SPECIFICATIONS FOR ALUMINIUM
COMPRESSED AIR, INERT GAS AND VACUUM PIPING SYSTEMS

Engineering standards:

- European PED 2014/68/EU (ex 97/23/EC)
- ASME B31.1 & B31.3
- CE & EN VALVES
- UL94HB
- UL94V-2
- ASTM B241

Certifications and Compliances:

- ISO 9001 version 2000
- ISO 8573-1 version 2010
- ASME, UL, TÜV, CRN, CE and EN

Performance criteria:

- Approved for compressed air (dry, wet, lubricated), vacuum, and inert gases (including Nitrogen, Argon, Helium, CO2 mixes)
- Working pressure:
  Compressed air up to 15 bar*
  *Max. working pressure for DN200 is 13 bar
  Vacuum up to 1 mbar (absolute pressure)
- Working temperature:
  -20°C to +80°C
- Storage temperature:
  -40°C to +80°C

Resistance to:

- Corrosion
- Aggressive environments
- Mechanical shocks
- Thermal variations
- Ultraviolet (U.V.)
- Compressor oil carry over (mineral/synthetic)

Recyclability:

- The material used to manufacture the pipe and fittings are 100% recyclable.

Safety:

Components are non-flammable with no propagation of flame. The aluminium & steel fittings conform to PED 2014/68/EU and ASME pressure vessel testing and UL94HB flammability standards. The fixing clips conform to UL94V-2 flammability standards. The AIRpipe system can be installed within a plenum space (above a suspended ceiling).

System:

The air/gas distribution system shall be of all aluminium metal pipe and aluminium & steel fittings to quick-connect type, (manufactured by AIRpipe) and shall be manufactured to the quality standards of EN 14276-1, ASME B31.3 and B31.1 standard (Code for pressure piping). It shall be recyclable and be full-bore passage without diameter restriction for the fittings in order to avoid pressure drop.

Air Quality:

The international ISO standard used for compressed air quality is ISO 8573 series. Specifically, ISO 8573-1:2010, which is used to specify the purity of air required at a particular point of use. AIRpipe meets Class 1.1.1 of this standard. AIRpipe fittings are individually bagged for cleanliness and all pipe is wrapped and capped. AIRpipe is certified for use with Class D breathing air applications.

Pipe:

The pipe shall be rigid and manufactured in marine grade Aluminium 6063-T5. It shall be extruded and calibrated within the tolerances specifically required by the manufacturer. The pipe shall have been qualified as in order to warranty gripping and bubble-tight performance of the system. The pipe shall be supplied with powder coating. The pipe shall be available in 5.8 meter lengths and be available in the following diameters: (OD) 20.1 mm (17.5 mm inside), 25.1 mm (22.5 mm inside), 40.1 mm (36.5 mm inside), 50.1 mm (45.7 mm inside), 67.6 mm (63.0 mm inside), 84.8 mm (80.0 mm inside), 101.8 mm (96.8 mm inside), 153.0 mm (147.5 mm inside), 205.0 mm (198.6 mm inside)

Fittings:

The fittings shall be manufactured from powder coated aluminium & steel. Quick-connection sealing technology will incorporate AIRpipe's active concentric seals, with superior sealing performances compared to O-ring seals.

Fixing Clips:

The system shall be installed using fixing clips manufactured in engineering grade polymer (PA 12). The fixing clips shall allow an axial movement of the pipe to take into account expansion, contraction and ambient vibration.

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