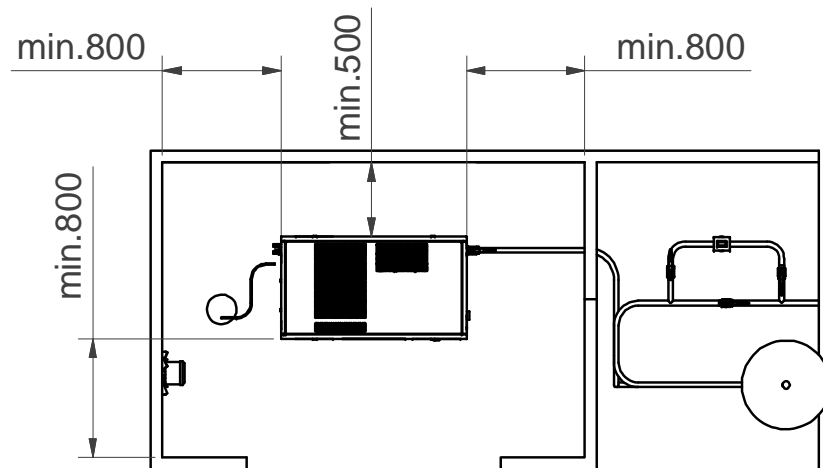
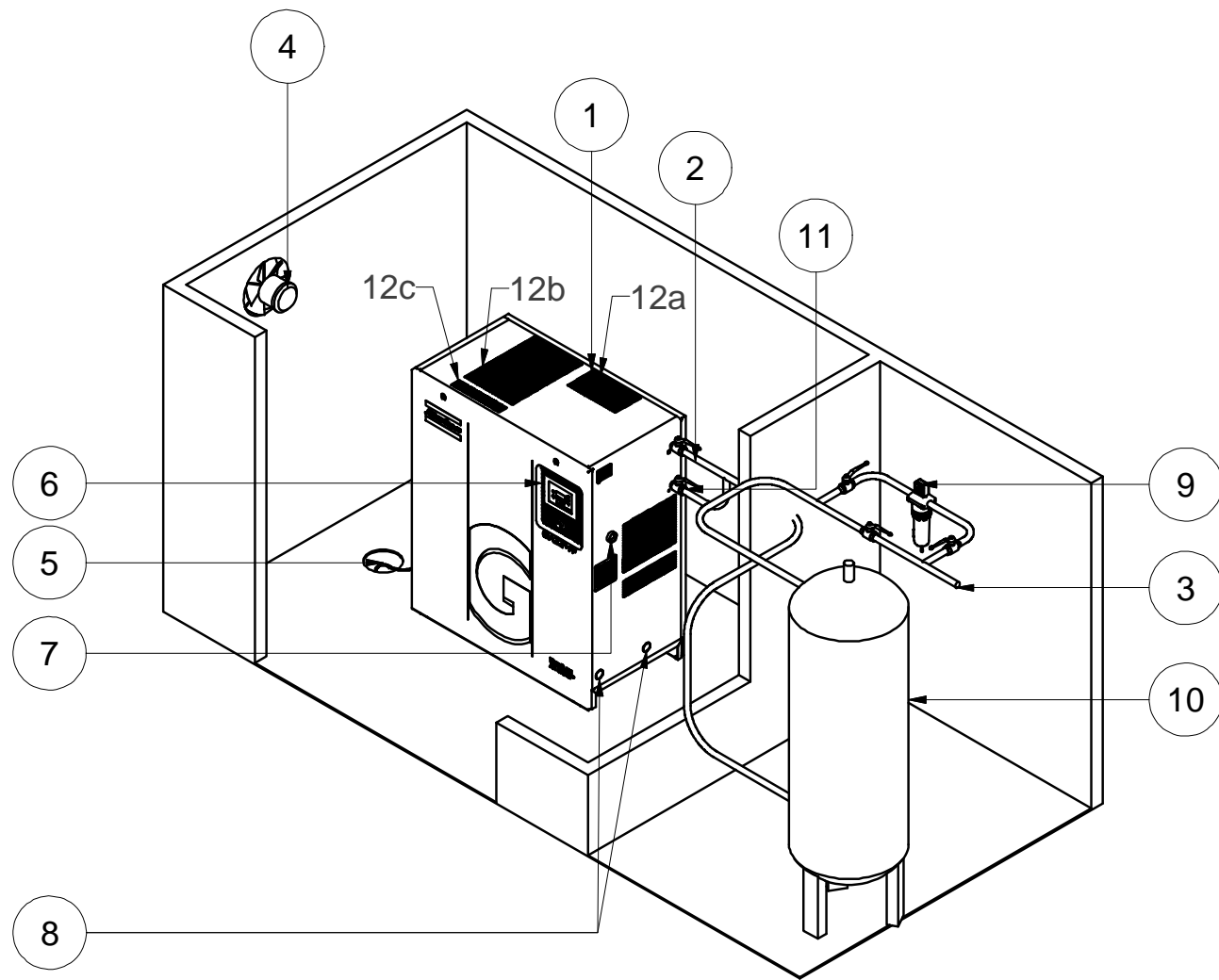


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MAIN COMPONENTS



- Install the compressor unit on a solid, level floor suitable for taking the weight.
- Position of the compressed air outlet valve.
- Delivery pipe :  
The maximum total pipe length (including interconnecting piping between compressor and receiver) can be calculated as follows :  

