

# FLEXCUT<sup>®</sup> 45

## PLASMA CUTTER



### CLEAR CUT PERFORMANCE

The FlexCut™ 45 delivers dependable cutting performance with steady power, high-duty cycles, and continuous output, so you can work without interruptions. Built for professionals, it combines precision, portability, and durability, maintaining consistent performance even during long cutting sessions. Designed to run cooler and longer, it's ideal for demanding applications and cuts through mild steel, aluminum, stainless steel, and grating with ease. Compatible with our FlexConnect™ Torch System giving you the flexibility to switch between torch heads or cables in seconds..

#### Processes »

Plasma Cutting, Grid cutting, Gouging & Marking

#### Applications »

On-site maintenance, Small construction sites, Air ducting installation (HVAC), Demolition work, & Rental

#### Output »



#### Input »



#### Product Numbers »

K5823-H HANDHELD ASSEMBLY  
K5823-M MECHANIZED ASSEMBLY  
K5823-PS POWER SOURCE ONLY

#### Cut Performance - Mild Steel»



## VALUE-ADDED FEATURES

- **45 Amps of Cutting Power:** Tackle thicker materials with confidence and precision.
- **High Duty Cycle:** Built for demanding applications without overheating or slowing down.
- **LCD Display:** Bright, easy-to-read screen with simple controls for quick and precise adjustments.
- **Dual Voltage Flexibility:** Plug into 120V or 230V power sources.
- **Plug-and-Play CNC Integration:** Built-in ports for easy setup - no extra kits required.
- **Multi-Process Capability:** Drag cutting, fine cutting, gouging, and marking with one machine for maximum versatility.
- **Portable Yet Rugged:** Portable design without compromising strength—easy to move, hard to damage.
- **Industrial IP23 Protection:** Resists dust and water spray for dependable performance in challenging conditions.

## KEY CONTROLS

- |                      |                               |
|----------------------|-------------------------------|
| 1. Handle            | 6. Remote Connection (14-pin) |
| 2. User Interface    | 7. Input Power Cable          |
| 3. Main Control Knob | 8. On/Off Switch              |
| 4. Torch Connection  | 9. Air Inlet                  |
| 5. Work Connection   | 10. Cooling Fan               |



## USER INTERFACE

- |                        |                         |
|------------------------|-------------------------|
| 1. Amperage            | 4. Guided Cutting Setup |
| 2. Process             | 5. Advanced Settings    |
| 3. Adjust Air Pressure | 6. Gas Purge            |



## GUIDED CUTTING SETUP

### From power-on to precision cutting in seconds

Don't waste time with complicated setup. With FlexCut™, you're ready to cut in seconds.

1. Adjust machine amperage to recommended setting
2. **Select the Cutting Guide** icon on the main user interface.
3. **Enter your material type and thickness.**
4. **View the recommended cutting amperage**—automatically calculated for clean, precise results.



## FLEXCUT PRO™ TORCH WITH FLEXCONNECT™

### One Torch. Endless Flexibility.

**Patented FlexConnect™ Torch System:** Switch between torch heads or cables in seconds—no tools required.

**Customizable Options:** Choose from multiple torch heads and cable lengths to fit your application.

**Universal Machine Compatibility:** Use one torch across the entire FlexCut™ machine lineup—no need for separate torches for different systems

**Lower Repair Costs:** Replace only the damaged part—head or cable—without buying a whole new torch.



## MORE CUTS. LESS COST. ZERO HASSLE.

**Long-Life Consumables:** Advanced electrode design and optimized airflow deliver more cuts per consumable, reducing replacement frequency and lowering operating costs.

**Threadless Electrode Connection:** No more seized threads—just smooth, quick changes every time.

**Snap-In Installation:** Tool-free design means you can replace consumables in seconds.



## CUTTING SPECIFICATIONS

Recommended Cut Thickness / Speed	5/8 in / 16 ipm
Maximum Cut Thickness / Speed	7/8 in / 7 ipm
Severance Cut Thickness / Speed	1 in / 5 ipm
Pierce Thickness	1/2 in
Gouge Rate	7.5 lbs/hr



## WHAT'S INCLUDED

		Handheld Package K5823-H	Mechanized Package K5823-M	Power Source Only K5823-PS
FlexCut® 45 Plasma Cutter	N/A	•	•	•
FlexCut® PRO FlexConnect® Handheld Torch 25 ft	KP5850-25	•		
FlexCut® PRO FlexConnect® Mechanized Torch 25 ft	KP5852-25		•	
Air Filter	KP5844-1	•	•	•
Work Clamp & Cable	KP6035-1	•	•	•
Input Power Cord	N/A	•	•	•
Shoulder Strap	KP6012-1	•	•	•
Complete Consumable Kit - Handheld	KP5829-45	•		
Complete Consumable Kit - Mechanized	KP5830-45		•	
120V Input Adapter	KP6034-1	•	•	•

## RECOMMENDED ACCESSORIES



**Plasma Circle Cutting Guide Kit**  
For cutting circles 3-33in in diameter. Works with all Lincoln Electric FlexCut PRO torches  
Order KP5916-1

**Plasma Straight & Angle Cutting Kit**  
Guide for making straight cuts with any plasma cutting torch  
Order KP5917-1



**OMNISHield™ Face Shield**  
Shade 5 IR lens provides infrared light protection for plasma cutting applications  
Order K3754-1



**FlexCut PRO FlexConnect Torch**  
Includes 25 ft torch cable and Lincoln Electric's patented handheld FlexConnect torch head  
Order KP5850-25



**FlexCut PRO Mechanized FlexConnect Torch**  
Includes 25 ft torch cable and Lincoln Electric's patented mechanized FlexConnect torch head  
Order KP5852-25



**45A Drag Cutting Consumable Kit**  
Full consumable kit for handheld plasma cutting at 45A  
Order KP5829-45

## PRODUCT SPECIFICATIONS

Product Name	Product Number	Package Type	Input Power Voltage/Phase/ Hertz	Rated Output Current/Voltage/ Duty Cycle	Recommended Circuit Breaker	Output Range	Engine Drive Auxiliary Power Requirement	Gas Pressure Required	Dimensions H x W x D in (mm)	Net Weight lb (kg)
FlexCut 45	K5823-H	Handheld	120/1/50/60 240/1/50/60	50% @ 45A [230V]	30A	15-45A	10kW for 45A	90-130 psi	14.1 x 8.1 x 18.4 [359 x 205 x 468]	26.8 [12.2]
	K5823-M	Mechanized		60% @ 41A [230V] 100% @ 32A [230V]						
	K5823-PS	Power Source Only		20% @ 27A [120V]						

For best cutting results with Lincoln Electric® equipment, always use Lincoln Electric consumables. Visit [www.lincolnelectric.com](http://www.lincolnelectric.com) for more details.

### CUSTOMER ASSISTANCE POLICY

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