

## REMGRIT RGW

### Sand Washing System

#### MACHINE DESCRIPTION

The **RGW** grit washer is a system which combines a circular and conical designs with natural vortex and gravity forces; it provides the highest quality of captured grit and highest washing efficiency over a wide range of flow rates.

When influent enters the stainless steel unit, centrifugal forces create a spiraling horizontal motion to separate organics.

The water and lightweight organics discharge over an upper weir plate while grit and heavier materials settle in the conical-shaped hopper where they are agitated gently by mixer arms and washed.

Organics released during agitation and washing are collected in a capture cone and removed through the blowdown valve.

The inclined grit screw draws washed grit from the hopper and provides optimal dewatering. Discharge is typically 90% dry weight or greater, and organics are less than 5%.

#### WORKING LOGIC FOR SAND WASHING SYSTEMS RGW

The unit is made of 3 sections, each one having a different purpose:

1. **Top section of the hopper: the wastewater enters tangentially and it is set to spin in a vortex by the stirrer. The conical shape increases the centrifugal separation effect of the sand from the water.**
2. **The bottom section of the hopper is where the sand is collected and washed out by the air and water injection. The organic matter concentrate toward the center of the hopper around the mixer shaft.**
3. **The extracting screw starts running only when a certain level of sand is reached. The level is determined by the torque exerted on the stirrer and controlled by the torque limiting system. The screw extracts the washed sand and stops as soon as the sand level has dropped.**

#### MAIN FEATURES FOR SAND WASHING SYSTEMS RGW

1. Removal of sand (200 microns and 2,65 density) up to 90%.
2. Maximum organic content at 600 degC: 3% (test performed removing coarse organic particles).
3. Removal of sands with a particle size equal to or even smaller than 200 microns.
4. Treatment of wastewaters with medium flow rates of considerable importance and equivalent capacity of extraction of the sands they contain.
5. Structure of simple construction equipped with a thick screw conveyor, without a pipe, that permits withstanding wear and stresses of different type.

These machines can be requested with different accessories, one of which is the air blower system that, by blowing in air, permits moving the wastewaters in order to avoid stagnation.

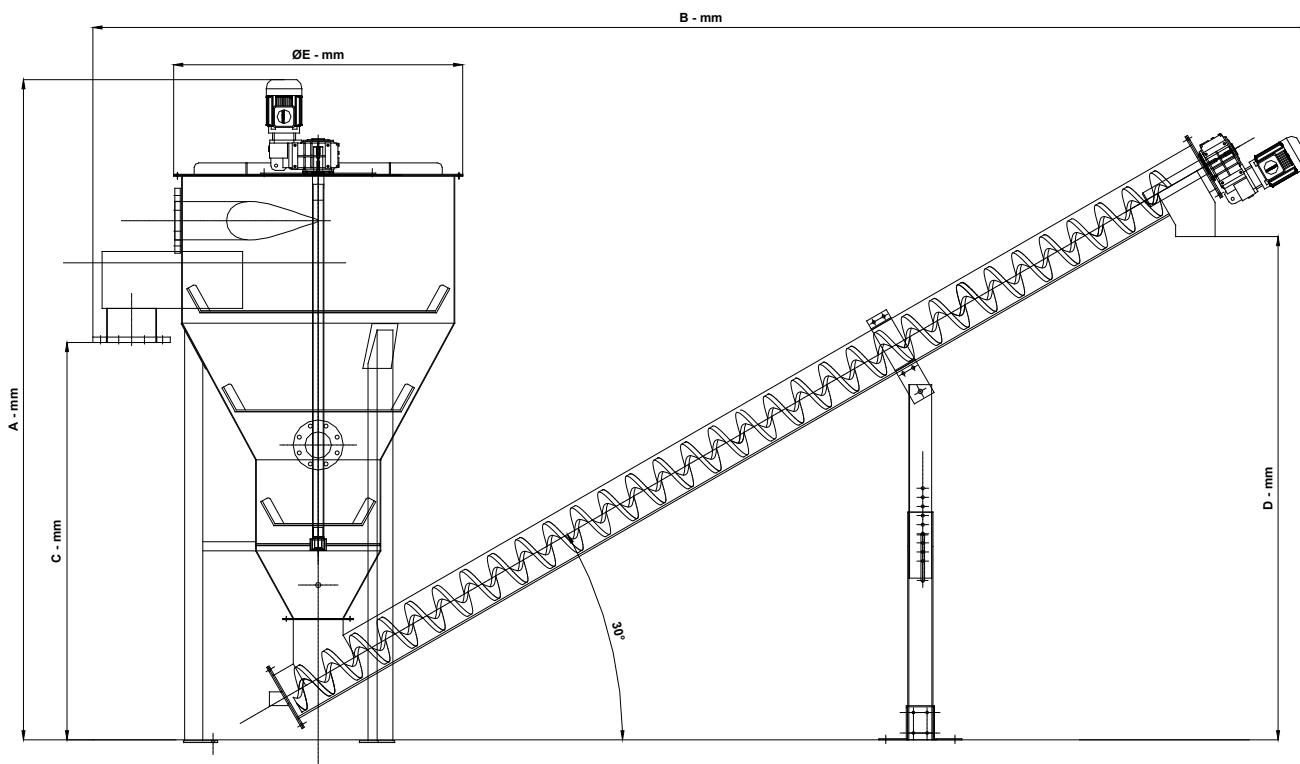


**R.E.M. RGW grit washer can be equipped with the following accessories:**

- vertical discharge.
- bagging (single or endless bag type).
- heat and weather protection.
- centralized solenoid valves and piping.
- control cabinet.
- ATEX or UL NEMA 7 EX-proof version.

**STANDARD DIMENSION DATA FOR SAND WASHING SYSTEMS RGW**

RGW MODELS	A - mm	B - mm	C - mm	D - mm	E - mm	FLOW RATE	SAND REMOVAL CAPACITY
RGW1000	2240	4109	1303	1750	1000	50 m <sup>3</sup> /h	1 m <sup>3</sup> /h
RGW2000	2900	5346	1746	2210	1270	100 m <sup>3</sup> /h	1.5 m <sup>3</sup> /h



**CAPACITY: UP TO 100 m<sup>3</sup>/h. MAXIMUM GRIT CONTENT: 1,5 m<sup>3</sup>/h**

**Materials of construction for fabricated parts:**

- \*Stainless Steel AISI304
- \*Stainless Steel AISI316

**Materials of construction of spiral:**

- \*Stainless Steel AISI304
- \*Stainless Steel AISI316
- \*High resistance steel HRS

**n.b.: the manufacturer may modify some dimensions or sizes without prior information**