

FLSmidth Pneumatic Transport Customer Service



World-class Customer Service programs for world-class customers

- Fuller-Kinyon® pumps
- Ful-Vane™ compressors
- Pneumatic conveying components and systems



World-class customer service

Enhancing the productivity of your plant

Better customer service increases productivity

- **Equipment exchange programs**
 - **Ful-Vane™ compressor exchange program and custom rebuilds**
 - **Fuller-Kinyon® bearing housing exchange program “Hot Swaps” and “alternate grease” rebuilds**
 - **Fuller-Kinyon pump screw exchange programs**
- **On-site advisory service**
- **Training - Fuller-Kinyon® Pump and Ful-Vane™ Compressor Roadshow**
 - **System training**
- **Fuller-Kinyon Pump and Ful-Vane Compressor mini-audits**
- **Certified Service Centers throughout North America**
- **Parts stocking program at your plant**
- **24-hour Customer Assistance Hotline for Parts and Service advice**

FLSmith's Pneumatic Transport Customer Service group is committed to enhancing the productivity of your plant. We will accomplish this through world-class services and equipment programs, by providing sound productivity-enhancing solutions based on our experience, and person to person communication.

FLSmith's Pneumatic Transport group offers a number of programs to support and elevate your process – which in turn will reduce equipment downtime and cost of operation. We are committed to improving your productivity and bottom line.

Ful-Vane™ Compressor Exchange Program

Make your next compressor emergency hassle-free. FLSmith's compressor exchange program exchanges worn and exhausted Ful-Vane™ compressors for new or factory-reconditioned and warranted replacements. Quick delivery can be made because large inventories of Ful-Vane compressors are manufactured and maintained at FLSmith's Manheim plant and at our Certified Service Centers. Compressors are strategically located throughout the USA and Canada.

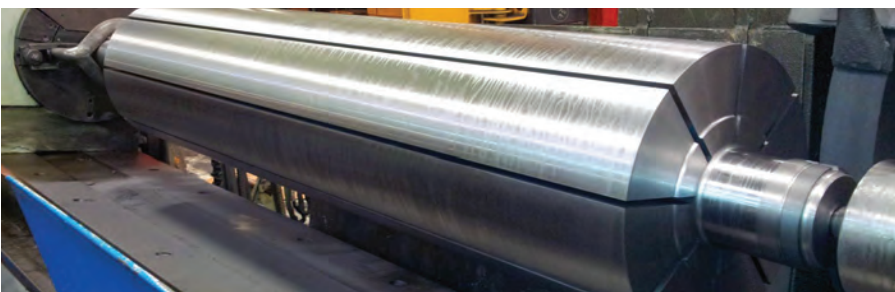
Every exchange compressor is a completely new or reconditioned unit which meets strict manufacturing, quality standards, and comes with a “same-as-new” 4-year manufacturer's warranty. FLSmith is the only organization that can provide OEM certified compressor exchanges that carry the same warranty as a new unit.

Every exchange compressor is reconditioned with FLSmith OEM parts.

Your reconditioned compressor will be assembled with new OEM wear parts, including blades, bearings, seals and gaskets, and may have a new or reconditioned:

- Cylinder
- Rotor
- Fixed and expansion heads
- Bearing retainers

When it comes to Ful-Vane compressors, who would know better than the people who design and manufacture the original equipment?



Convenient, cost-efficient equipment exchange and field service



Fuller-Kinyon® 'M' Pump 3-piece bearing housing exchange program - "Hot Swaps"

The "Hot Swap" is a fully-assembled FK Pump bearing housing for the 3-piece screw design. It comes installed with new seals, bushings, bearings, and is pre-lubricated.

Similar to FLSmidth's compressor exchange program, the Hot Swap program exchanges worn 3-piece 'M' Pump bearing housing assemblies for new warranted replacements. Ship your worn bearing assembly to one of our Service Centers. If an inspection reveals that its shaft, bearing housing, bearing support, and cover plate can be used again (many can be) for a future rebuild, there will be no upcharge for the reusable parts.

Quick delivery can also be made because large inventories of bearing housings are maintained at the FLSmidth Manheim plant and at our Certified Service Centers located throughout the USA and Canada.

The cost of each hot swap is significantly less than buying the individual parts. The savings get even better when you factor in the reduced overall system downtime.

Maximize the benefits of the 3-piece screw in your Type 'M' Fuller-Kinyon Pumps by keeping Hot Swap bearing assemblies in your inventory. Having complete bearing assemblies readily available allows for immediate replacement and shortest possible downtime (3-hour screw and bearing replacement time) for your Fuller-Kinyon 'M' Pump systems.



Field service

Our FLSmidth-PT on-site service capabilities include everything from start-ups to repairs and upgrades, and preventive maintenance. We will provide maintenance managers with the expertise that they need to optimize their equipment while reducing cost of operation.

Our service consists of advisory, diagnostic, and light hands-on service. We advise your maintenance team, using their own tools, on simple and complex procedures including:

- Pneumatic conveying system equipment audits/troubleshooting
- FK Pump and Ful-Vane Compressor inspections/repairs
- System / equipment startups
- FLSmidth-PT equipment service contracts
- Installing system and equipment upgrades
- FK Pump screw conversions and replacements
- Ful-Lube inspections and adjusting lube rate
- Pneu-Flap installation and maintenance
- SK Valve spring linkage retrofits on motor-operated valves
- Equipment and system troubleshooting, and maintenance training





Training – We'll Bring It To You

Fuller-Kinyon® Pump and Ful-Vane™ Compressor Roadshow

Our Pump and Compressor Roadshow is a mobile training seminar designed to help plant engineers and maintenance professionals to:

- Understand the principles of pneumatic conveying
- Troubleshoot systems / equipment
- Perform best maintenance practices on Fuller-Kinyon® pumps, Ful-Vane™ compressors and other FLSmidth pneumatic conveying equipment

Roadshow on-site training seminars include two days of comprehensive training on Fuller-Kinyon pumps and Ful-Vane compressors. Each day of training will be split into two portions – classroom training and “hands-on” equipment training. FLSmidth's equipment container will be shipped to your facility in advance of the training session.

