Atlas Copco Oil-injected rotary screw compressors

G90-250 (VSD)
125 -355 HP

G 90-250 (VSD): reliability, efficiency and simplicity

The new G 90-250 (VSD) range is part of the acclaimed Atlas Copco oil-injected family of air compressors. The new G range provides a reliable, efficient and simple to operate compressor package, designed for customers who don't need the advanced levels of connectivity, efficiency and auxiliary options offered by the GA sister product.

No corners were cut when it comes to design and only the best components are used. The design of the new G is not only cool on the outside, but also on the inside – featuring a cool air zone which lowers the energy needed to efficiently compress the air. Also new is the element, which was made specifically for this range. We offer a choice between a fixed speed design or the advanced, variable speed drive design. The G series was made to perform in high and low ambient temperature environments – making it suitable for a wide range of applications across multiple environments.

Industries include:

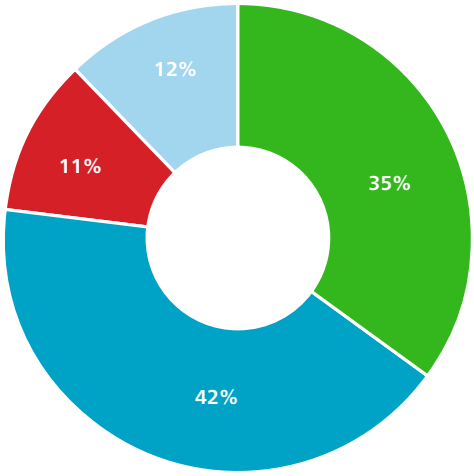
- Cement
- Mining
- Power plants
- General manufacturing
- plus, many more!

VSD: driving down your energy costs

Over 80% of a compressor's lifecycle cost is taken up by the energy it consumes. The generation of compressed air can account for more than 40% of a plant's total electricity bill. To cut your energy costs, Atlas Copco pioneered Variable Speed Drive (VSD) technology in the compressed air industry. VSD technology leads to major energy savings, while protecting the environment for future generations. Thanks to continued investments in this technology, Atlas Copco offers the widest range of integrated VSD compressors on the market.

Energy savings up to 35%

Atlas Copco's VSD technology closely follows the air demand by automatically adjusting the motor speed. This results in large energy savings of up to 35%. The Life Cycle Cost of a compressor can be cut by an average of 22%. In addition, lowered system pressure with VSD minimizes energy use across your production dramatically.



Total compressor lifecycle cost

Energy
Investment
Energy savings with VSD
Maintenance

G 90-250 (VSD): features and benefits

1

Small footprint

- Save more installation space, increase capacity in limited installation space.

2

State-of-the-art screw element

- Atlas Copco's designed and patented asymmetric element profile with high quality bearings ensures low wear and increased reliability.
- The unique profile design provides industry leading energy efficiency to lower your operating cost.

3

High-efficiency cooler

- Element outlet temperature is optimized, avoiding machine shut down due to element high temperature.
- Stainless steel cooler bundle to avoid corrosion in water cooled machines.
- Optimized design reduces maintenance cost and increases reliability.

4

Superior air-oil separation

- Reduction of pressure drops and energy costs.
- Low oil consumption ensures minimal maintenance costs and long compressor lifetime.
- Optimized design of vessel to reduce the oil carry over, increase reliability.

5

High-efficiency motor

- High-efficiency (IE3) motor (Class F insulation) adapted to perform in the harshest conditions.

