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.
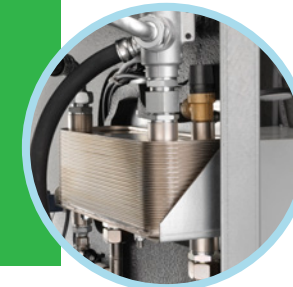
The technology that drives energy efficiency

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.
- **SMART**LINK 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.

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

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.
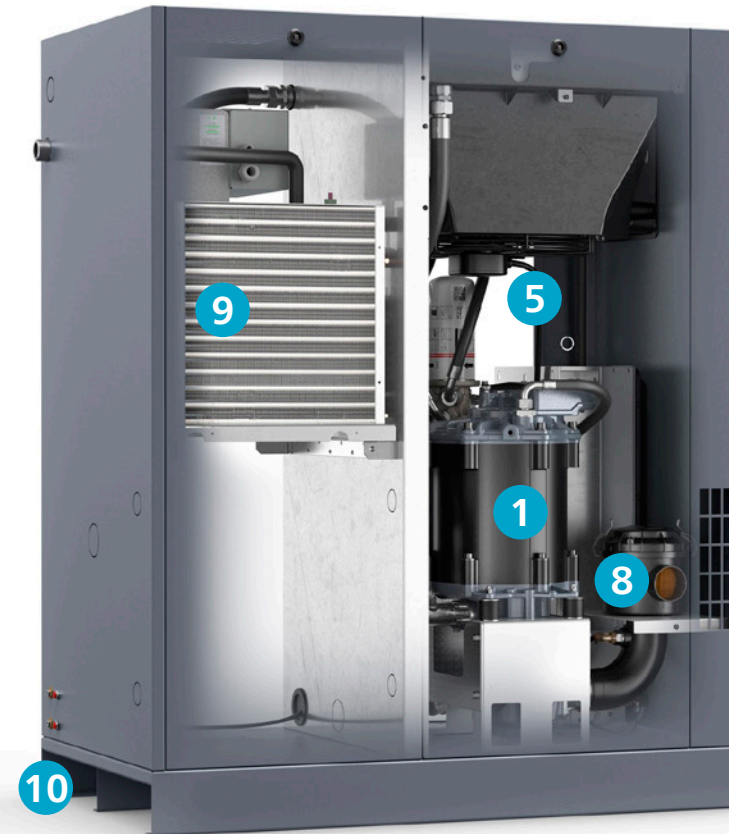
8 Inlet filter

- Enhanced filtration efficiency.
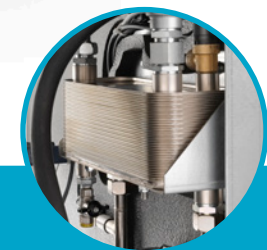- Ensures lower pressure drop.

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.

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.
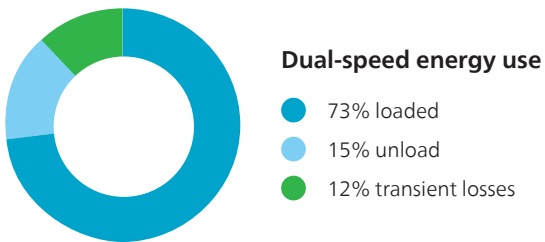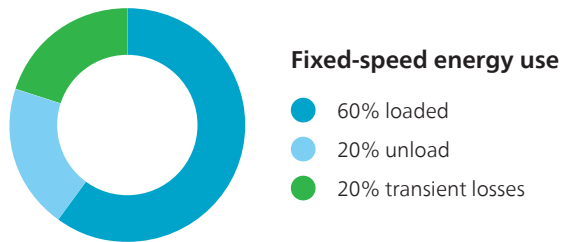
What is a dual-speed compressor?

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.
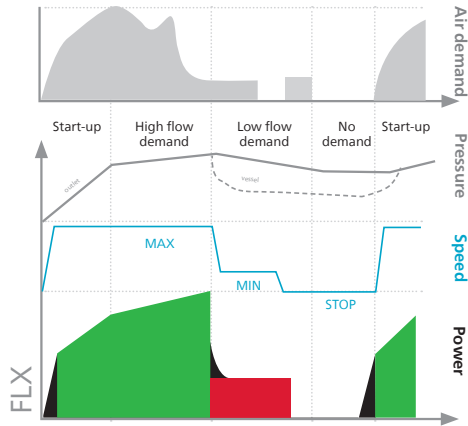
Energy consumption

Fixed-speed energy use
- 60% loaded
- 20% unload
- 20% transient losses

Dual-speed energy use
- 73% loaded
- 15% unload
- 12% transient losses

Fixed-speed energy consumption & loss
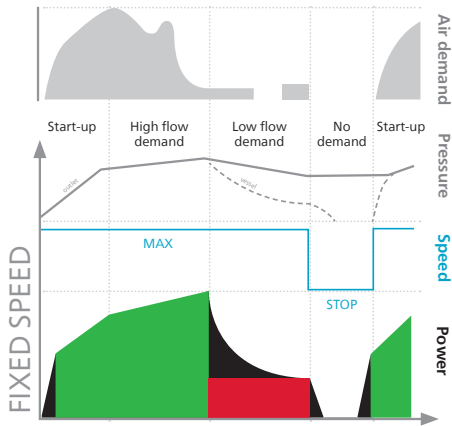
Dual-speed energy consumption & loss

5 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.

