



CROWN
MACHINERY



DECANTER CENTRIFUGE SERIES



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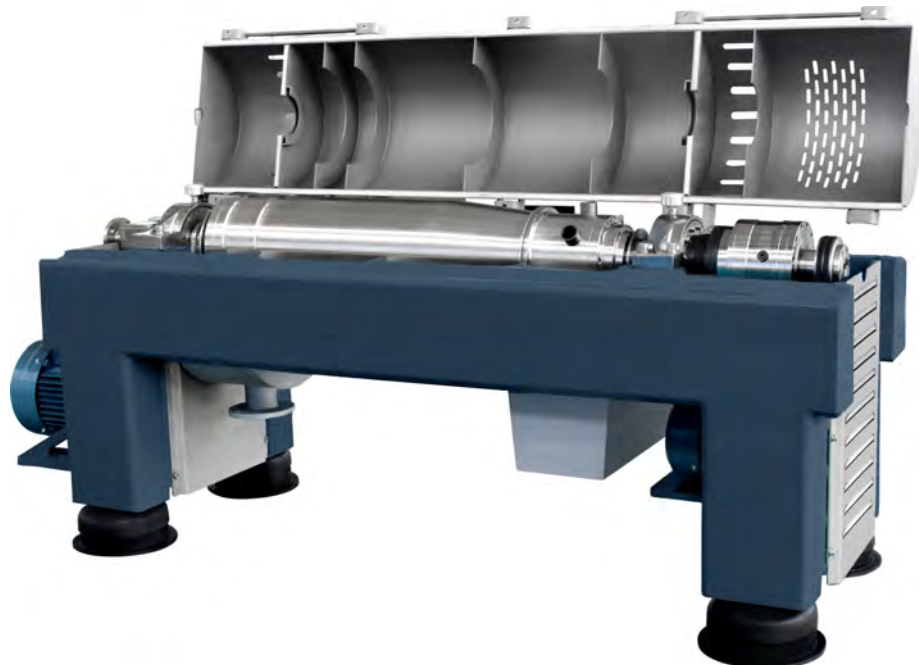
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Introduction

Scroll Discharge Decanter Centrifuge

The decanter centrifuge made by Crown Machinery Co apply for clarification process, dehydration process, classify the suspension of solid particles. Suitable for industrial production, high solid content material.

To obtain optimum results, decanter centrifuge require special design of bowl or adding extra parts to suit a specific separation process.



Characteristic of Decanter Centrifuge:

- Clarification of liquids
- De-watering of sludges and suspensions
- Thickening of sludges
- Separation of three-phase mixtures, i.e. two immiscible liquid phases and a solid phase
- Classification of solids in a suspension according to particlesize (wet classification)
- Sorting of solids by density

Decanter Centrifuge Specification

Series HDS/HDC

Parm/Model	250*1000	355*1460	450*1800	500*2000	550*2200	650*2800
Bowl Dia. (mm)	250	355	450	500	550	450
Bowl Length (mm)	1000	1460	1800	2000	2200	2800
L&D Ratio	1:4.0	1:4.1	1:4.0	1:4.0	1:4.0	1:4.3
Bowl Speed (r/rim)	4800	3800	3500	2500	2400	2400
Throughput (m³/h)	1~5	1~20	3~35	5~35	5~40	20~110
Motor power (kW)	Main motor 11 Vice motor 4	Main motor 15 Vice motor 7.5	Main motor 37 Vice motor 11	Main motor 45 Vice motor 15	Main motor 55 Vice motor 22	Main motor 75 Vice motor 22
Weight (kg)	1500	2500	3200	3500	3500	8500
Dimension L*W*H (mm)	2400*750*960	2790*1300*880	3300*1600*920	3469*1600*1120	4395*1370*1655	4300*1900*1350

* Throughput indicate the water output and it may change depending on the dealing material and configuration

