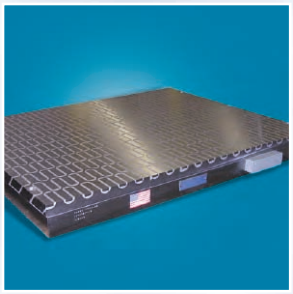
WALKER

WALKER MAGNETICS

Magnetic Solutions Since 1896

MAGNETIC WORKHOLDING

Permanent / Electromagnetic / Electropermanent / Rotary / Controls

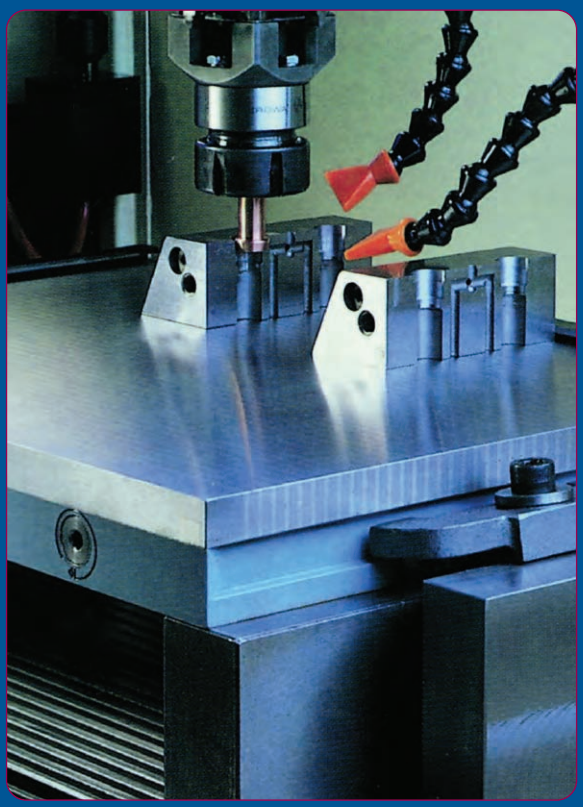


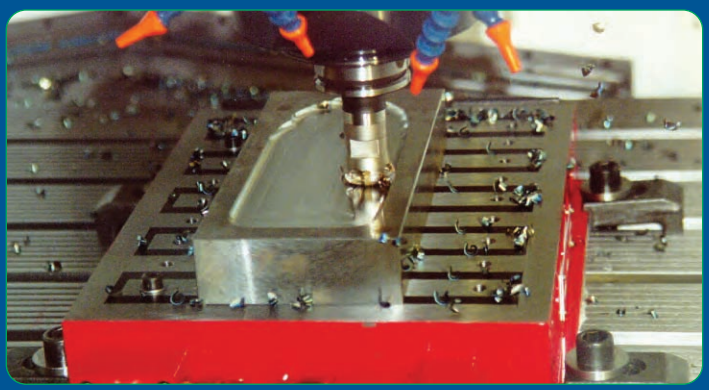
The Most Complete Line of Magnetic Workholding Products in the World

MAGNETIC WORKHOLDING

Permanent / Electromagnetic / Electropermanent / Rotary / Controls

The magnetic chuck was invented by Oakley S. Walker in 1896. Walker manufactures rectangular and rotary chucks worldwide for the purpose of grinding, milling and hard turning. Magnetic workholding chucks are manufactured in Permanent, Electromagnetic and Electropermanent styles.





www.walkermagnet.com

Applications / Product Types

Magnets

		Permanent		Electromagnetic		Electropermanent	
Grinding			**Page**		**Page**		**Page**
		Ceramax	5	LBP	15	Uniperm	20-21
		Neomicro²	6	Interloc	16	Epefine	20-21
		Sine Chucks	7	TBP	16	Powerfine	22
				Electrofine	17	Epegrip	22
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Milling		Neomill	8			TurboMill 40B	23
		Neopower	9			TurboMill 18	24
EDM	Wire EDM	Neodymium EDM Power Magnets	5				
	Sinker EDM	Ceramax	5	LBP	15		
		Neospark	10				
		Erofine	11				
Rotary Grinding/Turning		Ferrogrip/Ferromax	12	Multi Pole (Grinding/Turning)	26	Multi Pole (Grinding/Turning)	26
		Neostar	12			Circular Epefine	26
		Neogrip Circular	13			Circular Powerfine	26

Controls

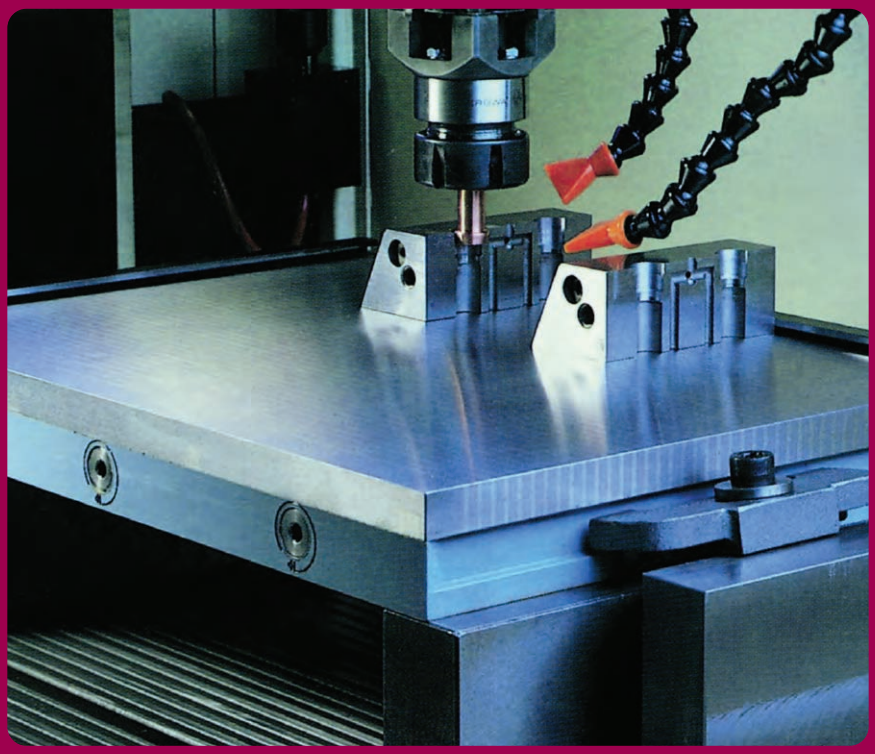
	Page		Page
Smart-B Series	28	BUR-FR / BFR	30
Smart-D Series	28	Smart-E Series for Uncompensated Electropermanent	31
SCV Series	28	TM for Turbo-Mill	31
BUE	29		

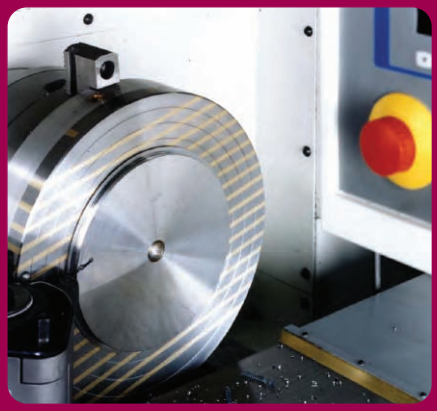
Permanent

Walker permanent chucks are manually operated. Made with powerful permanent ceramic and rare earth (NEO) magnet materials, these chucks can hold a wide range of workpieces without transfering heat into the material.

The Walker permanent chuck allows for holding workpieces during both surface and ID/OD grinding, as well as light milling, EDM and turning applications.

Ceramax
Neodymium EDM Power Magnets
Neomicro²
Precision Sine Chucks
Neomill
Neopower
Neospark
Erofine
Ferrogrip/Ferromax
Neostar
Neogrip





CERAMAX

Fine Division Permanent Magnetic Chuck

The Ceramax is the most widely used permanent magnetic chuck in the machine tool industry. Its patented design offers maximum holding power, ease of installation and operation. It is also extremely versatile. In addition to general toolroom grinding, the Ceramax is suitable for light milling and EDM applications.

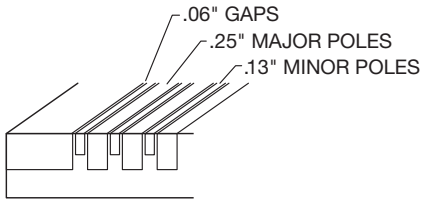
STANDARD FEATURES

- Solid construction top plate protects permanent magnetic pack from penetration of coolant
- Provides stronger more rigid work surface
- Maximum workholding surface
- Fine pole divisions for more uniform magnetic holding

SPECIFICATIONS

Size (in.)	Height (in.)	Weight (lbs.)
4 x 8	2.63	20
5 x 10	2.63	29
6 x 12	2.75	45
6 x 18	2.75	67
8 x 15	2.75	75
8 x 20	2.75	105
8 x 24	2.75	120
10 x 15	2.75	94
10 x 20	2.75	130
12 x 24	3.63	200

Additional sizes available upon request.



