

MADE IN ITALY



**POWER
SYSTEM**
AIR COMPRESSORS

Belt-driven
rotary screw
compressors

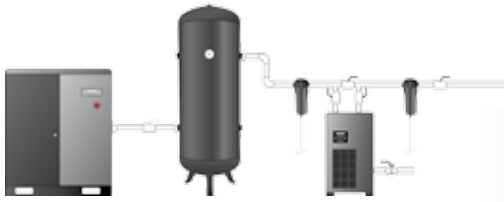
KELVIN
7.5-22 kW



KELVIN

Belt-driven rotary screw compressors

A true integrated air station



COMPRESSOR AIR RECEIVER AIR DRYER

The traditional compressed air installation becomes...



ADVANTAGES



- All-inclusive air compressors workstation.
- Complete range from 7.5 to 22 kW.
- Compact and modern design.
- Easy to use.
- Simple installation and maintenance.
- High quality compressed air.
- Long-life and maximum reliability.
- Flexibility of range.
- Extremely quiet operation.
- Designed for continuous use.
- Reduced energy consumption.

INTEGRATED DRYER AND FILTERS

The KELVIN range features a fully integrated and complete air treatment module (DF models) including a generously sized refrigerated air dryer and both inlet and outlet high efficiency filtration. This allows the integrated air station in the DF version to provide both dry and clean compressed air to quality standard classification 2-4-2, in accordance with ISO 8573-1.

The automatic draining of the condensate is collected from the refrigerated dryer and filters and arranged in convenient, single outlet.



All you need for dry, clean compressed air...
 ...super quiet, super reliable!



PREMIUM QUALITY
COMPRESSOR AIR END



ADVANCED
INTUITIVE CONTROL



EASY TO HANDLE



ON BOARD DUAL
COMPRESSED AIR FILTRATION



INTEGRATED
DRYER



■ The integration of all the fundamental components that make an ideal compressed air system (screw compressor, dryer, filters, controller and air-receiver) are arranged into a single modular device, providing an extremely compact space saving solution, with numerous significant advantages:

- Drastically reduced installation time and cost;
- High quality, clean and dry compressed air;
- Forms a fully automatic, self monitoring and integrated system;
- Excellent access for simple maintenance and easy access to the filters, refrigerated dryer and other components;
- Dry air receiver providing a constant flow of high quality compressed air and reduced corrosion;
- Lower operating costs;
- Automatic condensate discharge operated and adjusted from the main controller and arranged in a single outlet;
- Clear visualization of all operating values of the compressor as well as the dryer operation via the indicator available from the large and clear display of the DNAir2 controller.

■ **LOW NOISE LEVEL**

The centrifugal fan design along with the careful arrangement of all other components when added to the extensive sound insulation results in the KELVIN, offering a sound level among the lowest available.



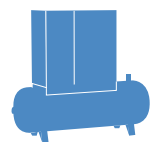
40
dB(A)



62
dB(A)



62-71
dB(A)



COMPETITORS

66-77
dB(A)



100
dB(A)



120
dB(A)



KELVIN

Belt-driven rotary screw air station

The energy saving compressor



Optional expansion module*

GSM/GPRS/Ethernet/WiFi module (for on-line compressor status, remote assistance, connection with PC, Smartphone and Tablet, connection between neighbour compressors).

* on request

Compressor rotation management

With the fixed speed variants of KELVIN, it is possible for up to 4 compressors to be connected simultaneously. The controller software provides the ability to balance each machine's operating hours and at the same time the pre-set pressure values are rotated along with the machine sequence.

The advanced controller fitted to the KELVIN range has been specifically developed to guarantee optimum monitoring and regulation of the compressor's operation, allowing flexibility and full programming of the complete compressed air station for maximum efficiency and safety.

DNAir2 Electronic Controller

The main controller provides a multi-function and multi-language backlit LCD graphic display, the menu is drop down type for simple intuitive operation. The display utilises familiar and convenient icons for ease of use.

The main screen displays the following important information:

- Working pressure (offload and load pressure);
- Oil temperature;
- Compressor status (stand-by, offload, load);
- Cooling fan status (off/on);
- Date and time;
- Hours remaining to maintenance;
- Percentage load (inverter/variable speed models);
- Dryer dew point indicator.



High efficiency

The design of the KELVIN compressors, including the high efficiency IE3 motors, has been fully focused on combining the different components that make up a perfect compressed air installation for a completely integrated, modular and functional system that combines maximum convenience with optimum energy efficiency.



