SanRex

Plasma Welding Selection Guide

How to Choose a Sanrex Plasma Welding System

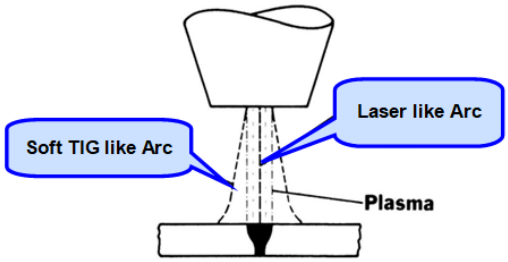
Determining the Requirements for Your Plasma Arc Welding System

Features & Advantages:

- Protected Electrode - Secluded from contamination by atmosphere and base-metal, allows for many hours of non-interrupted service.
- Controllable Arc - Can use tip orifice size, electrode set-back and gas flow rates as “mini-tuners.”
- Multi-Gas Capabilities - Allows for operation of various gases for enhanced welding performance.
- Pilot Arc - Provides “absolute” arc transfer… Every time.

Plasma Welding Modes of Operation - Plasma welding is commonly used in two modes of operation, melt-in fusion welds and keyhole fusion welds.

Melt-in Fusion – Soft TIG like arc. This type weld mode is the most often used with the plasma arc welding process. It is accomplished with a softer, less constricted arc, using lower plasma gas flow rates, a reduced electrode setback, and current levels in the range of approximately 0.5 to 200 amps. This type of weld mode is very similar to that of gas tungsten arc welding with additional advantages in many applications.



Plasma Welding Arc Modes.

Keyhole – Laser like Arc. This type of weld is generally obtained by using a stiff, constricted arc. In the keyhole mode penetration is obtained by the combination of plasma and gas momentum with thermal conduction. With increased plasma gas flow rates and electrode setback, a hole known as the keyhole is pierced through the entire metal thickness at the leading edge of the weld puddle, where the forces of the plasma jet (column) displace the molten metal. As the torch travel progresses at a consistent speed, the molten metal, supported by surface tension, flows behind the keyhole to form the weld bead. Keyhole welding is almost exclusively performed in the automated mode. Typically this technique is used for square butt welds on material thickness from .093 (2.4 mm) to .250 (6.4 mm) requiring 100% penetration in a single pass. Manual keyhole welding is not recommended because of difficulties in maintaining consistent travel speeds, torch position, or filler material addition.

Microplasma Welding (typical current range 0.1 - 15A)
Microplasma is used for welding thin sheets [down to 0.004” (0.1 mm) thickness], and wire and mesh sections. The needle-like, stiff arc minimizes arc wander and distortion.

Medium Current Welding in the Melt-in Fusion Mode (typical current range from 15 - 200A)
This is an alternative to conventional TIG. The advantages are deeper penetration (from higher plasma gas flow), greater tolerance to surface contamination including coatings (the electrode is within the body of the torch) and better tolerance to variations in electrode to workpiece distance, without significant change in heat input.

Keyhole Welding (typically over 100A)
By increasing welding current and plasma gas flow, a very powerful plasma beam is created which can achieve full penetration in a material, as in laser or electron beam welding. During welding, a keyhole is formed which progressively cuts through the metal with the molten weld pool flowing behind to form the weld bead under surface tension forces. This process can be used to weld thicker materials [up to 3/8” (10 mm) of stainless steel] in a single pass.

In General

If welding 3/16” or less quote the 150PW. Over 3/16” quote the 300PW. Limitations of the 300PW is 5/16” maximum material thickness with one pass. Thicker with multiple passes.

Exceptions: If duty cycle plus cycle time of the weld requirments equals 200 Amps. @ 60% Duty Cycle or more, then the 150PW is out. Must go with a 300PW system. Most Keyhole applications will require the 300PW.

The Sanrex 300PW and 150PW are Plug-n-Play alternatives to the Thermal Arc Plasma Welding WC100B Modular system and Ultima 150 system.

When contacting Sanrex to assist in determining the best fit for your Plasma Welding requirements, we've compiled a list of questions that will help us better understand your system capabilities and ensure alignment with your needs.

Please provide answers to the following when contacting Sanrex:

1. Is this a Retrofit or New appliciation? _____
    a. If a Retrofit what system are you replaceing? _____ Torch Model No? _____

Note: Sanrex Plasma Welding systems are a direct replace to the Thermadyne/Thermal Arc Plasma Welding systems.

