

### THE RELIABILITY OF COMPRESSORS.



## GHIBLI - STORM 2.2-75 kW

shamal

751

Belt-driven oil injected rotary screw compressors





### ROTARY SCREW COMPRESSORS FROM 2.2 TO 75 KW: A COMPLETE AND MODULAR RANGE.

Our rotary screw compressors are the answer to the needs of large, small and medium-sized enterprises where compressed air is one of the main energy sources.

### **HIGH ENERGY SAVINGS**

The choice of high quality components combined with IE3 and IE4\* high efficiency motors and our high-performance air-ends, ensures low consumptions, remarkable energy savings and exceptional efficiency performances.

Furthermore, the high efficiency motors also reduce CO<sub>2</sub> emissions: an important contribution to protecting the environment.

The Storm 75 kW models are equipped with the new electric motors, even more performing, in energy efficiency class "IE4 Super Premium Efficiency".

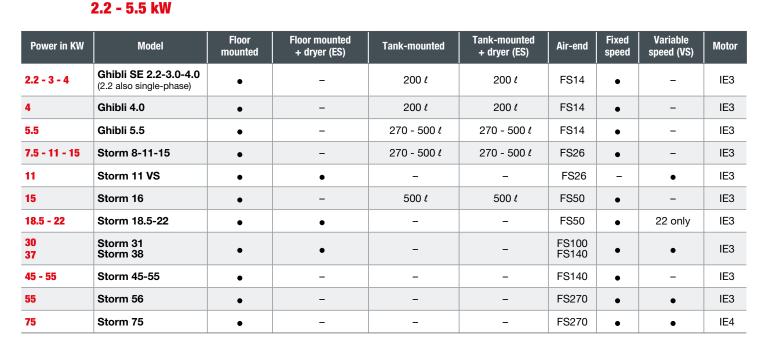


18.5-22 kW

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22 H

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7.5-15 kW

1619

The special design of the screw profile ensures high performances of compressed air production; a key point of Shamal engineering project, entirely Made in Italy.

Accurate quality control and the use of components of the worldwide leading manufacturers ensure a long service life and long maintenance intervals.

Ghibli and Storm compressors are extremely quiet: suitable to be installed also near workstations thanks to the use of efficient soundproof materials.

## 🛚 Made in Italy 🗾 🔳

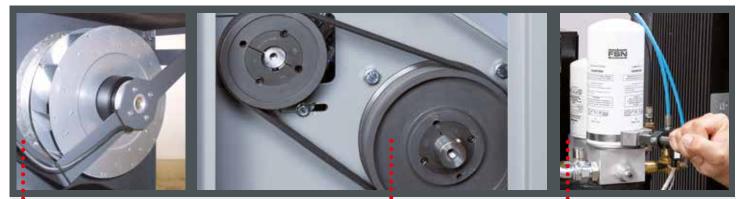
The entire production cycle takes place in-house and the air-ends are fully designed and manufactured in Italy.



30-37 kW

45-55 kW

55-75 kW



#### **EFFICIENT COOLING SYSTEM**

The cooling system is one of the most innovative in the market: the thermostaticcontrol centrifugal fan ensures the temperature inside the compressor remains within a specific tolerance and at a constant level, thus avoiding temperature peaks that may prevent the proper operation of the compressor. The action of the fan combined with the oversized radiator efficiency ensures the operation of the machine even in critical climatic conditions. The "silent" fans, the specifically designed labyrinth ventilation and the use of top quality soundproo materials ensure one of the lowest acoustic level of the market.

#### RELIABLE TRANSMISSION

The Poly-V belt drive ensures significantly lower power losses and a three times longer life than standard "V" belts mounted on other compressors in the market. The belt is tensioned by means of a slide tensioner.

#### SPIN-ON FILTERS The oil filter and the oil separator filter (both spin-on type), ensure

great efficiency and easy maintenance.







#### High efficiency and energy saving

Significant energy savings thanks to the "IE3 Premium Efficiency class" motors, reaching the "IE4" class in the Storm 75 kW models. Original Shamal design. Air-ends of our design and production, ensuring high air yield and low energy consumption. Air and oil circuits components optimization. Latest generation inverters.

#### Silent operation

The low speed air-ends and radial fans allow Ghibli and Storm products to maintain the lowest noise values in their category, thus, ensuring the possibility for the installation close to the point-of-use.



#### Simplified maintenance

All machine parts subject to periodic maintenance are placed in a visible and easily accessible position. Maintenance costs are reduced thanks to the use of selected, top quality materials.

#### **Compact design**

The compact design is created to achieve the best performance and excellent reliability with the minimum footprint. Thousands of installations around the world, make Ghibli and Storm long-lasting machines.



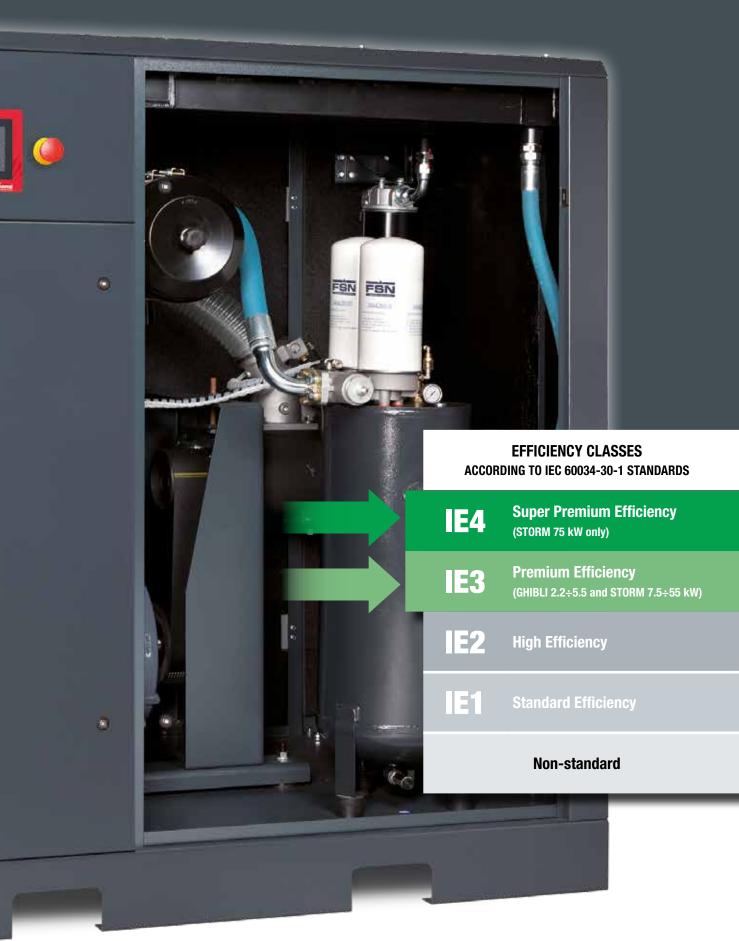
#### Remote monitoring and preventive maintenance

Our optional SMS system allows the remote control of the compressor and promptly informs the user or assistance center of the machine's condition, reporting any failures or need to perform maintenance.



#### **Refrigerated dryer (optional)**

The models from 2.2 to 37 kW can be equipped with a refrigerated dryer powered and controlled separately by its own electronic controller.





## **QUALITY IS OUR PRIORITY**

#### "In-house production" air-ends and intake regulators

What makes our Ghibli and Storm screw compressors unique is the guarantee of a product developed entirely in Italy: from the design to the packaging, each stage of production is closely followed by our engineers and aimed at developing a machine which fulfills the best requirements in terms of efficiency, quality, energy savings, performance, silent operation.

Each component is thoroughly selected from the best manufacturers in the world to perfectly integrate with our air-ends and intake regulators.

Each compressor, prior to its shipment to the clients, goes through functional tests, final testing and pre-shipment auditing, which certifies the compliance to our main 50 standards/requirements.

Moreover, our Quality System is UNI EN ISO 9001:2015 since 1996.



#### We have been producing air-ends for over 30 years

Shamal air-ends feature rotors with an optimised profile and outstanding performance. The production process is completely integrated thanks to avant-garde machine tools and sophi-sticated control instrumentation that guarantees the highest level of quality.

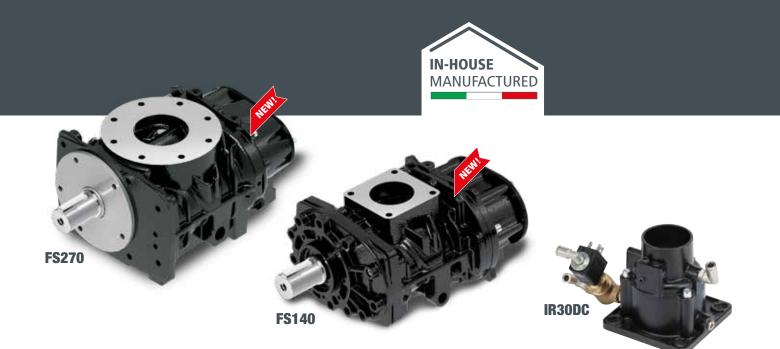
A solid CAD modelling system optimises the set-up of the components. Each single rotor is cut in four well-defined manufacturing stages to achieve extremely high execution precision and repeatability. This level of construction accuracy means that each male rotor can be fitted with any female rotor. All of the air-ends are tested twice: individually after assembly later upon installation and on the complete machine.

### \* Italian excellence

Shamal is a top Italian brand that combines craftsmanship with the most modern industrial technologies and highly specialised labour. The IN-HOUSE MANUFACTURED trademark is the expression of typical Italian quality and creativity, recognised and appreciated around the world, and which has always been the distinguishing element of our industrial production.

#### \* Intake regulators and separator blocks

In addition to the complete product and the air-ends, Shamal also produces in-house a vast range of intake regulators, thermostatic valves, separator blocks and accessories for the assembly of rotary screw compressors.



	Power range [kW]	Max. operating pressure [bar]
FS14	2.2 <b>-</b> 5.5	15
FS26	5.5 <b>-</b> 15	15
F\$50	15 <b>-</b> 22	15
FS100	22 <b>-</b> 37	15
FS140	38 <b>-</b> 55	13
FS270	56 <b>-</b> 75	13

	Power range [kW]	Max. operating pressure [bar]
IR8	2.2 <b>-</b> 4	15
IR10DC	4 <b>-</b> 7.5	15
IR30DC	11 - 22	15
IR60	31 - 37	15
IR70	38 - 45 <b>-</b> 55	13
IR100	55 <b>-</b> 75	13



### STORM VS ROTARY SCREW COMPRESSORS: DESIGNED FOR INDUSTRIAL USE TO ACHIEVE THE HIGHEST ENERGY SAVINGS.

Our rotary screw compressors are designed for continuous operation also in severe conditions of use, with special attention to energy consumption, low operation and maintenance costs and user-friendly installation and use.

SAVING

## VARIABLE SPEED WITH INVERTER

Energy consumption reduction and environment protection are among the biggest global challenges today. STORM compressors, in the 11, 22, 37, 55 and 75 kW power range, are also available in the variable speed (VS) version which ensures high performances and energy efficient solutions.

