EG Series
Screw Air Compressors

Life source of industries

ELGi
Always Better.

UPTiME™
ASSURANCE

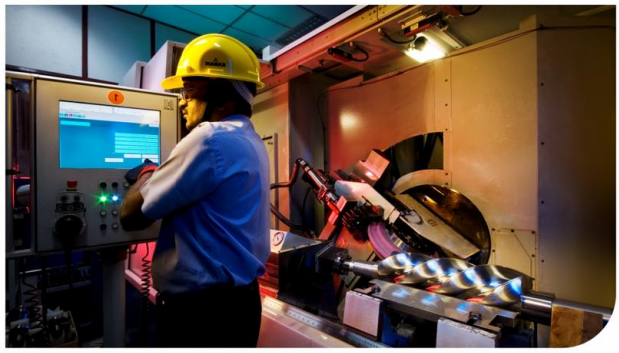
CIN: L29120TZ1960PLC000351

www.elgi.com

11 - 75 kW / 15 - 100 HP

A Tradition of Reliability

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.



Robust Infrastructure

ELGi has modern manufacturing facilities equipped with advanced high precision grinding machines, turning centres and CNC horizontal and vertical machining centres. Screw airends 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.

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 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

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.

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, Our industry leading warranties, parts availability and call centers staffed by experts assure peace-of-mind to our customers.

Energy efficient

Low lifecycle cost

Extended life of air compressor

Compact, aesthetically appealing and easy to install at assembly area

EG series

Robust construction with reliability built on every component

Eco-friendly

High operator safety

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 .

Three-stage Air Filtration

Increased life of consumables

High Volumetric Efficiency

Low energy cost per cfm

Advanced Neuron II Controller (Remote management of compressor operations)

Ready for SCADA/DCS

Highly Efficient Motor

Energy cost savings

Option of In-built Dryer and VFD

Compact and saves floor area

Enclosure Designed to Industrial Standards

Silent, aesthetic package

Superior Technology Airend

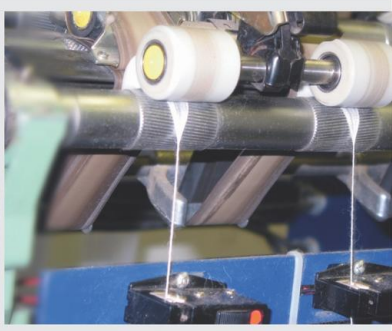
Gearless* and reduced sound

Robust Cooling System

Reduced air outlet and operating temperature

Safety Compliant Package

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 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

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

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

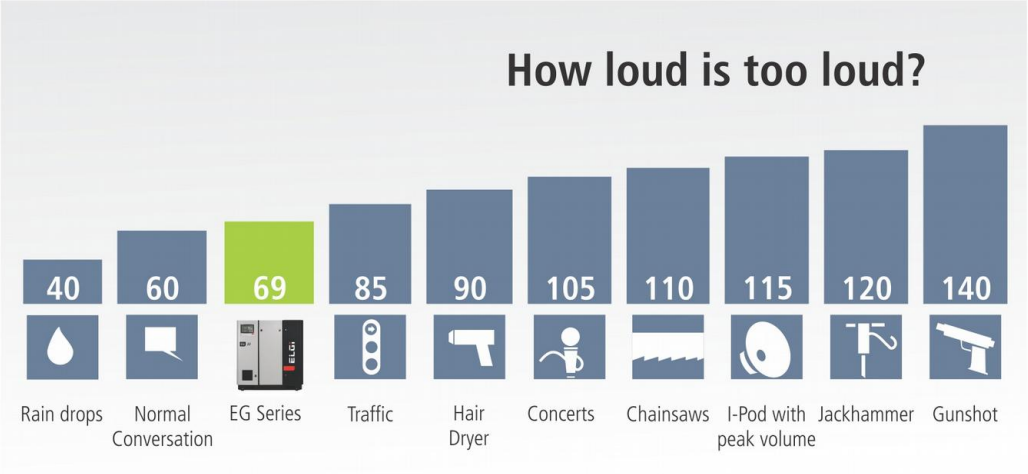
Global Series compressors are designed and perfected to ensure highest level of safety for

- 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



ELGi Airmate Accessories

Airmate Particulate Filter
Air Flow : 35 - 3,200 cfm (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 : 50 to 2000 cfm
Working Pressure : 100 - 190 psig (7 - 13 bar g)

