

## [BRSF] Continuous press filter with composite rotary plates

*Dynamic continuous filtration, Hermetic processing, High efficient*

### Features

#### 1. Dynamic continuous filtration with thin cake

Clear filtrate can be obtained in short period due to thin cake maintaining during the processing; dynamic operation process enables BRSF to filter viscous slurry with high efficiency and excellent performance.

#### 2. Hermetic operation

BRSF is one self-contained unit with hermetic processing concept; any pollution to operation environment or products, concerning about loss during in processing can be fully prevented.

#### 3. Automatic control system

Considering reduce the customer labor demand during processing, automatic control center is implemented basing on user-friendly concept; operation training programme is provided.

#### 4. Vertical or horizontal

Depending on individual layout requirement, we have horizontal(Fig.1) and vertical(Fig.2) design for customers.

#### 5. Alternative materials

We manufacture in various grades of stainless steel, alloys or coated designs to satisfy customer individual application; polished surface is possible.

#### 6. Filtration tests

BRSF equipment is available in our test center for customer specific filtration tests; test reports are offered as reliable basis for product selection.



**Fig.1 Horizontal design**

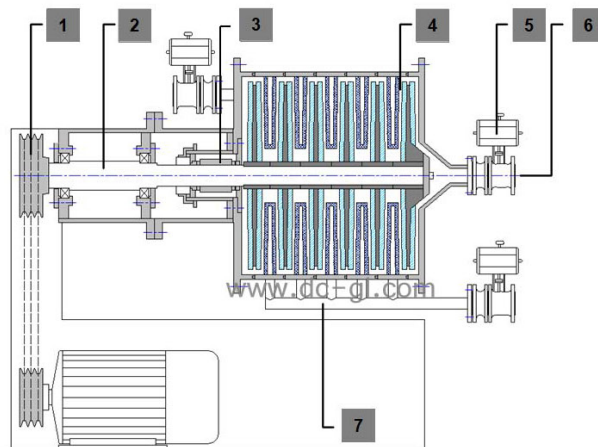


**Fig.2 Vertical design**

## Structural principle & Process steps

### Structures

- ① Drive structure (with anti-dust cover)  
The main stirring shaft is driven by the ATEX certified motor while anti-dust shield is adaptable for strict operation environment hygiene regulation;
- ② Stirring structure  
The stirring shaft drives the scratching component; the thin cake form is maintained during filtration;
- ③ Mechanical sealing  
Professional sealing part designed and manufactured by DING CHANG, isolating the processing step from outside environment;
- ④ Pressure filtration chamber  
One chamber includes a filtration media plate and a scratching plate; number of chamber depends on individual processing requirement;
- ⑤ Electrical safety valve  
Safety valve will be activated to release pressure when monitored value exceeds up-limit;
- ⑥ Discharging port  
The cake will be automatically discharged from the port under feeding pressure ;
- ⑦ Filtrate collection channels  
Filtrate is drained off from each filtration chamber, and being collection via the channels.



### Process

The dynamic and continuous processing: slurry is continuously fed into filtration chamber under pressure; filtrate is drain off via slot of filtration media layers, while thin cake forming between scratching plate and filtration media; pressure forcing slurry moving through each filtration chamber and finally filtered cake will be automatically discharged; dynamic concept is adaptable for processing slurry with high viscosity.

### Applications

Pharmaceuticals/ Chemicals/ Organic chemicals/ Dyes/ Pigments/ Plastic products/ Metallurgy/  
Ceramics/ Environmental industry and so on.

### Performance data and dimensions

Items		Type	BRSF-1.0	BRSF-2.5	BRSF-5.0	BRSF-10	BRSF-15	BRSF-20
Filtering pressure		[MPa]	0.5~0.6					
Active filter area		[m <sup>2</sup> ]	1.0	2.5	5.0	10	15	20
Filtration capacity		[m <sup>3</sup> /h.m <sup>2</sup> ]	0.1~1.5 (as reference) capacity vary depending on solid content, particle size, viscosity					
Drive power		[kw]	5.5	11	22	37	40	55
Supply pump			Flow rate 2~30m <sup>3</sup> /h, lift capability >35m					
Material			Carbon steel, stainless steel, titanium or coated design and so on					
Dimensions	Length x Width x Height [mm]	BRSF (H)  BRSF (V)	1400 x1000 x1000	1600 x1100 x1100	2000 x1300 x1500	2500 x1600 x1600	2500 x1800 x1800	2600 x2000 x2000
			-	-	1750 x1100 x2600	2000 x1200 x3000	2150 x1300 x3200	2250 x1400x x3400
Weight		[t]	1.5	2.8	4.5	6.5	8.5	11.5
Others			Depends on the requirement, equipments with active filtration area range of 1~20m <sup>2</sup> are possible					

#### DING CHANG national patented products:

- Cylinder cone filtering&washing&crying equipment
- Cylinder cone press filter
- Bi-conical spiral mixing dryer
- Continuous press filter with composite rotary plate
- Horizontal crystallizing&washing&filtering&drying equipment
- Multi-tube continuous filtration concentrator
- Multi-plate continuous filtration concentrator
- Spiral mixing continuous crystallization reactor



**DENG BEI Road**  
**QIAN ZHOU Town**  
**HUI SHAN Region**  
**WUXI JIANGSU Province**  
 Zip Code: 214181  
 Tel.: +86 (0)510 83390918  
 +86 (0)510 83886199  
 Fax.: +86 (0)510 83385029  
 E-Mail: [dcgl@163.com](mailto:dcgl@163.com)