

MADE IN ITALY



**POWER
SYSTEM**
AIR COMPRESSORS

Oil injected rotary
screw compressors
with direct transmission.

NOBEL 45-90

FIXED AND VARIABLE SPEED
from 45 to 90 kW



NOBEL - NOBEL DV

Rotary screw compressors featuring direct drive.



High efficiency with maximum energy savings

Power System engineered Direct drive transmission.
Optimised component technology.
Utilisation of new generation high efficiency motors,
drive and inverter technology.



Silent

The very low operating speed along with the use of
radial cooling fans allows NOBEL series compressors
to achieve the lowest noise levels in the sector.



Simplified maintenance

All service access has been made simple and
extremely convenient reducing down time
and service costs. The panels can be opened
on all 4 sides, the front and rear panels have
hinges for 180 ° opening.



Robust construction

The direct or gear drive transmission
minimises maintenance and increases
the reliability and longevity of the machine.
The combination of proven technologies
along with components designed and built by
Power System, guarantees high efficiency
and premium reliability.



Remote monitoring and preventive maintenance

The optional "Service Management System"
- SMS Device - ensures the remote control
of the compressor and informs, via e-mail,
the user or the service center about the status
of the machine, signaling failures or the need
to perform maintenance operations.



Refrigerated dryer (optional, only 45-55 kW)

With a new design, which also includes the inlet
filter and outlet filter to provide clean and dry
compressed air and to simplify installation and
at the same time reducing the space requirement.
The function and control of the dryer is handled
by the DNAir2 controller.



45-55 kW

Available versions:

- Fixed speed
- Variable speed
- With integrated refrigerating dryer

**A complete range from 45 up to 90 kW:
2 frame sizes, 40 potential configurations,
suitable for any specific application.**



75-90 kW

Available versions:

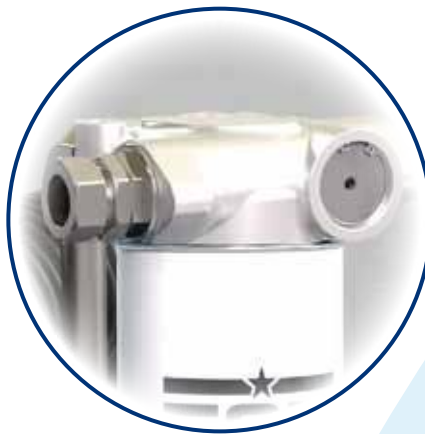
- Fixed speed
- Variable speed



DNAir2 controller

Simple and intuitive, sophisticated functionality and flexible programming.

Hinged control unit compartment panel, opens up to 180°.



Thermostatic valve

Controls the coolant flow avoiding sudden temperature changes and reduces the risk of condensation being formed.



Inverter

The latest generation inverter drive, allows for a controlled use of energy minimising CO₂ output and lowering energy costs.