The frequency converter dynamically regulates frequency, voltage and current values supplied to the motor, constantly eliminating useless power drops and consequently adjusting the compressed air generation actually required.

The benefits of using the STORM VS with inverter are remarkable:

- continuous control of the compressed air generated by varying the speed of the electric motor from 40% up to 100% of the full speed;
- the compressed air generated is therefore constantly proportional to the requirements of the system;
- pressure control inside the system, in a range between 6 and 10 bar, depending on the chosen compressor model.

20% Energy savings 15% Investment 13% Service 52% Energy Service

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

#### EasyX4 Optimised control in the compressor room

Many compressed air stations include several compressors: EasyX4 is the easiest solution to manage complex compressor systems, with fixed speed, programmable on a weekly basis, capable of configuring up to 4 units, based on the amount of air actually required.

Three programming levels:

- MANUAL: compressors set on a given operating pressure range;
- AUTOMATIC: with pressure range exchange after a programmable time period;
- GROUP PROGRAMMING: the compressors can be switched within groups.

#405531604 EASY X4 CONTROLLER



### ADVANCED ELECTRONIC CONTROLLERS FOR OPTIMAL MONITORING OF ALL MACHINE FUNCTIONS

The electronic controllers installed on our rotary screw compressors are specifically designed to ensure optimal monitoring and adjustment as well as flexibility and complete programming to guarantee the maximum efficiency and safety.



## ETIV (18.5÷75 kW)

Controller with backlit multi-function and multi-language LCD display with drop-down menu. Main data displayed are: \_\_\_\_\_

- operating pressure (load, idle pressure);
- oil temperature;
- compressor status (stand-by, idle, load);
- fan status (on/off);
- date and time;
- remaining hours to maintenance;
- total operation hours;
- load operation hours;
- inverter percentage of use (VS models only).





### ETMII (4÷15 kW

Controller with multi-function display and alphanumeric menu. The main screen displays:

- operating pressure;
- oil temperature;
- total operation hours;
- load operation hours;
- compressor status led (stand-by, idle, load);

The ETMII has also the following functions:

- four maintenance timers (air filter cartridge, oil, oil filter, separator filter);
- auto-restart after power failure;
- programmable cooling fan temperature;
- programmable remote control start of the compressor;
- integrated phases sequence control;
- display of hours remaining before maintenance.

#### Weekly programming

With the ETIV controller it is possible to set up to 9 separate compressor operating programs.

For each program it is possible to set the start and stop times, the days of the week it needs to operate and the relative pressure range. With a multiple-compressor system, whether fixed or variable speed, it is possible to set various programs so as to create a "virtual network" (therefore without having to physically connect then).

### SMS DEVICE Service Management System

SMS is the innovative tool to remotely control and perform predictive maintenance on screw compressors equipped with a ETIV controller. If the device is configured on internet networks via Wi-Fi or Ethernet, it allows e-mails to be sent automatically in case of faults and/or automatic regular e-mails (hourly, daily or weekly) to monitor the proper operation of the compressor and the remaining hours for the main programmed maintenance.

#### Preventive and targeted maintenance:

- automatic sending of e-mails in case of alarms,
- option of sending e-mails reporting the status of the compressor at a set frequency (hourly, daily or weekly).

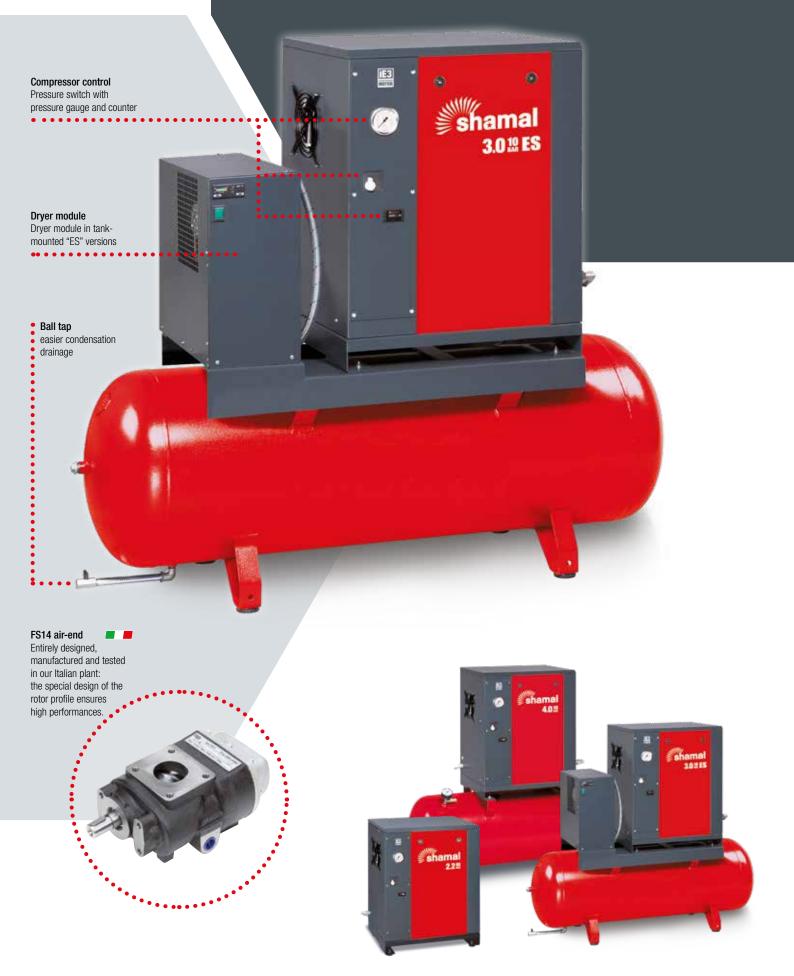
#### Compressor remote control:

- access to the various menu levels (user, service),
- on/off control,
- no software to be installed,
- compressor online status check.

## GHIBLI SE 2.2-3.0-4.0



2.2-3-4 kW



User-friendly ON / OFF electromechanical control.

Fast and simple ordinary maintenance thanks to the easy accessibility of internal components.

The centrifugal fan, activated through thermostatic control, ensures proper cooling, maintaining the noise level of the machine low.

Checks the correct direction of rotation of the screw unit at the first start-up.



#### **ELECTROMECHANICAL**

Model	Code	Air receiver	Po	wer	Air	outflow ra	ate		lax. ssure	Air- end	Sound level	Air outlet	Net weight	Net dimensions	Gross weight	Gross dimensions
Model	Code		kW	HP	I./min.	m <sup>3</sup> /min.	c.f.m.	bar	p.s.i.		dB(A)	G	kg	LxWxH (mm)	kg	LxWxH (mm)
2.2 kW			1				1	,		1	1	1			1	
GHIBLI SE 2.2-08	V51JU72SHA572	-	2.2	3	325	0.33	11	8	116	FS14	58	1/2"	93	580x480x760	104	720x670x970
GHIBLI SE 2.2-10	V51JT72SHA572	-	2.2	3	290	0.29	10	10	145	FS14	58	1/2"	93	580x480x760	109	720x670x970
GHIBLI SE 2.2-08 M	V51JU60SHA572	-	2.2	3	300	0.30	11	8	116	FS14	58	1/2"	98	580x480x760	109	720x670x970
GHIBLI SE 2.2-10 M	V51JT60SHA572	-	2.2	3	240	0.24	8	10	145	FS14	58	1/2"	98	580x480x760	109	720x670x970
GHIBLI SE 2.2-08-200	V77JU72SHA572	200	2.2	3	325	0.33	11	8	116	FS14	58	1/2"	142	1480x520x1280	175	1560x660x143
GHIBLI SE 2.2-10-200	V77JT72SHA572	200	2.2	3	290	0.29	10	10	145	FS14	58	1/2"	142	1480x520x1280	175	1560x660x143
GHIBLI SE 2.2-10-200 M	V77JT60SHA572	200	2.2	3	240	0.24	8	10	145	FS14	58	1/2"	148	1480x520x1280	181	1560x660x143
GHIBLI SE 2.2-08-200 ES	V77JU72SHA672	200	2.2	3	325	0.33	11	8	116	FS14	58	1/2"	164	1480x520x1280	197	1560x660x143
GHIBLI SE 2.2-10-200 ES	V77JT72SHA672	200	2.2	3	290	0.29	10	10	145	FS14	58	1/2"	164	1480x520x1280	197	1560x660x143
GHIBLI SE 2.2-10-200 ES M	V77JT60SHA672	200	2.2	3	240	0.24	8	10	145	FS14	58	1/2"	144	1480x520x1280	190	1560x660x143
3 kW																
GHIBLI SE 3.0-08	V51JS72SHA572	-	3	4	430	0.43	15	8	116	FS14	59	1/2"	99	580x480x760	110	720x670x970
GHIBLI SE 3.0-10	V51JQ72SHA572	-	3	4	385	0.39	14	10	145	FS14	59	1/2"	99	580x480x760	110	720x670x970
GHIBLI SE 3.0-08-200	V77JS72SHA572	200	3	4	430	0.43	15	8	116	FS14	59	1/2"	155	1480x520x1280	188	1560x660x143
GHIBLI SE 3.0-10-200	V77JQ72SHA572	200	3	4	385	0.39	14	10	145	FS14	59	1/2"	155	1480x520x1280	188	1560x660x143
GHIBLI SE 3.0-08-200 ES	V77JS72SHA672	200	3	4	430	0.43	15	8	116	FS14	59	1/2"	177	1480x520x1280	210	1560x660x143
GHIBLI SE 3.0-10-200 ES	V77JQ72SHA672	200	3	4	385	0.39	14	10	145	FS14	59	1/2"	177	1480x520x1280	210	1560x660x143
4 kW																
GHIBLI SE 4.0-08	V51JR72SHA572	-	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	108	580x480x760	119	720x670x970
GHIBLI SE 4.0-10	V51JP72SHA572	-	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	108	580x480x760	109	720x670x970
GHIBLI SE 4.0-08 -200	V77JR72SHA572	200	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	157	1480x520x1280	190	1560x660x143
GHIBLI SE 4.0-10-200	V77JP72SHA572	200	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	157	1480x520x1280	190	1560x660x143
GHIBLI SE 4.0-08-200 ES	V77JR72SHA672	200	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	179	1480x520x1280	212	1560x660x143
GHIBLI SE 4.0-10-200 ES	V77JP72SHA672	200	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	179	1480x520x1280	212	1560x660x143

Air flow was measured in the following operative pressures: 8 bar for "08" models - 10 bar for "10" models. The data and results were measured in accordance with standard ISO 1217. The sound level was measured in accordance with standard ISO 2151, with a tolerance of  $\pm 3$  dB(A).



## **GHIBLI** 4.0-5.5

4-5.5 kW

#### Star-delta starter

with ETMII electronic controller which manages the entire operation of the machine and system diagnosis.

#### Spin-on oil and separator filters The oversized filters ensure long operation intervals and costs reduction.

Pressure transducer It ensures an optimal and stable operation over the time. It allows to modify the work pressure directly from the electronic controller with no mechanical intervention.

#### Dryer module

Tank-mounted versions available also with refrigerated dryer (ES).

Ball tap easier condensation drainage

#### High performances FS14 air-end 💻 📕

Exclusive design of the air-end, intake regulator and separator block with minimum pressure valve.



