

Davey Air Compressors

Standard Features

- Patented Perma-Vane® Rotary Sliding Vane Air End design for extended life in the most hostile environments.
- Unique Free Floating Rotor and Blade design.
- Fewer moving parts – Fewer parts to fail – Fewer parts to replace.
- High Capacity Cylindrical Roller Bearings with a minimum L-10 bearing life of 90,000 hours.
- Belt Driven – Uses standard motors with no expensive gearboxes needed.
- Low RPM – Less wear, less noise.
- Large capacity oil sump for superior oil/air separation and longer lubricant life.
- Spin-on oil filter
- No oil pump – positive lubrication by pressure differential
- Simple, reliable, low maintenance electro-pneumatic controls.
- Automatic dual control. - Saves energy automatically. When air demand is met, the compressor unloads itself. After a short interval, it shuts itself off automatically. When air demand returns, the compressor automatically goes back to full load.
- Glycerin filled pressure gauges for accurate readings.
- Oil Temperature and Sight Level Gauges.
- Two-stage 10 micron filtration is standard.
- Sound Insulated Enclosure
- Package is designed for high ambient temperature conditions.
- Easy access to all filters through full sized doors.
- Entire unit is field serviceable.
- 5 year or 15,000 hour Perma-Vane® Air End warranty*.

See Davey warranty policy for exact details



BAS

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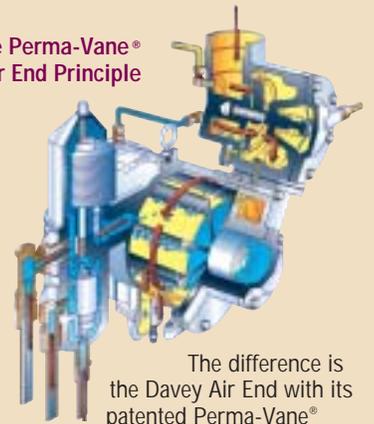
Specifications

Model	10	15	20	25
Motor Horsepower	10	15	20	25
Kilowatts	7.5	11.2	14.9	18.7
CFM at 100 PSI	41	62	84	106
M ³ /Min at 6.9 Bar	1.16	1.76	2.38	3.00
CFM at 125 PSI	37	57	78	99
M ³ /Min at 8.6 Bar	1.05	1.61	2.21	2.80
Air Connections	1 NPT	1 NPT	1 NPT	1 NPT
Aftercooler Approach	10°F	12°F	15°F	20°F

Dimensions & Weights

Horsepower	10	15	20	25
L x W x H				
BAS (in. & cm.)	50 x 32 x 54 127 x 81 x 137	50 x 32 x 54 127 x 81 x 137	50 x 32 x 54 127 x 81 x 137	50 x 32 x 54 127 x 81 x 137
Weight				
BAS (lbs. & kg.)	1100/500	1200/546	1300/590	1400/636

The Perma-Vane® Air End Principle



The difference is the Davey Air End with its patented Perma-Vane® design and its overall simplicity. The Perma-Vane® Air End has surprisingly few moving parts. That means fewer parts to fail and fewer parts to replace. They breakdown less because there is less to breakdown. Because of the unique Davey floating rotor and blade principle, the Perma-Vane® Air End actually "fine-tunes" itself as it operates, which eliminates the risk of failure due to loss of clearance. Most screw compressor air ends begin to wear out the day they are turned on. But as the Perma-Vane® AirEnd ages, its efficiency actually improves. The more the air end works, the better it gets!

Intake Control Assembly

The intake control assembly is regulated by discharge air pressure. It also closes off the intake when the unit is shut down, preventing oil and air mixture from venting into the atmosphere. It regulates the amount of air entering the compressor so that only the required amount of air is processed. Because it is a positive closure, air and oil will not vent when unit is running unloaded.

Perma-Vane® Blades

The heart of the Davey rotary compressor is the patented Perma-Vane blade. Blades can perform in excess of 60,000 hours without replacement.

Rotor Bearings

Heavy duty roller bearings assure extra long bearing life. No thrust bearings are required since no axial forces are generated by the compressor.

Free Floating Rotor

Rotor is centered on shaft by oil injection through the end covers. This virtually eliminates risk of failure due to loss of clearance, while maintaining maximum efficiency.

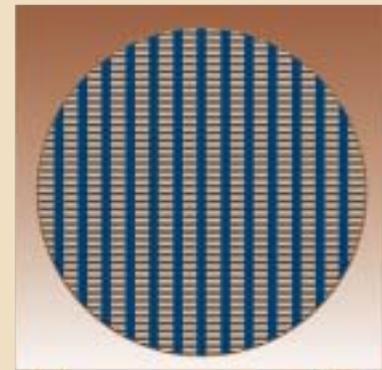
Optional Heavy Duty Air Filter

Oil Filter

Full flow filter protects working parts from dirt. Oil filter element is replaceable spin-on type element.

Oil Injectors

Oil is injected during compression cycle to cool the compressor, seal off leakage and lubricant bearings. Lubrication is accomplished by pressure differential. No oil pump is required.



Thermal Bypass Valve Assembly

This simply serves two purposes:

- Rapidly warms compressor oil at initial start-up.
- Maintains constant optimum temperature. This extends lubricant life and minimizes formation of moisture condensation in the system.

Thermo Switch Assembly

Automatic control that will shut down unit if discharge temperature should exceed 235°F.



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