# Maxstar® 280 Multiprocess

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<td>Pipe and tube fabrication</td>
<td>Flux-cored (FCAW)*</td>
<td><em>With ArcReach SuitCase feeder.</em></td>
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<tr>
<td>Petrochemical</td>
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</tbody>
</table>

## Processes

- DC TIG (GTAW)
- Pulsed TIG (GTAW-P)
- Stick (SMAW)
- Air carbon arc (CAC-A)
- MIG (GMAW)*
- Flux-cored (FCAW)*

## Input Power

- 208–575 V, 1-phase or 3-phase power
- Amperage Range: 1–280 A (DC)
- Voltage Range: 14–28 V (DC)
- Rated Output: 200 A at 28 V, 60% duty cycle
- Net Weight: 47 lb. (21.3 kg)

*With ArcReach SuitCase feeder.*

## The Maxstar 280 Multiprocess, paired with an ArcReach® SuitCase® feeder, provides a superior solution for all portable applications.

With multiprocess capabilities and features like Auto-Line™, pulse and high-frequency arc starts, the Maxstar 280 Multiprocess is the most versatile, portable machine in its class.

### More Jobsite Productivity and Efficiency

DC CC/CV multiprocess equipment means always having the right equipment for the job. This also simplifies logistics and translates into less time locating and moving equipment and more time welding.

### Improved Jobsite Safety

Portable welding equipment allows for easy movement of equipment to point of use. The chances of slip, trip or fall injuries are virtually eliminated because there is no need to travel through multi-story and cluttered jobsites back to the power source since adjustment is point of use.

### Reduced Training Time

Reduced training time by utilizing one piece of equipment, saving labor costs and helping to keep projects on schedule.

### More Operator Control

Weld operators can quickly and easily adjust parameters, reducing the risk of operators trying to get by with less than ideal settings. Also, state-of-the-art TIG functions such as pulse, and high-frequency starting allow for optimization for virtually any material type.

### Increased Uptime

Low power draw can mean additional welding equipment on the same circuit, getting work done faster by reducing the chances of power outages from tripped breakers or blown fuses.

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**Maxstar 280 Multiprocess (907552001)**

shown with ArcReach SuitCase 12 feeder (951729).

*Note: Maxstar 280 Multiprocess is not capable of ArcReach control.*
**Weld Process Features**

**DC TIG Features**
- **Pulse.** Pulsing can increase puddle agitation, arc stability and travel speeds while reducing heat input and distortion. DX models provide extended ranges.
- **Exceptionally smooth** and precise arc for welding exotic materials.

**Blue Lightning™**
- Blue Lightning high-frequency (HF) arc starter for non-contact arc initiation.
- Provides more consistent arc starts and greater reliability compared to traditional HF arc starters.

**MIG**
- **CV output** of the power source gives this unit MIG process capabilities when paired with an ArcReach® SuitCase® feeder (or other voltage-sensing feeder). The feeder is powered off the arc voltage of the power source and can run both solid and flux-cored wires.

**DC Stick**
- **DIG control** allows the arc characteristics to be changed for specific applications and electrodes. Lower the DIG setting for smooth running electrodes like E7018 and increase the DIG setting for stiffer, more penetrating electrodes like E6010.
- **Hot Start™** adaptive control provides positive arc starts without sticking.
- **Stick-Stuck** detects if the electrode is stuck to the part and turns the welding output off to safely and easily remove the electrode. Menu selectable.

**Tweco-Style Connectors**
- Tweco-style connectors are more commonly used on job sites.

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**Specifications** *(Subject to change without notice.)*

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<th>Welding Mode</th>
<th>Input Power</th>
<th>Welding Amperage Range</th>
<th>Rated Output at 60% Duty Cycle</th>
<th>Amps Input at Rated Load Output, 50/60 Hz</th>
<th>Max. Open-Circuit Voltage</th>
<th>Dimensions</th>
<th>Net Weight</th>
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</thead>
<tbody>
<tr>
<td>TIG (GTAW)</td>
<td>3-phase</td>
<td>1–280 A</td>
<td>250 A at 20 V</td>
<td>21 19 11 9 7 7.6 7.3</td>
<td>60 VDC (11 VDC**</td>
<td>H: 13.6 in. (346 mm) W: 8.6 in. (219 mm) D: 22.5 in. (569 mm)</td>
<td>47 lb. (21.3 kg)</td>
</tr>
<tr>
<td>Stick (SMAW)</td>
<td>3-phase</td>
<td>5–280 A</td>
<td>250 A at 30 V</td>
<td>* * 14 13 10 9.9 9.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIG (GMAW)/ Flux-cored (FCAW)</td>
<td>3-phase</td>
<td>5–280 A</td>
<td>250 A at 26.5 V</td>
<td>* * 13 11 9 9.2 8.9</td>
<td></td>
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</tr>
</tbody>
</table>

*Refer to owner’s manual for complete ratings. **Low OCV sense voltage for stick and Lift-Arc™ TIG.*

**IP23 rating** — This equipment is designed for outdoor use. It may be stored, but is not intended to be used outside during precipitation unless sheltered. Operating temperature range is 14 to 104°F (-10 to 40°C). Storage temperature range is -22 to 149°F (-30 to 65°C). Portions of the preceding text are contained in EN 60974-1: “Welding power sources for arc welding equipment.”

