

Atlas Copco



Dual-speed oil-injected rotary screw compressors

GA 11-30 FLX (11-30 kW/15-40 hp)



Innovating for a sustainable future

At Atlas Copco, we have always looked ahead. Which products and services will make our customers more successful? Your future drives the Atlas Copco team every day. It is the reason why we devote so much time and so many resources to innovation. If there are technologies that will advance your productivity, we will find them. That is what we have been doing for 150 years now, setting new standards in compressed air reliability, efficiency, connectivity, and sustainability. It's that last principle that now comes first. Sustainability is no longer something we should strive for, but something we must achieve. Productivity and growth will have to be built on sustainability. Atlas Copco – our products, our services, and our people – will help you get there, as we always have.

The technology that drives energy efficiency



Drive train

The GA FLX's proprietary element and IE5 efficiency motor deliver more air and double-digit energy savings.



Neos Next

The inverter that allows the GA FLX to modulate its motor speed down to a minimum to significantly reduce transient and unload energy losses.



Energy recovery

The GA FLX's energy recovery system gives you additional energy savings by recovering and re-using up to 80% of the heat the compressor produces.

GA 11-30 FLX A new type of flexibility and efficiency

With the GA FLX, Atlas Copco introduces an entirely new compressor type: the dual-speed rotary screw compressor. The GA FLX was developed and built to give you valuable energy savings no fixed-speed compressor can. Thanks to its next-generation engineering and connectivity, it also offers optimal air delivery at every pressure set point for superior performance and flexibility. In short, the GA FLX brings the innovation that will make a real difference to your operation and your bottom line.

Double-digit energy savings

- Drastically reduces transient and unload energy losses.
- Lowers energy consumption by up to 20% (compared to GA fixed-speed models).
- FASR motor equals **IE5** standards.
- Additional energy savings with up to 80% heat recovery.

Premium performance

- Can start under pressure to save on start-up time and energy use.
- Works at any pressure setting without loss of air flow.
- Wide range of options allow you to tailor the GA FLX to your needs.

Advanced connectivity

- State-of-the-art Elektronikon® Touch controller.
- **SMARTLINK** real-time, remote monitoring and optimization.
- OPC UA available for production system integration.

Compact footprint

- Extremely small footprint ensures easy, flexible installation.
- 50% smaller than fixed-speed GA.
- Full feature version with fully integrated dryer and filters saves on floor space.



True innovation in engineering

A new type of compressor requires innovative engineering. The GA FLX's super-efficient drive train is controlled by our best-in-class Neos Next electronic gearbox and advanced Elektronikon controller to give you improved energy efficiency and performance.

1

New drive train

- Designed according to IP66.
- In-house developed high-efficiency element sized for optimal flow and lowest energy requirement.
- Ferrite-Assisted Synchronous Reluctance motor equals IE5 standards.
- Oil-cooled for maximum efficiency.
- Oil-lubricated bearings.
- No gears or belts means no transmission losses.

2

Neos Next inverter

- Combines the functionality of an entire electrical cubicle in one compact unit.
- IP54-protected from dust and dirt.
- Inverter and FASR motor exceed IES2 (EN 50598) requirements for power drive efficiency.
- Free pressure selection between 4 and 13 bar with optimal flow.

