

# NEW GENERATION HIGHLY EFFICIENT SCREW COMPRESSORS

## At a glance...

 **Nominal Pressure**  
5 - 13 bar g

 **Motor Power**  
30 - 75kW

 **Volume Flow**  
1.19 - 13.5 m<sup>3</sup>/min



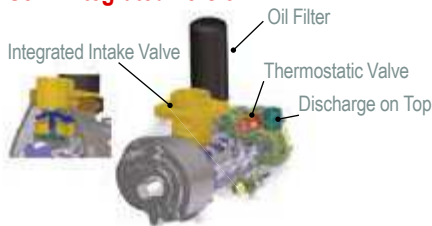
## Premium efficiency airend

New FM series 30-75 kW features premium quality airends designed and manufactured in house. The manufacturing process is using the latest CNC rotor grinding machinery, coupled with on-line laser technology, in order to maintain precise manufacturing tolerances.

Our state of art airends are focused on high efficiency and reliability.

Their integrated design offers a very compact solution that ease service and minimises leakage risks.

### Semi Integrated Version



## High efficiency cooling system

Thanks to the optimum cooling system, the compressor can work in high ambient temperatures of up to 46°C.

## Maximum durability

We maximise service life and durability by eliminating elastomer and thermoplastic pipe and tube in system pressure lines, replacing them with corrosion resistant stainless steel tubing and passive zinc coated carbon steel piping.

For ease of maintenance we complete the connection with viton sealed, grooved couplings and self-sealing high pressure compression fittings.

## Designed for serviceability

Maintenance personnel welcome the FM series compressor range. Service access is quick and easy with all doors able to be removed in seconds. We've also made sure serviceable components including filters are easily accessible and no piping needs to be disconnected to service the separator.



## Optimised drive concept

With direct or gear drive coupling, the belt free FM 30-75 Series compressor range not only reduces transmission losses, it improves efficiency and reduces noise. Most importantly, it delivers greater reliability and reduced maintenance costs.

## Energy efficient motor

High efficiency TEFC IE3 electric motors are fitted as standard to the entire FM 30-75 Series screw compressor range, reducing not only power consumption but also CO<sub>2</sub> emissions.



**New advanced controller C-PRO 2.0 ensures reliable operation and protects your investment by continuously monitoring the operational parameters**

- ✓ 3 analog inputs
- ✓ Multi-language: English/German/French/Italian/Spanish
- ✓ Standard sequence control up to 8 units (up to 7 units fixed speed & 1 variable speed)
- ✓ Standard Modbus
- ✓ 15 failure records in memory
- ✓ Continuous system monitoring



**iConn Industry 4.0 option**

The C- PRO 2.0 has the possibility to connect with iConn monitoring device iConn is the smart, proactive real-time monitoring service that delivers in-depth and real-time knowledge on the system to our compressed air users. It enables accurate production planning and total peace-of-mind protection.

It keeps users informed on performance, at the same time highlighting potential issues before they become a problem.

- Condition based monitoring
- Predictive maintenance required
- Full Air Manufacturing Control Optimisation
- External data pattern integration

# FM FIXED SPEED - FMRS VARIABLE SPEED SERIES

## FM RS



= Energy savings and lower CO<sub>2</sub> emissions into the environment.

### The variable speed compressor: One smart solution

Variable speed compressors can efficiently and reliably handle the varying air demand found in most plant air systems. These compressors speed up and slow down to match air supply to air demand as it fluctuates. The right variable speed compressor in the right application delivers significant energy savings and a stable, consistent air supply.

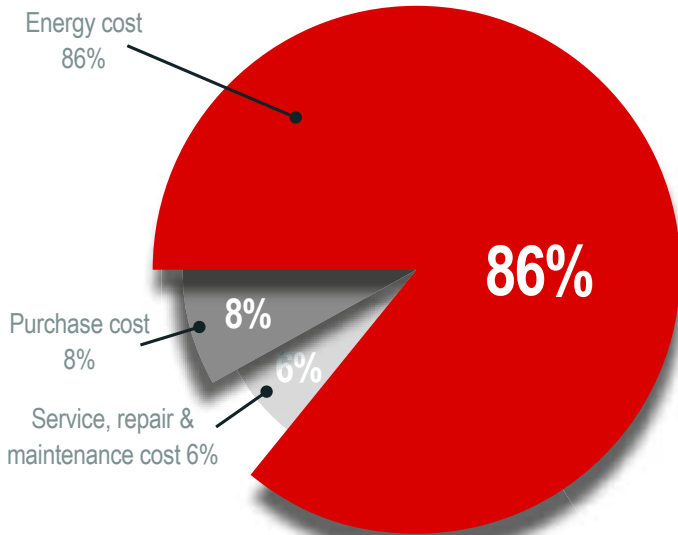
### Compressor energy cost example

NOMINAL kW	OPERATING COST PER YEAR (5000 HOURS) AT COST PER KWh (€)					
	0.06	0.08	0.10	0.12	0.14	0.16
55	16,500	22,000	27,500	33,000	38,500	44,000
75	22,500	30,000	37,500	45,000	52,500	60,000

Note: Hours of operation based on two 8hrs-shifts, 6 days per week. Calculations based on nominal kW.



