C·L·E·A·N-F·L·O·W· ·M·A·G·N·E·T·S
&
·M·A·G·N·E·T·I·C· ·G·R·I·D·S·

GOUDSMIT
magnetic systems

C · O · N · T · E · N · T · S

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···QUALITY FIRST

With the introduction of more stringent quality standards (HACCP), manufacturer must be able to rely on their products being treated with the utmost care. This also applies to the deferrisation of products. Goudsmit Magnetic Systems is therefore constantly on the lookout for methods to improve its magnetic deferrisation systems: the objective being to achieve the greatest possible magnetic force in combination with a low overall height and easy cleaning of the systems by the operator.
With a view to achieving optimum deferrisation, Goudsmit Magnetic Systems has used its 40 years of expertise and experience to develop the Neoflux® and Clean-Flow magnets.
The Neoflux® magnetic systems are fitted with a GSN 35 magnet as standard, which has a Br value of 12,000 Gauss. However, a more powerful version was recently introduced: the GSN 50, which has a Br value of 14,000 Gauss. This magnet even attracts stainless steel and low-ferrous particles, such as iron oxides.

Operating principle

The best means of removing the highest particle quantity from the product is to fit two grid magnets, one above the other. This ensures that the product makes contact with the magnet, and guarantees optimum deferrisation.
A Goudsmit Ferroxdure magnet removes particles of 1 mm and upwards. However, should you wish to remove even the most minute iron particles, we would advise you to deploy the Neoflux® magnet.

HACCP: Hazard Analysis Critical Control Point

Accredited by the dutch Council for certification

Goudsmit has been awarded an NEN-EN-ISO 9001 certificate (nr. 653438)

To prolong life expectancy and guarantee continuously high magnetic values, it is essential that the product temperature does not exceed 80° C. Magnets with a higher temperature resistance can also be supplied on request.

A rotating Clean-Flow magnet is used to remove iron particles from meat powder.

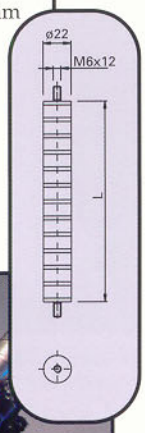
Quality	Remanence		Coercivity				Max. product energy		Max. operating temp.*
	Br.		HcJ		HcB		(BH)max		T
	T	kG	kA/m	kOe	kA/m	kOe	kJ/m3	MGOe	C
GSF-33H (SrFe)	0.37-0.39	3.7-3.9	216-248	2.7-3.1	208-240	2,6-3,0	25,5-29	3,2-3,6	225
GSN-35H	1.19-1.22	11.9-12.2	>1353	>17,0	836	10.5	271-287	34-36	120
GSN-38H	1,24-1,27	12,4-12,7	>1353	>17,0	836	10.5	295-310	37-39	120
GSN-35	1,19-1,22	11,9-12,2	955-1114	12,0-14,0	876	11	271-287	34-36	80
GSN-38	1,24-1,27	12,4-12,7	955-1114	12,0-14,0	876	11	295-310	37-39	80
GSN-40	1,28-1,32	12,8-13,2	876-1035	11,0-13,0	876	11	310-326	39-41	80
GSN-42	1,40-1,34	13,0-13,4	876-955	11,0-12,0	876	11	326-342	41-43	80
GSN-50	1,38-1,41	13,8-14,1	950-1030	12,0-13,0	950	11.9	360-385	45-48	100

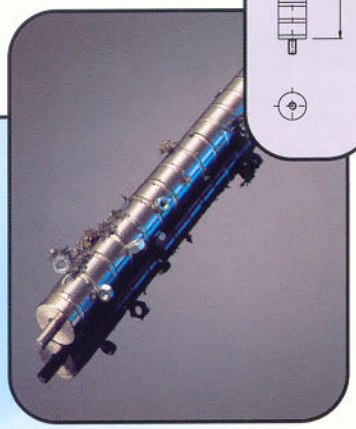
1kG=0,1T, 1kOe=79,6kA/m, 1MGOe=7,96kJ/m3
* The operating temperature is also dependent on the magnet dimensions and the system design. We would be pleased to advise you on such matters.

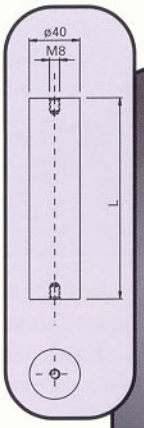
Magnetic rods are the basic components in all Clean -Flow magnets. You are free to select the ideal magnet design for your purposes, with a choice of two magnetic strengths.

