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FILTRATION TECHNOLOGY WORLDWIDE

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## Why choose a Filter Press over a Centrifuge....

Both the Filter Press and the Decanter Centrifuges are both used in the process of liquid, solid separation but there are some distinct advantages in use of a Filter Press in many applications.

### Advantages:

#### Energy Consumption and Costs

- A Filter Press has a lower energy consumption compared to the decanter centrifuge for the following reasons.

Single motor on hydraulic power pack v Bowl motor, scroll braking motor & scraper motor.

Hydraulic motor operates on closing open and cake discharge with occasional operation on pressure sustain whereas all decanters' motors run continually throughout the process.

- Hence a filter press has a much lower energy requirement resulting in reduced running costs.

#### Maintenance Costs

- A Decanter Centrifuge, due to high-speed rotational components is subject to much higher rates of wear especially on more abrasive feed streams. Thus, higher operational costs are experienced to that of a Filter Press, many instances up to 20% more.

#### Maintenance & Downtime

- The construction and access to a decanter centrifuge is more complex than that of the Filter press as most issues will be related to the rotational parts and bearings. Access is dependent on the Decanter centrifuge origin and generally requires specialist tools and equipment to remove the internal components.

- The filter press has much fewer moving parts, which are more easily accessible and are generally easier to maintain than the Decanter Centrifuge.

### **Processing**

- Filter Presses in most scenarios will produce a dryer filter cake for the same product, as the filter press can be fed a higher pressure rather than being reliant on the G Force created by the decanter Centrifuge. Hence resultant filter cake has a higher solid content and lower moisture content.

### **Disadvantages:**

- For any given scenario the Filter Press will have a larger footprint than a Decanter Centrifuge for a given throughput.
- Filter Press is a batch process compared to a decanter centrifuge which is a continuous process.

### **Overview**

#### **Filter Press**

Lower operating energy consumption.

Batch Filtration Process

Dryer filter cake for handling and disposal

Easy access for maintenance for reduced down-time.

Lower cost of spare parts.

#### **Centrifuge**

High power consumption.

Continuous Filtration process.

Wetter cake for disposal.

More difficult access for maintenance requiring specialist tools.

Higher cost of spare parts.

### **The selection of a filter press versus a centrifuge depends on:**

Specific client needs.

Type of slurry and origin.

Available footprint.

Dryness of cake for disposal.

800mm Filter Press

