# OIL-INJECTED ROTARY SCREW COMPRESSORS

GA 90<sup>+</sup>/GA 110-160/GA 110-160 VSD (90-160 kW/125-200 hp)



Atlas Copco





## OUTSTANDING PERFORMANCE, MAXIMUM BENEFITS

GA 90<sup>+</sup>/GA 110-160/GA 110-160 VSD compressors provide high-quality compressed air in the harshest environmental conditions. Incorporating the patented Atlas Copco's oil-injected screw element, they provide a long and trouble-free life at the lowest possible operating cost.



#### **Metal industry**

Metal plants use compressed air for instrumentation, plant air and pneumatic conveying for raw materials or ash and are in need of an efficient solution to reduce their operating costs. Thanks to their innovative features, Atlas Copco's GA air compressors meet this demand.

### **Mining industry**

Compressed air is vital for the mining industry: applications include dust bag filtration, service air, ventilation air and pneumatic tools. The reliability and robustness of GA air compressors will accomplish the job even in the harshest conditions.

### **Power plants**

Power plants run round-the-clock to supply vital energy. A continuous supply of compressed air is absolutely critical for trouble-free operation. GA compressors provide a reliable source of compressed air for applications such as silt blowing and fly ash handling.

## **General industry**

Many industrial companies use compressed air in their daily operations. Applications include pneumatic tools for cutting, drilling, hammering and grinding; pneumatic actuators and valves; ventilation systems; packing and palleting machinery and conveyor systems. Atlas Copco's GA compressors are designed for ultimate performance and reliability.



# SETTING A NEW STANDARD IN THE INDUSTRY

Atlas Copco's GA compressors bring you outstanding sustainability, reliability and performance, while minimizing the total cost of ownership. Built to perform even in the harshest environments, these compressors keep your production running efficiently.





#### Superior air quality

- Standard integrated water separator to remove 100% of the condensate with electronic drain.
- 3-step efficient oil separation process for low residual oil content in the compressed air (less than 3 ppm).



#### State-of-the-art screw element

- Patented asymmetric rotor profile for maximum efficiency.
- Bearing selection leads to low wear for increased reliability.



#### Service friendly

- Selection of long lifetime consumables.
- Easy and safe access to all service parts.



#### Optimized loading/unloading valve

- Assures constant optimized pressure in the system resulting in high energy savings.
- Smart design with few moving parts for highest reliability.
- Accurate control through solenoid valve.





# Triple benefits with the gear driven transmission

- Built to last, totally enclosed and protected against dirt and dust.
- High-efficiency drive arrangement; no coupling or slippage losses.
- Coupling to absorb the thrust load and increase the reliability.









#### **High efficient motor**

- TEFC IP55 motor (Class F insulation B rise) protects against dust and chemicals.
- Continuous operation under severe ambient temperature conditions.



#### **Durable design**

- Solid metal pipe for durable operation and reduced service costs.
- Rigid straight connections eliminate risk of leaks and improve package efficiency.



#### **Cooling module**

- Separated oil and after coolers for highest efficiency.
- Standard design up to 46°C/115°F and HAT (55°C/131°F) variant available.
- Cooling fans located in the middle for fresh air in the system to prevent build-up of heat.
- Fans with low noise level.



#### Easy to install

- All inclusive package with flexible ducting possibilities.
- All user connections located on the same side of the compressor.
- Phase sequence relay as standard to protect the compressor against reverse rotation.



#### Integrated refrigerant dryer

- Highly efficient dryer to increase the savings.
- Reduced floor space requirements.
- Optimized operation with the Elektronikon® unit controller.



### Heavy duty air intake filter

- Protects the compressor components by removing 99.9% of dirt particles down to 3 microns.
- Reduces the dust load in the fine filter, doubling the filter element lifetime without reducing filter efficiency.

