

# Mark VI

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**Multiple Arc  
Welding System** 

## Quick Specs

### Heavy Industrial Applications

Construction  
Rental Fleets  
Fab Shops  
Petro Chemical  
Shipbuilding  
Training Facilities  
Maintenance

### Processes

Stick (SMAW) **CC**  
TIG (GTAW) **CC**  
Air Carbon Arc (CAC-A)  
Cutting and Gouging **CC**  
Flux Cored (FCAW) **CV**  
MIG Spray Transfer (GMAW)  
with Voltage-Sensing Feeder **CV**

**Voltage Range** **CC:** 20–315 A  
**CV:** 10–30 V (with CC/CV Module)

**Max. Open-Circuit Voltage**  
**CC:** 75 VDC **CV:** 38 VDC  
**CC/CV Low OCV Module:** 26 VDC  $\pm$ 2 V

**Weight** Mark VI: 1725 lb (784 kg)  
Mark VI-2: 1575 lb (718 kg)

## The Power of Blue.®

### Multiple capabilities CC or CC/CV.

Versatility and outstanding arc welding performances in both CV (MIG) and CC (TIG and Stick). The CC/CV module has a high quality arc for welding with cored wires. Miller does not recommend that the CC/CV module be used for short circuit transfer MIG welding. The CC module has the same great arc characteristic as the Gold Star 302.

Rugged and durable enclosure **steel frame** protects system.

Capable of **four to six welding arcs**, Miller's unique modules are designed for easy removal and connection. If you need only four arcs today, purchase the Mark VI-2. If you have a requirement for more arcs, additional modules (CC or CV) are available for purchase.

**Weighs less than one ton** which makes it portable when secured on a flatbed, construction truck, or when moved by one-ton hoist. Fits through 36 in (914 mm) door opening.



**Optional Low OCV** in CC/CV modules reduces maximum open-circuit voltage to 26 volts in CC and CV modes when not welding.

**Adjustable arc control** lets you get in tight without sticking the electrode. An electrode compensation circuit ensures arc control performance regardless of the electrode size.

**Hot Start™** makes it easy to start difficult-to-start Stick electrodes, such as E-6010 and E-7018.

**Line voltage compensation** keeps output power constant even if primary input power varies by  $\pm$ 10%, ensuring consistent weld performance.

**Operator identification label** helps operators remember who is using which module.

60 Hz models have two **115 V GFCI duplex receptacles** which supply 15 amps of auxiliary power. 50 Hz models have one 220 V and one 115 V duplex receptacle.

**14-pin receptacle** provides quick, direct connection to Miller wire feeders and accessories.

**Work connections** are electrically isolated from the frame, and **service panels in chassis** provide easy access to internal parts for routine maintenance.

**TRUE BLUE®**  
3YR. WARRANTY

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

MADE IN **USA**  
APPLETON, WI



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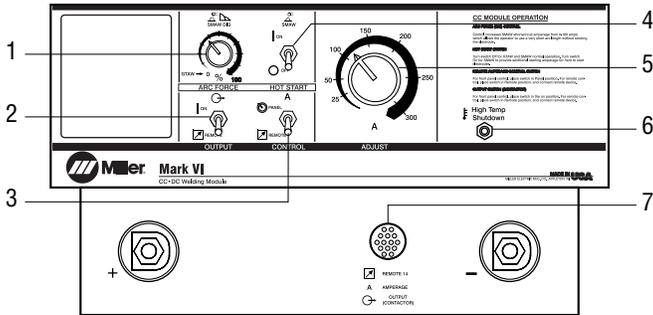
# Specifications (Subject to change without notice.)



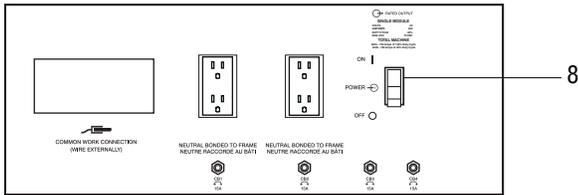
Rated Welding Output at 44 Volts DC	DC Amperage/Voltage Range	Max. Open-Circuit Voltage (DC)	Amps Input at 750 Amps Output, 50/60 Hz 230 V 380 V 400 V 415 V 440 V 460 V 575 V KVA KW	Dimensions	Net Weight
<b>Single Module</b> 250 A at 60% Duty Cycle	20–315 A in CC Mode	75 VDC in CC Mode	164 97 92 91 84 82.5 66.1 65.2 41.9	H: 65 in (1651 mm) W: 56-3/4 in (1442 mm) D: 34-1/4 in (870 mm)	Mark VI : 1725 lb (784 kg)
<b>Main Transformer</b> <b>60 Hz:</b> 750 A at 100% Duty Cycle 1500 A at 25% Duty Cycle <b>50 Hz:</b> 750 A at 60% Duty Cycle 1160 A at 25% Duty Cycle	10–30 V in CV Mode with CC/CV Module	38 VDC in CV Mode with CC/CV Module 26 VDC ±2 V with CC/CV Module and low OCV			Mark VI-2: 1575 lb (718 kg)

