

COMBY PLANTS RCS2

Compact Systems for sewage effluent pre-treatment

MACHINE DESCRIPTION

The sewage acceptance unit is a system studied to receive and mechanically pre-treat sewage with a single compact unit. The wastewater piping is connected to the **RCS2** at the inlet flange. Sewage is filtered to remove large particles, thus sand is settled and washed. The conditioned effluent is afterwards discharged into the biological wastewater treatment plant.

WORKING LOGIC FOR COMBY PLANTS RCS2

Solid large particles included in the waste are captured and removed by the inlet fine screw screen. The screw removes and compacts the screenings before discharge. Along the conveying section is installed a washing system consisting of a set of nozzles where pressurised water is sprayed into the screenings themselves.

The washing system allows to remove fecal matter from the screenings discharging a neat solid which can be landfilled without bothering of smells or leakages. At the discharge a built-in compactor is installed reducing the screenings volume by up to 50%.

Once screened the sludge enters the aerated sedimentation tank where sand deposits on the bottom of the tank, while organics are kept in suspension by the air injection.

The coarse air bubbles allow to wash out the sand and the settling of sand with a reduced organic content. The extraction screw removes and discharges the sand into the sand bin.



MAIN ADVANTAGES FOR COMBY PLANTS RCS2

1. No leaks, smells or aerosols generated by the system.
2. Designed to handle wastewater with high organic content.
3. No drives in contact with the sludge.
4. No concrete casting required.
5. Low operation and maintenance costs.
6. Low costs for installation and erection.
7. Excellent screening performance with up to 52% solids capture ratio.
8. Screening aperture: 3 to 6 mm diameter.

GENERAL DIMENSION DATA FOR COMBY PLANTS RCS2

Capacity is shown in m^3/h assuming a **6 mm** perforated screen. Compact plants are available also as extended version.

The extended version have the two conveyors elongated to allow to discharge at a higher level. This configuration is particularly designed for underground installations or in deep channels or pits. Here we provide some information of a technical nature for this type of units:

- Filtration with **6 mm** perforated screen.
- Removal and conveying of screenings to the discharge point with a single drive.
- Volume reduction of screenings up to **50%**.
- Removal of sand (200 micron or bigger) up to **90%**.
- Effective drainage of the screenings along the conveying section combined with a compaction section for more volume reduction and water removal.
- Washing of screenings performed by the REMSPRAY integrated system using **3 independent washing cycles**.

R.E.M. RCS2 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.
- by-pass with manual bar screen.

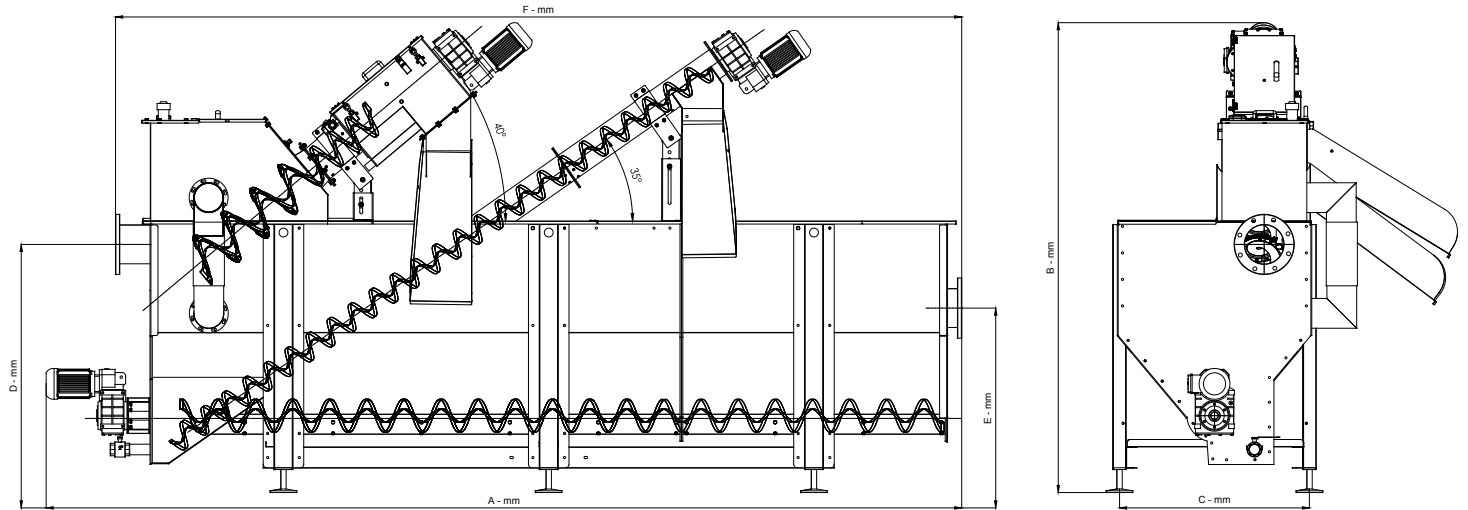
STANDARD DIMENSION DATA FOR COMBY PLANTS RCS2

RCS2 MODELS	RCS2/10	RCS2/20	RCS2/30	RCS2/40	RCS2/50	RCS2/10	RCS2/80	RCS2/100	RCS2/120	RCS2/150
A - mm	2676	3678	5178	6678	5748	6748	9748	12733	8333	9833
B - mm	2660	2656	2656	2656	4141	4141	4141	4141	4870	4870
C - mm	1074	1074	1074	1074	1429	1429	1429	1429	1930	1930
D - mm	1400	1400	1400	1400	2045	2045	2045	2045	2345	2345
E - mm	1040	1040	1040	1040	1253	1253	1253	1253	1785	1785
F - mm	2283	3285	4777	6285	5305	6295	9305	12300	7975	9475
Ø INLET / OUTLET - mm	DN100 PN10	DN200 PN10	DN200 PN10	DN200 PN10	DN300 PN10	DN300 PN10	DN300 PN10	DN400 PN10	DN500 PN10	DN500 PN10
FLOWRATES - m ³ /h	36	72	108	144	180	216	288	360	432	540

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

Materials of construction for fabricated parts: Stainless Steel AISI304 / Stainless Steel AISI316

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IMPORTANT THE DESIGN IS TAILORED FOR THE APPLICATION AND MAY BE MODIFIED DEPENDING ON CUSTOMER'S NEEDS.