ANNI/

hamal 5.5 12 ES

Star-delta starter reduces energy consumption.

Fast and simple ordinary maintenance thanks to the easy accessibility of internal components.

The centrifugal fan, activated through thermostatic control, ensures proper cooling, maintaining the noise level of the machine low.

The machine is supplied ready to use: plug it to the power supply and to the distribution system to start working with no plant installation difficulties.



#### **ELECTRONIC**

Model	Code	Air receiver	Ρον	ver	Air	outflow	rate		lax. ssure	Air- end	Sound level	Air outlet	Net weight	Net dimensions	Gross weight	Gross dimensions
model			kW	HP	I./min.	m <sup>3</sup> /min.	c.f.m.	bar	p.s.i.		dB(A)	G	kg	LxWxH (mm)	kg	LxWxH (mm)
4 kW																
GHIBLI 4.0-08	V51JR92SHA572	-	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	103	580x480x760	114	720x670x970
GHIBLI 4.0-10	V51JP92SHA572	-	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	103	580x480x760	114	720x670x970
GHIBLI 4.0-13	V51JV92SHA572	-	4	5.5	330	0.33	12	13	189	FS14	60	1/2"	103	580x480x760	114	720x670x970
GHIBLI 4.0-08-200	V77JR92SHA572	200	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	153	1480x520x1280	186	1560x660x1430
GHIBLI 4.0-10-200	V77JP92SHA572	200	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	153	1480x520x1280	186	1560x660x1430
GHIBLI 4.0-08-200 ES	V77JR92SHA672	200	4	5.5	580	0.58	20	8	116	FS14	60	1/2"	175	1480x520x1280	209	1560x660x1430
GHIBLI 4.0-10-200 ES	V77JP92SHA672	200	4	5.5	485	0.49	17	10	145	FS14	60	1/2"	175	1480x520x1280	208	1560x660x1430
5.5 kW																
GHIBLI 5.5-08	V51JW92SHA572	-	5.5	7.5	720	0.72	25	8	116	FS14	64	1/2"	126	600x520x780	137	720x670x970
GHIBLI 5.5-10	V51J092SHA572	-	5.5	7.5	650	0.65	23	10	145	FS14	64	1/2"	126	600x520x780	137	720x670x970
GHIBLI 5.5-13	V51JM92SHA572	-	5.5	7.5	485	0.49	17	13	189	FS14	64	1/2"	126	600x520x780	137	720x670x970
GHIBLI 5.5-08-270	V91JW92SHA572	270	5.5	7.5	720	0.72	25	8	116	FS14	64	1/2"	202	1560x570x1390	245	1760x780x1680
GHIBLI 5.5-10-270	V91J092SHA572	270	5.5	7.5	650	0.65	23	10	145	FS14	64	1/2"	202	1560x570x1390	245	1760x780x1680
GHIBLI 5.5-08-500	V83JW92SHA572	500	5.5	7.5	720	0.72	25	8	116	FS14	64	1/2"	268	2000x600x1480	308	2070x800x1680
GHIBLI 5.5-10-500	V83J092SHA572	500	5.5	7.5	650	0.65	23	10	145	FS14	64	1/2"	268	2000x600x1480	308	2070x800x1680
GHIBLI 5.5-08-270 ES	V91JW92SHA672	270	5.5	7.5	720	0.72	25	8	116	FS14	64	1/2"	229	1560x570x1390	272	1760x780x1680
GHIBLI 5.5-10-270 ES	V91J092SHA672	270	5.5	7.5	650	0.65	23	10	145	FS14	64	1/2"	229	1560x570x1390	272	1760x780x1680
GHIBLI 5.5-13-270 ES	V91JM92SHA672	270	5.5	7.5	485	0.49	17	13	189	FS14	64	1/2"	229	1560x570x1390	272	1760x780x1680
GHIBLI 5.5-08-500 ES	V83JW92SHA672	500	5.5	7.5	720	0.72	25	8	116	FS14	64	1/2"	304	2000x600x1480	344	2070x800x1680
GHIBLI 5.5-10-500 ES	V83J092SHA672	500	5.5	7.5	650	0.65	23	10	145	FS14	64	1/2"	304	2000x600x1480	344	2070x800x1680

Air flow was measured in the following operative pressures: 8 bar for "08" models - 10 bar for "10" models - 13 bar for "13" models. The data and results were measured in accordance with standard ISO 1217.

The sound level was measured in accordance with standard ISO 2151, with a tolerance of ±3 dB(A).







#### A complete solution

For all 2.2 to 15 kW versions with air receiver and dryer is also possible to retrofit the optional filter kits (1 prefilter and 1 microfilter) to obtain a complete machine, without any additional bulk.

Compressor model	Motor power kW	Air receiver	Dryer	Air outflow m <sup>3</sup> /min.	Filters kit code
GHIBLI	2.2-5.5	200-270-500	RD17	1.6	#260KFL010
STORM	7.5-11	270	RD17	2.5	#260KFL020
STORM	7.5-11-15	500	RD17-RD24	2.5	#260KFL030



## **STORM** 8-11-15

7.5-11-15 kW

#### ETMII electronic controller

The display shows: operating pressure, load/total working hours, idle/load status, oil temperature.

The **Poly-V belt** drive ensures a long useful life and minimal maintenance interventions. **Ventilation** is independent of the electric motor.

Fast and convenient ordinary maintenance thanks to the easy accessibility of internal components.

**Dryer module** Dryer module available on the tank-mounted models (ES).

#### Ball tap easier condensation drainage

#### Easy to transport

The lifting bars placed at the base of the tank (both front and rear), facilitate its lifting and transport.



High performances FS26TF air-end Air-end, intake regulator, separator block and minimum pressure valve of our design and manufacturing, Made in Italy.