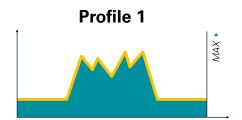


## VSD: DRIVING DOWN YOUR ENERGY COSTS

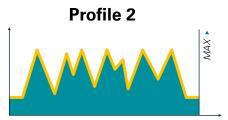
Over 70% of a compressor's lifecycle cost is taken up by the energy it consumes. Moreover, the generation of compressed air can account for more than 40% of a plant's total electricity bill. To cut your energy costs, Atlas Copco has pioneered Variable Speed Drive (VSD) technology for several decades. VSD leads to major energy savings, reducing the consumption of energy producing fuels and protecting the environment for future generations. Thanks to continual investments in this technology, Atlas Copco offers the widest range of integrated VSD compressors on the market.

#### What is VSD technology?

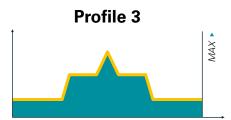
In almost every production environment, air demand fluctuates depending on different factors (time of the day, week or even month). Extensive measurements and studies of compressed air demand profiles show that many compressors have substantial variations in air demand. Only 8% of all installations have a more stable air demand. Tests prove that, even in this case, VSD compressors save energy.



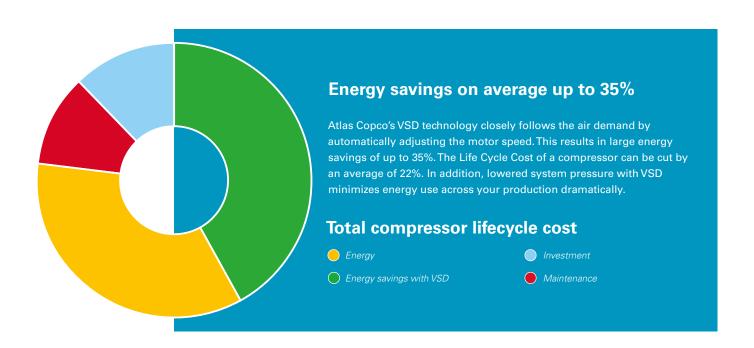
- 64% of all installations.
- Factory working 24 hrs/day: low demand at night & high demand during the day.



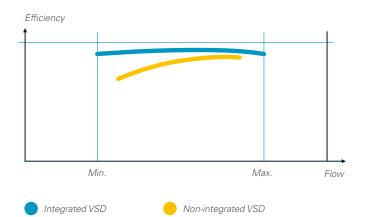
- 28% of all installations.
- Factory working 2 shifts/day, no weekend work: erratically varying air demand.



- 8% of all installations.
- Factory working 2 shifts/day, no weekend work: typical 'fixed' speed application.



# WHAT IS UNIQUE ABOUT THE INTEGRATED ATLAS COPCO GA VSD?





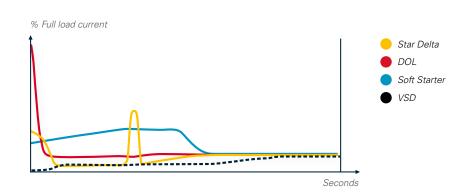
Flow gaps due to vibration and noise issues

- 1 The Elektronikon® unit controller manages both the compressor and the integrated converter, ensuring maximum machine safety within parameters.
- 2 Flexible pressure selection from 4 to 13 bar with electronic gearing reduces electricity costs.
- 3 Specific converter and motor design (with protected bearings) for the highest efficiency across the speed range.
- 4 Electric motor specifically designed for low operating speeds with clear attention to motor cooling and compressor cooling requirements.
- 5 All Atlas Copco GA VSD compressors are EMC tested and certified. Compressor operation does not influence external sources and vice versa.
- 6 Mechanical enhancements ensure that all components operate below critical vibration levels throughout the entire compressor speed range.

- 7 A highly efficient frequency converter in a cool overpressure cubicle ensures stable operation in high ambient temperatures up to 50°C/122°F (standard up to 46°C/114.8°F).
- 8 It is important to ensure that when using a Variable Speed Drive vibration and noise issues do not occur. Atlas Copco compressors are designed and tested to guarantee they operate across the entire frequency range of operation.

  When an external VSD drive is used it may become necessary to limit the operating range of the compressor, leading to reduced energy saving and jeopardizing stable air network pressure.
- 9 The cubicle cooling booster increases the lifetime of electrical components due to a cool cubicle in overpressure and reduced dust ingress.
- ${f 10}$  Net pressure band is maintained within 0.10 bar, 1.5 psi.

