

GA 55⁺-90 – GA 75-90 VSD[®]


55-90 kW/75-125 hp

Oil-injected Rotary Screw Compressors



The WorkPlace Air System

Atlas Copco



Total capability, total responsibility

At the heart of your operation, Atlas Copco delivers quality compressed air for superior operational capacity. Choose from our range of products to build a complete and integrated compressed air system tailored to your specific needs. All Atlas Copco products are engineered to work together seamlessly to ensure the highest reliability and energy efficiency. As a result, Atlas Copco can take full responsibility for your compressed air infrastructure with a guarantee of best-in-class quality. With a presence in over 150 countries, we can provide an unrivalled global service to maintain and improve your compressed air system performance.

Backed by a century of leading the compressor industry, Atlas Copco products stand for the best in quality and efficiency. Our goal is to be First in Mind—First in Choice™. That is why Atlas Copco's pursuit of innovation never ceases, driven by the dedication to meet and exceed your demands. Always working with you, we are committed to providing you the customized quality air solution that is the driving force behind your business.

***Atlas Copco:
Customized Quality Air Solutions through
Innovation, Interaction and Commitment.***

Powerful efficiency

AIR WHERE YOU NEED IT

Atlas Copco's revolutionary WorkPlace concept brings the compressed air system to where you need it: the point of use. The GA WorkPlace Air System™'s low noise and integrated air and condensate treatment equipment eliminate any need for a separate compressor room. WorkPlace Air Systems are delivered plug-and-play, reducing installation costs to a minimum.



THE ECONOMIES OF EFFICIENCY

The cost of compressed air can represent over 40% of your total electrical costs. Atlas Copco wants to help you spend less. Our GA VSD (Variable Speed Drive) compressors can reduce energy costs by 35% and overall compressor lifecycle costs (LCC) by 22% by tuning compressor capacity to the air demand. The resulting energy savings have a substantial environmental impact, reflecting Atlas Copco's dedication to safeguarding a healthy future for the generations to come.

GA WorkPlace Air Systems include air and condensate treatment equipment, minimizing installation costs. All components are designed for easy maintenance.

The latest generation of Atlas Copco's patented oil-injected screw element, driven by our high-efficiency drive system, ensures a long and trouble-free life at the lowest operating cost.

THE POWER OF RELIABILITY

Our compressors are designed, manufactured and tested in accordance with ISO 9001, ISO 14001 and ISO 1217, Ed. 3, Annex C.

The GA VSD also complies with the EMC directive 89/336/EEC for electro-magnetic compatibility. This directive sets limits for high and low-frequency emission to and from equipment. Compliance is independently verified through external audits of the design during the development phase.



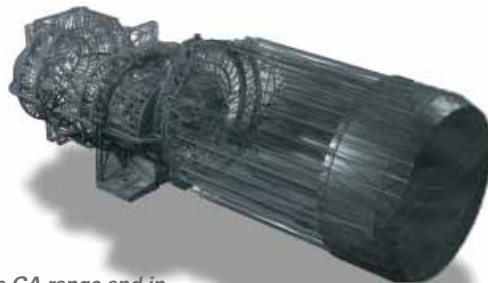
Built to last

Atlas Copco's GA compressors deliver the compressed air that keeps your production running. Built for absolute reliability, the GA range is specifically designed to minimize maintenance costs and efforts.

- The Elektronikon® operating system's control, monitoring and communication functions optimize compressor performance and efficiency.
- The latest version of Atlas Copco's patented oil-injected screw element, driven by the maintenance-free ultra-drive, ensures a trouble-free life at the lowest operating cost.
- Compact and easy to clean, the coolers maintain cool running under a wide range of ambient conditions. The after-cooler with patented integrated water separator removes all condensate with virtually no internal pressure drop.
- The no-loss electronic condensate drain eliminates the compressed air waste conventional drains typically allow. The large diameter port removes the potential for clogging, providing for trouble-free operation.
- To achieve the highest reliability, the state-of-the-art vacuum-assisted unloader valve features only one moving part.



