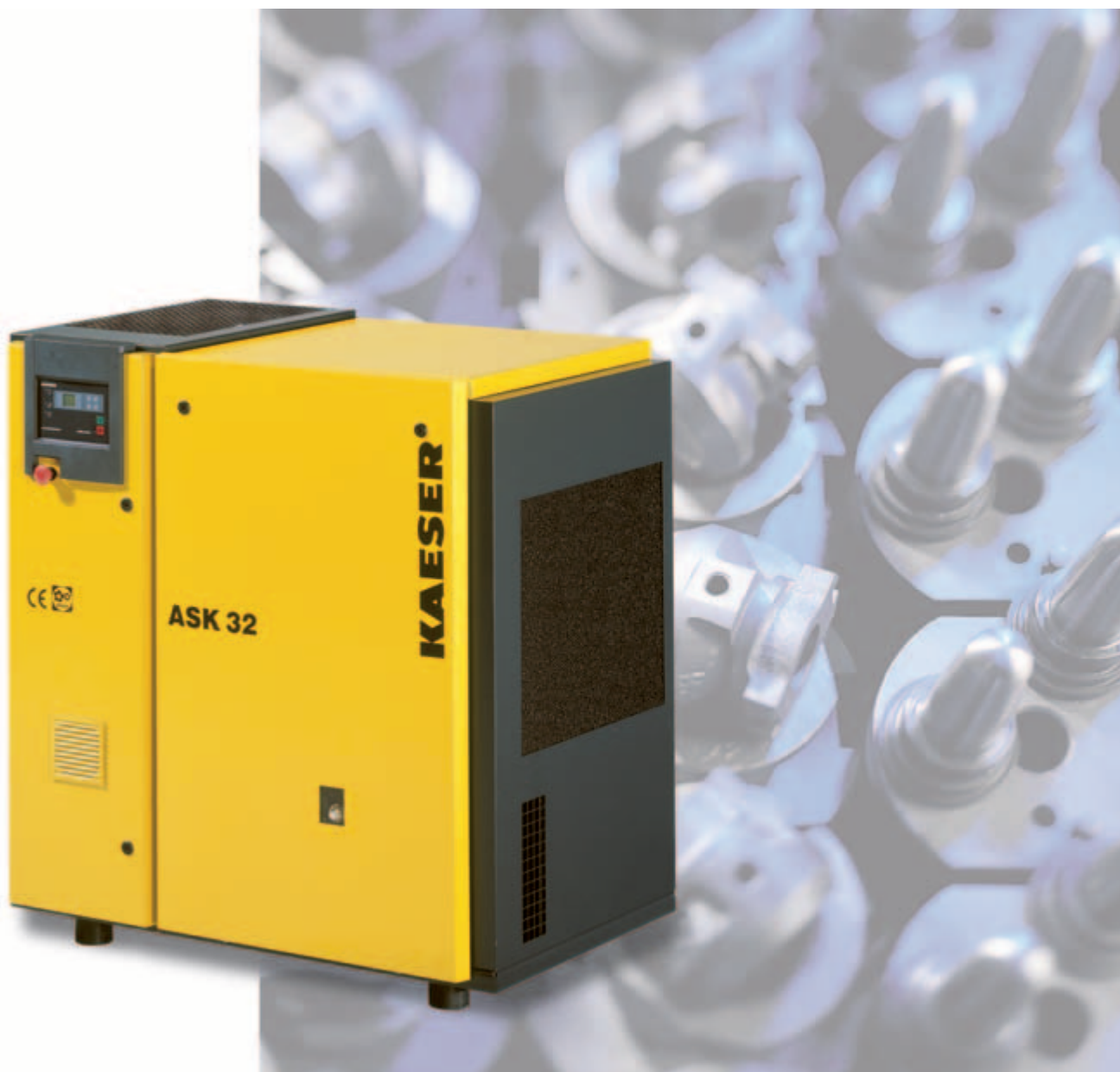


ASK/ASK T Series

Air deliveries from 1.70 to 3.50 m³/min
Pressure 8/11/15 bar



What do you expect from a compressor?

As a user, you expect maximum efficiency and reliability from your compressed air system.

