

# MAGNETIC WORKHOLDING

Permanent  
Electromagnetic  
Electropermanent  
Rotary  
Controls

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# PERMANENT

**W**alker permanent chucks are manually operated. Made with powerful permanent rare earth (NEO) magnet materials, these chucks can hold a wide range of workpieces without transferring heat into the material.

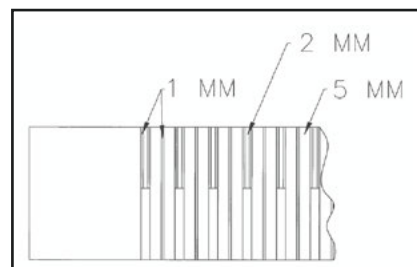
The Walker Permanent chuck allows for holding workpieces during both surface and ID/OD grinding, as well as light milling, EDM and turning applications.

- Neomicro
- Neomill
- Ferromax
- Neostar
- Neogrip
- Neodymium EDM Power Magnets



## Fine Division Permanent Magnet Chuck

The C2 magnetic chuck is a high powered permanent magnetic chuck using Neodymium (rare earth) magnet material. This magnet is an extremely versatile magnetic chuck that can be used for grinding, sinker EDM and light milling applications.



### Specifications

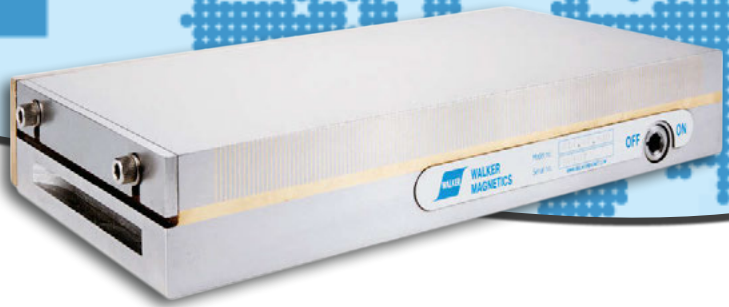
Size	Height	Weight
150mm x 300mm	71mm	56 lbs
150mm x 450mm	71mm	83 lbs
200mm x 450mm	71mm	110 lbs
250mm x 380mm	71mm	117 lbs
300mm x 450mm	71mm	166 lbs
300mm x 600mm	71mm	220 lbs

\*Other sizes available in the Neomicro styles

### Standard Features

- Solid steel and stainless steel fine pole top plate
- Steel body milled on all sides
- Powerful Neodymium magnet material
- Attached handle with 180° activation
- Uniform holding power

# NEOMICRO



## Super Accurate, Micropitch Permanent Magnetic Chucks for Precision Grinding

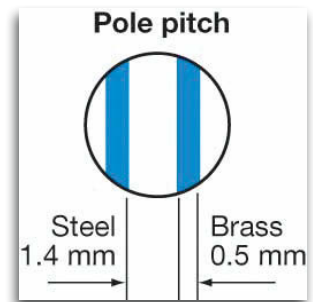
### Maximum Grinding Accuracy

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

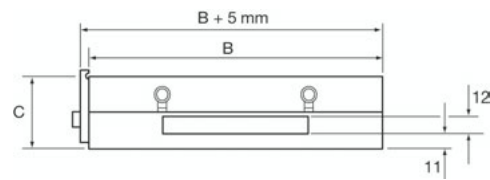
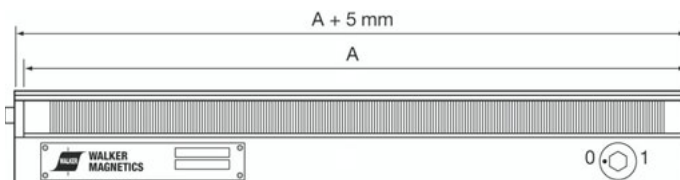
### Maximum Grinding Efficiency

- Neodymium magnetic system generating 30% higher force compared to other micropitch chucks
- Maximum workholding
- Very low magnetic field allowing easy disposal of grinding swarf
- Low height allowing maximum wheelhead clearance and ability to use the Neomicro on top of another chuck
- Backrest and end stop on two adjacent sides
- Allen key
- Clamps