shamal

1119 ES

Incode     L     V     Varia     m <sup>2</sup> /min.     Latin.     m <sup>2</sup> /min.     Latin.     Latin. <thlatin .<="" th=""></thlatin>			Air		wer	Air c	outflow ra	ate		ax.	Air-	Sound	Air	Net	Net	Gross	Gross
7.5     IW     Form 8-08     Veonegesharz     7     5     10     1220     1.25     44     8     116     F226     68     344     205     820680.480     219     940.77       STORM 8-10     Veonegesharz     7.5     10     700     10     75     10     75     10     75     10     75     10     75     10     75     10     75     10     75     10     75     10     75     10     75     10     10     145     1526     68     344     205     82068004     10     10     10     13     11     145     185     16     344     288     15006801510     371     1720.75       STORM 8-19-270     V91M82SMA72     270     7.5     10     707     10	Model	Code	/		ud	I /min	m <sup>3</sup> /min	o f m			enu						dimensions LxWxH (mm)
STORM 8-08     VEX.NEG2SHA772     7     5     10     1250     14     8     116     FS26     68     344     205     820x880x080     219     940x77       STORM 8-10     VEX.NMESSHA772     7.5     10     70.0     10.0     10     16     164     FS26     68     344     205     820x880x080     219     940x77       STORM 8-13     VEX.NMESSHA72     27.0     7.5     10     7.6     10     0.05     11     164     82.6     68     344     28     1600x80x1510     38     1720x7       STORM 8-08-270     VEX.NMESSHA772     270     7.5     10     7.0     17.2     44     16     16     782x     68     344     28     1600x80x1510     307     1720x7       STORM 8-15-270     VEX.NMESSHA72     270     7.5     10     770     10     7.5     10     770     10     7.5     10     770     7.7     10     7.5     10     7.5     10     7.6     1	7 5 VW		Ľ	KVV		1./111111.	111-/111011.	G.I.III.	Dar	p.s.i.			u	кg		ĸġ	
STORM 8-10     YeoNH92SHA772     7.5     10     000     100     45     10     145     FS26     68     344     205     820x880x800     219     940x77       STORM 8-13     YeoNH92SHA772     7.5     10     770     10     770     115     FS26     68     344     205     820x880x800     219     940x77       STORM 8-10-270     YEIN802SHA772     270     7.5     10     700     10.75     26     13     10     820     68     344     288     1600x80x1510     318     1720x7       STORM 8-10-270     YEIN802SHA772     270     7.5     10     700     0.7     24     15     16     824     281     1600x80x1510     371     1720x7       STORM 8-0-270     YEIN802SHA72     270     7.5     10     770     10     10     10     16     16     826     84     14     315     1660x80x1510     341     1720x75       STORM 8-0     YEIN802SHA72     270     7.5		V60NG92SHA772	-	75	10	1250	1 25	44	8	116	FS26	68	3/4"	205	820x680x980	219	940x770x1150
STORM 8-13     YGONN92SHA772     7.5     10     750     0.75     26     13     189     FS26     6.8     3/4*     205     820x680x080     219     940x77       STORM 8-15     VGONN92SHA772     7.5     10     100     125     44     15     116     FS26     68     3/4*     288     1560x680x1510     318     1720x75       STORM 8-10-270     V91NH92SHA772     27     7.5     10     700     0.7     24     15     218     68     3/4*     288     1560x680x1510     318     1720x75       STORM 8-13-270     V91NH92SHA72     7.5     10     70.0     0.7     24     18     116     FS26     68     14*     151     1560x680x1510     345     1720x75       STORM 8-10-270     V91NH92SHA872     7.5     10     7.5     10     7.5     10     7.5     10     7.5     10     7.5     10     7.5     10     7.5     1720x75     310     1500     1.50     1.50																	940x770x1150
STORM 8-15     VEONI92SHA972     -     7.5     10     670     0.67     24     15     218     FS26     68     3/4*     205     820x680x980     219     940x77       STORM 8-0-8-70     V91M82SHA772     270     7.5     10     100     100     35     104     145     FS26     68     3/4*     288     1560x660x1510     367     1720x75       STORM 8-13-270     V91M82SHA772     27     7.5     10     670     0.67     24     15     216     FS26     68     3/4*     288     1560x660x1510     367     1720x75       STORM 8-0-270 ES     V91M82SHA872     270     7.5     10     1000     1.00     35     10     145     FS26     68     1"     315     1560x660x1510     341     1720x75       STORM 8-10-270 ES     V91M82SHA872     270     7.5     10     670     0.67     24     15     188     FS26     68     1"     315     1560x660x1630     374     2070x60     575<			-														940x770x1150
STORM 8-08-270     V91K6925HA772     270     7.5     10     125     14     8     116     FS26     68     3/4*     288     1560x680x1510     318     172075       STORM 8-10-270     V91MB2SHA772     27     7.5     10     700     10     750     10     750     10     750     10     750     10     750     10     750     10     750     10     750     10     750     10     750     10     750     10     750     10     100     15     10     100     15     10     100     15     10     100     15     10     100     15     10     100     15     10     100     15     10     100     100     15     10     100     100     10     15     10     100     100     100     100     100     100     100     100     100     100     100     100     100     100     100     100     100     100			-														940x770x1150
STORM 8-10-270     V91NH2SHA772     270     7.5     10     1000     1.00     35     10     150     0.75     26     13     189     1220     33     1120075       STORM 8-13-270     V91N92SHA72     270     7.5     10     700     0.7     20     15     10     120     125     14     15     18     189     1560     88     344"     288     1560x680.01510     367     1720/75       STORM 8-10-270 ES     V91N92SHA72     270     7.5     10     100     1.00     35     10     145     F826     68     11"     315     1560x680.01510     344     1220/75       STORM 8-13-270 ES     V91N92SHA72     207     7.5     10     120     1.25     44     8     116     F826     68     14"     315     1560x680.01510     347     2070x60     575     10     120     1.25     44     8     116     F826     68     14"     341     2000x680.01630     374     2070x60			270					+									1720x750x1760
STORM 8-13-270     V91N92SHA772     270     7.5     10     760     0.75     26     13     189     FS26     68     3/4"     288     1560x680x1510     367     1720x75       STORM 8-08-270     V91N92SHA872     270     7.5     10     1200     1.25     4/     8     116     FS26     68     3/4"     288     1560x680x1510     345     1720x75       STORM 8-08-270     ES     V91N92SHA872     270     7.5     10     750     0.75     26     13     189     FS26     68     1"     315     1560x680x1510     394     1720x75       STORM 8-15-270     ES     V91N92SHA872     270     7.5     10     120     1.25     44     8     116     FS26     68     3/4"     334     200x680x1510     374     270x80       STORM 8-10-500     V83N462SHA772     500     7.5     10     120     1.25     44     8     116     FS26     68     3/4"     334     200x680x61630     3/4						-					••••••			-			1720x750x1760
STORM 8-15-270     V91N92SHA972     270     7.5     10     670     0.67     24     15     116     FS26     68     3/4"     288     1560x680x1510     364     1720x75       STORM 8-08-270 ES     V91N92SHA972     270     7.5     10     1000     100     10     15     FS26     68     1"     315     1560x680x1510     344     1720x75       STORM 8-10-270 ES     V91N92SHA972     270     7.5     10     670     0.67     24     15     116     FS26     68     1"     315     1560x680x1510     344     1720x75       STORM 8-10-200     V33N692SHA972     500     7.5     10     100     100     15     10     165     168     3/4"     334     2000x680x1630     374     2070x80       STORM 8-06-500     V33N692SHA972     500     7.5     10     1500     1.05     10     165     FS26     68     1"     361     2000x680x1630     412     2070x80       STORM 8-06-50     V33N92S						+					••••••	+					1720x750x1760
STORM 8-08-270 ES     V91N692SHA872     270     7.5     10     1250     1.4     8     116     F526     68     1"     315     1500x80x1510     345     1720x75       STORM 8-10-270 ES     V91N92SHA872     270     7.5     10     1000     1.00     35     10     145     F526     68     1"     315     1560x880x1510     344     1720x75       STORM 8-13-270 ES     V91N92SHA872     270     7.5     10     1250     12.5     14     8     116     F526     68     1"     315     1560x880x1510     344     1720x75       STORM 8-08-500     V83N892SHA772     500     7.5     10     1000     1.00     35     10     145     F526     68     1"     361     200x880x1630     374     2070x80       STORM 8-10-500 ES     V33N892SHA772     500     7.5     10     1000     1.00     35     10     145     F526     68     1"     361     200x880x1630     401     2070x80						-											1720x750x1760
STORM 8-10-270 ES     V91NH92SHA872     270     7.5     10     100     1.0     35     10     145     FS26     68     1*     315     1500680.1510     344     1720.75       STORM 8-13-270 ES     V91N92SHA872     270     7.5     10     670     0.67     24     15     188     189     FS26     68     1*     315     15600680.1510     394     1720.75       STORM 8-05-000     V93NH92SHA772     500     7.5     10     100     1.00     35     10     145     FS26     68     3/4*     334     2000680/r630     374     2070.80       STORM 8-06-500 ES     V93NH92SHA772     500     7.5     10     100     1.00     35     10     145     FS26     68     1*     361     2000680/r630     374     2070.80       STORM 8-06-500 ES     V93NH92SHA872     500     7.5     10     150     1.00     100     100     10     11     15     1500     1.00     1.00     1.00     1.0												+					1720x750x1760
STORM 8-13-270 ES     V91NI92SHA872     270     7.5     10     750     0.75     26     13     189     FS26     68     1"     315     1560x680x1510     394     1720x75       STORM 8-08-500     V83NI692SHA772     500     7.5     10     1250     1.25     14     8     116     FS26     68     1"     315     1560x680x1630     374     2070x60       STORM 8-08-500     V83NI92SHA772     500     7.5     10     170     0.75     26     13     189     FS26     68     3/4"     334     200x680x1630     471     2070x80       STORM 8-08-500 ES     V83N192SHA772     500     7.5     10     1700     1.00     1.0     145     FS26     68     1"     361     200x680x1630     401     2070x80       STORM 8-10-500 ES     V83N192SHA772     -     11     15     150     150     150     150     150     150     150     150     150     150     150     150     150     150<						-							-				1720x750x1760
STORM 8-15-270 ES     V91N92SHA672     270     7.5     10     670     0.67     24     15     218     FS26     68     1"     315     1560x680x1510     394     1720x75       STORM 8-08-500     V83N92SHA772     500     7.5     10     100     1.0     35     10     145     FS26     68     3/4"     334     2000x680x1630     374     2070x60       STORM 8-10-500     V83NH92SHA772     500     7.5     10     1250     1.25     44     8     116     FS26     68     3/4"     334     2000x680x1630     401     2070x80       STORM 8-10-500 ES     V83NH92SHA872     500     7.5     10     100     1.00     35     10     145     FS26     68     1"     361     2000x680x1630     401     2070x80       STORM 8-13-500 ES     V83NH92SHA772     -     11     15     1600     1.50     53     10     145     FS26     69     3/4"     216     820x680x980     230     940x77 <th></th> <th>-</th> <th></th> <th></th> <th></th> <th>1720x750x1760</th>													-				1720x750x1760
STORM 8-06-500     V83N692SHA772     500     7.5     10     1250     1.25     4.4     8     116     FS26     6.8     3/4*     334     2000x680x1630     374     2070x80       STORM 8-10-500     V83N82SHA772     500     7.5     10     1000     1.00     35     10     145     FS26     6.8     3/4*     334     2000x680x1630     374     2070x80       STORM 8-10-500 ES     V83N892SHA772     500     7.5     10     1000     1.00     35     10     145     FS26     6.8     1"     361     2000x680x1630     401     2070x80       STORM 8-10-500 ES     V83N892SHA772     0     7.5     10     1000     1.00     35     10     145     FS26     68     1"     361     2000x680x1630     401     2070x80       STORM 11-08     V80N192SHA772     -     11     15     1500     1.55     58     8     116     FS26     69     3/4*     216     820x680x980     230     940x77 <th></th> <th>••••••</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>1720x750x1760</th>											••••••						1720x750x1760
STORM 8-10-500     V83NH92SHA772     500     7.5     10     1000     1.00     35     10     145     FS26     68     3/4*     334     2000x680x1630     374     2070x80       STORM 8-13-500     V83NB92SHA772     500     7.5     10     750     0.75     26     13     189     FS26     68     3/4*     334     2000x680x1630     374     2070x80       STORM 8-08-500 ES     V83NB92SHA872     500     7.5     10     700     1.00     35     10     145     FS26     68     1*     361     2000x680x1630     401     2070x80       STORM 8-13-500 ES     V83NB92SHA772     -     11     15     160     1.65     58     8     116     FS26     69     3/4*     216     820x680x980     230     940x77       STORM 11-10     V60NM92SHA772     -     11     15     100     1.0     19     13     18     FS26     69     3/4*     216     820x680x980     230     940x77 <tr< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>2070x800x1850</th></tr<>																	2070x800x1850
STORM 8-13-500     V83NI92SHA772     500     7.5     10     750     0.75     26     13     189     FS26     68     3/4"     334     2000x680x1630     374     2070x60       STORM 8-06-500 ES     V83NI92SHA872     500     7.5     10     100     35     10     145     FS26     68     1"     361     2000x680x1630     401     2070x80       STORM 8-13-500 ES     V83NI92SHA872     500     7.5     10     750     0.75     26     13     189     FS26     68     1"     361     2000x680x1630     401     2070x80       STORM 11-08     V60NL92SHA772     -     11     15     1500     150     53     10     145     FS26     69     3/4"     216     820x680x980     230     940x77       STORM 11-10     V60NN92SHA772     -     11     15     100     1.10     39     13     189     FS26     69     3/4"     216     820x680x980     230     940x77       STORM 11-16											••••••			-		•	2070x800x1850
STORM 8-08-500 ES     V83NG92SHA872     500     7.5     10     1250     1.25     44     8     116     FS26     68     1"     361     2000x680x1630     401     2070x80       STORM 8-10-500 ES     V83NH92SHA872     500     7.5     10     1000     1.00     35     10     145     FS26     68     1"     361     2000x680x1630     401     2070x80       STORM 10-08     V60NL92SHA772     -     11     15     1650     1.65     58     8     116     FS26     69     3/4"     216     820x680x80     230     940x77       STORM 11-10     V60NM92SHA772     -     11     15     100     1.10     39     13     189     FS26     69     3/4"     216     820x680x80     230     940x77       STORM 11-13     V60NM92SHA772     -     11     15     160     1.65     58     8     116     FS26     69     3/4"     216     820x680x80     230     940x77       S					···												2070x800x1850
STORM 8-10-500 ES     V83NH92SHA872     500     7.5     10     1000     1.00     35     10     145     FS26     68     1"     361     2000x680x1630     401     2070x80       STORM 8-13-500 ES     V83NI92SHA872     500     7.5     10     750     0.75     26     13     189     FS26     68     1"     361     2000x680x1630     401     2070x80       TI     KW     STORM 11-08     V60NL92SHA772     -     11     15     1500     1.50     53     10     145     FS26     69     3/4"     216     820x680x980     230     940x77       STORM 11-13     V600N92SHA772     -     11     15     1500     1.50     53     10     145     FS26     69     3/4"     216     820x680x980     230     940x77       STORM 11-13     V60N92SHA772     -     11     15     1650     1.65     58     8     116     FS26     69     3/4"     302     1560x680x1510     332     <					··· <b>·</b> ······											•	2070x800x1850
STORM 8-13-500 ES     VB3NI92SHA872     500     7.5     10     750     0.75     26     13     189     FS26     68     1"     361     2000x680x1630     401     2070x80       11 kW     STORM 11-08     V60NL92SHA772     -     11     15     1650     1.65     58     8     116     FS26     69     3/4"     216     820x680x980     230     940x77       STORM 11-10     V60NN92SHA772     -     11     15     1100     1.0     39     13     189     FS26     69     3/4"     216     820x680x980     230     940x77       STORM 11-06-270     V91Nu92SHA772     -     11     15     1800     1.50     53     10     145     FS26     69     3/4"     216     820x680x980     230     940x77       STORM 11-06-270     V91Nu92SHA772     270     11     15     100     1.10     39     13     189     FS26     69     3/4"     302     1560x680x1510     331     1720x75													•				2070x800x1850
11     KW     KW<													•			•	2070x800x1850
STORM 11-08   V60NL92SHA772   -   11   15   1650   1.65   58   8   116   FS26   69   3/4"   216   82.0680.980   230   940.777     STORM 11-10   V60NM92SHA772   -   11   15   1500   1.50   53   10   145   FS26   69   3/4"   216   82.0680.980   230   940.777     STORM 11-13   V60NN92SHA772   -   11   15   100   1.10   39   13   189   FS26   69   3/4"   216   82.0680.980   230   940.777     STORM 11-08-270   V91NL92SHA772   -   11   15   1600   1.65   58   8   116   FS26   69   3/4"   302   1560x680.1510   332   1720.75     STORM 11-0-270   V91NM92SHA772   270   11   15   1600   1.50   1.5   18   128   FS26   69   3/4"   302   1560x680.1510   331   1720.75     STORM 11-08-270   V91NM92SHA77   270   11   15   1600   1.65   68 <th></th> <th>VOSINISZSIIAOTZ</th> <th>500</th> <th>1.5</th> <th>10</th> <th>750</th> <th>0.75</th> <th>20</th> <th>10</th> <th>103</th> <th>1020</th> <th>00</th> <th>1</th> <th>501</th> <th>2000/000/1000</th> <th>401</th> <th>207 00000 1030</th>		VOSINISZSIIAOTZ	500	1.5	10	750	0.75	20	10	103	1020	00	1	501	2000/000/1000	401	207 00000 1030