3

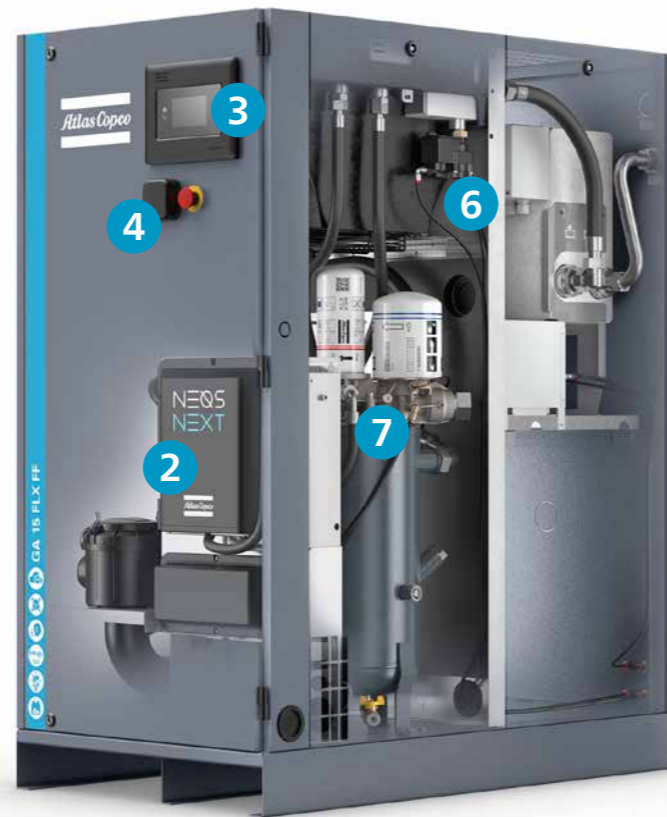
Elektronikon Touch controller

- High-tech operating system with a host of control and monitoring features, warning indications, compressor shutdown, and maintenance scheduling.
- Easy to use and designed to perform in the toughest conditions.
- Smart algorithms optimize compressor performance.

4

Antenna

- Enables SMARTLINK remote monitoring to maximize air system performance and energy savings.
- Allows for future over-the-air software updates.



5

Start-stop fan

- Powered by our proprietary FLX software.
- Meets ERP2020.

6

No-loss electronic drain

- Ensures the automatic removal of condensate to minimize loss of compressed air.
- Alarm function.

7

Oil filter & separator

- High-efficiency two-step air-oil separator system reduces oil consumption, lowers maintenance costs, and ensures a good oil separation result.
- Oil filter removes particles > 25 microns with 99% efficiency to protect lubrication quality and the health of rotating components.

8

Inlet filter

- Enhanced filtration efficiency.
- Ensures lower pressure drop.

9

Integrated air dryer

- High-efficiency refrigerant dryer can be fully built-in.
- Protection of downstream air equipment from the harmful effect of moisture.
- 50% reduction in energy consumption compared to traditional dryers.
- Zero ozone depletion.
- Incorporates optional UD+ filter to meet ISO 8573-1 Quality Class 1.4.2.



10

Easy installation & service

- Compact footprint saves on floorspace and allows for flexible placement.
- Forklift slots ensure easy maneuvering.
- Easy access panels for quick service and longer uptime



Energy recovery

As much as 90% of the electrical energy used by a compressed air system is converted into heat. Don't let that heat go to waste. A specifically developed energy recovery system can be built into your GA FLX, allowing you to recover up to 80% of that power input as hot water (e.g.: changing room showers).

Introducing the dual-speed compressor

The fundamentals of compressing air rarely change. That makes the introduction of the dual-speed compressor by Atlas Copco a really big deal. Unlike traditional fixed-speed compressors, a dual-speed unit can modulate down to a minimum motor speed during unload and can start under pressure to give you double-digit energy savings. In addition, it delivers optimal flow at any pressure setting for a truly versatile performance.

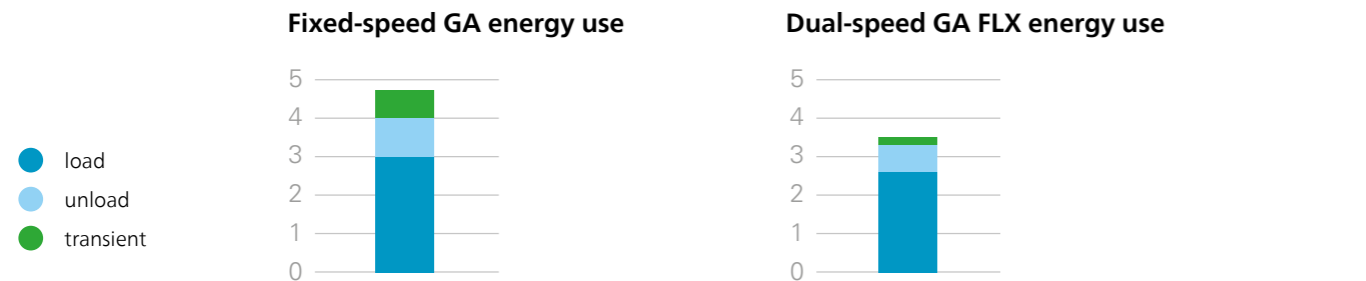
What is a dual-speed compressor?

