

# *Hydro***FLOW**<sup>®</sup>

WASTE WATER TREATMENT  
STRUVITE SCALE PREVENTION AND POLYMER REDUCTION



**HYDROPATH Technology** | The home of *Hydro***FLOW**<sup>®</sup>

# WASTE WATER TREATMENT, SCALE AND POLYMER REDUCTION



Two issues that are particularly problematic in the treatment of waste water are the build-up of deposits of struvite or other scaling, and the need to add expensive polymer flocculants to ensure the effectiveness of the dewatering process.

The award-winning HydroFLOW® units are designed to address both these issues in waste water from industries such as food and drink, manufacturing and sewerage. The electronic flocculation effects of the HydroFLOW® units give substantial savings in polymer use in dewatering centrifuges and belt presses, typically in excess of 15%. HydroFLOW® electronic water conditioners also offer a chemical-free alternative to attacking scale such as struvite and minimising physical interventions such as high pressure jet washing.

Installation is simple, with no system downtime, modification or draining required. HydroFLOW® units operate maintenance-free 24/7, providing maximum performance no matter the throughput.



# CASE STUDY

## WASTEWATER TREATMENT, CITY OF ORLANDO

The 2-meter wide belt presses at the City of Orlando Waste Water Treatment Plant suffered from severe struvite scale accumulation which greatly impeded the equipment's productivity and effectiveness. They wished to prevent new struvite scale accumulation, gradually remove existing struvite deposits, and if possible, reduce polymer usage. A custom 12" HydroFLOW® was installed on the feed to the belt press.

### RESULTS

There was a marked reduction in the struvite build-up and existing struvite was gradually removed. The amount of polymer required to produce a cake of sufficient dryness was reduced by about 20%.



## INDEPENDENT TEST REPORT

"This technical memorandum verifies that the use of HydroFLOW® I Range units at the RWH Treatment Facility prevented scale formation in the centrate transfer pump and pipe. The HydroFLOW® units also caused changes in the characteristics of the existing scale, making it easy to be removed by the flowing liquid. It should be noted that following the test, RWHTF purchased and installed four HydroFLOW® units on the centrate and digested sludge lines"

Samuel Jeyanayagam, PhD, PE, WEF Fellow/CH2M HILL, Inc. (CH2M)

## OUR CUSTOMERS SAY

"The HydroFLOW® device not only reduced the rate of struvite accumulation it actually started to soften up existing deposits! Within a week, we started seeing large pieces coming off the first roller and the wash box. In addition, over half of the holes on the first roller were open. Within 35 days, a significant amount of the struvite in the belt press was removed."

Plant Super Intendant, London, Ohio Waste Water Treatment Plant.

# RESULTS



**NEW STRUVITE  
SCALE PREVENTED**



**EXISTING STRUVITE  
GRADUALLY REMOVED**

**POLYMER  
USE DOWN  
20%**



## DESIGNED FOR

- NEW SCALING
- EXISTING SCALING
- IMPROVED FILTRATION
- REDUCING POLYMERS

## FEATURES

- Suitable for all pipe materials
- Available for pipes up to 200mm as standard
- No plumbing or cutting of pipes required
- Easy retrofit - no downtime

## APPROXIMATE DIMENSIONS

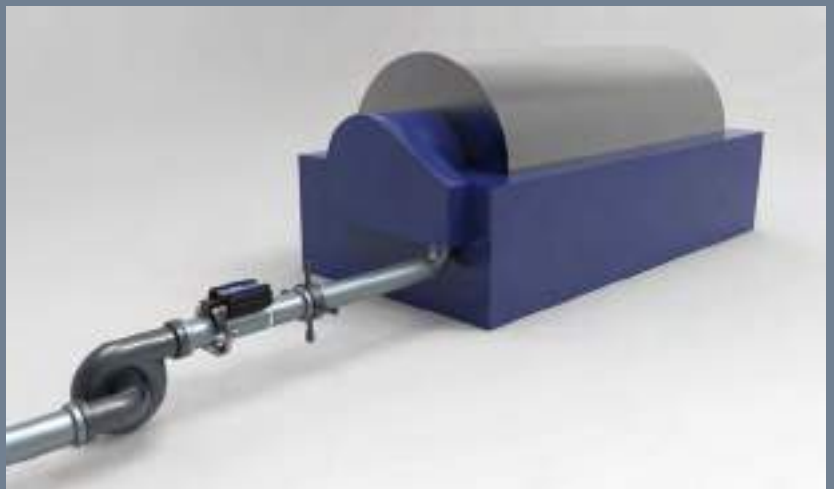
- 300 x 200 x 100 mm
- 3 meter cable

## TYPICAL INSTALLATION LOCATION

- On the inlet to centrifuge or belt press
- Before polymer injection point

## FURTHER INFORMATION

For more detailed guidance on specification, installation or other information, please contact [sales@hydropath.com](mailto:sales@hydropath.com) or your local representative.



## FROM COMBI BOILERS TO COOLING TOWERS

HydroFLOW® units are working all over the world on multiple applications, treating carbonate and non-carbonate scaling and filtration issues in a wide variety of industries. Check out our website for more information.

- From homes to heavy industry
- From spas to steel mills
- Suitable for any pipe material
- From 15mm to 1500+mm OD pipe diameter



LIMESCALE



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