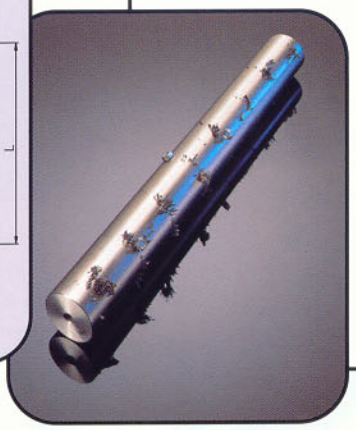
A) Ferroxdure:

- Ø 22 mm GSF 33 magnet
- Magnetic value: Br 3900 Gauss
- Standard lengths up to 400 mm (other lengths available on request)
- M6 thread on either end
- Suitable for particles of 1 mm and upwards
- Standard operating temperature: 100°C



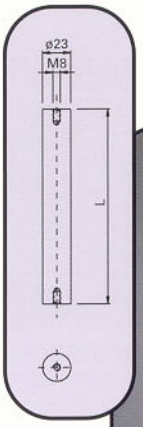


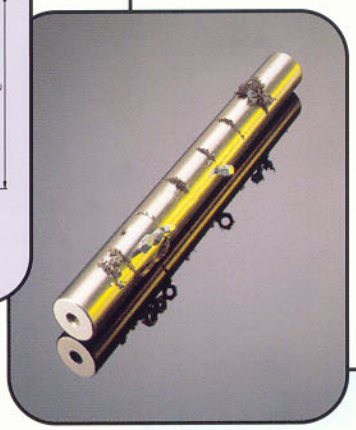




B) Ferroxdure & waterproof

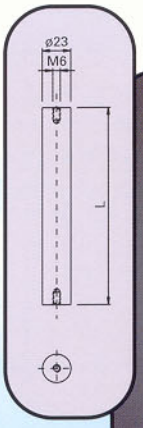
- Entirely waterproof, Ø 40 mm GSF 33 magnet
- Magnetic value: Br 3900 Gauss
- Standard lengths up to 1000 mm (other lengths available on request)
- M8 tapped holes at either end
- Suitable for particles of 1 mm and upwards
- Standard operating temperature: 100°C max.

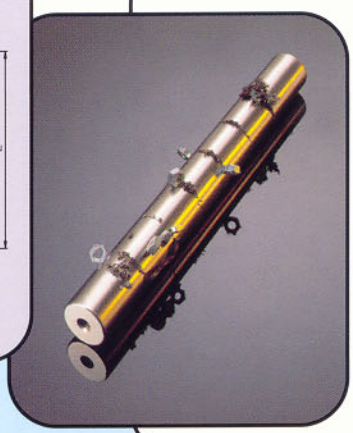




C) Neoflux® & waterproof

- Entirely waterproof, Ø 23 mm GSN 35 magnet
- Magnetic value: Br 12,000 Gauss
- Standard lengths up to 600 mm (other lengths available on request)
- M8 tapped holes at either end
- Suitable for particles of 30 microns and upwards
- Standard operating temperature: 80°C max. (higher temperatures available on request)





D) Neoflux® & ultra-strong

- Entirely waterproof, Ø 23 mm GSN 50 magnet
- Magnetic value: Br 14,000 Gauss
- Standard lengths up to 600 mm (other lengths available on request)
- M6 tapped holes at either end
- Suitable for particles of 30 microns and upwards and low-ferrous stainless steel
- Standard operating temperature: 80°C max. (higher temperatures available on request)

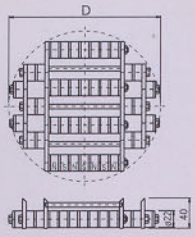
FERROXDURE
MAGNETIC GRIDS

Magnetic grids are generally used in situations involving low iron contamination. For example, in the hopper of an injection welding machine, as a system safeguard. Magnetic grids can also be used during the final inspection of products, before they are bagged. The Neoflux® grids in particular are ideal for such applications. These guarantee your customers an absolutely iron-free product. These grids are available in round, square and rectangular models, made to your specifications (Please state dimensions A & B or D).

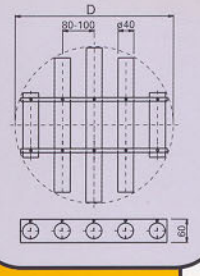
Double-decker!
Special Ferroxdure magnetic grid for the plastics industry, with a highly favourable price-quality ratio!

Ferroxdure: simple and effective

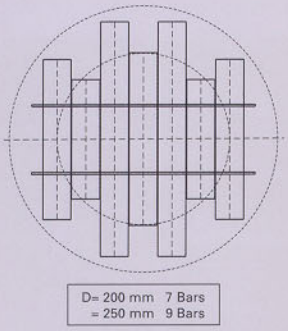
Round Ferroxdure grid, made of Type A magnetic rods.



Round magnetic grid, made of Type A magnetic rods (see page 4). Standard dimensions up to Ø 300 mm (others available on request).

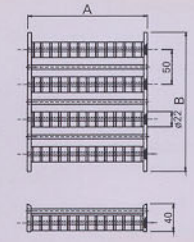


Round, waterproof Ferroxdure magnetic grid, made of Type B magnetic rods (see page 4). Standard dimensions from Ø 300 to Ø 500 mm (other dimensions available on request).