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

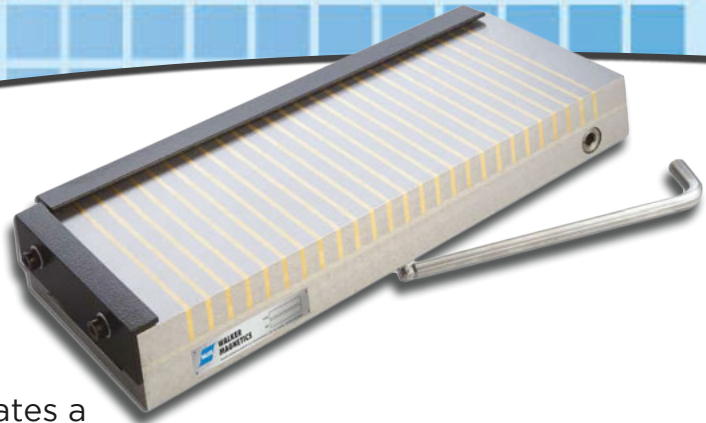


Part Number	AXB (mm)		Height (in.)	Weight (lbs)
68-B11.01.515	5.9 X 5.9	150 X 150	2	20
68-B11.01.525	5.9 X 9.8	150 X 250	2	33
68-B11.01.530	5.9 X 11.8	150 X 300	2	40
68-B11.01.535	5.9 X 13.7	150 X 350	2	49
68-B11.01.545	5.9 X 17.7	150 X 450	2	62
68-B11.02.040	7.87 X 15.74	200 X 400	2	73
68-B11.02.045	7.87 X 17.7	200 X 450	2	82
68-B11.02.060	7.87 X 23.6	200 X 600	2.2	108
68-B11.03.060	11.8 X 23.6	300 X 600	2.2	179

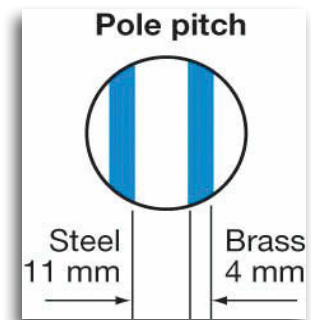


# NEOMILL

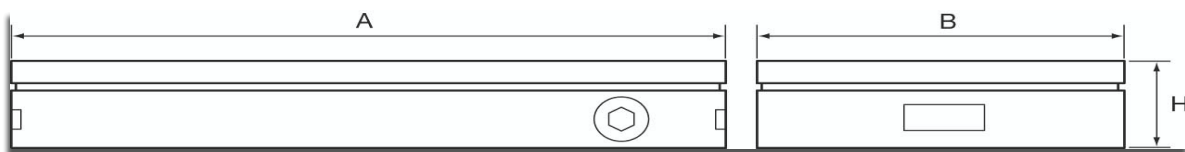
## Powerful Permanent Magnetic Chuck for Milling



- 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<sup>2</sup>
- 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)
H35.15.035	350	150	56	24
H35.15.030	300	150	56	24
H35.20.030	300	200	56	26
H35.20.040	400	200	56	35
H35.20.060	600	200	56	52
H35.25.050	500	250	56	56
H35.25.060	600	250	56	68
H35.30.050	500	300	64	70
H35.30.060	600	300	64	84



# 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		Height		Mounting Holes	Numbers of Poles	Weight	
	(mm)	(in)	(mm)	(in)			(kg)	(lbs.)
37.00.150	150	5.91	57	2.24	M8	10	8	18
37.00.200	200	7.87	57	2.24	M8	12	14	31
37.00.250	250	9.84	70	2.76	M8	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

