

00.00 Ed . Version 3 Parent 3D model

MAIN COMPONENTS 1. <u>Compressor unit</u>: The unit should be installed on a level floor suitable for taking the weight of the compressor. 2. Compressed air outlet valve. 3. Delivery pipe: $L = \frac{\Delta P \times d^5 \times P}{450 \times Qc^{1.85}}$ The max. total pipe length can be calculated from: L is the length of the pipe (m) ΔP is the max. allowable pressure drop (recommended 0,1 bar) d is the inner diameter of the pipe (mm) P is the absolute pressure at the compressor outlet (bar) Qc is the compressor FAD (I/s) 13, 4. Ventilation: The inlet grid(s) and ventilation fan should be installed in such a way that any recirculation of hot cooling air to the inlet gratings of the compressor/dryer is avoided. The air velocity to the grid(s) has to be limited to 5m/s. Maximum allowable pressure drop over cooling air ducts is 50 Pa. When 50 Pa is exceeded, a ventilation fan is needed at the outlet of the cooling air ducts. The maximum air temperature at the compressor intake opening is 40°C, min. 0°C. Alternative 1 and 3: The required ventilation to limit the compressor room temperature can be calculated from : $Qv = 0.92 \text{ N} / \Delta T$ $\dot{Q}v$ is the required ventilation capacity (m³/s) N is the nominal motor power of the compressor (kW) ΔT is the compressor room temperature over the outdoor temperature (\mathfrak{C}) Alternative 2 and 4: The fan capacity should match the compressor-fan capacity at a pressure head equal to the pressure drop caused by the cooling air ducts. 5. Control cubicle with monitoring panel. 6. Mains cable entry. Filter type DD for general purpose filtration (particle removal down to 1 micron). A high efficiency PD- filter may be installed downstream the DD- filter (particle removal down to 0,01 micron). Should 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 disturbing the compressed air delivery. 8. Safety valve. 9. The drain pipes to the drain must not dip into the water. 10. Compressor element cooling air outlet. 11. Canopy ventilation outlet. 12. Aftercooler and dryer cooling air outlet.

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 AHB dimension drawings.

Tolerances,	ted, according to	:									
ATLAS COPCO STANDARD CLASS											
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Material NOT APPLICABLE								3))	
Treatment Not Applicable								INV		-	
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