



# OPERATION AND INSTRUCTION MANUAL ON/OFF MAGNETIC PIVOTING WELDING ANGLE

**MAG-MATE®**

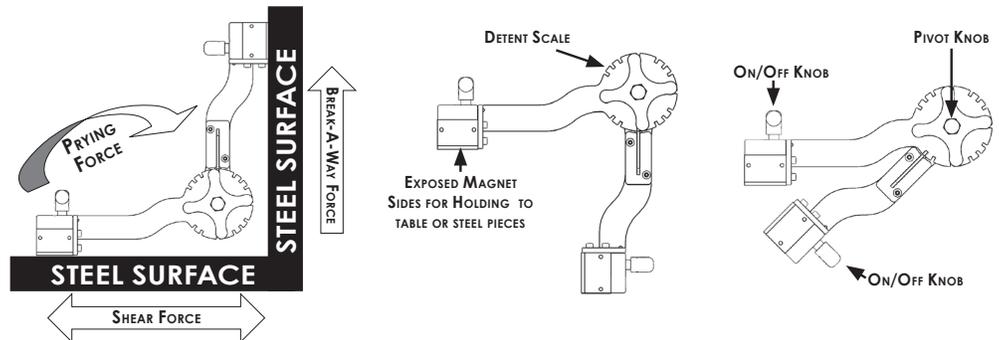
**TOLL FREE: 888.582.0822**

## TO USE THE PIVOT ANGLE

- Always **test the connection** before attempting to use the Magnetic Angle to ensure that it is capable of holding the material securely.
- **Numerous factors can negatively affect the strength** of the magnetic bond. Dirt, debris, oils and grease, painted surfaces and any gap between the Magnets and the metal surface will decrease the bond. **Ensure that the metal is clean** and free of these factors.
- **Thicker metals will be held more strongly than thinner metals.** E.g.: 1/4" (6mm) steel will be held more strongly than thin gauge metals.
- **Never exceed the rated capacity** of the device or attempt to alter the device in any way. Each Magnet has up to 150 lbs (68 kg) of Break-Away Force under ideal conditions. Tested in accordance with Magnet Distributors and Fabricators Association testing methods and represents a straight Break-Away pull. Actual in-use results will vary greatly and **user must test every bond to determine the suitability of the magnet** to hold the material.
- **Avoid sudden jerking or Shock force** as this will cause the Magnets to lose its hold.
- **This Magnetic Pivot Angle is not designed to be used as a welding ground clamp** or as part of an electrical circuit.
- For safe operation, the **bottom surface of the Magnet must always be Flat and Smooth.** If necessary, it is possible to sand the Magnet face smooth using 400 grit sandpaper and a flat surface. **Always file any burrs** that would interfere with full contact.
- **The sides of the magnets are exposed** and can be used to hold metal in position when welding. The holding force will be less than the bottom and the user must test this connection for suitability for their purpose.
- **Using the exposed sides of the magnets,** it is possible to hold the pivot angle to a steel table so that the metal being held to the pivot angle is also held in place on the table top.

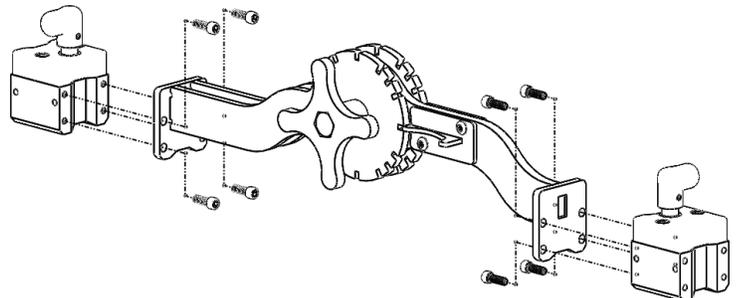
## PIVOT ANGLE OPERATION

- This Magnetic Pivot Angle is capable of **exceptional Break-Away force** holding power; these Magnets are exceptionally strong in **Shear Force** as well. **Prying force is the least powerful** of the holding capabilities and great care must be used when attempting to use this device with Pry force. **See Illustrations.**



## PIVOTING WELDING ANGLE APPLICATIONS

- » This Magnetic Pivot Angle is designed to hold your ferrous metals at any angle from 22° to 270° for great versatility when fabricating. It is perfectly suited to work-holding applications when you are holding any Ferromagnetic substance such as steel plate, angle iron, pipe, and rod and bar stock.
- » Pivot Angle is machined detents so that common angles can be quickly and precisely located and repeated. To Use, simply pull "T" handle, rotate to desired angle.
- » As with all precision devices, damage can occur from dropping, bumping and impact. Industrial Magnetics, Inc. recommends periodic inspection by the user to ensure that the Magnetic Pivot Angle is still accurate and fits their needs.
- » To use the Magnetic Pivot Angle, simply position the material, tighten the pivot knob and then turn the magnets' handles clockwise 180 degrees until they lock in place to the "ON" position. As you turn the handle, the magnetic grip increases allowing for accurate positioning until fully held in place.
- » Never turn the magnets "ON" when not in contact with metal. Sudden impact to the metal can occur causing personal injury or damage to the surfaces.
- » Always test the hold of the Magnets to ensure that it is sufficient to secure the material in place without slipping or falling.
- » When finished, push down and turn the Magnets handle counter clockwise 180 degrees to the "OFF" position, taking care that nothing will fall or become a hazard as the magnets will release their hold immediately.
- » When used for material holding for metals that are to be welded, be careful not to overheat the magnets. Temperatures above 180 degrees Fahrenheit internal will permanently degrade the magnetic power and holding strength. Industrial Magnetics, Inc. recommends a tack weld only to keep the heat transfer to a minimum. **Industrial Magnetics, Inc. recommends a minimum of 3 inches from the magnet to the weld point,** and that the magnet is removed immediately after the tack weld to reduce heat transfer.



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**TRAMP METAL**

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