

Equipment for Headworks

◇ Grit Classifiers

The Grit Classifier is used efficiently for removal of grit or other particles that settle with high sinking speed, from the inflow of the Sewage Treatment Plant. It is a simple but effective equipment for trapping the settled particles and transporting them efficiently by a shaftless spiral conveyor into the collecting skip.

Operation

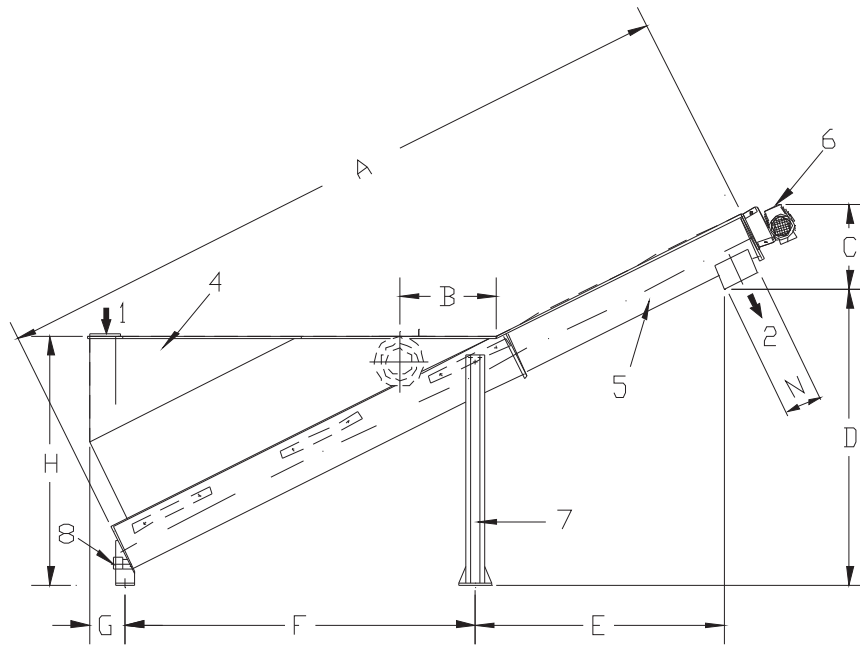
The Grit Classifier (SD) can be located adjacent to the point of collection. The Classifier is designed to receive grit and water mixture from gravity or pump rising main. The inlet (1) is specially designed to minimize turbulence of the inflow thus creating an optimum flow pattern for sedimentation to occur. The solids that settle to the bottom are elevated at extremely low speeds through a shaftless spiral housed in the trough (5) at an inclined angle. The settled grit remains in the spiral screw and dewateres itself as it gets elevated until the discharge outlet (2). The floating solids and the liquid overflow back to the main sewage channel through outlet (3).

Design Features

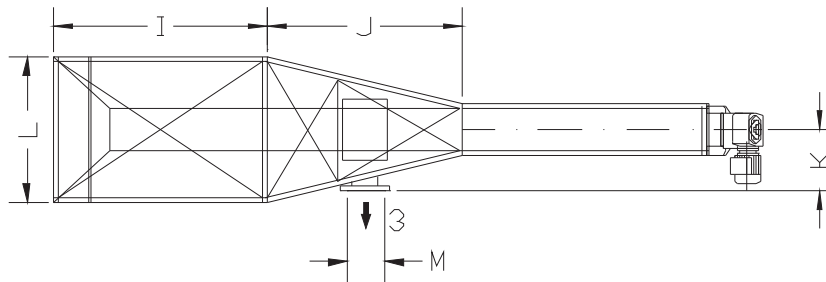
- Free standing to ease installation and system arrangement
- Fully enclosed for odour control and safety
- No lubrication is required
- Complete system to be included as a package
- No bottom bearing - thus minimizing maintenance
- Bolted lid for odour control and opening over the fluid outlet
- Delivered as a complete unit with standard support
- All metal parts except proprietary items are made from SS 304 (SS 316 available as option)
- Spirals made with special steel increasing its wear and durability characteristics (SS304/316 spirals available as options)



Typical grit classifier installation in wastewater treatment plant



- 1. Inlet
- 2. Outlet Sand-Square Opening
- 3. Outlet Fluid
- 4. Sedimentation Tank
- 5. Screw Trough
- 6. Drive Unit
- 7. Support
- 8. Drainage



Model	Sedimentation Tank (m ²)	Nominal Screw Diameter (mm)	Estimated Capacity (l/s)
SD 190/1.25	1.25	190	10
SD 285/2.1	2.10	285	20
SD 360/2.4	2.40	360	22
SD 360/3.0	3.00	360	27

Model	Dimensions (mm)													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
SD 190/1.25	4000	550	490	1510	1010	2070	206	1435	1200	1110	350	800	150	210
SD 285/2.1	4500	700	600	1860	1310	2500	180	1750	1440	1390	480	1000	200	300
SD 360/2.4	5000	700	691	1997	1700	1543	152	1800	1440	1325	500	1100	275	380
SD 360/3.0	5917	700	700	2405	1975	3153	152	2100	2020	1325	500	1100	275	380