

Metallurgical Industry

The metallurgical industry can be broadly divided into primary metal production and secondary metal production operations. Primary metal production mainly refers to the extraction of metals or metal compounds from ores. The secondary metal production business refers to the production of alloy ingots and the process and process of recycling metals from scraps and scraps, and using various processing methods to form metal materials with certain properties.

According to different products, the metallurgical industry can be divided into ferrous metallurgical industry (ie steel industry) and non-ferrous metallurgical industry, rare metal metallurgical industry and powder metallurgical industry.



Steel Plant



Pain Points:

In Slag washing circulating water system, the white ash content in steel slag is too high and the calcium content is dozens of times that of ordinary water, the water pumps and pipe networks of the system have been severely scaled since they were put into production.

The scale thickness of the water pumps can reach about 5mm_6mm in one week. . which will cause the system water flow to be blocked and the motor to overheat. Therefore, the water pump must be disassembled once a week to clean the pump body and impeller. The scale is very hard and difficult to clean, which greatly affects the service life of the water pump and the working efficiency of the water system. It also increases the consumption of spare parts and labor. labor intensity.



Effect of Use:

After using Quantum collar technology on the equipment for 2 months, the scale thickness reached about 1mm, and the hardness and viscosity were also improved. The scale adhesion was vastly reduced. Part of the scale showed natural shedding, and the water pump cleaning cycle was extended to more than one month or more.

Summarize

The NAWT quantum collar increased the concentration ratio of the circulating water, allowing the equipment to operate normally in high hardness environments. The direct effect of descaling is to increase heat exchange efficiency and save energy. Reduce emissions, save water resources, and protect the environment.

CASE 2



Steel Plant

Pain Points:

The circulating cooling water system has a circulation volume of $1450\text{m}^3/\text{h}$,

Retended Water volume of 600m^3 .

This project is characterized by a high concentration ratio of the existing circulating water, reaching 7.74 times.

The water supply source is tap water, and the circulating water system is repaired every three years. Use chemical methods to treat circulating water, and use bactericides and corrosion and scale inhibitors to control water quality.

Installation:

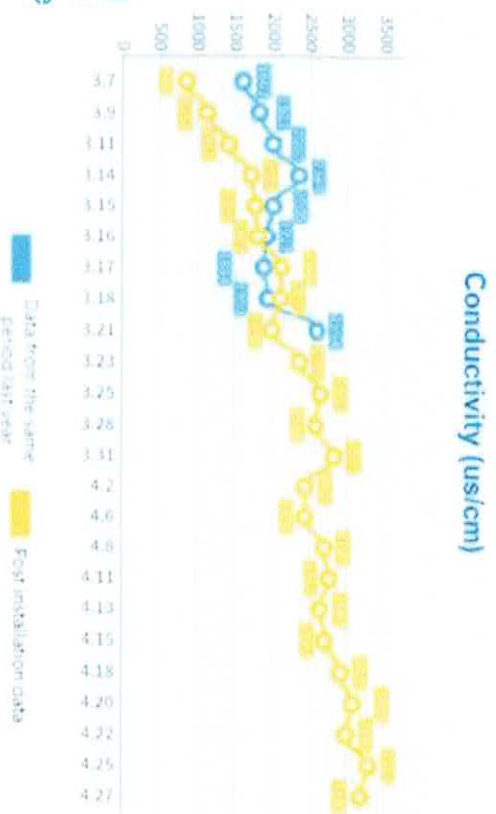


Install the quantum collars in the cold water inlet pipe of the air compressor

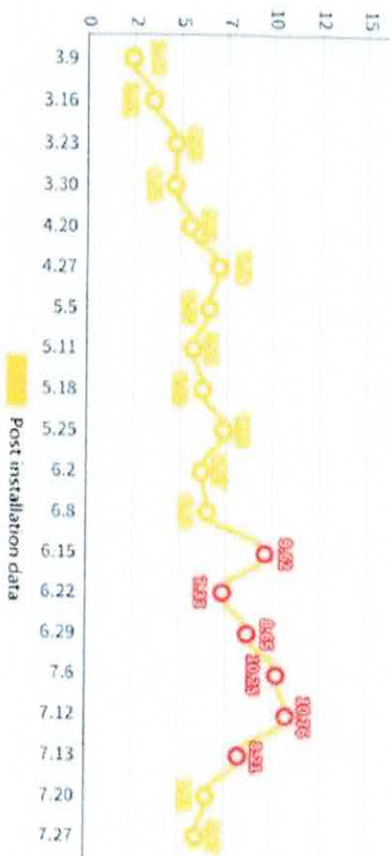
Effect of Use :

The quantum collar was applied to the reservoir, and air compressor circulating cooling water system, and the addition of corrosion and scale inhibitors and bactericides was stopped after installation.

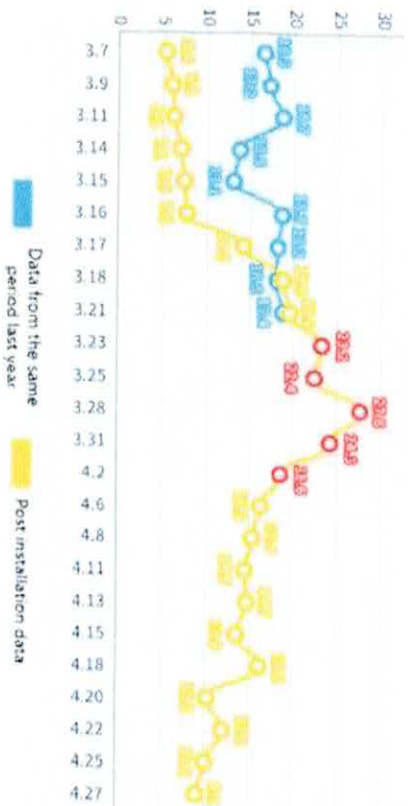
Visual inspection was performed there was no scaling in the air compressor heat exchanger. According to statistics, the concentration rate has increased significantly compared with the same period then in previous years, and the quality of circulating cooling water has changed significantly. Two months after the application of the quantum collar technology, the scale dissolved in the water flow and turned into granular powdery substances, which were discharged out of the system through sewage discharge.



Cycle of Concentration



Turbidity (NTU)



Summarize

The NAWT quantum collar can protect and clean oil production equipment and pipelines, and is still applicable in some environments with poor working conditions. It can make the circulating water work normally under the conditions of high concentration ratio, which is impossible for other water treatment methods. The amount of supplementary water is reduced, and there is no post-maintenance, which reduces the cost of manual maintenance.