



THERMAL DYNAMICS

Professional

PakMaster® 150XL

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

**INTRODUCING
NEW LOOK**

- **120 Amps of Cutting Power**
- **Liquid Cooled**
- **Dual Gas for Superior Cut Quality**
- **Excellent Gouging Performance**



1 3/4" Cut Capacity

www.thermal-dynamics.com

1 3/4" Cut Capacity Manual Plasma Cutting & Gouging System

PakMaster® 150XL

MANUAL Air-Plasma Cutting & Gouging System

- **Liquid Cooled** - Results in parts life more than 5 times that of air cooled systems.
- **Dual Gas for Superior Cut Quality** - Air/Air can be used on general purpose metals, N₂/Air for general non-ferrous metals to reduce oxidization, Ar /H₂N₂ can be used on heavy non-ferrous metals for exceptional cut quality and weld ability.
- **Excellent Gouging Performance** - The combination of 120 amps with liquid cooled consumables offer outstanding performance and durability.
- **120 Amps of Cutting Power** - 1-1/4" (35mm) Genuine, 1-1/2" (40mm) Maximum, 1-3/4" (45mm) severance, with the ability to pierce up to 1" (25mm) thick manually.

Specifications



Cut Capacity:	1-1/2" (38mm) Genuine Cut 1-3/4" (45mm) Severance 1" (25 mm) Pierce Capacity
Output Current:	30-120 Amps, Adjustable
Input Power:	208-230/460 VAC, 3ph, 50/60Hz, 78/74/37 Amps 220/380-415 VAC, 3ph, 50/60Hz, 75/44/40 Amps
Duty Cycle:	60% @ 120A, 100% @ 100A
Dimensions:	Length 35" (889mm) Width 24.5" (622mm) Height 45.4" (1153mm)
Weight:	275 lbs. (126 kg)
Ship Weight:	377 lbs. (171 kg)
Panel Controls:	On/Off Switch, Run/Set/Latch Switch, Output Current Potentiometer
Panel Indicators:	AC Power, DC Output, Temperature, Gas Pressure
Work Cable:	20 ft. (6.1m) (includes clamp)
Input Power Cable:	Refer to Following Options
Plasma Gas:	Air, Nitrogen, Argon/Hydrogen
Pressure:	65 psi (4.5 bar)
Flow:	45-85 scfh (21-40 lpm)

Secondary Gas:	Air, Carbon Dioxide, Nitrogen
Pressure:	60 psi (4.1 bar)
Flow:	340 scfh (160 lpm)
Total Flow:	426 scfh (200 lpm) Max.
Gas Supply Connections:	Inert "B" on rear panel (plasma and secondary shop air filter/regulator with "Y" hose provided)
Pilot:	Electrode to Tip
Control:	Hand Torch Switch, Hand Pendant, or Interface Cable
Torch Configurations	
Torch:	PCH/M-120
Hand:	70° or 90° Head 25 ft. (7.6m) or 50 ft. (15.2m) Leads
Machine:	180° Head 25 ft. (7.6m) or 50 ft. (15.2m) Shielded Leads
Warranty:	Limited Warranty; 2 yr. Power Supply, 1 yr. Torch
Certifications:	IP-23C (water test), CSA,

Features & Applications

Features:

- Up to 120 Amps Output for Faster Cuts
- 100% Duty Cycle at 100 amps, 60% at 120 amps
- Energy Efficient Inverter Technology
- Liquid-Cooled Torch for 5 times longer parts life compared to similar gas cooled systems
- Dual Gas Capability for significant improvement in cut quality control
- Maximum Life™ Parts
- Exclusive Tip Saver™ Circuit
- Smart Start™ Auto Pilot Restart
- New Trigger Latch for Extended Cutting Sessions
- Smart Logic™ Over Voltage Protection
- Flow Through Design

