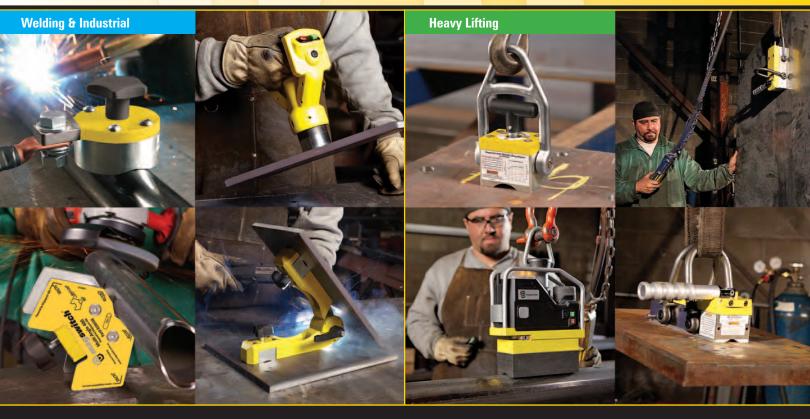


Changing the way things are done.



PRODUCT CATALOG | JAN 2013



Changing the way things are done.

Magswitch is a mechanical device that turns a permanent magnetic field completely on and off. The advantages provided by Magswitch technology offer significant, new capabilities in steel fabrication and handling.

While magnets have been a part of welding and fabricating for a long time, their role has been limited as they are often considered a hassle. Permanent magnets were left to do the small work, dismissed as too hard to control large pieces of steel. MAGSWITCH CHANGES THAT! The days of fighting and cleaning magnets are over forever. The power of Magswitch challenges conventional clamping and fit up methods in all steel fabrication, including the largest fabrication projects such as shipbuilding. With 90% of time spent getting steel in position to weld, productivity savings offered by Magswitch are substantial. When we introduced Magswitch technology to the welding industry in 2008 we knew we had to change perceptions. From executives, to instructors, to the person who actually does the work, we had to reprogram thinking on the use of magnets. As an executive, you simply cannot ignore the improvement Magswitch products can make to your bottom line, or the safety benefits. For those who have embraced Magswitch, they are realizing a competitive cost advantage.

So what does Magswitch mean to you?

The bottom line is, if you work with steel, Magswitch will save you money and make work easier and safer for your employees. Productivity comes with faster set ups and new tools/capabilities that streamline processes. Safety advantages come from Magswitch tools handling the steel and not your employees. From the point you receive steel in, to how you move it through your plant, to how you fabricate it, there is a Magswitch tool that will improve safety and productivity. Magswitch is just that, simply a more productive way to do the job.

While our ground clamps and our workholding tools have immediate recognizable value, you will be impressed with the revolutionary new capabilities in our other industrial tools: Cordless Electric Hand Lifter, Multi Angle Mag Vise, Cordless Electric Heavy Lifter, Sheet Handler and "shallow field" Heavy Lifter. We invite you to give them a try as we are confident you will love them.

When you see our new line of heavy lifters, fixturing and robotic tools, you will understand how Magswitch is changing the way things are done.

As you look at the products in this catalog, consider these core common features of each tool:

- Complete on/off control. Stays clean.
- Precise placement/no fighting magnets.
- Super strong does the big work.
- · Strong hold on thin steel.



Every Magswitch product is proudly designed, tested, manufactured and distributed by the Magswitch group of companies. *All Magswitch products are manufactured to ISO 9001:2008 standards*.



In this catalog, you will see this safety logo in many places. At Magswitch, we are dedicated to safety. We consider safety in everything we do. If you work around steel safety is the first consideration. Fewer hands on the job, touching steel, means a safer workplace. Safety is our prime design consideration, easy to turn on, lighter to lift, stability control, lift to shear, loaded with safety features.



Magswitch is a green technology Enduring power of rare earth magnets without electricity.

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Welding & Fabrication

Professional welders and fabricators are demanding more and more tools from Magswitch. As Magswitch tools are becoming more mainstream in the market, the pros have grasped the technology and are sending more and more product ideas to Magswitch. The casual welders are jumping on board as well. Magswitch has introduced 19 new products in just the last 12 months, and many more are on the way. You simply cannot use a Magswitch tool and not go bonkers over the technology. You just haven't seen anything like it before.

Consider these "game changing" impacts of Magswitch on welding and fabrication:

- Large sheet leveling in seconds using powerful magnets.
- . True destack without two sheets sticking.
- Pulling parts out of a burn table instantly, with the push of a button.
- · A vise that sets up instantly! That you don't have to screw in.
- Shipbuilders setting stiffeners in exact position in seconds.
- A magnetic ground clamp that is self-cleaning.
- · Automated welder tracks that are light weight and are precisely positioned.
- · A magnetic square the size of your fist holds 1000 lb. (454 kg.)
- · A cordless remote operated magnetic heavy lifter.

- A permanent magnet that lifts 20+ tons.
- A heavy magbase drill that actually stays there when the power goes out.
- A welding inspection voke that doesn't require a power source.

These are examples of the new capabilities enabled by Magswitch. Let's put them to work for you.

Welding & Fabrication Table of Contents

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Magnetic Ground Clamps



Strong grip on flat or round surfaces.

The second second	
8100316	8100315

No more tacking on tabs and searching for a ground location.

Fast set up. Grounds instantly.

Specs	On/Off Magnet	ic Ground Clamp 300) 600
Part #	8100340	8100315	8100316
Hold (lbs/kg) on thick stee	60/26	90/40	200/89
H= (in/mm)	2.4/62	2.2/57	2.6/66
W= (in/mm)	1.6/40	1.6/40	2.7/69
D= (in/mm)	2.1/55	2.7/69	3.9/101
Wt=(lbs/kg)	0.2/0.1	0.7/0.3	1.8/0.8

Magswitch On/Off Magnetic Ground Clamps let welders quickly set up, weld and move on to the next job. Simply place it on a clean work surface, turn it on and start welding. Instant ground on flat or pipe.

+ Also see Mini Multi Angle with 300 amp Ground on page 4



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Stays clean. Turn off Magswitch and wipe away debris.

Mini Angles



On/off magnetic mini angle. When off, metal debris falls off.

Specs	Mini Angle	Mini Multi Angle	Mini Multi Angle w/ 300 amp Ground
Part #	8100352	8100350	8100351
Magnet Power (lbs/kg)	90/40	90/40	150/67
H= (in/mm)	2.1/55	2.5/65	3.4/87
W= (in/mm)	1.2/32	1.2/32	1.6/42
D= (in/mm)	2.3/59	2.8/72	3.5/89
Wt=(lbs/kg)	0.4/0.2	0.4/0.2	0.9/0.4



Each Multi Angle offers several common angles: 45/135°, 60/120°,75/105°, and 90°



Mini Multi Angle with Ground Clamp grounds and holds at the same time!

Mini Angle offers a 45/135° and 90°

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The Magswitch line of Mini Multi Angle workholding magnets offer you more angles in one product than any other magnetic angles. If you're tired of Mini Angle magnets that claim they shut off, but really don't, then you'll love Magswitch. Magswitch Mini Angles are hassle free. They stay clean for years of use. Once you use Magswitch Mini Angles, you will never settle for anything less!

Multi Angle MagVise



Dual purpose: multi angle workholding tool and quick disconnect and

Specs	Multi Angle 400 MagVise	Multi Angle 1000 MagVise
Part #	8100438	8100450
Magnet Power (lbs/kg)	400/181	1000/454
H= (in/mm)	3.7/95	5.7/146
W= (in/mm)	2.5/65	4.3/110
D= (in/mm)	5.0/129	7.2/184
Wt=(lbs/kg)	2.6/1.2	9.7/4.4

Imagine a vise that you don't have to bolt in place! The New Magswitch Multi Angle MagVise sets up in seconds and holds flat, round or odd shaped pieces. Perfect for drilling, cutting, grinding and beveling of small to medium size pieces. Doubles as a multi angle work holding tool. Two sizes offer incredible hold force.



Offers several common angles: 45/135°, 60/120°, 75/105° and 90°.



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Vise applications: perfect for drilling, cutting, grinding and beveling. Holds flat, round or odd shapes.

MagSquares



Fast 90 degree angles.



Align two pieces of steel – flat or round.

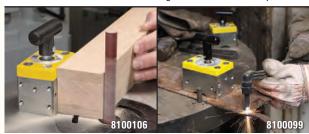
Helping hand – a temporary support to hold a part or tool on a vertical wall.



Great for making your own fixtures.



Fabricate angles quickly; pull corners together with hold on multiple sides.



Use as a guide anywhere on a steel table. No limitations like clamps.

Secure steel for fabricating or cutting.



