

Atlas Copco



A technical drawing of a screw compressor is overlaid on a blue triangular graphic in the bottom-left corner. The drawing shows a cross-section of the compressor with various dimensions and labels. Key labels include '1380 (P4-3)', '1330 (G42)', 'C-C (1:3)', 'Ø12', 'Ø27.5', 'Ø72', 'Ø8', '18.5', '30.8', '10.5', and 'L1.8'. The drawing is a detailed line drawing showing the internal components and external dimensions of the compressor.

Oil-injected rotary screw compressors

GA 30+90/GA 37-110 VSD⁺ (30-110 kW/40-150 hp)



GA90VSD+



The ultimate smart solution, driven by efficiency

Atlas Copco's GA compressors bring you outstanding sustainability, reliability and performance, while minimizing the total cost of ownership. A choice of three premium compressor types (GA VSD+, GA+ and GA) provides you with the compressed air solution that perfectly matches your requirements with clear value propositions. Built to perform even in the harshest environments, these compressors keep your production running efficiently.

GA

Premium compressor

- High performance Free Air Delivery.
- Premium quality at the lowest initial investment.
- Integrated refrigerant dryer.
- Elektronikon® Touch or Swipe controller.

GA+

Industry-leading performance

- Best-in-class Free Air Delivery.
- Lowest energy consumption for applications with a stable air demand.
- Low noise emission suitable for workplace installation.
- Integrated refrigerant dryer.
- Elektronikon® Touch controller.

- New GA 30+ -45+ models come with IE4 motor and all-new element for +2.7% Free Air Delivery and on average +3.2% energy efficiency.

GA VSD+

Ultimate energy saver

- 50% energy savings on average compared to fixed speed models.
- iPM motor equals IE5 standards.
- In-house designed NEOS inverter and iPM motor exceed IES2 (EN 50598) requirements for power drive efficiency.
- Industry-leading operating turndown range.
- Wide pressure selection: 4-13 bar.
- Start under system pressure, no blow-off.
- Integrated refrigerant dryer.
- Elektronikon® Touch controller.



VSD+: a game changer

With the GA VSD+ range, Atlas Copco has revolutionized compressor build and performance. Instead of the normal space-taking horizontal design, the GA VSD+ has an upright, compact layout. This saves valuable floor and work space, eases maintenance access, and reduces total cost of ownership.

Inside the robust GA 37L-110 VSD+



IE5

Meeting and exceeding efficiency benchmarks:

- The iPM motor of the GA 37L-110 VSD+ equals IE5 standards.
- Neos inverter and iPM motor exceed IES2 (EN 50598) requirements for power drive efficiency.

1

Interior Permanent Magnet (iPM) motor

- Oil-cooled motor.
- Optimal cooling for all speeds and ambient conditions.
- Designed in-house in Belgium.
- Oil-lubricated motor bearing: no (re)grease(ing), increased uptime.
- IP66: pressure tight.

2

New compressor element

- New improved rotor profile.
- Reduced pressure losses.
- Optimized in and outlet portals.

3

Direct drive

- Vertical design, less parts.
- Oil-cooled, pressure-tight.
- No gears or belts, no shaft seal.

4

Inlet filter

- Heavy duty.
- Maintenance every 4,000 hours.
- Pressure drop indicator.

5

Electronic no-loss water drain

- Ensures constant removal of condensate.
- Manual integrated bypass for effective condensate removal in case of power failure.
- Integrated with compressor's Elektronikon® with warning/alarm features.

12

VSD+ Neos cubicle

- Electrical components remain cool, enhancing their lifetime.
- Dedicated drive for iPM technology motors.
- Heat dissipation of inverter in separate compartment.

6

High-tech fan

- Compact.
- Low noise level.
- High capacity for optimized cooling.
- Compliant with ERP2020 efficiency standards.

7

Classic cooler design

- Integrated water separation.
- Separate oil/air cooler.
- Easy access for maintenance.

8

Innovative Neos inverter

- Atlas Copco's in-house designed inverter now also controls iPM motors.
- IP5x protection.
- Robust aluminum enclosure for trouble-free operation in the harshest conditions.
- Fewer components: compact, simple and user-friendly.

9

Integrated dryer

- Extra compact footprint.
- Refrigerant R410A.