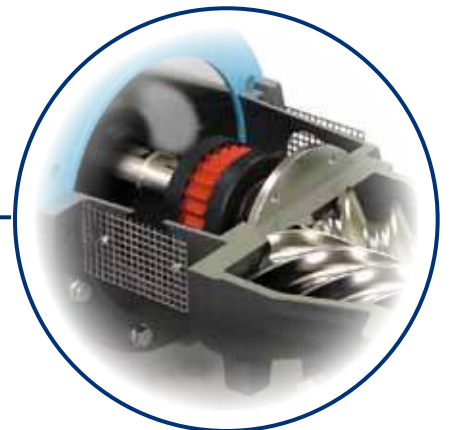
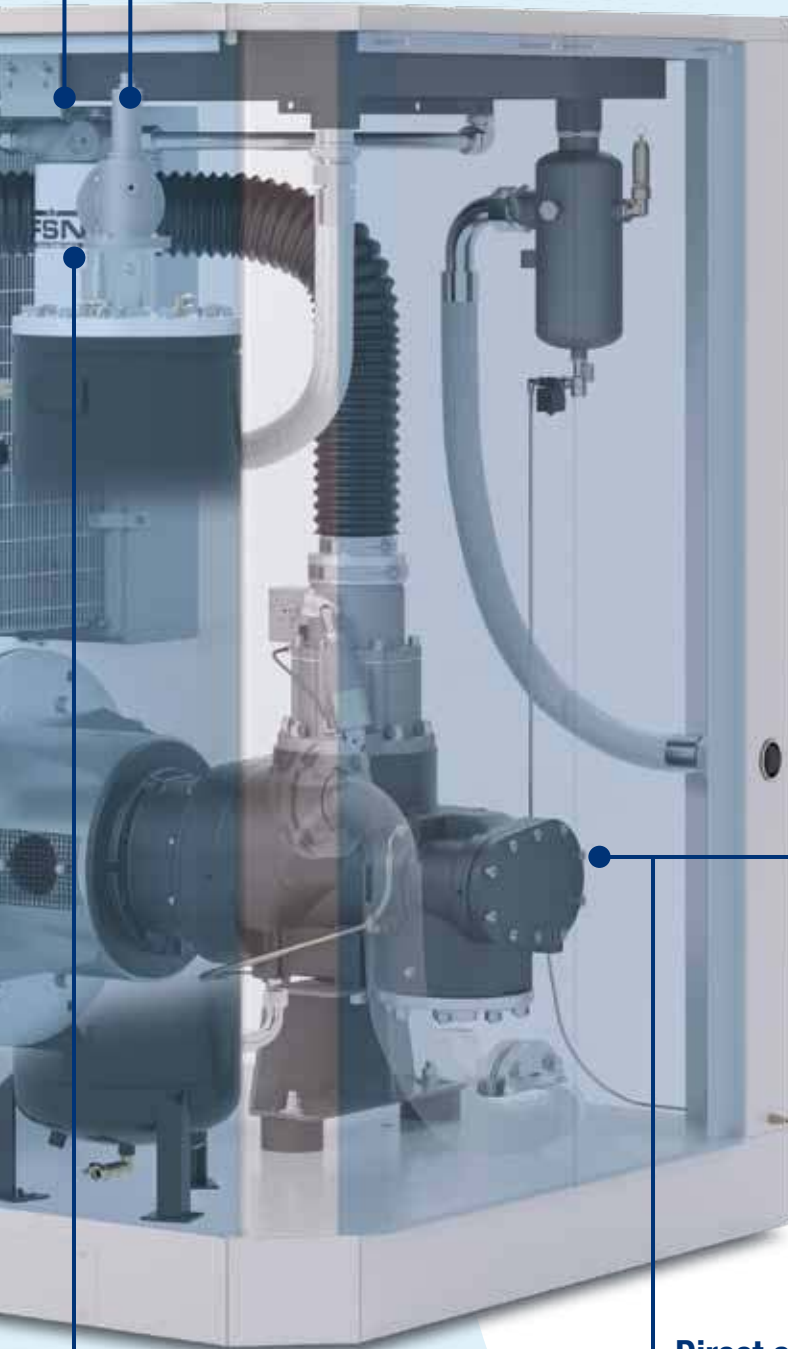
Air filter and oil filter

Ideally positioned for easy access, simplifies maintenance.



Minimum pressure valve

Guarantee low pressure losses and reduced energy consumption.



Direct or gear transmission system

Exclusive Power System design offering the highest efficiency with ultimate reliability in both the direct and gear adopted versions.

Separator filter of the oil separator tank, easily removable from the top through the designated hole provided on the roof.

Heat exchangers

Generously dimensioned coolers combining high efficiency heat transfer and low pressure loss.



Intake regulator

Guarantees high efficiency, reduced noise levels and high reliability.



