# Dimension™ Series

**Multiprocess Welding Power Source**

## Quick Specs

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<td>Earth-Moving Equipment Manufacturing</td>
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</tr>
</tbody>
</table>

## DC multiprocess capability

Provides versatility and outstanding arc performance in CV (MIG) and CC (Stick, TIG, CAC-A).

## Built-in arc control

Lets you get in tight without sticking the electrode. An electrode compensation circuit ensures consistent arc control performance regardless of the electrode size.

## Internal digital voltage control (DVC)

Enables operator to preset weld voltage in the CV mode prior to welding.

## Line voltage compensation

Ensures consistent weld performance by keeping output power constant even if primary input power varies by ±10 percent.

## Hot Start™

Makes it easy to start difficult Stick electrodes such as E-6010 and E-7018.

## Power efficient

For exceptional value and return on your investment.

## 115 VAC duplex receptacle

Provides 15 amps of auxiliary power.

## Thermal overload protection light

Indicates power shutdown. Helps prevent machine damage if the duty cycle is exceeded or airflow is blocked.

## Power cord strain relief

Provided for your convenience at installation.

## Input Power

- **302:** 300 A at 32 VDC, 100% Duty Cycle
- **452/562:** 450 A at 38 VDC, 100% Duty Cycle
- **652/812:** 650 A at 44 VDC, 100% Duty Cycle

## Net Weight

- **302:** 361 lb. (164 kg)
- **452/562:** 424 lb. (192 kg)
- **652/812:** 545 lb. (247 kg)

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**EQUIP to WELD™**

Build your own system at MillerWelds.com/equiploweld or see the Stationary and MIGRunner™ Packages (page 5).

**Digital voltmeter and ammeter**

Are easy to read, even at 30 feet (9.2 m).

**Simple control panel**

Features single range amperage/voltage adjustment. Provides easy and efficient operation.

**14-pin receptacle**

Provides quick, direct connection to Miller 14-pin wire feeders and accessories.

**Remote on/off capabilities**

Allow operator to turn power source on and off from a distance.

**Remote voltage control**

Allows operator to change voltage from feeder.

**Enclosed circuit boards**

Provide additional protection from contaminants resulting in longer service life.

**PC board protection**

Prevents the wire feeder power or other stray voltages (less than 115 VAC) from harming the power source PC board.

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Power source is warranted for 3 years, parts and labor. Original main power rectified parts are warranted for 5 years.

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Let's you get in tight without sticking the electrode. An electrode compensation circuit ensures consistent arc control performance regardless of the electrode size.

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**PC board protection**

Prevents the wire feeder power or other stray voltages (less than 115 VAC) from harming the power source PC board.
**Dimension® 302 Specifications** *(Subject to change without notice.)*

<table>
<thead>
<tr>
<th>Amperage/Voltage Range</th>
<th>Rated Output</th>
<th>Amps Input at Rated Output, 50/60 Hz</th>
<th>Max. Open-Circuit Voltage*</th>
<th>Dimensions</th>
<th>Net Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>15–375 A in CC mode</td>
<td>300 A at 32 VDC, 100% duty cycle</td>
<td>57.5 50 25 20 20 12.9</td>
<td>60 VDC</td>
<td>H: 30 in. (762 mm) (including lift eye)</td>
<td>36 VDC</td>
</tr>
<tr>
<td>10–32 V in CV mode</td>
<td>69 60 30 24 23.7 13.4</td>
<td>36 VDC</td>
<td>D: 30.5 in. (775 mm) (including strain relief)</td>
<td>361 lb. (164 kg)</td>
<td></td>
</tr>
</tbody>
</table>

*Open-circuit voltages in CV mode are factory set at values less than indicated for CC.*

**Control Panel**

1. Arc Force (DIG) Control  
2. Process Selector Switch  
3. Remote Amperage/Voltage Control Switch  
4. Output Switch (Contactor)  
5. Hot Start Switch  
6. Digital Meters  
7. Amperage/Voltage Adjustment Control  
8. High Temperature Shutdown Light  
9. Power Switch with Indicator Light

**Performance Data**

![Duty Cycle Chart](image1)

![Volt/Amp Curve CV](image2)

![Volt/Amp Curve CC](image3)
Rated Output
450 A at 38 VDC, (36.5 VDC for CE Model)
100% duty cycle

Amperage/Voltage Range
20–565 A in CC mode
10–38 V in CV mode

Amps Input at Rated Output, 50/60 Hz
200 V 230 V 380 V 400 V 440 V 460 V 520 V 575 V KVA KW

Max. Open-Circuit Voltage

Dimensions (Including lift eye)
H: 30 in. (762 mm)
W: 23 in. (585 mm)
D: 38 in. (966 mm)

Net Weight
424 lb. (192 kg)

*Open-circuit voltages in CV mode are factory set at values less than indicated for CC.

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**Performance Data**
**Packages**

**Option #1: Dimension™ Power Source Only**

Purchase components separately.