6

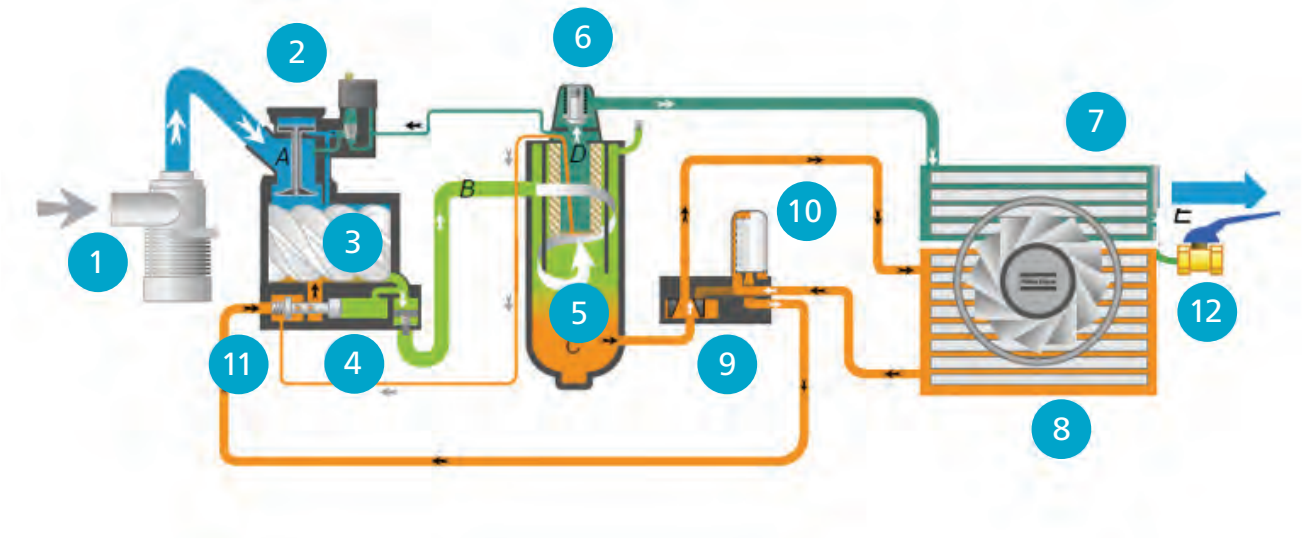
Optimal control with the Elektronikon® MK5 & SMARTLINK

- Clear icons and intuitive navigation provide you with fast access to all of the important settings and data.
- SMARTLINK provides remote monitoring of your compressed air equipment at all times.

Simple service is guaranteed through the easy access design.

Flow diagram

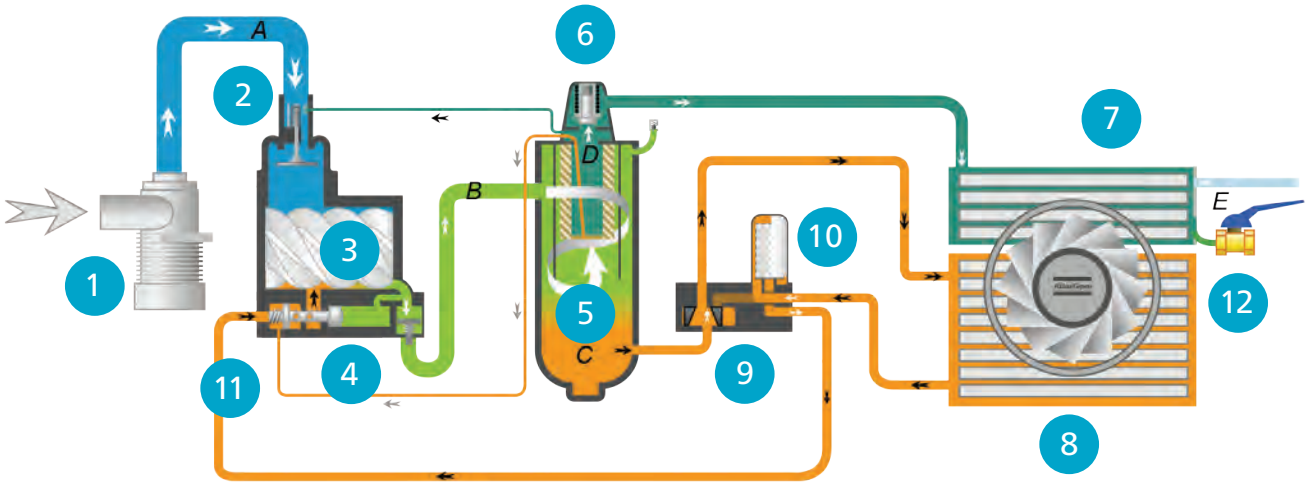
Fixed speed



Air Flow	
1	Air Filter
2	Inlet Valve
3	Rotary Screw Element
4	Non Return Valve
5	Air Oil Separator
6	Minimum Pressure Valve
7	After Cooler

