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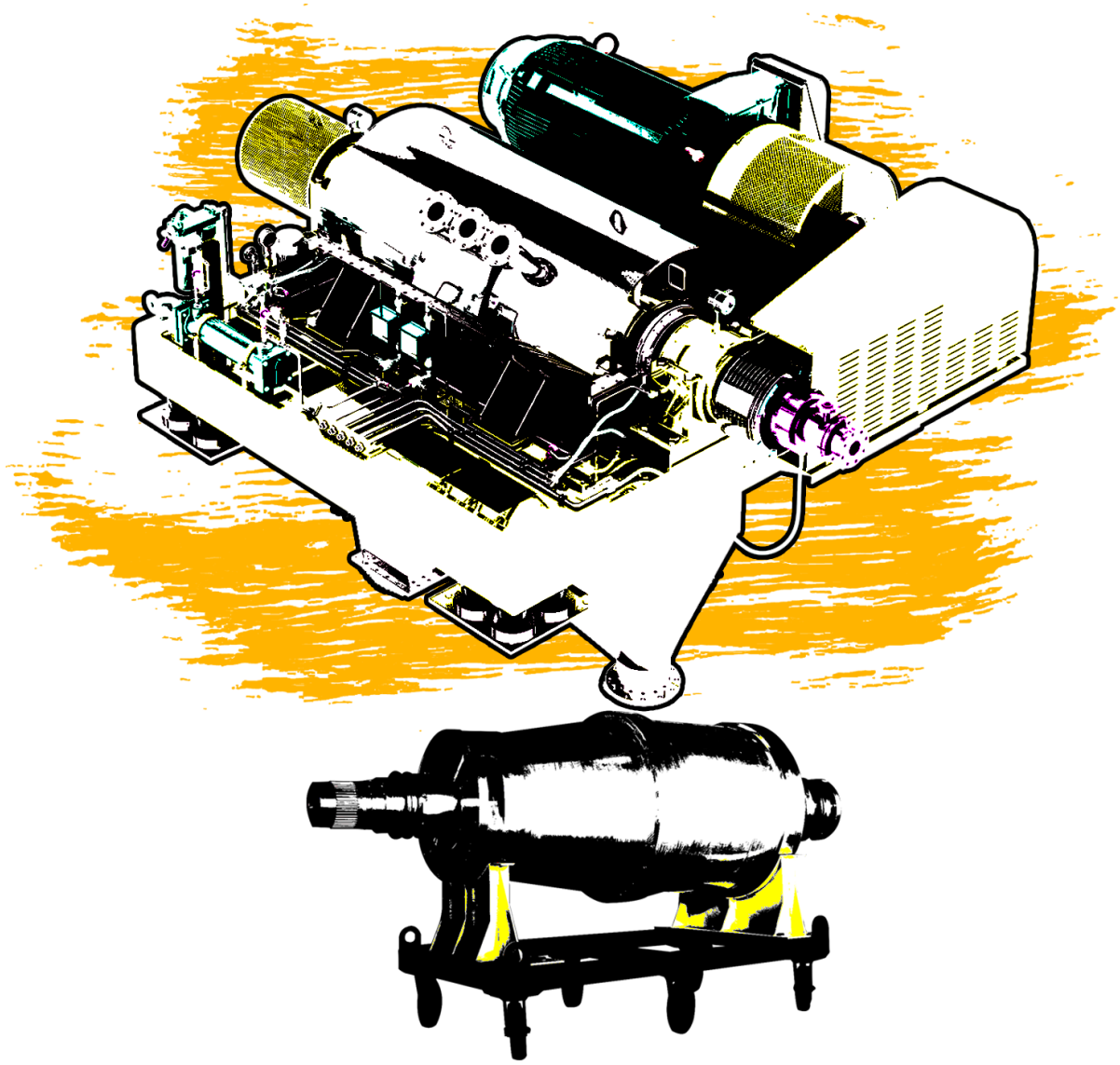
SEPARATION



CENTRIFUGE DECANTER

Centrifuge decanter

The working principles of the decanter centrifuge are based on the sedimentation process.