Contamination is minimized and easy maintenance ensured with the oil separator limiting oil carry-over to 1.5 ppm.



Developed specifically for the GA range and in close collaboration with Atlas Copco engineers, the fan-cooled (TEFC), IP55, class F electrical motor is built for durability and dependability. It carries an efficiency rating of Eff 1 for the 50 Hz version and NEMA EPart for the 60 Hz.

Atlas Copco GA compressors come in the following versions:

- Air or water-cooled
- WorkPlace or WorkPlace Full Feature (including dryer)
- High-ambient versions (up to 55°C, 131°F)



1 *Integrated refrigerant dryer,
with SAVER cycle technology*

2 *Integrated air filters*

3 *Motor*

4 *Coolers*

5 *Element*

6 *Drive arrangement*

7 *Fan*

8 *Oil separator*

9 *Air inlet filter*

10 *Elektronikon*

11 *Air outlet*



WorkPlace: integration and customization

Combining low noise, a compact footprint and integration of all air treatment equipment into the compressor canopy, Atlas Copco WorkPlace Air Systems effortlessly fit into your production environment. Compressor and air treatment

equipment are engineered to optimally work together to provide the quality air that will have your production running smoothly for years to come.

WORKPLACE: REDUCING ENERGY COSTS

20%



Up to 20% of a plant's capacity can be lost to leakage.

7%



A one bar reduction in system pressure can result in 7% energy savings.

LOWERING INSTALLATION COSTS

- Simply plug the compressor into the power source and air network to get started
- No need to have a separate compressor room
- Save on pipe work to point of use and between air and condensate treatment equipment

REDUCING ENERGY COSTS

Atlas Copco WorkPlace Air Systems typically save 10% on operating costs:

- Reduced leakage in piping network
- Lowered system pressure

MINIMIZING NOISE

- Pioneering radial low-speed fan
- State-of-the-art vibro-acoustic optimization techniques






Delivering quality air



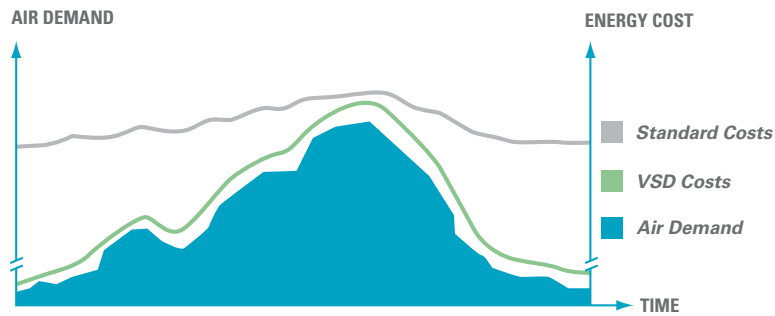
The integrated refrigerant dryer, standard with the Atlas Copco GA WorkPlace FF, reduces installation and maintenance costs, as well as required floor space. The dryer comes with the innovative SAVER cycle technology which limits the running time of the dryer while ensuring a good dewpoint to protect your system from moisture.



Untreated compressed air contains moisture, dirt particles and aerosols that can damage your entire air system. The resulting maintenance and downtime costs can far exceed air treatment costs. The GA WorkPlace Air System integrates air and condensate treatment equipment into one canopy, right on your work floor. The air from the GA WorkPlace Air System will see the quality of your production improve while your operating and maintenance expenses decrease.

