Nirvana Variable Speed Drive, Rotary Screw Air Compressors

7.5-40 hp (5.5-30 kW)

Innovation
Reliability
Efficiency
“We may be a smaller business, but I can still measure efficiency, and see the value of year on year savings.”

“I insist on getting the best buy for me and my company.”

“I need an Air Compressor that performs reliably, even in the toughest conditions.”

“It’s more than just the equipment. I want to deal with people who are dedicated to providing me with total service.”

“I need a convenient, easy-to-use system that can GROW with my business.”
Nirvana
Integration Redefined

The Next Generation of Compressed Air

Nirvana 7.5-40 hp 3
Nirvana Delivers
• Maximum operating flexibility to meet your individual site needs
• Total Air System (TAS) in one package
• World class sound, as low as only 65 dB(A)
• High quality filtered and dried discharge air
• Lowest power consumption at start-up, full-load, and part-load conditions
• Up to 35% energy savings
• Inherent reliability through elimination of parts wear and simplicity of design

Featuring
• Innovative component integration
• Innovative IntelliDrive scalability
• Preliminary diagnostics
• Expanded user control interface
• Improved VSD capacity regulation reliability
• Improved acoustic engineering

Performance by Design
Nirvana is the only compressor that has the ability to grow with your business and be a true partner in productivity and product quality.
Nirvana incorporates smart package integration and state-of-the-art IntelliDrive technology to provide the right air on demand.
IntelliDrive Features

- High-efficiency induction motor
- Integrated Variable Speed Drive (VSD) with speed control
- Virtual gear set providing flexible power and pressure ranges
- Leading control and protection
- Soft starting eliminates drive stress

IntelliKey
The IntelliDrive System allows for scalability when you need to increase the demands of your business.

By means of a simple firmware upgrade, your Nirvana 7.5-40 hp can grow without having to upgrade to a new compressor.

Economy of Use
Nirvana saves you money by lowering your operating cost. These savings will continue to be delivered to your bottom line, year after year.

Best Efficiency at Part-load
When operating at part-load, the performance is top in class. The variable speed IntelliDrive avoids load cycling and maintains a steady state of operation, reducing operating and maintenance costs.

Soft Start Lowers Your Operating Cost
The gentle start cycle of the IntelliDrive increases the service life, meaning that frequent stop and restart cycles are permitted, without the risk of over-heating.

Multiple Machine Operation
When operating as a pressure trim machine, the power savings achieved by a single compressor is multiplied by additional savings achieved over the full installation.

High Full-load Operating Efficiency
Class-leading performance achieved by state-of-the-art airen design and manufacturing processes, coupled with the reduction of internal losses, means that Nirvana delivers benchmark full-load performance.

Scalability
The Nirvana 7.5-40 hp air compressor grows with the demands and success of your business.
The Nirvana TAS Package...

A Single Simple Solution
The Nirvana TAS comprises of all the required components for a complete air system in one package.

Features
- Modular design for ease of maintenance
- Cycling dryer
- Dryer bypass
- Integrated coalescing and particulate filters
- Electronic drain valve
- Receiver tank mounted
“Integration Redefined”
VSD Controlled Capacity Regulation

Responding to fluctuation in your system demand and maintaining a close controlled system pressure, Nirvana automatically adjusts its compressed air output to achieve the highest efficiency for your operation.

This avoids wasted energy caused by excessive pressure band or unloaded running, allowing you to:

- Achieve higher productivity from your air system
- Maintain optimum performance from the equipment you operate
- Save up to 35% energy cost
Technology in a 7.5-40 hp Compressor

Variable Speed Drive Benefit
“Cruise control for your compressed air system”

Nirvana control is delivered by a variable speed drive. The Nirvana 7.5-40 hp VSD maintains a close controlled system pressure, automatically adjusting its output to achieve the highest efficiency for your operation.

This avoids wasted energy caused by excessive pressure band or unloaded running.

