



HOW A DECANTER CENTRIFUGE WORKS ?

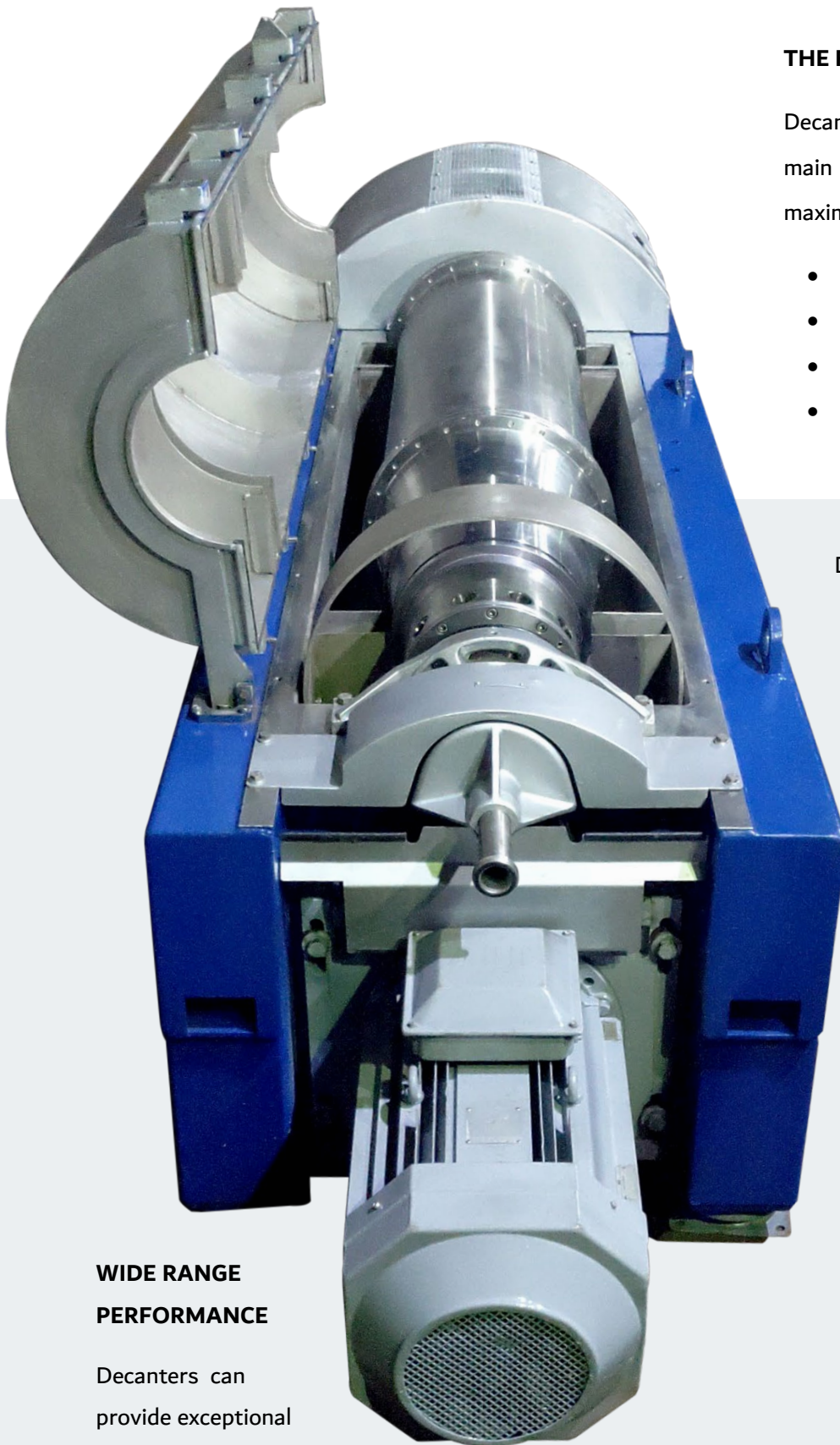
A decanter centrifuge separates solids from one or two liquid phases in one single continuous process. This is done using centrifugal forces that can be well beyond 3000 times greater than gravity

When subject to such forces, the denser solid particles are pressed outwards against the rotating bowl wall, while the less dense liquid phase forms a concentric inner layer. Different dam plates are used to vary the depth of the liquid – the so-called pond – as required.

The sediment formed by the solid particles is continuously removed by the screw conveyor, which rotates at a different speed than the bowl. As a result, the solids are gradually “ploughed” out of the pond and up the conical “beach”.

