



# Global Series Screw Air Compressors

Life source of industries



11-75 kW

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





**ELGI**

## a tradition of **RELIABILITY**

Elgi, established in 1960, designs and manufactures a wide range of 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 emerged as a multi-product, multi-market enterprise providing total compressed air 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 China, France, India and Italy with subsidiaries in Australia, Brazil, UAE and USA. The company is fast expanding its global footprint attracting distributors and customers with its latest generation products.

## innovative **TECHNOLOGY**

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 air ends and compressor packages in the world. Elgi's patent portfolio is a testament to the company's continuous research and innovation capability.



## robust **INFRASTRUCTURE**

Elgi has modern manufacturing facilities in equipped with advanced high precision grinding machines, turning centres and CNC horizontal and vertical machining centres. Screw air ends are manufactured with the latest rotor grinding technology, coupled with measurement technology to maintain precise manufacturing tolerances. Elgi's manufacturing plants are both ISO and EOHS certified. The products are manufactured under controlled environment to ensure that its quality continues to meet the highest standards.



with **UPTIME™** Promise

The Global 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 .



**High Volumetric Efficiency**

Low energy cost per cfm

**Advanced Neuron II Controller  
(Remote management of compressor operations)**

Ready for SCADA/DCS

**Highly Efficient Super Breed Eff1 Motor**

Energy cost savings



**Option of In-built Dryer and VFD**

Compact and saves floor area

# Global Series - The Technology Edge



**Enclosure Designed to Industrial Standards**

Silent, aesthetic package

**Robust Cooling System**

Reduced air outlet temperature

**Safety Compliant Package**

**Two-Stage Air Filtration**

Increased life of consumables

**Superior Technology Airend**

Gearless\* and reduced sound



\*for selected models only

# Global Series

The Eco-friendly  
Energy Efficient Compressors



Save Energy  
Highly Efficient 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. The rotors ensure energy-efficient compressed air supply for all demanding applications.

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



Reduced Starting Load  
Intake 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(1ppm)\*

Efficient air-oil separation with OSBIC(3 Stages)

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 Standards

E11-22



E30-45



## Moisture-Free Air

99% Water Free

Depending on the humidity level of inlet air, bulk water remains in compressed air at varying levels and causes corrosion of piping, end tools, machinery and valves. Global Series air compressor has a custom-designed centrifugal type moisture separator with an automatic timer controlled drain. This comes as a part of the package at no extra cost and removes over 99% of bulk water from the compressed air, resulting in corrosion free, longer life of end use equipments and less load on the dryer



## Cool Air

Efficient air cooling

The cooling system with fans and larger cooling surface area enhances the cooling of hot air. The fan motor uses significantly low power. The integrated fan-motor assembly maintains low temperature there by increasing the life of motor. Smart cooling system design enables easy maintenance and ducting. More over, the complete system is insulated internally from other zones



## Robust and Reliable

Reliability under extreme conditions

Global series compressors are designed to perform at extreme temperatures - from cold to hot and from dry to extremely humid conditions







## Performance Control System

- Built-in Dryer Dew Point integration
- VFD Parameter (Power, HMR, Frequency, Ampere, Voltage)
- Read out and closed loop control
- Selectable AO (Pressure/Temperature/Dew Point) for DCS integration
- Controlled drain system



## Reports

- Cumulative Report (Run Hours, Load Hours, Unload Hours, Stop Hours, Fault Hours and remaining AFCT, OFCT, OSCT, OCT and RGT)
- Detail Report - Previous 15 Days (Load Hours, Unload Hours, Stop Hours, Fault Hours, and Number of times machine stopped due to standby)
- Fault Report - (Previous 99 Faults in chronological order with Real Time stamping and type of fault)



## Remote Monitoring

- **DCS (MODBUS RTU/RS 485):** Controller is enabled to synchronize with Distributed Control System - control of compressor from control panel of customer
- **SCADA :** Compressor control through PC with remote monitoring by Supervisory Control And Data Acquisition process



## Safety and Protection

Global Series compressors are designed and perfected to ensure highest level of safety for

