

# 75 & 100HP



## K100 & J75 100HP / 75HP

### ROTARY SCREW AIR COMPRESSORS

- › **Powerful, Efficient Delivery**  
Variable Speed, Direct Drive or Fixed Speed, Direct Drive with Soft Start
- › **100% Duty Cycle Operation**  
Ideal for Continuous-Use Applications
- › **Innovative Design**  
Compact, Quiet, Engineered for Optimized Efficiency & Performance
- › **Integrated Air After-Cooler**  
Effectively Cools Air & Enhances System Efficiency
- › **CSC300 Controller**  
Advanced Control Solution
- › **5 Year Extended Warranty**  
Rugged Construction & Long Life



DV Systems. Built Better.



**K100 & J75**  
**100HP / 75HP**

## ROTARY SCREW AIR COMPRESSORS

These heavy-duty, high-performance and high-efficiency rotary screw air compressors operate at a 100% duty cycle and are ideal for continuous-use applications.

Innovative component integration results in a compact, quiet air system engineered for efficiency and performance, providing high-capacity air delivery and stable system pressure with minimal installation space.

The **J75 Mohawk** features variable speed, direct drive or fixed speed, direct drive with soft start technology and efficiently delivers 341 SCFM of compressed air at 100 PSI.

The **K100 Iroquois** features variable speed, direct drive technology and efficiently delivers 463 SCFM of compressed air at 100 PSI.

### VARIABLE SPEED, DIRECT DRIVE

The variable speed drive integrates a robust frequency inverter with the CSC300 controller to ensure energy efficiency. The VSD constantly aligns energy use with air demand, adjusting motor speed to provide optimum performance and reliability, resulting in a compressor that is extremely economical and energy efficient, providing energy savings of up to 25%.



### FIXED SPEED, DIRECT DRIVE WITH SOFT-START

DV Systems' fixed speed, direct-drive with soft-start is ideal for continuous-use applications with constant compressed air demand.

Demonstrating efficient power transmission from the motor to the airoend, the direct-drive optimizes power consumption, providing more air with less energy.

Digital, microprocessor-controlled Soft-Start Technology ensures smooth start operation and is engineered for efficient performance.

### 1:1 DIRECT DRIVE

DV Systems' One-to-One Direct Drive Technology enables efficient power transmission and optimizes power consumption, providing more air with less energy. Our drive connects the motor directly to the high-efficiency airoend with a low maintenance jaw in-shear coupling, providing maximum transmission efficiency and durability in use.



### Eliminating Artificial Demand

The VSD's Pressure Tracking controls ensure that energy use is optimized by producing only as much air as is needed at set pressure, avoiding artificial demand. The cost of over-pressurization is eliminated by tracking pressure multiple times each second.

### Eliminating Current Spikes

The VSD starts the motor with a gradual speed increase, eliminating in-rush current spikes on start-up and further contributing to the overall energy efficiency of operation.

### VSD Safety

The VSD also integrates numerous power monitoring and fault protection technologies, such as: Integrated EMC filter, line reactor, phase loss and overload protection.

## COMPRESSOR COMPONENTS

### › AIR INTAKE FILTER

Our compressor is protected with a three stage 3 micron air intake filter. This premium filter extends the airend life and fluid change intervals. The filter is easily serviced with no tools required.

### › AIR INTAKE VALVE

The air intake valve is normally closed and integrated with non-return valve. Designed to be extremely reliable and to have a very low pressure drop under all operating conditions. The unique profile valve and throat design creates a 25% increased air flow area when totally open for minimal pressure drop and fewer components and quality materials ensure reliable operation.

### › MINIMUM PRESSURE VALVE

Two-stage valve that allows the air to flow to the heat exchanger if the compressed air pressure is above 60 psi, where it is cooled and then exits the unit. Includes a non-return valve to prevent back flow into compression element. Easy access for servicing. Anodized aluminum and brass components to prevent corrosion.

