

Combined Mechanical Treatment Module M-COMBY

Solution for those who prefer functionality

M-COMBY the most useful and complex solution for mechanical wastewater treatment for plants of small and medium capacities. It's a compact module which provides all pretreatment stages and ensures the effective removal of waste, sand and grease from wastewater.



High capacity and efficiency of wastewater treatment;



Simple installation and operation;



Reliable design along with high-quality components;



Low capital and operational expenses;

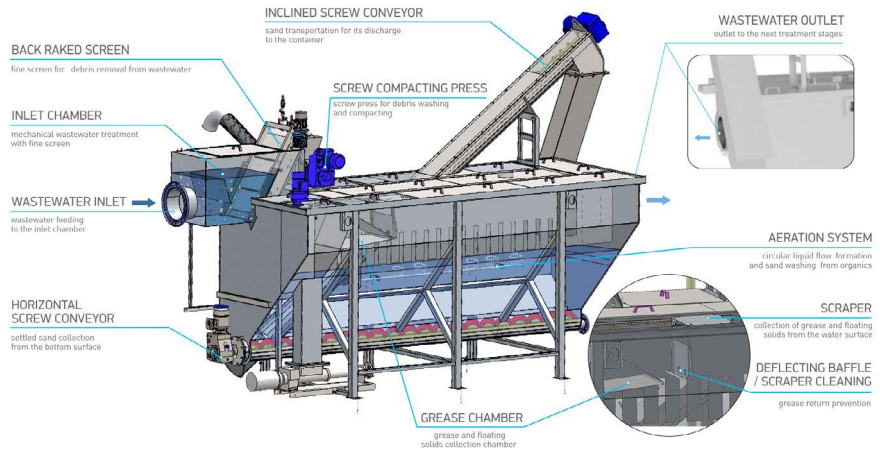


The best combination of capacity and occupied space.

ONE OF THE ADVANTAGES OF THE M-COMBY IS ADJUSTABILITY TO VARIOUS WASTEWATER COMPOSITION AS WELL AS FOR SPECIFIC INSTALLATION AND OPERATION CONDITIONS

M-COMBY UNIT IS A RELIABLE AND COMPACT EQUIPMENT FOR MECHANICAL TREATMENT CAPABLE OF SOLVING SEVERAL TASKS:

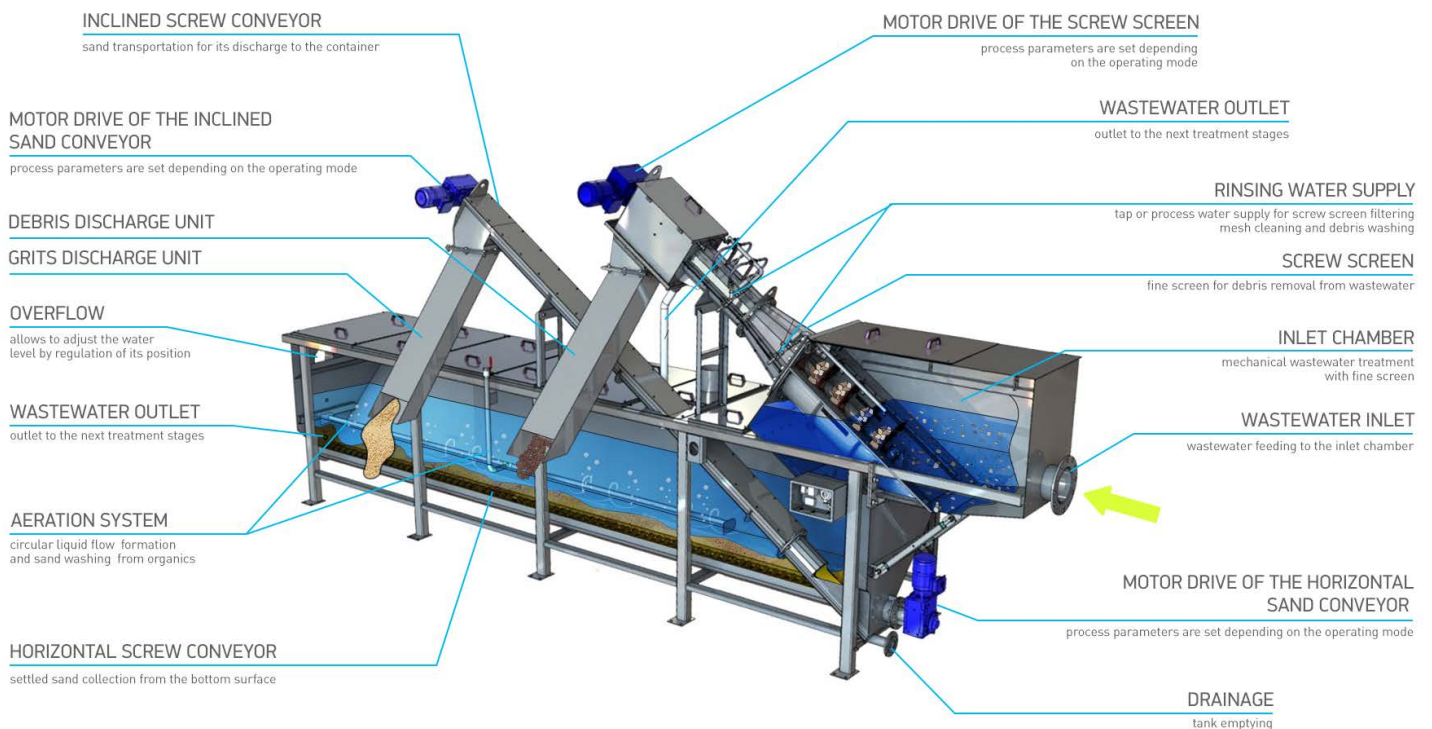
- » fine mechanical wastewater treatment;
- » waste washing and dewatering;
- » sand removal and washing;
- » sand dewatering and discharge;
- » collection and removal of floating substances, grease.



