

## EN Series Screw Air Compressors

**Essentials Encapsulated** 







ELGi, established in 1960, designs and manufactures a wide range of air compressors. The company has gained its reputation for design and manufacture of screw compressors through strategic partnerships and continuous research and development. Over the years, it has emerged as a multi-product, multi-market enterprise providing total compressed air solutions in all segments. ELGi's design capabilities translated into a wide range of products ranging from oil-lubricated and oil-free rotary screw compressors, reciprocating compressors and centrifugal compressors. ELGi has its own manufacturing operations in India, Italy and USA with subsidiaries in Australia, Brazil, UAE and Indonesia. The company is fast expanding its global footprint attracting distributors and customers with its latest generation products.

Screw Compressor elements are manufactured in-house using state-ofthe-art machining centres for rotor grinding and machining castings of various sizes. ELGi's own  $\eta$ -V profile rotors ensure energy-efficient compressed air supply for all demanding applications. ELGi is one of the few companies capable of manufacturing wide range of airends and compressor packages in the world. ELGi's patent portfolio is a testament to the company's continuous research and innovation capability

# 🔶 AIR UP.

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# **EN Series** compact, silent and efficient



ELGi's EN series screw compressors are designed to encapsulate all functional components and compressor within a common housing. With its small footprint, high reliability and low maintenance requirements, the compressors are ideal for all industrial applications where size, efficiency and cost matter.





High reliability



**Energy-efficient** 



Low cost of ownership



Ease of maintenance



Compact and silent

## **Encapsulated airend\***

The EN series compressors are fitted with ELGi's unique assembly which encapsulates all major functional systems such as intake system, compression system and separation system within a common frame

- Energy efficient
- Minimal pressure drop across the system
- Compact
- Silent

\* From EN 2 to EN 30



## Efficient air-oil separation with (<3ppm)

The air-oil separation by impact and deceleration action involves three stages: **Stage 1:** Impact of air-oil mixture on the tank circumferential area **Stage 2:** Deceleration action of air-oil mixture to remove the oil particles **Stage 3:** Air with minor traces of oil enters the spin on separator for purification

## **Ease of maintenance**

routine service

Single service door access to routine maintenance points
Spin-on oil filter and separator elements for fast and easy



## **Reliable Neuron Controller**

The Neuron XT controller has been custom designed and engineered as an efficient control solution for encapsulated series. The system allows you to monitor and control overall performance with easy-to-use service indications, malfunction alarms and safety shutdowns. The controller is built-in with 'service protect' modules. It also includes a service and operational log feature to provide real-time feedback and increase system productivity



- Designed for wide range of temperatures upto 50°C
- Integration to energy management system
- MODBUS communications for DCS control through RS485 port
- In-built phase loss & phase reversal protection
- Remote start / stop facility

## **High efficiency motor**

- Heavy duty TEFC / S1 / IP55 motor suited for ambient temperature up to  $50^{\circ}C$
- Built-in safety systems





## **Energy Saving**

#### In-Built ELGi Variable Frequency Drives (VFD)\*

Matches compressor output with demand by varying motor speed. The power consumption reduces in line with the reduction in demand. This helps in eliminating the frequent load-unload cycle there by providing savings in energy.

\* Available in select models only

## Low cost of ownership

- Powered by ELGi's energy-efficient  $\eta$ -V rotor profiles
- Zero leakage due to integration of components/connections
- Fewer parts and connections require only minimum maintenance

#### **Operational** Longer life of consumables

- Efficient air filtration system where air enters through prefiltered enclosure. Cleaner suction air keeps the internal components of the compressor clean and maintains optimum cooling efficiency
- Low oil-fill

#### Robust cooling system in high ambient temperature

- Air cooling with separate hot and cold zones
- High efficiency coolers and cooling fans ensure low operating temperature
- Improved cooling ensures longer life of compressor



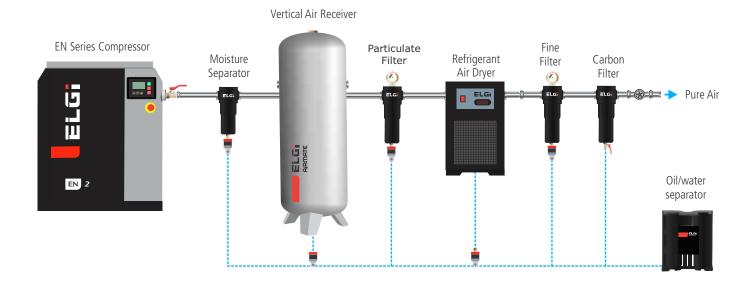
After cooler is standard in all models

> Cold air Hot air





## Typical compressed air supply system



## **ELGi Airmate Accessories**



- Capacity: 1.42 56.63 m<sup>3</sup>/min
- Working pressure: 16 bar g
- Media: Condensate
- Working pressure: 16 bar g



