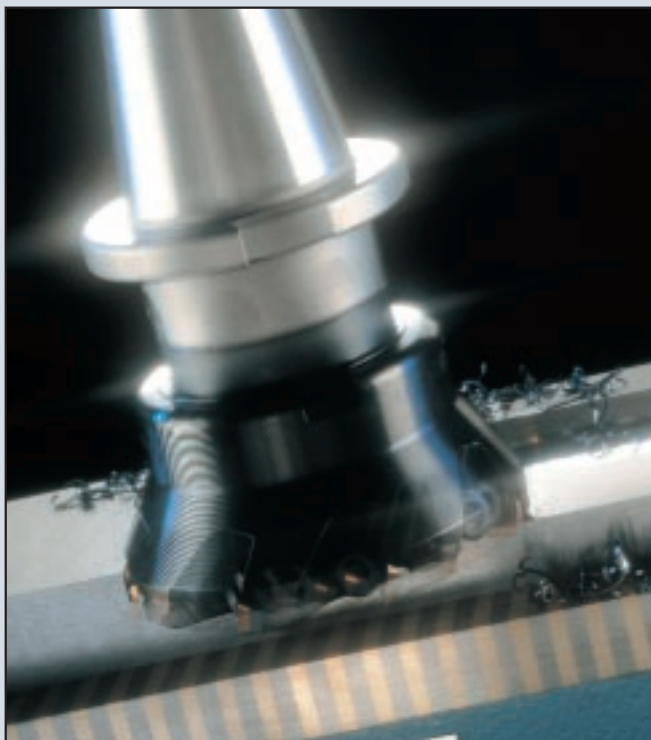


Industrial magnetic products and tools



Bakker Magnetics



BM Products and tools for industrial applications

Bakker Magnetics, established in 1971, is a leading producer of magnetic products and industrial systems based on magnetic principles. Continuous research is being undertaken in our own research department into new applications and new fields for magnets and magnetic systems. By using modern, advanced computers and specialised software, complex calculations can be done very quickly which means it is possible to design magnet systems for a wide range of applications, accurately and optimally tailored to every required specification. Through the use of CAD (Computer Aided Design) techniques, the research department can directly guide the fabrication of newly-developed products and systems. For new developments in various areas, the research department works very closely with scientific institutions such as universities.

An integrated quality policy meeting the ISO standards safeguards the reliability of the products and systems from research and development, logistics and production through to marketing and after-sales service. Bakker Magnetics has been awarded the ISO 9001 certificate.

Bakker Magnetics' head office is located in Son, The Netherlands. From here, the research, development, manufacture and marketing of all the products and systems is organised. As well as our own subsidiaries in Belgium, Germany, France, Norway, England and Spain, Bakker Magnetics has an extensive networks of dealers throughout all of Europe, the far east and the United States of America.

This catalogue contains an overview of the wide range of industrial tools and accessories. In turn, we cover the product groups chucks, lifting magnets and magnetic products, and tools for industrial applications. Progress has not stopped in any of these fields. New developments and innovations have resulted in new products and systems or improvements to existing ones.

Bakker Magnetics technical and sales staffs are only too willing to offer advice and/or to supply more information about the products. You will also find our technicians willing to assist you for products and systems built to your specifications.

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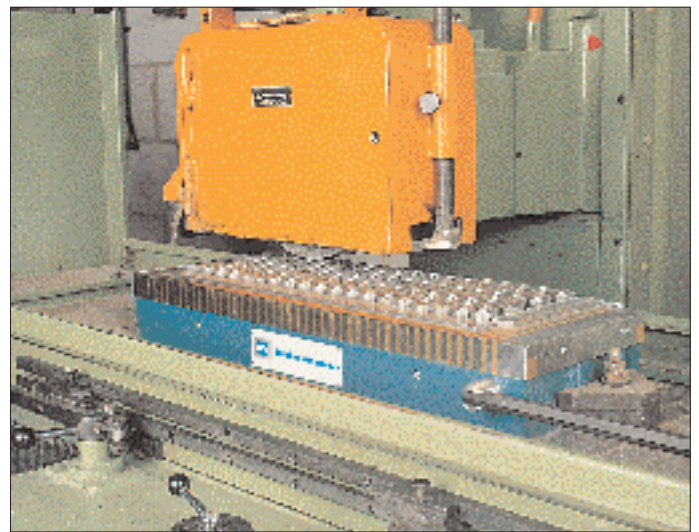
BM permanent magnetic chucks

Chucks are widely used holding tools especially in the metal working industry. The most common types work on the principle of magnetism where the magnetism is, depending on the type, created by permanent magnets, electromagnets or a combination of both. The use of magnetic chucks for holding pieces of work made of ferromagnetic materials has many advantages over more conventional clamping methods. Rapid work positioning since the chuck is simply switched on and off by means of a single handle. Besides the fixed handle, all of Bakker Magnetics permanent magnetic chucks can be supplied with a detachable handle using an allen key. The ability to switch the magnetic force on and off allows work to be positioned easily and accurately, the choice of the type of chuck being largely determined by the shape and size of the piece of work. Various accessories including vices and laminated plates and blocks extend the opportunities for using the magnetic chuck and

mean that it is possible to clamp almost any piece of work in an efficient and effective way for almost any operation. In general, large pieces of work require a wide pole spacing while for small and/or thin pieces of work, a fine pole spacing is preferable.

One of the most important properties of Bakker Magnetics' permanent magnetic chucks is the uniform distribution of the magnetic force over the complete surface of the chuck. This is achieved by the use of extremely stable ceramic or Neodymium permanent magnetic materials.

As well as the universally applicable types, the Bakker Magnetics range also contains special types of chucks for various operations such as drilling, grinding and milling. The hard-soldered top plates make all Bakker Magnetics' chucks suitable for use on spark erosion machines.

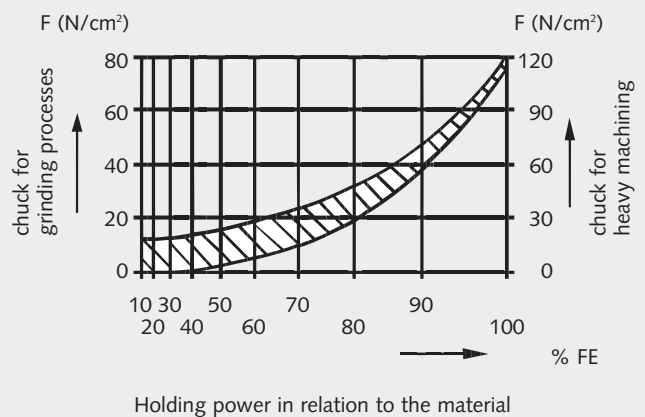
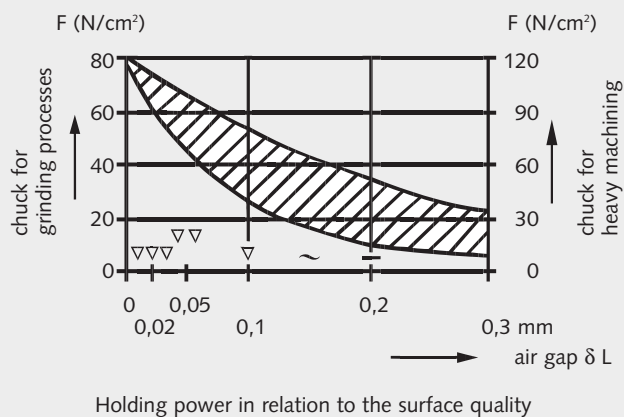


BM permanent magnetic chucks

The standard range of permanent magnetic chucks from Bakker Magnetics consists of the following main groups:

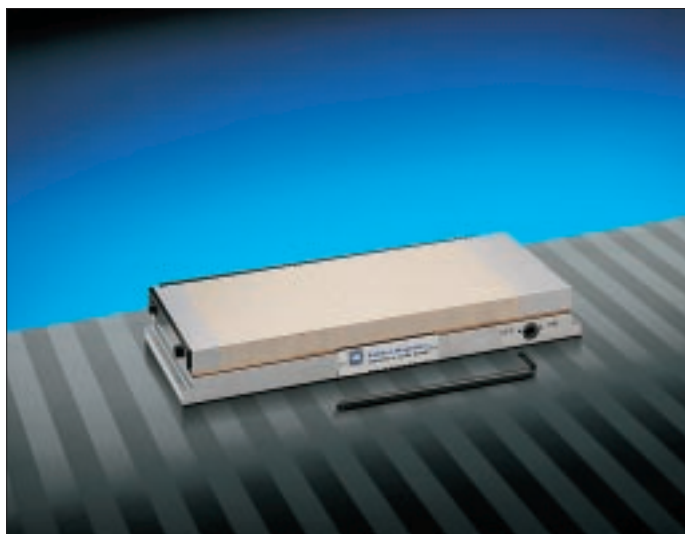
- Chucks for grinding
- Chucks for heavy machining
- Chucks with fine pole spacing
- Chucks with pitch pole spacing
- Sine tables single swivelling (longitudinal or transverse axis)
- Sine tables double swivelling over longitudinal and transverse axis

Neodymium is the most powerful magnetic material that is available at the moment. The chucks of this type, with ultrafine pole spacing make it possible to clamp very thin pieces of work. An additional advantage is the extremely low height (only 40 mm) which means that there is a lot of room for the piece of work and/or that a wide range of choice is available in the processing machine to be used. The pitch pole chucks are also available on the sine tables. The space gain is a big advantage here when compared to the conventional types which due to their relatively greater height, occupy a lot more space between the machine and the piece of work. Since permanent magnetic chucks require no external energy source, the piece of work stays safely clamped even in the event of an unexpected power failure.



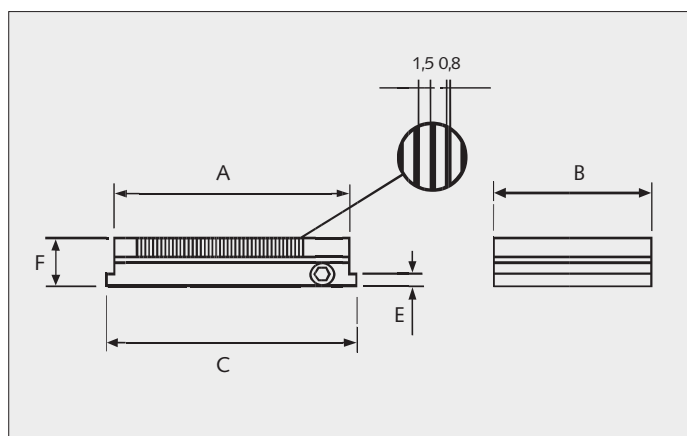
BM Rectangular Neodymium chucks

with pitch pole spacing for precision operations



These types of permanent magnetic chuck have an ultra-fine pole distribution - pitch pole distribution. They have a very low height (40 mm) which means there is the possibility of clamping taller pieces of work than with the conventional types as well as allowing a wider selection of machines to be used. Because of the ultra-fine pole distribution, 1.5 mm in steel and 0.8 mm in brass, there is the possibility to clamp very thin and small pieces of work. Machining the top plate is possible to a depth of 5 mm. As the magnetic field does not exceed 10 mm, unwanted magnetisation of the piece of work is avoided. The robust construction of the housing guarantees a long and maintenance-free life.

The material used in the magnet system is the revolutionary Neodymium. This is the most powerful magnetic material available at the moment. The maximum clamping force is 70 N/cm². They can be attached to processing machines by clamping plates. On request, BM sine tables with pitch pole distribution for the top plates can also be supplied. Chucks of this type are supplied with 2 end stops. All types are supplied with a separate allen key for operating the switching mechanism.



Art.no.	A	B	C	E	F	weight (kg)	
						net	gross
BM 68.001	150	100	165	10	40	5	6
BM 68.002	200	100	215	10	40	7	8
BM 68.003	255	130	270	10	40	11	13
BM 68.005	150	150	165	10	40	8	9
BM 68.006	250	150	265	10	40	13	15
BM 68.007	300	150	315	10	40	15	17
BM 68.008	350	150	365	10	40	18	20
BM 68.009	400	150	415	10	40	20	23
BM 68.010	450	150	465	10	40	23	26

All measurements in mm.

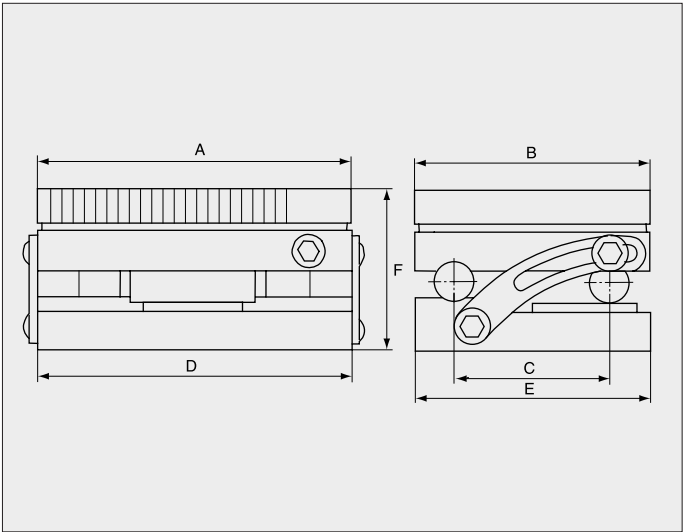
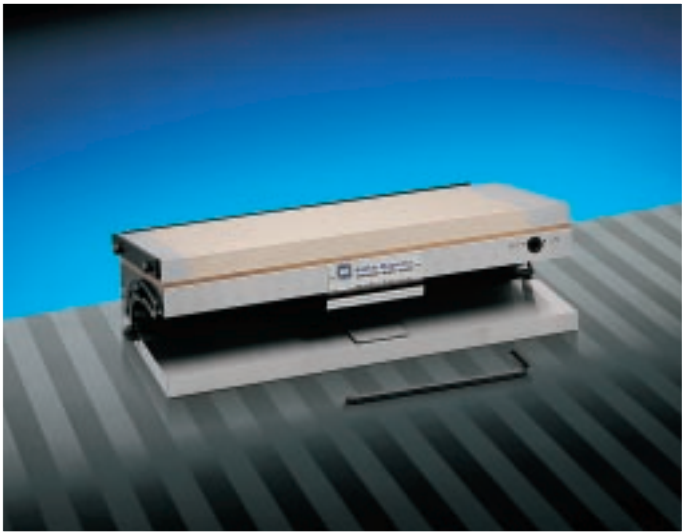
Other sizes on request.

BM precision Neodymium sine tables

with chucks having pitch pole distribution single swivelling on the longitudinal axis

These precision sine tables are especially suitable for very accurate grinding operations of pieces of work with non-parallel faces. The angles can be set with the aid of the end guides. Because of their low height (77 mm), these types of sine table are usable in a wide range of

applications. Their robust construction guarantees a very long, maintenance-free life. The technical data for the chucks is identical to that for BM chucks from the series BM 68.001 to BM 68.210 inclusive. The sine tables are supplied with a sine chart and 2 end stops.

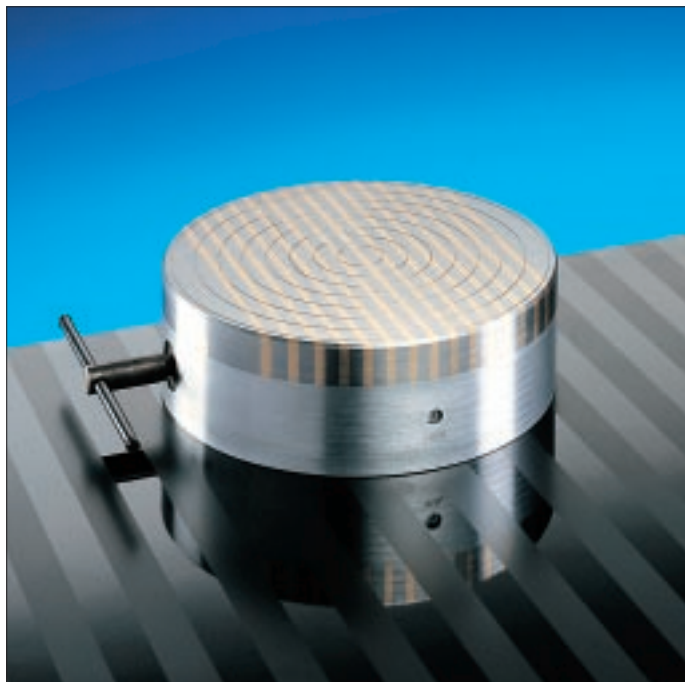


Art.no.	A	B	C	D	E	F	weight (kg)	
							net	gross
BM 64.200	150	100	75	150	100	77	7	9
BM 64.210	200	100	75	200	100	77	10	12
BM 64.201	255	130	100	255	130	77	16	18
BM 64.202	150	150	125	150	150	77	11	13
BM 64.203	250	150	125	250	150	77	18	21
BM 64.204	300	150	125	300	150	77	22	26
BM 64.205	350	150	125	350	150	77	26	30

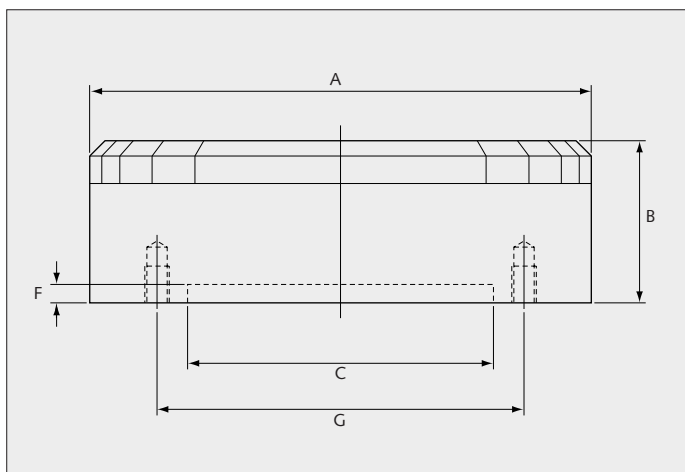
All measurements in mm.
Other sizes and versions with double swivels on the longitudinal and transverse axis on request.

BM Circular magnetic chucks

for heavy machining operations



These types of chucks exert a high and even clamping force over the entire surface area. They are often used on lathes, grinders, drafting and separation tables. Positioning the piece of work is simplified by the concentric grooves in the top plate. If required, the chucks can be equipped with alignment edges, centering holes, guide profiles and travelling pins. Holes of 20 mm in steel and 6 mm in brass may be bored in the top plate without affecting the magnetic force. The pole distribution is 8 mm in steel and 5 mm in brass with the exception of type BM 63.101 which has a pole distribution of 6 mm in steel and 5 mm in brass. Types BM 63.201 to BM 63.205 inclusive have 4 x M8 threaded holes, the other types have 6 x M10 threaded holes. The clamping force is continuously variable from zero to a maximum of 120 N/cm².



Art.no.	A	B	C	F	G	number of switches	weight(kg)	
							net	gross
BM 63.101	160	75	125	3,0	142	1	8	9
BM 63.201	200	80	150	4,5	182	1	13	15
BM 63.203	250	80	200	4,5	232	1	20	23
BM 63.204	300	85	250	4,5	285	1	29	35
BM 63.205	350	85	300	4,5	334	1	40	47
BM 63.206	400	106	300	5,0	350	1	59	67
BM 63.207	450	105	350	5,0	400	1	70	78
BM 63.208	500	105	400	5,0	450	1	85	95
BM 63.209	600	100	400	5,0	550	2	125	137
BM 63.210	700	120	500	5,0	650	4	210	240
BM 63.211	800	110	600	5,0	780	4	253	284

All measurements in mm.

