

Turbo Air® 2020 Centrifugal Compressor

Oil-Free Air



Why Compression Systems?

OIL-FREE AIR

- Prevents oil contamination of your system
- Removes the potential for compressed air pipeline fires caused by oil carryover
- Eliminates costly waste disposal problems associated with oil-laden condensate
- Eliminates the expense and associated maintenance requirements of oil removal filters, since no oil enters the compressed air stream in the compressor

SIMPLE INSTALLATION

- Complete package including aftercooler, controls, motor, lubrication system and inlet filter silencer.
- Minimum number of external connections
- Compact design requires minimum floor space
- Packaged solid-state reduced voltage starter
- Packaged inlet control valve, modulating by pass valve & silencer

- Packaged discharge check valve to eliminate costly field installation.
- Meets OSHA's sound level requirements without sound enclosure

EASY OPERATION

- The new Maestro™ EZ-Controls provides the compressor industry's most advanced control system to improve efficiency and save energy dollars
- Easy-to-use, totally automatic operation

HIGH RELIABILITY

- Thrust loads absorbed at low speed
- No wearing parts
- Non-contact air and oil seals
- Stainless steel compression elements
- Conservative high-quality gear design
- Unlimited life pinion bearing design

EASY MAINTENANCE

- No wearing parts requiring periodic changes or replacement in the compression elements

- No oil removal filters to clean
- Accessible horizontally split gear box for quick inspection
- Intercooler and aftercooler bundles are easily removed for cleaning
- Water in the tube design intercooler and aftercooler allows for simple mechanical cleaning
- Maintenance free dry coupling

CCV 5 YEAR WARRANTY PROGRAM



CCV is a no up-front-cost extended 5-year air end warranty for Plant Air products. Simply perform the recommended maintenance outlined in the Owner's Manual using Cameron's authorized service representatives. All maintenance will be logged every quarter by your service representative on our easy-to-use online CCV maintenance log tool.

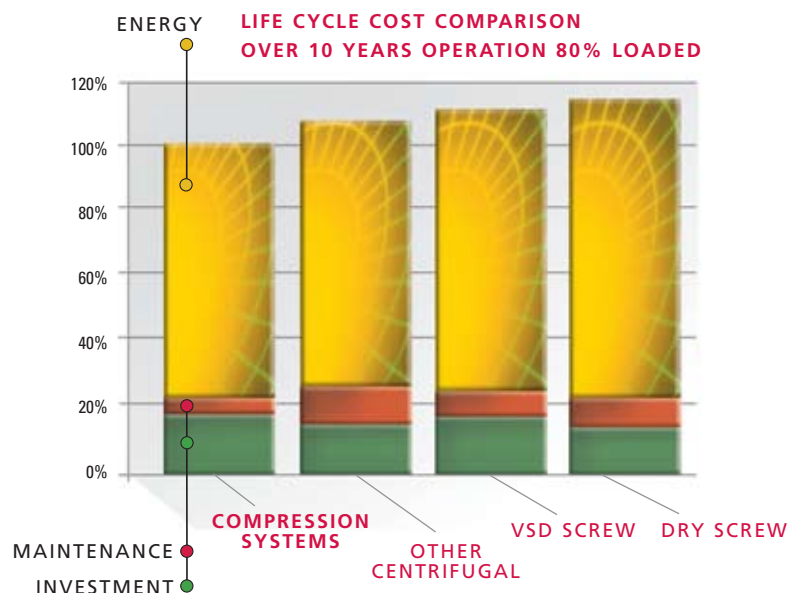
Lowest Compressor Operating Cycle Cost

Over time, the energy required to power a compressed air system is the largest cost associated with a compressor, particularly in today's fluctuating energy markets. That is why, to determine the best return on your investment over the life cycle of a compressor, it is important to consider the initial investment, energy and maintenance.

