



# EG Series Screw Air Compressors

Life source of industries

# ELGi

Always Better.

**UPTIME**<sup>TM</sup>  
ASSURANCE



CIN: L29120TZ1960PLC000351

[www.elgi.com](http://www.elgi.com)

200 - 250 kW / 250 - 300 HP (50 Hz)

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-of-the-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.**



**UPTIME™**

comes standard on every EG Series Compressor

 **EG**  
**SERIES**



**The EG Series compressors** represent a giant leap in design and performance with each component designed for reliability and ease of maintenance. The compressor is manufactured in compliance with applicable international standards (UL, ASME, CE and others) and designed as per the international quality standards. These new generation compressors significantly reduce operating costs and provide cost savings with fast return on investment .



Ease of Maintenance



Low cost of ownership



Compact, safe and silent

\* Warranty applicable only for Airend



High air quality

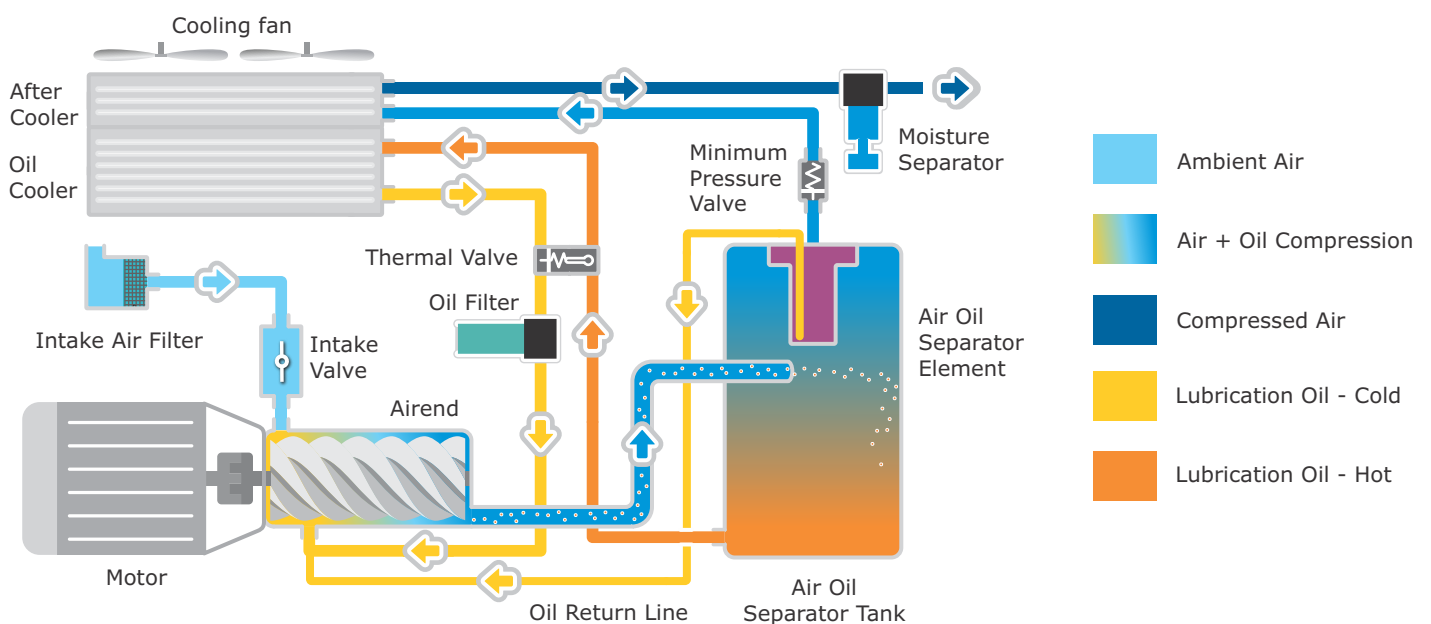


Energy efficient



High reliability

## EG Series - Schematic Diagram



## EG Series

### Advanced Neuron III Controller

Remote management of  
compressor operations

### Robust Cooling System

Reduced air outlet  
temperature

### Three-Stage Air Filtration

Increased life of  
consumables



### High Volumetric Efficiency

Low energy cost  
per cfm

### Enclosure designed to Industrial standards

Robust, silent and aesthetic  
package

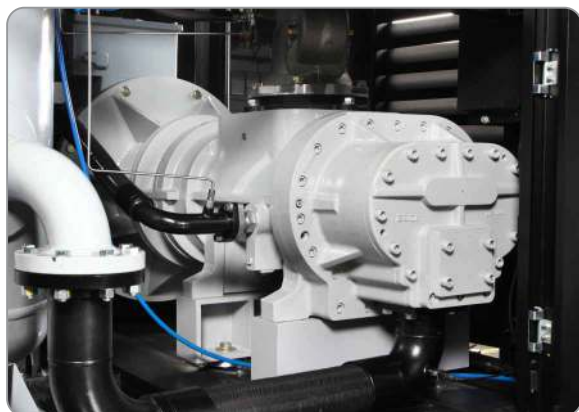
### Premium Efficiency IE4 Motor\*

For maximum ambient  
temperature

### Superior Technology Airend

Precise rotor clearances  
for higher energy efficiency

# Eco-friendly energy efficient compressor



## Premium efficiency airend

ELGi's airends are equipped with in-house developed eta-V profile rotors, with 4/5 lobe combination, the rotors are designed to run at optimum speeds. This unique design reduces pressure losses and increased efficiencies.

- Precise rotor clearances for best-in-class energy efficiency
- Low operating speeds for longer life, low sound level with lesser maintenance
- Complies with applicable safety standards

