

## # SEPARATOR

### WHAT IS THE PURPOSE OF SEPARATION ?

The purpose of separation can be

- To free a liquid of solid particles.
- To separate two mutually insoluble liquids with different densities, removing any solids at the same time.
- There are two types of separations :
  - (1) Separation due to gravity
  - (2) Separation due to centrifugal force



### HOW DOES A SEPARATOR WORK?

- Separators are used for the separation of liquid mixtures or for the separation of solids out of liquids or liquid mixtures. High centrifugal are in the rotating bowl.
- Under the influence of the centrifugal forces, separation of the liquid mixture and / or ejection of the solids particles takes place most rapidly
- The specifically heavier components are displaced to the bowl periphery, whereas the specifically lighter components are displaced towards the center of the bowl.
- The high centrifugal force is produced by high bowl speeds. On the one hand, high bowl speeds high efficiency, while on the other hand, they signify high material stressing of the separator

## THE FOUR MAIN SECTIONS

Centrifuge Separator features four main sections :

- Power transmission
- Frame parts
- Pump
- Bowl
- Inlet Outlet
- Motor



## WHY PREVENTIVE MAINTENANCE ?

- A Centrifugal separator is capable of generating great forces in all directions and is subject to the law of centrifugal force.
- The separator, like anything else, is subject to wear. Corrosion, erosion and just ordinary wear due to operation, all take their toll.
- To continue safe and efficient operation, certain parts will by and by require replacement. Proper maintenance and operation will prolong parts life, and proper inspection will warn you when replacement is necessary.
- If the parts of the machine are worn, eroded, or improperly assembled, the forces generated may cause machine breakdown and injury to personnel. This can be avoided by proper maintenance of the machine.

## OPERATIONS ON THE SEPARATOR

- The separator works reliably, provided that it is operated and maintained in accordance with our operating instructions.
- Special attention must be given to:
  - Assembly
  - Electrical installation
  - Before start-up
  - Start-up
  - Shutting-down
  - Maintenance and repair

## BOWL SPEED AND PRODUCT

- The max. permissible bowl speed is an important parameter when rating the separator.
- It depends on the chemical and physical properties of the product such as:
  - temperature (if > 100 °C or < 0 °C)
  - density of the fluid and solid components
  - aggressiveness of the product as regards to corrosion and erosion
- The bowl speed is determined on the basis of these parameters for an adequate safety margin.
- Before using a product with properties different from those, it is imperative to obtain the manufacturer's approval when placing the order.