# FERROMAX

## Rotary Permanent Magnetic Chucks

These chucks provide dependable magnetic holding for rotary surface grinding and light 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	Total Height	Rear Pilot Dia	Rear Pilot Depth	Face Pilot Hole	Face Pilot Depth	Tapped Hole Location (dia)	Tapped Holes	Holes Tap size	Tap Depth	Weight
Model	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)		(in.)	(in.)	(lbs)
6RN	5.91	1.97	4.7	.09	N/A	N/A	5.39	4	m8	.62	15
8RF	7.87	3.06	6	.22	.88	.19	7.25	4	.31 - 18	.75	33
10RF	9.84	3.06	8	.09	.88	.19	9.38	4	.31 - 18	.75	46
12RF	11.81	3.06	10	.09	.88	.19	11.25	4	.31 - 18	.75	71



# ELECTROMAGNETIC

Walker rectangular electromagnetic chucks for surface grinding and EDM operate on DC voltage with the use of a Walker electromagnetic chuck controller. Full, variable, and residual cycles for easy operations, is achieved with the use of Walker chuck controls.

- LBP
- Interloc
- TBP



# LBP

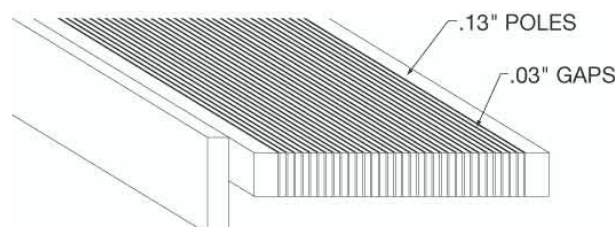
## Fine-Division LBP Electromagnetic Chucks

- Maximum workholding surface
- Fine pole Division for more uniform magnetic holding of small parts
- Lowest height for maximum 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.

### Specifications

Size (in.)	Watts	Approx. Weight (lbs.)
12 X 24	190	275
12 X 36	290	428
14 X 36	290	450
16 X 32	430	520
18 X 36	430	625
20 X 40	500	725

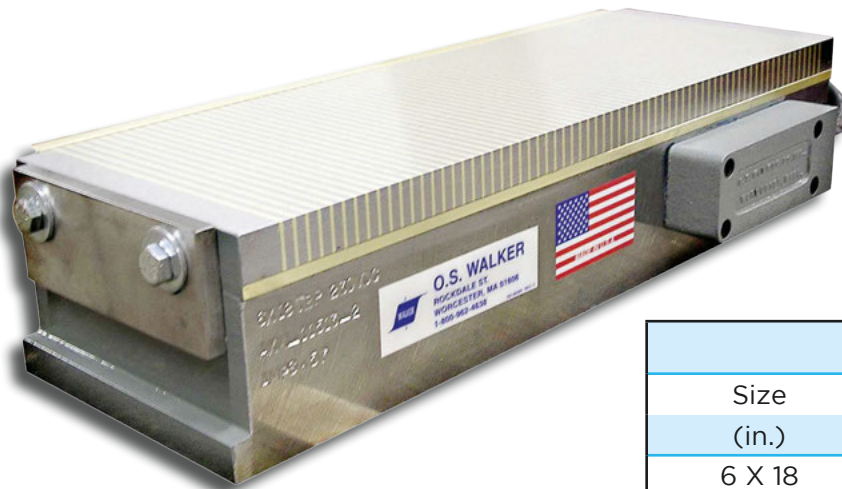
Additional sizes available upon request.

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.

## 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.)
6 X 18	131	110
8 X 18	100	165
10 X 19	135	145
12 X 15	170	210
12 X 24	285	300
12 X 36	425	430
16 X 32	500	535

