

Fabricator 181i

MULTI PROCESS WELDING SYSTEM



Fabricator® 181i Part No. W1003181

Comes Complete with:

- * Fabricator 181i Power Supply
- * 12 ft. Tweco® WeldSkill® 180 amp MIG Gun
- * Bonus Contact Tips (1 each):
 - .023 (.6mm)
 - .030 (.8mm) Installed
 - .035 (.9mm)
- * Victor® Argon Regulator/Gauge & 10 ft. (3m) Hose
- * Tweco WeldSkill 200 Amp electrode holder with 13 ft. (4m) lead
- * Tweco WeldSkill 200 Amp ground clamp with 10 ft. (3m) lead
- * Drive Rolls:
 - .023" - .030" (0.6mm - 0.8mm) V Groove Installed
 - .023" - .035" (0.6mm - 0.9mm) V Groove
 - .030" - .035" (0.8mm - 0.9mm) for flux cored wire
- * 4 general purpose stick electrodes (E6013)
- * Operator's Manual & Set-up DVD
- * 9 ft. (2.75m) Power Cord and NEMA 6-50P 230V AC Plug
- * Shoulder Strap

QUICK SPECIFICATIONS

PROCESSES

MIG (GMAW)
Flux Cored (FCAW)
Lift TIG (GTAW)
STICK (SMAW)

APPLICATIONS

Automotive Repair & Customization
Farms & Ranches
Training Institutions
Maintenance & Repair
Sheet Metal & Light Fabrication
On-site & Portable Welding Applications
Home Hobbyists (DIY)

RATED OUTPUT

180A / 23V @ 20% Duty Cycle
145A / 22.5V @ 30% Duty Cycle

MAX. OPEN CIRCUIT VOLTAGE

62V DC

AMPERAGE RANGE

10 - 180 Amp

WIRE FEED SPEED

100 - 650 IPM (2.5 - 17.8M/MIN)

WEIGHT

32.2 lbs. (14.6 kg)

ORDER INFORMATION

Part No: W1003181

Description: Fabricator 181i Package

Part No: W1003182

Description: Fabricator 181i Package w/Car

Three Process Capability:

MIG (GMAW/FCAW), STICK (SMAW), TIG (GTAW).

MIG:

- * **Infinite Voltage Control** with optimized starting performance.
- * **Inductance Control** for arc stability and spatter control.
- * **Tweco MIG Gun** w/12 ft. cable and industry standard #4 connection.
- * **Durable Metal Feed Plate** features 2 roll drive system, quick change reversible drive rolls and easy-to-set single scaled wire tension knob.
- * **4" or 8" Spool Capacity** allows easy installation of wire spool sizes.
- * **Spool Gun** ready.
- * **Adjustable Burnback Control.**

STICK:

- * **Adjustable Arc Force Control** for optimum STICK electrode performance.
- * Built in **Hot Start** for easy arc starting.

TIG:

- * **Lift TIG Start:** Provides TIG arc starting without use of high frequency.
- * **Downslope:** Eliminates the crater that can form at the completion of a weld.

Other Features:

- * **Digital Meters:** Voltage and Amperage; Preview and Hold capability.
- * **Excellent Portability:** Lightweight, less than 33 lbs. includes shoulder strap.
- * **Comprehensive Setup Chart:** Weld set up guide for optimum welding performance over a wide range of materials and shielding gases.
- * **Trigger Control:** 4T (Latch) eliminates operator fatigue.
- * **Remote Receptacle:** Enables connection of remote control devices and Spool Gun.
- * **Quick Change Polarity:** Simple quick change polarity (no tools required) from the front of the power source.
- * **Overload Protection:** Shuts down the power source to protect the internal electrical components from overheating.
- * **IP23S:** Suitable for outdoor use.
- * **Intelligent Fan Control:** Operates when welding commences to cool components & reduce airborne contaminants pulled through the power source.

CONTROL PANEL

Digital Meters WFS / Amps and Volt Meters

WFS / Amps Control Knob

Voltage / Arc Control / Down Slope Control Knob



Process Button Select MIG, STICK or Lift TIG

Trigger 2T (ON/OFF) or 4T (Trigger Hold) selection

Inductance Control Knob

SYSTEM FEATURES

Local/Remote Switch

Burnback Control

Easy installation Wire Spool Adaptor & Braking System

Metal 2 Roll wire drive system with quick change drive rolls and single tension arm

Comprehensive Welding Setup Chart for welding process parameters



Control Panel (Refer Above)

