

TURBO-AIR 2000 Centrifugal Compressor

Certified 100% oil-free air

TECHNOLOGY



Benefits of Cameron's Centrifugal Compressors

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 and lubrication system
- Reduced number of external connections
- Compact design reduces required floor space
- Meets OSHA's sound level requirements without sound enclosure

LOW-COST OPERATION

- True unloading capability; energy savings and increased uptime translate to reduced operating life cycle costs
- Excellent part-load efficiencies for any operating load
- No sliding or rubbing parts in the compression process causing wear and thereby efficiency loss

EASY OPERATION

- Cameron's MAESTRO™ Universal control panel provides a built-in web server, allowing compressor monitoring using your local intranet, yielding significant annual savings in operating costs by providing more precise control
- Easy-to-use automatic operation

EASY MAINTENANCE

- No wearing parts requiring periodic changes or replacement in the compression elements
- No oil-removal filters to clean
- Accessible horizontally split gearbox for quick inspection
- Intercooler and aftercooler bundles are removed easily for cleaning
- Water-in-tube design, intercooler and aftercooler allow for simple mechanical cleaning
- Maintenance-free dry coupling

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

TURBO-AIR 2000 Centrifugal Compressors

EFFICIENT PACKAGE

Cameron's TURBO-AIR® 2000 compressors feature easy, low-cost installation and operation. They include a control center, built-in aftercooler and packaged check valve.

Compressor Motor Sizes Available

112 to 260 kW (150 to 350 hp)

Compressor Discharge Pressure Ranges

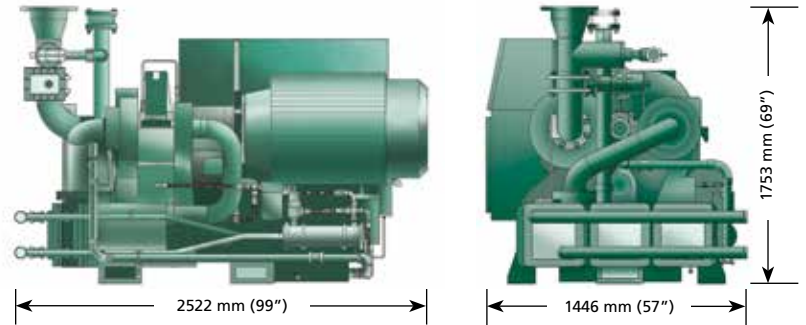
3.5 to 10 barg (50 to 150 psig)

Compressor Flow Ranges

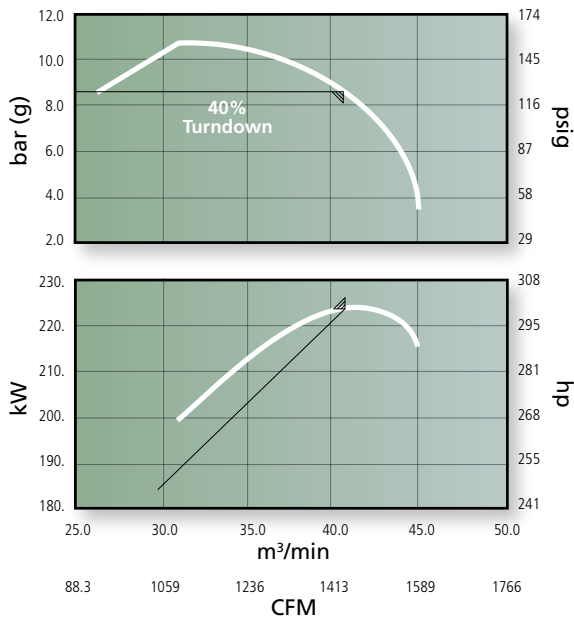
14.3 to 48.1 m³/min (505 to 1700 ft³/min)

Compressor Weight

3400 kg (7500 lb) typical (motor dependent)



TYPICAL PERFORMANCE CURVE FOR 224 KW (300 HP) / 8.6 BAR(G) (125 PSIG)



Impellers

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

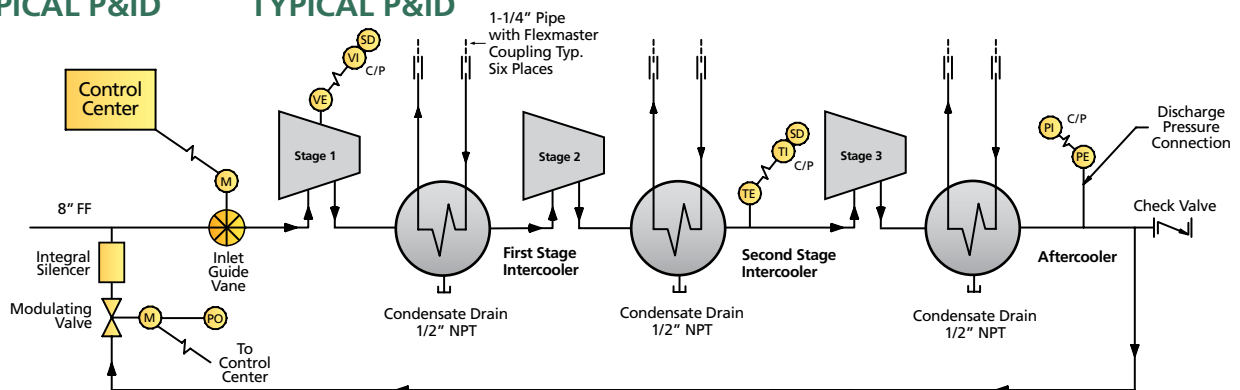


Vaned Diffusers

Matching diffusers are used for increased efficiency.

