

# 40 & 50HP

## H40/H50

### 40HP / 50HP ROTARY SCREW AIR COMPRESSOR



- **Powerful, Efficient Delivery**  
Variable Speed or Fixed Speed Options, Direct Drive and Gear Drive
- **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
- **Governor™ Controller**  
Full-Colour Touchscreen Control
- **5 Year Extended Warranty**  
Rugged Construction & Long Life



Built Better

# H40/H50

## 40HP / 50HP ROTARY SCREW AIR COMPRESSOR

These heavy-duty, high-performance & high-efficiency Rotary Screw Compressors operate at a 100% duty cycle and are ideal for continuous-use applications where reliable, dry, clean air is required

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 H Series features both Variable Speed or Fixed Speed options, using Direct and Gear Drive Technology to efficiently deliver either 223 SCFM or 185 SCFM of compressed air at 100 PSI for 50HP and 40HP respectively.

### VARIABLE SPEED DRIVE (VSD)

The H40-50 VSD integrates a robust frequency inverter with the Governor 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

Ideal for continuous-use applications with constant compressed air demand. Demonstrating efficient power transmission from the motor to the airend, the fixed speed, direct-coupled system provides maximum flexibility in pressure selection and features a gear ratio matched to the operating pressure for optimum efficiency.



### DIRECT-COUPLED DRIVE

DV Systems' Direct-Coupled 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 airend with a low maintenance three-jaw 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, DC link choke with input surge protection, and phase loss and overload protection.

### GOVERNOR™ CONTROLLER

The Advanced Governor Controller features the option of sequencing up to 4 compressors, optimizing system performance & efficiency.

- 4.3" Colour Touch Screen
- Sequence up to 4 compressors using AirSmart™ protocol
- Simple, intuitive navigation
- Easy to access schematic view for system health
- Ability to set Pressure Schedule / Timer Control
- USB Port for Software Updates
- Remote Fault Signals & Power Restart Capability
- Service Maintenance Reminder
- Configurable Digital Inputs Relay Outputs



## COMPRESSOR COMPONENTS

### AIR INTAKE FILTER

A protective, 2 stage, high efficiency air intake filter with pre-cleaner extends airend life and fluid change intervals. Easily serviced with no tools required.



### AIR INTAKE VALVE

Designed to be extremely reliable, 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 by-pass circuit is configured to reduce energy consumption while providing sufficient oil injection pressure during the unloaded state. The air intake valve is normally closed and integrated with a non-return valve. Crafted from quality materials, fewer components ensure reliable operation.



### MINIMUM PRESSURE VALVE

A two-stage valve that allows the air to flow to the heat exchanger if the compressed air pressure exceeds 65 psi, where it is cooled and then exits the unit. Includes a nonreturn valve to prevent back flow into the compression element. Easy access for servicing. Anodized aluminum and brass components to prevent corrosion.



### AIREND

DV Systems' airenards are accurately aligned to overall system operating specifications attaining the most efficient and reliable performance. The H Series direct-drive system features large displacement, low speed ( $\leq 3600$  rpm) rotary screw airenards, significantly extending bearing life and the lubricant breakdown rate. With a larger displacement, compression loads are distributed over larger surface areas, resulting in less material deflection and better air-coolant distribution.

Rotor profiles make use of the latest technology in profile geometry, delivering high efficiency performance with long life and low noise. Shaft bearings and the materials used in the rotors and housings adhere to strict quality standards. All of the components are precision machined and ground on state of the art equipment.

The H40-50 airend uses an integrated design with oil filter and thermostatic bypass valve to reduce the number of external components and increase reliability.



### COOLER

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



### AIR / OIL SEPARATOR VESSEL

The H50 is fitted with an optimized high-efficiency separation system specifically designed for variable flow applications. Initially, most of the oil is separated from the air by centrifugal force in the separator tank and 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.

### THERMOSTATIC BYPASS VALVE

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

### OIL FILTER

The oil filter ensures an extremely high filtration efficiency (15 microns), protecting the quality of the synthetic lubricant and improving the airend's lifetime.

# H40/H50

## 40HP / 50HP ROTARY SCREW AIR COMPRESSOR

### 100+ YEARS OF MANUFACTURING EXCELLENCE

DV Systems is a designer of high-performance, high-efficiency compressed air systems. We have been engineering and manufacturing industrial air compressors since 1954 and our commitment to a culture of innovation dates back 100 plus years. Our objective is to provide reliable, innovative products and compressed air system solutions, strengthened by a commitment to exceptional customer service.

### SOLID & SILENT

Engineered to effectively minimize noise levels, DV's rotary screw compressors are designed with solid steel base frames and floors, powdercoated, heavy gauge, acoustically insulated steel cabinets and sound-attenuating foam barriers with an oil-resistant coating.

### ACCESSORIES

DV Systems provides a comprehensive range of compressed air treatment products and compressed air system accessories, including dryers, filters, separators, air receivers, auto drains, installation kits, remote start equipment, and more.



### SPECIFICATIONS

#### PERFORMANCE

**Power:** 40HP, 50HP

#### CONFIGURATIONS

**Base Mounted** H40, H50, H40VSD, H50VSD

### ELECTRICAL

**Premium-Efficiency TEFC Industrial Motor**

**Motor RPM:** 3600 RPM

#### Three Phase H40

230V/100A, 460V/54A, 575V/43A, 60Hz

#### Three Phase H50

230V/139A, 460V/60A, 575V/54A, 60Hz

#### Variable Speed Direct Drive

MODEL	HP	SOUND	SCFM100 PSI	SCFM145 PSI	SCFM175 PSI	HEIGHT	WIDTH	DEPTH	WEIGHT(LBS)
H50VSD	50	74 dBA	223	206	188	64.5"	63.1"	35.5"	1900
H40VSD	40	74 dBA	182	159	N/A	64.5"	63.1"	35.5"	1900

#### Fixed Speed Gear Drive

MODEL	HP	SOUND	SCFM100 PSI	SCFM130 PSI	SCFM175 PSI	HEIGHT	WIDTH	DEPTH	WEIGHT(LBS)
H50	50	74 dBA	223	213	164	64.5"	63.1"	35.5"	1900
H40	40	74 dBA	185	166	137	64.5"	63.1"	35.5"	1900

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

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