NEODYMIUM EDM POWER MAGNETS

Workholding for WIRE EDM

NEODYMIUM EDM Power Magnets for WIRE EDM

Up to 15 lbs. of Force Per Magnet

These extremely powerful and compact magnets are invaluable to wire EDM users. Made of Neodymium-Iron-Boron "Rare Earth" magnets, they are strong enough to hold very large core pieces during EDM operations.

NEOMICRO²

Super Accurate, Micropitch Permanent Magnetic Chucks for Precision Grinding

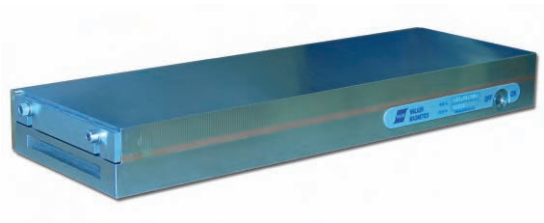
Maximum grinding accuracy

- Unique actuating mechanism elminates switching deformation
- Uniform magnet force distribution over the entire working area

Maximum grinding efficiency

- Neodymium magnetic system generating 30% higher force compared to other micropitch chucks
- Maximum workholding surface 100% active with no weak areas
- Very low magnetic field allowing easy disposal of grinding swarf
- Low height allowing maximum wheelhead clearance and ability to use the Neomicro² on top of another chuck

The Neomicro² chuck is ideal for reliable clamping of very thin and small components for precision grinding. It holds large workpieces as well.



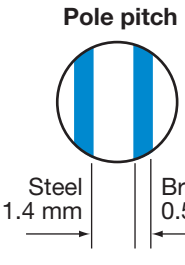
- Backrest and end stop on two adjacent sides
- Allen key
- Clamps
- Users manual

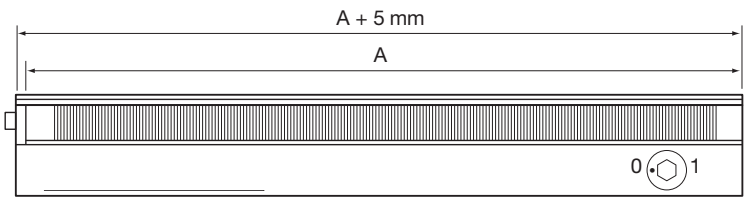
SPECIFICATIONS

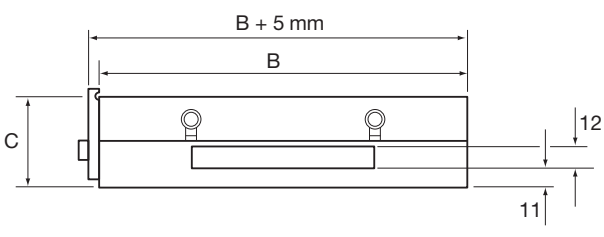
	A x B		C		Weight	
Code	(mm)	(in.)	(mm)	(in.)	(kg)	(lbs.)
B11.807.10	100 x 70	3 x 4	49	1.93	3	7
B11.810.15	150 x 100	4 x 6	49	1.93	6	13
B11.810.17	175 x 100	4 x 7	49	1.93	7	15
B11.810.20	200 x 100	4 x 8	49	1.93	8	18
B11.810.25	250 x 100	4 x 10	49	1.93	10	22
B11.813.25	250 x 130	5 x 10	49	1.93	13	29
B11.815.15	150 x 150	6 x 6	51	2	9	20
B11.815.25	250 x 150	6 x 10	51	2	15	33
B11.815.30*	300 x 150	6 x 12	51	2	18	40
B11.815.35	350 x 150	6 x 14	51	2	22	49
B11.815.45	450 x 150	6 x 18	51	2	28	62
B11.820.40	400 x 200	8 x 16	51	2	33	73
B11.820.45*	450 x 200	8 x 18	51	2	37	82
B11.820.50	500 x 200	8 x 20	51	2	41	90
B11.820.60	600 x 200	8 x 24	51	2	49	108
B11.825.50	500 x 250	10 x 20	56	2.2	56	124
B11.830.50	500 x 300	10 x 12	56	2.2	67	148
B11.830.60	600 x 300	10 x 24	56	2.2	81	179

All items sold in Europe. Other sizes available upon request.

* These items also sold in U.S.



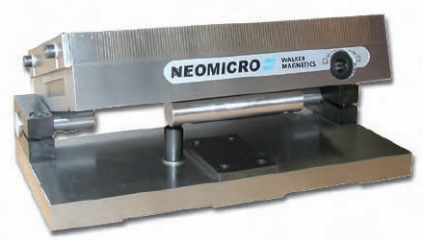




PRECISION SINE CHUCKS

Permanent Magnetic Chucks for Precision Grinding

Features



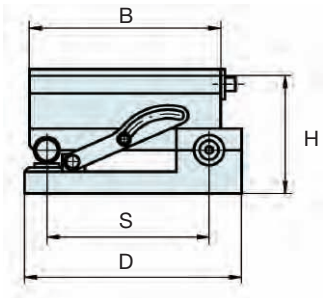
- Single piece, hardened (HRc 60), precision ground base offering extreme rigidity
- Stainless steel rollers located in V-groove, minimizing wear
- Stable locking of chuck by means of slotted lock(s) at the side
- Maximum angular accuracy: ±5 seconds
- Parallelism: ±0.005 mm/100 mm
- Zero slip gauge of 3 mm; easy setting of small angles
- Bases of 350 mm and up have 2 gauge platforms, maximizing stability

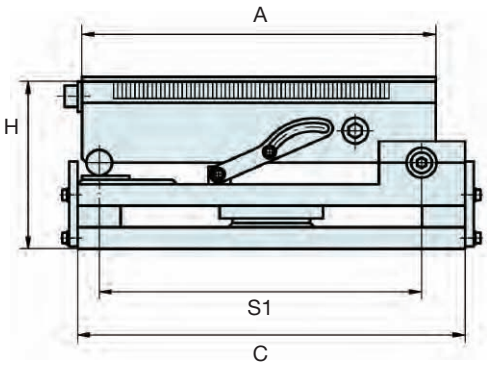
SPECIFICATIONS

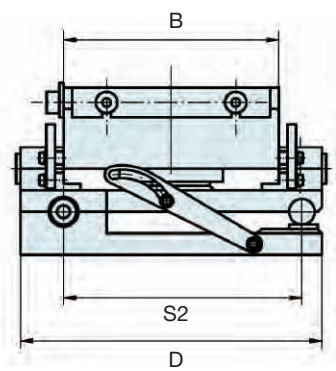
Single Angle Code	A x B	C x D	H	S	Weight (kg)
11.60.001	140 x 70	170 x 100	67	70	5.5
11.60.002	175 x 100	215 x 115	76	85	10
11.60.004	255 x 130	295 x 145	76	115	20
11.60.006	250 x 150	290 x 165	79	135	21.5
11.60.007	300 x 150	340 x 165	79	135	27
11.60.008	350 x 150	390 x 165	87	135	34.5
11.60.009	450 x 150	490 x 165	87	135	44
11.60.011	400 x 200	440 x 215	88	175	52
11.60.013	600 x 300	660 x 320	95	285	121

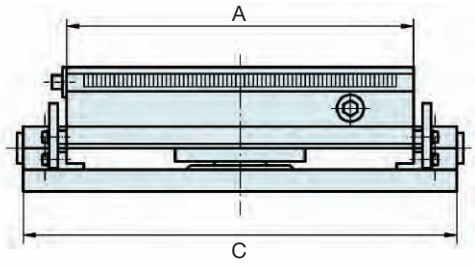
Compound Angle Code	A x B	C x D	H	S1/S2	Weight (kg)
11.62.002	175 x 100	210 x 140	104	160/115	15
11.62.004	255 x 130	290 x 170	120	245/140	32
11.62.007	300 x 150	335 x 190	123	290/160	43.5
11.62.008	350 x 150	385 x 190	123	340/160	49.5
11.62.011	400 x 200	435 x 240	124	390/210	73

Additional sizes available upon request.