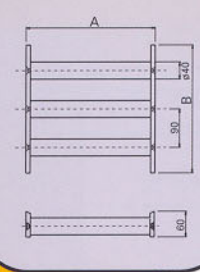


Ferroxdure: waterproof & heavy-duty models

Square Ferroxdure grid, heavy-duty model made of Type A magnetic rods.



Square magnetic grid, made of Type A magnetic rods (see page 4). Standard dimensions up to ⧈ 300 mm (other dimensions available on request).

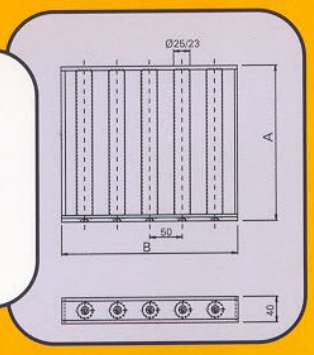


Square, waterproof Ferroxdure magnetic grid, made of Type B magnetic rods (see page 4). Standard dimensions from ⧈ 300 to ⧈ 500 mm (other dimensions available on request).

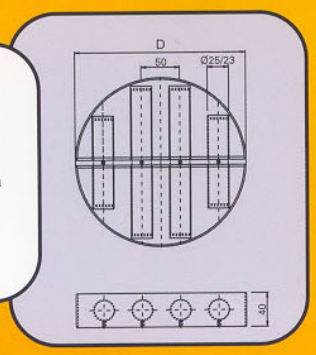
N · E · O · F · L · U · X · ® · · · · · M · A · G · N · E · T · I · C · · · G · R · I · D · S · · ·

These grids are available in round, square and rectangular models, made to your specifications (Please state dimensions A & B or D).

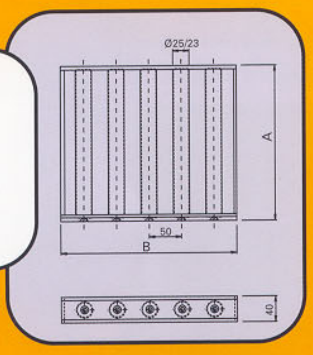
Square, waterproof Neoflux® magnetic grid, made of Type C magnetic rods (see page 4). Standard dimensions up to ⧈ 400 mm (other dimensions available on request). Optional: extractor for quick cleaning.



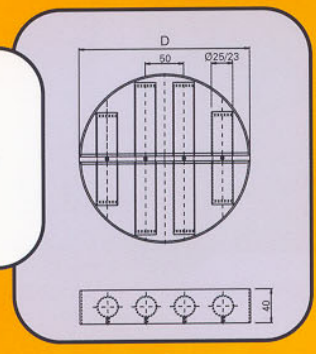
Round, waterproof Neoflux® magnetic grid, made of Type C magnetic rods (see page 4). Standard dimensions up to Ø 400 mm (other dimensions available on request). Optional: extractor for quick cleaning.



Square, waterproof Neoflux® magnetic grid, made of Type D magnetic rods (see page 4). Standard dimensions up to ⧈ 400 mm (other dimensions available on request).



Round, waterproof Neoflux® magnetic grid, made of Type D magnetic rods (see page 4). Standard dimensions up to Ø 400 mm (other dimensions available on request).



Neoflux® waterproof

Quick-clean Neoflux® magnetic grid, with GSN 35 magnets and extractor.

Neoflux® ultra-strong, waterproof

Neoflux® magnetic grid with GSN 35 magnets, ideal for the removal of stainless steel and low-ferrous particles.

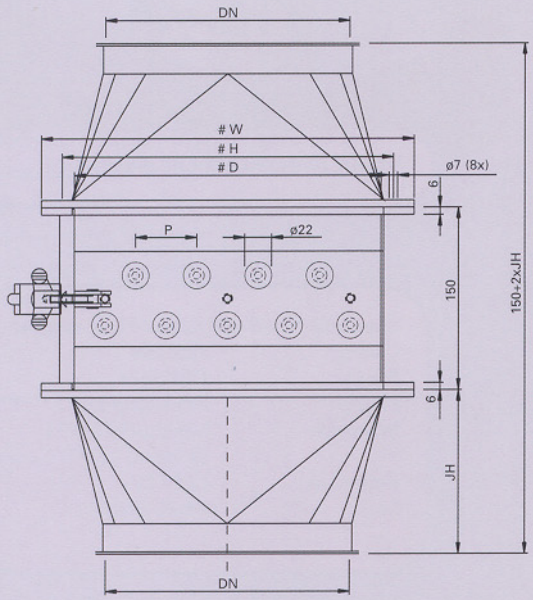
If two magnetic grids are installed, one above the other, the product is almost certain to make contact with one of the rods. The grids are fitted asymmetrically to one another in a stainless steel casing. An inspection hatch facilitates the removal of the grids for cleaning and inspection. Clean-Flow magnets: the ideal means of achieving optimum deferrisation.

Ferroxdure Clean-Flow magnets

Ferroxdure Clean-Flow magnets remove iron particles of 2 mm and upwards.