The container houses the following full-size training equipment:

- Fuller-Kinyon M-pump
- Ful-Vane compressor
- Fuller-Kinyon H pump
- SK™ diverter valves
- SK spring linkage retrofit
- FK Pump Auto-Lube system
- Ful-Lube™ 2 compressor lubrication system
- Pneu-Flap™ Torque Controller
- Airslide® gravity conveyor

Each participant will be provided with manuals highlighting the material covered for both the pump and compressor training sessions. We can also provide Pneumatic Transport training that is tailored to your needs.



Parts Stocking Program

Having critical spare parts readily accessible in your storeroom for immediate use is essential for continued, efficient operation of your plant. Whether its parts required for normal preventive maintenance or for an emergency, FLSmidth's stocking program can develop an agreed-upon inventory of specific spare parts suited for your facility. The inventory is owned by FLSmidth until its use so your capital is not tied up in spare parts.

Here's how it works...

- The inventory is stored at your location (\$100,000 minimum)
- When a part is taken out of the inventory, the customer notifies FLSmidth of the parts usage
- FLSmidth will invoice based on parts usage
- At the end of the 12-month contract FLSmidth will invoice for the unused program inventory





Equipment Mini-audits and Certified Service Centers



Fuller-Kinyon® Pump and Ful-Vane™ Compressor Mini-Audits

A mini-audit is simply a 20 minute walk-through visual inspection of each Fuller-Kinyon® pump and Ful-Vane™ compressor. The purpose of the mini-audit, with consideration of time and opportunity for plant personnel, is to visually observe and assess the equipment without disassembling. We check system operation, main component parts, and recommended protective accessories. You will receive a report including our observations, recommendations, and suggestions to guide you in improving your conveying system. This report will aid in reducing maintenance and downtime, and can generally increase overall plant efficiency.



Mini-audits are typically performed with the equipment in operation - no need to shut down any of the systems. Audits can also be performed on idle systems, however the report will not include the same level of detailed operational information.



Factory Authorized Service Centers

FLSmith's Pneumatic Transport group selects and maintains factory-certified service centers - authorized and trained to service Fuller-Kinyon® pumps, Ful-Vane™ compressors and supporting FLSmith pneumatic conveying equipment. Our service centers are strategically located throughout North America and can perform on-site inspections, rebuilds and maintenance work. All service centers use only original FLSmith OEM parts and components.

Service Centers and locations

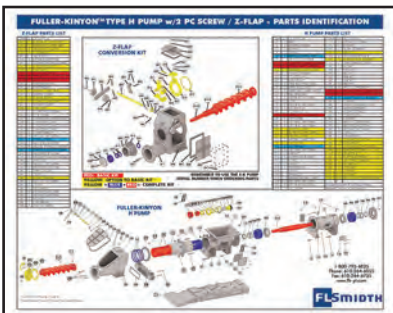
- FLSmith, Manheim, PA
- Hanco, Lawrence, PA
- FLSmith, Sioux City, NE
- IMR, Baton Rouge, LA
- McKenna Engineering, Carson, CA
- James Brinkley, Seattle, WA
- Wild Rows, Lloydminster, AB
- Rider Tool & Mfg, Oshawa, ON
- Voigt-Abernathy, Birmingham, AL
- APCCO, Modesto, CA
- FLSmith, Tuscon, AZ
- FLSmith, Zacatecas, Mexico

Our certified technicians attend factory training on FLSmith equipment every three years, thus allowing us to provide you with comprehensive on-site services such as troubleshooting, repair services for regularly scheduled maintenance or during emergency shutdowns, and other innovative solutions to help keep your pneumatic conveying equipment running at peak performance.

Expert support and world-class warranties

www.flsmidth.com

Revision: XX/XX/XXXXXX al-us



Expert Customer Support

- Fuller-Kinyon pump screw exchange program.
- Ful-Vane compressor buyback program (account credit)
- 2- and 3-piece Fuller-Kinyon pump screw upgrades
- Call to request our free laminated Fuller-Kinyon pump and Ful-Vane™ compressor parts diagrams

24-hour Customer Assistance hotline

- 24/7 after hours in the
USA and Canada:
800-795-6825
- **Mexico and Latin America:**
610-264-6920
- Manned by FLSmidth service engineers from 4:30pm-8:00am EST
- Assistance with parts selection
- 24-hour shipments based on customer needs
- Expedited shipments for same-day or next-day service
- Four FLSmidth warehouses in North America

Industry Leading Warranties

Our warranties are best-in-the-business on material and workmanship:

Equipment	Warranty
Ful-Vane™ exchange compressor assemblies (new & reconditioned)	4 years
B3000™ Ful-Vane compressor blades	3 years or 20,000 hours
Fuller-Kinyon® pump parts	18 months
Other pneumatic conveying parts & components	1 year

Parts Programs for:
Fuller-Kinyon® pumps
Ful-Vane™ compressors
FLSmidth® & Fuller® equipment

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