NEOMILL

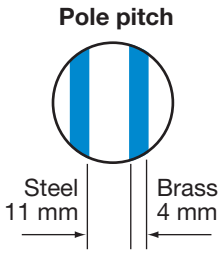
Powerful Permanent Magnetic Chuck for Milling

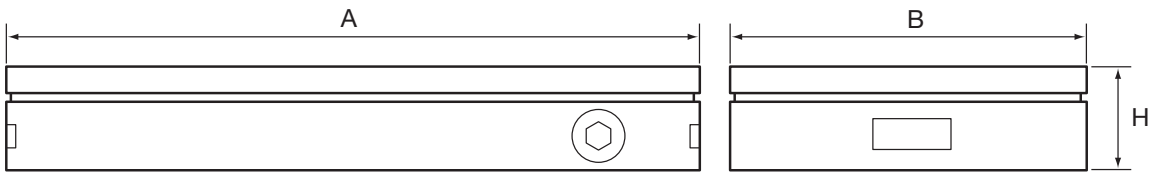
- Double Neodymium magnet pack generates a powerful holding force on workpieces with an uneven or rough contact surface
- Low magnetic field, concentrated over the top plate without stray fields. No chip contamination of workpiece surface and cutting tool
- Transverse, close pole division of 11 mm of steel and 4 mm of brass allows optimal holding of workpieces only 26 mm long and 6 mm thick. The top plate can be drilled and tapped to accommodate pins, pegs or other clamping aids
- Vibrations are dampened, contributing to machining accuracy
- Nominal holding force: 120 N/cm^2 (174.038 lbs. per square inch)
- Usable top plate life: 5 mm
- Supplied with allen key, set of clamps and manual

SPECIFICATIONS

Code	A (mm)	B (mm)	H (mm)	Weight (kg)
35.15.025	250	150	56	17
35.15.035	350	150	56	24
35.15.045	450	150	56	31
35.20.030	300	200	56	26
35.20.040	400	200	56	35
35.20.050	500	200	56	44
35.20.060	600	200	56	52
35.25.040	400	250	56	45
35.25.050	500	250	56	56
35.25.060	600	250	56	68
35.30.050	500	300	64	70
35.30.060	600	300	64	84

Additional sizes available upon request (We also refer to our “Neopower” series).





NEOPOWER

Powerful Workholding System for Modern Milling Centers

Neopower series provides a revolutionary, versatile magnetic work-holding system; allowing five sided machining without the use of blocking or clamping. Suitable for conventional milling applications, as well as finishing operations on high speed machining centers in the tool and die industry.

Features

- Twin Neodymium magnet system for sustained powerful holding power when used with riser blocks
- Modular design allows maximum flexibility
- Pole pitch of 19 mm providing a low magnetic field and minimizing chip contamination
- Optional accessories (see chart below)
- Optional pneumatic operation
- Quick and easy set-up

SPECIFICATIONS

Code	Length x Width x Height (mm)	Weight (kg)
35.52.424	240 x 240 x 63	26
35.52.828	280 x 280 x 63	39
35.53.232	320 x 320 x 63	51
35.53.060	600 x 300 x 63	89

Threaded holes for rails on all 4 sides and with a straight end stop and back stop.
Riser blocks also available.

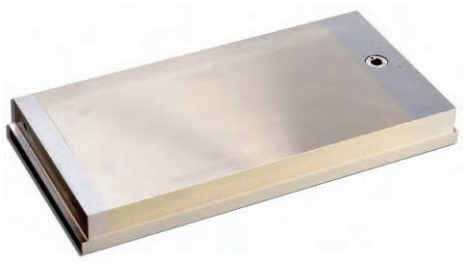
ACCESSORIES

Code	Description/Designation	Code	Description/Designation
735.50.30	Pole raiser set NP240	735.34.12	Set of raiser parallels NP240-10
735.50.44	Pole raiser set NP280	735.34.13	Set of raiser parallels NP280-12
735.50.45	Pole raiser set NP320	735.54.14	Set of raiser parallels NP320-13
735.50.03	Pole raiser set NP600-300	735.54.15	Set of raiser parallels NP600-300-28
735.20.00	Slotted rail 2 x 198	735.54.60	Shim 5 mm NP240
735.25.00	Slotted rail 2 x 248	735.54.61	Shim 5 mm NP280
735.30.00	Slotted rail 2 x 298	735.45.62	Shim 5 mm NP320
735.54.04	Angle block 200 x 100 x 100 mm		

Raiser parallels are typically 15 x 15 mm providing ample tool clearance. The holding force reduction is approximately 5%.

NEOSPARK

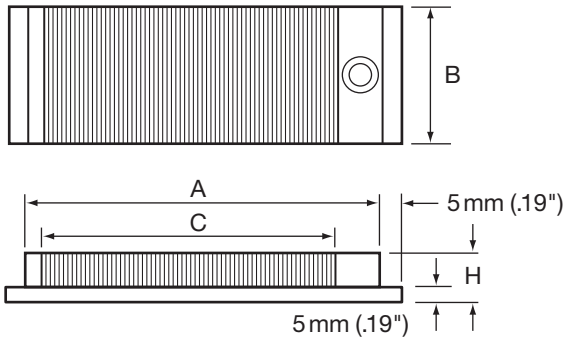
Permanent Magnetic Chucks for EDM and Precision Grinding

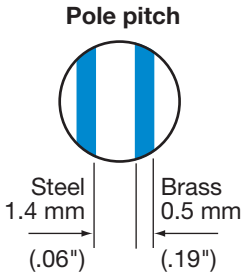


- Low profile (height) of only 35 mm (1.37"). The Neospark chuck can be put on a pallet without creating weight and height problems, both in manual and robotic pallet changing systems
- Excellent holding force with micro-pole pitch allows holding of very small and thin workpieces
- Height of the magnetic field being just 6 mm (.23") and the absence of stray magnetic fields allow EDM operations close to the chuck surface
- The smooth and flush faces of the chuck lower "contamination sensitivity" to EDM particles allowing easy cleaning and adding to the overall accuracy
- Usable top plate life: 5 mm (.19")
- Supplied with an Allen key, set of clamps and manual

SPECIFICATIONS

A x B		C		H		Weight	
(mm)	(in.)	(mm)	(in.)	(mm)	(in.)	(kg)	(lbs.)
175 x 100	4 x 7	120	5	35	1.37	5	11
255 x 130	5 x 10	200	8	35	1.37	9	20
150 x 150	6 x 6	85	3	35	1.37	7	16
250 x 150	6 x 10	125	5	35	1.37	11	24
300 x 150	6 x 12	245	10	35	1.37	13	30
350 x 150	6 x 14	295	12	35	1.37	15	35
450 x 150	6 x 18	395	16	35	1.37	19	42
400 x 200	8 x 16	345	14	35	1.37	23	51

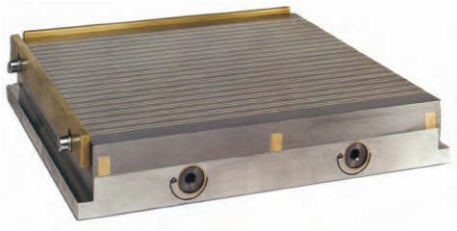




EROFINE

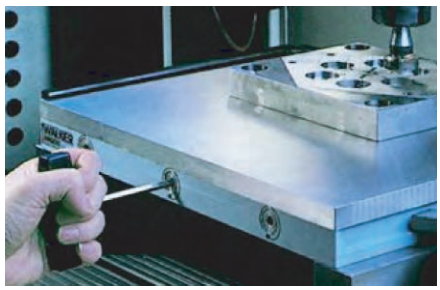
Fine Division Permanent Magnetic Chucks

In operation, the workpiece is held down on the Erofine with a very low magnetic field (3 mm). There is no influence on the spark erosion process and no particles adhere to the workpiece.



EROFINE is multi-functional

Erofine is also suitable for high precision grinding. Clamping small and thin work-pieces is very difficult; the special construction of the Erofine chuck will reduce these problems.



Unit Features

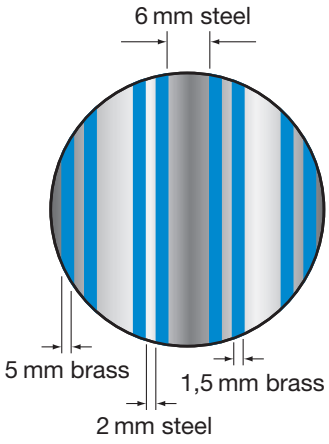
Every (6 mm) narrow steel pole in the Walker Erofine magnetic chuck is supported by a set of permanent magnets on both sides. These are the same magnets that Walker uses in their complete range of permanent magnetic chucks. All are guaranteed never to lose their magnetic force. The solid construction of the Erofine provides high stability.