The centrifugal force compacts the solids and expels the surplus liquid. The dried solids then discharge from the bowl. The clarified liquid phase or phases overflow the dam plates situated at the opposite end of the bowl. Baffles within the centrifuge casing direct the separated phases into the correct flow path and prevent any risk of cross-contamination

The speed of the screw conveyor may be automatically adjusted by use of the variable frequency drive (VFD) in order to adjust to variation in the solids load.



WIDE RANGE PERFORMANCE

Decanters can provide exceptional performance while the separation of solids from liquids, and make it possible to do so continuously, efficiently and controllably.

Decanter units can also handle slurries with a solid content from as low as 0.1% w/w to more than 65% w/w. Decanter centrifuges can accept variations in the feed more effectively than other types of centrifuge or separation equipment.

THE FOUR MAIN SECTIONS

Decanter Centrifuges feature four main sections, each optimized for maximum performance.

- Inlet Zone
- Screw Conveyor
- Solid Discharge Section
- Liquid Discharge Section

Decanters are invariably the first choice to meet such separation needs by virtue of their high reliability, continuous operation, low capital cost / capacity ratio and low maintenance costs. In specifying a decanter centrifuge for a particular application, a series of other specific design considerations has to be taken into account:

- Pitch of the conveyor
- Feed zone design
- Beach angle
- bowl surface
- abrasion resistance
- materials used in construction

RECONDITIONING / REBUILDING OF DECANTERS & GEAR BOX

With our highly trained specialists and technicians on staff and our ever-increasing inventory of New, rebuilt, quality and obsolete “hard to find” parts your decanter problems can be solved and rebuilt promptly and efficiently. We also develop new parts for decanter as per customer’s provided samples.

REBUILT PROCESS:

- Restore all parts to OEM specifications
- Replace bearing, seals, bolts and unusable part
- Rebuilt and hard surface conveyor flights
- Rebuild Gear boxes and drive assemblies
- Dynamic balancing of bowl and conveyer
- Dynamic balancing of Gear box assemblies
- Test run the decanter at service speed
- Clean and repair frames and casing assemblies

DECANTER MODELS FOR

NX SERIES :

- NX 314
- NX 414
- NX 416
- NX 418
- NX 922
- NX 4030
- NX 4040
- NX 4050

DECANTER MODELS FOR

ALDEC SERIES :

- ALDEC 10
- ALDEC 20
- ALDEC 30
- ALDEC 40
- ALDEC 45
- ALDEC 75

DECANTER MODELS FOR

P SERIES :

- P 600
- P 1500
- P 2000
- P 3000
- P 3400

DECANTER MODELS FOR

OTHER SERIES :

- PONX 934
- PANX 934
- PA 680
- SG2 100

DECANTER MODELS FOR

SGDM SERIES :

- SGDM 300
- SGDM 305
- SGDM 400
- SGDM 405

DECANTER MODELS FOR

PM SERIES :

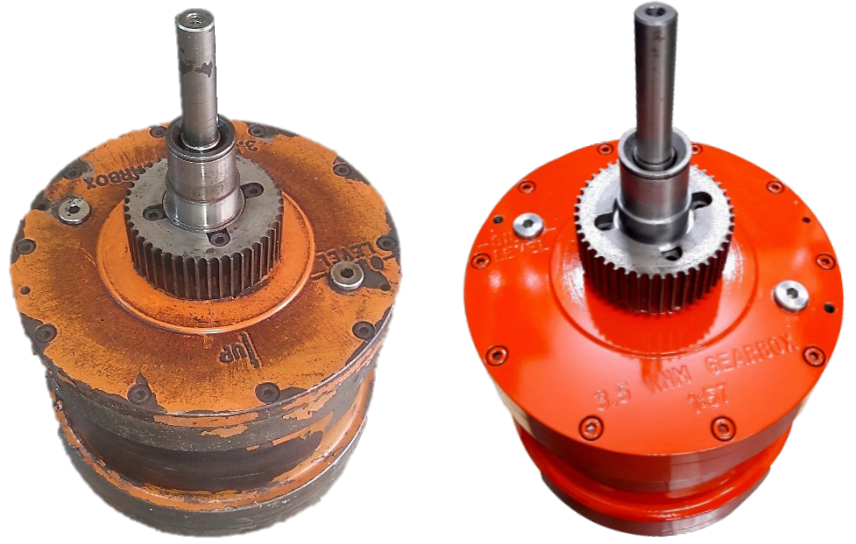
- PM 20000
- PM 30000
- PM 35000
- PM 36000

We not only repair the whole systems but also repair the usable spare parts that you may have, gearboxes, conveyors and bowls shell etc. We know that break downs tend to be time consuming therefore we stock parts or have reconditioned parts of many major manufacturers for quick turnarounds.