THE AIR QUALITY YOU NEED	 Dirt particle size	 Water pressure dew point	 Oil concentration	ISO quality class
GA WorkPlace	3 microns	-	3 ppm	3.-4
GA WorkPlace FF with IFD	3 microns	+3°C, 37°F	3 ppm	3.4.4
GA WorkPlace FF with IFD & Class 2 integrated filters	1 micron	+3°C, 37°F	0.1 ppm	2.4.2
GA WorkPlace FF with IFD & Class 1 integrated filters	0.01 microns	+3°C, 37°F	0.01 ppm	1.4.1

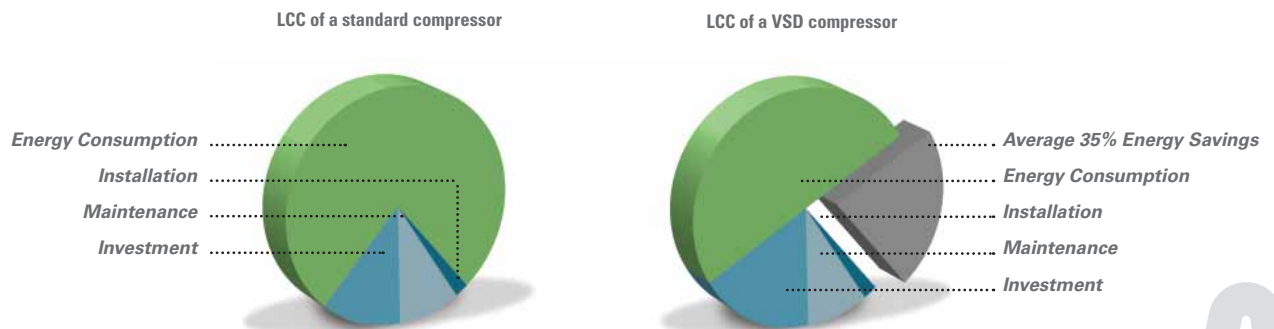
Variable volume, controlled costs



Over 80% of compressed air systems experience from 40 to 80% fluctuations in air demand.

Energy can represent over 70% of a compressor's lifecycle costs (LCC). Generating compressed air can account for more than 40% of a plant's total electricity bill. With its pioneering VSD (Variable Speed Drive) technology, Atlas Copco has made major energy cost savings a reality.

Most production environments have a fluctuating air demand depending on the time of day, day in the week, or even months per year. An Atlas Copco VSD compressor tunes the compressed air supply to the demand. Depending on the system pressure, the motor speed is adjusted up or down automatically.



Because there is no unnecessary power generated, a GAVSD can reduce energy costs by 35% or more. Cost reductions can total 22% over the entire life cycle of the compressor. On average, the extra cost of a VSD compressor compared to a fixed speed one is earned back after just one year.

VSD AT A GLANCE

- Precise pressure control:
 - Maintains net pressure band to within 0.10 bar, 1.5 psi
 - Reduces overall average working pressure
 - Minimizes system leakage due to lower system pressure
- Increased operational flexibility with soft starting gradual motor ramp-up
- Flexible pressure selection from 4 to 13 bar with electronic gearing ensures lowered electricity costs
- Substantial energy savings through elimination of inefficient transition period from full to no load power



Atlas Copco engineers can simulate the energy savings VSD would bring to your production setting.

The Atlas Copco VSD advantage

Atlas Copco pioneered the use of VSD technology in 1994. We now incorporate the latest generation VSD technology in our compressors. Along with our experience comes the expertise of our fully-trained service engineers who are part of our global network.

THE WIDEST PRODUCT RANGE

Atlas Copco has the most comprehensive VSD product range on the market. VSD is included in the GA oil-injected screw compressors sizes 11 to 315 kW, the Z oil-free compressors sizes 37 to 900 kW (with packages available up to 40 bar), and the AQ water-injected screw compressor available in a 55 kW frame size.

ENERGY SAVINGS

Atlas Copco produces the most energy-efficient VSD compressor available. Its regulation techniques allow a tighter pressure band, reducing the average working pressure and necessary power, system leakage and compressor "blow-off." Furthermore, it is designed to operate in the optimum Specific Energy Requirement (SER) element range, ensuring the most air for the least possible amount of energy.