A process that leads to the separation of suspended solid particles using the property of being denser relative to the liquid phase in which they are suspended. If the density difference is large, it is possible that the sedimentation process can be done in a reasonable and practical period of time. But if the density difference is small or the particle size is very small, the settling time will be long. In this case, the separation force must be accompanied by another force called centrifugal force.

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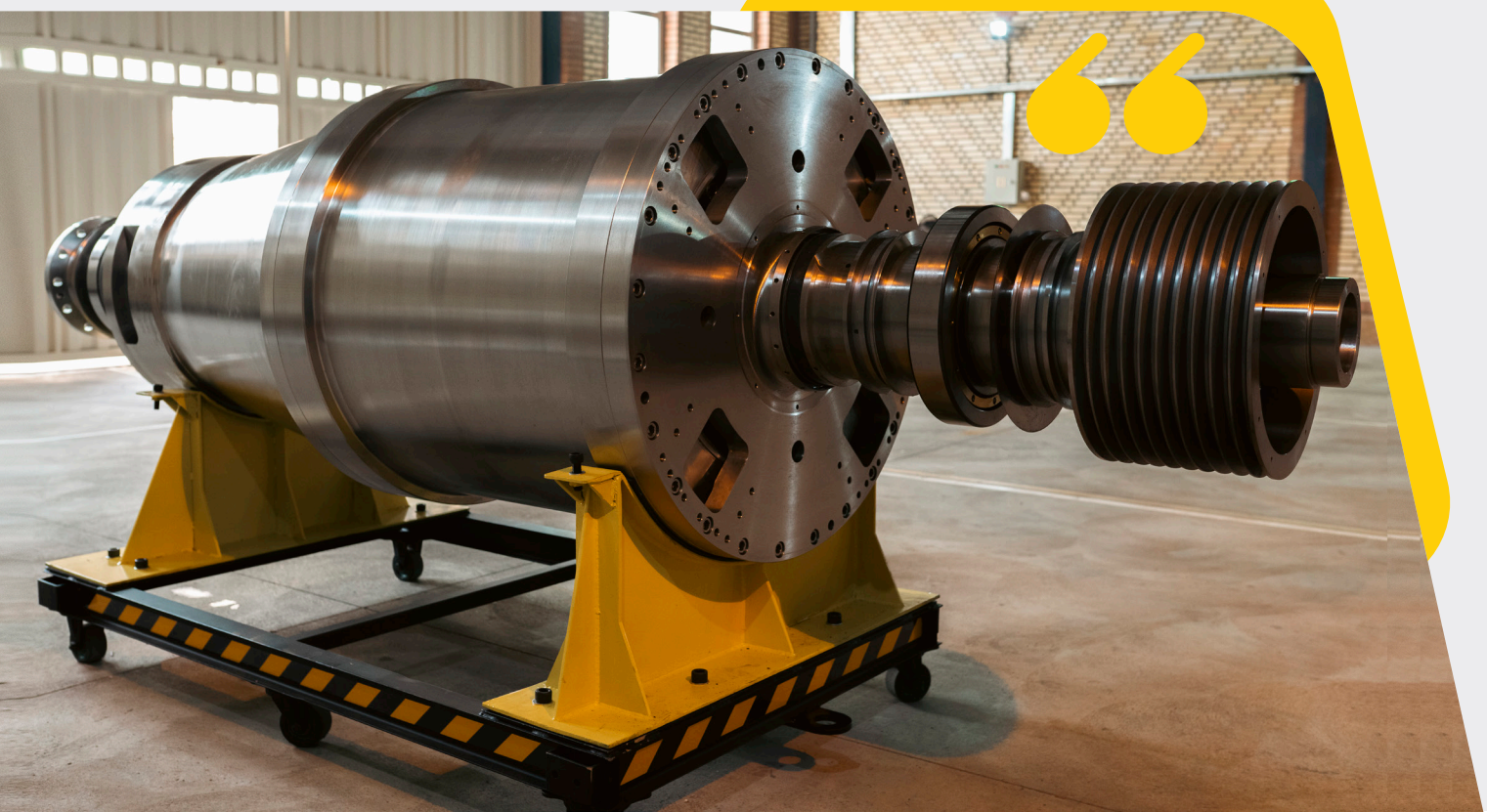
S E P A R A T I O N



Different types of solid phase settling system by centrifugal force of decanter centrifuge :

Centrifugal force can be created by the rotating flow property of the slurry or by a mechanical rotating system.