10

Elektronikon® Touch controller

- High-tech controller with warning indications, compressor shut-down and maintenance scheduling.
- Easy to use and designed to perform in the toughest conditions.
- Standard SMARTLINK remote monitoring to maximize air system performance and energy savings.
- Optional multiple compressor control (2, 4 or 6 compressors).

11

Sentinel no-loss inlet valve

- Optimizes the inlet flow of the air end.
- No blow-off losses.
- Full aluminum design: maintenance-free (GA 37L-75 VSD+).



Inside the reliable GA 30⁺-90



6 Elektronikon® Touch for remote monitoring

- High-tech controller with warning indications, compressor shut-down and maintenance scheduling.
- Easy to use and designed to perform in the toughest conditions.
- Standard SMARTLINK remote monitoring to maximize air system performance and energy savings.
- Optional multiple compressor control (2, 4 or 6 compressors).
- Optional for GA 37, GA 45, GA 55, and GA 75, which come standard with the Elektronikon® Swipe controller.



1 Maintenance-free drive system

- 100% maintenance-free; totally enclosed and protected against dirt and dust.
- Suitable for harsh environments.
- High-efficiency drive arrangement; no coupling or slippage losses.
- Standard up to 46°C/115°F and for high ambient version 55°C/131°F.

2 IE3/NEMA Premium Efficiency electrical motors

- IP55, insulation Class F, B rise.
- Non-drive side bearing greased for life.
- Oil-lubricated drive side bearings.
- Designed for continuous operation in harsh environments.

3 Robust spin-on oil filter

- High-efficiency; removes 300% smaller particles than a conventional filter.
- Integrated bypass valve with the oil filter.

4 Separate oversized oil cooler and aftercooler

- Low element outlet temperatures, ensuring long oil lifetime.
- Removal of nearly 100% of condensate by integrated mechanical separator.
- No consumables.
- Eliminates possibility of thermal shocks in coolers.



7 Heavy-duty air intake filter

- Protects the compressor components by removing 99.9% of dirt particles down to 3 microns.
- Differential inlet pressure for proactive maintenance while minimizing pressure drop.

8 Cubicle cooling booster

- Cubicle in overpressure minimizes ingress of conductive dust.
- Electrical components remain cool, enhancing their lifetime.



9 Integrated highly efficient R410A dryer

- Excellence in air quality.
- 50% reduction in energy consumption compared to traditional dryers.
- Zero ozone depletion.
- Incorporates optional UD⁺ filter according to Class 1.4.2.

10 High-tech fan

- Compact.
- Low noise level.
- High capacity for optimized cooling.

5 Electronic no-loss water drain (for + versions)

- Ensures constant removal of condensate.
- Manual integrated bypass for effective condensate removal in case of power failure.
- Integrated with compressor's Elektronikon® with warning/alarm features.

A new GA 30⁺-45⁺

The GA 30⁺-45⁺ has always delivered industry-leading efficiency. It just got even better. Thanks to its IE4 motor and all-new element, you enjoy 2.7% more Free Air Delivery and on average 3.2% better energy efficiency. And a compact footprint! The pack unit of the GA 30⁺-45⁺ is now 32% smaller.



A step ahead in monitoring and controls

The next-generation Elektronikon® operating system offers a great variety of control and monitoring features that allow you to increase your compressor's efficiency and reliability. To maximize energy efficiency, the Elektronikon® controls the main drive motor and regulates system pressure within a predefined and narrow pressure band.



GA 37, GA 45, GA 55 & GA 75: Elektronikon® Swipe

- Improved ease of use: intuitive navigation with clear pictograms and extra 4th LED indicator for service.
- Visualization through web browser using a simple Ethernet connection.
- Easy to upgrade.

Key features:

- Automatic restart after voltage failure.
- Delayed Second Stop function.
- Dual pressure set point.
- Built-in SMARTLINK online monitoring.
- Option to upgrade to the advanced Elektronikon® Touch controller.

GA 90, GA 30+-75+ & GA 37L-110 VSD+: Advanced Elektronikon® Touch

- Improved user-friendliness: 4.3-inch high-definition color display with clear pictograms and service indicator.
- Internet-based compressor visualization using a simple Ethernet connection.
- Increased reliability: new, user-friendly, multilingual user interface and durable touch screen.

