

Company : Thai Honda Manufacturing , motorcycles



Thai Honda , has operated in Bangkok , Thailand since 1965 , manufacturing automobiles , motorcycles & power tools for the Asian market

A series of 220 kw air compressors and air dryers generating compressed air which is used to power various equipment through out the plant . Due to the energy produced the equipment generates a large amount of heat and cooling water is continuously circulated through the equipment to control the temperature.

The Problem

Despite a costly softening and chemical dosing system treating the water before it is used for cooling , pipelines and the compressors were suffering from scale deposition. The compressors required regular maintenance to remove the scale deposits and there was considerable pressure losses throughout the system due to scale build up. Once scale starts to form there is an increase in the work load of the pumps as pressure losses increase resulting in a increase in the amount of power required to pump the water round the system.



Above : Feed line to Compressors with scale deposition

Scale formation inside any water system will bring a host of additional running cost and Thai Honda were no exception

- Cost of current failed chemical and softening system , regular purchase of chemicals and salt, regular maintenance and replacement of parts.
- Cost of removing existing scale deposits
- Scale build up incurred pressure losses of 68% throughout the system , resulting in an increase in running costs of pump



Compressors & Dryers at the Thai Honda



Above : Compressor after with scale.

Installation

One of the compressors was chosen for the purposes of a trial to assess the performance and impact a Colloid-A-Tron would have in this system. On November 21st The Colloid-A-Tron was installed on the feed line to the compressor under supervision by Honda ,



The Results

The trial was due to be assessed over a 6 month period but after within four weeks the engineers had noticed remarkable improvement on the reduction of pressure losses within the system. Data had been collected before and during the trial and this was analysed and Honda produced figures showing a reduction in pressure losses from 68% down to 45%. This meant a decrease of 6.6% in power usage of the pumps.

As one can see from the photo of the compressor not only has scale been prevented but existing scale has been removed returning the compressor to the desired condition in order for it to operate at maximum efficiency

