

## I Applications:

Magnetic grids are installed into pipings or drop shafts where powder or fine-grained granulate material are separated from magnetizable particles. The protection of mills and further subsequent machines is of primary importance. Due to the low installation height of only 100mm the system can also be used in limited space conditions.

## I Description of functions:

The Magnetic grid's casing is connected to the piping system by Jacob-system connections. The material to be conveyed flows through the BoxMag-System and is exposed to the strong magnetic field of the installed magnetic filter rods. Even weak magnetic contaminations in the product are seized, attracted by the filter rods and held tight.

# Magnetic Grid

MFR-K



## I Product requirements:

The material to be controlled must be dry, powdery or short-fibred and free-flowing.

## I Housing:

Material: Stainless steel AISI 304

Surface:

Outside blasted with ceramic beads,

Inside smoothed with 180 µm grain

Inlet and outlet with Jacob-System connections  
(other designs subject to agreement)

## I Magnetic material:

High energy neodymium magnets that remove even the finest metal contaminants are used.

Magnetic material:

Energie product max. 342 kJ/m<sup>3</sup>

Coercive force H<sub>cJ</sub> >= 876 kA/m

Remanence B<sub>r</sub> max. 1370mT

Active surface: max. 1000mT

Operating temperature max. 80°C

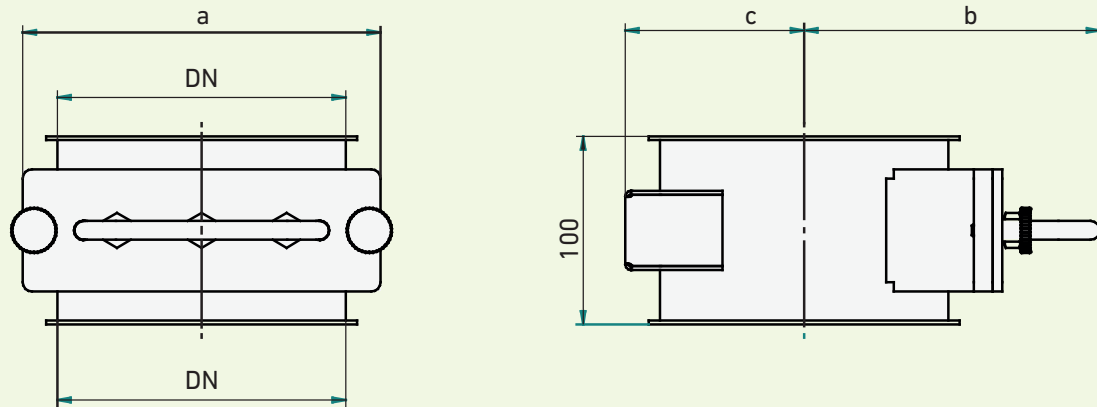
## I Product description:

The special constructional design of this magnetic grid ensures the control of the whole tunnel's cross section after the installation of the system into the tube piping. The unmagnetic head pieces of the magnetic rods end within the pipe diameter in case of conventional magnetic grids which leads to an uncontrolled range within the product area.

Neodymium magnetic rods of the magnetic grid MFR-K are penetrating the tube. The arrangement of the magnetic poles ensures the homogenous control of the whole area where material passes by.

The integration into the tube takes place flexibly and quickly with Jacob-system pipe connections. Assembly and dis-assembly can be realized without any tools

When planning please note that the free cross-section of the tube in the magnetic grid's range will be reduced.



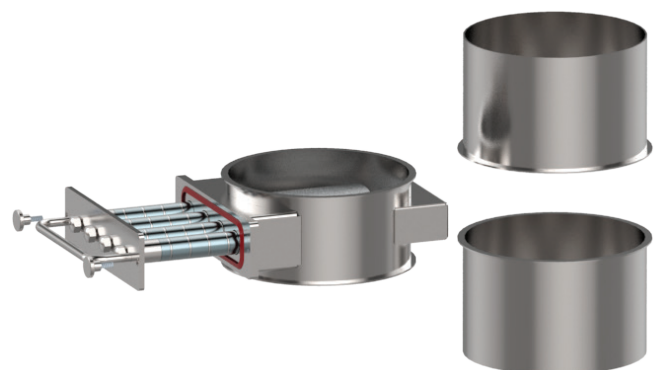
	DN	magnetic bars	a	b	c	kg
<b>Type MFR-K</b>						
NW 100	100	2	150	126	65	3,0
NW 150	150	3	190	157	95	5,0
NW 200	200	4	225	181	120	7,0
NW 250	250	5	270	201	145	9,5

## I Cleaning:

For cleaning purposes the magnetic grid is removed from the tube by only opening the clamping rings at the inlet and outlet. The user will not need any tools.

Outside the product range the two knurled screws are loosened and the magnetic insertion can be removed from the casing.

As soon as the plug-in unit is removed, the metallic parts break away and fall off.



## I ATEX:

All systems have been tested for freedom from ignition sources in accordance with EU Directive 94/9/EC. All machines are also suitable for use in ATEX Zone 20 (dust) provided the design is adapted accordingly.