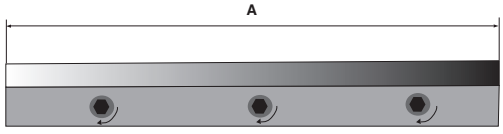
SPECIFICATIONS

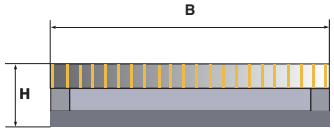
Code	A (mm)	B (mm)	H (mm)	Switches	Weight (kg)
16.51.530	150	300	50	1	14
16.51.535	150	350	50	1	17
16.52.520	250	200	50	2	18
16.52.525	250	250	50	2	23
16.53.025	300	250	50	2	26
16.53.525	350	250	50	2	29
16.53.530	350	300	50	2	34
16.54.030	400	300	50	2	39

Features

- Double ceramic magnetic system with a very low concentrated magnetic field (4 mm)
- High magnetic force
- Silver brazed top plate
- Variable magnetic clamping force
- Clamping surface can be switched in zones
- Lightweight aluminum body
- Long clamping ledge for easy positioning
- Watertight construction
- Optional flushing holes in top plate







FERROMAX

Rotary Permanent Magnetic Chucks

These chucks provide dependable magnetic holding for rotary surface grinding and turning applications.

The top plate is magnetic with each pole individually magnetized by powerful ceramic permanent magnets, so electrical controls and collector rings are not required. Frequent magnet polarity changes result in low magnet field to prevent magnetization of tool bits.

SPECIFICATIONS

Model	Total Dia. (in.)	Total Height (in.)	Rear Pilot Dia. (in.)	Rear Pilot Depth (in.)	Face Pilot Hole (in.)	Face Pilot Depth (in.)	Tapped Hole Location (dia.) (in.)	Tapped Holes	Hole Tap size (in.)	Tap Depth (in.)	Weight (lbs.)
6RF	6.09	2.75	5	.13	.63	.19	5.63	4	.31 - 18	.75	22
8RF	7.87	3.06	6	.22	.88	.19	7.25	4	.31 - 18	.75	33
10RF	9.84	3.06	8	.19	.88	.19	9.38	4	.31 - 18	.75	46
12RF	11.81	3.06	10	.19	.88	.19	11.25	4	.31 - 18	.75	71
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)	(kg)
6RF	125	70	127	3	16	5	143	4	8/5	19	10
8RF	200	78	152	6	22	5	184	4	8/5	19	15
10RF	250	78	203	5	22	5	238	4	8/5	19	21
12RF	300	78	254	5	22	5	286	4	12/5	19	32

NEOSTAR

Permanent Radial Pole Chuck

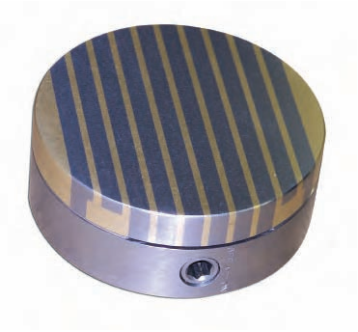
Neostar chucks with Neodymium (rare earth) magnet material are designed for holding rings and bearing races, as well as solid rounds. This chuck comes standard without center hole. An optional through hole can be provided upon request.

SPECIFICATIONS

Code	Total Dia. (mm)	Total Dia. (in.)	Height (mm)	Height (in.)	Mounting Holes	Number of Poles	Weight (kg)	Weight (lbs.)
37.00.130	130	5.12	57	2.24	M6	10	6	13
37.00.150	150	5.91	57	2.24	M6	10	8	18
37.00.200	200	7.87	57	2.24	M6	12	14	31
37.00.250	250	9.84	70	2.76	M6	16	27	60
37.00.300	300	11.81	73	2.87	M8	16	41	90
37.00.350	350	13.8	73	2.95	M8	16	55	121
37.00.400	400	15.7	75	2.95	M8	16	75	165
37.00.500	500	19.7	77	2.95	M8	16	118	260
37.00.600	600	23.6	77	2.95	M8	16	170	374

NEOGRIP

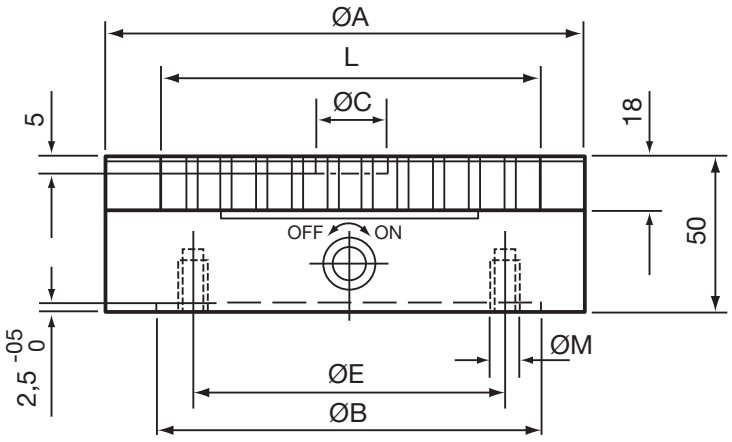
Circular Permanent Magnetic Chucks with Parallel Poles for Grinding

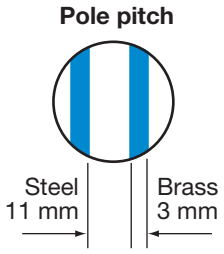


- Double pack of Neodymium magnets provides high holding power
- Balanced design allows high turning speeds
- Very low magnetic field
- Low construction height
- To accommodate driving pins, stops or other jigs and fixtures, all steel poles can be drilled and tapped up to 15 mm deep
- For repetitive work, additional top plates can be purchased
- Maximum size of pilot and/or central threaded hole according to "C"
- Usable top plate life: 7 mm
- Nominal holding force: 80 N/cm² (116.03 lbs. per square inch)
- Holding force can be reduced during setup to aid workpiece centering

SPECIFICATIONS

Code (mm)	A (mm)	L (mm)	BH7 (mm)	C (mm)	E (mm)	M (dia.)	Weight (kg)
15.00.100	100	74	65	22x5/M8x12	86	M6x12(3)	3
15.00.130	130	107	90	22x5/M8x12	120	M6x12(4)	5
15.00.150	150	118	120	22x5/M8x12	137	M8x16(4)	7
15.00.200	200	162	150	22x5/M8x12	182	M8x16(4)	12





Electromagnetic

Walker rectangular electromagnetic chucks for surface grinding and light milling operate on DC voltage with the use of a Walker electromagnetic chuck controller.

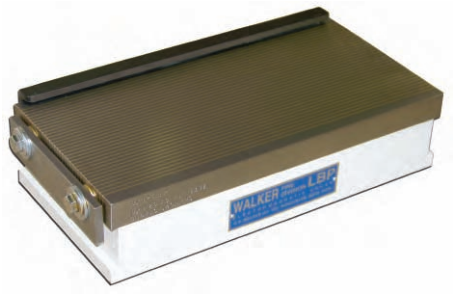
Holding power, with full, variable, and residual cycles for easy operation, is achieved with the use of Walker chuck controls.

LBP
Interloc
TBP
Electrofine
Unigrip

LBP

Fine-Division LBP Electromagnetic Chucks

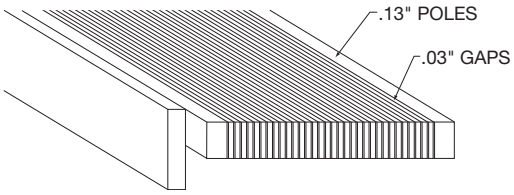
- Maximum workholding surface
- Fine pole division (.13") for more uniform magnetic holding of small parts
- Lowest height of any electric chuck for more wheel head clearance
- Solid brazed construction top plate protects coil from penetration of coolant; provides stronger, more stable work surface
- The LBP is an extremely versatile chuck. Its variable holding power permits easy flat grinding (without shimming) of workpieces that do not have one true surface
- The magnetic surface pattern allows for simple and inexpensive tooling designs to hold intricate shaped workpieces
- Suitable for EDM applications



SPECIFICATIONS

Size (in.)	Watts	Height (in.)	Weight (lbs.)
4 x 8	26	2.88	22
5 x 10	35	2.88	35
6 x 12	50	2.88	46
6 x 18	85	2.88	70
8 x 15	95	2.88	80
8 x 18	100	2.88	100
8 x 24	150	2.88	130
10 x 15	82	2.88	130
12 x 24	141	3.13	185
16 x 32	294	3.69	312

Additional sizes available upon request.



INTERLOC

Low Profile Interloc Chucks

This universal workholding chuck offers maximum effective holding on the widest range of workpiece shapes and sizes. With the unique Interloc design, more than 75% of the chuck's surface is major north and south poles, making it easier to locate workpieces without concern for locating poles. This design has made these chucks useful in both grinding and light milling applications.