#### No current peaks



# INCREASE YOUR SAVINGS WITH ENERGY RECOVERY

The Kyoto directives and the continuing depletion of traditional energy sources mean that businesses throughout the world are making commitments to significantly reduce overall energy consumption. Through innovative products and solutions, Atlas Copco helps you achieve your goals in this area. When it comes to compressed air production – where energy costs can constitute 70% of total lifecycle costs – saving energy can also lead to substantial cost savings.

#### Integrated heat exchanger

Air compression creates heat that is normally wasted in the coolers. Energy recovery systems designed by Atlas Copco enable the recovery of most of this heat. Recovery of energy from the shaft input of the compressor can be up to 94% of the compressor shaft power. The heat is directly usable as a source of energy in the form of hot water (85-90°C/185- 194°F). The main module of the recovery system is built into the compressor. The investment needed to link the hot oil circuit from the compressor to the existing water circuit is relatively modest and the time needed before seeing payback from your investment is generally very short.



#### Warm air heat recovery

The ducting on your GA compressors also constitutes a simple and smart solution to generate space heating. Ducting simply directs the warmed cooling air to where it is needed – such as workshops, storage warehouses or other facilities. To cope with seasonal changes, louver flaps can be used to vent the warm air to the outside. An installation with motorized and thermostatically controlled louvers is the ideal solution to accurately monitor the temperature with a full control of the flow of heating air.

#### Applications:

- Heating of facilities, warehouses or workshops.
- Drying air for painting and washing applications.

## PROTECT YOUR PRODUCTION WITH THE GA FF

Untreated compressed air contains moisture, aerosols and dirt particles that can damage your air system and contaminate your end product, resulting in risk of corrosion and compressed air system leaks. Maintenance costs can far exceed air treatment costs. Our compressors provide the clean, dry air that improves your system's reliability, avoids costly downtime and production delays, and safeguards the quality of your products.

#### All-in-one quality air production

The GA FF (Full Feature) is a ready-to-use, compact package that guarantees a pressure dewpoint of 3°C/37°F (100% relative humidity at 20°C/68°F). All the wires and pipes are assembled in the factory, so there is no need for additional installation work. The dryers can perform at ambient conditions up to 46°C/115°F.



#### Save money and the environment

The unique and patented Saver Cycle Control stops the dryer when the compressor is stopped or in unload mode, drastically reducing power consumption. The dewpoint is continuously monitored and the dryer is re-started when the dewpoint begins to increase.

#### **Optimized air purity**

The optional external filters and integrated refrigerant air dryer efficiently remove moisture, aerosols and dirt particles to protect your investment. This air quality prolongs the life of downstream equipment, increasing efficiency, reducing maintenance requirements and ensuring quality of your final product.

Configure your GA for the air quality you need	ISO Quality Class	Dirt Particle Size	Water Pressure Dew Point	Oil Concentration
GA	34	3 microns	-	3 ppm
GA FF with ID	3.4.4	3 microns	+3°C, 37°F	3 ppm
GA FF with ID & general purpose coalescing filter	2.4.2	1 micron	+3°C, 37°F	0.1 ppm

# MONITORING AND CONTROL: HOW TO GET THE MOST FROM THE LEAST

The Elektronikon® unit controller is specially designed to maximize the performance of your compressors and air treatment equipment under a variety of conditions. Our solutions provide you with key benefits such as increased energy efficiency, lower energy consumption, reduced maintenance times and less stress... less stress for both you and your entire air system.



#### Intelligence is part of the package

- High resolution color display gives you an easy to understand readout of the equipment's running conditions.
- Clear icons and intuitive navigation provides you fast access to all of the important settings and data.
- Monitoring of the equipment running conditions and maintenance status; bringing this information to your attention when needed.
- Operation of the equipment to deliver specifically and reliably to your compressed air needs.
- Built in remote control and notifications functions provided as standard, including simple to use Ethernet based communication.
- Support for 31 different languages, including character based languages.



#### Online & mobile monitoring

Monitor your compressors over the Ethernet with the Elektronikon® unit controller. Monitoring features include warning indications, compressor shut-down and maintenance scheduling. An Atlas Copco App is available for iPhone/Android phones as well as iPad and Android tablets. It allows fingertip monitoring of your compressed air system through your own secured network.

