

# CST™ 250

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Stick/TIG Welding  
Power Source



## Quick Specs

### Industrial Applications

Power Plant Construction  
Petrochemical Construction  
Maintenance and Repair  
Shipbuilding

### Processes

Stick (SMAW)  
TIG (GTAW) Lift-Arc  
Air Carbon Arc (CAC-A)  
Cutting and Gouging

**Input Power** Requires 3- or 1-Phase Power

**Amperage Range** 5–250 A

**Max. Open-Circuit Voltage** 60 (77 V on 575 V)

**Weight** 40.2 lb (18.2 kg)

## The Power of Blue.®

**Superior Stick arc performance** even on the difficult-to-run electrodes like E6010.

**Adaptive Hot Start™ for Stick arc starts** automatically increases the output amperage at the start of a weld should the start require it. Prevents the electrode from sticking and creating an inclusion.

**Lift-Arc™ start** provides TIG arc starting without the use of high frequency.

**Easy installation** with simple method of linking for 230 V or 460–575 V input.

**Simple to operate** with a process selector knob which automatically sets the proper dig setting on EXX10 and EXX18 type electrodes and an amperage adjust.

Inverter-based, DC power source has a **simple-to-use operator interface** providing only the necessary controls in a compact machine.



**Optional 4-pack racks** are available for multiple operator applications. These are commonly used in construction and shipyard applications. All CST controls including the power switch are located on front of the machine for easy access.

**Portable** in the shop or at the job site — at 40.2 lb the CST 250 is easily moved from location to location.

**Remote amperage control** provided through 14-pin receptacle on front of the machine. This permits use of standard remote amperage control devices.

**Tweco or Dinse-style connectors** are available on the CST 250.

**9 ft power cable included.**

**TRUE BLUE®**  
3 YR. WARRANTY

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

MADE IN **USA**  
APPLETON, WI **USA**



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# Specifications (Subject to change without notice.)

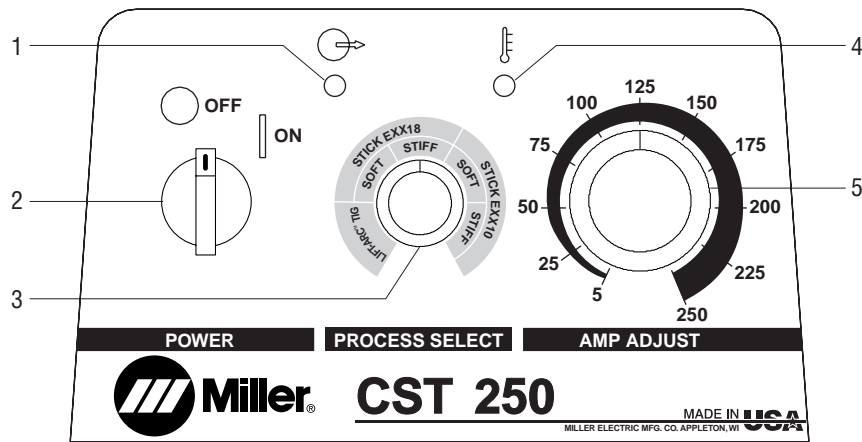


Welding Mode	Input Power	Rated Output	Welding Amperage Range	Max. Open-Circuit Voltage	Amps Input at Rated Load Output, 50/60 Hz					Dimensions	Net Weight
					230 V	460 V	575 V	KVA	KW		
Stick (SMAW)	3-Phase	250 A at 30 V, 50% Duty Cycle	5–250 A	77 VDC	30.5	14.7	11.6	11.7	8.6	H: 13-1/2 in (343 mm) W: 7-1/2 in (191 mm) D: 18 in (457 mm)	40.2 lb (18.2 kg)
		200 A at 28 V, 100% Duty Cycle			21.7	11.4	9.2	9.1	6.4		
TIG (GTAW)	1-Phase	200 A at 28 V, 50% Duty Cycle*	5–200 A	60 VDC	42.6	—	—	9.8	6.5		
		150 A at 26 V, 100% Duty Cycle*			30.4	—	—	6.9	4.4		

\* Output ratings on 230 V single-phase are reduced to comply with CSA current limitation on input power cable.