Key features:

- Automatic restart after voltage failure.
- Built-in SMARTLINK online monitoring.
- Dual pressure set point.
- More flexibility: four different week schedules that can be programmed for a period of 10 consecutive weeks.
- On-screen Delayed Second Stop function and VSD savings indication.
- Graphical service plan indication.
- Remote control and connectivity functions.
- Software upgrade available to control up to 6 compressors by installing the optional integrated compressor controller.



VSD+ for 50% average energy savings*

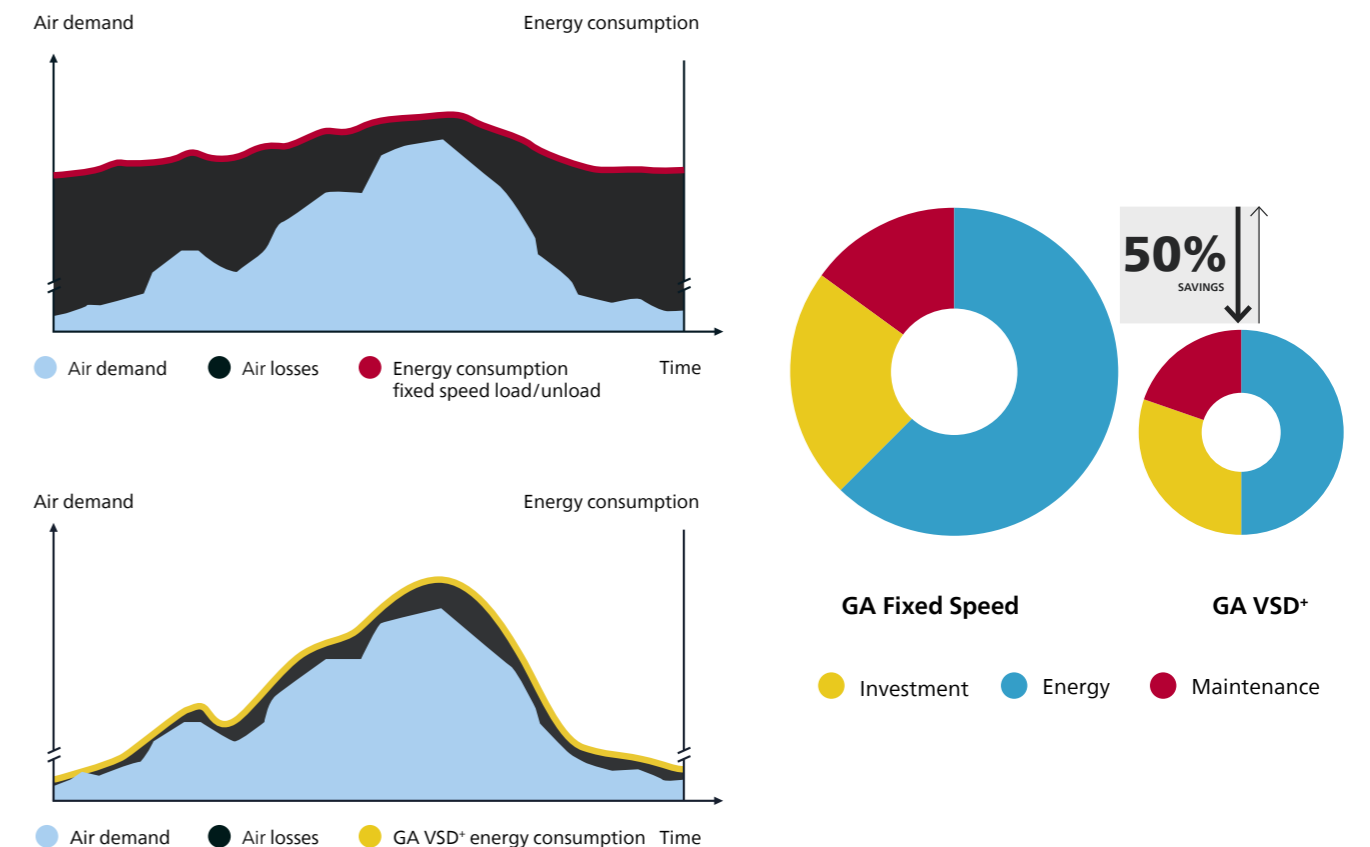
Over 80% of a compressor's lifecycle cost is taken up by the energy it consumes. Moreover, the generation of compressed air can account for more than 40% of a plant's total electricity bill. To cut your energy costs, Atlas Copco pioneered Variable Speed Drive+ (VSD+) technology in the compressed air industry. VSD+ leads to major energy savings, while 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.