Other sizes on request.

BM Circular magnetic chucks

for grinding operations

These types, with fine pole distribution, are especially suitable for clamping small and thin pieces of work. Positioning the work is simplified by the concentric grooves in the top plate. If required, the chucks can be equipped with alignment edges, centering holes, guide profiles and travelling pins. Holes of 20 mm in steel and 6 mm in brass may be bored in the top plate without

affecting the magnetic force. These chucks have a switching zone and a maximum clamping force of 80 N/cm². The pole distribution is 4 mm in steel, 1.5 mm in brass, 2 mm in steel, 1.5 mm in brass. Type BM 63.001 has 3 x M4 threaded holes, type BM 63.002 4 x M6 threaded holes.

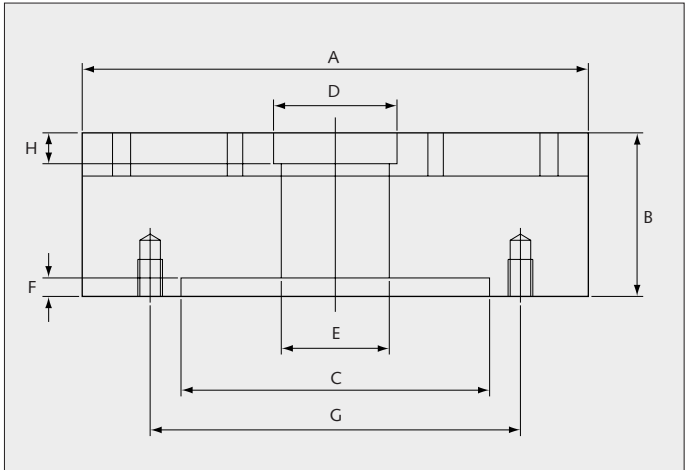
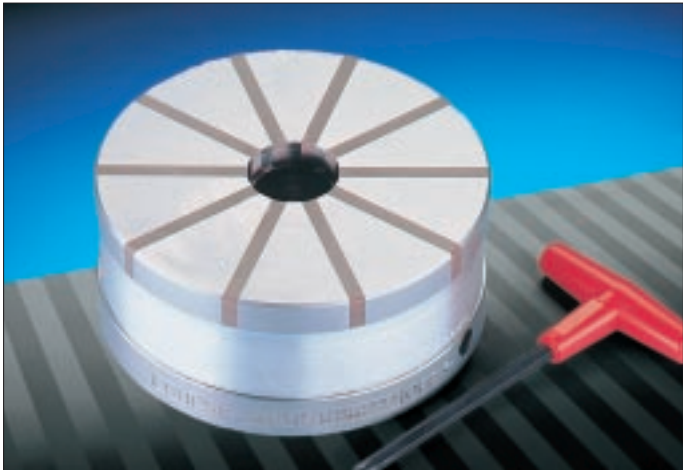
Art.no.	A	B	C	F	G	Weight (kg)	
						net	gross
BM 63.001	100	62	70	2,5	91	3	4
BM 63.002	130	62	90	2,5	120	5	6

with radial pole distribution

This type with radial pole distribution is suitable for many applications and has a very evenly distributed magnetic field. The central hole in the top plate (except for

NEW

BM 63.300) makes for quick positioning. It is also possible to provide coolant to the piece of work through this hole. Optionally, a plug to fill this central hole can be supplied.

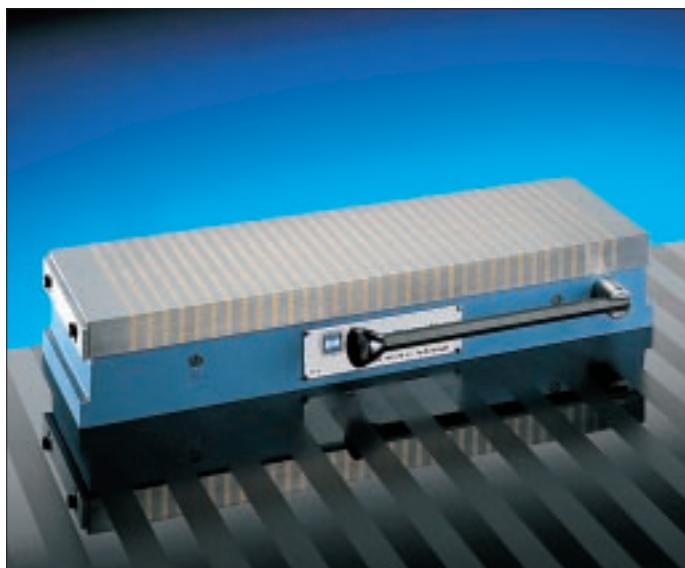


Art.no.	A	B	C	D	F	G	H	I	measurement holes	number of poles	weight (kg)	
											net	gross
BM 63.300	102	48	51		6	76			4 x M6	6	3,0	4,0
BM 63.301	152	69	76	36	4	102	10	32	4 x M10	10	7,5	8,5
BM 63.302	229	71	86	54	5114/191		16	50	4 x M10	14	18,0	19,5
BM 63.303	305	71	152	66	5184/254		16	62	4 x M12	18	32,8	34,5

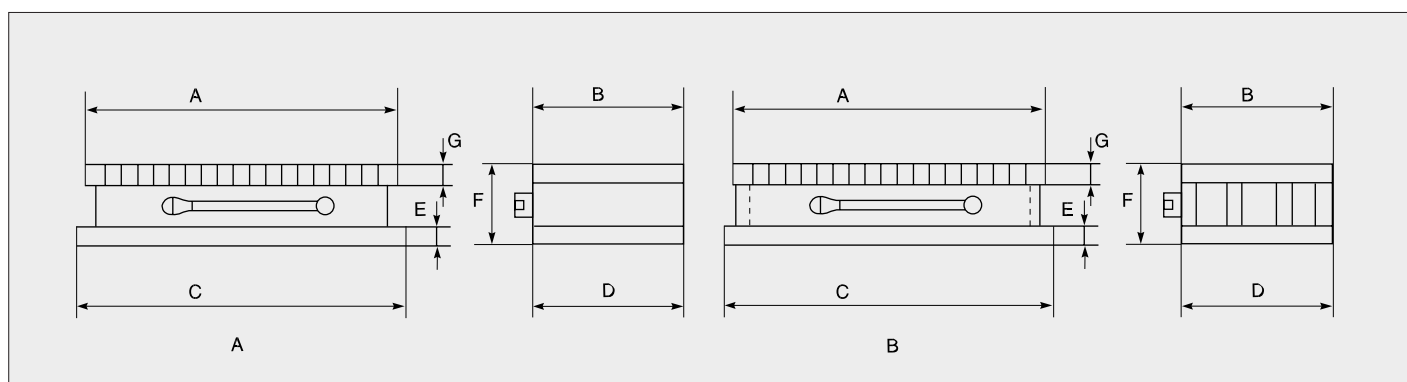
All measurements in mm.
Other sizes on request.

BM Rectangular magnetic chucks

with lateral pole distribution for heavy machining operations



The possibility to clamp pieces of work for very heavy machining is one of the most important properties of this type. The doubled and enhanced permanent ceramic magnet system provides a very high and regularly distributed clamping force (120 N/cm²). The long and maintenance-free life is guaranteed by the solid cast iron casings and the hard-soldered top plates. Application areas are milling, planing, grinding, drilling, etc. Since the height of the magnetic field does not exceed 10 mm, no machine components become magnetised. The top plate can be machined to a depth of 20 mm in steel and 6 mm in brass without affecting the clamping force. The chucks are supplied with 2 end plates as standard. The pole distribution in steel/brass is 8/5 mm. Types BM 61.001 to BM 61.006 conform to model A, the remainder to model B.



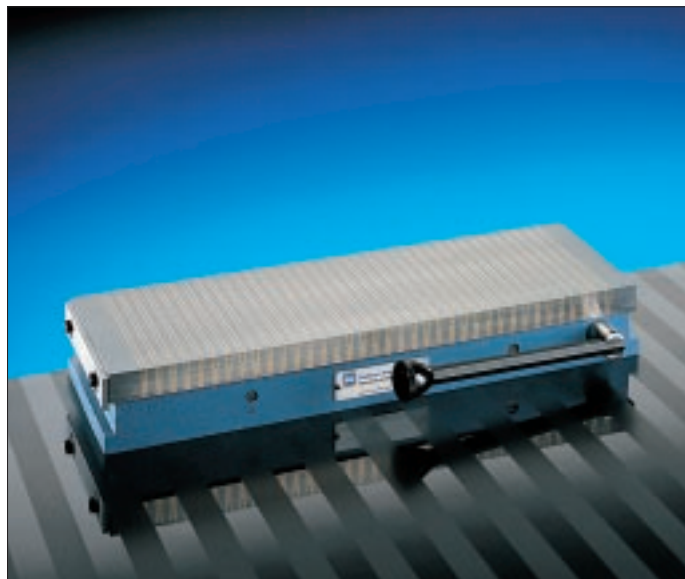
Art.no.	A	B	C	D	E	F	G	number of switches	weight (kg) net	gross
BM 61.001	250	150	260	145	20	90	29	1	20	22
BM 61.002	300	150	310	145	20	90	29	1	24	27
BM 61.003	350	150	360	145	20	90	29	1	28	32
BM 61.004	400	150	410	145	20	90	29	1	31	36
BM 61.005	450	150	460	145	20	90	29	1	35	41
BM 61.006	500	150	510	145	20	90	29	1	39	47
BM 61.007	300	200	295	195	20	90	29	1	29	35
BM 61.008	400	200	395	195	20	90	29	1	39	47
BM 61.009	450	200	445	195	20	90	29	1	44	53
BM 61.010	500	200	495	195	20	90	29	1	49	59
BM 61.011	600	200	595	195	20	90	29	1	64	75
BM 61.012	800	200	795	195	20	90	29	2	92	104
BM 61.013	400	250	395	245	20	90	29	1	50	60
BM 61.014	450	250	445	245	20	90	29	1	57	67
BM 61.015	500	250	495	245	20	90	29	1	64	75
BM 61.016	600	250	595	245	20	90	29	1	78	89
BM 61.017	650	250	645	245	20	90	29	1	85	96
BM 61.018	750	250	745	245	20	90	29	2	97	110
BM 61.019	800	250	795	245	20	90	29	2	103	116
BM 61.020	1000	250	995	245	20	90	29	2	129	142
BM 61.021	400	300	395	295	20	90	29	1	68	79
BM 61.022	500	300	495	295	20	90	29	1	85	97
BM 61.023	600	300	595	295	20	90	29	1	100	115
BM 61.024	800	300	795	295	20	90	29	2	130	147
BM 61.025	900	300	895	295	20	90	29	2	153	168

All measurements in mm.

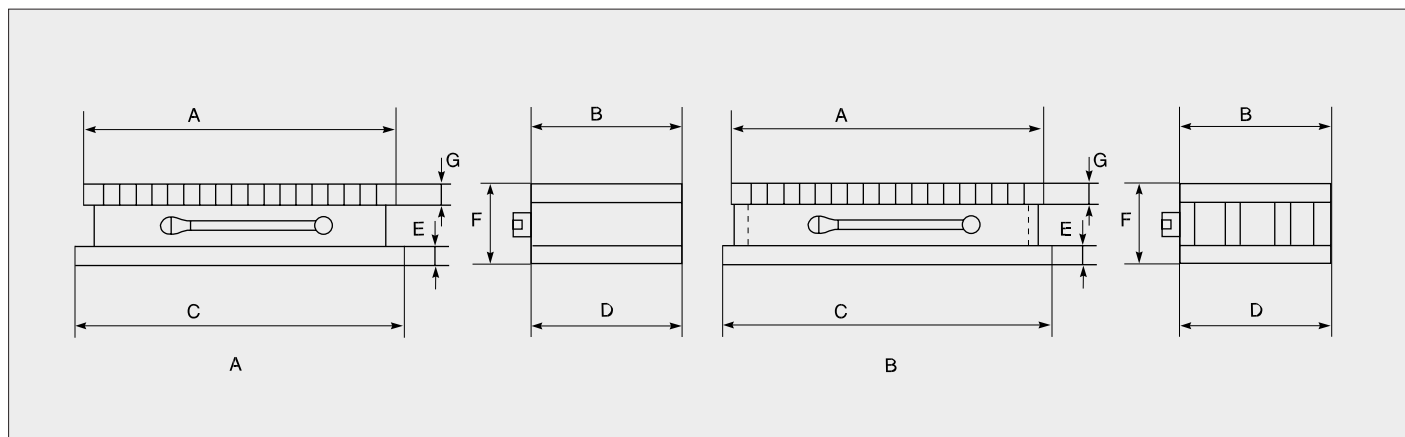
Other sizes on request.

BM Rectangular magnetic chucks

with fine pole distribution for grinding operations



These types of chucks are eminently suitable for small and thin pieces of work. In particular pieces of work that are less than 5 mm thick and 15 mm diameter give no problems to these chucks. Naturally, larger pieces can also be clamped. The maximum clamping power is 80 N/cm². The pole spacing is 6 mm in steel, 1.5 mm in brass, 2 mm in steel, 1.5 mm in brass. Machining of the top plate is possible to a depth of 20 mm in the steel 6 mm pole versions and to a depth of 6 mm in all the other steel and brass versions without affecting the magnetic properties. Two end stops are supplied as standard with the chucks. All types conform to model A with the exception of BM 62.014 which is a model B. Types BM 62.001 to BM 62.007 inclusive are equipped with a separate allen key which is supplied. All the others have a fixed handle.



Art.no.	A	B	C	D	E	F	G	weight (kg)	
								net	gross
BM 62.001	100	65	119	62	10	54	21	3	4
BM 62.002	150	100	165	97	15	65	23	7	8
BM 62.003	200	100	213	97	15	65	23	9	11
BM 62.004	255	130	265	127	15	65	23	13	15
BM 62.005	400	130	408	127	15	65	23	21	23
BM 62.006	250	150	258	147	15	65	23	15	17
BM 62.007	300	150	308	147	15	65	23	18	20
BM 62.008	350	150	358	147	15	65	23	21	23
BM 62.009	400	150	408	147	15	65	23	23	28
BM 62.010	450	150	455	147	15	65	23	26	32
BM 62.011	400	200	413	197	15	72	23	32	38
BM 62.012	500	200	515	197	15	72	23	40	50
BM 62.013	600	200	610	197	15	72	23	64	75
BM 62.014	450	250	444	246	20	87	29	57	67

All measurements in mm.

Other sizes on request.

BM Rectangular chucks

with transverse pole distribution for grinding operations



These types of chucks with transverse pole distribution have been especially developed for use in combination with surface grinding machines. The powerful permanent ceramic magnet system with normal pole distribution is low in height and therefore this type can be used in almost any situation. A long and maintenance-free life is assured by the construction of the cast iron base section and the hard soldered top plate in combination with the robust ceramic magnet system. Magnetisation of machine components is avoided by the low height of the magnetic field (approximately 8 mm). The maximum clamping force is 80 N/cm².

Machining of the top plate is also not a problem with these types. The maximum depth is 20 mm in steel and 6 mm in brass. Two end stops are supplied as standard. The pole spacing in steel/brass is 6/5 mm with the exception of type BM 60.001 where the spacing is 4/5 mm. Model A covers types BM 60.001 to BM 60.018 inclusive, the remainder are model B. Types BM 60.001 to BM 60.008 inclusive are supplied with a separate allen key for the handle, the remainder have a fixed handle.

Art.no.	A	B	C	D	E	F	G	number of switches	weight (kg) net gross
BM 60.001	125	75	138	72	10	57	21	1	4 5
BM 60.002	150	100	165	97	15	65	23	1	7 8
BM 60.003	200	100	213	97	15	65	23	1	9 11
BM 60.004	255	130	265	127	15	65	23	1	13 15
BM 60.005	325	130	355	127	15	65	23	1	17 21
BM 60.006	400	130	408	127	15	65	23	1	21 23
BM 60.900	150	150	158	147	15	65	23	1	9 11
BM 60.007	250	150	258	147	15	65	23	1	15 17
BM 60.008	300	150	308	147	15	65	23	1	18 20
BM 60.009	350	150	358	147	15	65	23	1	21 23
BM 60.010	400	150	408	147	15	65	23	1	23 28
BM 60.011	450	150	455	147	15	65	23	1	26 32
BM 60.012	500	150	507	147	15	65	23	1	29 35
BM 60.013	400	200	413	197	15	72	23	1	32 38
BM 60.014	450	200	463	197	15	72	23	1	36 42
BM 60.015	500	200	515	197	15	72	23	1	40 50
BM 60.016	600	200	610	197	15	72	23	1	48 59
BM 60.017	700	200	710	197	15	72	23	1	57 69
BM 60.018	800	200	810	197	15	72	29	2	65 77
BM 60.019	400	250	394	246	20	88	29	1	50 60
BM 60.020	450	250	444	246	20	88	29	1	57 67
BM 60.021	500	250	494	246	20	88	29	1	63 74
BM 60.022	600	250	594	246	20	88	29	1	76 87
BM 60.023	700	250	694	246	20	88	29	1	90 102
BM 60.024	750	250	744	246	20	88	29	2	95 108
BM 60.025	800	250	794	246	20	88	29	2	100 113
BM 60.026	500	300	494	296	20	88	29	1	83 95
BM 60.027	600	300	594	296	20	88	29	1	97 112
BM 60.028	700	300	694	296	20	88	29	2	112 127
BM 60.029	800	300	794	296	20	88	29	2	126 143
BM 60.030	900	300	894	296	20	88	29	2	149 164
BM 60.031	1000	300	994	296	20	88	29	2	166 184
BM 60.032	1200	300	1194	296	20	88	29	2	194 214

All measurements in mm.

Other sizes on request.

