

- Compact machine design & Easy maintenance
- Optimize process to flexible adaptation for individual customer
- Customized and integrated with processes and systems

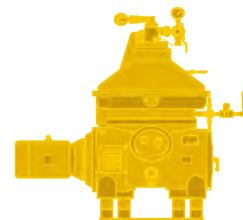


## DISC CENTRIFUGE SERIES

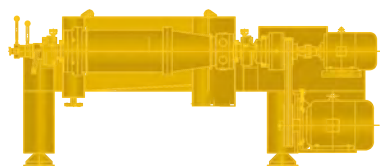




C A T A L O G U E



## DISC CENTRIFUGE



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## Introduction

### Disc stack Centrifuge

**Disc centrifuge** is a high-speed separator equipment that mechanically separates and clarifies solid-liquid mixture. Profit by its special design, the disc separator can work at a higher rotational speed than other separators such as decanter centrifuge, high speed rotation generating stronger centrifugal force. The disc stack inside provides a large amount of separation area, which can separate extremely fine solid particles from the liquid or separate the liquid mixture in an efficient manner.

Disc centrifuge is suitable for the separation of animal and vegetable oils, dairy purification, milk skimming and beverage industry, high separation accuracy. Single use or combine with two-phase decanter centrifuge or three-phase centrifuge.

Achieving efficient solid slag removal and maximum separation accuracy due to compact structure. As for clarification and separation (liquid-solid phase), disc centrifuge can discharge the finest solid particles from the liquid. As for separation (three-phase with light & heavy liquid), disc centrifuge separates liquid phases of different densities and dissolves solids at the same time.

According to customer requirements, design the process flow and provide the best separator solution for the existing pipeline and system.



# Disc centrifuge Series

## Series DGS/DGC

Parm/Model	300	400	500	550
<b>Bowl Dia.</b> mm	270	360	470	550
<b>Bowl Speed</b> r/min	7302	7070	6600	5800
<b>Capacity</b> (T/D)	10~12	30~50	100~150	200~350
<b>Motor power</b>	4 (Y112M-4-B5)	4 (Y132M-4-5B)	15 (Y160L-4-B5)	22 (Y180M-4-B5)
<b>Weight</b> (kg)	550	1200	1600	2300
<b>Dimension</b> L*W*H (mm)	950*950*1250	1530*1150*1500	1800*1200*1750	1965*1550*2045

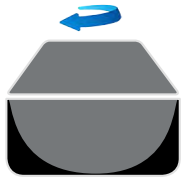
\* Capacity indicate the water output and it may change depending on the dealing material and configuration

DGS : Three Phase DGC : Two Phase

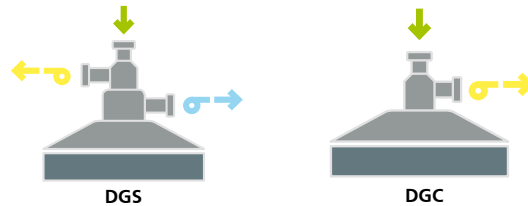
## Functional category

### Manual discharge

In disc centrifuge with manual discharge, the liquid phases continuously flow out of the top, while the solid particles are collected in a dedicated chamber that has to be manually emptied when it is full, thereby stopping the separator.

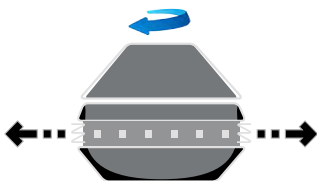


Shut down and open the bowl, manually remove the inside sediment by labor.

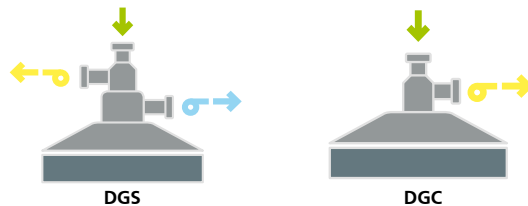


### Automatic discharge

In disc centrifuge with automatic discharge, the liquid phases continuously flow out of the top during normal operation, while the solid particles are collected in a dedicated chamber that is automatically emptied intermittently with the discharging frequency set on the control panel.