Various types of system There is settling of the solid phase by centrifugal force, which are as follows:

Centrifuge of tube chamber type: generally used for liquid/ liquid phase separation.

Impermeable basket type centrifuge: generally used for solid/ liquid phase separation.

Disc type centrifuge: for liquid/liquid phase separation (like

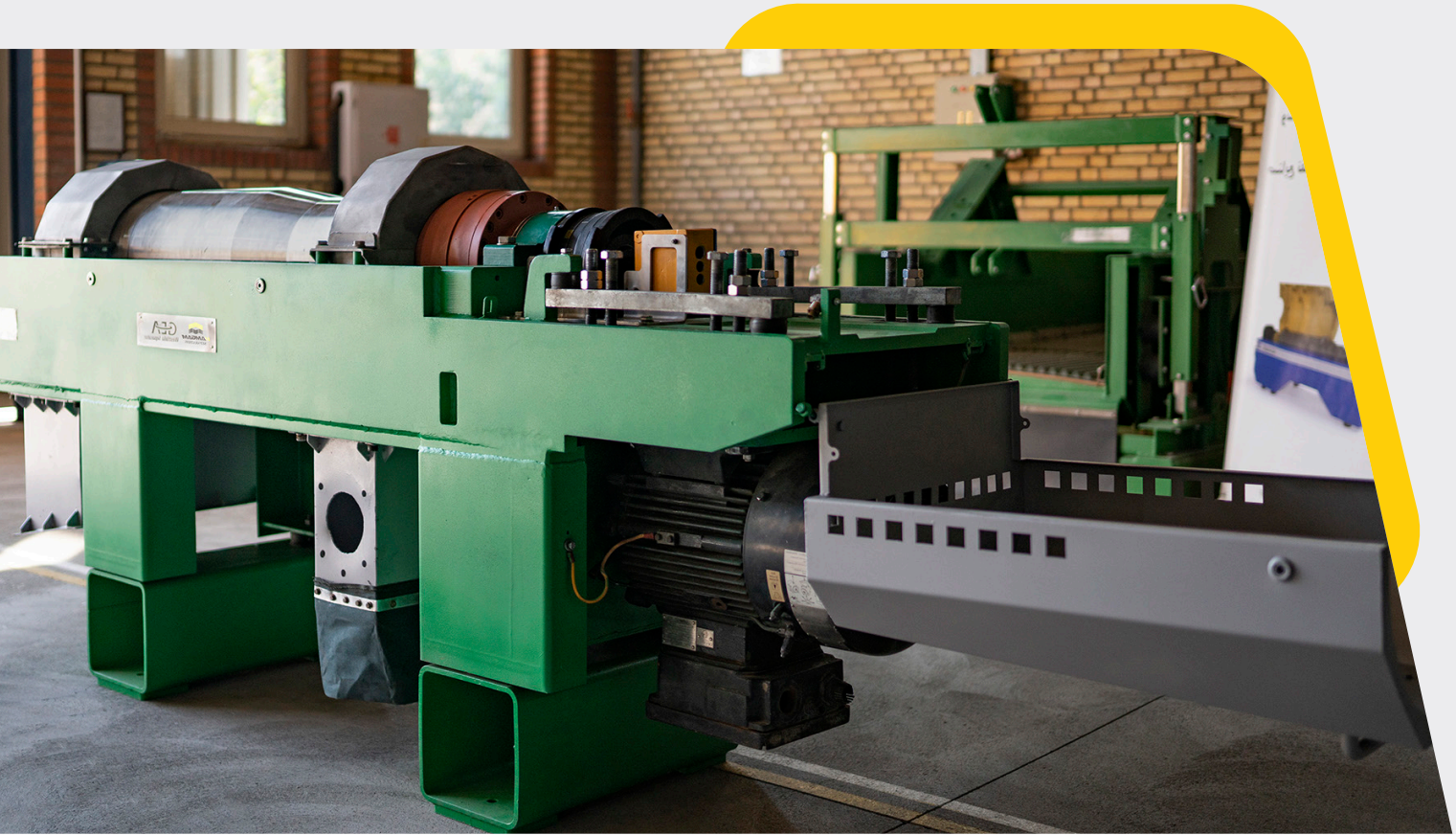
cream from milk), but upgraded used for continuous separation of solids

The special feature of the decanter among a range of centrifuges is the ability The removal of separated solids from the inlet stream is continuous and uninterrupted. This process can be done without needing special care, without stopping for weeks or even months.

