

# SMART COMPRESSOR DESIGN

### At a glance...

 **Nominal Pressure**  
10 bar g

 **Motor Power**  
2.2 - 7.5kW

 **Volume Flow**  
0.18 - 0.9 m³/min



## FM Series

**Well known in the industry for quality and reliability, Champion continuously develops the FM Series to achieve cutting edge performance and efficiency.**

The FM02-FM06 range of lubricated screw compressors comprises of many different models and versions to allow maximum flexibility.

### Engineering excellence

Compressors are more than just a financial investment, they are a key component in ensuring that manufacturers, processors and operators receive consistent, high quality low cost air. The screw compression element is the heart of the compressor and therefore Champion keeps the design and manufacture in-house, using the latest CNC rotor grinding machinery, coupled with online laser technology.

The resulting reliability and performance ensure that operating costs will remain low throughout the compressor's life.



### Engineered for total piece of mind

Thanks to the user-friendly design, these compressors are easy to use, easy to install and fully ready for plug and play. Designed with a minimum number of moving parts, the compressors are very reliable, robust and capable to run continuously. The new canopy design of the compressors guarantees a quick and easy maintenance, minimising the downtime and maximising the reliability.



## Maximum flexibility

Based on the individual customer requirements the compressors can be combined with different options to provide everything from a stand alone compressor to the complete airstation.

The options include:



Compressor base mounted



Receiver mounted compressor



Complete airstation including compressor, dryer and receiver

## New C-Pro1.0+ User-friendly control system

The new compressor controller C-Pro1.0+ is equipped as standard for all models and provides information about pressure, oil temperature and compressor status (load/unload) together in one display and offers many useful features, such as:

- Communication port RS485 supporting Modbus
- Integrated sequencer for easy control for 2 compressors
- Plastic box for higher IP protection degree
- Auto restart after black-out
- Password protection
- Air and oil filter replacement
- Separator filter replacement and oil change
- Pressure setting easily adjustable
- Unload timer for both DOL & SDS

## Optional equipment

- Receivers available at 270lt and 500lt for FM04-FM06
- Prefilter and microfilter combination
- Timed or float drains for receiver mounted units and airstation

## FM SERIES



### Compact & Flexible

#### Reliable electric motor

IP55, F-class insulation, IE3 class

#### Safety devices for

- Motor over temperature
- Compressor over temperature
- Aired rotation

#### Receiver mounted

High quality receiver built to EN87/404 (AD2000)

#### Airstation

Equipped with high performance dryer featuring intelligent control system for low pressure losses.

- Pressure dew point +3°C (ISO 7183, A)
- Environmentally friendly refrigerant R134a
- Digital controller displaying:
  - Dew point indication
  - Additional energy saving mode
  - Maintenance display
  - Fault memory

#### Small footprint

The compressor itself requires a minimum floor space of only 62 x 60 cm, with the receiver mounted models being exceptionally space-saving.

#### 4 - 7.5kW extended features

- Star Delta starter is included as standard from 4 up to 7.5kW
- 5.5 + 7.5 kW variants have an optional after cooler available to optimise air quality and minimise the size of downstream needed

# flexiDry

## CHR series refrigeration air dryers

The advanced design and innovative technology offered by CHR Series refrigeration dryers provides an optimised performance alongside a more efficient mode of management.

The electronic controller, complete with user-friendly interface, has been simplified to focus on the essential functions of operation and regulation, including the unique fan control (CHR6 – CHR167).

Simplicity in design, unrivaled reliability, and extraordinary value for money are the core strengths of this new family of units.



### Maintenance is as easy as ever

#### Fast and easy service

These compressors are designed to ensure easy access to maintenance points. All cabinet panels can be easily removed to allow full access to all service points. Also, the limited number of moving parts reduces service costs.