Growth-aligned to Your Demand
“The compressor with ‘virtual gears’ that can grow with you”

Nirvana will operate effectively, maintaining a stable pressure between maximum capacity at full power down to as little as 30% of its output before turning off. It is also the only compressor that allows the owner to upgrade the drive to the next largest horsepower.

7.5 hp can be upgraded to 10 hp or 15 hp
20 hp can be upgraded to 25 hp
30 hp can be upgraded to 40 hp

The Nirvana 20-40 hp compressor also allows the user to pick the optimal operating pressure between 65-150 psig in one standard machine.

The Nirvana 7.5-15 hp compressor utilizes an IntelliKey to maximize performance when pressure is changed.

<table>
<thead>
<tr>
<th>Compressed Air Demand</th>
<th>Variable Speed Drive Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Flow (CFM)</td>
<td>Time</td>
</tr>
</tbody>
</table>

Nirvana 7.5-40 hp
Intellisys™ Microprocessor Controller

Single Control for Ease of Use
New Enhanced Nirvana diagnostics work with a direct drive technology for a high efficiency output, helping you save money with cost vs. energy.

The Nirvana Control System offers single-point control and access to your compressed air system. With the improved overall diagnostic capabilities to pinpoint service needs, it is almost like having a built-in service technician!

Ingersoll Rand designed Nirvana to simplify your servicing. Your air solutions provider will recommend the most cost effective maintenance program, to ensure trouble-free operation.

These Additional Diagnostic Enhancements Make the Nirvana 7.5-40 hp More...

Reliable
Utilize VSD technology to maximize up-time and minimize wear and tear of continuous operation

Safe
On-board PORO (Power Outage Restart Option) allow one resume function at a restore point of last optimal mode of operation in the event of a restored external power failure.

Dependable
Keep track of scheduled maintenance intervals based on simple or more complex scheduling.

Flexible
Integrate to a separate Ingersoll Rand sequencer to run and control multiple air compressor units both simultaneously or at intervals.

Modern
Advanced serial communications ports can be used for end-user monitoring and allow control from a remote location. (20-40 hp only)

The Nirvana 20-40 hp Intellisys Microprocessor Control Features
- Pressure diagnostics
- Monitoring critical air-pressure points within the system
- Unit temperature
- Alarm logging
- Real-time PSI—target pressure vs. actual levels of use
- Change in air pressure
- Control set pressure
- Schedule on/off time
- Allows easy navigation
- Three levels of alarm cycles to help you respond

The Nirvana 7.5-15 hp Integrated Multi-function Display and Control Features
- Package discharge pressure
- Total hours run
- Maintenance timer
- Time of day
- Fault indicator
- Bar graph indicating service %
- “Get Parts” indication at 20%
- Flashing LED at 10% remain
- Continuous warning if service is overdue
Nirvana TAS Air Quality

Nirvana Total Air System Contains Integrated Dual Filtration
Incorporating both high-efficiency coalescing and particulate filters provides protection from the effects of oil and ingested particles on air and product quality. The filters are easily replaced as needed via the convenient front access panel.

Nirvana Integrated Refrigerated Dryer
Drying compressed air removes moisture that can cause rust and corrosion in your compressed air system piping, which can lead to inadequate tool lubrication, and damage to finishing processes, and product quality.

The unique Nirvana integrated refrigerated dryer uses energy efficient cycling technology to provide unparalleled reliability and energy savings.

Additional Important Air Quality Components

Electronic Drain Valve
Ensuring reliability in removing water removed by the after-cooler dryer and filters.

Dryer Bypass
The bypass assures your Nirvana compressor’s continuous operation if a problem ever occurs within the dryer.