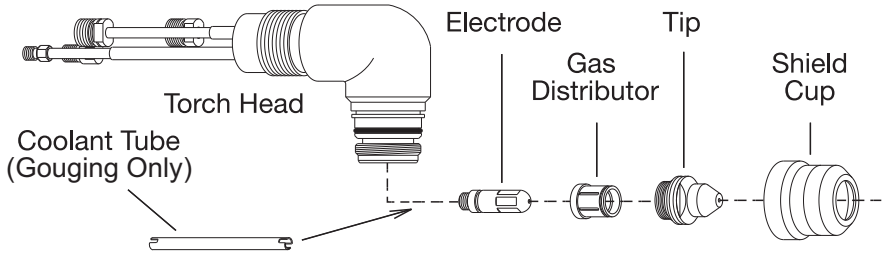
Applications:

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

Cutting Speed Chart

Torch Model	PCH-120				
Genuine Cut	1 1/2" (38.1mm)				
Pierce Capacity	1" (25 mm)				
Material	Thickness [inches]	Speed [IPM]	Current [Amps]	Thickness [mm]	Speed [m/min]
Mild Steel					
Air/Air	1/16	275	35	1.5	7.0
	1/8	80		3.0	2.1
	1/4	75	70	5.0	3.5
	3/8	80	120	10.0	2.0
	1/2	55		12.0	1.5
	5/8	40		15.0	1.1
Stainless Steel					
Air/Air	1/16	40	35	1.5	1.0
	1/8	30		3.0	0.8
	1/4	65	70	5.0	2.5
	3/8	80	120	10.0	2.0
	1/2	40		12.0	1.1
	5/8	30		15.0	0.8
ArH2/Nitrogen	1/2	35	120	12.0	0.9
	5/8	25		15.0	0.7
	1	15		25.0	0.4
Aluminum					
Air/Air	1/16	125	35	1.5	3.0
	1/8	60		3.0	1.5
	1/4	65	70	5.0	2.1
	3/8	70	120	10.0	1.8
	1/2	35		12.0	1.0
	5/8	30		15.0	0.8
ArH2/Nitrogen	3/8	70	120	10.0	1.8
	1/2	60		12	1.6

Torch Consumable Parts



Catalog No.	Parts Description	Cutting Kit 5-1500	Gouging Kit 5-1505
20-1225	Shield Cup, Standard	1	0
20-1226	Crown Shield Cup (manual cutting)	0	0
20-1227	Shield Cup Gouging	0	2
20-1222	Tip, 120A	5	0
20-1221	Tip, 70A	2	0
20-1220	Tip, 35A	2	0
20-1412	Tip (.110) Gouging	0	2
20-1413	Tip (.125) Gouging	0	2
20-1414	Tip (.156) Gouging	0	2
20-1415	Tip (.171) Gouging	0	2
20-1215	Gas Distributor, Cutting	1	0
20-1409	Gas Distributor, Gouging	0	1
20-1210	Electrode, Air Cutting	2	0
20-1211	Electrode, Multi-Gas Cutting	2	0
20-1404	Electrode, Air/N2, Gouging	0	3
20-1405	Electrode, AR/H2, Gouging	0	3
20-1402	Coolant Tube Extension, Gouging	0	1
20-0001	Wrench	1	1
8-4025	O-Ring Lubricant	1	1
9-4173	Parts Box	1	1

150XL Manual System Options and Accessories

Systems include Power Supply, Torch and Leads, Spare Parts Kit, 20 ft. (6.1m) Work Cable & Clamp, Input Power Cable, Torch Coolant. Wheels and Handle are standard with all systems. The optional Air Filter (Catalog #7-7502) is highly recommended. The power supply and leads are designed for use with basic 'mechanized' cutting and are not suitable for CNC controlled cutting applications.

