



# Plasma equipment solutions from **ESAB**



A full line of cutting equipment for every application, industry and environment.



# Plasmarc® Cutting Equipment

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# Plasmarc

## Process Description

### Plasmarc Technology From the Originators

Since we developed the Plasmarc process in 1957, we have introduced a number of innovations to ensure peak performance in plasma cutting and gouging. Today ESAB's Plasmarc product line includes a full range of systems designed to meet your specific needs and applications. From compact, portable packages to heavy duty industrial systems, our machines offer cutting capacities from  $\frac{1}{8}$  in. (3.18 mm) to 4 in. (101.6 mm).

With their advanced inverter technology, ESAB's portable and transportable machines provide all the cutting power that normally requires larger, heavyweight consoles. The versatile Deuce Pack 150 system offers 300 Amps of heavy duty cutting and gouging power for a variety of industrial applications—plus it can be separated into two 150 Amp consoles for smaller scale operations. Also available are a variety of advanced ESP (ESAB Smart Plasma) heavy mechanized systems for high quality cutting in automation situations.

ESAB's commitment to plasma performance is carried through in the top quality and innovation of the Plasmarc torches and consumables. From the innovative PT-31XL, the most compact 50 Amp torch available on the market with the capacity to cut up to 1 in. (25.4 mm), to the PT-26, with a 4 in. (101.6 mm) cutting capacity with Air, N<sub>2</sub> or H-35, our complete line of torches is designed for superior cut quality and maximum operator comfort. ESAB's patented XT tips boost performance and extend consumable life.

Plasmarc gouging outperforms more conventional gouging methods. Because it produces substantially less smoke and fumes, it significantly decreases operator exposure to air contaminants. In addition, Plasmarc gouging is faster, cleaner, less expensive and more accurate.

### Process Description

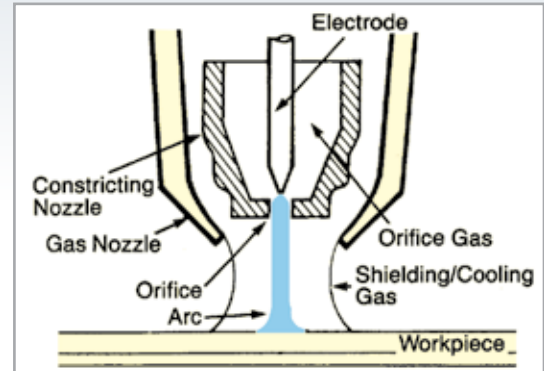
In our patented Plasmarc process, an electrode is built into the torch nozzle, which has an arc constricting orifice. Plasma gas, usually air, is fed through the nozzle where it is heated to the plasma temperature range—as high as 50,000° F. The plasma arc that emerges from the orifice is hot enough to melt any metal.

Because Plasmarc cutting is a relatively simple operation, it is widely accepted for cutting ferrous and non-ferrous metals. The plasma arc's straight, narrow, column-like shape and high current density allow the operator to achieve cut consistency without maintaining a constant distance between the nozzle and the workpiece.

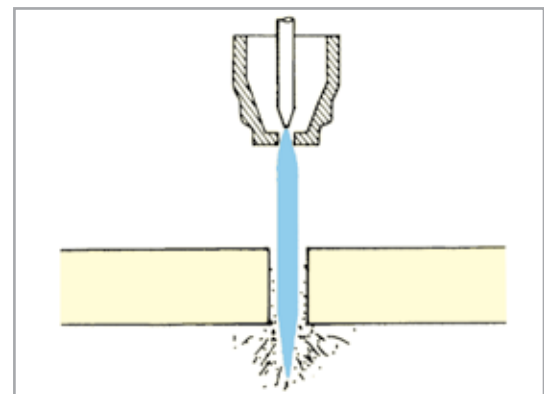
Plasmarc gouging is a variation of the Plasmarc cutting process. The torch nozzle configuration is designed to produce a lower velocity, broader arc. Rather than cutting completely through the metal, the torch is held at an angle so the arc gouges a U-shaped groove in the metal.

**IMPORTANT PRODUCT SAFETY** — Sound common sense procedures must be followed for personal protection and operating efficiency when using plasma arc welding and cutting equipment. Always comply with the manufacturer's recommendations for operating and maintaining the equipment as set forth in the instructions provided with each unit. Also, be certain to use all applicable safety precautions as described in Precautions and Safe Practices for Arc Welding, Cutting and Gouging, F-52-529, which is available from your local ESAB welding products distributor or sales office.

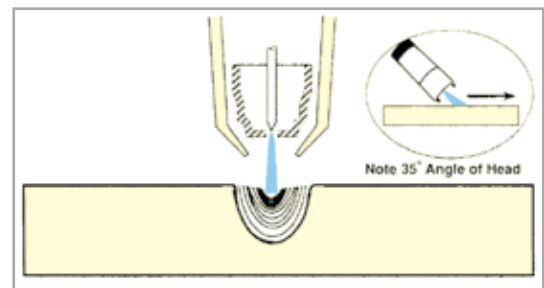
### Plasma Arc Modes



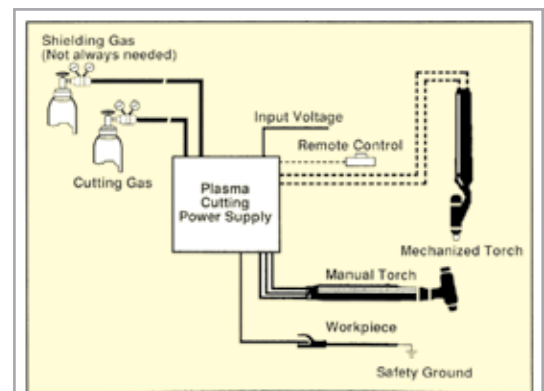
### Plasma Arc Cutting



### Plasma Arc Gouging



### Plasma Arc Cutting



# Plasmarc

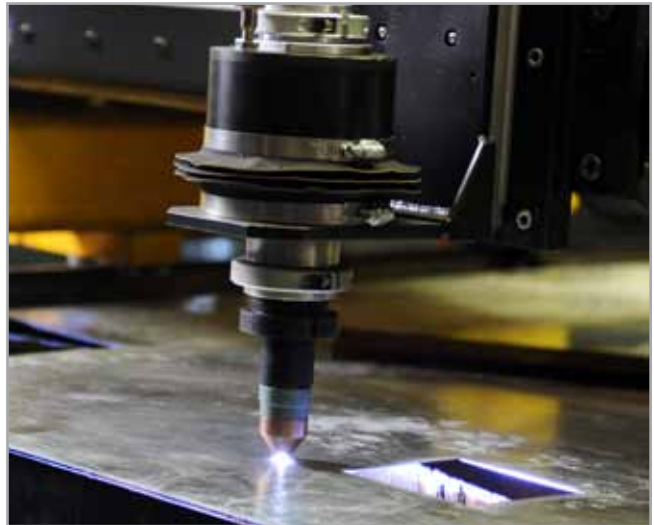
## From The Market Leaders

### ESAB's Plasmarc Technology is State of the Art

When it comes to superior performance for virtually any plasma cutting and gouging application, ESAB offers the ideal solution. Combine the advanced technology of an ESAB portable or transportable cutting machine, or a heavy duty console, with the superior performance features of a Plasmarc torch. And discover the true meaning of professional results made easy.

Staying on top of market trends, manufacturing techniques and user needs has kept our Plasmarc products at the forefront of the industry and established ESAB as the plasma market leader.

We continue to provide our customers with the best plasma cutting technologies available in the world for a full range of applications - from on the spot maintenance and repairs to heavy duty mechanized cutting.



# Deciding When to Use Manual Plasma Arc Cutting

Plasma arc cutting, which has been used for almost 40 years, involves using a torch, compressed gas, and a source of electric power to create a constricted arc that melts a localized area of metal and removes the molten material with a high-velocity jet of hot, ionized gas.

During plasma arc cutting, a compressed gas and an electric arc are simultaneously passed through a small Orifice, which is typically 0.040 in. (1.0 mm) to 0.125 in. (3.18 mm) in diameter. An electric arc heats the gas to a plasma state at a temperature as high as 50,000 degrees Fahrenheit. This superheated plasma jet is directed to the area to be cut, and the jet melts a path through the metal. Because it is a melting process, a plasma arc can cut almost any commercially used metal.

Plasma arc cutting can be accomplished manually or mechanically. In mechanical setups, a plasma arc torch is driven by an automatic machine that is typically regulated by a computer numerical control (CNC) to cut a predetermined shape. This article focuses on manual plasma arc cutting, in which the plasma arc torch is manipulated by hand to perform a variety of metal cutting tasks.

Manual systems are available in a variety of sizes. Generally rated in amperage output or cutting capacity, the units range from about 15 to 300 A output, encompassing a cutting capacity ranging from ¼ in. (6.35 mm) to about 4 in. (101.6 mm).

Manual units can also be divided into two general categories. Stationary or console systems generally are designed to remain fixed in one place, although most are equipped with wheels that make it possible to roll them around a shop. Portable systems are designed to be carried about by one or two workers, allowing them to move the system where it is needed rather than taking materials to be cut to one location.

Most of these systems use ordinary shop compressed air as the plasma cutting gas, provided it is not too wet, dirty, or oily. Some systems can also use other compressed gases such as nitrogen or argon/hydrogen mixtures for certain cutting tasks involving non ferrous metals.

## Typical Cutting Needs

In most sheet metal shops, a variety of metal cutting chores must be accomplished, and the need often arises to cut unique or low-production shapes, modify a part, do prototype work, or modify a part in the field. Several options besides plasma cutting are available to accomplish these cutting tasks. Nibblers are relatively inexpensive and can cut shapes and contours. They may run slow on thicker materials, however, and they may distort the metal or leave scalloped or rough edges.

Shears are quick and leave a smooth edge, but they are restricted to cutting straight edges. Similarly, circular saws leave reasonably good-quality straight edges, but they are limited to cutting straight lines. Saber saws are not limited to cutting straight lines, but they may run slower and are most suitable for thinner materials.

Oxyfuel cutting may not be suitable for use on gauge-thickness materials because the preheating that is necessary and relatively low travel speeds combine to place a considerable amount of heat in the steel, which can cause severe distortion of thinner materials. It is also limited to use on carbon steel, because other metals create high melting point oxides that interfere with or stop the burning process of oxyfuel cutting. However, oxyfuel cutting is considered a better choice for cutting carbon steel thicknesses of more than 1 ½ in. (38.1 mm) because it is faster.

The travel speed of oxyfuel is determined by the propagation rate of the burning reaction, which is relatively independent of the steel thickness. Typically, it is in the range of 20 in. (508 mm) to 25 in. (635 mm) per minute. Plasma melts its way through a material, however, so the cutting speed is determined by material types and thicknesses. Typical plasma cutting speeds can range from 5 in. (127 mm) to more than 100 in. (2.54 mm) per minute.

An appropriately sized manual plasma arc cutting unit can handle most cutting chores. The unit can cut contours and straight lines. Most units can follow a template or straight edge, so cutting does not necessarily have to be entirely freehand. In addition, circle cutting or other torch-guide attachments can aid in cutting particular contours. If a plasma arc unit is sized properly for a job, cutting speeds should be about 15 in. (381 mm) per minute or higher, which helps maintain good production rates while minimizing heat distortion of a workpiece. The resulting edge quality can vary, however, depending on the particular plasma unit being used, the material being cut, and the operator's skill. Typically, using air as the plasma gas while cutting carbon steel helps produce straight and relatively smooth edges. Any slag or dross that accumulates on the bottom of a cut knocks off easily. Air can also be used as the plasma gas for cutting stainless steel and aluminum, but some oxidation will occur on the resulting edges. Aluminum develops a rough appearance, and stainless steel becomes somewhat discolored. Using an inert gas such as nitrogen or argon/hydrogen instead of air as the plasma gas can eliminate these problems, however.

For cutting chores beyond the gauge thickness range, manual plasma is often a suitable choice. Plasma arc cutting units can cut, trim, or remove carbon steel as thick as 4 in. (101.6 mm).

# Deciding When to Use Manual Plasma Arc Cutting

Plasma uses no open flame, and no compressed gas cylinders are needed if air is used as the plasma gas. Still, oxyfuel cutting is usually considered to be a better choice for carbon steel thicknesses of more than ½ in. (12.7 mm) to 2 in. (50.8 mm) because of its speed.

To cut aluminum, the only alternative to plasma arc cutting is mechanical cutting with saws, etc., although routers or nibblers can be used for edge preparation tasks. Using air as the gas to plasma arc cut aluminum will result in a rough edge. Substituting nitrogen or an argon/hydrogen mix for air will generally result in a smoother, cleaner cut face, but those gases are more expensive to use.

For thicker stainless steels, as well as cast iron and high-alloy steels, plasma cutting may be the only practical cutting option. The tough composition of stainless steels makes cutting them by mechanical means difficult. Again, if the cut face must not be discolored or oxidized, gases such as nitrogen or argon-hydrogen should be used instead of air.

## Cutting Capability

Choosing the right manual plasma unit for your particular application can be perplexing if you are unfamiliar with manual plasma cutting. Once you understand the basics, however, the job becomes easy. No industry standard exists for rating the thickness cutting capability of a manual plasma unit. However, cutting thickness claims made by most major manufacturers are usually accurate.

First, determine the maximum thickness you plan to cut regularly. This thickness should be in the mid-range of the unit's cutting capability. This is important because:

1. When tackling their maximum cutting thicknesses, most manual plasma units have slow travel speeds, typically less than 12 in. (304.8 mm) per minute.
2. The higher cutting current of a larger-rated unit inhibits dross or slag formation on the bottom of the cut on carbon steel, producing a cleaner cut.
3. The reserve cutting capacity provides the capability to cut thicker materials if the need arises.

Be careful to judge a unit by its actual cutting capability and not by its electrical current rating, because different designs deliver dissimilar cutting performances from the same amount of current. You should also remember that most cut thickness ratings are based on cutting carbon steel.

Another consideration in selecting a unit is portability. Most units available with 1 in. (25.4 mm) or lower capacities are designed so that one or two workers can transport them around a plant or job site.

Most plasma arc cutting units rated at more than 1 in. (25.4 mm) capacity cannot be transported easily, but they may be wheeled about a shop or transported with a lift truck or hoist.

## The Cutting Torch

One of the most important considerations in choosing a system is the front-end design of the plasma arc cutting torch, because it controls the cut and most heavily influences the operating costs of the setup. If reaching tight places is important, a torch with a small or narrow front end is a good choice. A smaller front end may also be a better choice in applications that require a clear line of vision to follow a cut line, because a larger front end could obscure vision.

In addition to the up-front costs for nozzles, electrodes, and other front-end parts, you should consider the durability of the parts and the life in arc hours you can expect from the nozzle and electrode combination. These factors are better indicators of operating costs than are the prices of the parts alone.

Plasma arc cutting torch parts are generally made to very high tolerances. Make sure that any replacement parts you use are made to proper specifications. The wrong replacement parts can result in poor performance and damage to the torch head, which could necessitate an expensive repair.

## Conclusion

Finally, the best way to evaluate a manual plasma arc cutter for your application is to ask for a demonstration. Many of the factors that determine which unit is right for you become obvious when you see the unit demonstrated in your own shop. Pay particular attention to cut speed, quality, ease of use, and portability, if that is an issue. If access is limited to an area to be cut, make sure that the cutter you evaluate can do the job.

# Plasmarc

## Product Selection Guide

### Plasmarc Package Selection Guide

Model	Page	Output Current	Duty Cycle	Torch Compatibility								Cut Capacity Carbon Steel
				PT-37	PT-38	PT-26	PT-26SL	PT-19XLS PT-36R	PT-36	PT-39		
PowerCut 400	8	15-30A	20%								■	3/8 in. 9.5 mm
PowerCut 700	10	30-50A	25%								■	5/8 in. 15.9 mm
PowerCut 900	12	10-60A	60%	■	■							7/8 in. 22 mm
PowerCut 1300	14	20-70A	60%	■	■							1 1/4 in. 32 mm
PowerCut 1600	16	20-90A	40%	■	■							1 1/2 in. 38 mm
ESP-101	18	25-100A	100%	■								1 1/4 in. 32 mm
ESP-150	20	30-150A	90%			■	■	■				2 in. 50.8 mm
Deuce Pack 150	22	30-300A	90%			■	■	Special Order				4 in. 101.6 mm
m <sup>3</sup> Plasma	26	30-600A	100%							■		2 in. 50.8 mm

### Plasmarc Package Selection Guide

Power Supply	Page	Output	Torch Type	Cutting Gas	Shielding Gas	Cooling Method	Torch Head Angle	Lengths Available	Torch
ESP - 150 Deuce Pack 150	34	300 A	Manual / Mechanized	Air, N <sub>2</sub> , H-35	Air, N <sub>2</sub> , CO <sub>2</sub>	Water	70°, 90°, In-line, SL	25 ft. 50 ft.	PT-26 PT-26SL
PowerCut 400	8	30 A	Manual	Air	N/A	Gas	90°	15 ft. 25 ft.	PT-39
PowerCut 700	10	50 A	Manual	Air	N/A	Gas	90°	25 ft. 50 ft.	PT-39
PowerCut 900 PowerCut 1300 PowerCut 1600	42	90 A	Manual	Air	N/A	Gas	90°	25 ft. 50 ft.	PT-38
ESP-150 Deuce Pack 150	47	600 A	Mechanized	Air, O <sub>2</sub> , N <sub>2</sub> , H-35	N <sub>2</sub> , O <sub>2</sub> / N <sub>2</sub> , Air, Methane	Water	In-line	Various	PT-19XLS
m <sup>3</sup> Plasma System	51	720 A	Mechanized	Air, O <sub>2</sub> , N <sub>2</sub> , H-35	N <sub>2</sub> , O <sub>2</sub> / N <sub>2</sub> , Air, Methane	Water	In-line	Various	PT-36
ESP-150 Deuce Pack 150	51	720 A	Mechanized	Air, O <sub>2</sub> , N <sub>2</sub> , H-35	N <sub>2</sub> , O <sub>2</sub> / N <sub>2</sub> , Air, Methane	Water	In-line	Various	PT-36R
ESP-101 PowerCut 900 PowerCut 1300 PowerCut 1600	54	100 A	Mechanized	Air	N/A	Gas	In-line	4 1/2 ft. 17 ft. 50 ft.	PT-37



### Recommended Cutting Gases

**Compressed Air** is the most commonly used gas for lower current plasma cutting and works well for most metals from gauge thickness to 1 in. (25.4 mm). It leaves an oxidized cut surface. Compressed air can also be used for plasma gouging on carbon steel.

**Nitrogen (N<sub>2</sub>)** is often used for higher current plasma systems and for cutting materials up to 3 in. (76.2 mm) thick. It produces excellent quality cuts on most materials.

**Oxygen (O<sub>2</sub>)** is used when the highest quality mechanized cuts are desired on carbon steel up to 1 ¼ in. (31.75 mm) thick. The cut face is smooth, and dross is easy to remove. Oxygen can also be used on stainless steel and aluminum, but it produces a rougher cut face.

**Argon-Hydrogen Mixtures (H-35)** are generally used for cutting stainless steel and aluminum. They produce a clean, high quality cut face. Argon-Hydrogen is required for mechanized cutting of any material more than 3 in. (76.2 mm) thick. This mixture also provides an excellent gas for plasma gouging on all materials.

### Icon Key



Designates equipment configured for **Manual Plasma**



Designates equipment configured for **Mechanized Plasma**



Designates equipment requiring **single-phase input power**



Designates equipment requiring **three-phase input power**



Designates equipment that can use **single- or three-phase input power**

# PowerCut 400

## Plasmarc Cutting Package



- Manually cuts 3/8 in. (9.5 mm) and severs 1/2 in. (12.7 mm) - powerful cutting performance
- Value priced - plasma cutting performance on a budget
- Compact lightweight design - easily taken to the job site
- Adaptable voltage - easily adapt to 110V or 230V by simply changing the adaptor plugs provided
- Blowback technology - eliminates high-frequency startups that can disrupt CNC controls and nearby computer systems
- Dynamic arc control - control the pilot arc when you need to cut grate or mesh material without nuisance arc outage
- Generator friendly - compatible to work with generators when power is not accessible in the field
- Ergonomic torch design - lightweight, ergonomic handle provides maximum comfort when tackling those tough jobs
- Compact torch design - shorter front end allows maximum arc visibility and those hard to reach places
- Automatic air pressure - no need to set your air pressure when the PowerCut 400 automatically sets your air pressure for you
- Voltage booster - useful when finishing off thick material in ease. Also ideal for the inexperienced operator to cut in confidence
- Drag cutting capable - great for template cutting, straight edge cutting and first time users
- Arrives fully assembled—ready to go out of the box
- One year warranty on torch

### Specifications

PowerCut 400	
Cuts	3/8 in. (9.5 mm)
Severs	1/2 in. (12.7 mm)
Output:	
20% Duty Cycle	30A
Input	120-230 V 1 phase 50/60 Hz., 22 A
Power factor	99% 1 phase
Air requirements	400 cfh @ 70 psig
Dimensions:	
Length	18.3 in. (464 mm)
Height	13.4 in. (340 mm)
Width	6.3 in. (160 mm)
Weight	32 lbs. (15 kg)



The PowerCut plasma cutting package will take whatever you throw at it, and ask for more. Designed with ESAB Plasmarc technology, PowerCut machines are more powerful and durable than any other machine in their class. They also make plasma cutting easier and more economical - delivering reliability, high production, and a wide variety of performance features. With design features that simplify operations, reduce set-up time and enhance consumable life, PowerCut packages let you spend less time troubleshooting and more time cutting. And with the additions of the 400 and 700 to the PowerCut Series, the most rugged machines in the industry are more versatile and accessible than ever.

### Ordering Information

The PowerCut 400 comes complete with everything you need: console, 15 ft. torch, torch spare parts kit, 110V / 230V adaptor plugs, power cord, work cable with clamp. System arrives fully assembled and ready to cut.

<b>PowerCut 400 / PT-39 Packages</b>	
120-230 V, 15 ft. (4.5m).....	0558011649
120-230 V, 25 ft. (7.6m).....	0558011671
<b>PT-39 Replacement Torch</b>	
15 ft. (4.5m).....	0558010576

### Optional Accessories

<b>30 A Spare Parts Kit, PT-39</b> .....	0558010583
<b>Plasma Flow Measuring Kit</b> .....	0558000739
<b>Torch Guide Kit</b>	
<b>Deluxe:</b> 1 3/4 in. (44.5mm) 42 in. (106cm) Radius .....	0558003258
<b>Basic:</b> 1 3/4 in. (44.5mm) 28 in. (71cm) Radius.....	0558002675
<b>Stand-off Guide</b> .....	0558010581

See Plasmarc Accessories Section for more details.

