

## **NEWS for AUGUST 2011**

The last three months have seen many new success stories being developed and orders from many countries .. for Fluid Dynamics Groundbreaking environmentally friendly water treatment systems

### **Electricity Generating Cooling Circuit**

Fluid Dynamics Distributor in Argentina supplied a 12" Colloid-A-Tron for a cooling circuit for power station.. after 6 months the cooling system was opened up and there was no sign of scaling and corrosion rates were low .... a full report will follow soon. The Colloid-A-Tron is cooling a Pratt and Whitney jet engine that actually generates the electricity



### **British Government Establishment Reorders**

Scaling from effluent discharge was a big problem at this nuclear reprocessing facility.. so a combination of Colloid-A-Trons and Magstream units were installed 3 years ago .. the results were very good and now there has been a re order for new plant being installed on the site. The problem here was that when the backwash from the water softener combined with the concentrate from the RO plant and the backwash from the iron filter so scale started to form in the drain lines of the system carrying waste water from the plant to the nearby river. It was impossible to use chemicals to clean this out and putting in a Mechanical pig was very expensive so the customer installed a combination of Colloid-A-Trons and Magstreams in the drain line s of the filters and Ro plant and softeners.

## **MAGCAT PRODUCES RESULTS IN RUSSIA**

*MagCAT is Fluid Dynamics most powerful scale preventer .. for industrial applications or apartment complexes or shopping centres with difficult waters*

200 km South of the arctic circle is a gas pumping station owned by Gazprom the largest natural gas producer in Russia... a 4" MagCAT was installed in January 2011 on the service lines to the administrative buildings protecting boilers and heat exchangers..Gazprom has confirmed this installation as successful and is looking for more applications



*Picture is a very cold northern Russia where a 4" MagCAT is installed*



## Specified by Consulting Engineers

One area rapidly growing is where a consulting engineer specifies our scale preventers for a new project.

Recently Fluid Dynamics scale preventers have been specified for more than 1,000 homes in the UK.

For 350 new grocery stores being built in UK

And more than 60 units of student accommodation at Cambridge University

In **Jordan** also, Fluid Dynamics Scale prevention products are specified for new university buildings, supermarkets and hotels.

Richard Thomas, business development manager at Fluid Dynamics says .. *"It takes time to build trust with Consulting Engineers but when the relationship is established the Company has a chance for continuous business provided that it meets its obligations and gives good service"*

## Success at Gestamp

Gestamp Automoción is an international group dedicated to the development and manufacturing of metal components and structural systems for the automotive industry.

Today, "Gestamp Automoción" has locations in 17 countries with 56 production centres and 9 R&D Centres, which together total over 11,750 employees.

A 3" Colloid-A-Tron unit was installed on a recirculating cooling circuit at the Gestamp plant in Argentina...the installation was a success eliminating the need for chemical treatment and now the factory has ordered another 6 x 3" Colloid-A-Tron units for protection of all of their cooling circuits.



## University of Texas Orders Scaletons

University of Texas based in Austin is home to more than 48,000 students .. the university always likes to adopt the newest technologies and with increasing environmental pressures even the saving of water used to backwash water softeners is significant .. so the University has ordered two Scaleton units for an administration block .. with the intention of extending the use of the products across the entire university campus.

*Fluid Dynamics scale prevention systems ... use no electricity, no chemicals and have no moving parts. Fluid Dynamics scale preventers are a totally green solution to scaling problems using patented catalytic technology to neutralise the scaling effects of Calcium Carbonate Fluid Dynamics scale preventers are simply installed to become part of the pipework leaving the natural minerals in the water but in a non scaling state.*

### Technical note....IMPORTANT

When should booster units be installed?

**Installing booster units** ...Sometimes either due to variable flow rates or distances travelled or significant temperature changes there is a need for "Booster units" Fluid Dynamics often recommends booster Scaleton units just before equipment to be protected. Recently in an industrial kitchen in Amarillo ,Texas a 2" Scaleton was put onto the main water inlet to the kitchen .. this worked very well keeping the hot water heaters clear of scale .. but there was not complete success at the soda fountain or the ice making machines .. so booster Scaleton units were placed before these machines with improved results and the customer was very happy.