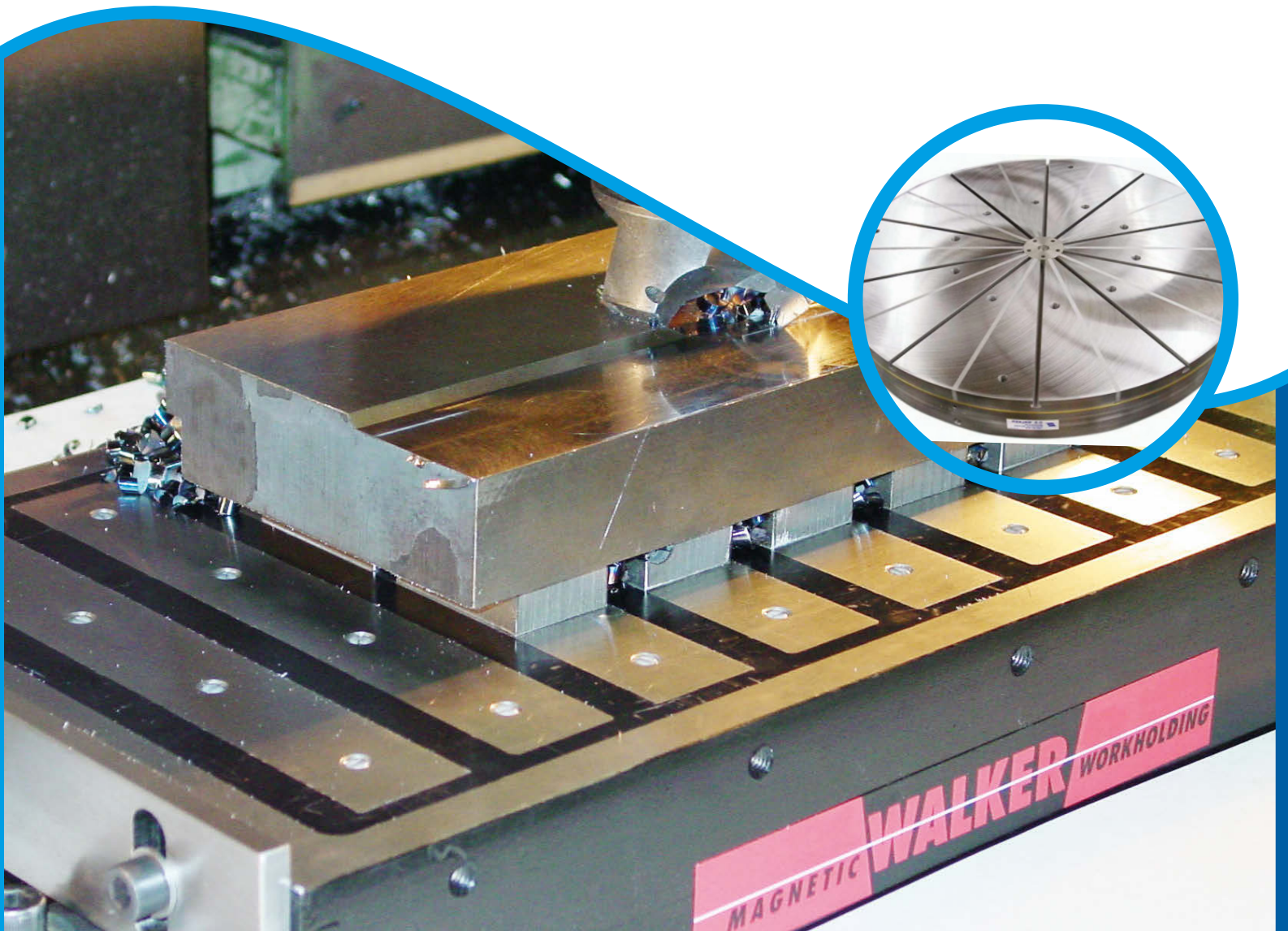
Additional sizes available upon request.

# ELECTROPERMANENT

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

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

- TurboMill 40B
- Multi Pole
- Rotary Chucks



# 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 Walker TM Control
- Through drilling possible with use of riser blocks

Minimum size of the usable workpiece

- Thickness: 200 mm
- Length: 170 mm

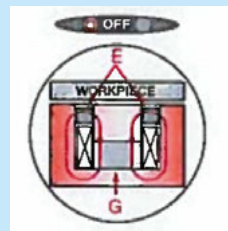
Accessories

- Backrest and endstop
- Hold down clamps
- DC cable supplied with controller

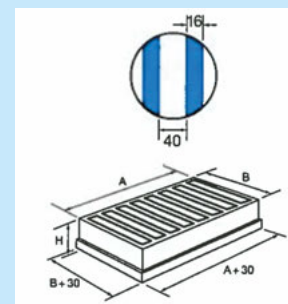
\*Controls available for worldwide operation, See controls page.