Cooler Pre-filter
Available for all the models as an optional accessory

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

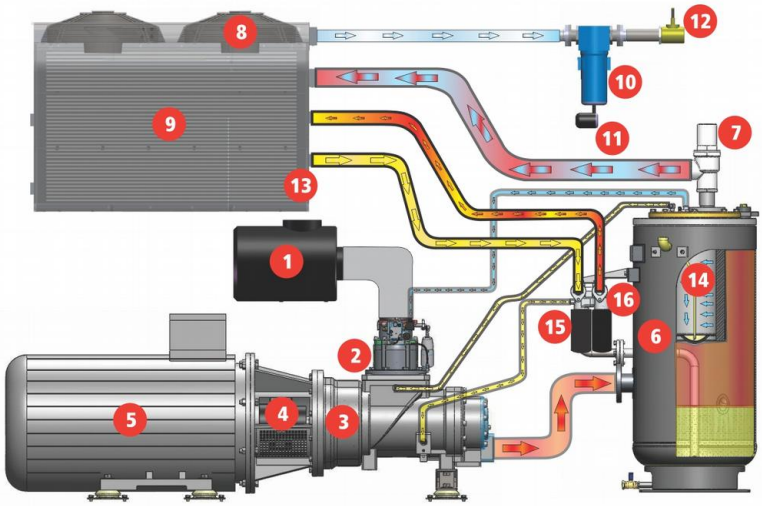
ELGi Air Audit

ELGi Air Audit 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

Genuine Spares

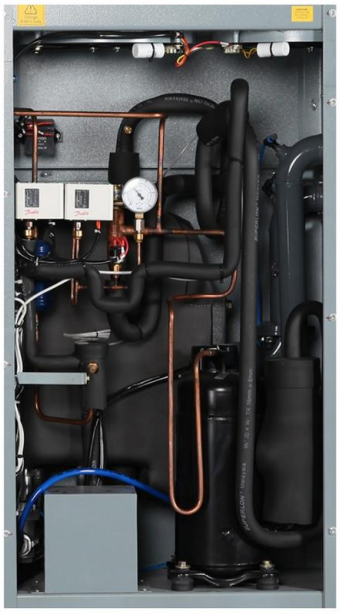
For enhancing performance and productivity

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 3^0C - 7^0C. 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 ensures 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 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 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.

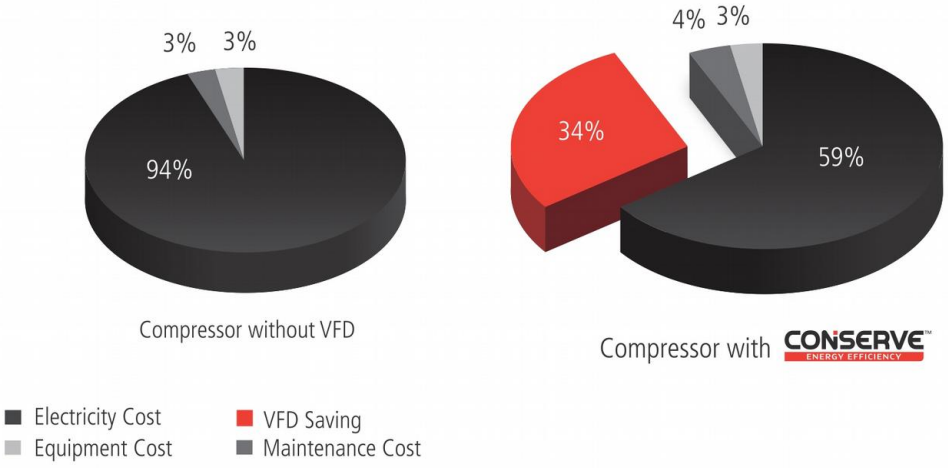
For compressed air systems with fluctuating demand pattern, giving a fast return on investment .

