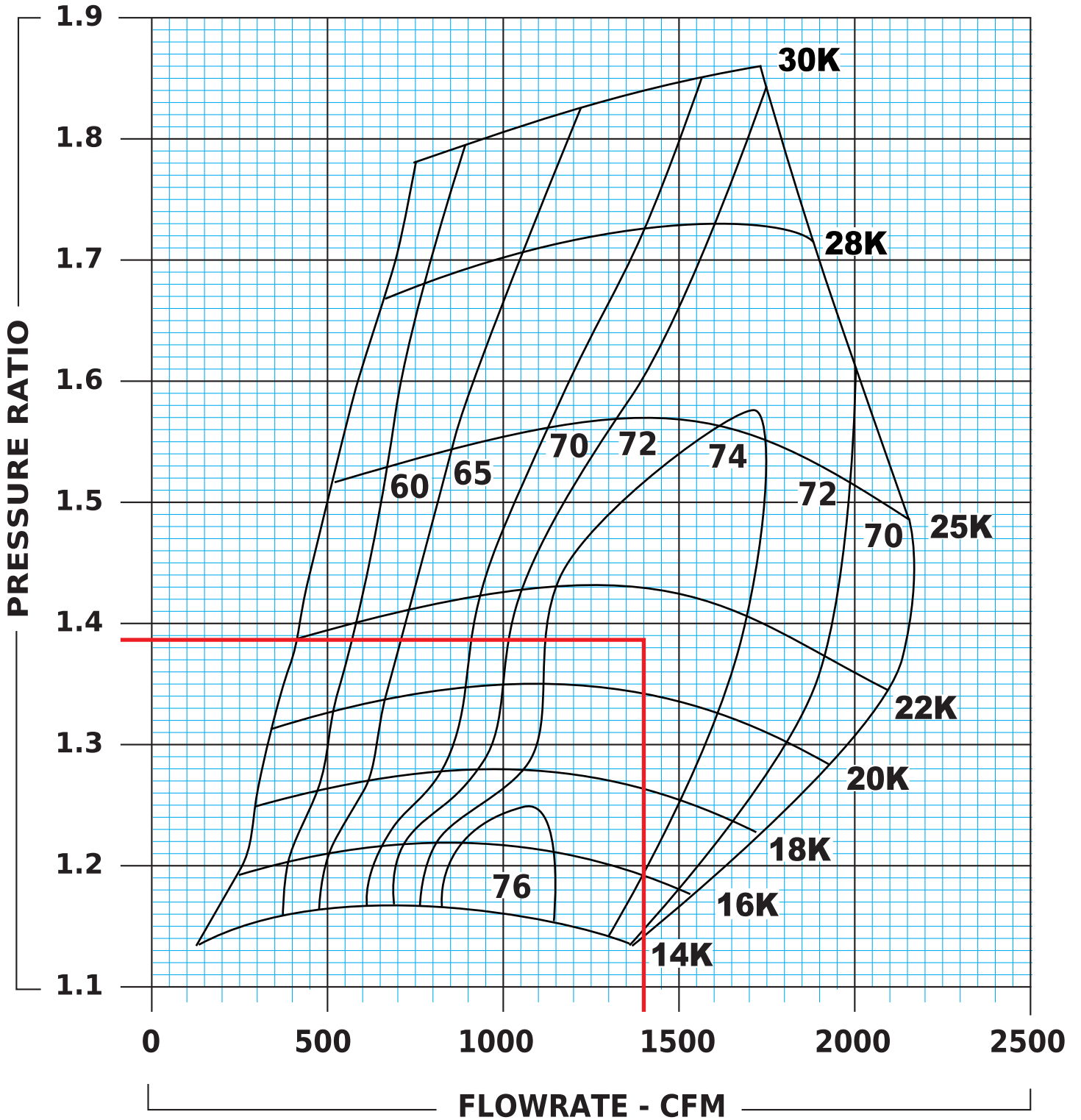
Compressor	Vortron Z80
Compressor Inlet	5" Compressor Inlet, 6" Pipe with Mesh Screen
Compressor Discharge	4" Compressor Outlet, 4" Pipework, One Way Valve.
Motor	37kW controlled by VFD.
Compressor Drive	Vortron Mounting Plate, 14-Rib Drive, Automatic Tensioner
Filter Size	1100mm x 1100mm x 90mm (W x H x D)



NOTE: VFD's are mounted in the enclosure for transportation purposes only.