STORM 11-10     V60NM92SHA772     -     11     15     1500     1.50     53     10     145     FS26     69     3/4"     216     820x80x980     230     940x77       STORM 11-13     V60NN92SHA772     -     11     15     1100     1.10     39     13     189     FS26     69     3/4"     216     820x80x980     230     940x77       STORM 11-15     V60NN92SHA772     -     11     15     980     0.98     35     15     218     FS26     69     3/4"     216     820x80x980     230     940x77       STORM 11-10-270     V91N92SHA772     270     11     15     150     150     53     10     145     FS26     69     3/4"     302     1560x680x1510     321     1720x75       STORM 11-10-270     V91N92SHA772     270     11     15     1500     150     53     10     145     FS26     69     3/4"     302     1560x680x1510     381     1720x75       STOR		V60NL92SHA772	-	11	15	1650	1.65	58	8	116	FS26	69	3/4"	216	820x680x980	230	940x770x1150
STORM 11-13     V60NN92SHA772     -     11     15     1100     1.10     39     13     189     FS26     69     3/4"     216     820x680x980     230     940x770       STORM 11-15     V60NN92SHA972     -     11     15     980     0.98     35     15     218     FS26     69     3/4"     216     820x680x980     230     940x770       STORM 11-08-270     V91NJ92SHA772     270     11     15     1600     1.65     58     8     116     FS26     69     3/4"     302     1560x680x1510     332     1720x75       STORM 11-10-270     V91N92SHA772     270     11     15     100     1.10     39     13     189     FS26     69     3/4"     302     1560x680x1510     381     1720x75       STORM 11-15-270     V91N92SHA872     270     11     15     1600     1.65     88     116     FS26     69     1"     329     1560x680x1510     351     1720x75       STORM 11-10			-	··													940x770x1150
STORM 11-15     V60NN92SHA972     -     11     15     980     0.98     35     15     218     FS26     69     3/4"     216     820x680x980     230     940x77       STORM 11-08-270     V91NL92SHA772     270     11     15     1650     1.65     58     8     116     FS26     69     3/4"     302     1560x680x1510     332     1720x75       STORM 11-10-270     V91NN92SHA772     270     11     15     100     1.00     39     13     189     FS26     69     3/4"     302     1560x680x1510     381     1720x75       STORM 11-13-270     V91NN92SHA572     270     11     15     100     1.05     58     8     116     FS26     69     3/4"     302     1560x680x1510     381     1720x75       STORM 11-16-270 ES     V91NN92SHA572     270     11     15     1500     1.50     53     10     145     FS26     69     1"     329     1560x680x1510     359     1720x75			-														940x770x1150
STORM 11-08-270   V91NL92SHA772   270   11   15   1650   1.65   58   8   116   FS26   69   3/4"   302   1560x680x1510   332   1720x75     STORM 11-10-270   V91NM92SHA772   270   11   15   100   1.00   1.0   39   13   189   FS26   69   3/4"   302   1560x680x1510   332   1720x75     STORM 11-13-270   V91NN92SHA772   270   11   15   100   1.10   39   13   189   FS26   69   3/4"   302   1560x680x1510   331   1720x75     STORM 11-15-270   V91NN92SHA772   270   11   15   1600   1.65   58   8   116   FS26   69   3/4"   302   1560x680x1510   331   1720x75     STORM 11-08-270 ES   V91NN92SHA872   270   11   15   100   1.00   1.01   39   13   189   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-13-270 ES   V91NN92SHA872   200   11			-	··													940x770x1150
STORM 11-10-270   V91NM92SHA772   270   11   15   1500   1.50   53   10   145   FS26   69   3/4"   302   1560x680x1510   332   1720x75     STORM 11-13-270   V91NN92SHA772   270   11   15   1100   1.10   39   13   189   FS26   69   3/4"   302   1560x680x1510   381   1720x75     STORM 11-15-270   V91NN92SHA572   270   11   15   980   0.98   35   15   218   FS26   69   3/4"   302   1560x680x1510   381   1720x75     STORM 11-08-270 ES   V91NN92SHA872   270   11   15   1650   1.65   58   8   116   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-13-270 ES   V91NN92SHA872   270   11   15   1100   1.10   39   13   189   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-15-270 ES   V91NN92SHA872   270   11   15   100	STORM 11-08-270	V91NL92SHA772	270	··									3/4"				1720x750x1760
STORM 11-13-270     V91NN92SHA772     270     11     15     1100     1.10     39     13     189     FS26     69     3/4"     302     1560x680x1510     381     1720x75       STORM 11-15-270     V91NN92SHA572     270     11     15     980     0.98     35     15     218     FS26     69     3/4"     302     1560x680x1510     381     1720x75       STORM 11-08-270 ES     V91NN92SHA872     270     11     15     1600     1.65     58     8     116     FS26     69     1"     329     1560x680x1510     359     1720x75       STORM 11-13-270 ES     V91NN92SHA872     270     11     15     100     1.10     39     13     189     FS26     69     1"     329     1560x680x1510     359     1720x75       STORM 11-13-270 ES     V91NN92SHA872     270     11     15     100     1.10     39     13     189     FS26     69     1"     329     1560x680x1510     351     1720x75																	1720x750x1760
STORM 11-15-270   V91NN92SHA572   270   11   15   980   0.98   35   15   218   FS26   69   3/4"   302   1560x680x1510   381   1720x75     STORM 11-08-270 ES   V91NN92SHA872   270   11   15   1650   1.65   58   8   116   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-10-270 ES   V91NN92SHA872   270   11   15   100   1.00   53   10   145   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-13-270 ES   V91NN92SHA872   270   11   15   1100   1.10   39   13   189   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-13-270 ES   V91NN92SHA672   270   11   15   1600   1.65   58   8   116   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-08-500   V83NN92SHA672   500   11   15   1600		V91NN92SHA772		··													1720x750x1760
STORM 11-08-270 ES   V91NL92SHA872   270   11   15   1650   1.65   58   8   116   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-10-270 ES   V91NN92SHA872   270   11   15   1500   1.50   53   10   145   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-13-270 ES   V91NN92SHA872   270   11   15   1100   1.10   39   13   189   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-13-270 ES   V91NN92SHA672   270   11   15   1100   1.10   39   13   189   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-0500   V83NL92SHA772   500   11   15   1500   1.50   53   10   145   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-10-500   V83NN92SHA872   500   11   15   100	STORM 11-15-270	V91NN92SHA572	270	11	15	980	0.98	35		218	FS26	69	3/4"	302	1560x680x1510	381	1720x750x1760
STORM 11-13-270 ES   V91NN92SHA872   270   11   15   1100   1.10   39   13   189   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-13-270 ES   V91NN92SHA672   270   11   15   980   0.98   35   15   218   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-16-200   V83NL92SHA772   500   11   15   1650   1.65   58   8   116   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-08-500   V83NL92SHA772   500   11   15   1650   1.65   58   8   116   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-13-500   V83NL92SHA772   500   11   15   160   1.65   58   8   116   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-08-500 ES   V83NL92SHA872   500   11   15   1600   <	STORM 11-08-270 ES	V91NL92SHA872	270	11	15	1650	1.65	58		116	FS26	69	1"	329	1560x680x1510	359	1720x750x1760
STORM 11-15-270 ES   V91NN92SHA672   270   11   15   980   0.98   35   15   218   FS26   69   1"   329   1560x680x1510   359   1720x75     STORM 11-08-500   V83NL92SHA772   500   11   15   1650   1.65   58   8   116   FS26   69   1"   329   1560x680x1510   339   2070x80     STORM 11-08-500   V83NL92SHA772   500   11   15   1600   1.65   58   8   116   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-10-500   V83NN92SHA772   500   11   15   100   1.10   39   13   189   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-13-500   V83NN92SHA772   500   11   15   1600   1.65   58   8   116   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-10-500 ES   V83NN92SHA872   500   11   15   1500	STORM 11-10-270 ES	V91NM92SHA872	270	11	15	1500	1.50	53	10	145	FS26	69	1"	329	1560x680x1510	359	1720x750x1760
STORM 11-08-500   V83NL92SHA772   500   11   15   1650   1.65   58   8   116   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-05-500   V83NM92SHA772   500   11   15   1500   1.50   53   10   145   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-10-500   V83NN92SHA772   500   11   15   1500   1.50   53   10   145   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-13-500   V83NN92SHA772   500   11   15   1100   1.10   39   13   189   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-08-500 ES   V83NN92SHA872   500   11   15   1650   1.65   58   8   116   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-10-500 ES   V83NN92SHA872   500   11   15   100	STORM 11-13-270 ES	V91NN92SHA872	270	11	15	1100	1.10	39	13	189	FS26	69	1"	329	1560x680x1510	359	1720x750x1760
STORM 11-10-500   V83NM92SHA772   500   11   15   1500   1.50   53   10   145   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-13-500   V83NN92SHA772   500   11   15   1100   1.10   39   13   189   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-13-500   V83NN92SHA872   500   11   15   1650   1.65   58   8   116   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-08-500 ES   V83NN92SHA872   500   11   15   1650   1.65   58   8   116   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-10-500 ES   V83NN92SHA872   500   11   15   1500   1.50   53   10   145   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-13-500 ES   V83NN92SHA872   500   11   15   100	STORM 11-15-270 ES	V91NN92SHA672	270	11	15	980	0.98	35	15	218	FS26	69	1"	329	1560x680x1510	359	1720x750x1760
STORM 11-13-500   V83NN92SHA772   500   11   15   1100   1.10   39   13   189   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-08-500 ES   V83NL92SHA872   500   11   15   1650   1.65   58   8   116   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-08-500 ES   V83NN92SHA872   500   11   15   1650   1.65   58   8   116   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-10-500 ES   V83NN92SHA872   500   11   15   1500   1.50   53   10   145   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-13-500 ES   V83NN92SHA872   500   11   15   1100   1.10   39   13   189   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-13-500 ES   V83NN92SHA772   500   11   15   100	STORM 11-08-500	V83NL92SHA772	500	11	15	1650	1.65	58	8	116	FS26	69	3/4"	353	2000x680x1630	393	2070x800x1850
STORM 11-13-500   V83NN92SHA772   500   11   15   1100   1.10   39   13   189   FS26   69   3/4"   353   2000x680x1630   393   2070x80     STORM 11-08-500 ES   V83NL92SHA872   500   11   15   1650   1.65   58   8   116   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-08-500 ES   V83NN92SHA872   500   11   15   1650   1.65   58   8   116   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-10-500 ES   V83NN92SHA872   500   11   15   1500   1.50   53   10   145   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-13-500 ES   V83NN92SHA872   500   11   15   1100   1.10   39   13   189   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-13-500 ES   V83NN92SHA772   500   11   15   100	STORM 11-10-500	V83NM92SHA772	500	11	15	1500	1.50	53	10	145	FS26	69	3/4"	353	2000x680x1630	393	2070x800x1850
STORM 11-10-500 ES   V83NM92SHA872   500   11   15   1500   1.50   53   10   145   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-13-500 ES   V83NN92SHA872   500   11   15   1100   1.10   39   13   189   FS26   69   1"   380   2000x680x1630   420   2070x80     STORM 11-13-500 ES   V83NN92SHA872   500   11   15   1100   1.10   39   13   189   FS26   69   1"   380   2000x680x1630   420   2070x80     15   KW   Storm 15-08   V60NP92SHA772   -   15   20   2150   2.15   76   8   116   FS26   70   3/4"   220   820x680x980   234   940x770     STORM 15-10   V60N092SHA772   -   15   20   1850   1.85   65   10   145   FS26   70   3/4"   220   820x680x980   234   940x770     STORM 15-13   V60NR92SHA772   -   15   20 <th< th=""><th>STORM 11-13-500</th><th>V83NN92SHA772</th><th>500</th><th>11</th><th>15</th><th>1100</th><th>1.10</th><th>39</th><th>13</th><th>189</th><th>FS26</th><th>69</th><th>3/4"</th><th>353</th><th>2000x680x1630</th><th>393</th><th>2070x800x1850</th></th<>	STORM 11-13-500	V83NN92SHA772	500	11	15	1100	1.10	39	13	189	FS26	69	3/4"	353	2000x680x1630	393	2070x800x1850
STORM 11-13-500 ES   V83NN92SHA872   500   11   15   1100   1.10   39   13   189   FS26   69   1"   380   2000x680x1630   420   2070x80     15 kW   STORM 15-08   V60NP92SHA772   -   15   20   215   76   8   116   FS26   70   3/4"   220   820x680x980   234   940x770     STORM 15-10   V60NQ92SHA772   -   15   20   1850   1.85   65   10   145   FS26   70   3/4"   220   820x680x980   234   940x770     STORM 15-10   V60NQ92SHA772   -   15   20   1800   1.85   65   10   145   FS26   70   3/4"   220   820x680x980   234   940x770     STORM 15-13   V60NR92SHA772   -   15   20   1500   1.50   53   13   189   FS26   70   3/4"   220   820x680x980   234   940x770	STORM 11-08-500 ES	V83NL92SHA872	500	11	15	1650	1.65	58	8	116	FS26	69	1"	380	2000x680x1630	420	2070x800x1850
15 kW     V60NP92SHA772     -     15     20     2150     2.15     76     8     116     FS26     70     3/4"     220     820x680x980     234     940x770       STORM 15-10     V60NQ92SHA772     -     15     20     1850     1.85     65     10     145     FS26     70     3/4"     220     820x680x980     234     940x770       STORM 15-10     V60NR92SHA772     -     15     20     1850     1.85     65     10     145     FS26     70     3/4"     220     820x680x980     234     940x770       STORM 15-13     V60NR92SHA772     -     15     20     1500     1.50     53     13     189     FS26     70     3/4"     220     820x680x980     234     940x770	STORM 11-10-500 ES	V83NM92SHA872	500	11	15	1500	1.50	53	10	145	FS26	69	1"	380	2000x680x1630	420	2070x800x1850
STORM 15-08     V60NP92SHA772     -     15     20     2150     2.15     76     8     116     FS26     70     3/4"     220     820x680x980     234     940x770       STORM 15-10     V60NQ92SHA772     -     15     20     1850     1.85     65     10     145     FS26     70     3/4"     220     820x680x980     234     940x770       STORM 15-10     V60NQ92SHA772     -     15     20     1850     1.85     65     10     145     FS26     70     3/4"     220     820x680x980     234     940x770       STORM 15-13     V60NR92SHA772     -     15     20     1500     1.50     53     13     189     FS26     70     3/4"     220     820x680x980     234     940x70	STORM 11-13-500 ES	V83NN92SHA872	500	11	15	1100	1.10	39	13	189	FS26	69	1"	380	2000x680x1630	420	2070x800x1850
STORM 15-10     V60NQ92SHA772     -     15     20     1850     1.85     65     10     145     FS26     70     3/4"     220     820x680x980     234     940x770       STORM 15-13     V60NR92SHA772     -     15     20     1500     1.50     53     13     189     FS26     70     3/4"     220     820x680x980     234     940x770	15 kW																
STORM 15-13     V60NR92SHA772     -     15     20     1500     1.50     53     13     189     FS26     70     3/4"     220     820x680x980     234     940x770	STORM 15-08	V60NP92SHA772	-	15	20	2150	2.15	76	8	116	FS26	70	3/4"	220	820x680x980	234	940x770x1150
· · · · · · · · · · · · · · · · · · ·	STORM 15-10	V60NQ92SHA772	-	15	20	1850	1.85	65	10	145	FS26	70	3/4"	220	820x680x980	234	940x770x1150
STORM 15-15 V60NR92SHA972 - 15 20 1300 1.30 46 15 218 FS26 70 3/4" 220 820x680x980 234 940x770	STORM 15-13	V60NR92SHA772	-	15	20	1500	1.50	53	13	189	FS26	70	3/4"	220	820x680x980	234	940x770x1150
	STORM 15-15	V60NR92SHA972	-	15	20	1300	1.30	46	15	218	FS26	70	3/4"	220	820x680x980	234	940x770x1150
STORM 15-08-500     V83NP92SHA772     500     15     20     2150     2.15     76     8     116     FS26     70     3/4"     383     2000x680x1630     423     2070x80	STORM 15-08-500	V83NP92SHA772	500	15	20	2150	2.15	76	8	116	FS26	70	3/4"	383	2000x680x1630	423	2070x800x1850
STORM 15-10-500     V83N092SHA772     500     15     20     1850     1.85     65     10     145     FS26     70     3/4"     383     2000x680x1630     423     2070x80	STORM 15-10-500	V83NQ92SHA772	500	15	20	1850	1.85	65	10	145	FS26	70	3/4"	383	2000x680x1630	423	2070x800x1850
STORM 15-13-500     V83NR92SHA772     500     15     20     1500     1.50     53     13     189     FS26     70     3/4"     383     2000x680x1630     423     2070x80	STORM 15-13-500	V83NR92SHA772	500	15	20	1500	1.50	53	13	189	FS26	70	3/4"	383	2000x680x1630	423	2070x800x1850
	STORM 15-15-500	V83NR92SHA572	500	15		1300	1.30	46	15	218	FS26	70	3/4"	383	2000x680x1630	455	2070x800x1850
STORM 15-08-500 ES     V83NP92SHA872     500     15     20     2150     2.15     76     8     116     FS26     70     1"     412     2000x680x1630     452     2070x80	STORM 15-08-500 ES	V83NP92SHA872	500	15	20	2150	2.15	76	8	116	FS26	70	1"	412	2000x680x1630	452	2070x800x1850
STORM 15-10-500 ES     V83NQ92SHA872     500     15     20     1850     1.85     65     10     145     FS26     70     1"     412     2000x680x1630     452     2070x80	STORM 15-10-500 ES	V83NQ92SHA872	500	15	20	1850	1.85	65	10	145	FS26	70	1"	412	2000x680x1630	452	2070x800x1850
STORM 15-13-500 ES     V83NR92SHA872     500     15     20     1500     1.50     53     13     189     FS26     70     1"     412     2000x680x1630     452     2070x80	STORM 15-13-500 ES	V83NR92SHA872	500	15	20	1500	1.50	53	13	189	FS26	70	1"	412	2000x680x1630	452	2070x800x1850
STORM 15-15-500 ES     V83NR92SHA672     500     15     20     1300     1.30     46     15     218     FS26     70     1"     412     2000x680x1630     452     2070x80	STORM 15-15-500 ES	V83NR92SHA672	500	15	20	1300	1.30	46	15	218	FS26	70	1"	412	2000x680x1630	452	2070x800x1850