## Control Panel

UPPER PANEL FOR CC UNITS

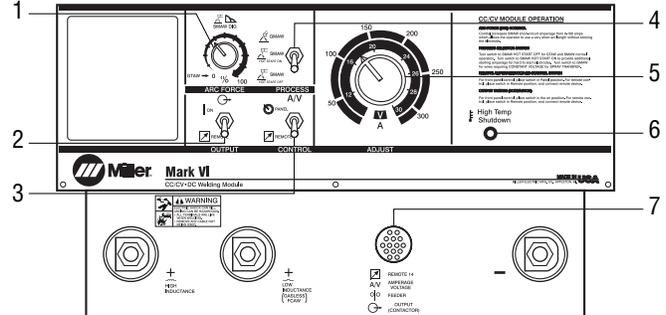


LOWER PANEL

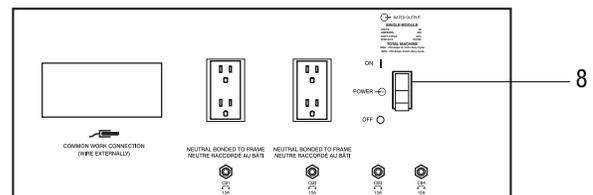


1. Arc Force Control
2. Remote/On Output Contactor Control
3. Remote/Panel Output Amperage Control
4. Hot Start On/Off Switch
5. Amperage Adjustment Control
6. High-Temperature Shut Off Indicator
7. 14-Pin Remote Receptacle
8. Power On/Off Switch

UPPER PANEL FOR CC/CV UNITS



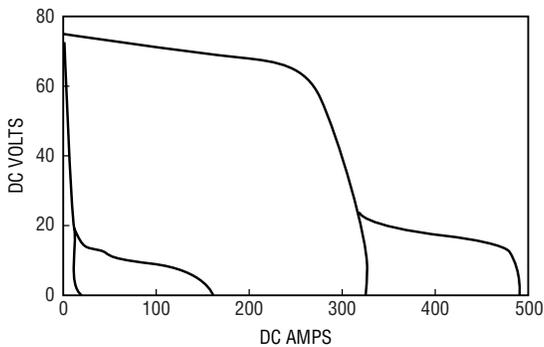
LOWER PANEL



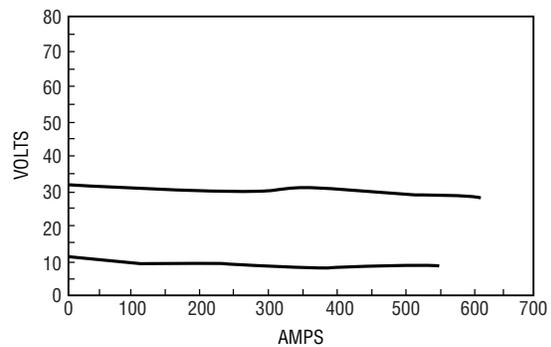
1. Arc Force Control
2. Remote/On Output Contactor Control
3. Remote/Panel Output Amperage Control
4. Process Selector
5. Amperage/Voltage Adjustment Control
6. High-Temperature Shut Off Indicator
7. 14-Pin Remote Receptacle
8. Power On/Off Switch

## Performance Data

CC VOLT/AMP CURVES FOR EACH MODULE

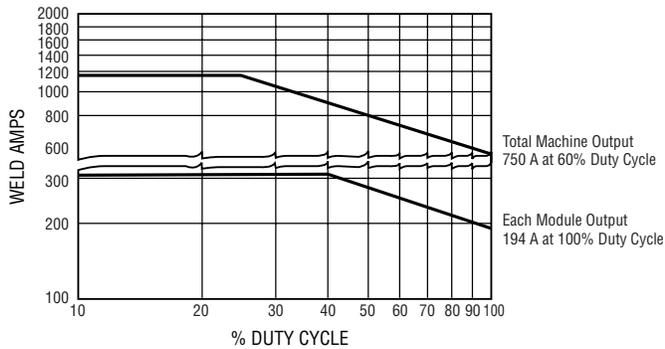


CV VOLT/AMP CURVES FOR EACH MODULE

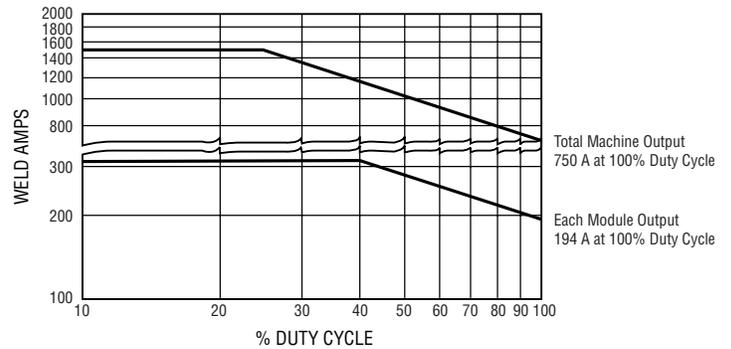


## Performance Data (continued)

### 50 Hz DUTY CYCLE CHART



### 60 Hz DUTY CYCLE CHART



## Genuine Miller Accessories

### Process Selector Control #042 872

Allows you to easily change weld processes without changing cables—from MIG to TIG or TIG to Stick. Also for use with dual wire feeders and applications where electrical isolation and/or polarity reversing of weld current is required.