SMS Device

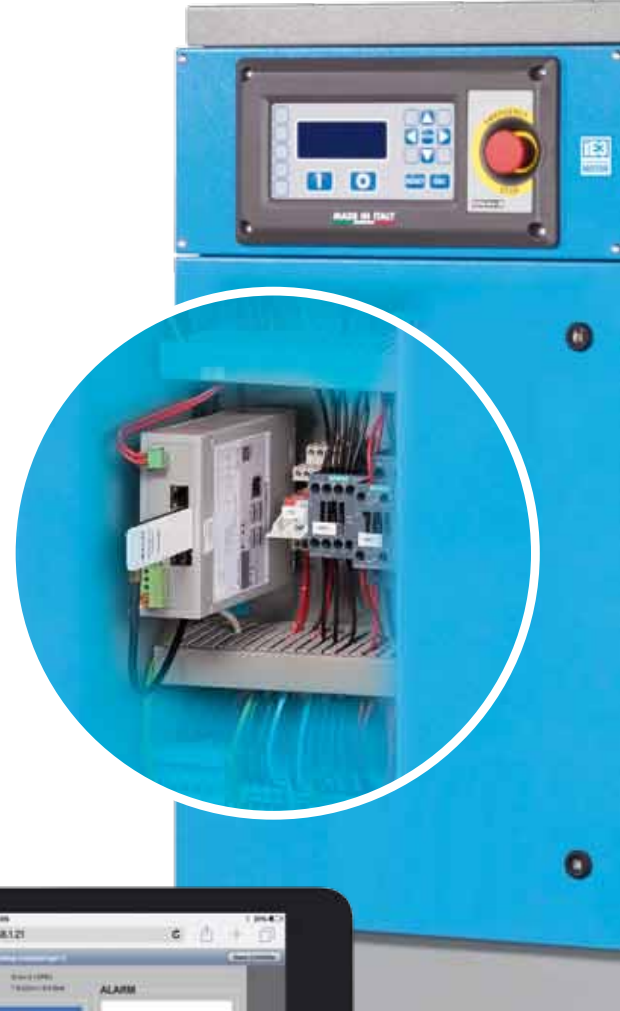
Service Management System

SMS is an innovative optional new device that allows operators and service centres the possibility to remotely control and perform preventive maintenance checks on screw compressors equipped with a DNAir2 controller.

These facilities are provided when the device is configured for local internet network via Wi-Fi or Ethernet connectivity.

The SMS system allows for e-mails to be sent automatically in the case of a fault or other anomalies and/or for automatic regular e-mails (hourly, daily or weekly) to be sent to monitor the proper operation of the compressor and to define the remaining hours for service.

Other Information and settings can be accessed remotely aimed at safeguarding the reliability of the system.



Preventive and targeted maintenance

- automatic sending of e-mails in case of alarms,
- possibility of sending e-mails which notify the compressor status and settings at pre-set intervals (hourly, daily or weekly).

Remote control of the compressor

- access to the various menu levels (user, service),
- compressor online status check,
- on/off control,
- no additional software is required



KELVIN

Belt-driven rotary screw compressors

7.5 - 11 - 15 kW versions



■ BELT-DRIVEN TRANSMISSION AND BELT PROTECTION SYSTEM

The POLY-V belt-drive ensures significantly lower power losses and three times the service life compared to standard range "V" type belts fitted to other compressors on the market. Belt tensioning is carried out through a slider system.



■ SPIN-ON FILTERS

The oil filter and separator filter, both spin-on type, ensure maximum efficiency and simple maintenance.

■ MINIMUM PRESSURE VALVE

Produced and designed in house using advanced materials and precision machining methods. The advanced design and high quality of engineering results in maximum reliability and increased air delivery in all operating conditions.



■ INTAKE REGULATOR

The highly reliable and robust electropneumatic system: adjusts the compressors operation to guarantee minimum pressure when idle running and provide maximum energy saving upon start-up. All this translates into an optimal energy cost/performance formula.



■ THERMOSTATIC VALVE

The thermostatic valve regulates the oil temperature, preventing the formation of condensation inside the oil-separator vessel.



■ COOLING AIR PREFILTRATION PANEL

The standard pre-filtering and washable panel filter assists in keeping the inside of the machine clean and ensures ease of maintenance and cooler operation.



■ HEAT EXCHANGER

The large combined heat exchanger ensures that the machine operates within the optimum temperature band. The resulting lower temperature of the delivered compressed air means that the condensation can be removed more easily and ensuring the efficient operation of the refrigerated dryer. The lower oil temperature reduces wear and improves energy efficiency.

Additional pre-filtering panel motor side only on 15 kW models.



■ COOLING SYSTEM

The thermostatically controlled centrifugal fan is activated automatically by means of the DNIr 2 electronic controller. This allows the machine to quickly reach and precisely maintain the ideal operating temperature. The fan is protected by a safety guard ensuring maximum operator security and at the same time meeting all international standards.



The complete compressed air station:

Rotary Screw Compressor, Dryer, Air Receiver, Dust Pre-Filter,
Coalescing Filter, Centralized automatic condensate drain...



