

Andy Thornton stock stainless steel tube and components in grade AISI 304 and grade AISI 316.

Grade 304 is standard grade and is suitable for all indoor and the majority of outdoor locations, but its use is not recommended near swimming pools or within 0.5km of static sea or within 5km of surf. The surface finish is fine brush or 340-400 grit ($\leq 0.5\mu\text{m Ra}$). This is a practical, scratch disguising finish, which is not damaged by the cleaning process.

Grade 316 is marine grade which is suitable for all locations, given the correct maintenance. The finish is 340-400 grit ($\leq 0.5\mu\text{m Ra}$).

INSTALLATION

Must be carried out by an experienced installer. Unless a specific request has been agreed, the parts we supply are not pre-assembled. Basic metalworking tools and techniques will be necessary, such as for cutting, drilling, tapping and filing. Separate data sheets on this topic are available.

CONTAMINATION

The installer must appreciate the potential problems caused by surface contamination. Mild steel particles from tools, cutting discs or even hands, will impregnate the surface and will rust. In anticipation of this, the experienced installer will ensure that his tools are clean before commencement and will clean and passivate the surface after assembly. Passivation is the application of dilute nitric acid which restores the vital inert layer to the metal surface. Proprietary solutions are available for this purpose.

In the case of immersion or spray of sea water or swimming pool water, where the following maintenance cannot be carried out, please seek further advice from us.

MAINTENANCE

A cleaning schedule is essential, not only to maintain appearance, but more importantly to preserve corrosion resistance; stainless steel needs to be clean to self-renew its special surface properties.

- Prevent the accumulation of dirt. A regular wash with warm water and mild detergent (such as car shampoo) followed by a clean water rinse is sufficient. Done diligently, this is all the maintenance required.
- If dirt and staining has become established, then a mild non-scratching abrasive powder such as a household cleaner (not bleach or chlorine based) can be used. Apply with bristle brush and wash off with lots of clean water. Fingerprints and grease marks can be removed with glass cleaner or washing soda. Again, rinse thoroughly. The proprietary "E-Cloth" is recommended to restore an unmarked appearance to stainless steel.
- If rust appears, do not worry, this not a disaster. Airborne contaminants may include free iron which will settle on the stainless steel and oxidize. This is common on or near building sites or any construction activity. Special cleaners are available that will remove the rust and leave a protective film on the surface. Andy Thornton Ltd can supply such a cleaner. Ask for details of Cleaner C.
- Small scratches and stubborn stains can be removed with 3M Scotch-Brite or similar nonmetallic scouring pads rubbed "along the grain" DO NOT use steel wool or Brillo pads which leave particles that will rust.

INTENSIVE TREATMENT

The fine finish of stainless steel can always be recovered. If neglect has caused discoloration (known as "tea staining") or even corrosion and pitting, the surface can be restored by re-polishing and passivating as above.



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