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**Performance Data**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>380–575 V</td>
<td>280 A, 40% 250 A, 60% 200 A, 100%</td>
<td>280 A, 35% 250 A, 60% 200 A, 100%</td>
<td>280 A, 35% 250 A, 60% 200 A, 100%</td>
<td>0.004–3/8 in. (0.1–9.5 mm)</td>
<td>6010: 1/4 in. (6.4 mm)</td>
<td>3/16 in. (4.8 mm)</td>
<td>Voltage: 14–28 V Wire speed: 50–780 ipm (1.3–19.8 m/min.) Solid wire: .023–.052 in. (0.6–1.4 mm) Flux-cored: .030–.052 in. (0.8–1.4 mm)</td>
<td>12.5 kW</td>
</tr>
<tr>
<td>208–240 V</td>
<td>280 A, 40% 250 A, 60% 200 A, 100%</td>
<td>280 A, 15% 180 A, 60% 145 A, 100%</td>
<td>280 A, 20% 200 A, 60% 160 A, 100%</td>
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</tbody>
</table>

**Material Type**
- Solid wire (steel/SS)
- Aluminum
- Dual (gas-) shielded flux-cored/metal core
- Self-shielded flux-cored

**Wire Diameter**
- .024 in.
- .030 in.
- .035 in.
- .045 in. l 3/64 in. Al
- .052 in.
- 1/16 in.
- 5/64 in.

- Recommended — refer to wire manufacturer specifications for output requirements.
- Gun length may affect feedability.
- Limited capability.
Maxstar 280 Multiprocess Control Panel

1. Standby Switch
2. Voltmeter Display
3. Ammeter Display
4. Output Contactor “On” Indicator
5. DC TIG (HF Start) Process Menu Parameters
   - Amperage: 1–280 A**
   - Pulse*: Off–250 PPS
   - Postflow: Auto/Off–50 seconds
6. MIG Volt Sense Feeder
   - Voltage: 14–28V
   - Arc Control: 0–99% (solid wire - EP)
   - (Inductance) Flux Core (flux-cored wire - EN)
7. Memory Card Port
8. Activity Indicator
9. Encoder Control
10. Menu Ranges
11. DC TIG (Lift-Arc) Process Menu Parameters
   - Amperage: 1–280 A**
   - Pulse*: Off–250 PPS
   - Postflow: Auto/Off–50 seconds
12. DC Stick Process Menu Parameters
    - Amperage: 5–280 A
    - DIG*: Off–100%
13. Process Selector

ArcReach® SuitCase® 8 and 12 (Note: Maxstar 280 Multiprocess is not capable of ArcReach control.)

Voltage-sensing, portable feeders designed to run off of arc voltage from almost any welding power source, provide extreme reliability for construction and fabrication.

- Scaled wire pressure knob provides easy adjustment and consistent pressure on the drive rolls and wire
- Wire drive and motor assembly is specifically designed for mobile welding applications to provide smooth and consistent wire delivery
- Gun locking tab works with guns having corresponding locking grooves to prevent gun from being pulled out if the feeder is dragged by the gun
- Ultra-low drag inlet guide pins make loading the wire easy and do not deform the wire on the way into the drive rolls

<table>
<thead>
<tr>
<th>Model</th>
<th>Input Power</th>
<th>Input Welding Circuit Rating</th>
<th>Wire Feed Speed</th>
<th>Wire Type and Diameter Capacity</th>
<th>Max. Spool Size Capacity</th>
<th>Dimensions</th>
<th>Net Weight</th>
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</thead>
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<tr>
<td>8</td>
<td>Operates on open-circuit voltage and arc voltage: 14–48 VDC/110 max. OCV</td>
<td>330 A at 60% duty cycle</td>
<td>50–780 ipm (1.3–19.8 m/min,) dependent on arc voltage</td>
<td>Solid wire: .023–.052 in. (0.6–1.4 mm) Flux-cored: .030–.064 in. (0.8–2.0 mm)</td>
<td>8 in. (203 mm) 14 lb. (6.4 kg)</td>
<td>H: 12.75 in. (324 mm) W: 7.25 in. (184 mm) D: 18 in. (457 mm)</td>
<td>13 lb. (5.9 kg)</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>425 A at 60% duty cycle</td>
<td></td>
<td>Solid wire: .023–.052 in. (0.6–1.4 mm) Flux-cored: .030–.064 in. (0.8–2.0 mm)</td>
<td>12 in. (305 mm) 45 lb. (20 kg)</td>
<td>H: 15.5 in. (394 mm) W: 9 in. (229 mm) D: 21 in. (533 mm)</td>
<td>35 lb. (15.9 kg)</td>
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 consumables