TYPICAL P&ID

TYPICAL P&ID



■ LOWEST COMPRESSOR OPERATING LIFE CYCLE COST

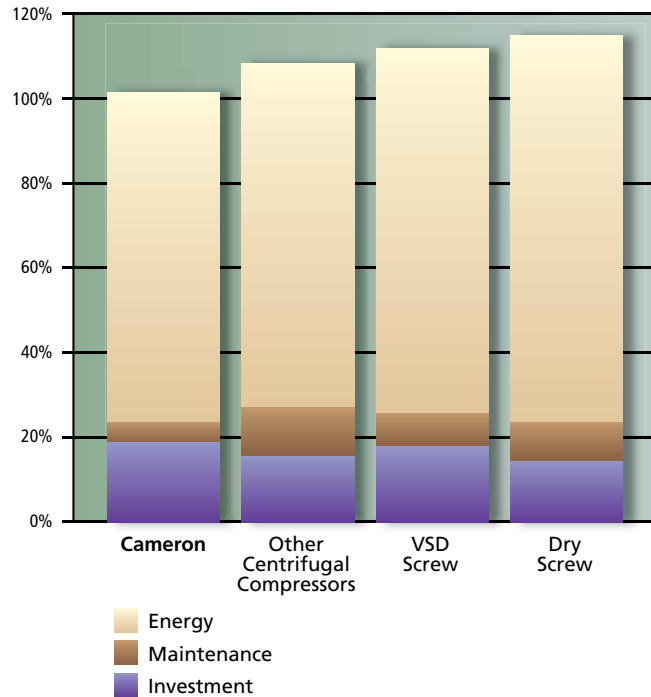
Over time, the energy required to power a compressed air system is the largest cost associated with a compressor, particularly in today's fluctuating energy markets. That is why, to determine the best return on your investment over the life cycle of a compressor, it is important to consider the initial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

As the chart demonstrates, the TURBO-AIR 2000 compressor provides some of the lowest total life cycle costs of any compressor, including dry screw, variable speed drive (VSD) screw and other centrifugal compressors.

Compared to other machines of similar capacity, TURBO-AIR 2000 compressors are one of 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 2000 compressor.

Life Cycle Cost Comparison (over 10 years of operation at 80% loaded)

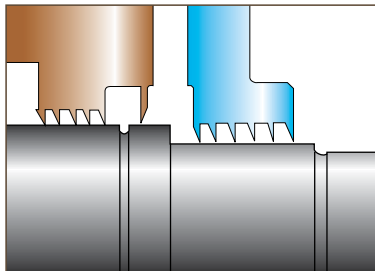


■ BEARINGS AND SEALS



Advanced Design Pinion Bearings

These are used for unlimited life and operation at any load.



Seals

Non-contacting, non-wearing labyrinth air and oil seals with atmospheric air space require no buffer air for oil-free air. This eliminates the need for periodic replacement of carbon seals and instrument air for permissive starting.

■ LUBRICATION SYSTEM



Cameron features a self-contained, low-pressure lubrication system on all of our TURBO-AIR compressors.

■ INTERCOOLERS AND AFTERCOOLERS



Water-in-tube intercooler and after-cooler bundles slide out for easy inspection and cleaning.

■ CONTROL SYSTEMS

Cameron can provide the right control system engineered for your applications.

MAESTRO Suite of Controls

Cameron's MAESTRO control systems offer optimal protection and control for your compressed air system. The MAESTRO suite contains a model that is sure to be in tune with your needs.

MAESTRO Universal

- Windows CE-driven system includes a built-in web server and setup wizard for quick configuration
- Able to handle multiple stages and designed for many makes and models of compressors
- 10" color graphic display provides easy monitoring
- Built-in USB port for system configuration and data logging
- Capable of monitoring and controlling the total system across multiple units



MAESTRO PLC

- Utilizes an Allen-Bradley CompactLogix L35E ethernet CPU, which includes: 16 digital inputs, 16 digital outputs, 12 analog inputs, two analog outputs and six RTD inputs
- Comes standard with an Allen-Bradley PanelView 700 7" color display
- Networking software available for automation of multiple units and total system automation
- Stainless steel enclosure available as an upgrade



■ ISO CERTIFIED CLASS ZERO

Cameron's TURBO-AIR centrifugal compressor product line has been engineered to produce oil-free air for over 55 years, and this certification officially acknowledges the ability of our compressors to produce 100% certified oil-free air, providing our customers with enhanced quality assurance.



Horizontally Split Gearbox – Allows for easy access when the customer's maintenance policy requires periodic inspection.



Variable Inlet Guide Vanes – Variable inlet guide vanes can offer power savings of up to 9%. Inlet vanes impart a whirling motion to the inlet air flow in the same direction as the impeller operation, reducing the work input. Net power savings are seen at reduced flow or on days colder than the design temperature. Inlet vanes are positioned close to the impeller to achieve increased benefits.

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Learn more about Cameron at:
www.c-a-m.com/cs

**HSE Policy Statement**

At Cameron, we are committed ethically, financially and personally to a working environment where no one gets hurt, nothing gets harmed.