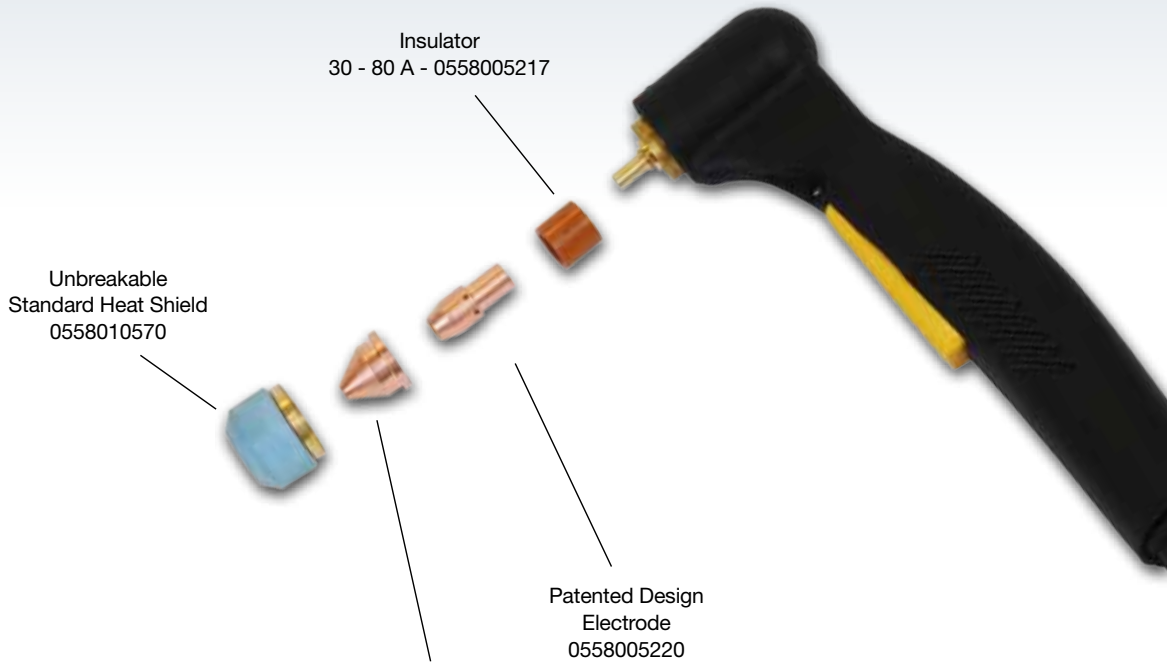
### Optional Five-Year Warranty

This optional five year warranty is now available for PowerCut series machines. See your authorized ESAB Representative for additional details.

<b>PowerCut 400 Extended Warranty</b> .....	XWPC400
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# PowerCut 400

## Plasmarc Cutting Package



Cutting Nozzle	Part Number
20 - 30 A	0558011620
50 A	0558004878

Description	Part Number	0558010583 20 / 30 A
Electrode	0558005220	3
Insulator 30 - 80 A	0558005217	1
Nozzle 20 - 30 A	0558011620	4
Retaining / Shield Cup Assy	0558010570	1
O-Ring .301ID .070W Nitrile	0558101101	1
Lubricant. 25 oz	0558000443	1



# PowerCut 700

## Plasmarc Cutting Package



- Manually cuts 5/8 in. (15.9 mm) and severs 3/4 in. (19.0 mm) - powerful cutting performance
- Value priced - plasma cutting performance on a budget
- Compact lightweight design - easily taken to the job site
- Tool-less quick disconnect torch – Disconnects from the machine without the use of wrenches or special tools. Now you can easily disconnect your PT-39 for repairs or replacement, or to attach a PT-37 mechanized torch for mechanized applications
- Blowback technology - eliminates high-frequency startups that can disrupt CNC controls and nearby computer systems
- Generator friendly - compatible to work with generators when power is not accessible in the field
- Ergonomic torch design - lightweight, ergonomic handle provides maximum comfort when tackling those tough jobs
- Compact torch design - shorter front end allows maximum arc visibility and those hard to reach places
- Voltage booster - useful when finishing off thick material in ease. Also ideal for the inexperienced operator to cut in confidence
- Drag cutting capable - great for template cutting, straight edge cutting and first time users
- Grate cutting mode - maximize your productivity when cutting grate or mesh material
- Arrives fully assembled—ready to go out of the box
- One year warranty on torch



The PowerCut plasma cutting package will take whatever you throw at it, and ask for more. Designed with ESAB Plasmarc technology, PowerCut machines are more powerful and durable than any other machine in their class. They also make plasma cutting easier and more economical - delivering reliability, high production, and a wide variety of performance features. With design features that simplify operations, reduce set-up time and enhance consumable life, PowerCut packages let you spend less time troubleshooting and more time cutting. And with the additions of the 400 and 700 to the PowerCut Series, the most rugged machines in the industry are more versatile and accessible than ever.

### Ordering Information

The PowerCut 700 comes complete with everything you need: console, 25 ft. torch, torch spare parts kit, air filter/regulator, power cord, work cable with clamp. System arrives fully assembled and ready to cut.

#### PowerCut 700 / PT-39 Packages

208 - 230 V, 25 ft. (7.6m).....	0558011673
208 - 230 V, 50 ft. (15.2m).....	0558011674

#### PT-39 Replacement Torch

25 ft. (7.6m).....	0558011580
50 ft. (15.2m).....	0558011581

### Optional Accessories

<b>50 A Spare Parts Kit, PT-39</b> .....	0558010584
<b>Plasma Flow Measuring Kit</b> .....	0558000739
<b>Torch Guide Kit</b>	
<b>Deluxe:</b> 1 3/4 in. (44.5mm) 42 in. (106cm) Radius .....	0558003258
<b>Basic:</b> 1 3/4 in. (44.5mm) 28 in. (71cm) Radius.....	0558002675
<b>Stand-off Guide</b> .....	0558010581

See Plasmarc Accessories Section for more details.

### Optional Five-Year Warranty

This optional five year warranty is now available for PowerCut series machines. See your authorized ESAB Representative for additional details.

**PowerCut 700 Extended Warranty**.....XWPC700

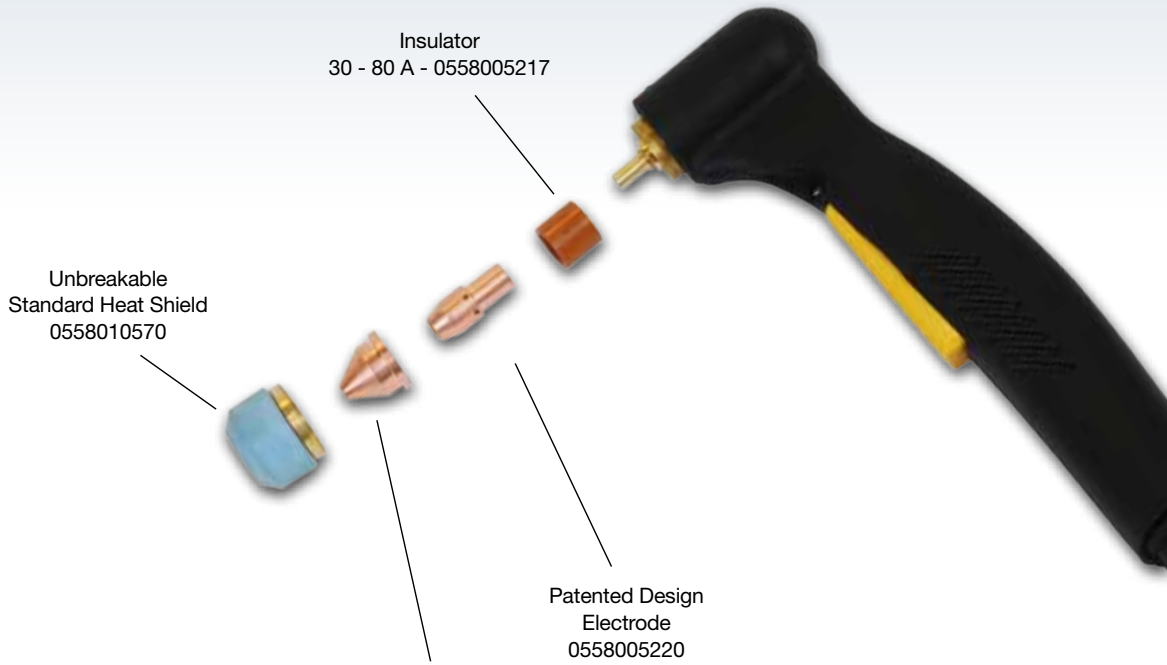
Instruction Manual .....	0463278031
Product Data Page.....	PAC-21207

### Specifications

PowerCut 700	
Cuts	5/8 in. (15.9 mm)
Severs	3/4 in. (19.0 mm)
Output:	
25% Duty Cycle	50A
Input	208/230 V 1 phase 50/60 Hz., 41 A
Power factor	75% 1 phase
Air requirements	400 cfh @ 70 psig
Dimensions:	
Length	22 in. (558 mm)
Height	8.3 in. (210 mm)
Width	15 in. (380 mm)
Weight	47 lbs. (22 kg)

# PowerCut 700

## Plasmarc Cutting Package



Cutting Nozzle	Part Number
20 - 30 A	0558011620
50 A	0558004878

Description	Part Number	0558010584 50A
Electrode	0558005220	3
Insulator 30 - 80 A	0558005217	1
Nozzle 50 A	0558004878	4
Retaining / Shield Cup Assy	0558010570	1
O-Ring .301ID .070W Nitrile	0558101101	1
Lubricant. 25 oz	0558000443	1



# PowerCut 900

## Plasmarc Cutting Package

1 Phase 3 Phase 3 YEAR WARRANTY 100% DUTY CYCLE

- **Rugged design** – PowerCut’s external housing design is durable, damage-resistant, corrosion-resistant and weather resistant, while remaining lightweight for portability.
- **Tool-less quick disconnect torch** – Disconnects from the machine without the use of wrenches or special tools. Now you can easily disconnect your PT-38 torch for storage, repairs or replacement, or to attach a PT-37 mechanized torch for mechanized applications.
- **Digital readout display** – Easy to read and shows the exact pressure or amperage, so you can operate with confidence. The display also shows help codes to assist in troubleshooting minor errors, reducing downtime.
- **Blowback technology** – Eliminates high-frequency startups that can disrupt CNC controls and nearby computer systems.
- **Auto-modes (gouge, grate and normal modes)** Switch between modes automatically, tailoring your application without manually changing settings on the console.
- **Suspended electronics** – Sensitive internal electronics are suspended from the aluminum frame, insulating them from shock and vibration.
- **Sealed switches** – Silicone-sealed switches are immune to corrosion, as well as dust and dirt infiltration.
- **Gouging capability** – PowerCut delivers the extra output voltage needed for superior plasma gouging capability.
- **Automatic fan control** – The cooling fan is automatically controlled to run only when necessary, to conserve energy and reduce ingested dust and dirt.
- **Built-in power line conditioner** – Protects against damage from power line noise and spikes, even with poor-quality power.
- **Torch wrap and spare parts kit holder** – Now standard on all packages, the holder lets you neatly fold up excess torch cables for convenient storage in your consumable box.
- **Plug-n-Play mechanized option** – Lets you easily transform your manual cutting system into a powerful mechanized system for your gantry machine.
- **Optional five year warranty on console**
- **One year warranty on torch**



The PowerCut plasma cutting package will take whatever you throw at it, and ask for more. Designed with ESAB Plasmarc technology, PowerCut machines are more powerful and durable than any other machine in their class. They also make plasma cutting easier and more economical - delivering reliability, high production, and a wide variety of performance features. With design features that simplify operations, reduce set-up time and enhance consumable life, PowerCut packages let you spend less time troubleshooting and more time cutting. And with the addition of the PowerCut 900 to the family, the most rugged machines in the industry are more versatile and accessible than ever.

### Specifications

	PowerCut 900
Cuts	7/8 in. (22 mm)
Severs	1 1/4 in. (32 mm)
Output:	
60% Duty Cycle	60 A
100% Duty Cycle	50 A
Input 1 phase	208/230 V 50/60 Hz, 56/47 A
Input 3 phase	208/230/400/460/575 V 50/60 Hz, 28/23/13/12/9 A
Recommended Engine Driven Generator Power	1 phase 230 V = 11 kw 3 phase 460 V = 9.7 kw
Air requirements	400 cfm @ 80 psig (165 l/min @ 4.8 - 5.2 bar)
Dimensions:	
Length	25.3 in. (643 mm)
Height	14.2 in. (361 mm)
Width	12.3 in. (312 mm)
Weight	71 lbs. (32 kg)

Instruction Manual ..... 0558008430  
 Product Data Page..... PAC-21181

# PowerCut 900

## Plasmarc Cutting Package

### PT-37 and PT-38 Torch

PowerCut 900 uses the PT-38 torch or attach a PT-37 mechanized torch for mechanized applications. For breakdown of parts and cut-speed charts, refer to PT-38 data page 39.

### Ordering Information

The PowerCut 900 comes complete with everything you need: console, torch, torch spare parts kit, air filter/regulator, power cord, 25 ft. (7.6 m) work cable with clamp. System arrives fully assembled and ready to cut.

#### PowerCut 900 / PT-38 Packages

208-230 V, 25 ft. (7.6m) .....	0558008121
208-230 V, 50 ft. (15.2m) .....	0558008122
460 V, 25 ft. (15.2m) .....	0558008128
460 V, 50 ft. (7.6m) .....	0558008129
575 V, 25 ft. (7.6m) .....	0558008132

#### Standard Console with Mechanized Torch, PT-37 \*\*

Mechanized Hand Switch, 25 ft. with rack .....	0558008143
Mechanized Hand Switch, 50 ft. with rack .....	0558008144

#### PowerCut 900 Packages with CNC Interface\*

208-230 V, PT-37, 25 ft. with rack .....	0558009206
208-230 V, PT-37, 50 ft. with rack .....	0558009207
208-230 V, PT-37, 25 ft. ....	0558009208
208-230 V, PT-37, 50 ft. ....	0558009209
460 V, PT-37, 25 ft. ....	0558009212
460 V, PT-37, 50 ft. ....	0558009213
575 V, PT-37, 25 ft. with rack .....	0558009218
575 V, PT-37, 50 ft. with rack .....	0558009219
575 V, PT-37, 25 ft. ....	0558009220
575 V, PT-37, 50 ft. ....	0558009221
230 V CE, PT-37, 25 ft. ....	0558009222
230 V CE, PT-37, 50 ft. ....	0558009223
400 V CE, PT-37, 25 ft. ....	0558009224
400 V CE, PT-37, 50 ft. ....	0558009225
400 V, PT-37, 25 ft. ....	0558009228
400 V, PT-37, 50 ft. ....	0558009229
208-230 V, PT-38, 25 ft. ....	0558008145
208-230 V, PT-38, 50 ft. ....	0558008146

Note:

“CE” Items are used outside North America

All packages do not include racks unless otherwise indicated.

\* Package includes torch holder, spare parts kit and CNC interface cable.

\*\* Package includes remote hand switch.

#### PT-37 Replacement Torch

With rack 4.5 ft. (1.3m).....	0558004860
With rack 17 ft. (5.2m).....	0558004861
With rack 25 ft. (7.6m).....	0558004862
With rack 50 ft. (15.2m).....	0558004863
Without rack 4.5 ft. (1.3m) .....	0558004894
Without rack 17 ft. (5.2m) .....	0558004895
Without rack 25 ft. (7.6m) .....	0558004896
Without rack 50 ft. (15.2m) .....	0558004897

#### PT-38 Replacement Torch

25 ft. (7.6 m) .....	0558006786
50 ft. (15.2 m) .....	0558006787

### Optional Accessories

<b>60 A Spare Parts Kit, PT-38</b> .....	0558008418
<b>Plasma Flow Measuring Kit</b> .....	0558000739
<b>Torch Guide Kit</b>	
<b>Deluxe:</b> 1 ¾ in. (44.5mm) 42 in. (106cm) Radius .....	0558003258
<b>Basic:</b> 1 ¾ in. (44.5mm) 28 in. (71cm) Radius.....	0558002675
<b>Remote Hand Switch, 25 ft.</b> .....	0558008349
<b>Stand-off Guide</b> .....	0558008592
<b>40 A Drag Nozzle</b> .....	0558007682
<b>Utility Cart</b> .....	0558007898
<b>Gouging Heat Shield</b> .....	0558008591
<b>Gouging Nozzle</b> .....	0558008588
<b>CNC Cable Interface 50 ft</b> .....	57002249
<b>Plug-n-Play Mechanized Kit</b> .....	0558008284
<b>Heavy Duty Water Separator</b> .....	0558007897

See Plasmarc Accessories Section for more details.

### Optional Five-Year Warranty

This optional five year warranty is now available for PowerCut series machines. See your authorized ESAB Representative for additional details.

**PowerCut 900 Extended Warranty**.....XWPC900

**PowerCut 900 Spare Parts Kit** .....

Description	Part Number	Quantity
Electrode	0558005220	3
Insulator 30 - 70 A	0558005217	1
Nozzle 60 A	0558008417	3
Retaining / Shield Cup Assy	0558007549	1
O-Ring .301ID .070W Nitrile	0558101101	1
Lubricant. 25 oz	0558000443	1
Fuse Midget	0558001379	1
SLO-BLO 2 A 600 V		



# PowerCut 1300

## Plasmarc Cutting Package

1 Phase 3 Phase 3 YEAR WARRANTY 100% DUTY CYCLE

- Rugged design - Durable external housing design is damage-resistant, corrosion-resistant and weather-resistant, while remaining lightweight for portability
- Input voltage selector switch - conveniently located on back of the machine, lets you easily change input voltage from 208 to 460
- Tool-less Quick Disconnect torch disconnects from machine for storage, repairs, or replacement without the use of wrenches or special tools, or to attach a PT-37 mechanized torch
- Digital readout display is easy to read and shows exact pressures or amperage. Display also shows help codes to assist in troubleshooting
- Switch between gouge, grate and normal modes automatically, tailoring your application without manually changing settings on console
- Delivers the extra output voltage needed for superior plasma gouging capability
- Torch wrap and spare parts kit holder is standard on all packages
- Blowback technology eliminates high-frequency startups that can disrupt CNC controls and nearby computer systems
- Sensitive internal electronics are suspended from the aluminum frame, insulating them from shock and vibration
- Silicone-sealed switches are immune to corrosion and dust and dirt infiltration
- Automatic fan control allows cooling fan to run only when necessary – conserves energy and reduces ingested dust and dirt
- Built-in power line conditioner protects against damage from power line noise and spikes, even with poor-quality power
- Plug-n-Play mechanized option lets you easily transform your manual cutting system into a powerful mechanized system for your gantry machine
- Optional five year warranty on console
- One year warranty on torch



PowerCut 1300 makes plasma cutting easier and more economical than ever before, delivering reliability, high production and a wide variety of performance features. With design features that simplify operation, reduce set-up time and enhance consumable life, it lets you spend less time troubleshooting and more time cutting.

### Specifications

		PowerCut 1300
Cuts		1 ¼ in. (32 mm)
Severs		1 ½ in. (38 mm)
Output:		
	60% Duty Cycle	70 A (1 phase)
	100% Duty Cycle	70 A (3 phase)
Input		
	1 phase	208/230 V 50/60 Hz, 70/60 A
	3 phase	208/230/400/460/575 V 50/60 Hz, 36/31/18/20/15 A
Recommended Engine Driven Generator Power		1 phase 230 V = 14 kw 3 phase 230 V = 12.5 kw 3 phase 460 V = 16 kw
Air requirements		400 cfm @ 80 psig (165 l/min @ 4.8 - 5.2 bar)
Dimensions:		
	Length	27.8 in. (706 mm)
	Height	14.9 in. (378 mm)
	Width	12.7 in. (323 mm)
	Weight	90 lbs. (41 kg)

Instruction Manual ..... 0558007164  
 Product Data Page..... PAC-21167



# PowerCut 1300

## Plasmarc Cutting Package

### PT-37 and PT-38 Torch

PowerCut 1300 uses the PT-38 torch or attach a PT-37 mechanized torch for mechanized applications. For breakdown of parts and cut-speed charts, refer to PT-38 data page 39.

### Ordering Information

The PowerCut 1300 comes complete with everything you need: console, torch, torch spare parts kit, air filter/regulator, power cable, 25 ft. (7.6 m) work cable with clamp. System arrives fully assembled and ready to cut.

#### PowerCut 1300 / PT-38 Packages

208-230/460 V, 25 ft. (7.6m)	0558007221
208-230/460 V, 50 ft. (15.2m)	0558007222
575V, 25 ft. (7.6m)	0558007228
575V, 50 ft. (15.2m)	0558007229

#### Standard Console with Mechanized Torch, PT-37 \*\*

Mechanized Hand Switch, 25 ft with rack	0558008178
Mechanized Hand Switch, 50 ft with rack	0558008179

#### PowerCut 1300 Packages with CNC Interface\*

Mechanized CNC, PT-37, 25 ft.	0558008170
Mechanized CNC, PT-37, 50 ft.	0558008171
Mechanized CNC, 25 ft. with rack	0558008172
Mechanized CNC, 50 ft. with rack	0558008173
Mechanized CNC, 575 V, 25 ft. with rack.	0558009198
Mechanized CNC, 575 V, 50 ft. with rack.	0558009199
Mechanized CNC, PT-38, 25 ft.	0558008182
Mechanized CNC, PT-38, 50 ft.	0558008183

Note:

\* Package includes torch holder, spare parts kit and CNC interface cable.

\*\* Package includes remote hand switch.

#### PT-37 Replacement Torch

With rack 4.5ft. (1.3m)	0558004860
With rack 17 ft. (5.2m)	0558004861
With rack 25 ft. (7.6m)	0558004862
With rack 50 ft. (15.2m)	0558004863
Without rack 4.5 ft. (1.3m)	0558004894
Without rack 17 ft. (5.2m)	0558004895
Without rack 25 ft. (7.6m)	0558004896
Without rack 50 ft. (15.2m)	0558004897

#### PT-38 Replacement Torch

25 ft. (7.6 m)	0558006786
50 ft. (15.2 m)	0558006787

### Optional Accessories

70 A Spare Parts Kit, PT-38	0558007641
Plasma Flow Measuring Kit	0558000739
Torch Guide Kit	
Deluxe: 1 3/4 in. (44.5mm) 42 in. (106cm) Radius	0558003258
Basic: 1 3/4 in. (44.5mm) 28 in. (71cm) Radius	0558002675
Remote Hand Switch, 25 ft.	0558008349
Stand-off Guide	0558006614
40 A Drag Nozzle	0558007682
Utility Cart	0558007898
Gouging Heat Shield	0558008186
Gouging Nozzle	0558007681
CNC Cable interface 30 ft	57002248
Plug-n-Play Mechanized Kit	0558007885
Heavy Duty Water Separator	0558007897

See Plasmarc Accessories Section for more details.

### Optional Five Year Warranty

This optional five year warranty is now available for PowerCut series machines. See your authorized ESAB Representative for additional details.

PowerCut 1300 Extended Warranty.....XWPC1300\*

PowerCut 1300 Spare Parts Kit ..... 0558007641

Description	Part Number	Quantity
Electrode	0558005220	3
Insulator 30 - 70 A	0558005217	1
Nozzle 70 A	0558005219	4
Nozzle Drag 40 A	0558007682	1
Retaining / Shield Cup Assy	0558007549	1
O-Ring .301ID .070W Nitrile	0558101101	3
Lubricant. 25 oz	0558000443	1
Fuse Midget	0558001379	1
SLO-BLO 2 A 600 V		



# PowerCut 1600

## Plasmarc Cutting Package

1 Phase 3 Phase 3 YEAR WARRANTY 100% DUTY CYCLE

- Rugged design - Durable external housing design is damage-resistant, corrosion-resistant and weather-resistant, while remaining lightweight for portability
- Input voltage selector switch - conveniently located on back of the machine, lets you easily change input voltage from 208 to 460
- Tool-less Quick Disconnect torch disconnects from machine for storage, repairs, or replacement without the use of wrenches or special tools, or to attach a PT-37 mechanized torch
- Digital readout display is easy to read and shows exact pressures or amperage. Display also shows help codes to assist in troubleshooting
- Switch between gouge, grate and normal modes automatically, tailoring your application without manually changing settings on console
- Delivers the extra output voltage needed for superior plasma gouging capability
- Torch wrap and spare parts kit holder is standard on all packages
- Blowback technology eliminates high-frequency startups that can disrupt CNC controls and nearby computer systems
- Sensitive internal electronics are suspended from the aluminum frame, insulating them from shock and vibration
- Silicone-sealed switches are immune to corrosion and dust and dirt infiltration
- Automatic fan control allows cooling fan to run only when necessary – conserves energy and reduces ingested dust and dirt
- Built-in power line conditioner protects against damage from power line noise and spikes, even with poor-quality power
- Plug-n-Play mechanized option lets you easily transform your manual cutting system into a powerful mechanized system for your gantry machine
- Optional five year warranty on console
- One year warranty on torch



PowerCut 1600 makes plasma cutting easier and more economical than ever before, delivering reliability, high production and a wide variety of performance features. With design features that simplify operation, reduce set-up time and enhance consumable life, it lets you spend less time troubleshooting and more time cutting.