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.

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.

4. Smaller footprint

The GA FLX is super compact (a 50% smaller footprint than a fixed-speed GA!), which gives you greater flexibility in terms of where you can install yours. In addition, the GA FLX comes in a Full Feature version with fully integrated air treatment equipment to save on floorspace.

5. Customized performance

The GA FLX comes with a wide range of options that allow you to tailor your unit's performance to your environment, your application, and your operational goals.

Fixed-speed, dual-speed or VSD?

The Atlas Copco GA oil-injected rotary screw range comes in fixed-speed, dual-speed FLX and Variable Speed Drive versions. Here's the difference between the three.

GA: Reliability and quality for the lowest investment cost, but energy efficiency is limited and total cost of ownership is higher.

GA FLX: Strong performance, double-digit energy savings for a reduced cost of ownership, and higher operational versatility.

GA VSD[S]: The first compressor to adapt its operation in real-time to your needs, application and conditions to give you up to 60% energy savings. Intelligent features help set new standards in performance, reliability and connectivity.

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.
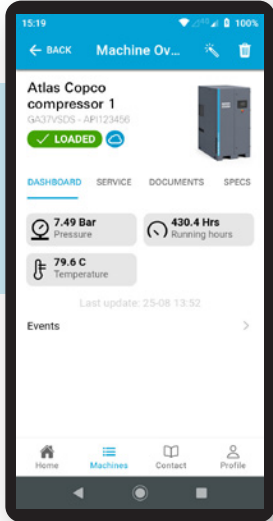
SMARTLINK

- 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.

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.

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.

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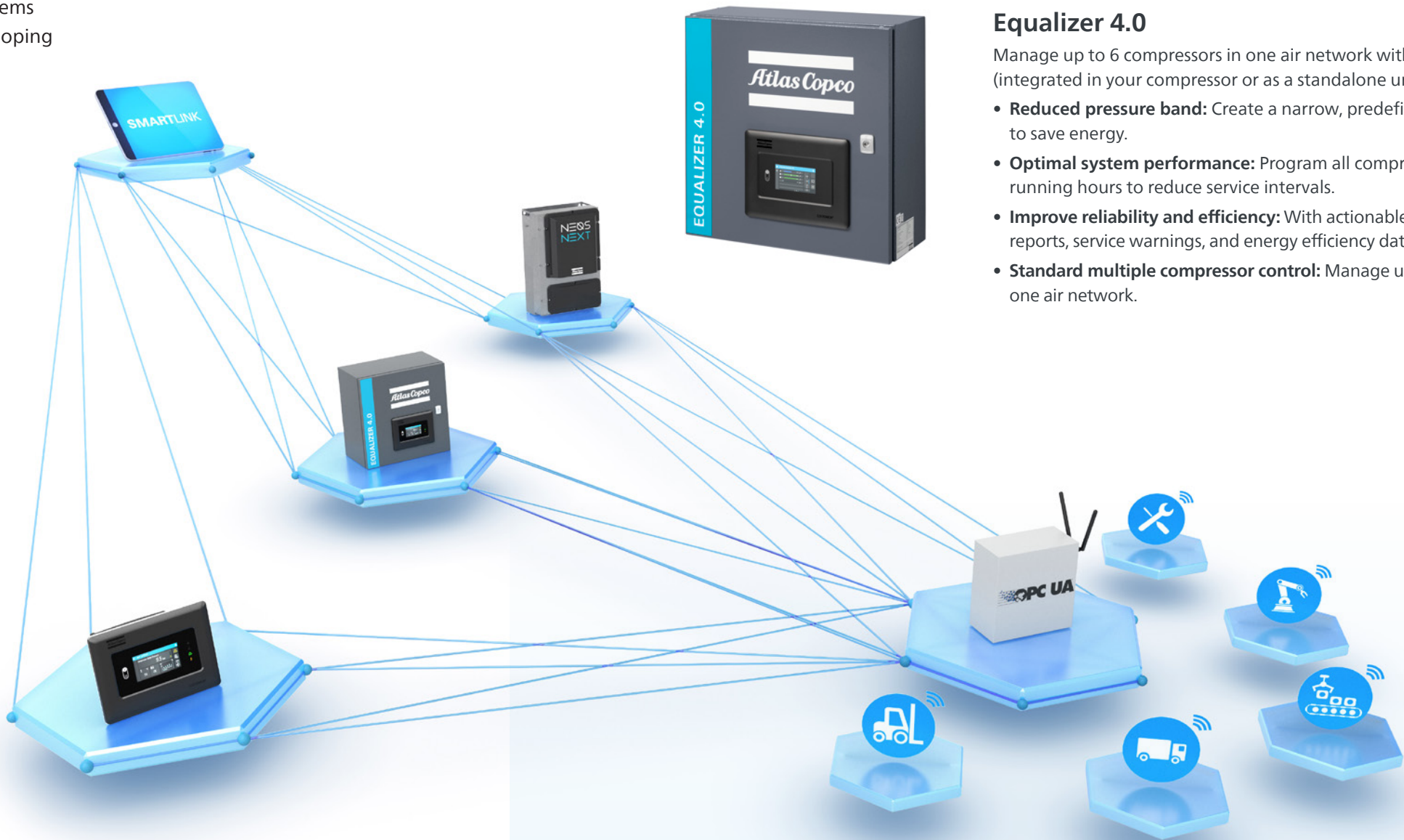
- Standardization of production equipment communication.
- Insight into production system performance and optimization options.
- Network security thanks to various encryption levels, authentication, auditing, and user control to ensure security.