HIGH EFFICIENCY OF OUR EQUIPMENT PROVES ITS QUALITY.

Combined Mechanical Treatment Module M-COMBY has the best design for mechanical treatment, sand and grease removal from wastewater.

IF YOU ARE LOOKING INTO THE FUTURE AND APPRECIATE RELIABLE AND ADVANCED ENGINEERING SOLUTIONS, M-COMBY EQUIPMENT IS JUST FOR YOU!



GRIT CHAMBER UNIT PROVIDES AUTOMATIC OPERATION, DEBRIS WASHING FROM ORGANIC COMPOUNDS, COMPACTING AND DISCHARGING.

HOW DOES CONTAMINANTS TREATMENT AND REMOVAL WORK?

» DEBRIS

Wastewater enters to inlet chamber, where the first stage of treatment is going on fine screen. Debris from fine screen after washing and compacting come in to the discharge zone.

» GRIT

Wastewater after screen come in to the horizontal grit chamber. Due to aeration system, grit washing and sedimentation process is going on. Settled grit moves against to the movement of wastewater by a horizontal screw conveyor to the accumulation chamber, dewatered and discharged by an inclined screw conveyor.

» GREASE AND FLOATING SOLIDS

Floating solids and grease accumulates in the collection section, and after that removed from the water surface by the scraper to the outlet grease chamber, and discharge by pump.

MIND TECHNOLOGY - DESIGN AND FUNCTIONALITY:

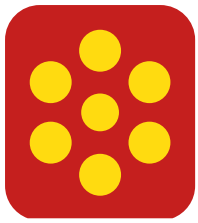
M-COMBY can be used as a local mechanical wastewater treatment unit at the pumping stations as well as preliminary wastewater treatment stage at treatment plants.

M-COMBY IS A READY-TO-USE ALL-IN-ONE MECHANICAL TREATMENT UNIT, WHICH INCLUDES:

- » fine screen (rake bar or screw screen);
- » a unit for debris washing and compacting;
- » aerated grit chamber with covering;
- » scraper for grease collection and removal;
- » horizontal screw conveyor for sand removal;
- » inclined screw conveyor for sand discharging.

EVIDENT BENEFITS OF USING M-COMBY

- » Whole complex of equipment for mechanical treatment integrated into one unit: fine screening, aerated grit chamber, grease collecting chamber, debris washing and compacting.
- » Compact design leads to significant capital costs reduction for new WWTPs or during reconstruction of existing treatment facilities.
- » Debris or grit could be implement into containers, which located near each of units. As well as in conveyors, which collect debris and grit from several units and transportation them to the accumulation zone. It allows to reduce the required floor space.
- » High wastewater treatment efficiency. Volumes reducing of water-insoluble effluence to 50% of the initial volume, depending on their type.
- » Debris and grit washing system prevents their decay and odors formation.
- » The control system allows to operate the complex both in manual and automatic modes. Operating modes and parameters are intuitive and can be easily adjusted.
- » High adaptive functionality. Equipment can be produced in the basic type and in the modified one, depending on the project requirements and mechanical treatment conditions or grit removal calculations.
- » The design of the unit is convenient for carrying out preventive maintenance and replacing wearing parts.
- » Due to the high automatization level equipment not need high operation attention, which allows reduce operating costs.



WHY M-COMBY CAN BE USED A LONG TIME?

A long lifespan of the equipment is achieved by the use of SS AISI 304, 316, 321. The use of high-quality materials and modern process of stainless steel surface treatment with robotic welding lines guarantees reliability and durability of the equipment.

WHAT CAN WE OFFER YOU ADDITIONALLY?

- » Possibility of equipment condition data transmission in the control system of top upper level of automation and remote control.
- » Unit may include:
 - » blower;
 - » pump for grease and floating solids;
 - » ventilation connection pipes;
 - » bypass manual fine screen.
- » For different kind of request, we can provide special proposal and parameters of the requested combined unit would be suitable for the working conditions of specific site.

General technical characteristics of M-COMBY

Parameter	Value
Nominal capacity	18-1200 m ³ /hour
Bar spacing	3...6 mm
Sand separation efficiency for particles > 0,20 mm	up to 95 %
Dry solids content in debris	up to 45 %
Waste volume reduction	up to 50 %
Waste weight reduction	up to 60 %
Outlet sand humidity	down to 10 %
Installed power	0.9-8 kW
Air consumption for aeration	10-80 m ³ /hour

Dimensions	
Height	2 300...5 500 mm
Width	850...2 300 mm
Length	2 900...21 000 mm



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