

# SCHREIBER® Grit & Grease



Schreiber's Grit & Grease removal system is a unique system designed to remove both Grit and Grease in a common structure.



# SCHREIBER Grit & Grease

Schreiber's Model SFB Grit & Grease Removal System consists of a rectangular concrete channel with two (2) parallel chambers. The rectangular design provides efficient removal over a wide range of flows. The deeper chamber is for the settling of grit and in the other chamber grease floats to the surface for removal. The operation is automated with a PLC control for maximum operating efficiency.

Flow enters the grit channel where coarse bubble diffusers located near the bottom create a continuous and adjustable roll in the liquid. The spiral roll rate is controlled by air volume resulting in efficient grit removal. The spiral circulation scours, washes, and deposits the grit into the bottom trough of the channel. A grit pump mounted to a traveling bridge removes settled grit from the channel and discharges into an elevated grit trough above the water level. The grit slurry then flows to a grit

classifier for further washing and dewatering before disposal.

The grease within the liquid makes contact with air bubbles that provide buoyancy. The divider wall between the grit and grease channels extends slightly below water level. Openings within a baffle system permit the combined air and grease to pass under the wall and float to the surface. The floating grease is continuously transported to the end of the channel by an air/water-skimming system. Air/water lances span the width of the grease channel and are spaced along the length of the chamber. Nozzles mounted to each lance direct the air/water to the water surface at an angle creating a surface current that continuously transports grease to a removal screw. Continuous removal of grease helps to eliminate build-up during peak flow events. The grease removal system is available as an equipment retrofit.

## SELECTIVITY OF GRIT QUANTITY

The spiral circulation velocity caused by the aeration determines the size and specific gravity of the grit to be removed. Since the spiral velocity is independent of plant flow, the high quantity of grit removal is assured under all flow conditions.

## PROTECTION OF OTHER DOWNSTREAM EQUIPMENT

Inorganic grit, due to its settling and abrasive characteristics, will settle out in treatment units; resulting in clogging, reduced tank volume, and reduced service life of equipment. In addition, excess grit can make sludge handling and dewatering more difficult. Schreiber's Grit & Grease Removal System removes the grease at the head of the plant, reducing the buildup of grease on process equipment and accumulation in clarifiers.

## MINIMUM MAINTENANCE

All mechanical components are removable for service above the water level.

## MINIMUM OPERATION AND ADJUSTMENT

Grit quantity and particle size are determined by a simple adjustment of air supply. Grit settling is a continuous operation, but grit removal is intermittent, depending on the quantity of grit in the waste flow. Conventional grit and grease removal systems are initiated manually, whereas the Schreiber's Grit & Grease Removal System automates removal for ease of operation and energy savings.