Specific properties:

- Compact overall height
- Excellent price-quality ratio



Ferroxdure Clean-Flow magnet

Casing:	AISI 304
Flange holes:	according to Jacob DN 100 - DN 300
Finish:	bead blasted
Magnets:	GSF33H
Seal:	white silicon

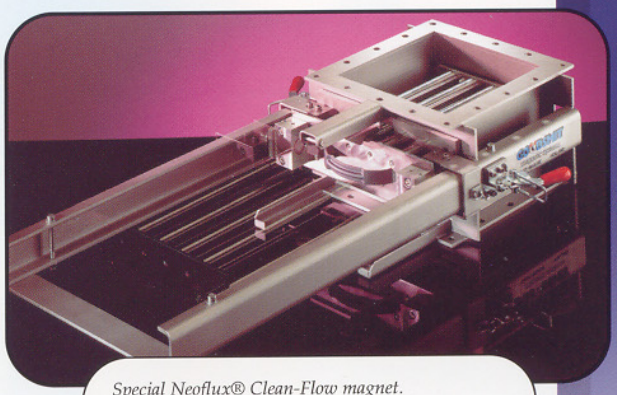
TYPE	DN	JH	Flange holes according to Jacob DN 100 - DN 300 D	W	H	P	Nr. of rods
SECF120014	100	60	⧄ 120x110	174	2x70 =140	40	2+3
SECF180014	120	70	⧄ 180x180	234	2x101 =202	44	3+4
SECF200014	150	85	⧄ 200x200	254	2x112.5 =225	50	3+4
SECF250014	200	135	⧄ 250x250	304	2x135 =270	50	4+5
SECF300014	250	150	⧄ 300x300	354	2x162.5 =325	50	5+6
SECF350014	300	210	⧄ 350x350	404	2x187.5 =375	50	6+7

N·E·O·F·L·U·X·®
C·L·E·A·N·F·L·O·W
M·A·G·N·E·T·S

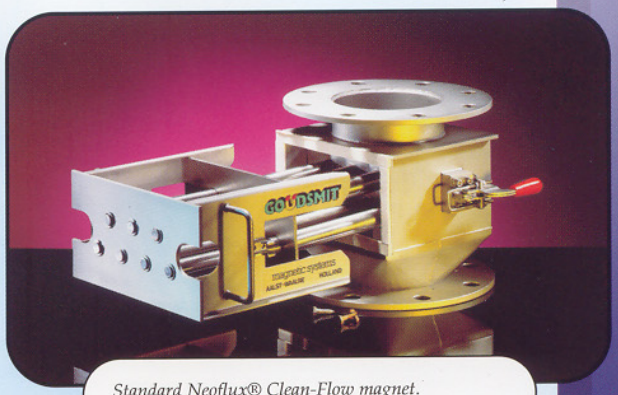
Neoflux® Clean-Flow magnets remove ferrous particles of 30 microns and upwards. And should you also wish to remove stainless steel particles, Goudsmit can now supply magnetic systems fitted with ultra-strong GSN 50 magnets. The Neoflux® systems are only available as quick-clean models: the iron particles are removed from the rods by detracting the stainless steel extractor tubes (fitted around the rods). A quick and easy cleaning method.

Specific properties:

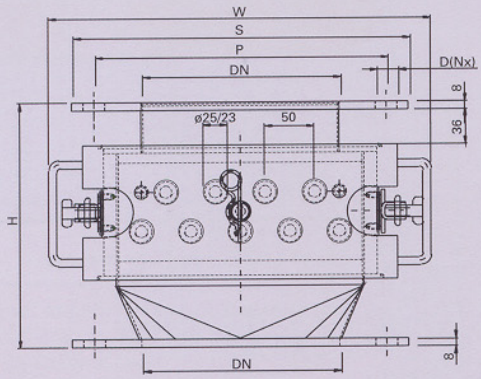
- Ultra-strong
- Quick and easy cleaning
- Suitable for the foodstuffs sector (HACCP)
- The grids are fitted to the casing by means of a drawer (easy to operate)
- Optional: entire system can be electrolytically polished.
- Quick release
- Safe (no risk of trapped fingers, etc.)



Special Neoflux® Clean-Flow magnet. The grids are removed from the casing by means of side-mounted drawer system.



Standard Neoflux® Clean-Flow magnet.



Standard Neoflux® Clean-Flow magnet

Casing:	AISI 304
Flange:	DIN 2576
Finish:	bead blasted
Magnets:	Neoflux® GSN35 Br [max] 12.000 Gauss
Extractor:	D25/23
Seal:	white silicon

Type nr.	inlet/outlet DN	H	Flange according to DIN 2576 W	S	P	N	D	Nr. of rods
SECF050638	50	250	240	165	125	4	18	1+2
SECF100638	100	250	290	220	180	8	18	2+3
SECF150638	150	250	340	285	240	8	22	3+4
SECF200638	200	250	390	340	295	8	22	4+5
SECF250638	250	250	440	395	350	12	22	5+6
SECF300638	300	250	490	445	400	12	22	6+7
SECF350638	350	300	540	505	460	16	22	7+8

SELF CLEANING CLEAN FLOW MAGNETS

If the product contains large amounts of iron particles, the Clean-Flow system has to be cleaned frequently to ensure optimum effectiveness. If cleaning has to be carried out more than twice a day, an automatic system may be a preferred option. Goudsmit Magnetic Systems has developed two different systems for this purpose: one for continuous and one for non-continuous production processes.