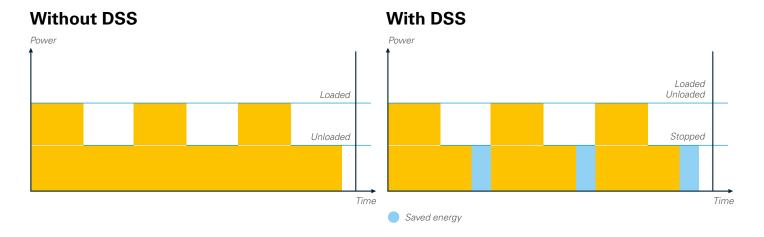


# Full optimization - ES system controller

Improve product quality every minute that your facility is in operation. Atlas Copco's ES system controllers offer a convenient way to achieve optimized performance from your low pressure equipment through a single centralized point of monitoring and control. With the ES system controller watching over your compressors and compressed air network, you will have a highly dependable and energy efficient solution working with your facility to manage operating costs.

#### **Dual pressure set-point and Delayed Second Stop**

Most production processes create fluctuating levels of demand which, in turn, can create energy waste in low use periods. Using the graphic Elektronikon® unit controller, you can manually or automatically create two different system pressure bands to optimize energy use and reduce costs at low use times. In addition, the sophisticated Delayed Second Stop (DSS) runs the drive motor only when needed. As the desired system pressure is maintained while the drive motor's run time is minimized, energy consumption is kept to a minimum.





#### **SMARTLINK\*: Data Monitoring Program**

- A remote monitoring system that helps you optimize your compressed air system and save you energy and cost.
- It offers you a complete insight in your compressed air network and anticipates on potential problems by warning you up-front.
- \*Please contact your local sales representative for more information.

# **OPTIMIZE YOUR SYSTEM**

	Efficient air inlet filters and flexibles							
	Air intake valve							
Air circuit	Full load/no load regulation system							
	Heavy-duty oil filters							
	Complete oil circuit							
Oil circuit	Air/oil separation system							
	Compressed air aftercooler and oil cooler							
	Stainless steel tube and Shell coolers for water-cooled versions							
	Axial cooling fans for air-cooled versions.							
	ntegrated water separator							
	Electronic water drains with no loss of compressed air							
	Complete air, oil, water circuit							
Cooling circuit	Roto Xtend duty synthetic lubricant							
	TEFC IP55 Class F electric motor							
	Starters (Star-Delta)							
	Elektronikon® unit controller							
Electrical components	Phase sequence relay							
	Flexible vibration dampers							
	Silenced canopy							
	Structural skid with no need for foundations							
Framework	Suppression of emissions/harmonic distortions							

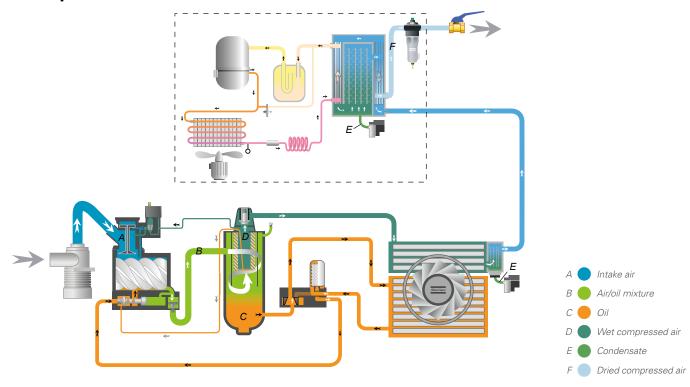
# **ADDITIONAL FEATURES & OPTIONS**

	GA 90⁺-160	GA 110-160 VSD
Full Feature: integrated ID refrigerant dryer	•	•
High ambient version (up to 55°C/131°F)*	•	•
Integrated Energy Recovery system	•	•
Modulation control	•	-
Full option motor (PT1000 thermal protection and Anti-condensation heaters)	•	-
SPM vibration monitoring system	•	•
Anchor pads	•	•
NPT or ANSI connections	•	•
Performance test certificate	•	•
Witnessed performance test	•	•
Material certificates	•	•
Seaworthy packaging	•	•

