



VACUUM DISC FILTERS CDF

bakor

TECHNICAL SPECIFICATIONS

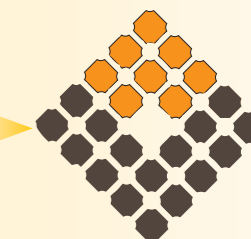
Parameters		CDF	CDF	CDF	CDF	CDF
		0.5	1	3	15	30
Filtration area	m ²	0.5	1	3	15	30
Number of plates per disc	pcs	10	10	12	12	12
Disc diameter	mm	720	720	1900	~2260	~2260
Filter sizes:	mm					
Length		975	1275	1800	~3600	~4850
Width		995	995	2500	~3910	~3910
Height		1280	1280	2800	~3300	~3300
Vacuum pump drive capacity		0.75	1.5	1.5	2.2	2.2
Installed power	kW	1.75	2.7	16	18	20
Filter weight	kg	210	300	1800	8100	11500
Filter operating area	m ²	6	8	17	35	45
Filter vat slurry level	m ²	0.1	0.4	1.3	3.8	5.8

Parameters		CDF	CDF	CDF	CDF
		45	45-1	60	150
Filtration area	m ²	45	45	60	150
Number of plates per disc	pcs	12	12	12	12
Disc diameter	mm	1900	~2260	~2260	~2260
Filter sizes:	mm				
Length		7222	~6350	~6950	~7950
Width		3546	~3910	~3910	~5100
Height		2685	~3300	~3300	~3300
Vacuum pump drive capacity		2.2	2.2	6	15
Installed power	kW	15.2	26.8	34.5	70
Filter weight	kg	15360	15050	15950	44200
Filter operating area	m ²	51.1	49.5	53	50.7
Filter vat slurry level	m ²	7.4	8	9.5	31



BAKOR OFFERS INNOVATIVE PRODUCTS AND HIGH-QUALITY SERVICES FOR ENERGY-EFFECTIVE AND COST EFFICIENT FILTRATION, BASED ON CDF FILTERS:

- Scientific research of customer's projects and problems
- Design and development of filtration processes
- Development of the most efficient solutions for customer's tasks
- Test works
- Production and delivery of filtration equipment
- Continuous audit and service
- Continuous development of our products at clients
- Repair and reduction of customers' operation by refurbishment of their ceramic filters with our ceramic filtering elements.



bakor

CDF

VACUUM DISC FILTERS

FOR MINERAL AND MINING SLURRIES WITH HIGH SOLIDS CONCENTRATION

- HIGH RATE FILTRATION
- LOW FINAL CAKE MOISTURE
- LOW ENERGY CONSUMPTION
- CONTINUOUS OPERATION
- HIGH AVAILABILITY WITH MINIMAL DOWNTIME
- CLEAN RECYCLE FILTRATES
- LOWEST MAINTENANCE AND OPERATING COSTS

- Development of filtration and ceramic filter elements production technology
- Improving of filter construction and filtration technologies
- The most high-class products, services and technologies supply

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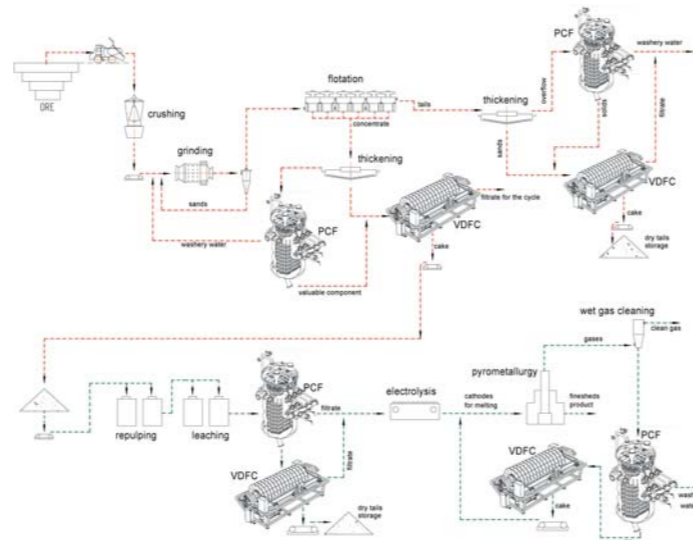
CDF vacuum disc filters with ceramic filter plates are the best solution for filtration (dewatering) of slurries with high content of solids (from 15 to 70%), when it is required to obtain the dry final cake with minimum operational costs, high filtration rate due to a big filtration area. Ceramic disc filter is the best filter type when the production space is limited.