### Specifications

		PowerCut 1600
Cuts		1 ½ in. (38 mm)
Severs		1 ¾ in. (44 mm)
Output:		
	40% Duty Cycle	90 A (1 phase)
	60% Duty Cycle	90 A (3 phase)
Input		
1 phase		230 V 50/60 Hz, 78 A
3 phase		208/230/400/460/575 V 50/60 Hz, 47/41/26/25/20 A
Recommended Engine Driven Generator Power		1 phase 230 V = 18 kw 3 phase 230 V = 16.5 kw 3 phase 460 V = 20 kw
Air requirements		400 cfm @ 80 psig (165 l/min @ 4.8 - 5.2 bar)
Dimensions:		
	Length	27.8 in. (706 mm)
	Height	14.9 in. (378 mm)
	Width	12.7 in. (323 mm)
	Weight	90 lbs. (41 kg)

Instruction Manual ..... 0558007164  
 Product Data Page..... PAC-21168

# PowerCut 1600

## Plasmarc Cutting Package

### PT-37 and PT-38 Torch

PowerCut 1600 uses the PT-38 torch or attach a PT-37 mechanized torch for mechanized applications. For breakdown of parts and cut-speed charts, refer to PT-38 data page 39.

### Ordering Information

The PowerCut 1600 comes complete with everything you need: console, torch, torch spare parts kit, air filter/regulator, power cable, 25 ft. (7.6 m) work cable with clamp. System arrives fully assembled and ready to cut

#### PowerCut 1600 / PT-38 Packages

208-230/460 V, 25 ft. (7.6m) .....	0558007231
208-230/460 V, 50 ft. (15.2m) .....	0558007232
575 V, 25 ft. (7.6m) .....	0558007238
575 V, 50 ft. (15.2m) .....	0558007239

#### Standard Console with Mechanized Torch, PT-37 \*\*

Mechanized Hand Switch, 25 ft. with rack .....	0558008180
Mechanized Hand Switch, 50 ft. with rack .....	0558008181

#### PowerCut 1600 Packages with CNC Interface \*

Mechanized CNC, PT-37, 25 ft.....	0558008174
Mechanized CNC, PT-37, 50 ft.....	0558008175
Mechanized CNC, 25 ft. with rack .....	0558008176
Mechanized CNC, 50 ft. with rack .....	0558008177
Mechanized CNC, 575 V, 25 ft. with rack.....	0558009182
Mechanized CNC, 575 V, 50 ft. with rack.....	0558009183
Mechanized CNC, PT-38, 25 ft.....	0558008184
Mechanized CNC, PT-38, 50 ft.....	0558008185

Note:

\* Package includes torch holder, spare parts kit and CNC interface cable.

\*\* Package includes remote hand switch.

#### PT-37 Replacement Torch

With rack 4.5 ft. (1.3m).....	0558004860
With rack 17 ft. (5.2m).....	0558004861
With rack 25 ft. (7.6m).....	0558004862
With rack 50 ft. (15.2m).....	0558004863
Without rack 4.5 ft. (1.3m) .....	0558004894
Without rack 17 ft. (5.2m) .....	0558004895
Without rack 25 ft. (7.6m) .....	0558004896
Without rack 50 ft. (15.2m) .....	0558004897

#### PT-38 Replacement Torch

25 ft. (7.6 m) .....	0558006786
50 ft. (15.2 m) .....	0558006787

### Optional Accessories

90 A Spare Parts Kit, PT-38.....	0558007639
Plasma Flow Measuring Kit .....	0558000739
<b>Torch Guide Kit</b>	
Deluxe: 1 3/4 in. (44.5mm) 42 in. (106cm) Radius .....	0558003258
Basic: 1 1/4 in. (44.5mm) 28 in. (71cm) Radius.....	0558002675
<b>Remote Hand Switch</b>	
25 ft.....	0558008349
50 ft.....	0558009277
<b>Stand-off Guide</b> .....	0558006614
<b>40 A Drag Nozzle</b> .....	0558007682
<b>Utility Cart</b> .....	0558007898
<b>Gouging Heat Shield</b> .....	0558008186
<b>Gouging Nozzle</b> .....	0558007681
<b>CNC Cable interface, 30 ft</b> .....	57002248
<b>Plug-n-Play Mechanized Kit</b> .....	0558007885
<b>Heavy Duty Water Separator</b> .....	0558007897

See Plasmarc Accessories Section for more details.

### Optional Five Year Warranty

This optional five year warranty is now available for PowerCut series machines. See your authorized ESAB Representative for additional details.

**PowerCut 1600 Extended Warranty**.....XWPC1600\*

**PowerCut 1600 Parts Kit** .....

Description	Part Number	Quantity
Electrode	0558005220	3
Insulator 30 - 70 A	0558005217	1
Insulator 90 - 100 A	0558004870	1
Nozzle 90 A	0558007680	4
Nozzle Drag 40 A	0558007682	1
Retaining / Shield Cup Assy	0558007549	1
O-Ring .301ID .070W Nitrile	0558101101	3
Lubricant. 25 oz	0558000443	1
Fuse Midget	0558001379	1
SLO-BLO 2 A 600 V		



# ESP-101

## Plasmarc Cutting & Gouging System



- **100% Duty Cycle** for enhanced productivity allowing for continuous operation even at maximum thickness.
- Utilizes a “drawn arc” to initiate the cut which eliminates high frequency interference from the starting circuits.
- Electronically controlled pilot arc provides for consistent starting and longer consumable life.
- Gouging mode allows for higher operating voltages at a reduced current for demanding mechanized plasma gouging applications which require long arcs.
- Full CNC/Robotic interface with Arc Voltage Height Control support is standard.
- Adapter plugs to match competitive system interface cables are available.
- An optional remote starting system allows the torch to be located up to 150 ft. (45m) away from the power supply.
- Machined torch body with 1 3/8 in. (35mm) metal handle, available with and without 32 pitch rack to fit industry standard torch holders.
- Robust machined torch components provide for reliability, durability and ease of maintenance.
- Metal nozzle and shield stand up to the toughest cutting conditions.
- Wear parts are available individually, in sets and in value packs which eases ordering and saves money.
- One year warranty on torch



The ESP-101 is a multipurpose 100 Amp plasma cutting system for mechanized cutting at 100% duty cycle. Uses ESAB’s Smart Plasma concept to provide a plasma cutting console that is ideal for a variety of mechanized cutting applications.

Equipped with the patented PT-37 torch, it cuts up to 1 in. using air as the plasma and shielding gas. Utilizing a blowback start and an electronically controlled pilot arc, the PT-37 sets a new standard for starting reliability, cutting characteristics and consumable life.

### Specifications

ESP-101 System	
Cuts	Up to 1 in. (25.4 mm)
Output:	
100% Duty Cycle	100 A (3 phase)
Input 3 phase	208/230/380/400/460/475/575 V 20KVA, 50/60 Hz, 54/49/29/28/25/24/20 A
Air requirements	500 cfh @ 80 psig (236 l/min @ 5.5 bar)
ESP-101 380 / 400 / 460 V	
Dimensions;	
Length	26.25 in. (667 mm)
Height	19.39 in. (493 mm)
Width	15.51 in. (394 mm)
Weight	125 lbs. (56.7 kg)
ESP-101 Multivoltage	
Dimensions:	
Length	26.25 in. (667 mm)
Height	35 in. (889 mm)
Width	15.51 in. (394 mm)
Weight	301 lbs. (136.5 kg)

Instruction Manual ..... 0558005965  
 Product Data Page..... PAC-21169

ESP  
Mechanized

# ESP-101

## Plasmarc Cutting & Gouging System

### PT-37 Torch

The ESP-101 uses the PT-37 mechanized torch. For breakdown of parts and cut-speed charts, refer to PT-37 data page 37.

### Ordering Information

<b>ESP-101 Console</b>	
380/400 V CCC/CE.....	0558005215
460 V.....	0558004880
MultiVoltage.....	0558004881
<b>PT-37 Torch with rack</b>	
4.5 ft. (1.3m).....	0558004860
17 ft. (5.2m).....	0558004861
25 ft. (7.6m).....	0558004862
50 ft. (15.2m).....	0558004863
<b>PT-37 Torch without rack</b>	
4.5 ft. (1.3m).....	0558004894
17 ft. (5.2m).....	0558004895
25 ft. (7.6m).....	0558004896
50 ft. (15.2m).....	0558004897

### Optional Accessories

<b>Control Method</b>	
CNC Cable 30 ft. (9.1m).....	57002248
CNC Cable 50 ft. (15.2m).....	57002249
<b>Remote Hand Switch</b>	
25 ft. (7.6m).....	0558005548
50 ft. (15.2m).....	0558005549
<b>Remote Junction Box / Extension Hoses &amp; Cables</b>	
Remote Junction Box (RJB).....	0558004887
Hose/Cable Bundle RJB 50 ft. (15m).....	0558004888
Hose/Cable Bundle RJB 100 ft. (30m).....	0558004889
Torch Holder, manually adjustable, 32 pitch rack....	0558005926
Plate Rider Assembly.....	2238229

### PT-37 Consumables / Kits / Sets

<b>Start Up Consumable Kits</b>	
100 A.....	0558004883
70 A.....	0558008247
60 A.....	0558008248
<b>Consumable Set</b>	
50 A (1 nozzle, 1 electrode).....	0558004884
100 A (1 nozzle, 1 electrode).....	0558004885
Value Pack 100 A (15 nozzles, 10 electrodes).....	0558004886
<b>Electrodes</b>	
100 A.....	0558004875
50 A.....	0558005220
<b>Swirl Baffles</b>	
30-70 A.....	0558005217
100 A.....	0558004870
<b>Nozzles</b>	
30 A.....	0558005218
50 A.....	0558004878
70 A.....	0558005219
100 A.....	0558004879
<b>Nozzle Retainer</b>	
Shields	
100 A.....	0558006601
50-70 A.....	0558006602
30-40 A.....	0558006603

ESP  
Mechanized

Cutting Nozzle	Part Number
30 A	0558005218
50 A	0558004878
70 A	0558005219
100 A	0558004879

Nozzle Retainer  
0558006600

Swirl Baffle	Part Number
30 - 70 A	0558005217
100 A	0558004870

Electrode	Part Number
Standard	0558005220
Long Life	0558004875

Shield	Part Number
30 - 40 A	0558006603
50 - 70 A	0558006602
100 A	0558006601

# ESP-150

## Plasmarc Cutting & Gouging System



- Greater productivity—high speed cutting of most metals from gauge thickness to 2 in. thick plate
- Versatility—230/460/575 and 220/380/415 volt 3 phase inputs
- Greater variation - adjustable output—25 to 150 A
- Built-In Water Cooler—simplifies maintenance, less hookup, no wiring issues, no extra hoses. Water flow is controlled with power supply
- Leather sheath wrapped torch—protects torch leads from abrasion and molten metal
- Cuts with air, nitrogen, argon-hydrogen mixtures or nitrogen-hydrogen mixtures
- Built-In CNC interface provides easy connection of automation applications
- Torch design provides perfect electrode centering—provides longer tip life by minimizing the possibility of double-arcing
- Torch spare parts kit supplied with each outfit—ample supply of spare parts at no additional cost to minimize downtime
- Thermal overload switches—prevents damage if unit overheats due to insufficient air flow
- Line voltage compensation
- Automatic intermittent cutting—additional capability, permits continuous cutting of grates, expanded metal, heavy screen material, etc.
- Wheels and cylinder rack—all provided standard at no additional cost for portability and greater utilization
- Ideal for plasma gouging
- One year warranty on torch



This multifaceted, all encompassed heavy duty water cooled plasma cutting and gouging system is ideal for manual and mechanized applications.

ESP  
Mechanized

### Specifications

ESP-150 System	
Cuts	Up to 2 in. (50.8 mm)
Severs	2 ½ in. (63.5 mm)
Output:	
90% Duty Cycle	150 A @ 120 V
100% Duty Cycle	140 A @ 120 V
Open Circuit Voltage	370 VDC
Input 3 phase	220/230/380/415/460/575 V 121/112/70/64/56/45 A 50/60 Hz
Dimensions:	
Length	40 in. (1016 mm)
Height	31.5 in. (800 mm)
Width	21.75 in. (552 mm)
Weight	756 lbs. (308 kg)

Instruction Manual	
230/460/575 V .....	F-15-687
400V "CE" .....	0558003744 and 0558004122
Product Data Page.....	PAC-21062

# ESP-150

## Plasmarc Cutting & Gouging System

### PT-19XLS / 26 / 36R Torch

The ESP-150 is a versatile plasma system that can be used with a variety of plasma torches, such as the PT-19XLS, PT-26, and PT-36 torch. For breakdown of parts and cut-speed charts, please refer to appropriate data page.

### Ordering Information

#### ESP-150 with PT-19XLS Package

All PT-19XLS packages include the power supply, torch, 3 gas regulators, start-up kit, torch repair & accessories kit, a remote hand switch, TR-21 truck with dual cylinder rack, CNC interface cable and torch coolant.

The ESP-150 PT-19XLS can also be configured with a plumbing box for applications that require a long distance between the torch and the power supply or in automated applications that require a reduced level of high frequency emissions. Contact your ESAB representative for information on these customized packages.

#### 230/460/575 V, 60 Hz, 3 Phase

25 ft. Air.....	0558004773
50 ft. Air.....	0558004578
25 ft. Multi-Gas.....	0558004774
50 ft. Multi-Gas.....	0558004637
25 ft. H-35/N <sub>2</sub> .....	0558004776
50 ft. H-35/N <sub>2</sub> .....	0558004775

#### Export Packages 220/400 V, 50 Hz, 3 Phase

7.6m Air.....	0558004771
15m Air.....	0558004677
7.6m Multi-Gas.....	0558004772
15m Multi-Gas.....	0558004638

#### ESP-150 with PT-26 Package

This package includes console, PT-26 torch with leather sheath, torch spare parts kit, 25 ft. (7.6 m) or 50 ft. (15.2 m) work cable, TR-21 truck with dual cylinder rack, regulators and gas hoses and torch coolant.

#### 230/460/575 V, 60 Hz, 3 Phase

25 ft. 70° Air.....	0558002909
50 ft. 70° Air.....	0558002910
25 ft. 90° Air.....	0558002911
50 ft. 90° Air.....	0558002912
25 ft. SL Air.....	0558010130
50 ft. SL Air.....	0558010131
25 ft. 70° Ar+H <sub>2</sub> Mix.....	0558002915
50 ft. 70° Ar+H <sub>2</sub> Mix.....	0558002916
25 ft. 90° Ar+H <sub>2</sub> Mix.....	0558002917
50 ft. 90° Ar+H <sub>2</sub> Mix.....	0558002918
25 ft. SL Multi-Gas.....	0558010132
50 ft. SL Multi-Gas.....	0558010133

#### Export Packages 380/400/415 V, 50 Hz, 3 Phase

25 ft. 70° Air.....	0558003472
50 ft. 70° Air.....	0558003473
25 ft. 90° Air.....	0558003474
50 ft. 90° Air.....	0558003475
7.6m SL Air.....	0558010134
15m SL Air.....	0558010135
7.6m SL Multi-Gas.....	0558010136
15m SL Multi-Gas.....	0558010137

#### ESP-150 with PT-36R Package

This package includes, console, PT-36R torch with leather sheath, 25 ft. (7.6 m) or 50 ft. (15.2 m), start-up kit, torch repair & accessories kit, regulators, gas hoses and torch coolant.

#### 230/460/575 V, 60 Hz, 3 Phase

25 ft. Air.....	0558010113
50 ft. Air.....	0558010114

#### Export Packages 380/400/415 V, 50 Hz, 3 Phase

7.6m Air.....	0558010552
15m Air.....	0558010553

### Optional Accessories

150 A Spare Parts Kit.....	0558002864
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#### Remote Hand Switch

25 ft. (7.6m).....	2075600
50 ft. (15m).....	0558004781

#### Leather Sheath

25 ft. (7.6 m).....	0558002921
50 ft. (15.2 m)*.....	0558002922

Plasma Flow Measuring Kit.....	0558000739
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Plasma Torch Head Protector.....	20806
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\* Standard on manual torches.

The multi-gas packages include three R-6702 regulators that can be used with any non-corrosive gas.

The cylinder regulator packages include one N<sub>2</sub> and two N<sub>2</sub> / H-35 cylinder regulators and three 25 ft. hoses.

The air regulator packages include a air regulator/filter panel.



# Deuce Pack 150

## Plasmarc Cutting & Gouging System



- With 300 Amps of plasma cutting and gouging power, this heavy duty system is the ideal choice for foundries, mining, logging equipment repair and other industrial applications.
- Handles even the heaviest materials with the capacity to cut up to 4 in. (101.6 mm) manually; consult torch literature for mechanized cutting performance
- Eliminates carbon arc fumes with excellent plasma gouging capacity—removes up to 77 lbs. (35 kg) of metal an hour
- For exceptional versatility, separates into two 150 Amp consoles for smaller scale applications
- Adjustable output down to 30 Amps facilitates cutting of thinner metals
- Built-In Water Cooler—simplifies maintenance, less hookup, no wiring issues, no extra hoses. Water flow is controlled with power supply
- Leather sheath wrapped torch—protects torch leads from abrasion and molten metal
- Cuts with air, nitrogen, argon-hydrogen mixtures or nitrogen-hydrogen mixtures
- Built-In CNC interface provides easy connection of automation applications
- Torch design provides perfect electrode centering—provides longer tip life by minimizing the possibility of double-arcing
- Torch spare parts kit supplied with each outfit—ample supply of spare parts at no additional cost to minimize downtime
- Thermal overload switches—prevents damage if unit overheats due to insufficient air flow
- Line voltage compensation
- Automatic intermittent cutting—additional capability, permits continuous cutting of grates, expanded metal, heavy screen material, etc.
- One year warranty on torch



### Specifications

		Deuce Pack 150 System
Cuts		4 in. (101.6 mm)
Gouging		56 lbs. (25.4 kg)/hr CS 77 lbs. (35 kg)/hr SS
Capacity		300 A @ 90% Duty Cycle
Output:	90% Duty Cycle	300 A @ 120 V
	100% Duty Cycle	280 A @ 120 V
Open Circuit Voltage		370 VDC
Input 3 phase		230/460/575 V 60 Hz, 224/112/90 A
Weight		1320 lbs. (600 kg)
Current Capacity (all service gases / pressures)		
	100% Duty Cycle	200 A DCSP
	60% Duty Cycle	300 A DCSP
	Max. Rated Current	300 A DCSP
Approved Service Gases		
	Plasma	Air, N <sub>2</sub> , H-35, N <sub>2</sub> /H <sub>2</sub> Mixtures
	Shield	Air, N <sub>2</sub> , CO <sub>2</sub> , Ar
Min. Gas Supply Flow Requirements		
	Plasma	240 cfm @ 80 psig (112 l/min @ 5.6 bar)
	Shield	200 cfm @ 80 psig 94 l/min @ 6.0 bar)
Length of Service Leads		25 ft (7.6 m) 50 ft (15.2 m)
Weight of Service Leads		25 ft (7.6 m) - 16 lbs (7.3 kg) 50 ft (15.2 m) - 28 lbs (12.7 kg)
Max. Allowable Inlet Gas Pressure		100 psig (7 bar)
Min. Allowable Inlet Gas Pressure		40 psig (2.8 bar)
Min. Water Supply Flow Requirements		0.9 pgm @ 95 psig (3.4 l/min @ 6.6 bar)
Max. Water Inlet Pressure		120 psig (8.3 bar)
Max. Water Supply Temp.		105° F (40° C)

Instruction Manual .....F-15-201  
 Product Data Page.....PAC-21038

ESP  
Mechanized



# Deuce Pack 150

## Plasmarc Cutting & Gouging System

### PT-19XLS / PT-26 / PT-36R Torch

The Deuce Pack can be used with a variety of plasma torches, such as the PT-19XLS, PT-26, and PT-36R torch. For breakdown of parts and cut-speed charts, please refer to appropriate data page.

### Ordering Information

The Deuce Pack 150 package includes two 150 Amp consoles, torch, coolant circulator built into ESP-150 console, spare parts kit, regulator, gas hoses, work cable, water hose.

