



CROWN
MACHINERY



Crown Machinery Enterprise Introduction

Crown Machinery Inc. is a modern innovative high-tech centrifuge R&D and manufacture enterprise with four main branches in global work located in USA , South Korea, Philippine and China. Adhering to the concept of quality is the enterprise life, innovation is the driving force for the development, Conform to the trend of the development of modern industry, Fusion concept of global economic integration, Creative thinking, Integrate liquid separation processing industry leading enterprise in the upstream and downstream resources; Gather technical force; Together with the power of the global enterprise for business purposes; Dedicated to supply the clients complete separation solution.

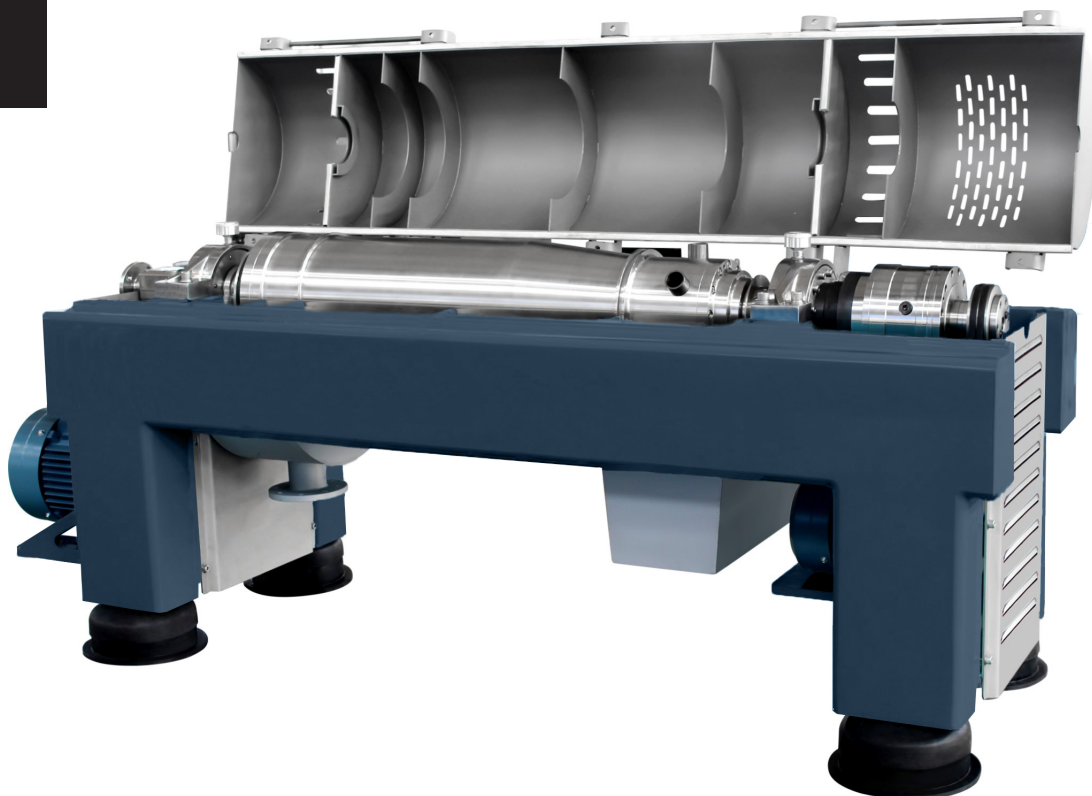
Our company assemble a number of skillful, talented professionals, introduction advanced of international centrifuge technology with 30 years experiences of the development and design, through adopting international advanced management method, we have developed very professional separator and centrifuge for edible oil , pharmaceutical , chemical , waste project and various liquid industry. Until now we have accumulated more than 500 clients in global world market and get wide good feedback for our products and service, as our enterprise name "Crown Machinery" described we would like to supply the products like the crown quality and service.

Nowadays, our USA branch mainly forwards the waste-water market; Manila branch mainly prompts the coconut products machinery in Asia-Pacific market; Our Korean branch also named the Hanil Science Medical Co.,Ltd. is focusing on the Bio-tech and Bio-pharmaceutical market; And Liaoyang Crown Machinery Co.,Ltd. in China works as the head-quarter of four branches to serve the machinery selection, sale, technology support and after-service job.