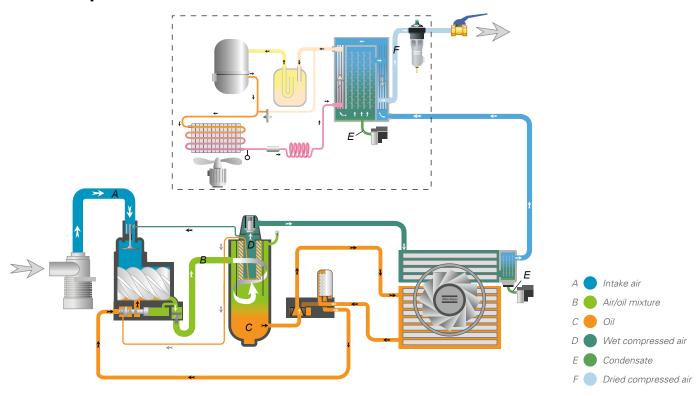
<sup>\*</sup> GA VSD up to 50°C/122°F; GA fix speed Pack up to 55°C/131°F. Not available on Full Feature.

# **FLOW CHART**

## Fixed speed: GA+ & GA



## Variable Speed Drive: GA VSD



## TECHNICAL SPECIFICATIONS 50 Hz

		Working	pressure		Capacity FAD¹			Installe	Installed motor		Weight				
TYPE	Standard		Full Fe	Full Feature <sup>3</sup>		Capacity 1AD			power		Standard		Full Feature		
	bar(e)	psig	bar(e)	psig	I/s	m³/min	cfm	kW	hp	dB(A)	kg	lbs	kg	lbs	
GA 90+	5.5	80	5.3	77	330	19.8	699	90	125	70	3000	6614	3393	7480	
	7.5	109	7.3	106	292	17.5	619	90	125	70	3000	6614	3393	7480	
	8.5	123	8.3	120	274	16.4	581	90	125	70	3000	6614	3393	7480	
	10	145	9.8	142	244	14.6	517	90	125	70	3000	6614	3393	7480	
GA 110	5.5	80	5.3	77	401	24.0	850	110	150	70	3100	6834	3493	7701	
	7.5	109	7.3	106	356	21.3	754	110	150	70	3100	6834	3493	7701	
	8.5	123	8.3	120	337	20.2	714	110	150	70	3100	6834	3493	7701	
	10	145	9.8	142	306	18.3	648	110	150	70	3100	6834	3493	7701	
	14	203	13.8	200	245	14.7	519	110	150	70	3100	6834	3493	7701	
GA 132	5.5	80	5.3	77	471	28.2	998	132	175	71	3375	7441	3768	8307	
	7.5	109	7.3	106	424	25.4	898	132	175	71	3375	7441	3768	8307	
	8.5	123	8.3	120	401	24.0	850	132	175	71	3375	7441	3768	8307	
	10	145	9.8	142	368	22.0	780	132	175	71	3375	7441	3768	8307	
	14	203	13.8	200	295	17.7	625	132	175	71	3375	7441	3768	8307	
GA 160	7.5	109	7.3	106	505	30.2	1070	160	215	71	3440	7584	3833	8451	
	8.5	123	8.3	120	480	28.7	1017	160	215	71	3440	7584	3833	8451	
	10	145	9.8	142	443	26.5	939	160	215	71	3440	7584	3833	8451	
	14	203	13.8	200	369	22.1	782	160	215	71	3440	7584	3833	8451	

