

Ultra-Fine 75 Micron Grit Capture

Wastewater contains large solids and grit that can interfere with treatment processes or cause undue mechanical wear and increased maintenance on wastewater treatment equipment. To minimize potential problems, these materials require separate handling. Grit includes sand, gravel, cinder, or other heavy solid materials that are “heavier” (higher specific gravity) than the organic biodegradable solids in the wastewater. Removal of grit prevents unnecessary abrasion and wear of mechanical equipment, grit deposition in pipelines and channels, and accumulation of grit in anaerobic digesters and aeration basins.

Smith and Loveless has recently introduced ultra-fine grit removal which captures 95% of 75-micron grit across all flows—without derating. The new INVORSOR combines hydraulic vortex with inclined plates to achieve ultra-fine grit capture. Models can be sized in a single unit up to 50 MGD. The systems can also be designed for a particular cut particle size or by flow.

Unit Capacities: 0.5 to 50 MGD (~190,000 cmd) Arrangement: Variable inlet / outlet up to 360° Removal Efficiency: 95% down to 75 Micron Particles

Compared to other fine particle grit removal systems, the INVORSOR delivers lower capital and operational costs, larger capacity in individual units. It also offers greater design flexibility for inlet-outlet design options, and a higher surface area-to-volume ratio to generate consistent fine grit capture during low flow, daily flow and peak flow conditions — up to 50 MGD in single units (190,000 m³/d).

Contact Emily Vebber for more information about ultra fine grit capture.