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



Technical Specification

Model	Motor Power		Working Pressure		Maximum Pressure		Free Air Delivery		Weight		Noise Level
									Without Dryer	With Dryer	
50 Hz	kW	HP	bar g	psi g	bar g	psi g	m^3/min	cfm	(Kg)		dB(A)
Length : 1425mm Breadth : 720mm Height : 1470mm											
EG 11	11	15	7.0	102	7.5	109	2.08	73	534	605	69
EG 11	11	15	8.0	116	8.5	123	1.84	65	534	605	69
EG 11	11	15	9.5	138	10.0	145	1.67	59	534	605	69
EG 11	11	15	12.5	181	13.0	189	1.33	47	534	605	69
EG 15	15	20	7.0	102	7.5	109	2.72	96	630	701	69
EG 15	15	20	8.0	116	8.5	123	2.58	91	630	701	69
EG 15	15	20	9.5	138	10.0	145	2.23	79	630	701	69
EG 15	15	20	12.5	181	13.0	189	1.95	69	565	636	69
EG 18	18	25	7.0	102	7.5	109	3.40	120	680	788	69
EG 18	18	25	8.0	116	8.5	123	3.17	112	680	788	69
EG 18	18	25	9.5	138	10.0	145	2.78	98	680	788	69
EG 18	18	25	12.5	181	13.0	189	2.27	80	600	709	69
EG 22	22	30	7.0	102	7.5	109	3.96	140	700	810	69
EG 22	22	30	8.0	116	8.5	123	3.85	136	700	810	69
EG 22	22	30	9.5	138	10.0	145	3.31	117	700	810	69
EG 22	22	30	12.5	181	13.0	189	2.69	95	630	740	69
Length : 1705mm Breadth : 1110mm Height : 1570mm											
EG 30	30	40	7.0	102	7.5	109	5.75	205	1068	1203	68
EG 30	30	40	8.0	116	8.5	123	5.10	183	1068	1203	68
EG 30	30	40	9.5	138	10.0	145	4.84	174	1068	1203	68
EG 30	30	40	12.5	181	13.0	189	3.88	140	1068	1203	68
EG 37	37	50	7.0	102	7.5	109	7.08	252	1130	1265	68
EG 37	37	50	8.0	116	8.5	123	6.40	230	1130	1265	68
EG 37	37	50	9.5	138	10.0	145	5.78	210	1130	1265	68
EG 37	37	50	12.5	181	13.0	189	5.01	180	1130	1265	68
EG 45	45	60	7.0	102	7.5	109	8.49	300	1151	1286	68
EG 45	45	60	8.0	116	8.5	123	7.73	275	1151	1286	68
EG 45	45	60	9.5	138	10.0	145	7.08	250	1151	1286	68
EG 45	45	60	12.5	181	13.0	189	5.80	205	1151	1286	68
Length :1961mm Breadth : 1265mm Height : 1754mm											
EG 55	55	75	7.0	102	8.0	116	10.76	380	1630	1695	69
EG 55	55	75	8.0	116	9.0	131	10.05	355	1630	1695	69
EG 55	55	75	9.5	138	10.5	152	9.20	325	1630	1695	69
EG 55	55	75	12.5	181	13.5	196	7.50	265	1630	1695	69
Length :2065mm Breadth : 1265mm Height : 1948mm											
EG 75	75	100	7.0	102	8.0	116	14.78	522	2020	2195	69
EG 75	75	100	8.0	116	9.0	131	13.88	490	2020	2195	69
EG 75	75	100	9.5	138	10.5	152	12.74	450	2020	2195	69
EG 75	75	100	12.5	181	13.5	196	11.04	390	2020	2195	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

