

50-100 HP VARIABLE SPEED ROTARY SCREW COMPRESSORS

## DRS Series

### Efficient & Compact

Designed with energy efficient inverter drives and motor combinations, DRS Series variable speed compressors from Champion are built to perform and ideal for environments where air demand fluctuates. The variable speed drive's pressure tracking controls ensure that the compressor only produces as much air as is needed, avoiding artificial demand and extra energy. The compact and serviceable package, engineered for efficiency and performance, provides high capacity air delivery and stable system pressure with minimal installation space. Its service and reliability benefits, along with the unit's small footprint and high efficiency, make it easy to see why the DRS Series sets itself apart from the competition. Best of all, it is affordable.

### Durable & Silent

Engineered to withstand demanding environments while being whisper-quiet, DRS Series compressors are designed with solid steel base frames and powder-coated, heavy gauge, acoustically insulated steel cabinets that feature sound-attenuating foam barriers. This quiet enclosed design keeps the noise inside the cabinet yielding noise levels as low as 69 dBA while delivering the dependable air needed for your application.

### Advanced Control Solution

DRS Series compressors come equipped with an innovative CSC300 control solution. This reliable LCD controller manages, monitors and maintains optimal operational parameters that keep your investment protected while optimizing system performance. Features include:

- Remote start/stop operation
- Real-time clock with advanced run schedule
- Sequencing control of up to 8 compressors
- Remote fault signals & power restart capability
- Service maintenance reminder
- Advanced motor & phase protection



## DRS50-DRS100 ROTARY SCREW COMPRESSOR

| MODEL  | DRIVE MOTOR HP | SCFM 100 PSI | SCFM 125 PSI | SCFM 145 PSI | DRIVE CONFIG. | MOUNT | DIMENSIONS L x W x H INCHES | WEIGHT LBS. | SOUND DBA | CONTROLLER | THREE PHASE VOLTAGE 60 HZ |
|--------|----------------|--------------|--------------|--------------|---------------|-------|-----------------------------|-------------|-----------|------------|---------------------------|
| DRS50  | 50             | 195.5        | 177.7        | N/A          | DIRECT        | BASE  | 65 x 36 x 65                | 1780        | 69        | CSC300     | 230 / 460                 |
| DRS75  | 75             | 315.1        | 286.7        | 263.6        | DIRECT        | BASE  | 79 x 47 x 79                | 3420        | 74        | CSC300     | 460                       |
| DRS100 | 100            | 445.8        | 396.3        | 366.6        | DIRECT        | BASE  | 79 x 47 x 79                | 3865        | 75        | CSC300     | 460                       |

### Air Intake Valve

The air intake valve's unique profile and throat design creates a 25% increased air flow area when totally open, maintaining a minimal pressure drop under all operating conditions.

The integrated bypass valve is configured to reduce energy consumption while providing sufficient oil injection pressure during the unloaded state.

### Minimum Pressure Valve

A two-stage valve that allows the air to flow to the heat exchanger if the compressed air pressure exceeds 60 psi, where it is cooled and then exits the unit. The MPV includes a nonreturn valve to prevent back flow into the compression element and is comprised of anodized aluminum and brass components to prevent corrosion.

### Air/Oil Separator Vessel

The optimized high-efficiency separation system initially separates most of the oil from the air by centrifugal force in the separator tank. Any remaining oil aerosol is separated by a two-stage filter in the separator vessel. The oil level is verified by an easy-to-read oil level indicator.

### Air Intake Filter

A protective, 3 stage, 3 micron premium air intake filter extends airend life and fluid change intervals. Easily serviced with no tools required.

### Cooler

The airend temperature is optimized for efficient operation by the combination of the aluminum block type after cooler, which cools the compressed air as it leaves the unit and the oil cooler, which removes the heat generated in the oil during compression.

### Oil Filter

The long-life oil filter ensures high filtration efficiency protecting synthetic lubricant quality and life of the airend.

### Efficient Airend

The low noise airend delivers efficient and reliable performance utilizing the latest technology profile with large displacement and operating below 4000 rpms extending bearing life, lubricant breakdown rate and better air-coolant distribution.

### Thermostatic Bypass Valve

A brass valve integrated in the oil filter housing ensures the compressor reaches its optimal temperature immediately after start-up, eliminating any risk of moisture build-up in the oil.



**CHAMPION®**

1301 North Euclid Avenue  
Princeton, Illinois 61356 USA  
[www.ChampionPneumatic.com/ContactUs.aspx](http://www.ChampionPneumatic.com/ContactUs.aspx)  
866-276-4330  
[www.ChampionPneumatic.com](http://www.ChampionPneumatic.com)



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