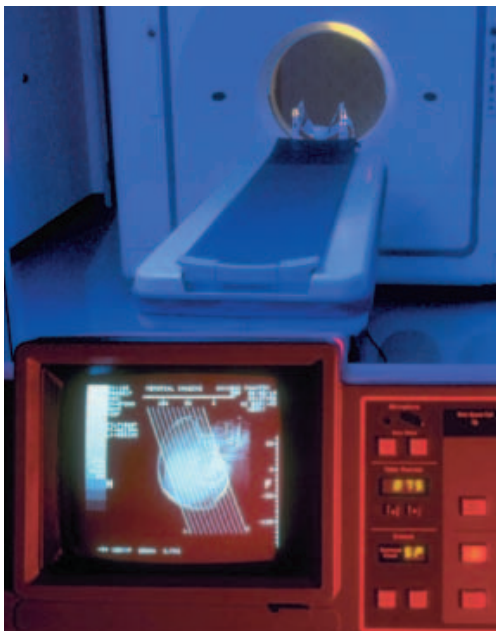
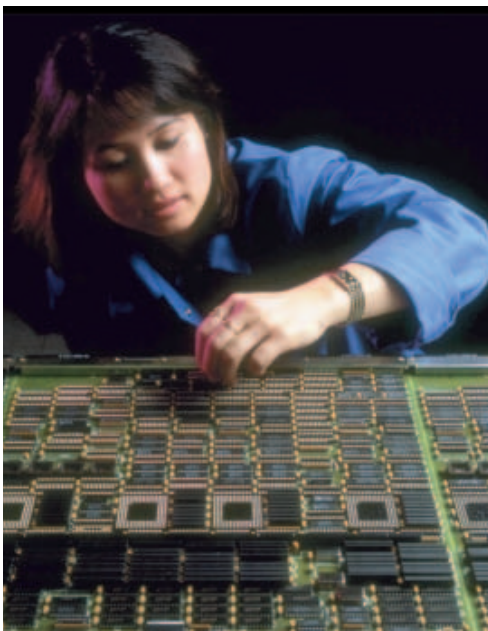
KAESER COMPRESSORS

AIR TREATMENT

reliable, economical air treatment
with KAESER's Pure Air System

for all fields of industry





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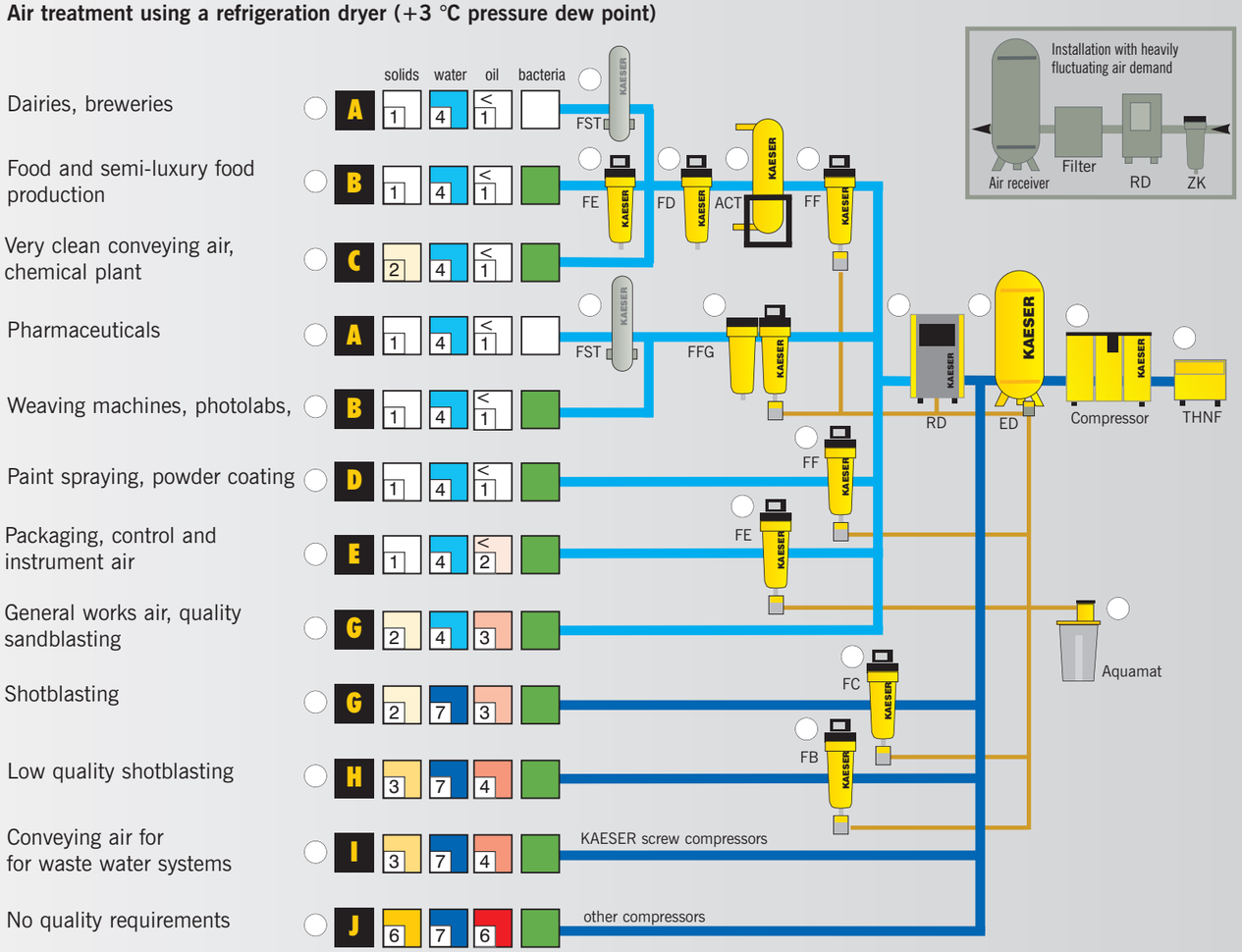
Selected air treatment components

