POWER MIG® 350MP
THE PROFESSIONAL’S CHOICE℠

WIRE FEEDER/WELDERS

When you need more than just a MIG machine, the POWER MIG® 350MP is a 3 in 1 welder that delivers more welding processes — Excellent stick welding, TIG, MIG and flux-cored with advanced processes such as Power Mode℠ and Pulse-on-Pulse℠.

Processes »
MIG, Pulsed, Flux-Cored, Stick, TIG

Applications »
Metal Fabrication, Maintenance and Repair, Auto Body, Light Industrial

Output »

Input »

Product Numbers »
K2403-2 POWER MIG® 350MP
K4023-1 POWER MIG® 350MP
Aluminum One-Pak℠ for Trailer Manufacturing/General Fab
K4023-2 POWER MIG® 350MP
Aluminum One-Pak℠ for Auto Body Repair
FEATURES

- **Aluminum Pulse Process** - Welds 4XXX and 5XXX series aluminum for superior quality welding.
- **Multi-Process Capable** - Welds MIG, flux-cored, stick, TIG, pulsed MIG, and advanced processes like Pulse-On-Pulse® and Power Mode®.
- **Pulse-on-Pulse®** - Delivers a stacked dime appearance when welding aluminum.
- **Power Mode®** - Maintains a stable, smooth arc for short arc welding on steel. Improved penetration on thicker aluminum sections.
- **Synergic Control** - Set weld procedures with one control.
- **Rugged MAXTRAC® Industrial Wire Drive** - Allows for constant wire feed speed and consistent welds.
- **3 Ways to Feed Aluminum** - Electronics built in for all three methods using a Push Gun, Spool Gun or a Push-Pull Gun.

WHAT’S INCLUDED

**K2403-2 INCLUDES:**
- POWER MIG® 350MP
- Magnum® PRO Curve™ 300 Gun 15 ft. (4.5 m)
- 0.035/.045 in. (0.9/1.2 mm) Drive Rolls and Guide for Steel
- Gas Regulator and Hose
- Work Clamp and Cable
- 230V Input Cord and Plug
- 115V AC Auxiliary Power Receptacle
- Lockable Storage Compartment with Tool Tray

**K4023-1 ALUMINUM ONE-PAK® PACKAGE FOR TRAILER MANUFACTURING/GENERAL FAB**
See page 3 for complete package descriptions

**K4023-2 ALUMINUM ONE-PAK® PACKAGE FOR AUTO BODY REPAIR**
See page 3 for complete package descriptions

CONTROLS

Easy to use controls for high productivity and accurate settings.

A. **Continuous WFS/Amps Control** – In wire feed welding, adjusts wire feed speed. In stick or TIG modes, adjusts amperage.

B. **Continuous Volts/Trim Control** – Adjusts voltage when MIG welding. Adjusts the arc length (trim) when Pulse-MIG welding.

The Professional’s Choice™ – weld with traditional manual control or take advantage of the included MSP3 digital panel for high tech weld features:

1. **Weld Mode** – Many synergic modes to select from for simple one-knob control.
2. **Preflow** – Adjustable timer to initiate gas flow before the arc.
3. **Post-Flow** – Further protect your weld integrity by automatically setting the gas to run a few seconds after the trigger is released.
4. **Run-In** – Adjustable speed at which wire strikes the plate to enhance starting.
5. **Start Procedure** – Set start procedure, wire feed speed and volts for an adjustable starting time.
6. **Arc Control** – Set arc control to crisp or soft depending on your preference and application. In pulsed MIG, this control varies the pulse frequency and background current. In Stick mode, it adjusts the arc force.
7. **Crater Control** – Adjusts the ending weld procedure and ramp down time.
8. **Burnback** – Adjustable time delay between turning off the arc and the wire feed to prevent wire sticking to the puddle.
9. **Spot Timer** – Adjustable arc time for repetitive tack and spot welds.
LINCOLN INNOVATIONS FOR CHALLENGING APPLICATIONS

Waveform Control Technology® makes it possible to take advantage of Lincoln Electric innovations like these patented processes:

**Pulse-on-Pulse**

Pulse-On-Pulse® uses a sequence of varying pulse wave shapes to produce a TIG-like bead appearance and excellent weld properties when MIG welding aluminum. Pulse-On-Pulse® controls arc length and heat input together, making it easier to achieve good penetration. See NX-2.10