## Higher efficiency motor

- Premium efficiency IE3 class motors are used as standard
- Heavy duty TEFC induction motor with IP55 protection for assured operation in dusty environments
- Motor selected for high ambient of 50°C with power variants 415v/400v/380v in 50Hz
- Wide operating voltage- +/- 10%



## Efficient air inlet system

- Three stages of filtration of inlet air
- Heavy duty dry type air filter optimally designed for higher efficiency (99.9%)
- Reduced suction noise through baffle arrangement

## In take valve system

The new generation intake valve with integrated blow down unit, solenoid controls and actuators is designed for low losses. Intake valve optimally controls the compressor capacity during startup reducing the no-load power. This optimal capacity control results in direct savings on power consumption







### Oil-less air (2ppm\*)

ELGi has applied unique OSBIC process (Oil Separation By Impact and Centrifugal action) which enables efficient separation of air and oil, with minimum pressure drop. The method enables separation of oil in three stages, delivering consistent oil-free air while increasing the life of separator element.

\* as per ISO Standard

### Efficient Cooling System

- Cooling system with large surface area for efficient cooling
- ERP compliant Fan motor with significantly lower power consumption
- Easy and quick access points, thus enables easy service and maintenance
- After cooler and Oil cooler isolated for enhancing cooling efficiency



### Moisture - free air

EG Series air compressor has a custom designed centrifugal type moisture separator with an automatic drain. This comes as a part of the package at no extra cost and removes over 99% of bulk water from the compressed air system, resulting in corrosion free, longer life of the end use equipments and less load on the dryer.

### Air Alert - IoT 4.0

AiR~Alert is an IoT enabling device which when fit in compressors will make them 'Industry 4.0' ready. It acquires data from compressor and sends it to dedicated servers which predicts failure modes and generates alerts from data acquired and sends reports to the customer.