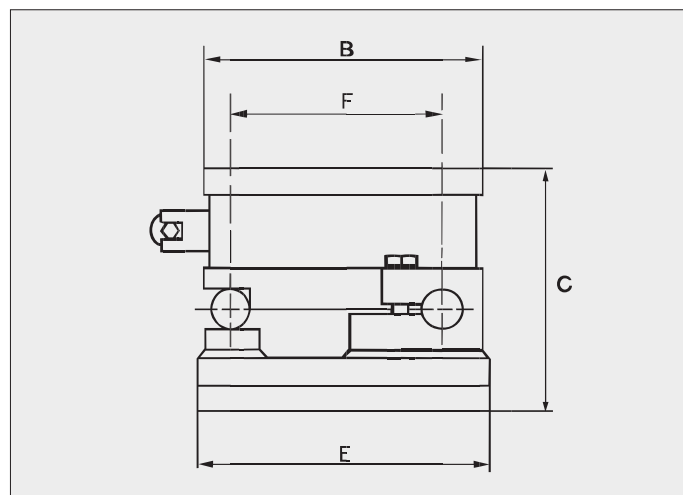
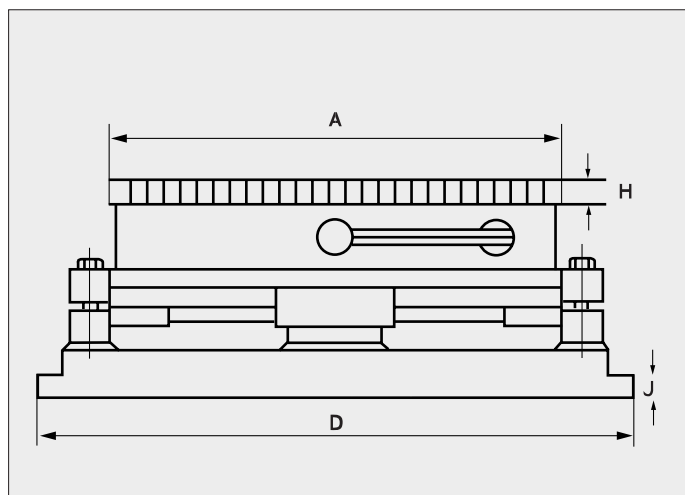
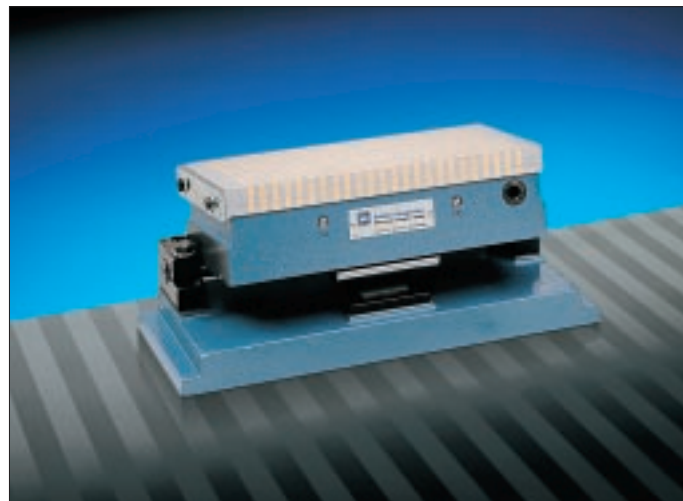
BM sine tables

for grinding operations single swivelling on the longitudinal axis

Sine tables make it possible to perform grinding operations to a high degree of accuracy on pieces of work with non-parallel surfaces. The angles can be set with end guides. The end guides can be set up to angles of 45° and the table can be rotated through 90°. The mounting for the end guides is 2 mm under the datum line which means it is possible to set very fine angles. Setting the angles can be done to an accuracy of 10 seconds (1/360°). A sine table is supplied with a chuck. To prevent movement occurring during the grinding process, the table can be locked on the shaft. The standard sine tables are supplied with a chuck with one switching zone and a normal pole spacing of 6 mm in steel and 5 mm in brass. Machining of the top plate is possible to a depth of 20 mm in steel and 6 mm in brass. These types are equipped with a detachable handle with an allen key head except for BM 64.005 to BM 64.009 inclusive and BM 64.105 to BM 64.109 inclusive.

These types of sine tables can also be supplied with a fine pole distribution chuck. The pole spacing is 6 mm in steel, 1.5 mm in brass, 2 mm in steel and 1.5 mm in

brass. Machining the top plate is possible to a depth of 20 mm in the steel 6 mm pole distribution types, the others to a depth of 6 mm. Two end plates are supplied as standard.



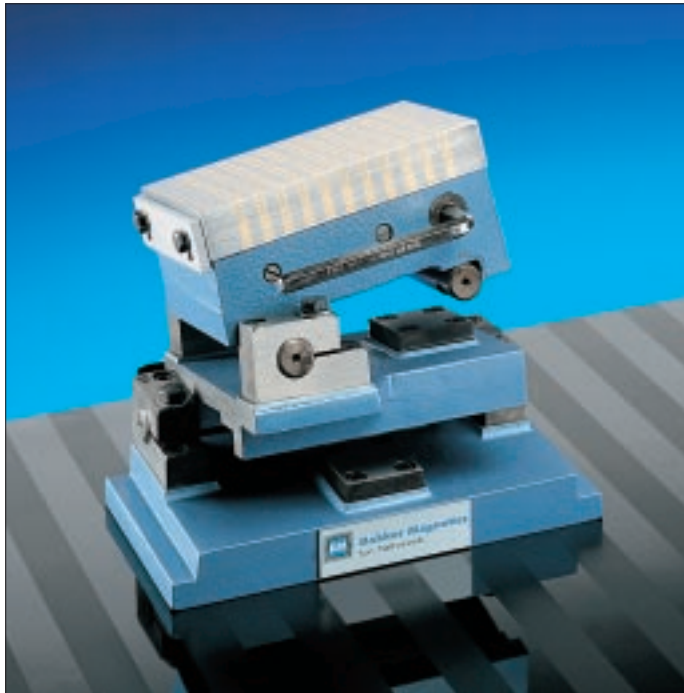
normal pole Art.no.	fine pole Art.no.	A	B	C	D	E	F	H	J	weight(kg) net gross	
BM 64.000	BM 64.100	150	100	118	238	122	70	23	15	12	14
BM 64.001	BM 64.101	255	130	125	345	152	100	23	15	25	28
BM 64.002	BM 64.102	150	150	133	240	165	100	23	15	19	22
BM 64.003	BM 64.103	250	150	133	340	165	100	23	15	30	34
BM 64.004	BM 64.104	300	150	133	395	165	100	23	15	36	40
BM 64.005	BM 64.105	350	150	139	445	165	100	23	15	40	45
BM 64.006	BM 64.106	400	150	139	492	165	100	23	15	44	50
BM 64.007	BM 64.107	450	150	139	550	165	100	23	15	50	55
BM 64.008	BM 64.108	400	200	151	520	220	150	23	15	67	76
BM 64.009	BM 64.109	500	200	151	620	220	150	23	15	87	96

All measurements in mm.

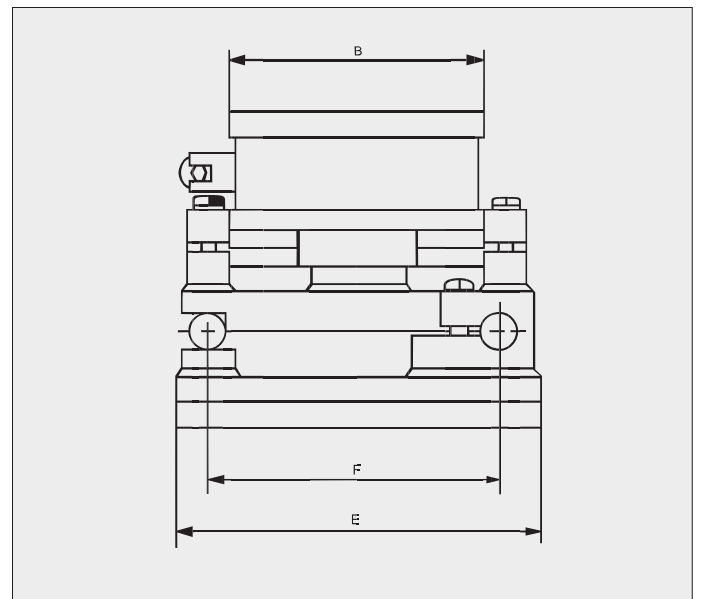
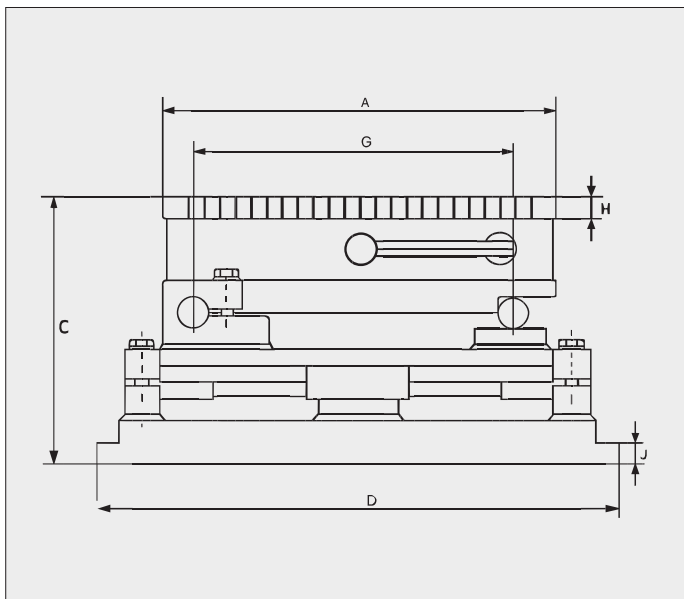
Other sizes and versions swiveling on the transverse axis on request.

BM sine tables

double pivoting over the longitudinal and transverse axes



The BM sine tables with a chuck can also be supplied in a double pivoting version. With these sine tables, pieces of work can be positioned at every imaginable angle both on the longitudinal and transverse axes. For multiple non-parallel surfaces, they offer optimal clamping possibilities. The technical data for the chucks is identical to that for the single swivel types.



normal pole Art.no.	fine pole Art.no.	A	B	C	D	E	F	G	H	J	weight (kg) net gross	
BM 64.040	BM 64.140	150	100	162	238	122	70	100	23	15	16	19
BM 64.041	BM 64.141	255	130	170	345	152	100	200	23	15	41	45
BM 64.044	BM 64.144	300	150	181	395	165	100	200	23	15	45	50
BM 64.046	BM 64.146	400	150	189	492	165	100	300	23	15	58	65
BM 64.048	BM 64.148	400	200	215	520	220	150	300	23	15	80	90
BM 64.049	BM 64.149	500	200	215	620	220	150	400	23	15	100	110

All measurements in mm.

Other sizes on request.

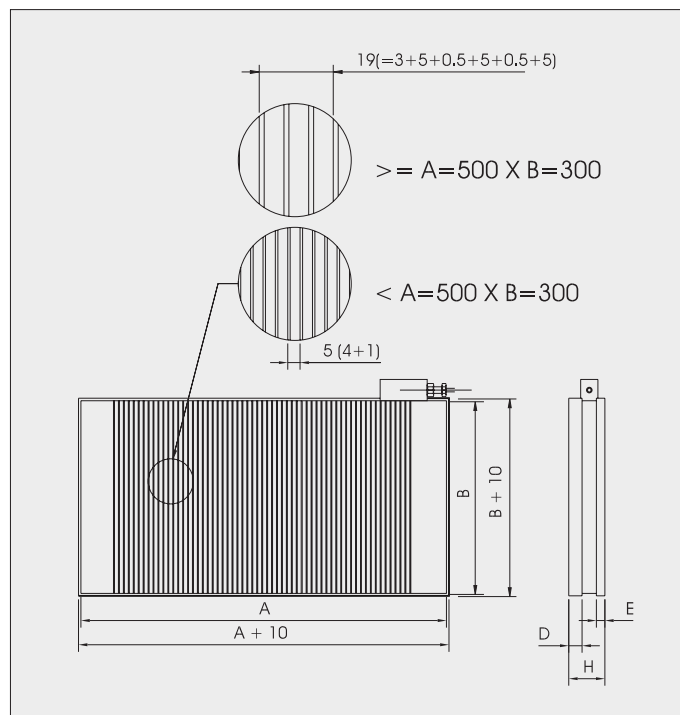
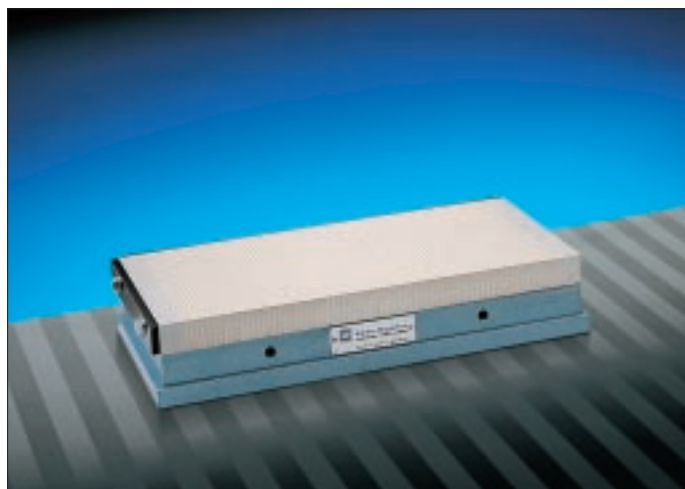
BM electromagnetic chucks

with transverse pole distribution, especially for grinding operations

NEW

BM electromagnetic chucks offer a very high clamping force and are especially suitable for series production lines and the handling of very large pieces of work. Multiple chucks can be combined to create very large clamping surfaces. The low height means this type is suitable for a wide range of applications. Machining of the top plate is possible to a depth of 5 mm. Due to the fact that the magnetic field only extends 10 mm beyond the chuck, the piece of work will not be magnetised.

For this type of chuck, switch units can be supplied to handle the input power supply. Two end stops are supplied.



Art.no.	A	B	H	D	E	power watts	weight kg
BM 65.804	400	200	73	27	17	43	42
BM 65.805	450	200	73	27	17	61	47
BM 65.806	500	200	73	27	17	55	53
BM 65.807	600	200	73	27	17	69	63
BM 65.808	400	250	73	27	17	40	52
BM 65.809	450	250	73	27	17	56	59
BM 65.810	500	250	73	27	17	51	65
BM 65.811	600	250	73	27	17	67	78
BM 65.812	800	250	73	27	17	76	104
BM 65.813	500	300	73	27	17	100	90
BM 65.814	600	300	73	27	17	130	108
BM 65.815	700	300	73	27	17	170	125
BM 65.816	800	300	73	27	17	150	144
BM 65.817	900	300	73	27	17	205	162
BM 65.818	1000	300	73	27	17	185	180
BM 65.819	600	350	73	27	17	130	112
BM 65.820	800	350	73	27	17	150	149
BM 65.821	1000	350	73	27	17	184	187
BM 65.822	600	400	73	27	17	200	122
BM 65.823	700	400	73	27	17	258	142
BM 65.824	800	400	73	27	17	226	163
BM 65.825	1000	400	73	27	17	280	203
BM 65.826	600	500	73	27	17	210	157
BM 65.827	800	500	73	27	17	245	210
BM 65.828	900	500	73	27	17	345	236
BM 65.829	1000	500	73	27	17	311	262

All measurements in mm.

Other sizes on request.

BM Switch units

for BM electromagnetic chucks

With these switch units, BM electromagnetic chucks can be provided with a power supply. They include functions for demagnetising, continuous variation of the clamping

force, a control light and a on/off switch. The switch units are equipped with a disconnectable machine lock. Different input and output voltages are possible on request.

1. In IP 54 casing without transformer, including remote control.

Input voltage : 230 V AC/50-60 Hz
Output voltage : 10 - 110 V DC
Dimensions of the remote control : 120 x 70 x 80 mm

Art.no.	power in watts	dimensions		
		H	B	D
BM 65.850	360	300	250	150
BM 65.851	850	400	300	150
BM 65.852	1250	400	300	150

2. Open version IP 00, without transformer and remote control.

Input voltage : 140-230 V AC/50-60 Hz
Output voltage : 10 - 110 volt DC

Optionally, an interface for a BCD connector for CNC operations can be supplied.

Art.no.	power in watts	dimensions		
		H	B	D
BM 65.862	360	230	210	85
BM 65.863	850	230	210	85
BM 65.864	1250	330	270	150

3. In IP 54 casing, with transformer and remote control.

Input voltage : 230, 400, 415, 440 V AC 50-60 Hz
Output voltage : 10 - 110 V DC
Dimensions of the remote control : 120 x 70 x 80 mm

Art.no.	power in watts	dimensions		
		H	B	D
BM 65.853	360	400	300	220
BM 65.854	850	400	300	220
BM 65.855	1250	500	300	250
BM 65.856	1650	500	300	250
BM 65.857	2550	600	450	250
BM 65.858	4000	600	450	250
BM 65.859	5000	600	450	250
BM 65.860	6000	600	450	250
BM 65.861	8000	600	450	250

All measurements in mm.

For types BM 65.858 to BM 65.861 inclusive, the transformer is not built into the casing. It is supplied separately.

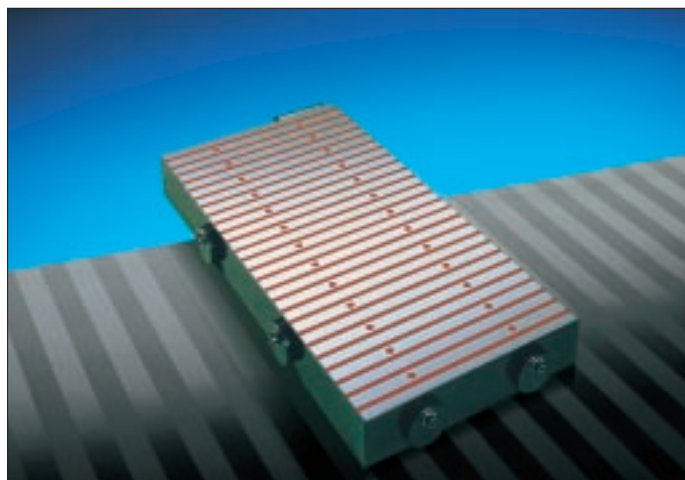


Switch unit and remote control for electro/permanent chucks (see page 16).

BM elektro/permanent magnetic chucks

NEW

for grinding operations



with transverse pole distribution

Art.no.	dimensions			weight kg
	length	width	height	
BM 66.200	200	400	70	40
BM 66.201	200	500	70	50
BM 66.202	200	600	70	60
BM 66.203	250	500	70	62
BM 66.204	300	500	70	75
BM 66.205	300	600	70	90
BM 66.206	300	700	70	105
BM 66.207	300	800	70	120
BM 66.208	300	1000	70	150
BM 66.209	400	600	70	120
BM 66.210	400	700	70	140
BM 66.211	400	750	70	150
BM 66.212	400	800	70	160
BM 66.213	400	1000	70	200
BM 66.214	400	1200	70	240
BM 66.215	450	1000	70	225
BM 66.216	450	1200	70	270
BM 66.217	500	750	70	187
BM 66.218	500	800	70	200
BM 66.219	500	1000	70	250
BM 66.220	500	1200	70	300
BM 66.221	600	600	70	180
BM 66.222	600	750	70	225
BM 66.223	600	800	70	240
BM 66.224	600	1000	70	300

with longitudinal pole distribution

Art.no.	dimensions			weight kg
	length	width	height	
BM 66.225	700	500	70	175
BM 66.226	750	500	70	187
BM 66.227	800	500	70	200
BM 66.228	900	500	70	225
BM 66.229	1000	500	70	250

The magnet system of the electro/permanent magnetic chucks is a combination of a powerful permanent magnet system and an electromagnet. The magnetic force that can be created with this combination is extremely high and evenly distributed over the entire surface of the chuck. Clamping occurs by a simple push on a button of the remote control or directly with the electronic control unit. If required, it can also be performed by an (auto-matic) machine controller. A completely safe unit because even in the advent of a power failure, there is no danger since the chuck's magnetic force is not reduced. In view of the fact that the electrical power is only present in the magnetic coil when switching the chuck on or off, the thermal characteristics are excellent which means this type of chuck is extremely suitable for operations in which a high level of precision is required. These chucks are supplied as standard without mounting bolt holes. If required, these can be added during manufacture. In this case, specifications for them should be supplied with the order. For clamping large pieces of work, multiple electro/permanent chucks can be combined.

Each BM electro/permanent magnetic chuck is equipped with four contact points. For connecting the electrical supply, there are two electronic units available. One built-in unit for integrating into the processing machine and a free-standing unit. Each unit can be set up so that the processing machine can not be started until the chuck is completely powered up. The digital remote control with a microprocessor also supplied has the ability to operate all the functions. This remote control can also be supplied as a built-in unit. The power supply is 380/220 V 50 Hz. Other voltages on request.

with transverse pole distribution

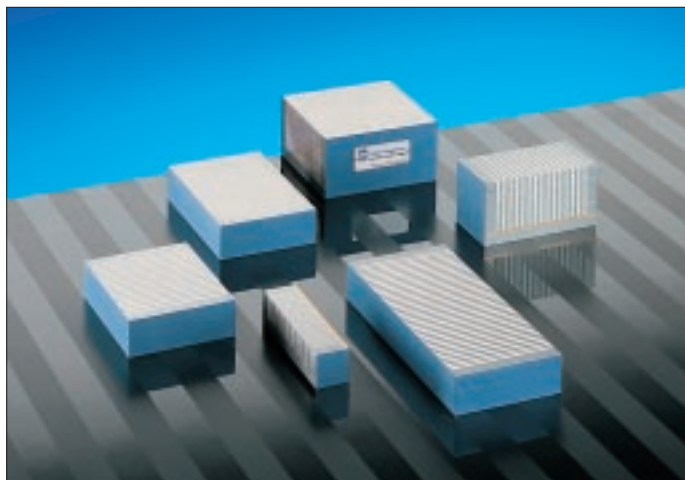
Circular electro/permanent magnetic chucks

Art.no.	diameter	height	weight kg
BM 66.300	300	70	40
BM 66.301	400	70	69
BM 66.302	500	70	107
BM 66.303	600	70	154
BM 66.304	700	70	210
BM 66.305	800	70	275

All measurements in mm.