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Specs	MagSquare 150	MagSquare 400	MagSquare 600	MagSquare 1000
Part #	8100054	8100238	8100106	8100099
Hold (lbs/kg) on thick steel	150/68	400/181	600/272	1000/454
H= (in/mm)	2.6/65	3.5/90	4.2/106	5.7/147
W= (in/mm)	1.6/40	1.6/41	2/52	2.8/72
D= (in/mm)	1.6/40	2.5/64	2.9/75	4.2/108
Wt=(lbs/kg)	0.6/0.27	2/0.91	3/1.36	7.4/3.36

MagSquares – workholding and fixturing. The most versatile workholding tool ever. A must have tool for every welding professional.

Welders and fabricators are raving about all the uses, convenience and time savings with Magswitch MagSquares. MagSquares are extremely powerful on off magnetic blocks with strong holding force available on all sides. Welders have never enjoyed this complete control over incredibly strong magnets (1,000 lbs (454 kg) on the MagSquare 1000). You can precisely position the MagSquare and material, and then turn the magnet on. MagSquares feature multiplane workholding capability. It takes away the need for time consuming manual clamping on so many jobs, and works anywhere there is steel; you don't need and edge like you do with C-Clamps. All MagSquares are machined at 90 degrees, have pre-tapped holes on all sides for mounting tools, jigs and fixtures. Fast 180 degree turn of the knob turns the MagSquare on and off. When off, nothing sticks to them. Once you understand all the uses, the time savings in set ups, and the ability to control these powerful magnetic blocks - you will want the entire range.

Features:

- Incredibly strong.
- Fast, precise positioning.
- Mounts anywhere no limitations like clamps.
- Magnetic grip on 5 sides.
- Mounts to flat and pipe.
- Pre-tapped holes on all sides for mounting.
- Great for making your own fixtures.
- Destack sheet (make a fixture using multiple MagSquares to destack large sheet).

^{*}For more examples of fixturing with Magswitch visit our website at www.magswitch.com.au.



When you set up and position steel for a weld, we believe that it should be easy and fast. Positioning mechanical clamps or getting a helping hand is time consuming and adds to hands on the material. Magswitch is fast on, turns off, saves time and burrs in your fingers.

Pivot Angle 200



Odd angles in seconds.

Specs	Pivot Angle 200	
Part #	8100367	
Hold (lbs/kg) on thick steel	200/90	
H= (in/mm)	9.4/240	
W= (in/mm)	3.5/91	
D= (in/mm)	9.4/240	
Wt=(lbs/kg)	3.5/1.6	

Magswitch Pivot Angle offers a range of angles from 22 to 270 degrees. Each axis features a Magswitch with a 200 lbs (90kg) hold capability. A single pivot point is located on the elbow. The elbow joint locks and unlocks quickly with a lever. The dial on the elbow features indicators every 5 degrees. On each axis a Magswitch





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is exposed on a side to enable the tool to secure to a table or wall, while simultaneously holding the work piece. Perfect for repetitive work on uncommon angles.

Single locking lever on elbow for fast securing of your angle.

Degree angle indicator on elbow.

Each magnet holds on two sides.

BoomerAngles



Holds flat and round – perfect for working with pipe and fence set ups.

Specs	BoomerAngle 150	BoomerAngle 400	BoomerAngle 600
Part #	8100091	8100453	8100090
Hold (lbs/kg) on thick steel	150/68	400/181	600/272
H= (in/mm)	7.7/197	10.2/258	10.1/258
W= (in/mm)	5.5/140	4.3/109	6.6/169
D= (in/mm)	7.7/197	10.2/258	10.1/258
Wt=(lbs/kg)	2.9/1.3	6.6/3.0	9.7/4.4

Magswitch BoomerAngles offer virtually unlimited angles. With a rotating MagSquare at the end of each axis. Magswitch BoomerAngles offers not only a fixed 90 degree angle on the inside and outside, but are adjustable to any angle in between. Featuring the benefits of Magswitch including incredible power and precision

control, Magswitch BoomerAngles are easy to use, and can be used with larger and heavier steel.



Rotating Magswitches for virtually unlimited angles.



Quick adjust lever for fast precise positioning.



Preset 90 degrees inside or outside.



90 Degree Angles



MagSquares can be repositioned or reversed on each axis.

Specs	90 Degree Angle 150	90 Degree Angle 400	90 Degree Angle 600	90 Degree Angle 1000
Part #	8100010	8100454	8100036	8100503
Hold (lbs/kg) on thick steel	150/68	400/181	600/272	1000/454
H= (in/mm)	8.0/205	11.2/288	11.2/288	11.3/287
W= (in/mm)	2.3/58	3.8/98	4.1/104	5.7/145
D= (in/mm)	8.0/205	11.2/288	11.2/288	18.6/474
Wt=(lbs/kg)	1.8/0.8	6.2/2.8	8.2/3.7	10.2/4.6

Magswitch 90 degree Welding Angles are the most versatile in the market. Featuring the benefits of Magswitch including incredible power and precision control, the Magswitch 90 degree angles are easy to use, and can be used with larger and heavier steel. All Magswitch 90 degree angles allow you to reposition the magnets up



180-degree turn of the knob turns magnet on and off.



Add MagSquares on each axis for extra holding power.



New 90 Degree Angle 1000 for heavy fabrication work.



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or down on each axis (only vertical axis on #8100503), or reverse from outside to inside. If you want more strength, just add more Magswitch MagSquares.

Extenda-Lifts



No need to bend over and pickup materials.



Super strong hold.

Picks up flat or round shapes.

Specs	Extenda-Lift 600	Extenda-Lift 1000
Part #	8100025	8130177
Hold (lbs/kg) on thick steel	600/272	1000/454
H= (in/mm)	28.2/724	28.2/724
W= (in/mm)	2.7/68	4.2/107
D= (in/mm)	4.6/117	4.8/122
Wt=(lbs/kg)	5.3/2.4	9.8/4.4

With the Magswitch Magnetic Extenda-Lift, you can pick up and move steel without bending over and using your hands; offering convenience and safety advantages. You can pick up plate, pipe, or steel scrap off the floor with ease. Also works great for picking up hot, sharp or dirty steel without touching it. Extenda-Lift 600 has 600 lbs

(272 kg) of hold force. Extenda-Lift 1000 has 1000 lbs (454 kg) of hold force. Ideal for cities and utilities. Valve box and small lid removal.



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It is always a concern when you have to reach down or bend over to pick up steel. That's why our Extenda-Lift does this for you. Easy on the back!

Hand Lifter 60-M (Manual)



Hand lifter for all your small steel handling needs.

Specs	Hand Lifter 60-M (Manua))	
Part #	8100359		
Hold (lbs/kg) on thick steel	235/106*	*We recommend a safe	
H= (in/mm)	5.5/140	lifting load of 60 lb/27 kg for	
W= (in/mm)	4.7/120	hand lifters.	
D= (in/mm)	2.3/60		
Wt=(lbs/kg)	1.3/0.6		

Add safety and convenience to every workstation. The Magswitch Manual Hand Lifter 60-M lets you pick, place, slide and reposition steel without using your fingers. No need to touch hot, sharp, or dirty steel. Ideal for small steel handling, dragging sheet, picking, placing and pulling parts out of burn table or

handling scrap.



Pivot handle allows use as a hand lifter or a sheet dragger.

Pipe groove for transporting pipe.



Handle options: fixed vertically or pivot.



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Hand Lifter 60-CE (Cordless Electric)



Perfect for removing parts and cut outs from burn tables. The cordless hand lifter holds hot, sharp, dirty steel with the press of a button!



Faster and safer handling of steel.



Push button on/off control. Ideal for fast repetitive lifting.

Specs	Hand Lifter 60-CE (Cordless Electric)		
Part #	8100385	Man and	Includes two
Hold (lbs/kg) on thick steel	235/106		rechargeable batteries and charger.
H= (in/mm)	8.2/209		
W= (in/mm)	6.7/173	1914	safety
D= (in/mm)	2.9/75		rs are among our best
Wt=(lbs/kg)	2.4/1.1	safety tools	· ·

The "world's first" Cordless Electric Hand Lifter! The Hand Lifter 60-CE is a must for every metal fab shop. The Cordless Electric Hand Lifter is ideal for pulling parts out of a burn table, picking up steel to place on a work table, in a fixture, or handling scrap parts. 2000 actuations per charge.



Scan link or go to http:// youtu.be/655UAQOTyDQ

Replacement Parts:

4 Volt Rechargeable Batteries (2-Pack) - #8800053

Battery Chargers:

US/CAN - #8800054

UK/SA - #8800054UK

Europe - #8800054GE

Australia - #800054AU

Sheet Aligning Tools



Center Sheet Handler over the seam, turn Magswitch on, press to align

Specs	Mag Pry	Sheet Handle
Part #	8100081	8100361
Hold (lbs/kg) on thick steel	1100/500	1800/818
H= (in/mm)	19.8/508	60.6/1539
W= (in/mm)	5.6/143	9.2/234
D= (in/mm)	6.2/160	8.0/203
Wt=(lbs/kg)	9.3/4.2	21.2/9.6



grinding or clamping to level steel. Just turn the magnet on and pull the lever to align.