Why Atlas Copco Variable Speed Drive+ technology?

- On average 50% energy savings with an extensive flow range (20-100%).
- Integrated Elektronikon® Touch controls the motor speed and high-efficiency frequency inverter.
- No wasted idling times or blow-off losses during operation.
- Compressor can start/stop under full system pressure without the need to unload.
- Eliminates peak current penalty during start-up.
- Minimizes system leakage due to a lower system pressure.
- EMC compliance to directives (2004/108/EG).

* Compared to fixed speed compressors, based on measurement performed by an independent energy audit agency.

In almost every production environment, air demand fluctuates depending on different factors such as the 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.



Why dry your compressed air?

Untreated compressed air contains moisture, aerosols and dirt particles that can damage your air system and contaminate your end product, creating the risk of corrosion and compressed air system leaks. Maintenance costs can far exceed air treatment costs. An air dryer is therefore essential to protect your systems and processes. The GA, GA+ and GA VSD+ compressors have an integrated dryer option to ensure your peace of mind.

Integrated dry air

- Optimized sizing for the compressor, avoiding excessive energy consumption.
- Fit for your application.
- Controlled and monitored by the Elektronikon[®].
- Space-saving all-in-one solution with low installation costs.

Lowest lifecycle costs and peace of mind

- No extra installation costs.
- Saving floor space.
- Use of energy-efficient, environmentally friendly refrigerant R410A reduces operating costs and stands for zero ozone depletion.
- Heat exchanger cross-flow technology with low pressure drop, saving energy and costs.
- Zero waste of compressed air thanks to no-loss condensate drain.
- Advanced control functions ensure dry air under all circumstances and prevent freezing at low load.
- Pressure dew point of 3°C/37°F (100% relative humidity at 20°C/68°F).