**Power Mode**

Power Mode® uses high-speed regulation of output power to deliver extremely fast response to changes in the arc, for example, when using a whip technique. The result is improved MIG welding performance, including low spatter, very uniform, consistent bead wetting and controlled penetration. Power Mode® benefits are especially apparent on low voltage applications on thin steel and stainless steel material less than 20 gauge (0.7 mm). See NX-2.60

**Pulsed MIG**

Pulsed MIG varies weld current between peak (high heat) and background (low heat) current to provide better control of heat input, which minimizes warping and burnthrough on thin materials. Pulsed MIG also enables flat, horizontal, vertical up, or overhead welding without a slag system. Optimized GMAW-P waveforms are readily available to use on aluminum, carbon steel, high strength low alloy steel, stainless steel, and nickel alloys. See NX-2.70

**Synergic MIG**

Synergic control of voltage and wire feed speed allows you to set weld procedures with only one control for simplicity and ease of use.

**ACCESSORIES**

**K4023-1 Aluminum One-Pak® Package for Trailer Manufacturing/General Fab** includes everything in K2403-2 POWER MIG 350MP and:
- Magnum PRO AL Gun G225A, 7 pin (25 ft.) (7.6 m)
- Aluminum Drive roll kit, 2-roll, 3/64 in. (1.2 mm)
- SuperGlaze® 5356 TM™ 3/64 in. (1.2 mm) 16 lb (7.3 kg) spool

**K4023-2 Aluminum One-Pak® Package for Auto Body Repair** includes everything in K2403-2 POWER MIG 350MP and:
- Magnum PRO AL Gun G225A, 7 pin (25 ft.) (7.6 m)
- Aluminum Drive roll kit, 2-roll, 3/64 in. (1.2 mm)
- SuperGlaze® 5554 3/64 in. (1.2 mm) 16 lb (7.3 kg) spool
## CONTACT TIPS AND LINERS

<table>
<thead>
<tr>
<th>Wire Diameter - in. (mm)</th>
<th>Description</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOR STEEL / STAINLESS STEEL / SILICON BRONZE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.045 (1.2)</td>
<td>Contact Tips Tapered (10)</td>
<td>KP2744-045T</td>
</tr>
<tr>
<td>0.035 (0.9)</td>
<td>Contact Tips Tapered (10)</td>
<td>KP2744-035T</td>
</tr>
<tr>
<td>0.030 (0.8)</td>
<td>Contact Tips Tapered (10)</td>
<td>KP2744-030T</td>
</tr>
<tr>
<td>0.025 (0.6)</td>
<td>Contact Tips Tapered (10)</td>
<td>KP2744-025T</td>
</tr>
<tr>
<td>0.035 - 0.045 (0.9 - 1.2)</td>
<td>Magnum PRO Curve 15° Liner Solid Wire (1)</td>
<td>KP44-3545-15</td>
</tr>
<tr>
<td><strong>FOR ALUMINUM</strong></td>
<td></td>
<td></td>
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<tr>
<td>0.035 (0.9)</td>
<td>Contact Tips Aluminum (10)</td>
<td>KP2745-035AT</td>
</tr>
<tr>
<td>3/64 (1.2)</td>
<td>Contact Tips Aluminum (10)</td>
<td>KP2745-364AT</td>
</tr>
<tr>
<td>3/64 (1.2)</td>
<td>Contact Tips 5XXX Series Aluminum (10)</td>
<td>KP2745-364AT5356</td>
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<tr>
<td>0.030 - 1/16 (0.8 - 1.6)</td>
<td>Magnum PRO AL Push-Pull Conduit Gun Liner 25 ft (7.6 m) (1)</td>
<td>KP3991-25</td>
</tr>
<tr>
<td>1/16 (1.6)</td>
<td>Magnum PRO AL Gooseneck Jump Liner (5)</td>
<td>KP3376-1</td>
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<tr>
<td>0.035 - 3/64 (0.9 - 1.2)</td>
<td>Magnum PRO AL Gooseneck Jump Liner (5)</td>
<td>KP3376-3</td>
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</tbody>
</table>