Ask any welder how long it takes to align large sheet with precision. Magswitch offers two solutions that yield incredible time savings. The Mag Pry features 1,100 lbs (500kg) of hold force instantly! Using magnetic force and leverage, the tool aligns the sheets! The Sheet Handler operates on the same principal, but for large sheets.

> The Sheet Handler offers up to 1,800 lbs (818kg) of hold force, and features extendable handle.









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Align sheets in seconds.

Eliminates welded bars and wedges. Incredible time savings.

Sheet Handler Tools



Easy on off magnet actuation. Complete control - stays clean.

Specs	Sheet Handler	Mag Dolly	
Part #	8100361	8100433	The heavy lifter
Hold (lbs/kg) on thick steel	1800/818	NA	recommended for the Mag Dolly is MLAY1000x3
H= (in/mm)	60.6/1539	36.1/917	(pt # 8100403).
W= (in/mm)	9.2/234	13.5/343	3000lb hold force on page 15.
D= (in/mm)	8.0/203	71.9/1826	on page 10.
Wt=(lbs/kg)	21.2/9.6	20.8/9.4	

Magswitch offers two tools for large sheet handling, the Sheet Handler and the Mag Dolly. The Sheet Handler enables you to pivot and lift sheet up and onto a wheel so it can be dragged or moved. This is a perfect tool if you need to lift and slide one sheet over another. The Mag Dolly (#8100433) has large solid rubber wheels and can

> move larger sheets. The Mag Dolly is more suited to lift and carry sheet, pipe or any steel object over a greater distance.



8100361





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Save time by using on off magnets and wheels to move sheet.

Sheet Handler doubles as sheet leveler. See above.

Mag Dolly lifts flat or round shaped steel.

Mag-Utility Hooks



Save time by keeping parts or tools within reach.

Specs	Mag-Utility Hook 25	Mag-Utility Hook 40
Part #	8100012	8100006
Hold (lbs/kg) on thick steel	25/11	40/18
H= (in/mm)	3.5/89	4.0/103
W= (in/mm)	1.6/40	2.7/69
D= (in/mm)	1.8/47	2.7/69
Wt=(lbs/kg)	0.4/0.2	1.8/0.8

The perfect "helping hand." Magswitch Mag-Utility Hooks let you hang tools, lights, support wires, air hoses, ground lines and more, right where you need them, quickly and easily. Ideal for keeping hoses and lines off the floor for a safer work environment. Mag-Utility Hooks are convenient and easily move from job to job.



Attaches to flat or round surfaces.



Hang tools, nuts or bolts near your work area.



Safety: keep your job site or shop clear of trip hazards.



Eliminate trip hazards. Use Mag-Utility Hooks to keep lines and hoses off the floor.

Every Magswitch product is proudly designed, tested, manufactured and distributed by the Magswitch group of companies.

All Magswitch products are manufactured to ISO 9001:2008 standards.

Heavy Lifters

The introduction of Magswitch technology is making magnetic lifters a mainstream tool when working with steel. The convenience of magnetic lifting and strength in permanent magnets arising from the discovery of rare earth magnetic material has opened the door for more applications. Permanent magnets are now employed to lift heavy steel where previously only trusted to hooks or straps. In these advancements, Magswitch Technology takes the capabilities and safer use of magnetic lifting to a whole new level of safety and strength.

With a full range of shallow field and deep field lifting magnets, Magswitch lifters will forever change the way you buy a heavy lifting magnet. Capitalizing on the technology breakthroughs of Magswitch, our lifters offer substantial advantages in strength, size, control and features over old technology lifters. This translates to safer lifting for your team. When you consider the substantial convenience of using a magnetic lifter instead of hooks and slings, magnetic lifters offer tremendous efficiency in steel handling. When using magnetic lifters, safety is paramount. Don't settle for cheap, old technology lifters — with Magswitch, you will get the right lifter.



Magswitch heavy lifting magnets.



Technology Advantages:



Magswitch lifters exert full hold force on thin steel. @safety

- » The majority of steel lifted is less than 1" inch thick.
- » Old technology lifters hold far less on thinner steel.
- » Our shallow field MLAY600 series exerts full hold force at only 1/2".
- » Our deep field MLAY1000 exerts full hold force at only 3/4" inch.
- » Don't buy a lifter based on max hold weight buy the lifter that is right for the steel you lift.

Better hold on uneven, dirty steel or on round shapes. @safety

- » Magswitch lifters feature a more concentrated flux field. This translates to a safer hold when lifting these types of materials.
- » Safety is paramount buy Magswitch for a stronger hold.

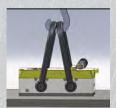
Magswitch Lifters are easier to turn on. @safety

» No ergonomic nightmares turning on a Magswitch lifter. A huge application advantage, especially on the larger lifters where old technology lifters are virtually impossible to turn on, on steel 1" inch thick or less.

Magswitch lifters are lighter and thus easier and safer to handle.

World's first! Magswitch technology enables full field saturation at 1.25"/30mm on our one ton and two ton lifters.

Feature Advantages:



Dual hook: load stability @safety (Patent Pending - App #61/665,611 USA).

» Use both hooks for safer lifts as the force of the lift exerts a stabilizing force on the magnet and reduces dangerous swings in the load.



Single hook: lift from horizontal to vertical.

» Use one swivel hook when lifting from flat to vertical.



Lock on, lock off handle @safety

» Better safety.

Replaceable pole shoes.

» The bottom takes the beating - but is important to keep smooth for safe lifting. Periodically replace the pole shoes to extend the life of the lifter.

How to select the right Magswitch lifter.

Choosing the right lifter is very important for safer lifting. NEVER select lifters based only on "max lift rating". There are other critical factors in the decision. The old technology lifters market this way (max lift), but lift ratings drop off dramatically on thinner steel - which is most of the steel you handle. ALWAYS select lifters based on what you are lifting.

Important considerations when choosing a lifter:

What is the thickness of the piece I am lifting? If $\frac{1}{2}$ " or less – you need a shallow field Tool. The MLAY 600 series is designed specifically for half inch material from 200 lbs to 800 lbs in one stability improved unit.

What is the weight of the piece I am lifting?

What is the dimension of the piece I am lifting? If round or odd shaped - The MLAY 1000 series is our deep field unit and is the better choice. Designed for coated steel, rough surfaces and round stock.

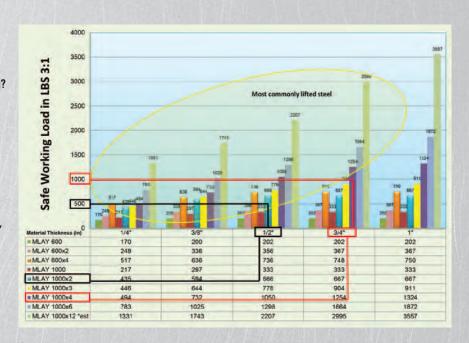
What is the type of steel I am lifting? If a porous or dirty material - consider the MLAY1000 for deeper field hold.

Do I need remote on/off control - for example, lowering a piece on a cutting table? Consider the cordless electric heavy lifter (Part #8100387).

For assistance selecting the appropriate lifter, fill out the form at the link below: http://tinyurl.com/a8b8266

Magswitch delivers safety. @safety

When using magnetic lifters, always play it safe. Saving a few dollars on a magnetic lifter is not worth the risk. Safety comes first. When you look at the grid below, look at the rated safe lift capabilities of each magnet and note the magnets that qualify for the job. Then consider your answers to the selection criteria and adjust your choice to select the ideal lifter. Always keep in mind how old technology lifters drop off significantly from max hold force on thinner material. Don't buy a lifting magnet based only on "max" hold, and then find out it doesn't hold as expected on thinner material.



	Part #	Product Description	Safe Working Load 3:1	Full Saturation Breakaway (in LBS.)	THIN STEEL Safe Working Load on 1/4" 3:1
Field	8100089	Magswitch MLAY600 Lifting Magnet	200 lb/90 kg	600 lb/272 kg	170 lb/77 kg
Shallow	8100360	Magswitch MLAY600x2 Lifting Magnet	367 lb/167 kg	1,100 lb/500 kg	248 lb/112 kg
Sha	8100364	Magswitch MLAY600x4 lifting Magnet	762 lb/346 kg	2,285 lb/1,036 kg	517 lb/234 kg
)	8100088	Magswitch MLAY1000 Lifting Magnet	333 lb/151 kg	1,000 lb/454 kg	205 lb/95 kg
	8100484	Magswitch MLAY1000x2 Lifting Magnet	667 lb/303 kg	2,000 lb/907 kg	425 lb/196 kg
흥	8100403	Magswitch MLAY1000x3 Lifting Magnet	911 lb/414 kg	2,733 lb/1,242 kg	446 lb/202 kg
Deep Field	8100418	Magswitch MLAY1000x4 Lifting Magnet	1,300 lb/591 kg	3,900 lb/1,773 kg	494 lb/224 kg
a	8100482	Magswitch MLAY1000x6 Lifting Magnet	2,149 lb/977 kg	6,446 lb/2,930 kg	700 lb/317 kg
	8100549	Magswitch MLAY1000x12 Lifting Magnet	4,000 lb/1,850 kg	12,000 lb/6,000 kg	1,331 lb/604 kg*
	8100387	Magswitch E50-900/660 CE Lifting Magnet	600 lb/272 kg	1,800 lb/816 kg	380 lb/172 kg



New heavy lifters training video

Scan link or go to http:// youtu.be/mzEsunXqe7c



Heavy lifters in-use video

Scan link or go to http:// youtu.be/GHWQAIBTqzA Chart values represent data collected using SAE 1020 steel only. Please consult your distributor for information regarding factors for other materials. de-rating *Estimated. **Note: no information contained herein may take precedence over ASME B30.20 standard.