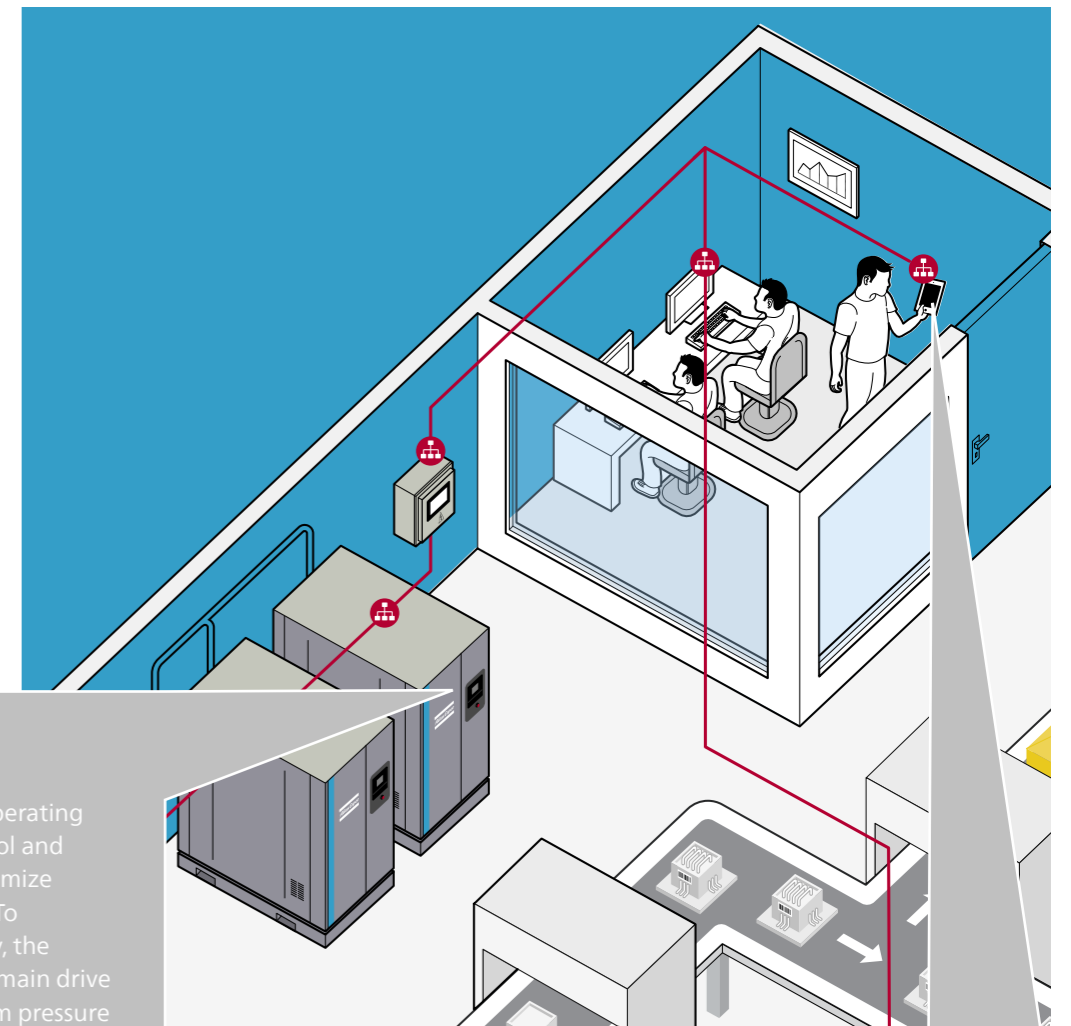
Integrated purity

	ISO QUALITY CLASS*	DIRT PARTICLE SIZE	WATER PRESSURE DEW POINT**	OIL CONCENTRATION
Pack compressor	3.-4	5 microns	-	3 ppm
Integrated refrigerant dryer	3.4.4	5 microns	+3°C/37°F	3 ppm
DD*	2.4.2	1 micron	+3°C/37°F	0.1 ppm
UD*	1.4.2	0.5 micron	+3°C/37°F	0.1 ppm

* The table values reflect the maximum limits according to the ISO quality air standard (ISO 8573-1:2010).
 ** Water pressure dew point based on 100% RH at 20°C/68°F.

Advanced monitoring, control & connectivity

Whether you call it Industry 4.0 or the Internet of Things (IoT), interconnectivity is the future. Your GA comes fully prepared. Its advanced monitoring, control and connectivity features allow you to optimize compressor performance, resources, efficiency and productivity.



CONTROL

The Elektronikon[®] Touch operating system gives you the control and monitoring options to optimize compressor performance. To maximize energy efficiency, the Elektronikon[®] controls the main drive motor and regulates system pressure within a predefined and narrow pressure band.

Dual Pressure Set Point

Create two different system pressure settings to reduce energy use and costs during fluctuating demand.

Integrated Saver Cycles

Fan Saver Cycle reduces energy consumption by switching off the fan in light load applications.

Timer

A built-in clock supports any working schedule – per day, per week or customized to your specific situation and needs.

CONNECT SMARTLINK[®]: Data Monitoring Program

- Remote monitoring that helps you optimize your compressed air system and save energy and costs.
- Provides a complete insight in your compressed air network.
- Anticipates potential problems by warning you upfront.

* Please contact your local sales representative for more information.

Optimize your system

Some applications may need or may benefit from additional options and more refined control/air treatment systems. To meet these needs, Atlas Copco has developed options and easily integrated compatible equipment.

		GA 30*/37/45	GA 37*/45*	GA 55*-75* GA 55-90	GA 37L-110 VSD*
Air treatment	Integrated filter kit class 1*	•	•	•	•
	Integrated filter kit class 2*	-	-	•	-
	Dryer bypass*	-	-	•	-
Condensate	OSCi	-	-	•	-
Protection	Oil retaining frame	•	•	•	-
	Motor space heater + thermistors	-	•	•	-
	Water shut-off valve**	-	•	•	•
	Phase sequence relay (GA 55-90)	-	-	•	-
	Tropical thermostat	•	•	•	•
	Freeze protection	•	•	•	-
	NEMA 4 cubicle	-	•	•	-
	NEMA 4X cubicle	-	•	•	-
	Pre-filter	•	•	•	•
	Advanced monitoring	-	•	•	-
	ANSI flange outlet	•	•	•	-
	DIN flange outlet	•	•	•	-
	Public works	Rain protection	•	•	•
Main power isolator switch		-	•	•	-
Lifting device		•	-	•	-
Oversized motor (except GA 45* & GA 90)		-	-	•	-
Communication	ES 100 relays***	•	•	•	-
	Elektronik® Touch upgrade (only for GA 37 to GA 75)	•	-	•	-
	EQ2i/EQ4i/EQ6i	•	•	•	•
Oils	Digital I/O expansion module	•	•	•	•
General options	Food grade oil	•	•	•	•
	Roto Synthetic Xtend oil (8,000 hours)	•	•	•	•
	Witness performance test	•	•	•	•
	Energy recovery	•	•	•	•
	Power duct fan	•	•	•	•
	Modulating control	-	•	•	-
	High-ambient temperature version (HAV 55°C, 131°F)****	•	•	•	•
IT/TT ancillaries	-	-	-	•	