APPLICATIONS

- MINING AND MINERAL INDUSTRIES, FERROUS AND NONFERROUS METALLURGY:
 - Filtration of concentrates
 - Filtration of tails and slimes
- ALUMINA PRODUCTION
 - Filtration of concentrates
- MUNICIPAL ENGINEERING, CHEMICAL AND FOOD INDUSTRIES:
 - Organization of local water-looped cycles

TYPICAL CONCENTRATE RESULTS

Concentrate	Moi- sture, %	Filtration rate, kg/m ² per hour
Copperconcentrate	7.0-8.5	800-1500*
Zink concentrate	6.0-9.0	700-950
Lead concentrate	4.0-7.0	800-3500
Chrome concentrate	6.0-8.0	1100-1500
Iron-ore concentrate	7.5-8.5	900-3500
Molybdenic concentrate	8.0	900-1000



CDF ADVANTAGES



HIGH SPECIFIC OUTPUT
1,5-5 times higher than other vacuum and pressure filters
Big filtration area per the unit of plant space



DRY CAKE
Concentrate filter cake moisture content 7-8 wt %

POWER CONSUMPTION ECONOMY
10-20 times less power consumption,
Compared to vacuum and pressure filter designs
Concentrate driers eliminated
Reduction of heavy duty electrical components

CERAMIC FILTERING ELEMENTS
Ceramic filtering elements' life is 36 months
High thermal resistance and strength
High abrasion resistance
High open porosity—up to 45%



CLEAR FILTRATE, RAW MATERIALS ECONOMY
No losses of solids with filtrate
(content of filtrate solids: 0.001-0.005 gram/liter)
Use of the filtrate in the looped water cycle for reduction of water consumption to 30-50%

MAINTENANCE AND OPERATING COSTS SAVINGS
Filter media replacement cost
Minimal Operating & Maintenance manpower required

PLANT ENVIRONMENTAL AND SAFETY
No aerosol blowouts and reduction in man power leads to improved safety record
No filtrate solids allows to use the filtrate in the looped water cycle

BAKOR'S NANO CERAMIC SECTOR IS THE BEST OF CLASS TECHNOLOGY

Nano-ceramic element design driven by the exclusive objective of meeting the process needs of the mineral industry. Ceramic vacuum filters are equipped with discs each consists of ceramic sector-shape filtering plates, which provide removal of the liquid from slurry by the capillary action of ceramic media. Bakor's scientific know-how has lead to the design of superior Nano-modified porous structure and plate membrane ceramic filter thus providing the mineral industry with Cost Effective Solutions.

ADVANTAGE – BAKOR CERAMIC SECTOR

- HIGH RATE TURBO DESIGN
- CONTROL THE PORE SIZE
- APPLICATION SPECIFIC MATERIAL SELECTION
- MAXIMIZING MECHANICAL STRENGTH
- NON-CLOGGING DESIGN
- ABRASION RESISTANT
- HIGH TEMPERATURE RESISTANCE
- RESISTANCE IN AGGRESSIVE ENVIRONMENTS
- DRY CAKE
- HIGH PRODUCTIVITY AND CLEAR FILTRATE
- CONTINUOUS OPERATION AND HIGH LIFE SPAN
- MAINTENANCE AND OPERATING COSTS SAVINGS



LABORATORY AND SITE TESTING

The preliminary research in filterability of pulp is conducted at the testing laboratory unit under laboratory conditions or in the customers shops.

When the test results are positive, then the laboratory test using the CDF-0.5 testing filter with a filtering area 0.5 m² is performed.

The CDF-0.5 is an industrial filter, fully equipped with automatic and regeneration system.