#### 230/460/575 V, 60 Hz, 3 Phase

PT-26 50 ft. (15.2m) .....	0588000981
PT-19XLS 50 ft. (15.2m) .....	0588001019
PT-26 50 ft. (15.2m) In-line .....	0588001166

#### Export Packages 400 V, 50 Hz, 3 Phase

PT-26 50 ft. (15.2m) 400 V .....	0588001011
PT-19XLS 50 ft. (15.2m) 400 V .....	0588001018
PT-26 50 ft. (15.2m) In-line 400 V .....	0588001064

### Optional Accessories

Plasma Flow Measuring Kit .....	0558000739
Plasmit Torch Head Protector .....	20806
Leather Sheath, 10 ft. (3.1 m) length .....	20812
TR-21 Wheel Kit .....	680794
Torch Coolant .....	0560950312

#### PT-26 Spare Parts Kit ..... 36821

Description	Part Number	Quantity
Electrode Air / N <sub>2</sub>	36565	3
Electrode H-35	36566	3
Nozzle 50 A	36567	3
Nozzle 150 A	36568	3
Nozzle 200 A	36569	3
Nozzle 300 A	36570	3
Nozzle Gouging 200 A	36571	1
Nozzle Gouging 300 A	36572	1
Wrench	19129	1
Heat Shield	34592	1
Shield, Close Proximity	37146	1
Stand Off Guide	36648	1
Lubricant .25 oz	0558000443	1
O-Ring 1.176 ID .070 Nitrile	2029450	5
O-Ring 1.051 ID .07	2110706	5
O-Ring 0.612 ID	84W87	5
O-Ring 0.301ID	85W49	1
O-Ring 0.239 ID	948317	1
Insulator	34593	1

#### PT-19XLS Spare Parts Kit ..... 37307

Description	Part Number	Quantity
Shield 50 A	21795	2
Shield 100 - 250 A	21802	4
Heat Shield 50 A	34885	2
Shield Retainer PT-19XLS	0004470046	2
Heat Shield PT-19XLS	948186	2
Diffuser 50 A	0004470030	2
Diffuser 100 - 360 A	0004470031	4
Nozzle Tip 50 A	22026	5
Nozzle Base 50 A	22027	2
Nozzle Base 100 - 400 A	22028	2
Nozzle Tip 150 A	22030	5
Electrode 600 A Tungsten	22403	4
Electrode Long PT-19XLS	34086XL	4
Baffle Gas Std. 8 x .047	35660	2
Electrode Holder	37068	1
Screw, Contact Ring	37073	4
Nozzle, Retaining Cup	0004470045	1
Front, Insulator Body	37083	1
Gasket	37308	2
Tool, Electrode Holder	37110	1
Contact Ring Assy. Radial Flow	0558003858	1
O-Ring 1.301 ID x .070	2064106	5
O-Ring .468 ID x .070	86W85	10
O-Ring .364 ID x .070	86W99	20
O-Ring .176 ID x .050	951000	30
O-Ring .145 ID x .070	996526	5
O-Ring 1.614 ID x .070	996528	20
Baffle PT-19XLS Aluminum	948142	2
Lubricant .25 oz.	0558000443	1
Hex Nut Driver	996568	1
Wrench Hex Key Short-Arm 0.062	93750006	1
Wrench Hex Key 0.109	93750010	1

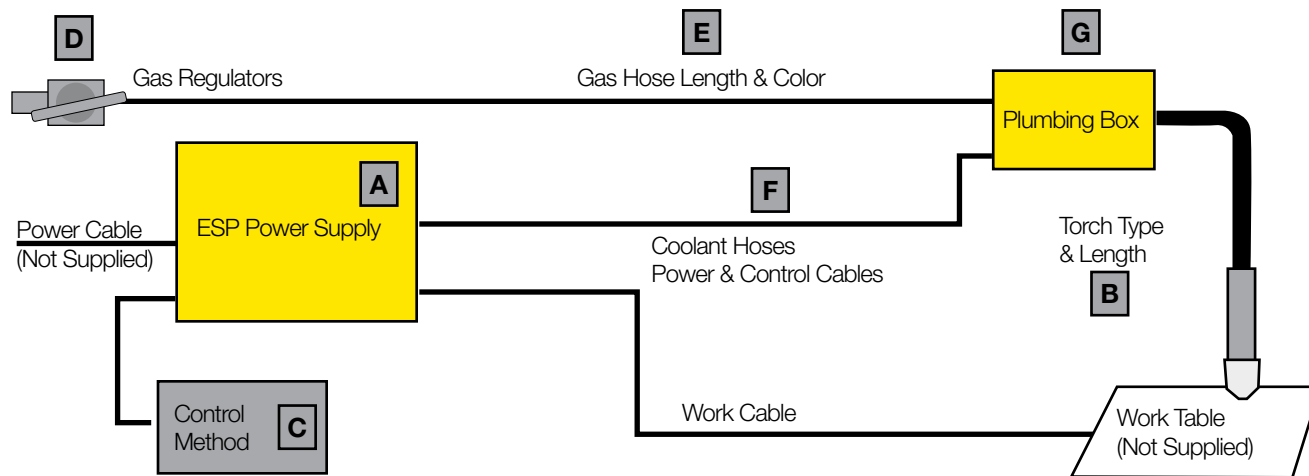


# ESP-150 / Deuce Pack 150

## Systems Ordering Options

Customized ESP-150 and Deuce Pack mechanized and manual plasma systems are available. Multiple power supplies, torch types & lengths, gas regulation options and hose & cable lengths are offered which allows the system to be tailored to meet the precise needs of a particular application. The large number of options also allows these systems to be extremely versatile. Contact your ESAB Sales representative or ESAB's Plasma Product Management team to have a custom system configured to your exact specifications.

Refer to the below shown options and accessories when ordering or calling for a quote. Choice of Power Supply and Torch will effect the package options available.



### A ESP Console

#### ESP-150

230/460/575V .....	0558002677
220/380/415V CE .....	0558002713

#### Deuce Pack

230/460/575V .....	0588001333
220/380/415V CE .....	0588001336

### B Torch Type & Torch Length

#### PT-26

70° 25 ft. (7.6 m) .....	0558002208
70° 50 ft. (15 m) .....	0558002209
90° 25 ft. (7.6 m) .....	36558
90° 50 ft. (15 m) .....	36559

#### PT-26SL

17 ft. (5.2 m) .....	0558005620
25 ft. (7.6 m) .....	0558005621
50 ft. (15 m) .....	0558005622

#### Start Up Kit, PT-26

150 A .....	0558002864
200-300 A .....	36821

#### PT-19XLS

4.5 ft. (1.4 m) .....	37086
6 ft. (1.8 m) .....	37087
12 ft. (3.7 m) .....	37088
15 ft. (4.6 m) .....	37089
17 ft. (5.2 m) .....	37090
20 ft. (6.1 m) .....	37091
25 ft. (7.6 m) .....	37092
50 ft. (15.2 m) .....	37093

#### Start Up Kit, PT-19XLS

150 A .....	0558004765
PT-19XLS .....	37307
Repair & Accessories Kit .....	0558004778

#### PT-36R

4.5 ft. (1.4 m) .....	0558006811
6 ft. (1.8 m) .....	0558006812
12 ft. (3.7 m) .....	0558006813
15 ft. (4.6 m) .....	0558006815
17 ft. (5.2 m) .....	0558006816
25 ft. (7.6 m) .....	0558006817
Bevel Torch, 14 ft. (4.3 m) .....	0558006814

#### Start Up Kit, PT-36

150-200 A .....	0558005222
300 A .....	0558007537
Repair & Accessories Kit .....	0558005225

# ESP-150 / Deuce Pack 150

## Systems Ordering Options

### C Control Methods

<b>Hand Switch</b>	
25 ft. (7.6 m).....	2075600
50 ft. (15.2 m).....	0558004781
<b>CNC Cable</b>	
30 ft. (9.1 m).....	57002248
50 ft. (15.2 m).....	57002249
75 ft. (22.9 m).....	57002250
100 ft. (30.5 m).....	57002251
160 ft. (48.7 m).....	57002252
<b>Torch Switch Ext. Cable</b>	
25 ft. (7.6 m).....	0558007530
50 ft. (15.2 m).....	0558007531
75 ft. (22.9 m).....	0558007532
100 ft. (30.5 m).....	0558007533
125 ft. (38.1 m).....	0558007534

### D Gas Regulators

<b>Air Regulator Assy</b> .....	0558003242
<b>Multi-Gas Regulator Assy</b> .....	0558004777
<b>N<sub>2</sub>/H-35 Cylinder Regulators</b> .....	998343

### E Gas Hose Length Optional Plasma Gas Hose Color

<b>Black</b>	
25 ft. (7.6 m).....	33122
50 ft. (15.2 m).....	33123
75 ft. (22.9 m).....	33124
100 ft. (30.5 m).....	33125
125 ft. (38.1 m).....	33126
<b>Green</b>	
25 ft. (7.6 m).....	33117
50 ft. (15.2 m).....	33118
75 ft. (22.9 m).....	33119
100 ft. (30.5 m).....	33120
125 ft. (38.1 m).....	33121
<b>Blue</b>	
25 ft. (7.6 m).....	0558002973
50 ft. (15.2 m).....	0558002974
75 ft. (22.9 m).....	0558002975
100 ft. (30.5 m).....	0558002976
125 ft. (38.1 m).....	0558002977

### F Coolant Hoses Power & Control Cables

<b>Coolant Hose</b>	
25 ft. (7.6 m).....	33132
50 ft. (15.2 m).....	33133
75 ft. (22.9 m).....	33134
100 ft. (30.5 m).....	33135
125 ft. (38.1 m).....	33136
<b>Control Cable, Console to PB</b>	
25 ft. (7.6 m).....	22264
50 ft. (15.2 m).....	22265
75 ft. (22.9 m).....	22266
100 ft. (30.5 m).....	22267
125 ft. (38.1 m).....	22268
<b>Pilot Arc Cable</b>	
25 ft. (7.6 m).....	33303
50 ft. (15.2 m).....	33304
75 ft. (22.9 m).....	33305
100 ft. (30.5 m).....	33306
125 ft. (38.1 m).....	33307
<b>Power Cable</b>	
25 ft. (7.6 m).....	22001
50 ft. (15.2 m).....	22002
75 ft. (22.9 m).....	22003
100 ft. (30.5 m).....	22004
125 ft. (38.1 m).....	22005

All cables must be the same length

<b>G</b>	
<b>Plumbing Box PCC-14</b> .....	0558005840
<b>Coolant</b>	
25% PG Torch Coolant.....	0558004297
50% EG Torch Coolant.....	156F05
<b>Work Cable</b>	
25 ft. (7.6 m).....	678723
50 ft. (15.2 m).....	678724
<b>Handheld Speedloader</b> .....	0558006164
<b>Pilot Arc Adapter</b> .....	999278
<b>Adapter B/ACETF B/I-G*F</b> .....	19X54
<b>Adapter B/A-W*M ¼ NPTM old</b> .....	10Z30



# m3 Plasma

## Precision Plasma System



### Precision

- Precision Cutting in the ISO 9013 quality range 3
- Typically 2 degrees or less cut edge angle (Precision Mode)
- Precision cutting and marking with the same torch
- Sharp top & bottom edge
- Virtually no dross

### Versatility

- Precision thin plate cutting
- High speed plasma cutting
- Plasma Marking - without changing tools
- Thick plate cutting - up to 6" Stainless & Aluminum
- Dry or Water Injection Cutting
- Cutting over Dry Table or Under-Water
- Straight or Bevel Cutting - up to +/- 45 degrees

### Value

- Longer Consumable Life
- Lower Consumable Cost
- Fewer Parts to purchase and stock
- Highly Efficient, High Power Factor Designs
- Modular System Grows With Your Needs



ESAB's m3 Plasma™ system takes plasma productivity to new heights. Now multiple plasma cutting and marking features are available in a single easy-to-use system. You can perform high speed plasma cutting, high precision cutting, plasma marking, thick-plate cutting, dry (multi-gas) cutting, and water injection cutting - all with a single plasma system. This remarkable system can quickly and accurately cut and mark a wide variety of materials. It can cut as thin as 20 ga. (2 mm), or as thick as 6 inches (150 mm), depending on which plasma power source is installed.

The m3 Plasma system features the most advanced gas control system in the industry, fully automated by ESAB's Vision CNC. Great flexibility in selection and mix of shield gases allows an operator to produce the best cut quality on any material. Simply select the material type and thickness, and the Vision CNC automatically sets the start, cut and shield gas pressures and flow rates. Process parameters for most plasma cutting and marking applications are pre loaded in the Vision CNC, and custom parameter files can be easily created as needed.

### Specifications

	m <sup>3</sup> 200 Amp System	m <sup>3</sup> 360 Amp System	m <sup>3</sup> 450 Amp System	m <sup>3</sup> 600 Amp System
Output Range (Cutting)	30 to 200 Amps	30 to 360 Amps	30 to 450 Amps	30 to 600 Amps
Output Range (Marking)	10 to 36 Amps	10 to 36 Amps	10 to 100 Amps	10 to 100 Amps
Open Circuit Voltage	360 VDC	360 VDC	430 VDC	430 VDC
Dimensions:				
Length	47 in.	47 in.	45 in.	45 in.
Height	41 in.	41 in.	41 in.	41 in.
Width	23 in.	23 in.	37 in.	37 in.

Brochure.....	MCUT-3014
Product Data Page	
EPP-201.....	MCUT-3036
EPP-360.....	MCUT-3037
EPP-450.....	MCUT-3038
EPP-601.....	MCUT-3039

ESP  
Mechanized

# m3 Plasma

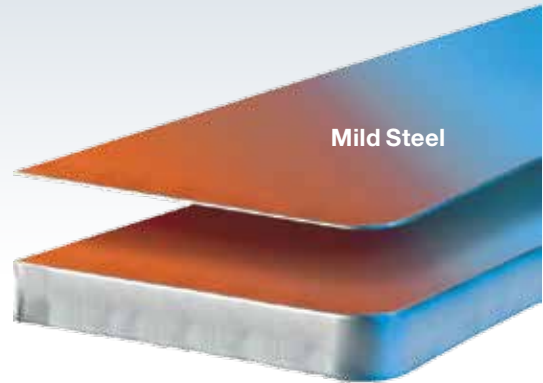
## Precision Plasma System

### Materials and Thicknesses

#### Mild Steel

Power Supply	Cutting Current	Material Thickness
m <sup>3</sup> plasma 201	30 – 200 Amps	0.040 – 1.250 inch <sup>1</sup>
m <sup>3</sup> plasma 360	30 – 360 Amps	0.040 – 1.500 inch <sup>1</sup>
m <sup>3</sup> plasma 450	35 – 450 Amps	0.040 – 2.000 inch <sup>1</sup>
m <sup>3</sup> plasma 601	35 – 450 Amps	0.040 – 2.000 inch <sup>1</sup>
m <sup>3</sup> plasma 720	35 – 450 Amps	0.040 – 2.000 inch <sup>1</sup>

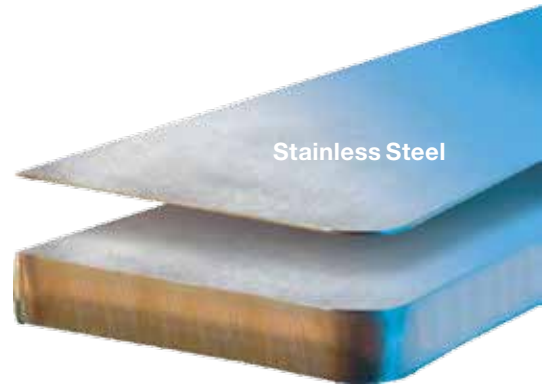
<sup>1</sup> Recommended range for production cutting and piercing mild steel with O<sub>2</sub>



#### Stainless Steel

Power Supply	Cutting Current	Material Thickness
m <sup>3</sup> plasma 201	30 – 200 Amps	0.040 – 1.250 inch <sup>1</sup>
m <sup>3</sup> plasma 360	30 – 360 Amps	0.040 – 1.500 inch <sup>1</sup>
m <sup>3</sup> plasma 450	35 – 450 Amps	0.040 – 2.000 inch <sup>1</sup>
m <sup>3</sup> plasma 601	35 – 600 Amps	0.040 – 6.000 inch <sup>1</sup>
m <sup>3</sup> plasma 720	35 – 720 Amps	0.040 – 6.000 inch <sup>1</sup>

<sup>1</sup> Recommended range for production cutting of Stainless Steel.  
Piercing and cutting up to 3 inch thick with H-35 gas  
(65% argon/35 % hydrogen) at 600 and 720 A.  
Cutting from 3 inch to 6 inch stainless is edge starting ONLY.



#### Aluminium

Power Supply	Cutting Current	Material Thickness
m <sup>3</sup> plasma 201	30 – 200 Amps	0.040 – 1.250 inch <sup>1</sup>
m <sup>3</sup> plasma 360	30 – 360 Amps	0.040 – 1.500 inch <sup>1</sup>
m <sup>3</sup> plasma 450	35 – 450 Amps	0.040 – 2.000 inch <sup>1</sup>
m <sup>3</sup> plasma 601	35 – 600 Amps	0.040 – 6.000 inch <sup>1</sup>
m <sup>3</sup> plasma 720	35 – 720 Amps	0.040 – 6.000 inch <sup>1</sup>

<sup>1</sup> Recommended range for production cutting of Aluminum.  
Piercing and cutting up to 3 inch thick with H-35 gas  
(65% argon/35 % hydrogen) at 600 and 720 A.  
Cutting from 3 inch to 6 inch aluminum is edge starting ONLY.



# PT-17A / PT-17AM

## Plasmarc Manual Cutting Torches



- Excellent cutting capability—cuts up to 1 ¼ in. (31.75 mm); severs up to 1 ½ in. (38.1 mm); pierces up to ½ in. (12.7 mm)
- Produce clean, high quality cuts
- Patented safety circuit for enhanced operator safety
- Operate with shop or cylinder air
- Compact, lightweight design for ease of handling
- Long life electrodes lower operating costs
- Pilot arc starting—even starts on paint
- Gouging nozzles available
- Intermittent cutting capability for grate or expanded metal applications
- Standard and drag shield guards available for operator convenience



These versatile, easy to use 100 Amp torches provide superior performance for a full range of manual and mechanized cutting applications.

### Consoles

The PT-17A / PT-17AM can be used with the following consoles:

- PowerCut 875 (w/adaptor P/N 19500)
- PowerCut 1125 (w/adaptor P/N 19500)
- PowerCut 1500

### Ordering Information

<b>PT-17A, 75°</b>	
25 ft. (7.6 m) lead .....	19999
50 ft. (15.2 m) lead .....	20000
<b>PT-17AM, Mechanical</b>	
25 ft. (7.6 m) lead .....	20001
50 ft. (15.2 m) lead .....	20002

### Optional Accessories

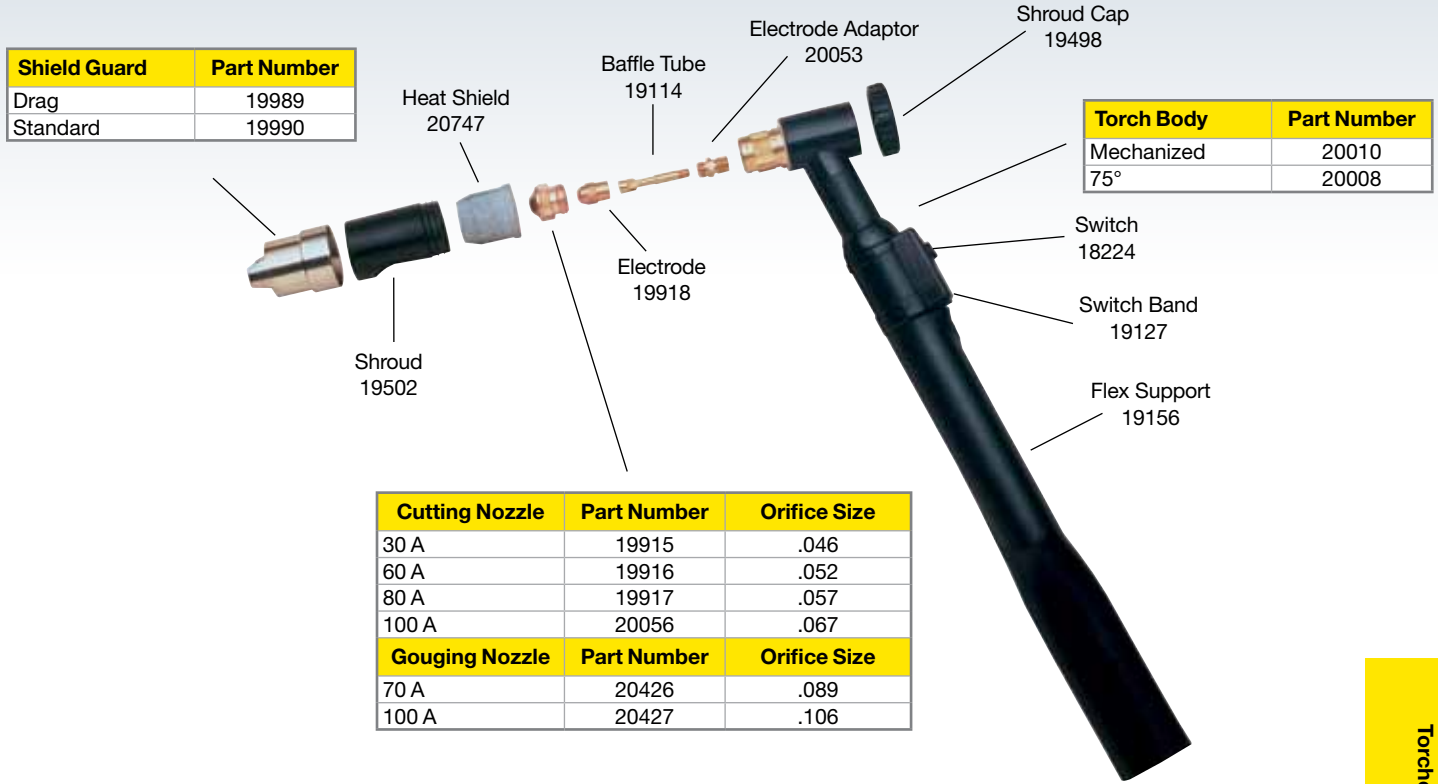
<b>Spare Parts Kit</b>	
50 A.....	20062
70 A .....	20063
100 A.....	20064
<b>Plasma Flow Measuring Kit</b> .....	0558000739
<b>Torch Guide Kit</b>	
<b>Deluxe:</b> 1 ¼ in. (44.5 mm) 42 in. (106 cm) Radius ....	0558003258
<b>Basic:</b> 1 ¼ in. (44.5 mm) 28 in. (71 cm) Radius.....	0558002675
<b>Plasmit Torch Head Protector</b>	
75° .....	20803
<b>Leather Sheath</b> , 10 ft. (25.4 cm) length .....	20812
<b>Heavy Duty Heat Shield</b> .....	20747
<b>Heat Shield Guard</b> .....	19990
<b>Drag Heat Shield Guard</b> .....	19989
<b>Adaptor for PT-17A Handheld Torch to PCM1125</b> .....	19500

### Specifications

		PT-17A / PT-17AM
Cuts		1 ¼ in. (31.75 mm)
Severs		up to 1 ½ in. (38.1 mm)
Pierces		up to ½ in. (12.7 mm)
Current Capacity		100 A @ 100% Duty Cycle
Air Supply		290 cfh @ 75 psig (140 l/min)
Length of Service Leads		25 ft. (7.6 m) 50 ft. (15.2 m)
<b>PT-17A</b>		
Dimensions:		
	Length	10 in. (254 mm)
	Torch Head	2.87 in. (730 mm)
<b>PT-17AM</b>		
Dimensions:		
	Length	17.25 in. (438 mm)

# PT-17A / PT-17AM

## Plasmarc Manual Cutting Torches



### Spare Parts Kit

Description	Part Number	20062 50 A	20063 70 A	20064 100 A
Heat Shield	20747	2	2	2
Shield Guard, Drag	19989	2	2	2
Shield Guard, Standard	19990	1	1	1
Nozzles (30 A)	19915	5	5	-
Nozzles (60 A)	19916	-	5	5
Nozzles (80 A)	19917	-	5	5
Nozzles (100 A)	20056	-	-	5
Nozzles, Gouging (70 A)	20426	-	1	-
Nozzles, Gouging (100 A)	20427	-	-	1
Electrodes	19918	5	5	5
Electrode Adaptor	20053	1	1	1
Baffle Tube	19114	1	1	1
Shroud Cap	19498	1	1	1
Shroud	19502	1	1	1
Wrench	19129	1	1	1
Pilot Arc Adaptor	19497	1	1	1

Torches



# PT-121 / PT-121M

## Plasmarc Manual Cutting Torches



- Excellent performance—cuts up to 2 in. (50.8 mm); pierces up to ½ in. (12.7 mm)
- Automatic pilot arc starting
- Uses nitrogen or H-35 for plasma gas; uses air, nitrogen, oxygen, carbon dioxide or argon for cooling gas
- Choice of 75°, 90° or mechanical torches
- Extended front end available
- Gouging nozzles and heat shield available

### Console

The PT-121 can be used with the following console:

- PCM-150



This highly versatile torch operates with a variety of gases and offers superior cutting and gouging capability.