MLAY600 Lifting Magnets (x1 and x2)



Lightweight, small profile and strong lift.



Ideal for small to medium lifting.

Features full swivel hook.



The Magswitch MLAY600 series magnets are perfect for small materials and light to medium lifting. These lifters are lightweight and have a small profile, and feature our full swivel hook for lifting



Scan link or go to http://youtu.be/KF7qRD64aYw

from the top or the side. Each features a locking handle to ensure release of load is only intentional. The MLAY600x2 has the option to order a custom shoe that mounts underneath for handling of customized shapes. Manual on/off operation.

With full field saturation (hold force) at 1/2" (12mm) these lifters are ideal for thinner steel, but hold thick steel just as well.

MLAY600 Lifting Magnet (x4)



Safety: patented dual hook for added load stability.



Use the single hook to lift horizontal to vertical.

Specs	MLAY600x4 Lifting Magnet
Part #	8100364
Max. SWL 3:1 lift capacity (lbs/kgs)	762/346
Minimum de-stack thickness	Shallow 1/2"/12.7mm
H= (in/mm)	6.5/166.47
W= (in/mm)	8.9/226
D= (in/mm)	9.2/234
Wt=(lbs/kg)	17.9/8.1

The MLAY600x4 is lightweight yet very strong. This lifter features our patented dual hook for load stability, and single hook for lifting horizontal to vertical. With full field saturation (hold force) at 1/2"

(12mm) this lifter is ideal for thinner steel, but will hold thick steel just as well.



Scan link or go to http:// youtu.be/KF7qRD64aYw

MLAY1000 Lifting Magnets (x1 and x2)



Specs	MLAY1000 Lifting Magnet	MLAY1000x2 Lifting Magnet
Part #	8100088	8100484
Max. SWL 3:1 lift capacity (lbs/kgs)	333/151	667/302
Minimum de-stack thickness	Deep 3/4"/19.05mm	Deep 3/4"/19.05mm
H= (in/mm)	9.9/253	10.6/269
W= (in/mm)	5.7/147	7.6/193
D= (in/mm)	2.8/72	23.2/10.5
Wt=(lbs/kg)	11.5/5.2	23.8/10.8

For heavy lifting, the MLAY1000 series lifters attain full hold on 1 inch (25mm) thick steel. These Lifters feature our full swivel hook for lifting from the top or the side. Each is manual on/off. Each features a lock for on and off position for added safety.



Scan link or go to http:// youtu.be/KF7qRD64aYw

TThe MLAY1000x2 features a replaceable pole shoe, ideal for customizing to fit your application. With full field saturation (hold force) at 1" (25mm) this lifter is ideal for porous material and thick steel.

MLAY1000 Lifting Magnets (x3, x4, x6 and x12)



Safety: patented dual hook for added load stability.



Includes replaceable pole shoe to extend the life of the lifter.

Use single hook to lift between horizontal to vertical.

Specs	MLAY1000x3 Lifting Magnet	MLAY1000x4 Lifting Magnet	MLAY1000x6 Lifting Magnet	MLAY1000x12 Lifting Magnet
Part #	8100403	8100418	8100482	8100549
Max. SWL 3:1 lift capacity (lbs/kgs	911/414	1300/591	2149/977	4000/1818*
Minimum de-stack thickness	Deep 3/4"/19.05mm	Deep 3/4"/19.05mm	Deep 1"/25.4mm	Deep 1.25"/31.8mm
H= (in/mm)	10.4/265	9.8/250.79	9.5/242.52	10/254*
W= (in/mm)	10.2/260	10.2/260	10.2/260	14/358*
D= (in/mm)	10.7/272	13.8/350	20.1/510	19.5/492*
Wt=(lbs/kg)	36.5/16.6	45.2/20.5	60.3/27.4	120/55*

^{*}Estimated Values

For heavy lifting the MLAY1000 series lifters attain full hold on 1 inch (25mm) thick steel. These lifters are lightweight and easy to turn on versus old technology lifters which are difficult to activate



Scan link or go to http:// youtu.be/KF7qRD64aYw

on thick steel. For example the MLAY1000 x4 and x6 can easily be activated on 1/2" (12mm) thick steel. What this means to you is that Magswitch enables you to use powerful lifters on thinner steel. These lifters features our patented dual hook for load stability, and single hook for lift between horizontal to vertical. With full field saturation (hold force) at 1" (25mm) these lifters are ideal for porous material and thick steel.

E50 - 900/660 CE with Remote Control



World's first cordless electric heavy lifter.



Large remote helps prevent misplacement.

Comes with two 12 volt batteries and charger.



Remote on/off operation.



Safety and convenience: one operator remote lifting from a safer distance.

ı	Specs	Magswitch E50 – 900/660 CE with Remote Control
	Part #	8100387
	Max. SWL 3:1 lift capacity (lbs/kgs)	600/272
	Minimum de-stack thickness	Shallow ½"/12.7mm
	H= (in/mm)	13.0/330
	W= (in/mm)	4.0/102
	D= (in/mm)	9.2/235
	Wt=(lbs/kg)	19.4/8.8

Magswitch introduces the world's first cordless electric heavy lifter. The ideal lifter for transporting steel in hard to reach places such as narrow beams where manual on/off lifters are hard to turn on, or places where using a manual lifter are unsafe such as steel located high up on racks or steel sheet being placed on a cutting or burn table. The Magswitch cordless electric lifter offers unprecedented convenience and safety for your employees. One operator can work alone and control the lifter from a safer distance.

Features remote control operation for single operator efficiency. No lifter has ever been this easy and offers this level of safety. The remote control features allow the operator to turn on and off the magnet from a safer distance. No need for time consuming set ups, in fact the operator doesn't even need to do anything but lower the lifter on to the target and turn on the lifter magnet with his remote control. This cordless electric lifter achieves full hold on 1/2" (12.7mm) steel.



- Safety: load sensor prevents accidental release while under load.
- Safety: warning light flashes on top of unit to give a 3 second warning to when the load is about to release.
- Safety: Holds load even if battery loses charge.
- Safety: Lifter magnet will not turn on unless on a sufficient steel target.
- Safety: intelligent sequencing to prevent accidental off.
- On / off permanent magnet NOT AN ELECTROMAGNET.
- Magnet "ON" indicator light on lifter.
- Battery charge indicator on lifter blinks when battery needs recharge.
- Comes with two 12 volt rechargeable Lithium-ion batteries and a charger, so you always have a spare charged battery on hand.
- Battery offers up to 750 actuations per charge.
- Lifts flat and pipe.
- Manual on/off override feature, if battery loses charge.
- Compact fits in narrow beams.



Scan link or go to http://youtu.be/WJFsNGaHnfg

MagJig Fixturing

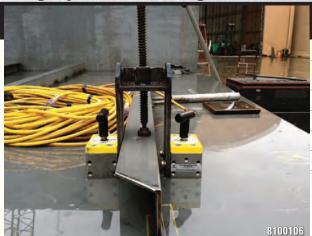


Ideal for securing fixtures to a table.

Sį	pecs	MagJig 95	MagJig 150	MagJig 235	MagJig 60 Keychain
Pa	art #	8110004	8110005	8100377	8100514
	Hold (lbs/kg) n thick steel	*Maximum hold 95/43	l force on 1/4 inc 150/68	h (6mm) thick ste 235/106	eel. 60/27
H:	= (in/mm)	1.9/47	2.1/52	3.1/78	1.75/44.6
W	/= (in/mm)	2.3/57	2.6/67	3.5/88	1.55/39.4
D:	= (in/mm)	1.4/34	1.7/44	2.4/60	1.00/25.4
W	/t=(lbs/kg)	0.4/0.2	0.6/0.20	1.0/0.45	0.2/0.1

MagJigs are ideal for downward pressure clamping. All MagJigs come with a 3/4" standoff for flush mount. Simply drill a hole in the fixturing material and place the clamp in. The MagJigs come with screw holes so you can secure the jig in the fixture. We recommend at least two MagJigs per fixture to minimize slippage.

