ENERGY SAVING ROTARY SCREW COMPRESSORS.

AF SERIES
VARIABLE SPEED COMPRESSORS
ENERGY SAVINGS WITH ADVANCED TECHNOLOGY

FSCURTIS AF Series Screw air compressors are manufactured to the latest ISO 9001:2000 standard. The AF Series uses industry leading Variable Speed Drive (VSD) technology to provide compressed air with the least amount of energy possible. The Automatic Flow™ (AF) compressors are dependable, energy efficient and will provide years of reliable service.

The AF Series compressors are designed, built and tested in the USA. FSCURTIS has built more than 150 years of American heritage into the AF product line. FSCURTIS AF compressors are known for their legendary durability and performance. The AF Series’ features are some of the most advanced in the industry.

FSCURTIS is committed to extensive research and development. We promise to continue our uncompromising pursuit of excellence and to provide the highest level of customer service through our international network of factory-trained distributors.

LOWER LIFE CYCLE COST (LCC)

• Energy savings over fixed speed compressor up to 40%
• Less wear and tear resulting in lower maintenance cost
• Optimal operating speed per real air demand for reduced service cost

HIGHLY EFFICIENT

• Efficient air end technology with the latest rotor profile design
• Reduced losses through design and component selection
• Automatically matches compressor speed to your air system demand
DO YOU KNOW YOUR ACTUAL AIR COMPRESSOR LIFE CYCLE COST?

Energy cost can be up to 85% of the compressors Life Cycle Costs (LCC). Industry in the United States spends, on average, 10% of their power consumption to generate compressed air. What do you spend? Are you interested in real cost savings with a variable speed versus fixed speed compressor?

The AF Series variable speed compressors can save up to 40% of the energy cost compared to traditional compressors. The total LCC savings over the compressor lifetime will be substantial.

THE RIGHT CHOICE.

FSCURTIS VARIABLE SPEED COMPRESSORS

A majority of compressors operate at considerably less than 100% capacity most of the time. Fixed speed compressors often need large receivers and air storage at higher than required pressure to compensate for demand fluctuations. This compensation results in higher energy costs, higher maintenance costs and reduced equipment life.

The FSCURTIS AF Series compressors adapt to air demand by automatically adjusting the compressor flow to real air demand — the FSCURTIS Automatic Flow™.
FSCURTIS AF SERIES.
COMPRESSOR BENEFITS IN DETAIL.

LOW COST AND EASY MAINTENANCE
• Standard and high efficiency motors and other components, versus other brands of variable speed compressors with proprietary parts
• Open and uncluttered layout for easy access and fast service
• Service intervals adapt to actual operating conditions using FSCURTIS custom developed software

HIGH EFFICIENCY
• Automatic Flow™ matches the compressor speed to your air demand, reducing power consumption up to 40%
• High efficiency motor and drive with a broad turn-down range minimizes energy consumption in all applications
• Precise pressure control and automatic standby mode provide additional savings

LOWER LIFE CYCLE COSTS
• Stable and accurate operating pressure with no over-pressurization minimizes energy costs
• Soft start and stop features with reduced (average) compressor speed reduces compressor wear and tear and minimizes stress to power supply system
• Reduced wear and tear minimizes service and maintenance requirements
• Simple design with standard components provides best reliability, value and cost savings over the compressor Life Cycle

HIGH RELIABILITY
• Low air end and motor speeds provide long and trouble free operational life
• Standard components are proven, reliable and require minimum service
• Standard EMC-filter and Line Reactor in the VFD (Variable Frequency Drive) lowers total investment cost and prevents harmful effects to your power supply and other equipment

TOUCH SCREEN CONTROL
• Industry’s best user-friendly interface with simple menu structure and touch screen control
• Real time operational data display for easy reading and operation
• Multiple user-friendly features for service advisories, fault alarms, history logs and status
• Expandable features for additional control, monitoring and customer benefits

Contact Your Local Distributor About This Product
www.fscurtis.com
800.925.5431
CALCULATE YOUR POTENTIAL SAVINGS.
FSCURTIS Automatic Flow™ Compressors.

Studies have shown typical screw compressor load over time to be 50 - 75%.

Estimated average of full load capacity 62%. 

**MODULATING COMPRESSOR**

<table>
<thead>
<tr>
<th>Operating hrs/yr.</th>
<th>Yrs of operation</th>
<th>Power cost / $ / kWhr</th>
<th>Shaft power kW</th>
<th>Of full load</th>
<th>Motor efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2050</td>
<td>5</td>
<td>0.12</td>
<td>37</td>
<td>90%</td>
<td>0.93%</td>
</tr>
</tbody>
</table>

= $44,042 ( + ) $14,000 ( + ) $4,500 ( = ) $62,542

**FSCURTIS AF COMPRESSOR**

<table>
<thead>
<tr>
<th>Operating hrs/yr.</th>
<th>Yrs of operation</th>
<th>Power cost / $ / kWhr</th>
<th>Shaft power kW</th>
<th>Of full load</th>
<th>Motor efficiency</th>
</tr>
</thead>
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<td>2050</td>
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<td>60%</td>
<td>0.93%</td>
</tr>
</tbody>
</table>