Oil Flow	
8	Oil Cooler
9	Thermostatic Bypass
10	Oil Filler
11	Oil Stop Valve
12	Manual Drain Valve

Variable Speed Drive



A Intake air
B Air/oil mixture
C Oil
D Wet compressed air
E Condensate

Optimize your system

Scope of supply

Air Circuit
- Air intake valve
- Full load/no load regulator
- Long lifetime filtration and separation elements
- Heavy-duty air inlet filter and flexibles
- External Water separator (shipped loose)

Oil Circuit
- Air-oil separator
- Heavy-duty oil filters
- Roto Xtend synthetic oil

Cooling Circuit
- Compressed air aftercooler and oil cooler
- Corrosion resistant coolers for water-cooled units
- Low noise cooling fan for air-cooled units

Electrical Components
- CSA-UL / IEC electrical approval
- Elektronikon® controller
- IE3 High Efficiency class (50 Hz)
- NEMA Premium High Efficiency (60hz)
- Pre-mounted electrical cubicles
- Phase sequence relay
- Separate start and stop signal for MV voltage
- Starters Star/Delta (Y/D)
- SMARTLINK
- TEFC IP55 Class F electric motor

Framework
- Flexible vibration dampers
- G/DIN connection for 50Hz unit
- NPT/ANSI for 60Hz unit
- Silenced canopy
- Structural skid with no need for foundations

Mechanical Approval
- ASME approval (as standard)
- CE approval (on request)

Intelligence is part of the package

The Elektronikon® controller is specially designed to maximize the performance of your compressor and air treatment equipment under a variety of conditions. The clear, intuitive display allows for easy interpretation of all key data. You can also connect, monitor and diagnose the machine 24x7 via built-in SMARTLINK capability.

TYPE	Dimensions (air-cooled)					
	L		W		H	
	mm	inch	mm	inch	mm	inch
G 90-132 (VSD)	1900	75	1200	47	2000	79
G 160 (VSD)	2800	110	1600	63	2000	79
G 200 - 250 (VSD)	2800	110	1600	63	2300	91

TYPE	Dimensions (water-cooled)					
	L		W		H	
	mm	inch	mm	inch	mm	inch
G 90-132 (VSD)	1900	75	1200	47	2000	79
G 160 - 250 (VSD)	2800	110	1600	63	2000	79

Technical Specifications G90-250 (50Hz)

TYPE	Maximum working pressure		Capacity FAD (1)			Installed motor power		Air outlet size	Weight (shipping mass)	
	Standard		Pack						Standard	
	bar(e)	psig	l/s	m³/min	cfm	kW	HP		kg	lbs
50 Hz										
G 90-7.5	7.5	109	294	17.6	623	90	125	G2-1/2''	1900	4189
G 90-8.5	8.5	123	270	16.2	571	90	125	G2-1/2''	1900	4189
G 90-10	10	145	254	15.3	539	90	125	G2-1/2''	1900	4189
G 110-7.5	7.5	109	335	20.1	710	110	150	G2-1/2''	2000	4409
G 110-8.5	8.5	123	314	18.8	664	110	150	G2-1/2''	2000	4409
G 110-10	10	145	290	17.4	614	110	150	G2-1/2''	2000	4409
G 132-7.5	7.5	109	404	24.2	855	132	175	G2-1/2''	2100	4630
G 132-8.5	8.5	123	383	23.0	811	132	175	G2-1/2''	2100	4630
G 132-10	10	145	344	20.7	729	132	175	G2-1/2''	2100	4630
G 160-7.5	7.5	109	502	30.1	1063	160	215	DN100	3758	8285
G 160-8.5	8.5	123	478	28.7	1014	160	215	DN100	3758	8285
G 160-10	10	145	445	26.7	943	160	215	DN100	3758	8285
G 200-7.5	7.5	109	610	36.6	1292	200	268	DN100	3445	7595
G 200-8.5	8.5	123	566	33.9	1199	200	268	DN100	3445	7595
G 200-10	10	145	516	30.9	1092	200	268	DN100	3445	7595
G 250-7.5	7.5	109	730	43.8	1548	250	335	DN100	3797	8370
G 250-8.5	8.5	123	704	42.2	1491	250	335	DN100	3797	8370
G 250-10	10	145	647	38.8	1371	250	335	DN100	3865	8521

Technical Specifications G110-250 VSD (50Hz)