### Specifications

	PT-121
Cuts	2 in. (50.8 mm)
Current Capacity	150 A @ 100% Duty Cycle
Plasma Cutting	
Gas Requirements	N <sub>2</sub> @ 25 psig (25 cfh) H-35 @ 65 psig (75 cfh)
Cooling Gas Requirements	N <sub>2</sub> , Air @ 50 psig (345 cfh) CO <sub>2</sub> @ 50 psig (270 cfh)
Plasma Gouging	
Gas Requirements	H-35 @ 20 psig (130 cfh)
Cooling Gas Requirements	*Ar, N <sub>2</sub> , Air @ 50 psig (260 cfh)
Length of Service Leads	25 ft. (7.6 m) 50 ft. (15.2 m)

\*Argon preferred

### Ordering Information

<b>PT-121, 75°</b>	
25 ft. (7.6 m) lead .....	999242
50 ft. (15.2 m) lead .....	999243
<b>PT-121, 90°</b>	
25 ft. (7.6 m) lead .....	999246
50 ft. (15.2 m) lead .....	999247
<b>PT-121, Mechanical</b>	
25 ft. (7.6 m) lead .....	999244
50 ft. (15.2 m) lead .....	999245

### Optional Accessories

<b>150 A Spare Parts Kit</b> .....	19539
<b>Plasma Flow Measuring Kit</b> .....	0558000739
<b>Plasmit Torch Protector</b>	
75° .....	20742
90° .....	20801
Mechanical.....	20802
<b>Leather Sheath, 10 ft. (254 cm)</b> .....	20812
<b>Gouging Heat Shield</b>	
Heavy Duty.....	20087
Two-Piece Non-Ceramic .....	20378
<b>1.6 mm Cutting Nozzle</b> .....	20859
Use with centering adjustment tool (P/N 948178)	





# PT-121 / PT-121M

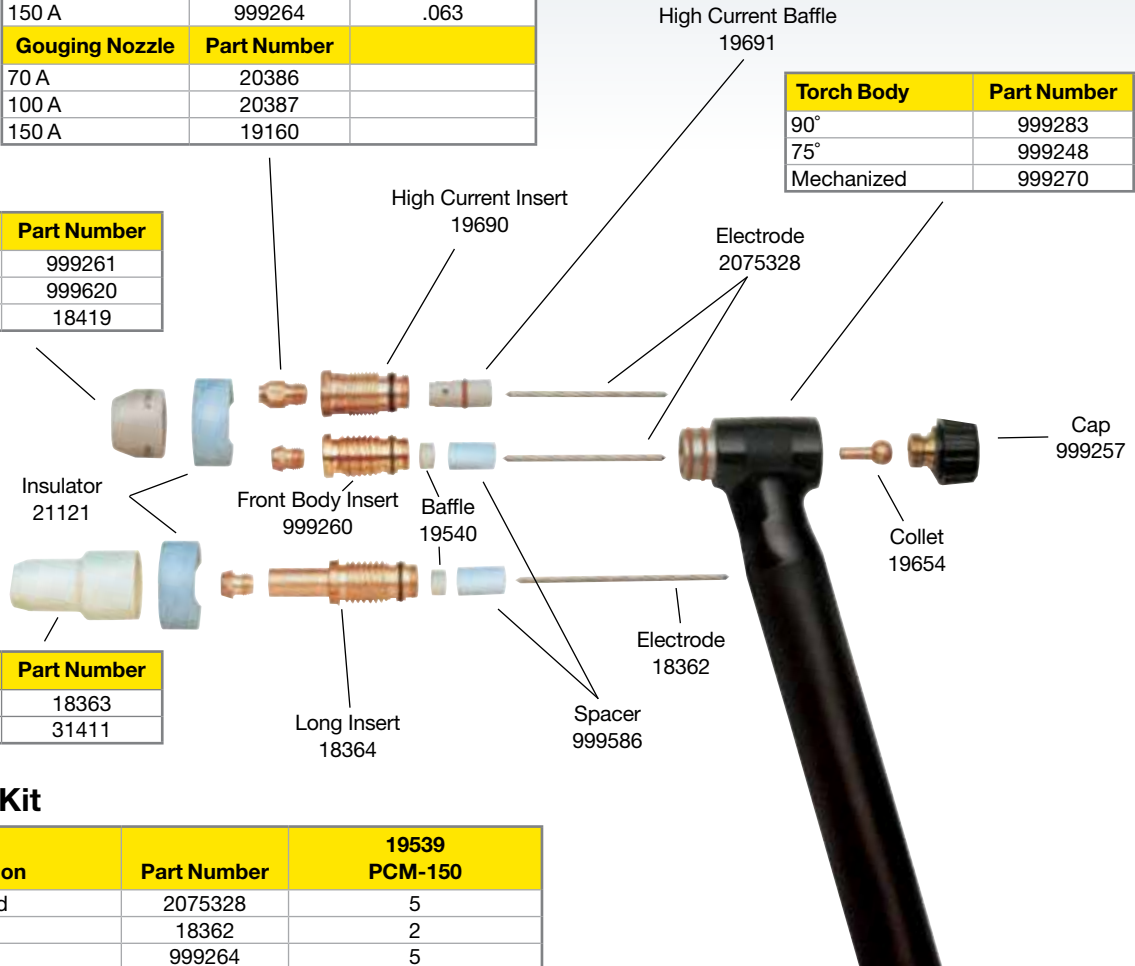
## Plasmarc Manual Cutting Torch

Cutting Nozzle	Part Number	Orifice Size
30 A	17184	.032
55 A	17119	.047
110 A	999263	.055
150 A	999264	.063
Gouging Nozzle	Part Number	
70 A	20386	
100 A	20387	
150 A	19160	

Torch Body	Part Number
90°	999283
75°	999248
Mechanized	999270

Shield	Part Number
Standard	999261
50 A, Drag	999620
120 A, Drag	18419

Shield	Part Number
Long	18363
Gouging	31411



### Spare Parts Kit

Description	Part Number	19539 PCM-150
Electrode, Standard	2075328	5
Electrode, Long	18362	2
Nozzle 150 A	999264	5
Nozzle 110 A	999263	5
Nozzle 55 A	17119	5
Nozzle Gouging 150 A	19160	2
Collet (Copper), Heavy Duty	19654	2
Heat Shield	999261	2
Heat Shield, Long	18363	2
Heat Shield, Gouging	31411	2
Heat Shield, Drag	18419	2
Front Body Insert	999260	1
Front Body Insert, Long	18364	1
High Current Insert	19690	2
High Current Baffle	19691	2
Baffle	19540	2
Spacer	999586	1
Torch Cap	999257	1
Lubricant .25 oz	0558000443	1
O-Ring	994092	5
O-Ring	96W97	2
O-Ring	85W50	2
Wrench	999568	1
Center-Adjust Tool	999266	2
Tool Box	950272	1

Torches



# PT-25

## Plasmarc Manual Cutting Torch



- Excellent cutting capability—cuts up to 1 ½ in. (38.1 m) using air or nitrogen at 100 Amps; cuts up to 2 in. (50.8 m) using nitrogen or argon-hydrogen at 150 Amps
- Produce clean, high quality cuts
- Patent pending safety circuit for enhanced operator safety
- Operate with shop or cylinder air at 100 Amps; nitrogen or argon-hydrogen at 150 Amps
- Compact, lightweight design for ease of handling
- Long-life electrodes lower operating costs
- Pilot arc starting—even starts on paint
- Gouging nozzle available
- Intermittent cutting capability for grate or expanded metal applications
- Gouging guard and stand-off guide available for operator convenience



This versatile, easy-to-use 150 Amp torch provides superior performance for a full range of manual cutting applications.

### Ordering Information

<b>PT-25, 90°</b>	
25 ft. (7.6 m) lead .....	21648
50 ft. (15.2 m) lead .....	21649
25 ft. (7.6 m) European .....	21650
50 ft. (15.2 m) European .....	21651
<b>PT-25, 75°</b>	
25 ft. (7.6 m) lead .....	000824
50 ft. (15.2 m) lead .....	000825

### Optional Accessories

<b>Torch Guide Kit</b>	
<b>Deluxe:</b> 1 ¼ in. (44.5 mm) 42 in. (106 cm) Radius .....	0558003258
<b>Basic:</b> 1 ¼ in. (44.5 mm) 28 in. (71 cm) Radius.....	0558002675
<b>Plasmit Torch Head Protector</b> .....	20801
<b>Leather Sheath, 10 ft. (254 cm) length</b> .....	20812
<b>Plasma Flow Measuring Kit</b> .....	0558000739
<b>Retrofit Kit for PCM-100/150</b>	
<b>Enables use of PT-25 with PCM-100/150</b> .....	21932
<b>European Swirl Baffle</b> .....	0558001457

### Consoles

The PT-25 can be used with the following consoles:

- **ESP-100i Standard**
- **PCM-150 with Retrofit Kit P/N 21932**

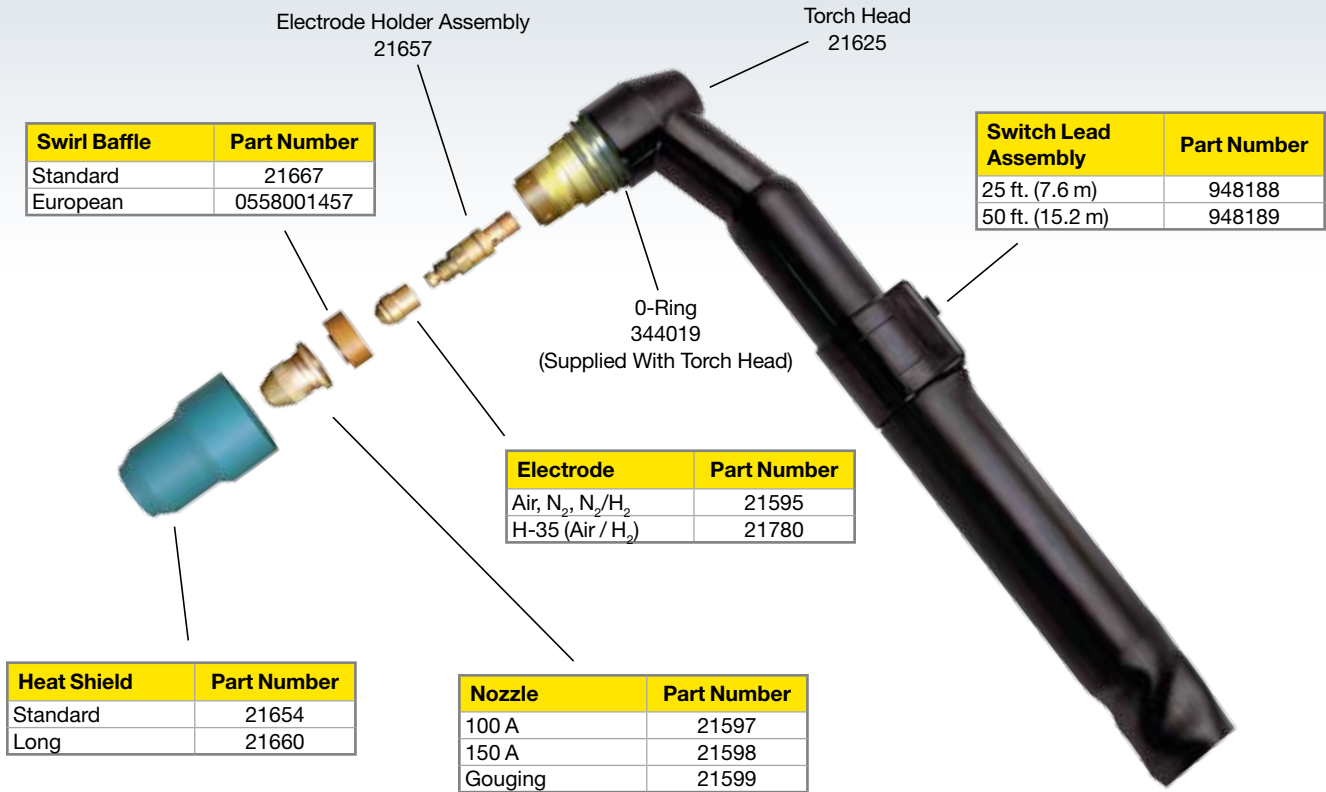
### Specifications

		PT-25
Current Capacity:		
100% Duty Cycle	100 A DCSP (Air Plasma) 150 A DCSP (N <sub>2</sub> , H-35, N <sub>2</sub> /H <sub>2</sub> Plasma)	
Approved Service Gases:		
Plasma	Air, N <sub>2</sub> , H-35, N <sub>2</sub> /H <sub>2</sub> mixtures	
Cooling	Air, N <sub>2</sub> , CO <sub>2</sub>	
Min. Gas Flow Requirements		
Plasma	200 cfh @ 70 psig	
Cooling	360 cfh @ 70 psig	
Length of Service Leads	25 ft. (7.6 m) 50 ft. (15.2 m)	
Weight of Service Leads	14 lbs. - 25 ft. (7.6 m) 25 lbs. - 50 ft. (15.2 m)	

Instruction Manual .....	F-15-266
Product Data Page.....	PAC-21016

# PT-25

## Plasmarc Manual Cutting Torch



### Spare Parts Kit

Description	Part Number	21946 100 A	21947 150 A
Heat Shield	21654	2	2
Nozzles (100 A)	21597	5	-
Nozzles (150 A)	21598	-	5
Nozzles, Gouging	21599	2	2
Gouging Guard	21656	1	1
Swirl Baffle	21667	2	2
Electrodes (Air, N <sub>2</sub> , N <sub>2</sub> /H <sub>2</sub> )	21595	5	-
Electrodes (H-35 (Air / H <sub>2</sub> ))	21780	-	5
Stand off Guide	21943	1	1

Torches



# PT-26

## Plasmarc Manual Cutting Torch



- Excellent cutting capability—cuts up to 3 ½ in. (88.9 m) and severs 4 in. (101.6 m) using air, nitrogen or argon-hydrogen at 300 Amps
- Produces clean, high quality cuts
- Patent pending safety circuit for enhanced operator safety
- Operates with shop or cylinder air, nitrogen or argon-hydrogen at 300 Amps
- Compact, lightweight design for ease of handling
- Long life electrodes lower operating costs
- Pilot arc starting—even starts on paint
- Gouging nozzle available
- Intermittent cutting capacity for grate or expanded metal applications
- Gouging guard and stand-off guide available for operator convenience



### Consoles

The PT-26 can be used with the following consoles:

- ESP-150
- ESP-200
- Deuce Pack 150

### Specifications

	PT-26
Current Capacity: (All Service Gases and Pressures)	
100% Duty Cycle	200 A DCSP
60% Duty Cycle	300 A DCSP
Maximum Rated Current	300 A DCSP
Approved Service Gases:	
Plasma Shield	Air, N <sub>2</sub> , H-35, N <sub>2</sub> /H <sub>2</sub> mixtures
Shield	Air, N <sub>2</sub> , CO <sub>2</sub> , Ar
Min. Gas Flow Requirements:	
Plasma	240 cfh @ 80 psig (112 l/min @ 5.6 bar)
Shield	200 cfh @ 85 psig (94 l/min. @ 6.0 bar)
Max. Allowable Inlet Gas Pressure	100 psig (6.9 bar)
Start Gas Pressure	30 psig (2.8 bar)
Min. Water Supply Flow Requirements	0.9 gpm @ 95 psig (3.4 l/min @ 6.6 bar)
Max. Water Inlet Pressure	120 psig (8.3 bar)
Max. Water Temperature	105° F (40° C)
Length of Service Leads	25 ft. (7.6 m) 50 ft. (15.2 m)
Weight of Service Leads	14 lbs. - 25 ft. (7.6 m) 28 lbs. - 50 ft. (15.2 m)

This versatile, easy-to-use 300 Amp torch provides superior performance for a full range of manual and mechanized cutting applications.

### Ordering Information

<b>PT-26, 90°</b>	
25 ft. lead .....	36558
50 ft. lead .....	36559
<b>PT-26, 70°</b>	
25 ft. lead .....	0558002208
50 ft. lead .....	0558002209
<b>PT-26, In-line</b>	
25 ft. ....	0558002320
50 ft. ....	0558002321
<b>PT-26, SL</b>	
25 ft. ....	0558005621
50 ft. ....	0558005622

Note: In-line torches have 2 in. barrel diameter and come without rack or torch holder.

SL-Slim line torches have 1 ¾ in. barrel diameter and come with rack and torch holder.

### Optional Accessories

#### Plasma Torch Head Protector

For gouging..... 20806

#### Leather Sheath

25 ft.\* ..... 0558002921

50 ft.\* Slip-On ..... 0558002922

#### Spare Parts Kit

300 A Deuce Pack and ESP-200\* ..... 36821

150 A ESP-150 ..... 0558002864

**Torch Holder, 2 in.** ..... 0558002985

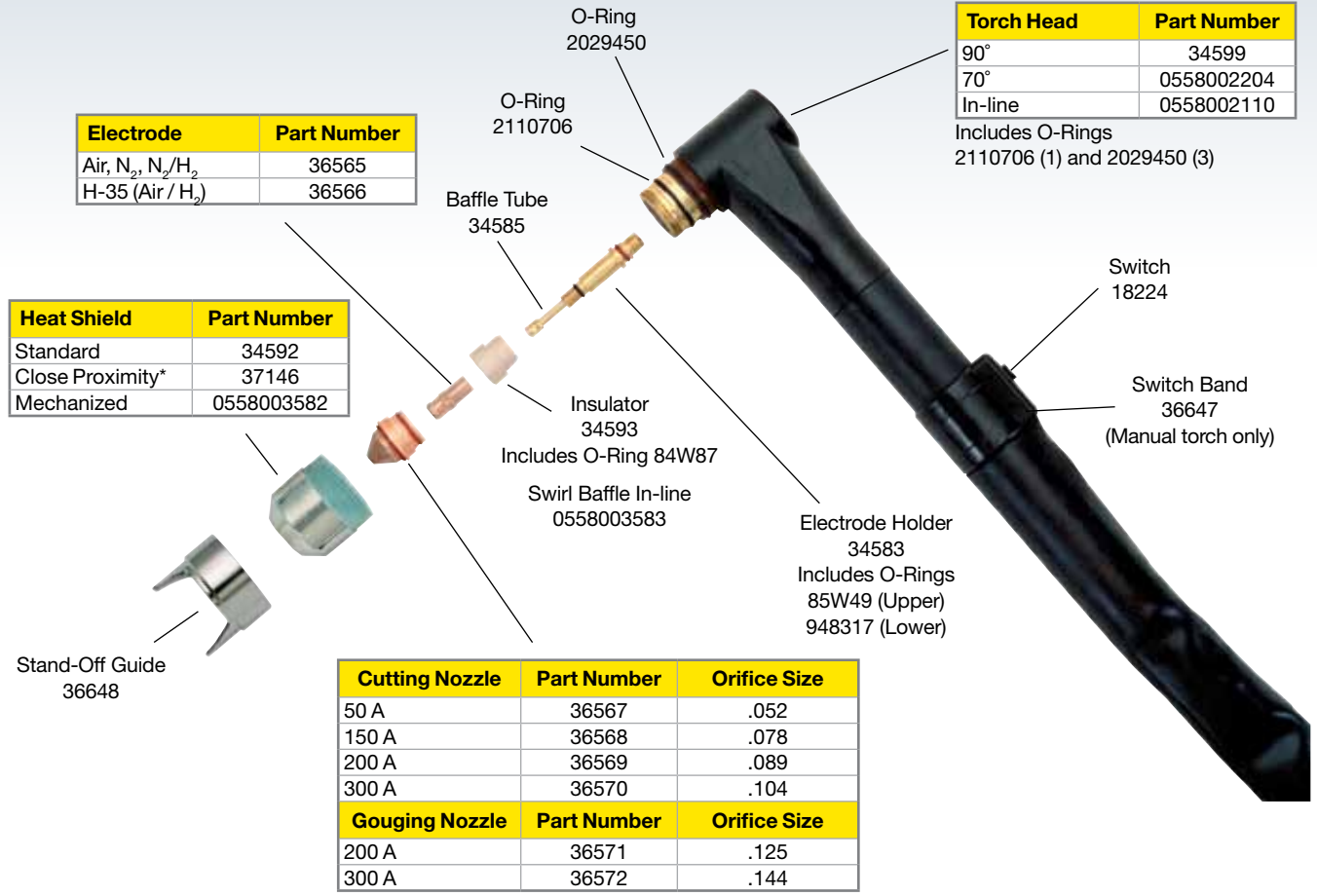
**Torch Rigging Kit**..... 0558003186

\*Standard on manual torch.

Instruction Manual .....	F-15-345
Product Data Page.....	PAC-21026

# PT-26

## Plasmarc Manual Cutting Torch



All include O-Rings  
2110578 (Upper) and 994092 (Lower)

\* For use when cutting or gouging in close proximity of workpiece.  
Standard on In-line version.

### Spare Parts Kit

Description	Part Number	36821	0558002864
		300 A Deuce Pack / ESP-200	150 A ESP-150
Electrode Air / N <sub>2</sub>	36565	3	3
Electrode H-35	36566	3	3
Nozzle 50 A	36567	3	3
Nozzle 150 A	36568	3	6
Nozzle 200 A	36569	3	-
Nozzle 300 A	36570	3	-
Nozzle Gouging 200 A	36571	1	3
Nozzle Gouging 300 A	36572	1	-
Wrench	19129	1	1
Heat Shield	34592	1	1
Shield, Close Proximity	37146	1	1
Stand Off Guide	36648	1	1
Lubricant .25 oz	0558000443	1	1
O-Ring 1.176 ID .070 Nitrile	2029450	5	5
O-Ring 1.051 ID .07	2110706	5	5
O-Ring 0.612 ID	84W87	5	5
O-Ring 0.301ID	85W49	1	1
O-Ring 0.239 ID	948317	1	1
Insulator	34593	1	1



# PT-27

## Plasmarc Manual Cutting Torch



- Most compact 80 Amp torch on the market
- Excellent cutting capacity—cuts up to 1 in. (25.4 mm); severs up to 1 ¼ in. (31.75 mm)
- Uses shop air, cylinder air or nitrogen for superior versatility
- Pilot arc starting—even starts through paint
- Choice of 25 ft. (7.6 m) or 50 ft. (15.2 m) lead length
- Perfect electrode centering
- Intermittent cutting capability for grate or expanded metal applications
- Use with three cutting nozzle sizes for exceptional versatility
- Improved spring-loaded seat eliminates head burn-out



Designed for superior cutting performance and ease of handling, the PT-27 produces clean, exceptionally high quality cuts.