Other sizes on request.

Permanent magnetic chucks and blocks enhanced version (non-switchable)



Chucks

Art.no.	L	W	H	magnetic faces
BM 18.000	100	80	20	1 x 100 x 80
BM 18.001	120	80	20	1 x 120 x 80
BM 18.002	150	80	20	1 x 150 x 80
BM 18.003	180	80	20	1 x 180 x 80

These clamping blocks are equipped with very strong Neodymium (NdFeB) magnetic elements. All the blocks in this range have a very fine pole spacing: 3 mm in steel, 2.5 mm in plastic. An exception to this are the types BM 18.050 and BM 18.051. These have a pole spacing in steel/plastic of 3/1.5 and 2/1.5 respectively. All versions are very suitable for holding thin pieces of work. The locks have either 2 or 3 magnetic faces. The non-magnetic face can be clamped onto every type of chuck if required.

Blocks

Art.no.	L	W	H	magnetic faces
BM 18.050	100	25	25	2 x 100 x 25
BM 18.051	100	50	25	1 x 100 x 50
				1 x 100 x 25
BM 18.052	100	50	50	3 x 100 x 50
BM 18.053	100	100	50	1 x 100 x 100
				2 x 100 x 50

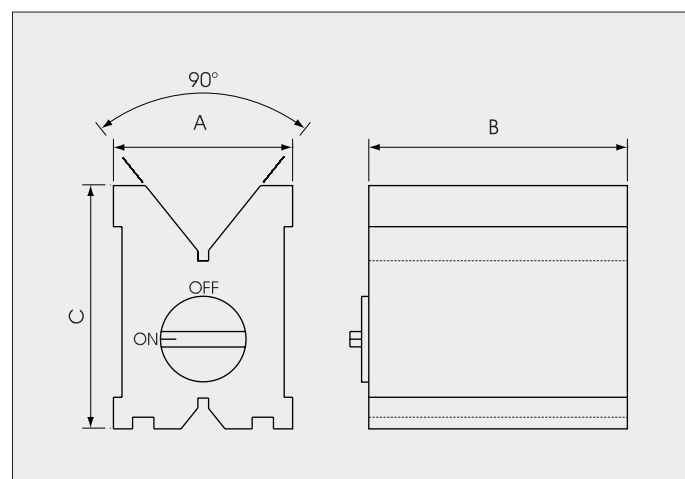
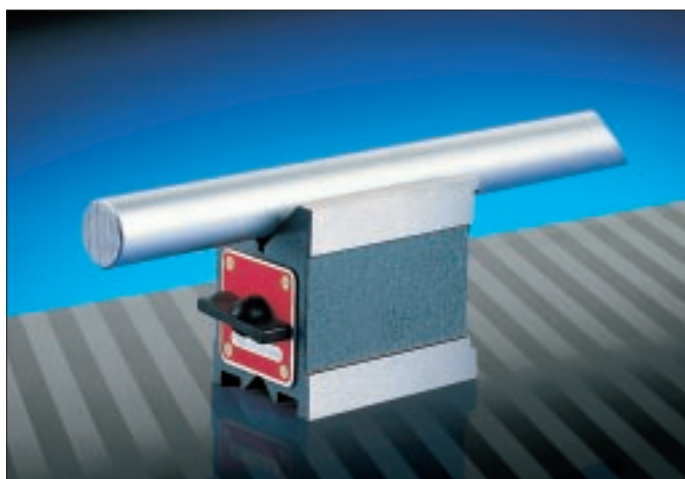
Magnetic clamps with on/off switch

Prism shaped for clamping round pieces of work. Two sizes are available, for pieces of work up to 20 mm and up to 65 mm. Three magnetic faces. Rotating switch for turning the magnetic force on and off. For some applications, it is advisable to use two clamps. Sets are supplied for this.

Art.no.	A	B	C	weight kg
BM 70.012	70	100	95	4,0
BM 70.112	70	80	95	3,1
BM 70.013	set of two BM 70.012			8,0
BM 70.113	set of two BM 70.112			6,2

All measurements in mm.

Other sizes on request.



BM demagnetising system



This demagnetising system is used to remove residual magnetism from materials. Equipped with a signal light and an on/off switch. Power supply is 220 V AC/50 Hz. Other voltages on request. Supplied with a power cable and an earthed plug.

Art.no.	L	W	H	power VA
BM 70.100	165	120	115	280
BM 70.101	175	220	120	560
BM 70.102	210	155	110	45



BM tunnel demagnetising system

For removing residual magnetism from pieces of work in series production. Equipped with a signal light, on/off switch and a power cable with an earthed plug. Power supply is 220/380 V, 50 Hz. Other voltages on request.

Art.no.	dimension tunnel			power VA
	L	B	H	
BM 70.200	220	150	60	1050
BM 70.201	225	200	100	2200

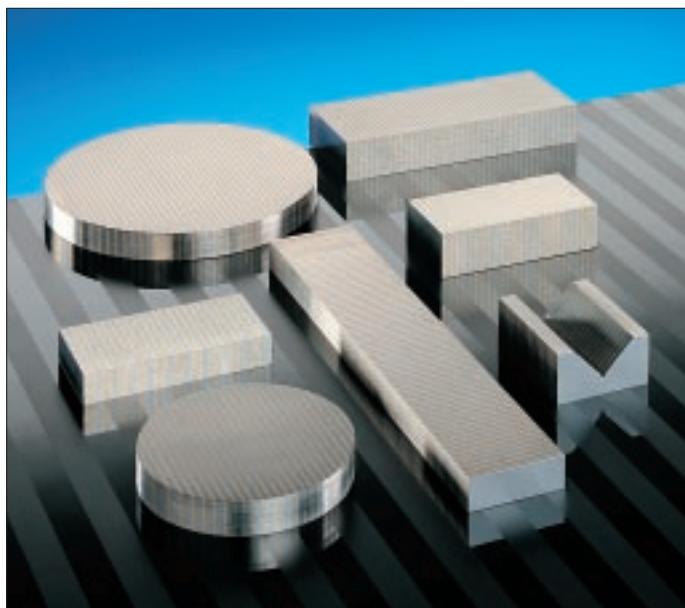
All measurements in mm.



BM hand demagnetising system

For rapidly demagnetising pieces of work or tools. With this tool, simplicity itself. Just place it on the piece of work or tool to be demagnetised and move it slowly across the surface. Complete with power cable. Working surface 105 x 120 mm. Power supply is 220 V AC 50 Hz. Power consumption 1250 W. Art.no. BM 70.105

BM Accessories and tools



BM laminated bars and blocks

Laminated bars and blocks are aids that increase the application possibilities for magnetic chucks. They are not magnetic but are excellent conductors of magnetic fields. Laminated bars and blocks can be machined on all faces and so be made to fit particular pieces of work. All versions are supplied with a pole spacing of 4 mm in steel and 2 mm in brass.

Laminated bars with transverse pole distribution

Art.no.	L	W	H
BM 67.001	150	75	25
BM 67.002	250	75	25
BM 67.003	400	75	25
BM 67.004	500	75	25
BM 67.005	150	100	25
BM 67.006	250	100	25
BM 67.007	400	100	25
BM 67.008	500	100	25
BM 67.009	150	150	25
BM 67.010	250	150	25
BM 67.011	300	150	25
BM 67.012	400	150	25
BM 67.013	150	200	25
BM 67.014	250	200	25
BM 67.015	400	200	25
BM 67.016	500	200	25
BM 67.017	150	250	25
BM 67.018	250	250	25
BM 67.019	300	250	25
BM 67.020	400	250	25
BM 67.021	150	75	40
BM 67.022	250	75	40
BM 67.023	400	75	40
BM 67.024	500	75	40
BM 67.025	150	100	40
BM 67.026	250	100	40
BM 67.027	400	100	40
BM 67.028	500	100	40

BM laminated bars and blocks in a case

A variety of laminated bars and blocks in different sizes in a small case. The bars and blocks are supplied in pairs.

Pole spacing steel 4 mm brass 2 mm.

Circular laminated plates

Art.no.	diam.	H
BM 67.200	155	25
BM 67.201	200	25
BM 67.203	250	25

Laminated bars with prism

Art.no.	L	W	H
BM 67.300	100	80	40

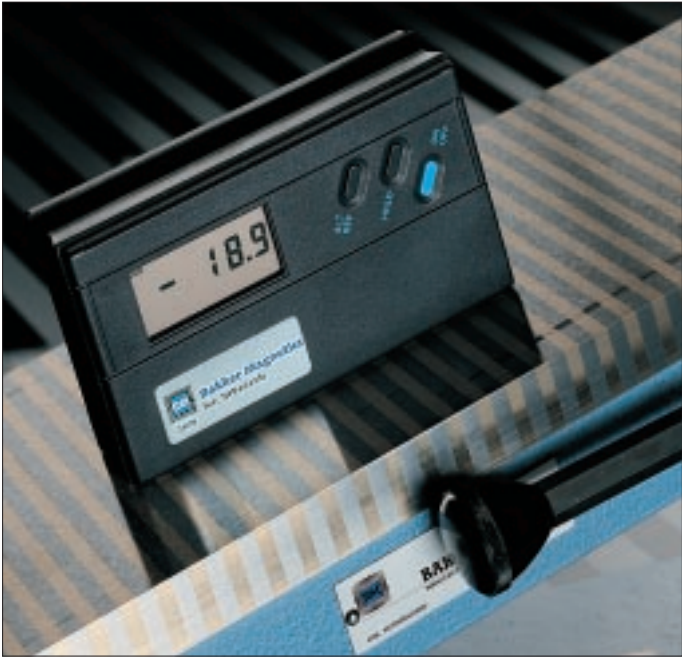
Laminated bars with longitudinal pole distribution

Art.no.	L	W	H
BM 67.100	650	75	25
BM 67.101	320	75	25
BM 67.102	650	100	40
BM 67.103	320	100	40

Art.no.	L	W	H	version
BM 67.400	54	67	47	transverse pole and 90° prism
	55	32	15	transverse pole
	97	50	22	transverse pole
	95	57	26	longitudinal pole

All measurements in mm.

Other sizes on request.



Electronic digital angle gauge

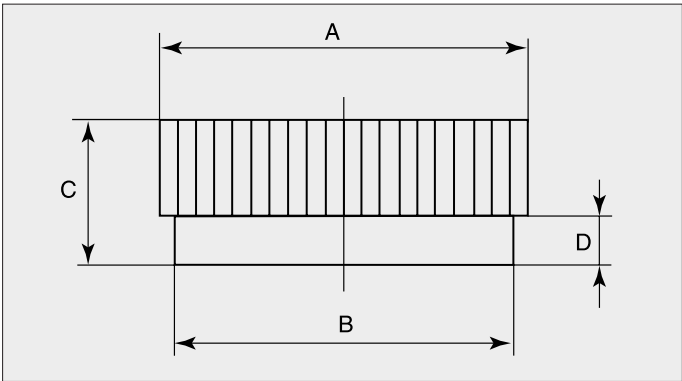
With this measuring instrument, every angle can be quickly, simply and extremely accurately determined from another reference point. The measuring resolution is 0.1°. The accuracy is 0.1° between 0 and 10° and 1.5% of the value between 10 and 45°. The time for the gauge to measure the angle is 10 seconds. Thanks to the use of VLSI technology and the LCD display, the instrument is compact: 138.4 x 81.5 x 38.1 mm. The electronic digital angle gauge operates for about 100 hours on a standard 9 volt battery.

Art.number : BM 64.300



BM permanent magnetic aids for wire and zinc spark machines

These positioning magnets made from Neodymium have a very powerful magnetic force and enable pieces of work to be positioned without any danger of unwanted movement. The ridges on the circumference give good manoeuvrability. Individual magnets are supplied under article number BM 19.020. A set of 6 in a plastic box are supplied under article number BM 19.021. The clamping power of the magnets is 90 N.



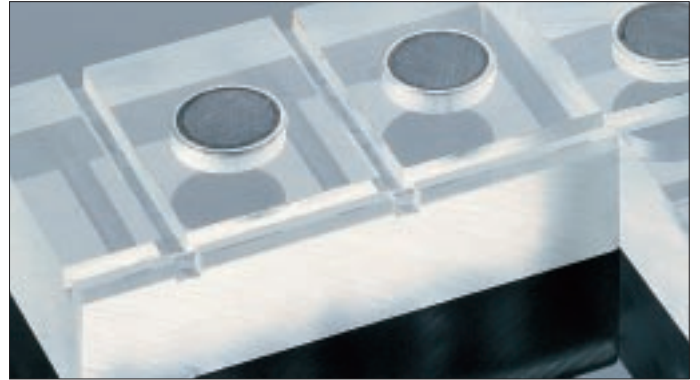
Art.no.	A	B	C	D
BM 19.020	20	19	8	5

All measurements in mm.

BM Accessories and tools

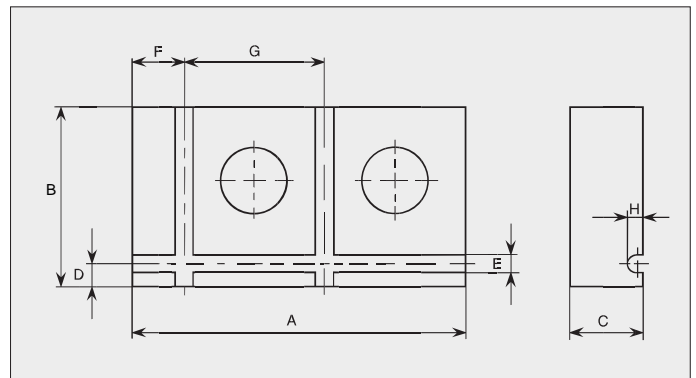
BM magnetic induction accessories

These magnet systems are an ideal aid in handling pieces of work on wire spark machines. They are made from impact resistant plastic and have three grooves. They are suitable for a wide range of applications. Each block contains two strong Neodymium magnets and make it possible to increase the pressure of the dielectric. They are supplied in sets of four of different sizes and are packed in a wooden box. The clamping power of all sizes is 40 N.

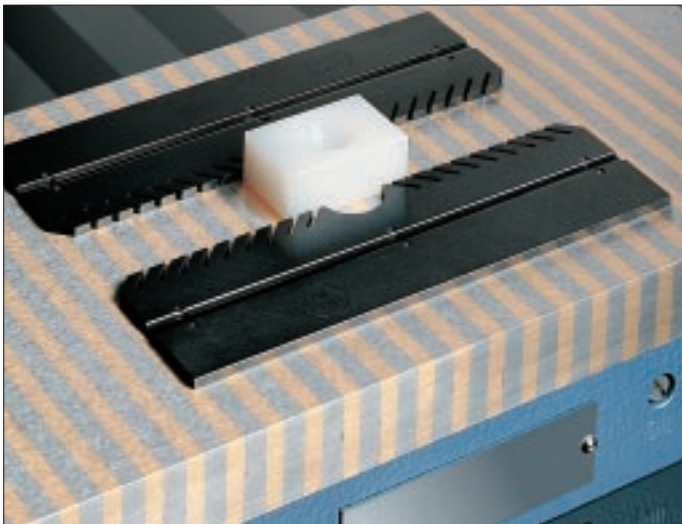


Art.no.	A	B	C	D	E	F	G	H
BM 19.010	50	15	10	3,0	2,5	10	20	2,5
	50	20	10	3,0	2,5	10	20	2,5
	50	25	10	3,0	2,5	10	20	2,5
	50	30	10	3,0	2,5	10	20	2,5

All measurements in mm.



BM clamping profiles for holding non-ferrous materials



Pieces of work made from non-ferrous materials can be quickly and accurately clamped on magnetic chucks for grinding, milling, drilling and spark erosion processing. Because of the special design of the profiles, the shape of the piece of work has no influence on the clamping possibilities. All shapes, round, rectangular, irregular, etc. can be clamped without any problems.

The measurements of the profiles are 150 x 45 x 3 mm. A set of two profiles is supplied under article number BM 67.500.

BM dial gauge stands

To position dial gauge for measuring pieces of work, Bakker Magnetics supplies an extensive range of dial gauge stands. All versions, with the exception of BM 70.047, are supplied with a robust, magnetic base

that can be switched on and off. There is a wide range of various functional versions such as flexible, adjustable and hydraulic attachment arms.



Dial gauge stand with fixed arm

Magnet is not switchable. Particularly suitable for situations where there is little room.

Art.no.	: BM 70.047
Dimensions magnetic base	: diam. 35 mm x 30 mm
Stand mounting	: M8
Total height	: 135 mm
Diameter stand	: 6 mm
Length crossbar	: 100 mm
Diameter crossbar	: 8 mm
Holding force	: 200 N
Weight	: 0.4 kg



Dial gauge stand with fixed arm and rotating switch

Art.no.	: BM 70.003	BM 70.046
Dimensions magnetic base	: l x w x h 65 x 48 x 55 mm	
Stand mounting	: M8	M10
Total height	: 230 mm	285 mm
Diameter stand	: 12 mm	16 mm
Length crossbar	: 190 mm	250 mm
Diameter crossbar	: 9.85 mm	8 mm
Magnetic gauge attachment:	with fine adjustment	
Holding force	: 800 N	1000 N
Weight	: 1.4 kg	2 kg



Dial gauge stand with fixed arm and rotating switch

Art.no.	: BM 70.022
Dimensions magnetic base	: l x w x h 75 x 60 x 75 mm
Stand mounting	: M12
Total height	: 280 mm
Diameter stand	: 20 mm
Length crossbar	: 175 mm
Diameter crossbar	: 8 mm
Holding force	: 900 N
Weight	: 3.2 kg



Dial gauge stand with fixed arm

Art.no.	: BM 70.014
Dimensions magnetic base	: l x w x h 65 x 48 x 55 mm
Stand mounting	: M8
Total height	: 370 mm
Diameter stand	: 18 mm
Reach	: 240 mm
Holding force	: 800 N
Weight	: 1.6 kg

BM dial gauge stands



Dial gauge stand with hydraulic clamping

Art.no.	: BM 70.021	BM 70.043
Dimensions magnetic base	: l x w x h 65 x 48 x 55 mm	
Stand mounting	: M8	M12
Fine adjustment	: yes	yes
Total height	: 310 mm	480 mm
Reach	: 260 mm	400 mm
Holding force	: 800 N	1000 N
Weight	: 1.8 kg	3.2 kg



Dial gauge stand with flexible arm and rotating switch

Art.no.	: BM 70.004
Dimensions magnetic base	: l x w x h 65 x 48 x 55 mm
Stand mounting	: M8
Fine adjustment	: no
Total height	: 370 mm
Reach	: 240 mm
Holding force	: 800 N
Weight	: 1.6 kg



Dial gauge stand with flexible arm and push button

Art.no.	: BM 70.018
Dimensions magnetic base	: l x w x h 53 x 45 x 53 mm
Stand mounting	: M8
Fine adjustment	: no
Total height	: 360 mm
Reach	: 240 mm
Holding force	: 450 N
Weight	: 1.4 kg



Dial gauge stand with flexible arm and rotating switch

Art.no.	: BM 70.019
Dimensions magnetic base	: l x w x h 75 x 60 x 75 mm
Stand mounting	: M10
Fine adjustment	: no
Total height	: 380 mm
Reach	: 240 mm
Holding force	: 900 N
Weight	: 2.8 kg



Small dial gauge stand non-switchable with central locking

Art.no.	: BM 70.080
Dimensions magnetic base	: l x w x h 60 x 16 x 32 mm
Stand mounting	: M8
Fine adjustment	: yes
Total height	: 120 mm
Reach	: 90 mm
Holding force	: 250 N
Weight	: 0.4 kg

BM dial gauge stands



Switchable dial gauge stand with folding arm in normal and heavy duty versions (BM 70.082)

Art.no.	: BM 70.081	BM 70.082
Dimensions magnetic base	: l x w x h 65 x 48 x 55 mm	
Stand mounting	: M8	
Fine adjustment	: yes	
Total height	: 271 mm	296 mm
Reach	: 220 mm	250 mm
Holding force	: 800 N	
Weight	: 1.4 kg	1.9 kg



Separate magnetic base with rotating switch

Art.no.	: BM 70.016	BM 70.048
Dimensions magnetic base	: l x w x h 65 x 48 x 55 mm	
Stand mounting	: M8	M8 of M10
Holding force	: 800 N	1000 N
Weight	: 1.0 kg	1.2 kg



Machine lamps with permanent magnetic base

Good illumination of the piece of work and the machine is essential for, among other things, closely following machining operations. Bakker Magnetics supplies three different lighting units for this purpose all mounted on a magnetic base and with a totally flexible arm.