# Eco-friendly energy efficient compressor

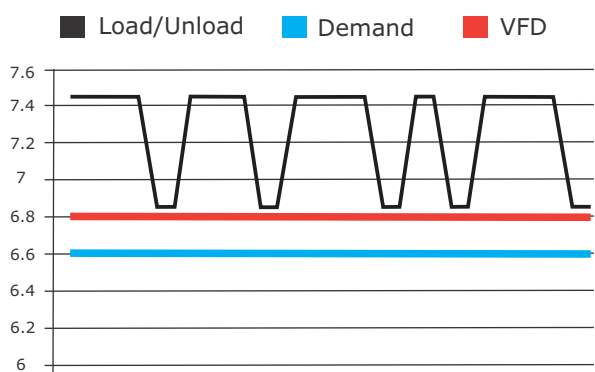


## Neuron III Controller

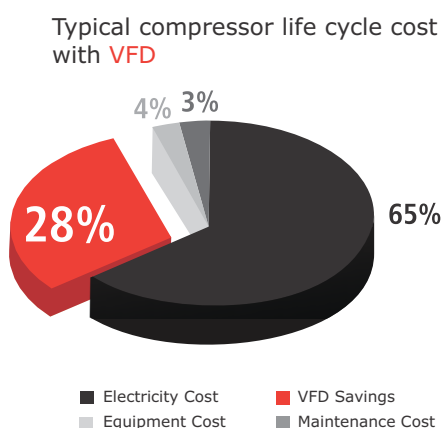
- Detects and prevents starting compressor from Phase loss and Phase reversal
- Remote Load / Unload and Start / Stop
- Run hour report for different speeds
- Provision for entering Latitude and Longitude to detect machine location
- Up to 99 fault reports with fault description and time stamp which captures exact time and operational parameters at the time of each failure

## Integrated VFD (Variable Frequency Drive)

- ELGi's VFD are specially configured to run efficiently with the ELGi's advanced eta-v profile airends
- VFD varies the compressor speed which in turn varies the air flow as per demand. This results in stabilization of pressure and saves energy
- VFD integrated machines operate at a very minimal pressure band of 0.2 bar when compared to a fixed speed machine which operates at a much higher pressure of 0.5 bar. This saves considerable energy
- All the above advantages combined, a VFD machine can typically offer a savings of between 20% - 30% depending on the demand variation available in the system



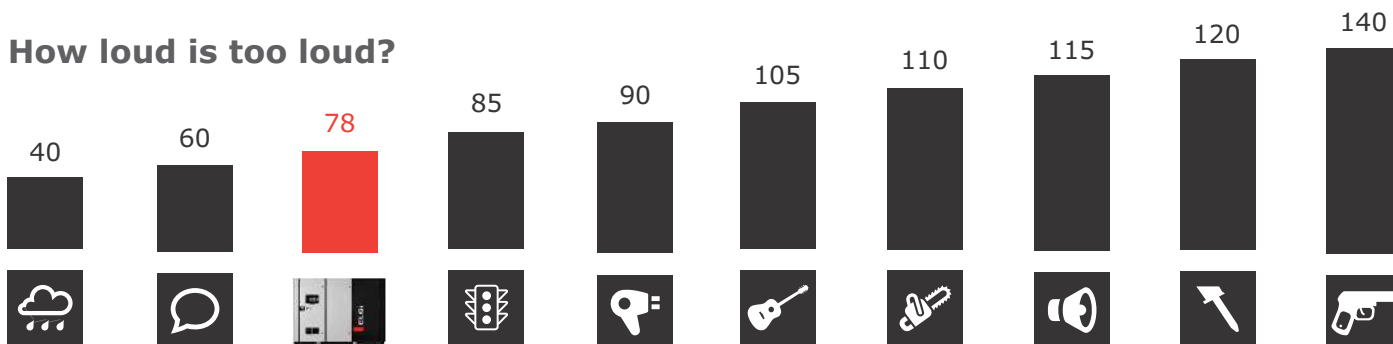
Typical Pressure pattern using a standard compressor and a compressor with VFD



## Low sound level, low vibration and compact

All these improvements are offered without compromising on the USP of low noise and vibration

