

# SAV 100-300 Series

## TurnValve Screw Compressors

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**GD** GARDNER DENVER®  
COMPLEX NEEDS – SMARTER SOLUTIONS™

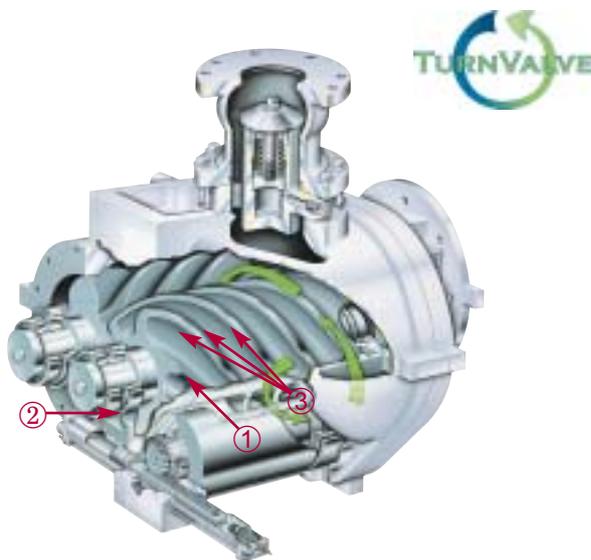
## Energy Efficiency

The initial capital investment and periodic maintenance requirements are critical factors in the decision to purchase a packaged air compressor. But consider also the energy costs. The energy costs can easily exceed the initial capital expenditure within the first year of operation. Over the life of the compressor, the energy costs dominate the total cost of providing compressed air.

The unique feature of the TurnValve is that the air end only compresses the volume of air required to meet the demand for compressed air at the necessary pressure without altering the compression ratio of the air end.



## Operating Principle – Simple but remarkable!



Air is drawn in through the fully opened inlet by the „unmeshing“ action of the rotating screws.

Intake air is enclosed between the rotating screws and air end housing. The volume is further reduced through rotation of the screws and is discharged out of the air end at operating pressure.

The cylindrical TurnValve (1) has a helix-shaped profile on its outside diameter which mates with a precisely machined bore within the body of the air end housing. The TurnValve is supported axially by oversized tapered roller bearings to permit rotation through a hydraulically operated rack and pinion (2) arrangement. Openings or „windows“ (3) connect the compression chamber of the air end with the TurnValve bore where the circumference is sealed by tight clearances and lubricant to prevent air leakage during operation.



- When full capacity is required, the TurnValve is positioned such that the windows are „closed“, resulting in maximum volume output of the air end.



- Upon detection of decreasing system air demand (rising pressure), the TurnValve is rotated into a position where the helix profile progressively opens the succession of windows until system air pressure has stabilized.

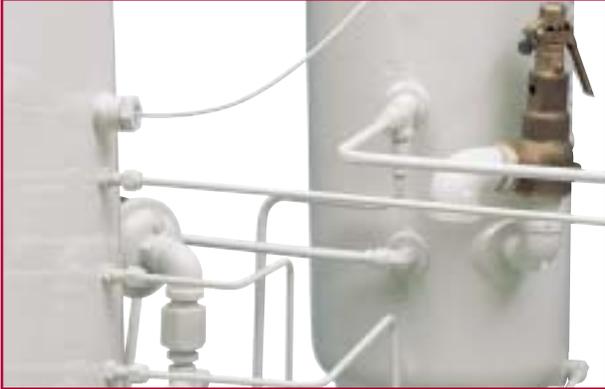


- Trapped volumes of air are allowed to circulate back to the inlet without being compressed, resulting in only the required amount of air being compressed to meet system demands. The effective length of the rotor is shortened resulting in variable displacement operation allowing power use to drop, thus saving energy.

## Premium Package Features

### Stainless Steel Rather than Hose

The SAV series utilizes stainless steel control lines and seamless tube for lubricant circulation. Why accept leaks and failures when you don't have to?



### 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.



### TurnValve Variable

Displacement Efficiency The TurnValve saves you money from the start. Coupled with the AutoSentry ES+, the Electra-Saver yields unparalleled efficiency and flexibility.

### Cool Air through Proper Cooling

Electra-Saver coolers allow for operation in 40°C ambient. Big coolers, big air ends...big difference.

### The Best Motor in the Business

The Electra-Saver motor is the most durable motor available. These cast iron, EPA efficient motors contain more winding material than any other motor. The best motor with the best compressor makes for the best drive train you can find.

### Serviceability Supreme

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.



## Advanced Auto-Sentry ES + Controller



Maximizing the efficiency of the Electra-Saver TurnValve is a state of the art microprocessor control that is...

The AutoSentry® microprocessor controller tells you what is needed in an easy-to-read text display. Using the Auto Sentry leaves more time to focus on the important things production and profit.

With a microprocessor-controlled compressor, response time to changes in air demand is practically instantaneous.

This response reduces pressure fluctuations in the plant, maximizing productivity while minimizing energy use. An energy efficient controller combined with an energy efficient compressor equals savings year after year.

### Your Benefits

- Up to 35% less energy costs by matching compressor output to compressed air demand
- User friendly Auto-Sentry ES+ controller
- Direct Drive Non-geared Air Ends (SAV 100 - 150), Geared Air Ends (SAV 200 - 300)
- Maximum reliability as a direct result of its simplicity in design
- All service points are easily accessible
- Extremely long lifetime (bearings designed for 100,000 hours)

**Tens of thousands of SAV Compressors are operating all over the world.**



### Technical Data

Model	Working pressure bar	Capacity at working pressure* m <sup>3</sup> /min	Motor power kw	Net weight** kg	Noise level** dB(A)	Size (L x W x H) mm
SAV 100	7	13,90	75	2475	77	2896 x 1727 x 1753
SAV 125	7	16,82	90	2475	77	2896 x 1727 x 1753
SAV 150	7	19,28	110	2475	77	2896 x 1727 x 1753
SAV 200	7	27,58	150	3658	77	3150 x 1829 x 1880
SAV 250	7	34,40	185	3884	77	3150 x 1829 x 1880
SAV 300	7	41,94	220	3991	77	3150 x 1829 x 1880

\* measured acc. to Cagi Pneurop PN2CPTC2 at 7 bar

\*\* with sound enclosure, air cooled

# Gardner Denver

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