Halogen lamp version with inbuilt transformer

Art.no.	: BM 70.008
Power supply	: 220 V DC
Total height	: 700 mm
Weight	: 2 kg



Halogen lamp version without inbuilt transformer

Art.no.	: BM 70.029
Power supply	: 12 V DC
Total height	: 900 mm
Weight	: 3.5 kg

BM Lifting magnets

Important applications of lifting magnets in industry are found in the clamping, hoisting and moving of metal (ferrous) objects, plate and pipe materials.

Bakker Magnetics has a wide range of lifting magnets for these purposes. In addition to types equipped with a permanent magnet system, the BM range includes a number of electromagnets. New to the BM range are the electro/permanent magnetic lifting magnets with radio remote control.

All BM lifting tools have multiple application possibilities and simple operation and are almost maintenance free. During the manufacture, high quality and durable materials are used which gives the tools a very long life. For the permanent lifting magnets, stable ceramic or Neodymium magnet systems are used which means, with normal use, no loss of lifting capacity can occur. The lifting magnets leave no residual magnetism behind on the pieces of work or materials. Bakker Magnetics runs extensive quality control checks and lifting capacity tests as a part of the manufacturing process for all its products. An individual test certificate is supplied for every permanent lifting magnet. Naturally, all BM lifting products meet the CE machine standards.

Important points when working with lifting magnets

In spite of the excellent properties of BM lifting magnets, when working with these tools a number of things must be taken into account. We will point out the most important ones here.

Thickness of the material to be lifted

For materials with a thickness of 30 mm and more, the holding power is optimal. With thinner materials, the holding power decreases.

Surface condition of the material to be lifted

There is a reduction in the lifting capacity when the surface of the material is painted or coated. This is caused by the fact that the pole plate cannot come into direct contact with the ferrous surface. The distance between the pole plate of the lifting magnet and the metal surface of the material is called the air gap. The size of the air gap determines to a large extent the final lifting capacity.

Safety

Naturally, safety is a very important point.

Bakker Magnetics maintains a factor of 2 for hand magnets a factor of 3 for lifting magnets. That is to say that when a lifting magnet is stated as having a lifting capacity of 800 kg, it has actually been tested at 2400 kg. In spite of the generous margins that are maintained during determining the lifting capacity, careful attention should be paid to the rule for all lifting installations that, when in operation, no one should stand under the material being lifted.

Important safety aspects

- Never exceed the recommended lifting capacity.
- Avoid shock loads.
- Take care when lifting thin steel plates: these can sag and lose contact with the pole plates.
- The total lifting capacity is only available with clean and flat surfaces. Deviations from this reduce the lifting capacity.
- Take care when lifting thin steel plates from a pile that only the top one is being lifted.
- Avoid letting lifting magnets land heavily.
- Remember that if the power supply fails when using an electromagnetic lifter, the load will be dropped (unless an safety power supply is being used).



BM Permanent lifting magnets

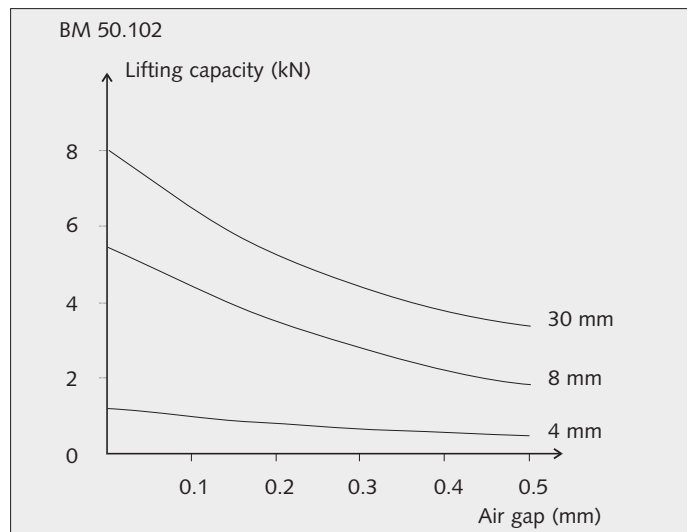
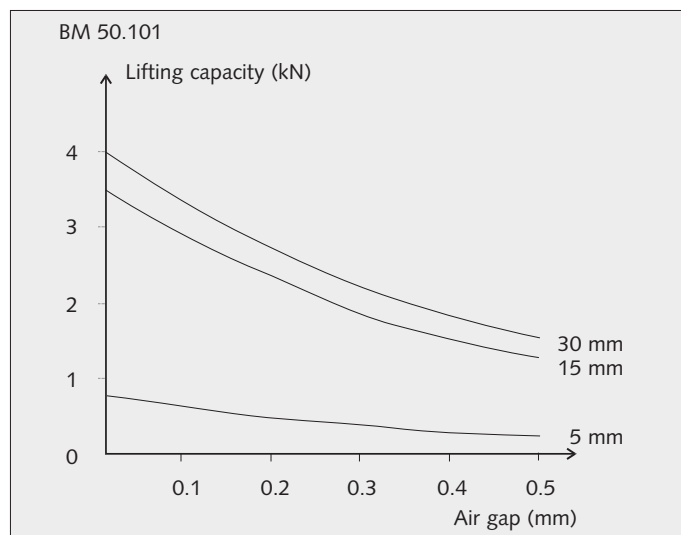
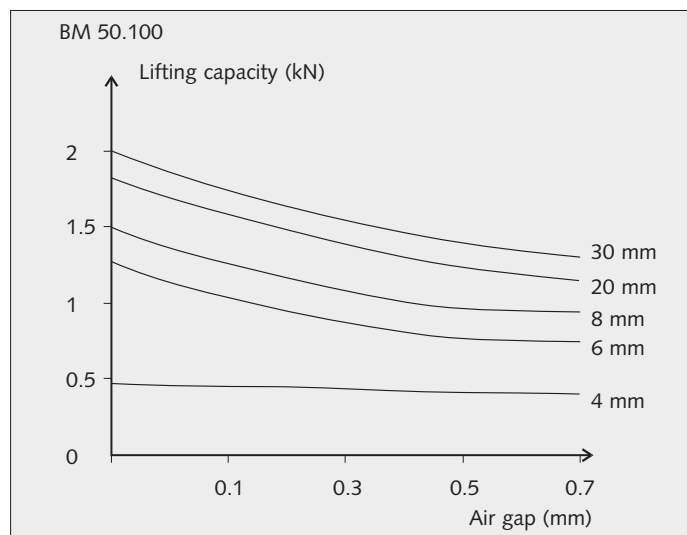
Permanent lifting magnets operate without additional energy being supplied and are therefore very energy friendly. In addition, power failures do not influence their operation so they can be used safely anywhere. One important application is to lift the materials with a weight up to 800 kg (for the types with ceramic magnet systems) or up to 1000 kg (for the types with Neodymium magnet systems) on to the machines for processing.

For loads with a greater weight, multiple lifting magnets can be used. For spherical and round materials, there are BM lifting magnets available with prism-shaped pole surfaces. The operation is extremely simple: place the lifting magnet on the material to be lifted and turn the handle. BM permanent lifting magnets are almost maintenance free. The BM range contains types with either ceramic or Neodymium magnet systems.

with ceramic magnet systems

Art.no.	dimensions L x W x H	weight kg	total height magnet	lifting capacity (kg)	
				recommended	test
BM 50.100	190x110x139	16	200	200	600
BM 50.101	210x160x150	36	320	400	1200
BM 50.102	290x200x180	72	410	800	2400

All measurements in mm.



BM lifting magnets

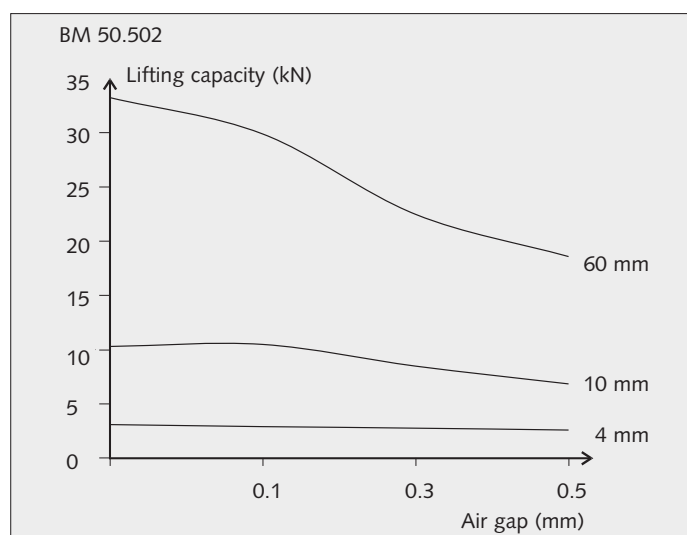
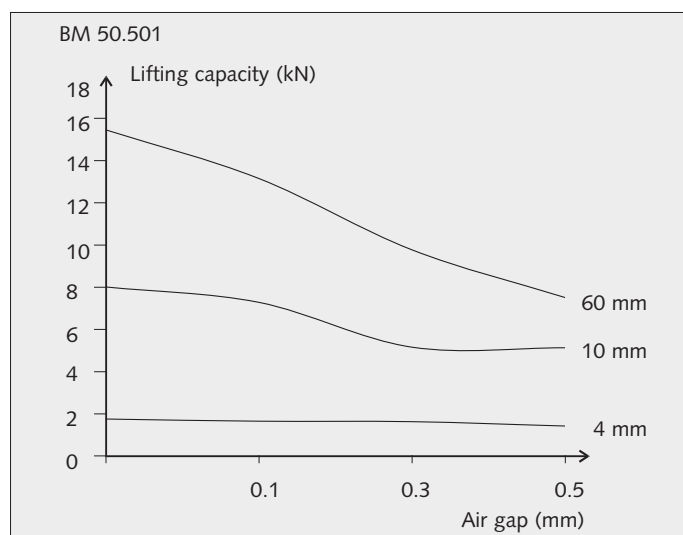
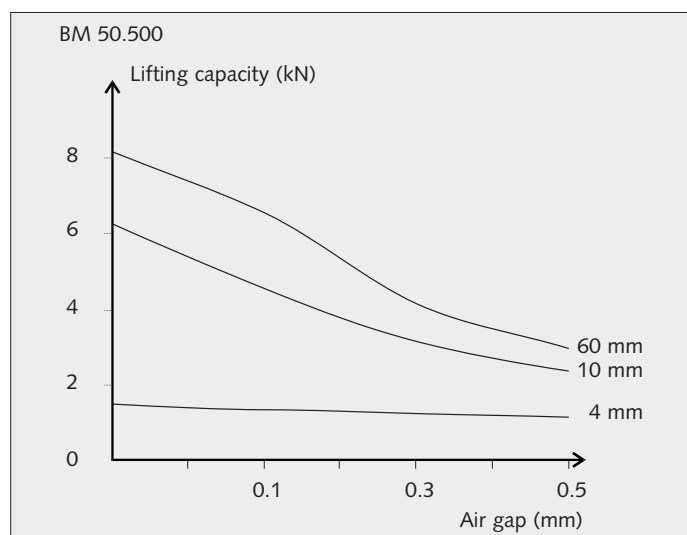
The graphs on these pages show the lifting capacity as a function of the air gap for various thicknesses of materials taking into account the safety factor of 3.

NEW

with Neodymium magnet systems and prism-shaped pole surfaces

Art.no.	dimensions L x W x H	weight kg	total height magnet	lifting capacity (kg)	
				recommended	test
BM 50.500	185x140x120	15	195	250	750
BM 50.501	280x160x145	35	220	500	1500
BM 50.502	345x260x225	100	300	1000	3000

All measurements in mm



BM electro lifting magnets

BM electro lifting magnets, equipped with a coil, are very suitable for lifting jobs involving steel plates and flat materials. The oval types, equipped with a double coil, are especially intended for clamping and aligning

operations. For round and/or spherical materials, the lifting magnets can be equipped with prism-shaped pole faces. All types are supplied complete with a 220 V power supply unit.

Round versions

Art.no.	diameter x height	weight kg	total height to eye	lifting capacity (kg) recommended	lifting capacity (kg) test	Power W
BM 40.020	158x65	15	330	600	1800	70
BM 40.021	178x82	17	350	800	2400	80
BM 40.022	245x93	34	305	1250	3750	90

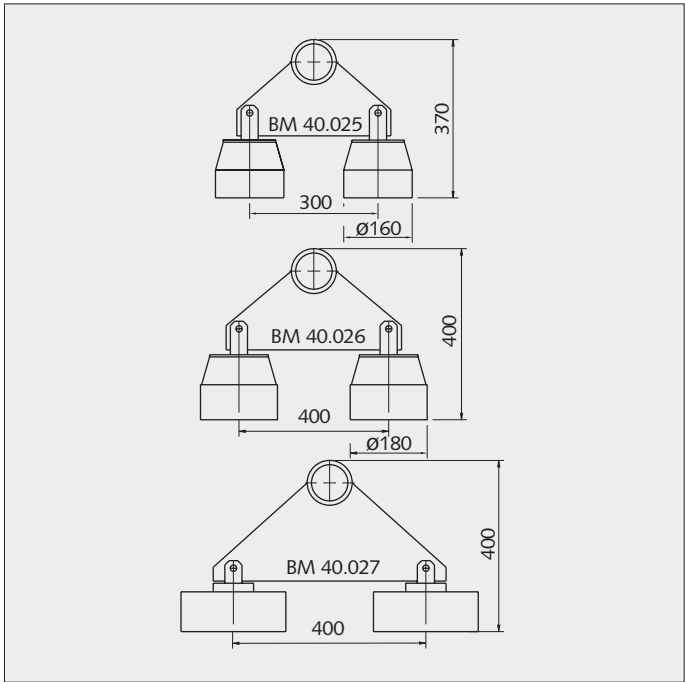
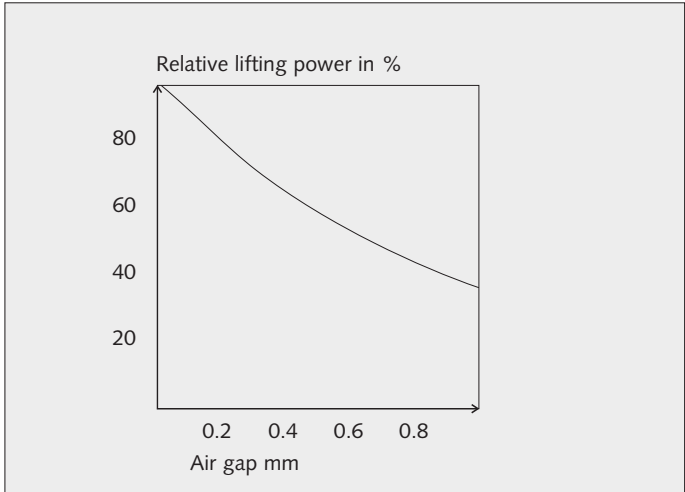
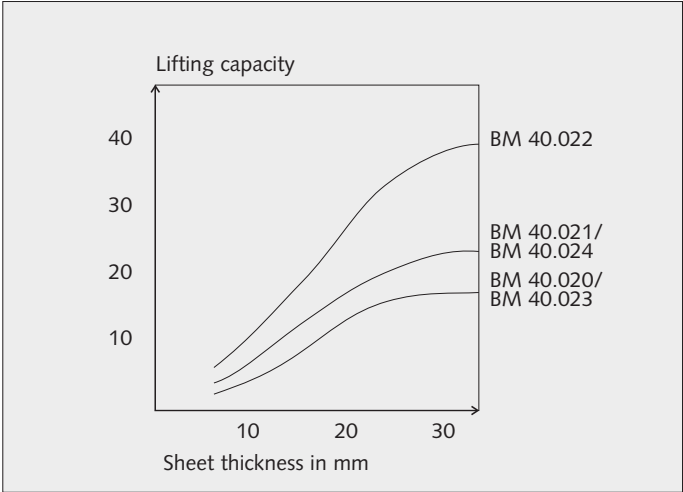
Traversal versions

Art.no.	assembly of
BM 40.025	2 x BM 40.020
BM 40.026	2 x BM 40.021
BM 40.027	2 x BM 40.022

All measurements in mm.

Oval versions

Art.no.	dimensions L x W x H	weight kg	total height to eye	lifting capacity (kg) recommended	lifting capacity (kg) test	Power W
BM 40.023	205x100x73	13	340	600	1800	65
BM 40.024	250x125x78	19	345	800	2400	85



BM electro/permanent lifting magnets

with wireless remote control

Recently added to the BM range, these lifting devices present an extremely efficient way of lifting and moving ferrous metal materials. Due to the fact that the lifting magnets can be operated from up to 30 meters away (approximately) with the radio remote control, a very flexible set up is possible. Activation occurs by means of an electrical impulse of about 0.5 seconds which is supplied by the built-in battery. During the time that the magnet system is activated, there is no drain on the battery. For about 75 activations per day, only one battery

NEW

charge per week is sufficient. The load is immediately demagnetised the moment the command is sent to switch off which eliminates all types of residual magnetism. BM electro/permanent lifting devices are very safe to use. In the event of a power supply failure, the magnet system remains activated. In addition, when the load is lifted the remote control is deactivated, it only operates again when the lifting eye is no longer under tension. Bakker Magnetics supply two types with a maximum lifting capacity of 1500 and 3000 kg respectively.