### Stick Hook-up Kit

**#173 851** 50 ft (15.2 m) 2/0 cable  
Includes electrode holder, weld cable and work cable with clamp.

### MIG Hook-Up Kit

**#173 856** 25 ft (7.6 m) 2/0 cable  
Includes gas hose assembly, lugged weld cable assembly and work cable with clamp.



### HF-251D-1 High-Frequency Arc Starter/Stabilizer #042 388

This portable 250 A, 60% 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.

## Wire Feeders



### SuitCase™ 8RC #194 938

### SuitCase™ 12RC #194 940

Compact, portable, constant-speed wire feeder with remote voltage control. For .030–5/64 in (0.8–2 mm) hard and flux cored wires. Holds up to an 8 in, 14 lb (8RC) or 12 in, 44 lb (12RC) spool of wire. See Lit. Index No. M/6.5.



### SuitCase™ 8VS Wire Feeder #194 890

### SuitCase™ X-TREME™ 12VS

### Wire Feeder #195 500

Lightweight, portable, voltage-sensing wire feeders include secondary contactor and gas valve. Require drive roll kit. See Lit. Index Nos. M/6.4 and M/6.41.

## Remote Controls and Switches



### RFCS-14 Foot Control #043 554

Heavy-duty foot current and contactor control. Includes 20 ft (6 m) cord and 14-pin plug.



### RCC-14 Remote Contactor and Current Control #151 086

Rotary-motion fingertip control. Fastens to TIG torch using two Velcro strips. Allows complete current and contactor control at operator's fingertips. Includes 28 ft (8.5 m) cord and plug.



### RCCS-14 Remote Contactor and Current Control #043 688

Up-and-down rotary-motion fingertip control. Great for applications that require a finer amperage control. Includes 28 ft (8.5 m) control cord.

# Genuine Miller Accessories (continued)

## Remote Controls and Switches



### RHC-14 Hand Control #129 340

Miniature hand control for remote current and contactor control.

Dimensions: 4 x 4 x 3-1/4 in (102 x 102 x

82 mm). Includes 20 ft (6 m) cord and 14-pin plug.



### RMLS-14 #129 337

Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and back for momentary contact. Includes 20 ft (6 m) cord and 14-pin plug.

## Extension Cables for 14-Pin Plugs to 14-Pin Sockets

#122 973 25 ft (7.6 m)

#122 974 50 ft (15.2 m)

#122 975 75 ft (22.8 m)

Extension cords make a direct connection between the power source and the accessory control. No messy splicing or adapting required.

## Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
Mark VI-2 (Four Modules)	#903 588 #903 588-01-1	230/460/575 V, 60 Hz With Tweco connectors		
Mark VI CC (Six Modules)	#903 512 #903 569	230/460/575 V, 60 Hz 380/400/415/440-460 V, 50/60 Hz		
Mark VI CC/CV (Six Modules)	#903 645 #903 660 #903 645-01-1 #903 645-02-1	230/460/575 V, 60 Hz 380/400/415/440-460 V, 50/60 Hz Low OCV modules With Cam-Lok connectors and Low OCV		
Single CC Module	#903 661	CC module, 50/60 Hz		
Single CC/CV Modules	#903 646 #903 659 #903 899	CC/CV module, 60 Hz CC/CV module, 50/60 Hz CC/CV, Low OCV modules		
<b>Stick Accessories</b>				
Stick Hook-up Kit	#173 851	2/0 cable, 50 ft. Includes electrode holder, weld cable and work cable with clamp		
Stick Electrodes				
<b>TIG Accessories</b>				
HF-251D-1	#042 388	HF arc starter/stabilizer		
Torch and Consumables				
Tungsten				
<b>MIG Accessories</b>				
SuitCase™ 8RC	#194 938	See Lit. Index No. M/6.5		
SuitCase™ 12RC	#194 940	See Lit. Index No. M/6.5		
SuitCase™ 8VS	#194 890	See Lit. Index No. M/6.4		
SuitCase™ X-TREME™ 12VS	#195 500	See Lit. Index No. M/6.41		
MIG Hook-Up Kit	#173 856	2/0 cable, 25 ft. Includes gas hose, weld cable, work cable w/ clamp, and regulator/flowmeter		
<b>Remote Controls</b>				
RFCS-14	#043 554	Foot control		
RCC-14	#151 086	Fingertip control		
RCCS-14	#043 688	Fingertip control		
RHC-14	#129 340	Hand control		
RMLS-14	#129 337	Momentary- and maintained-contact switch		
Extension Cords	#122 973 #122 974 #122 975	25 ft (7.6 m) 50 ft (15.2 m) 75 ft (22.9 m)		
<b>Miscellaneous</b>				
Process Selector Control	#042 872			
Primary Power Cord				
Gas Cylinder				
Gas Hose and Fittings				

Date:

Total Quoted Price:

Distributed by:

