

Standard Equipment

- Turn valve automatic capacity control airend
- Modulating inlet valve with selectable load/unload setting
- D-flange mounted to Wye-Delta EPAct "energy efficient" drive motor
- -380 or 415 volt, 3 phase, 50Hz, 1500RPM, 1.15 S.F., IP55
- Airend and motor shaft coupled via permanently aligned, resilient cushion-type flexible coupling
- Stainless steel control lines
- Unitized airend/motor assembly mounted to base via all angle elastomer vibration isolators
- Heavy duty, canister type five micron inlet air filters
- Two-stage separator element
- Air cooled aftercooler and oil cooler package mounted, industrial duty, high thermal transfer radiator type with thermally protected TEFC fan motor
- Thermostatic oil mixing valve
- Moisture separator and trap, mounted
- Pressure relief valve
- Automatic blowdown valve through inlet filter
- Minimum pressure valve and discharge check valve
- NEMA 12 control/electrical enclosure includes:
 - Rugged full voltage main motor starters or star delta starters
 - Separate fan motor starter and control transformer
 - U.L. listed and CSA certified electrics

AirSmart Controller

You don't need to be an expert on variable speed drives to operate a Gardner Denver SAV series compressor. The AirSmart controller takes care of the details. Automatically adjusting compressor performance to meet your changing system demands.

- Smart energy cost calculation
- Clear text indicator display
- Multiple languages
- Microprocessor Controller
- Pressure, Temperature ,Runtime display
- High temperature, High pressure, Reverse-phase protection function
- 3 filter and oil change reminder
- Ultra-low control voltage 24 VDC
- Intelligent protection in extreme environments
- Safe operation protection
- Up to 5 pressure/temperature input points
- Integrated sequence control (up to 8 compressors)
- RS-232 series communications for local monitoring
- RS-485 Ethernet communications for remote monitoring



Technical Specifications

Model	Motor Rating		Free Air Delivered m³/min			Dimensions (L x W x H) (mm)	Noise Level db (A)**	Weight (kg)
	(kW)	(hp)	7 bar g	8 bar g	10 bar g			
SAV-200	149	200	26.2	24.6	18.2	3150 x 1829 x 1880	77	3658
SAV-250	186	250	34.5	28.0	27.5	3150 x 1829 x 1880	77	3884
SAV-300	224	300	41.5	35.5	33.4	3150 x 1829 x 1880	77	3931
SAV-350	260	350	43.2	41.5	35.2	3150 x 1829 x 1880	77	4875
SAV-400	298	400	56.5	52.0	45.0	4300 x 2180 x 2050	77	7200
SAV-450	336	450	62.0	56.5	51.5	4300 x 2180 x 2050	77	7850
SAV-500	373	500	69.0	62.0	56.0	4300 x 2180 x 2050	77	7850
SAV-550	410	550	-	68.5	61.5	4300 x 2180 x 2050	77	8200

*Measured and stated in accordance with ISO 1217 Annex C and Pneuop/Cagi PN2CPTC2 at the following conditions: Air Intake Pressure - 1 bar a (14.5 psi.a), Air Intake Temperature - 20°C (68°F), Humidity - 0% (dry), Cooling Water Inlet Temperature - 20°C (68°F), **+_3 dB(A) according to Pneuop/Cagi test code.

SAV200 - SAV550

Variable Displacement Rotary Screw Compressors



Experience Proven Results

SAV200 - SAV550 Variable Displacement Screw Compressors



Variable displacement, maximum efficiency total reliability

The Gardner Denver SAV range of rotary screw compressors uses unique variable displacement technology, to match compressor output to compressed air demand.

This patented TurnValve design introduced over 25 years ago, maximises compressor efficiency by compressing only the volume of air required. Without affecting the built-in compression ratio at partial load conditions.

The TurnValve displaced inlet throttling technology is the most efficient means of compressor capacity control. Eliminating wide pressure fluctuations and massive storage requirements required when using other methods of capacity control.

Bigger really is better

The only reason to design a compressor with a small air end and turn it at high speeds is to minimize build costs. A large, slow rotating air end will deliver much greater energy efficiency. Up to 41% larger, Gardner Denver air ends operate more slowly and efficiently than smaller, gear-driven types. The efficiency benefits include;

- Reduced Air Blow Back
- Reduced Lubricant Drag
- Smaller Leakage Areas

Proven reliability Proven savings

- All the way from 60% to 100% capacity – SAV series compressor performance is the most consistent delivering the “ideal” performance curve.
- System pressure sampled in 0.4 kPa increments and infinite positioning capability of the TurnValve ensure instantaneous and precise reaction to changes in compressed air system demands – energy is not wasted by over-pressurizing the system
- The reliability of the TurnValve is a direct result of its absolute simplicity of design – no complicated electronics or intricate valving to troubleshoot
- Tens of thousands of Electra-Savers are operating all over the world...

