FKC America Inc.

FKC ROTARY SCREEN THICKENER

USER'S MANUAL

GENERAL DESCRIPTION

The FKC Rotary Screen Thickener (R S T) is designed to separate large volumes of free water from relatively dilute solutions of suspended materials. The feed to the Rotary Screen Thickener is normally in the range of 1.5 to 4% and the outlet is normally in the range of 7 to 12%. The RST is used ahead of the FKC Screw Press, page 2, Fig 1, because the Screw Press is a positive displacement device and its capacity can become limited if the material in the feed is too low in solids.

The feed to most dewatering systems is in the range of 1-5%. Most of us say that's a 4% difference, but really there is about a 400% difference in the total volume of sludge when we consider the liquid and solids. In these ranges what looks like a small difference in solids concentration is actually a large difference in total volume that has to go through any dewatering device. If the dewatering system is to work well and in a predictable way it is necessary to consider these parameters when designing the system. The chart on page 3, Fig 2, will provide some visual idea of how these volumes change in various ranges.

The FKC Rotary Screen Thickener comes in various sizes that are matched to the material and capacity that will be dewatered. The basic module of construction is the Drum Cylinder which is made into single cylinder machines and double cylinder machines. The model numbers and sizes are as follow:

A) RSTS 630x3000: Single cylinder 3 meters long pg.4 fig 3

B) RSTW 630x3000: Double cylinder 3 meters long pg.5 fig 4

C) RSTW 630x4000: Double cylinder 4 meters long pg.6 fig 5