UNRIVALLED DESIGN

Atlas Copco goes far beyond the addition of a frequency converter to a fixed speed compressor, which can be the cause of operational failures such as resonance frequency or bearing current damage. Our engineers work closely with the motor and drive manufacturer to build an integrated compressed air solution designed specifically for VSD applications. The result is optimal torque and cooling capability throughout the speed range.



Generating compressed air can take up more than 40% of your plant's electricity costs. Atlas Copco's VSD technology can reduce your compressor energy costs by 35% or more.

Operating at full efficiency

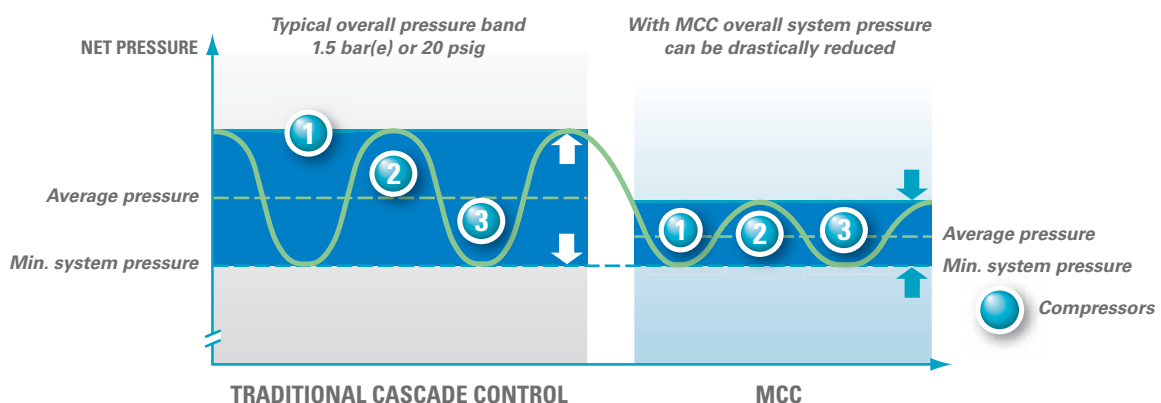


The Elektronikon continuously monitors critical parameters. Monitoring features include service and warning indications, error detection, compressor shut-down and maintenance scheduling.

The Elektronikon operating system provides control and monitoring functions to increase your compressor's efficiency and reliability. Easily expanded with extra sensors, digital inputs and Internet communication functions, the Elektronikon can be adapted to your specific needs.

To maximize energy efficiency, the Elektronikon controls the main drive motor and regulates system pressure within a predefined and narrow pressure band. With a simple push of a button, you can remote start and stop, load and unload the compressor.

MCC: THE ECONOMIES OF REDUCED PRESSURE



DUAL PRESSURE SET POINT

For maximum control, two different pressure bands can be programmed and changed manually or automatically.

DELAYED SECOND STOP

The Elektronikon's sophisticated control algorithm, the Delayed Second Stop (DSS), runs the drive motor only when needed. Because the Elektronikon maintains the desired system pressure while minimizing the drive motor run time, energy consumption is kept at a minimum.

MULTIPLE COMPRESSOR CONTROL

A traditional multiple compressor production environment requires a cascaded control to make the units work together. This set-up necessitates a higher overall system pressure to maintain minimum pressure. The Elektronikon's Multiple Compressor Control (MCC) centrally controls up to four compressors. The result is a substantial reduction in system pressure and energy consumption, in addition to minimal compressed air leakage and a more stable pressure.

Built to your requirements

Atlas Copco GA WorkPlace Air Systems can be outfitted to your needs. From an integrated dryer and filter to rain protection, all optional parts are available to further optimize your GAWorkPlace Air System's performance, or to simply tailor it to your specific production environment.

