

FLEXCUT[®] 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 »



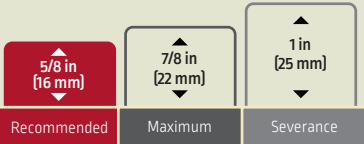
Input »



Product Numbers »

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

Cut Performance - Mild Steel»

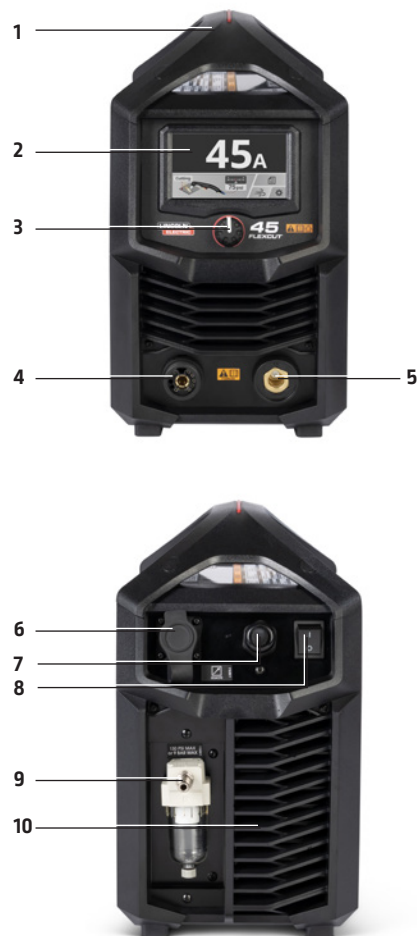


VALUE-ADDED FEATURES

- **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
2. Process
3. Adjust Air Pressure
4. Guided Cutting Setup
5. Advanced Settings
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	18.4 [468] 8.1 [205] 14.1 [359]	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 for more details.

CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, cutting equipment and EV charging systems. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment, or to provide engineering advice in relation to a specific situation or application. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

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