Below is a comparison between the decanter and other solid phase sedimentation systems. It is given:

Compared to gravity separation (solid settling over time and due to the natural force of Earth›s gravity): The decanter can perform separations that are impossible in terms of time and economy.

Compared to hydrocyclone separation (separation by liquid rotation



system in a cone): a much higher capacity decanter and can separate or concentrate a much larger amount of slurry.

Compared to tube chamber type centrifuge: decanter has more capacity and performs operations continuously give.

Compared to the impermeable basket type centrifuge: the decanter operates continuously and solid The result of the process is drier.

Compared to the disk type centrifuge: the decanter performs the operation continuously and the resulting solid It is drier than the process. Of course, compared to the disk type centrifuge, it is possible that the liquid obtained from the decanter has a lower purity.

In addition, the decanter has a higher efficiency compared to other types of filter separators such as the filter press machine.

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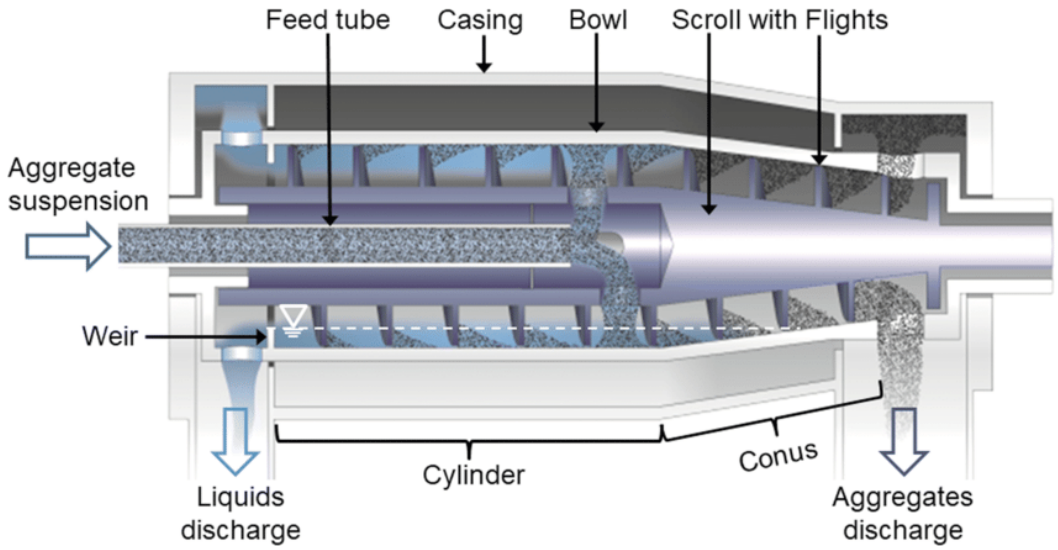
Manufacturer of Centrifuge Decanter
for Petrochemical Industries

Model	Angular velocity (Bowl)	Speed Difference Bowl&Scroll	Chamber Diameter	Chamber Length	Chamber Material
HCD-DS2800	4000 rpm	30 rpm	355 rpm	1575 rpm	AISI 316 L
HCD-DS2657	3250 rpm	27 rpm	450 rpm	1910 rpm	AISI 316 L
HCD-RS1055	3000 rpm	40 rpm	472 rpm	1715 rpm	Duplex A890
HCD-RS2077	2800 rpm	43 rpm	530 rpm	2226 rpm	AISI 316 L
HCD-DS1202	1708 rpm	27 rpm	737 rpm	2083 rpm	SUS304 L
HCD-DT3000	2400 rpm	50 rpm	900 rpm	1800 rpm	Duplex 1.4470
HCD-DT1125	1500 rpm	48 rpm	1000 rpm	2000 rpm	AISI 316 L



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