Compressor Information

Vortron Z-80 Compressor Map

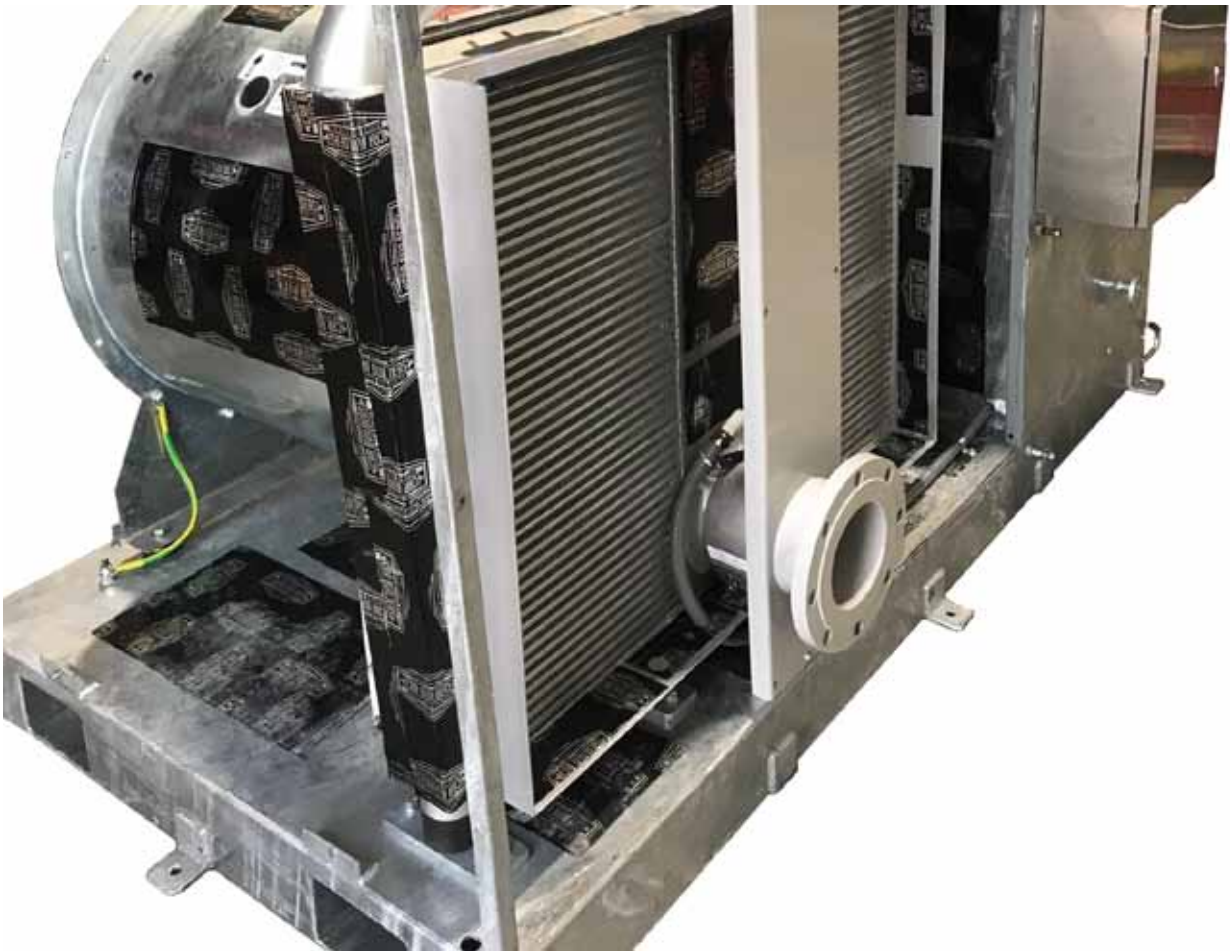


Data corrected to SAE Standard J-1723 (29.23 IN HgA, 527°R)

Air Cooler Information

The Air Cooler Assembly has Inlets on both ends, with the discharge in the centre. A fan is mounted to the air cooler (Fan Information on next page).