Up to now, we have successfully introduced many clients' final products such as coconut oil into Chinese market to achieve a mutually beneficial win-win situation. We do hope serving the client not only the products but also the wonderful experience to cooperate with us.

Welcome to contact and visit us.





DECANTER CENTRIFUGE

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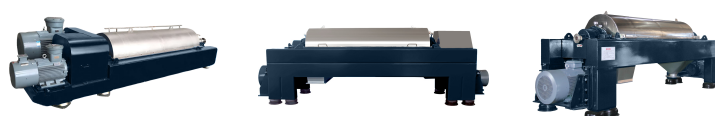
In many processes, the mechanical separation has a decisive influence on product quality, production efficiency and environmental impacts. Mechanical separation processes are found in practically all industrial sectors, including but not limited to food, chemical, pharmaceutical, biotech, mineral, and environmental processing.

To obtain optimum results, solid bowl of decanter centrifuge require special design to suit specific separation process.

The following basic process operations are possible using solid bowl decanter centrifuges:

- Clarification of liquids
- Dewatering 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 particle size (wet classification)
- Sorting of solids by density

Crown Machinery meets the needs of the vast range of applications by offering a variety of basic designs, such as the decanter, separator etc. Solid bowl centrifuges are used in most areas of mechanical liquid-solid separation.





TYPICAL APPLICATIONS

Vegetable / Food / Animal Raw Materials

- Algae
- Animal fat
- Blood
- Brewer's yeast
- Biodiesel
- Bioethanol
- Biogas
- Casein
- Cellulose derivatives
- Coffee
- Fermentation products
- Fish meal
- Fish oil
- Fish pump water
- Fleshings
- Fruit juice
- Gelatin
- Kieselguhr
- Lactose
- Lignin
- Meat
- Molasses
- Pectin
- Potato
- Protein
- Sorbose
- Soy protein
- Spent grains
- Starch
- Stillage
- Surimi
- Vegetable extracts
- Vegetable juice
- Vegetable oils
- Vitamins
- Wine/must

Chemical / Pharmaceutical Products

- Aluminium hydroxide
- Barium sulphate
- Basic dyes
- Calcium fluoride
- Calcium sulphate
- Color pigments
- Cryolite
- Dimethylterephthalate (DMT)
- Epoxy resin
- Fluorescents
- Iron oxide
- Latex
- Lead oxide
- Phosphate compounds
- Phosphoric acid
- Plastic derivatives/additives
- Polyethylene (HDPE)
- Polypropylene
- Polystyrene
- PVC
- Salts
- Silicate
- Sodium chloride
- Titanium dioxide
- Tricalcium phosphate
- Zinc carbonate
- Zinc oxide
- Zinc sulfate

Mineral Oils

- Tar cleaning
- Oil sludge
- Slop oil treatment

Minerals

- Bauxite
- Bentonite
- Calcium carbonate
- Carbide sludge
- Clay
- Copper extraction
- Graphite
- Gypsum
- Iron hydroxide
- Kaolin
- Magnesium hydroxide
- Mica
- Silica
- Silicium
- Silicon carbide

Environmental Protection/ Recycling

- Drilling mud
- Industrial wastewater
- Manure
- Municipal wastewater
- Organic waste
- Paint sludge
- Plastic sorting
- Sand and gravel wash water
- Steelwork sludge





HDS & HDC series Decanter Centrifuge General Description

Based on the more 30 years separator technics experience, we have developed and advanced the previous centrifuge and separator.

When separator operation is no longer feasible due to high proportions of solids in the suspension to be processed, decanter centrifuge is used, a horizontal, solids-oriented, solid-wall scroll centrifuges.

The solid bowl decanter centrifuge consists of two horizontal concentric rotating elements contained in a stationary casing. The outer rotating bowl element is tapered so that the solids discharge from a smaller radius than the liquor. The inner element is a hollow hub screw conveyor with blade tips shaped to fit closely to the contour of the bowl.

