STONE FOOD MACHINERY LTD

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INLET SCREENING - A Modular, Fresh & Flexible Approach

Some years ago, following a visit to MEVA, Sweden, Val Stone, Managing Director of Stone Food Machinery Ltd., Wexford, Ireland sold a simple concept to EPS in their Head Office at Mallow, Co. Cork.

EPS were asked to take a fresh approach to Inlet Screening and consider the use of a unique, simple approach based on the following -

- Packaged system using a very small footprint compared to traditional methods.
- Easy & Fast installation and that could be movable at any stage in the future.
- Removal of heavy stones and grit before the Inlet Screens.
- High Screenings Capture Rate (SCR).
- Adequate capacity for the flow.
- Low maintenance.
- Automatic Storm Overflow.
- Screenings at exit in excess of 50% DS - and ready for incineration.
- The unit to be made entirely in Stainless Steel and to be visually appealing.

Having considered the challenge, EPS decided to install the system at Dunmore WWTP in Galway - this has now been working extremely satisfactorily for almost 5 years and with absolutely NO problems of any kind.

Subsequently, EPS decided to buy a larger unit and this has been installed and commissioned at Schull WWTP in West Cork. The results have been equally spectacular.

The Packaged unit consists of -

- Stainless Steel Tank
- 2 off **MEVA Monoscreens** with 2 or 3 mm gaps (patented) in the Tank.
- 1 off **Grit Screw** (between the Monoscreens) plus Longopac bagging Unit for the Grit.
- 1 off Hand Raked Screen (for emergencies)
- 1 off **Screw Wash Press** for dewatering purposes.
- 1 off **Counter Pressure System** - CPS - with Longopac Bagging Unit for the Screenings.

Click Here to view image of MEVA Inlet Screening Tank Unit for Dunmore WWTP during construction - each piece of equipment involved has been indicated.

The operation of the CPS System at Schull Waste Water Treatment Plant results in Screenings of ca 60% DS as they enter the Longopac Bagging unit and then into a normal Plastic Domestic Waste Bin.

On the left it can be seen where the Grit Screw exits. (**Click Here for larger image**)

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The following images show clearly a sample of the dryness of the screenings after the CPS

Normally Screenngs at exit are expected to be between 40 to 60% DS - but these Screenings were found to be almost 70% DS.

In the image below you can see the exit for the Grit Screw going into a Longopac Bagging Unit and Bin. Please note the MEVA Tank Unit is mounted on two small walls ca 1000mm high - demonstrating the simplicity of the solution.

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In the top image below you can easily see how the two MEVA Monoscreens feed directly into the SCREW WASH PRESS and then enter the CPS unit on the right hand side. The Grit Screw is in the foreground. In the bottom image you can see the Influent Pipe into the MEVA Tank Unit and the CPS on the left.

An alternative solution- handling the Sand in a different way
Sand can be removed via traditional means or a MEVA unit called the MCU can be used. In the following image, it can be seen how this has been incorporated into a proposal for a plant of ca 1,000 l/s.

It is important to make the point that there is NO limit to the size of plant that can be built using this MODULAR concept. Indeed, the biggest obstacle to be faced lies in changing the 'hearts and minds' of many of those involved in Waste Water Plant design.

Please look at the drawing below of a WWTP to cope with 1000 l/s in MODULES of 250 l/s

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