



# Albarakah Investment Holding Company L.L.C.

Abu Dhabi, UAE

Installation Date: March 26, 2016



# Steam Boiler Room of 1 Bldg of Workers Village

Pipeline system of the building



Identified pipeline of the boiler unit



# Invested Units Affected by Corrosion

Replaced piping materials due red rust.

Corroded inside area of the pipe system with some scaling. A strong that water is in acidic conditions.



# SW 5 Star Model Installed for the Boiler Unit

Identified 2" pipe for 5 Star Model of SW.

Actual coil done with single layer-38 loops of the coil.



# IE 4 SW Model Installed for the Storage/Holding Tank of the Steam Boiler Unit

**Coil installation for IE-4 SW Model**

**1<sup>st</sup> layer of the coil with 60 loops**



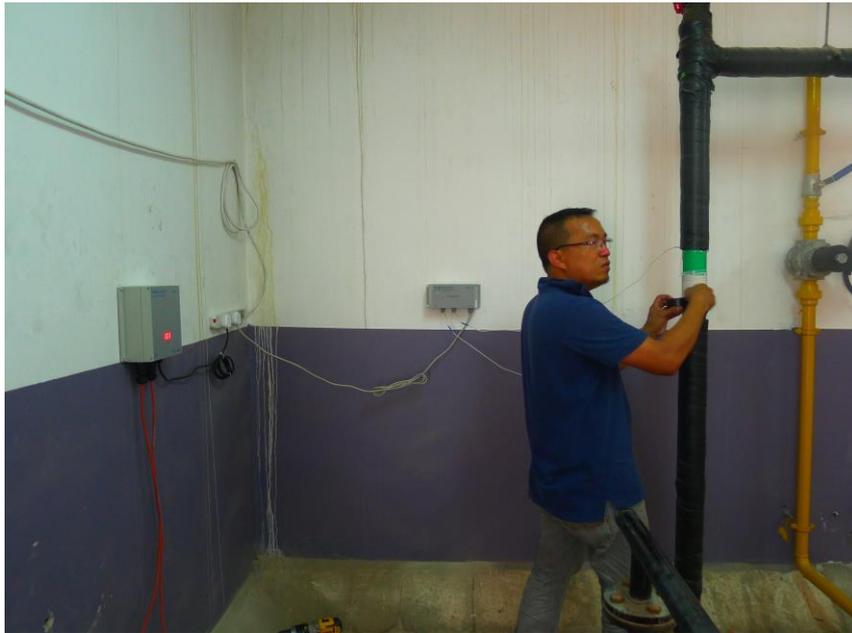
# IE 4 SW Model Installed for the Storage Tank of the Steam Boiler Unit

2<sup>nd</sup> layer of the 60 layer loop

Sealing of the finished 2 layer by 60 loops of coil for IE-4 SW unit



# Finished Installation of 5 Star and IE-4 SW Models



# Observation(s) after installation:

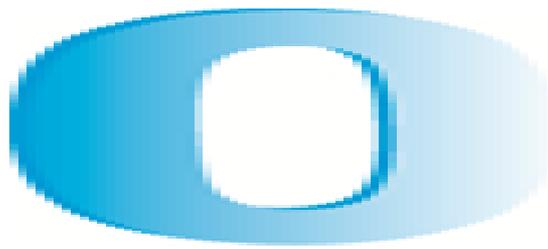
- The invested units such as the pumps, pipeline and other high value equipment are greatly affected by scaling and corrosion caused by water hardness.
- Shutdown operation and high usage of descaling chemicals is the existing maintenance program which is very expensive for the company.
- Water parameter in the area are as follows:

Boiler unit- pH is 5.0-5.5 and water hardness is 140ppm

Storage/Holding Tank- pH is 6.0 and water hardness is 120ppm

-the low or acidic pH of the water in the boiler system is the main reason of high corrosion of boiler system and pipelines which is a high operational expenses for the company.





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