Traditional fixed-speed compressors only have one motor speed, 100% on. This is what you need to receive maximum air flow. But whenever your air demand is a little or a lot lower than your compressor's maximum capacity, this fixed motor speed requires a lot of energy that is essentially wasted. A dual-speed compressor operates at two speeds, one for maximum capacity and a minimum speed to reduce energy consumption during unload. As a result, it is much more efficient than a fixed-speed, as it experiences lower transient and blow-off losses.

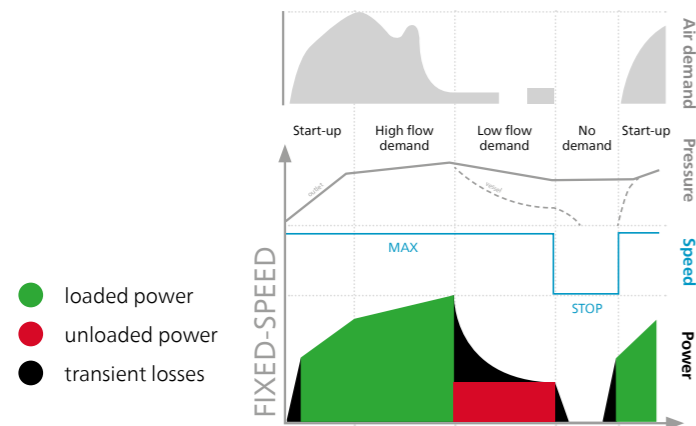
Minimizing transient losses

Transient losses is a key term to understand why and how dual-speed compressors reduce energy consumption compared to fixed-speed models. It describes the energy that a compressor consumes without producing usable air as it cycles between operational phases. For a fixed-speed compressor, these losses can add up to 20% of its total energy use. Because of the inherent limitations of its technology, a fixed-speed model will never be able to meaningfully reduce transient losses, no matter how efficient it is. A dual-speed can minimize these transient losses, thanks to its minimum unload motor speed and the fact that it can start up (faster) against a system under pressure.

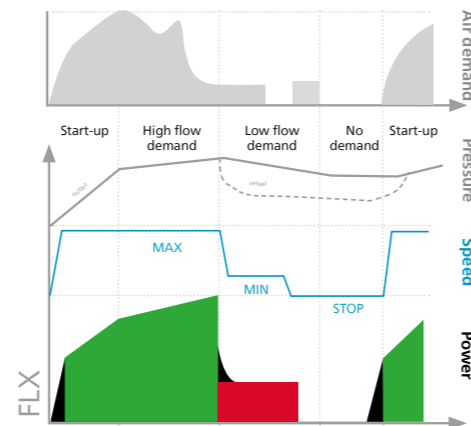
Energy consumption



Fixed-speed GA energy consumption & loss



Dual-speed GA FLX energy consumption & loss



3 reasons why you will love the GA FLX

1. Unique dual-speed benefits

Atlas Copco invented and developed the dual-speed compressor and the GA FLX is the first and only of its kind. So if you want to enjoy the benefits no fixed-speed compressor can ever offer, the GA FLX is your ticket.

3. Flexible pressure setting

The GA FLX gives you the freedom to select any pressure without compromising on air flow or FAD. It works optimally at any pressure setting. And it possibly allows you to size down compared to fixed-speed, which can reduce your investment and operational costs.

2. Lower your energy and operational costs

Energy constitutes about 80% of the cost of owning and operating a compressor. That means that the 20% energy savings the GA FLX can deliver can really add up towards lowering your operational costs and meeting your sustainability goals.

Upgrade to VSD

Want to supercharge your energy savings? Simply turn your GA FLX into a VSD machine and save up to 50% in energy costs compared to a fixed-speed GA. This over-the-air upgrade is as easy as 1-2-3:

1. Energy consumption analysis

Once you have operated your GA FLX for 1,000 hours, you will automatically receive an energy consumption analysis. This will include a calculation of how much you can save by switching to VSD based on your actual operation of your dual-speed GA FLX.

2. The one-click VSD upgrade

If and when you are ready to upgrade to VSD, you just sign up for a license via the Elektronikon display or SMARTLINK. Atlas Copco will execute the VSD upgrade remotely for you. That means no service intervention is required, unless you prefer an on-site visit.