### › AIREND

All DV airends are carefully matched to the overall package operating specifications to attain the most efficient and reliable overall performance. As direct drive packages, both the J and K air ends are large displacement, low speed rotary screw airends (1500 – 4000 rpm) which significantly extends bearing life and lubricant breakdown rate. Larger displacement also means that the compression loads are distributed over larger surface areas with results in less material deflection and better air – coolant distribution. Rotor profiles make use of the latest technology in profile geometry in order to deliver high efficiency, long life and low noise. Shaft bearings and the materials used in the rotors and housings must meet strict quality standards. All of the components are precision machined and ground on state of the art equipment in ISO 9001 facilities.

### › COOLER

Aluminum block type air-air aftercooler to cool the compressed air as it leaves the unit combined with the air-oil cooler to remove the heat generated in the oil during compression and to optimize the airend temperature for efficient operation. Large surface area, easy to clean and remove.

### › AIR / OIL SEPARATOR VESSEL

J75 and K100 are fitted with an optimized high-efficiency separation system specifically designed for variable flow application inherent with variable speed air compressor. Most of the oil is initially separated 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 the easy-to-read oil level indicator and the service is done by an easily accessible valve and hinged top cover.

### › “CYCLONE” MOISTURE SEPARATOR

The cyclone moisture separator uses centrifugal separation to remove bulk liquids from the compressed air as it leaves the compressor.

### › THERMOSTATIC BYPASS VALVE

A brass valve integrated in the oil filter housing to assure that the compressor reaches its optimal temperature immediately after start up to eliminate any risk of moisture buildup in the oil and to guarantee highly efficient operation.

### › DUAL OIL FILTER

The two oil filters ensure an extremely high filtration efficiency (10 microns) to protect the synthetic lubricant quality and improve the airend lifetime.



## CSC 300 CONTROLLER

The Advanced CSC 300 features the option of sequencing up to 8 compressors, optimizing system performance & efficiency.

- › Optional Sequencing - Up to 8 Compressors
- › Web-Enabled System Control - Optional
- › Remote Stop/Start Operation
- › Real Time Clock with Pressure Schedule
- › Current (Amperage) Draw Display
- › Remote Fault Signals & Power Restart Capability
- › Service Maintenance Reminder
- › Configurable Digital Inputs (Optional) & 8 Relay Outputs (4 Configurable)





# K100 & J75 100HP / 75HP ROTARY SCREW AIR COMPRESSORS

Model	Motor (HP)	dBA	Operating pressure (psi)	Capacity @ operating pressure(SCFM)	Dimensions L x W x H (in.)	Weight (lbs)
J75 MOHAWK VSD	75	74	100	341	74 x 47 x 78 3/4	2858
			125	309		
			150	285		
K100 IROQUOIS VSD	100	75	100	463	74 x 47 x 78 3/4	3300
			125	432		
			150	388		
K100 IROQUOIS Fixed Speed, Direct Drive Soft-Start	100	75	100	463	74 x 47 x 78 3/4	3200
			125	432		
			150	388		

## SOLID AND SILENT DESIGN

Engineered to effectively minimize noise levels, our rotary screw air compressors are designed with solid, steel base frames & floors, powder-coated, heavy gauge, acoustically insulated steel cabinets and sound attenuating foam barriers with an oil resistant coating. The airend/motor-drive module & separator tank are each mounted on vibration isolation mounts to eliminate all strain on piping and wiring, additionally reducing noise.

## COOLING FAN

Centrifugal cooling fan, with high efficiency backward inclined aluminum blades. Dynamically balanced for low vibration and noise reduction. Integrated rotor and thermally protected motor. Easy access for servicing.

## LUBRICATION SYSTEM

DV Lube synthetic oil is tested for extreme conditions and explicitly qualified for high performance and long lifetime expectations.

## ACCESSORIES

DV Systems provides a comprehensive range of compressed air treatment products and compressed air system accessories, including dryers, filters, separators, air receivers, ETC oil-free converters & ecocentre air compressor management systems.

FOR MORE INFORMATION VISIT [DVCOMPRESSORS.COM](http://DVCOMPRESSORS.COM)

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