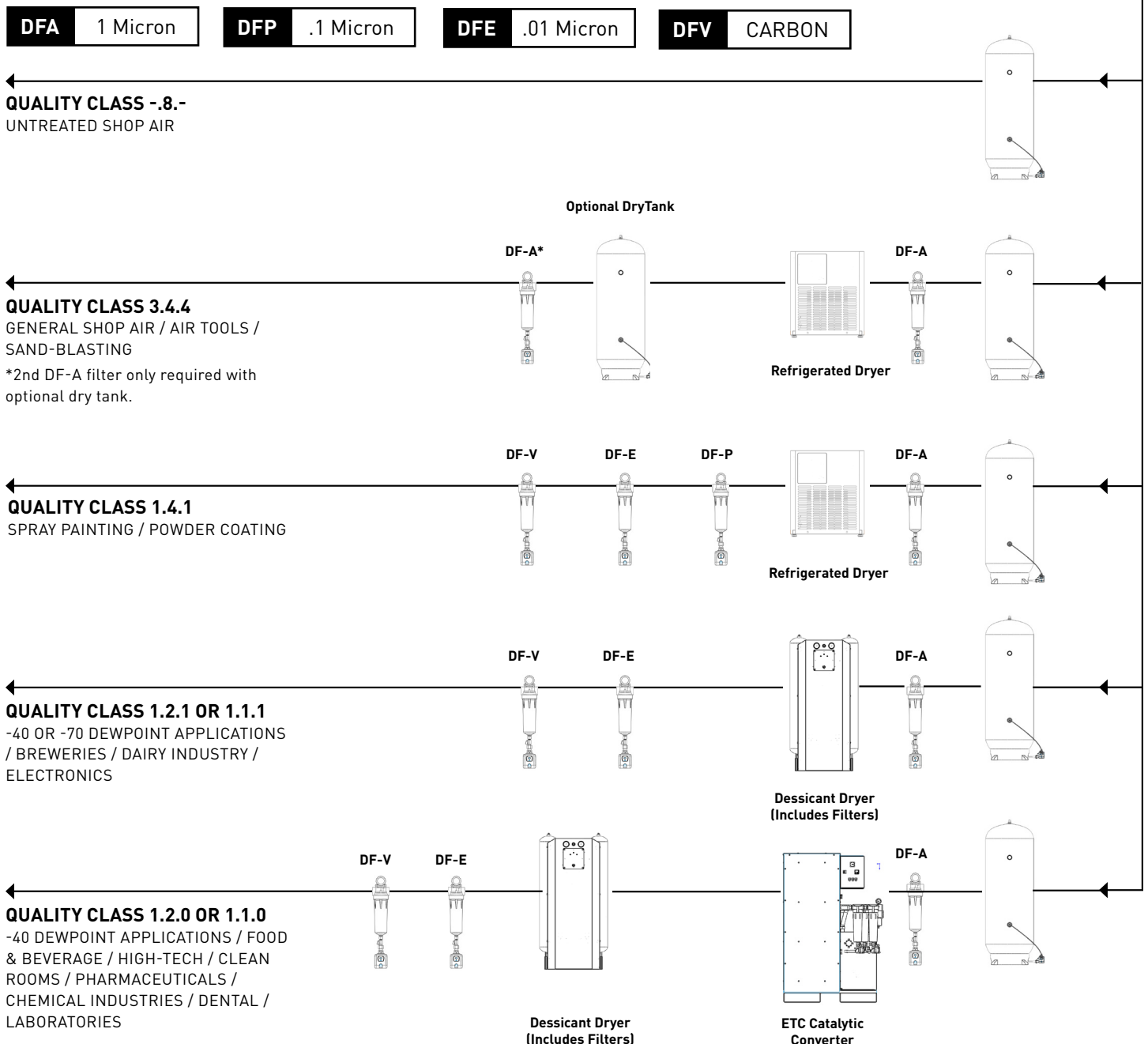


Air Treatment Configurations



Compressed Air Quality Standards ISO 8573.1

ISO 8573.1:2010 was developed by ISO (International Organization for Standardization) as a reference to help facility engineers specify compressed air quality for solid particles, humidity and oil. The following examples illustrate various compressed air treatment configurations which conform to standards specific to a variety of general uses.