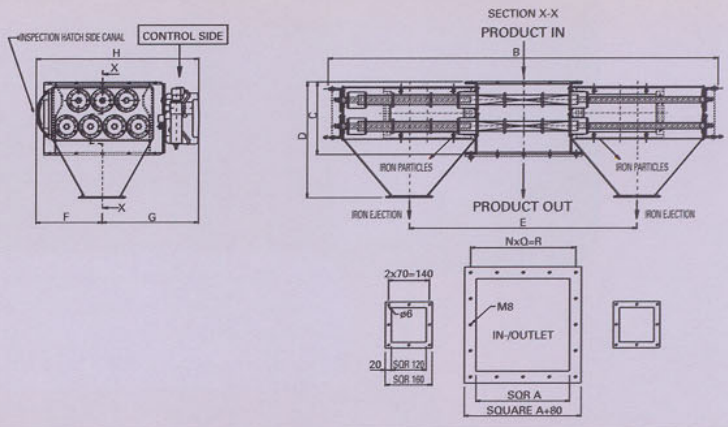
For continuous production processes

Two ultra-strong Neoflux® magnetic rods are mounted in a fixed position within the product chute. The magnetic rods are sheathed by a stainless steel tube, which can be slid to the left or right by means of a pneumatic control system. The first time the magnetic rod needs to be cleaned, the stainless steel tube is slid to the right, thus breaking the magnetic field and depositing the collected particles in the right-hand chute. The next time the rod needs cleaning, the tube is slid to the left and the particles are deposited in the left-hand chute. The system therefore comprises a central product chute and two particle discharge chutes to the left and right.

Clean-Flow magnets for continuous production processes can be cleaned without interrupting the product flow.

Specific properties:

- The magnets are cleaned without interrupting the product flow.
- The magnets remain within the product flow during cleaning, guaranteing optimum deferrisation.
- Compact overall height
- Uses ultra-strong magnets
- Particularly service-friendly
- PLC controlled



Type nr.	Nr. of rods	Capacity	A B	C D	E	F G	H	N x Q = R
SECC240001	Top row= 2	22 m3/hr	240	250		190		
	Bottom row = 3		1100	350	623	290	480	3 x95 = 285
SECC320001	Top row = 3	38 m3/hr	320	250		230		
	Bottom row = 4		1340	400	780	330	560	4 x 90 =360
SECC400001	Top row = 4	60 m3/hr	400	250		270		
	Bottom row = 5		1680	450	940	370	640	4 x110 =440

S·E·L·F·C·L·E·A·N·I·N·G·C·L·E·A·N·F·L·O·W·M·A·G·N·E·T·S

Clean-flow magnets for non-continuous production processes

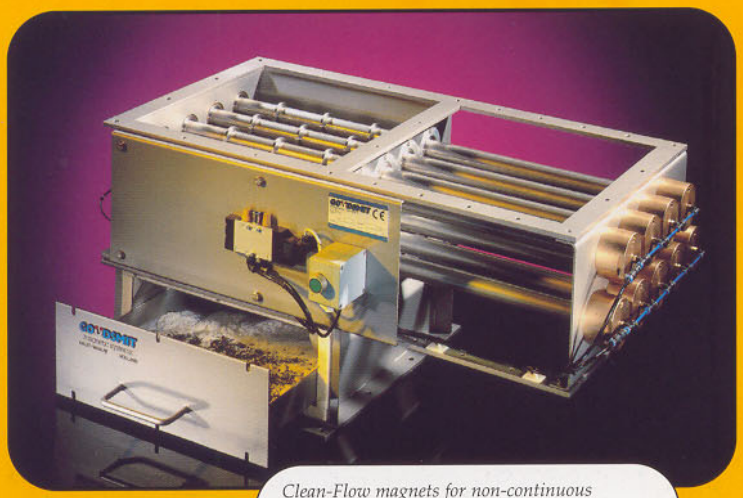
These magnets are also self-cleaning. In contrast to the continuous Clean-Flow magnet, however, the production process does have to be **shut down** during the cleaning of this system. In this case, the tubes that sheath the rods are fixed in position, while the rods themselves can be pneumatically retracted.