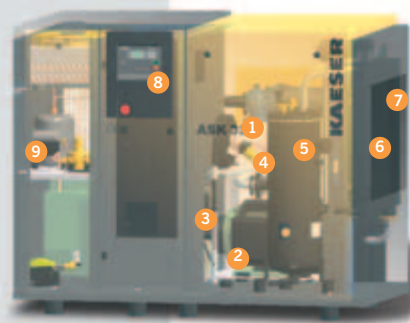
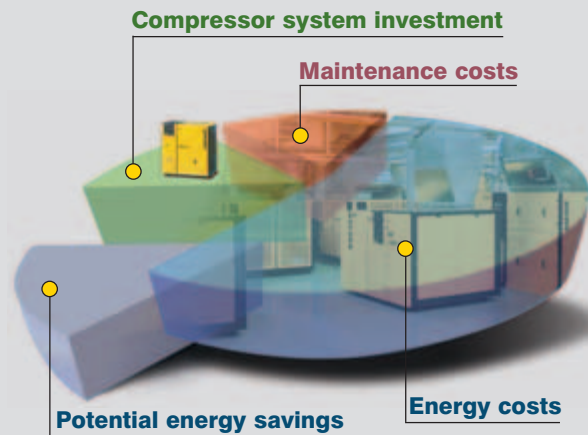
This sounds simple, but these advantages are influenced by many different factors: energy costs, for example, taken over the lifetime of a compressor, add up to a multiple of investment costs.

Efficient energy consumption therefore plays a vital role in the production of compressed air, as does reliability of the compressor. In many cases, a reliable compressed air supply is essential to guarantee maximum performance from valuable production systems.

Reliability also ensures a supply of constant quality compressed air that optimises efficiency of the air treatment equipment downstream of the compressor.

With regards to noise protection, it is always better to keep noise emissions to a minimum in the first place by using a quiet compressor rather than have to retro-fit sound protection measures later on.

Last but not least, a truly efficient compressor is simple to maintain.



- 1 Inlet valve
- 2 Electric motor
- 3 V-belt drive with automatic belt tensioning
- 4 Airend
- 5 Separator with cartridge
- 6 Fluid cooler
- 7 Compressed-air aftercooler
- 8 SIGMA CONTROL Basic compressor controller
- 9 Refrigeration dryer (with ASK T)

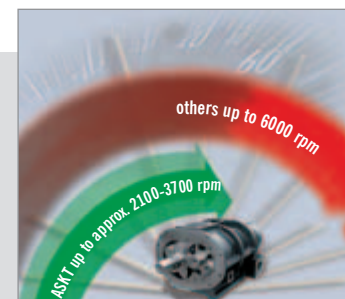
ASK – The Powerhouse

Kaeser's Solution: the ASK Series

The new ASK rotary screw compressors fulfil every customer requirement: they are highly energy efficient, quieter than quiet, require minimal maintenance, are extremely reliable and deliver the very best in air quality.

All of these advantages are aided through innovations in the compressor unit, controller and cooling system.

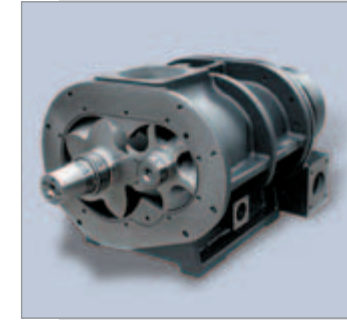
In short, the new ASK series of rotary screw compressors is a meticulously engineered and reliable product range built to KAESER's renowned high quality standards.



Quietly Powerful

As the most efficient way to achieve a given drive power, KAESER use large, low speed rotary screw airends. This ensures that the specific power is always within the optimal range. ASK units use a flexible V-belt drive system to precisely determine airend speed dependent upon the airend being used. Further advantages of low airend speeds are that components are subjected to less wear and consequently last longer, and the associated lower noise emissions are of particular importance for compressors installed directly in working environments.

Energy saving SIGMA PROFILE



Each KAESER rotary screw compressor airend uses SIGMA PROFILE rotors, specially developed by KAESER, that require approximately 15 percent less energy than conventional rotors of the same air delivery capacity. The airends in ASK units use even further refined rotors.

Reliability with the SIGMA CONTROL BASIC



The new SIGMA CONTROL BASIC compressor controller uses the proven dual mode control system. The user-friendly interface indicates operational status at a glance using bright traffic-light style LEDs.