= $29,361 ( + ) $19,000 ( + ) $4,000 ( = ) $52,361

**SAVINGS**

$62,542 ( - ) $52,361 ( = ) $10,181

<table>
<thead>
<tr>
<th>Total Cost (Modulating)</th>
<th>Total Cost (FSCURTIS AF)</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>$62,542</td>
<td>$52,361</td>
<td>$10,181</td>
</tr>
</tbody>
</table>

**TABLE 1:**

<table>
<thead>
<tr>
<th>Power consumption for modulating compressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load</td>
</tr>
<tr>
<td>Power</td>
</tr>
</tbody>
</table>

**TABLE 2:**

<table>
<thead>
<tr>
<th>Power consumption for Automatic Flow™ compressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load</td>
</tr>
<tr>
<td>Power</td>
</tr>
</tbody>
</table>
REMOVED ENERGY CONSUMPTION

FSCURTIS AUTOMATIC FLOW compressors offer you reduced energy consumption when compressor is operating at less than 100% capacity. Any decrease in system air demand corresponds to a direct, linear percentage decrease in power consumption. Unnecessary energy usage from other forms of compressor control is eliminated resulting in major pay back potential on your investment. At zero air flow, adjustable “sleep mode” timer turns unit off for additional energy savings.

COLOR TOUCH SCREEN CONTROL

Available on AF-225 through AF-960 models. Advanced, simple to use high resolution color touch screen control monitors the parameters and working conditions of the compressor and allows for precise control of all operational functions. Screen displays include the following:

- Comprehensive operational data display
  - Motor speed
  - Motor torque
  - Drive temperature
  - Current
  - Voltage
  - kW/hour
  - Calculates percentage of power being used
  - Calculates accumulative energy savings
- System pressure
- Separator pressure
- Operating temperature
- Hour meters
- Service maintenance advisories
  - Air intake filter change
  - Oil filter change
  - Oil change
  - Separator element change
  - Panel filter change
- Fault shutdown alarms
  - High pressure
  - High differential pressure
  - High temperature
  - Motor overload
  - Motor phase loss
  - High or low voltage
  - Blocked air intake filter
  - Emergency stop
- Fault shutdown history display
  - Records fault description
  - Records time and date
  - Records time of corrective procedure
  - Displays corrective procedure taken
- Compressor status display
  - Compressor in running mode
  - Compressor in standby mode
  - Compressor in load or blow down mode
- Additional capabilities
  - Automatic restart after power interruption
  - Remote control (optional remote station required)
  - Lead lag control (optional timer required)
INTEGRATED SYSTEMS.
HIGH QUALITY COMPRESSED AIR.

DEWPOINTS TO +38 °F
(Refrigerated Dryer)

DEWPOINTS TO -100 °F
(Desiccant Dryer)

RELY ON FSCURTIS TO HELP YOU GET THE AIR QUALITY AND SYSTEM PERFORMANCE YOU NEED.

Protect Your Investment and Maximize Your Energy Savings.

DEMAND FSCURTIS® GENUINE PARTS.
## Specifications and Performance

### Standard Features
- Automatic Flow™ variable frequency speed control
- Heavy duty intake filter
- High efficiency air end
- Low loss drive system
- High efficiency, inverter duty TEFC electric motors
- 115V control voltage
- Soft start feature
- NEMA 12 control panel
- Easy key pad control (AF108 - AF140)
- High resolution touch screen control (AF225 - AF960)
- Automatic restart
- Multi-stage oil separation system
- Heavy-duty oil filter with by-pass
- Oil level sight glass
- Side-by-side oil/air cooler
- Air cooled
- Rigid base with forklift slots
- Multi-level safety systems
- Pressure relief valve
- Emergency stop
- Factory fill synthetic oil
- 460v, 60Hz supply voltage
- Variable speed fan control

### Optional Features
- Quiet Enclosure
- Water Cooled
- Alternative Voltages (200, 230, 575V, 60Hz with pre-transformer)

### Specifications and Performance Table

<table>
<thead>
<tr>
<th>HP</th>
<th>Model</th>
<th>Air Delivery</th>
<th>Air Discharge</th>
<th>Dimensions</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CFM @ 100 PSI</td>
<td>125 PSI</td>
<td>150 PSI</td>
<td>175 PSI</td>
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<tr>
<td>25</td>
<td>AF108</td>
<td>30 - 108</td>
<td>25 - 104</td>
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<td>AF460</td>
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<td>187 - 454</td>
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<td>AF600</td>
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<td>AF760</td>
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<td>195 - 712</td>
<td>192 - 591</td>
<td>188 - 546</td>
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<td>200</td>
<td>AF960</td>
<td>300 - 960</td>
<td>280 - 860</td>
<td>230 - 770</td>
<td>210 - 680</td>
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