	GA 55*-90	GA 75-90 VSD
AIR TREATMENT		
Integrated filter kit class 1*	•	•
Integrated filter kit class 2*	•	•
Dryer bypass*	•	•
CONDENSATE TREATMENT		
Integrated oil/water separator (OSD)	•	•
PROTECTION		
Oil retaining frame	•	•
Motor space heater	•	•
Motor space heater + thermistors	•	•
Water shut-off valve**	•	•
Phase sequence relay	•	Standard
Tropical thermostat	•	•
Package inlet pre-filter	•	•
Freeze protection	•	•
NEMA 4 cubicle	•	•
NEMA 4X cubicle	•	•
PUBLIC WORKS		
Rain protection	•	•
Main power isolator switch	•	•
Lifting device	•	•
COMMUNICATION		
Relays for ES 100 sequence selector	•	N/A
OILS		
Synthetic PAO oil	•	•
Food grade oil	•	•
Roto Extreme oil	•	•
HD Roto fluid plus oil	•	•
GENERAL OPTIONS		
Energy recovery	•	•
Special canopy color	•	•
Russian GOST stamp	•	•
130 Pa ducting	•	•
Modulating control	•	N/A
AIRmonitor	•	•
Marine approvals	•	•
High-ambient temperature version (HAV 55°C, 131°F)***	•	•
High-resolution graphical display for Elektronikon****	•	•
IT ancillaries	N/A	•

* FF units only - ** Water-cooled units - *** FF units max. 50°C, 122°F - **** Required for Chinese, Korean and Japanese characters

Total capability, total reliability

With the GA range, Atlas Copco does not just offer the most reliable and efficient compressors. From filter kits to a complete piping installation, Atlas Copco can take responsibility for your entire compressed air system to provide you best-in-class air. All our products are designed and built to integrate seamlessly and to work together optimally. Atlas Copco's commitment to quality does not end there. Choose from a wide range of Atlas Copco after sales products and services that will have your GA WorkPlace Air System performing at its best for years to come. Qualified Atlas Copco support is available in over 150 countries.



Providing easy access to all components, the Atlas Copco GA range is built to facilitate maintenance.



AIRNET

Expect the highest efficiency from your GA WorkPlace Air System, and the piping built around it. AIRnet safely delivers high-quality compressed air from point of generation to point of use. Separate workplaces are effortlessly connected. Fixed to walls or ceilings, AIRnet's range of fittings lets you custom-build a compressed air system specific to your production needs.

GENUINE PARTS & LUBRICANTS

Don't compromise your investment in quality by buying parts that are not manufactured according to Atlas Copco's standards of excellence. Only Atlas Copco genuine parts can deliver our well-known quality, durability, and low energy and oil consumption. Atlas Copco lubricants ensure that your GA compressor continues to run smoothly.

SERVICEPLAN

Choose a Total Responsibility, Preventative Maintenance or Inspection Plan to get the scheduled maintenance to keep your compressor operating trouble-free.

AIRMONITOR

Monitor your GA WorkPlace Air System's performance at any time from your desk, or let your local Atlas Copco center do it for you. With AIRmonitor, you check your compressed air system online, immediately receiving warning indications and even remotely taking preventive action to avoid downtime.



AIRNET

AIRnet's corrosion-free aluminium pipes and polymer fittings are especially designed to reduce leakage, and energy waste.

The driving force



With the new GA compressors, Atlas Copco delivers a compressor range that significantly reduces installation, maintenance and energy costs. Custom-built to your specific requirements, the GA WorkPlace Air Systems integrate compressor and air treatment equipment into one compact canopy that effortlessly fits onto your production site. All components are designed especially by or for Atlas Copco to work together seamlessly to provide you with industry-leading reliability.

