

MADE IN ITALY



**POWER  
SYSTEM**  
AIR COMPRESSORS

Oil injected rotary  
screw compressors  
with direct transmission.

## JUNIOR SD

FIXED SPEED  
from 4 to 7.5 kW



# JUNIOR SD

Rotary screw compressors featuring direct drive.

## Reliable direct transmission for energy saving

The whole power of the electric motor is then transferred to the air-end with maximum efficiency and reliability of operation.

JUNIOR SD series are built for continuous duty in very hard conditions of use. The design of the machine has been focused not only on power consumption, but also on maintenance and operational costs and installation ease.

The JUNIOR SD range represents an outstanding machine in the compressed air market also due to the integrated refrigerating dryer which can be host in the compressors frame, with no change in shape or dimensions.

## Compact and silent

The JUNIOR SD models are available with power from 4 to 7.5 kW and noise level between 63 and 68 dB(A).

The whole machine is extremely silent and compact with balanced dimensions.

## Cooling system

An axial fan grants the optimal cooling air flow through an oversized heat exchanger. The fan operation is thermostatic controlled by ETMII controller monitoring the air-end operational temperature. All air and oil pipes are made of heat-resistant rubber.

## Control of the working pressure with transducer

It guarantees an accurate and stable operation during the time. The transducer allows direct modification of the working pressure from the electronic controller without any mechanical intervention.

Actual pressure and temperature are always displayed on the controller.

## Simple maintenance

All of the internal mechanical and service parts are easy to access, for fast and simple routine maintenance.

## Integrated refrigerated dryer

Provide clean and dry compressed air and simplify installation and at the same time reducing the space requirement. Complete with automatic condensate drain.



### 4 kW

- floor mounted compressor
- compressor + 270-lt air receiver



### 5.5 kW

- floor mounted compressor
- compressor + 270-lt air receiver
- compressor + 270-lt air receiver + air dryer

### 7.5 kW

- floor mounted compressor
- floor mounted compressor + air dryer
- compressor + 270 or 500-lt air receiver
- compressor + 270 or 500-lt air receiver + air dryer

### Integrated air dryer

JUNIOR SD is available in "ES" version with integrated dryer, entirely included in the machine. Immediately ready to operate without any installation effort. It provides clean, dry air that improves the system's reliability, avoids costly downtime and production delays, and safeguards the quality of your products. Complete with automatic condensate drain.



### Direct drive

The drive between the air-end and electric motor is carried out by means of gearless direct connection. Optimal power transmission and maximum reliability and efficiency. A dedicated air-end for any machine at any pressure in order to grant maximum performance in the complete range. The small dimensions of the screw-engine connecting system allows to realize a very compact machine.

### SPIN-ON filters

Routine service parts that are simple to replace offering long service intervals for lower maintenance costs.



### Oil separator tank

Comply with the CE 87/404 regulation and assure an excellent oil-air pre-separation, increasing the efficiency of the oil separating filter.



### Easily transportable

The machine is particularly easy to lift with a fork truck or hand truck thanks to a steel bar secured between the feet at the base of the air receiver (both at the front and to the side).



### Condensate ball valve

Receiver-mounted models with ball valve for convenient discharge of condensate (refer to local regulations).



### Intake regulator

IR10 intake regulator designed and manufactured in house.



### ETMII advanced controller

Controller with multi-function backlight display, the menu is alphanumeric type. The main screen display indicates:

- Working pressure (offload/load);
- Oil temperature;
- Total working hours;
- On-load working hours;
- Compressor status led (stand-by, offload, load);
- Hours remaining before maintenance.
  
- Four maintenance timers (air filter, oil, oil filter, oil separator).
- Automatic re-start after power failure (subject to safety conditions).
- Cooling fan temperature control.
- Compressor remote start facility.
- Integrated phase sequence relay.

### FS 26TFC High performance screw air-end

Air ends are entirely designed, produced and tested at our Italian facilities: the special design of the screw profile ensures high performance, low temperature and reduced energy consumption.

## Technical data



### JUNIOR SD 4-7.5 kW

#### FLOOR MOUNTED

JUNIOR SD 510	V51PD92PWS043	—	Air receiver	Power	Air outflow rate		Max. pressure	Sound level	Connec-	Net weight		Net dimensions	Gross weight	Gross dimensions		
			lt	kW	HP	m <sup>3</sup> /h	c.f.m.	bar	p.s.i.	dB(A)	Ø	kg	Lbs	L x W x H (cm)	kg	Lbs
JUNIOR SD 510	V51PD92PWS043	—	4	5.5	27.6	16.2	10	145	63	1/2"	108	238	65x58x80	119	262	71.5x67x97
JUNIOR SD 710	V51PE92PWS043	—	5.5	7.5	42.3	24.9	10	145	68	1/2"	101	223	65x58x80	112	247	71.5x67x97
JUNIOR SD 1010	V51PO92PWS043	—	7.5	10	63	37.1	10	145	67	1/2"	115	254	65x58x80	126	278	71.5x67x97