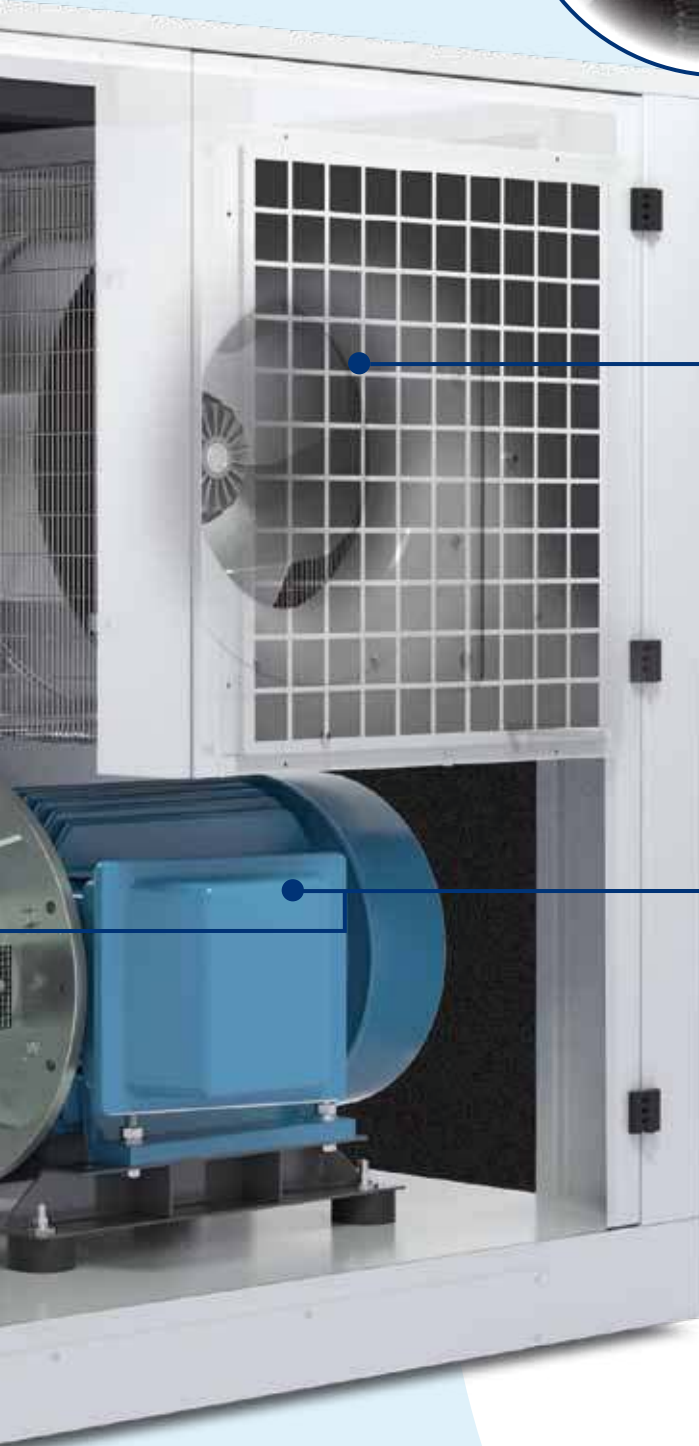
Integrated condensate drain

Available in standard configuration in models without refrigerated dryer and controlled by the DNAir2.



Radial ventilation

Combines the highest cooling efficiency with reduced energy consumption and very low noise levels.



Screw-motor unit completely removable from the machine, thanks to hinged panels that open up to 180°.

The machine can be fully opened on all 4 sides. The front and rear panels have hinges ensuring 180° opening.



Optimal control and adjustment



Innovative DNAir2 controller

The innovative DNAir2 controller is utilised on all NOBEL models. Specially designed for simple and flexible programming, it adjusts and controls the operation of the compressor, guaranteeing its efficiency and safety. The user-friendly interface consists of a large backlit LCD display, with simple and clearly understood icons. All commands and functions are accessed easily using multilingual drop-down menus.

Compressor rotation management

It is possible to connect up to 4 compressors simultaneously, equipped with DNAir2 controller: 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 main screen display indicates:

- operating pressures;
- oil temperature;
- compressor status (stand-by, idle, loaded);
- fan status (off/on);
- date and time;
- remaining hours for maintenance;
- flow rate supplied percentage (for machines with inverter);
- visual indicator of the dryer's dew point (integrated dryer versions).

