

5-30 HP FIXED SPEED ROTARY SCREW COMPRESSORS

## D Series

### Innovative, Integrated Design

D Series compressors feature innovative, integrated air end designs that reduce connection points, enhance reliability, and promote superior serviceability. The simplified, reduced-component approach extends beyond the air end into the oil and air cooler. This combination cooler results in a reduction in energy consumption, low discharge air temperatures, and an increase in overall system reliability. Couple these service and reliability benefits with the unit's small footprint and it's easy to see why the integrated design approach sets the D Series apart from the competition. Best of all, it's affordable.

### Quiet & Built to Perform in Demanding Environments

Designed to operate at a 100% duty cycle, D Series compressors from Champion are ideal for demanding environments where dry, clean, continuous-use compressed air is required. The quiet enclosed design enables you to install the compressor near the point-of-use without any concern of elevated noise levels. The D Series yields noise levels as low as 64 dBA allowing you to work comfortably 24/7.

### Air System Solution

A D Series Air System is a complete solution for your application featuring a:

- Rotary Screw Compressor
- Dry Tank Air Receiver
- Refrigerated Air Dryer & 1 Micron Pre-filter
- Two separate electrical connections (compressor & dryer)
- Pressure gauge
- Tank drain
- Controller

It's the compact, plug-and-play compressed air solution you've been looking for. The D Series Air System is your true compressed air system solution.



## D5-D30 ROTARY SCREW COMPRESSOR

MODEL	DRIVE MOTOR HP	SCFM		DRIVE CONFIG.	MOTOR RPM	MOUNT	TANK SIZE	DIMENSIONS L x W x H	WEIGHT LBS.	SOUND DBA	CONTROLLER	VOLTAGE 60 HZ	
		120 PSI	145 PSI				GAL	INCHES				SINGLE PHASE	THREE PHASE
D5	5	N/A	16	BELT	1740	AS	60 GAL	52 x 23 x 44	505	65	CSC15	230	N/A
D6		N/A	18			BASE	N/A	34 x 21 x 25	378	65	CSC50	230	200/230 /460
D7.5	7.5	N/A	27			AS	80 GAL	66 x 21 x 46	665	63			
						BASE	N/A	34 x 21 x 25	404	68			
D10	10	N/A	39			AS	80 GAL	66 x 21 x 46	715	66			
						BASE	N/A	41 x 27 x 37	560				
D15	15	N/A	57		AS	120 GAL	77 x 27 x 63	970	69	69	N/A		
					BASE	N/A	41 x 27 x 37	600					
D20	20	87	83		AS	120 GAL	77 x 27 x 63	1175	67	67	N/A		
					BASE	N/A	52 x 28 x 47	1010					
D25	25	100	91		AS	120 GAL	80 x 28 x 74	1480	68	68	N/A		
					BASE	N/A	52 x 28 x 47	1010					
D30	30	116	106	AS	120 GAL	80 x 28 x 74	1520	69	69	N/A			
				BASE	N/A	52 x 28 x 47	1050						

NOTES: Air System includes Air Receiver, Pre-Filter & Refrigerated Air Dryer  
AS = Air System

### 1 Refrigerated Air Dryer

Prevents moisture entering critical work areas downstream improving overall air quality and system efficiency.

### 2 Dry Tank Air Receiver

A unique configuration delivering clean, dry compressed air to the receiver by treating it first with a 1 micron pre-filter and air dryer. This ensures the tank is virtually dry, achieving an unprecedented level in the abatement of corrosion and maximizing the capacity of the tank for its intended use - to store and provide continuously cool, clean and dry air.

### 3 Smart, Simplified Controls

Easy to use, intelligent control solutions that manage, monitor and maintain optimal operational parameters automatically ensuring reliable operation and protecting your investment

### 4 Rotary Screw Compressor

D Series compressors from Champion are ideal for demanding environments where dry, clean, continuous-use compressed air is required. Its integrated design is centered on quiet delivery, durability and efficiency.



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## 75-100 HP FIXED SPEED ROTARY SCREW COMPRESSORS

### D Series

#### Compact & Built for Continuous-Use

Heavy-duty, high-performance D Series compressors are ideal for continuous-use applications where constant compressed air demand is required. The innovative component integration results in a compact, serviceable and quiet compressed air system engineered for efficiency and performance. The compact design ensures stable system pressure with minimal installation space. The compressor's serviceability and reliability benefits, along with its small footprint, make it easy to see why the D Series sets itself apart from the competition. Best of all, it is affordable.

#### Durable & Silent

Engineered to withstand demanding environments while being whisper-quiet, D Series rotary screw 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 74 dBA while delivering the dependable air needed for your application.

#### Advanced Control Solution

D 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



## D75-D100 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
D75	75	281	277	N/A	DIRECT	BASE	79 x 47 x 79	3360	74	CSC300	460
D100	100	451	448	N/A	DIRECT	BASE	79 x 47 x 79	3770	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 once 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 can be 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, protects synthetic lubricant quality and extends the 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 manifold ensures the compressor reaches its optimal temperature quickly after start-up, eliminating any risk of moisture build-up in the oil.



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## D5-D30 ROTARY SCREW COMPRESSOR

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