

BM104X
Eccentric Eddy Current separator
Separation system for recycling industries



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Datasheet Bakker Magnetics

BM104X Eccentric Eddy Current separators

version 1.1

- Execution : Eccentric nonferrous separator type BM104X
Sturdy construction
Modular design
Including separation unit
Including control cabinet
- Driving drum : Ø295mm, crowned
Powered by 4kW SEW engine
- Magnetic rotor : Ø610mm, cylindrical
Powered by 9,2kW SEW engine
Built up with strong neodymium magnets; quality BM52 (BM104X)
- Surface treatment : Anti-corrosion primer
Painted blue RAL 5015
Stainless steel parts untreated
- Placement : Protected / covered environment
Environment temperature -15°C ⇔ 40°C
Relative humidity max. 85%
Free from dust

Conform CE label; with certificate.

Bakker Magnetics supplies a complete installation- and user manual in Dutch-, English- or German language (to be specified with order).

- A-brand bearings applied.
- Equipped with a 52 (BM104X) poles high speed eccentric magnetic rotor.
- Adjustable belt speed; 0,5 - 3 m/s.
- Adjustable rotor speed; 500 - 3.600 rpm.
(2.000mm max 3.200 rpm).
- Operating at a speed of 3.600rpm the BM104X rotor generates a field frequency of 1.56kHz.
- Wear resistant PU belt, equipped with 2 side guards.
Optional rubber belt, equipped with 2 side guards.
- Self-adjusting belt track including 2 misalignment switches.
- Manually adjustable belt tension.
- Vibration sensor mounted on the frame to detect unbalance, when detected the system switches off.
- Easy access for quick and easy maintenance.
- Radius-shaped magnets to realise the smallest possible air gap.



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Control Cabinet (standard with Eddy Current machine)

- Size : 1.200 x 1.000 x 300mm (H x W x D)
- Input : 3x 400V, 50Hz + PE
Through CEE 64 Amp connector
- Main switch : 3 phase 64 ampere
- Bosch frequency converter(s) for magnetic rotor and drive drum
- 2 Additional thermal overload switches, suitable for 1,2 and 5,5 kW engines
(1x 1,6-2,5 ampere (1.2kW motor) and 1x 11-16 ampere (5.5kWmotor))
- Equipped with Siemens PLC
- Equipped with touch panel for local operation

Vibrating feeder (optional)

- Execution : Unbalance vibrating feeder
Sturdy construction
Modular design
- Trough : Made from stainless steel
Placed on Rosta elements
Available lengths; 1500mm and 2500mm
- Drive : Adjustable unbalance engines
Motor brand Italtibras
- Power : Power for 1500mm length versions;
BM..X 800mm 2x 0,5kW
BM..X 1000mm 2x0,7kW
BM..X 1500mm 2x0,75kW
BM..X 2000mm 2x1,30kW
- Surface treatment : Anti-corrosion primer
Stainless steel parts blasted
Steel parts painted RAL 5015

Neodymium separating drum (optional)

- Execution : Separating drum type TM
Mounted on a frame
Sturdy construction
Modular design
Permanent magnetic
- Drum : Ø315mm, stainless steel 1.4301, with 2 idlers
- Surface treatment : Untreated
- Magnetic part : Magnetic area approx. 180°
Permanent Neodymium magnets quality BM35



Standard version (BM104X)

Article number	A	B	C	D	E	F	G	H	I
29.733/...	800	1610	4020	1500	1135	1462	1175	480	2175
29.734/...	1000	1810	4020	1500	1135	1462	1175	480	2175
29.736/...	1500	2310	4020	1500	1135	1462	1175	480	2175
29.737/...	2000	2810	4020	1500	1135	1462	1175	480	2175

Sized mentioned based on a feeder length of 1500mm

Sizes and dimensions (in mm) as shown on the drawing on the last page.

For more information or questions please contact us:

