

# STH 270

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Stick/TIG Welding  
Power Source



## Quick Specs



### Industrial Applications

Petro/Chemical  
Mechanical Contractors  
Shipboard Installation  
Process Piping

### Processes

Stick (SMAW)  
Lift-Arc™ TIG (GTAW)  
Pulsed TIG (GTAW-P)

**Input Power** 400 V, Three-Phase

**Amperage Range** 5–270 A

**Rated Output** 270 A at 30.8 V, 40% Duty Cycle

**Net Weight** 24 kg (52.9 lb.)

**Portable** in the shop or at the jobsite — at 24 kg (52.9 lb.) the STH 270 is easily moved from location to location.

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

**Thermal overload protection with indicator light** helps prevent machine damage if the duty cycle is exceeded or airflow is blocked.

**VRD function** is a simple design that reduces the open-circuit voltage to 12 volts when the welding power source is not in use.

**Digital meter.** Preset amperage or actual amperage/voltage while welding.

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

**Selectable trigger configuration** allows the operator to choose 2T or 4T trigger method.

**Built-in gas solenoid** eliminates the need for a bulky torch with gas valve.

**Built-in upslope/downslope function** helps provide better arc starts and reduces craters.



Shown with  
MH Running Gear



Warranted for 3 years, parts and labour.

### STH 270 comes complete with:

- Power source
- 3-meter (10 ft.) power cord
- Gas connection kit

See page 2 for ordering information.

**Adjustable postflow** gives the operator better control of the gas parameters affecting weld zone.

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

**HF start** for non-contact arc starting that eliminates tungsten or material contamination.

**Built-in pulsing capabilities** allow the operator to select from four fixed pulse frequencies to satisfy the application.

**Adjustable Hot Start™** for Stick arc starts. Adjust the optimal start current for the application. The current automatically increases the output amperage at the start of a weld.

**Adjustable Arc Force™** prevents sticking. Adjust the optimal arc force value. Adjustable arc force supports positional welding by increasing the output amperage.

## Specifications (Subject to change without notice.)



| Input Power                    | Welding Mode | Amperage/Voltage Range | Rated Output  | KVA/KW  | Max. Open-Circuit Voltage | Dimensions   | Net Weight          |
|--------------------------------|--------------|------------------------|---|---|---------------------------|--|---------------------|
| 400 V, 16 A, 3-phase, 50/60 Hz | Stick        | 5–270 A<br>20–30.8 V   | 180 A at 27.2 V, 100% duty cycle<br>270 A at 30.8 V, 40% duty cycle | 7.9 KVA/7.1 KW at 100% duty cycle<br>11.4 KVA/10.3 KW at 40% duty cycle | 50 VDC<br>(12 VDC)*       | H: 345 mm<br>(13.6 in.)<br>W: 219 mm<br>(8.6 in.)<br>D: 568 mm<br>(22.4 in.) | 24 kg<br>(52.9 lb.) |
|                                | TIG          | 5–270 A<br>10–20.8 V   | 180 A at 17.2 V, 100% duty cycle<br>270 A at 20.8 V, 40% duty cycle | 4.8 KVA/4.0 KW at 100% duty cycle<br>7.7 KVA/6.7 KW at 40% duty cycle   |                           |  |                     |

\* VRD sense voltage for Stick and Lift-Arc™ TIG. All CE models conform to the applicable parts of the IEC 60974 series of standards.

**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 -10 to 40°C (14 to 104°F). Storage temperature range is -30 to 65°C (-22 to 149°F). Portions of the preceding text are contained in EN 60974-1: "Welding power sources for arc welding equipment."



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MillerWelds.com

## Genuine Miller® Accessories



**HydraCool® 270 Coolant System**  
**#028 042 107** 400 VAC  
 Designed to integrate with the STH 270 power source. For use with water-cooled torches rated up to 280 amps. 4.9-litre (1.3 gal.) capacity.



**Small Runner Cart**  
**#300 988**  
 Designed for Maxstar 280, Dynasty 280 and STH 270, with or without cooler. Cart features single cylinder rack, cable holder and foot pedal holder.



**MH Running Gear**  
**#018 035 026**  
 Designed for Maxstar 280, Dynasty 280 and STH 270, with or without cooler. Easy-to-manoeuvre two-wheel cart with single cylinder rack, cable holder and storage area.