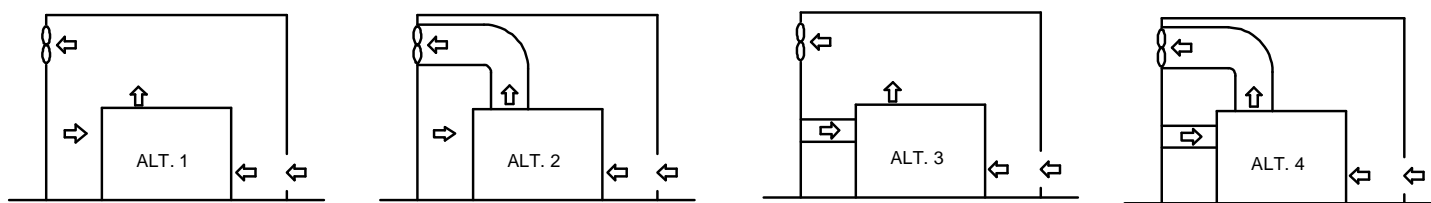
$$\Delta p = (L \times 450 \times Q_c) / (d \times p)$$
  - L = length of the pipe (m)
  - $\Delta p$  = pressure drop (recommended maximum = 0.1 bar / 1.5 psi)
  - d = inner diameter of the pipe (mm)
  - p = absolute pressure at compressor outlet (bar(a))
  - Qc = Free air delivery of the compressor (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 5m/s. The maximum air temperature at compressor intake opening is 46 °C (115 °F), (minimum 0 °C / 32 °F)  
Ventilation alternative 1 and 3 : The required ventilation to limit compressor room temperature can be calculated from :  

$$Q_v = 1.06 N / \Delta T$$
 for Pack unit  

$$Q_v = (1.06 N + 1.3) / \Delta T$$
 for Full-Feature unit  
  - Qv = required cooling air flow (m³/s)
  - N = shaft input of compressor (kW)
  - $\Delta T$  = temperature increase in compressor room. ( °C)
 Ventilation alternative 2 and 4 : The fan capacity should match the compressor - fan capacity at a pressure head equal to the pressure drop caused by cooling air ducts. The ducting for the air outlet of the dryer (12a) also should be separated from the ducting for the cooling air outlet of AIR/OIL coolers (12b) and cooling air outlet of the compressor compartment. (12c)  
 Max. allowable pressure drop in ducting before or after the compressor = 30 Pa  
 Drain pipes to drain collector must not dip into the water. For draining of pure condensate water, install an oil / water separator. Consult Atlas Copco.  
 Drain pipes of different compressors may not be interconnected before the (atmospheric) collector. Interconnecting drain pipes of different compressors can damage the electronic drains of the compressor.  
 Control cubicle with monitoring panel.  
 Power supply cable to be sized and installed by a qualified electrician. In case of IT network, consult Atlas Copco.  
 To preserve the protection degree of the electric cubicle and to protect its components from dust from the environment, it is absolutely necessary to use a proper cable gland when connecting the supply cable to the compressor.  
 Provision for energy recovery system.  
 Filter type DD for general purpose filtration (particle removal down to 1 micron with a maximum oil carry over of 0.5 ppm). As an option this filter can be integrated in the compressor.  
 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 odours 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.  
 The air receiver (optional) should be installed in a frost-free room on a solid, level floor  
 For normal air consumption, the volume of the air net (receiver and piping) can be calculated as follows:  

$$V = (0.25 \times Q_c \times P_1 \times T_0) / (f_{max} \times \Delta P \times T_1)$$
  - V=volume of the air net in l.
  - Qc=free air delivery of the compressor in l/s
  - P1=compressor air inlet pressure in bar absolute
  - fmax= cycle frequency=1 cycle/30s
  - $\Delta P$ =P unload - Pload in bar
  - T1=compressor air inlet temperature in K
  - T0=air receiver temperature K
- By-pass systems to by-pass the dryer during service operations. (Available as options ; Consult Atlas Copco)
- To prevent feedback of exhaust air to the cooling inlet, sufficient space should be foreseen above the unit to evacuate the exhaust air. Otherwise a ducting for the exhaust air should be foreseen. See ALT.1 to ALT.4

- 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.



The direction of the cooling flows may never be inverted

Toleranties, indien niet aangegeven, zijn volgens: Tolerances, if not indicated, according to:					
ATLAS COPCO STANDARD /Klasse/CLASS					
Benaming Name		ASSEMBLY		GA11+ - GA30	
Materiaal Material		SEE DRAWING		Geheim.klasse Secrecy Class 1102 K / 2	
Behandeling Treatment		Untreated		INV	
Schaal Scale		4:50		Familie Family A3	
Getekend Drawn by		AIR13180		Ruw nr. Blank nr.	
Version Drwg		03.01		Afg gew. Fini wt. 2098.729 Kg	
Des gez./chd.		Prod gez./chd.		Goedg./Appd. Datum/Date 2008-06-25	
STATUS		Approved		Vergelijk Compare Vervangt Replaces	
03		Add explanation flows		2008-11-06 AIR13180 9820594900 02.00	
Ed		Gewijzigd van Modified from		Datum Date Ingev./Goedg Intr./Appd. Parent 3D model Ed . Version 3D	
				Blad/Sheet 01 / 01	
				9820594900	

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