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.
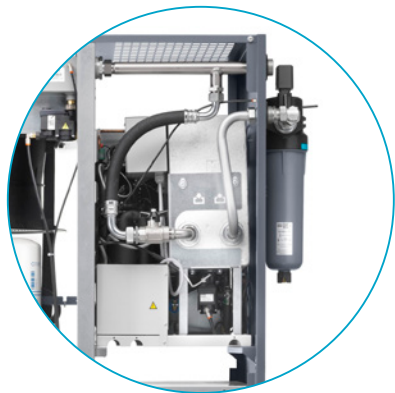
- Pressure dewpoint of 3°C/37.4°F (100% relative humidity at 20°C/68°F).
- Heat exchanger cross-flow technology with low pressure drop.
- Zero waste of compressed air thanks to no-loss condensate drain.
- Zero ozone depletion.
- Global warming potential has been lowered by an average of 50% by reducing 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 m³			Pressure dewpoint		Concentration
	0.1 < d ≤ 0.5 µm**	0.5 < d ≤ 1.0 µm**	1.0 < d ≤ 5.0 µm**	°C	°F	mg/m³
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/m³			≤ 10	≤ 50	-

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

Options

- Energy recovery
- Dryer bypass
- Main switch
- 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	Maximum working pressure		Maximum capacity FAD*			Installed motor power		Noise level**	Weight (kg)	
	bar(e)	psig	l/s	m³/h	cfm	kW	hp	dB(A)	Pack	Full Feature
GA 11 FLX	4	58	35.68	128.4	75.6	11	15	68	253	343
	7	102	35.62	128.2	75.5	11	15	68	253	343
	9.5	147	31.72	114.2	67.2	11	15	68	253	343
	13	191	26.12	94.0	55.3	11	15	68	253	343
GA 15 FLX	4	58	49.4	177.8	104.7	15	20	69	253	376
	7	102	48.9	176.0	103.6	15	20	69	253	376
	9.5	147	41.9	150.7	88.7	15	20	69	253	376
	13	191	32.8	117.9	69.4	15	20	69	253	376
GA 18 FLX	4	58	65.9	237.1	139.6	18	25	69	328	452
	7	102	65.4	235.5	138.6	18	25	69	328	452
	9.5	147	57.4	206.7	121.7	18	25	69	328	452
	13	191	46.5	167.3	98.5	18	25	69	328	452
GA 22 FLX	4	58	77.1	277.4	163.3	22	30	68	458	587
	7	102	76.7	276.1	162.5	22	30	68	458	587
	9.5	147	68.1	245.2	144.3	22	30	68	458	587
	13	191	56.2	202.2	119.0	22	30	68	458	587
GA 26 FLX	4	58	82.4	296.7	174.6	26	35	71	463	604
	7	102	82.0	295.3	173.8	26	35	71	463	604
	9.5	147	81.6	293.9	173.0	26	35	71	463	604
	13	191	67.6	243.5	143.3	26	35	71	463	604
GA 30 FLX	4	58	100.5	361.9	213.0	30	40	71	476	616
	7	102	100.1	360.5	212.2	30	40	71	476	616
	9.5	147	89.5	322.2	189.6	30	40	71	476	616
	13	191	75.8	273.0	160.7	30	40	71	476	616

* Unit performance measured according 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)
- 10 bar(e)
- 13 bar(e)

Maximum working pressure:
10 bar(e) (147 psig) or 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

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