As the chart demonstrates, the Turbo Air® 2020 provides the lowest total life cycle cost of any compressor, including dry screw, variable speed drive (VSD) screw, and other centrifugal compressors. Keep in mind, VSD manufacturers often tout energy savings with unrealistic turndowns, in excess of 50%. At this point, you would be better off purchasing a smaller compressor and reducing your initial investment. Also, as screw compressors wear out, energy consumption increases.

Compared to other two stage machines of similar capacity, Turbo Air® 2020 compressors are the most efficient oil-free compressors at full load, part load, and no load.

The power savings delivered can significantly speed up the payback on your initial investment, and the savings continue to build the more you use the Turbo Air® 2020.



Standard Scope of Supply

The Standard Scope of Supply in the Turbo Air 2020 ensures ease of installation and low installation costs, allowing you to take advantage of the low running costs and high reliability that are the hallmarks of a Compression Systems' centrifugal compressor. All components are integral to the package.

STANDARD

- Air Intake Filter/Silencer
- Inlet Control Valve
- Modulating By-pass Valve & Silencer
- Discharge Check Valve
- Water-in-tube Intercooler
- Water-in-tube Aftercooler
- Cooling Water Manifold
- Condensate Drain Traps (Solenoid)
- Complete Lubrication System
- High Efficiency Main Motor
- Dry Coupling, Motor to Compressor
- PLC Based Control System
- Solid State Reduced Voltage Starter
- Phenolic Coated (internally/externally)
- Under 85dba without Sound Enclosure

OPTIONS

- Inlet Filter Differential Pressure Alarm
- Zero Loss Condensate Drains
- Oil Heater
- Duplex Oil Filters
- Low Oil Level Alarm
- Oil Filter Differential Pressure Alarm
- Electric Vapor Coalescer
- Silicon Free Air Side
- IP65/NEMA 4X Control Panel
- IP55/TEFC Main Motor
- MODBUS Interface
- ETHERNET Interface
- PROFIBUS Interface
- Maestro™ Legend Control System
- Sound Enclosure

Control Systems

Compression Systems can provide the right control system engineered for your applications.



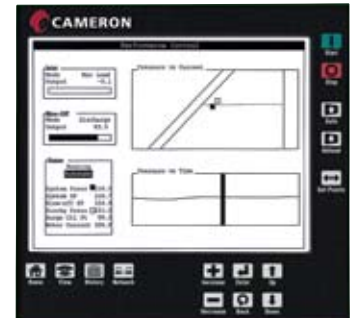
MAESTRO™ EZ

- An economical control system for basic compressor operation
- A standardized PLC solution with broad built-in capability designed for easy use



MAESTRO™ LEGEND

- Provides comprehensive control of your centrifugal compressor and can be configured to coordinate the operation of multiple compressors
- Maintain plant pressure to within 0.07-0.14 bar/1-2 PSI, which allows overall pressure reduction to improve efficiency and reduce air leakage losses saving energy dollars

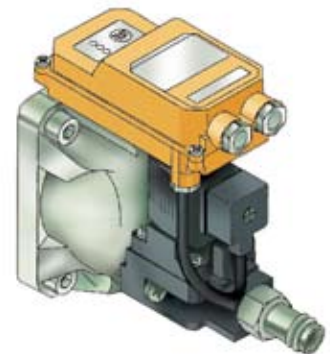


Accessories

RELIADRAIN™

Zero Loss Condensate Removal for Energy Savings

Compression Systems' ReliaDrain™ electronic level controlled, on-demand condensate drain removes condensate from your compressed air system with zero air loss. Typical timer-operated drain valves vent compressed air after draining condensate resulting in costly energy losses. ReliaDrain's zero air loss is guaranteed, providing you constant energy savings.



Turbo Air® 2020 Centrifugal Compressors

THE MOST EFFICIENT PACKAGE AVAILABLE –

Easy, low cost installation and operation. Includes control center, built-in aftercooler, packaged check valve, inlet filter control valves, and water manifold.