Advantage and Benefits to Choice Decanter Centrifuge

- ✓ Low Cake Moisture
- ✓ Compact design and requires
- ✓ low space Low operation cost
- ✓ High dewatering and filtration
- ✓ Capacity Low required space

Decanter Centrifuge Main Parameter

Model	300 x 1350	355 x 1600	450 x 1800	520 x 2200	650 x 2000	800×2000
Bowl Dia. (mm)	300	350	450	520	650	800
Through-put Capacity (L/H)	1000-3000	3000-5000	5000-10000	10000-20000	20000-30000	20000-50000
Bowl Length Dia.(mm)	1350	1600	1800	2200	2000	2000
L&D Ratio	1:4.5	1:4.5	1:4.0	1:4.2	1:3.1	1:2.5
Bowl Speed (r/min)	4200	3800	3200	3000	2000	1800
Separation Factor	3000G	2868G	2575G	2620G	1454G	1450G
Screw Differential (r/min)	5-30 Stepless Adjustable	2-20 Stepless Adjustable	4-28 Stepless Adjustable	5-25 Stepless Adjustable	5-25 Stepless Adjustable	5-25 Stepless Adjustable
Motor (kw)	Main Motor11 Vice4	Main Motor15 Vice7.5	Main Motor30 Vice11	Main Motor45 Vice15	Main Motor75 Vice30	Main Motor90 Vice22
Noise db(A)	≤85	≤85	≤85	≤85	≤85	≤85

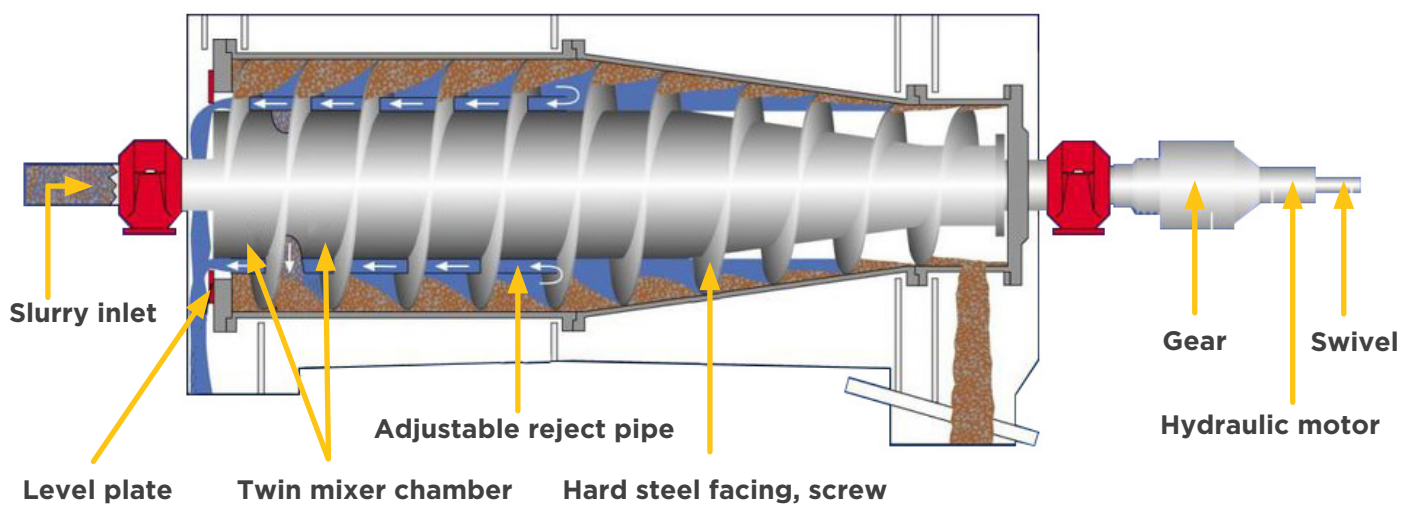
*Actual production capacity base on the raw materials.