## NOZZLES AND DIFFUSERS

<table>
<thead>
<tr>
<th>Nozzle Diameter - in. (mm)</th>
<th>Description</th>
<th>Order No.</th>
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</thead>
<tbody>
<tr>
<td><strong>350A</strong></td>
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</tr>
<tr>
<td>0.375 (9.5)</td>
<td>Thread-on Flush Diffuser</td>
<td>KP2742-1-38F</td>
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<tr>
<td>0.5 (12.7)</td>
<td>Thread-on Flush Diffuser</td>
<td>KP2742-1-50F</td>
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<tr>
<td>0.375 (9.5)</td>
<td>Thread-on Recessed Diffuser</td>
<td>KP2742-1-38R</td>
</tr>
<tr>
<td>0.5 (12.7)</td>
<td>Thread-on Recessed Diffuser</td>
<td>KP2742-1-50R</td>
</tr>
<tr>
<td>–</td>
<td>Thread-on Diffuser</td>
<td>KP2746-1</td>
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<tr>
<td><strong>550A</strong></td>
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<tr>
<td>0.625 (15.9)</td>
<td>Thread-on Flush Nozzle</td>
<td>KP2743-1-62F</td>
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<tr>
<td>0.75 (19.0)</td>
<td>Thread-on Flush Nozzle</td>
<td>KP2743-1-75F</td>
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<tr>
<td>0.625 (15.9)</td>
<td>Thread-on Recessed Nozzle</td>
<td>KP2743-1-62RA</td>
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<tr>
<td>0.75 (19.0)</td>
<td>Thread-on Recessed Nozzle</td>
<td>KP2743-1-75R</td>
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<tr>
<td>–</td>
<td>Steel Thread-on Diffuser</td>
<td>KP2747-1</td>
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<td>–</td>
<td>Aluminum Thread-on Diffuser</td>
<td>KP2747-1A</td>
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For more options, please refer to the Magnum® PRO Instruction Manual.

## DRIVE ROLL KITS

<table>
<thead>
<tr>
<th>Wire Type</th>
<th>Wire Diameter - in. (mm)</th>
<th>Order No.</th>
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</thead>
<tbody>
<tr>
<td><strong>Solid</strong></td>
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<tr>
<td>0.023-0.030 (0.6-0.8)</td>
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<tr>
<td>0.035 (0.9)</td>
<td></td>
<td>KP1696-035S</td>
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<tr>
<td>0.035/0.045 Combination</td>
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<td>KP1696-035S</td>
</tr>
<tr>
<td>0.040 (1.0)</td>
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<td>KP1696-110</td>
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<tr>
<td>0.045 (1.2)</td>
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<td>KP1696-2</td>
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<tr>
<td><strong>Cored</strong></td>
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<tr>
<td>0.035 (0.9)</td>
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<td>KP1697-035C</td>
</tr>
<tr>
<td>0.045 (1.2)</td>
<td></td>
<td>KP1697-045C</td>
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<tr>
<td><strong>Aluminum</strong></td>
<td></td>
<td></td>
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<tr>
<td>0.035 (0.9)</td>
<td></td>
<td>KP1695-035A</td>
</tr>
<tr>
<td>3/64 (1.2)</td>
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<td>KP1695-364A</td>
</tr>
</tbody>
</table>

*Included with K2403-2 Push Model.*
**Recommended Accessories**

**General Options**
- **Dual Cylinder Mounting Kit**: Permits side-by-side mounting of two full size gas cylinders, with easy loading. Attaches easily to POWER MIG® undercarriage. Order K702-1
- **Canvas Cover**: Protect your POWER MIG® when not in use. Made from red canvas that is flame retardant, mildew resistant and water repellent. Fits any POWER MIG® machine with or without a gas cylinder in the cylinder rack. Will not fit if spool gun holder is attached to the machine. Order K2378-1
- **Remote Output Control**: Consists of a control box with choice of two cable lengths. Permits remote adjustment of output. Order K807 for 25 ft. (7.6 m) and Order K895-1 for 100 ft. (30.5 m)

**Stick Options**
- **Accessory Kit**: Complete kit for stick welding. Includes 30 ft. (9.1 m) electrode cable, 25 ft. (7.6 m) work cable, headshield, work clamp and electrode holder. Order K807 for 25 ft. (7.6 m) and Order K895-1 for 100 ft. (30.5 m)

**Tig Options**
- **PTA-1750 Amp Air-Cooled Tig Torch**
  - Order K792-2 for 12.5 ft. (3.8 m) length, 2-cable
  - Order K792-4 for 25 ft. (7.6 m) length, 2-cable
  - **PTA-26200 Amp Air-Cooled Tig Torch**
  - Order K793-2 for 12.5 ft. (3.8 m) length, 2-cable
  - Order K793-4 for 25 ft. (7.6 m) length, 2-cable