MagSquare Fixturing



For more examples of fixturing with Magswitch visit our website at www.magswitch.com.au.

Specs	MagSquare 150	MagSquare 400	MagSquare 600	MagSquare 1000
Part #	8100054	8100238	8100106	8100099
Hold (lbs/kg) on thick steel	150/68	400/181	600/272	1000/454
H= (in/mm)	2.6/65	3.5/90	4.2/106	5.7/147
W= (in/mm)	1.6/40	1.6/41	2/52	2.8/72
D= (in/mm)	1.6/40	2.5/64	2.9/75	4.2/108
Wt=(lbs/kg)	0.6/.27	2/0.91	3/1.36	7.4/3.36

MagSquares are the ultimate fixturing tool. Incredibly flexible with mounting capabilities on 4 sides. Just a simple 180 degree turn of the knob and you are set up. Use stand alone, or mount fixturing aides to sides. Great for supporting guides and walls. Magnetic hold on 5 sides. Use non-ferrous materials in fixture attachments.

Top Mount Tools Fixturing



Locking lever. 90° actuation. 235 lbs (106 kg) hold force.

Specs	MagMount 150	MagMount 235	MagMount 400	MagMount 600	MagMount 235x2 SP	MagMount 150x2 RFP
Part #	8100579	8100451	8100523	8100580	8100374	8100104
Hold (lbs/kg) on thick steel	150/68	235/106	400/182	600/272	470/214	300/136
H= (in/mm)	1.3/32	3.8/98	2.6/65	2.8/72	2.4/60	2.5/64
W= (in/mm)	1.6/42	2.7/68	2.5/64	3.9/100	10/257	9.2/234
D= (in/mm)	2.0/51	1.7/44	1.6/41	2.5/64	2.6/67	2.0/50
Wt=(lbs/kg)	0.8/0.4	1.2/0.5	1.2/0.5	3.3/1.5	2.9/1.3	2.0/0.9

Single lever operation and available in two sizes depending on your needs. The rail magnets come in two sizes. The top mount magnets feature two magnets and a bar and are ideal for supporting fixtures over a distance. The fixed bar magnet is for flat steel, the swivel bar magnet is for round or uneven shapes.

MagWheel - Roller Guide



MagWheel provides all the features of a standard Magswitch on the move.



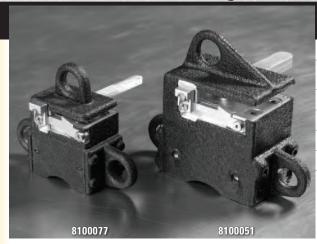
MagWheel illustrated on a Bug-0® automated welder.

Specs	MagWheel 95	MagWheel 150	MagWheel 600	MagWheel 1000
Part #	8100401	8100074	8100075	8100250
Size	0.78"/20mm	1.2"/30mm	2"/50mm	2.75"/70mm
Breakaway Force	38.5lbs/17.5kg	65lbs/29.5kg	292lbs/133kg	528lbs/239.5kg
Unit Weight	0.66lbs/0.3kg	2.2lbs/1kg	6.6lbs/3kg	20lbs/9kg

The Magswitch MagWheel offers powerful connection for drive units on any ferrous surface enabling flat, vertical or inverse travel. Applications include positioning and guiding, sheet feeding, pipe handling, fitting and fabrication and numerous OEM automation and fixturing applications. MagWheel can be fitted with drive units for mobile applications. MagWheel results in efficiency, new applications and productive solutions.

Underneath the patented MagWheel design is the highly functional AR Housing. Through clever innovation of the original Magswitch, the MagWheel provides all the features of a standard Magswitch on the move. The magnetic flux path through the wheels means climbing, carrying, and driving anywhere above or below a ferrous surface is now a reliable, fail-safe reality.

Marine Products – MagTethers



Mounts to flat or curved surfaces.





Nothing like bouncing around or fighting currents when doing tough work underwater. Tether securely and easily with Magswitch Marine Tethers.

Tethers personnel or gear.

Specs	MagTether 300	MagTether 600	MagTether 1000	
Part #	8100111	8100077	8100051	
Hold (lbs/kg) on thick steel	240/108	600/272	1000/455	
H= (in/mm)	5.2/131	7.2/184	10.0/253	
W= (in/mm)	2.0/50	2.0/50	2.8/71	
D= (in/mm)	4.2/106	4.2/106	7.5/190	
Wt=(lbs/kg)	2.2/1.0	4.0/1.8	10.0/4.5	

Ideal for underwater welding and tethering.

Magswitch Marine Tethers provide fast super strong switchable magnets that allow above and below water operators to fasten themselves or their equipment while working on steel hull ships or structures with an easy 180° turn of a lever. Underwater repairs and inspection can be difficult work trying to maintain position. Magswitch Tethers solve this challenge with quick connect disconnect, strong hold. Ideal for use in military and commercial applications including oil and gas. Tethers include marine grade corrosive resistant coating and are equipped with positive locks.

NOT FOR USE AS A PERSONNEL SAFETY DEVICE

Magswitch Industrial Solutions

Magswitch MIS tools bring the power and versatility of the Magswitch technology to the automation world. The advantages provided by this technology offer significant new capabilities and tremendous cost savings in steel fabrication and handling. With unprecedented control and scalability of on off permanent magnets, combined with our patented new switching technique; Manufactures, integrators and engineers are finding clever new solutions every day while generating millions in costs savings using Magswitch Automation Tools.

Each tool in the MIS line is powerful, yet lightweight and compact to fit on end of arm tooling. These tools offer new capabilities in applications where magnets were not previously applied. Common uses of these tools include large-heavy material handling, pick and place, clamping, and ergo lifting. All this is in addition to standard end of arm material handling/gripper applications which are replacing costly vacuum cups and traditional pin clamps that are encumbered with high maintenance and breakage.

The MIS line is made of several ranges of tools offering unique capabilities. No matter the task at hand, Magswitch has a solution. Each range is defined by the optimal use of the tool and is explained further on the subsequent pages. If you handle or fabricate steel using automation, you will find solutions and savings with Magswitch you never knew were possible.

Companies like Chrysler, Ford, Bobcat and Caterpillar are now using Magswitch pneumatic tools in their plants. Six additional automotive companies are in the process of establishing Magswitch for integration. Join these companies and take advantage of the prodded by Magswitch Industrial Solutions.

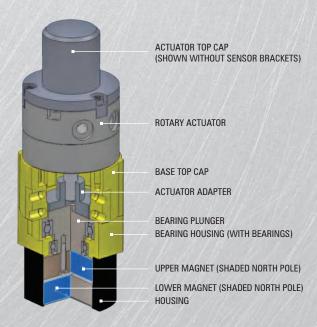


AR-Series:

Shown here is an AR110 with customized pole shoes to allow the magnet to pick up pipes from an end. Removable pole shoes allowing for extreme versatility and handling on 3 sides including irregular shapes. See page 20 for full description.

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MAGSWITCH CUTAWAY - OFF POSITION



ME-Series P22 Accessories P23

M–Series





This tool utilizes 3 M4040 magnets to change wheel hub dies in a press. Compact with a powerful deep field to hold strong on flat surfaces.

Part #	Description	Suggested MAX Safe Working Load	Optimal Material Thickness	Unit Weight
8140440	M15 MDC	13.8lbs/6.2kg	11ga/3mm	0.2lbs/0.1kg
8140485	M20 HDC	17.5lbs/8.0kg	11ga/3mm	0.4lbs/0.2kg
8140477	M30 HDC	34lbs/15.5kg	10ga/3.5mm	0.9lbs/0.4kg
8140478	M4020 HDC HT	49lbs/22.2kg	1/4"/6.35mm	1.8lbs/0.8kg
8140389	M4040 HDC	112lbs/50.9kg	3/8"/9.5mm	3.1lbs/1.4kg
8140343	M50 HDC	150lbs/68.2kg	1/2"/12.7mm	4.6lbs/2.1kg
8140170	M70 HDC	244lbs/110.9kg	1/2"/12.7mm	11.4lbs/5.2kg
8140171	M110 HDC	890lbs/404.5kg	1.5"/38.1mm	57.6lbs/26.2kg
8140475	M110 HDC HT	890lbs/404.5kg	1.5"/38.1mm	58.3lbs/26.5kg

Note: "MDC" = Medium Duty Cycle, "HDC" = High Duty Cycle "ME" = Pin Clamp, "HT" = High Torque

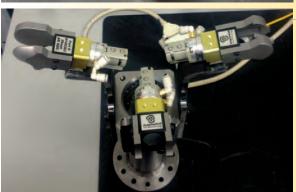
The "M" signifies the "M" housing shape. This housing is designed to optimize saturation of the target and is the best choice for maximum lifting strength on flat steel.



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AR-Series





This rotating robotic end effector utilizes AR tools with custom pole shoes to pick components from a stack of different pieces.