Cleaning

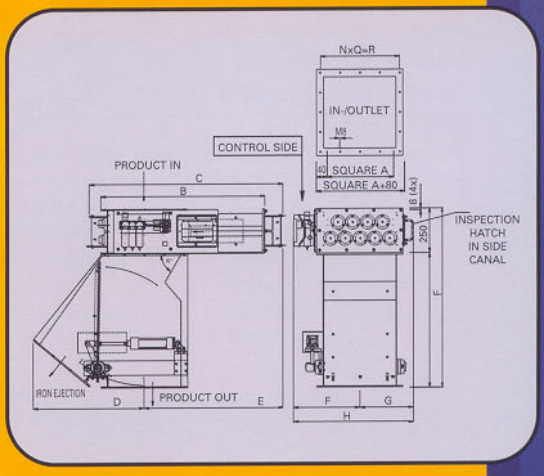
Once the production process has been shut down, the cleaning cycle can commence. During the cleaning cycle, a hatch situated below the magnets is opened and the magnetic rods are pneumatically retracted. This breaks the magnetic field and deposits the iron particles in a container beneath the hatch. The rods are then replaced, whereupon the hatch closes and the production process can resume. The main advantages of this system are that it is a sealed unit and suitable for use in the foodstuffs industry.

Specific properties:

- Ultra-strong Neoflux® magnets
- Self-cleaning (PLC controlled)
- Suitable for the foodstuffs sector (HACCP)
- No moving parts (maintenance-free)
- Hermetically sealed unit
- AISI 304 casing with AISI 316 rods
- Max. operating temperature of 80°C
- Optional: special electrolytically polished or buff-finished housing

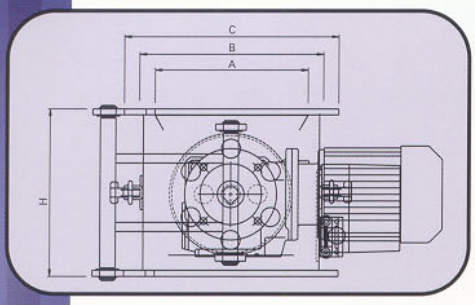


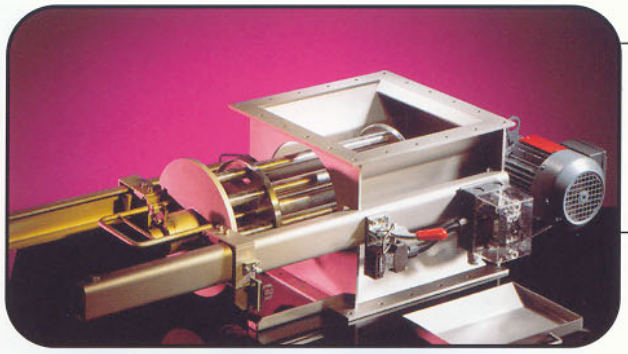
Clean-Flow magnets for non-continuous production processes are hermetically sealed and entirely maintenance-free.



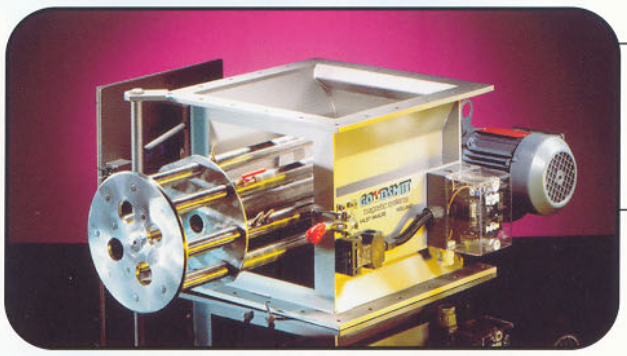
Type nr.	Nr. of rods	Capacity	A	B	C	D	E	F	G	H
SECD240101	Top row = 2 Bottom row = 3	22 m3/hr	240	588	755	755	975	800	415	470
SECD320101	Top row = 3 Bottom row = 4	38 m3/hr	320	148	915	915	1165	900	495	550
SECD400101	Top row = 4 Bottom row = 5	60 m3/hr	400	908	1075	1075	1385	1000	575	630

Rotary Clean-Flow magnets were specially designed for products that do not flow smoothly, such as cocoa and milk powder. The rods are slowly rotated, mixing the product as it were and ensuring optimum contact with any iron particles present.





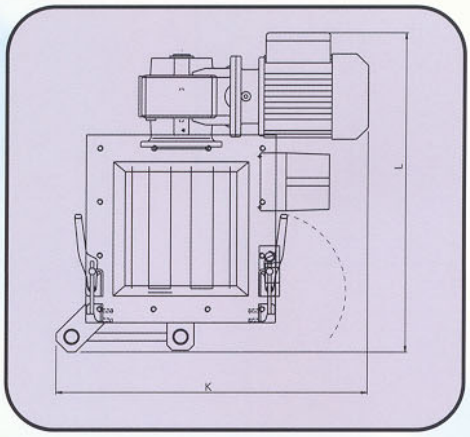
Rotary Clean-Flow magnet with semi-automatic cleaning cycle. The magnetic rods can be retracted by means of a side-mounted drawer system.



The Rotary Clean-Flow magnet was specially designed for products with sticky and irregular consistencies.