Air flow was measured in the following operative pressures: 8 bar for "08" models - 10 bar for "10" models - 13 bar for "13" models - 15 bar for "15" models. The data and results were measured in accordance with standard ISO 1217. The sound level was measured in accordance with standard ISO 2151, with a tolerance of ±3 dB(A).



# **STORM 16** 15 kW

ETMII electronic controller

High performances FS50TF air-end Air-end, intake regulator, separator block and minimum pressure valve of our design and manufacturing, entirely Made in Italy.



SHIME

shamal

1619 ES

Multi-function and multi-language ETIV electronic controller It manages and controls all functions of the compressor. It allows the installation of the SMS Device (optional).



Integrated filters and dryer The STORM 11 ES VS model has a complete and fully integrated module that includes a refrigerated dryer and an inlet / outlet filtering system.

High-efficiency inverter

Easy to transport The lifting holes placed at the base

lifting and transport.

(both front and rear), facilitate its



## STORM 11 VS

VARIABLE SPEED

### STORM 16

- High performances FS50TF air-end
- 3 available set-ups:
  - floor mounted,
  - tank-mounted
  - tank-mounted with dryei

The STORM 16 has the same features of the STORM 15 but with a larger air-end (FS50TF), to ensure the maximum performances in the same power range.

### STORM 11 VS Variable speed

- \* Extremely silent and compact
- Energy savings
- \* Plug&Play
- \* All-in-one

Particularly suitable for companies that use compressed air with frequently varying flow rate: variable speed operation allows the machine to adjust the flow rate on the actual request.

The electronic controller monitors and adjusts the air-end speed, modulating the air generation to maintain a constant pressure inside the network and resulting in immediate benefits such as: constant pressure, optimised electricity consumption, appropriate generation of compressed air on the actual demand and minimal wear of mechanical parts.