Part #	Description	Suggested MAX Safe Working Load	Optimal Material Thickness	Unit Weight
8140331	AR15 MDC	3.75lbs/1.7kg	12ga/2.7mm	0.22lbs/0.1kg
8140481	AR20 HDC	15.75lbs/7.2kg	11ga/3mm	0.4lbs/0.2kg
8140480	AR30 HDC	33.5lbs/15.2kg	10ga/3.5mm	0.88lbs/0.4kg
8140319	AR50 HDC	137lbs/62.1kg	3/8"/9.5mm	4.4lbs/2.0kg
8140320	AR70 HDC	244lbs/110.7kg	1/2"/12.7mm	10.6lbs/4.8kg
8140321	AR110 HDC	842lbs/382.7kg	1.5"/38.1mm	49.5lbs/22.5kg
8140474	AR110 HDC HT	842lbs/382.7kg	1.5"/38.1mm	56.8lbs/25.8kg

Note: "MDC" = Medium Duty Cycle, "HDC" = High Duty Cycle "HT" = High Torque

The "AR" signifies a rectangular housing with removable pole shoes. These tools are designed for irregular shaped surfaces, pipe, cylinders, etc. This tool is the best choice when no flat area exists on the target. With three possible work faces, the tools have tremendous flexibility for multiple end of arm applications.



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LAY-Series



An oil coolant shell and bundle is handled by a PLAY70x2 unit with customized pole shoes. Long and narrow for increased hold on long and round materials with ability to customize poles to match irregular shapes.

Part #	Description	Suggested MAX Safe Working Load	Optimal Material Thickness	Unit Weight
8100387	E50 900/660 CE	450lbs/204kg	1/2"/12.7mm	18.7lbs/8.5kg
8140405	PLAY50x2 MDC	275lbs/136kg	1/2"/12.7mm	10.6lbs/4.8kg
8140393	PLAY50x3 MDC	413lbs/187 kg	1/2"/12.7mm	18.3lbs/8.3kg
8140404	PLAY50x4 MDC	572lbs/272kg	1/2"/12.7mm	30lbs/13.6kg
8140391	PLAY70x2 MDC	530lbs/317kg	3/4"/19.05mm	36lbs/16.3kg
8140392	PLAY70x3 MDC	719lbs/375kg	3/4"/19.05mm	44.8lbs/20.3kg
8140417	PLAY70x4 MDC	975lbs/453kg	3/4"/19.05mm	53.6lbs/24.3kg

Note: "MDC" = Medium Duty Cycle, "CE" = Cordless Electric (w/Remote)
"P" = Pneumatic, "E" = Electric, "M" = Manual

The "LAY" signifies Linear Array; designed for applications where stability and power are important. Multiple magnetic fields ensure strong holding forces on thin material. LAY units are ideal for long cylinders, tubing, and rough surface finishes. Each unit has replaceable pole shoes for improved on-site serviceability.



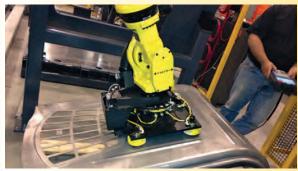
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Coming soon:

PLAY20x4

AY-Series





The roof of a skid steer is moved into position by 5 M15AY tools. Maximum performance on thin sheets and ideal for de-stack operations with a high shear hold capability.

Part #	Description	Suggested MAX Safe Working Load	Optimal Material Thickness	Unit Weight
8140543	M10AY ASC	13.25lbs/6.0kg	20ga/1mm	1.0lbs/0.45kg
8140550	M10AY JSC	13.25lbs/6.0kg	14ga/1.9mm	1.0lbs/0.45kg
8140447	M15AY ASC	40lbs/18.2kg	12ga/2.7mm	1.8lbs/0.8kg
8140332	M15AY JSC	47lbs/21.4kg	9ga/3.8mm	1.8lbs/0.8kg
8140263	M30AY ASC	131lbs/59.4kg	10ga/3.4mm	6.4lbs/2.9kg
8140176	M30AY JSC	175lbs/79kg	½"/6.35mm	6.4lbs/2.9kg

Note: "ASC" = Alternating Star Configuration, "JSC" = Jointed Star Configuration

The "AY" signifies Circular array; a highly technical tool series that allows maximum saturation (performance) on thin material. Array units offer the increased power of multiple Magswitches in a compact, single actuator package. These units are suited to sheet handling on the fly or in shear. This is a revolutionary automation tool that, for the first time, truly challenges suction systems while delivering fast pay back on the initial investment.

Units can be specified for deep field (JSC) or shallow field (ASC) operation.

See page 26 for a description of deep field vs shallow field.



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ME-Series (Pin Clamp Alternative)



Part #	Description	Suggested MAX Safe Working Load		Unit Weight
8140479 Pin Attachn	ME4020 HDC HT nent: Male	43lbs/19.5kg	1/4"/6.35mm	1.8lbs/0.8kg
8140500 Pin Attachn	ME3020 nent: Female	23lbs/10.5kg	10ga/2.5mm	1.1lbs/0.5kg

Note: "HDC" = High Duty Cycle, "HT" = High Torque



ME3020 Pin Clamps with pins

Utilizing the strength of the "M" housing and the ability to clamp single skin sheet steel, the Magswitch pin clamp is revolutionizing a difficult application. Oversaturation achieves a unique clamping feature that reduces the need for mechanical clamps in welding jigs and automated fabrication. Pin shape can be customized to fit your application.

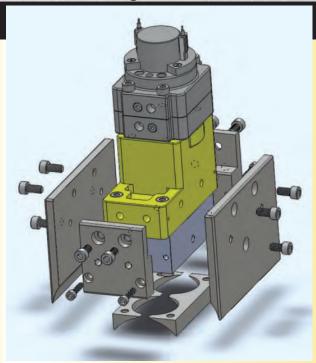
Coming soon:

Smaller 20mm pin clamp and NAAMS mounting solutions.



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Custom Design – Machined Components



Magswitch offers custom machined components to help you apply tools in your application.

If a custom pole shoe is required for your application, Magswitch can provide design assistance to facilitate drawing generation. Don't hesitate to run your pole ideas past our engineers. Custom accessory and fixture machining is also offered at competitive rates.

Send your designs to Magswitch for a free quotation.

Magswitch Technology Worldwide 8774 Yates Drive, Suite 140 Westminster, Colorado 80031

Ph: 303-468-0662 Fax: 303-951-9918

Email: info@magswitch.com.au

Mounting Accessories

Ball Mounts Ball mounts for M/ME/AR/AY units



Magswitch Part Number	Description: Ball Mounts
8800102	M15AY Raised Ball Mount (28.5mm ball)
8800103	M/AR 15 Ball Mount (28.5mm ball)
8800104	M/ME/AR 20 Ball Mount (28.5mm ball)
8800105	M//ME/AR 30 Ball Mount (28.5mm ball)
8800106	M/ME/AR 40 Ball Mount (28.5mm ball)

Each ball mount has a 28.5mm steel ball which can mount to many existing EOAT mounting arms, easily replacing existing tools on a fixture such as suction cups.

Vertical Mounts Vertical Mounts for M/ME/AR/AY units



Magswitch Part Number	Description: Vertical Mounts
8800107	M15AY Vertical Mount
8800108	M/AR 15 Vertical Mount
8800109	M/ME/AR 20 Vertical Mount
8800110	M/ME/AR 30 Vertical Mount
8800112	M/ME/AR 40 Vertical Mount
8800121	Spring Compensator

Vertical mounts include a thread adapter from M10x1.5 to G3/8 pipe thread. This may be used to easily replace suction systems currently in use, or can be removed and directly mounted via the M10 threaded hole.

Pole Shoes Stock replacement shoes for AR and LAY units



These shoes are stock replacements for the Magswitch AR and LAY tools. For custom shoes, please inquire with your distributor or direct to Magswitch.

Magswitch Part Number	Description: Replacement Pole Shoes and Fasteners for AR and LAY units
8800068	AR15 Combo Flat/Pipe Pole Shoe Std
8800069	AR20 Combo Flat/Pipe Pole Shoe Std
8800070	AR30 Combo Flat/Pipe Pole Shoe Std
8800071	AR50 Combo Flat/Pipe Pole Shoe Std
8800072	AR70 Combo Flat/Pipe Pole Shoe Std
8800073	AR110 Combo Flat/Pipe Pole Shoe Std
8800074	LAY50x2 Std Pole Shoe
8800075	LAY50x3 Std Pole Shoe
8800076	LAY50x4 Std Pole Shoe
8800077	LAY70x2 Std Pole Shoe
8800078	LAY70x3 Std Pole Shoe
8800079	LAY70x4 Std Pole Shoe
8800080	LAY70x6 Std Pole Shoe
	Z II 7 OX I OX I OX I OX I

Even More Accessories and Custom Accessories Coming Soon. Class A Surface Protection, Custom Pole Design, Custom Pin Design and Custom Guarding (MagArmor).