Specific properties:

- Ultra-strong Neoflux® magnets
- Prevents accumulation on the rods
- Easy cleaning
- Suitable for the foodstuffs sector (HACCP)
- Can process substantial capacities
- AISI 304 casing with AISI 316 rotor and rods
- Max. operating temperature of 80°C
- Optional: special electrolytically polished or buff-finished housing



Rotary Clean-flow magnet

Motor: Type SEW SAF37D63N4 0.18KWh IP54
3x400V 50Hz 23 RPM
3x440V 60Hz 26 RPM

Note: Reducing sockets from square to round are available on request

Type nr.	A [mm]	Br [Gauss]	B [mm]	C [mm]	H [mm]	K [mm]	L [mm]	Nr. of rods
SECR202038	ø 200	12.000	3x80=240	280	220	460	480	6
SECR303038	ø 300	12.000	5x70=350	380	300	510	580	12
SECR303138	ø 300	12.000	5x70=350	380	300	510	580	8
SECR202048	ø 200	14.000	3x80=240	280	220	460	480	6
SECR303048	ø 300	14.000	5x70=350	380	300	510	580	12
SECR303148	ø 300	14.000	5X70=350	380	300	510	580	8

S·E·L·F·C·L·E·A·N·I·N·G·R·O·T·A·R·Y·M·A·G·N·E·T·S

If the product contains large amounts of iron particles, it is advisable to install a self-cleaning system. As is the case with the Clean-Flow magnets, we differentiate between those for use in continuous and non-continuous production processes.

For continuous production processes

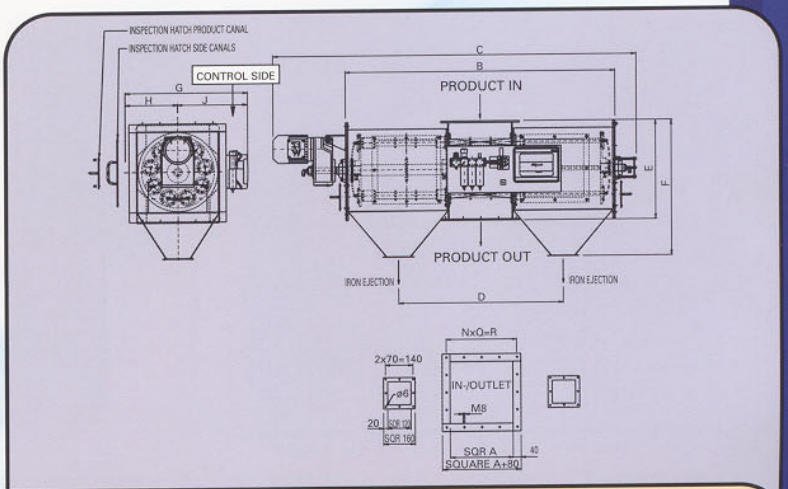
These operate according to the same principle as the self-cleaning Clean -Flow magnet (see page 9) except the rods are rotated. This prevents product accumulation on the rods and makes the continuous rotary Clean-Flow magnet ideal for products that do not flow smoothly.

Specific properties:

- Ultra-strong Neoflux® magnets
- Prevents product accumulation
- High deferrisation level
- Self-cleaning (PLC system) without interrupting the product flow
- Can process substantial capacities
- Service-friendly
- Optional: special electrolytically polished or buff-finished housing
- AISI 304 casing with AISI 316 rods
- Max. operating temperature of 80°C
- Highly compact overall height

THE ULTIMATE SOLUTION!

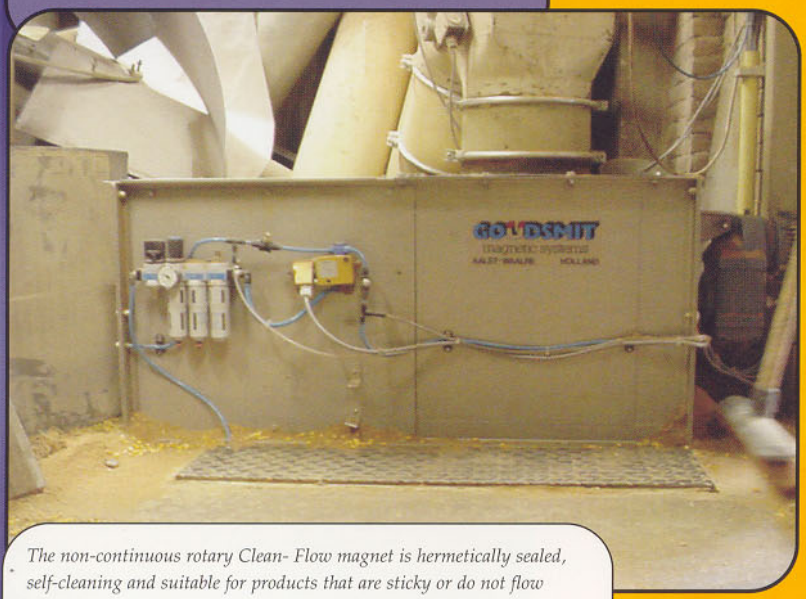
The continuous rotary Clean-Flow magnet is suitable for products that are sticky or do not flow smoothly, while it can be automatically cleaned without interrupting the product flow.