			Working	pressure		c	apacity FA	D¹	Installed motor	Noise	Weight				
Type 50 Hz		Stan	dard	Full Fe	eature <sup>3</sup>	Stand	lard / Full F	eature	power	level <sup>2</sup>	Star	ndard	Full Fe	eature	
		bar(e)	psig	bar(e)	psig	I/s	m³/min	cfm	kW	dB(A)	kg	lbs	kg	lbs	
	Minimum	5	72	5	72	128 - 437	7,7 - 26,2	271 - 926							
GA 110 VSD - 8.5 bar	Nominal	7	101	7	101	128 - 392	7,7 - 23,5	271 - 831	110	70	3375	7441	4015	8851	
0.5 bai	Maximum	8.5	123	8.3	120	128 - 360	7,7 - 21,6	271 - 763							
	Minimum	6	87	6	87	126 - 411	7,6 - 24,7	267 - 871							
GA 110 VSD - 10 bar	Nominal	9.5	138	9.5	138	120 - 335	7,2 - 20,1	254 - 710	110	70	3375	7441	3975	8763	
IO Dai	Maximum	10	145	9.8	142	120 - 325	7,2 - 19,5	254 - 689							
	Minimum	9	131	9	131	121 - 345	7,3 - 20,7	256 - 731							
GA 110 VSD - 14 bar	Nominal	13.5	196	12.5	181	108 - 266	6,5 - 16,0	229 - 564	110	70	3375	7441	3950	8708	
I4 bai	Maximum	14	203	12.8	185	106 - 258	6,4 - 15,5	225 - 547							
	Minimum	5	72	5	72	128 - 513	7,7 - 30,8	271 - 1087							
GA 132 VSD - 8.5 bar	Nominal	7	101	7	101	128 - 465	7,7 - 27,9	271 - 985	132	71	3415	7529	4050	8929	
0.5 bai	Maximum	8.5	123	8.3	120	128 - 426	7,7 - 25,6	271 - 903			3415 /529 405				
	Minimum	6	87	6	87	126 - 484	7,6 - 29,0	267 - 1026							
GA 132 VSD - 10 bar	Nominal	9.5	138	9.5	138	120 - 399	7,2 - 23,9	254 - 845	132	71	3415	7529	4050	8929	
IO Dai	Maximum	10	145	9.8	142	120 - 389	7,2 - 23,3	254 - 824							
	Minimum	9	131	9	131	121 - 410	7,3 - 24,6	256 - 869							
GA 132 VSD - 14 bar	Nominal	13.5	196	12.5	181	108 - 325	6,5 - 19,5	229 - 689	132	71	3415	7529	4050	8929	
I+ bai	Maximum	14	203	12.8	185	106 - 316	6,4 - 19,0	225 - 670							
	Minimum	5	72	5	72	128 - 570	7,7 - 34,2	271 - 1208							
GA 160 VSD - 8.5 bar	Nominal	7	101	7	101	128 - 550	7,7 - 33,0	271 - 1165	160	71	3515	7749	4155	9160	
0.5 bai	Maximum	8.5	123	8.3	120	128 - 507	7,7 - 30,4	271 - 1074							
	Minimum	6	87	6	87	126 - 565	7,6 - 33,9	267 - 1197							
GA 160 VSD - 10 bar	Nominal	9.5	138	9.5	138	120 - 477	7,2 - 28,6	254 - 1011	160	71	3515	7749	4155	9160	
IU Dai	Maximum	10	145	9.8	142	120 - 466	7,2 - 28,0	254 - 987							
	Minimum	9	131	9	131	121 - 489	7,3 - 29,3	256 - 1036							
GA 160 VSD - 14 bar	Nominal	13.5	196	12.5	181	108 - 371	6,5 - 22,3	229 - 786	160	71	3515	7749	4155	9160	
i+ bai	Maximum	14	203	12.8	185	106 - 385	6,4 - 23,1	225 - 816							

(1) Unit performance measured according to ISO 1217, Annex C and E, Edition 4 (2009). Reference conditions:
• Absolute inlet pressure 1 bar (14.5 psi).

• Intake air temperature 20°C (68°F).
(2) A-weighted emission sound pressure level at the work station, Lp WSA (re 20 µPa) dB (with uncertainty 3 dB). Values determined according to noise level test code ISO 2151 and noise measurement standard ISO 9614.

Pressure dew point of integrated refrigerant dryer at reference conditions: 2°C to 3°C (36°F to 37°F).

(3) Integrated dryer: compressed air pressure dewpoint at dryer reference conditions 3°C (37°F).