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<td>.035 and .045 in. (0.9 and 1.2 mm)</td>
<td>190300*</td>
<td>Centerfire “T” Series (.35 in. O.D.)</td>
</tr>
<tr>
<td>.045 and 1/16 in. (1.2 and 1.6 mm)</td>
<td>—</td>
<td>1580015 (3) .045 in., (0.025 in. tips)</td>
</tr>
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<td>Individual Rolls/Tips</td>
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<td>—</td>
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<tr>
<td>.030 in. (0.8 mm)</td>
<td>053695</td>
<td>T-020</td>
</tr>
<tr>
<td>.035 in. (0.9 mm)</td>
<td>053700</td>
<td>—</td>
</tr>
<tr>
<td>.040 in. (1.0 mm)</td>
<td>053696</td>
<td>—</td>
</tr>
<tr>
<td>.045 in. (1.1/1.2 mm)</td>
<td>053697</td>
<td>—</td>
</tr>
<tr>
<td>.052 in. (1.3/1.4 mm)</td>
<td>053698</td>
<td>—</td>
</tr>
<tr>
<td>1/16 in. (1.6 mm)</td>
<td>053699</td>
<td>—</td>
</tr>
<tr>
<td>.068/072 in. (1.8 mm)</td>
<td>053704</td>
<td>—</td>
</tr>
<tr>
<td>5/64 in. (2.0 mm)</td>
<td>053704</td>
<td>—</td>
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*Includes two dual-size reversible drive rolls. Note: ArcReach SuitCase feeders require two drive rolls. Wire inlet guide comes installed on ArcReach SuitCase wire feeders.
**Genuine Miller® Accessories**

### 2-Wheel Trolley Cart 300971
Easy-to-maneuver two-wheel cart features single-cylinder rack, chain for cylinder, cable holders, torch holder, storage area, and filler rod storage area.

### TIG Torch

**Weldcraft™ A-250 TIG Torch**
- 301525025 No valve
- 301526025 With valve
250-amp air-cooled two-piece torch with 25-foot (7.6 m) cable.
*Note: Two-piece torches require Tweco-style connector 191981*

### Wire Feeders and MIG Guns

**ArcReach® SuitCase® 8**
- 951726 With Bernard® BTB Gun 300 A
- 951728 With Bernard® Dura-Flux™ gun
- 951729 With Bernard® BTB Gun 300 A
- 951731 With Bernard® Dura-Flux™ gun
Portable feeder designed to run off of arc voltage. Holds up to an 8-inch (SuitCase 8) or 12-inch (SuitCase 12) spool of wire. See literature M/6.55.
*Note: Maxstar 280 Multiprocess is not capable of ArcReach control.*

### Remote Controls and Switches

**Wireless Remote Foot Control 300429**
For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller® machine. 90-foot (27.4 m) operating range.

**RCC-14 Remote Contactor and Current Control 151086**
East/west rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) cord and 14-pin plug.

**RCCS-14 Remote Contactor and Current Control 043688**
North/south rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) cord and 14-pin plug.

**RMS-14 On/Off Control 187208**
Momentary-contact switch for contactor control. Rubber-covered pushbutton dome switch ideal for repetitive on-off applications. Includes 26.5-foot (8 m) cord and 14-pin plug.

**RHC-14 Hand Control 24221020**
Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3.25 inches (102 x 102 x 83 mm). Includes 20-foot (6 m) cord and 14-pin plug.

**Wireless Remote Hand Control 300430**
For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller® machine. 300-foot (91.4 m) operating range.

### Ordering Information

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<th>Price</th>
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<td>Maxstar® 280 Multiprocess</td>
<td>907552001</td>
<td>Auto-Line™ 208–575 V, 50/60 Hz with Tweco-style connectors</td>
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<td><strong>Accessories</strong></td>
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<tr>
<td>2-Wheel Trolley Cart</td>
<td>300971</td>
<td>For Dynasty/Maxstar 210 and 280 with or without Coolmate 1.3</td>
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<tr>
<td><strong>TIG Torch</strong></td>
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<tr>
<td>Weldcraft™ A-250 TIG Torch</td>
<td>301525025</td>
<td>No valve, 25 ft. (7.6 m) cable. Requires 191981 Tweco connector</td>
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<tr>
<td></td>
<td>301526026</td>
<td>With valve, 25 ft. (7.6 m) cable. Requires 191981 Tweco connector</td>
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<tr>
<td>ArcReach® SuitCase® 8 (see literature M/6.55)</td>
<td>951726</td>
<td>With Bernard® BTB Gun 300 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>951728</td>
<td>With Bernard® Dura-Flux™ gun</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ArcReach® SuitCase® 12 (see literature M/6.55)</td>
<td>951729</td>
<td>With Bernard® BTB Gun 300 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>951731</td>
<td>With Bernard® Dura-Flux™ gun</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bernard® BTB Gun 300 A</td>
<td>Q3015AE8XMC</td>
<td>.035/.045 in. wire size</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q3015AE8HMC</td>
<td>.052 in. wire size</td>
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**Drive Rolls**
See page 3

**Contact Tips**
See page 3

**Remote Controls**
See above

**Date:**

**Total Quoted Price:**

**Distributed by:**

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