

System planner for compressed air treatment - purity classes for compressed air

Compressed air generation

Compressor Room (Ring Main Protection)

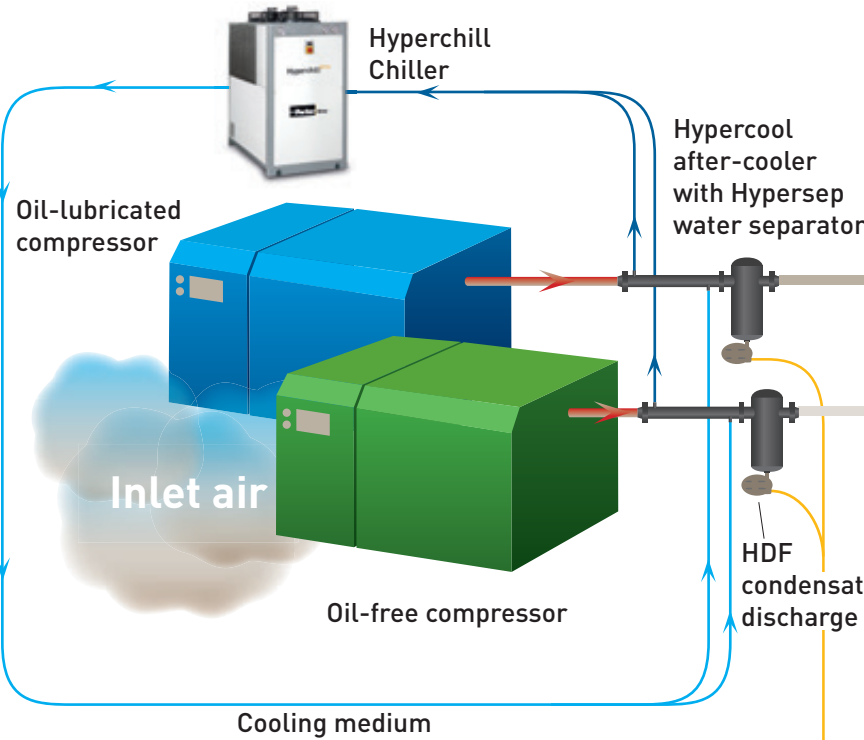
Point of Use Purification

Purity classes acc. to ISO 8573-1:2010

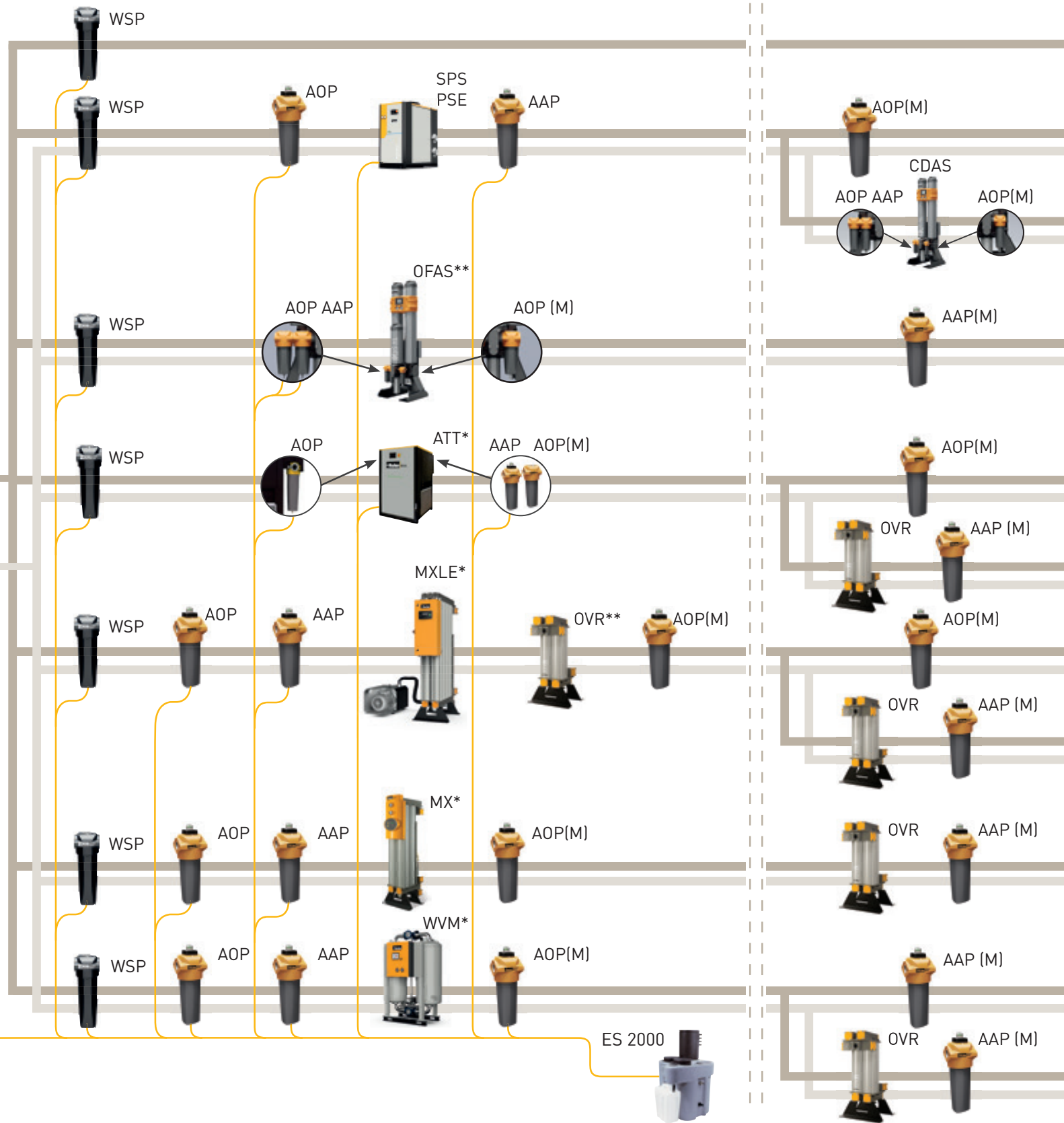
ISO 8573-1:2010

CLASS	Solid Particulate				Water		Oil
	Maximum number of particulates per m³			Mass Concentration mg/m³	Vapour Pressure Dewpoint	Liquid g/m³	Total Oil (aerosol liquid and vapour) mg/m³
0	As specified by the equipment user or supplier and more stringent than Class 1						
1	≤ 20,000	≤ 400	≤ 10	—	≤ -70°C	—	0.01
2	≤ 400,000	≤ 6,000	≤ 100	—	≤ -40°C	—	0.1
3	—	≤ 90,000	≤ 1,000	—	≤ -20°C	—	1
4	—	—	≤ 10,000	—	≤ +3°C	—	5
5	—	—	≤ 100,000	—	≤ +7°C	—	—
6	—	—	—	≤ 5	≤ +10°C	—	—
7	—	—	—	5 - 10	—	≤ 0.5	—
8	—	—	—	—	—	0.5 - 5	—
9	—	—	—	—	—	5 - 10	—
X	—	—	—	> 10	—	> 10	> 10

Reference conditions 1 bar_a, 20 °C, 0 % relative humidity



Treatment at one point alone is not enough and it is highly recommended that the compressed air is treated in the compressor room to a level that will provide general purpose air to the site and also protect the distribution piping. Point of use purification should also be employed, not only to remove any contamination remaining in the distribution system, but also with specific attention on the quality of air required by each application. This approach to system design ensures that air is not 'over treated' and provides the most cost effective solution to high quality compressed air.



Particles	Water and moisture	Total oil
—	7-8	—
2	4-6	2
2	1-3	2
1	1-3	1**
2	1-4	2
1	1-4	0
2	1-3	1**
1	1-3	0
1	1-3	0
1	1-3	2
1	1-3	0

* CDAS / OFAS / ATT Dryers are factory fitted with: AOP Grade General Purpose Coalescing Filter / AAP Grade High Efficiency Coalescing Filter / AOP (M) General Purpose Dry Particulate Filter. The above grades are also supplied with MXLE dryers (boxed separately). MX & WVM dryers also require these filter grades which must be ordered separately.

** Class 0 for total oil as air leaves compressor room. Class 1 assumes minimal oil contamination of downstream piping. To ensure Class 0 total oil at point of use, and additional OVR is required.