Decanter centrifuge being a significant part requires episodic rebuilding to maintain its maximum performance and MGK Industries plays a vital role in helping you in this endeavor.

**BEFORE AND AFTER
RECONDITIONING**

When we rebuilt a decanter, we rebuilt it tougher and stronger. Our technologically advanced process will increase the life span of your machine, like day one.



BENEFITS OF DECANTER

The ability to separate the liquid and solid components of often highly complex, high-value processing streams – and to do so with meticulous control, low cost and high reliability – requires decanter centrifuge technology that is second to none.

When the profitability of an entire process is at stake, it is important that the customer has a partner that can be relied on to meet the highly complex demands associated with modern industrial separation.

APPLICATIONS OF DECANTER :

Process industry applications

Mineral processing industry

Kaolin clay and calcium carbonate processing, bentonite and titanium dioxide manufacturers

Oil/gas exploration and petrochemical industry

Oil and gas exploration, oil refineries and related industries, lubricating oil additives and waste oil stream recycling

Organic chemical industry

Organic intermediate and end products

Polymer industry

Thermoplastics including PVC, polypropylene, polystyrene, synthetic rubber and fibres

Inorganic chemical industry

Bleaching agents, acids, silica products and fertilizers

Ethanol production

Processing of grain alcohol spent wash and molasses fermenter residues

Starch processing

Based on wheat, maize, tapioca, cassava and potatoes

Waste recycling

Recovery and recycling of waste streams from the sectors listed above



APPLICATIONS OF DECANTER :

Food industry applications

Animal protein

Fish and meat by-product processing, Surimi processing, Edible protein recovery

Brewery

Recovery of extract, wort and yeast

Coffee and tea

Extraction of instant coffee and tea

Dairy

Recovery of casein, lactose, whey fines and cheese fines

Edible oil

Clarification of palm oil, olive oil and pressed seed oil

Juice

Extraction from fruit, berries and vegetables

Pectin

Recovery of extracted pectin

Vegetable protein

Extraction from soybeans, oil seeds and leguminous crops

Wine

Must and wine clarification

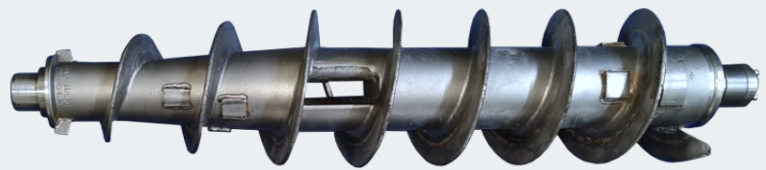
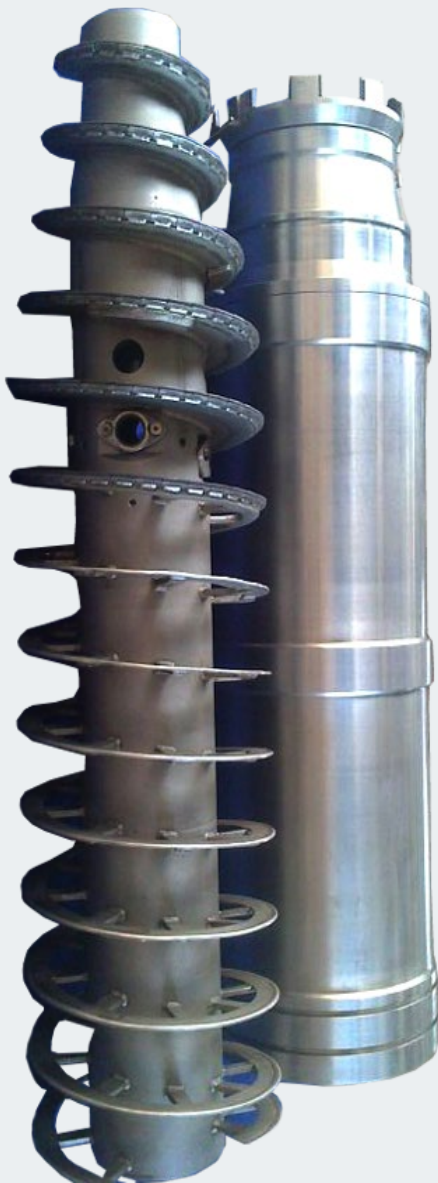
DECANTER PRODUCT CATALOGUE