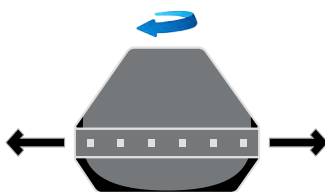


Through Intermittent open lower parts of the bowl, sludge discharged automatically

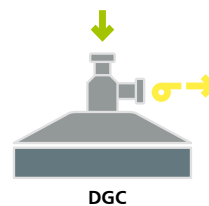


### Nozzle separator

In disc centrifuge with manual discharge, the liquid phases continuously flow out of the top, while the solid particles are collected in a dedicated chamber that has to be manually emptied when it is full, thereby stopping the separator.



Sludge discharging achieve by the nozzles around the bowl.

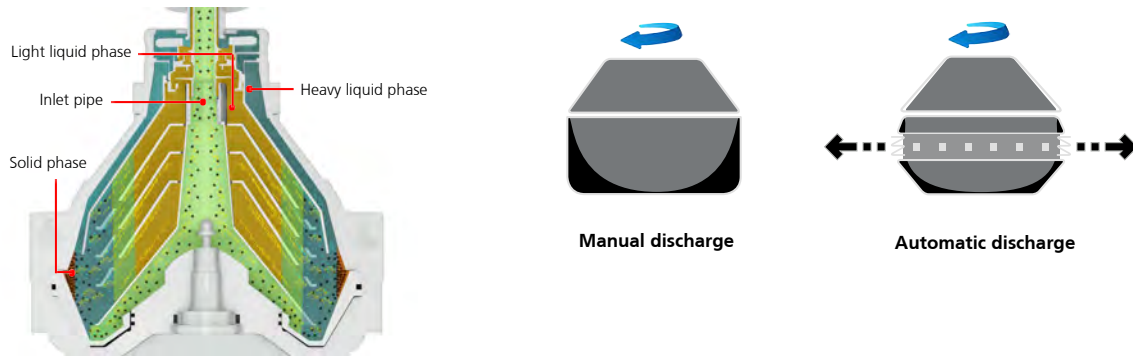


- Feed material
- Light liquid phase
- Heavy liquid phase
- ⤴ Flow with pressure

## Functional category

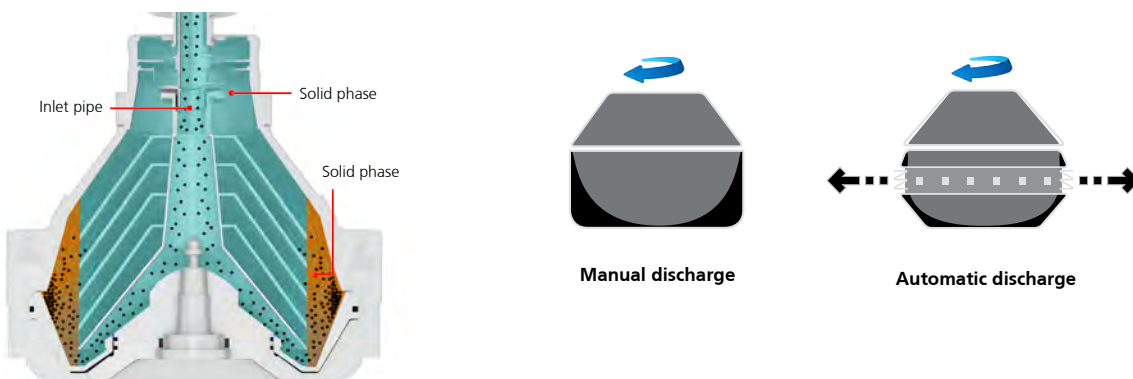
### Separation centrifuge - Three phase separation (liquid-liquid-solid)

The separation centrifuge is used to separate liquid and solid mixtures with different densities, such as olive oil products, essence oil recovery, animal fat, vegetable oil and many other materials.



