



Archimedes screw rotor for waste water - 21402



Specifications

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- Material: Carbon steel 1.0570/S-355
- Outer diameter: 1094 mm.
- Length: 12825 mm
- Inner diameter: 711 mm
- Pitch: 880 mm
- Double threaded
- Placed in an angle of 38° with a lifting height of app. 7900 mm
- Flights are manufactured in 180° segments in 8 mm thickness
- Coated with epoxy - Sigmashield 880

In this project BEMA decided to manufacture the screw flights in 180° instead of 360° to save material. The time to mount and weld 180° flight segments is longer compared to screw flights in 360°. This consideration becomes relevant when the diameter of the screw rotor increases.

Additional Information:

Product type:	Screw rotor
Industry:	Waste handling
Transported material:	Bulk material
Applied steel in product:	Carbon steel
Surface treatment:	Carbon steel – painted



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Short Description

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3 pcs. Archimedean hydrodynamic screw rotors manufactured for a wastewater treatment plant for renovation over a period of 2 year. This is the classical application for the Archimedes screw rotor invented by Archimedes in the Ancient time. The screw auger is designed to lift water from in-take of the treatment plant to the level where the cleaning process begins.

Why using an Archimedes screw rotor for waste water?

1. The hydrodynamic screw rotor has only one moving part
2. It can lift a large amount of water
3. It is not sensitive to foreign elements like tree branches, sand and other parts going out with sludge water

Other applications for Archimedes screw rotors:

1. Hydro power plants
 2. Lock installations
 3. Installation where you want to lift large amount of water in a fast and easy way
- In this project BEMA has delivered the screw rotor to a cooperation company which renovated the complete installation. BEMA has assisted in measuring the old screw rotor and manufactured the replacement Archimedes screw rotors together with different wear parts. Depending on the actual situation, BEMA can undertake different tasks of the whole renovation project. **See similar example of this type of project.**