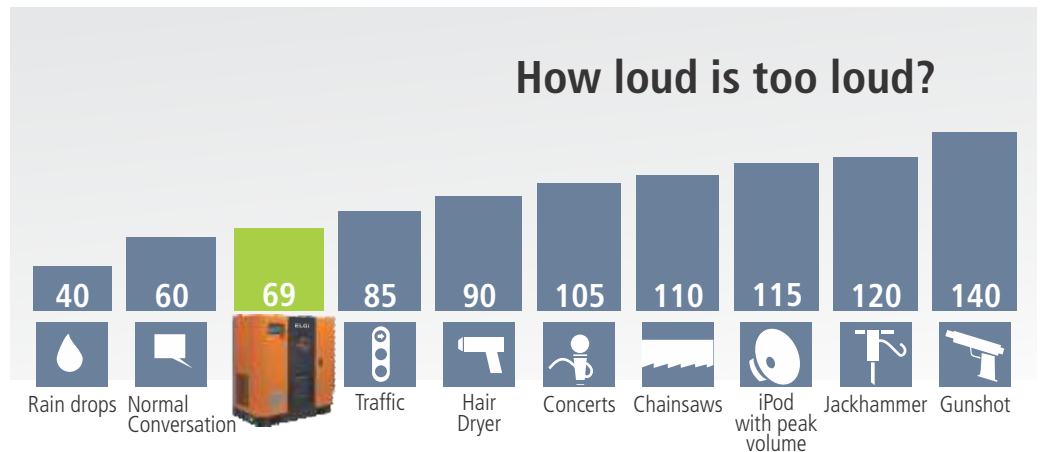
- Pressure regulating valve
- High pressure
- High temperature
- Pressure relief valve
- Phase order and single phase



## Compressor Near Point of Use

Compressors can be placed anywhere in assembly area without any special foundation

- Low Sound
- Low Vibration
- Compact





## Accessories

### Airmate Particulate Filter

Air Flow : 35 - 3,200 cfm (1 - 90 m<sup>3</sup>/min)  
 Working Pressure : 100 - 190 psig (7 - 13 bar g)  
 Filtration Range : 1 - 0.003 microns



### Airmate 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 28



## Automatic Compressor Sequencing Controller

The master controller can manage up to 12 positive displacement compressors including compressors of different capacities, different types (fixed speed, variable speed and variable capacity) and in any combination or configuration



### Drain Valves

Timer controlled and zero loss  
 Capacity : up to 2000 cfm  
 Working Pressure : 7 - 13 bar g



## After Sales Solutions

A wide range of After Sales products and services is designed to add maximum value for our customers. Our fast serviceability ensures optimum availability and reliability of the compressors with the lowest possible operating costs

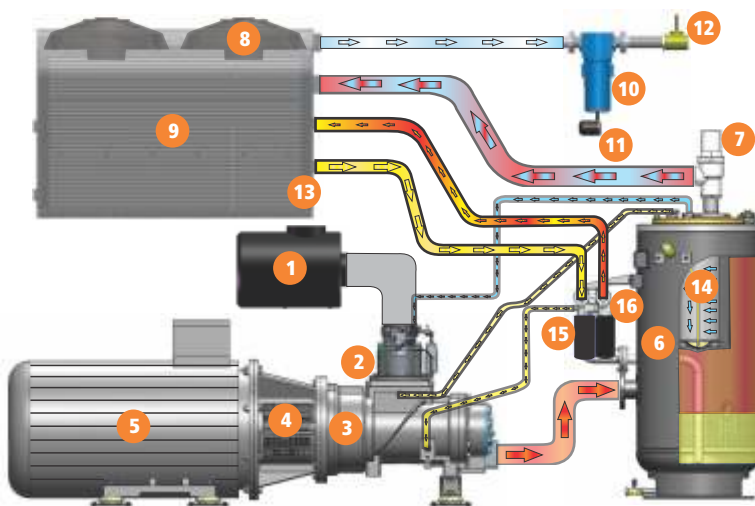
### Genuine Spares and Service

Elgi Genuine Spares helps in avoiding unexpected compressor failures and the risk of consequential damage to other vital compressor components. Elgi spares are designed, manufactured and checked for quality to meet the standards of a new compressor. The spares undergo continuous improvement to provide best results and are available through the vast network of Elgi dealers in India and International markets

### Elgi Air Audit

Elgi Air Audit helping in improving the performance of the compressors by identifying the areas of wastage in the system. Elgi's air audit services are offered in areas including generation, distribution and demand side systems

## Air/Oil Flow Diagram



1. Air Intake Filter
2. Suction Control Valve
3. Airend
4. Drive Coupling
5. Electric Motor
6. Air-Oil Separator Tank
7. Minimum Pressure Valve
8. Cooling Fan
9. After Cooler
10. Moisture Separator
11. Automatic Drain
12. Outlet Valve
13. Oil Cooler
14. Air-Oil Separator
15. Oil Filter (spin-on)
16. Thermal Valve Unit

- COOLED AIR
- HOT AIR
- COOLED OIL
- HOT OIL
- HOT AIR/OIL MIXTURE



## Superior Air Quality

In-built air treatment (optional)

### In-built Elgi Airmate Refrigerant Air Dryer\*

The in-built Elgi Refrigerant Air Dryer uses eco-friendly refrigerant and its optimal design meets dew point range of 3°C - 7°C. The design ensures safety with minimum pressure drop and maximum thermal efficiency. Dryer designs meet ISO 8573 standards for performance.



