EG Series
Screw Air Compressors

Life source of industries

ELGi
Always Better.

CIN: L29120TZ1960PLC000351

www.elgi.com

11 - 75 kW / 15 - 100 HP (50Hz)

ELGi
Always Better.

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 η-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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Ease of maintenance -
Removable panels for ease of access to components

Two-Stage Air Filtration
Increased life of consumables

High Volumetric Efficiency
Low energy cost per m^3/min

Advanced Neuron III Controller (Remote management of compressor operations)
Ready for SCADA/DCS

Highly Efficient Motor
Energy cost savings

Option of "In-built VFD"
Compact and saves floor area

Enclosure Designed to Industrial Standards
Silent, aesthetic package

Superior Technology Airend
Gearless* and reduced sound

Robust Cooling System
Reduced air outlet temperature

Safety Compliant package

Excellent Oil Separation - OSBIC

EG Series - The Technology Edge




*for selected models only

EG Series

The Eco-friendly
Energy-efficient compressors

Save energy
High efficient airend

ELGi's airends are equipped with in-house developed η-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
- Slow running

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

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. 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, 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

EG series compressors are designed to perform at extreme temperatures - from cold to hot and from dry to extremely humid conditions. Design temperatures of 45° C

All images shown are for illustration purposes only. Actual product may vary, due to product enhancement.

Performance Control System

- 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

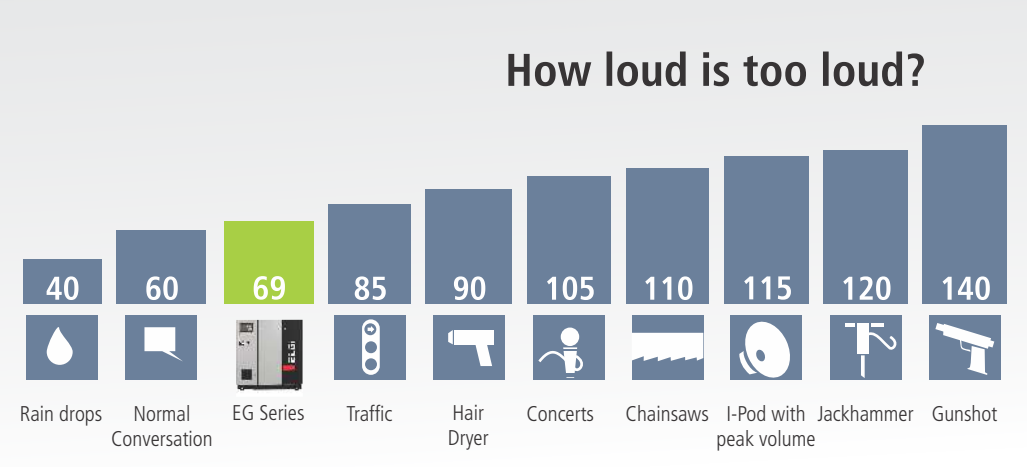
Global Series compressors are designed and perfected to ensure highest level of safety for

- 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



ELGi Airmate Accessories

Airmate Particulate Filter

Air Flow : 1 - 90 m^3/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 2825

Drain Valves

Timer controlled and zero loss
Capacity : 1.42 - 56.63 m^3/min
Working Pressure : 100 - 190 psig (7 - 13 bar g)

Cooler Pre-filter

Available for all the models as an optional accessory

Heat Recovery System

ELGi's HRS helps companies recover approximately 96 % of the heat generated during the compression process which can then be utilized for heating of air and water. This in turn eliminates additional equipment requirements to heat water or air, thereby reducing CO2 emissions.