**ALL
INCLUSIVE!**



**PREMIUM EFFICIENCY
IE3 MOTORS**

High efficiency IE3 motors
are fitted as standard.

PS 26TF AIR-END

Our own highly reliable, premium performance air-ends ensure low maintenance and a long life service. All of our air-ends are entirely designed, machined, assembled and tested at our modern manufacturing facility in Italy, together with the other key components, such as intake regulator and separator block and minimum pressure/check valve.

KELVIN

Belt-driven rotary screw compressors

18.5 - 22 kW versions



BELT-DRIVEN TRANSMISSION AND NEW BELT PROTECTION

The POLY-V belt-drive ensures significantly lower power losses and three times the service life compared to standard range "V" type belts fitted to other compressors on the market. Belt tensioning is carried out through a slider system.



MINIMUM PRESSURE VALVE

Produced and designed in house using advanced materials and precision machining methods. The advanced design and high quality of engineering results in maximum reliability and increased air delivery in all operating conditions.



SPIN-ON FILTERS

The oil filter and separator filter, both spin-on type, ensure maximum efficiency and simple maintenance.



THERMOSTATIC VALVE

The thermostatic valve regulates the oil temperature, preventing the formation of condensation inside the oil-separator vessel.



INTAKE REGULATOR

The highly reliable and robust electropneumatic system: adjusts the compressors operation to guarantee minimum pressure when idle running and provide maximum saving upon start-up. All this translates into an optimal energy cost/performance formula.



COOLING AIR PREFILTRATION PANEL

The standard pre-filtering and washable panel filter assists in keeping the inside of the machine clean and ensures ease of maintenance and cooler operation.



HEAT EXCHANGER

The large combined heat exchanger ensures that the machine operates within the optimum temperature band. The resulting lower temperature of the delivered compressed air means that the condensation can be removed more easily and ensuring the efficient operation of the refrigerated dryer.



COOLING SYSTEM

The thermostatically controlled centrifugal fans are activated automatically by means of the DNAir 2 electronic controller. This allows the machine to quickly reach and precisely maintain the ideal operating temperature.

The fan is protected by a safety guard ensuring maximum operator security and at the same time meeting all international standards.

Floor mounted KELVIN version, available with or without the Dryer,
the Dust Pre-Filter, Coalescing Filter,
Centralized automatic condensate drain ...



PS 50TF AIR-END
Our high performance and extremely reliable air-ends are entirely produced in our Italian facilities.



**PREMIUM EFFICIENCY
IE3 MOTORS**
High efficiency IE3 motors are fitted as standard.



KELVIN 7.5 - 11 - 15 kW:
 - Floor mounted;
 - With dryer (DF models);

KELVIN 7.5 - 11 - 15 kW:
 - Fully featured DF-270-lt

KELVIN 18.5 - 22 kW:
 - Floor mounted;
 - With dryer (DF models).