* FF units only.
 ** Water-cooled units.
 *** Includes potential-free contacts: motor running, compressor load/unload.
 **** FF units max 50°C/122°F.
 Transformer included for 200-230-575V units.
 •: Optional - : Not available

Recover and save energy

As much as 90% of the electrical energy used by a compressed air system is converted into heat. Using Atlas Copco's integrated energy recovery systems, you can recover up to ~ 75% of that power input as hot air or hot water without any adverse influence

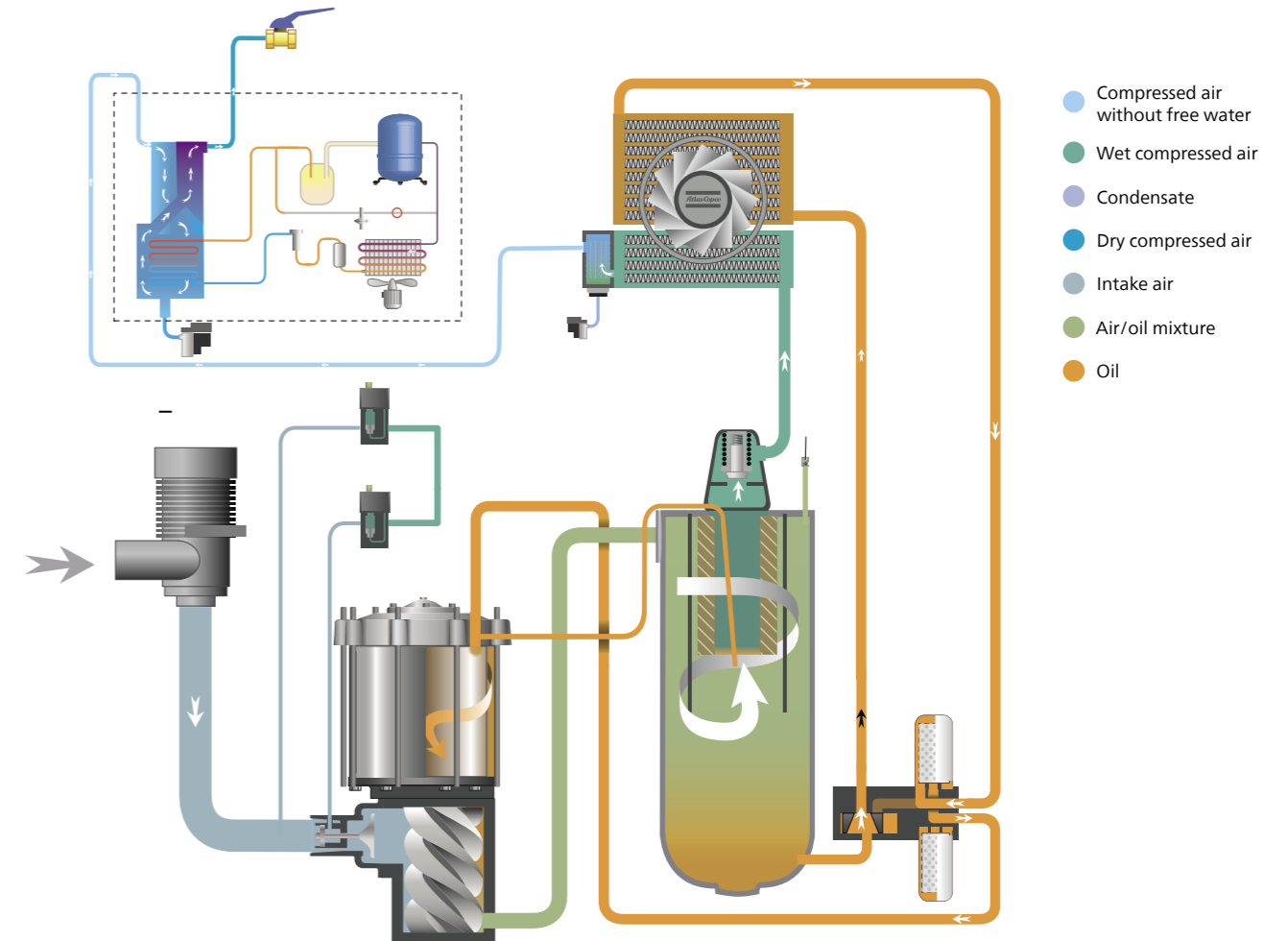
on the compressor's performance. Through efficient usage of the recovered energy, you generate important energy cost savings and a high return on investment.