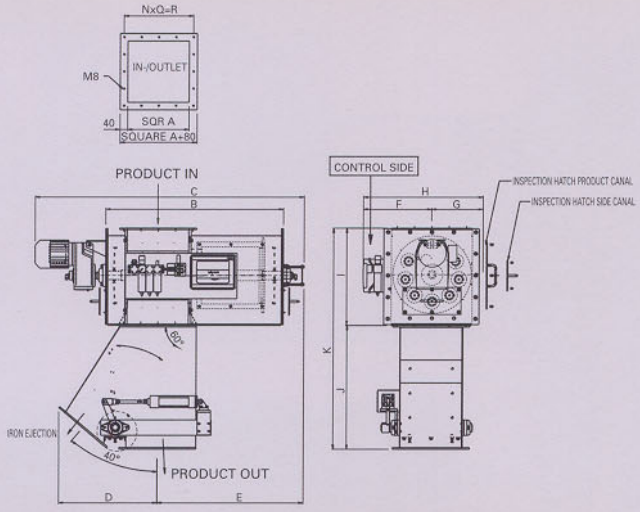
Type nr.	Nr. of rods	Capacity	A B	C D	E F	G	H J	N x Q = R
SRCC 320001	9	25 m3/hr	320 1375	1850 840	510 700	625	270 355	4 x 90 = 360
SRCC 400001	11	40 m3/hr	400 1615	2090 1015	575 830	705	310 395	4 x 110 =440

SELF CLEANING ROTARY MAGNETS

DUST TIGHT SOLUTION!



The non-continuous rotary Clean- Flow magnet is hermetically sealed, self-cleaning and suitable for products that are sticky or do not flow smoothly



For non-continuous production processes

These operate according to the same principle as the stationary non-continuous Clean-Flow magnet (see page 10) except the rods are rotated to prevent product accumulation.

Specific properties:

- Ultra-strong Neoflux® magnets
- Prevents product accumulation on the rods
- High deferrisation level
- Self-cleaning (PLC system)
- Can process substantial capacities
- Hermetically sealed
- Optional: special electrolytically polished or buff-finished housing
- No moving parts (maintenance-free).
- AISI 304 casing with AISI 316 rods
- Max. operating temperature of 80°C

Type nr.	Nr. of rods	Capacity	A B	C D	E F	G H	I J	K	N x Q = R
SRCD 320001	9	25 m3/hr	320 925	1400 515	760 355	265 620	510 650	1160	4 x 90 = 360
SRCD 400001	11	40 m3/hr	400 1085	1560 615	880 395	305 700	575 750	1325	4 x 110 = 440

Q·U·A·L·I·T·Y· ·A·S·S·U·R·A·N·C·E

The following products may prove useful for product monitoring and checking the magnetic field.

Gaussmeter

Meter to check the Gauss value of magnetic rods (HACCP requirement!).

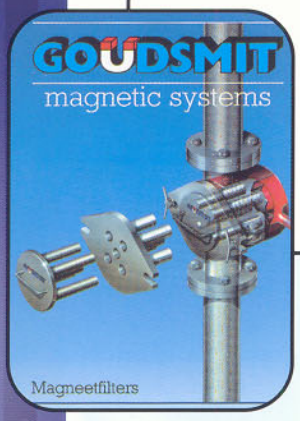
Type: M1890000
Range: 0-19990 Gauss
Power source: rechargeable 9V NiCad battery
Charger: 220V - 50Hz
Probe: 1 mm thick x 3.5 mm wide
Supplied complete with carrying case.

Neoflux® test rod

The Neoflux® test rod can be used to establish whether there are any remaining iron or low-ferrous particles in the product. When drawn through the product, the rod will attract any remaining particles. The rod can be cleaned by removing it from the stainless steel extractor tube, thus breaking the magnetic field and releasing the iron particles.

Type: SE.SX.0150.48
Dimension: ø 25 x 225 mm
Magnet: GSN 50
Magnetic value: 12000 Gauss on brod and 10.000 Gauss on extractor
Supplied complete with carrying case.

MAGNETIC SYSTEMS FOR LIQUIDS



These Magnetic filters, which are fitted with strong magnetic rods, are intended for the removal of iron particles from liquids being transported under pressure.

The industrial magnetic filter can be used to remove iron particles from printing inks, coolants, liquid chemicals and pharmaceuticals.

The double-walled Neoflux® magnetic filter was specially designed for products that congeal, such as chocolate.

Goudsmit magnetic filters are ideal for installation in pneumatic pipelines for the transport of nuts, flour, plastics, sugar, maize, ceramic powders or shreds of foil, etc. The magnetic rods can also be supplied with a wear-resistant finish.

The Ferroxdure magnetic filter is specially intended for the deferrisation of non-pressurised liquids.

The interior of the hygienic magnetic filter (specially designed for the foodstuffs industry) is highly polished and free of protrusions.

Please consult our 'Magnetic Filters' brochure for further information.