Model	Tank	Power		Air delivered			Max. Pressure		Sound level	Connection	Net Weights		Net Dimensions L x W x H
	lt	kW	HP	m³/min.	m³/h	CFM	bar	p.s.i.	dB(A)	G	Kg	Lbs	(cm)
FLOOR MOUNTED													
KELVIN 7.5-08	-	7.5	10	1.25	75	44.1	8	116	62	3/4"	240	529	120 x 70 x 100
KELVIN 7.5-10	-	7.5	10	1.00	60	35.3	10	145	62	3/4"	240	529	120 x 70 x 100
KELVIN 7.5-13	-	7.5	10	0.75	45	26.5	13	188	62	3/4"	240	529	120 x 70 x 100
KELVIN 11-08	-	11	15	1.65	99	58.2	8	116	63	3/4"	254	560	120 x 70 x 100
KELVIN 11-10	-	11	15	1.50	90	53	10	145	63	3/4"	254	560	120 x 70 x 100
KELVIN 11-13	-	11	15	1.15	69	40.6	13	188	63	3/4"	254	560	120 x 70 x 100
KELVIN 15-08	-	15	20	2.15	129	75.9	8	116	64	3/4"	280	617	120 x 70 x 100
KELVIN 15-10	-	15	20	1.85	111	65.3	10	145	64	3/4"	280	617	120 x 70 x 100
KELVIN 15-13	-	15	20	1.55	93	54.7	13	188	64	3/4"	280	617	120 x 70 x 100
KELVIN 18.5-08	-	18.5	25	2.70	162	95.3	8	116	70	3/4"	398	877	151 x 73 x 108
KELVIN 18.5-10	-	18.5	25	2.50	150	88.3	10	145	70	3/4"	398	877	151 x 73 x 108
KELVIN 18.5-13	-	18.5	25	2.05	123	72.4	13	188	70	3/4"	398	877	151 x 73 x 108
KELVIN 22-08	-	22	30	3.35	201	118.3	8	116	71	3/4"	418	922	151 x 73 x 108
KELVIN 22-10	-	22	30	3.00	180	105.9	10	145	71	3/4"	418	922	151 x 73 x 108
KELVIN 22-13	-	22	30	2.40	144	84.7	13	188	71	3/4"	418	922	151 x 73 x 108
FLOOR MOUNTED WITH DRYER (DF)													
KELVIN 7.5-08 DF	-	7.5	10	1.25	75	44.1	8	116	62	3/4"	261	576	120 x 70 x 100
KELVIN 7.5-10 DF	-	7.5	10	1.00	60	35.3	10	145	62	3/4"	261	576	120 x 70 x 100
KELVIN 7.5-13 DF	-	7.5	10	0.75	45	26.5	13	188	62	3/4"	261	576	120 x 70 x 100
KELVIN 11-08 DF	-	11	15	1.65	99	58.2	8	116	63	3/4"	285	628	120 x 70 x 100
KELVIN 11-10 DF	-	11	15	1.50	90	53	10	145	63	3/4"	285	628	120 x 70 x 100
KELVIN 11-13 DF	-	11	15	1.15	69	40.6	13	188	63	3/4"	285	628	120 x 70 x 100
KELVIN 15-08 DF	-	15	20	2.15	129	75.9	8	116	64	3/4"	311	686	120 x 70 x 100
KELVIN 15-10 DF	-	15	20	1.85	111	65.3	10	145	64	3/4"	311	686	120 x 70 x 100
KELVIN 15-13 DF	-	15	20	1.55	93	54.7	13	188	64	3/4"	311	686	120 x 70 x 100
KELVIN 18.5-08 DF	-	18.5	25	2.70	162	95.3	8	116	70	3/4"	443	977	151 x 73 x 108
KELVIN 18.5-10 DF	-	18.5	25	2.50	150	88.3	10	145	70	3/4"	443	977	151 x 73 x 108
KELVIN 18.5-13 DF	-	18.5	25	2.05	123	72.4	13	188	70	3/4"	443	977	151 x 73 x 108
KELVIN 22-08 DF	-	22	30	3.35	201	118.3	8	116	71	3/4"	463	1021	151 x 73 x 108
KELVIN 22-10 DF	-	22	30	3.00	180	105.9	10	145	71	3/4"	463	1021	151 x 73 x 108
KELVIN 22-13 DF	-	22	30	2.40	144	84.7	13	188	71	3/4"	463	1021	151 x 73 x 108
WITH TANK AND DRYER (DF)													
KELVIN 7.5-08-270 DF	270	7.5	10	1.25	75	44	8	116	62	3/4"	326	719	156 x 70 x 158
KELVIN 7.5-10-270 DF	270	7.5	10	1.00	60	35	10	145	62	3/4"	326	719	156 x 70 x 158
KELVIN 7.5-13-270 DF	270	7.5	10	0.75	45	26	13	188	62	3/4"	336	741	156 x 70 x 158
KELVIN 11-08-270 DF	270	11	15	1.65	99	58	8	116	65	3/4"	350	772	156 x 70 x 158
KELVIN 11-10-270 DF	270	11	15	1.50	90	53	10	145	65	3/4"	350	772	156 x 70 x 158
KELVIN 11-13-270 DF	270	11	15	1.15	69	41	13	188	65	3/4"	360	794	156 x 70 x 158
KELVIN 15-08-270 DF	270	15	20	2.15	129	76	8	116	65	3/4"	376	829	156 x 70 x 158
KELVIN 15-10-270 DF	270	15	20	1.85	111	65	10	145	65	3/4"	376	829	156 x 70 x 158
KELVIN 15-13-270 DF	270	15	20	1.55	93	55	13	188	65	3/4"	386	851	156 x 70 x 158

Free air delivery as per ISO 1217 Annex C, at 7.5 - 9.5 - 12.5 bar at the compressor outlet. ± 3 dB (A) as PNEUROP/CAGI PN-NTC 2.3.

The importance of original spare parts

FSN is the brand of the original spare parts for all Power System compressors and identifies our after-sales services. **FSN** guarantees that all spare parts are original and that they have been carefully selected to satisfy our exacting standards and to meet critical performance and quality standards which are checked, tested and monitored by skilled technicians. Using **FSN** certified original spare parts reduces management costs and guarantees the efficiency, reliability and longevity of the compressor at the same time providing maximum operator safety and security. Our “Hot-Line” service, guarantees the delivery of urgent spare parts within 24 hours from the order.

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.



You can download the Long-Life Kit catalogues from the website www.powersystem.it where you will see the exploded diagrams and spare parts list online, which are continuously updated for each compressor model.



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The science of compressed air.