#### STORM 16 WITH FS50 AIR-END

Model	Code	Air receiver	Ρον	wer	Air	outflow r	ate		ax. ssure	Air- end	Sound level	Air outlet	Net weight	Net dimensions	Gross weight	Gross dimensions
model			kW	HP	I./min.	m <sup>3</sup> /min.	c.f.m.	bar	p.s.i.		dB(A)	G	kg	LxWxH (mm)	kg	LxWxH (mm)
15 kW																
STORM 16-08	V60NB92SHA772	-	15	20	2350	2.35	83	8	116	FS50	68	3/4"	234	820x680x980	248	940x770x1150
STORM 16-10	V60NY92SHA772	-	15	20	2050	2.05	72	10	145	FS50	68	3/4"	234	820x680x980	248	940x770x1150
STORM 16-13	V60NW92SHA772	-	15	20	1750	1.75	62	13	189	FS50	68	3/4"	234	820x680x980	248	940x770x1150
STORM 16-08-500	V83NB92SHA772	500	15	20	2350	2.35	83	8	116	FS50	68	3/4"	410	2000x680x1630	450	2070x800x1850
STORM 16-10-500	V83NY92SHA772	500	15	20	2050	2.05	72	10	145	FS50	68	3/4"	410	2000x680x1630	450	2070x800x1850
STORM 16-13-500	V83NW92SHA772	500	15	20	1750	1.75	62	13	189	FS50	68	3/4"	410	2000x680x1630	511	2070x800x1850
STORM 16-08-500 ES	V83NB92SHA872	500	15	20	2350	2.35	83	8	116	FS50	68	1"	439	2000x680x1630	479	2070x800x1850
STORM 16-10-500 ES	V83NY92SHA872	500	15	20	2050	2.05	72	10	145	FS50	68	1"	439	2000x680x1630	479	2070x800x1850
STORM 16-13-500 ES	V83NW92SHA872	500	15	20	1750	1.75	62	13	189	FS50	68	1"	439	2000x680x1630	511	2070x800x1850

Air flow was measured in the following operative pressures: 8 bar for "08" models - 10 bar for "10" models - 13 bar for "13" models.

The data and results were measured in accordance with standard ISO 1217. The sound level was measured in accordance with standard ISO 2151, with a tolerance of  $\pm 3$  dB(A).

Model	Code	Pov	wer		outflow rate iin max.)			ax. ssure	Air- end	Sound level	Air outlet	Net weight	Net dimensions	Gross weight	Gross dimensions
		kW	HP	I./min.	m <sup>3</sup> /min.	c.f.m.	bar	p.s.i.		dB(A)	G	kg	LxWxH (mm)	kg	LxWxH (mm)
11 kW															
STORM 11-08 VS	V60SN97SHA772	11	15	650 - 1650	0.65 - 1.65	23 - 58	8	116	FS26	63	3/4"	271	1200x700x1000	292	1330x800x1280
STORM 11-10 VS	V60SP97SHA772	11	15	750 - 1500	0.75 - 1.50	26 - 53	10	145	FS26	63	3/4"	271	1200x700x1000	292	1330x800x1280
STORM 11-08 ES VS	V60SN97SHA872	11	15	650 - 1650	0.65 - 1.65	23 - 58	8	116	FS26	63	3/4"	306	1200x700x1000	332	1330x800x1280
STORM 11-10 ES VS	V60SP97SHA872	11	15	750 - 1500	0.75 - 1.50	26 - 53	10	145	FS26	63	3/4"	306	1200x700x1000	332	1330x800x1280

Air flow was measured in the following operative pressures: 7.5 bar for "08" models - 9.5 bar for "10" models.

The data and results were measured in accordance with standard ISO 1217. The sound level was measured in accordance with standard ISO 2151, with a tolerance of  $\pm 3$  dB(A).



## **STORM** 18.5-22

18.5-22 kW

Multi-function and multi-language ETIV electronic controller It manages and controls all functions of the compressor and system diagnosis. It allows the installation of the SMS device (optional).



#### Pre-filtering panel

The ventilation circuit is fitted with a prefilter panel that filters the incoming dust and keeps the inside of the machine clean.

High performances FS50TF air-end

#### Easy maintenance

Wide front and rear access panels allow immediate access to the internal components, thus reducing inspection and maintenance times. The two removable panels placed at the base of the machine, preserve the cleaning and ensure greater silent operation, when installed.







#### www.shamalcompressors.com

The thermostatically controlled centrifugal fan cools down the oversized air-oil heat exchanger allowing the compressor to run even in the most severe temperature conditions.

The electropneumatic system regulating the compressor functioning ensures the minimum required pressure during un-loaded operation and maximum energy savings at start-up, thus optimising the energy cost / air generated ratio.

The oxidation resistant minimum pressure valve is machined from solid. A great manufacturing attention to ensure operations even in extreme conditions.





Model	Code	Pov	wer		Air outflow rate (min max.)			lax. ssure	Air- end	Sound level	Air outlet	Net weight	Net dimensions	Gross weight	Gross dimensions
Model	Code	kW	HP	I./min.	m <sup>3</sup> /min.	c.f.m.	bar	p.s.i.		dB(A)	G	kg	LxWxH (mm)	kg	LxWxH (mm)
18.5 kW									1	1					
STORM 18.5-08	V60QA92SHA772	18.5	25	2800	2.80	99	8	116	FS50	66	1"	397	1360x830x1130	470	1530x1000x1380
STORM 18.5-10	V60QB92SHA772	18.5	25	2500	2.50	88	10	145	FS50	66	1"	397	1360x830x1130	470	1530x1000x1380
STORM 18.5-13	V60QC92SHA772	18.5	25	2150	2.15	76	13	189	FS50	66	1"	397	1360x830x1130	470	1530x1000x1380
STORM 18.5-15	V60QC92SHA972	18.5	25	1650	1.65	58	15	218	FS50	66	1"	397	1360x830x1130	470	1530x1000x1380
STORM 18.5-08 ES	V60QA92SHA872	18.5	25	2800	2.80	99	8	116	FS50	66	1" 1/4	447	1740x830x1130	537	2050x1140x1670
STORM 18.5-10 ES	V60QB92SHA872	18.5	25	2500	2.50	88	10	145	FS50	66	1" 1/4	447	1740x830x1130	537	2050x1140x1670
STORM 18.5-13 ES	V60QC92SHA872	18.5	25	2150	2.15	76	13	189	FS50	66	1" 1/4	447	1740x830x1130	537	2050x1140x1670
22 kW										1			1		
STORM 22-08	V60QD92SHA772	22	30	3350	3.35	118	8	116	FS50	68	1"	419	1360x830x1130	492	1530x1000x1380
STORM 22-10	V60QE92SHA772	22	30	3000	3.00	106	10	145	FS50	68	1"	419	1360x830x1130	492	1530x1000x1380
STORM 22-13	V60QF92SHA772	22	30	2400	2.40	85	13	189	FS50	68	1"	419	1360x830x1130	492	1530x1000x1380
STORM 22-15	V60QF92SHA972	22	30	1970	1.97	70	15	218	FS50	68	1"	419	1360x830x1130	492	1530x1000x1380
STORM 22-08 ES	V60QD92SHA872	22	30	3350	3.35	118	8	116	FS50	68	1" 1/4	469	1740x830x1130	559	2050x1140x1670
STORM 22-10 ES	V60QE92SHA872	22	30	3000	3.00	106	10	145	FS50	68	1" 1/4	469	1740x830x1130	559	2050x1140x1670
STORM 22-13 ES	V60QF92SHA872	22	30	2400	2.40	85	13	189	FS50	68	1" 1/4	469	1740x830x1130	559	2050x1140x1670
STORM 22-08 VS	V60QD97SHA772	22	30	1350-3350	1.35-3.35	48-118	8	116	FS50	68	1"	437	1360x830x1130	519	1530x1000x1380
STORM 22-10 VS	V60QE97SHA772	22	30	1220-3050	1.22-3.05	43-108	10	145	FS50	68	1"	437	1360x830x1130	519	1530x1000x1380
STORM 22-08 ES VS	V60QD97SHA872	22	30	1350-3350	1.35-3.35	48-118	8	116	FS50	68	1" 1/4	487	1740x830x1130	586	2050x1140x1670
STORM 22-10 ES VS	V60QE97SHA872	22	30	1220-3050	1.22-3.05	43-108	10	145	FS50	68	1" 1/4	487	1740x830x1130	586	2050x1140x1670

Air flow was measured in the following operative pressures: - Fixed speed versions: 8 bar for "08" models - 10 bar for "10" models - 13 bar for "13" models - 15 bar for "15" models; - Variable speed versions: 7.5 bar for "08" models - 9.5 bar for "10" models. The data and results were measured in accordance with standard ISO 1217.

The sound level was measured in accordance with standard ISO 2151, with a tolerance of  $\pm 3$  dB(A).





The Storm 75 kW models are equipped with the new electric motors, even more performing, in energy efficiency class "IE4 Super Premium Efficiency".

## Multi-function and multi-language ETIV electronic controller

It manages and controls all functions of the compressor. It allows to connect up to 4 compressors at the same time as well the installation of the SMS device.



**Pre-filtering panel** The ventilation circuit is fitted with a prefilter panel that filters the incoming dust and keeps the inside of the machine clean.



Storm 55 and 75 kW versions are equipped with double separator filter.

NEW high performance air-ends The STORM range from 38 to 55 is fitted with FS140 air-ends, the STORM range from 56 to 75 is fitted with new FS270 air-ends, both of our exclusive design.



## STORM 31-38 45-55 56-75

Ø

hamal

30-37 45-55 55-75 kW



#### Efficient ventilation

The thermostatically controlled centrifugal fan cools down the oversized air-oil heat exchanger allowing the compressor to run even in the most severe temperature conditions.

#### Energy savings

The electropneumatic system regulating the compressor functioning ensures the minimum required pressure during un-loaded operation and maximum energy savings at start-up, thus optimising the energy cost / air generated ratio.