Air Treatment Configurations



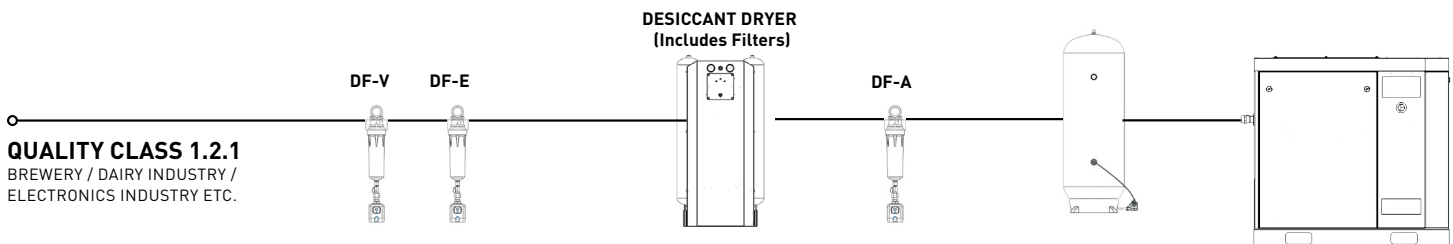
Compressed Air Quality Standards ISO 8573.1

A Typical **BREWERY** might have a compressed air specification of **ISO QUALITY CLASS 1.2.1** as shown highlighted in the specification tables below. The three digits refer to the purity classifications selected for solid particulate, water and total oil. Selecting an air purity class of 1.2.1 would specify the following air quality when operating at the standard's reference conditions:

CLASS 1 PARTICULATE In each cubic metre of compressed air, the particulate count should not exceed 20,000 particles in the 0.1 - 0.5 micron size range, 400 particles in the 0.5 - 1 micron size range and 10 particles in the 1 - 5 micron size range.

CLASS 2 WATER A pressure dewpoint (PDP) of -40°C or better is required and no liquid water is allowed.

CLASS 1 OIL In each cubic metre of compressed air, not more than 0.01mg of oil is allowed. This is a total level for liquid oil, oil aerosol and oil vapour.



SOLID PARTICLES			
CLASS	MAX. NUMBER OF PARTICLES PER M3 OF A PARTICLE SIZE WITH D* (UM)		
	0.1 < D ≤ 0.5	0.5 < D ≤ 1.0	1.0 < D ≤ 5.0
0	As specified by supplier and more stringent than class 1		
1	≤ 20,000	≤ 400	≤ 10
2	≤ 400,000	≤ 6,000	≤ 100
3	Not Specified	≤ 90,000	≤ 1,000
4	Not Specified	Not Specified	≤ 10,000
5	Not Specified	Not Specified	≤ 100,000
CLASS	PARTICLE CONCENTRATION CP (MG/M3)		
6	0 < Cp ≤ 5		
7	5 < Cp ≤ 10		

HUMIDITY & LIQUID WATER		
CLASS	PRESSURE DEW POINT	
	0	As specified by supplier and more stringent than class 1
1	≤ -70 °C	≤ -94 °F
2	≤ -40 °C	≤ -40 °F
3	≤ -20 °C	≤ -4 °F
4	≤ 3 °C	≤ 38 °F
5	≤ 7 °C	≤ 45 °F
6	≤ 10 °C	≤ 50 °F
CLASS	CONCENTRATION OF LIQUID WATER CW (G/M3)	
7	Cw ≤ 0.5	
8	0.5 < Cw ≤ 5.0	
9	5.0 < Cw ≤ 10	
X	Cw > 10	

OIL		
CLASS	TOTAL OIL CONCENTRATION (LIQUID / AEROSOL / VAPOUR)	
	(MG/M3)	(PPM W/W)
0	As specified by supplier and more stringent than class 1	
1	≤ 0.01	≤ 0.008
2	≤ 0.1	≤ 0.08
3	≤ 1	≤ 0.8
4	≤ 5	≤ 4
X	> 5	> 4

* AT REFERENCE CONDITIONS 68°F (20°C) + 14.5 PSIA (1 BAR) + 0% RELATIVE HUMIDITY