Technical data

Flat materials

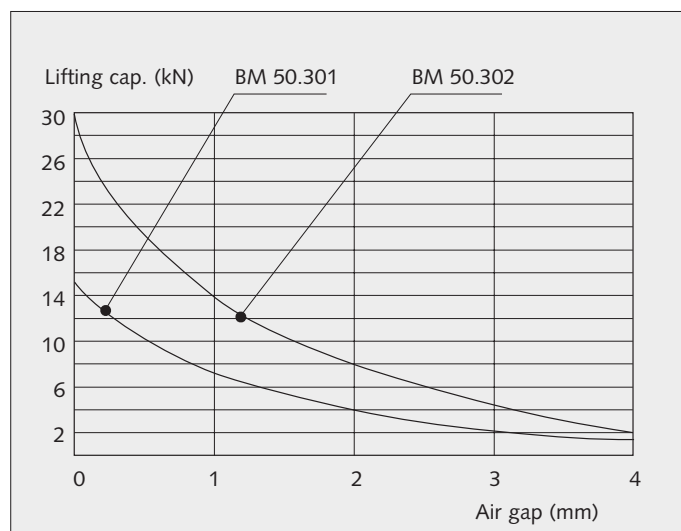
Art.no.	BM 50.301	BM 50.302	
max. lifting capacity	1500	3000	kg
min. material thickness	25	40	mm
max. length	2000	3000	mm

Round materials

max. lifting capacity	750	1500	kg
max. diameter	200	200	mm
max. length	1000	2000	mm

Other data

Art.no.	BM 50.301	BM 50.302	
battery voltage	12	2 x 12	V
battery capacity	25	25	Ah
charging time	8	8	h
power supply battery charger	220	220	V
length	310	460	mm
width	300	300	mm
height incl. mounting hook	650	700	mm
diameter lifting eye	75	75	mm
weight	130	170	kg



BM electro/permanent lifting magnets

for heavy industrial applications

This new range of heavy lifting devices are suitable for lifting and moving ferrous metal pieces of work and materials up to a maximum weight of 10 tonnes. Activating the magnet system occurs by two separate electrical impulses with a total duration of about 6 seconds. The first impulse energises the magnet system to about 75% of its capacity. When this is sufficient to firmly attach the object to be lifted to the four pole plates, a second impulse is generated which leads to the magnet system being energised to 100% of its capacity. This procedure has been selected to prevent the lifting magnet being used for loads that exceed its capacity. Another safety system ensures that the lifting magnet cannot be switched off as long as the load is not on the

Technical data

Art.no.	BM 50.401	BM 50.402	BM 50.403	BM 50.404	
Min. length	500	500	500	500	mm
Max. length	5000	6000	6000	6000	mm
Min. width	500	500	600	600	mm
Max. width	2000	2500	3000	3000	mm
Min. mat. thickness	16	25	30	35	mm
Length	518	640	695	760	mm
Width	518	640	695	760	mm
Height	470	545	585	650	mm
Pole plate dim.	140x140	180x180	200x200	220x220	mm
Weight	380	720	1000	1100	kg
Lifting capacity	3000	5000	7500	10.000	kg

BM plate lifters



NEW

ground. During the time that the magnet system is activated, there is no energy consumed. This means that these types of lifting magnets are very energy friendly. The load is immediately demagnetised when the lifting magnet is deactivated which eliminates all forms of residual magnetisation. BM electro/permanent lifting magnets are very safe to use. The magnet system remains operational even if the power supply fails. Bakker Magnetics supplies four types with lifting capacities of 3000, 5000, 7500 and 10,000 kg.



Handy tools for lifting plates. Simple to use. Place the lifter on the plate, raise the handle which activates the magnet system and then the plate can be transported. With normal use, damage to the plate is prevented.

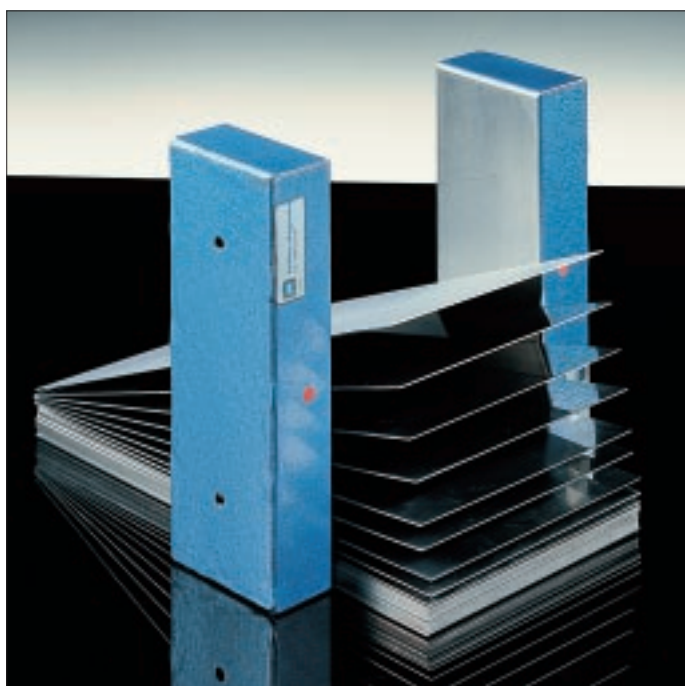
Art.no.	plate thickness mm	lifting capacity kg		resistance to slip (kg)	
		A	B	A	B
BM 50.006	20	140	60	85	50
	10	110	50	65	40
	5	75	35	60	35
	1	30	20	20	15

The values in kg under "A" are valid for an air gap of 0. The values under "B" are valid for an air gap of 0.2 mm. The air gap can be caused by a layer of paint, coating, etc.

For manual use, BM supplies a hand magnet: a handy tool for moving plates by hand. Art.no. BM 70.002 (see page 45).

BM Sheet separators

Magnetism is widely used in industry to perform activities more efficiently and more simply. This is certainly the case in construction firms where steel plates are handled. It is well known that taking just one sheet can be a relatively time-consuming business which can hold up the work especially with series production. With BM sheet separators, the individual sheets can be directly picked up of a stack.



A BM sheet separator consists of a rust-resistant steel casing which contains a magnet system of anisotropic ceramic permanent magnetic elements. The casing and the magnet system are held in position by a steel rear plate. When a stack of steel sheets are placed in the field of influence of the sheet separator, the magnetic field created by the sheet separator separates them automatically so the sheets can be taken from the stack one by one very easily.

The number of possibilities for BM sheet separators is unlimited. They can be used singly or in multiple combinations. The illustrations give a good impression of this. Which steel plate separation system should be used in a particular situation depends on a number of factors:

- the thickness of the sheets,
- the dimensions of the sheets,
- the height of the stack,
- the surface quality of the sheets,
- the conditions of the sheets (dry, oily, damp, etc.).

To achieve the optimum separation of the sheets, the height of the stack should not be more than 10 to 20% of the height of the sheet separator. If sheets are to be taken from the stack other than by hand, for example by an automated process, often multiple sheet separators will have to be positioned around the stack.

BM sheet separators are available in more than twenty different standard sizes. For specific applications, they can also be supplied in other sizes on request.

Art.no.	dimensions		
	Length	Width	Height
BM 70.050	75	75	30
BM 70.051	275	75	30
BM 70.052	340	75	30
BM 70.053	105	105	30
BM 70.054	210	105	30
BM 70.055	310	105	30
BM 70.056	340	105	30
BM 70.057	145	105	50
BM 70.058	210	105	50
BM 70.059	280	105	50
BM 70.060	310	105	50
BM 70.061	345	105	50
BM 70.062	410	105	50
BM 70.063	445	105	50
BM 70.064	510	105	50
BM 70.065	610	105	50
BM 70.066	765	105	50
BM 70.067	280	180	90
BM 70.068	400	180	90
BM 70.069	345	280	95
BM 70.070	545	280	95
BM 70.071	610	280	95
BM 70.072	815	280	95

All measurements in mm.

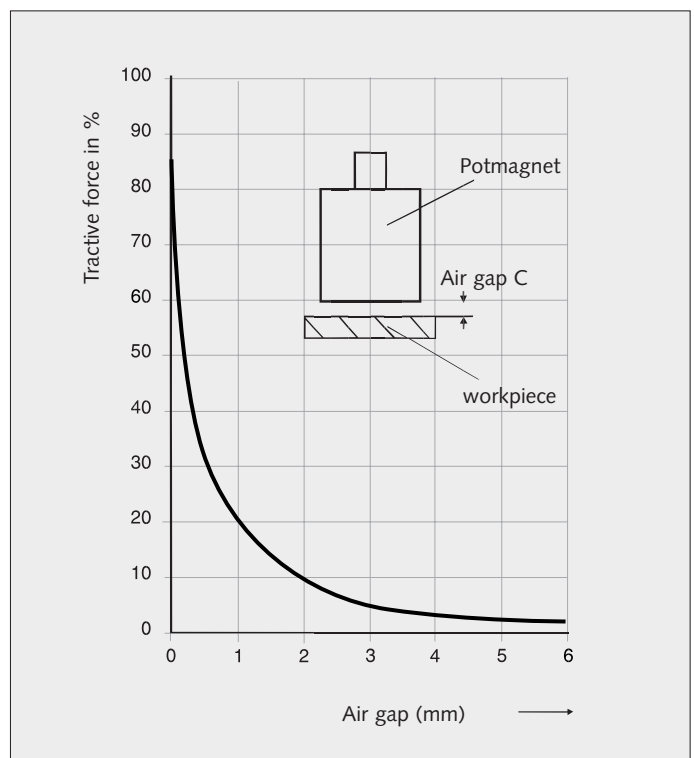
BM Pot magnets

powerful magnets with a focused magnetic field

Pot magnets are often used as tools for various activities in workshops and in industry. In particular, pot magnets daily render invaluable manual and clamping services in fixing metallic pieces of work for processes such as welding, cutting, milling, drilling, etc. Also pot magnets can be used in other applications including acting as an alternative to other fixing methods. An important property of pot magnets is the fact that the magnetic field is restricted to the pole surface - the other sides demonstrate no magnetic effects. This protects the immediate environment from unwanted magnetic influences. This characteristic means that pot magnets can be used almost anywhere including being built into equipment and instruments. Because of the lack of moving parts and the robust construction of BM pot magnets, the life

is unlimited and no maintenance is required. Just keeping the pole surfaces clean guarantees reliable operation. Also, it is recommended that the contact surfaces of the piece of work should be kept free of contamination. This prevents the air gap - the space between the pole surface and the contact area of the piece of work - becoming too great and thereby negatively influencing the clamping force. The graph on this page shows the relatively rapid reduction in holding power with increasing air gap.

Bakker Magnetics supplies a wide range of magnetic bars for industrial applications as well as its extensive range of pot magnets in both electromagnetic and permanent magnet versions.



BM Permanent pot magnets

Permanent magnetic pot magnets

For standard applications, a ceramic magnet material is used. The types in this range can be used in temperatures up to 80°C.

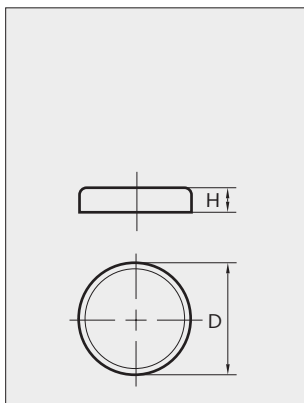
For applications in which high temperatures can be present, pot magnets made of AlNiCo magnetic material are recommended. This material can withstand temperatures up to 450°C.

For applications where there are restrictions to the dimensions of the pot magnets, for example for holding small pieces of work, pot magnets made of Neodymium (NdFeB) material are preferable. The types in this range have, in spite of their small dimensions, large holding power and can be used in temperatures up to 90°C.

Whenever very severe mechanical demands are placed on the pot magnets, the range of Samarium Cobalt (SmCo5) magnet systems is the most suitable. This material has a high magnetic force and can withstand temperatures up to 200°C. It should be noted that when coming close to the maximum permitted temperature, the holding power of the magnets can be reduced by some 30 to 40%. This loss of magnetic force is only temporary though. When the temperature falls, the magnetic force is restored to its original value. BM permanent pot magnets conform to very high quality requirements and the magnetic properties are, with normal use, guaranteed for life.

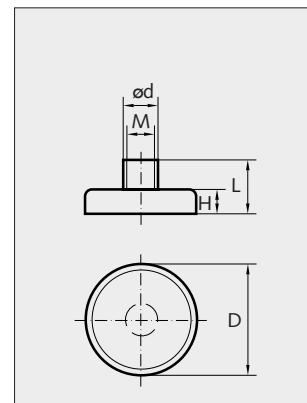
with ceramic magnet system

Construction : flat, without threaded bush
Casing : galvanised
Operating temp. : max. 80 °C



Art.no.	D	H	weight gram	tract. force N
BM 31.001	10	4,5	2	4
BM 31.002	13	4,5	3	10
BM 31.003	16	4,5	4,5	18
BM 31.004	20	6,0	10	30
BM 31.005	25	7,0	19	40
BM 31.006	32	7,0	30	80
BM 31.007	36	7,7	40	100
BM 31.008	40	8,0	55	125
BM 31.009	47	9,0	80	180
BM 31.010	50	10,0	100	220
BM 31.011	57	10,5	140	280
BM 31.012	63	14,0	230	350
BM 31.013	80	18,0	485	600
BM 31.014	100	22,0	900	900

Construction : flat, with threaded bush
Casing : galvanised
Operating temp. : max. 80 °C



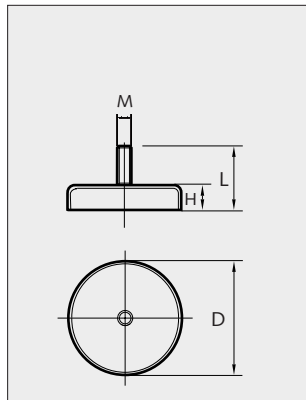
Art.no.	D	H	d	L	thread weight		tract. force N
					M	gram	
BM 31.021	10	4,5	6	11	3	3	4
BM 31.022	13	4,5	6	11,5	3	5	10
BM 31.023	16	4,5	6	11,5	3	6	18
BM 31.024	20	6,0	6	13	3	11	30
BM 31.025	25	7,0	8	15,5	4	22	40
BM 31.026	32	7,0	8	16	4	32	80
BM 31.027	36	7,7	8	16	4	45	100
BM 31.028	40	8,0	10	18	5	60	125
BM 31.029	47	9,0	8	17,5	4	90	180
BM 31.030	50	10,0	12	22	6	110	220
BM 31.031	57	10,5	8	19	4	145	280
BM 31.032	63	14,0	15	30	8	240	350
BM 31.033	80	18,0	20	34	10	520	600
BM 31.034	90	13,0	-	-	10	370	600
BM 31.035	100	22,0	22	43	12	940	900

All measurements in mm.

Other sizes on request.

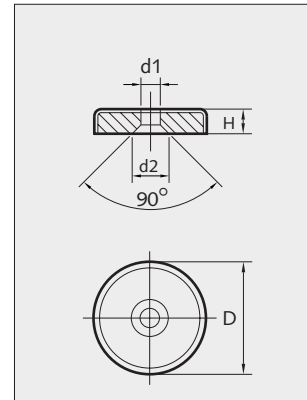
BM Permanent pot magnets

Construction : flat with
externally threaded stud
Casing : galvanised
Operating temp. : max. 80 °C



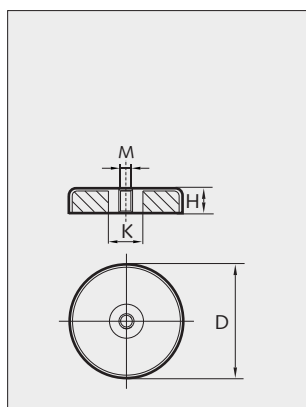
Art.no.	D	H	L	M	weight gram	tract. force N
BM 31.200	10	4,5	11,5	3	3	4
BM 31.201	13	4,5	11,5	3	5	10
BM 31.202	16	4,5	11,5	3	6	18
BM 31.203	20	6,0	13,0	3	11	30
BM 31.204	25	7,0	15,0	4	22	40
BM 31.205	32	7,0	15,0	4	32	80
BM 31.206	47	9,0	17,0	6	90	180
BM 31.207	57	10,5	15,5	6	142	280
BM 31.208	63	14,0	29,0	6	235	350

Construction : flat with
through hole
Casing : galvanised
Operating temp. : max. 80 °C



Art.no.	D	H	d1	d2	weight gram	tract. force N
BM 31.220	16	4,5	3,5	6,5	4	14
BM 31.221	20	6,0	4,2	8,6	9	27
BM 31.222	25	7,0	5,5	10,4	16	36
BM 31.223	32	7,0	5,5	10,4	27	72
BM 31.224	40	8,0	5,5	10,4	53	90

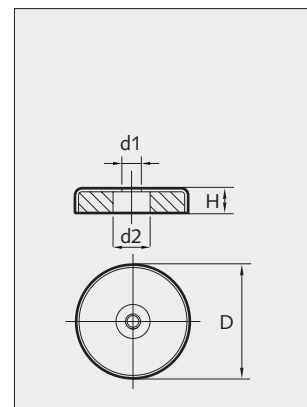
Construction : flat with
threaded through hole
Casing : galvanised
Operating temp. : max. 80 °C



Art.no.	D	H	M	K	weight gram	tract. force N
BM 31.240	50	10	6	18	105	170
BM 31.241	63	14	8	20	235	350
BM 31.242	80	18	8	15	490	550
BM 31.243	80	18	10	15	490	550

All measurements in mm.
Other sizes on request.

Construction : flat with
countersunk through hole
Casing : galvanised
Operating temp. :max. 80 °C



Art.no.	D	H	d1	d2	weight gram	tract. force N
BM 31.230	50	10,5	8,5	22,0	90	180
BM 31.231	63	14,0	6,5	24,0	195	290
BM 31.232	80	18,0	6,5	11,5	480	540
BM 31.233	83	18,0	10,5	32,0	450	600

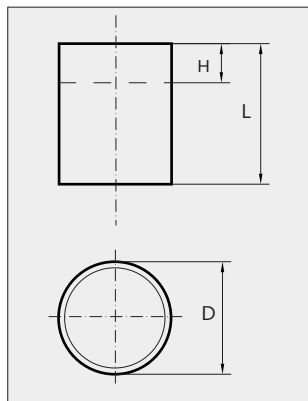
BM Permanent pot magnets

with AlNiCO magnet system

Construction : cal with fit tolerance

Casing : galvanised

Operating temp. : max. 450 °C



Art.no.	Dh6	L	H	weight gram	tract. force N
BM 31.040	6	10	2	2	2
BM 31.041	8	12	3	4	3
BM 31.042	10	16	6	9	5
BM 31.043	13	18	7	17	10
BM 31.044	16	20	5	29	15
BM 31.045	20	25	6	57	35
BM 31.046	25	30	5	110	80
BM 31.047	32	35	3	200	150
BM 31.048	40	45	5	420	200
BM 31.049	50	50	2	720	350
BM 31.050	63	60	5	1340	550

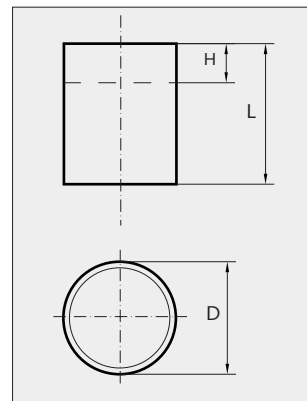
The length L can be shortened up to dimension H without affecting the magnetic power.

If the pole surface is to be machined, no more than 2 mm can be removed without causing the magnetic force to decrease very significantly.

Construction : cylindrical without fit tolerance

Casing : galvanised

Operating temp. : max. 450 °C



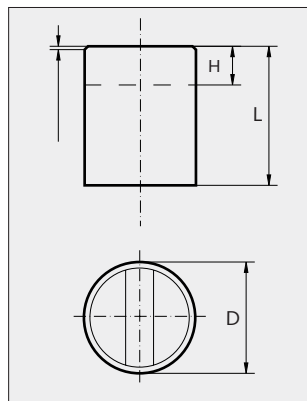
Art.no.	D	L	H	weight gram	tract. force N
BM 31.060	6	20	12	4	2
BM 31.061	8	20	11	7	3
BM 31.062	10	20	10	11	5
BM 31.063	13	20	9	19	10
BM 31.064	16	20	5	29	15
BM 31.065	20	25	6	57	35
BM 31.066	25	35	10	140	80
BM 31.067	32	40	8	240	150
BM 31.068	40	50	10	550	200
BM 31.069	50	60	12	900	350
BM 31.070	63	65	10	1480	550

All measurements in mm.
Other sizes on request.