MIG Gun/Spool Gun Switch

MIG Gun Connection, Tweco #4

8 pin Remote Receptacle for remote devices & Spool Gun

Heavy Duty Welding output terminals with polarity reversal capability

SPECIFICATIONS

WELDING DC	
Maximum Output	180 Amp
MIG (GMAW/FCAW) Welding Output @104°F (40°C)	180A / 23V @ 20% Duty Cycle 145A / 22.5V @ 30% Duty Cycle
STICK (SMAW) Welding Output @104°F (40°C)	175A / 27V @ 20% Duty Cycle 140A / 25.6V @ 30% Duty Cycle
TIG (GMAW) Welding Output @104°F (40°C)	175A / 17V @ 25% Duty Cycle 160A / 16.4V @ 30% Duty Cycle
Current Range	10 - 180 Amp
MIG Welding Voltage Range	10 - 25 Volt
Wirefeed Speed Range	100-650 IPM (2.5 - 17.8m/min)
Maximum Plate Thickness	1/4" (6.4mm)
Wire Diameter Range	
Mild Steel:	.023" - .035" (0.6 - 0.9mm)
Stainless Steel:	.023" - .035" (0.6 - 0.9mm)
Aluminum:	.030" - .035" (0.8 - 0.9mm)
Flux cored:	.030" - .045" (0.8 - 1.2mm)
Installed Feedroll Suits MIG Wire	.023" - .030" (0.6 - 0.8mm)
Warranty Period	3 Years*
Approvals	IEC 60974-1 (CE)
Protection Class	IP23S
DIMENSIONS AND WEIGHT	
Dimensions H x W x D	H 16.14" x W 8.27" x D 17.72" (410mm x 210mm x 450mm)
Weight	32.2 lbs. (14.6 kg)

PRIMARY POWER	
Primary Voltage	208/230 VAC
Supply Voltage Range	208 - 265 VAC
Number of Phases	Single Phase
Supply Frequency	50/60Hz
Supply Plug	NEMA 6-50P
Rated kVA @ 180 Amps	9 kVA
Lead Cord Length	9 ft. (2.75m)
Maximum Input Current	37 Amps
REPLACEMENT ITEMS & CONSUMABLES	
Tweco® WeldSkill® 180 Amp MIG Gun, 12 ft.	1017-1316
Nozzle 1/2" Bore	1210-1112
Diffuser	1510-1101
Liner	1420-1113
Contact Tips	Tweco 11-Series
Tweco WeldSkill 200 Amp Electrode Holder w/Lead, 13 ft., 50mm Dinse	WS200E13
Tweco WeldSkill 200 Amp Ground Clamp w/Lead, 10 ft., 50mm Dinse	WS200G10
Victor® CutSkill® Argon Regulator/Gauge	0781-4169
Gas Hose, 12.5 ft., Male 5/8-18UNF	W4013900

* Limited Warranty, refer to warranty schedule.










Comes Complete with:

- 1 Fabricator 181i Power Supply
- 2 Victor Argon Regulator/Gauge & 10 ft. (3m) Hose
- 3 Tweco WeldSkill 200 Amp Electrode Holder with 13 ft. (4m) Lead
- 4 12 ft. Tweco WeldSkill 180 Amp MIG Gun
- 5 Bonus Contact Tips (1 each):
.023 (0.6mm)
.030 (0.8mm) Installed
.035 (0.9mm)
- 6 Tweco WeldSkill 200 Amp Ground Clamp with 10 ft. (3m) Lead
- 7 Operator's Manual & Set-up DVD
- 8 Drive Rolls:
.023" - .030" (0.6mm - 0.8mm)
V Groove Installed
.023" - .035" (0.6mm - 0.9mm) V Groove
.030" - .035" (0.8mm - 0.9mm) for Flux Cored Wire
- 9 4 General Purpose Stick Electrodes (E6013)
Shoulder Strap
- 10 9 ft. (2.75m) Power Cord and NEMA
- 11 6-50P 230V AC Plug (not shown)

ORDERING INFORMATION

Equipment Option	Part No.	Description
Fabricator 181i Package	W1003181	Includes Fabricator 181i, Tweco® WeldSkill 180 Amp MIG Gun, Victor Argon Regulator/Gauge & 10 ft. (3m) Hose, Tweco Electrode Holder & Ground Clamp, Drive Rolls & Contact Tips, Sample Electrodes and Shoulder Strap, Operator's Manual & Set-Up DVD
Fabricator 181i Package w/Cart	W1003182	Includes contents of W1003181 with Cart W4014700

ACCESSORIES

TIG Torch & Accessories <i>(required for TIG welding)</i> 	W4013802	TIG Torch, 17V, 13 ft., 8 pin and accessory kit with 1/16", 3/32", 1/8" thoriated tungstens; 1/16", 3/32", 1/8" collets; 1/16", 3/32", 1/8" collet bodies; No. 5, 6, 7 Alumina nozzle; short back cap; long back cap
Spool Gun <i>(required for aluminum MIG welding)</i> 	1027-1390	Tweco Spool Gun 160A, 12 ft. (3.6M) Length, suits 4" (100mm) spools
Cart 	W4014700	For Welding Power Source
Foot Control 	600285	Contacter On/Off and current control with 15 ft. cable and 8-pin male plug
Hand Pendant 	10-4014	Contacter On/Off and current control with 25 ft. cable and 8-pin male plug
Helmet 	4100-1004	TWECO WeldSkill Helmet
Carry Bag 	W4015300	Protective Carry Bag & Parts Storage

DRIVE ROLLS

Drive Roll .023" - .035" (0.6-0.9mm)	W4014800	V groove for steel & stainless steel
Drive Roll .023" - .030" (0.6-0.8mm)	7977036	V groove for steel & stainless steel wires (Installed)
Drive Roll .035" / .045" (0.9/1.2mm)	7977660	V groove for steel & stainless steel wires
Drive Roll .030" - .035" (0.8-0.9mm)	7977731	U grooved for aluminum wires
Drive Roll .040" - 3/64" (1.0-1.2mm)	7977264	U grooved for aluminum wires
Drive Roll .030" - .035" (0.8-0.9mm)	7977732	V knurled groove for flux cored wires
Drive Roll .045" (1.2mm)	704277	V knurled groove for flux cored wire