Longer service intervals reduce costs



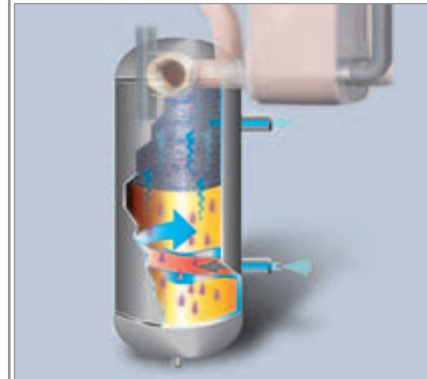
Here is just one example of how conscientious design leads to improved economy: the easy to clean/change filter mats prevent contamination from entering the compressor unit. This not only extends service intervals but also considerably increases the thermal reserve of ASK units.

ASK T – The Modular Refrigeration Dryer Option



Permanently dry air

Space saving, energy efficient compressed air generation and treatment is possible by selecting the ASK T integrated refrigeration dryer module option. Easy to maintain, the dryer is contained in its own separate housing within the unit to prevent exposure to heat from the compressor package, considerably increasing operational reliability. The refrigeration dryer also features an energy saving mode that can be selected via the SIGMA CONTROL BASIC and greatly reduces energy costs.



Stainless steel condensate separator

The compact stainless steel condensate separator ensures optimal condensate separation even with fluctuating flow volumes. The upstream contamination-proof heat exchanger also cools down the compressed air to make this possible.



Electronic condensate drain

The refrigerant dryer's electronically controlled ECO DRAIN operates depending upon the condensate level. This prevents any pressure loss and considerably enhances the reliability of the compressed air supply.



SIGMA CONTROL BASIC

The user-friendly SIGMA CONTROL BASIC compressor controller uses Dual control and monitors system pressure, compressed air temperature and direction of rotation. The operating hours counter can display both on-load and off-load hours. The maintenance interval indicator and system nominal pressure can be set according to operation.



Optional memory module

The optional memory module enables the SIGMA CONTROL BASIC to be connected to a master compressor controller: simply plug in the module and the ASK compressor can be controlled, along with other compressors, via the KAESER SIGMA AIR MANAGER.



Cool air

The generously sized, high-quality aluminium cooler has enough reserve for operation in high ambient temperatures. Directly taking in the ambient air for cooling prevents pre-warming and ensures excellent cooling. The air discharge temperature is only 6 to 8 K higher than the ambient temperature which makes air treatment outstandingly efficient.



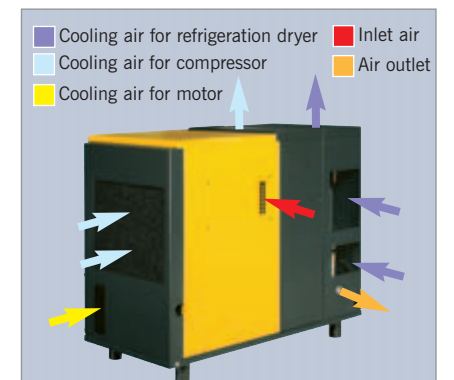
ASK and ASK T with SIGMA CONTROL

Based on robust PC architecture, the SIGMA CONTROL offers the possibility of Dual, Quadro, Vario and continuous control. Clearly marked navigation and input keys on the user interface are used to move around within the menu options of the four-line alpha-numeric display. The SIGMA CONTROL fully automatically controls and monitors the compressor (and refrigeration dryer in 'T' versions). The Profibus interface enables exchange of data and operational parameters and allows the SIGMA CONTROL to communicate with other air management systems such as the KAESER SIGMA AIR MANAGER. An optional modem can even send maintenance and alarm messages via SMS to relevant service locations.



Efficient cooling air flow system

Just like KAESER's larger units, ASK compressors also have separate air intakes for the air/fluid cooler, motor and compressed air resulting in significant reserves even in high ambient temperatures. Taking in motor cooling air from the surroundings ensures reliable and effective motor cooling even under adverse conditions. The compression process is also enhanced by directly sucking in air for compression from the ambient surroundings. Kaeser's modular design concept enables refrigeration dryers in 'T' units to be installed in their own separate housing and to have their own individual cooling system, significantly contributing to high efficiency and reliability.