At 3.5" in height, it is a full 1.5" lower than the conventional grid style chuck, allowing for more head room.

The lower profile height does not affect wear life after regrinding.

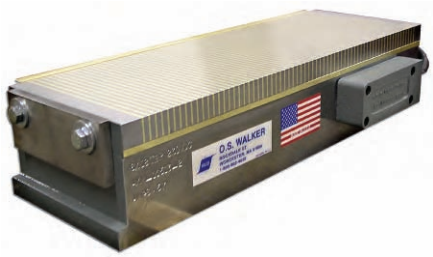
SPECIFICATIONS

Size (in.)	Watts	Approx. Weight (lbs.)
12 x 24	190	275
12 x 30	235	345
14 x 36	290	450
16 x 32	430	520
18 x 36	430	625
20 x 40	500	725

Additional sizes available upon request.

TBP

Transverse Bar Pole



The TBP (Transverse Bar Pole) chuck is specially designed for smaller, thinner workpieces and tool steel; such as D2 material. The magnetic poles and coils run across the chuck, creating more major pole area.

SPECIFICATIONS

Size (in.)	Watts (transverse)	Approx. Weight (lbs.)
8 x 20	150	170
8 x 24	180	200
10 x 20	170	210
12 x 24	285	300
12 x 36	425	430
16 x 32	500	535

Additional sizes available upon request.

ELECTROFINE

Super Accurate Electromagnetic Type EF

The Electrofine series are designed for “cool” operation. The power consumption is kept to a minimum to reduce the temperature increase. Together with the single piece body and solid top plate, the total design offers a high accuracy in grinding operations.

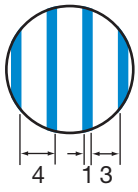
Electrofine chucks are offered in two transverse pole divisions, fine and microfine.

SPECIFICATIONS

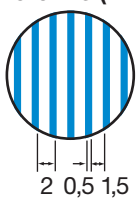
Length x Width (mm)	Height (mm)	Watts (max)	Weight (kg)
250 x 150	73	71	17
300 x 150	73	78	20
350 x 150	73	73	23
400 x 150	73	96	27
450 x 150	73	91	30
400 x 200	73	113	35
450 x 200	73	108	38
500 x 200	73	166	43
600 x 200	73	143	53
600 x 250	73	190	67

- Top plate made of steel and brass
- Uniform force distribution
- Usable top plate life 7 mm
- Adjustable work stops on two sides
- Input voltage: 90-110 VDC
- Duty cycle 100%
- Control unit: BUE 340-110

Fine (F)



Microfine (MF)



POLE SPECIFICATIONS

Pole Division	Steel (mm)	Brass (mm)	Application
Fine (F)	3	1	Workpieces Ø 15 mm and bigger, thickness 1,5 mm and bigger
Microfine (MF)	1,5	0,5	Ø lower than 15 mm, thickness lower than 1,5 mm

UNIGRIP

Universal Precision Electromagnetic Chuck with Continuous Transverse Poles for Modern Grinders Type UG

SPECIFICATIONS

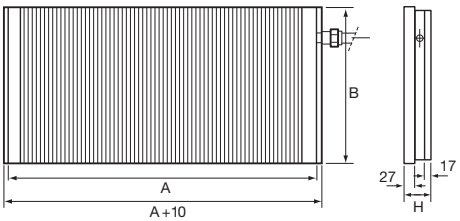
Code	A (mm)	B (mm)	H (mm)	P Watts	Weight (kg)
46.77.164	500	300	73	100	90
46.77.166	600	300	73	130	108
46.77.168	700	300	73	170	125
46.77.170	800	300	73	150	144
46.77.172	900	300	73	210	162
46.77.174	1000	300	73	235	180
46.77.178	1200	300	73	248	216
46.77.184	1500	300	83	283	300
46.77.204	600	350	73	170	112
46.77.206	700	350	73	185	131
46.77.212	1000	350	73	255	187
46.77.244	600	400	73	200	122
46.77.246	700	400	73	258	142
46.77.247	750	400	73	240	153
46.77.248	800	400	73	226	163
46.77.250	900	400	73	310	183
46.77.252	1000	400	73	280	203
46.77.256	1200	400	73	404	270
46.77.262	1500	400	83	428	337
46.77.268	2000	400	83	520	449
46.77.322	600	500	73	233	157
46.77.324	700	500	73	280	184
46.77.325	750	500	73	285	197
46.77.326	800	500	73	272	210
46.77.328	900	500	73	369	236
46.77.330	1000	500	73	330	262
46.77.334	1200	500	73	469	348
46.77.335	1250	500	73	425	362
46.77.336	1300	500	83	415	466
46.77.338	1400	500	83	510	502
46.77.340	1500	500	83	552	434
46.77.350	2000	500	83	654	578
46.77.355	2500	500	83	883	897
46.77.404	800	600	73	266	260
46.77.408	1000	600	73	306	325
46.77.412	1200	600	73	430	430
46.77.413	1250	600	73	455	406
46.77.418	1500	600	83	540	538
46.77.428	2000	600	83	607	717
46.77.530	1500	700	83	630	628
46.77.561	800	800	73	405	347
46.77.565	1000	800	73	490	433
46.77.570	1250	800	73	780	542
46.77.578	2500	800	83	1560	1084

Maximum grinding accuracy on the chuck

- Uniform magnetic force distribution with specially developed rigid top laminations
- Minimum power consumption

Maximum grinding efficiency

- Full magnetic surface
- Versatile clamping, excellent holding on a broad range of workpiece sizes
- Low profile for more wheel head clearance
- Input voltage 110 VDC

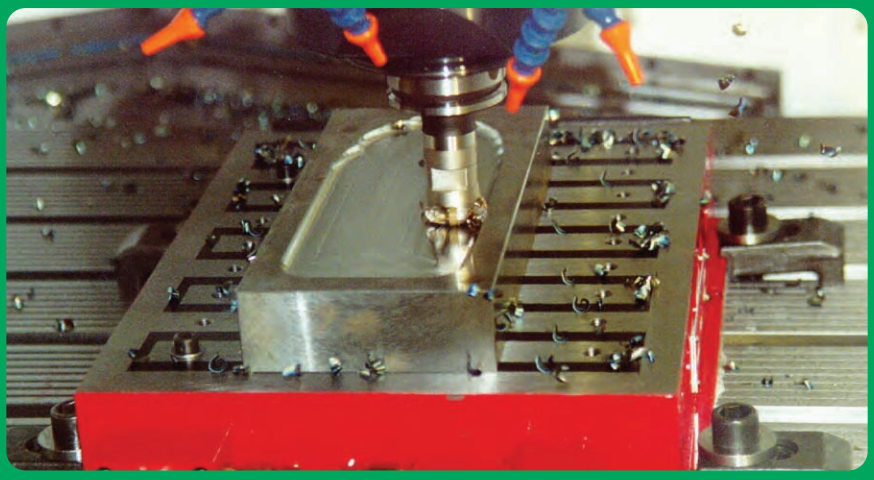


Electropermanent

Walker electropermanent chucks are used in surface grinding, light-to-heavy milling and hard turning.

Electropermanent chucks maintain holding power in the event of a power failure.

Uniperm/Epefine
Powerfine/Epegrip
TurboMill 40B
TurboMill 18
Multi Pole



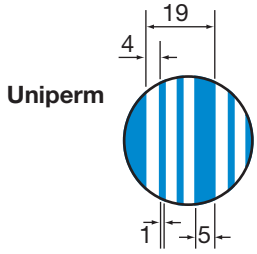
UNIPERM / EPEFINE

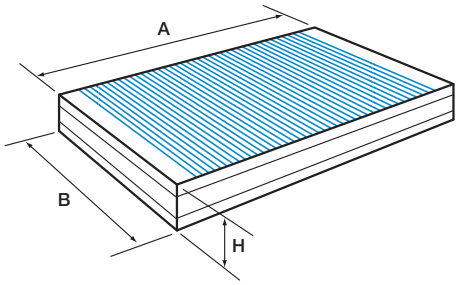
Uniperm and Epefine series are designed for high precision grinding operations. Both designs feature a solid top plate with fine pole division, providing holding power for a wide range of workpiece sizes.

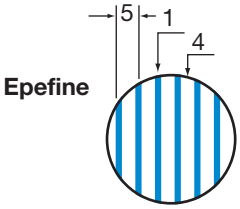
The Uniperm range has a major pole pitch of 19 mm, providing even distribution of the magnetic field. Sizes supplied up to 1200x400 mm. Minimum workpiece size 20 mm square or 2 mm thick.

For larger size range, the Epefine with a major pole pitch of 36 mm is available. Minimum workpiece size: 40 mm square or 2 mm in diameter. (See specifications on page 21).