Core Dimensions	Two Cores at 450mm x 900mm x 100mm (W x H x D)
Core Type	Open Tube Design, 9 Fins per Inch
Air Cooler Inlet	2x 4" Inlets
Air Cooler Outlet	8" Outlet, tapered down to 6"



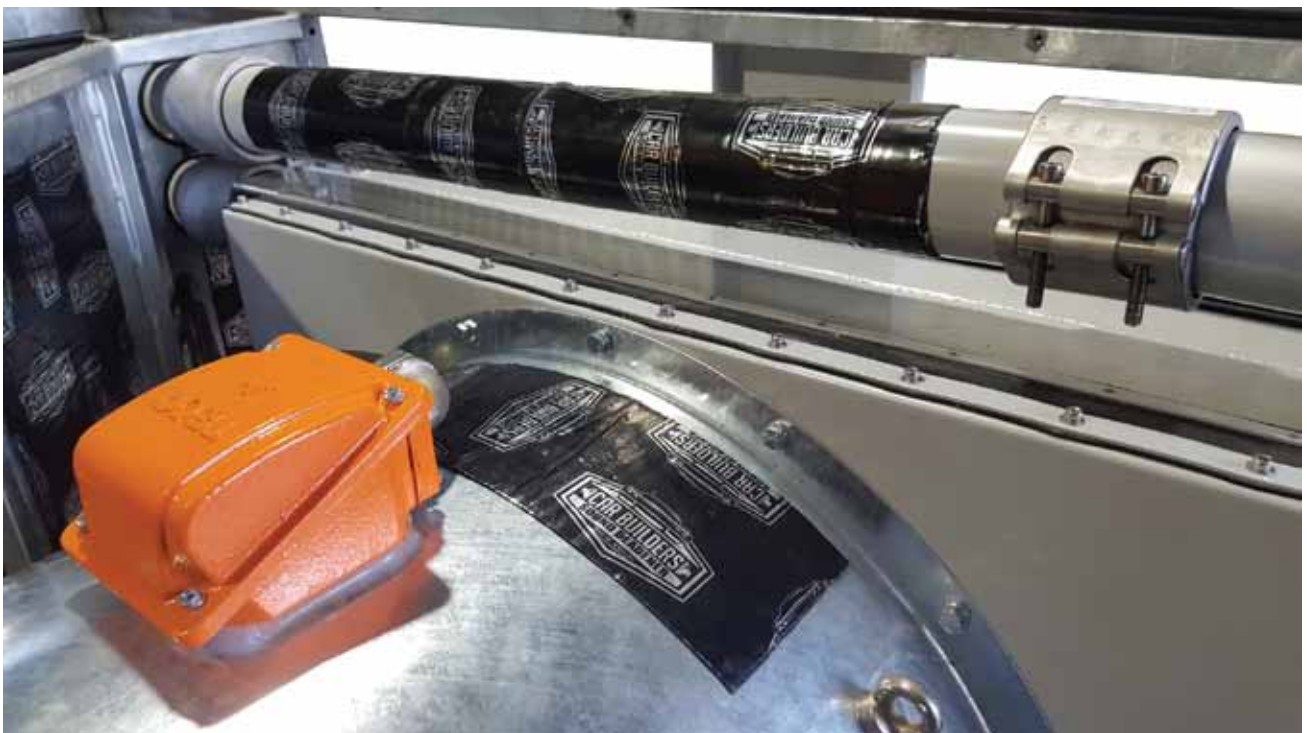
Air Cooler Fan Information

Air Cooler Fan pushes air through the cooler cores. Air enters from the end of the enclosure and exits on the air cooler discharge side of the enclosure.