- Working pressure: 7-12.5 bar g
- Code of construction:
- ASME sec VIII Div. I or IS 2825, according to PED

#### **Technical Specification** EN 400V/50Hz RR

Model	Motor Power		Working Pressure		Max. Pressure		Free Air Delivery		Weight*	Noise	Tank**
50Hz	kW	HP	bar g	psi g	bar g	psi g	m³/min	cfm	Kg	dB(A)	Ltrs.
Length:615mm Breadth:715mm Height: 845mm											
EN 2	2.2	3.0	7.0	102	7.2	104	0.32	11.2	133	61	270
EN 2	2.2	3.0	9.5	138	9.7	141	0.25	8.7	133	61	270
EN 3	3.0	4.0	7.0	102	7.2	104	0.43	15.3	133	61	270
EN 3	3.0	4.0	9.5	138	9.7	141	0.36	12.7	133	61	270
EN 3	3.0	4.0	12.5	181	12.7	184	0.25	9.0	133	61	270
EN 4	4.0	5.0	7.0	102	7.2	104	0.54	19.0	143	64	270
EN 4	4.0	5.0	9.5	138	9.7	141	0.48	16.9	143	64	270
EN 4	4.0	5.0	12.5	181	12.7	184	0.40	14.2	143	64	270
EN 5	5.5	7.5	7.0	102	7.2	104	0.74	26.0	150	64	270
EN 5	5.5	7.5	9.5	138	9.7	141	0.64	22.4	150	64	270
EN 5	5.5	7.5	12.5	181	12.7	184	0.53	18.6	150	64	270

Model	Motor Power		Working Pressure		Max. Pressure		Free Air Delivery		Weight*	Noise	Tank**
50Hz	kW	HP	bar g	psi g	bar g	psi g	m³/min	cfm	Kg	dB(A)	Ltrs.
		·	Lei	ngth:875mm	n Breadth:80	0mm Heig	ht: 1008mm				
EN 5x	5.5	7.5	7.0	102	7.2	104	0.84	29.5	235	66	270/500
EN 5x	5.5	7.5	9.5	138	9.7	141	0.68	24.0	235	66	270/500
EN 5x	5.5	7.5	12.5	181	12.7	184	0.54	19.2	235	66	270/500
EN 7	7.5	10.0	7.0	102	7.2	104	1.13	40.0	260	66	270/500
EN 7	7.5	10.0	9.5	138	9.7	141	0.93	33.0	260	66	270/500
EN 7	7.5	10.0	12.5	181	12.7	184	0.76	27.0	260	66	270/500
EN 11	11.0	15.0	7.0	102	7.2	104	1.76	62.0	280	71	270/500
EN 11	11.0	15.0	9.5	138	9.7	141	1.47	52.0	280	71	270/500
EN 11	11.0	15.0	12.5	181	12.7	184	1.23	43.6	280	71	270/500
EN 15	15.0	20.0	7.0	102	7.2	104	2.04	72.0	310	71	270/500
EN 15	15.0	20.0	9.5	138	9.7	141	1.78	63.0	310	71	270/500
EN 15	15.0	20.0	12.5	181	12.7	184	1.57	55.5	310	71	270/500
			Len	gth: 930mm	Breadth: 11	50mm Heig	ght: 1450mm				
EN 15x	15.0	20.0	7.0	102	7.2	104	2.48	88	520	69	BM
EN 15x	15.0	20.0	9.5	138	9.7	141	2.12	75	520	69	BM
EN 15x	15.0	20.0	12.5	181	12.7	184	1.81	64	520	69	BM
EN 18	18.5	25.0	7.0	102	7.2	104	3.11	110	558	69	BM
EN 18	18.5	25.0	9.5	138	9.7	141	2.63	93	558	69	BM
EN 18	18.5	25.0	12.5	181	12.7	184	2.15	76	558	69	BM
EN 22	22.0	30.0	7.0	102	7.2	104	3.54	125	610	69	BM
EN 22	22.0	30.0	9.5	138	9.7	141	3.06	108	610	69	BM
EN 22	22.0	30.0	12.5	181	12.7	184	2.60	92	610	69	BM
EN 30	30.0	40.0	7.0	102	7.2	104	4.30	152	678	69	BM
EN 30	30.0	40.0	9.5	138	9.7	141	3.60	127	678	69	BM
EN 30	30.0	40.0	12.5	181	12.7	184	3.00	106	678	69	BM
			Leng	th: 1250mm	n Breadth: 1	025mm Hei	ight: 1650mn	n			
EN 30x	30.0	40.0	7.0	102	7.5	109	5.41	191	850	74	BM
EN 30x	30.0	40.0	9.5	138	10.0	145	4.39	155	850	74	BM
EN 30x	30.0	40.0	12.5	181	13.0	189	3.60	127	850	74	BM
EN 37	37.0	50.0	7.0	102	7.5	109	6.57	232	890	74	BM
EN 37	37.0	50.0	9.5	138	10.0	145	5.47	193	890	74	BM
EN 37	37.0	50.0	12.5	181	13.0	189	4.70	166	890	74	BM
EN 45	45.0	60.0	7.0	102	7.5	109	7.93	280	950	77	BM
EN 45	45.0	60.0	9.5	138	10.0	145	6.80	240	950	77	BM
EN 45	45.0	60.0	12.5	181	13.0	189	5.66	200	950	77	BM