HDS : Three Phase HDC : Two Phase

TYPICAL APPLICATIONS



Washing & Dehydration of Starch



Purification & Dehydration of Fruit Fiber



Classification & Dehydration of Dyes & Pigments



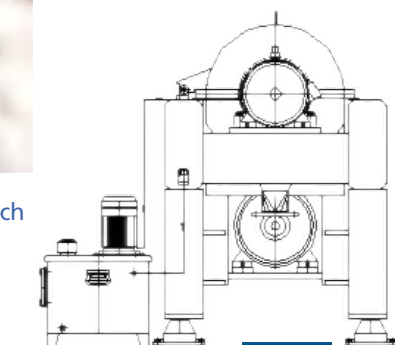
Dehydration of Soybean wheat protein



Separation & Purification of Coal Tar



Classification & Dehydration of Starch



Figure

Scroll discharge Decanter Centrifuge

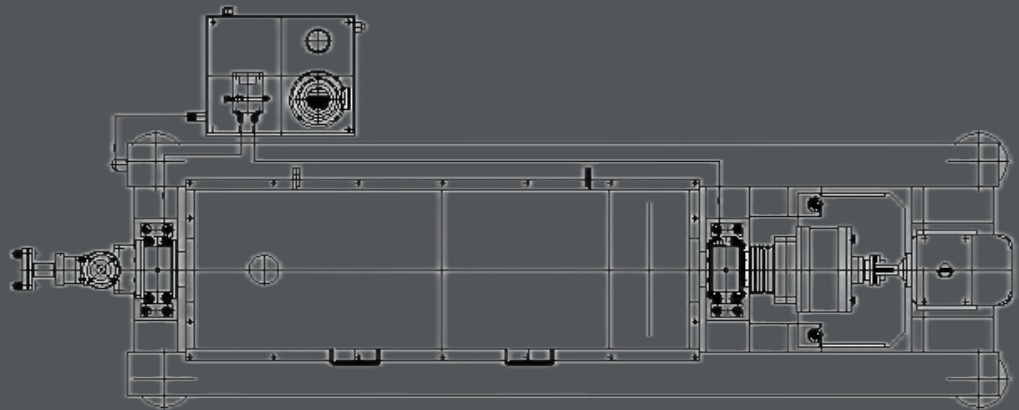
Type

Three phase classification

Front

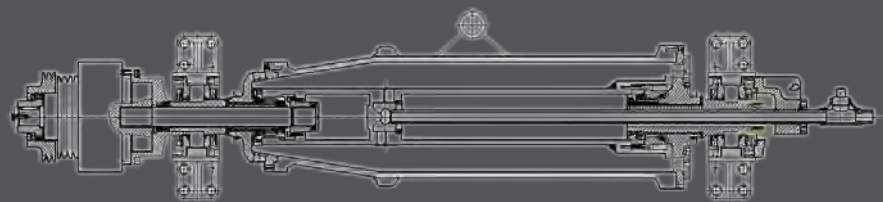


Overhead



Scroll discharge Decanter Centrifuge

Bowl



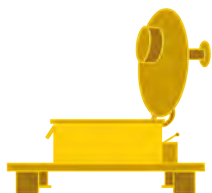
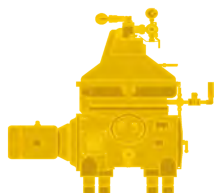
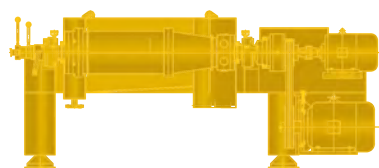
Working Principle

- Bowl of the centrifuge is cylindrical, and one end has a conical shape, By through high-speed rotation, generates the centrifugal force that required for material separation process. In the bowl, there is a screw presser apply for continuous discharge of sediment, which is filled on the inner surface of bowl wall. The screw presser rotates at a speed higher than of bowl housing, which is determined by drive end of bowl and gearbox of differential.
- Raw material enter the separation area inside the bowl through a fixed feeding pipe. In separation zone, the material will form a deposition layer and a liquid layer under the centrifugal force. The screw presser scrapes the deposition layer from the wall and discharges at discharging port through at conical end (also known as "drying area") of bowl. The separated liquid phase flow to cylinder end of bowl and is through the overflow plate under the action of centrifugal force.



CATALOGUE

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