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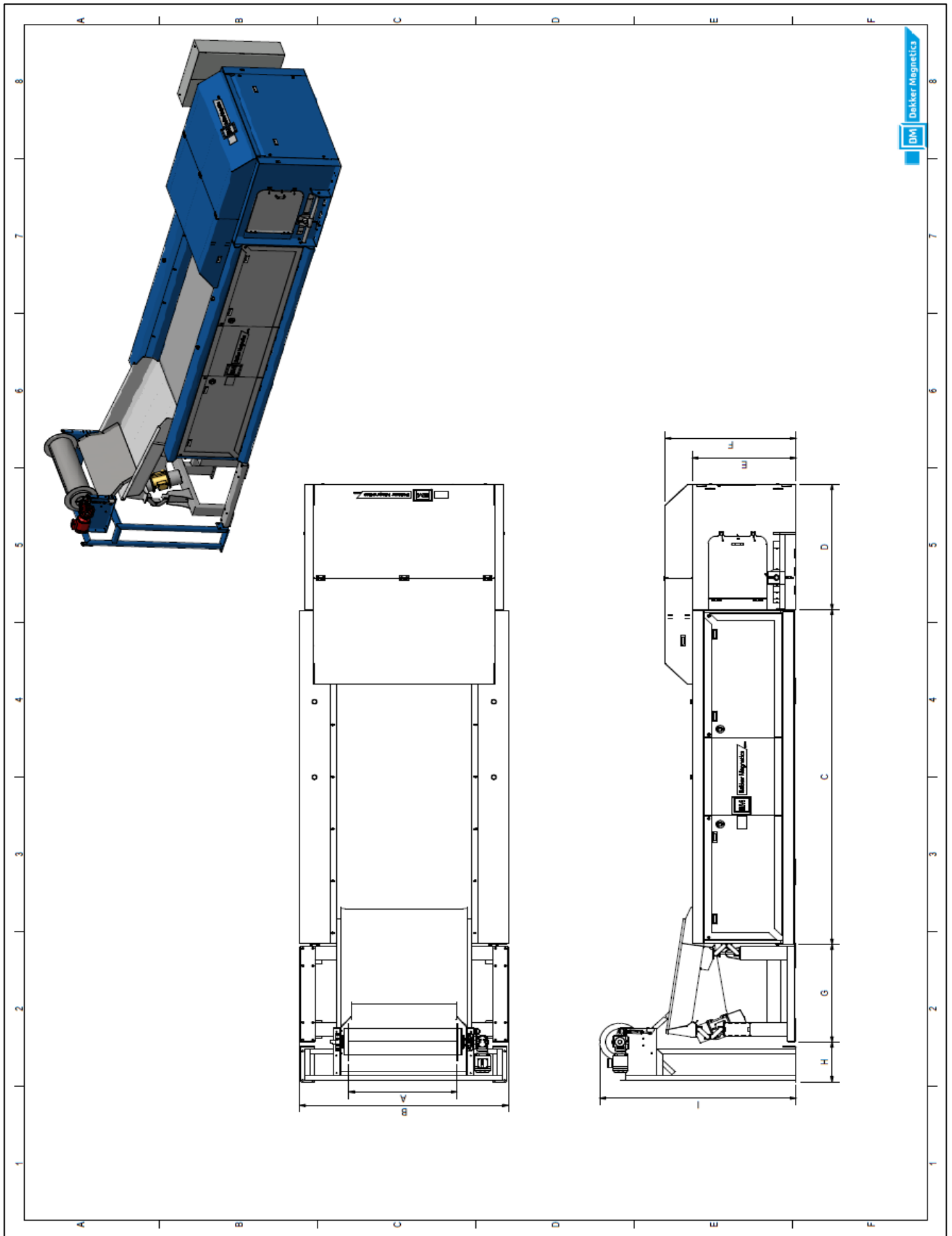
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Dimensions and shape of the magnet, in combination with required manufacturing processes, may cause the magnetic and physical characteristics to vary from typical values. Therefore, all data presented in this document are for general reference only and should not be relied upon to represent standard characteristics, nor are they guaranteed upon use. Bakker Magnetics reserves the right to change information in this document, including magnet performance standards, specifications, and characteristics without notice.



BM104X Eccentric Eddy Current separators

Spare part list

Standard parts

Article number	Description	Number per ECSM
7078	Bearing, SKF 22212 EK/C3	2
7167	Chain Simplex 5/8" 52 left	1
7187	Chain endlink 5/8" 1623-E-26	1
7166/1	Chain sprocket single 5/8" z=19	2
7169	Chain tensioner Rosta P5/8" -10S	1
7080	Clamping bush SKF H-312-XNTN (D50X47)	2
7099	Clamping unit Taperlock D38MM	1
7094	Clamping unit Taperlock D50MM	1
7225	Distance ring SKF ZW 90X110 SKF	2
11282	Drive belt Optibelt HTD-8M-030-1760	1
7185	Flangebearing INA PCJTY 45	2
10340	Side roller belt D50X150MM	2
8062	Switch misalignment Kiepe VG-03/5	2
7168	Tension element Rosta SE-F18 M8/F-350N	3
7182	Tensionroller Rosta R15/18-40	2
7183	Drivesprocket HTD 48-08M30 TB2012	2

Depending on the machine width

Machine type	Width	Sleeve	PU belt	Rubber belt
29.733/..	800	11128/1	11125/800	11125/800/48
29.734/..	1000	11347/1	11125/1000	11125/1000/48
29.736/..	1500	11102/2	11125/1500	11125/1500/48
29.737/..	2000	11427/1	11125/2000	11125/2000/48

Spare rotor for BM104X

Machine type	Width	BM104X
29.733/..	800	29.733/152
29.734/..	1000	29.734/152
29.736/..	1500	29.736/152
29.737/..	2000	29.737/152



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