#### Designed for high inlet ( 55°C) and ambient (45°C) temperatures

- Energy efficient rotary gas compressor
- 3 in 1 Heat exchanger bringing in efficiency and compactness to dryer package.
- Internally Grooved Condenser which increases heat transfer efficiency and brings compactness to the package
- Energy loss due to pressure drop is nil
- Non cyclic control ensuring stabilized dew point for various input load
- Eco-friendly gas - R407C keeps environment unpolluted
- Single door access for routine check up and preventive maintenance

\*Please contact Elgi's nearest sales office for integrated dryer options

## Energy Saving -The CONSERVE Way

### 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. Helps in eliminating the frequent load-unload cycle and also the wasted power from the energy bill.

A fixed speed compressor operates on a load unload band of at least 10 psi around the working pressure whereas with Elgi VFD, compressor can be operated within a band of 2 psi. Since the compressor is not operated under higher than working pressure requirements, there is substantial energy saving. For every 2 psi reduction in operating pressure, there is 1% power saving.

In a fixed speed compressor with Star-Delta starter, starting current is as high as three times the full load current (FLC). With Elgi VFD starting, starting current is less than the FLC. This helps to avoid using heavy rated components like fuses, MCCB, cable size, generator rating, isolators etc.

For compressed air systems with fluctuating demand pattern, giving a fast return on investment .



#### Advantages:

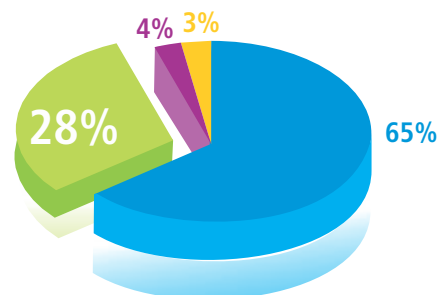
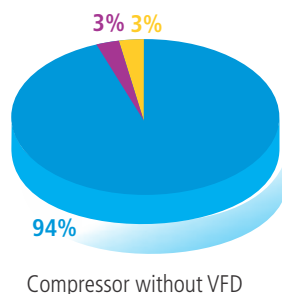
##### Electrical:

Low starting current  
High efficiency  
Improved power factor  
Reduced maximum demand

##### Mechanical:

Minimum maintenance  
Smooth start  
Smooth control

#### 10 Year Life Cycle Cost



■ Electricity Cost    ■ VFD Saving  
■ Equipment Cost    ■ Maintenance Cost

# Technical Specification

50 Hz	Power		Capacity		Working Pressure		MAX		Weight*	Noise Level
	kW	HP	m <sup>3</sup> /min	cfm	bar g	psi g	bar g	psi g	Kg	dB(A)
<b>Length : 1425mm Breadth : 720mm Height : 1490mm</b>										
E11-7.5 GS	11	15	2.01	71	7	102	7.5	109	534	69
E11-8.5 GS	11	15	1.84	65	8	116	8.5	123	534	69
E11-10 GS	11	15	1.7	60	9.5	138	10	145	534	69
E11-13 GS	11	15	1.39	49	12.5	181	13	189	534	69
E15-7.5 GS	15	20	2.72	96	7	102	7.5	109	630	69
E15-8.5 GS	15	20	2.49	88	8	116	8.5	123	630	69
E15-10 GS	15	20	2.27	80	9.5	138	10	145	630	69
E15-13 GS	15	20	1.95	69	12.5	181	13	189	565	69
E18-7.5 GS	18	25	3.26	115	7	102	7.5	109	680	69
E18-8.5 GS	18	25	3.11	110	8	116	8.5	123	680	69
E18-10 GS	18	25	2.78	98	9.5	138	10	145	680	69
E18-13 GS	18	25	2.27	80	12.5	181	13	189	600	69
E22-7.5 GS	22	30	3.85	136	7	102	7.5	109	700	69
E22-8.5 GS	22	30	3.74	132	8	116	8.5	123	700	69
E22-10 GS	22	30	3.23	114	9.5	138	10	145	700	69
E22-13 GS	22	30	2.69	95	12.5	181	13	189	630	69
<b>Length : 1700mm Breadth : 1100mm Height : 1570mm</b>										
E30 -7.5 GS	30	40	5.69	201	7	102	7.5	109	1068	68
E30-8.5 GS	30	40	4.84	171	8	116	8.5	123	1068	68
E30-10 GS	30	40	4.73	167	9.5	138	10	145	1068	68
E30-13 GS	30	40	3.88	137	12.5	181	13	189	1068	68
E37-7.5 GS	37	50	7.08	250	7	102	7.5	109	1130	68
E37-8.5 GS	37	50	5.92	209	8	116	8.5	123	1130	68
E37-10 GS	37	50	5.78	204	9.5	138	10	145	1130	68
E37-13 GS	37	50	5.01	177	12.5	181	13	189	1130	68
E45-7.5 GS	45	60	8.49	300	7	102	7.5	109	1151	68
E45-8.5 GS	45	60	7.73	273	8	116	8.5	123	1151	68
E45-10 GS	45	60	7.08	250	9.5	138	10	145	1151	68
E45-13 GS	45	60	5.8	205	12.5	181	13	189	1151	68
<b>Length :1961mm Breadth : 1265mm Height : 1754mm</b>										
E55 -8 GS	55	75	10.76	380	7	102	8	116	1630	69
E55-9 GS	55	75	10.05	355	8	116	9	131	1630	69
E55-10.5GS	55	75	9.20	325	9.5	138	10.5	153	1630	69
E55-13.5GS	55	75	7.50	265	12.5	181	13.5	197	1630	68
<b>Length :2065mm Breadth : 1265mm Height : 1948mm</b>										
E75-8 GS	75	100	14.78	522	7	102	8	116	2020	69
E75-9 GS	75	100	13.88	490	8	116	9	131	2020	69
E75-10.5 GS	75	100	12.74	450	9.5	138	10.5	153	2020	69
E75-13.5 GS	75	100	11.04	390	12.5	181	13.5	197	2020	69

