

FLO-GritWash

FGW

Classifying and Washing System

The Key to Better Grit Management

The removal of grit at the headworks is essential to the operation and maintenance of downstream processes. Efficiency and capacity are increased and maintenance costs are lowered. However, organic-laden grit comes with its own set of problems.

The Flo-GritWash grit washing system is designed to eliminate those problems and produce a clean, dry grit containing less than 3% organic content. Washed grit reduces hauling and disposal costs and is odor free. The Flo-GritWash is divided into four separate components each designed to perform four processes.

Separation (Conical tank) - As the grit slurry enters the top of the tank, a weir slows the inlet flow and directs the slurry over a diffuser. The heavier sand particles settle to the bottom of the tank while the organic-laden liquid is conveyed through a slotted pipe and is discharged back into the biological process. The settled grit/sand becomes the top layer of the dirty sand bed.

Washing (Tank base) - The round tank base is divided into two chambers – a washing chamber and a conveying chamber. Water is injected upward into the dirty sand bed in the washing section through a slotted rubber water diffuser. As the dirty sand bed is fluidized and stirred, the abrasive properties of the grit/sand create a self-scouring effect that releases organic material into the wash water.

Removal - Heavy weight material that has been forced out of the sand bed during the wash process is discharged via a



Motorized valve Removes Organics



Dual Flo-GritWash Units in Brescia Italy

motorized valve located above the sand bed. Light weight material is conveyed to discharge over a weir installed in the upper part of the tank.

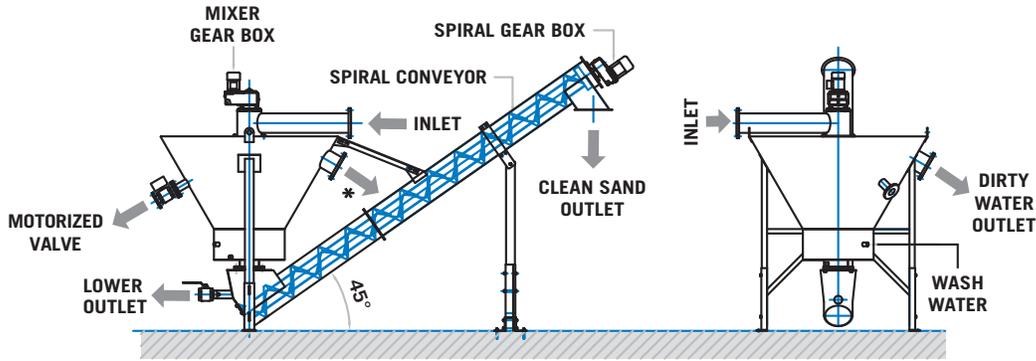
Drying - The cleanest sand drops down into the conveying section. The removal of sand is controlled by a pressure sensor. A probe monitors the increase in density in the sand bed. At a predetermined density, the shafted screw begins to rotate and moves the clean sand to discharge.



Flo-GritWash Unit Designed to Process 317 GPM of Grit Slurry

Features & Benefits

- 1 Grit classification and grit washing in one unit** - One piece of equipment performs both functions.
- 2 Washed grit contains less than 3% organics** - Discharged grit is practically organic free.
- 3 Washed grit drains faster** - Averages 80% - 90% dry weight.
- 4 Intermittent turning of the shafted spiral as the washed grit is removed** - The washed grit drains and dries on its way to discharge.
- 5 Inlet diffuser reduces the influent flow speed** - Prevents disruption to the settling and washing processes.
- 6 Sand bed is fluidized and stirred at intervals** - Creates a scouring action that releases organic material into the wash water.
- 7 Special labyrinth seal and chrome-plated sleeve between shaft and bushing on the discharge auger** - Protects bronze bushing and drive shaft from grit abrasion.
- 8 Heavy duty shafted spiral** - Reduces wear on the trough and wear bars.
- 9 Access hatch on the top of the conical tank** - Ease of maintenance and periodic inspection of the process.



Specifications

		FGW-10	FGW-20	FGW-30
Capacity	l/sec	10	20	30
	gpm	159	317	476
Separation rate	Kg/h	180 - 300	400 - 600	800 - 1000
Water Consumption	gpm at 2 bar	7	11	11
Particle separation >0.2 mm	%		95	
Organic content at discharge	%		<3	
Controls		304 SS NEMA 4X		
Drive motor-mixer	HP		0.5	
Drive motor-spiral	HP		1.5	

Materials of Construction

Tank	AISI 304 SS (316 Optional)
Transport tube	AISI 304 SS (316 Optional)
Shafted spiral	High Strength Alloy Steel (304/316 SS Optional)

FLO-Products

Simply Superior Design

Enviro-Care Company of Rockford Illinois was founded in 1972 and is a privately-held headworks company supplying screens and solids/grit management equipment for wastewater treatment. Enviro-Care is the North American partner of SAVI S.r.l. of Roncoferraro

Screens

- Flo-Drum** Rotating Drum Screen for Wastewater and MBR Pre-screening
- Flo-Drum DM** Dual Drive, Heavy Solids Screen
- Flo-Sieve** Shaftless Spiral Screening, Washing, Conveying, Dewatering System
- Flo-MultiRake** Coarse and Fine Bar Screens
- Flo-MultiRake** Perforated Media Screen
- Flo-PerfBelt** Moving Media Belt Screen
- Flo-Screen** Reciprocating Rake Bar Screen
- Flo-RotoDrum** Internally-fed Rotating Drum Screen
- Flo-DrumSieve** Externally-fed Rotating Drum Screen

Italy and has the exclusive sales distribution and manufacturing license for SAVI products. SAVI was founded in 1978 and is a worldwide leader in wastewater treatment equipment with thousands of installations around the world.

Solids/Grit Management

- Flo-WashPress** Washer Compactor
- Flo-Press** Hydraulic Ram Press
- Flo-SpiralPress** Conveyor with Dewatering
- Flo-GritWash** Grit Classifier and Washer
- Flo-GritOut** Grit Classifier
- Flo-Spiral** Shaftless Spiral Conveyor

Systems

- Flo-Beast SeptageStation DM** For Heavy Solids Screening
- Flo-Beast Liquid Waste Receiving Station** With Hauler Station - Access Panel - Flo-Logic™ Software



Enviro-Care is the exclusive licensee for SAVI S.R.L. technologies in North America.