<table>
<thead>
<tr>
<th>Feature</th>
<th>ISO Class</th>
<th>Distinction</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP Particulate Filter</td>
<td>Class</td>
<td>Liquid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Particulate</td>
</tr>
<tr>
<td>HE Coalescing Filter</td>
<td>Class</td>
<td>Liquid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Particulate</td>
</tr>
</tbody>
</table>

Nirvana 7.5-40 hp
The standard market compressor package includes a form of variable frequency drive and an on-board refrigerated dryer. Only Ingersoll Rand offers a Total Air System in the 7.5-40 hp range. The Nirvana 7.5-40 hp TAS unit comes STANDARD with the following INCLUDED features:

A  **Refrigerated Dryer Bypass**  
- Productivity and reliability through continuous operation

B  **Integrated Receiver Tank**  
- Floor space and installation time savings

C  **Blower Technology**  
- Quiet operation (as low as 65 dB(A)) for environmental and workplace concerns

D  **Integrated Coalescing and Particulate Filtration**  
- Increases air quality for a better finished product

E  **Energy Efficient Cycling Refrigerated Air Dryer**  
- Reliability of operation and energy savings

F  **Direct-Coupled Motor/Airend Configuration**  
- Compact design for additional reliability and reduced maintenance cost
Nirvana Dimensions

<table>
<thead>
<tr>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>inch</td>
<td>mm</td>
<td>inch</td>
<td>mm</td>
</tr>
<tr>
<td>51.8</td>
<td>1315</td>
<td>28.8</td>
<td>731</td>
</tr>
<tr>
<td>53.1</td>
<td>1349</td>
<td>28.8</td>
<td>731</td>
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<tr>
<td>74.7</td>
<td>1897</td>
<td>28.8</td>
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<td>84.9</td>
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Nirvana Performance Data

<table>
<thead>
<tr>
<th>Nominal Power</th>
<th>Delivered Pressure Range</th>
<th>Min. Capacity</th>
<th>Max. Capacity</th>
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<tbody>
<tr>
<td>hp</td>
<td>psig</td>
<td>cfm/60 Hz</td>
<td>cfm/50 Hz</td>
</tr>
<tr>
<td>kW</td>
<td>barg</td>
<td>m^3/min</td>
<td>m^3/min</td>
</tr>
<tr>
<td>7.5</td>
<td>65-150</td>
<td>41</td>
<td>87</td>
</tr>
<tr>
<td>5.5</td>
<td>45-10.4</td>
<td>1.16</td>
<td>2.46</td>
</tr>
<tr>
<td>20</td>
<td>150</td>
<td>41</td>
<td>87</td>
</tr>
<tr>
<td>15</td>
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Maximum capacity tested in accordance with ISO 1217 1996 Annex C
1 Performance is based on non-TAS models
2 Maximum capacity is based on 115 psig (8 barg)

Nirvana 7.5-40 hp

80, 120 & 240 gal. receivers manufactured to ASME VIII Class I; 272, 500 & 750 litre receivers manufactured to EN 87-404
Total Air Systems (TAS) and standard units have the same dimensions
1 20 hp (15kW) and 25 hp (18kW) are 5.5 inches (140 mm) less on the height dimension
**Global Reach, Local Service**

*No matter where your facility is located,* Ingersoll Rand is committed to serving you 24 hours a day, seven days a week. Our worldwide network of certified, factory-trained technicians and engineers are a phone call away — ready to support you with innovative and cost-effective service solutions that will keep you running at peak performance.

PackageCare is a service contract designed to help customers get the most out of their air system investment. Whether it’s Ingersoll Rand equipment or a competitor’s, a new compressor or used, with PackageCare customers get hassle-free system reliability, backed by the most comprehensive service program in the industry. We’re the only OEM in the industry offering this type of service coverage.
Count on Ingersoll Rand for All Your Air System Requirements

Air Quality
- Filtration
- Dryers
- Point-of-use air treatment
- Air sampling test kits
- Dew point meters

Environmental
- Condensate management
- Lubricants
- Water filtration

Installation
- SimplAir piping system
- Fusible disconnects
- Intelliflow system pressure control
- Drains

Maintenance
- Hard parts
- Consumables
- PM contracts

Power Management
- Variable speed drives
- Line reactors
- System controllers
- Safety switches

Energy Efficiency
- System air pressure controllers
- Automated air system controls
- No-loss drains
- System audits
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