Sensors

Magswitch tools accept sensors for actuation detection, improving reliability and safety of your automated systems. The table below lists the sensor kits available for each product.

Lead wire length symbols = Length of wire = Example: D-M9PWL for 3 meter wire.	nil	L	Z
	.5m	3m	5m
With pre wired connectors symbol = Length of wire = Type of connector symbol =	S	M	L
	.5m	1m	3m
	A	B	D
	M8-3pin	M8-4pin	m12-4pin

Example: D-M9PWSAPC (PC is a default) for a .5m wire with a M8-3pin pre wired connector

Sensor Table:

Applicable Size	Туре	Electrical Entry	Indicator Light	Wiring (Output)	Load Voltage DC	Auto Switch Model Number	Lead \ 0.5	Nire Le 3	ength 5
AR/M/ME/AY 10,15,20,30,40	Solid State	Grommet	Yes	3-Wire PNP 3-Wire NPN	24,12, 5	D-M9PW D-M9NW	Y Y	Y	NA NA
AR & M 50,70,110,200	Solid State	Grommet	Yes (2 Color)	3-Wire PNP 3-Wire NPN	24,12, 5	D-M9PW* D-M9NW*	Υ	Υ	NA
AY 30 / LAY 50, 70	Solid State	Grommet	Yes	3-Wire PNP 3-Wire NPN	24,12, 5	D-S7P1 & D-S7P2 D-S791 & D-S792	Υ	Υ	NA

^{*}Requires bracket # SL-DSM-B

Super Heavy Lifters

Featuring wireless controls and cordless, hook-and-go units with capacity up to 20,000 Lbs - 9090 kg. Max Safe Load (3:1 ASME)

For designed solutions, contact: info@magswitch.com.au

Custom Applications/Machining

Magswitch provides support for designers looking to solve their challenging problems with the Magswitch Solution. Ask your knowledgeable sales representative for advice on fixture, pole shoe, guarding, and multiple magnet designs.

Many of the components you need to expand the usability of the Magswitch to fit your individual application can be fabricated by Magswitch for a fraction of the cost of a machine shop. Simply provide the drawing and request a quote.

No two projects are ever the same. So give your application the attention it deserves. Magswitch prides itself on having one of the most knowledgeable distribution networks and a team of engineers to handle any application presented. It is highly recommended that you contact your local distributor for application assistance on every project. There are many factors which determine the performance of a magnet and all should be accounted for before selecting your tool.

To help our team quickly and efficiently determine a solution, please take the time to fill out an inquiry form that can be found on the web at: http://tinyurl.com/av345o6

Once you have completed the form, please send it to your local distributor contact located on the back of this catalog, or send it to: misinfona@magswitch.com.au for North American contacts, and misinfogl@magswitch.com.au for all other countries.





Magswitch's class of super heavy lifters are available in linear and circular arrays. Available in pneumatic actuation and capable of lifting tens of tons.



Scan link or go to http:// youtu.be/H80LH1vWpwU



Shallow Field Vs Deep Field



M15AY ASC and JSC Field Line Comparison

Magswitch Field Depth

Magswitch Technology's product line offers two distinct magnetic field configurations, Deep or Shallow, Field depth is an important consideration when selecting a magnet for your application. Field depth is controlled by magnet size and multiple magnet configurations, proprietary features of Magswitch Technology. The thickness of ferrous material needed to absorb all magnetic flux from the magnet determines field depth. Insufficient thickness will cause oversaturation, which reduces the strength of the magnet when lifting the target. Oversaturation will also provide a strong magnetic field in the air below the target material. This may result in the gripper trying to lift or attach any adjoining component to the target material. When assessing saturation, any surface blemish, paint, rust, or irregularity will create an "air gap". Where an air gap exists, a magnet with a deeper Field will perform better. All Magswitch tools show the optimum field depth to aide in selecting the correct gripper for your application. As always, be sure to thoroughly test all applications and when possible consult your distributor or Magswitch representative directly.

Deep Field

Deep field units will work best on thicker materials and material that has an air gap such as uneven or rough surface, dirt, rust, debris, paint, or any other surface imperfection which prevents the magnet from making full contact with ferrous steel. Deep field magnets can achieve full saturation on imperfect targets where shallow field cannot.

Shallow Field

Shallow field units will work best on thinner materials. Smaller magnets and interacting magnetic arrays create a shallow field that achieves full saturation on thin workpieces. These units are optimal for sheet metal and stamped parts that have a flat picking surface large enough for the entire unit. Shallow field allows accurate de-stacking of thin material.

Due to the scalability of the technology, shallow field configurations may be specified on any thickness material to optimize your cost/performance ratio.

Field Depth by Size:

The number in similar unit descriptions will indicate field depth. Larger number=Deeper field. E.g. M110>M70>M50

Field Depth by Magnet Configuration:

Deep Field = (N-S) (S-N) (N-S) Jointed Star Common poles should face each other. This is the case with our LAY and AY JSC series. Read the operation and design guidelines for more information on proper pole alignment and connectivity.



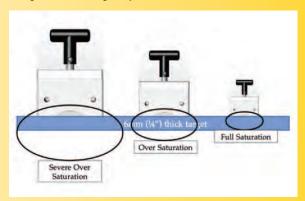
Shallow Field = (N-S) (N-S)**Alternating Star**

Dissimilar poles should face each other. This is the case with our AY ASC series which is specifically designed to hold better on thinner sheets. Field Depth is represented in the charts for each series by the Optimal Material Thickness Column.

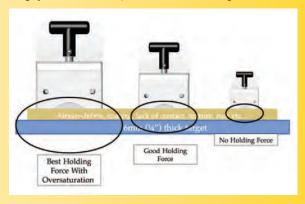


Field Depth (6mm (1/4") thick target)

Factors include total height and diameter of the housing (magnets). Housing shape is a lesser factor as well.



Airgap Performance (6mm (1/4") thick target)





See this principle demonstrated here!

Scan link or go to http:// youtu.be/gLEEu0jFL3w

SHIPBUILDING TOOLS

Changing The Way Ships Are Built.



Join the fast growing list of major shipbuilders who are using Magswitch.

Benefits:

- » Faster fit ups
- » Creative new applications
- » Safer material handling



New tools that solve old issues.



Safety

Why Magswitch for shipbuilders?

If you are buying and fabricating steel only to be consumed in the fit up process, you likely won't have to do that anymore. The time you spend welding temporary supports, just to break them and grind them off, and then inspect the metal, well that time can be substantially eliminated in large and small applications.

We all know that time is money and that delays at the back end of shipbuilding are inevitable. We are dedicated to helping you cut time on the front end.

Let us show you how.

Shipbuilders are realizing the benefits of these tools:



Stiffener Alianment **Tool Accessory** Part # 8100554

Requires: MLAY1000x2 Magswitch.



Heavy Sheet Leveler Accessory Part # 8100540

Requires: MLAY1000x3, MLAY1000x4 or MLAY1000x6 Magswitches.



Beam Press Accessory Part # 8100553

Requires: MLAY1000x4 or MLAY1000x6 Magswitches.

For technical and training information, visit: http://tinyurl.com/arbnt2d



Stiff Jack

(6,000 lbs/2,700kg holding force; steel frame)

Requires: Two MLAY 1000x3 Magswitches.

Also see these tools in this catalog:

90 Degree Angle 1000 See page 7 **Sheet Aligning and Handling Tools** See page 9

Multi Angle MagVise See page 4

Hand Lifter 60-CE (Cordless Electric) See page 8

Heavy Lifting Magnets

See page 15 Magsquares

See page 5

Magswitch Infrastructure Tools for Utility Companies and Cities

Magnetic Manhole Dolly and Valve Box Lifter.

In world of back-breaking hard work filled with Workman's Comp claims for back and finger injuries, Magswitch provides an affordable alternative that makes handling manhole covers easy and safer for your employees. A simple lightweight system utilizing a dolly and strong Magswitch magnet enables fast setup and quick removal of manhole and utility covers. When considering the cost of claims, cities can easily reduce these costs with the Magswitch system and provide a safer work environment for their employees.

With employees removing several valve boxes everyday, the Magswitch Valve Box Lifter provides unprecedented convenience and safety in removing the cover. No need to get down on your knees and pinch your fingers. Simply position the magnet over the valve lid and turn on with extended handle and remove.



The Magswitch Magnetic Manhole Lifter can radically reduce the chance of injury by lifting covers, the #1 workers comp claim. Plus, Insurance companies might offer discount rates to your customers, or help them with the purchase price, because it creates a safer work environment for employees!



No need to get down on **your knees and eliminates** pinching your fingers.



