SAVI® Grit Removal

Vortex System
DSP

A vortex system with high grit removal efficiencies, even with high or variable flows.

Piney Creek WWTP – Beckley WV

The Vortex Grit Chamber features a small footprint, low headloss and no submerged wear items. The compact design reduces civil work and requires only simple, inexpensive maintenance. The system is designed to remove grit down to 100 mesh with specific gravity of 2.65 or greater.

Ideally, plant influent is screened prior to the grit trap for maximum performance. Screened wastewater enters the vortex grit trap tangentially. The wastewater flows along the critical path around the outside of the grit trap and exits parallel to the inlet (270°).

The sloped floor and impeller promote optimum grit settling and rejection of light organics. The impeller blade speed controls velocity forces to reject light organic material that exits with the effluent while allowing grit to settle in the lower grit hopper. Grit is removed from the lower grit hopper by airlift pump, flooded suction pump, or self-priming pump. The pump discharges the grit slurry into an SPECO® Dynamic Grit Classifier or FSM® Grit Washer for further processing.

Removal percentages of various grit mesh sizes of 2.65 SG material:

- 95% of grit >50 mesh in size
- 85% of grit 50-70 mesh in size
- 65% of grit 70-100 mesh in size

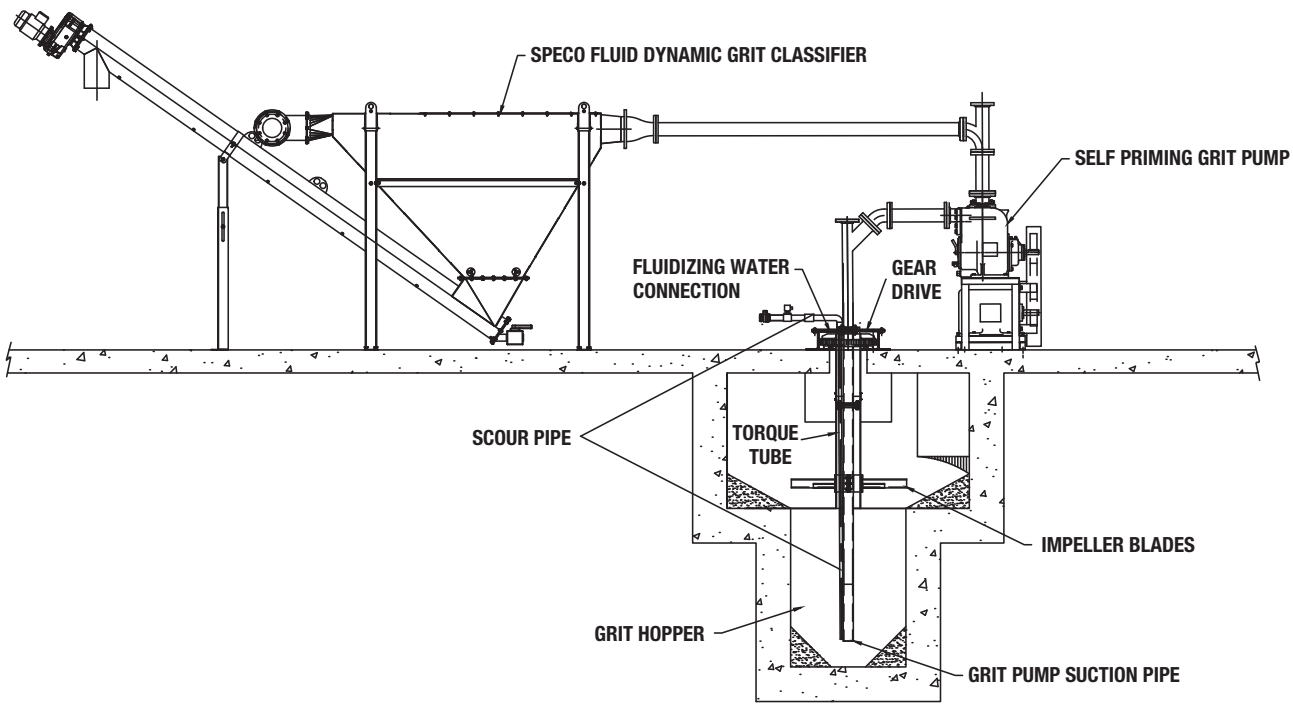
Advantages:

- Consistent grit removal maintained even with variable flow rates.
- Low headloss.
- Low energy consumption.
- Compact design reduces civil work expenses.
- Rugged precision gear/bearing drive.
- Easy and inexpensive to maintain.

Available Options:

- 304 or 316 stainless steel
- Flooded suction pump
- Airlift pump
- Self-priming pump
- Steel tank construction
- SPECO® Dynamic Grit Classifier
- SPECO® Settling Grit Classifier
- FSM® Grit Washer

SAVECO®
Member of WAMGROUP®



Piney Creek DSP10 – 7 MGD

Vortex Trap 270° Orientation

Model	Flow MGD
DSP 6	1.0
DSP 7	2.5
DSP 8	4.0
DSP 10	7.0
DSP 11	10.0
DSP 12	12.0
DSP 14	16.0
DSP 16	20.0
DSP 17	25.0
DSP 18	30.0
DSP 19	40.0
DSP 20	50.0
DSP 24	70.0
DSP 28	100.0
DSP 30	115.0

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