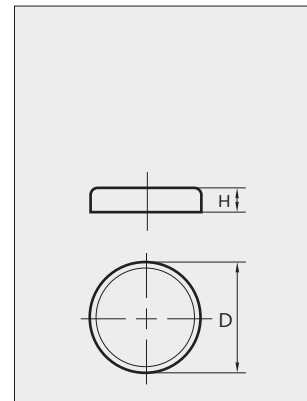
BM Pot magnets

with Samarium Cobalt or Neodymium magnet systems

Construction : cylindrical
Casing : brass
Operating temp. : max. 90 °C
Versions up to 200 °C
on request



Construction : flat without threaded bush
Casing : galvanised steel
Operating temp. : max. 90 °C
Versions up to 200 °C
on request



Art.no. SmCo5	NdFeB	D	L	H	weight gram	tractive force (N)	
						SmCo5	NdFeB
BM 33.031	BM 32.001	6	20	10	4,5	8	10
BM 33.032	BM 32.002	8	20	10	8	22	25
BM 33.033	BM 32.003	10	20	8	12,5	40	45
BM 33.034	BM 32.004	13	20	6	20	60	70
BM 33.035	BM 32.005	16	20	2	32	125	150
BM 33.036	BM 32.006	20	25	6	60	230	280
BM 33.037	BM 32.007	25	35	7	135	400	450
BM 33.038	BM 32.008	32	40	5	250	600	700

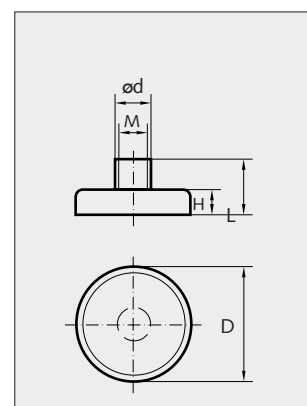
Art.no. SmCo5	NdFeB	D	H	weight gram	tractive force (N)	
					SmCo5	NdFeB
BM 33.001	BM 33.201	6	4,5	1,0	5	5
BM 33.002	BM 33.202	8	4,5	1,5	11	13
BM 33.003	BM 33.203	10	4,5	2,5	12	25
BM 33.004	BM 33.204	13	4,5	4,5	40	60
BM 33.005	BM 33.205	16	4,5	6,5	60	95
BM 33.006	BM 33.206	20	6	15	90	140
BM 33.007	BM 33.207	25	7	22	150	200
BM 33.008	BM 33.208	32	7	40	220	350

Other sizes and flat versions with or without threaded stud on request.

The length L can be shortened up to dimension H without affecting the magnetic power.

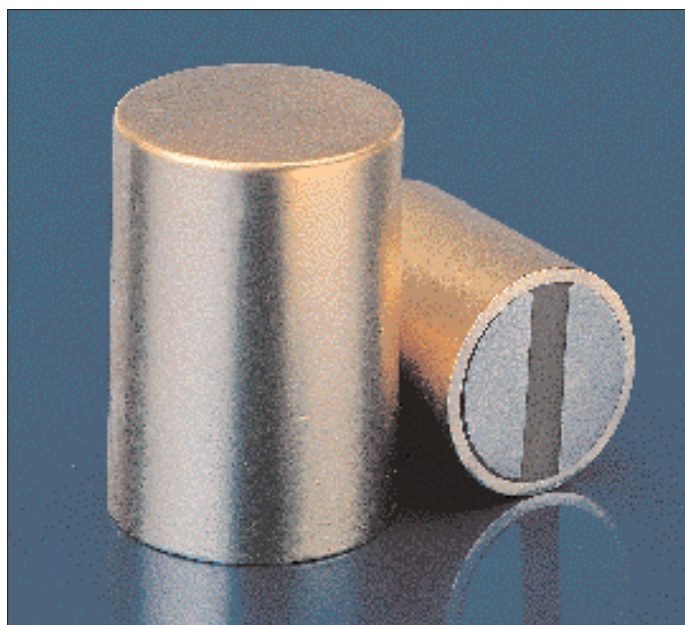
If the pole surface is to be machined, no more than 2 mm can be removed without causing the magnetic force to decrease very significantly.

Construction : flat with treaded bush
Casing : galvanised steel
Operating temp. : max. 90 °C
versions up to 200 °C
on request

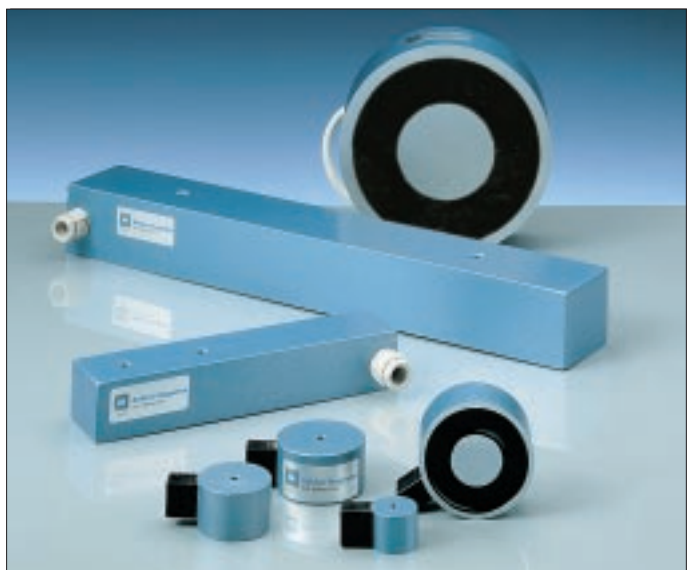


Art.no. SmCo5	NdFeB	D	H	L	d	M	weight gram	tract. force (N)	
								SmCo5	NdFeB
BM 33.021	BM 33.121	6	4,5	11,5	6	3	1,5	5	5
BM 33.022	BM 33.122	8	4,5	11,5	6	3	2	11	13
BM 33.023	BM 33.123	10	4,5	11,5	6	3	3	12	25
BM 33.024	BM 33.124	13	4,5	11,5	6	3	5	40	60
BM 33.025	BM 33.125	16	4,5	11,5	8	4	7,5	60	95
BM 33.026	BM 33.126	20	6,0	13,0	8	4	16	90	140
BM 33.027	BM 33.127	25	7,0	14,0	8	4	25	150	200
BM 33.028	BM 33.128	32	7,0	15,5	10	5	48	220	350

All measurements in mm.



BM Electro pot magnets and magnet bars



Using electro pot magnets is recommended in situations where the magnetic force must be able to be switched on and off (from a distance) or in cases where an extremely high magnetic force is needed. Through the ability to switch the magnetic force on and off remotely, they are eminently suitable for use in automated systems. Also BM electro pot magnets can be used in such applications as safety switches on fire doors. All versions are developed and tested for continuous use and are energy efficient. As well as meeting the CE standards, they also satisfy the IP 65 protection requirements. The versions with loose cables satisfy IP 00, those with contact terminals IP 20. Mounting is by a central tapped hole. Use 24 volts direct current as standard. Other voltages to a maximum of 220 volts are also possible. If required, appropriate anchor plates and power supply equipment can be supplied.

Power supply : 24 volt DC, other voltages possible
 Mounting : central threaded hole
 Connection : with loose connecting wires or with contact terminals

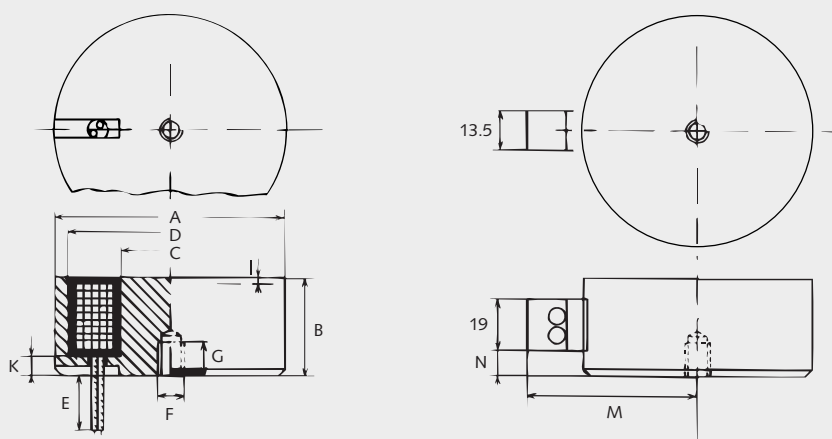
Art.no.	A	B	C	D	E	F	G	K	L	M	N	weight kg	power W	tract. force N
BM 30.150	25	20	10,3	22,6	200	M4	6	3,5	1	28,5	0,5	0,06	3,2	140
BM 30.151	32	22	12,6	29,7	200	M4	6	5,5	3	32,5	0,5	0,11	3,4	265
BM 30.152	40	25,5	15,7	37	200	M5	8	5,5	3	37	0,5	0,2	4,6	405
BM 30.153	50	27	19,9	46,2	200	M5	8	6	3	42	4,5	0,3	6,4	720
BM 30.154	63	30	26,2	57,7	200	M8	12	6,5	3	49	6,5	0,55	8,2	1140
BM 30.155	80	38	34	72,8	200	M8	12	9	3	57,5	7,5	1,2	14,5	2400
BM 30.156	100	43	42,8	91,3	300	M10	15	10,5	3			2,1	20,5	3400
BM 30.157	150	56	67,9	134	300	M16	24	17	3			6,4	37	9300
BM 30.158	180	63	84,8	161	300	M24	36	21	3			10,5	50	15000
BM 30.159	250	80	117,5	223	300	M24	36	29	3			25,9	90	30000

All measurements in mm.

Transformer/rectifier in casing for BM electro pot magnets

Power supply : 220 V AC/50 Hz
 Output voltage : 24 V DC
 Power : 120 W

Dimensions : 200 x 150x 130 mm
 Art.no. : BM 30.175



BM Magnet bars

BM magnet bars are universal tools for holding and securing materials during processing or transportation. Since they can be switched on and off through the power supply, they are particularly suitable for automated processes. Because of the durable materials and robust construction, BM magnet bars have a very long life, are

almost maintenance free, and have low energy consumption. The standard version is suitable for 24 volt and supplied with a swivel. Other voltages on request.

B = 40 mm, C = 35 mm

Art.no.	A	power W	weight kg	distance between threaded holes centres of M8
BM 30.200	100	9	0,8	2 x 40 mm apart
BM 30.201	150	11	1,1	2 x 60 mm apart
BM 30.202	200	13	1,5	2 x 80 mm apart
BM 30.203	300	19	2,2	2 x 150 mm apart
BM 30.204	400	28	2,9	2 x 180 mm apart
BM 30.205	500	40	3,7	2 x 300 mm apart
BM 30.206	600	46	4,5	1 x in the centre, 2 x 245 mm apart
BM 30.207	700	54	5,2	1 x in the centre, 2 x 430 mm apart
BM 30.208	800	62	6,0	1 x in the centre, 2 x 480 mm apart
BM 30.209	1000	88	7,4	1 x in the centre, 2 x 580 mm apart

B = 60 mm, C = 50 mm

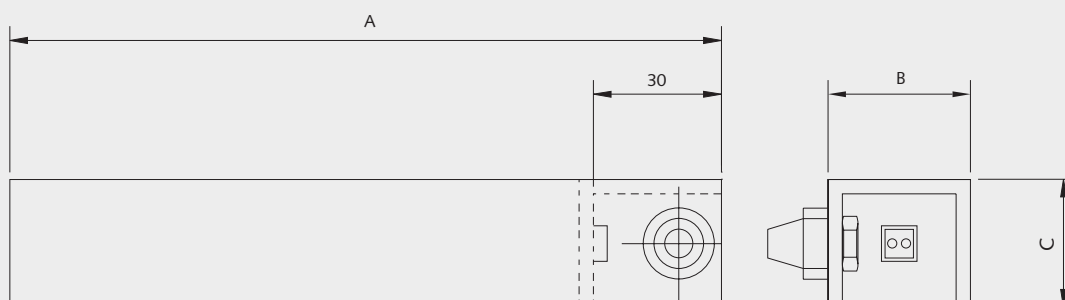
Art.no.	A	power W	weight kg	distance between threaded holes centres of M8
BM 30.250	100	14	1,6	2 x 40 mm apart
BM 30.251	150	22	2,4	2 x 60 mm apart
BM 30.252	200	31	3,2	2 x 80 mm apart
BM 30.253	300	40	4,7	2 x 150 mm apart
BM 30.254	400	56	6,4	2 x 180 mm apart
BM 30.255	500	68	8,0	2 x 300 mm apart
BM 30.256	600	80	9,5	1 x in the centre, 2 x 245 mm apart
BM 30.257	700	87	11,1	1 x in the centre, 2 x 430 mm apart
BM 30.258	800	94	12,7	1 x in the centre, 2 x 480 mm apart
BM 30.259	1000	112	15,9	1 x in the centre, 2 x 580 mm apart

All measurements in mm
Other sizes on request.

Transformer/rectifier unit for supplying BM magnet bars

Power supply : 220 V or 380 V AC/50 Hz
via contact terminals
Output voltage : 24 V AC

Art.no. 1 phase	3 phase	power W	casing
BM 30.275	BM 30.285	100	aluminium IP 23
BM 30.276	BM 30.286	200	aluminium IP 23
BM 30.277	BM 30.287	500	plastic IP 23
BM 30.278	BM 30.288	1000	plastic IP 23
BM 30.279	BM 30.289	1500	plastic IP 23

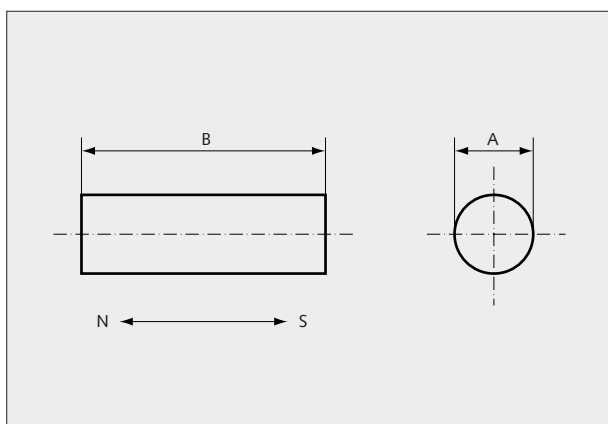


BM red painted magnets

a range for all kinds of industrial applications

Bakker Magnetics red painted permanent magnets are used for all sorts of industrial applications. For example, as tools for mounting, clamping, transporting, hoisting, welding and separating. Bakker Magnetics magnets are

extremely suitable for being built in to equipment, accessories and tools, often as a replacement for other fasteners. Unless otherwise noted, all products are manufactured from AlNiCo magnetic material.



Cylindrical bar magnets

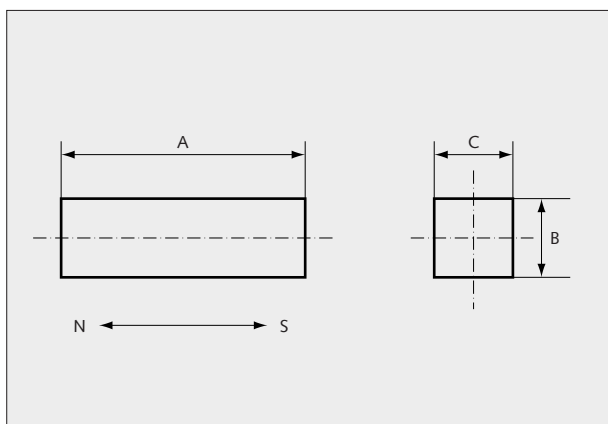
axial magnetisation

Art.no.	A	B
BM 90.001	4	10
BM 90.002	5	10
BM 90.003	6	10
BM 90.004	5	20
BM 90.005	6	20
BM 90.006	8	24
BM 90.007	10	30

Furthermore, bar magnets Alnico 500 can be supplied in diameters from 3 to 20 mm and in lengths up to 305 mm.

Construction: axially magnetised or non-magnetised, depending on preference

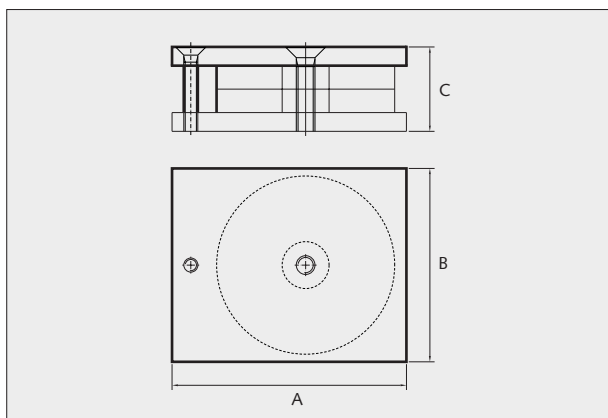
Tolerances: diameter + 0/-0,2 mm (unprocessed), length +/- 0,2 mm.



Rectangular bar magnets

axial magnetisation

Art.no.	A	B	C
BM 90.008	20	10	5
BM 90.009	60	15	5
BM 90.010	50	15	10
BM 90.011	75	15	10
BM 90.012	101	15	10
BM 90.025	40	12,5	5
BM 90.026	60	12,5	5



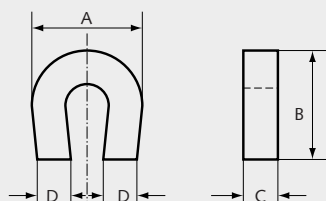
Drag magnet

Magnet designed for dragging activities. Robust steel construction with a ceramic magnet. Can attract objects up to 50 kg (under ideal conditions).