### Remote Controls



**RCC-14 Remote Contactor and Current Control** **#151 086**  
 Side-to-side rotary-motion fingertip current/contactor control fastens to TIG torch using two Velcro® straps.



**RCCS-14 Remote Contactor and Current Control** **#043 688**  
 Up-and-down rotary-motion fingertip current/contactor control fastens to TIG torch using two Velcro® straps.



**SHRC-14 Remote Control**  
**#058 040 019** 5 m (16.4 ft.)  
**#058 040 020** 10 m (32.8 ft.)  
**#058 040 021** 20 m (65.6 ft.)  
 Single-hand control for current only.



**RFCS-14 HD Foot Control** **#194 744**  
 Heavy-duty foot pedal current/contactor control with increased stability and durability.

Cord can exit front, back or either side.



**RHC-14 Hand Control**  
**#242 211 020**  
 Miniature hand control for remote current and contactor control.



**RMS-14 On/Off Control** **#187 208**  
 Momentary-contact switch for contactor control. Rubber-covered pushbutton dome switch ideal for repetitive on-off applications.

## Ordering Information

| Power Source                  | Stock No.  | Description  | Qty. | Price |
|-------------------------------|--|--|------|-------|
| <b>STH 270</b>                | <b>#059 016 024</b>  | 400 VAC, 3-phase, 50/60 Hz   |      |       |
| <b>Accessories</b>            |  |  |      |       |
| HydraCool® 270 Coolant System | <b>#028 042 107</b>  | 400 VAC. 4.9-litre (1.3 gal.) cooler for water-cooled torches up to 280 amps   |      |       |
| Blu-Liquid Coolant            | <b>#050 024 004</b>  | Low conductivity, 10 litres (2.6 gal.)   |      |       |
| Small Runner Cart             | <b>#300 988</b>  | Four-wheeled cart with cylinder rack, cable holder and foot pedal holder   |      |       |
| MH Running Gear               | <b>#018 035 026</b>  | Two-wheeled cart with cylinder rack, cable holder and foot pedal holder  |      |       |
| Welding Cable Kit, Stick      | <b>#058 066 039</b><br><b>#058 066 040</b><br><b>#058 066 041</b><br><b>#058 066 042</b><br><b>#058 066 043</b><br><b>#058 066 044</b> | 200 A, 35 mm <sup>2</sup> , 3 m (9.8 ft.)<br>200 A, 35 mm <sup>2</sup> , 5 m (16.4 ft.)<br>300 A, 50 mm <sup>2</sup> , 5 m (16.4 ft.)<br>300 A, 50 mm <sup>2</sup> , 10 m (32.8 ft.)<br>300 A, 50 mm <sup>2</sup> , 15 m (49.2 ft.)<br>300 A, 50 mm <sup>2</sup> , 20 m (65.6 ft.) |      |       |
| TIG Torch                     |  |  |      |       |
| Tungsten                      |  |  |      |       |
| Helmet                        |  |  |      |       |
| Gas Hose                      |  |  |      |       |
| <b>Remote Controls</b>        |  |  |      |       |
| RCC-14                        | <b>#151 086</b>  | 8 m (26.5 ft.), remote current/contactor side-to-side rotary control   |      |       |
| RCCS-14                       | <b>#043 688</b>  | 8 m (26.5 ft.), remote current/contactor up-and-down rotary control  |      |       |
| SRHC-14                       | <b>#058 040 019</b><br><b>#058 040 020</b><br><b>#058 040 021</b>  | 5 m (16.4 ft.), single-hand remote control for current only<br>10 m (32.8 ft.), single-hand remote control for current only<br>20 m (65.6 ft.), single-hand remote control for current only  |      |       |
| RFCS-14 HD                    | <b>#194 744</b>  | 6 m (20 ft.), remote current/contactor foot pedal control  |      |       |
| RHC-14                        | <b>#242 211 020</b>  | 6 m (20 ft.), remote current/contactor hand control  |      |       |
| RMS-14                        | <b>#187 208</b>  | 8 m (26.5 ft.), momentary-contact switch for contactor control   |      |       |

Date:

Total Quoted Price:

Distributed by:

