

Vortex Clarification Grit Removal System



Solution for Sand/Grit Separation

- Low Cost & Low Energy Use
- Compact Design
- High Efficiency – Takes Full Advantage of Gravitational Settlement
- Simple, low-speed rotating paddle mechanism, easy to maintain
- 95% removal of grit greater than 250 microns in size with an S.G > 2.65
- 85% removal of grit greater than 165 microns in size with an S.G > 2.65
- 65% removal of grit greater than 125 microns in size with an S.G > 2.65
- Intake capacities from 100 m³/hour up to and including 18,000 m³/hour
- Rag free impeller
- Operate in
 - pre-cast concrete trap(by others)
 - fabricated tank in stainless steel or shot blasted painted mild steel
- Available in 270°,360° & In-line configuration



VoR Vortex Clarification System



Vortex Clarification Grit Removal System

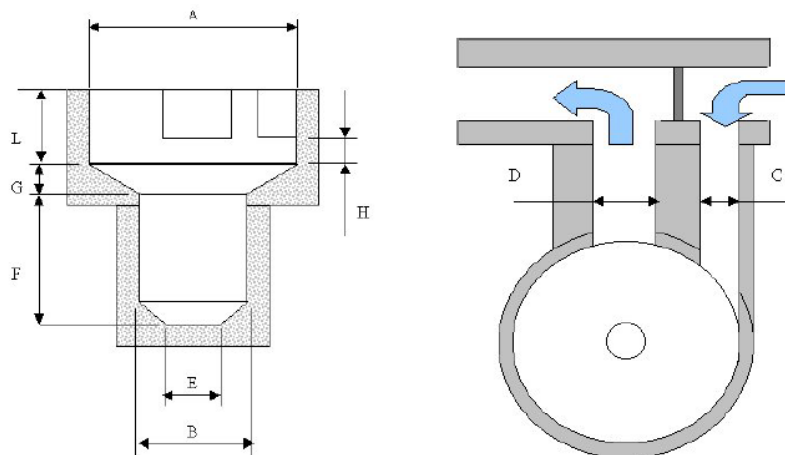
Solution for Sand/Grit Separation

A combined package of screening and grit removal is a pre-requisite of wastewater treatment to make the ongoing effluent a manageable and consistent medium entering the next phase of treatment.

The VCS grit removal system is designed to provide the highest grit removal performance possible

The 270 degree or 360 degree VCS Grit Removal System comprises a compact, circular trap located in the head works of the wastewater treatment plant. Each grit chamber comprises: geared motor driven drive head, impeller, impeller drive tube, grit pump/blower and connecting pipework to the washing/classification and dewatering plant.

The grit removal device has less than 15mm (270°) or 50mm (360°) headloss. No moving parts, subject to wear or stoppage, are sited below the water surface. An integral scouring/fluidising line is provided to clean or fluidise the grit before extraction. All drives, lubrication points and bearings are readily accessible from the walkway above the bridge level. The impeller is positioned immediately above the grit collection hopper, rotated by a drive tube to optimise velocity and maximise the removal of faecal and vegetable matter in the grit chamber



VCS Size	Maximum flow (l/s)	A (m)	B (m)	C (m)	D (m)	E (m)	F (m)	G (m)	H (m)	L (m)	J (m)
50	44	1.83	1.0	0.305	0.610	0.30	1.40	0.30	0.30	1.09	0.238
100	110	2.13	1.0	0.381	0.762	0.30	1.40	0.30	0.30	1.09	0.255
200	175	2.44	1.0	0.450	0.900	0.30	1.40	0.4	0.30	1.12	0.283
300	307	3.05	1.0	0.610	1.219	0.30	1.50	0.5	0.30	1.35	0.351
425	438	3.35	1.5	0.680	1.360	0.41	1.70	0.5	0.51	1.40	0.373
550	526	3.66	1.5	0.750	1.500	0.41	1.70	0.6	0.51	1.45	0.410
725	701	4.27	1.5	0.900	1.800	0.41	2.21	0.8	0.51	1.85	0.480
900	876	4.88	1.5	1.000	2.000	0.41	2.21	1.0	0.51	1.85	0.550
1100	1095	5.18	1.5	1.000	2.000	0.41	2.21	1.0	0.61	1.85	0.580
1300	1314	5.49	1.5	1.100	2.200	0.41	2.21	1.0	0.61	1.85	0.610
1750	1753	5.79	1.5	1.200	2.400	0.41	2.51	1.3	0.76	1.96	0.630
2000	2190	6.10	1.5	1.200	2.400	0.41	2.51	1.3	0.76	1.96	0.660
2500	3067	7.32	1.5	1.700	3.400	0.41	2.51	1.3	0.76	2.84	0.780
3500	4381	8.53	1.5	2.000	4.000	0.41	2.90	1.5	0.76	3.20	0.900
4000	5038	9.14	1.5	2.100	4.200	0.41	3.05	1.6	0.76	3.43	0.970

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