SMS (Service Management System)

SMS is an innovative 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



NOBEL DV

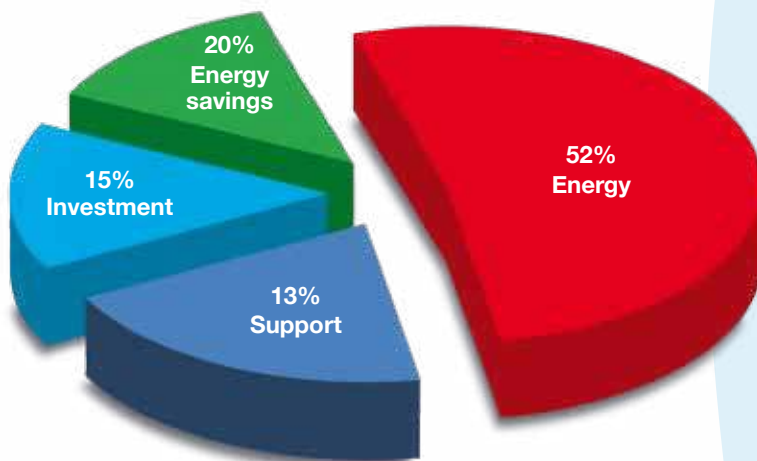
Maximum energy efficiency

Variable speed with inverter drive

The reduction of energy consumption and the protection of our precious environmental resources is one of the major global challenges in our times.

Thanks to decades of experience in the industry, Power System is recognised as a technological leader in the field of variable speed compressors, capable of guaranteeing high performance levels and efficient energy solutions.

The optimised frequency converter provides the capability to dynamically regulate the frequency, voltage and current values supplied to the main electric motor, constantly eliminating useless power drops, continuously adjusting the compressed air generation in line with the amount of compressed air that is required.



MANAGEMENT COSTS

The graph shows the considerable energy savings achieved with a variable speed compressor in a typical installation.

The benefits of using the NOBEL DV with inverter are remarkable:

- continuous control and regulation of the volume of air generated by varying the speed of the electric motor from 30% up to 100% of the motors full speed;
- the compressed air generated is therefore constantly proportional to the requirements of the system;
- the pressure control inside the system is controlled accurately and precisely, in a range between 6 and 13 bar, depending on the chosen compressor model.

Savings energy in your company? It is possible!

The energy efficiency of a production plant or any application using compressed air is most important as it may represent a very significant part of the whole energy consumption for the facility. The proper control of compressed air generation provides countless opportunities for the application to Improve the whole production process, in terms of energy consumption, efficiency, costs and emissions.

Based upon decades of experience in the industrial sector, Power System provides a professional auditing service to our clients. Our skilled technicians, using advanced measurement and analysis equipment (EATool and EASoftware) can carry out a full audit of any system. This allows us to fully understand your system demands, existing energy consumption and wastage.

Our advanced simulation software then allows us to propose various technical options that are aimed at providing considerable economic and energy consumption based savings.

EASoftware

- Using accurate data on the actual consumption or generation of compressed air in the system along with existing energy usage.
- Providing a complete and precise Energy Audit of the system (air generated, system load, pattern of use, pressure etc.).
- provides options for an alternative system that might include one or more compressors and controls as a possible alternative to the existing installation, to provide maximum energy savings and a reduction in wasted energy.



EATool

- Designed to measure compressed air systems in which up to 4 compressors will operate.
- Measurements are downloaded to a USB drive or USB/PC.
- Supplied: up to 4 x 400 A ampere clamps (optional up to 1000A) and a pressure sensor.
- Capable of analysing over a long time period (usually eight days or more is ideal).