Comprehensive design know-how



Equipment

Overall package

Ready for operation, fully automatic, super-silenced, vibration damped, all panels powder coated

Sound insulation

Antivibration mounts, double vibration damped, lined with washable foam

Airend

Genuine KAESER rotary screw single stage airend with SIGMA PROFILE and cooling fluid injection for optimised rotor cooling



Electric motor

German made premium efficiency (EFF1) electric motor to IP55 and insulation class F for additional reserve

V-belt drive with automatic belt tensioning

Durable V-belt drive with automatic tensioning device for extended belt life



Cooling fluid and air flow circulation

Dry-air filter, pneumatic inlet and vent valves, cooling fluidreservoir with three-stage separator system, pressure release valve, minimum pressure/check valve, thermostatic valve and microfilter in cooling fluid system



Cooling

Aluminium, air-cooled, combination cooler for compressed air and cooling fluid, axial fan fitted to motor drive shaft

Electrical components

Ventilated control cabinet to IP 54, automatic star-delta starter, motor over-load protection, control transformer

SIGMA CONTROL BASIC

Ergonomic control panel, traffic-light style LEDs (green, yellow, red) show the operational state of the compressor, user-friendly operation with clearly marked icon keys and large display, fully automatic dual control (on-load/off load/cycling control), monitoring of system pressure, airend discharge temperature, direction of airend rotation, hours counter (on-load/off-load), adjustable service interval, selection of measurement units (Pressure: bar, psi, MPa temperature: °C, °F), individually adjustable system pressure,



Planning down to the last detail

Every KAESER compressed air system illustrates KAESER's commitment to producing application-specific compressed air quality at the lowest possible cost, combined with unrivalled reliability. This standard is achieved with products of the highest quality and through decades of experience in design and construction of compressed air systems.

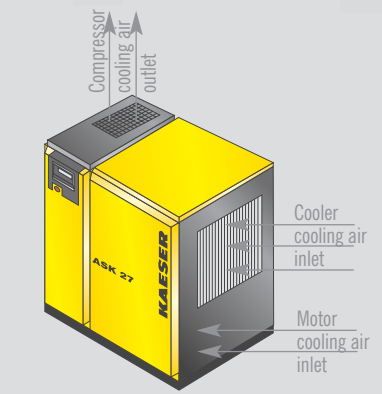
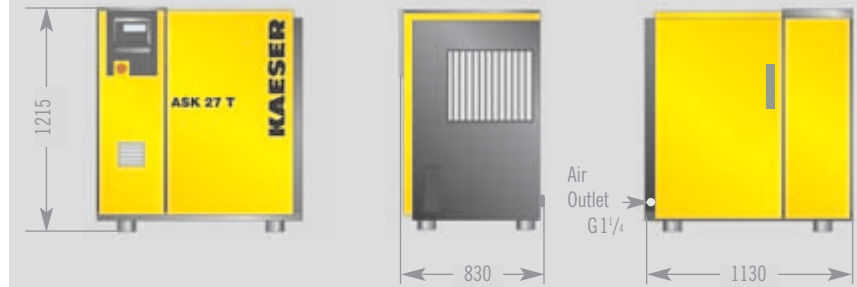
Only properly designed air systems can meet all the demands for air quality, availability and efficiency that are placed on a modern compressed air supply.

Why not let KAESER design your air system?

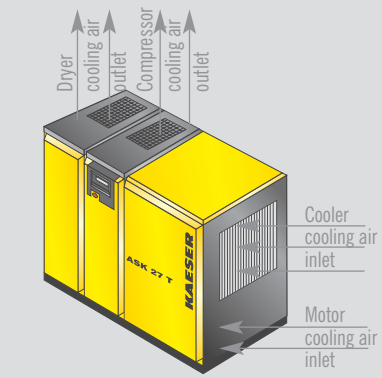
"group alarm" volts-free contact, adjustable switching differential, electronic pressure transducer.