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

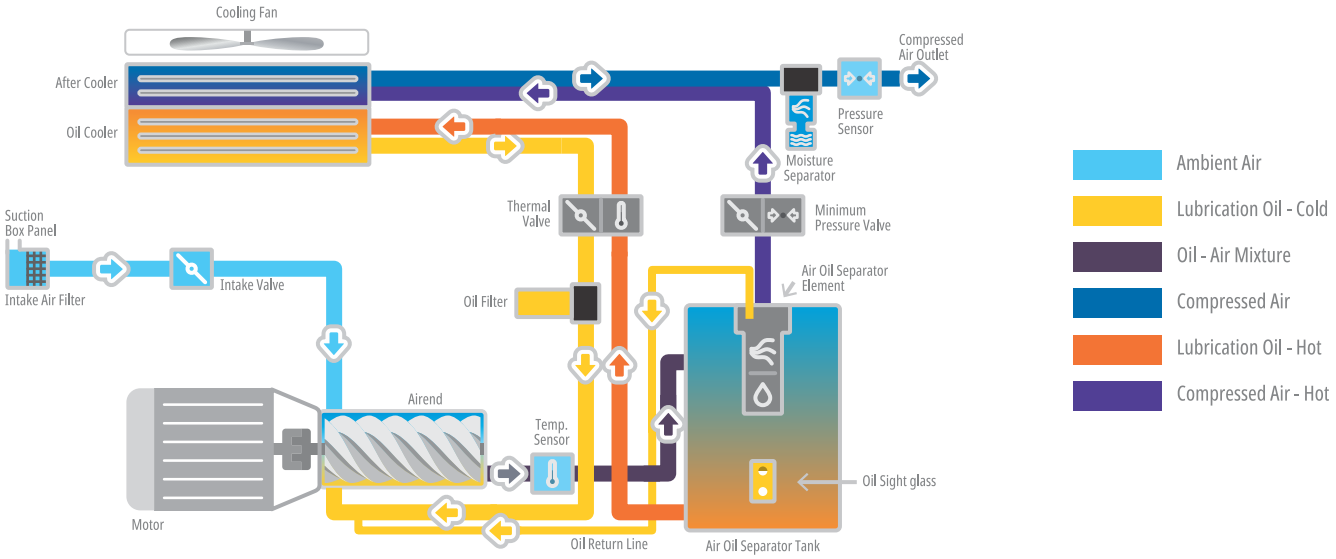
Genuine Spares and Service

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.

ELGi Air Audit

ELGi Air Audit help's 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



Energy Saving - The CONSERVE Way

In-Built ELGi CONSERVE™ ENERGY EFFICIENCY 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 and also the wasted power from the energy bill.

A fixed speed compressor operates on a load unload band of at least 10 psi (0.68 barg) around the working pressure whereas with ELGi VFD, the compressor can be operated within a band of 2 psi (0.14 barg).
Since the compressor is not operated under higher than working pressure requirements, there is substantial energy savings. For every 2 psi (0.14 barg) reduction in operating pressure, there is 1% power saving.

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

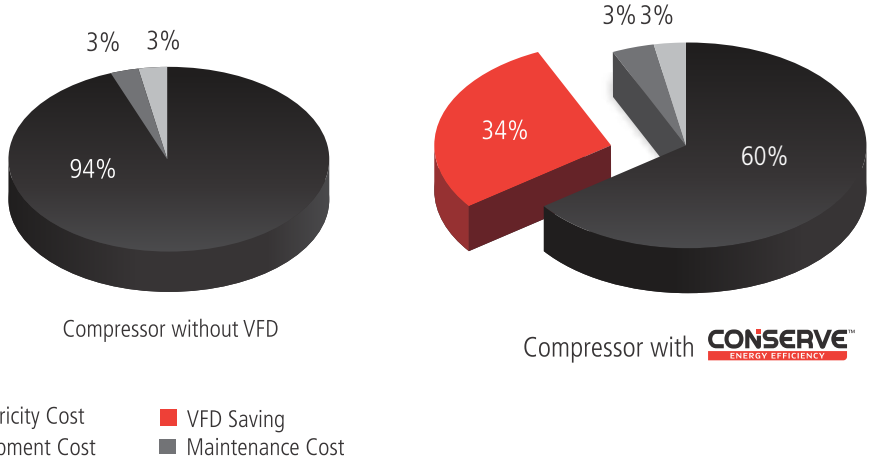
For compressed air systems with fluctuating demand pattern, giving a fast return on investment .