Controls offer variable holding and demagnetization. (See control section on page 29).







UNIPERM / EPEFINE

SPECIFICATIONS

Designation	A (mm)	B (mm)	H (mm)	Weight (kg)	Control unit
UNIPERM	335	150	83	25	BUR 5
UNIPERM	350	300	83	52	BUR 5
UNIPERM	406	200	83	44	BUR 5
UNIPERM	406	300	83	58	BUR 5
UNIPERM	450	150	83	34	BUR 5
UNIPERM	450	175	83	40	BUR 5
UNIPERM	450	200	83	48	BUR 5
UNIPERM	500	200	83	65	BUR 5
UNIPERM	500	250	83	71	BUR 5
UNIPERM	500	300	83	81	BUR 5
UNIPERM	600	200	83	79	BUR 5
UNIPERM	600	250	83	81	BUR 5
UNIPERM	600	300	83	97	BUR 5
UNIPERM	600	350	92	125	BUR 5
UNIPERM	600	400	92	133	BUR 5
UNIPERM	686	200	92	76	BUR 5
UNIPERM	686	250	92	94	BUR 5
UNIPERM	686	300	92	112	BUR 5
UNIPERM	686	350	92	156	BUR 5
UNIPERM	686	400	92	166	BUR 5
UNIPERM	800	300	92	129	BUR 5
UNIPERM	800	350	92	171	BUR 5
UNIPERM	800	400	106	214	BUR 10
UNIPERM	1000	300	106	187	BUR 10
UNIPERM	1000	350	106	241	BUR 10
UNIPERM	1000	400	106	276	BUR 10
UNIPERM	1200	400	106	295	BUR 10
EPEFINE	1200	500	95	305	BUR 10
EPEFINE	1200	600	95	319	BUR 10
EPEFINE	1300	400	95	330	BUR 10
EPEFINE	1300	500	95	416	BUR 10
EPEFINE	1300	600	100	617	BUR 10
EPEFINE	1500	400	105	352	BUR 10
EPEFINE	1500	500	105	522	BUR 10
EPEFINE	1500	600	105	617	BUR 10
EPEFINE	2000	400	105	630	BUR 10
EPEFINE	2000	500	105	787	BUR 20
EPEFINE	2000	600	105	945	BUR 20

Supplied with 3m power cord, backrest and endstop. Additional sizes available upon request.

POWERFINE / EPEGRIP

SPECIFICATIONS

Designation	A (mm)	B (mm)	H (mm)	Weight (kg)	Control unit
POWERFINE	700	300	79	101	BUR 5
POWERFINE	700	350	79	118	BUR 5
POWERFINE	700	400	79	135	BUR 5
POWERFINE	700	450	79	152	BUR 5
POWERFINE	700	500	79	169	BUR 5
POWERFINE	800	300	79	116	BUR 5
POWERFINE	800	350	79	135	BUR 5
POWERFINE	800	400	79	155	BUR 5
POWERFINE	800	450	79	174	BUR 10
POWERFINE	800	500	79	193	BUR 10
POWERFINE	900	300	79	131	BUR 5
POWERFINE	900	350	79	152	BUR 5
POWERFINE	900	400	79	174	BUR 10
POWERFINE	900	450	79	196	BUR 10
POWERFINE	900	500	79	217	BUR 10
POWERFINE	1000	300	82	151	BUR 5
POWERFINE	1000	350	82	175	BUR 5
POWERFINE	1000	400	82	202	BUR 10
POWERFINE	1000	450	82	227	BUR 10
POWERFINE	1000	500	82	252	BUR 10
POWERFINE	1200	300	82	181	BUR 10
POWERFINE	1200	350	82	212	BUR 10
POWERFINE	1200	400	82	242	BUR 10
POWERFINE	1200	450	82	272	BUR 10
POWERFINE	1200	500	82	302	BUR 10
POWERFINE	1500	500	87	405	BUR 20
EPEGRIP	700	300	79	101	BUR 5
EPEGRIP	700	350	79	118	BUR 5
EPEGRIP	700	400	79	135	BUR 5
EPEGRIP	700	450	79	152	BUR 5
EPEGRIP	700	500	79	169	BUR 5
EPEGRIP	800	300	79	116	BUR 5
EPEGRIP	800	350	79	135	BUR 5
EPEGRIP	800	400	79	155	BUR 5
EPEGRIP	800	450	79	174	BUR 5
EPEGRIP	800	500	79	193	BUR 10
EPEGRIP	900	300	79	131	BUR 5
EPEGRIP	900	350	79	152	BUR 5
EPEGRIP	900	400	79	174	BUR 10
EPEGRIP	900	450	79	196	BUR 10
EPEGRIP	900	500	79	217	BUR 10
EPEGRIP	1000	300	82	151	BUR 5
EPEGRIP	1000	350	82	175	BUR 5
EPEGRIP	1000	400	82	202	BUR 10
EPEGRIP	1000	450	82	227	BUR 10
EPEGRIP	1000	500	82	252	BUR 10
EPEGRIP	1200	300	82	181	BUR 10
EPEGRIP	1200	350	82	212	BUR 10
EPEGRIP	1200	400	82	242	BUR 10
EPEGRIP	1200	450	82	272	BUR 10
EPEGRIP	1200	500	82	302	BUR 10
EPEGRIP	1500	500	87	405	BUR 20

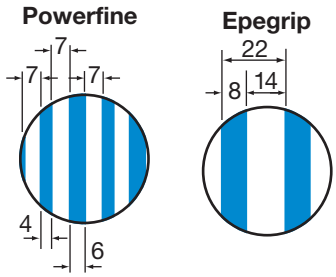
Supplied with 3m power cord, backrest and endstop. Additional sizes available upon request.

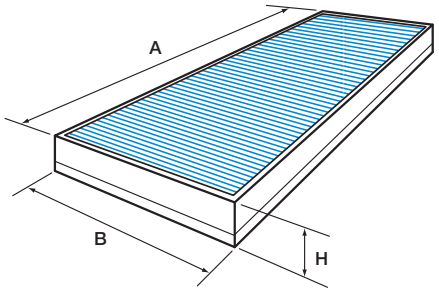
POWERFINE

The close pole division of 7/4/7/6 mm provides workpiece holding with a length from 30 mm and a thickness from 4 mm and up.

EPEGRIP

The Epegrip has a pole division of 14/8 mm allowing the holding of workpieces with a length from 40 mm and a thickness of 9 mm and up.





TURBOMILL 40B

For Heavy Milling Operations

- Electropermanent magnetic chuck, (ALNiCo and Neodymium)
- Reduce set-up time and increase available machine time
- Helps to dampen vibrations, resulting in longer tool life
- Allows single set-up machining with 5-sided accessibility
- Operation through a BUR-FR/BFR control unit / TM control
- Through drilling possible with use of riser blocks

Minimum size of the usable workpiece:

- Thickness: 20 mm
- Length: 170 mm

Accessories

- Backrest and endstop
- Hold down clamps
- Cable for current supply of the chuck: 3 m / USA provides Brad Harrison Connector with chuck and DC cable with purchase of a controller

Controls available for worldwide operation. See controls page.

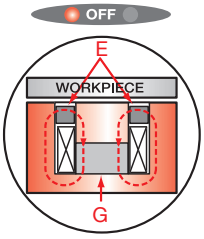
SPECIFICATIONS

Dimensions			Weight
A (mm)	B (mm)	H (mm)	(kg)
346	300	80	60
570	300	80	85
682	300	80	115
794	300	80	135
906	300	80	150
1018	300	80	170
458	400	80	105
570	400	80	130
794	400	80	175
1018	400	80	220
1242	400	80	270
1466	400	80	420
570	500	80	155
794	500	80	215
906	500	80	245
1018	500	80	280
1242	500	80	340
1466	500	80	400
1578	500	80	425

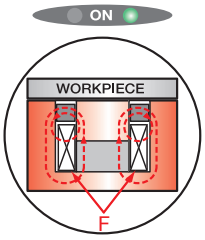
The following models are also available upon request in Europe:

TurboMill 25, with a pole-division of 25 mm
TurboMill 80, with a pole-division of 80 mm

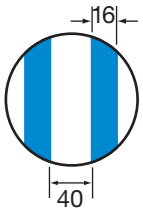
A new electric current passage turns off the system.

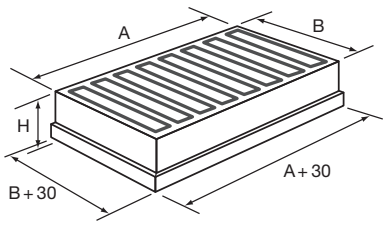


The permanent magnets (E) and (G) are always active. The magnetic circuit is shunted and the pole face is not active.



