

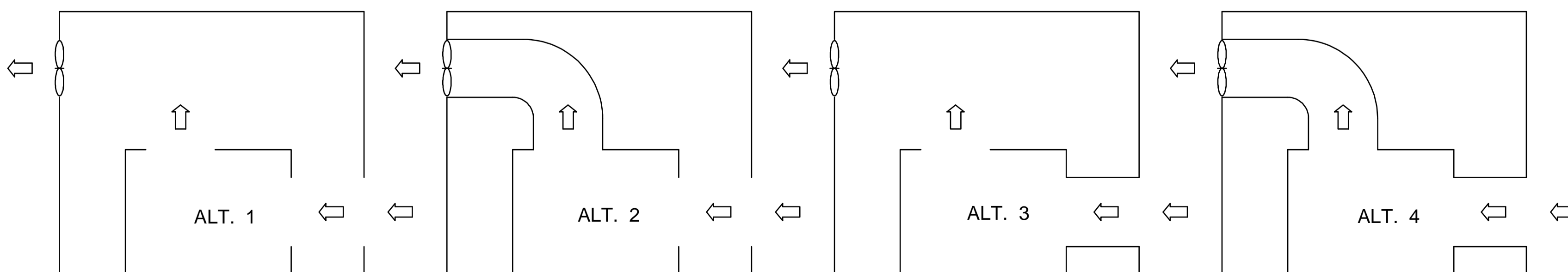
Notes :

- All pipes should be installed STRESS FREE to the compressor unit.
- For more information concerning air nets, cooling systems, etc refer to the compressor installation manual.
- For dimensions and air flow directions refer to the AIB dimension drawings.

MAIN COMPONENTS

- Compressor unit : The unit should be installed on a level floor capable of taking the weight of the compressor.
- Compressed air outlet valve.
- Delivery pipe :
The max . total pipe length can be calculated from $L = \frac{\Delta P \times d^5 \times P}{450 \times Q_c^{1.85}}$
 L = Length of the pipe (m)
 ΔP = Max. allowable pressure drop (recommended 0.1 bar)
 d = Inner diameter of the pipe (mm)
 P = Absolute pressure at compressor outlet (bar)
 Q_c = Free air delivery of the compressor (l/s)
- Ventilation :
The inlet grid(s) and ventilation fan should be installed in such a way that any recirculation of cooling air to the inlet grating of the compressor/ dryer is avoided.
The air velocity to the grid(s) has to be limited to 5 m/s. The maximum air temperature at compressor intake opening is 46 °C, min 0 °C .
Alternative 1 and 3 :
The required ventilation to limit the compressor room temperature can be calculated from :
 $Q_v = 1.25 N / \Delta T$ (for FF unit)
 $Q_v = 1.19 N / \Delta T$ (for Pack unit)
 Q_v = Required cooling air flow (m³/s)
 N = Nominal motor power (kW)
 ΔT = Temperature increase in the compressor room. (°C)
 Alternative 2 and 4 :
 The cooling air ducting of the AIR/OIL coolers ("10") should be separated from the cooling air ducting of the dryer ("11") .
 The required cooling air flow for the AIR/OIL cooler can be calculated from:
 $Q_v = 1.19 N / \Delta T$
 The required cooling air flow for the dryer can be calculated from:
 $Q_v = 0.06 N / \Delta T$
 The max. pressuredrop over additional AIR/OIL coolers ("10") ducting should be limited to 10 Pa for standard fans.
- Drain pipes to drain collector must not dip into the water.
For draining of pure condensate water, install an oil / water seperator. Consult Atlas Copco.
- Control cubicle with monitoring panel.
- Power supply cable to be installed by a qualified electrician. For the right cable size, see Atlas Copco technical data. In case of IT network, consult Atlas Copco.
To preserve the ingress protection rating of the electric cubicle, it is absolutely necessary to use a proper cable gland when connecting the supply cable to the compressor.
- Filter type DD for general purpose filtration (particle removal down to 1 micron with a maximum oil carry over of 0.5 ppm).
A high efficiency PD filter may be installed downstream the DD filter (particle removal down to 0.01 micron and max. oil carry over of 0.01ppm)
Should oil vapours and odeurs be undesirable, a QD active carbon filter should be installed after the PD filter.
It is recommended to install by-pass pipes over each filter together with ball valves in order to isolate the filters during service operations, without interrupting the compressed air delivery.
- Air receiver: A safety valve need to be foreseen on the air receiver.
- Cooling air outlet grating of AIR/OIL coolers.
- Cooling air outlet grating of dryer.

VENTILATION PROPOSALS



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Ed	Position	Modified from	Date	Intr./Appd.
02			2013-04-08	

9820695011	01.00	STATUS		Version Drwg	Blank wt	0 Kg	Fin wt.	96.842 Kg	Designation	Sheet	1 / 1
Parent 3D model	Ed. Version 3D	Approved	Des checked.	Prod checked.	Approved.	Date	2012-11-15	9820695011			

Tolerances, if not indicated, according to:												
ATLAS COPCO STANDARD CLASS												
Name	DIMENS. INSTALL.										Secrecy Class	
Material	NOT APPLICABLE										1102K / 3	
Treatment	Not Applicable										INV	
Scale	1:20	Family	A1									Compare
Drawn by	AIR13723	Blank nr.										Replaces
Ed.	02	Position		Modified from		Date	2013-04-08	Intr./Appd.				