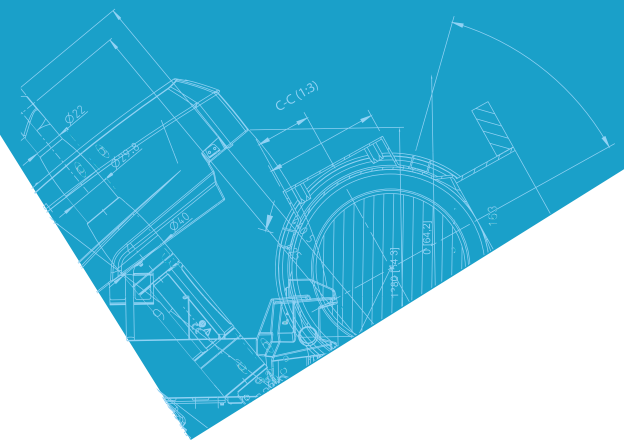
Compressed air dryers

F-series refrigerant dryers



The compact & efficient dry air solution

Atlas Copco F-series refrigerant dryers keep your compressed air system in optimal shape, removing humidity efficiently and reliably. With a stable pressure dewpoint as low as 7°C, these compact, low-maintenance dryers are compatible with most compressor technologies and applications.

Control panel

With PDP indicator and main on/off switch.

Hot gas bypass valve

- Injects hot compressor discharge gas into the suction/liquid separator.
- Keeps refrigeration capacity in all load conditions.
- Maintains constant pressure in the evaporator to avoid freezing.

Capillary tube

Reduces refrigerant pressure and temperature for improved cooling.

Air/air & air/refrigerant heat exchanger

Offers high thermal exchange and low load losses.

Timer drain

Ensures proper condensate removal.

Refrigerant condenser

Air-cooled and with a large exchange surface for high thermal exchange.

Refrigerant compressor

Driven by an electric motor, cooled with refrigerant fluid and protected against thermal overload.

Why dry compressed air?

The air that leaves a compressor reaches 100% humidity. Aftercoolers and drains are the first line of defense against water in your system. Atlas Copco dryers eliminate the residual humidity to achieve absolutely dry air for applications that require advanced air quality.

Performance & reliability

- Constant performance with steady pressure dewpoint.
- High efficiency thanks to innovative 3-1 heat exchanger.
- Industry-leading hot gas bypass valve with high reliability.
- Optimum control to enhance reliability and reduce power consumption at low load.
- Low vibration and noise with optimized pipe design.

Cost savings

- Best-in-class refrigerant compressor with low power consumption.
- Energy savings because of low pressure drop.
- Increased reliability and lifetime of tools and equipment.
- Lower energy bill thanks to reduced pipe work leaks.
- Less equipment breakdowns and operational interruptions.
- Minimal chance of product damage as a result of moisture carryover.

Quick installation & easy operation

- Compact design with a small footprint.
- Quick plug-and-play installation.
- Easy monitoring with the digital controller showing the exact PDP.
- Effortless access to key components for maintenance.
- Flexible installation thanks to the cooling air inlet on the front panel.

Environment-friendly

- Eco-friendly refrigerant R134a/R410a with zero ozone depletion potential.
- Low power consumption contributes to lower emissions and a smaller environmental footprint.

Applications

- Pneumatic tools and equipment
- Pneumatic control systems
- Painting
- Packaging
- Injection molding
- Car mechanics
- Tire inflation
- Professional and industrial applications

Technical specifications

Model	Air treatment capacity	Pressure drop	Nominal electrical power @ 50Hz	Maximum working pressure	Voltage	Dimensions			Weight	Connections
	l/s	bar	W	bar	V/ph/Hz	Length mm	Width mm	Height mm	kg	
F 6	6	0.28	220	13	230V/1Ph/50Hz	430	354	463	30	G 3/4"
F 11	11	0.28	230	13	230V/1Ph/50Hz	430	354	463	30	G 3/4"
F 18	18	0.28	350	13	230V/1Ph/50Hz	548	400	615	36	G 3/4"
F 25	25	0.28	360	13	230V/1Ph/50Hz	548	400	615	36	G 3/4"
F 35	35	0.28	370	13	230V/1Ph/50Hz	548	400	740	38	G 1"
F 45	45	0.28	690	13	230V/1Ph/50Hz	600	520	750	56	G 1"
F 60	60	0.28	700	13	230V/1Ph/50Hz	600	520	750	56	G 1"
F 75	75	0.28	880	13	230V/1Ph/50Hz	600	520	750	58	G 1.5"
F 100	100	0.28	900	13	230V/1Ph/50Hz	600	520	750	58	G 1.5"
F 120	120	0.28	1100	13	230V/1Ph/50Hz	650	650	875	75	G 1.5"
F 160	160	0.28	1240	13	230V/1Ph/50Hz	650	650	875	79	G 2"
F 200	200	0.28	1400	13	230V/1Ph/50Hz	752	745	960	104	G 2.5"
F 230	230	0.28	1620	13	230V/1Ph/50Hz	752	800	1020	108	G 2.5"
F 285	285	0.28	1650	13	230V/1Ph/50Hz	752	800	1020	121	G 2.5"
F 335	335	0.28	2650	13	230V/1Ph/50Hz	928	800	1126	170	G 2.5"
F 400	400	0.28	2900	13	230V/1Ph/50Hz	928	800	1126	176	G 2.5"

Refrigerant types:

R134a for F 6-35, R410a for F 45-400

Reference conditions:

Ambient temperature: 25°C
Inlet temperature: 35°C
Working pressure: 7 bar(g)

Limitations:

Maximum ambient temperature: 46°C
Minimum ambient temperature: 5°C
Maximum inlet temperature: 62°C
Maximum working pressure: 13 bar

Correction factors:

Correction factors for different ambient temperatures									
Ambient temperature °C	25	30	35	40	45				
Correction factor	1	0.91	0.81	0.72	0.62				
Correction factors for different inlet temperatures									
Inlet temperature °C	25	30	35	40	45	50	55	62	
Correction factor	1	1	1	0.82	0.69	0.58	0.45	0.34	
Correction factors for different inlet pressures									
Inlet pressure (bar)	5	6	7	8	9	10	11	12	13
Correction factor	0.9	0.97	1	1.03	1.06	1.08	1.1	1.12	1.13

IS0 8573-1 Class 5 quality

Thanks to their 7°C/45°F pressure dewpoint, Atlas Copco F dryers can be used for applications that require IS0 8573-1 Class 5 air quality.

Quality classes	Particle size	Maximum pressure dewpoint		Maximum oil content (droplets, aerosols, and vapor ppm)	
	microns	°C	°F	w/w	mg/m³
0	as specified	as specified		as specified	
1	0.1	-70	-94	0.008	0.01
2	1	-40	-40	0.08	0.1
3	5	-20	-4	0.8	1
4	15	3	38	4	5
5	40	7	45	21	25
6	–	10	50	–	–

Atlas Copco

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OHSAS 18001

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