ASPECT® 230 TIG WELDER
THE CONSISTENCY YOU WANT, THE PERFORMANCE YOU NEED.

KEY FEATURES

The Aspect 230 TIG Welder is an inverter based arc welding power source optimized for AC/DC TIG and Stick Welding. A true professional’s choice with advanced waveforms, full sequencer, and pulse controls this machine will deliver the arc you need. All of the features you want can be easily customized to your application and saved in the available memory settings. TIG weld like a champion with the new Aspect 230 AC/DC and DC machines.

Processes »
GTAW, SMAW

Applications »
Shipbuilding, Aerospace, Advanced Motorsports, Nuclear, Production Fabrication

Output »
CC, AC/DC

Input »
1 phase 3 phase 50/60 Hz

Product Number »
K4340-1 Aspect 230 AC/DC
K4346-1 Aspect 230 DC
PERFORMANCE

Exceptional Arc Response and Stability

- With up to 230 amps of maximum output, you can TIG weld up to 1/4 in. (6.4 mm)
- Maximize productivity and spend more time welding with a rated 35% duty cycle at 230 amps
- Advanced aluminum controls, AC Auto Balance technology, pulse, frequency, and additional waveforms
- Portable, lightweight and easy to transport
- IP23 rated for harsh environments

KEY FEATURES

» Intellistart™ Technology
  Automatically provides softer starts and minimal distortion on thinner materials and hotter starts required for thicker materials

» PowerConnect® Technology
  Automatically adjusts to input power from 120-460V, 50 or 60 Hz, single or three phase

» AC Auto Balance® Technology
  Automatically provides optimal mix of cleaning and penetration when welding aluminum

» Memory Capability
  The memory function allows saving up to 9 specific welding procedures

» Fan-As-Needed
  The cooling fan operates only when needed to assure proper cooling of the machine

» Green Mode
  Ability to put machine in standby mode after 10 minutes of inactivity to reduce power consumption

» Cooler Power Supply
  Built-in Cooler Power Supply comes standard on all models
# ASPECT 230 PACKAGES

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<tr>
<td>Aspect 230 AC/DC</td>
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<td>Aspect 230 DC</td>
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<td>Cart</td>
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<td>Cool Arc® 22</td>
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<td>Foot Pedal</td>
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<td>Expendables kit for PTW-18 and PTA-26</td>
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<td>Gas Lens Kit for PTW-20</td>
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<td>Air Cooled TIG Torch 200A PTA-26 25 FT FLEX HEAD</td>
<td>K784-10</td>
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<td>Water Cooled TIG Torch PTW-20 250A 25FT</td>
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<td>Low Conductivity Coolant</td>
<td>K7405-9-1</td>
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<td>Zippered Cable Cover (25 Foot)</td>
<td>K918-4</td>
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<td>Regulator With Flow Gauge and Hose Kit</td>
<td>3100211</td>
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<tr>
<td>Ground Clamp Set w/15 foot cable</td>
<td>K1803-3</td>
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<tr>
<td>Torch Twist Mate™ Connector</td>
<td>K1622-5</td>
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<tr>
<td>Torch Twist Mate Connector ASM</td>
<td>K1622-3</td>
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* Two Quick Connect Fittings are Required

◆ Included
1. Polarity Select
2. Process Select
3. Output Control
4. AC Wave Shape Control
5. Sequencer
6. Sequencer Control
7. Pulse Sequencer
8. Voltage Display
9. Status Lights
10. Amperage Display
11. Memory Display
12. Memory Selection
13. Exit Menu Button
14. Control Knob
### KEY CONTROLS

15. Electrode Connector  
16. 15V DC Supply  
17. 6-Pin Remote Receptacle  
18. Work Connector  
19. Input Power Cord  
20. Power Switch  
21. Gas Solenoid Input  
22. 9-Pin Water Cooler Connection
QUALITY AND RELIABILITY

AC WAVE SHAPE CONTROLS

<table>
<thead>
<tr>
<th>Setting</th>
<th>Range</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Frequency</td>
<td>40-400 Hz</td>
<td>A lower frequency results in a wider bead. A higher frequency results in a more focused bead</td>
</tr>
<tr>
<td>AC Balance Control</td>
<td>35-99% [EN%]</td>
<td>A lower AC Balance (EN%) results in an arc with increased cleaning action. A higher AC Balance (EN%) results in an arc with higher penetration</td>
</tr>
<tr>
<td>Electrode Positive (EP) and Negative Offset (EN)</td>
<td>2-230 Amps EP</td>
<td>A higher Electrode Positive (EP) current value results in intensified cleaning action</td>
</tr>
<tr>
<td></td>
<td>2-230 Amps EN</td>
<td>A higher Electrode Negative (EN) current value results in intensified penetration</td>
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</table>

PULSE FUNCTIONS

<table>
<thead>
<tr>
<th>Setting</th>
<th>Range</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Pulse Frequency</td>
<td>0.1-25% of AC output frequency setting in pulses per second</td>
<td>Alternating the current between peak and background helps better manage heat input and minimize material distortion. Provides for better arc control and faster freezing for uphill welding</td>
</tr>
<tr>
<td>DC Pulse Frequency</td>
<td>0.1-2,000 pulses per second</td>
<td>Helps moderate filler metal deposition at low pulse frequencies (less than 10 pulses per second)</td>
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AC WAVE FORMS

<table>
<thead>
<tr>
<th>Setting</th>
<th>Results</th>
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</thead>
<tbody>
<tr>
<td>Soft Square</td>
<td>Increased puddle control</td>
</tr>
<tr>
<td>Sine</td>
<td>A soft sounding arc</td>
</tr>
<tr>
<td>Square</td>
<td>Faster travel speeds</td>
</tr>
<tr>
<td>Triangular</td>
<td>Reduced heat input on thinner materials. Also provides for better cleaning on anodized applications</td>
</tr>
</tbody>
</table>
**RECOMMENDED ACCESSORIES**