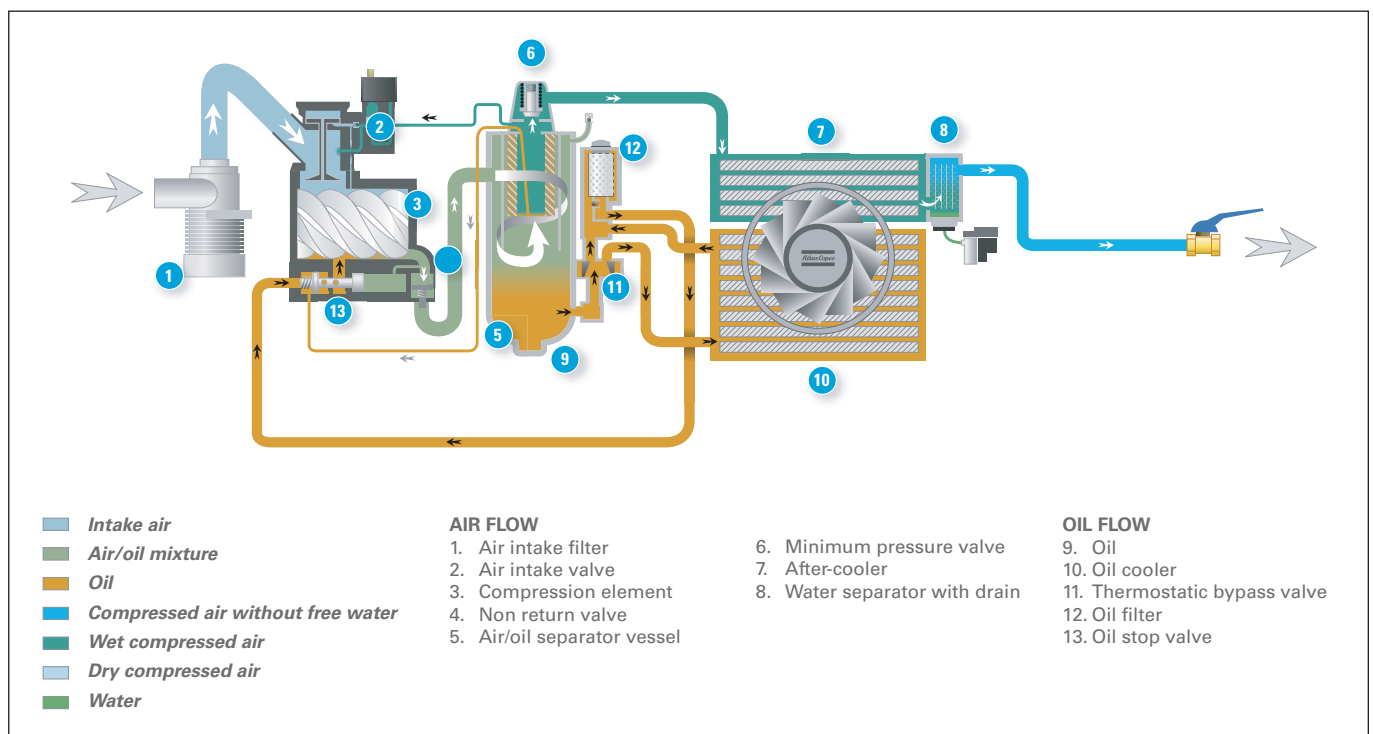
With typical savings of 35% or more, the industry's highest, the GA VSD takes energy efficiency to the next level. Meeting fluctuating air requirements by matching compressed air supply to the demand, our custom-built VSD technology gives you more precise pressure control and increased operational flexibility.

From compressors to dryers to air distribution, Atlas Copco's total capability allows us to take full responsibility for your entire compressed air system. Atlas Copco also offers you the right after sales products and services to keep your GA running smoothly for years to come.

