Spiral sand water separator

Purpose and introduction

HSF spiral sand water separator is used in the grit chamber of sewage treatment plant to separate the sand water mixture discharged from the grit chamber.

Structure and working principle:

HSF sand water separator is composed of shaftless screw, lining strip, U-shaped groove, water tank, deflector and driving device.

Working process: the sand water mixed liquid is input into the water tank from the top of the separator end. The medium and heavy mixed liquid, such as sand particles, will be deposited at the bottom of the U-shaped groove. Driven by the screw, the sand particles will lift along the inclined U-shaped groove bottom and continue to move for a certain distance after leaving the liquid level. After the sand particles are fully dewatered, they will be discharged to the sand bucket through the sand discharge port, The water separated from sand is discharged from the overflow port and sent to the inlet pool in the plant.

Characteristic:

a. The separation efficiency can be as high as 90-98%, and particles with particle size ⩾ 0.2mm can be separated.
b. It adopts shaftless screw and anhydrous middle bearing, which is convenient for maintenance.
c. Compact structure and light weight.
d. The reducer, the key part of the new transmission device, is an advanced shaft mounted type without coupling, which is convenient for installation and alignment.
e. The lining strip is of quick installation type, which is easy to replace.
f. The axial position of the screw is adjustable, which is convenient to adjust the safety gap between its tail end and the box wall.

Main technical parameters:

Model	HSF-320	HSF-360	HSF-420
Processing capacityL/S	15-20	20-27	27-35
Motor power (kw)	0.37	0.75	0.75
Speed (r/min)	5.2		