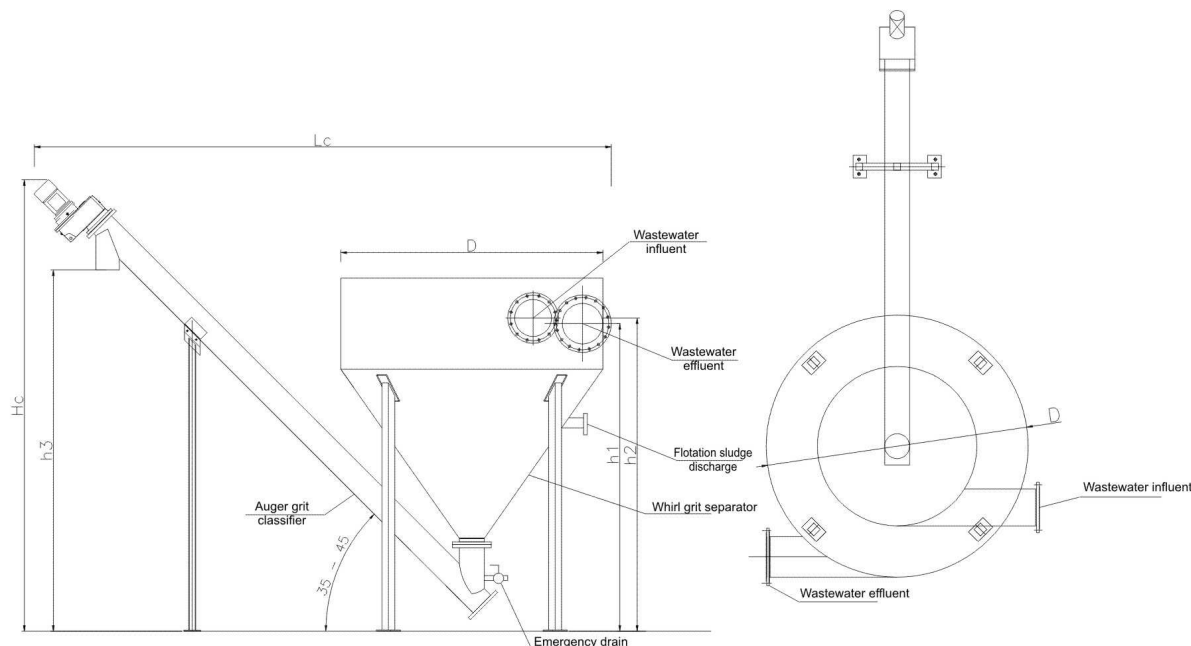




WHIRL GRIT SEPARATOR WITH CONVEYER DF PSS



SPECIFICATIONS

Parameter	Unit		PSS 1/60	PSS 2/120	PSS 3/150
Throughput	Q	m ³ /h	60	120	150
Grit separator diameter	D	mm	1300	1800	2300
Total height*	Hc	mm	2800	3540	3960
Influent height	h1	mm	1760	2490	2750
Effluent height	h2	mm	1710	2440	2700
Grit discharge height	h3	mm	1970	2755	3170
Total length*	L	mm	3470	4450	5050
Influent connection diameter	d1	mm	150	250	300
Effluent connection diameter	d2	mm	150	300	350
Flotation sludge discharge diameter	d3	mm	50	60	80
Screw conveyor driving motor power	P	kW	1,5	1,5	1,5
Compressed air demand	Zp	Nl/min	100	130	150
Volume	V	m ³	0,9	2,5	4,3
Weight of sand trap	m	kg	500	1400	1850

* for screw conveyor inclination 45°

APPLICATION

The whirl grit separator with grit classifier is a modern device designed for efficient separation of grit and mineral suspended matter from wastewater with simultaneous dewatering of the water-grit mixture and removal of flotation sludge.

CONSTRUCTION

The unit is designed as a non-pressure cylindrical vessel with an inner jacket and a lower conical grit sedimentation part. The inlet of the influent is arranged tangentially to the inner jacket to impart whirling motion of the inflowing fluid. Optionally, the grit separator can be fitted with an aeration system.

A screw conveyor integrated with grit classifier for removal of grit deposited at the bottom of the sludge funnel is integrally connected by a flange mounting at an angle 35-45° to the whirl grit separator; such a solution lowers investment and operating costs.

OPERATION PRINCIPLE

Wastewater is let in via inlet port into ring-shaped inner chamber and is made to whirl. Centrifugal force and gravity make the grit and other heavier solids lag behind and settle to the tank's bottom while the grit-free fluid overflows to outer chamber and leaves the unit for treatment in subsequent stages. Air blowers supplied aeration system (option) assists the flotation of suspended organic matter. A screw conveyor moves the deposited grit from the bottom of the tank, with the water and grit pulp being drained off by gravity, for discharge to the outside of the unit.