

# Ful-Lube™ Lubrication systems for Ful-Vane™ compressors



# Reduce maintenance with optimised lubrication

Maximise the life and productivity of your Ful-Vane™ Compressor with precise, reliable lubrication

## Key benefits

■  
Simple and reliable

■  
Reduce compressor maintenance

■  
Increase productivity

■  
Go longer between refills

■  
Minimise waste

# Precise, reliable lubrication

Three systems designed to increase the life and productivity of your Ful-Vane™ Compressor

If your Ful-Vane™ Compressor goes down, your conveying line suffers. You're left to deal with the cost and productivity impact of repairs. Don't let it get that far. With proper lubrication, you can extend the life of your compressor and maximise performance, ensuring your conveying operation keeps moving.

We have three Ful-Lube™ lubrications systems, designed specifically to meet the requirements of your Ful-Vane™ Compressor:

- **Ful-Lube™ 2** – A simple and reliable lubrication system that keeps your Ful-Vane™ rotary vane compressor properly lubricated for up to 30 days without refilling
- **Ful-Lube™ 3** – A PLC-based lubrication system that precisely delivers oil to each lubrication point and monitors your compressor's operating parameters.
- **Ful-Lube™ PLUS** – Building on the functions of the Ful-Lube™ 3, this lubrication system is able to control the compressor and its auxiliary equipment.



Ful-Lube™ 3



Ful-Lube™ PLUS



Ful-Lube™ 2

# Precise lubrication and compressor monitoring in one system

Automatically set the precise rate for lubrication delivery, reduce wastage and optimise compressor performance with the Ful-Lube™ 3 system.

Delivering the right amount of oil to each lubrication point can make the difference between optimum compressor performance and failure. Our Ful-Lube™ 3 lubrication system uses simple, PLC-based automation to deliver the right amount of oil to each point, based on the application and compressor size. Accurate and precise to within +/-2%, this system not only protects your compressor but also your bottom line, by eliminating oil waste and reducing maintenance.

The 3-inch monochrome touchscreen HMI gives you the ability to monitor and control operating parameters, enabling you to:

- Make quick and easy adjustments to lube rate
- Undertake automatic oil line purging
- Confirm that the oil has reached all of the lubrication points (also be shown through the sensor's indicator lights)
- Monitor discharge air pressure and temperature, cooling water flow, and intake filter dP
- Display the data log runtime, lubrication cycles and oil consumption
- Integrate the system's interface signals into the compressor package controls or the plant's DCS
- Program alarms to alert you to compressor subsystem malfunctions – aiding troubleshooting and helping to prevent unplanned downtime

Local and remote discharge pressure and temperature indications are also provided when the transmitters are connected to the unit. The Ful-Lube™ 3's 30-gallon tank ensures you can go at least 30 days without refilling. The tank is equipped with a level switch and optional heater to further optimise performance, while an oil pressure transmitter provides real-time readings.

In addition, the risk of belt failures – a problem with older lube systems – has been eliminated thanks to the 0.5 HP motor direct drive pumping arrangement.



Ful-Lube™-3 Touchscreen

# Increase the capabilities of your lubrication system

Ensure optimum compressor performance through the Ful-Lube™ PLUS, which combines precise lubrication and compressor control in one easy-to-use system.

To make the most of its advanced compressor control capabilities, the Ful-Lube™ PLUS lubrication system features a 7-inch colour HMI, enabling you to take full advantage of the automated oil rate control and adjustment and compressor monitoring functions.

- Simple PLC-based oil rate control and adjustment based on the application and compressor size selection
- Accurate and precise oil delivery within +/- 2%
- Oil pressure transmitter with real-time readings
- 30-gallon tank level switch and optional heater.
- 0.5 HP motor direct driving pumping arrangement – no more belt failures
- Automatic oil line purging procedure direct from the HMI

As with the Ful-Lube™ 3, the advanced features of the PLUS are designed to provide you with constant feedback and monitoring of your lubrication process – but with an even simpler user interface, thanks to the larger touchscreen.

