



With this signed document the customer verifies the quality and quantity according to DIN ISO 8573-1:2010 of his compressed air supply.

The borderlines which are shown on page 2 have to be respected; otherwise system damages may happen. The resulting effort in relation to working time, travel costs and spare parts will be invoiced by Sympatec additionally.

SYMPATEC recommends to verify the quality and quantity of the compressed air supply by an external specialist due to the complexity of this test.

A successfully performed verification is the fundamental for the system commissioning and reliable system performance in the future. Please scan the completed and signed document then send it back to Sympatec GmbH via email ([service@sympatec.com](mailto:service@sympatec.com)).

Note: The commissioning will not take place without this signed document (and the signed specification of the above mentioned ISO).

On page no. 3 is shown a part of a document created from Co. FESTO. Here is described which parts/filters are necessary to get the required limit values for several classes (SYMPATEC requires class 1:3:1).

The download of the complete file is available on FESTO's homepage:

[https://www.festo.com/net/SupportPortal/Files/424857/ComprAirPreparation\\_en\\_V05\\_Tabels\\_M.pdf](https://www.festo.com/net/SupportPortal/Files/424857/ComprAirPreparation_en_V05_Tabels_M.pdf)

SYMPATEC is not in cooperation with Co. FESTO, the document is for demonstration purpose only.

Furthermore SYMPATEC is able to deliver a sufficient compressor respectively Sympatec is recommending that kind of compressor:

Model:	Atlas Copco LF10-10E/475
Performance:	stationary oil-free compressor with integrated desiccant dryer for water- and oil-free compressed air maximum working pressure at 10bar FAD (Free Air delivery) 0,8 Nm <sup>3</sup> /min at 8bar 400V/50 Hz, 7,5kW 475 liter receiver weight ca. 225kg noise level at 86 dB(a) (unsilenced)





**1. Pressure and volume flow rate of customers compressed air supply**

**Limit: minimum 4 bar, maximum 6 bar at 870l/min. (0,87m³/min)**

Pressure and volume flow rate are within specifications:

---

Company Name, first name of contact person Date/Signature

The signer confirms the compliance of the appropriate limits.

**2. Quality of customers compressed air supply**

Free of particles, water and oil, filtered and dried, according to DIN ISO 8573-1:2010:

**Particle class:** Class 1  
**Humidity and liquid water class:** Class 3  
**Oil class:** Class 1

Quality limits according to DIN ISO 8573-1:2010						
Class	Particle class			Humidity and liquid water class		Oil class
	Maximum number of particles per m³			Pressure dewpoint	Concentration of liquid water	Concentration of total oil
	0,1 – 0,5µm	0,5 – 1µm	1 – 5µm	°C	g/m³	mg/m³
1	≤ 20.000	≤ 400	≤ 10	-70	0,003	0,01
2	≤ 400.000	≤ 6.000	≤ 100	-40	0,12	0,1
3	-	≤ 90.000	≤ 1.000	-20	0,88	1
4	-	-	≤ 10.000	+3	6	5
5	-	-	≤ 100.000	+7	7,8	-

= limits

All quality limits are within specification:

---

Company Name, first name of contact person Date/Signature

The signer confirms the compliance of the appropriate limits.





3. Part of data sheet from FESTO “Meeting purity-class requirements(...).pdf”

Compressed air generation	Air distribution	Air preparation	Class <sup>1)</sup>	Typical applications
Compressor	[-:~:-]	Water separators	[-:~:4]	All applications requiring virtually condensate-free compressed air. No defined particle filtration
Prefilter Air dryer	[7:4:4] <sup>2)</sup>	40 µm filter	[7:4:4]	Operating medium for valves, cylinders, secondary packaging (standard)
	[-:4:-]	5 µm filter	[6:4:4]	Servopneumatic positioning with proportional directional control valves, pneumatic tools
		5 µm filter 1 µm filter	[5:4:3]	Applications with a residual oil content of ≤ 0.5 mg/m <sup>3</sup> , metal production and processing
		5 µm filter 0.01 µm filter	[3:4:2]	Textile industry, publishing and printing industries, glass industry, ceramics, paper industry, rubber and plastics industry. Class 1:4:2 can be achieved with an additional 1 µm filter
		5 µm filter 1 µm filter <sup>2)</sup> 0.01 µm filter Activated carbon filter	[1:4:1]	Reduction of oil vapour and odour, CD production, handling of wet food and primary packaging
		5 µm filter 1 µm filter <sup>2)</sup> 0.01 µm filter Membrane air dryer Activated carbon filter	[1:3:1]	The measuring air is switched on or off using the [Sense] button, and the blow-clean air using the [Clean] button. Semiconductor industry, pharmaceutical products, instrument and test air, 3-D measuring technology and painting
		5 µm filter Adsorption dryer <sup>3)</sup> 0.01 µm filter Activated carbon filter	[1:2:1]	Contact with dry pharmaceutical products or products from the food industry, chip and data disc production (1:1:1 can be achieved with a reduced flow)

Required for SYMPATEC devices