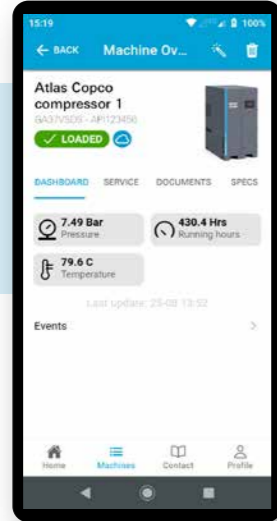
3. Up to 50% energy savings

Because VSD technology virtually eliminates transient and unload losses, you enjoy up to 50% energy savings and a much-reduced total cost of ownership.



As connected as you will be

When it comes to connectivity, manufacturing equipment has long lagged behind. Not Atlas Copco. Our compressed air systems helped pave the way for Industry 4.0. We never stopped developing innovative features and introducing new options to help our customers meet their operational goals.



Connect

SMARTLINK

- Real-time monitoring of your compressor's operational parameters on your computer or mobile device.
- Performance data and insights identify opportunities for optimization.
- Service timeline.
- Maintenance and service alerts.
- Online resource center with manuals, documentation and technical information.



Control

Elektronikon Touch

The Elektronikon Touch features a 4.3-inch user-friendly, multilingual display with clear pictograms and a service indicator. The operating system offers a host of control and monitoring options and smart algorithms to optimize your compressor performance. Customized timers and efficiency controls are just a few examples.



Manage

Equalizer 4.0

Manage up to 6 compressors in one air network with the Equalizer 4.0 (integrated in your compressor or as a standalone unit):

- **Reduced pressure band:** Create a narrow, predefined pressure band to save energy.
- **Optimal system performance:** Program all compressors to have equal running hours to reduce service intervals.
- **Improve reliability and efficiency:** With actionable performance reports, service warnings, and energy efficiency data.
- **Standard multiple compressor control:** Manage up to 6 compressors in one air network.

Optimize

OPC UA

Atlas Copco was the first compressor manufacturer to offer OPC UA, the machine-to-machine communication protocol that was developed especially for industrial automation. That means you can integrate your Atlas Copco compressor seamlessly in your production network:

- Standardization of production equipment communication.
- Insight into production system performance and optimization options.
- Network security thanks to various encryption levels, authentication, auditing, and user control to ensure security.

Built-in quality air

Untreated compressed air contains moisture and aerosols that increase the risk of corrosion and compressed air system leaks. This can result in a damaged air system and contaminated end products. The GA FLX comes in a Full Feature version with a built-in refrigerant dryer. It provides the clean, dry air that improves your system's reliability, avoids costly downtime, and safeguards the quality of your products.



- Pressure dewpoint of 3°C/37.4°F (100% relative humidity at 20°C/68°F).
- Heat exchanger cross-flow technology with low pressure drop.
- Zero waste of compressed air thanks to no-loss condensate drain.
- Zero ozone depletion.
- Global warming potential has been lowered by an average of 50% by reducing the amount of refrigerant.

The GA 11-30 FLX with built-in dryer and UD+ filter meets ISO 8573-1 Quality Class 1.4.2.

The optional UD+ filter and integrated refrigerant air dryer (IFD) efficiently remove moisture, aerosols and dirt particles to protect your investment. The UD+ filter has a 40% lower pressure drop than the conventional DD+/PD+ filter combination. It saves space and reduces energy costs. Using only 1 single filter, it is possible to reach Quality Class 1.4.2 according to ISO 8573-1:2010.

Purity class	Solid particles			Water		Total oil*
	Number of particles per m ³			Pressure dewpoint		Concentration
	0.1 < d ≤ 0.5 μm**	0.5 < d ≤ 1.0 μm**	1.0 < d ≤ 5.0 μm**	°C	°F	mg/m ³
0	As specified by the equipment user or supplier and more stringent than Class 1.					
1	≤ 20000	≤ 400	≤ 10	≤ -70	≤ -94	≤ 0.01
2	≤ 400000	≤ 6000	≤ 100	≤ -40	≤ -40	≤ 0.1
3	-	≤ 90000	≤ 1000	≤ -20	≤ -4	≤ 1
4	-	-	≤ 10000	≤ 3	≤ 37.4	≤ 5
5	-	-	≤ 100000	≤ 7	≤ 44.6	-
6	≤ 5 mg/m ³			≤ 10	≤ 50	-

* Liquid, aerosol and vapor.
** d= diameter of the particle.