### Consoles

The PT-27 can be used with the following consoles:

- PowerCut 875
- PowerCut 1125

### Ordering Information

#### PT-27, 75° Torch Assembly

- 25 ft. (7.6 m) lead with ring terminal ..... 21661
- 50 ft. (15.2 m) lead with ring terminal ..... 21662
- 25 ft. (7.6 m) European ..... 35548

#### Cable Leads

- 25 ft. (7.6 m) ..... 0558005677
- 50 ft. (15.2 m) ..... 0558006547

Note: All torch assemblies and replacement heads are supplied with the seat installed

For units manufactured prior to 4/31/1995 (that have 2 twist lock plugs for torch hook-up) order:

#### PT-27, 75°

- 25 ft. (7.6 m) lead with plug ..... 21620
- 50 ft. (15.2 m) lead with plug ..... 21621

### Optional Accessories

#### Spare Parts Kit

- 50 - 70 A ..... 21623
- 80 A ..... 21624

#### Plasma Flow Measuring Kit ..... 0558000739

#### Torch Guide Kit

- Deluxe:** 1 ¾ in. (44.5 mm) 42 in. (106 cm) Radius .... 0558003258
- Basic:** 1 ¾ in. (44.5 mm) 28 in. (71 cm) Radius ..... 0558002675

#### Stand-off Guide ..... 21420

#### Gouging Nozzle ..... 35442

#### Gouging Shield ..... 35443

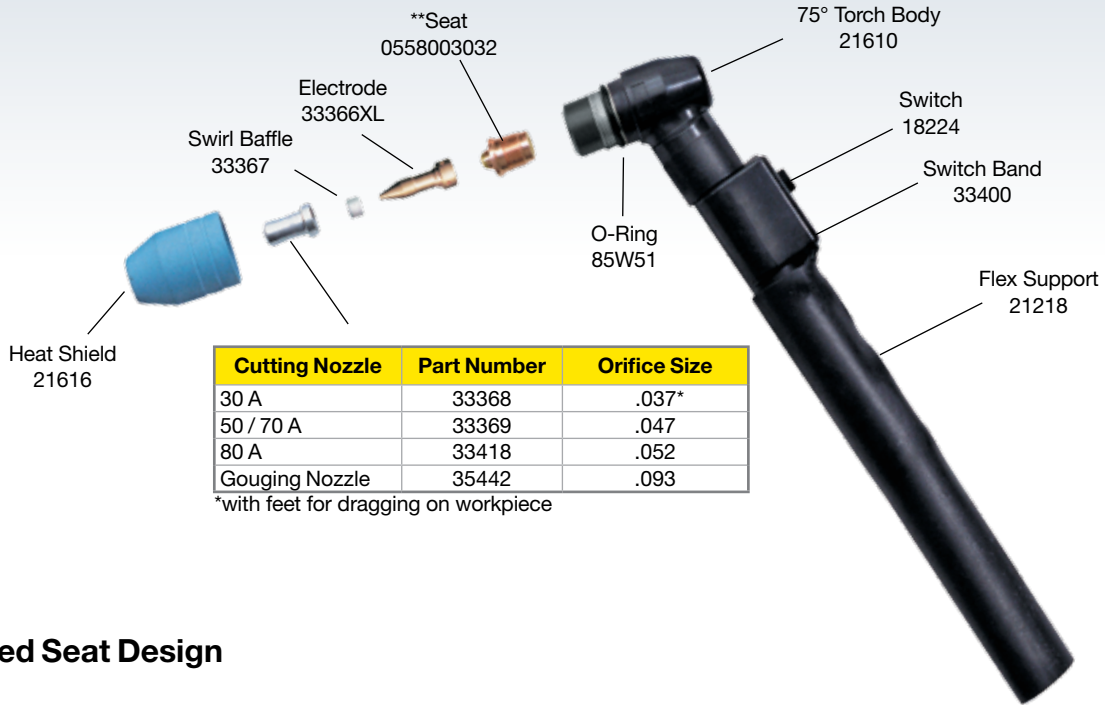
### Specifications

	PT-27
Cuts	1 in. (25.4 mm)
Severs	up to 1 ¼ in. (31.75 mm)
Current Capacity	80 A @ 100% Duty Cycle
Air Supply	320 cfh @ 65 - 75 psig (150 l/min)
Length of Service Leads	25 ft. (7.6 m) 50 ft. (15.2 m)
Dimensions:	
Length	7.3 in. (185 mm)
Torch Head	3.06 in. (78 mm)

Instruction Manual ..... F-15-203  
 Product Data Page ..... PAC-21040

# PT-27

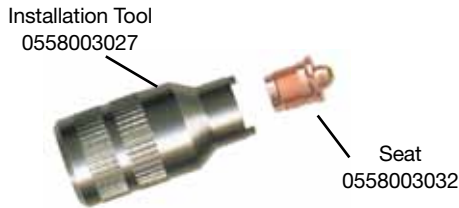
## Plasmarc Manual Cutting Torch



Cutting Nozzle	Part Number	Orifice Size
30 A	33368	.037*
50 / 70 A	33369	.047
80 A	33418	.052
Gouging Nozzle	35442	.093

\*with feet for dragging on workpiece

### Improved Seat Design



NOTE: New and improved PT-27 spring-loaded seat dramatically improves the torch head life by making the PT-27 resistant to damage due to improperly tightened consumables. This seat will not correct a torch head that is already burned out, but it will prevent torch head burnout on functioning torches.

\*\*NOTE: If your PT-27 torch still has the old style **valve pin**, you will need to retrofit the torch to the improved seat design.

### ORDERING INFORMATION

Seat and Installation Instructions (form 15-723) ..... 0558003032  
 Installation Tool ..... 0558003027

### Spare Parts Kit

Description	Part Number	21623	21624
		50 / 70 A XT PCM-875	80 A XT PCM-1125
Heat Shield	21616	2	2
Nozzles (50 / 70 A)	33369	4	-
Nozzles (80 A)	33418	-	4
Swirl Baffle	33367	1	1
Electrodes	33366XL	3	3
Fuse 15 A, 600 vdc	952137	1	1
Stand off Guide	21420	1	1
Lubricant .25 oz.	0558000443	1	1

Torches



# PT-31XL / PT-31XLPC

## Plasmarc Manual Cutting Torches



- Excellent cutting capability—manually cuts up to ¾ in. (19 mm); severs up to 1 in. (25.4 mm)
- New, durable torch cable prevents snagging on fixtures and materials
- Equipped with patented safety interlock feature
- Uses shop air, cylinder air or nitrogen for superior versatility
- High frequency starting—even starts through paint
- Uses patented “XT” consumables



### Consoles

The PT-31XL and PT-31XLPC can be used with the following consoles:

- HandyPlasma 250
- HandyPlasma 380
- HandyPlasma 550
- PowerCut 650

Designed for superior operator comfort, ESAB's PT-31XL and PT-31XLPC are the most compact 50 Amp torches on the market.

### Ordering Information

- HandyPlasma 250**  
PT-31XL, 75° head, 12.5 ft. (3.8 m) lead..... 0558005300
- HandyPlasma 380**  
PT-31XL, 75° head, 15 ft. (4.6 m) lead ..... 0558004482
- HandyPlasma 550**  
PT-31XL, 75° head, 25 ft. (7.6 m) lead..... 0558004498
- PowerCut 650**  
PT-31XLPC, 75° head, 25 ft. (7.6 m) lead ..... 0558003183  
PT-31XLPC, 75° head, 50 ft. (15.2 m) lead ..... 0558005334
- HandyPlasma 380, 550 and 650 are assembled with “XT” consumables

### Specifications

	PT-31XL - PT31XLPC
Cuts	¾ in. (19 mm)
Severs	Up to 1 in. (25.4 mm)
Current Capacity	50 A @ 100% Duty Cycle
Air Supply	275 cfm @ 75 psig (130 l/min)
Length of Service Leads	25 ft. (7.6 m) 50 ft. (15.2 m)
Dimensions:	
Length	5.25 in. (133 mm)
Torch Head	2.25 in. (57 mm)

### Optional Accessories

- Spare Parts Kit**
- 30/40A (HP-250) ..... 0558005281  
30/40A (HP-380, HP-550, PC-650)..... 0558003301  
30/40A (PT-31XL)..... 21980
- Plasma Flow Measuring Kit**..... 0558000739
- Torch Guide Kits**
- Deluxe:** 1 ¾ in. (44.5 mm) 42 in. (106 cm) Radius .... 0558003258  
**Basic:** 1 ¾ in. (44.5 mm) 28 in. (71 cm) Radius..... 0558002675
- Note: XT nozzles have extended shape.

### Instruction Manual

- PT-31XL.....F-14-246  
PT-31XLPC.....F-15-724

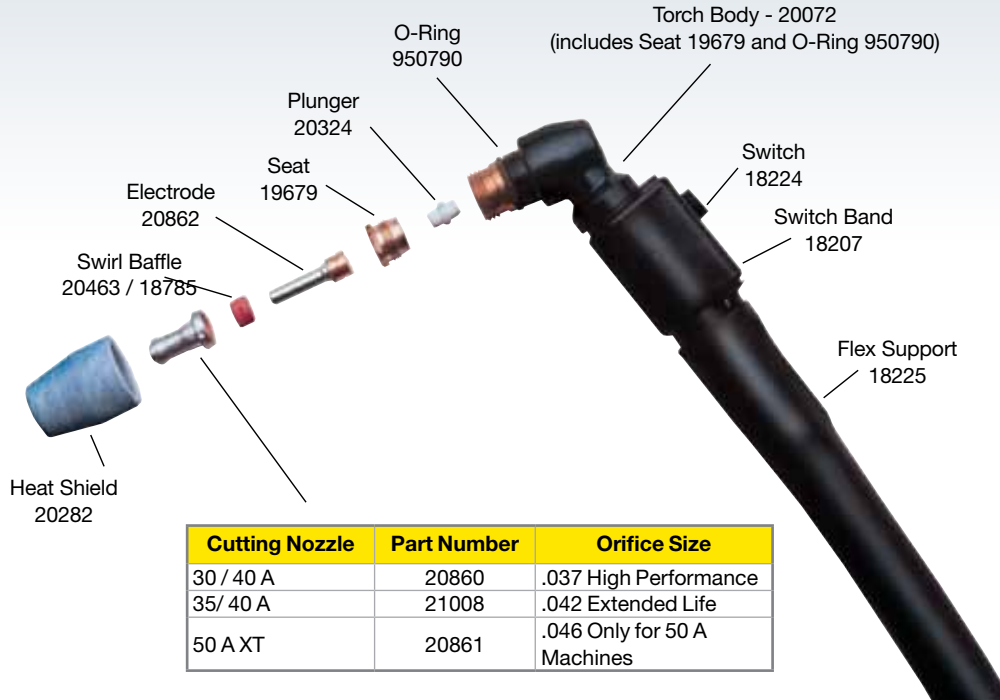
### Product Data Page

- PT-31XL.....PAC-21039  
PT-31XLPC.....PAC-21090



# PT-31XL / PT-31XLPC

## Plasmarc Manual Cutting Torches



Cutting Nozzle	Part Number	Orifice Size
30 / 40 A	20860	.037 High Performance
35/ 40 A	21008	.042 Extended Life
50 A XT	20861	.046 Only for 50 A Machines

### Spare Parts Kit

Description	Part Number	0558003301 HandyPlasma 380 HandyPlasma 550 PowerCut 650		
		21980 35/40 A	0558005281 HandyPlasma 250	
Heat Shield	20282	1	1	1
Nozzles (15/20 A)	19667	-	3	-
Nozzles (30/40 A)	20860	-	-	3
Nozzles (35/40 A) Ext. Life	21008	3	-	-
Swirl Baffle	20463	1	-	1
Swirl Baffle	18785	-	1	-
Electrodes	20862	2	-	2
Electrodes	18205	-	2	-
Lubricant .25 oz	0558000443	1	1	1

Torches



# PT-32EH

## Plasmarc Manual Cutting Torch



- Most compact 90 Amp torch on the market
- Durable torch cable prevents snagging on fixtures and materials
- Excellent cutting capacity—cuts up to 1 ½ in. (38 mm)
- Uses shop air, cylinder air or nitrogen for superior versatility
- Pilot arc starting—even starts through paint
- Choice of 25 ft. (7.6 m) or 50 ft. (15.2 m) lead length
- Excellent consumable life
- Parts in place design
- Patented torch and safety circuit
- Exclusive 40 Amp drag nozzle



### Consoles

The PT-32EH can be used with the following consoles:

- PowerCut 875
- PowerCut 1125
- PowerCut 1250
- PowerCut 1500

Designed for superior cutting performance and ease of handling, the PT-32EH patented torch produces clean, exceptionally high quality cuts. The new ergonomic handle offers dual-switch capability, extra comfort and a non-slip grip.

### Ordering Information

<b>PT-32EH 90° Torch Assembly</b>	
25 ft. (7.6 m) lead .....	0558003548
50 ft. (15.2 m) lead .....	0558003549
<b>PT-32EH Cable Assembly</b>	
25 ft. (7.6 m) .....	0558002841
50 ft. (15.2 m) .....	0558002842

Note: Torches and torch body assemblies are supplied without electrode, nozzle, heat shield and valve pin.

### Optional Accessories

<b>Spare Parts Kit</b>	
50 - 70 A (PC-875/1125) .....	0558002822
70 A (PC-1250) .....	0558003508
90 A (PC-1500) .....	0558003062
<b>Plasma Flow Measuring Kit</b> ..... 0558000739	
<b>Torch Guide Kit</b>	
<b>Deluxe:</b> 1 ¾ in. (44.5 mm) 42 in. (106 cm) Radius ....	0558003258
<b>Basic:</b> 1 ¾ in. (44.5 mm) 28 in. (71 cm) Radius.....	0558002675
<b>Stand-off Guide</b> .....	0558002393
<b>40 A Drag Nozzle</b> .....	0558002908
<b>Gouging Nozzle</b> .....	0558003089
<b>Heat Shield Gouging</b> .....	0558003090
<b>Heavy Duty Drag Heat Shield</b> .....	0558004206

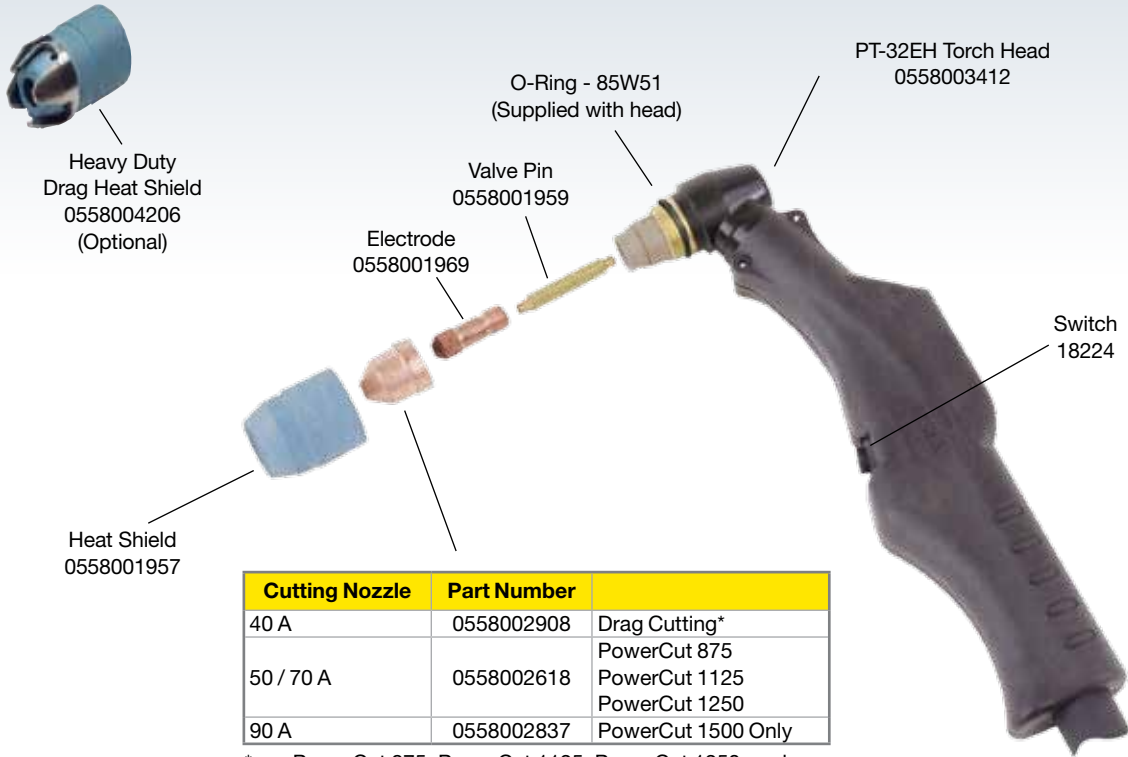
### Specifications

	PT-32EH
Cuts	1 ½ in. (38 mm)
Current Capacity	90 A @ 100% Duty Cycle
Air Supply	350 cfh @ 75-80 psig (165 l/min @ 5.2 - 5.5 bar)
Length of Service Leads	25 ft. (7.6 m) 50 ft. (15.2 m)
Dimensions:	
Length	8.2 in. (208 mm)
Torch Head	3 in. (76 mm)

<b>Instruction Manual</b>	
PT-32 .....	F-15-440
PT-32EH .....	F-15-747
Product Data Page.....	PAC-21091

# PT-32EH

## Plasmarc Manual Cutting Torch



Cutting Nozzle	Part Number	
40 A	0558002908	Drag Cutting*
50 / 70 A	0558002618	PowerCut 875 PowerCut 1125 PowerCut 1250
90 A	0558002837	PowerCut 1500 Only

\* PowerCut 875, PowerCut 1125, PowerCut 1250, and PowerCut 1500

### Spare Parts Kit

Description	Part Number	0558002822	0558003508	0558003062
		50/70 A PowerCut 875 PowerCut 1125	70 A PowerCut 1250	90 A PowerCut 1500
Heat Shield	0558001957	2	2	2
Nozzles (50/70 A)	0558002618	4	4	-
Nozzles (90 A)	0558002837	-	-	4
Nozzles, Drag (40 A)	0558002908	1	1	1
Electrodes	0558001969	3	3	3
Valve Pin	0558001959	1	1	1
Fuse 2 A, 600 VDC	0558001379	-	1	1
Stand-off Guide	0558002393	1	1	1
Wrench	19129	1	1	1
Lubricant .25 oz	0558000443	1	1	1

Torches



# PT-38

## Plasmarc Manual Cutting Torch



- Ergonomic handle for operator comfort
- Big face switch maximizes convenience when wearing welder's gloves
- New blowback technology
- Easily repairable in the field
- Minimum part configurations
- Molded strain relief for secure torch leads



### Consoles

The PT-38 can be used with the following consoles:

- PowerCut 900
- PowerCut 1300
- PowerCut 1600

### Specifications

		PT-38
Cuts		1 ½ in. (38 mm)
Current Capacity		90 A @ 100% Duty Cycle
Air Supply		400 cfh @ 80 psig (165 l/min @ 4.8 - 5.5 bar)
Length of Service Leads		25 ft. (7.6 m) 50 ft. (15.2 m)
Dimensions:		
	Length	8.2 in. (208 mm)
	Torch Head	3 in. (76 mm)

Designed for superior cutting performance and ease of handling, the PT-38 torch produces clean, high quality cuts.

### Ordering Information

<b>PT-38 Torch Assembly</b>	
25 ft. (7.6 m) lead.....	0558006786
50 ft. (15.2 m) lead.....	0558006787
<b>PT-38 Cable Assembly</b>	
25 ft. (7.6 m).....	0558006800
50 ft. (15.2 m).....	0558006801

Note: Torches and torch body assemblies are supplied without electrode, nozzle, heat shield and valve pin.

### Optional Accessories

<b>Spare Parts Kit</b>	
60 A (PC 900).....	0558008418
70 A (PC 1300).....	0558007641
90 A (PC 1600) .....	0558007639
<b>Plasma Flow Measuring Kit</b> .....	0558000739
<b>Torch Guide Kit</b>	
<b>Deluxe:</b> 1 ¼ in. (44.5 mm) 42 in. (106 cm) Radius ....	0558003258
<b>Basic:</b> 1 ¼ in. (44.5 mm) 28 in. (71 cm) Radius.....	0558002675
<b>Stand-off Guide</b> .....	0558006614
<b>40 A Drag Nozzle</b> .....	0558007682
<b>Gouging Heat Shield</b>	
60 A.....	0558008591
70 - 90 A .....	0558008186
<b>Gouging Nozzle</b>	
60 A.....	0558008588
70 - 90 A .....	0558007681

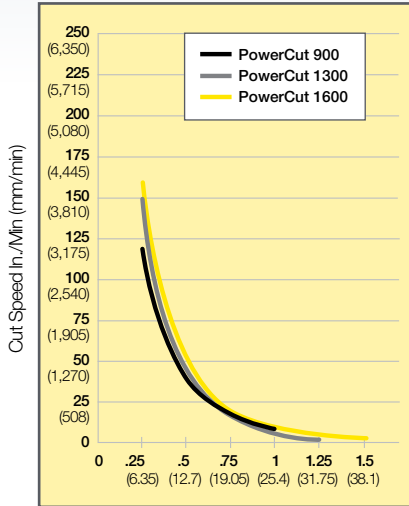
Instruction Manual .....	0558007156
Product Data Page.....	PAC-21184

# PT-38

## Plasmarc Manual Cutting Torch

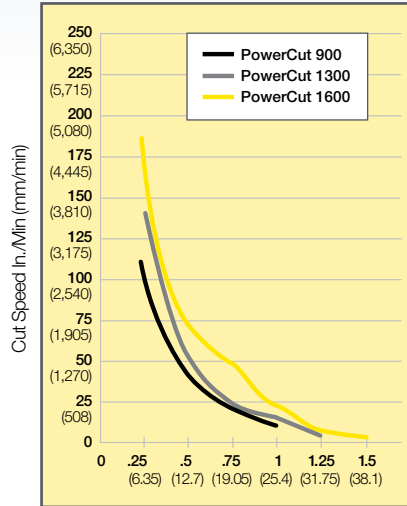


### PT-38 Cut Speeds Carbon Steel



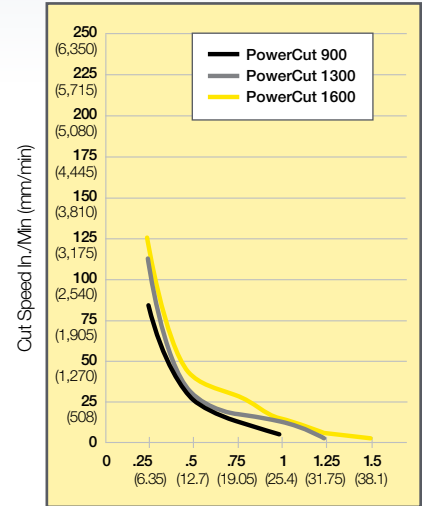
Steel Thickness, In. (mm)  
Data collected using standard consumables and 80 psi Air

### PT-38 Cut Speeds Aluminum



Steel Thickness, In. (mm)  
Data collected using standard consumables and 80 psi Air

### PT-38 Cut Speeds Stainless Steel



Steel Thickness, In. (mm)  
Data collected using standard consumables and 80 psi Air

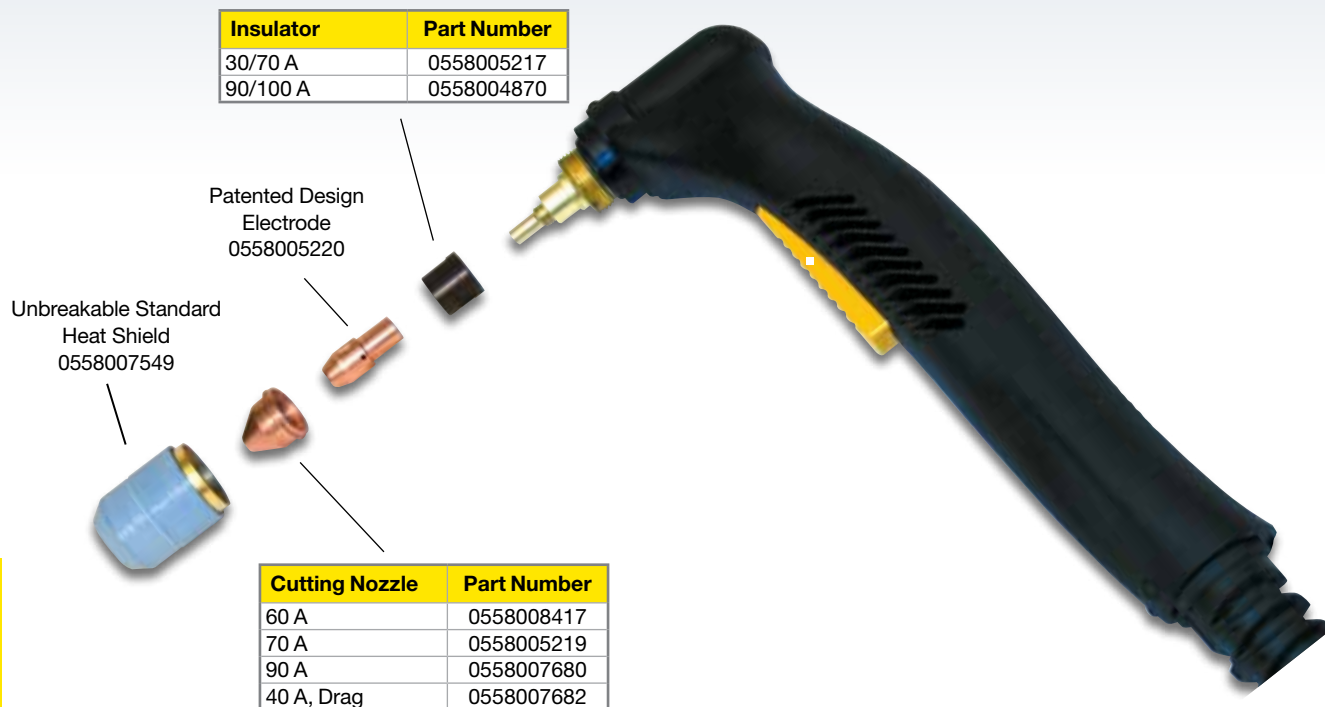


Torches



# PT-38

## Plasmarc Manual Cutting Torch



Torches

### Spare Parts Kit

Description	Part Number	0558008418	0558007641	0558007639
		60 A PowerCut 900	70 A PowerCut 1300	90 A PowerCut 1600
Insulator (30/70 A)	0558005217	1	1	1
Insulator (90/100 A)	0558004870	-	-	1
Nozzles (60 A)	0558008417	3	-	-
Nozzles (70 A)	0558005219	1	4	-
Nozzles (90 A)	0558007680	-	-	4
Nozzles, Drag (40 A)	0558007682	-	1	1
Electrodes	0558005220	3	3	3
Retaining Shield Cup Assembly	0558007549	1	1	1
O-Ring .301ID .070W Nitrile	0558101101	3	3	3
Fuse SLO-BLO 2 A, 600 VDC	0558001379	1	1	1
Lubricant .25 oz	0558000443	1	1	1

# PT-15XL

## Plasmarc Mechanized Cutting Torch



- Heavy-duty performance — cuts up to 6 in. (152.44 mm)
- Designed for exceptional durability
- Precision engineering
- Excellent nozzle and electrode concentricity
- 180° In-line mechanized torch
- Water cooled/water injected
- Pilot arc starting—even starts on paint
- Uses nitrogen, oxygen, or H-35 for plasma gas



### Specifications

		PT-15XL
Current Capacity		
	Oxygen	360 A @ 100% Duty Cycle
	Nitrogen	750 A @ 100% Duty Cycle
	Argon-Hydrogen	1000 A @ 100% Duty Cycle
Start Gas Pressure		100 to 125 psig
Cut Gas Pressure		100 to 125 psig
Length of Service Leads		4.5 ft. (1.4 m) 6 ft. (1.8 m) 12 ft. (3.7 m) 15 ft. (4.6 m) 17 ft. (5.2 m) 20 ft. (6.1 m) 25 ft. (7.6 m)
Dimensions:		
	Length	11 ½ in. (292 mm)
	Barrel Diameter	2 in. (50.8 mm)

This ruggedly designed torch provides excellent performance for everyday use as part of a specially configured ESAB Smart Plasma (ESP) heavy mechanized cutting system.