TYPE	Maximum working pressure		Capacity FAD (1)			Installed motor power		Air outlet size	Weight (shipping mass)	
	Standard		Pack						Standard	
	bar(e)	psig	l/s	m³/min	cfm	kW	HP		kg	lbs
50 Hz										
G 110 VSD-10	4	58	81-335	4.9-2.01	172-710	110	150	G2-1/2''	2100	4630
G 110 VSD-10	7	102	77-335	4.6-20.1	163-710	110	150	G2-1/2''	2100	4630
G 110 VSD-10	8	116	76-314	4.6-18.8	161-664	110	150	G2-1/2''	2100	4630
G 110 VSD-10	10	138	76-290	4.5-17.4	160-614	110	150	G2-1/2''	2100	4630
G 132 VSD-10	4	58	114-404	6.8-24.2	241-855	132	175	G2-1/2''	2200	4850
G 132 VSD-10	7	102	109-404	6.6-24.2	231-855	132	175	G2-1/2''	2200	4850
G 132 VSD-10	8	116	108-383	6.5-23	230-811	132	175	G2-1/2''	2200	4850
G 132 VSD-10	10	138	108-344	6.5-20.7	229-729	132	175	G2-1/2''	2200	4850
G 160 VSD-10	4	58	135-502	8.1-30.1	285-1064	160	215	DN100	3645	8036
G 160 VSD-10	7	102	134-502	8.1-30.1	285-1064	160	215	DN100	3645	8036
G 160 VSD-10	8	116	134-478	8-28.7	283-1013	160	215	DN100	3645	8036
G 160 VSD-10	10	138	132-442	7.9-26.5	279-936	160	215	DN100	3645	8036
G 200 VSD-10	4	58	176-590	10.6-35.4	374-1250	200	268	DN100	3797	8371
G 200 VSD-10	7	102	176-589	10.5-35.3	372-1248	200	268	DN100	3797	8371
G 200 VSD-10	8	116	175-562	10.533.7	370-1191	200	268	DN100	3797	8371
G 200 VSD-10	10	138	173-520	10.4-31.2	366-1102	200	268	DN100	3797	8371
G 250 VSD-10	4	58	184-698	11-41.9	389-1479	250	335	DN100	3850	8488
G 250 VSD-10	7	102	183-698	11-41.9	387-1479	250	335	DN100	3850	8488
G 250 VSD-10	8	116	180-620	10.9-40	385-1413	250	335	DN100	3850	8488
G 250 VSD-10	10	138	180-620	10.8-37.2	381-1314	250	335	DN100	3850	8488

(1) Unit performance : Measured according to ISO1217
Reference conditions:
- Absolute inlet pressure 1 bar (14,5psi)
- Intake air temperature 20°C (68°F)
- Cooling medium temperature 20°C (68°F)

FAD is measured at the following working pressures:
- *7.5 bar variants at 7 bar*
- *8.5 bar variants at 8 bar*
- *10 bar variants at 9.5bar*

Technical Specifications G90-250 (60Hz)

TYPE	Maximum working pressure		Capacity FAD (1)			Installed motor power		Air outlet size	Weight (shipping mass)	
	Standard		Pack						Standard	
	bar(e)	psig	l/s	m³/min	cfm	kW	HP		kg	lbs
60 Hz										
G 90-7.5	7.5	109	298	17.9	632	90	125	NPT 2-1/2''	1900	4189
G 90-8.5	8.5	123	269	16.1	569	90	125	NPT 2-1/2''	1900	4189
G 90-10	10	145	255	15.2	540	90	125	NPT 2-1/2''	1900	4189
G 110-7.5	7.5	109	335	20.1	710	110	150	NPT 2-1/2''	2000	4409
G 110-8.5	8.5	123	313	18.8	664	110	150	NPT 2-1/2''	2000	4409
G 110-10	10	145	290	17.4	614	110	150	NPT 2-1/2''	2000	4409
G 132-7.5	7.5	109	403	24.2	853	132	175	NPT 2-1/2''	2100	4630
G 132-8.5	8.5	123	383	23.0	811	132	175	NPT 2-1/2''	2100	4630
G 132-10	10	145	347	20.8	736	132	175	NPT 2-1/2''	2100	4630
G 160-7.5	7.5	109	507	30.4	1074	160	215	ANSI 4"	3445	7595
G 160-8.5	8.5	123	472	28.3	999	160	215	ANSI 4"	3445	7595
G 160-10	10	145	425	25.5	901	160	215	ANSI 4"	3445	7595
G 200-7.5	7.5	109	620	37.2	1314	200	268	ANSI 4"	3945	8697
G 200-8.5	8.5	123	565	33.9	1197	200	268	ANSI 4"	3945	8697
G 200-10	10	145	517	31.0	1096	200	268	ANSI 4"	3945	8697
G 250-7.5	7.5	109	729	43.7	1545	250	335	ANSI 4"	4265	9403
G 250-8.5	8.5	123	704	42.2	1492	250	335	ANSI 4"	4265	9403
G 250-10	10	145	617	37.0	1307	250	335	ANSI 4"	4265	9403