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



Technical Specification

Model	Motor Power		Working Pressure		Maximum Pressure		Free Air Delivery		Weight	Noise Level
50 Hz	kW	HP	bar g	psi g	bar g	psi g	m^3/min	cfm	Kg	dB(A)
Length: 1356mm Breadth: 721mm Height: 1370mm										
EG 11	11	15	7.0	102	7.5	109	2.01	71	532	69
EG 11	11	15	8.0	116	8.5	123	1.81	64	532	69
EG 11	11	15	9.5	138	10.0	145	1.64	58	532	69
EG 11	11	15	12.5	181	13.0	189	1.39	49	532	69
EG 15	15	20	7.0	102	7.5	109	2.78	98	552	69
EG 15	15	20	8.0	116	8.5	123	2.63	93	552	69
EG 15	15	20	9.5	138	10.0	145	2.27	80	552	69
EG 15	15	20	12.5	181	13.0	189	1.98	70	552	69
Length: 1500mm Breadth: 910mm Height: 1370mm										
EG 18	18	25	7.0	102	7.5	109	3.40	120	650	69
EG 18	18	25	8.0	116	8.5	123	3.23	114	650	69
EG 18	18	25	9.5	138	10.0	145	2.83	100	650	69
EG 18	18	25	12.5	181	13.0	189	2.32	82	650	69
EG 22	22	30	7.0	102	7.5	109	4.02	142	660	69
EG 22	22	30	8.0	116	8.5	123	3.91	138	660	69
EG 22	22	30	9.5	138	10.0	145	3.34	118	660	69
EG 22	22	30	12.5	181	13.0	189	2.75	97	660	69
Length: 1705mm Breadth: 1111mm Height: 1570mm										
EG 26	26	35	4.5	65	5	73	5.15	182	1044	69
EG 26	26	35	7	102	7.5	109	5.01	177	1044	69
EG 26	26	35	8	116	8.5	123	4.47	158	1044	69
EG 26	26	35	9.5	138	10	145	4.16	147	1044	69
EG 26	26	35	12.5	181	13	189	3.43	121	1044	69
EG 30	30	40	4.5	65	5	73	5.95	210	1044	69
EG 30	30	40	7	102	7.5	109	5.83	206	1044	69
EG 30	30	40	8	116	8.5	123	5.18	183	1044	69
EG 30	30	40	9.5	138	10	145	4.87	172	1044	69
EG 30	30	40	12.5	181	13	189	4.05	143	1044	69
EG 37	37	50	4.5	65	5	73	7.28	257	1110	69
EG 37	37	50	7	102	7.5	109	7.22	255	1110	69
EG 37	37	50	8	116	8.5	123	6.65	235	1110	69
EG 37	37	50	9.5	138	10	145	5.97	211	1110	69
EG 37	37	50	12.5	181	13	189	5.24	185	1110	69
EG 45	45	60	4.5	65	5	73	8.86	313	1116	69
EG 45	45	60	7	102	7.5	109	8.75	309	1116	69
EG 45	45	60	8	116	8.5	123	7.99	282	1116	69
EG 45	45	60	9.5	138	10	145	7.39	261	1116	69
EG 45	45	60	12.5	181	13	189	6.23	220	1116	69
Length: 1959mm Breadth: 1266mm Height: 1754mm										
EG 55	55	75	4.5	65	5.5	80	10.90	385	1523	69
EG 55	55	75	7.0	102	8.0	116	10.76	380	1523	69
EG 55	55	75	8.0	116	9.0	131	10.11	357	1523	69
EG 55	55	75	9.5	138	10.5	152	9.29	328	1523	69
EG 55	55	75	12.5	181	13.5	196	7.59	268	1523	69

Length: 2063mm Breadth: 1269mm Height: 1969mm										
EG 75	75	100	7.0	102	8.0	116	14.78	522	2020	69
EG 75	75	100	8.0	116	9.0	131	13.88	490	2020	69
EG 75	75	100	9.5	138	10.5	152	12.74	450	2020	69
EG 75	75	100	12.5	181	13.5	196	11.04	390	2020	69

Note:

Free Air Delivery(FAD) is tested as per ISO 1217 : 2009 Annexure C Edition: 4
All standard models are air-cooled
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
FAD values are provided at corresponding working pressure values
Length, breadth and height dimensions include integrated dryer

