



# **THERMAL DYNAMICS**

**Professional** 

## **PAK<sup>®</sup> 200**

**MANUAL Air-Plasma Cutting & Gouging System**



**INTRODUCING  
NEW MODEL**

**Cuts Mild Steel  
up to 2<sup>3</sup>/<sub>4</sub>"**

- **200 Amps Cutting Power**
- **100% Duty Cycle**
- **Dual Gas for Non-Ferrous**
- **High Gouging Removal Rate**
- **Tip Save for Optimal Tip Life**



Recommended

**1<sup>1</sup>/<sub>2</sub>" (40mm)**

Maximum

**2<sup>3</sup>/<sub>4</sub>" (70mm)**

[www.thermal-dynamics.com](http://www.thermal-dynamics.com)

# PAK<sup>®</sup> 200 Plasma Cutting System

- **200 Amps of Cutting Power** – This unit is capable of hand cutting at 200 Amps with the ability to cut up to 2<sup>3</sup>/<sub>4</sub>" on Mild Steel. At full output this unit will cut 10 ipm (254mm/min) on 2" (51mm) carbon steel.
- **100% Duty Cycle** – This machine offers 100% duty cycle at full output.
- **Dual Gas Capability** – The dual gas system ensures superior quality and performance on ferrous and non-ferrous materials.  
 (Plasma Gas: Air, ArH<sub>2</sub> Secondary Gas: Air, N<sub>2</sub>)
- **High Gouging Removal Rate** – With the ability to remove up to 25 lbs. (11.3kg) of carbon steel per hour.
- **Tip Saver for Optimal Tip Life** – This ensures that any accidental contact between the tip and the work at high power levels will not damage the tip.



## Specifications

<b>Cut Capacity:</b>	1½" (40mm) Recommended 2¾" (70mm) Maximum 1¼" (35mm) Pierce	<b>Input Amps @ Rated Output:</b>	130A @ 208V 3 Phase 125A @ 230V 77A @ 400V 75A @ 460V 58A @ 600V
<b>Output Current:</b>	35 – 200 Amps	<b>Plasma Gas:</b>	Air, ArH <sub>2</sub>
<b>Input Power:</b>	208/230-460V, 3 Phase, 50-60 Hz 400V 3 Phase, 50-60 Hz 600V 3 Phase, 50-60 Hz	<b>Secondary Gas:</b>	Air, N <sub>2</sub>
<b>Kilowatt Output:</b>	40kW	<b>TORCH CONFIGURATION</b>	
<b>Duty Cycle:</b>	100% @ 200A	<b>Torch:</b>	PCH200 Hand/Machine 70/90/180°, 25 ft. (7.6m) or 50 ft. (15.2m) Leads
<b>Dimensions:</b>	Depth: 38.5" (978mm) Width: 27.5" (700mm) Height: 48.75" (1238mm)	<b>Warranty:</b>	2 Years Parts & Labor (Power Supply) 1 Year Parts & Labor (Torch)
<b>Weight:</b>	487 lbs. (221kg) Fully Assembled Power Supply		

## Features and Applications

### Features:

- Up to 200 Amps Output for Faster Cuts
- 100% Duty Cycle at 200 Amps
- Energy Efficient Inverter Technology
- Dual Gas Capability for Significant Improvement in Cut Quality Control
- MaximumLife<sup>®</sup> Parts
- Exclusive Tip Saver<sup>™</sup> Circuit
- Smart Start<sup>™</sup> Auto Pilot Restart
- Smart Logic<sup>™</sup> Over Voltage Protection

### Applications:

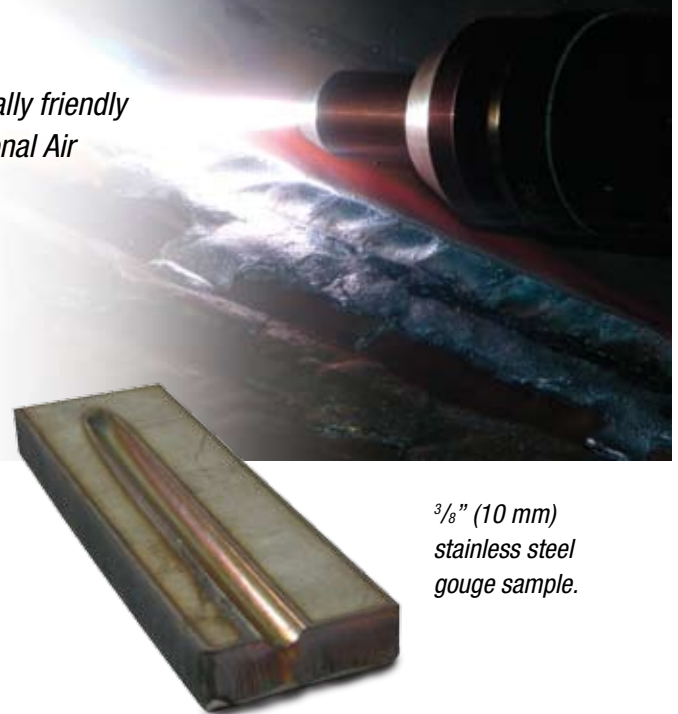
- General Fabrication of Carbon Steel, Stainless Steel and Aluminum
- Over the Road Transport Trailers
- Railroad Maintenance
- Vessel Manufacturing
- Pipe Beveling and Fabrication
- Petroleum Refineries
- Foundries
- Chemical Plants
- Mining Operations
- Ship Building

