

GRIT REMOVAL

DETRITOR & CLASSIFIER MECHANISM

INTRODUCTION

Grit removal consists of two essential elements - a grit collecting mechanism and a grit washing mechanism. Each operates independently but in hydraulic communication with one another.

The removal of grit is essential to: -

- Protect downstream moving mechanical equipment from abrasion and accompanying wear.
- Reduce formation of heavy deposits in pipelines, channels and conduits.

MECHANISM

The detritor is a continuous flow tank in which the grit settles due to gravity and the water overflows through the outlet weirs on the opposite side.

The settled grit is scraped by means of a scraper mechanism towards the openings in the bottom of the sidewall.

The collection chamber works on velocity principle and is so designed that only grit settles whilst the organic matter overflows.

The classifier mechanism consists of a reciprocating rake driven via a motorised gearbox.

The collected grit is thoroughly washed and is delivered from the top of the reciprocating classifier through a chute for disposal.

Washed organic liquor, lying in the classifier, is returned back to the detritor collection chamber via the organic return pump/mixer



Reciprocating Classifier Mechanism



Scraper Mechanism

APPLICATIONS

Part of the primary treatment process, grit removal is an essential part of sewage and wastewater applications

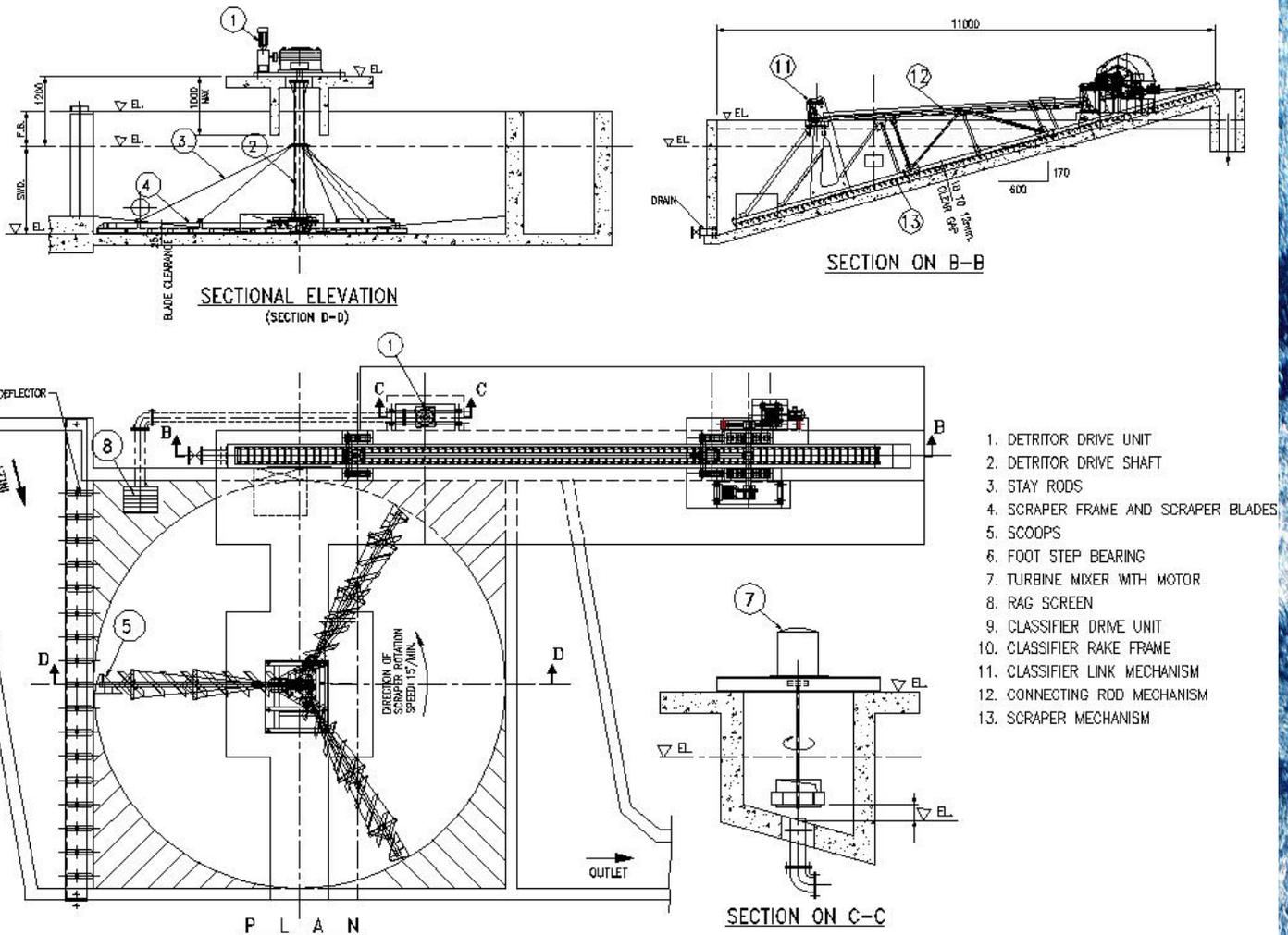
PERFORMANCE

With an efficiency of 90%, these grit removal systems are ideal for sand and grit particles with a SG around 2.65

CONSTRUCTION MATERIALS

The underwater parts are available as:

- Epoxy Coated Mild Steel
- Galvanised Mild Steel
- Stainless Steel 304
- Stainless Steel 316



Sectional views of a typical Detritor Classifier Mechanism

DETRITOR/CLASSIFIER SPECIAL FEATURES

- The classifier has no bearings or moving parts under water, resulting in minimal maintenance with good accessibility to the equipment.
- Turning vanes at the inlet streamlines the flow across the tank.
- Protects downstream equipment from grit damage/abrasion
- Proven system with numerous reference installations

Equipment manufactured in partnership with Voltas Ltd. (part of the TATA Group of Companies, India)

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