

## CERTIFICATE MAGNETIC VALUES BM35

Revision: 10-11-2020

Art. nr.	:	BM24.078/01
Specification	:	FDA Magnet Ndfeb
Customer	:	Beloh GmbH.

The above mentioned magnetic system is equipped with licensed Neodymium magnets. These high-quality Neodymium-Iron-Boron magnets comply with the magnetic specifications as listed below. Under normal circumstances Bakker Magnetics guarantees the mentioned values below will not decrease with time.

External energy which could affect magnetic force are:

- <u>Temperature</u>: At elevated operating temperatures magnetic material will at first show a reversible loss of magnetic force depending on the magnet geometry. When further heated the magnetic material will give irreversible losses of magnetic force. Above the so called Curie temperature the magnetic force disappears completely.
- 2) <u>External magnetic fields:</u> Very strong external magnetic fields (both permanent magnet exited or coil excited fields) can partly or totally demagnetise the magnetic material.
- 3) <u>Extreme external stress:</u> Magnetic material can lose its magnetic force due to extreme external stress, for example mechanical breakage.
- <u>Corrosive reactions:</u> Some (aggressive) chemicals can give a chemical reaction with the magnetic materials and disrupt the micro-structure of the magnetic material. This will result in partial or complete loss of magnetic force.

Br	(Remanence)	:	1.170 – 1.210 mT / <b>11.700 – 12.100 Gauss</b>
HcB	(Normal Coercitity)	:	860 – 892 kA/m
HcJ	(Intrinsic Coercivity)	:	955 kA/m
B-Hmax	(Max. Energy Product)	:	263 – 279 kJ/m3
Continuous ma	aximum operating temperature	:	80º C.

Besides the magnetic properties of selected materials, a judicious magnet configuration is highly important to realise optimal separating efficiency. Bakker Magnetics b.v. has applied 2D and 3D FEA software packages to optimize the magnetic circuits.

Be aware that the output of the magnet will differ from the values above. The measured output on the machine will be roughly 0.45 Tesla. See attached flux density.

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**Manager Engineering** 

Enclosure: ISO Certificate

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