### Clarification centrifuge

The clarification centrifuge is used to separate solids from liquids to provide efficient clarification, such as the extraction of vegetable juice, beer, wine, coffee and tea, the clarification of solvents and others.



### Accessory equipment



#### Electric Cabinet

Monitoring and adjustment of power, parameters setting and safety devices.



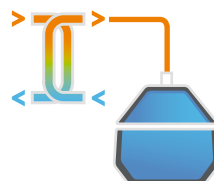
#### CIP System

Control the system clean the separation components automatically.



#### Counter pressure valve

Controls the pressure of the liquid phase outlet and of separation interphase.



#### Heating System

Regulates the temperature of inlet product.



# Figure

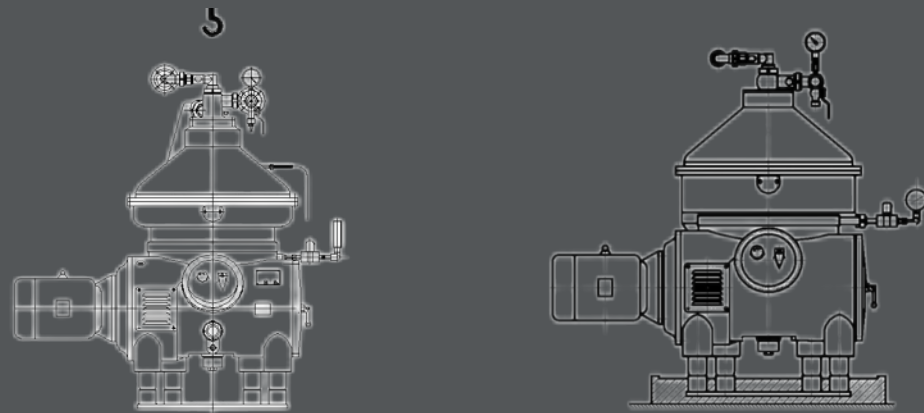
## Disc Centrifuge

Type

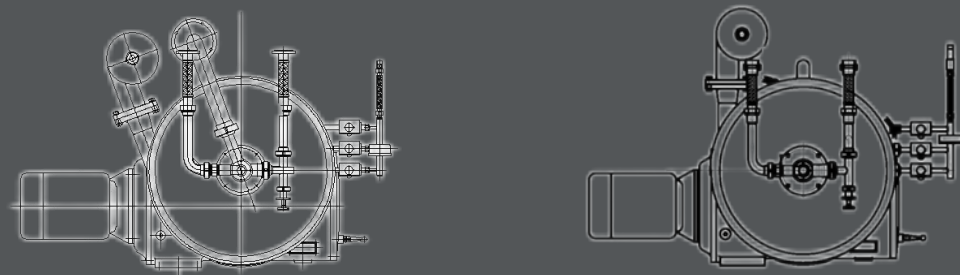
DGS 500

DGC 500

Front

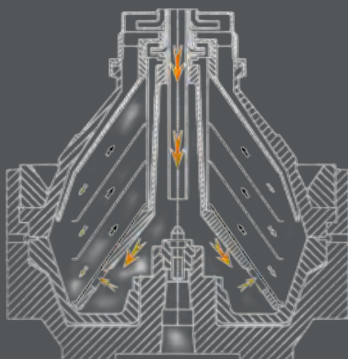


Overhead



## Disc Centrifuge

Bowl



### Working Principle

- Disc centrifuge has a main frame that consist a horizontal drive shaft with clutch and brake, worm gear, lubricating oil bath and vertical bowl spindle in the lower position.
- The bowl is mounted on top of the spindle, fixed by the upper parts, the gasket, the collecting parts, and frame hood. The material feed into the bowl, by the effects of centrifugal force the liquid phase pumped out of machine through outlet pipe, meanwhile the solid phase adhere on the bowl wall, then were discharged automatically by operation water. The electric motor is of the variable frequency drive type or of controlled torque type. All parts in contact with material are made of stainless steel.

# Track Records

## Disc Centrifuge

