

## LABORATORY DISC REFINER TYPE BAUER *model MD-3000*



The MD-3000 is a disc refiner widely used for refining studies of pulps in the QC (quality control) and R&D (research and development) of pulps, papers and boards.

Its high capacity and sturdiness allow customers to use it also as main refiner in small sized production lines of special papers.

The MD-3000 uses one pair of refining discs according to customers option. Six different types are available according to description below.

### MAJOR TECHNICAL CHARACTERISTICS

Works with mass consistency up to 6%;

50 L capacity stainless steel reservoir with inspection door;

System for linear adjustment of refining discs' gap from 0 to 9 mm with integrated scale can be used even during operation;

Heavy duty 5,5 kW (7,5 HP), 1750 rpm IP 55, rugged drive motor;

Bascule door with quick locking system offers to the user an extremely easy access to the refining chamber and refining discs;

Integrated control panel with timer and digital indicator of tension, power consumption [W] and current [A];

Interchangeable hard bronze or stainless steel refining discs with diameter of 200 mm are available

Closed refining loop driven by the refiner itself has lower collection point for refined pulp and spreader cone in the reservoir's upper inlet which ensures that all the pulp is refined homogenously while it is circulating;

Automatic soft start system offers high torque start and high revolution operation which enables the equipment to be started even fully loaded;

All parts in contact with the refined material are made of non corrosible materials like bronze and stainless steel;

Heavy duty frame is iron-cast and supporting structure made with steel profiles with proper fixing holes for anchor bolts ensure smooth operation;

Refining chamber is cooled by circulating cold water around it through available connection points ensure that users can protect their samples from typical heat generated by refining jobs

Power supply	220 VCA, 60 Hz, 5,5 k W, three phase. Others available under request.
Water supply	3 bar, clean, pure, 0,5 m <sup>3</sup> /h
Waste water supply	Required
Dimensions	(850 x 750 x 1800) mm (W x L x H)
Weight	300 kg

Note: due to constant development our equipment design and specifications are subject to change without notice.

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## CONVENTIONAL REFINING DISCS

Conventional cast refining discs available for the Bauer Laboratory Disc Refiner :

- Cast Hard Bronze or AISI 316 Stainless Steel
- Machined refining surfaces
- Fine sandblast finish for smooth surfaces



Long Fiber Disc



Short Fiber Disc



General Use Disc

### MAJOR TECHNICAL CHARACTERISTICS

Disc Model	Long Fiber	Short Fiber	General Use
Sectors	8	8	6
Angle	45°	45°	60°
Bar	5 mm	3 mm	1 a 5 mm conic
Groove	5 mm	3 mm	5 a 1 mm conic
CEL - Cutting Edge Length	0,075 km/rev	0,26 km/rev	0,47 km/rev
Cutting Speed	2,18 km/s	7,67 km/s	13,65 km/s
SEL - Specific Edge Length	1,14 W.s/m	0,32 W.s/m	0,18 W.s/m

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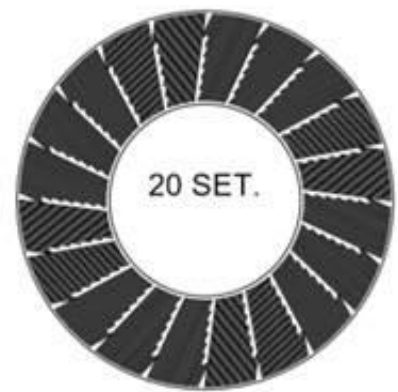
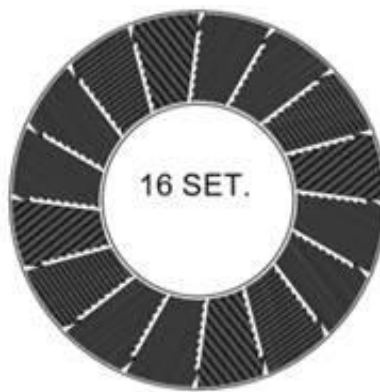
## FINE BARS AND LOW INTENSITY REFINING DISCS

In line with latest demands from the pulp and paper industries, such as NFC and MFC Regmed is introducing a new a range of refining discs designed and manufactured with latest technologies of fine bars :

- AISI 304 stainless steel base
- AISI 301 laminated refining bars
- anti-wear treatment on its surfaces
- laser welded construction

These new refining discs offer users low intensity refining and longer lifetime thanks to :

- higher CEL ( Cutting Edge Length )
- lower SEL ( Specific Edge Length )
- clean grooves with smooth surfaces
- higher retention of leading cutting edge properties
- uniform wear of the refining bars
- deeper refining groves



### MAJOR TECHNICAL CHARACTERISTICS

	FBD-12	FBD-16	FBD-20
Model	FBD-12	FBD-16	FBD-20
Sectors	12	16	20
Angle	12,5°	12,5°	12,5°
Bar	3 mm	2 mm	1,2 mm
Groove	3,5 mm	2,5 mm	2 mm
CEL - Cutting Edge Length	0,22 km/rev	0,46 km/rev	0,89 km/rev
Cutting Speed	6,42 km/s	13,42 km/s	25,96 km/s
SEL - Specific Edge Length	0,39 W.s/m	0,19 W.s/m	0,10 W.s/m

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