Technical Specifications G110-250 VSD (60Hz)

TYPE	Maximum working pressure		Capacity FAD (1)			Installed motor power		Air outlet size	Weight (shipping mass)	
	Standard		Pack						Standard	
	bar(e)	psig	l/s	m³/min	cfm	kW	HP		kg	lbs
60 Hz										
G 110 VSD-10	4	58	81-335	4.9-20.1	172-710	110	150	NPT 2-1/2''	2100	4630
G 110 VSD-10	7	102	77-335	4.6-20.1	163-710	110	150	NPT 2-1/2''	2100	4630
G 110 VSD-10	8	116	76-313	4.6-18.8	161-664	110	150	NPT 2-1/2''	2100	4630
G 110 VSD-10	10	138	76-290	4.5-17.4	160-614	110	150	NPT 2-1/2''	2100	4630
G 132 VSD-10	4	58	114-403	6.8-24.2	241-853	132	175	NPT 2-1/2''	2200	4850
G 132 VSD-10	7	102	109-403	6.6-24.2	231-853	132	175	NPT 2-1/2''	2200	4850
G 132 VSD-10	8	116	108-383	6.5-23	230-811	132	175	NPT 2-1/2''	2200	4850
G 132 VSD-10	10	138	108-347	6.5-20.8	229-736	132	175	NPT 2-1/2''	2200	4850
G 160 VSD-10	4	58	135-502	8.1-30.1	285-1062	160	215	ANSI 4"	3845	8477
G 160 VSD-10	7	102	134-502	8.1-30.1	285-1064	160	215	ANSI 4"	3845	8477
G 160 VSD-10	8	116	134-478	8-28.7	283-1013	160	215	ANSI 4"	3845	8477
G 160 VSD-10	10	138	132-442	7.9-26.5	279-936	160	215	ANSI 4"	3845	8477
G 200 VSD-10	4	58	176-590	10.6-35.4	374-1249	200	268	ANSI 4"	4245	9353
G 200 VSD-10	7	102	176-589	10.5-35.3	1372-1248	200	268	ANSI 4"	4245	9353
G 200 VSD-10	8	116	175-562	10.5-33.7	370-1191	200	268	ANSI 4"	4245	9353
G 200 VSD-10	10	138	173-520	10.4-31.2	366-1102	250	268	ANSI 4"	4245	9353
G 250 VSD-10	4	58	184-698	11-41.9	389-1479	250	335	ANSI 4"	4372	9638
G 250 VSD-10	7	102	183-698	11-41.9	387-1479	250	335	ANSI 4"	4372	9638
G 250 VSD-10	8	116	182-667	10.9-40	385-1413	250	335	ANSI 4"	4372	9638
G 250 VSD-10	10	138	180-620	10.8-37.2	381-1314	250	335	ANSI 4"	4372	9638

(1) Unit performance : Measured according to ISO1217
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Solutions Portfolio

Air Compressors

Piston/Scroll

Oil Injected
Rotary Screw

Oil Free Rotary
Screw/Tooth

Centrifugal

Gas Generation and Air Treatment

Gas Generation

Filters

Dryers

Piping

Air Blowers

Turbo Screw

Multi-Stage Lobe

Vacuum Pumps

Rotary Screw Vane

Claw Liquid Ring

Service Solutions

24/7 Uptime

Factory Trained
Technicians

Customized
Service Plans

SmartLink
Remote Monitoring

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