



MIG (GMAW)

FABRICATOR® 181



PROCESS		MIG	FLUX CORED		
Part Number	Rated Output @ Duty Cycle	Output Range	Dimensions (H x W x D)	Net Weight	
100051A-001 (230V, 1 ph, 60 Hz)	130 Amps / 20V @ 30%	40 – 180 Amps	14.5" x 10.0" x 18.1" 368 x 254 x 460 (mm)	66 lbs. (30 kg)	

The Fabricator® 181 is a single phase 230 VAC input wire welder with Constant Voltage (CV) output characteristics designed for MIG (GMAW) and Flux Cored (FCAW) welding applications. With an output range of 40 to 180 Amps, the Fabricator 181 allows you to weld materials down to 26 gauge and materials up to 1/4".

The Fabricator 181 features a quick disconnect fitting gun allowing the operator to set up out-of-the-box very easily and quickly and is a timesaving and convenient feature when removing the torch to clean or when replacing the liner. Other features include a feeder drive system which has a rugged non-conductive feedhead, a low noise constant speed drive motor, an easily adjustable idle roll pressure arm and one feedroll which runs mild steel and stainless steel wire.

This unit comes set up for .030" diameter solid wire and the feed roll also contains a groove for .023"/.035" wire. Optional kits are also available to convert the gun and feed system to use .030", .035" and .045" flux cored and self-shielding wire (mild steel and stainless steel) and .035" aluminum wire.

The Fabricator 181 comes equipped with: a built-in wire feeder and wire spool hub; a 2 lb. spool of .030" solid wire; quick connect Tweco® welding gun and cable; work cable and clamp; input power cord; regulator and flowgauge; spare contact tips and nozzles.

The Tweco FABGUN™ 250 MIG Gun fitted to the Fabricator 181 offers robust construction, unparalleled reliability and easy replacement of consumable parts. It also has an operating capacity in excess of the capacity of the Fabricator 181 and is available in 12 ft. (3.66 m) lengths and connects to the power source by a quick-disconnect fitting.

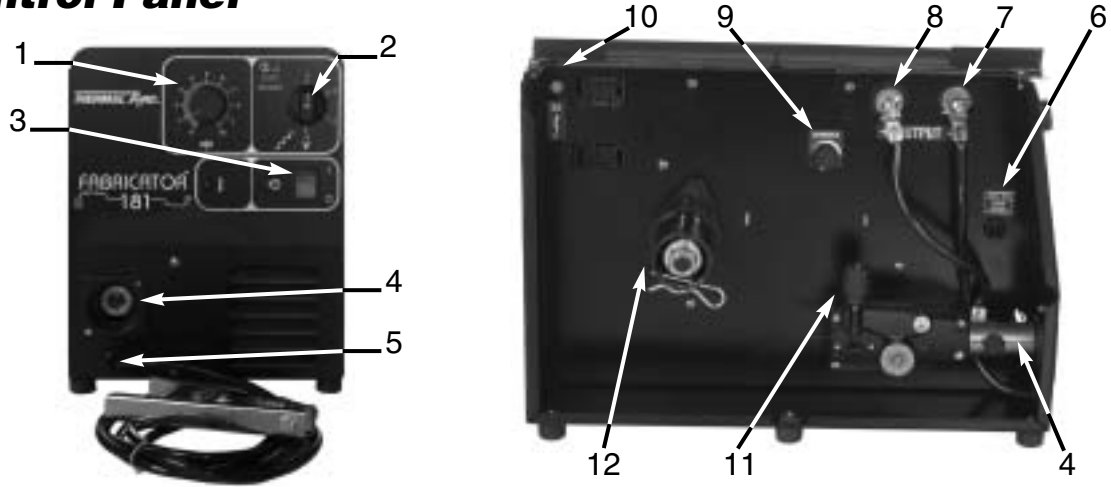
Machine Specifications

Output Range	40 – 180 Amps, DC Single Phase
Input Voltage	230 Volts
Maximum OCV	30 Volts
Input Frequency	60 Hz
Welding Gun Length	12 ft. / 3.66 m
Input Cord Length	6 ft. / 1.83 m
Shielding Gas	Ar, CO ₂ or C ₂₅
Spool Sizes	1 or 2 lbs. (4" / 102mm diameter) 10 lbs. (8" / 203mm diameter)
Work Cable Length	10 ft. / 3.1 m
Approvals	IEC 974-1, IP23S

... ON THE MOVE

Features	Benefits
Tweco FABGUN 250 MIG Gun	Rugged and proven lightweight welding gun with easy replacement of consumable parts
Quick-Disconnect Fitting	Allows for quick and easy out-of-the-box assembly, along with convenient cleaning of the torch and replacement of liner
Thermal Overload Protection	Turns machine off automatically if temperature overload occurs
Wire Feed Speed Control (Full Range)	Allows operator to adjust the wire feed speed, which changes the welding amperage
Rugged Output Welding Terminals	Allows for easy polarity reversal and cable change
Carrying Handle	Portable, easy to carry
Circuit Breaker	Protects feed motor circuit
Quick Disconnect Gun Inlet Hole	Weld power gun connector inserts through this hole and into the gun connector and wire guide adapter and into the feedhead assembly
Work Cable and Clamp	Allows operator to connect to item being welded
Gas Valve	Controls the flow of shielding gas when using MIG (GMAW) welding process
Process Setup Chart	Allows for easy setup and parts identification

Control Panel



- 1. **Wire Feed Speed Control Knob**– Controls the welding current via the electrode wire feed rate.
- 2. **Voltage Control Switch** – Sets the voltage level to the welding terminals. There are 4 positions available.
- 3. **Standby Switch** – Disconnects the auxiliary (control) power and the fan.
- 4. **Gun Inlet Hole** – Connects the MIG Gun to the feedhead assembly.
- 5. **Work Cable & Clamp** – Connects to the item being welded.
- 6. **Gun Switch Connector** – Provided for connection of the gun switch leads.
- 7. **Negative Welding Terminal**
- 8. **Positive Welding Terminal**
- 9. **Burnback Timer** – Allows the electrode wire to burn out of the molten metal weld pool.
- 10. **Control Fuse** – 3 Amp fuse to protect control circuit.
- 11. **Wire Feed Drive Assembly** – Drive rolls push wire through MIG Gun at a constant feed.
- 12. **Wire Reel Hub** – Supports the welding wire and incorporates a friction brake to keep wire from unraveling from spool.

Ordering Information

Part No.

Fabricator® 181 100051A-001
 230 V, 1 ph, 60 Hz (setup for .030" diameter solid wire).
 Complete with regulator, MIG Gun, work cable and clamp, 2lb spool of .030" solid wire.

ACCESSORIES

TWECO® FABGUN™ 250 MIG Gun (12 ft./3.66m) 600301

FEED ROLL

Hard Wire (.023/.030-.035")(0.6/0.8-0.9mm)
 7977940
 Soft Wire (Alum.) (.035/.040")(0.9/1.0mm)
 7977941
 Flux Cored Wire (.030/.035")(0.8/0.9mm)
 7977942
 Flux Cored Wire (.040/.045")(1.0/1.2mm)
 7977943

GAS REGULATOR 600300

PORTABLE MOUNTING WITH CYLINDER RACK 831024
 Accepts 8" diameter cylinder

TORCH PARTS

To order Tweco replacement torch parts (contact tips, nozzles, gas diffusers and conduits) contact Tweco Customer Care Center at 1-800-426-1888

U.S. Customer Care: 800-426-1888 / FAX 800-535-0557 • International Customer Care: 905-827-9777 / FAX 905-827-9797
www.thermarc.com



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