SPARE PARTS FOR DECANTER

All parts have 100%
interchangeability
with the OEM

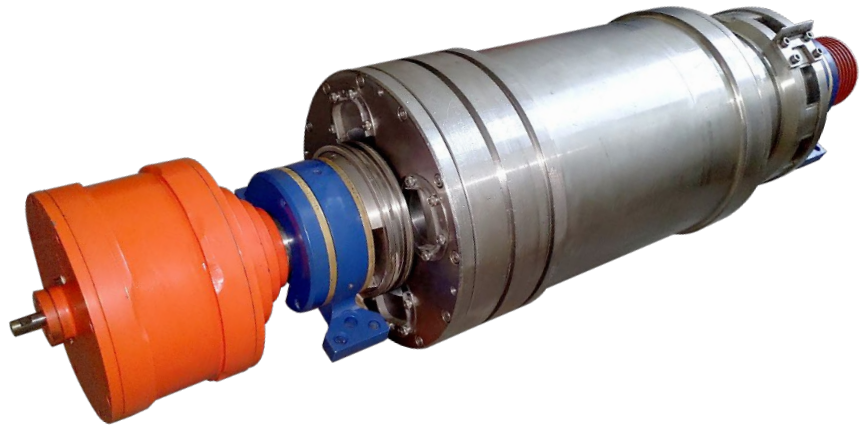


TYPES OF BOWL SHELL AND CONVEYOR



**ROTATING
ASSEMBLY**

All parts have 100%
interchangeability
with the OEM



**EQUIVALENT ROTATING ASSEMBLIES FOR
VARIOUS ALFA AND PENNWALT
DECANTER MODELS**



**BRAZED / SINTERED
TC TILES**

The major advantage of these tiles is that they are 45 – 50 times more resistant to wear than the flame applied hard surfaced material.



All parts have 100% interchangeability with the OEM

COMPLETE GEARBOX

All parts have 100% interchangeability with the OEM

MODELS :

P52, P125

2.5, 3.5, 3.5 DD (kN-m)



GEARBOX SPARES

All parts have 100%
interchangeability
with the OEM

EQUIVALENT MODELS FOR :

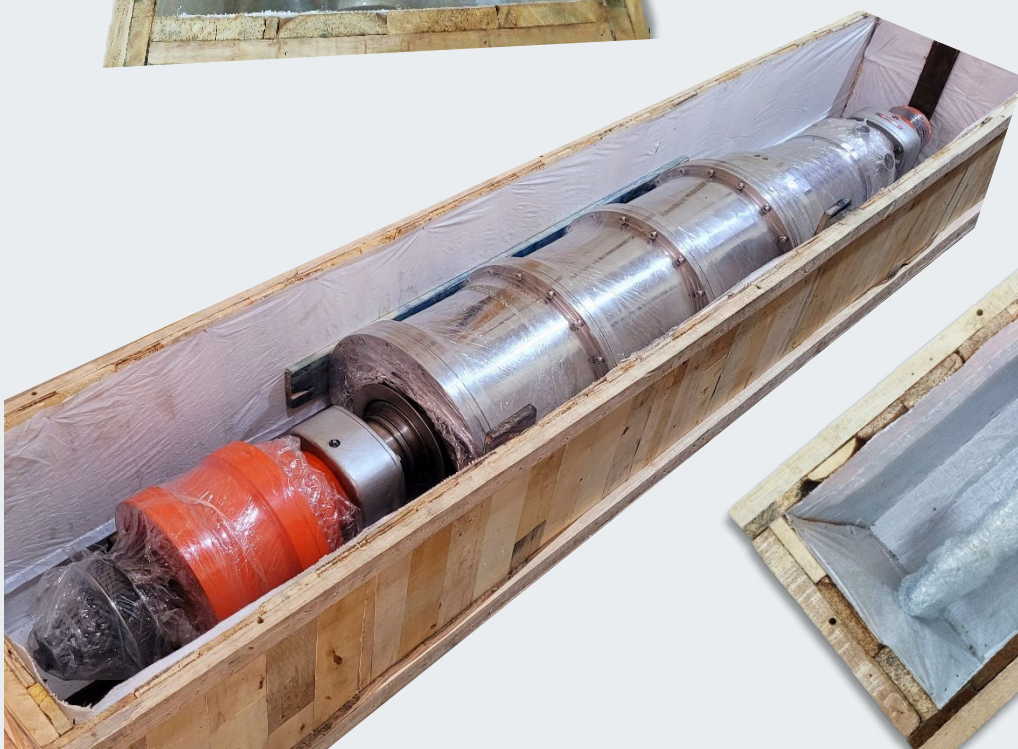
P52, P125

2.5, 3.5, 3.5 DD (kN-m)



PACKAGING

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



MGK INDUSTRIES

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INDIA LOCATIONS

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

INTERNATIONAL LOCATIONS

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