Technical specifications GA 55⁺-90

COMPRESSOR TYPE	Max. working pressure Workplace		Capacity FAD*			Installed motor power		Noise level**	Weight (kg/lbs)	
	bar(e)	psig	l/s	m ³ /h	cfm	kW	hp		WorkPlace	WorkPlace Full Feature
50 Hz VERSION										
GA 55 ⁺	7.5	7.5	177	638	375	55	75	65	1432/3156	1582/3487
	8	8	168	605	356					
	10	10	145	522	307					
GA 75 ⁺	7.5	7.5	245	882	519	75	100	67	1532/3487	1882/4149
	8	8	230	828	487					
	10	10	204	735	432					
	13	13	171	615	362					
GA 90	7.5	7.5	270	973	572	90	125	73	1580/3484	1700/3749
	8	8	260	937	551					
	10	10	234	843	496					
	13	13	199	717	422					
60 Hz VERSION										
GA 55 ⁺	100	7.4	176	634	373	55	75	66	1432/3156	1582/3487
	125	9.1	157	566	333					
	150	10.8	136	490	288					
GA 75 ⁺	100	7.4	239	861	506	75	100	68	1532/3487	1882/4149
	125	9.1	213	767	451					
	150	10.8	193	695	409					
	175	12.5	176	634	373					
GA 90	100	7.4	272	980	576	90	125	74	1580/3484	1700/3749
	125	9.1	252	908	534					
	150	10.8	230	828	487					
	175	12.5	204	735	432					

GA 55⁺-90 WORKPLACE



Technical specifications GA 75-90 VSD

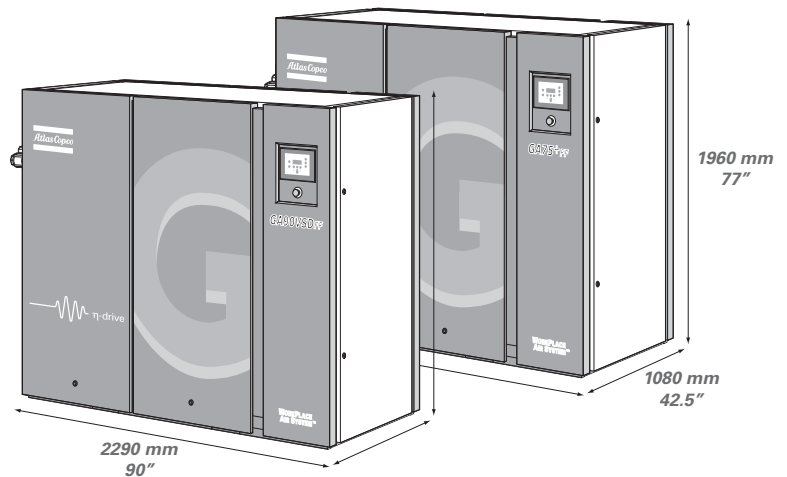
COMPRESSOR TYPE	Max. working pressure Workplace		Capacity FAD* min.-max.			Installed motor power		Noise level**	Weight (kg/lbs)	
	bar(e)	psig	l/s	m ³ /min	cfm	kW	hp	dB(A)	WorkPlace	WorkPlace Full Feature
50/60 Hz VERSION										
GA 75 VSD	4	58	40-247	2.4-14.8	85-523	75	100	69	1682/3708	1832/4039
	7.5	109	38-245	2.3-14.7	81-519					
	10	145	36-201	2.2-12.1	76-426					
	13	188	33-171	2.0-10.3	70-362					
GA 90 VSD	4	58	41-286	2.5-17.2	87-606	90	125	73	1732/3818	1882/4149
	7.5	109	38-285	2.3-17.1	81-604					
	10	145	36-241	2.2-14.5	76-511					
	13	188	32-200	1.9-12.0	68-424					

* Unit performance measured according to ISO 1217, Ed. 3, Annex C-1996.
Reference conditions:
- absolute inlet pressure 1 bar (14.5 psi)
- intake air temperature 20°C, 68°F

