



Case Study

Company: Papertech Tudela



Country: Navarra – Spain

Sector: Paper Mill

Papertech is a company belonging to the Texpack group which produces 45,000 tonnes of paper per year

The Problem:

The well water that Papertech uses for several applications in the factory has a high level of hardness. Recently the company installed a plate heat exchanger to heat the raw water used in the paper machine band irrigation. The management of the plant was concerned about the predictable fact that the heat exchanger would scale up and would have to be opened very often to remove scale and do maintenance works. They made a decision to see if they could find an environment friendly way of treating the water to prevent it from scaling.

The main water parameters are:

Parameter	Units	Value
pH		7,3
Conductivity	µS/cm	2473
Total hardness	°f	52 (520mg/L)
Calcium hardness	°f	40 (400mg/L)
Chlorides	mg/L	367
Flow	m ³ /h	80

The Solution:

Papertech approached the Spanish distributor of Fluid Dynamics, Vitalfluitech, to provide a solution

Due to the hardness of the water to be treated it was decided that a MagCAT 125, 5" diameter, should be installed in the main feed pipe treating the whole 80 m³/h flow.

MagCAT is a newly patented powerful anti-scale treatment which combines both magnetic and catalytic treatments methods.

MagCAT does not use chemicals, has no moving parts and it is maintenance free. Moreover, MagCAT technology is environmentally friendly since it doesn't produce any waste and no energy supply is required.



Results:

Since the MagCAT 125 was installed no scale blockage has occurred in the plate heat exchanger after ten months of operation. Regular inspection of the exchanger showed that there was no scale built up between the plates

Due to the success of the application Papertech has ordered a 2 ½" MagCAT unit to protect a vacuum pump set applied in the paper drying process.

[The engineering management at Papertech have approved the issue of this case history.](#)