Decanter Centrifuge Separation Principle

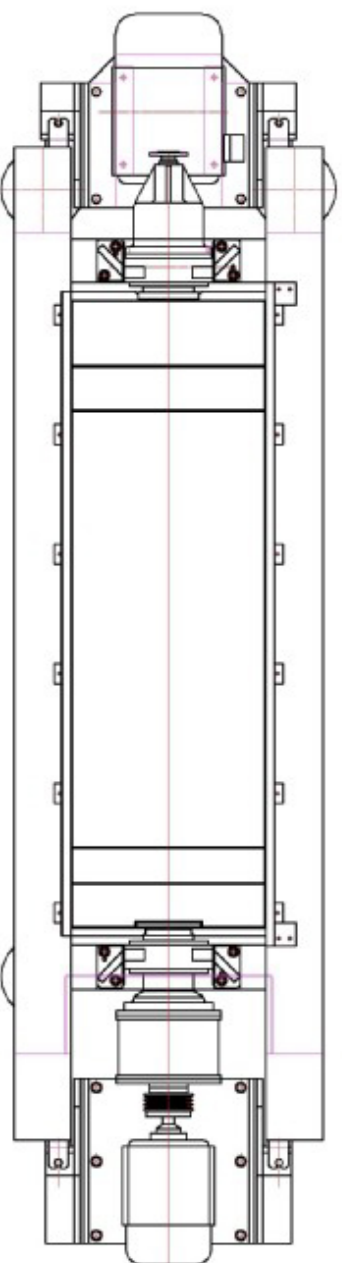
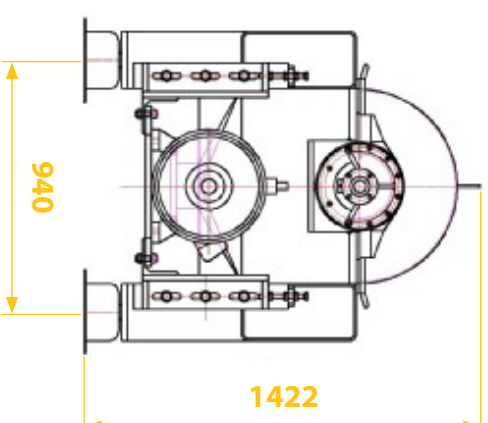
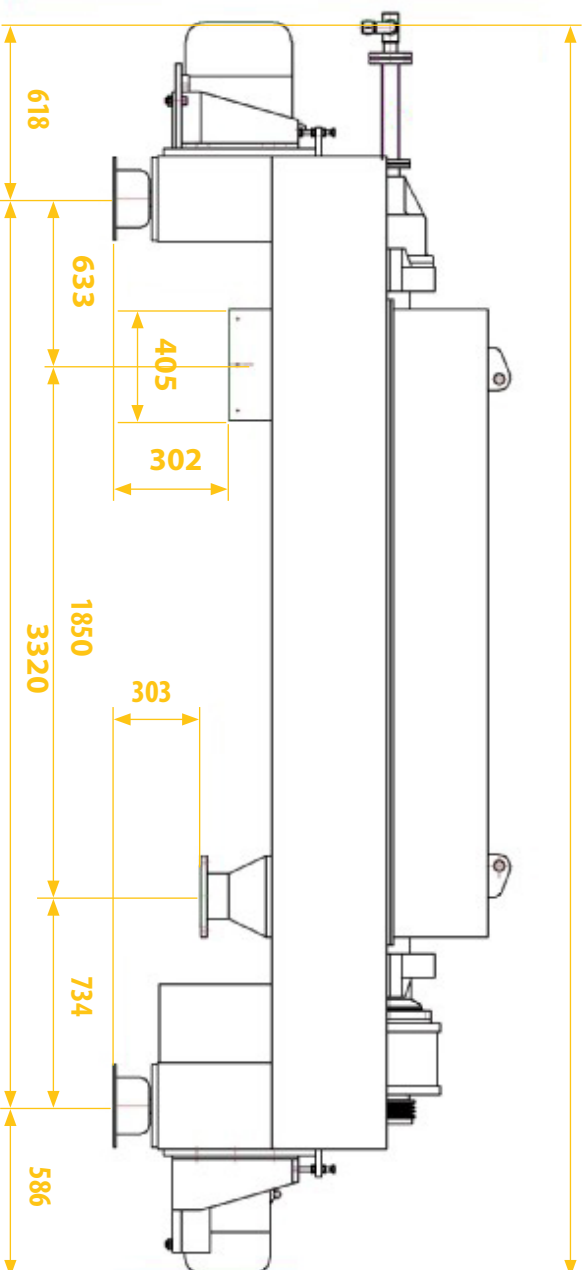
1. Feed slurry is introduced into the conveyor hub. As the feed accelerates to the machine speed, the slurry is delivered by centrifugal force into the rotating bowl by way of ports in the conveyor hub.
2. The solids settle through the liquid pool formed on the wall of the bowl. The solids are then conveyed, due to a slight differential between the screw conveyor and bowl, up the drying beach to the solids discharge ports.
3. The clarified liquors are discharge in the opposite direction from adjustable overflow ports.





Decanter Centrifuge Out-shape

4460





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