### Cost of compressed air over 5 years



Allows substantial energy savings of at least 25% of the energy cost

### The intelligent C-PRO 2.0 controller

#### Simplicity

The C-PRO 2.0 controller was designed to make the operators' interface with the variable speed drive transparent. This new generation controller features extra functions for variable speed compressors like drive status display and flexible PID setting according to the application. You don't need to be an expert on variable speed drives to operate your compressor. The controller takes care of the details and automatically adjusts the compressor performance to meet your changing air system demands - saving you energy. Changing the discharge pressure is as easy as pressing a button.





# Technical data

## FM 30 – 45 Series: Screw Compressors, Fixed Speed

**Design:** Oil flooded, Single stage rotary screw compressor, direct drive, star / delta starting

**Pressure Range:** 8 to 13 bar

**Electric motor:** 30 - 45kW - IE3



FM SERIES CODE	TYPE	FM 30			FM 37			FM 45		
		CC1195721	CC1195722	CC1195723	CC1195342	CC1195734	CC1195735	CC1195736	CC1195737	CC1195738
Max. Pressure	bar	8	10	13	8	10	13	8	10	13
Capacity at working pressure	m <sup>3</sup> /min	4.87	4.67	4.08	6.4	5.49	5.05	7.52	6.75	5.4
Drive Motor IP55 / Class IE3	kW	30	30	30	37	37	37	45	45	45
Operating Voltage, 50 Hz	400 V	•	•	•	•	•	•	•	•	•
Control Voltage	24V	•	•	•	•	•	•	•	•	•
C-PRO 2.0 Controller		•	•	•	•	•	•	•	•	•
Noise Level	dB(A)	71	71	71	71	71	71	72	72	72
Weight	kg	700			780			850		
Dimensions (LxWxH)	mm	1554 x 894 x 1405			1554 x 894 x 1405			1554 x 894 x 1405		
Compressed Air Delivery Connection		EN 10226 G1 1/4 (DIN 2999-G1 1/4) female								

### OPTIONAL

Altern. Voltage 380V/60Hz & 230V/50HZ	
Extended 5 years Warranty	<b>CC1180793</b>
Anti - corrosion %	
Food Grade Oil	
Kit for external heat recovery (heat recovery unit not included)	
iConn factory Fitted	
iConn retrofit kit	<b>ZS1184985</b>
Oil Heater	
Internal Pressure vessel acc AD2000	

### SERVICE & PARTS

Service Kit for 4000h or 12 months FM30	<b>CC1198084</b>
Service Kit for 8000h or 24 months FM30	<b>CC1198090</b>
Service Kit for 4000h or 12 months FM37-45	<b>CC1198085</b>
Service Kit for 8000h or 24 months FM37-45	<b>CC1198091</b>
ChampLUBE Screw Lubricant 20Lt	<b>CC1180020</b>

\* Service intervals are by calendar months or operating hours, whichever occurs first. In dirty ambient conditions service interval must be halved.

# FM FIXED SPEED - FMRS VARIABLE SPEED SERIES

## FM 30 – 45RS Series: Screw Compressors, Variable Speed

**Design:** Oil flooded, single stage rotary screw compressor, direct drive, star / delta starting

**Pressure Range:** 5 to 13 bar

**Electric motor:** 30 - 45kW - IE3



FMRS SERIES CODE	TYPE	FM30RS CC1195739	FM37RS CC1195740	FM45RS CC1195741
Pressure Range	bar	5 - 13		
Flow rate min - max	m <sup>3</sup> /min	1.19 - 5.60	1.41 - 6.69	1.41 - 7.84
Drive Motor IP55 / Class IE3	kW	30	37	45
Operating Voltage, 50 Hz	400V	•	•	•
Control Voltage	24V	•	•	•
C- PRO 2.0 Controller		•	•	•
Noise Level at 70% load	dB(A)	70	70	71
Weight	kg	750	830	900
Dimensions (LxWxH)	mm	1554 x 894 x 1405		
Compressed Air Delivery Connection		EN 10226 G1 1/4 (DIN 2999-G1 1/4) female		