The electric current passage during a few milliseconds into the coil (F) permits the polarity of magnet (G) to reverse. The magnetic fields generated by magnets (G) and (E) are oriented to the polar face of the chuck, which becomes active and clamps the workpiece to the machine.





TURBOMILL 18

For Special High-Speed Machining and Light Milling Operations

- Electropermanent magnetic chuck
- Pole pitch: 18 mm + 10 mm
- Depth of magnetic field: 9 mm
- Watertight chuck
- Extraordinary adherence and resistance against sliding force
- Operation through a BUR-FR/BFR control unit
- Use of adaptor pole extensions and pole-plate

Minimum size of the usable workpiece:

- Thickness: 9 mm
- Length: 60 mm

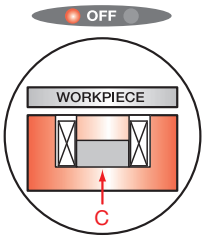
Accessories

- Backrest and endstop
- Hold down clamps
- Watertight plug at end

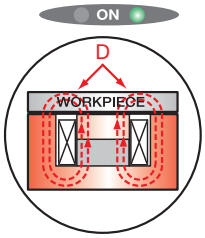
SPECIFICATIONS

Dimensions A (mm)	B (mm)	H (mm)	Weight (kg)	Control unit
400	300	78	61	BUR 10
550	300	78	84	BUR 10
700	300	80	109	BUR 10
800	300	80	125	BUR 10
900	300	80	140	BUR 10
1000	300	83	162	BUR 10
500	400	78	101	BUR 10
600	400	78	122	BUR 10
800	400	80	166	BUR 10
900	400	83	194	BUR 20
1200	400	83	259	BUR 20
1450	400	83	313	BUR 20
550	500	80	143	BUR 20
800	500	80	208	BUR 20
900	500	80	234	BUR 20
1000	500	83	270	BUR 20
1200	500	83	324	BUR 20
1400	500	83	378	BUR 20
1600	500	88	432	BUR 30

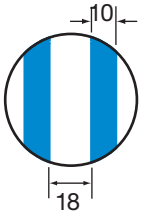
An inverse electric current passage turns off the system.

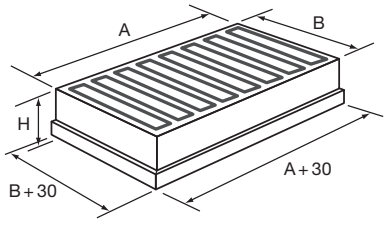


The permanent magnet (C) is not active.
The magnetic chuck is not active either.

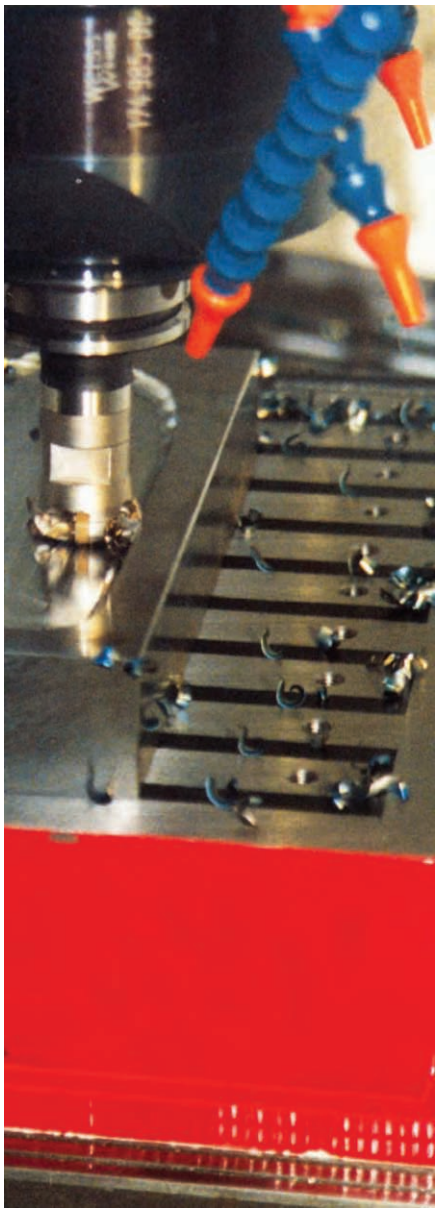


The electric current passage during a few milliseconds into the coil (D) turns on the clamping system.





ECONOMICAL	• Reduce set-up time • Save in energy consumption • Less wear on your cutting tools
VERSATILITY	• Cut 5 different faces with the same magnetic set-up • No mechanical clamping needed • Flexibility of clamping and unclamping
QUALITY	• Higher quality of surface finish • Higher cutting speeds
PRECISION	• No vibration leads to smoother cutting • No temperature rise



Due to its extremely strong construction, TurboMill magnetic chucks will not deform workpieces. TurboMill chucks are waterproof.

The clamping of the chucks in the machine can be done either with clamps or screws through the magnetic chuck, without any loss of clamping force.

The total demagnetization of Walker chucks facilitates the easy removal of chips after machining operations.

Although the magnetic field penetrates in the magnetic chuck and in the work-piece, it has no influence on the functions of the machine. The main advantage of TurboMill chucks is their magnetic holding power over the entire surface of the chuck.

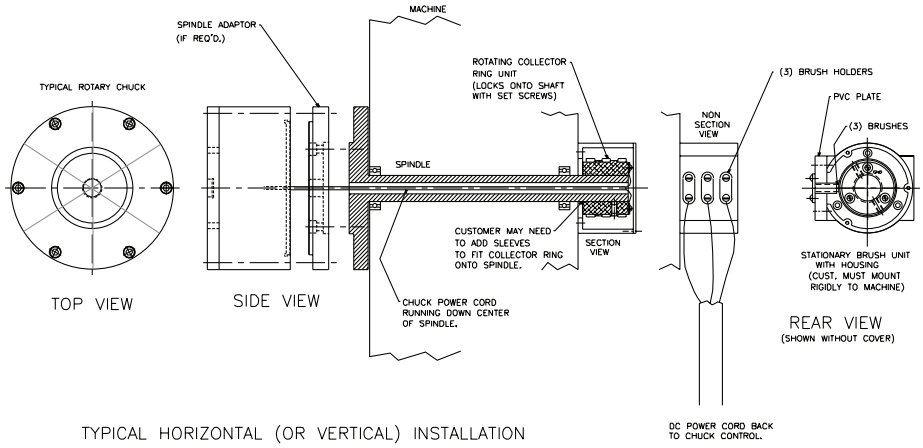
MULTI POLE

Rotary Electromagnetic and Electropermanent Chucks

Rotary electromagnetic and electropermanent chucks are made in radial pole multi-coil design for use in hard turning and free state grinding. The radial pole design is recommended for holding circular workpieces such as rings and discs.

Most radial pole chucks come with t-slots, but tapped holes are also available for mounting tooling.

The smaller chucks have four or six poles, while the larger chucks use a ten or twelve pole design.



TYPICAL HORIZONTAL (OR VERTICAL) INSTALLATION

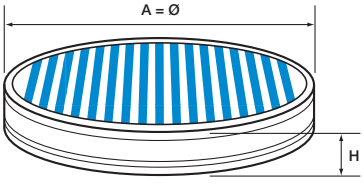
SPECIFICATIONS

Size Dia. (in.)	Weight (lbs.)
6	35
8	65
10	95
12	135
14	180
16	235
18	325

Other sizes available upon request.

EPEFINE / POWERFINE

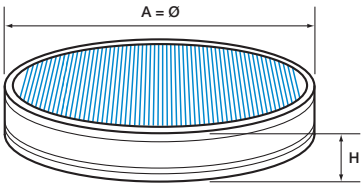
Circular Powerfine and Epefine series are designed for general purpose grinding. These chucks do not have a top plate, the poles with epoxy resin gaps constitute the workholding surface. This design is cost effective and offers powerful holding force.



Powerfine

SPECIFICATIONS

Designation	A (mm)	H (mm)	Weight (kg)	Control unit
EPEFINE	300	92	42	BUP 8,5
EPEFINE	400	105	87	BUP 8,5
EPEFINE	500	105	130	BUP 8,5
EPEFINE	600	105	175	BUP 8,5
EPEFINE	750	105	312	BUP 8,5
EPEFINE	1000	105	553	BUP 15
POWERFINE	300	77	45	BUR 5
POWERFINE	400	77	72	BUR 5
POWERFINE	500	77	94	BUR 5
POWERFINE	600	77	143	BUR 10
POWERFINE	750	82	280	BUR 10
POWERFINE	1000	95	490	BUR 20



Epefine

Controls

Walker chuck controls for powering both electromagnetic and electropermanent chucks.

