



BM..C Centric Eddy Current separators

Separation system for recycling industries



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BM12C / BM36C (-s) Centric Eddy Current separators

version 1.6

The working principle of an eddy current separating systems is based on the difference in electric conduction of metals and non-metals. With an eddy current separator a belt conveyor leads the product flow towards a high speed rotating magnetic rotor with a large number of magnets, arranged in opposite pairs of pole pitches.

This magnetic rotor produces a rapidly alternating magnetic field, causing any nonferrous particles to be ejected out of the product flow.

- Execution : Centric nonferrous separator type BM..C
Sturdy construction
Modular design
Including separation unit
Including control cabinet
- Driving drum : Ø295mm, crowned
Powered by 4kW SEW engine
- Magnetic rotor : Ø295mm, cylindrical
Powered by 7,5kW SEW engine
Built up with strong neodymium magnets; quality BM35 (BM12C/36C) or BM50 (BM36C-s)
- Surface treatment : Anti corrosion primer
Painted blue RAL 5015
Stainless steel parts untreated
- Placement : Protected / covered environment
Environment temperature +5°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.
- Can be equipped with a 12 (BM12C) or 18 (BM36C(-s)) poles high speed magnetic rotor.
- Adjustable belt speed; 0,5 - 3 m/s.
- Adjustable rotor speed; 500 - 3.000 rpm.
- Wear resistant PU belt, equipped with 2 side guards and 1 flight.
Optional rubber belt, equipped with 2 side guards and 2 flights.
- 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 32 Amp connector
- Main switch : 3 phase 32 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
Engine brand Italvibras
- Power : Power for 1500mm length versions;
BM..C 500mm 2x 0,5kW
BM..C 800mm 2x0,5kW
BM..C 1000mm 2x0,7kW
BM..C 1200mm 2x0,7kW
BM..C 1500mm 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
Suitable for BM..C Eddy Current machines
- 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 (BM12C / BM36C (-s))

Article number	A	B	C	D	E	F	G	H	I	Weight (kg)
29.721/...	500	1340	3000	720	1037	1500	1160	680	1925	1037
29.723/...	800	1640	3000	720	1037	1500	1160	680	1925	1037
29.724/...	1000	1840	3000	720	1037	1500	1160	680	1925	1037
29.725/...	1200	2040	3000	720	1037	1500	1160	680	1925	1037
29.726/...	1500	2340	3000	720	1037	1500	1160	680	1925	1037