### ALFA LAVAL SEPARATORS

MAB 102,103, 204, 205, 206, 207 & 209

MAPX 204, 205, 207, 209, 210, 309 & 313

MOPX 205, 207, 209, 210, 213, 309 & 310

MFPX 307

MILK 2181 & 3191

SRG 509 & 610

MSPX 303 & 304

MMPX 303,304, 403 & 404

LOPX 705, 707, 709, 710 , 713 & 714

FOPX 605, 607, 609, 610, 611, 613 & 614

### ALFA LAVAL SEPARATORS

SSB 206

VLG 103, 206 & 409

WHPX 407, 505, 510 & 513

PU 100 , 150 , 300 & 400

SU 100 , 150 , 300 , 400 , 500 & 600

SA 831

PA 605 & 615

VNPX 810

CX 610

TX 612

### WESTFALIA SEPARATORS

OSA 7, 20, 22 & 35

OSB 35

OSC 4, 5, 15

SAMM 12006

RTB 45

MSA 130 & 170

MSD 200



## # CHEMICAL / ACID SEPARATOR

### APPLICATIONS OF CHEMICAL/ACID SEPARATORS :

Pharmaceutical Industry

Chemical Industry

Milk Industry

Starch Industry

Food Industry

Ceramic Industry

Manure and Farm Waste

Cattle Feed

Breweries

### SEPARATOR MODELS :

PE 206 HS



## # EDIBLE OIL SEPARATOR

### APPLICATIONS OF EDIBLE OIL SEPARATORS :

Oil Industry

Milk Industry

Food Industry

### SEPARATOR MODELS :

Alfa Laval Type : SRG 509, SRG 610, VLG 206

Pennwalt Type : AS 12, AS 16, AS 26



## # MARINE SEPARATOR

### APPLICATIONS OF MARINE SEPARATORS :

Marine Industry

### SEPARATOR MODELS :

MAB 102,103, 204, 205, 206, 207 & 209

MAPX 204, 205, 207, 209, 210, 309 & 313

MOPX 205, 207, 209, 210, 213, 309 & 310

MFPX 307

SRG 509 & 610

VLG 103, 206 & 409

**SEPARATOR PRODUCT CATALOGUE**

**SPARE PARTS FOR SEPARATOR**

All parts have 100%  
interchangeability  
with the OEM



**OTHER SEPARATOR  
SPARES**

All parts have 100%  
interchangeability  
with the OEM





**TUNGSTEN CARBIDE**

**NOZZLES**

MGK Industries is amongst very few companies who produce intriguingly designed Tungsten Carbide Nozzles for all types of Nozzle Separators.



**WHY TO CHOOSE US?**

In a spray process, even the slightest of wear to a nozzle orifice can create enormous and costly changes. MGK specialty Tungsten Carbide Nozzles can better control those orifice changes as they are long-lasting, reliable and very efficient in performance.

**TUNGSTEN CARBIDE NOZZLE**

**APERTURE SIZES**

TC Nozzles come with aperture size range of 0.5 mm and above. They are equivalent to and have 100% interchangeability with the OEM.



MGK offers a wide range of custom centrifuge nozzles. Choose from our many grades of TC Nozzles.

## ANTI VIBRATION MOUNTINGS

Anti-vibration mounts, also known as AV Mounts, are key components in reducing noise and vibration in heavy machinery and equipment.



They absorb vibrations and sound from machines to minimize wear and damage. Anti-vibration mounts are a low cost, highly effective component with a range of different uses.



## CENTRIFUGE SPARES

All parts have 100% interchangeability with the OEM

We carry the most expensive ranges of spare parts for centrifuges. The ready stock that we handle, 90% of our orders are executed on the same day as the order is placed, without compromising the quality of the product.

**MGK INDUSTRIES ASSEMBLY UNIT – MUMBAI, INDIA.**



**MGK INDUSTRIES**

## PACKAGING

All items and machineries are nicely packed and delivered to you in good condition in the said time and date.



## AFTER SALES SERVICE

MGK Industries strives to maintain customer satisfaction and quality of the product supplied. Hence, we provide commissioning and after sales services to our clients.



# MGK INDUSTRIES

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## INDIA LOCATIONS

|                        |   |
|------------------------|---|
| <b>Maharashtra</b>     | Mumbai, Pune, Roha, Ratnagiri, Nashik, Sangli   |
| <b>Goa</b>             |   |
| <b>Gujarat</b>         | Ankleshwar, Veraval, Bhuj-Kutch, Bharuch, Baroda, Ahemdabad, Rajkot, Anand            |
| <b>Rajasthan</b>       | Kota, Jaipur, Jodhpur, Udaipur  |
| <b>Madhya Pradesh</b>  | Gwalior, Indore, Bhopal, Chhindwara, Ujjain, Jabalpur, Ratlam, Raipur                 |
| <b>Southern Region</b> | Mysore, Mangalore, Tuticorin, Coimbatore, Madhurai, Salem, Kochi, Thrissur, Ernakulam |
| <b>Northern Region</b> | Ghaziabad, Delhi, Noida, Punjab, Haryana  |

## INTERNATIONAL LOCATIONS

|                           |  |
|---------------------------|--|
| <b>European Countries</b> | Cypruse, Franceh, Germany, Greece, Ireland, Italy, Poland, Portugal, Russiac, Spain, Sweden, Switzerland, Turkey, United Kingdom |
| <b>North America</b>      | United States, Guatemala   |
| <b>South America</b>      | Argentina, Brazil, Chile, Peru   |