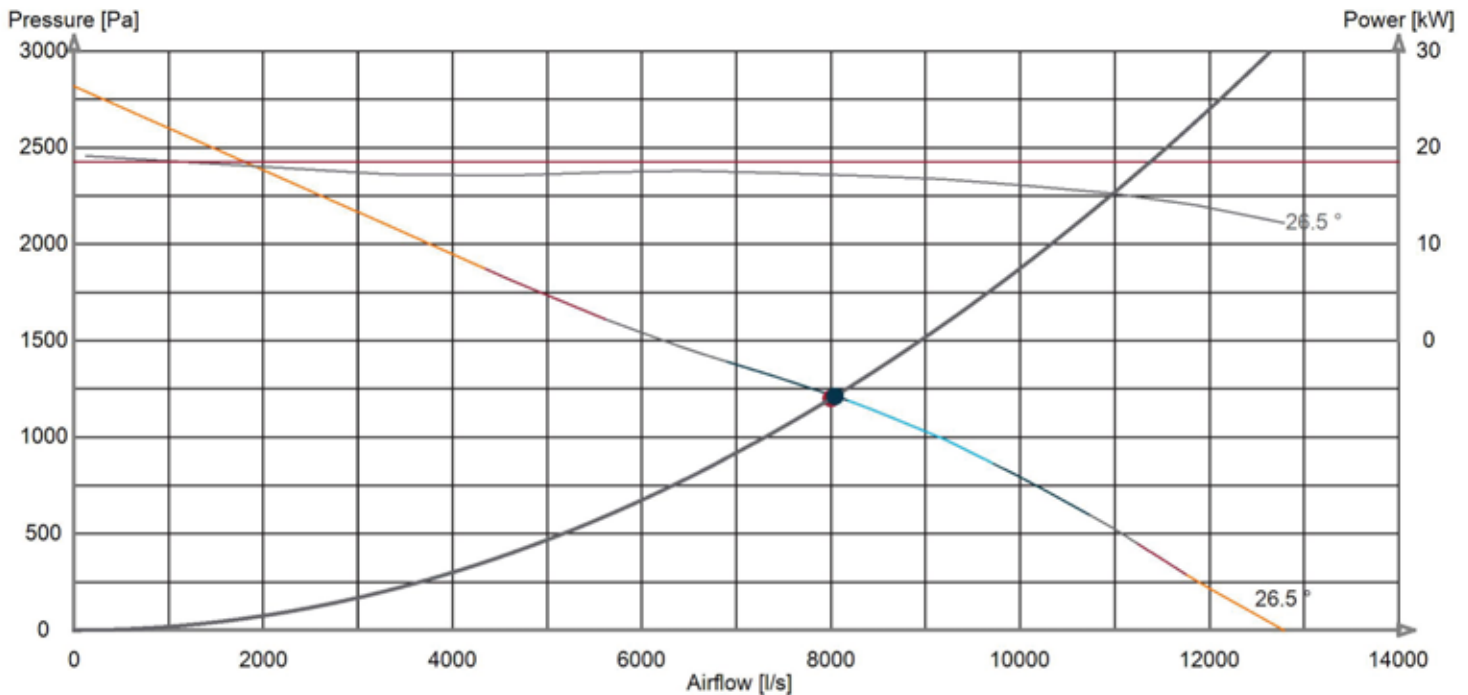
Air Cooler Fan Dimensions 900mm x 900mm x 750mm (W x H x D)

Air Cooler Fan Size 800mm Fan

Motor 18.5kW controlled by VFD.



Air Cooler Fan Information



IMPELLER INFORMATION:

Impeller Diameter: 800 mm
 No of blades: 7
 Pitch: 26.5 °
 Blade Material: PAG
 Blade Type: 5Z
 Impeller Rotation: R

Tests are carried out according to methods described in ANSI / AMCA 210-99 (ISO 5801, DIN 24163)

Sound data is calculated and should be used as guideline only

APPLICATION:

Speed: 2950 RPM
 Tip Clearance: 0.5 %
 Temperature: 20 °C
 Altitude: 0 m
 Density: 1.204 kg/m³

Disclaimer

Load factors in Optimiser are based on static operation.

Current Working Point

Airflow	8040 l/s	Total Pres	1370 Pa	Propagation	Spherical
Static Pres	1210 Pa	Power	17.2 kW	Distance / Unit	3 m
Dynamic Pressure	154 Pa	Efficiency	64 %	Sound Pressure	89.7 SPL dB(A)

OPERATIONAL DATA:

Tip Speed: 124 m/s
 Temperature: 20 °C
 Air Velocity: 16 m/s
 Torque: 55.6 Nm
 Axial Force: 687 N

OPERATIONAL IMPELLER LIMITS:

Tip Speed: 131 m/s (3127 RPM)
 Temperature: -40°C - 56 °C
 Diameter range: 450 - 1072 mm
 Blade, load factor: 88.7 %
 Hub, load factor: 92.9 %
 Power, load factor: N.A. %

Static impeller data:

Moment of Inertia: 0.116 kgm²
 Blade Centrifugal force: 5940 N
 Solidity factor: 0.3
 Mass with std. boss: 3.42 kg



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