# Technical data

## FM 2–6 Series: Screw Compressors

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

**Pressure Range:** 10 bar

**Electric motor:** 2.2 to 7.5kW – IE3



FM SERIES CODE	TYPE	FM2 230V RSCCP020601	FM2 RSCCP020602	FM3 RSCCP020603	FM4 RSCCP020604	FM5 RSCCP020605	FM6SDS RSCCP020608
Maximum pressure	bar	10	10	10	10	10	10
Capacity at maximum pressure	m³/min	0.18	0.21	0.35	0.45	0.66	0.92
Drive motor IP 55 / class F – IE3	kW	2.2	2.2	3	4	5.5	7.5
Operating voltage, 50Hz, 60Hz	400V	–	•	•	•	•	•
C-Pro 1.0+ electronic controller		•	•	•	•	•	•
Noise level	dB(A)	63	63	64	67	68	70
Air cooled		•	•	•	•	•	•
Weight	kg	151	151	151	154	168	174
Dimensions [L x W x H]	mm	622 x 599 x 1106					
Outlet connection		½“	½“	½“	½“	½“	½“
Code		–	–	–	RSCCP020606	RSCCP020607	–
SDS Starter		–	–	–	•	•	–
Noise level	dB(A)	–	–	–	70	68	–
COMPRESSOR MOUNTED ON 270 LT TANK							
Code		RSCCP020610	RSCCP020611	RSCCP020612	RSCCP020613	RSCCP020614	–
Weight	kg	242	242	242	245	258	–
Dimensions [L x W x H]	mm	1539 x 720 x 1604					
COMPRESSOR MOUNTED ON 270 LT TANK SDS							
Code		–	–	–	RSCCP020615	RSCCP020616	RSCCP020617
Weight	kg	–	–	–	245	258	264
Dimensions [L x W x H]	mm	–	–	–	1539 x 720 x 1604		
COMPRESSOR MOUNTED ON 500 LT TANK							
Code		–	–	–	RSCCP020620	RSCCP020621	–
Weight	kg	–	–	–	314	318	–
Dimensions [L x W x H]	mm	–	–	–	1885 x 720 x 1700		
COMPRESSOR MOUNTED ON 500 LT TANK SDS							
Code		–	–	–	RSCCP020622	RSCCP020623	RSCCP020624
Weight	kg	–	–	–	314	318	334
Dimensions [L x W x H]	mm	–	–	–	1885 x 720 x 1700		
PACKAGE VERSION, FM / CT / 270							
Code		RSCCP020630	RSCCP020631	RSCCP020632	RSCCP020633	RSCCP020634	–
Weight	kg	261	261	261	270	284	–
Dimensions [L x W x H]	mm	1539 x 720 x 1604					
PACKAGE VERSION, FM / CT / 270 / SDS							
Code		–	–	–	RSCCP020635	RSCCP020636	RSCCP020637
Weight	kg	–	–	–	270	284	290
Dimensions [L x W x H]	mm	–	–	–	1539 x 720 x 1604		
PACKAGE VERSION, FM / CT / 500							
Code		–	–	–	RSCCP020640	RSCCP020641	–
Weight	kg	–	–	–	339	353	–
Dimensions [L x W x H]	mm	–	–	–	1885 x 720 x 1700		
PACKAGE VERSION, FM / CT / 500 / SDS							
Code		–	–	–	RSCCP020642	RSCCP020643	RSCCP020644
Weight	kg	–	–	–	339	353	359
Dimensions [L x W x H]	mm	–	–	–	1885 x 720 x 1700		
OPTIONAL							
Alternative Voltage 230/3/50-60Hz	CONFIG_F0_F1_230_VOLT						
Alternative Voltage 380/3/60Hz	CONFIG_F0-F4_380_VOLT						
Factory Fitted Filter Kit including By-Pass 2.2-3 kW	CONFIG_F0_FILTER1						
Factory Fitted Filter Kit including By-Pass 4-5.5 kW	CONFIG_F0_FILTER2						
Factory Fitted Filter Kit including By-Pass 7.5 kW	CONFIG_F0_FILTER3						
Retro Fit Filter Pack with By-Pass 2.2-3 kW	CC1219584						
Retro Fit Filter Pack with By-Pass 4-5.5 kW	CC1219585						
Retro Fit Filter Pack with By-Pass 7.5 kW	CC1219586						
Factory Fitted Automatic Drain (only with factory fitted filter option)	CONFIG_F0_F2_DRAIN						
Factory Fitted After Cooler	CONFIG_F0_COOLER						
AD2000 (internal separator vessel)	CONFIG_F0-F4_AD2000						
Factory Fitted Food Grade Oil	CONFIG_F0_FOODGRADE						
SERVICE KITS							
Standard Service Kit FM2-6	CC1219905						
Advanced Service Kit FM2-6	CC1219906						
Major Service Kit FM2-6	CC1219907						
ChampLube Screw Lubricant 4 Ltr (x4)	CC1180019						
AEON SCFG 8000 5 Ltr	ZS1216903						
AEON SCFG 8000 20 Ltr	ZS1216945						
AEON SCFG 8000 208 Ltr	ZS1216946						

For models with After Cooler option add 5kg to the weight