Technical data



Fixed speed



Variable speed



Fixed speed, with refrigerated dryer

NOBEL 45-55 kW

Code	Power		Air outflow rate (DV = max. / min.)		Max. pressure		Sound level	Conne- ction	Net weight		Net dimensions	Gross weight		Gross dimensions
	kW	HP	m³/min.	c.f.m.	bar	p.s.i.	dB(A)	Ø	kg	Lbs	L x W x H (cm)	kg	Lbs	L x W x H (cm)
V60GA92PWS445	45	60	8.2	290	7.5	109	72	2"	1251	2758	173x127x170	1355	2987	192x142x188
V60GB92PWS445	45	60	6.7	237	10	145	72	2"	1194	2632	173x127x170	1298	2862	192x142x188
V60GA92PWS545	45	60	8.2	290	7.5	109	72	2"	1377	3036	226x127x170	1504	3316	242x142x196.5
V60GB92PWS545	45	60	6.7	237	10	145	72	2"	1320	2910	226x127x170	1447	3190	242x142x196.5
V60GA97PWS445	45	60	8.2 / 3	290 / 106	7.5	109	72	2"	1222	2694	173x127x170	1326	2923	192x142x188
V60GB97PWS445	45	60	6.7 / 2.4	237 / 85	10	145	72	2"	1222	2694	173x127x170	1326	2923	192x142x188
V60GA97PWS545	45	60	8.2 / 3	290 / 106	7.5	109	72	2"	1348	2972	226x127x170	1475	3252	242x142x196.5
V60GB97PWS545	45	60	6.7 / 2.4	237 / 85	10	145	72	2"	1348	2972	226x127x170	1475	3252	242x142x196.5
V60GD92PWS445	55	75	10.1	357	7.5	109	72	2"	1251	2758	173x127x170	1355	2987	192x142x188
V60GE92PWS445	55	75	8.3	293	10	145	72	2"	1251	2758	173x127x170	1355	2987	192x142x188
V60GF92PWS445	55	75	6.5	230	13	189	72	2"	1251	2758	173x127x170	1355	2987	192x142x188
V60GD92PWS545	55	75	10.1	357	7.5	109	72	2"	1377	3036	226x127x170	1504	3316	242x142x196.5
V60GE92PWS545	55	75	8.3	293	10	145	72	2"	1377	3036	226x127x170	1504	3316	242x142x196.5
V60GF92PWS545	55	75	6.5	230	13	189	72	2"	1377	3036	226x127x170	1504	3316	242x142x196.5
V60GD97PWS445	55	75	10.1 / 3.6	357 / 127	7.5	109	72	2"	1279	2820	173x127x170	1383	3049	192x142x188
V60GE97PWS445	55	75	8.3 / 3	293 / 106	10	145	72	2"	1279	2820	173x127x170	1383	3049	192x142x188
V60GF97PWS445	55	75	6.5 / 2.3	230 / 81	13	189	72	2"	1279	2820	173x127x170	1383	3049	192x142x188
V60GD97PWS545	55	75	10.1 / 3.6	357 / 127	7.5	109	72	2"	1405	3097	226x127x170	1532	3377	242x142x196.5
V60GE97PWS545	55	75	8.3 / 3	293 / 106	10	145	72	2"	1405	3097	226x127x170	1532	3377	242x142x196.5
V60GF97PWS545	55	75	6.5 / 2.3	230 / 81	13	189	72	2"	1405	3097	226x127x170	1532	3377	242x142x196.5

DV	variable speed
DF	with refrigerated dryer
DVF	variable speed, with refrigerated dryer

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

Air flow was measured in the following operative pressures: 7 bar for models at 7.5 bar - 9.5 bar for models at 10 bar - 12.5 bar for models at 13 bar.

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

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



Fixed speed



Variable speed

NOBEL 75-90 kW

Code	Power		Air outflow rate (DV = max. / min.)		Max. pressure		Sound level	Connec- tion	Net weight		Net dimensions	Gross weight		Gross dimensions
	kW	HP	m³/min.	c.f.m.	bar	p.s.i.	dB(A)	Ø	kg	Lbs	L x W x H (cm)	kg	Lbs	L x W x H (cm)
V60MJ92PWS745	75	100	12.6	445	7.5	109	69	2"	2760	6085	233x146x198	2940	6482	256x166x223
V60MB92PWS745	75	100	10.5	371	10	145	69	2"	2760	6085	233x146x198	2940	6482	256x166x223
V60MD92PWS745	75	100	8.7	307	13	189	69	2"	2760	6085	233x146x198	2940	6482	256x166x223
V60MJ92PWS645	75	100	13.5	477	7.5	109	67	2"	2795	6162	233x146x198	2975	6559	256x166x223
V60MB92PWS645	75	100	11.7	413	10	145	67	2"	2795	6162	233x146x198	2975	6559	256x166x223
V60MD92PWS645	75	100	9.7	343	13	189	67	2"	2795	6162	233x146x198	2975	6559	256x166x223
V60MJ97PWS745	75	100	12.6 / 4.5	445 / 159	7.5	109	69	2"	2820	6217	233x146x198	3000	6614	256x166x223
V60MB97PWS745	75	100	10.5 / 3.8	371 / 134	10	145	69	2"	2820	6217	233x146x198	3000	6614	256x166x223
V60MD97PWS745	75	100	8.7 / 3.48	307 / 123	13	189	69	2"	2820	6217	233x146x198	3000	6614	256x166x223
V60MJ97PWS645	75	100	13.5 / 4.9	477 / 173	7.5	109	67	2"	2855	6294	233x146x198	3035	6691	256x166x223
V60MB97PWS645	75	100	11.7 / 4.2	413 / 148	10	145	66	2"	2855	6294	233x146x198	3035	6691	256x166x223
V60MD97PWS645	75	100	9.69 / 3.5	342 / 124	13	189	67	2"	2855	6294	233x146x198	3035	6691	256x166x223
V60MR92PWS645	90	125	15.9	562	7.5	109	67	2"	2860	6305	233x146x198	3040	6702	256x166x223
V60MF92PWS645	90	125	13.4	473	10	145	67	2"	2860	6305	233x146x198	3040	6702	256x166x223
V60MS92PWS645	90	125	10.4	367	13	189	67	2"	2860	6305	233x146x198	3040	6702	256x166x223
V60MR97PWS645	90	125	15.9 / 5.7	562 / 201	7.5	109	68	2"	2930	6460	233x146x198	3110	6856	256x166x223
V60MF97PWS645	90	125	13.4 / 4.8	473 / 170	10	145	70	2"	2930	6460	233x146x198	3110	6856	256x166x223
V60MS97PWS645	90	125	10.4 / 3.7	367 / 131	13	189	66	2"	2930	6460	233x146x198	3110	6856	256x166x223