### Ordering Information

#### ESP Systems, PT-15XL

4.5 ft. (1.4 m) lead .....	21307
6 ft. (1.8 m) lead .....	21304
12 ft. (3.7 m) lead .....	21305
15 ft. (4.6 m) lead .....	21301
17 ft. (5.2 m) lead .....	21306
20 ft. (6.1 m) lead .....	21302
25 ft. (7.6 m) lead .....	21303

#### PT-15XL less leads .....

#### PCM-8, PT-15XL

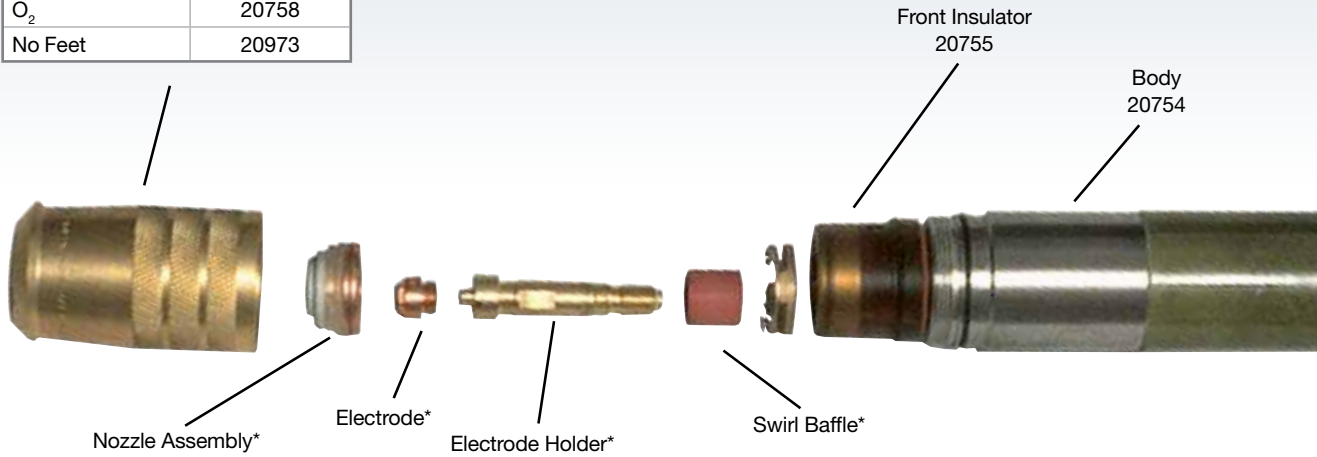
6 ft. lead .....	20762
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# PT-15XL

## Plasmarc Mechanized Cutting Torch

Nozzle Retainer	Part Number
N <sub>2</sub> , H-35	20759
O <sub>2</sub>	20758
No Feet	20973



\*See table for part numbers to use with N<sub>2</sub>, O<sub>2</sub> or H-35 cutting gas.

Torches



Process	Electrode	Electrode Holder	Nozzle Assembly			Swirl Baffles				
			Diameter	Part Number	Rating	Standard	Optional			
Nitrogen With Water Injection	600236	2075343	.125	2075691	250 A	4 Hole Ceramic 948142	4 Hole Plastic 2075341			
			.156	2075611	400 A					
			.200	2075612	600 A					
						.230	2075613	750 A	4 Hole Reverse Ceramic 948143	4 Hole Reverse Plastic 2075360
						.125R	2075692	250 A		
						.156R	2075614	400 A		
						.200R	2075615	600 A		
			.230R	2075690	750 A					
Argon / Hydrogen H-35	600236	2075343	.250	2075587	875 - 1000 A	8 x .067 Ceramic 2075586				
Oxygen With Water Injection	35666XL	20398	.07	37317	125 A	4 Hole Ceramic 948142	None			
			.07R	37318		4 Hole Reverse Ceramic 948143				
	20763XL or 35666XL		.099	20751	260 A	8 x .067 Ceramic 2075586	4 Hole Ceramic 948142			
			.099	21206B		8 x .067 Reverse Ceramic 2075586	4 Hole Reverse Ceramic 948143			
			.099R	21207B						
	35666XL		.099R	20920						
			.116	35662	300 A 340 A	8 x .047 Ceramic 35660	None			
			.120	35664		8 x .047 Reverse Ceramic 35661				
			.116R	35663						
.120R	35665									



# PT-19XLS

## Plasmarc Mechanized Cutting Torch



- Heavy-duty performance
- Designed for exceptional durability
- Precision engineering
- Excellent nozzle and electrode concentricity
- 180° In-line mechanized torch
- Water cooled—not water injected (dry)
- Pilot arc starting—even starts on paint
- Uses oxygen, nitrogen, argon-hydrogen or air for plasma gas

### Consoles

The PT-19XLS can be used with the following consoles:

- ESP-150
- ESP-200
- Deuce Pack 150 (special order)



### Specifications

	PT-19XLS
Current Capacity	360 A @ 100% Duty Cycle 150 A w/PCM-150 or PCM-1500
Cut Gas Consumption	35 to 260 cfh
Stand-off	3/32 in. to 1/2 in. (3.96 to 12.7 mm)
Start Gas Pressure	100 to 125 psig
Cut Gas Pressure	100 to 125 psig
Length of Service Leads	4.5 ft. (1.4 m) 6 ft. (1.8 m) 12 ft. (3.7 m) 15 ft. (4.6 m) 17 ft. (5.2 m) 20 ft. (6.1 m) 25 ft. (7.6 m) 50 ft. (15.2 m)
Dimensions:	
Length	15 1/2 in. (388 mm)
Barrel Diameter	2 in. (50.8 mm)

This ruggedly designed torch provides excellent performance for everyday use with ESAB consoles or as part of a specially configured ESP heavy mechanized cutting system.

### Ordering Information

<b>PT-19XLS</b>	
4.5 ft. (1.4 m) lead .....	37086
6 ft. (1.8 m) lead .....	37087
12 ft. (3.7 m) lead .....	37088
15 ft. (4.6 m) lead .....	37089
17 ft. (5.2 m) lead .....	37090
20 ft. (6.1 m) lead .....	37091
25 ft. (7.6 m) lead .....	37092
50 ft. (15.2 m) lead .....	37093*
<b>PT-19XLS less leads</b> .....	37543

\*Use with consoles only

### Optional Accessories

<b>Plasma Flow Measuring Kit</b> .....	0558000739
<b>Remote Hand Control Switch</b> .....	680982
<b>Spare Parts Kit</b> .....	37307
<b>Start-up Kit, 200 A</b> .....	37508
<b>Air Curtain Kit</b> .....	37460
<b>Water Muffler</b> .....	37439
<b>Pilot Arc Adaptor to PCM 150</b> .....	19497

Instruction Manual .....	F-15-430
Product Data Page .....	PAC-21009



# PT-19XLS

## Plasmarc Mechanized Cutting Torch

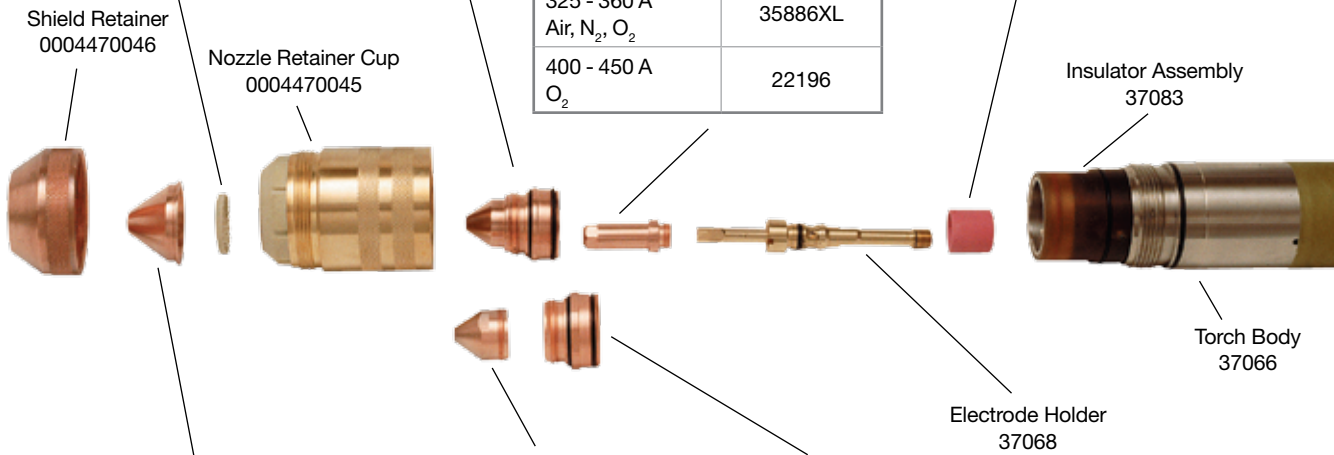
Cutting Nozzle	Part Number
250 A	21822
300 A	0558002608
360 A	35885
400 A	22195
600 A	22401

Swirl Baffle	Part Number	Notes
50 - 200 A Air, N <sub>2</sub> , O <sub>2</sub>	948142	4 Hole Std
50 - 200 A Air, N <sub>2</sub> , O <sub>2</sub>	948143	4 Hole Rev
250 - 600 A N <sub>2</sub> , H-35	35660	8 x .047
250 - 600 A N <sub>2</sub> , H-35	35661	8 x .047 Rev.
400-450 A O <sub>2</sub>	22194	32 x .032

Diffuser	Part Number
50 A	0004470030
100 - 600 A	0004470031
250 - 600 A Rev.	0004470115

Electrode	Part Number
50 - 250 A Air, N <sub>2</sub> , O <sub>2</sub>	34086XL
150 - 600 A N <sub>2</sub> , H-35	22403
325 - 360 A Air, N <sub>2</sub> , O <sub>2</sub>	35886XL
400 - 450 A O <sub>2</sub>	22196

Torches



Shield	Part Number
50 A	21795
100 - 250 A	21802
250 - 600 A	21945

Nozzle Tip	Part Number
50 A	22026
100 A	22029
150 A	22030
200 A	22031
250 A	22032

Nozzle Base	Part Number
50 A	22027
100 - 250 A	22028

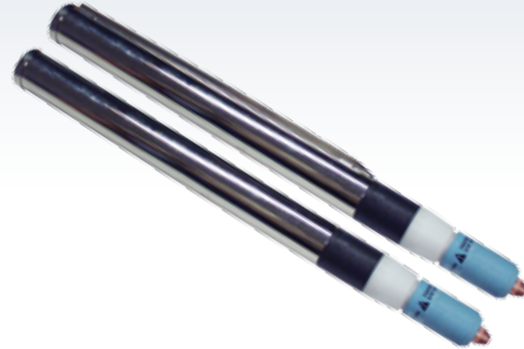
# PT-20AMX / PT-21AMX

## Plasmarc Mechanized Cutting Torches



- 180° In-line mechanical torch
- Excellent cutting capability
- Extremely versatile—excellent for thinner materials
- Equipped with patented safety interlock feature
- Pilot arc starting—even starts on paint
- Available with 50 ft. (15.2 m), 25 ft. (7.6 m), \*4 ft. (1.2 m) and \*17 ft. (5.2 m) torch leads
- Compatible with a variety of ESAB consoles
- Drops easily into standard 1 in. (34.9 mm) torch holders

\*4 ft. (1.2 m) and 17 ft. (5.2 m) torch leads used on Remote Arc Starter only



In conjunction with an ESAB console, the PT-20AMX torch offers the ideal solution for low cost, high performance cutting.

### Consoles

The PT-20AMX / PT-21AMX can be used with the following consoles:

- PT-20AMX
- PCM-875
- PCM-1125 (with adaptor 19500)
- PowerCut 1250
- PowerCut 1500
- ESP-100 (no adaptor)

### Specifications

	PT-20AMX / PT-21AMX
Current Capacity	100 A @ 100% Duty Cycle
Plasma Cutting	
Gas Requirements	350 cfh @ 85 psig
Cooling Gas Requirements	350 cfh @ 85 psig
Length of Service Leads	4 ft. (1.2 m) 17 ft. (5.2 m) 25 ft. (7.6 m) 50 ft. (15.2 m)
Dimensions:	
Length	17.5 in. (444 mm)
Barrel Diameter	1 3/8 in. (34.9 mm)

### Ordering Information

#### PT-20AMX - Console Connections

Torch with rack, 25 ft. (7.6 m) .....	0558003427
Torch with rack, 50 ft. (15.2 m) .....	0558003421
Torch without rack, 25 ft. (7.6 m) .....	0558003426
Torch without rack, 50 ft. (15.2 m) .....	0558003422

#### PT-20AMX Remote Arc Starter

Torch without rack, 4 ft. (1.2 m) .....	0558003424
Torch without rack, 17 ft. (5.2 m) .....	0558003425

#### PT-21AMX - PowerCut 1250 & 1500

Torch with rack, 25 ft. (7.6 m) .....	0558003616
Torch with rack, 50 ft. (15.2 m) .....	0558003614
Torch without rack, 25ft. (7.6 m) .....	0558003617
Torch without rack 50 ft. (15.2 m) .....	0558003615

### Optional Accessories

Torch Holder Assembly ..... 16V83

#### Spare Parts Kit

50 A .....	21370
70 A .....	21369
90 A .....	0558004271
100 A .....	21376

Plasma Flow Measuring Kit ..... 0558000739

#### Remote Hand Control Switch 25 ft. (7.6 m) lead

PT-20AMX .....	680982
PT-21AMX .....	0558003612

Adaptor for PCM-875 and PCM-1125 ..... 19500

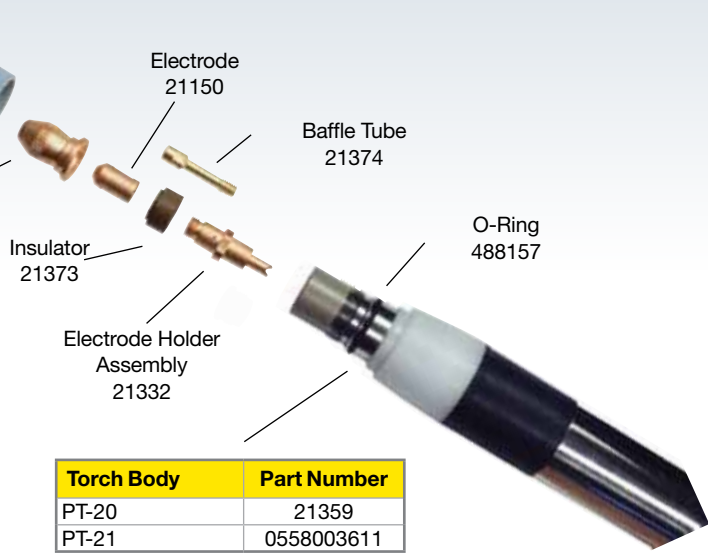


# PT-20AMX / PT-21AMX

## Plasmarc Mechanized Cutting Torches

Heat Shield	Part Number
30 - 50 A	21447
70 - 100 A	21326

Cutting Nozzle	Part Number	Orifice Size
30 A	37329	.032
50 A	21330	.042
70 A	21329	.052
90 A	0558004269	.056
100 A	21328	.059



Torch Body	Part Number
PT-20	21359
PT-21	0558003611

Torches

### Spare Parts Kit

Description	Part Number	21370 50 A	21369 70 / 80 A	0558004271 90 A	21376 100 A
Electrode	21150	5	5	1	5
Electrode Insulator	21373	1	1	1	1
Electrode Holder Assembly	21332	1	1	1	1
Nozzle 50 A	21330	5	5	5	5
Nozzle 70 A	21329	-	5	5	5
Nozzle 90 A	0558004269	-	-	5	-
Nozzle 100 A	21328	-	-	-	5
Heat Shield 50 A	21447	2	1	1	1
Heat Shield 70 - 100 A	21326	-	2	2	2
Baffle Tube	21374	1	1	1	1
Pilot Arc Adaptor	19497	1	1	5	1
Lubricant .25 oz	0558000443	1	1	1	1
O-Ring	488157	5	5	1	5
Wrench, Seat/Baffle	21375	1	1	1	1
Wrench, 1/16 in. Hex-Key	93750006	1	1	1	1
Tool Box	950272	1	1	1	1

# PT-36 / PT-36R

## Plasmarc Mechanized Cutting Torches



- Extremely versatile multi-gas torch, allows you to pick the combination of gases, speed, and cut quality that you want
- Precision close tolerance concentricity for optimum straight or bevel cutting, with highest cut quality and consumable life
- Low current precision cutting, conventional plasma cutting, 600 Amp thick plate cutting, and water injection cutting, with the same torch
- Posi-thread design makes it easier to install consumables, and eliminates the worry of damaged threads on electrode, electrode holder, and torch body
- Cut and mark with the same set of consumables
- Fewer consumable parts cover the entire cutting range
- Cuts carbon steel up to 3 in. thick with 450 Amp Oxygen
- Cuts stainless steel or aluminum up to 6 in. thick with 600 Amp Argon-Hydrogen
- Oxygen, Nitrogen, Air or H-35 plasma gas; Nitrogen, Air or H-35 start gas; Nitrogen, Oxygen/Nitrogen mix, Air, or Methane shield gas
- Current capacity of 720 Amps at 100% Duty Cycle
- Speedloader aids in consumable changes without the worries and leaks caused by O-Rings, or the expense of spare torch bodies
- Does not require expensive water chiller for cooling water, which reduces power and maintenance costs



The rugged, reliable, PT-36 torch combines up to four single-purpose torches (heavy plate cutting, precision cutting, marking, and water injection). The end result: superior cutting flexibility and productivity over a wide range of materials and thicknesses, with minimal set up time, downtime and consumable cost. No other system offers the reliability, economy and productivity of the m3 plasma system.