Ordering Information

Product Description	Catalog No.
	Domestic
PakMaster 150XL - 70° Torch / 25' (7.6m) Leads	1-1570-V
PakMaster 150XL - 70° Torch / 50' (15.2m) Leads	1-1571-V
PakMaster 150XL - 90° Torch / 25' (7.6m) Leads	1-1590-V
PakMaster 150XL - 90° Torch / 50' (15.2m) Leads	1-1591-V
600V PakMaster 150XL - 70° Torch/25'(7.6m) Leads	1-1670
600V PakMaster 150XL - 70° Torch/50'(15.2m) Leads	1-1671
600V PakMaster 150XL - 90° Torch/25'(7.6m) Leads	1-1690
600V PakMaster 150XL - 90° Torch/50'(15.2m) Leads	1-1691

V = Voltage Suffix

2 = 208-230/460 Volt, 3ph set for 460 operation 3 = 220/380-415 Volt, 3ph, set for 380/415 Volt operation
These units include input power cable set for 380/415V operation.

Product Description	Catalog No.
TORCH & LEADS PACKAGES ONLY	
PCH-120 / 70° / 25' (7.6m) Leads	2-1270
PCH-120 / 70° / 50' (15.2m) Leads	2-1271
PCH-120 / 90° / 25' (7.6m) Leads	2-1290
PCH-120 / 90° / 50' (15.2m) Leads	2-1291
PCM-120 / 180° / 25' (7.6m) Leads	2-1282
PCM-120 / 180° / 50' (15.2m) Leads	2-1283

Product Description	Catalog No.
ACCESSORIES / OPTIONS	
Air Filter	7-7502
Torch Guide/Circle Cutting Attachment	7-7505
Locking Caster Kit (2 Casters)	9-7868
10 ft. (3m) Plasma Supply Hose	9-2146
10 ft. (3m) Secondary Supply Hose	9-2147
Remote Pendant Control	7-3460
Primary Power Cable, 10 ft. (3m) 220V, 3ph	9-7697
460V, 3ph	9-7696
Transformer Module for 600 Volt operation	9-7700
N2 Regulator (High Pressure)	9-2722
CO2 Regulator (High Pressure)	9-2759
Argon/Hydrogen Regulator (High Pressure)	9-3053



Thermal Dynamics Corp., located at West Lebanon, NH, is an ISO 9001 registered manufacturer.

DISTRIBUTED BY:

U.S. Plasma Manual Customer Care: 800-752-7621 / FAX 800-221-4401 • International Customer Care: 905-827-9777 / FAX 905-827-9797
U.S. Plasma Automation Customer Care: 866-279-2628 / FAX 800-221-4401 • www.thermal-dynamics.com



WORLD HEADQUARTERS: 16052 Swingley Ridge Road, Suite 300 • St. Louis, Missouri 63017 U.S.A.

THE AMERICAS

Denton, TX USA
U.S. Customer Care
Ph: (1) 800-426-1888
Fax: (1) 800-535-0557

Miami, FL USA
Sales Office, Latin America
Ph: (1) 954-727-8371
Fax: (1) 954-727-8376

Oakville, Ontario, Canada
International Customer Care
Ph: (1) 905-827-9777
Fax: (1) 905-827-9797

Rio de Janeiro, Brazil
Customer Care
Ph: (55) 21-2485-8998
Fax: (55) 21-2485-8866

EUROPE

Chorley, United Kingdom
Customer Care
Ph: (44) 1257-261755
Fax: (44) 1257-224800

Milan, Italy
Sales Office
Ph: (39) 0236546801
Fax: (39) 0236546840

ASIA/PACIFIC

Cikarang, Indonesia
Customer Care
Ph: 62 21+ 8983-0011 / 0012
Fax: 62 21+ 893-6067

Osaka, Japan
Sales Office
Ph: 816-4809-8411
Fax: 816-4809-8412

Melbourne, Australia
Customer Care:
Ph: 1300-654-674
Fax: 613+ 9474-7391

International:
Ph: 613+ 9474-7508
Fax: 613+ 9474-7488

Rawang, Malaysia
Customer Care
Ph: 603+ 6092-2988
Fax: 603+ 6092-1085

Shanghai, China
Sales Office
Ph: 86 21+ 6280-1273
Fax: 86 21+ 3226-0955

Singapore
Sales Office
Ph: 65+ 6832-8066
Fax: 65+ 6763-5812

A Global Cutting & Welding Market Leader™