These controls offer full and variable power. In some cases, the controls have residual and automatic release functions.

SCV Series

Smart-B Series

Smart-D Series

BUE Series

BUR-FR/BFR Milling Controller

Smart-E Series

TM - TurboMill Chuck Controller

SCV SERIES

Manual Release Controls for Machine Mounting

Manual release chuck control variable holding

115 VAC, output 0-110 VDC

SPECIFICATIONS

Model	Watts	Net Weight (lbs.)
SCV-1.5	150	8

SMART-B SERIES

Automatic Release Controls for Machine Mounting

Automatic release chuck control. Full, variable and residual holding

Smart controls are designed to be used with electromagnetic chucks, with an input of 115 VAC, output 0-110 VDC and wattage capacities between 0-500.

- Touchpad control allows easy selection of full, residual, variable and release positions
- Automatic release cycle assures workpiece release, while freeing machine operators from manual demagnetizing operations

SPECIFICATIONS

Model	Watts	Net Weight (lbs.)
SMART-1B	150	13
SMART-3B	300	16
SMART-5B	500	18

SMART-D SERIES

Automatic Release Controls for Wall Mounting

Automatic release chuck control. Full, variable and residual holding

Input voltages: 208/230/240/380/440/480 VAC, 50/60 Hz.
Specify AC voltage when ordering

SPECIFICATIONS

Model	Watts	Standard Output Voltage	Net Weight (lbs.)
SMART-3D	300	115 VDC	60
SMART-5D	500	115 VDC	60
SMART-10D	1000	115 VDC	205
SMART-15D	1500	115 VDC	215
SMART-20D	2000	230 VDC	280
SMART-30D	3000	230 VDC	300
SMART-50D	5000	230 VDC	325
SMART-75D	7500	230 VDC	410
SMART-100D	10,000	230 VDC	440

BUE SERIES

Controllers for Electromagnetic Chucks

Control in enclosure IP54 with remote control

Input voltage: 230 VAC, 50/60 Hz
Output voltage: 0-110 VDC

SPECIFICATIONS

Code	Description	Watts
42.62.015	BUE 340-110	340
42.62.016	BUE 850-110	850
42.62.017	BUE 1250-110	1250

Control without enclosure with optional remote control

Input voltage: 230 VAC, 50/60 Hz
Output voltage: 0-110 VDC

SPECIFICATIONS

Code	Description	Watts
42.62.215	BUES 340-110	340
42.62.216	BUES 850-110	850
42.62.217	BUES 1250-110	1250
42.62.200	Remote Control	–

Control in enclosure IP54 with transformer and remote control

Input voltage: 230, 400, 415, 440 VAC, 50/60 Hz
Output voltage: 0-110 VDC

SPECIFICATIONS

Code	Description	Watts
42.62.315	BUET 340-110	340
42.62.316	BUET 850-110	850
42.62.317	BUET 1250-110	1250
42.62.307	BUET 1650-110	1650
42.62.308	BUET 2550-110	2550
42.62.309	BUET 4000-110	4000
42.62.310	BUET 5000-110	5000
42.62.311	BUET 6000-110	6000
42.62.312	BUET 8000-110	8000

Please specify input and output voltage when ordering.

Features

- Microprocessor
- Safety interlocks
- Variable holding force
- Automatic release
- CE

Application

- Electrofine chuck
- Unigrip chuck
- Electropower chuck
- Other DC operated electromagnetic devices

BUR-FR/BFR MILLING CONTROLLER

Control for Milling Chucks – Europe Only

The control units are specially designed and developed for the total magnetization and automatic release of the magnetic chucks and the workpiece.

The new generation: The <I-button>

The new and extremely reliable electronics of the system guarantees the control of the electric current to reach the optimum magnetization and release.

The standard interlock connection between the magnetic chuck and the machine prevents any machining operations when the magnetic chuck is not sufficiently magnetized.

UNIT CONTROL (BUP AND BUR)

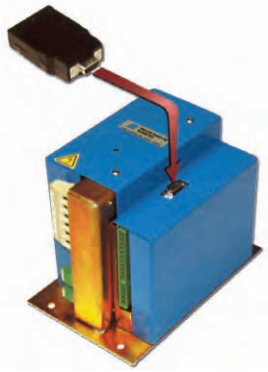
The control has been specially designed for operating electropermanent magnetic chucks with total release of the chuck and of the workpiece.

The new generation: The <I-button>

Goal: simplify the user's job by providing a reliable, economic and versatile control unit.

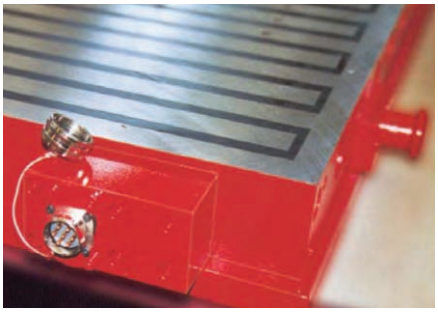
The performance of the magnetic chuck has to be in accordance with the workpieces to be machined. It means that the parameters for the magnetization and the release can be different depending upon the workpiece. The "I-button" kit permits the modification of the parameters of the control unit of Walker without any expert assistance from Walker.

In fact, the different parameters are registered on different "I-button chip" boards. The operator can easily change the board in the control. This operation does not require special knowledge in electrical or electronic engineering.

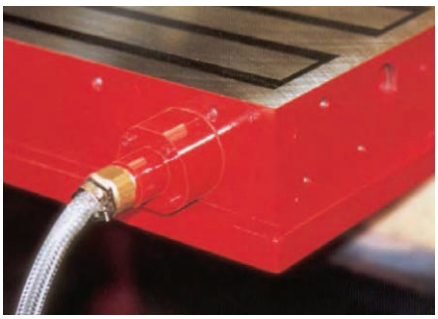


Advantages

- RS232 connector interfaces between the NC control and the chuck control unit
- Possibility of integration in the machine control box
- CE
- Available with or without enclosure
- IP55, TÜV, CSA, UL



Waterproofed quick-connection for the cable



Connection box with a cable that is mounted on the front side or the rear of the magnetic chuck

SMART-E

For Electropermanent Chucks

Smart-E controls are designed for use with electropermanent chucks with an input of 230 VAC, output of 200 VDC. Wattage capacities between 2000 - 5000. Available with remote for full variable with automatic release. Optional pendant for uncompensated chucks. Two button with full and release.

Available with either remote control or pendant switch. Must be determined at time of purchase.

SPECIFICATIONS

Model	Watts
Smart-20E	2000
Smart-30E	3000
Smart-50E	5000

TM – TURBOMILL CHUCK CONTROLLER

TURBOMILL 40 CHUCK CONTROLS Models TM-100 and TM-100V

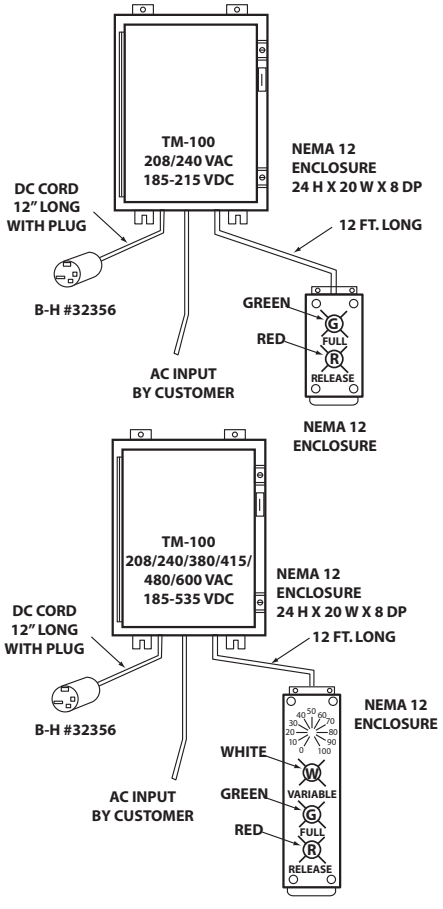
These TurboMill 40 chuck controls have been designed and engineered to provide optimum chuck workholding/clamping performance.

TM-100™

- 208/240 VAC output
  12 ft. DC output cord
- 24" x 20" x 8" NEMA 12 enclosure
- Meet NEC and CSA specifications
- PLC interface capability
- Operators pendant (remote) with 12 foot cord;
  full and release function models

TM-100V™

- 208/600 VAC Input
- Operators pendant (remote) with 12 foot cord; full, release and variable modes. The variable mode is very useful when setting up horizontal spindle machines, and helpful with chip removal
- On large machines with multiple chucks, the TM-100V has optional chuck selection that powers only the chuck you need to use



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