

LMF Rotary Screw Air Compressors 5-400kW LK Range









Company **Profile**

COMPANY PROFILE

COMPANY LOCATION

LMF Headquarters in Leobersdorf, Austria.

and to the Vienna International Airport.

Leobersdorf is located approx. 30 km south of the capital of Austria, Vienna, and has direct access to the freeways, both to the city of Vienna

LMF is an Austrian manufacturer of reciprocating and rotary screw air and gas compressors for industrial and oil and gas industry applications. The LMF LK range of rotary screw compressors offer high efficiency, extreme reliability and ease of operation and maintenance.

over 65 years and offers its customers the benefits of the latest developments in design engineering, proven manufacturing methods, full load testing prior to shipment, and superior after sales services.



LMF has been producing compressors for

Service

- Global service network through factory trained partners
- Genuine LMF spare parts available globally
- Extended air end warranty program







- Low package pressure drop
- Top ventilation for compact installation
- Direct drive
- Low noise and vibration
- Designed in access for servicability



Air end technology

World class high efficiency air end

- The latest high efficiency profile
- Large rotors and low speed design
- High quality bearings
- Low noise
- Low vibration

Profile evolution process











Distinctive advantage of LMF Rotary Screw Air Compressors

Standard Features

- Maximum ambient temperature 46°C
- ☑ IE3 IP55 motor
- ☑ Entire package and individual components are in full C.E compliance
- ✓ Loading-unloading capacity control function

- ☑ IP54 control cabinet
- ☑ High efficiency air end technology, SKF bearing
- ☐ High capacity, low pressure drop and high precision air filter
- ☐ High capacity, low pressure drop and high precision oil filter
- ☑ Excellent micro-computer controller
- ✓ Oversized oil cooler and aftercooler

High quality spare parts

Air filter

• Protects the air end by removing 99.9% of dirt particles down to 3 microns.



Oil filter

- Environmental filter material
- Filtering accuracy over 99.5%
- Low pressure drop



Addition options

- ☐ Electronic anti condensate valve
- ☐ Schneider VFD drive unit
- ☐ Integrated refrigerant air dryer
- ☐ Filter kit class 1 (integrated refrigerated machine)
- ☐ Filter kit class 2 (integrated refrigerated machine)
- □ Dryer bypass
- ☐ Integrated heat recovery system (Over 30kW machine)
- ☐ Oil retaining frame
- ☐ Motor space heater thermistors
- ☐ Modulation valve
- ☐ Tropical thermostat
- ☐ Freeze protection

- ☐ NEMA4/NEMA4X cubicle
- ☐ Pre-filter
- ☐ ANSI flange outlet
- □ DIN flange outlet
- ☐ Rain protection
- ☐ Main power isolator
- ☐ Lifting device
- ☐ Oversized motor
- ☐ Performance test report
- ☐ Water shut-off valve (WC machine)
- ☐ High-ambient temperature version (55°C)
- ☐ Condensate management OWS

Oil separator

- Low pressure drop
- Low oil carryover



Blue-8k coolant

- Long service life
- Low oil carryover
- Hight-flash point
- Non-adhesive

- anti-corrosion
- High thermal conductivity

When the machine is serviced according to the schedule set out in the operator manual and when genuine LMF spare parts and lubricants are used, the air end will have a 5 year warranty.

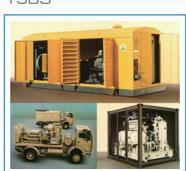
1965



1976



1983







High reliability and energy saving

1 Air end

- Optimum energy profile
- World class design
- High quality bearings
- Low noise
- Low vibration
- 1:1 direct drive



4 Inlet valve

- Unique LMF inlet valve
- Integrated non return valve
- Designed in low pressure drop



2 Motor

- Premium efficiency IE3 motor
- IP55, insulation Class F, B rise.
- Designed for continuous operation in harsh environments.
- European motor supply



3 Control panel

- LCD display
- Phase-sequence protection
- Reverse rotation protection
- Temperature measurement and control
- Automatically adjust the rate of loading and control pressure balance
- Remote and local control function
- RS485 communication





8 Oil filter

- Environmental filter material
- Filtering accuracy over 99.5%
- Low pressure drop



5 Air filter

- Protect the air end by removing 99.9% of dirt particles down to 3 microns.
- Oversized air filter element in high dust housing
- Low pressure drop



6 Air/Oil separator

- Oversized separator design
- Low pressure drop
- Pressure gauge and lubricant level gauge fitted
- High quality separator element
- Low oil carryover



7 Cooling fan system

- High efficiency centrifugal fans
- Oversized oil cooler and aftercooler
- Built in serviceability doors
- Low noise









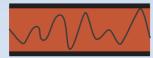
LMF LK series variable frequency control

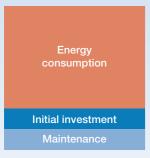
The LMF variable frequency compressors will run at an optimum speed and delivery to perfectly match the air requirement of the end user.