Technical Specification - VFD Model

Model	Motor Power		Working Pressure		Maximum Pressure		Free Air Delivery		Weight		Noise Level
									Without Dryer	With Dryer	
50 Hz	kW	HP	bar g	psi g	bar g	psi g	m^3/min	cfm	(Kg)		dB(A)
Length : 1425mm Breadth : 720mm Height : 1470mm											
EG 11	11	15	7.0	102	7.5	109	0.79 ~ 2.08	28 ~ 73	541	612	69
EG 11	11	15	8.0	116	8.5	123	0.79 ~ 1.84	28 ~ 65	541	612	69
EG 11	11	15	9.5	138	10.0	145	0.76 ~ 1.67	27 ~ 59	541	612	69
EG 11	11	15	12.5	181	13.0	189	0.62 ~ 1.33	22 ~ 47	541	612	69
EG 15	15	20	7.0	102	7.5	109	1.30 ~ 2.72	46 ~ 96	637	708	69
EG 15	15	20	8.0	116	8.5	123	1.25 ~ 2.58	44 ~ 91	637	708	69
EG 15	15	20	9.5	138	10.0	145	1.25 ~ 2.23	44 ~ 79	637	708	69
EG 15	15	20	12.5	181	13.0	189	0.91 ~ 1.95	32 ~ 69	572	643	69
EG 18	18	25	7.0	102	7.5	109	1.64 ~ 3.40	58 ~ 120	698	806	69
EG 18	18	25	8.0	116	8.5	123	1.53 ~ 3.17	54 ~ 112	698	806	69
EG 18	18	25	9.5	138	10.0	145	1.33 ~ 2.78	47 ~ 98	698	806	69
EG 18	18	25	12.5	181	13.0	189	1.02 ~ 2.27	36 ~ 80	618	728	69
EG 22	22	30	7.0	102	7.5	109	1.90 ~ 3.96	67 ~ 140	718	828	69
EG 22	22	30	8.0	116	8.5	123	1.81 ~ 3.85	65 ~ 136	718	828	69
EG 22	22	30	9.5	138	10.0	145	1.59 ~ 3.31	56 ~ 117	718	828	69
EG 22	22	30	12.5	181	13.0	189	1.19 ~ 2.69	42 ~ 95	648	758	69
Length : 1705mm Breadth : 1110mm Height : 1570mm											
EG 30	30	40	7.0	102	7.5	109	2.24 ~ 5.75	79 ~ 205	1113	1248	68
EG 30	30	40	8.0	116	8.5	123	2.21 ~ 5.10	78 ~ 183	1113	1248	68
EG 30	30	40	9.5	138	10.0	145	2.18 ~ 4.84	77 ~ 174	1113	1248	68
EG 30	30	40	12.5	181	13.0	189	1.87 ~ 3.88	66 ~ 140	1113	1248	68
EG 37	37	50	7.0	102	7.5	109	2.72 ~ 7.08	96 ~ 252	1175	1310	68
EG 37	37	50	8.0	116	8.5	123	2.63 ~ 6.40	93 ~ 230	1175	1310	68
EG 37	37	50	9.5	138	10.0	145	2.60 ~ 5.78	92 ~ 210	1175	1310	68
EG 37	37	50	12.5	181	13.0	189	3.35 ~ 5.01	83 ~ 180	1175	1310	68
EG 45	45	60	7.0	102	7.5	109	3.20 ~ 8.50	113 ~ 300	1196	1331	68
EG 45	45	60	8.0	116	8.5	123	3.17 ~ 7.73	112 ~ 275	1196	1331	68
EG 45	45	60	9.5	138	10.0	145	3.20 ~ 7.07	113 ~ 250	1196	1331	68
EG 45	45	60	12.5	181	13.0	189	2.75 ~ 5.80	97 ~ 205	1196	1331	68
Length :1961mm Breadth : 1265mm Height : 1754mm											
EG 55	55	75	7.0	102	8.0	116	4.53 ~ 10.76	160 ~ 380	1795	1860	69
EG 55	55	75	8.0	116	9.0	131	4.53 ~ 10.05	160 ~ 355	1795	1860	69
EG 55	55	75	9.5	138	10.5	152	4.45 ~ 9.20	157 ~ 325	1795	1860	69
EG 55	55	75	12.5	181	13.5	196	3.65 ~ 7.50	129 ~ 265	1795	1860	69
Length :2065mm Breadth : 1265mm Height : 1948mm											
EG 75	75	100	7.0	102	8.0	116	6.12 ~ 14.78	216 ~ 522	2085	2260	69
EG 75	75	100	8.0	116	9.0	131	6.06 ~ 13.88	214 ~ 490	2085	2260	69
EG 75	75	100	9.5	138	10.5	152	6.12 ~ 12.74	216 ~ 450	2085	2260	69
EG 75	75	100	12.5	181	13.5	196	5.24 ~ 11.04	185 ~ 390	2085	2260	69

Note:

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Compressed air solutions for all sustainable air needs

Oil-Free Series Screw
90 - 450 kW / 572 - 2450 cfm

EG Series Rotary Screw
11 - 250 kW / 47 - 1612 cfm

EN Series Rotary Screw
2.2 - 75 kW / 8.0 - 469 cfm

Electric Portable (Trolley)
22 - 75 kW / 131 - 490 cfm

Diesel portable (Trolley)
175 - 1100 cfm / 100 - 300 psi

Diesel Portable (Skid)
475 - 1500 cfm / 150 - 400 psi

Oil-free Recip
1.0 - 75 HP / 1.8 - 300 cfm

Oil-lubricated Recip
1.0 - 40 HP / 2.0 - 128 cfm

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