Magnetic Manhole Lifter Dolly



Specs	Mag Dolly	MLAY1000x3 Lifting Magnet	MLAY1000x Lifting Mag
Part #	8100433	8100403	8100418
Lift capacity on cast iron (lbs/kg)	NA	300/135	400/180
H= (in/mm)	36.1/917	10.0/254	10.0/254
W= (in/mm)	13.5/343	10.2/259	10.2/259
D= (in/mm)	71.9/1826	10.7/272	13.8/350
Wt=(lbs/kg)	20.8/9.4	35.7/16.2	44.6/20.2



voutu.be/X7S2nETEm7I

The Manhole Lifter Dolly can be used with either the MLAY1000x3 or MLAY1000x4 depending on the size of the manhole cover. For cast iron manhole covers, the MLAY1000x3 is ideal for covers that weigh up to 400 lbs. Anything heavier than 400 lbs., the MLAY1000x4 is reccommended.

Magnetic Valve Box Lifter



Specs	Extenda-Lift 600	Extenda-Lift 1000
Part #	8100025	8130177
Lift capacity on cast iron (lbs/kg)	100/45	140/65
H= (in/mm)	28.2/724	28.5/730
W= (in/mm)	2.7/68	4.2/107
D= (in/mm)	4.6/117	4.8/122
Wt=(lbs/kg)	5.3/2.4	9.8/4.4



Scan link or go to http:// youtu.be/IYLhy1Px030

Note that the Extenda-Lift 600 has a breakaway force of 600 lbs. on solid steel and 1000 lbs, for the Valvebox Lifter 1000. The lift capacity ratings are significantly reduced due to the porous cast iron material.

Magswitch Partners



Bug-O Systems www.bugo.com

280 Technology Drive Southpointe Industrial Park Canonsburg, PA 15317 Phone: 412-331-1776

Bug-O Welding Track Lighter, stronger, cleaner.

Bug-0 has capitalized Magswitch technology to revolutionize the ease of use in automated welding set ups. Magnets that were once heavy, always dirty, and that had to be adjusted into position with



the help of a hammer was the industry standard in automated track welding. Bug-O and Magswitch have changed this forever. Lighter yet stronger, Magswitch is making set ups simple and easy. Better yet, you will never waste time cleaning debris off magnets again. Magswitch has a range of mounting tools in our fixturing section of this catalog.

Bug-O MagWheel

Bug-0 is using Magswitch MagWheel technology to make small diameter pipe welding easier. MagWheel technology from Magswitch utilizes the same principles of the core technology-each wheel is a permanent magnetic pole with



both making the circuit, and the MagWheel is manually turned on and off. Lightweight, strong and they stay clean. MagWheel has many uses yet to be discovered in fabrication. Applications can range from automated welding, to sheet in feed or out feed, vibration stabilization, rating cylinders or pipe, or carrying equipment that inspects, cleans, grinds, welds, etc.



SOLO Magnetics

8045 Coronet Road N.W. Edmonton, Alberta, T6E 4N7 Canada Phone: +1 780-756-0575

MagYoke

The Magswitch MagYoke is a revolutionary patented ON-OFF switchable permanent magnetic Yoke which gives the user the ability to perform magnetic particle inspection without an electrical power source. It has all the advantage of a permanent Yoke system without the problems related to adhesion of metal particles. One turn of the actuation switch completely neutralizes the permanent magnet field allowing the users to remove the tool from the ferromagnetic material and clean the yoke with ease.

The MagYoke's magnetic field can be "turned on" after the pole legs have been placed on the metal to be tested, reducing the chance of a spark created by metal to metal contact.





Branik Consulting www.branik.net

958 West Lake Street Roselle, IL 60172 Phone: 630-893-1314

Prowler

The Prowler by Branik, is a device that features Magswitch MagWheel technology. The Prowler is a breakthrough in capability. It utilizes MagWheel to carry a payload vertically and inverted. It travels using the strength of MagWheel. It is controllable via direct or remote controlled power. The prowler brings important new capabilities in the area of mobile work in difficult areas, remote controlled inspection cleaning, monitoring and welding. The possibilities are substantial offering easier safer ways to get work done in difficult to reach areas.





magswitch WOODWORKING TOOLS

The Magswitch Workholding System

All your table top workholding needs in one complete system.

A workholding system built around Magswitch on/off magnetic clamps providing strong, precise placement anywhere on any steel table. Our award winning technology is a breakthrough for fast, easy, strong workholding on any steel table or fence. The system accommodates your workholding needs on all your power tool tables including table saws, joiners, planers, band saws and shapers.





Starter Kit It all starts here.

Add attachments for more versatility. Kit contains: Two 150 lb. grip Mag Jigs, Universal Base and Reversible Featherboard Attachment.

- » Fast easy set up
- » Precise tensioning
- » Anywhere on table





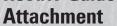
Vertical Featherboard

- » Safety award winner. Mitigate kickback.
- » Absolute must buy with Starter Kit.

Attachment @safety

- » Dual plane workholding.
- » Stack horizontal for tall panels.





- » Adjustable roller bearing for glide.
- » Angled in-feed/out-feed for blade drift.
- » Micro adjust to exact 90°.
- » Use on band saw or out-feed on table saw. » Great for hold on out-feed as well.





Dual Roller Attachment

- » Ideal for tall panel feed.
- » Glide rollers yet strong firm hold.
- » Adjustable roller bearings.



Thin Stock Hold Down Attachment @safety

- » Three tools in one.
- » Thin stock hold near blade.
- » Clean cuts with strong hold near blade.
- » Cut thin strips with roller guide.



18" & 36" Universal Track Attachment

- » Instant wall anywhere you need it.
- » Accepts standard hardware.
- » Accepts all standard T-bolts, 1/4". hex, 5/16" hex, and Kreg® clamps.





Add Extra Bases or MagJigs

» Use the MagJigs in your own fixtures.



"Magswitch is one of the most significant breakthroughs this decade"

- British Woodworking Magazine



Magswitch Technology



Magswitch is a mechanical device that turns a very powerful magnetic field on and off with a simple 180° turn of a knob. No electricity needed. Simple phase alignment of two magnetic discs in a steel housing. This breakthrough is patented world wide and is used many industries. The days of fighting magnets are forever over. For woodworkers, your hobby just became easier and faster - and a whole lot safer!

Magswitch Workholding System Order Guide

Item	Part Number	Sugg. Retail
Starter Kit (Base, 2 MagJig 150's, Reversible Featherboard)	8110134	\$74.99
*Vertical Featherboard Attachment	8110178	\$16.99
*Resaw Guide	8110125	\$22.99
*Dual Roller Guide	8110130	\$24.99
*Ultimate Thin Stock Jig / Rip Guide	8110362	\$19.99
*18" Universal Track Wall	8110132	\$29.99
*36" Universal Track Wall	8110370	\$59.99
Mounting Base	8110112	\$18.99
*36" Universal Track Wall	8110370	\$59.99

^{*} Must have Starter Kit or Mounting Base and two MagJigs to mount the attachment to.



Individual Featherboards

Featuring the benefits of Magswitch technology. The Universal, Pro Table and Pro Fence Featherboards are available to meet your specific needs. Pro Table Featherboard accommodates the Vertical Featherboard Attachment (Part #8110178)

ltem // // // // // // // // // // // // //	Part Number	Sugg. Retail
Universal Featherboard (two 95 lb. grip Magswitches)	8110015	\$44.95
Pro Table Featherboard (two 150 lb. grip Magswitches)	8110328	\$59.99
Pro Fence Featherboard (two 150 lb. grip Magswitches)	8110329	\$59.99



Pro Table Pro Fence

MagJig - On/Off Magnetic Clamp

Magswitch MagJigs are the ultimate workholding clamp. Nothing else like it – ever! Incredible hold force in a simple 180° turn! Unmatched speed, strength and precision in clamping. Magswitch MagJig magnetic clamps have revolutionized table top workholding. Use anywhere on a steel table. Simply drill holes into your 3/4" boards and use as many MagJigs as you like, depending on the hold force you require. Easily move from fixture to fixture.

Item // // // // // // // // // // // // //	Part Number	Sugg. Retail
MagJig 95	8110004	\$24.99
MagJig 150	8110005	\$34.99
MagJig 235	8100377	\$89.00
30mm Forstner Bit (For MagJig 95)	180098	\$6.99
40mm Forstner Bit (For MagJig 150)	180099	\$8.99



See demo on Workholding System.

Scan link or go to http://youtu.be/N13HkxyRsZc



Every Magswitch product is proudly designed, tested, manufactured and distributed by the Magswitch group of companies.

All Magswitch products are manufactured to ISO 9001:2008 standards.

Proudly distributed by:



Magswitch Technology Worldwide 8774 Yates Drive, Suite 140 Westminster, Colorado 80031 Ph: 303-468-0662

Fax: 303-468-0662

For more information contact your local distributor or info@magswitch.com.au



Why are Magswitch colors yellow?

In 2005, Magswitch decided to support a junior cycling team. With safety in mind, team jerseys were made yellow to make sure the riders can be easily seen on the roads. In 2007, when Magswitch created its image and colors for our tools, yellow was again the obvious choice given our commitment to safety with our tools all over the world. In this catalog, we launch our new safety logo and we do so in the spirit of our commitment to making your workplace safe.