# **PAK<sup>®</sup> 200**

## **Plasma Arc Gouging (PAG)**

Plasma Arc Gouging is fast, economical and an environmentally friendly method for removing metal. When compared with Conventional Air Carbon Arc gouging (CAC-A), Plasma Arc Gouging offers:

- **Simple Operation**
- **Easy Acceptance from Operators**
- **Clear Visibility of Gouging Area**
- **High Material Removal Rates**
- **Reduced Noise for Operator and Other Personnel in Surrounding Area**
- **Reduced Smoke in Workplace**
- **Cutting Capability of up to 2<sup>3</sup>/<sub>4</sub>" (70 mm) with a Consumable Parts change**



*3/8" (10 mm)  
stainless steel  
gouge sample.*

Plasma Arc Gouging may be used on many metals, including: carbon steel, stainless steel, cast iron, aluminum, brass and bronze. Some common applications for Plasma Arc Gouging are:

- **Railroad Car Repair – Removing Journal Liners, Repairing Brakes in Boilers and Fire Boxes, Preparing Worn Wheels for Re-welding**
- **Chemical Plants/Refineries – Preparing Joints on Non-ferrous Piping and Equipment**
- **Over the Road Vehicle Repair – Steel, Aluminum and Stainless Steel Tanker Repair**
- **Tank Manufacturing – Automated and Manual Back Gouging of Welds**
- **Heavy Equipment Repair – Removal of Hard Surfacing Material**
- **Food & Beverage Facilities – Repairing Stainless Steel Equipment**
- **Power Plant Maintenance – Removing Cavitation from Power Plant Turbines, Repairing Tube Sheets**
- **Foundry Work – Removal of Gates and Risers**

## PAK<sup>®</sup> 200 Manual System

All manual systems include Power Supply, Torch and Leads, Spare Parts Kit, 25 ft. (7.6m) Work Cable & Clamp, and Torch Coolant.

### Ordering Information

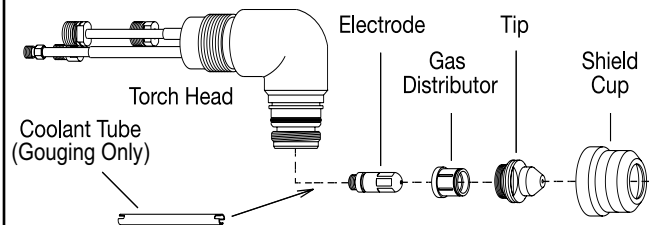
Product Description	Catalog No.	Product Description	Catalog No.
Power Supply & Lead	230V/460V* 400V 400V CE 600V	Accessories/Options	
PAK 200 - 70° Torch/25' (7.6m) Leads	1-1533 1-1539 1-1541 1-1543	Torch Guide/Circle Cutting Attachment	7-7505
PAK 200 - 70° Torch/50' (15.2m) Leads	1-1534 1-1540 1-1542 1-1544	10' (3m) Plasma Supply Hose	9-2146
PAK 200 - 90° Torch/25' (7.6m) Leads	1-1535 1-1545	10' (3m) Secondary Supply Hose	9-2147
PAK 200 - 90° Torch/50' (15.2m) Leads	1-1536 1-1546	Remote Pendant Control	7-3460
PAK 200 - 180° Torch/25' (7.6m) Leads	1-1537	Wheel Kit	9-9379
PAK 200 - 180° Torch/50' (15.2m) Leads	1-1538		

#### Torch & Leads Packages Only

PCH-200 / 70° / 25' (7.6m) Leads	2-0009
PCH-200 / 70° / 50' (15.2m) Leads	2-0010
PCH-200 / 90° / 25' (7.6m) Leads	2-0012
PCH-200 / 90° / 50' (15.2m) Leads	2-0013
PCH-200 / 180° / 25' (7.6m) Leads	2-0015
PCH-200 / 180° / 50' (15.2m) Leads	2-0016

\*Shipped in 460V configuration

### Consumable Part Identifier



### Torch Consumable Parts

Catalog No.	Parts Description
32-1325	Shield Cup, Standard
32-1326	Crown Shield Cup (manual cutting)
32-1527	Shield Cup Gouging
32-1323	Tip, 200A
32-1330	Tip, 150A
32-1321	Tip, 70A
32-1322	Tip, 55A
32-1320	Tip, 35A
32-1512	Tip (0.110) Gouging
32-1513	Tip (0.125) Gouging
32-1514	Tip (0.156) Gouging
32-1515	Tip (0.171) Gouging
32-1315	Gas Distributor, Cutting
32-1509	Gas Distributor, Gouging
32-1310	Electrode, Air Cutting
32-1311	Electrode, Multi-Gas Cutting
32-1504	Electrode, Air, Gouging
32-1505	Electrode, ArH <sub>2</sub> , Gouging
32-1502	Coolant Tube Extension, Gouging
20-0001	Wrench
8-4025	O-Ring Lubricant
9-4173	Parts Box

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**A Global Cutting & Welding Market Leader™**

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