FAD(1) is measured at the following working pressures:

- 8.5 bar version at 7 bar (Standard & FF)
  10 bar version at 9.5 bar (Standard & FF)
- 14 bar version at 13.5 bar (Standard) / 12.5 bar (FF)

## **DIMENSIONS**

	Standard							Full Feature						
Туре	L	w	Н	L	w	Н	L	W	Н	L	w	Н		
		mm			inch			mm			inch			
GA 90+/GA 110-160 air-cooled & water-cooled	2800	2000	2000	111	79	79	3700	2000	2000	146	79	79		
GA 110-160 VSD air-cooled	3200	2000	2347	126	79	92	3800	2002	2347	150	79	92		
GA 110-160 VSD water-cooled	3200	1630	2347	126	64	92	3200	1630	2347	126	64	92		

# **TECHNICAL SPECIFICATIONS 60 Hz**

		Working	pressure		Capacity FAD¹			Installe	d motor	Noise	Weight				
TYPE	Star	ndard	Full Fo	Full Feature <sup>3</sup>		Supusity TAB			power		Standard		Full Feature		
	bar(e)	psig	bar(e)	psig	l/s	m³/min	cfm	kW	hp	dB(A)	kg	lbs	kg	lbs	
GA 90+	5.5	80	5.3	77	343	20.5	727	90	125	70	3000	6614	3393	7480	
	7.4	107	7.2	104	302	18.1	640	90	125	70	3000	6614	3393	7480	
	9.1	132	8.9	129	274	16.4	581	90	125	70	3000	6614	3393	7480	
	10.9	158	10.7	155	239	14.3	506	90	125	70	3000	6614	3393	7480	
GA 110	5.5	80	5.3	77	406	24.3	860	110	150	70	3100	6834	3493	7701	
	7.4	107	7.2	104	363	21.7	769	110	150	70	3100	6834	3493	7701	
	9.1	132	8.9	129	331	19.8	701	110	150	70	3100	6834	3493	7701	
	10.9	158	10.7	155	295	17.7	625	110	150	70	3100	6834	3493	7701	
	14	203	13.5	196	248	14.9	525	110	150	70	3100	6834	3493	7701	
GA 132	5.5	80	5.3	77	467	28.0	990	132	175	71	3375	7441	3768	8307	
	7.4	107	7.2	104	421	25.2	892	132	175	71	3375	7441	3768	8307	
	9.1	132	8.9	129	385	23.1	816	132	175	71	3375	7441	3768	8307	
	10.9	158	10.7	155	346	20.7	733	132	175	71	3375	7441	3768	8307	
	14	203	13.5	196	290	17.4	614	132	175	71	3375	7441	3768	8307	
GA 160	7.4	107	7.2	104	475	28.4	1006	160	215	71	3440	7584	3833	8451	
	9.1	132	8.9	129	437	26.2	926	160	215	71	3440	7584	3833	8451	
	10.9	158	10.7	155	397	23.8	841	160	215	71	3440	7584	3833	8451	
	14	203	13.5	196	337	20.2	714	160	215	71	3440	7584	3833	8451	