**Dimension 302**
- #903 216 (230/460/575 V, 60 Hz)

**Dimension 452**
- #903 254 (200-208/230/460 V, 60 Hz)
- #903 255 (230/460/575 V, 60 Hz)

**Dimension 562**
- #907 360 (380/400/440 V, 50 Hz w/CE)

**Dimension 652**
- #903 379 (230/460/575 V, 60 Hz)

**Option #2: Dimension™ Stationary Package**

Stationary display without running gear or cylinder rack.

**Dimension 302 Stationary Package**
- #951 272 (230/460/575 V, 60 Hz)

**Dimension 452 Stationary Package**
- #951 273 (230/460/575 V, 60 Hz)

**Dimension 652 Stationary Package**
- #951 274 (230/460/575 V, 60 Hz)

**Option #3: Dimension™ MIGRunner™ Package**

MIGRunner system with factory-installed standard running gear and cylinder rack.

**Dimension 302 MIGRunner Package**
- #951 276 (230/460/575 V, 60 Hz)

**Dimension 652 MIGRunner Package**
- #951 278 (230/460/575 V, 60 Hz)

Build your own system at MillerWelds.com/equiptoweld
Ground Current Sensor  #195 048  Field
Disables power source if weld current is present on primary ground.

Extension Cables for 14-Pin Plugs to 14-Pin Sockets*
#242 208 025  25 ft. (7.6 m)
#242 208 050  50 ft. (15.2 m)
#242 208 080  80 ft. (24.4 m)
Extension cables make a direct connection between the power source and remote control or 24 VAC wire feeder. No messy splicing or adapting required.
*For additional lengths visit MillerWelds.com/equiptoweld.

Industrial MIG 4/0 Kit  #300 390
Includes flowmeter regulator with 10-foot (3 m) gas hose, 10-foot (3 m) 4/0 feeder weld cable with lugs, and 15-foot (4.6 m) work cable with 600-amp C-clamp.

Polarity Control  #042 871
This dual-function control is designed for use with dual wire feeders or any application where electrical isolation and/or polarity reversing of weld current is required. Both functions can be used at the same time.

Process Control Selector  #042 872
Allows you to easily change weld processes without changing cables — from TIG to MIG or MIG to Stick. Also includes features of Polarity Control. Can be used with any constant-current, constant-voltage or multiprocess CC/CV welding power source.

Remote Controls and Switches

RM1L-14  #129 337
Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and backward for momentary contact. Includes 26.5-foot (8 m) cord and 14-pin plug.

RCC-14 Remote Contactor and Current Control  #151 086
East/west rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Allows complete current and contactor control at operator’s fingertips. Includes 26.5-foot (8 m) cord and 14-pin plug.

RCCS-14 Remote Contactor and Current Control  #043 688
North/south rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Great for applications that require a finer amperage control. Includes 26.5-foot (8 m) cord and 14-pin plug.

Standard Running Gear  #042 886
The large 10-inch (254 mm) rear wheels and 5-inch (127 mm) front casters on this running gear provide excellent mobility on the shop floor, making it easier to move the power source. Very easy to install. Handles double as weld cable holder.

Standard Cylinder Rack  #042 887
Holds two cylinders. Only installs on Standard Running Gear.

HF-251D-1 High-Frequency Arc Starter/Stabilizer  #042 388
This portable 250-amp, 60 percent duty cycle unit adds high frequency to the welding circuit to help start the arc when using the TIG (GTAW) process. Operates on 115 VAC 50/60/100 Hz. See Lit. Index No. AY 5.1.

Coolant Systems

Coolmate™ 3  #043 007  115 VAC
#043 008  230 VAC
For use with water-cooled torches rated up to 500 amps. Unique paddle-wheel indicator, external filter and easy-fill spout.

Coolmate™ 4  #042 288  115 VAC
For use with water-cooled torches rated up to 600 amps. Tough molded polyethylene case with carrying handle.

Coolant  #043 810
Sold in cases of four one-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37 degrees Fahrenheit (-38° C) or boiling to 227 degrees Fahrenheit (108° C). Also contains a compound that resists algae growth.

RHC-14 Hand Control*
#242 211 020
20-ft. (6 m) cord
#242 211 100
100-ft. (30.5 m) cord
Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3.25 inches (102 x 102 x 83 mm). Includes cord and 14-pin plug.
*For additional lengths visit MillerWelds.com/equiptoweld.

RFCS-14 Foot Control  #043 554
Foot current and contactor control. Includes 20-foot (6 m) cord and 14-pin plug.
# Wire Feeder Options

## Bench-Style Feeders

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<tr>
<th>Lit. Index No.</th>
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<td>22A</td>
<td>M/11.0</td>
</tr>
<tr>
<td>24A</td>
<td>M/11.0</td>
</tr>
<tr>
<td>S-74S</td>
<td>M/3.0</td>
</tr>
<tr>
<td>S-74D</td>
<td>M/3.0</td>
</tr>
<tr>
<td>S-74DX</td>
<td>M/3.0</td>
</tr>
<tr>
<td>S-74 MPa Plus</td>
<td>M/3.0</td>
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</tbody>
</table>