CSA approval. 1P23M approval.

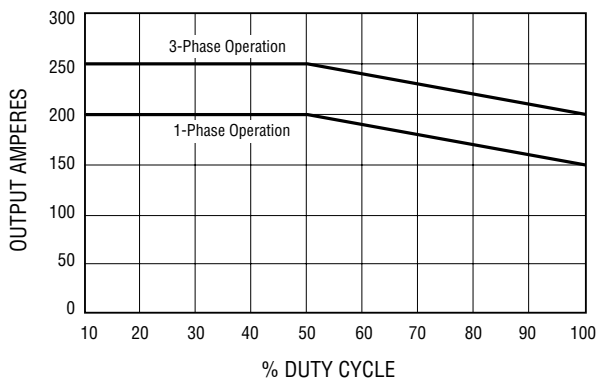
## Control Panel



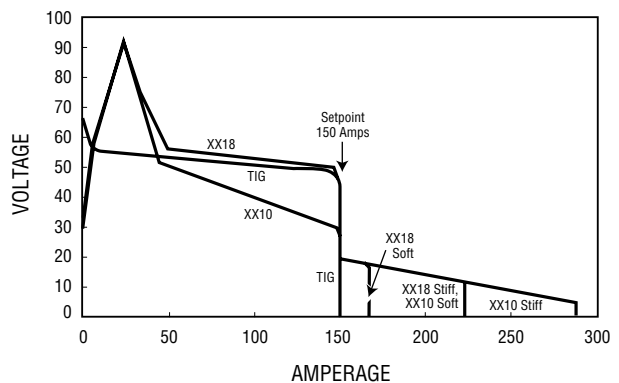
1. Output Light
2. On/Off Switch
3. Weld Process Selector Switch
4. Overtemp Light
5. Amperage Adjustment Control (5–250 Amps)

## Performance Data

DUTY CYCLE CHART



VOLT/AMP CURVE AT 150 AMPS



## Genuine Miller Accessories

### TIG (GTAW) Torches



#### Diamondback™ TIG Torches

The NEW Diamondback line of ergonomically designed TIG torches from Miller Electric complements the most popular TIG power source line available today. The Diamondback torch line includes both air-cooled and water-cooled models. The air-cooled models range in size from 125 to 200 A. The water-cooled models include 250 and 350 A torches. All models are standard with a rigid head. See Diamondback TIG Torch Selector Guide.

### Remote Controls



#### RCC-14 Remote Contactor and Current Control\* #151 086 14-pin plug

Side-to-side rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Includes 28 ft (8.5 m) control cord. Great for production or contractors that need quick ramp-up.

#### International-Style Connector

#042 418 50 mm

Accepts #1 or #2 AWG cable size. Required if male plugs shipped with power source must be replaced or if additional plugs are needed. Kit includes one International-style male plug which attaches to the work and/or weld cables and plugs into the International-style receptacles on the power source.

#### Extension Kit for International-Style

Cable Connectors #042 419 50 mm

Accepts #1 or #2 AWG size cable. Used to adapt or extend weld and/or work cables. Kit includes one male International-style plug and one in-line female International-style receptacle.



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

Up-and-down rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Includes 28 ft (8.5 m) control cord. Great for applications that require a finer amperage control.



#### RFCS-14 Foot Control\* #043 554

Foot pedal provides remote current and contactor control. Includes 20 ft (6 m) cord and 14-pin plug.



#### 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.



#### RFCS-14 HD Foot Control\* #194 744

For all Miller solid-state power sources after serial number JK674521. This new design increases stability with a larger base, and durability with a heavier cord. Maximum flexibility is accomplished with a reconfigurable cord that can exit the front, back or either side of the pedal. Foot pedal provides remote current and contactor control. Includes 20 ft (6 m) cord and 14-pin plug.