Sizes mentioned based on a feeder length of 1500mm

Mentioned weights includes separating unit and excluding feeder and drum.
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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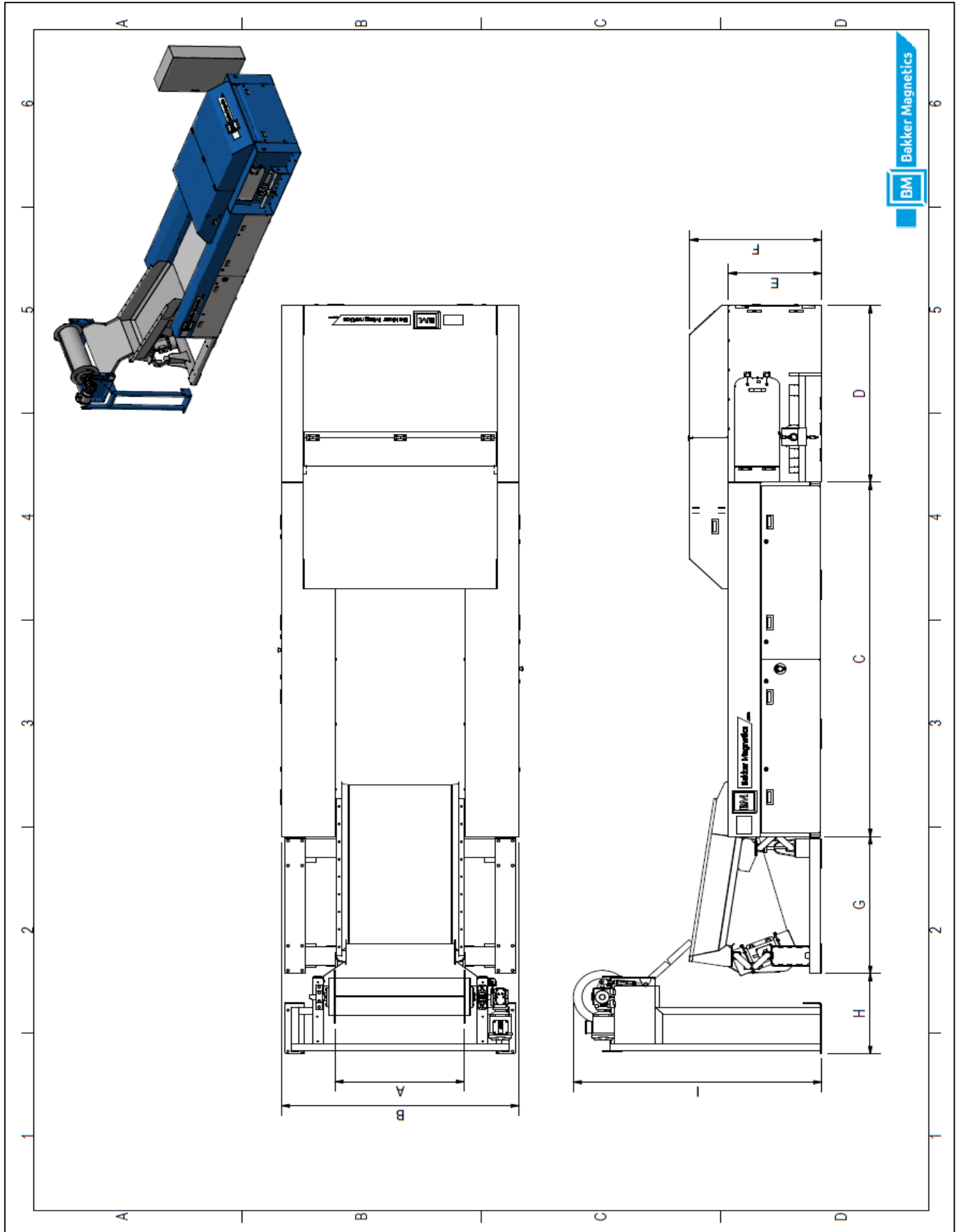
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Dimensions and shape of the magnet, in combination with required manufacturing processes, may cause the magnetic and physical characteristics to vary from typical values. Therefore, all data presented in this document are for general reference only 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.



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Spare part list

Standard machine parts

Article number	Description	Number per ECSM
7078	Bearing, SKF 22212 EK/C3	2
7186	Bearinghouse SKF 722512-DB	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
7184	Drive belt Optibelt HTD-8M-030-2080	1
7185	Flangebearing INA PCJTJ 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	Ceramic sleeve	PU belt	Rubber belt
29.721/..	500	6202	6070	29.711/48/1
29.723/..	800	6203	6071	29.713/48/1
29.724/..	1000	6204	6072	29.714/48/1
29.725/..	1200	6205	6073	29.715/48/1
29.726/..	1500	6206	6074	29.716/48/1

Spare rotor for BM..C

Machine type	Width	BM12C	BM36C	BM36C-s
29.721/..	500	29.721/112	29.721/118	29.721/118/BM50
29.723/..	800	29.723/112	29.723/118	29.723/118/BM50
29.724/..	1000	29.724/112	29.724/118	29.724/118/BM50
29.725/..	1200	29.725/112	29.725/118	29.725/118/BM50
29.726/..	1500	29.726/112	29.726/118	29.726/118/BM50



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