### Ordering Information

<b>PT-36</b>	
4.5 ft. (1.4 m) torch leads.....	0558006745
6 ft. (1.8 m) torch leads.....	0558006746
12 ft. (3.7 m) torch leads.....	0558006747
15 ft. (4.6 m) torch leads.....	0558006749
17 ft. (5.2 m) torch leads.....	0558006750
20 ft. (6.1 m) torch leads.....	0558006779
25 ft. (7.6 m) torch leads.....	0558006751
<b>PT-36 Expert Pro Bevel</b>	
14 ft. (4.3 m) torch leads.....	0558006748
<b>PT-36R</b>	
4.5 ft. (1.4 m) torch leads.....	0558006811
6 ft. (1.8 m) torch leads.....	0558006812
7.2 ft. (2.2 m) torch leads.....	0558006781
12 ft. (3.6 m) torch leads.....	0558006813
15 ft. (4.6 m) torch leads.....	0558006815
17 ft. (5.2 m) torch leads.....	0558006816
20 ft. (6.1 m) torch leads.....	0558006782
25 ft. (7.6 m) torch leads.....	0558006817
<b>PT-36R Expert Pro Bevel</b>	
14 ft. (4.3 m) torch leads.....	0558006814
<b>PT-36R Direct Connect</b>	
25 ft. (7.6 m).....	0558009965
50 ft. (15 m).....	0558009967

### Specifications

PT-36 / PT-36R	
Current Capacity	
Air	450 A @ 100% Duty Cycle
Oxygen	450 A @ 100% Duty Cycle
Nitrogen	720 A @ 100% Duty Cycle
Argon-Hydrogen	600 A @ 100% Duty Cycle
Start Gas Pressure	100 to 125 psig
Cut Gas Pressure	100 to 125 psig
Length of Service Leads	4.5 ft. (1.4 m) 6 ft. (1.8 m) 12 ft. (3.7 m) 15 ft. (4.6 m) 17 ft. (5.2 m) 20 ft. (6.1 m) 25 ft. (7.6 m)
Dimensions:	
Length	16.7 in. (424 mm)
Barrel Diameter	2 in. (50.8 mm)

Brochure.....	MCUT-3014
Instruction Manual	
PT-36.....	0558006785
PT-36R.....	0558006829

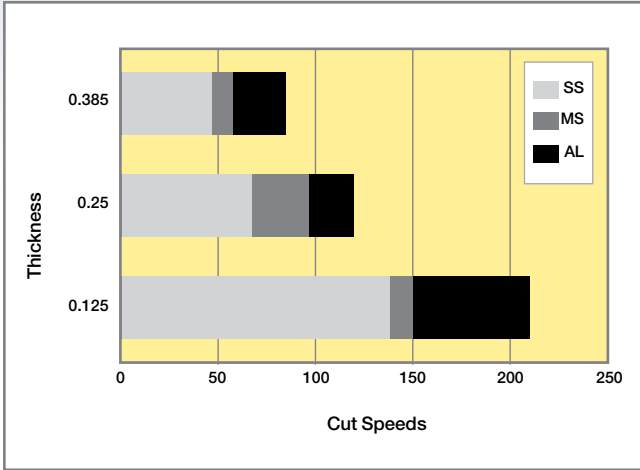
Torches



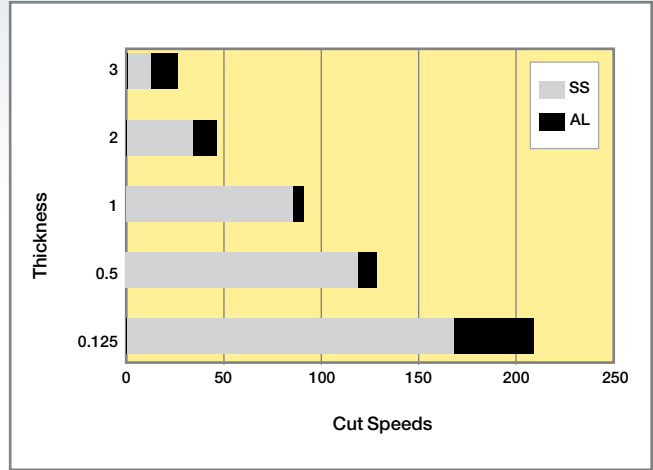
# PT-36 / PT-36R

## Plasmarc Mechanized Cutting Torches

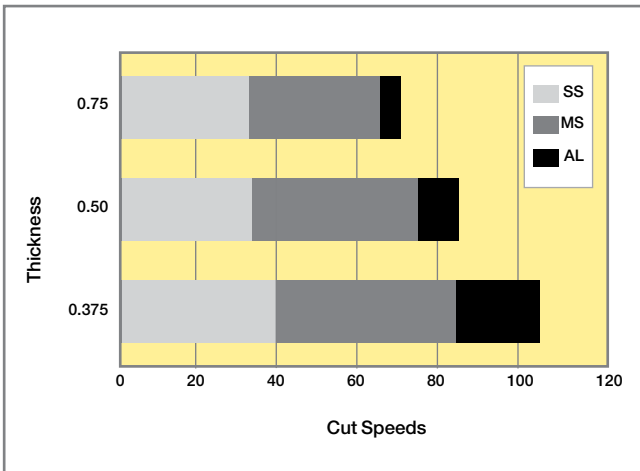
### MicroNozzle Cutting



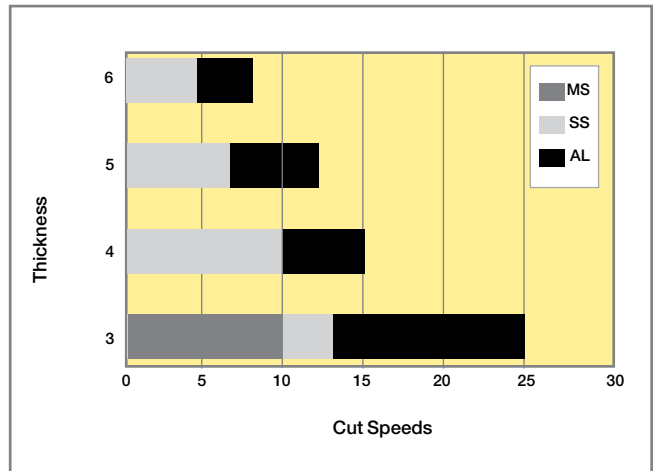
### Water Injection Cutting



### Quality Mode Cutting (EPP200)

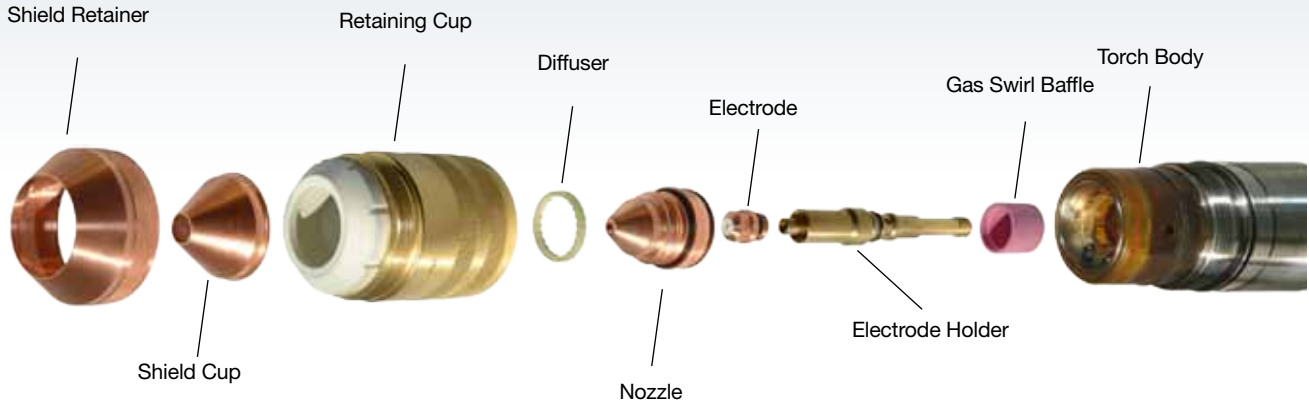


### Thick Plate Cutting



# PT-36 / PT-36R

## Plasmarc Mechanized Cutting Torches



### Spare Parts Kit

Description	Part Number	058005221
Torch Body PT-36 w/O-Rings	0558003804	1
O-Ring 1.614 ID x .070	996528	10
Baffle, 4 Hole x .032	0558002533	2
Baffle, 8 Hole x .047	0558002530	1
Baffle, 4 x .032 Reverse	0558002534	1
Baffle, 8 x .047 Reverse	0558002530	1
Baffle, 4 Hole x .022	0558005457	1
Electrode Holder PT-36 w/O-Ring	0558003924	3
O-Ring .364 ID x .070	86W99	10
Nozzle Retaining Cup, Std.	0004470045	2
Shield Gas Diffuser, Low Current	0004470030	1
Shield Gas Diffuser, Standard	0004470031	5
Shield Gas Diffuser, Reverse	0004470115	1
Shield Retainer, Standard	0004470046	2
Contact Ring w/Screw	0558003858	2
Screw, Contact Ring	37073	6
Hex Key Wrench .109"	93750010	2
Nut Driver 7/16" (Electrode Tool)	0558003918	1
Silicon Grease DC-111 5.3 oz.	77500101	1



# PT-37

## Plasmarc Mechanized Cutting Torch



- **100% Duty Cycle** for enhanced productivity allowing for continuous operation even at maximum thickness.
- Utilizes a “drawn arc” to initiate the cut which eliminates high frequency interference from the starting circuits.
- An optional remote starting system allows the torch to be located up to 150 ft. (45m) away from the power supply.
- Machined torch body with 1 3/8 in. (35 mm) metal handle, available with and without 32-pitch rack to fit industry standard torch holders.
- Robust machined torch components provide for reliability, durability and ease of maintenance.
- Metal nozzle and shield stand up to the toughest cutting conditions.
- Wear parts are available individually, in sets and in value packs which eases ordering and saves money.



The patented PT-37 torch cuts up to 1 1/4 in. (32 mm) material using air as the plasma and shielding gas. Utilizing a blowback start and an electronically controlled pilot arc the PT-37 sets a new standard for starting reliability, cutting characteristics and consumable life.

### Consoles

The PT-37 can be used with the following consoles:

- PowerCut 900
- PowerCut 1300
- PowerCut 1600
- ESP-101

### Specifications

	PT-37
Cuts	3/4 in. (19 mm)
Severs	up to 1 1/4 in. (32 mm)
Current Capacity	100 A @ 100% Duty Cycle
Nominal Flow Rate (with 100 A consumables)	490 cfm @ 80 psig (231 l/min @ 5.5 bar)
Length of Service Leads	4.5 ft. (1.4 m) 17 ft. (5.2 m) 25 ft. (7.6 m) 50 ft. (15.2 m)
Dimensions:	
Length	18.1 in. (460 mm)

### Ordering Information

#### PT-37 Torch with rack

4.5 ft. (1.3m).....	0558004860
17 ft. (5.2m).....	0558004861
25 ft. (7.6m).....	0558004862
50 ft. (15.2m).....	0558004863

#### PT-37 Torch without rack

4.5 ft. (1.3m).....	0558004894
17 ft. (5.2m).....	0558004895
25 ft. (7.6m).....	0558004896
50 ft. (15.2m).....	0558004897

### Optional Accessories

#### Remote Hand Switch

25 ft. (7.6m).....	0558005548
50 ft. (15.2m).....	0558005549

#### Remote Junction Box / Extension Hoses & Cables

Remote Junction Box (RJB) .....	0558004887
Hose/Cable Bundle RJB 50 ft. (15m) .....	0558004888
Hose/Cable Bundle RJB 100 ft. (30m) .....	0558004889

**Torch Holder, manually adjustable, 32 pitch rack** .... 0558005926

**Plate Rider Assembly** ..... 2238229

Instruction Manual .....	0558008757
Product Data Page .....	PAC-21185



# PT-37

## Plasmarc Mechanized Cutting Torch

### Carbon Steel

#### 50 Amps

Plasma Gas: Air @ 70 psi (4.8 bar)

Thickness in (mm)	Initial Height in (mm)	Pierce Height in (mm)	Cutting Height (standoff)	Arc Voltage	Pierce Time (milliseconds)	Kerf Width in (mm)	Optimum IPM (mm/min)	Maximum IPM (mm/min)
0.062 (16 ga)	0.200 (5.1)	0.200 (5.1)	0.062 (1.6)	118	0	0.040 (1.0)	375 (9525)	350 (10160)
0.125 (3.2)	0.200 (5.1)	0.200 (5.1)	0.090 (2.3)	127	100	0.058 (1.5)	150 (3810)	194 (4928)
0.188 (4.8)	0.200 (5.1)	0.200 (5.1)	0.094 (2.4)	129	100	0.062 (1.6)	90 (2286)	130 (3302)
0.250 (6.4)	0.200 (5.1)	0.200 (5.1)	0.125 (3.2)	133	150	0.068 (1.7)	65 (1651)	85 (2159)
0.375 (9.5)	0.200 (5.1)	0.250 (6.4)	0.120 (3.0)	139	200	0.068 (1.7)	35 (889)	45 (1143)
0.500 (12.7)	0.200 (5.1)	0.250 (6.4)	0.077 (1.8)	145	400	0.072 (1.8)	20 (508)	27 (686)
0.625 (15.9)	0.200 (5.1)	0.275 (7.0)	0.075 (1.9)	151	950	0.075 (1.9)	10 (254)	12 (305)

#### 70 Amps

Plasma Gas: Air @ 80 psi (5.5 bar)

Thickness in (mm)	Initial Height in (mm)	Pierce Height in (mm)	Cutting Height (standoff)	Arc Voltage	Pierce Time (milliseconds)	Kerf Width in (mm)	Optimum IPM (mm/min)	Maximum IPM (mm/min)
0.125 (3.2)	0.200 (5.1)	0.200 (5.1)	0.093 (2.4)	125	0	0.051 (1.3)	225 (5715)	275 (6985)
0.250 (6.4)	0.200 (5.1)	0.240 (6.1)	0.156 (4.0)	139	250	0.066 (1.7)	93 (2362)	128 (3251)
0.375 (9.5)	0.200 (5.1)	0.240 (6.1)	0.215 (5.5)	146	350	0.076 (1.9)	50 (1270)	65 (1651)
0.500 (12.7)	0.200 (5.1)	0.280 (7.1)	0.200 (5.1)	152	450	0.088 (2.2)	32 (813)	45 (1143)
0.625 (15.9)	0.200 (5.1)	0.280 (7.1)	0.188 (4.8)	160	900	0.093 (2.4)	22 (559)	27 (686)
0.750 (19.1)	0.200 (5.1)	Nr	0.156 (4.0)	160	Nr	0.107 (2.7)	12 (305)	16 (406)

#### 100 Amps

Plasma Gas: Air @ 80 psi (5.5 bar)

Thickness in (mm)	Initial Height in (mm)	Pierce Height in (mm)	Cutting Height (standoff)	Arc Voltage	Pierce Time (milliseconds)	Kerf Width in (mm)	Optimum IPM (mm/min)	Maximum IPM (mm/min)
0.250 (6.4)	0.188 (4.8)	0.188 (4.8)	0.092 (2.3)	138	100	0.075 (1.9)	77 (1956)	100 (2540)
0.375 (9.5)	0.188 (4.8)	0.188 (4.8)	0.156 (4.0)	149	300	0.090 (2.3)	44 (1118)	56 (1422)
0.500 (12.7)	0.188 (4.8)	0.240 (6.1)	0.156 (4.0)	153	300	0.100 (2.5)	57 (1448)	70 (1778)
0.625 (15.9)	0.188 (4.8)	0.240 (6.1)	0.156 (4.0)	156	400	0.110 (2.8)	40 (1016)	45 (1143)
0.750 (19.1)	0.200 (5.1)	0.300 (7.6)	0.125 (3.2)	155	1200	0.105 (2.7)	26 (660)	35 (889)
1.000 (25.4)	0.250 (6.4)	Nr	0.080 (2.0)	155	Nr	0.120 (3.0)	16 (406)	20 (508)
1.250 (31.8)	0.250 (6.4)	Nr	0.062 (1.6)	159	Nr	0.120 (3.0)	10 (254)	13 (330)



Torches



# PT-37

## Plasmarc Mechanized Cutting Torch

### PT-37 Consumables / Kits / Sets

#### Start Up Consumable Kits

100 A.....	0558004883
70 A.....	0558008247
60 A.....	0558008248

#### Consumable Set

50 A (1 nozzle, 1 electrode) .....	0558004884
100 A (1 nozzle, 1 electrode) .....	0558004885
Value Pack 100 A (15 nozzles, 10 electrodes).....	0558004886

#### Electrodes

100 A.....	0558004875
50 A.....	0558005220

#### Swirl Baffles

30-70 A .....	0558005217
100 A.....	0558004870

#### Nozzles

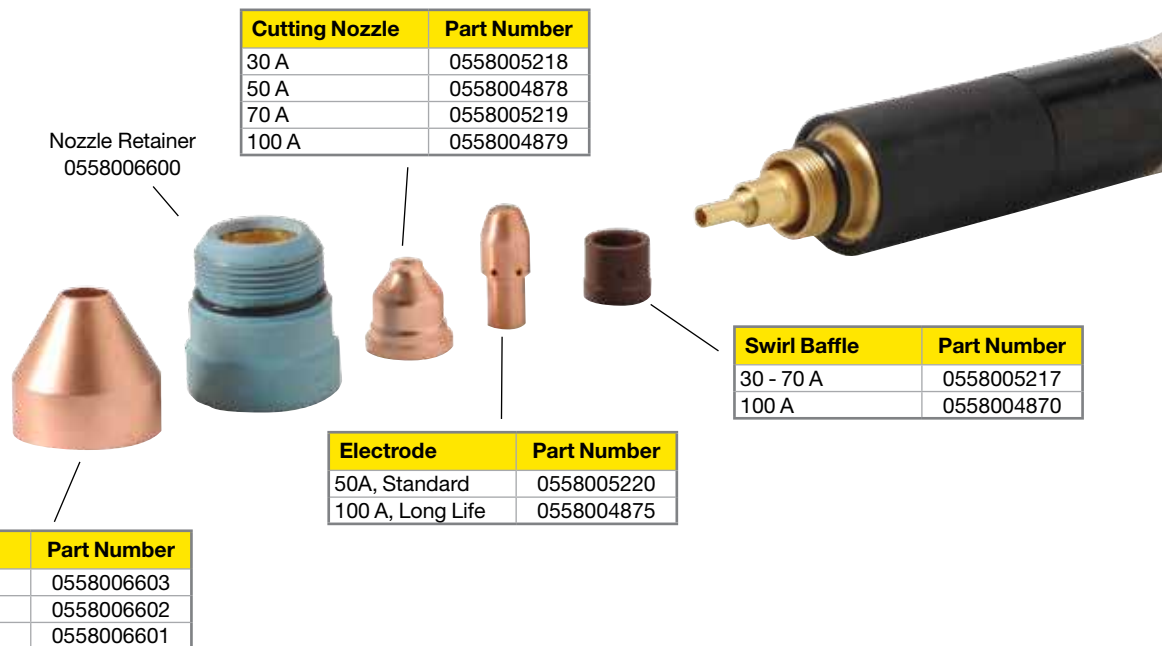
30 A.....	0558005218
50 A.....	0558004878
70 A.....	0558005219
100 A.....	0558004879

#### Nozzle Retainer

.....	0558006600
-------	------------

#### Shields

100 A.....	0558006601
50-70 A .....	0558006602
30-40 A .....	0558006603



Cutting Nozzle	Part Number
30 A	0558005218
50 A	0558004878
70 A	0558005219
100 A	0558004879

Nozzle Retainer  
0558006600

Swirl Baffle	Part Number
30 - 70 A	0558005217
100 A	0558004870

Electrode	Part Number
50A, Standard	0558005220
100 A, Long Life	0558004875

Shield	Part Number
30 - 40 A	0558006603
50 - 70 A	0558006602
100 A	0558006601

# PT-600

## Plasmarc Mechanized Cutting Torch



- Heavy-duty performance
- Precision engineering
- Excellent nozzle and electrode concentricity
- 180° In-line mechanized torch
- Pilot arc starting—even starts on paint
- Uses oxygen, nitrogen, argon-hydrogen or air for plasma gas
- Uses nitrogen, argon-hydrogen or air for start gas
- Uses nitrogen or air for secondary shield gas.



### Specifications

		PT-600
Current Capacity		
Air	200 A @ 100% Duty Cycle	
Oxygen	400 A @ 100% Duty Cycle	
Nitrogen	600 A @ 100% Duty Cycle	
Argon-Hydrogen	600 A @ 100% Duty Cycle	
Start Gas Pressure	100 to 125 psig	
Cut Gas Pressure	100 to 125 psig	
Length of Service Leads	4.5 ft. (1.4 m) 6 ft. (1.8 m) 12 ft. (3.7 m) 15 ft. (4.6 m) 17 ft. (5.2 m) 20 ft. (6.1 m) 25 ft. (7.6 m)	
Dimensions:		
Length	10 ½ in. (266 mm)	
Barrel Diameter	2 in. (50.8 mm)	

The PT-600 torch is precision engineered for close tolerance concentricity, making it ideal for straight or bevel cutting, and providing the highest possible cut quality and consumable life.

### Ordering Information

<b>PT-600</b>	
4.5 ft. (1.4 m) torch leads .....	0558001827
6 ft. (1.8 m) torch leads .....	0558001828
12 ft. (3.7 m) torch leads.....	0558001829
15 ft. (4.6 m) torch leads.....	0558001830
17 ft. (5.2 m) torch leads.....	0558001831
20 ft. (6.1 m) torch leads.....	0558001832
25 ft. (7.6 m) torch leads.....	0558001833



# PT-600

## Plasmarc Mechanized Cutting Torch

### Spare Parts Kit

Description	Part Number	0558002479
Electrode 250 A	0558001624	5
Electrode 360 - 400 A	0558002516	2
Electrode N <sub>2</sub> H-35	0558002499	2
Electrode Holder Tool	0558004611	1
Electrode Tip Tool	996568	1
Electrode Holder w/o O-Ring	0558001621	1
Nozzle 50 A	0558001881	2
Nozzle 100 A	0558001882	2
Nozzle 150 A	0558001883	2
Nozzle 200 A	0558001884	5
Nozzle 250 A	0558001623	5
Nozzle 360 A	0558001885	5
Nozzle 400 A	0558001886	2
Nozzle 600 A	0558001887	2
Nozzle Retaining Clip	0004470045	1
Baffle 4 Hole	0558002533	2
Baffle 8 Hole	0558001625	2
Baffle 32 Hole	0558002532	1
Baffle 4 Hole Rev.	0558002534	1
Baffle 8 Hole Rev.	0558002530	1
Baffle 32 Hole Rev.	0558002531	1
Gas Diffuser 50 A	0004470030	1
Gas Diffuser 100 - 360 A	0004470031	1
Gas Diffuser 100 - 360 A Rev.	0004470115	1
Lubricant .25 oz	0558000443	1
O-Ring	996528	5
O-Ring	86W99	5
O-Ring, Nozzles	181W89	5
Shield 50 A	21795	2
Shield 260 A	21802	5
Shield 360 A	21945	2
Shield Retainer	0004470046	1
Contact Ring Assembly	0558003858	1
Contact Ring Screw	37073	1





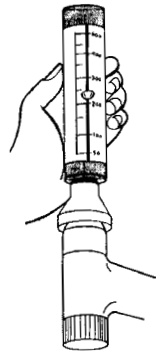
Remote Hand Switch

### Remote Hand Switch

- Allows the operator to start and stop the cutting process with a remote switch.
- Used primarily for mechanized cutting and is included in the mechanized Plasmarc packages

### Ordering Information

PT-20AMX .....	680982
ESP-150 / ESP-200.....	2075600
PT-21AMX .....	0558003612
PT-37	
25 ft.....	0558008349
50 ft.....	0558009277



Plasma Flow Measuring Kit

### Plasma Flow Measuring Kit

- Valuable troubleshooting tool
- Allows measurement of actual plasma gas flow through torch

### Ordering Information

Plasma Flow Measuring Kit .....	0558000739
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Deluxe Torch Guide Kit



Basic Torch Guide Kit

### Torch Guide Kits

- Includes attachments for circle and straight line cutting on ferrous and non-ferrous metals

### Ordering Information

#### Torch Guide Kit

<b>Deluxe:</b> 1 ¼ in. (44.5 mm) 42 in. (106 cm) Radius .....	0558003258
<b>Basic:</b> 1 ¼ in. (44.5 mm) 28 in. (71 cm) Radius.....	0558002675



Torch shown with Plasmit

### Plasmits

- Special flexible shields attach around the head of a plasma cutting torch to provide added protection against heat and molten metal
- Recommended for heavy duty plasma gouging applications

### Ordering Information

<b>PT-121</b>	
75° Torch .....	20742
90° Torch.....	20801
Mechanical Torch.....	20802
<b>PT-17A Manual Torch.....</b>	20803
<b>PT-25, 90° Torch.....</b>	20801
<b>PT-251</b>	
75° Torch .....	20805
<b>PT-26</b>	
70° Torch.....	0558006717
90° Torch.....	0558006718
<b>PT-32EH.....</b>	0558007989

# Plasmarc

## Accessories

### Leather Sheath

- A leather sheath to protect torch leads from abrasion and molten metal
- Particularly recommended for plasma gouging
- For use with any ESAB Plasmarc torch

### Ordering Information

<b>Leather Sheath with Snaps</b>	
10 ft. ....	20812
25 ft. ....	0558002921
50 ft. ....	0558002922

### Replacement Bushings

- Used for torch guide kits

### Ordering Information

<b>Adaptor</b>	
PT-23/27 Bushing .....	TJ2225
PT-25 Bushing.....	TJ2230
PT-31XL Bushing .....	TJ2228
PT-32 Bushing.....	0558003257

### Utility Cart for PowerCut Series

- This enables easy transport of the PowerCut Series Machines

### Ordering Information

Utility Cart .....	0558007898
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Utility Cart for PowerCut Series



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