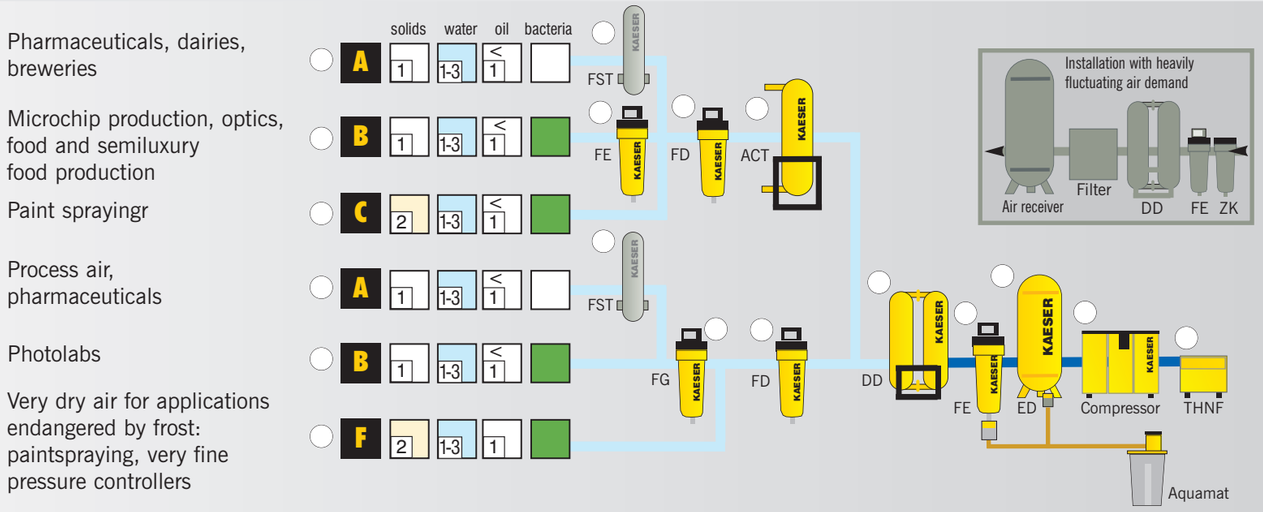
- **A** Oil vapour content ≤ 0.003 mg/m³, particle retention > 0.01 µm, sterile, odourless and tasteless
- **B** Oil vapour content ≤ 0.003 mg/m³, particle retention > 0.01 µm
- **C** Oil vapour content ≤ 0.003 mg/m³, particle retention > 1 µm
- **D** Aerosol oil ≤ 0.001 mg/m³, particle retention > 0.01 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

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

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



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



Explanation:

THNF=bag filter
cleans dusty and highly contaminated 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 1µm
separates dust particles (attrition) >1µm

FE=microfilter 0.01 ppm
separates oil aerosols and solid particles >0.01µm, aerosol oil content ≤0.01 mg/m³

FF=microfilter 0.001 ppm
separates oil aerosols and solid particles >0.01µm, aerosol oil 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
dries compressed air, pressure dew point to +3 °C

DD=desiccant dryer
dries compressed air,
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=for condensate separation

Contaminants:

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

Degree of filtration:

ISO 8573-1 Class	Solid particles: Max. no. of particles per m³. Particle size d (µm) ≤0.1	0.1<d≤0.5	0.5<d≤1.0	1.0<d≤5.0	Solid particles: µm	mg/m³	Humidity: Pressure dewpoint (x=concentration of liquid water in mg/m³)	Total oil concentration mg/m³
0	As specified by the user or supplier and more stringent than class 1							
1	–	100	1	0	–	–	≤-70 °C	≤0.01
2	–	100000	1000	10	–	–	≤-40 °C	≤0.1
3	–	–	10000	500	–	–	≤-20 °C	≤1.0
4	–	–	–	1000	–	–	≤+3 °C	≤5.0
5	–	–	–	20000	–	–	≤+7 °C	–
6			–		≤ 5	≤ 5	≤+10 °C	–
7			–		≤ 40	≤ 10	x≤ 0.5	–
8			–		–	–	0.5<x≤ 5.0	–
9			–		–	–	5.0<x≤10.0	–

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Comprehensive design know-how

Depending on the application, compressed air systems are often highly complex. Over the long term they can only operate really efficiently if this fact is taken into account adequately during the design phase, during modernization and during daily operation. KESS (Kaeser Energy Saving System) is available to you as a comprehensive service that calculates the optimum volume of compressed air needed for your factory. This service combines elements such as air components, user advice and services that have proven themselves over years of practice with new ideas made possible by optimum use of data processing in the compressed air field. Air systems designed by KAESER are characterised by their efficient use of energy. Utilisation factors of 95 percent and more are possible for the compressor packages. Air quality, tailored to the application, at lowest cost and with high operational reliability, are further characteristics typical of a KAESER installation.This high standard has been achieved with the help of years of experience in system and plant design, computer-aided system analysis and 3-D design aids. Why don't you take advantage of this know-how and have your air system designed by KAESER COMPRESSORS.

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P-772ED.2/02 Specifications subject to change without notice