- Lube rate adjustment via touchscreen HMI
- Positive indication of each lubrication point through the sensor indicator lights and the touchscreen HMI
- Local and remote indication of discharge air temperature and pressure, plus alarm monitoring for low oil level, low cooling water flow, and high intake filter dP, when corresponding transmitters are connected to the unit
- Programmable alarms to aid troubleshooting of compressor subsystem malfunctions
- Data log runtime, cycles, and oil consumption
- Interface signals provided for integration into compressor package controls or plant DCS

In addition, the Ful-Lube™ PLUS offers three unique control options for additional equipment not available with the Ful-Lube™ 3:

- Radiator fan (Run Command and Confirmation signals available as auxiliary contacts for motor control)
- Cooling water pump (Run Command and Confirmation signals available as auxiliary contacts for motor control)
- Ful-vane compressor (Run Command and Confirmation signals available as auxiliary contacts for motor control)



Ful-Lube™ PLUS



# Simple and reliable lubrication for special applications

Sometimes you just need a basic, effective lubrication system designed for use in a classified area. The Ful-Lube™ 2 has you covered, ensuring your Ful-Vane™ compressor is properly lubricated for maximum life and performance with minimal maintenance and reduced risk. We're also cutting the time spent filling the tank: this system features a 25-gallon reservoir ensuring your compressor is properly lubricated for up to 30 days without refilling.

Design features include:

- Heavy gauge welded steel tank with level sight gauge, drain ports, and threaded connections
- Pop Open Pressure Relief valve (POPR™) replaces rupture discs and is reset with a simple snap action
- Oil priming bowl provides constant oil supply at pump inlet for increased ease of priming with included manual purge gun
- Improved in-line filter with cleanable element
- Removable mounting base with fixed motor and lube pump box for easy replacement or repair
- Same compact footprint as our original Ful-Lube lubrication system

All of our Ful-Lube™ 2 systems are skillfully engineered to effectively administer lubricant to Ful-Vane™ compressors. How? A divider block ensures accurate lubrication distribution. Meanwhile, over-pressure indication pins easily identify troublesome lube lines. Together, these two features ensure minimal oil losses, which reduces overall oil consumption over time. In addition, a no-flow switch with optional relay provides reliable compressor shutdown if a loss of oil flow occurs.

The Ful-Lube™ 2 can be made suitable for use in a Class 1 Div 1 location if requested. For all other applications, the Ful-Lube™ 3 or Ful-Lube™ PLUS is the smarter choice, giving you greater operational control for your investment.



# The right lubrication system for you

Hardware and features	Ful-Lube 2	Ful-Lube 3	Ful-Lube Plus
Oil heater	Optional	Optional	Optional
Oil level switch	Optional	✓	✓
Oil pump and motor	✓	✓	✓
Lubrication panel with only one NO-flow switch	✓	✗	✗
Precise Lubrication with individual line flow sensors	✗	✓	✓
PLC control panel with Touch screen - 3 inches monochrome	✗	✓	✗
PLC control panel with Touch screen - 7 inches color	✗	✗	✓
Available for Class 1 Div 1 areas	✓	✗	✗

Monitoring / Interlocking capabilities	Ful-Lube 2	Ful-Lube 3	Ful-Lube Plus
Oil No-Flow switch (per line)	✗	✓	✓
Oil Level low switch	✗	✓	✓
Water low flow switch	✗	✓	✓
Air Discharge Pressure (Switch)	✗	✓	✓
Air Discharge Pressure (Transmitter)	✗	✓	✓ (2)
Air Discharge temperature (Switch)	✗	✓	✓
Air Discharge temperature (Transmitter)	✗	✓	✓ (2)
Inlet Filter high differential pressure switch	✗	✓	✓
Permanent and Resettable Oil, cycles and hour meters	✗	✓	✓
Local and remote indications available for discharge temperature and pressure	✗	✓	✓
General Alarm signal available for remote monitoring	✗	✓	✓

Control capabilities	Ful-Lube 2	Ful-Lube 3	Ful-Lube Plus
Oil pump motor (directly powered from panel)	✗	✓	✓
Oil tank heater (directly powered from panel)	✗	✓	✓
Radiator Fan motor (auxiliary contacts for customers control)	✗	✗	✓
Water Pump motor (auxiliary contacts for customers controls)	✗	✗	✓
Ful Vane compressor (auxiliary contacts for customers controls)	✗	✗	✓

# Service and support

We know Ful-Vane™ compressors inside and out. We can help you achieve optimum productivity and save you money with energy efficient, low maintenance solutions.

Your compressor is a vital part of your operation, so we ensure you experience minimum downtime through various services and offerings.

- 24/7 emergency breakdown service – get in touch with us any time to order spare parts
- Compressor Exchange Program – for quicker replacement of worn compressors, take part in our exchange program. Send your old compressor to us for repairs and receive a restored compressor with an 'as new' factory warranty.
- B3000 compressor blades – carbon fiber laminate construction ensures a lifetime up to four times longer than conventional blades
- Onsite training – hands-on learning with our Pump & Compressor Roadshow, where we ship our FK Pump and FV compressor to your site for training
- Consignment inventory management – keep a full stock of spare parts on site, but only pay for what you need.

All compressors are built in our Tucson facility, and we have factory-trained and certified service centers and parts warehouses worldwide.



## Contact us



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