

TASK

Fine screenings and sand separation of wastewater for municipal or industrial wastewater treatment plants, in the form of a single complete package inlet unit.

SOLUTION

The JOHNSON SCREENS® Combined System M2 replaces the conventional inlet sewage in the wastewater treatment plant. The M2 range of combined treatment systems integrates screening and grit separation all within a single package unit. The JOHNSON SCREENS® Combined System M2 is suitable for wastewater treatment plants with limited installation area.

FUNCTION

Pumped or by gravity the wastewater enters in the screen section where gross solids are removed from the effluent, washed, compacted, and dewatered prior to being discharged into a container. The screened effluent then discharges into a hopper section where grit and sand sedimentation are included. The grit is conveyed by a spiral screw and can be further washed prior to disposal into a container.

PERFORMANCE

Combined System M2 Type	M2 30	M2 80	M2 100	M2 130
max. flow rate (I/s)	8	22	28	36

MATERIALS

Tanks, casing, covers, supports and wearing liners: Spirals:

stainless steel AISI 304L or AISI 316L special Micro Alloy Steel St52 (carbon steel in accordance with JOHNSON SCREENS® standard), alternatively AISI 304L or AISI 316L

BILFINGER WATER TECHNOLOGIES

JOHNSON SCREENS® Combined System M2

BENEFITS

- Mechanical pre-treatment within a low footprint
- Low requirements for civil engineering
- High capture rate for solids
- Complete hygienic and stainless steel encapsulation
- Quick and easy installation
- High operational reliability:
 - no pigtailing or clogging due to the shaftless spiral
- no pressing of screenings through the sieve surface
- Pressing zone requires no service water
- Low wear and tear due to low rotational speed
- Reliable, automatic self-cleaning operation



WATER TECHNOLOGIES

OPTIONS

- Screen panel is made of perforated plate (2-10 mm) or wedge wire (0.25-6 mm)
- Manual or automatic flushing of screen and transport zone
- Bypass with tank and manual rake or flanged pipe
- Control panel with level indicator
- Integrated aerator pipe for improved separation of light floating matter
- Wear bars made of Hardox material
- Heating and insulation for outdoor installation/winter operations
- Washing system type FILWASH to reduce organic matter
- Continuous bagging system
- "Perrot" connection with automatic valve to receive tanker imported sludge

APPLICATIONS AND FIELDS OF OPERATION

The JOHNSON SCREENS® Combined System M2 is suitable for screening and grit removal and can be employed in municipal or industrial wastewater treatment plants.

LINIOUE FEATURES

All the main parts of the unit are bolted to ensure a fast and easy maintenance. Subdivided cleaning brushes guarantee an easy and fast exchange. Machine supplied with safety microswitches to prevent possible accidents during operation.



Combined System M2 municipal wastewater treatment plant application



Combined System M2 for tanker imported sludge

Water Technologies

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