

## Technical Support

ACO's team of in-house engineers can provide assistance with:

- Pipe hydraulic calculations
- Pipe and seal material selection
- General installation and design advice

### Specification Clause

ACO PIPE™ above and below ground stainless steel pipes and fittings as supplied by ACO Stainless (a division of ACO Polycrete Pty Ltd.), 185 Briens Road, Northmead NSW 2152.

All components to be manufactured from austenitic grades 304\*/316\* stainless steel and conform to AS3495. Products are to be pickle passivated as standard and where appropriate, electro-polished.

Pipes are to have a 50mm\*/75mm\*/110mm\*/160mm\* external diameter.

Pipes and fittings are to be supplied complete with push fit seals manufactured from EPDM\*/Viton\*.

All components used within the scope of this system are shown on Drawing No. \_\_\_\_\_\* and all work shall be carried out strictly in accordance with the manufacturer's instructions and the installation details set out on Drawing No. \_\_\_\_\_\*.

\* Please delete or complete as appropriate.

## Glossary of Terms

### **Austenitic**

A non-magnetic grade of stainless steel ideal for hygiene and corrosion resistant applications as particles are not attracted to the stainless steel which could result in bacterial contamination or corrosion.

### **Bend**

A pipe section with a given angle bent into it for use around equipment and to direct the pipe to the outlet point.

### **Branch**

Where side inlets into the main pipe are available.

### **Coupling**

A double socket section to allow connection and sealing of pipes.

### **Electro-polishing**

Components are immersed in a bath of electrolyte containing phosphoric acid where the component becomes the anode of a direct current electrical circuit. The process causes the component to shed any upstanding roughness which results in a uniform highly reflective, smooth surface. The process is effectively electro-plating in reverse.

Electro-polishing is often required in pharmaceutical and food processing industries as bacterial resistance is greatly improved.

### **EPDM**

Abbreviation for 'Ethylene Propylene Diene Monomer'. It is the material used for the standard seal in the ACO PIPE™ pipe socket. It offers good chemical and heat resistance for many day-to-day applications at a very affordable price. Viton\* seals are available for oil/fuel and hostile chemical applications.

### **Ferritic**

A grade of stainless steel generally used for domestic appliances and in the automobile industry. Generally more brittle than austenitic stainless steel and has magnetic properties.

### **Galvanic Corrosion**

Galvanic corrosion occurs when two dissimilar metals are in contact with each other when in water or other electrolyte solution.

### **Pickle Passivation**

A two-phase process performed after metal fabrication and welding. The pickling part of the process involves submerging parts in a bath of nitric and hydrofluoric acids to remove the bluish oxide film and chromium depleted layer resulting from welding. The passivation part involves submerging part in a bath of nitric acid only to remove any impurities embedded in the surface during cutting, folding and grinding and to restore and strengthen the chromium rich surface which gives stainless steel its corrosion resistance properties.

### **Socket**

The area of pipe that slides over the end of the adjacent pipe and forms a sealed connection.

### **Stainless Steel**

A grade of steel with enhanced corrosion resistance over conventional mild and alloy steels.

### **Trap**

A bent section of pipe where a level of liquid is maintained to prevent the back flow of gases.

### **Viton\***

A fluorocarbon material that offers an excellent seal solution for hostile chemical and oil environments. It is however, significantly more expensive than EPDM.

\* Viton is a registered Du Pont Trade Mark