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*Hard water solutions since 1973*

## **Zinc Phosphate Installation looking Positive**

Zinc phosphate spraying is a process used for steel pretreatment to reduce the risk of rusting of metal.. typical users would be :

Motor car/automobile manufacturers

Manufacturers of automobile parts

Manufacturers of white goods such as washing machines and refrigerators

Manufacturers of microwave ovens

Fluid Dynamics Magstreams "P" units have been used to prevent heat exchangers and spray nozzles from clogging and blocking for many years. Users from the 1980's include:

Jaguar/Honda/ General Motors/Hoover brother and SANYO.

Recently NBA Intertrade in Thailand installed two Magstream "P" units in a zinc phosphate line at NHK Spring. NHK Spring are already very happy users of Colloid-A-Tron units with 4 x 4" units installed on their site.

So far the company is very satisfied and the results reported are:

- 1.) The color of the solution in the tank is looking green and clear as opposed to cloudy
- 2.) The sludge is softer and easy to clean
- 3.) Reduction in chemical usage is reported

( A copy of the reports attached)

Thank you to NBA for this useful report. Please make reports wherever possible so we can share these with The Fluid Dynamics Family

## Magstream P-75

*Zinc Phosphate Sludge Treatment  
for*

**NHK SPRING ( THAILAND ) CO.,Ltd.**



1. Zinc Phosphate , Surface Treatment on the Production Line Coil Spring – B ( Further to production line, there are 5 lines of the Surface Treatment )



2. **Magstream P-75** had installed on the both side of Zinc-Phosphate tank since May 15 , 2011



3. The objective of installation Magstream P-75 is preventive of sludge on the Heat Exchanger and control the Temperature consistence.



4. To preventive Sludge / Scale inside the pipe , pump and spray nozzles



5. The scale thickness are over 10,000 microns inside the pipes.



6. Preventing Scaling in Phosphate Lines with **Magstream P-75**



7 Magstream P-75 are available according to

- Flow Rate = 8.18 – 21.80 M3/Hr
- Pressure = 0.82 – 2.90 Bar



8. Magstream P-75 had been completely installation for both side of Tank at NHK SPRING ( THAILAND )



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9. Capacity of Zinc-Phosphate tank is 2 M3



10. Zinc Phosphate , spray application are required the spray pressure at 1.5 – 1.8 Bar with to built up a crystal uniform coating on the spring substrate.



11. Spray application are required :-

- Temperature = 45 – 55 oC
- Spray Pressure = 1.5 – 1.8 Bar
- Minimum time application = 1.5 min.

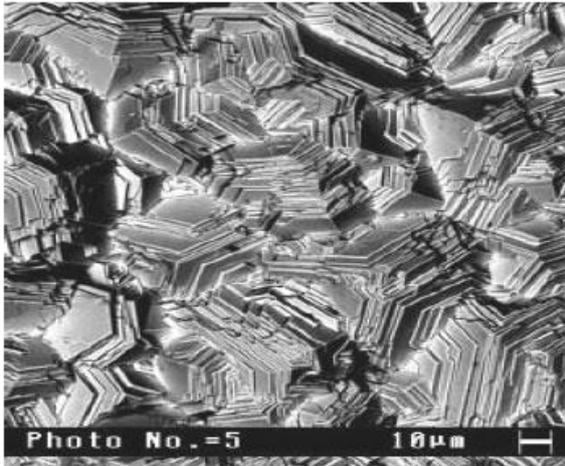


12. Coating quality weight on the coil spring should be having 7 – 15 gm/M2



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13. Uniform Crystal Complex on the Coil Spring  
By Electron Micro Scope



14. Coil Spring have been coating by Power Coating after  
the process of surface treatment ( Zinc-Phosphate )



15. Visual Inspection of the Color in Tank On  
November 9 , 2010 ( Before Magstream P-75 )



16. Magstream had installed on May 15 ,2011 and  
The Visual Inspection of the Color in Tank on June 20 , 2011