Options

- Energy recovery
- Dryer bypass
- Potential-free contacts
- Remote monitoring
- Freeze protection
- Tropical thermostat
- Heavy-duty inlet filter
- Pre-filter
- IT ancillaries
- DD filter
- Food-grade oil
- UD+ filter
- Roto Synthetic Xtend oil
- EQ2i, EQ4i, EQ6i
- OPC UA gateway
- Power duct fan
- High ambient version

Technical specifications GA 11-30 FLX

Compressor Type	Working pressure		Maximum capacity FAD*			Installed motor power		Noise level**	Weight (kg)	
	bar(e)	psig	l/s	m ³ /h	cfm	kW	hp		Pack	Full Feature
GA 11 FLX	4	58	35.7	129	75.6	11	15	68	253	343
	7	102	35.6	128	75.4	11	15	68	253	343
	9.5	147	31.7	114	67.2	11	15	68	253	343
	12.5	181	26.1	94	55.3	11	15	68	253	343
GA 15 FLX	4	58	49.7	179	105.3	15	20	69	253	376
	7	102	49.3	177	104.5	15	20	69	253	376
	9.5	147	42.1	152	89.2	15	20	69	253	376
	12.5	181	32.8	118	69.5	15	20	69	253	376
GA 18 FLX	4	58	66.8	240	141.5	18	25	69	328	452
	7	102	66.4	239	140.7	18	25	69	328	452
	9.5	147	58.1	209	123.1	18	25	69	328	452
	12.5	181	46.9	169	99.4	18	25	69	328	452
GA 22 FLX	4	58	77.1	278	163.4	22	30	68	458	587
	7	102	76.7	276	162.5	22	30	68	458	587
	9.5	147	68.1	245	144.3	22	30	68	458	587
	12.5	181	56.2	202	119.1	22	30	68	458	587
GA 26 FLX	4	58	82.4	297	174.6	26	35	71	463	604
	7	102	82.0	295	173.7	26	35	71	463	604
	9.5	147	81.6	294	172.9	26	35	71	463	604
	12.5	181	67.6	243	143.2	26	35	71	463	604
GA 30 FLX	4	58	100.5	362	212.9	30	40	71	476	616
	7	102	100.1	360	212.1	30	40	71	476	616
	9.5	147	89.5	322	189.6	30	40	71	476	616
	12.5	181	75.8	273	160.6	30	40	71	476	616

* Unit performance measured according to ISO 1217 ed. 4 2009, annex C, latest edition.

** Mean noise level measured at a distance of 1 m at max. working pressure according to ISO 2151:2004 using ISO 9614/2 (sound intensity method); tolerance 3 dB(A).

Dimensions



FAD is measured at the following effective working pressures:

- 4 bar(e)
- 7 bar(e)
- 9.5 bar(e)
- 12.5 bar(e)

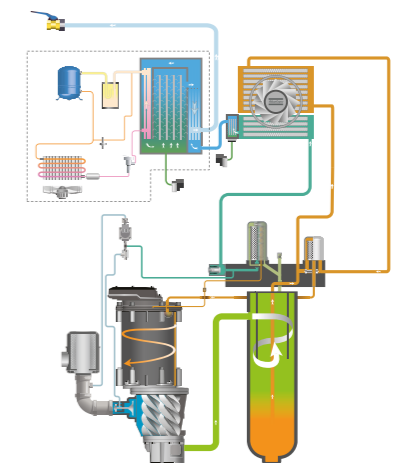
Maximum working pressure:
13 bar(e) (191 psig)

Reference conditions:
- Absolute inlet pressure 1 bar (14.5 psi)
- Intake air temperature 20°C/68°F

Pack	Dimensions (W x D x H)		Full Feature	Dimensions (W x D x H)	
	mm	in		mm	in
GA 11-18 FLX	700 x 700 x 1495	27.6 x 27.6 x 58.9	GA 11 FLX	700 x 1095 x 1495	27.6 x 43.1 x 58.9
		GA 15-18 FLX	700 x 1200 x 1495	27.6 x 47.2 x 58.9	
GA 22-30 FLX	870 x 854 x 1725	34.3 x 33.6 x 67.9	GA 22-30 FLX	870 x 1330 x 1725	34.3 x 52.4 x 67.9

Flow chart

- Compressed air without free water
- Wet compressed air
- Condensate
- Dry compressed air
- Intake air
- Air/oil mixture
- Oil





ISO 9001 • ISO 14001
OHSAS 18001

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