DV variable speed

Reference conditions: air intake temperature 20°C (68°F) – atmospheric pressure 1 bar (14.5 p.s.i.).
Air flow was measured in the following operative pressures: 7 bar for models at 7.5 bar -
9.5 bar for models at 10 bar - 12.5 bar for models at 13 bar.
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

In addition to offering the highest quality and technologically advanced products, Power System focuses its attention on customer care and full technical and product support, identifying our customer's needs and only then offering the most suitable solutions designed to work for our clients. Our professional technical support team provides on the phone assistance on all technical matters. We also provide on-site consultancy, maintenance plans, energy audits and training programmes etc.

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.

Rotar ECOFLUID oil - Mineral base

#600000020	RotarECOFLUID 46 cSt - 1 x 3.8 L (3.3 kg) tank
#600000021	RotarECOFLUID 46 cSt - 1 x 20 L (17.36 kg) tank
#600000022	RotarECOFLUID 46 cSt - 1 x 200 L (174 kg) drum

RotEnergyPlus oil - Synthetic base

#600000018A	RotEnergyPlus 46 cSt - 1 x 3.8 L (3.25 kg) tank
#600000009A	RotEnergyPlus 46 cSt - 4 tanks x 3.8 L (3.25 kg) each
#600000007A	RotEnergyPlus 46 cSt - 1 x 19 L (16 kg) tank
#600000012A	RotEnergyPlus 46 cSt - 1 x 208 L (181 kg) drum

RotEnergyFood oil - Synthetic base

#600000014A	RotEnergyFood 46 cSt - 4 tanks x 3.9 L (3.25 kg) each
#600000016A	RotEnergyFood 46 cSt - 1 x 19 L (18.5 kg) tank
#600000017A	RotEnergyFood 46 cSt - 1 x 208 L (175 kg) drum

We recommend to change the oil according to the interval reported in the use and maintenance manual of the compressor or once a year.
We suggest the use of our RotEnergy or RotarECOFLUID oil
(THE OIL IS NOT INCLUDED IN THE LONG LIFE KITS).



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.

... and special lubricants

Our **FSN** lubricants - with synthetic or mineral base - have been specially designed for use in our screw compressors and have been specially developed in cooperation with a world leading manufacturer of Industrial lubricants.

Available in various packaging formats and capacities and in multiple or 'bulk' packages.

RotarEcofluid: 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.

RotEnergyPlus - synthetic base: ensures low operating temperatures, efficient water separation, reduces friction and energy consumption, extends maintenance intervals, ensures excellent lubrication of the bearings, guaranteeing maximum all round protection.

RotEnergyFood - synthetic base: provides a high-quality lubricant for rotary compressors, suitable for use in the food industry, where specific quality standards are required.



FSN
ORIGINAL SPARE PARTS

You can download the Long-Life Kit catalogue 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.

