



# Archimedean screw rotors complete installation - 26161



## Specifications

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- Material: Carbon steel 1.0570/S-355
- Length: 11.000 mm.
- Outer diameter: 1500 mm.
- Inner diameter: 711 mm.
- Pitch: 1200 mm.
- Triple threaded
- Placed in an angle of 35° with a lifting height of app. 6300 mm
- The application works with 3 identical screws placed in parallel
- Flights are manufactured in 360° segments in 8 mm thickness
- Coated with epoxy - Sigmashield 880

#### Additional Information:

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



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## Short Description

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3 pcs. Archimedean hydrodynamic screw rotors manufactured for a wastewater treatment plant. This type of screw rotor is the classical understanding of the screw auger invented by Archimedes in the Ancient time. The screw auger is designed to lift water from one level to a higher level.

This project is an example of a renovation project where 3 worn out Archimedean hydrodynamic screw rotors have been replaced by new ones together with a renovation of the concrete around them.

## What is the advantages to use an Archimedean screw rotor?

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

The design of this type of screw rotor is very well described in the book "Wasser Föderschnecken – Planung, Bau und Betrieb von Wasserhebeanlagen" written by Gerhard Nagel and Karl-August Radlik. The book can be used by all engineers working with this type of installation for waste watertreatment plants.

In BEMA we can help by manufacturing the screw rotor.

In this project BEMA has undertaken a complete installation by:

- Removal of the old worn out screw rotors
- Renovation of the bottom bearings
- Installation of new screw rotors
- Renovation of the concrete beneath the screw rotors
- Installation of new gear boxes
- Installation of a new lubricating system for the bottom bearings

The job has been performed in 10 weeks from the received order. See similar screw rotor [here](#)