**GENERAL OPTIONS**

**Foot Amptrol™** for TIG welding. The Foot Amptrol energizes the output and controls the output remotely. The Foot Amptrol connects directly to the 6-pin remote control connector. 
Order K870

**Hand Amptrol™** for TIG welding. The Hand Amptrol energizes the output and controls the output remotely. The Hand Amptrol connects directly to the 6-pin remote control connector. 
Order K963-3

**Arc Start Switch**
Energizes the output for TIG welding if remote output control of the amperage is not desired. It allows on/off TIG welding at the amperage set by the Current Control on the control panel. 
Order K814

**Cool Arc 22 Water Cooler**
Attaches underneath the Aspect 230 AC/DC welder and electrically connects to the Aspect 230 AC/DC. This smart cooler runs only when needed and shuts off welding if coolant flow is interrupted. 
Order K3475-1

**TIG Inverter Cart**
Holds the Aspect 230 AC/DC welder, the Cool Arc 22 cooling system and all accessories. Features low lift bottle loader and drawer for convenient storage. 
Order K4441-1

**Zippered Cable Cover, 12.5 ft. (3.8 m)**
Protects torch cables in high abrasion applications. 
Order K918-1

**Zippered Cable Cover, 25.0 ft. (7.6 m)**
Protects torch cables in high abrasion applications. 
Order K918-1

**TIG-Mate™ 17 Air Cooled TIG Torch Starter Pack**
One complete easy-to-order kit packaged in its own portable carrying case. Includes: PTA-17 torch, parts kit, Harris® flowmeter/regulator, 10 ft. gas hose, Twist Mate adapter, work clamp and cable. 
Order K2266-1

**Cool Arc 22 Water Cooler**
Attaches underneath the Aspect 230 AC/DC welder and electrically connects to the Aspect 230 AC/DC. This smart cooler runs only when needed and shuts off welding if coolant flow is interrupted. 
Order K3475-1

**Magnum® TIG Torches**
The following standard Magnum TIG torches may be used with the Aspect 230 AC/DC welder. 
Order:
- K1782-1 for PTA-17 12.5 ft. (3.8 m) Air-Cooled 150A
- K1782-3 for PTA-17 25 ft. (7.6 m) Air-Cooled 150A
- K1782-14 for PTA-17 12.5 ft. (3.8 m) Air-Cooled 150A Ready-Pak®
- K1783-1 for PTA-26 12.5 ft. (3.8 m) Air-Cooled 200A
- K1783-3 for PTA-26 25 ft. (7.6 m) Air-Cooled 200A

**Water-Cooled Torches**
(The Cool Arc 22 is required) 
Order:
- K1784-3 for PTW-20 Water-Cooled 12.5 ft. (3.8 m) 250A
- K1784-4 for PTW-20 Water-Cooled 25 ft. (7.6 m) 250A

**Twist Mate Adapter**
Adapter needed for K1682-2 and K1784-3 and K1784-4 torches. 
Order K1622-5

**NOTE:** Each torch requires a Twist-Mate Adapter, collets, collet bodies, and nozzles and are not included and must be ordered separately.

**Gas Lens Parts Kit**
Order KP2404-1 for PTA-9 and PTW-20 Series Torches

**Magnum Parts Kit**
Order KP508 for PTA-17 Series Torches
Order KP509 for PTW-18 and PTA-26 Series Torches
Order KP510 for PTW-20, 20H-320-25R Series Torches

**Work Lead Clamp with Twist Mate Plug, 15ft. (4.6 m)**
Order K1803-3

**Low Conductivity Coolant (1 gallon)**
Order KP4159-1

**Twist Mate Adapter for PTA-26 TIG Torch**
Order K1622-3

**Twist Mate Adapter for PTA-17 TIG Torch**
Order K1622-1
<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Number</th>
<th>Input Power Voltage/Phase/Hertz</th>
<th>Rated Output: Current/ Voltage/Duty Cycle</th>
<th>Input Current @ Rated Output</th>
<th>Output Range</th>
<th>H x W x D in (mm)</th>
<th>Net Wt. lb (kg)</th>
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<tr>
<td>Aspect 230 AC/DC</td>
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<tr>
<td>Base Model</td>
<td>K4340-1</td>
<td>120/1/50/60 or 208/230/400/460/1/3/50/60</td>
<td>120/1/50/60: 110A/100%/14.4V/125A/60%/15V/150A/35%/16V</td>
<td>208/230/400/460/1/3/50/60: 160A/100%/16.4V/190A/60%/17.6V/230A/35%/19.2V</td>
<td>120/208/230/400/460/1/50/60: 34/33/31/28/26A</td>
<td>120V: 2-150A TIG</td>
<td>16.5 x 9.7 x 19.9 (419 x 246 x 506)</td>
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<tr>
<td>Water-Cooled One-Pak</td>
<td>K4342-1</td>
<td></td>
<td></td>
<td></td>
<td>208/230/400/460/3/50/60: 19/17/10/9A</td>
<td>208/230/400/460V: 2-230A</td>
<td>46.5 x 22 x 24 (1118.1 x 558.8 x 609.6)</td>
</tr>
<tr>
<td>Air-Cooled One-Pak</td>
<td>K4341-1</td>
<td>120/1/50/60 or 208/230/400/460/1/3/50/60</td>
<td>120/1/50/60: 110A/100%/14.4V/125A/60%/15V/150A/35%/16V</td>
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<td>16.5 x 9.7 x 19.9 (419 x 246 x 506)</td>
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Manufactured at a facility with certified ISO Quality and Environmental Management Systems.

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