Specifications			
	Dimensions		Weight
A	B	H	
(mm)	(mm)	(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

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 the magnet (G) to reverse. The magnetic field 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.

# MULTI POLE

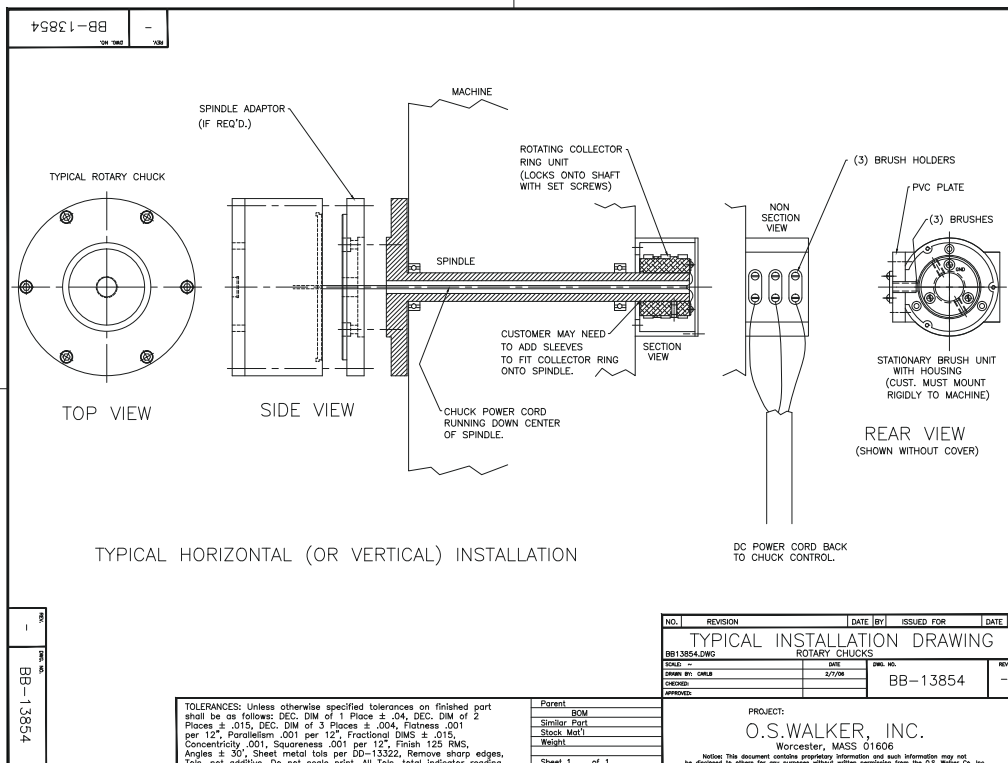
## Rotary Electromagnetic and Electropermanent Chucks

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.



## 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.

# CONTROLS



## Manual Release Controls for Machine Mounting

Manual release chuck control variable holding 115 VAC, output 0-110 VDC

## SCV SERIES

### SPECIFICATIONS

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

## SMART-B SERIES

### Automatic Release Controls for Machine Mounting

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

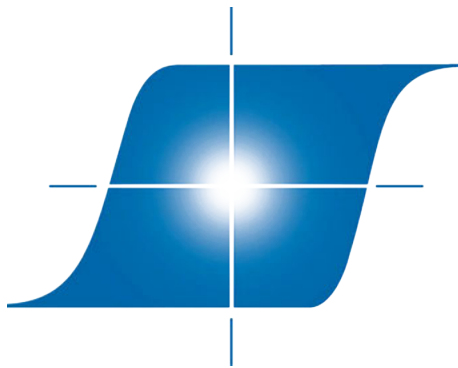
### Automatic Release Control for Wall Mounting

Automatic release chuck control. Full, variable and residual holding.

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

Input voltages: 208/230/240/380/440/480 VAC, 50/60 Hz.  
Please specify AC Voltage when ordering





# WALKER MAGNETICS

**Magnetic Solutions Since 1896**  
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