Technical Specification - VFD Model

Model	Motor Power		Working Pressure		Maximum Pressure		Free Air Delivery		Weight	Noise Level
50 Hz	kW	HP	bar g	psi g	bar g	psi g	m^3/min	cfm	Kg	dB(A)
Length: 1356mm Breadth: 721mm Height: 1370mm										
EG 11	11	15	7.0	102	7.5	109	0.71 ~ 2.01	25 ~ 71	582	69
EG 11	11	15	8.0	116	8.5	123	0.71 ~ 1.81	25 ~ 64	582	69
EG 11	11	15	9.5	138	10.0	145	0.71 ~ 1.64	25 ~ 58	582	69
EG 11	11	15	12.5	181	13.0	189	0.57 ~ 1.36	20 ~ 48	582	69
EG 15	15	20	7.0	102	7.5	109	1.27 ~ 2.78	45 ~ 98	632	69
EG 15	15	20	8.0	116	8.5	123	1.13 ~ 2.63	40 ~ 93	632	69
EG 15	15	20	9.5	138	10.0	145	0.99 ~ 2.27	35 ~ 80	632	69
EG 15	15	20	12.5	181	13.0	189	0.76 ~ 1.98	27 ~ 70	632	69
Length: 1500mm Breadth: 910mm Height: 1370mm										
EG 18	18	25	7.0	102	7.5	109	1.56 ~ 3.40	55 ~ 120	680	69
EG 18	18	25	8.0	116	8.5	123	1.50 ~ 3.23	53 ~ 114	680	69
EG 18	18	25	9.5	138	10.0	145	1.13 ~ 2.83	40 ~ 100	680	69
EG 18	18	25	12.5	181	13.0	189	1.02 ~ 2.32	36 ~ 82	680	69
EG 22	22	30	7.0	102	7.5	109	1.78 ~ 4.02	63 ~ 142	685	69
EG 22	22	30	8.0	116	8.5	123	1.78 ~ 3.91	63 ~ 138	685	69
EG 22	22	30	9.5	138	10.0	145	1.56 ~ 3.34	55 ~ 118	685	69
EG 22	22	30	12.5	181	13.0	189	1.19 ~ 2.75	42 ~ 97	685	69
Length: 1705mm Breadth: 1111mm Height: 1570mm										
EG 26	26	35	4.5	65	5	73	1.98 ~ 5.15	70 ~ 182	1089	69
EG 26	26	35	7	102	7.5	109	1.98 ~ 5.01	70 ~ 177	1089	69
EG 26	26	35	8	116	8.5	123	1.64 ~ 4.47	58 ~ 158	1089	69
EG 26	26	35	9.5	138	10	145	1.47 ~ 4.16	52 ~ 147	1089	69
EG 26	26	35	12.5	181	13	189	1.56 ~ 3.43	55 ~ 121	1089	69
EG 30	30	40	4.5	65	5	73	1.22 ~ 5.95	43 ~ 210	1089	69
EG 30	30	40	7	102	7.5	109	1.16 ~ 5.83	41 ~ 206	1089	69
EG 30	30	40	8	116	8.5	123	1.33 ~ 5.18	47 ~ 183	1089	69
EG 30	30	40	9.5	138	10	145	1.53 ~ 4.87	54 ~ 172	1089	69
EG 30	30	40	12.5	181	13	189	1.53 ~ 4.05	54 ~ 143	1089	69

Technical Specification - VFD Model

Model	Motor Power		Working Pressure		Maximum Pressure		Free Air Delivery		Weight	Noise Level
50 Hz	kW	HP	bar g	psi g	bar g	psi g	m^3/min	cfm	Kg	dB(A)
Length: 1705mm Breadth: 1111mm Height: 1570mm										
EG 37	37	50	4.5	65	5	73	1.50 ~ 7.28	53 ~ 257	1155	69
EG 37	37	50	7	102	7.5	109	1.56 ~ 7.22	55 ~ 255	1155	69
EG 37	37	50	8	116	8.5	123	1.70 ~ 6.65	60 ~ 235	1155	69
EG 37	37	50	9.5	138	10	145	1.87 ~ 5.97	66 ~ 211	1155	69
EG 37	37	50	12.5	181	13	189	2.07 ~ 5.24	73 ~ 185	1155	69
EG 45	45	60	4.5	65	5	73	1.81 ~ 8.86	64 ~ 313	1161	69
EG 45	45	60	7	102	7.5	109	1.87 ~ 8.75	66 ~ 309	1161	69
EG 45	45	60	8	116	8.5	123	2.07 ~ 7.99	73 ~ 282	1161	69
EG 45	45	60	9.5	138	10	145	2.21 ~ 7.39	78 ~ 261	1161	69
EG 45	45	60	12.5	181	13	189	2.44 ~ 6.23	86 ~ 220	1161	69
Length: 1959mm Breadth: 1266mm Height: 1754mm										
EG 55	55	75	4.5	65	5.5	80	2.55 ~ 10.90	90 ~ 385	1588	69
EG 55	55	75	7.0	102	7.5	109	2.58 ~ 10.76	91 ~ 380	1588	69
EG 55	55	75	8.0	116	8.5	123	2.55 ~ 10.11	90 ~ 357	1588	69
EG 55	55	75	9.5	138	10.0	145	3.65 ~ 9.29	129 ~ 328	1588	69
EG 55	55	75	12.5	181	13.0	189	3.37 ~ 7.59	119 ~ 268	1588	69
Length: 2063mm Breadth: 1269mm Height: 1969mm										
EG 75	75	100	7.0	102	7.5	109	6.12 ~ 14.78	216 ~ 522	2090	69
EG 75	75	100	8.0	116	8.5	123	6.06 ~ 13.88	214 ~ 490	2090	69
EG 75	75	100	9.5	138	10.0	145	6.12 ~ 12.74	216 ~ 450	2090	69
EG 75	75	100	12.5	181	13.0	189	5.24 ~ 11.04	185 ~ 390	2090	69

Note:

Free Air Delivery (FAD) is tested as per ISO 1217 : 2009 Annexure E Edition: 4
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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
11 - 250 kW / 1.39- 43.61 m³/min

EN series rotary screw
2.2 - 45 kW / 0.26 - 6.85 m³/min

Portable Compressor

Genuine Spares

For enhancing performance and productivity

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