#### FLOOR MOUNTED WITH AIR DRYER

JUNIOR SD 1010 ES	V51PO92PWS143	—	7.5	10	63	37.1	10	145	67	1/2"	136	300	65x58x80	147	324	71.5x67x97
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#### WITH AIR RECEIVER

JUNIOR SD 510-270	V91PD92PWS080	270	4	5.5	27.6	16.2	10	145	63	1/2"	185	408	120x60x150	213	470	132x85x172
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JUNIOR SD 710-270	V91PE92PWS080	270	5.5	7.5	42.3	24.9	10	145	68	1/2"	185	408	120x60x150	213	470	132x85x172
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JUNIOR SD 1010-270	V91PO92PWS080	270	7.5	10	63	37.1	10	145	67	1/2"	197	434	120x60x150	225	496	132x85x172
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JUNIOR SD 1010-500	V83PO92PWS080	500	7.5	10	63	37.1	10	145	67	1/2"	242	534	200x60x150	282	622	206.5x80x168
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#### WITH AIR RECEIVER AND DRYER

JUNIOR SD 710-270 ES	V91PE92PWS180	270	5.5	7.5	42.3	24.9	10	145	68	1/2"	206	454	120x60x150	234	516	132x85x172
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JUNIOR SD 1010-270 ES	V91PO92PWS180	270	7.5	10	63	37.1	10	145	67	1/2"	218	481	120x60x150	246	542	132x85x172
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JUNIOR SD 1010-500 ES	V83PO92PWS180	500	7.5	10	63	37.1	10	145	67	1/2"	263	580	200x60x150	303	668	206.5x80x168
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#### OPTIONAL

AIR DRYER	#448417000
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ES = Refrigerated dryer with automatic condensate drain.

Reference conditions: air intake temperature 20°C (68°F) - atmospheric pressure 1 bar (14.5 p.s.i.).

Air flow was measured at 9.5 bar operative pressure.

The data and results were measured in accordance with standard ISO 1217.

The sound level was measured in accordance with standard ISO 3744.

## Extend the life and efficiency of your compressor

### Long Life Kit for the scheduled maintenance of Power System screw compressors

To simplify the replacement of service items and to assist with efficient planning of routine maintenance, Power System has developed new spare parts packaging in the form of a "LONG-LIFE KIT", specially designed for each screw compressor model.

By utilising our Long-Life Kit customers benefit from: increased maintenance intervals, improved energy efficiency, reduced costs and at the same time ensuring the product's continued performance and reliability and at the same time protecting your investment.



SCHEDULED MAINTENANCE		
every 2,000 hrs (or every year)	every 4,000 hrs (or every year)	every 8,000 hrs
MINERAL OIL	SYNTHETIC OIL	SYNTHETIC OR MINERAL OIL
KIT A	KIT B	KIT B
1 Air filter cartridge 1 Oil filter cartridge 1 Separator cartridge 1 Oil check valve	1 Kit A 1 Solenoid valve	
JUNIOR SD 510	#260KTB24E	#260KTE1HE
JUNIOR SD 710		
JUNIOR SD 1010	#260KTB84E	#260KTE1KE
SINGLE COMPONENTS		
every 4,000 hrs	every 8,000 hrs	every 20,000 hrs
Intake regulator kit	Minimum pressure valve kit	Air-end kit
JUNIOR SD 510		#5303000210
JUNIOR SD 710	#260249050	#347111000
JUNIOR SD 1010		#230300200
		#5303000705
		#5303000210

### Oil

Our FSN lubricants - whether synthetic or mineral - have been specially developed for our screw compressors top quality operativity in cooperation with a world leading manufacturer of Industrial lubricants. Available in various packaging formats and capacities and in multiple or 'bulk' packages.



#### Rotar ECOFLUID 46 cSt oil - Mineral base

#600000020	1 x 3.8 L (3.3 kg) tank
#600000021	1 x 20 L (17.36 kg) tank
#600000022	1 x 200 L (174 kg) drum

Formulated with high quality selected mineral base oils enhanced with advanced anti-oxidants, anti-wear (zinc free), rust preventers and antifoams, offers an optimal control of oxidation and residue deposits as well as an excellent level of thermal stability and oxidation to ensure the longevity of equipment and long life performances.



#### RotEnergy Plus 46 cSt oil - Synthetic base

#600000018A	1
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**FNA S.p.A.**

*Registered office and sales department:*  
Via Einaudi, 6 - 10070 Robassomero (TO) - Italy  
Tel. +39 011 9233000 - Fax +39 011 9241138

*Production plant:*  
Via Toscana, 21 - 40069 Zola Predosa (BO) - Italy  
[info@fnacompressors.com](mailto:info@fnacompressors.com)  
[www.powersystem.it](http://www.powersystem.it)



**The science of compressed air.**