Art.no.	A	B	C	lifting capacity	weight
BM 90.051	101,5	36	82,5	500 N	1,4 kg

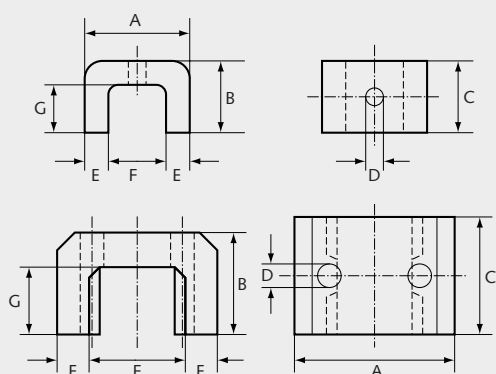
All measurements in mm

BM red painted magnets



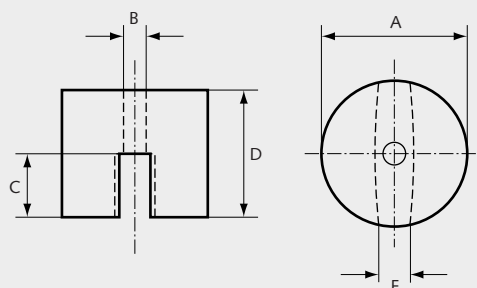
Small horseshoe magnets

Art.no.	A	B	C	D	lifting capacity N	weight kg
BM 90.013	19	10,4	15	4,3	13	0,015
BM 90.014	22,2	11,1	7,9	7,9	13	0,020
BM 90.019	28,6	24,9	7,9	7,9	24	0,030



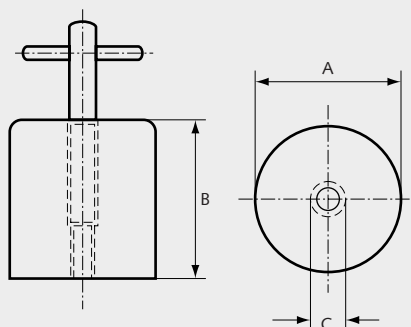
Powerful horseshoe magnets

Art.no.	A	B	C	D	E	F	G	lift cap.	weight
								N	kg
BM 90.015	22	17	25	7	7	8	9	45	0,075
BM 90.029	30	20	20	5,2	7,5	15	11	45	0,060
BM 90.016	40	25	25	5	10	20	13	90	0,120
BM 90.017	45	30	30	5	11	23	17	118	0,180
BM 90.018	60	39,2	61,5	7	14	32	26	250	0,600
BM 90.030	57,2	34,9	44,5	7,9	11,1	34,9	23	235	0,370
BM 90.031	69,9	41,3	57,2	7,9	14,3	41,3	26,2	370	0,710
BM 90.032	79,4	54	82,6	9,5	15,9	47,6	36,5	470	1,450



Button magnets

Art.no.	A	B	C	D	E	lift. cap. N	weight kg
BM 90.020	12,7	4,4	4,8	9,5	4	7	0,006
BM 90.021	19,1	4,8	6,4	12,7	5,6	19	0,020
BM 90.022	25,4	4,8	7,9	15,9	5,6	34	0,050
BM 90.023	31,8	7,1	12,7	25,4	7,9	48	0,113



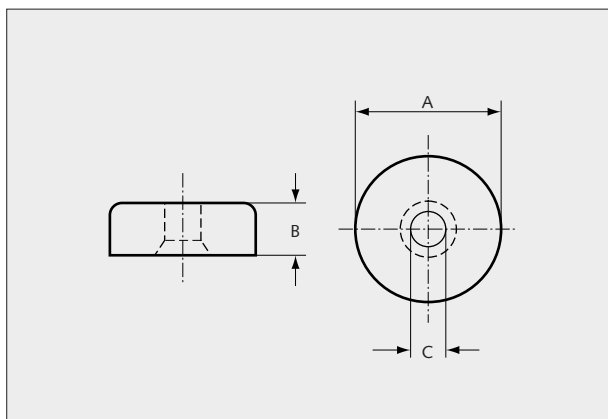
Pot magnets with release

Art.no.	A	B	C	lift. cap. N	weight kg
BM 30.009	55	49,2	M 8	400	0,95
BM 30.010	69,9	64,5	M 8	880	1,95
BM 30.011	75	45	M12	400	0,85
BM 30.035	44,5	44,5	M 8	200	0,55
BM 30.036	101,6	74,6	M12	1700	4,70
BM 30.037	95,3	95,3	M12	2200	7,37

All measurements in mm

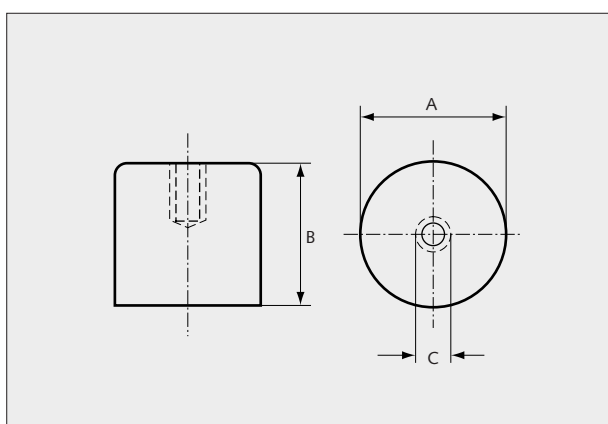
BM 30.011 is made from ceramic magnet material.

BM red painted magnets



Shallow pot magnets

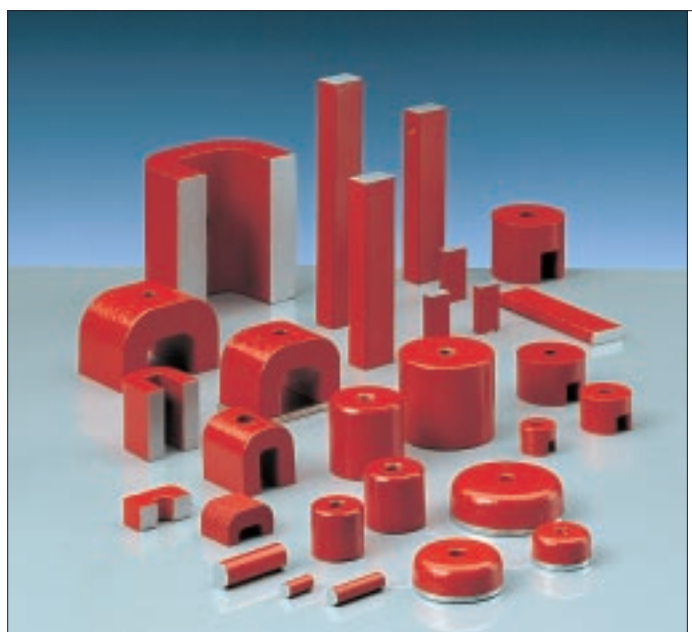
Art.no.	A	B	C	lift. cap. N	weight kg
BM 30.006	19,1	7,5	3,7	30	0,013
BM 30.007	28,6	8,5	4,8	50	0,036
BM 30.008	38,1	10,4	4,8	130	0,080



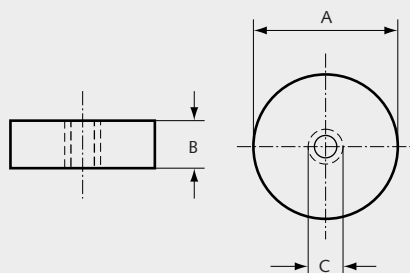
Pot magnets with steel magnet system

Art.no.	A	B	C	lift. cap. N	weight kg
BM 30.001	17,5	16	M 6	26	0,023
BM 30.002	20,6	19	M 6	40	0,040
BM 30.003	27	25	M 6	61	0,085
BM 30.004	35	30	M 6	147	0,184
BM 30.005	65	43	M12	400	0,930

All measures in mm.

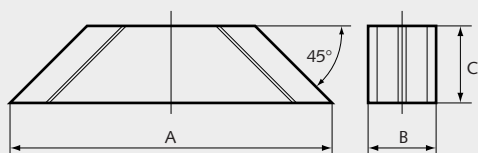


BM red painted magnets



Pot magnets with ceramic magnet system and through hole

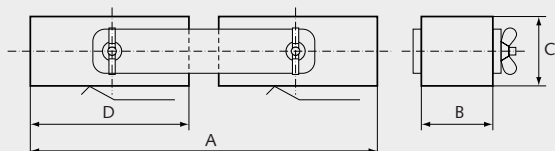
Art.no.	A	B	C	lift. cap. N	weight kg
BM 30.023	50	13	M8	150	0,17
BM 30.024	80	20	M10	400	0,57
BM 30.022	90	13	M8	600	0,34



Magnetic mitre clamps

Application: welding or assembly tools. All surfaces are magnetic. The prism version is especially recommended for round materials and pipes.

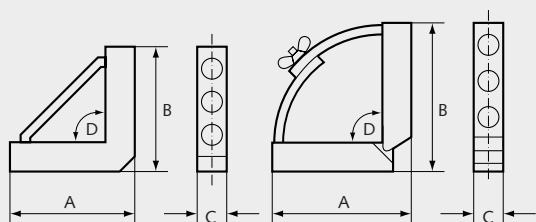
Art.no.	version	A	B	C	weight kg
BM 40.001	flat	170	35	40	1,25
BM 40.001/a	prism	170	35	40	1,64



Adjustable magnetic positioner

Magnetic on one side. Both magnets are linked by a hinge and can be adjusted to any angle. If required, the magnetic blocks can be supplied separately.

Art.no.	A	B	C	D	block dimensions
BM 40.002	105	25,4	25,4	57,2	57,2 x 25,4 x 25,4



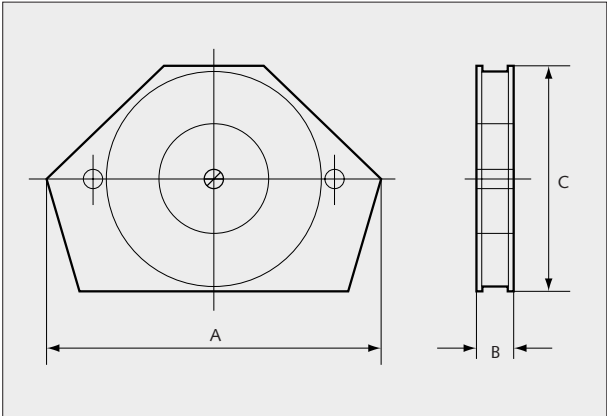
Magnetic welding clamp

Art.no.	A	B	C	holding power N	weight kg
BM 70.041	180	180	40	2 x 500	2,9
BM 70.042	165	165	40	2 x 500	2,5

All measures in mm

Both corner surfaces are magnetic. Art. no. 70.041 and BM 70.143 adjustable from 45° to 90°.

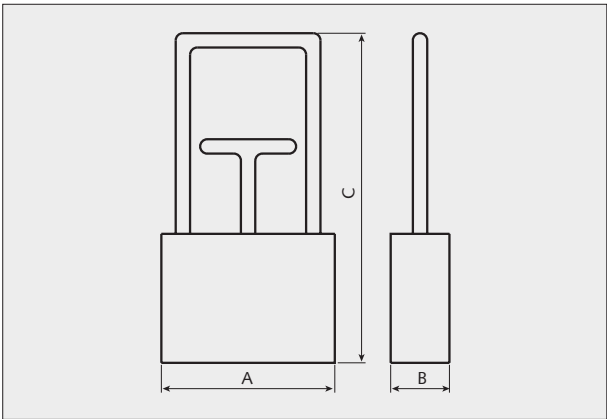
BM red painted magnets



Multi-angle welding clamp

Art.no.	A	B	C	weight kg
BM 40.009	100	12	65	0,3

Angles available: 30°, 45°, 60°, 75° and 90°.
For use with flat and round materials.



Sorting magnet

NEW

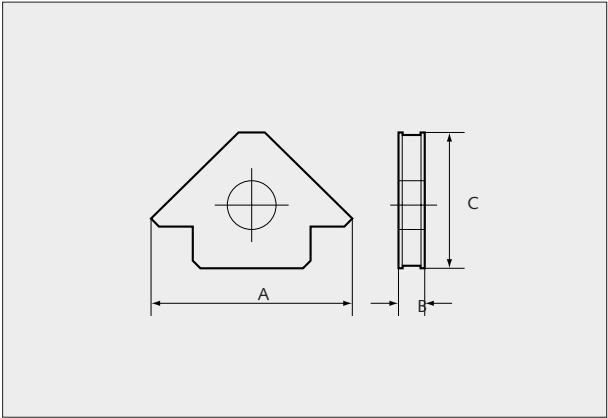
For sorting, separating and collecting all sorts of small iron and steel objects. By moving the in-built handle to its highest position, the objects can be freed. Flat sides with no projections mean it is possible to burrow into loose materials.

Art.no.	A	B	C	tractive force	weight
BM 90.050	121	41	235	10 - 15 N	2,75 kg

All measures in mm.



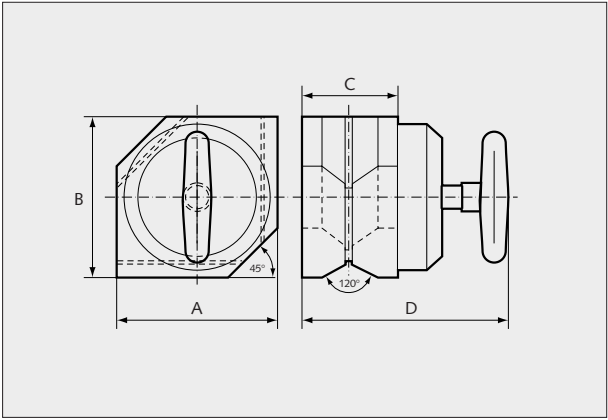
BM red painted magnets



Welding magnet

Art.no.	A	B	C	weight kg
BM 40.007	120	15	82	0,3
BM 40.008	160	20	100	0,7

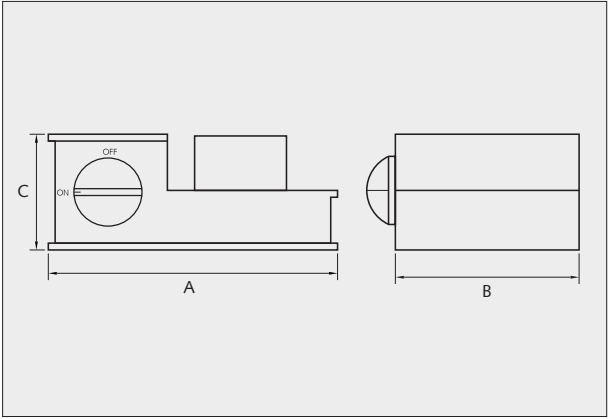
Angles: 45° and 90°. For use with flat and round materials.



Hexagonal magnetic clamp

Three prism-shaped and flat magnetic surfaces offer a multiplicity of clamping possibilities for round and flat materials. Continuously adjustable holding power. Angles 45° and 90°.

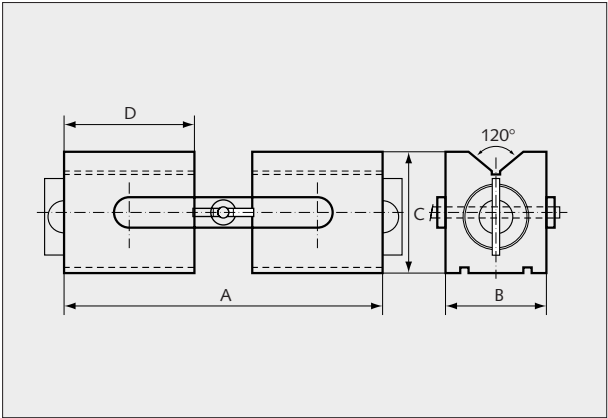
Art.no.	A	B	C	D	holding power N	weight kg
BM 70.017	108	108	65	140	1000	5,67



Magnetic vice

For example, for grinding irregularly shaped objects. Ground surfaces. Angle precision: 0.01/100 mm.

Art.no.	A	B	C	weight kg
BM 71.004	170	108	68,3	7,65



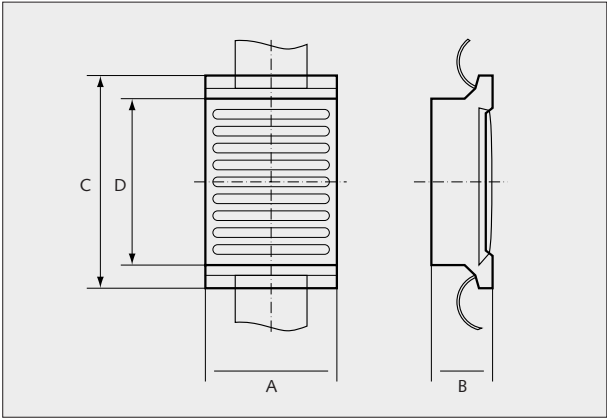
Magnetic V-block with on/off switch

The V-clamp consists of two on/off switchable magnet blocks with flat and prism-shaped magnetic holding surfaces on each side for flat and round materials. Magnet blocks can be supplied separately if required.

Art.no.	A	B	C	D	block dimensions	weight kg
BM 70.020	170	52	63	70	63,5 x 63,5 x 51	3,2

All measurements in mm

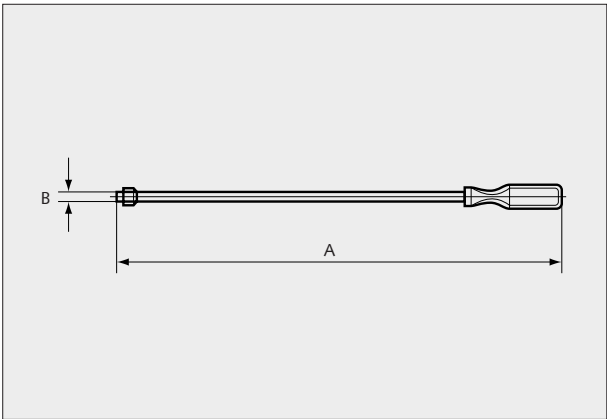
BM red painted magnets



Hand magnet

For lifting thin steel sheets. Prevents injuries to the hands and damage to the material.

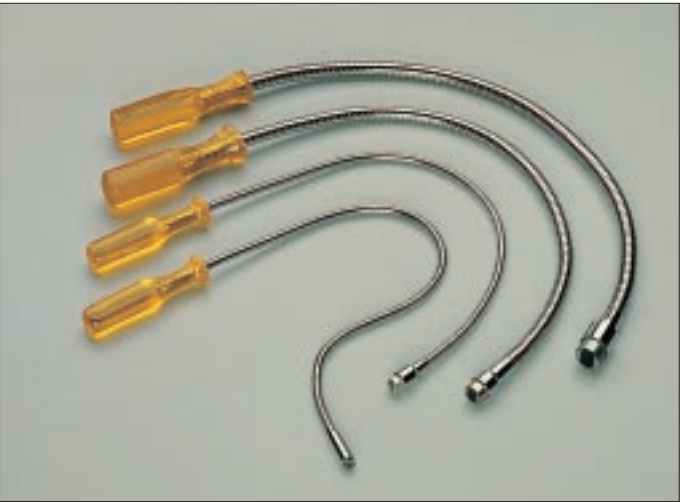
Art.no.	A	B	C	D	weight
BM 70.002	38	18	65	49	0,116 kg



Magnetic tools

With flexible steel. For the manipulation of metal parts and cleaning purposes.

Art.no.	A	B	lifting capacity	weight
			N	kg
BM 70.030	460	6	5	0,079
BM 70.031	460	9	10	0,088
BM 70.032	520	12	18	0,224
BM 70.033	520	16	30	0,265



Bakker Magnetics range of products

As well as the products and systems mentioned in this brochure, Bakker Magnetics also supplies a complete range of other products including the following:



Industrial magnetic separating systems

For the food and animal feed industries

- plate magnets
- tube magnets
- magnet grids
- cascade magnet systems
- magnetic filter bars
- magnet filters

For the recycling industry

- overband magnet systems
- head roller magnets
- drum magnets

Eddy Current non-ferrous metal separation systems

Metal detection and separation systems

- free-fall systems
- tunnel and plate systems
- systems for extruders and injection moulding machines



Materials for signaling plannings, advertisements on vehicles, signposting and advertising purposes

- plain magnetic sheet
- white magnetic sheet with welded top film
- magnetic sheet with the top film in various colours
- self-adhesive magnetic sheet
- iron impregnated cardboard and vinyl
- magnetic labels
- magnetic strip
- magnets in plastic



Handy products for various applications

- memostrips
- ceiling magnets
- magnetic picture hooks
- magnetic clothing hooks
- magnetic tool holders
- magnetic door catches
- magnetic components for planning systems

Permanent magnetic materials for industrial applications

available in different shapes and sizes: blocks, cylinders, discs, rings, bars, etc.

- ceramic magnets
- AlNiCo magnets
- Samarium Cobalt magnets
- Neodymium magnets

In addition to the very extensive standard range of products and systems, Bakker Magnetics also produces custom products to the customer's specifications.

Information about the products above will be gladly sent on request.



Bakker Magnetics reserves the right to change without notice the specifications of any products described in this brochure.



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