The Ful-Vane™ compressor offers many benefits compared with other compression technologies

- Long compressor life-cycle
- Low energy consumption
- Low maintenance costs
Proven performance

Developed from Fuller® design and technology, FLSmidth’s Ful-Vane™ compressors provide more compression with less energy:

- Large inlet area provides efficient capture of large air flows
- Only three moving parts for minimal mechanical losses
- Constant blade-to-cylinder contact results in sustained compression efficiency
- Shaft and bearing design minimizes drive losses
- Inlet/outlet configuration eliminates internal compression losses
- Suited for operation with variable frequency drive

1. Cylinder and head casting: ASTM 278 gray iron or ASTM 536 ductile iron
2. Inlet/outlet flange: ANSI 150# drilling pattern (250# drilling available on high pressure models)
3. Cooling jacket: Integral to cylinder and heads
4. Rotor and shaft: Solid single piece ASTM 536 ductile iron
5. Blades: B3000™ Carbon fiber laminate
6. Packing gland with 3-ring teflon/graphite
7. Drive end bearing: Fixed cylindrical roller
8. Expansion end bearing: Floating cylindrical roller
9. Lubrication: Integral lube fittings with check valves

Drive options: Direct, belt, or gearbox. Shaft and bearings suited for maximum HP in all arrangements

Integral overhead mounted motor available on C250 and larger

FLSmidth’s Ful-Vane compressor is designed to allow the cylinder to be rebored and rotor to be reslotted several times. This provides the customer with the highest return on investment within the industry.

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FLSmidth offers a full range of single-stage and two-stage compressors; from critical parts to complete self-contained packages.

Packages may be custom built to project specifications or FLSmith standards.

Auxiliary components are available upon request.

The Ful-Vane compressor is the perfect marriage with Fuller-Kinyon® pump packages for ultimate reliability.

**Ful-Vane™ air compressor:** Cost-effective simplicity

**FLSmith standard compressor base packages include:**

- **Compressor**
  - Complete cylinder assembly
  - Discharge check valve

- **Drive options**
  - Belt
  - Direct
  - Gear box

- **Driver**
  - Electric motor

**Pressurized lubrication system**

- Reservoir
- Pumping unit
- Lube panel

**Ancillaries**

- Discharge temperature switch
- Water flow switch
- Pressure gauge
- Inlet filter silencer

**Options**

- Combination base
- Closed-loop cooling system
- Aftercooler
- Mist eliminator
FLSmidth offers standard designed Ful-Pak air compressor packages for sizes C135 and larger.

Ready for installation with only cooling water, power and air piping connections needed.

**Options**
- Closed-loop cooling
- Remote monitoring
- After cooler

**Standard Ful-Pak packages include:**

- **Compressor**
  - Cylinder assembly
  - Discharge check valve

- **Drive**
  - Belt

- **Driver**
  - Electric motor

- **Pressurized lubrication system**
  - Reservoir
  - Pumping unit
  - Tubing

- **Heavy-duty structural base**

**Weather/Sound Enclosure**
- 85 dba at 1 meter
- Fan cooled
- Hinged doors

**PLC control panel**
- Instrumentation for and monitoring of:
  - Cooling water flow
  - Lubrication no flow
  - High air discharge temperature
  - High inlet filter delta P
- Panel view HMI

**Ancillaries**
- Inlet filter
- Inlet silencer
- Discharge silencer
- Discharge pressure relief valve
- Cooling water solenoid shut-off valve
- Cooling system piping

**Ful-Pak™ automated air supply packages**
Ful-Vane™ vacuum pumps

FLSmidth’s vacuum pumps are designed for a wide range of vacuum services:
- Vacuum filtering
  - Mining
- Flash cooling
  - Refrigeration
- Flash drying
  - Petroleum refining
- General vacuum
  - Chemical plants
  - Can manufacturing
- Vacuum holding
  - Clay, glass and ceramic products
- Vacuum de-gassing
  - Foundries

FLSmidth Ful-Vane vacuum pumps are available in single and two-stage.
- Single-stage applications up to 26” Hg (880 mbar) vacuum
- Two-stage applications up to 29.95” Hg (1000 mbar) vacuum
Designed with double lip seal and packing.

Ful-Vane vacuum pump packages include:

Compressor
- Cylinder assembly
- Discharge check valve

Drive options
- Belt
- Direct
- Gear box

Driver
- Electric motor

Pressurized lubrication system
- Reservoir
- Pumping unit
- Lube panel

Ancillaries
- Inlet vacuum gauge
- Wet service intake filter assembly
- Vacuum relief valve
- Vacuum relief valve filter
- Cooling water flow switch
- Cooling water solenoid valve
- Cooling water temperature switch

Options
- Structural base
- Mist eliminator
- Kevlar vanes
# Single-stage compressor performance

## PRESSURE SERVICE

<table>
<thead>
<tr>
<th>FRAME SIZE*</th>
<th>SPEED RANGE RPM</th>
<th>15 PSIG</th>
<th>30 PSIG</th>
<th>40 PSIG</th>
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* Available in undercut (C) or circular (CC) bore design
Elevation: 107 m (350 ft) ASL (14.50 PSIA)
Inlet temperature: 20°C (68°F)

## VACUUM SERVICE

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** Available in undercut (C) bore design only
Elevation: 107 m (350 ft) ASL (14.50 PSIA)
Inlet temperature: 20°C (68°F)

Two-stage packages are also available for both pressure - up to 150 PSIG, and vacuum - up to 29.5” Hg (100 mbar) service.
Accessories and parts

**B3000™ carbon graphite compressor blades**
FLSmidth’s B3000 compressor blades are made from carbon graphite, greatly increasing blade strength compared to other blade materials. These compressor blades provide up to 4 times the wear life of phenolic or Kevlar blades. Increased strength means less blade breakage and reduced maintenance costs. And, unlike phenolic and Kevlar blades, B3000 blades are guaranteed to prevent catastrophic cylinder failure due to blade breakage.
- Reduces cylinder wear
- Reduces lubrication needed
- Reduces maintenance costs
- Extends the life of the compressor

**Ful-Lube™ lubrication system**
The Ful-Lube lubricator is a safe and dependable way to protect your compressors from burnout or failure due to loss of lubrication. The Ful-Lube lubrication system is designed to keep your workhorse machinery safely and precisely lubricated for as long as 30 days without refilling - reducing man-hours and minimizing risk of water contamination.

FLSmidth’s warehouse in Manheim, Pennsylvania
World-class Service and Support

FLSmidth manufactures all compressors at its Manheim, Pennsylvania facility, ensuring that each and every compressor is built and tested to the most rigorous standards.

In addition, FLSmidth has a 24/7 emergency breakdown service for customers, a reconditioning and exchange program, and offers on-site training for rebuilding compressors. We also have a customer consignment inventory management program.

In addition to our Manheim facility, FLSmidth has factory-certified independent service centers and parts warehouses in North and South America.

Compressor Exchange Program

The FLSmidth Compressor Exchange Program is designed to replace the cylinder assemblies on existing FLSmidth rotary compressors. The program minimizes downtime for replacement and is a highly economical method for restoring compressors to original specifications and performance standards.

Exchange your worn Ful-Vane™ compressor and receive a reconditioned unit built to exacting FLSmidth specifications with new OEM parts. Each exchange compressor carries the same 24-month warranty as a new compressor.