### \* High reliability

- Extremely silent operation
- Low maintenance costs













AIR COMPRESSORS															
		Ро	wer		outflow rate			ax.	Air-	Sound	Air	Net	Net	Gross	Gross
Model	Code	kW	HP	I./min.	nin max.) m <sup>3</sup> /min.	c.f.m.	pres bar	p.s.i.	end	level dB(A)	outlet G	weight kg	dimensions LxWxH (mm)	weight kg	dimensions LxWxH (mm)
30 kW							a car	prom					,		
STORM 31-08	V60BU92SHA772	30	40	4700	4.70	166	8	116	FS100	70	1" 1/4	663	1530x880x1440	737	1690x1030x1730
STORM 31-10	V60BV92SHA772	30	40	4200	4.20	148	10	145	FS100	70	1" 1/4	663	1530x880x1440	737	1690x1030x1730
STORM 31-13	V60BW92SHA772	30	40	3400	3.40	120	13	189	FS100	70	1" 1/4	663	1530x880x1440	737	1690x1030x1730
STORM 31-08 ES	V60BU92SHA872	30	40	4700	4.70	166	8	116	FS100	70	1" 1/2	728	1860x910x1440	818	2050x1140x1670
STORM 31-10 ES	V60BV92SHA872	30	40	4200	4.20	148	10	145	FS100	70	1" 1/2	728	1860x910x1440	818	2050x1140x1670
STORM 31-13 ES	V60BW92SHA872	30	40	3400	3.40	120	13	189	FS100	70	1" 1/2	728	1860x910x1440	818	2050x1140x1670
STORM 31-08 VS	V60BU97SHA772	30	40	1700-4700	1.70-4.70	60-166	8	116	FS100	67	1" 1/4	695	1530x880x1440	756	1690x1030x1730
STORM 31-10 VS	V60BV97SHA772	30	40	1500-4200	1.50-4.20	53-148	10	145	FS100	68	1" 1/4	695	1530x880x1440	756	1690x1030x1730
STORM 31-13 VS	V60BW97SHA772	30	40	1300-3400	1.30-3.40	46-120	13	189	FS100	64	1" 1/4	695	1530x880x1440	756	1690x1030x1730
37 kW															
STORM 38-08	V60BK92SHAA72	37	50	6000	6.00	212	7.5	109	FS140	68	1" 1/4	724	1530x880x1440	798	1690x1030x1730
STORM 38-10	V60BJ92SHAA72	37	50	5300	5.30	187	10	145	FS140	68	1" 1/4	724	1530x880x1440	798	1690x1030x1730
STORM 38-13	V60BI92SHAA72	37	50	4000	4.00	141	13	189	FS140	68	1" 1/4	724	1530x880x1440	798	1690x1030x1730
STORM 38-08 ES	V60BK92SHAB72	37	50	6000	6.00	212	7.5	109	FS140	68	1" 1/2	789	1860x910x1440	879	2050x1140x1670
STORM 38-10 ES	V60BJ92SHAB72	37	50	5300	5.30	187	10	145	FS140	68	1" 1/2	789	1860x910x1440	879	2050x1140x1670
STORM 38-13 ES	V60BI92SHAB72	37	50	4000	4.00	141	13	189	FS140	68	1" 1/2	789	1860x910x1440	879	2050x1140x1670
STORM 38-08 VS	V60BK97SHAA72	37	50	2400-6000	2.40-6.00	85-212	8	116	FS140	68	1" 1/4	748	1530x880x1440	817	1690x1030x1730
STORM 38-10 VS	V60BJ97SHAA72	37	50	2100-5300	2.10-5.30	74-187	10	145	FS140	68	1" 1/4	748	1530x880x1440	817	1690x1030x1730
STORM 38-08 ES VS	V60BK97SHAB72	37	50	2400-6000	2.40-6.00	85-212	8	116	FS140	68	1" 1/2	813	1860x910x1440	898	2050x1140x1670
STORM 38-10 ES VS	V60BJ97SHAB72	37	50	2100-5300	2.10-5.30	74-187	10	145	FS140	68	1" 1/2	813	1860x910x1440	898	2050x1140x1670
45 kW					[					1					
STORM 45-08	V60BM92SHAA72	45	60	7200	7.20	254	7.5	109	FS140	72	1" 1/2	946	1590x1000x1570	1032	1800x1200x2110
STORM 45-10	V60BN92SHAA72	45	60	6500	6.50	230	10	145	FS140	72	1" 1/2	946	1590x1000x1570	1032	1800x1200x2110
STORM 45-13	V60BQ92SHAA72	45	60	5100	5.10	180	13	189	FS140	72	1" 1/2	946	1590x1000x1570	1032	1800x1200x2110
55 kW STORM 55-08	V60BR92SHAA72	55	75	8600	8.60	304	7.5	109	FS140	74	1" 1/2	1009	1590x1000x1570	1095	1800x1200x2110
STORM 55-10	V60BS92SHAA72	55	75	7800	7.80	275	1.0	145	FS140	74	1" 1/2	1009	1590x1000x1570	1095	1800x1200x2110
STORM 55-13	V60B3923HAA72	55	75	6400	6.40	275	13	145	FS140	74	1" 1/2	1009	1590x1000x1570	1095	1800x1200x2110
STORM 56-08	V60BA92SHAA72	55	75	9300	9.30	328	7.5	103	FS270	74	2"	1360	1800x1140x1860	1470	2000x1290x2270
STORM 56-10	V60BB92SHAA72	55	75	8300	8.30	293	10	145	FS270	70	2"	1360	1800x1140x1860	1470	2000x1290x2270
STORM 56-13	V60BC92SHAA72	55	75	7000	7.00	247	13	189	FS270	70	2"	1360	1800x1140x1860	1470	2000x1290x2270
STORM 56-08 VS	V60BA97SHAA72	55	75	3700-9300	3.70-9.30	131-328	8	116	FS270	70	2"	1396	1800x1140x1860	1515	2000x1290x2270
STORM 56-10 VS	V60BB97SHAA72	55	75	3300-8300	3.30-8.30	117-293	10	145	FS270	70	2"	1396	1800x1140x1860	1515	2000x1290x2270
75 kW	- CODDOT OTTACT L	00	10		0.00 0.00	200	10	. 10	1 0210			1000		1010	LUUUNTLUUNLLIU
STORM 75-08	V60BD92SHAA72	75	100	12200	12.20	431	7.5	109	FS270	72	2"	1470	1800x1140x1860	1580	2000x1290x2270
STORM 75-10	V60BE92SHAA72	75	100	10500	10.50	371	10	145	FS270	72	2"	1470	1800x1140x1860	1580	2000x1290x2270
STORM 75-13	V60BF92SHAA72	75	100	8300		293				72	2"	1470		1580	
					8.30		13	189	FS270				1800x1140x1860		2000x1270x2270
STORM 75-08 VS	V60BD97SHAA72	75	100	4800-12200	4.80-12.20	170-431	8	116	FS270	72	2"	1506	1800x1140x1860	1645	2000x1290x2270
STORM 75-10 VS	V60BE97SHAA72	75	100	4200-10500	4.20-10.50	148-371	10	145	FS270	72	2"	1506	1800x1140x1860	1645	2000x1290x2270

Air flow was measured in the following operative pressures: - Fixed speed STORM 31: 8 bar for "08" model - 10 bar for "10" models - 13 bar for "13" models; - Variable speed STORM 31: 7.5 bar for "08" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Fixed speed STORM 38 up to 75: 7.5 bar for "08" models - 9.5 bar for "10" models - 13 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "08" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "08" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "08" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "08" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "08" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "08" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "08" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "08" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "08" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "10" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "10" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 7.5 bar for "10" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 3.5 bar for "10" models - 9.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 3.5 bar for "10" models - 12.5 bar for "13" models; - Variable speed STORM 38 up to 75: 3.5 bar for "10" models - 12.5 bar for "13" models;

# Analyze your company's consumption to minimize energy waste.

EATOOL

Compressed air is an essential resource in industrial applications, as well as one of the main sources of energy consumption. Energy costs are constantly increasing, therefore it is a fundamental need to monitor, analyse and reduce the energy consumption of the compressed air system. This not only applies for large companies, but equally for medium and small-sized facilities.

## Why run an energy audit?

The energy efficiency of a compressed air system within a production facility, is a large influence on the company's entire production process, in terms of the potential for increased efficiency and reducing costs. The energy audit is a process, that identifies potential efficiency improvements. The report that we provide allows our customer to accurately identify the amount of energy being used nd wasted, the energy that may be saved, along with suitable alternative equipment and controls to maximise energy efficiency, specific to the exact requirements and operational characteristics of the application.





## Our experience at your service

Thanks to the consolidated experience in the industrial sector, Shamal can provide companies with a detection and analysis service for professional auditing (EATool).

#### Ideal for compressors' rooms up to 3 units

EA 400 cod. 9062747

4 analogue inputs: - 3 measuring clamps

- 1 pressure sensor
- 1 extension for cables (10m long)
- 4.3" colour touch screen display

#### Ideal for compressors' rooms up to 4 units

- **EA 500** 5 analogue inputs:
- cod. 9062748 4 measuring clamps
  - 1 pressure sensor
  - 2 extensions for cables (10m long)
  - 7" colour touch screen display



## **ORIGINAL SPARE PARTS**

Extend the life and efficiency of your screw compressor

**FSN** is the brand of the original spare parts for Shamal compressors and identifies after-sales services. It guarantees that the components are original and that they were carefully selected, checked and tested by skilled technicians. Using FSN certified original spare parts reduces management costs and guarantees the efficiency, reliability and longevity of the compressor.

#### LONG LIFE KIT

To make it easier to replace components throughout the various maintenance intervals specified in the use and maintenance manuals, Shamal developed its **LONG LIFE KITS**, specifically created for all screw compressor models.

Using LONG LIFE KIT ensures the maximum performances of the compressor. You can download the LLK catalogues from the website **www.shamalcompressors.com** 

and see the exploded drawings and spare parts, constantly updated for each compressor model.





### **OIL WITH MINERAL OR SYNTHETIC BASE**

Our FSN lubricants, selected from the best suppliers in all over the world, are specifically designed for use on our screw compressors. They are available in cans, in drums, or in multiple packs. For the correct maintenance of the compressor, the oil must be completely replaced according to the interval indicated in the use and maintenance manual, or at least once a year, without mixing different types of oils.



#### RotarECOFLUID 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

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 oil** synthetic base

#600000018A	RotEnergyPlus 46 cSt - 1 x 3.8 L (3.25 kg) tank
#60000007A	RotEnergyPlus 46 cSt - 1 x 19 L (16 kg) tank
#600000012A	RotEnergyPlus 46 cSt - 1 x 208 L (181 kg) drum

Formulated with high quality selected synthetic base oils, 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.



#600000019A	RotEnergyFood 46 cSt - 1 x 3.9 L (3.25 kg) tank
#600000016A	RotEnergyFood 46 cSt - 1 x 19 L (18.5 kg) tank
#60000017A	RotEnergyFood 46 cSt - 1 x 208 L (175 kg) drum

High-quality lubricant for rotary screw compressors, suitable for use in the food industry, where specific quality standards are required.

# Protect your investment, extend the Warranty up to 5 years!



When installing your new Shamal screw compressor, join the "Trust" Warranty 3- to 5-year extension program to benefit from countless advantages by maximising the effectiveness, safety and duration over time of your investment.

Thanks to scheduled maintenance programs exclusively performed by Shamal Authorised Assistance Centres, you can rely on timely, highly professional service, as well as on the use of only original spare parts guaranteed by the FSN brand.

The "Trust" warranty can be easily extended online through EasyConnect, the new Shamal service portal specially created to simplify customers' lives by providing them with quick, clear responses about product availability, order management and goods shipping times.

## $\star$ Easy and fast online activation.

★ You can choose to extend warranty to 3 or 5 years.

Lower maintenance costs as a result of using original spare parts.

Qualified assistance by authorised technicians.



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#### **Our figures**

**1300** Employees across 3 continents

**1500** Global service centres

**120** Countries we export to

11000 Screw compressors produced per year

5 Manufacturing plants

#### The group

The Shamal brand is part of the FNA international group, which has 75 years of experience in the compressed air industry. FNA, the world's leading manufacturer of piston compressors, undisputed leader in the production of professional compressors and among the first in Europe in the industrial screw compressor segment, has established itself on the market thanks to its strengths: dynamism, technological innovation, know-how, creativity, integrated marketing, flexible production processes and 'tailor-made' customer service. The group counts on an experienced and highly qualified team, capable of interpreting the market needs in defining, developing and distributing its products.

Shamal's industrial range is wide and comprehensive and includes rotary screw compressors from 2.2 to 75 kW with belt-drive transmission and rotary screw compressors from 5.5 to 45 kW with direct-drive transmission.

**FNA S.p.A.** Via Einaudi, 6 10070 Robassomero Torino Italy T: +39 011 92 33 000 F: +39 011 92 41 138 BOLOGNA PLANT: Via Toscana, 21 40069 Zola Predosa Bologna Italy T: +39 051 61 68 111 F: +39 051 75 24 08 info@fnacompressors.com - www.fnacompressors.com



Authorized distributor:	

#### www.shamalcompressors.com