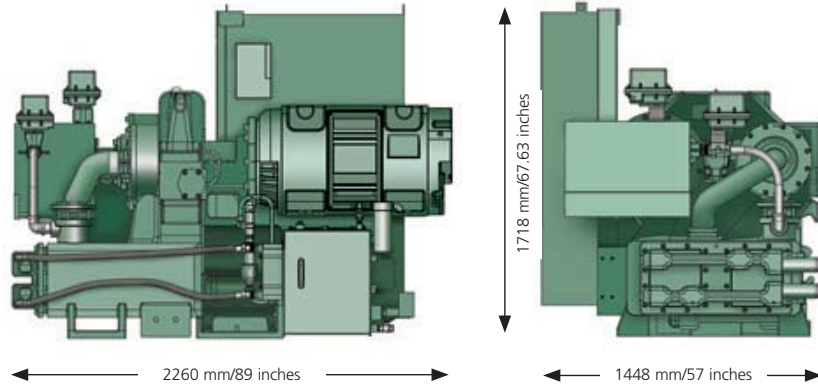
Compressor Motor Sizes Available:
186-298 KW / 250-400 HP

Compressor Discharge Pressure Ranges:
5-8.6 BAR.G / 50-125 psig

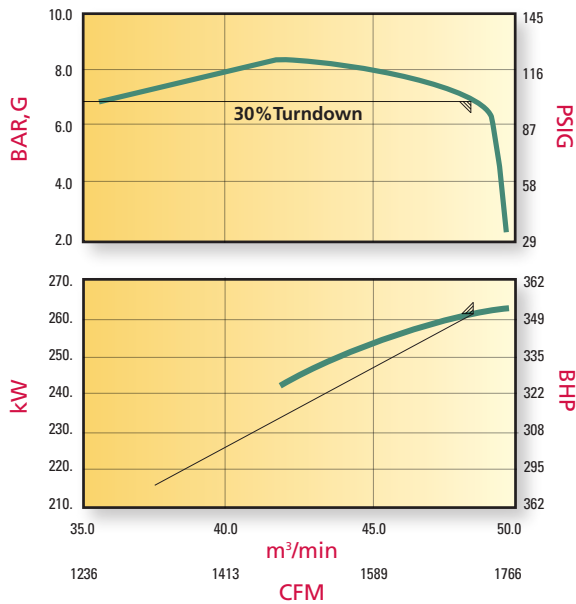
Compressor Flow Ranges:
30-55 m³/min / 1060-1940 CFM

Compressor Weight:
3400 Kg/7500 Lbs Typical

BASIC INSTALLATION ARRANGEMENT



TYPICAL PERFORMANCE CURVE FOR 261 KW/6.9 BAR.G - 350 HP/100 PSIG

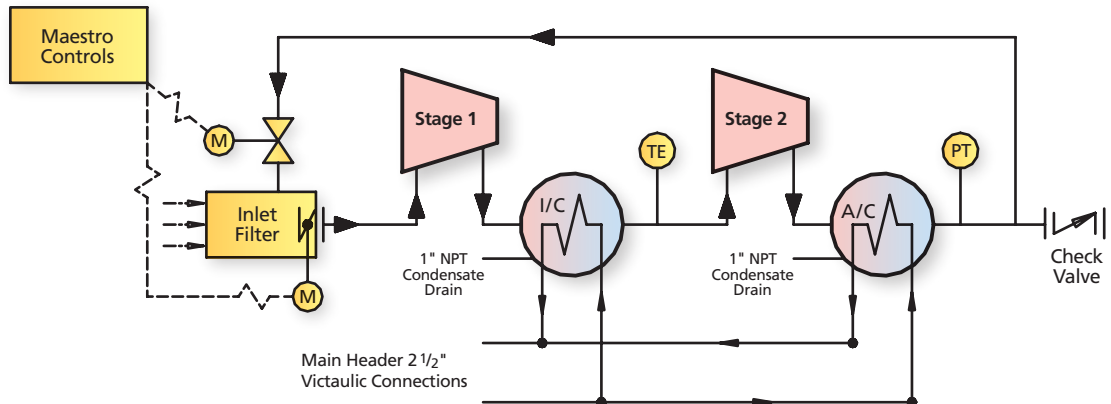


Impellers – Advanced design combines the best features of a semi-radial backward leaning impeller.