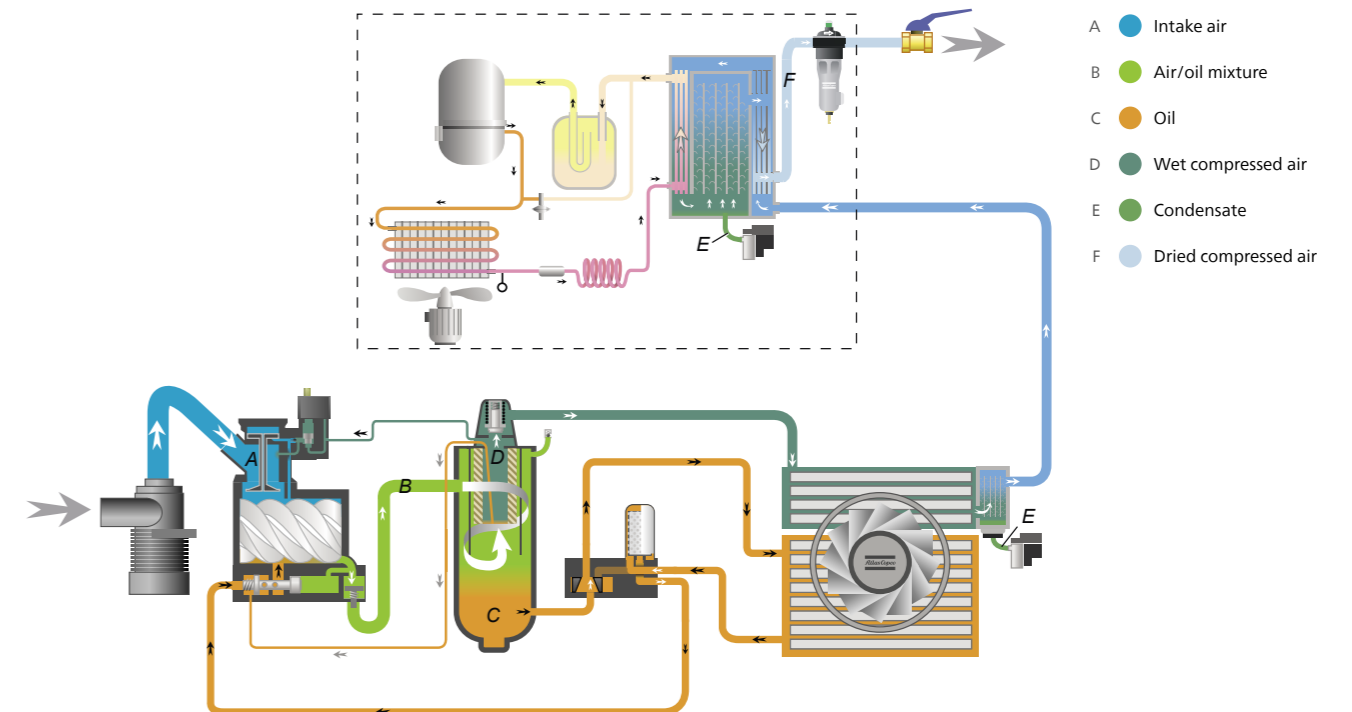
Applications

- Auxiliary or main heating of warehouses, workshops...
- Industrial process heating.
- Water heating for laundries, industrial cleaning and sanitary facilities.
- Canteens and large kitchens.
- Food industry.
- Chemical and pharmaceutical industries.
- Drying processes.

Variable Speed Drive: GA VSD+



Fixed speed: GA+ & GA





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