### OPTIONAL

Altern. Voltage 380V/60Hz	
Extended 5 years Warranty	<b>CC1180793</b>
Anti- corrosion %	
Food Grade Oil	
Kit for external heat recovery (heat recovery unit not included)	
iConn factory Fitted	
iConn retrofit kit	<b>ZS1184985</b>
Oil Heater	
Internal Pressure vessel acc AD2000	

### SERVICE & PARTS

Service Kit for 4000h or 12 months FMRS30	<b>CC1198086</b>
Service Kit for 8000h or 24 months FMRS30	<b>CC1198092</b>
Service Kit for 4000h or 12 months FMRS37-45	<b>CC1198087</b>
Service Kit for 8000h or 24 months FMRS37-45	<b>CC1198093</b>
ChampLUBE Screw Lubricant 20Lt	<b>CC1180020</b>

\* Service intervals are defined by calendar months or operating hours, whichever occurs first. In dirty ambient conditions service interval must be halved.

## FM 55 – 75 Series: Screw Compressors, Fixed Speed

**Design:** Oil flooded, single stage rotary screw compressor, direct drive, star / delta starting

**Pressure Range:** 8 to 13 bar

**Electric motor:** 55 - 75kW - IE3



FM SERIES CODE	TYPE	FM55			FM75		
		CC1195745	CC1195747	CC1195748	CC1195749	CC1195750	CC1195751
Pressure Range	bar	8	10	13	8	10	13
Capacity at working pressure	m <sup>3</sup> /min	10.55	9.14	7.9	12.15	10.26	8.91
Drive Motor IP55 / Class IE3	kW	55	55	55	75	75	75
Operating Voltage, 50 Hz	400V	•	•	•	•	•	•
Control Voltage	24V	•	•	•	•	•	•
C- PRO 2.0 Controller		•	•	•	•	•	•
Noise Level at 70% load	dB(A)	73	73	73	74	74	74
Weight	kg	1150			1210		
Dimensions (LxWxH)	mm	2004 x 1179 x 1505			2004 x 1179 x 1505		

EN 10226 G2 (DIN 2999-G2) female

OPTIONAL	
Altern. Voltage 380V/60Hz & 230V/50HZ	
Extended 5 years Warranty	<b>CC1180793</b>
Anti- corrosion %	
Food Grade Oil	
Kit for external heat recovery (heat recovery unit not included)	
iConn factory Fitted	
iConn retrofit kit	<b>ZS1184985</b>
Oil Heater	
Internal Pressure vessel acc AD2000	
SERVICE & PARTS	
Service Kit for 4000h or 12 months	<b>CC1198088</b>
Service Kit for 8000h or 24 months	<b>CC1198094</b>
ChampLUBE Screw Lubricant 20Lt (2x 20Lt needed)	<b>CC1180020</b>

\* Service intervals are defined by calendar months or operating hours, whichever occurs first. In dirty ambient conditions service interval must be halved.

# FM FIXED SPEED - FMRS VARIABLE SPEED SERIES

## FM 55 – 75RS Series: Screw Compressors, Fixed Speed

**Design:** Oil flooded, single stage rotary screw compressor, direct drive, star / delta starting

**Pressure Range:** 5 to 13 bar

**Electric motor:** 55 - 75kW - IE3



FM SERIES CODE	TYPE	FM55RS CC1195752	FM75RS CC1195753
Pressure Range	bar	5 - 10	5 - 13
Flow rate min - max	m <sup>3</sup> /min	2.24 - 10.43	1.65 - 13.57
Drive Motor IP55 / Class IE3	kW	55	75
Operating Voltage, 50 Hz	400V	•	•
Control Voltage	24V	•	•
C- PRO 2.0 Controller		•	•
Noise Level at 70% load	dB(A)	71	74
Weight	kg	1220	1280
Dimensions (LxWxH)	mm	2004 x 1179 x 1505	
Compressed Air Delivery Connection		EN 10226 G2 (DIN 2999-G2) female	

### OPTIONAL

Altern. Voltage 380V/60Hz	
Extended 5 years Warranty	<b>CC1180793</b>
Anti- corrosion %	
Food Grade Oil	
Kit for external heat recovery (heat recovery unit not included)	
iConn factory Fitted	
iConn retrofit kit	<b>ZS1184985</b>
Oil Heater	
Internal Pressure vessel acc AD2000	

### SERVICE & PARTS

Service Kit for 4000h or 12 months	<b>CC1198089</b>
Service Kit for 8000h or 24 months	<b>CC1198095</b>
ChampLUBE Screw Lubricant 20Lt (2x 20Lt needed)	<b>CC1180020</b>

\* Service intervals are defined by calendar months or operating hours, whichever occurs first. In dirty ambient conditions service interval must be halved.