Dimensions:

ASK



ASK T



ASK/ASK T Technical Specifications

Rated motor power kW	Model	Working pressure bar	FAD* of overall machine at working pressure m³/min	Max. working pressure bar	Noise level** dB(A)	Dimensions L x W x H	Weight kg
15	ASK 27	7.5	2.60	8	66	1130 x 830 x 1215	390
		10	2.18	11			
		13	1.70	15			
18,5	ASK 32	7.5	3.15	8	68	1130 x 830 x 1215	405
		10	2.66	11			
		13	2.05	15			
22	ASK 35	7.5	3.50	8	70	1130 x 830 x 1215	420
		10	2.95	11			
		13	2.35	15			

T - version with integrated refrigeration dryer (refrigerant R 134a)

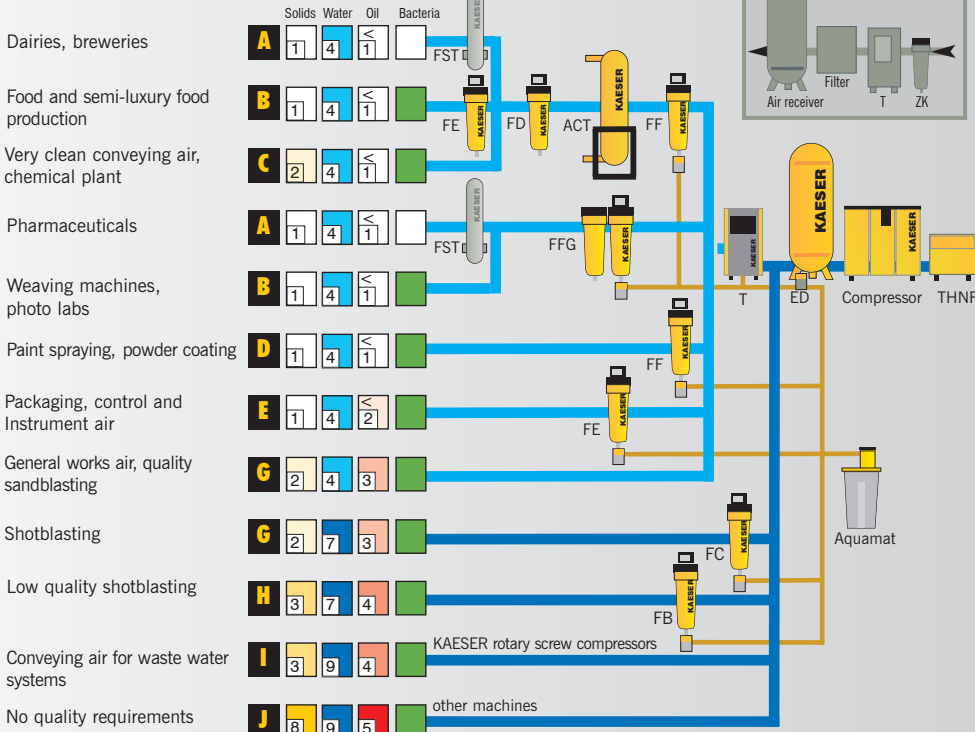
Model	Working pressure bar	FAD* of overall machine at working pressure m³/min	Max. working pressure bar	Refrigeration dryer power consumption kW	Pressure dew point °C	Refrigerant	Noise level** dB(A)	Dimensions L x W x H	Weight kg
ASK 27 T	7.5	2.60	8	0.68	3	R 134a	66	1480 x 830 x 1215	465
	10	2.18	11						
	13	1.70	15						
ASK 32 T	7.5	3.15	8	0.68	3	R 134a	68	1480 x 830 x 1215	480
	10	2.66	11						
	13	2.05	15						

*FAD in accordance with ISO 1217: 1996, Annex C; **Sound level to PN8NTC 2.3 at 1m distance, free-field measurement

Choose the required grade of treatment according to your field of application:

Air treatment using a refrigeration dryer (+3 °C pressure dew point)