The VFD option uses high quality built in inverter drive units which combine with the LMF microprocessor to deliver maximum energy savings.

Pressure fluctuation

Standard compressor





LMF VFD compressor



Energy saved due to VFD

Energy consumption

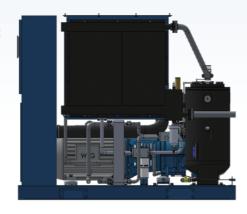
Initial investment

Maintenance

Integrated heat recovery system

By making use of the rotary screw heat of compression, LMF provide an efficient built in heat recovery option which recovers 65% of the generated power.

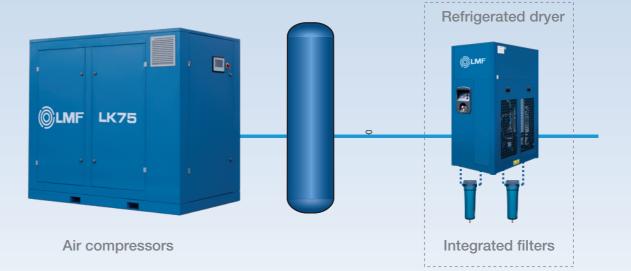
- Integrated heat recovery system
- Stable reliability system
- Heat recovery up to 65%



LMF air compressed system

LMF produce a complete compressed air solution.

Rotary screw compressors, air receivers, refrigerated air dryers and filtration to comply with ISO 8573 air quality standards.





- Low pressure drop for system efficiency
- High quality build components for reliability
- Optimised dewpoint control
- Highly energy-efficient R134a refrigerant is standard across all models
- Pressure switches control the condenser's fan motor for saving energy and letting the system oprate at desired conditions
- Integrated filters particle removal less than 0.01μ, oil carryover less than 0.01ppm
- Efficient condensate control management
- Energy efficient refrigerant compressors



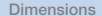


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LMF LK series

LKB5-18kW, LK18-400 kW Specifications

	Motor	Maximum discharge pressure			Weight	Diacharga
Model	kW	8.5bar	10.5bar	13bar	Len	Discharge connection
		m³/min (50Hz)			kg	
LKB5	5.5	0.7	0.6	0.5	240	G1
LKB7	7.5	1.09	0.87	0.75	260	G1
LKB11	11	1.66	1.35	1.15	450	G1
LKB15	15	2.34	1.88	1.7	500	G1
LKB18	18.5	3	2.38	2.2	650	G1
LKB5 FS	5.5	0.7	0.6	0.5	600	G1
LKB7 FS	7.5	1.09	0.87	0.75	650	G1
LKB11 FS	11	1.66	1.35	1.15	800	G1
LKB15 FS	15	2.34	1.88	1.7	880	G1
LK18	18.5	3.3	2.5	-	700	G1
LK22	22	3.8	3.3	2.7	800	G1
LK30	30	5.5	4.5	3.5	1090	G1 1/4
LK37	37	6.8	5.4	3.7	1110	G1 1/4
LK45	45	8.5	6.6	5.3	1730	G1 1/2
LK55	55	10.5	8.4	6.5	1750	G2
LK75	75	14.2	11.6	9.5	2205	G2
LK90	90	16.8	14.1	11.5	2600	G2
LK110	110	21.2	16.8	13.9	3250	DN80
LK132	132	24	20.7	16.5	3300	DN80
LK160	160	28.5	24.3	20.5	4150	DN100
LK200	200	36.8	32	28.6	4250	DN100
LK250	250	46	40	33	6450	DN100
LK280	280	50	45.8	41.5	7400	DN125
LK315	315	56	50.1	45.6	7500	DN125
LK355	355	65.4	55	49.6	7550	DN125
LK400	400	74.3	64.5	58.1	7600	DN125



Model	Length	Width	Height	
	mm	mm	mm	
LKB5, LKB7	900	700	1040	
LKB11, LKB15	1060	800	1230	
LKB18	1080	880	1415	
LKB5 FS, LKB7 FS	1884	650	1622	
LKB11 FS, LKB15 FS	1884	700	1672	
LK18, LK22	1470	870	1305	
LK30, LK37	1750	1000	1510	
LK45, LK55	1950	1100	1910	
LK75	2250	1150	1950	
LK90	2400	1250	2050	
LK110, LK132	2800	1630	1850	
LK160, LK200	3030	1830	2040	
LK250	3860	2200	2400	
LK280, LK315, LK355, LK400	4060	2060	2250	

Remarks:

*Capacity is measured under the rated discharge pressure according to ISO 1217, Annex C.

*Reference conditions:

Absolute inlet pressure: 1bar Intake air temperature: 20°C

*FAD is measured at the following working pressures:

8.5bar versions at 8bar

10.5bar versions at 10bar 13bar versions at 12.5bar

*By continuously updating the product we reserve the right for modification





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