Note: 1. Free Air Delivery (FAD) is tested as per ISO 1217 : 2009 Annexure C Edition: 4. Sound level measured as per ISO 2151, Second Edition at 1m distance in field conditions,+/-3dB(A)
 2. BM - Base Mounted. \* Weight and dimension are for Base Mounted models. \*\* Compressors mounted on horizontal receiver tank and dryer available as option (for models up to EN15)
 3. DOL Starter for EN 2 to EN 7, Star Delta Starter for EN 11 to EN 45, EN 5 / EN 7 / EN 5x are also available with Star Delta Star
 4. Due to continuous engineering improvements, the specifications are subject to change without prior notice.
 5. Product images displayed in this brochure are only for representative purpose and may not exactly match the actual product
 6. EN 2 - 9.5 is also available in 230V single phase 50Hz variant

### **Technical Specification - VFD Model**

Model	Motor Power		Working Pressure		Max. Pressure		Free Air Delivery		Weight*	Noise	Tank**
50Hz	kW	HP	bar g	psi g	bar g	psi g	m³/min	cfm	Kg	dB(A)	Ltrs.
	Length:615mm Breadth:715mm Height: 845mm										
EN 5x	5.5	7.5	7.0	102	7.2	104	0.37~0.84	13~29.5	240	66	270/500
EN 5x	5.5	7.5	9.5	138	9.7	141	0.29~0.68	10.2~24	240	66	270/500
EN 7	7.5	10.0	7.0	102	7.2	104	0.55~1.20	19.5~42.5	265	66	270/500
EN 7	7.5	10.0	9.5	138	9.7	141	0.52~0.93	18.3~33	265	66	270/500
EN 11	11.0	15.0	7.0	102	7.2	104	0.89~1.77	31.5~62.5	285	71	270/500
EN 11	11.0	15.0	9.5	138	9.7	141	0.73~1.53	25.7~54	285	71	270/500
EN 15	15.0	20.0	7.0	102	7.2	104	1.01~2.05	35.5~72.4	315	71	270/500
EN 15	15.0	20.0	9.5	138	9.7	141	0.88~1.80	31~63.5	315	71	270/500

#### Note:

Free Air Delivery (FAD) is tested as per ISO 1217 : 2009 Annexure E Edition: 4 • All standard models are air-cooled
\* Weight and dimension are for Base Mounted models. \*\* Compressors mounted on horizontal receiver tank and dryer available as option

- Sound level measures as per ISO 2151, Second Edition at 1m distance in field conditions, +/- 3dB(A)
- Due to continuous improvements, the specifications are subject to change without prior notice
- Product images displayed in this brochure are only representative and may not exactly match the actual product

#### Compressed air solutions for all sustainable air needs



**Oil free series screw** 45 - 450 kW / 5.38 - 73.65 m³/min



EG series rotary screw



EN series rotary screw 11 - 250 kW / 1.39 - 43.61 m<sup>3</sup>/min 2.2 - 45 kW / 0.26 - 6.85 m<sup>3</sup>/min

EL G



**Portable Compressor** 

### **Genuine Spares**

For enhancing performance and productivity

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