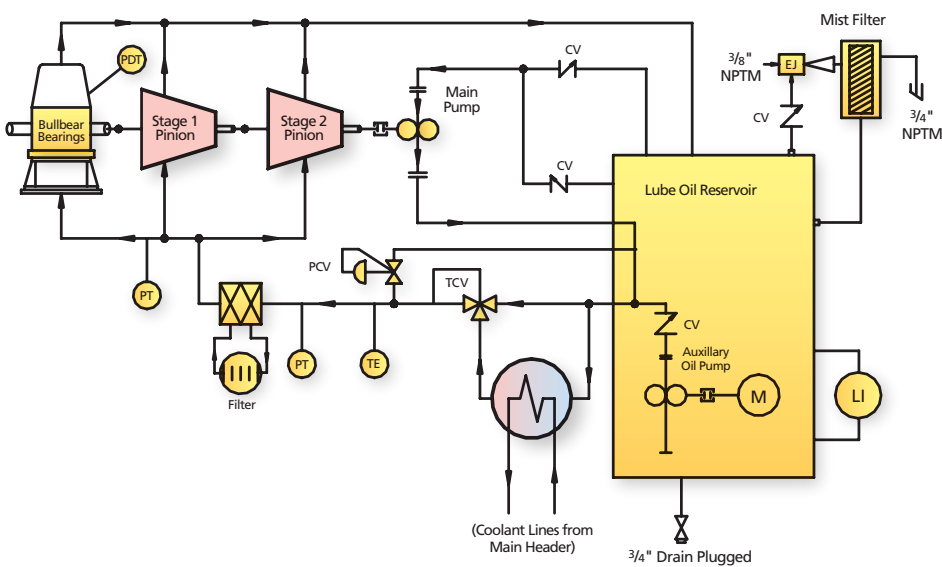
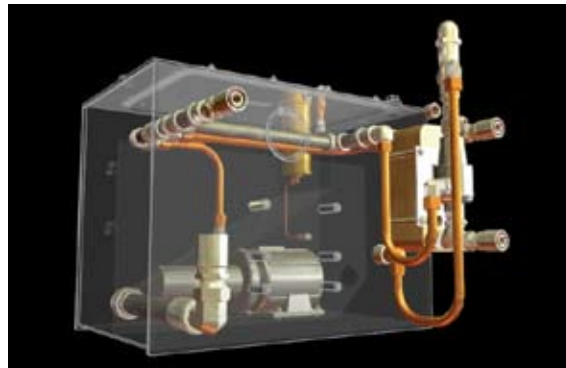
Vaned Diffusers – Matching diffusers for superior efficiency.

TYPICAL P & ID



LUBRICATION SYSTEM

Self contained, low pressure lubrication system.



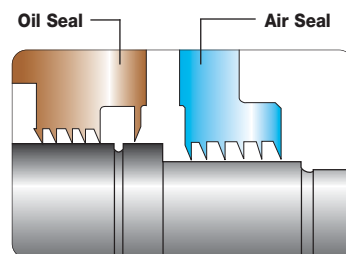
Masestro™ EZ advanced programmable compressor control system and packaged, solid state reduced voltage starter.



Horizontal Split Gear Box – Allows for easy access when customer's maintenance policy requires periodic inspection.



Superior Pinion Bearing Design – For unlimited life and operation at any load.



Seals – Non-contact, non-wearing labyrinth air and oil seals. No buffer air required for oil-free air. Eliminates the need for periodic replacement of carbon seals.



Intercooler/Aftercooler – Water-in-tube intercooler and aftercooler bundles slide out for easy inspection and cleaning. Standard water manifold can be piped to either the left or right side to suit the customer's needs.

Locations to Serve You Worldwide

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Printed in USA