**Note:**

Free Air Delivery(FAD) is tested as per ISO 1217 : 2009 Annex.C Ed.3

All standard models are air-cooled

Sound level measures as per ISO 2151, Second Edition at 1m distance in field conditions, +/- 3dB(A)

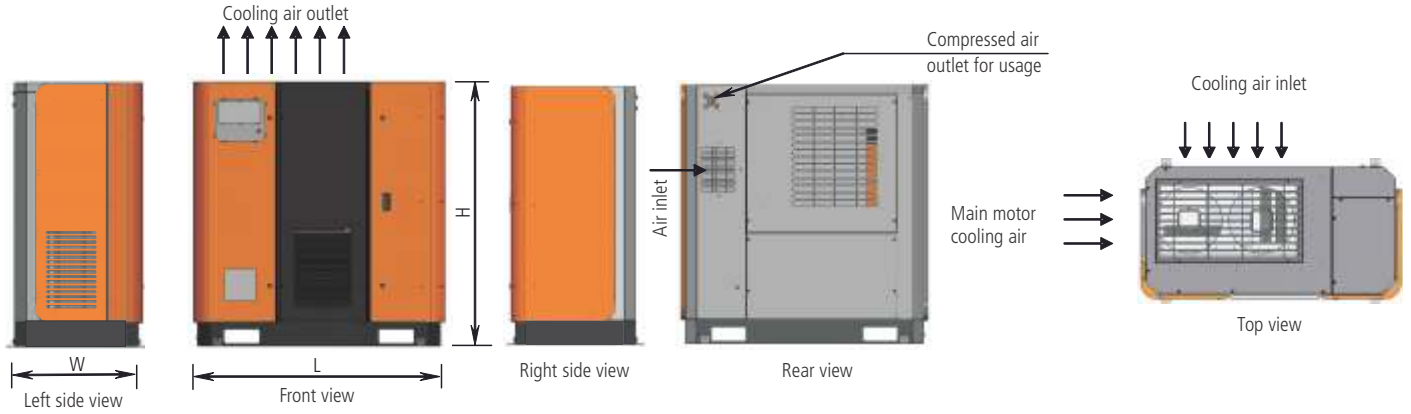
\*Weight of compressor with integrated dryer and VFD shall be provided on request

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



## Dimensional Data



## ELGi Brand Support

Our **UPTIME™** brand is supported, and held up, by three strong pillars:

- UPTIME Design**  
 This speaks to the engineering and design of our products. Our R&D is dedicated to designing machines that run cooler, cleaner and longer... that are easy to service... with longer service intervals. Our commitment to an UPTIME DESIGN.
- UPTIME Components**  
 For so many of our customers, seeing is believing. They know a quality-built machine when they see it. That's why every part on a ELGi compressor is a quality part. From our proprietary air ends, to our use of leak-free hoses and piping.
- UPTIME Assurance**  
 Here is where we back our pledge, with industry-leading warranties, parts availability, loaner machines and call centers staffed by experts. All with the peace-of-mind customers have knowing their compressor is assembled locally.

## global REACH

Elgi serves the world marketplace. Over two million compressors are powering business in 63 countries worldwide. The company offers a strong sales and service network with a well-knit distribution network of more than 250 dealers worldwide. Elgi has its own manufacturing facilities in China, France, India and Italy. Additionally, Elgi has warehouse operations to stock units and parts in Australia, Brazil, UAE and USA.

