

# SWEATING PIPES

The world-famous Petronas Twin Towers and the surrounding city centre utilises liquefied natural gas for power generation and utilities. These gas lines are cooled by chilled water and the insulated pipe lines run underground beneath the KLCC at the Twin Towers. The diameters of these pipes range between 12" to 48".

Despite being a relatively new installation, the jointing flange areas of the lines, which are underground and only accessible through manholes, were suffering from high levels of corrosion through failure of the original coating in the extremely wet conditions under the insulation layers.

The high levels of condensation which



Above: 32" flange after removal of insulation showing corrosion.

Below: Close-up of unprepared surface.



## **Alocit International Limited**

3 Charles Wood Road, Dereham,  
NR19 1SX, United Kingdom  
Tel: +44 (0)1362 694915

Email: [info@alocit-international.com](mailto:info@alocit-international.com)  
Web: [www.alocit-international.com](http://www.alocit-international.com)

Visit our website for product and technical information as well as contact details for distributors in your area:

led to the corrosion also made re-coating impossible with any standard coating. The decision to use Alocit was based on its proven ability to be applied on to wet and damp surfaces.

Flange surfaces were abraded with wet & dry sandpaper after water jetting to create profile for adhesion. The surfaces were washed down after abrading to remove contamination prior to the application of the first coat of 28.15 Tropical Yellow, followed by a coat of 28.15 Tropical Gray.

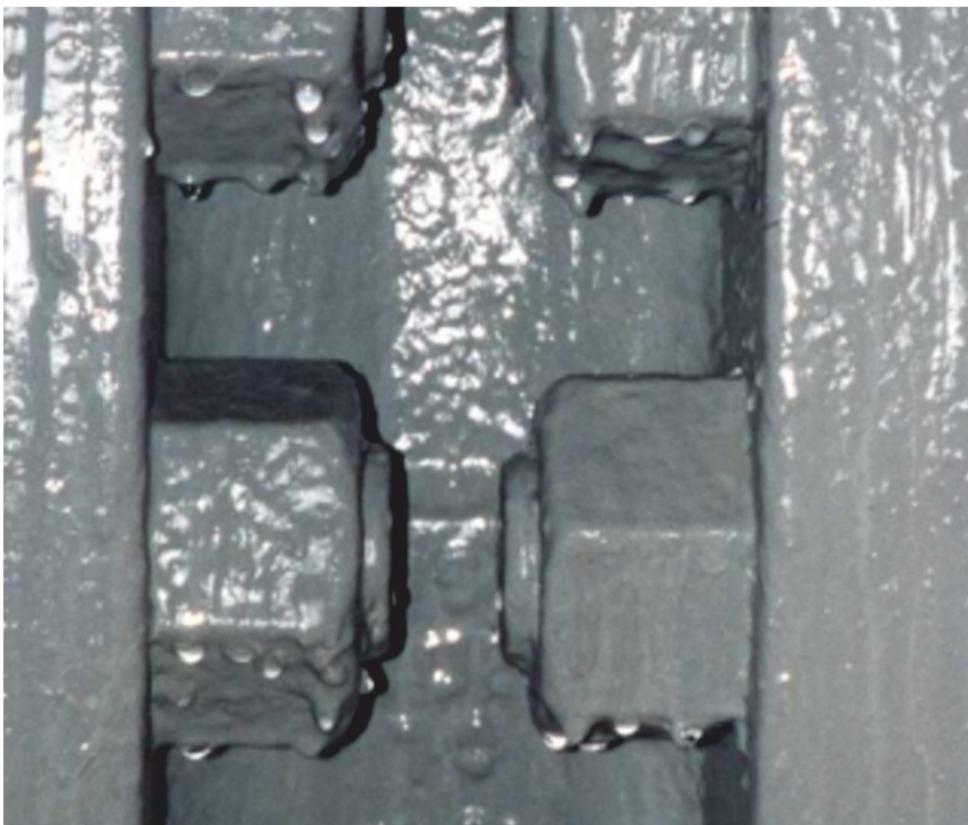


Above: Flange surface after preparation.

Above right: Alocit 28.15 Tropical Yellow first coat.

Bottom: Dripping wet and at risk from severe corrosion, these three inch flanges were also coated during the project.

Right: This close up of a finished flange with its second coat of 28.15 Tropical Gray, shows just how much condensation was on every surface. Coating on such wet surfaces proves, beyond doubt, Alocit's outstanding surface tolerance.



### TECHNICAL DETAILS

Type of Line:	Chilled water line (sweating)
Sizes of Flanges:	12", 24", 32" & 42".
Sizes of Valves:	3", 6" & 10".
Substrate Condition:	Partly corroded, flaking & damp
Existing coating:	Red oxide primer & single pack aluminum
Surface preparation:	Water jetting/hand abrading
Application Method:	Hand brush
Material used:	Alocit 28.15 Tropical Yellow & Tropical Gray
Coverage Rate:	Ave. 5 ft <sup>2</sup> /Kg @ 36 mils
DFT 28.15 T Yellow:	16-20 mils
DFT 28.15 T Grey:	16-20 mils
Total average DFT:	36 mils