Heavy Duty, Two-Stage Inlet Filter

Dirt and dust that enter the compressor can adversely impact lubricant and machine life. A 5-micron inlet filter with an efficiency rating of 99% is standard equipment on the Electra-Saver. It is a separate option on many other compressor packages.



Designed for serviceability

Maintenance personnel love the Gardner Denver Electra-Saver. Components are not crammed into the smallest possible footprint. All filters are easily accessible and no piping needs to be disconnected to service the separator.

Have you ever considered the true cost of your compressed air?

The initial capital investment and periodic maintenance requirements are critical factors in the decision to purchase a packaged air compressor. These are certainly important issues, but also consider the energy costs associated with the “phantom” utility. The energy costs can easily exceed the initial capital expenditure within the first year of operation. Over the life of the compressor package, the energy costs dominate the total cost of providing compressed air.

Energy Cost
86%



Maintenance Cost
6%

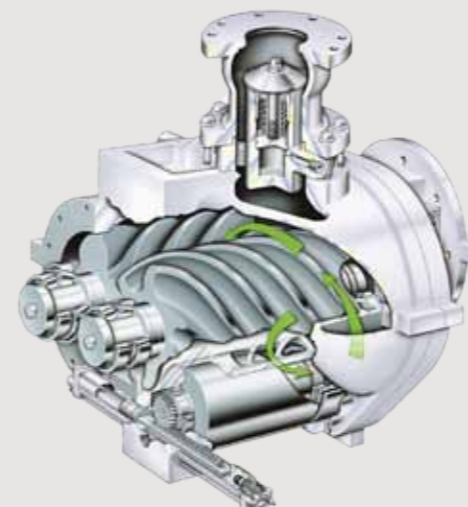
Purchase Cost
8%

TurnValve™ Variable Displacement Technology

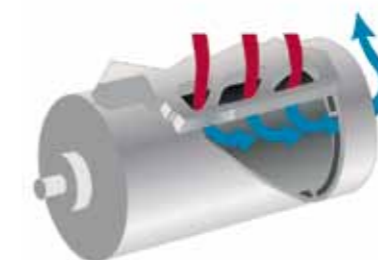
Gardner Denver's patented Turn Valve is the most efficient partial load capacity control system in the industry. By coupling it with the highly efficient Kypho™ rotor design, you can reduce energy costs as much as 16%.

The genius of the TurnValve is its simplicity. Adapting to varying conditions, compressing only the volume of air required to meet demand without altering the compression ratio of the air end.

Unlike variable speed drive systems and sophisticated control units. The TurnValve variable displacement system is simple and reliable, capable of performing in extreme conditions.



TurnValve operation



Minimum Load

Uncompressed excess air is allowed to circulate back to the inlet, resulting in only the required amount of air being compressed to meet system demands.



Partial Load

When system demand decreases, the TurnValve rotates, progressively opening the TurnValve apertures until system air pressure has stabilized.



Maximum Load

When operating at full capacity, the TurnValve apertures are closed, resulting in the delivery of maximum volume to the air end.

Typical energy costs

Compressor Power rating kW	Approximate annual energy costs at cost per kW/hr*				
	6¢	8¢	10¢	12¢	14¢
10	\$2,995	\$3,994	\$4,992	\$5,990	\$6,989
15	\$4,493	\$5,990	\$7,488	\$8,986	\$10,483
20	\$5,990	\$7,987	\$9,984	\$11,981	\$13,978
25	\$7,488	\$9,984	\$12,480	\$14,976	\$17,472
30	\$8,986	\$11,981	\$14,976	\$17,971	\$20,966
50	\$14,976	\$19,968	\$24,960	\$29,952	\$34,944
75	\$22,464	\$29,952	\$37,440	\$44,928	\$52,416
100	\$29,952	\$39,936	\$49,920	\$59,904	\$69,888
150	\$44,928	\$59,904	\$74,880	\$89,856	\$104,832
200	\$59,904	\$79,872	\$99,840	\$119,808	\$139,776
300	\$89,856	\$119,808	\$149,760	\$179,712	\$209,664
400	\$119,808	\$159,744	\$199,680	\$239,616	\$279,552
500	\$149,760	\$199,680	\$249,600	\$299,520	\$349,440

*Based on continuous operation for two 8 hour shifts 6 days a week 52 weeks per year.

Comparitive energy use

When compared with other partial load systems, Gardner Denver's TurnValve design can reduce your energy costs by up to 16%.

% Full Load	Approximate % of Full Load Energy Consumed by Type		% Saving
	TurnValve	Modulating Inlet	
100%	100	100	-
90%	93	97	4%
80%	85	92	7%
70%	78	88	10%
60%	72	84	12%
50%	67	80	13%