### How loud is too loud?



# Technical Specification

Model	Motor Power		Pressure		Max. Pressure		Free Air Delivery		Weight	Noise	Dimension (LxBxH)
50 Hz	kW	HP	bar g	psi g	bar g	psi g	m <sup>3</sup> /min	cfm	(Kg)	dB(A)	mm
EG 200	200	250	4.5	65	5.5	80	38.51	1360	5295	78	3490 x 2251 x 2441
EG 200	200	250	7.0	102	8.0	116	37.94	1340	5295	78	3490 x 2251 x 2441
EG 200	200	250	8.0	116	9.0	131	34.48	1218	5295	78	3490 x 2251 x 2441
EG 200	200	250	9.5	138	10.5	152.5	31.15	1100	5295	78	3490 x 2251 x 2441
EG 200	200	250	12.5	181	13.5	196	25.77	910	5295	78	3490 x 2251 x 2441
EG 250	250	300	4.5	65	5.5	80	43.60	1540	5655	78	3490 x 2251 x 2441
EG 250	250	300	7.0	102	8.0	116	43.18	1525	5655	78	3490 x 2251 x 2441
EG 250	250	300	8.0	116	9.0	131	41.77	1475	5655	78	3490 x 2251 x 2441
EG 250	250	300	9.5	138	10.5	152.5	37.88	1320	5655	78	3490 x 2251 x 2441
EG 250	250	300	12.5	181	13.5	196	31.15	1100	5655	78	3490 x 2251 x 2441

## Integrated VFD (Variable Frequency Drive) models

EG 200	200	250	4.5	65	5.5	80	15.4~38.51	544~1360	5420	78	3490 x 2251 x 2441
EG 200	200	250	7.0	102	8.0	116	14.8~37.94	525~1340	5420	78	3490 x 2251 x 2441
EG 200	200	250	8.0	116	9.0	131	14.7~34.48	520~1218	5420	78	3490 x 2251 x 2441
EG 200	200	250	9.5	138	10.5	152.5	14.4~31.15	512~1100	5420	78	3490 x 2251 x 2441
EG 200	200	250	12.5	181	13.5	196	12.57~25.77	444~910	5420	78	3490 x 2251 x 2441
EG 250	250	300	4.5	65	5.5	80	17.4~43.6	614~1540	5780	78	3490 x 2251 x 2441
EG 250	250	300	7.0	102	8.0	116	18.2~43.18	642~1525	5780	78	3490 x 2251 x 2441
EG 250	250	300	8.0	116	9.0	131	18.0~41.77	635~1475	5780	78	3490 x 2251 x 2441
EG 250	250	300	9.5	138	10.5	152.5	17.7~37.38	625~1320	5780	78	3490 x 2251 x 2441
EG 250	250	300	12.5	181	13.5	196	15.34~31.15	542~1100	5780	78	3490 x 2251 x 2441

### Note:

- Free Air delivery (FAD) is tested as per ISO 1217:2009 Annexure C edition: 4 • FAD indicated is for the full package measured at the outlet after moisture separator
- All models are available in Air cooled version and Water cooled version are available on demand
- Unload pressure is 1 bar g above the working pressure for fixed speed machines and Unload pressure is 0.5 bar g above the working pressure for Variable speed machines
- Sound level measured as per ISO 2151, second edition at 1m distance in free field conditions, +/-3 dB(A) • Performance measurements are at specified working pressures
- Due to continuous improvements, the specifications are subject to change without prior notice.

## ELGi Airmate Accessories



### Downstream filter

- Capacity: 35-3200 cfm
- Working pressure : 100-190psig (7-13 bar g)
- Filtration Range: 1-0.003 microns



### Drain valves

Timer controller & zero loss

- Capacity: 500 - 2000 cfm
- Working pressure: 100-190 psig (7-13 bar g)



### Refrigeration air dryer

- Flow range: 10~2000 cfm
- Working pressure: 100-870 psi (7-60 bar g)
- Filtration range: +3°C. PDP



### Oil water separator

- Capacity: 70 - 1060 cfm
- Max. Oil adsorption capacity: 20 Lts
- Media: Condensate
- Separation Efficiency: <10ppm



### Air receiver

- Capacity: 250 - 10000 ltrs.
- Working pressure: 100-190 psi g (7-13 bar g)
- code of construction: ASME sec. VIII Div.I or IS 2825



### Heat recovery system

- Models: 11 - 250 kW
- Heat Capacity: 10.5 - 225 kW

# ELGi

**ELGI EQUIPMENTS LIMITED**

**CORPORATE OFFICE:** Trichy Road, Singanallur, Coimbatore - 641005,

**T:** +91-422-2589555, **E:** enquiry@elgi.com, **w:** www.elgi.com

Customer care mobile no.: +91 92821 11224 (SMS only)

Toll-free no: **1800-425-3544** (applicable for India only)

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