## Bench-Style Dual Feeders

<table>
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<tr>
<th>Lit. Index No.</th>
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<tbody>
<tr>
<td>D-74S</td>
<td>M/3.0</td>
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<tr>
<td>D-74D</td>
<td>M/3.0</td>
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<tr>
<td>D-74DX</td>
<td>M/3.0</td>
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<tr>
<td>D-74 MPa Plus</td>
<td>M/3.0</td>
</tr>
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## Boom-Style Feeders

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<td>SS-74S12</td>
<td>M/13.11</td>
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<td>SS-74S16</td>
<td>M/13.11</td>
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<tr>
<td>SS-74D12</td>
<td>M/13.11</td>
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<td>SS-74D16</td>
<td>M/13.11</td>
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<tr>
<td>DS-74 MPa Plus</td>
<td>M/13.11</td>
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</tbody>
</table>

## Portable Feeders

| SuitCase® 12RC | M/6.5  |

## Portable Voltage-Sensing Feeders

| SuitCase® X-TREME® 8VS | M/6.42 |
| SuitCase® X-TREME® 12VS | M/6.42 |

## Aluminum Push-Pull Feeders

| XR-S and XR-D Controls | M/1.7 |

- Guns available:
  - XR-Aluma-Pro™ | M/1.71 |
  - XR-Pistol     | M/1.73 |
  - XR-Pistol-Pro | M/1.74 |

## Hard Automation

| 70 Series Remote Configurations | M/3.0 |

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![Miller logo](https://example.com/miller-logo.png)
Ordering Information

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<th>Description</th>
<th>Qty.</th>
<th>Price</th>
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<td>Dimension™ 302 Power Source Only</td>
<td>#903 216*</td>
<td>230/460/575 V, 60 Hz</td>
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<tr>
<td>Dimension™ 302 Stationary Package</td>
<td>#951 272*</td>
<td>230/460/575 V, 60 Hz</td>
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<tr>
<td>Dimension™ 302 MIGRunner™ Package</td>
<td>#951 276*</td>
<td>230/460/575 V, 60 Hz</td>
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<tr>
<td>Dimension™ 452</td>
<td>#903 254*</td>
<td>200-208/230/460 V, 60 Hz</td>
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<tr>
<td>Dimension™ 452 Stationary Package</td>
<td>#951 273*</td>
<td>230/460/575 V, 60 Hz</td>
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<tr>
<td>Dimension™ 562</td>
<td>#907 360**</td>
<td>380/400/440 V, 50 Hz w/CE</td>
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<tr>
<td>Dimension™ 652</td>
<td>#903 379*</td>
<td>230/460/575 V, 60 Hz</td>
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<tr>
<td>Dimension™ 652 MIGRunner™ Package</td>
<td>#951 278*</td>
<td>230/460/575 V, 60 Hz</td>
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<tr>
<td>Dimension™ 812</td>
<td>#907 361**</td>
<td>380/400/440 V, 50 Hz w/CE</td>
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</table>

**Wire Feeders**

- 22A #951 190 See Lit. Index No. M/11.0
- 24A #951 193 See Lit. Index No. M/11.0
- 70 Series See Lit. Index No. M/3.0
- SuitCase® 12RC #951 580 See Lit. Index No. M/6.5
- SuitCase® X-TREME® 8VS #951 583 See Lit. Index No. M/6.42
- SuitCase® X-TREME® 12VS #951 543 See Lit. Index No. M/6.42
- XR™-Controls #300 601 XR-S model. See Lit. Index No. M/1.7
-              #300 687 XR-D model. See Lit. Index No. M/1.7

**Swingarc™ Boom Feeders**

- See Lit. Index No. M/13.11

**Remote Controls**

- RMLS-14 #129 337 Rocker switch
- RCC-14 #151 086 Fingertip control (side to side)
- RCCS-14 #043 688 Fingertip control (up and down)
- RHC-14 #242 211 020 Hand control with 20-ft. (6 m) cord and 14-pin plug
-              #242 211 100 Hand control with 100-ft. (30.5 m) cord and 14-pin plug
- RFCS-14 #043 554 Foot control

**Options and Accessories**

- Ground Current Sensor #195 048 Field
- Extension Cables See page 6
- Industrial MIG 4/0 Kit #300 390 Includes flowmeter regulator with 10-ft. (3 m) gas hose, 10-ft. (3 m) 4/0 feeder weld cable with lugs, and 15-ft. (4.6 m) work cable with 600-amp C-clamp
- Polarity Control #042 871
- Process Control Selector #042 872
- Standard Running Gear #042 886
- Standard Cylinder Rack #042 887
- HF-251D-1 Starter/Stabilizer #042 388 See Lit. Index No. AY/5.1
- Coolant Systems See page 6
- Coolant #043 810
- Primary Power Cable
- Secondary Welding Cables
- Work Cable and Clamp

**Date:**

**Total Quoted Price:**

* Certified by Canadian Standards Association to both the Canadian and U.S. Standards.
** 50 Hz models with CE Specifications are manufactured according to the Standards IEC-974-1 and EN-60974-1.