*\*Note: The remote controls provide amperage control only on the GST 250, no remote contactor control.*

## Cable Connectors and Adapters

*Note: The Dinse version of the CST 250 includes one set of male connectors. The tweco version does not.*



#### International/Tweco® Adapter #042 465

A one-piece adapter which has an International-style male plug (to power source) on one end and a female Tweco receptacle (for weld cable connection) on other end.



#### International/Cam-Lok Adapter #042 466

A one-piece adapter which has an International-style male plug (to power source) on one end and a Cam-Lok receptacle (for weld cable connection) on other end.



#### Tweco/Dinse Adapter #195 116

A one-piece adapter which has a Tweco-style male plug (to power source) on one end and a female Dinse or International-style receptacle (for weld cable connection) on other end.



#### Tweco-Style Connector 50 mm #195 115

Accepts #1 or #2 AWG cable size. Kit includes one Tweco-style male plug which attaches to the work and/or weld cables and plugs into the receptacle on the power source.

# CST™ 250 Rack



Shown with optional wheelkit.

- The rack provides a simple means of protecting and transporting welding power sources for construction, power plant turn-arounds, and shipbuilding applications.
- The CST™ 250 Rack's low weight (340 lb fully loaded) enables the use of elevators to move the rack.
- Top cover to protect the machines from falling debris.
- Meets NEC requirements.
- Lift truck side and end fork pockets.
- Lifting eye simplifies transportation using crane or overhead lifting device.
- One main disconnect box with fused circuit breaker switches for each machine.
- Common output ground connection (for same polarity use only).
- CSTs can be paralleled for Air Carbon Arc cutting.
- Running gear (optional).
- Dual Rack Kit connects two CST Racks to form an 8-Pack Rack (optional).

## CST Rack Specifications (Subject to change without notice.)

Power Source Used	Input Power to Rack	Rack Capacity	Dimensions	Net Weight
CST 250	460–575 VAC, 60 Hz, Three-Phase, Input Amperage: 60	4	H: 50-3/4 in (1289 mm) W: 25-1/2 in (648 mm) D: 26-1/2 in (673 mm)	340 lb (155 kg)

## Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
CST™ 250 with Dinse-style connector*	#907 052 #907 165	230/460–575 VAC, 50/60 Hz 220/400–440 VAC, 50/60 Hz		
CST™ 250 with Tweco-style connector*	#907 116	230/460–575 VAC, 50/60 Hz		
<b>Power Source Racks and Options</b>				
CST™ 250 Tweco Rack	#907 118	Rack with 4 CST 250, 460–575 VAC, with Tweco-style connector		
CST™ 250 Dinse Rack	#907 077	Rack with 4 CST 250, 460–575 VAC, with Dinse-style connector		
Running Gear for Rack	#195 114	For CST 250 Rack		
Dual Rack Kit	#195 267	For CST 250 Rack		
<b>TIG Accessories</b>				
TIG Torches	DB17V252	150 A, 25 ft, air-cooled TIG torch with valve		
<b>Remote Controls</b>				
RHC-14 Remote Control	#129 340	Remote current hand control		
RCC-14	#151 086	Remote current side-to-side rotary control		
RCCS-14	#043 688	Remote current up and down rotary control		
RFCS-14	#043 554	Remote current foot pedal control		
RFCS-14 HD	#194 744	Remote current foot pedal control with 20 ft (6 m) cord and 14-pin plug		
Extension Cord for Remote Controls	#122 973 #122 974 #122 975	25 ft (7.6 m) 50 ft (15.2 m) 75 ft (22.8 m)		
<b>Cable Connectors and Adapters</b>				
International-Style Connector	#042 418	50 mm		
Extension Kit for International-Style	#042 419	50 mm		
International/Tweco® Adapter	#042 465	A one-piece adapter with International-style male plug		
International/Cam-Lok Adapter	#042 466	A one-piece adapter with International-style male plug		
<b>Tweco-style Connectors</b>				
Tweco-style Connector	#195 115	50 mm		
Adapter, Tweco/Dinse	#195 116	One-piece adapter with Tweco-style male connector and Dinse-style female connector		

Date: Total Quoted Price:

\*The Dinse version of the CST 250 includes one set of male connectors. The Tweco version does not.

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