			Working	pressure		C	apacity FAI	D¹	Installed motor	Noise	Weight				
Type 60 Hz		Standard		Full Fe	eature <sup>3</sup>	Stand	lard / Full F	eature	power	level <sup>2</sup>	Standard		Full Feature		
		bar(e)	psig	bar(e)	psig	I/s	m³/min	cfm	kW	dB(A)	kg	lbs	kg	lbs	
GA 110 VSD -	Minimum	5	72	5	72	128 - 437	7,7 - 26,2	271 - 926							
8.6 bar	Nominal	6.9	100	6.9	100	128 - 392	7,7 - 23,5	271 - 831	110	70	3375	7441	4015	8851	
(125 psi)	Maximum	9.1	132	8.9	129	128 - 350	7,7 - 21,0	271 - 742							
GA 110 VSD -	Minimum	6	87	6	87	126 - 411	7,6 - 24,7	267 - 871							
10,4 bar	Nominal	10.4	151	10.4	151	120 - 318	7,2 - 19,1	254 - 674	110	70	3375	7441	3975	8763	
(150 psi)	Maximum	10.9	158	10.7	155	120 - 308	7,2 - 18,5	254 - 653							
GA 110 VSD -	Minimum	9	131	9	131	121 - 345	7,3 - 20,7	256 - 731							
13,8 bar	Nominal	13.5	196	12.5	181	108 - 266	6,5 - 16,0	229 - 564	110	70	3375	7441	3950	8708	
(200 psi)	Maximum	14	203	12.8	185	106 - 258	6,4 - 15,5	225 - 547							
GA 132 VSD -	Minimum	5	72	5	72	128 - 513	7,7 - 30,8	271 - 1087							
8,6 bar	Nominal	6.9	100	6.9	100	128 - 465	7,7 - 27,9	271 - 985	132	71	3415	7529	29 4050	8929	
(125 psi)	Maximum	9.1	132	8.9	129	128 - 415	7,7 - 24,9	271 - 879							
GA 132 VSD -	Minimum	6	87	6	87	126 - 484	7,6 - 29,0	267 - 1026							
10,4 bar	Nominal	10.4	151	10.4	151	120 - 380	7,2 - 22,8	254 - 805	132	71	3415	7529	4050	8929	
(150 psi)	Maximum	10.9	158	10.7	155	120 - 370	7,2 - 22,2	254 - 784							
GA 132 VSD -	Minimum	9	131	9	131	121 - 410	7,3 - 24,6	256 - 869							
13,8 bar	Nominal	13.5	196	12.5	181	108 - 325	6,5 - 19,5	229 - 689	132	71	3415	7529	4050	8929	
(200 psi)	Maximum	14	203	12.8	185	106 - 316	6,4 - 19,0	225 - 670							
GA 160 VSD -	Minimum	5	72	5	72	128 - 570	7,7 - 34,2	271 - 1208							
8,6 bar	Nominal	6.9	100	6.9	100	128 - 550	7,7 - 33,0	271 - 1165	160	71	3515	7749	4155	9160	
(125 psi)	Maximum	9.1	132	8.9	129	128 - 495	7,7 - 29,7	271 - 1049							
GA 160 VSD -	Minimum	6	87	6	87	126 - 565	7,6 - 33,9	267 - 1197							
10,4 bar	Nominal	10.4	151	10.4	151	120 - 456	7,2 - 27,4	254 - 966	160	71	3515	7749	4155	9160	
(150 psi)	Maximum	10.9	158	10.7	155	120 - 444	7,2 - 26,6	254 - 941							
GA 160 VSD - 1	Minimum	9	131	9	131	121 - 489	7,3 - 29,3	256 - 1036							
3,8 bar	Nominal	13.5	196	12.5	181	108 - 371	6,5 - 22,3	229 - 786	160	71	3515	7749	4155	9160	
(200 psi)	Maximum	14	203	12.8	185	106 - 385	6,4 - 23,1	225 - 816							

(1) Unit performance measured according to ISO 1217, Annex C and E, Edition 4 (2009). Reference conditions:
• Absolute inlet pressure 1 bar (14.5 psi).

 Intake air temperature 20°C (68°Γ).
 (2) A-weighted emission sound pressure level at the work station, Lp WSA (re 20 μPa) dB (with uncertainty 3 dB). Values determined according to noise level test code ISO 2151 and noise measurement standard ISO 9614.

Pressure dew point of integrated refrigerant dryer at reference conditions: 2°C to 3°C (36°F to 37°F).

(3) Integrated dryer: compressed air pressure dewpoint at dryer reference conditions 3°C (37°F).

FAD(1) is measured at the following working pressures:

- 125 psi version at 100 psi (Standard & FF)
  150 psi version at 150 psi (Standard & FF)
- 200 psi version at 196 psi (Standard) / 181 psi (FF)

## **DIMENSIONS**

	Standard							Full Feature						
TYPE	L	W	Н	L	W	Н	L	W	Н	L	W	Н		
		mm			inch			mm			inch			
GA 90+/GA 110-160 air-cooled & water-cooled	2800	2000	2000	111	79	79	3700	2000	2000	146	79	79		
GA 110-160 VSD air-cooled	3200	2000	2347	126	79	92	3800	2002	2347	150	79	92		
GA 110-160 VSD water-cooled	3200	1630	2347	126	64	92	3200	1630	2347	126	64	92		

### COMMITTED TO SUSTAINABLE PRODUCTIVITY

We stand by our responsibilities towards our customers, towards the environment and the people around us. We make performance stand the test of time. This is what we call – Sustainable Productivity.