**WIRE FEEDER OPTIONS**
- **Fast-Mate™ Adapter**: Allows guns with a Fast-Mate™ type back end to plug into a POWER MIG®. Order K489-8
- **Arc Start Switch**: Needed if an Amptrool™ is not used when TIG welding. Comes with a 25 ft. (7.6 m) cable. Attaches to the TIG torch for convenient finger control. Order K834
- **Hand Amptrool™**: Provides 25 ft. (7.6 m) of remote current control for TIG welding. (6-pin plug connection) Order K963-3

**Wire Feeder Options**
- **Magnum® 250LX™ Spool Gun Control Extension**: Extend your spool gun reach with a 25 ft. (7.6 m) Control Cable Extension. Features a 7-pin female Ms-type connector on the spool gun end and a 7-pin male Ms-type connector on the power source end. Order K2519-1
- **Spool Gun Holder**: Provides neat storage of spool gun cable, and gas hose on POWER MIG®. Order K708-1
- **Magnum® PRO AL Air-Cooled and Magnum® PRO AL Water-Cooled Push-Pull Guns**: The Magnum PRO AL gooseneck-style guns are designed to optimize a push-pull welding operation for aluminum. Uses Magnum PRO MIG Gun expendables. Order Request Publication E12.14
- **Cougar™ Pistol-Grip Air-Cooled Push-Pull Guns**: Cougar™ push-pull guns are intended for those operators who prefer an upright pistol-grip design for aluminum welding fabrication or production. Feature Sure-Grip™ handle, integrated strain relief and multi-turn potentiometer. Rated 200A @ 60% duty cycle w/Argon. Order K704-2: Air Cooled, 25 ft. (7.6 m) and K704-4: Air Cooled, 50 ft. (15.2 m)
- **Spindle Adapter for Small Spools**: Permits 8 in. (200 mm) D.D. spools to be mounted on 2 in. (51 mm) D.D. spindles. Order K466

**Product Specifications**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Number</th>
<th>Input Power</th>
<th>Rated Output Current/Voltage/Duty Cycle</th>
<th>Input Current @ Rated Output</th>
<th>Output Range</th>
<th>Dimensions H x W x D in (mm)</th>
<th>Net Weight lb (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POWER MIG® 350MP</strong></td>
<td></td>
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<tr>
<td>Aluminum One-Pak Pkg.</td>
<td>K4023-1</td>
<td>208/230/460/575/1/60</td>
<td>300A/32V/60% (48% on 208V)</td>
<td>76/64/37/29A</td>
<td>5-350 Amps</td>
<td>50-700 ipm WFS (1.3-17.7 m/min)</td>
<td>31.8 x 18.9 x 38.8 (808 x 480 x 985)</td>
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<tr>
<td>for Trailer Mfg./General Fab</td>
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<tr>
<td>Aluminum One-Pak for Auto Body Repair</td>
<td>K4023-2</td>
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</tbody>
</table>

**Contact Harris® for Magnum® Parts Kits**
- **Magnum® Parts Kits**: Offer the parts kits you need to start welding. Come with a 25 ft. (7.6 m) cable. Attaches to the TIG torch for convenient finger control. Order K834
- **Harris® Aluminum Flow/Regulator**: Consists of a control box with remote wire feed speed control. 25 ft. (7.6 m) cable. Attaches to the TIG torch for convenient finger control. Order K963-3
- **K468 for 25 ft. (7.6 m) length, 2-cable**
- **K2704-2 for 25 ft. (7.6 m) length, 2-cable**
- **K2704-3 for 50 ft. (15.2 m) length, 2-cable**
- **3100546 for 355-2CD 100-580**

**Additional Options**
- **Magnum® PRO MIG Gun Parts Kits**: Ensure you have all the parts kits you need to start welding. Includes 25 ft. (7.6 m) cable. Attaches to the TIG torch for convenient finger control. Order K834
- **K963-3 for 25 ft. (7.6 m) length, 2-cable**
- **K963-4 for 50 ft. (15.2 m) length, 2-cable**
- **3100546 for 355-2CD 100-580**

**Dimensions**
- **H x W x D in (mm)**
  - 31.8 x 18.9 x 38.8 (808 x 480 x 985)
  - 50-700 ipm WFS (1.3-17.7 m/min) Max. OC 67V
- **Net Weight lb (kg)**
  - 255 (116)
CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customer's particular purpose is specifically disclaimed.

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