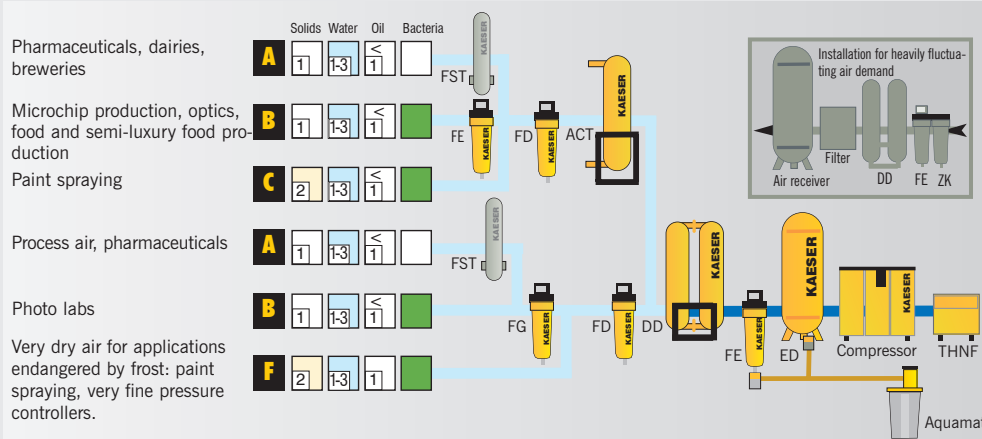
Application Examples: selection of treatment classes to ISO 8573-1



Explanation:

- THNF=bag filter**
Cleans dusty intake air
- ZK=centrifugal separator**
separates accumulating condensate
- ED=ECO Drain**
electronic level-controlled condensate drain
- FB=prefilter 3 µm**
separates liquid droplets and solid particles > 3µm, oil content ≤ 5 mg/m³
- FC=prefilter 1 µm**
separates oil droplets and solid particles > 1µm, oil content ≤ 1 mg/m³
- FD=particulate filter 1 µm**
separates dust particles (attrition) > 1µm
- FE=microfilter 0.01 µm**
separates oil aerosols and solid particles > 0.01µm, aerosol content ≤ 0.01 mg/m³
- FF=microfilter 0.001 ppm**
separates aerosols and solid particles > 0.01µm, aerosol content ≤ 0.001 mg/m³
- FG=activated carbon filter**
for adsorption of oil vapours, oil vapour content ≤ 0.003 mg/m³
- FFG=combination filter**
comprising FF and FG
- RD=refrigeration dryer**
pressure dew point to +3 °C
- DD=desiccant dryer**
DC series: heatless regeneration, pressure dew point to -70 °C, DW, DN, DTL, DTW series: heat regeneration, pressure dew point to -40 °C
- ACT=activated carbon adsorber**
for adsorption of oil vapours, oil vapour content ≤ 0.003 mg/m³
- FST=sterile filter**
provides bacteria-free compressed air
- Aquamat**=condensate treatment system

For air mains endangered by frost: treatment with a desiccant dryer (down to -70 °C pressure dew point)



- A** Oil vapour content ≤ 0.003 mg/m³, particle retention > 0.01 µm, sterile, odourless and tasteless
- B** Oil vapour content ≤ 0.003 mg/m³, particle retention > 0.01 µm
- C** Oil vapour content ≤ 0.003 mg/m³, particle retention > 1 µm

- D** Aerosol oil ≤ 0.001 mg/m³, particle retention > 0.01 µm
- E** Aerosol oil ≤ 0.01 mg/m³, particle retention > 0.01 µm
- F** Aerosol oil ≤ 0.01 mg/m³, particle retention > 1 µm
- G** Aerosol oil ≤ 1 mg/m³, particle retention > 1 µm

- H** Aerosol oil ≤ 5 mg/m³, particle retention > 3 µm
- I** Aerosol oil ≤ 5 mg/m³, particle retention > 1 µm
- J** Untreated

Contaminants:

+	solids	-
+	water	-
+	oil	-
+	bacteria	-

Degree of filtration:

ISO Class	Solid particles				Humidity	Overall oil content
	Max. no. of particles per m ³ with size d (µm)					
1	≤ 0.1	≤ 0.5	≤ 1.0	≤ 5.0	Pressure dew point (x=liquid water in mg/m ³)	mg/m ³
2	100000	1000	10	0	≤ -70 °C	≤ 0.01
3	10000	10000	500	1	≤ -40 °C	≤ 0.1
4	1000	10000	1000	1	≤ -20 °C	≤ 1.0
5	100	1000	1000	1	≤ +3 °C	≤ 5.0
6	10	1000	1000	1	≤ +7 °C	-
7	1	1000	1000	1	≤ +10 °C	-
8	1	1000	1000	1	x ≤ 0.5	-
9	1	1000	1000	1	0.5 < x ≤ 5.0	-
9	1	1000	1000	1	5.0 < x ≤ 10.0	-