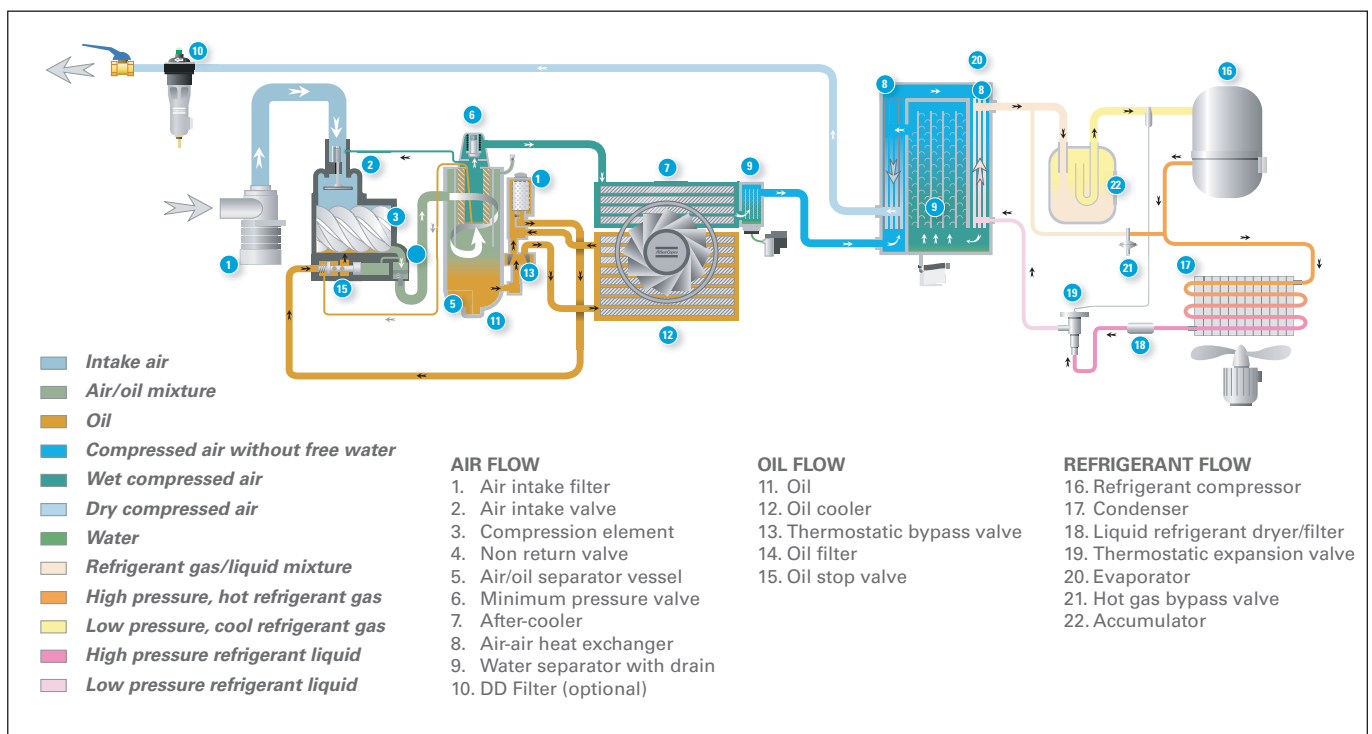
FAD is measured at the following working pressures:
- 7.5 bar versions at 7 bar
- 10 bar versions at 9.5 bar
- 13 bar versions at 12.5 bar

** Mean noise level measured according to pneuro/Cagi PN8NTC2 test code; tolerance 2 dB(A).

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



GA 75-90 VSD WORKPLACE FULL FEATURE





In order to be First in Mind—First in Choice™ for all your compressed air needs, Atlas Copco delivers the products and services that help increase your business' efficiency.

Atlas Copco's pursuit of innovation never ceases, driven by your need for reliability and efficiency. Always working with you, we are committed to providing you the customized quality air solution that is the driving force behind your business.



Never use compressed air as breathing air without prior purification in accordance with local legislation and standards.

Visit our website: www.atlascopco.com