2. What is the application (Handheld, Robotic, Hard Automation, Semi Automatic, PAW replacement, TIG Replacement, etc.)? _____
3. Remote Interface – How will the Plasma Welding system be controlled? _____
4. Will the End User be welding in the Melt-In Fusion (TIG Like) or Keyhole mode (Laser Like)? _____
5. What is the thickness of the material to be welded?
    a. 3/16" (4.7mm) or Less _____ More that 3/16" (4.7mm) _____
6. What are the DC Amperage Welding requirments? _____
7. Determine what Input Power you have available and list for reference?
    a. AC Volts _____ Phase _____ Hertz _____
8. What Material will be welded? _____
9. Will they need a Plasma Gas Mass Flow control? _____
    a. Mass Flow typically used for Keyhole mode to close the keyhole at the end of the weld.
10. Do they need to add Filler Metal to the weld? _____ If yes what size? _____

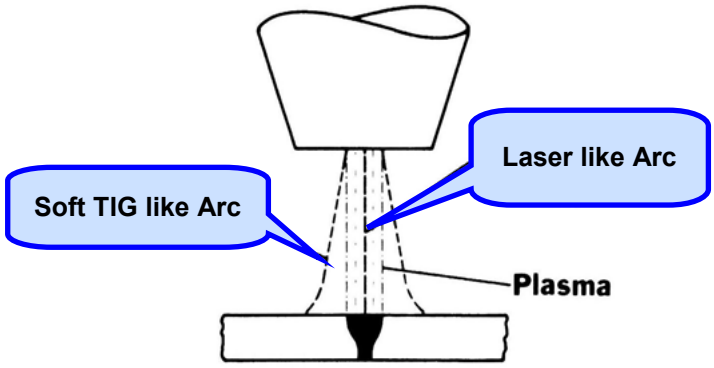
SANPAW 150PW DC Plasma Welding

Talk about versatility, adjust the SANPAW 150PW Plasma Welding Arc from a soft TIG like Arc to a stable columnar laser like Arc. Can use multiple welding gas combinations to weld any ferrous metals such as Titanium, galvanized, Copper, Stainless Steel, mild steel, etc.

This unique plasma welding system is self-contained in a small package with a 200 amp power supply, coolant recirculator and control console. Our design reduces floor space and simplifies installation, making the initial price competitive with TIG and Laser systems while its increased productivity and repeatable performance allow it to pay for itself in a shorter period of time.

Features and Benefits of the SANPAW 150PW

- 0.5-200 Amp current range - providing quality performance on a wide variety of applications.
- Smooth DC arc - repetitive, high quality welds.
- Pilot Arc - repeatable arc starting reducing defects and rework.
- Multiple Voltage Input - 200-240/480VAC, 1/3 phase, 50 or 60 hz.
- Preview Set Current - eliminates costly test set-ups/displays actual current/voltage.
- Included Weld Sequencer (Current Sloper/Pulser).
- Internal Torch Coolant Recirculator.
- Save 9 Programs.
- Simple interface - automated or manual control.
- Can utilize a number of competitive torches.
- Approvals — CSA; IEC 60974-1
- 3 Year Warranty



Plasma Welding Arc Modes.

SanRex

Customer Care
Tel: 516-625-1313
Fax: 516-625-8845

www.sanrexwelding.com
SANREX CORPORATION
PORT WASHINGTON, NY, USA

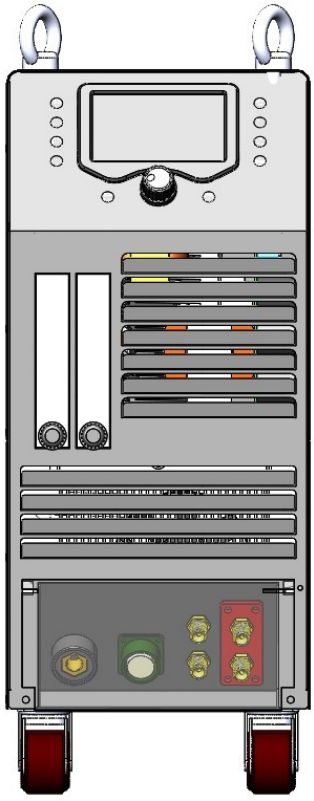
SANPAW 150PW DC Plasma Welding

The SANPAW 150PW Automation system is shipped with a SANPAW 150PW unit, Gas Hoses, Dinse Plug, Coolant and the appropriate torch with a torch spare parts kit. Systems do not include Work Lead, Regulators or remotes. Select system and accessories below. For a Hand Held system see 150PW Easy Find Guide.

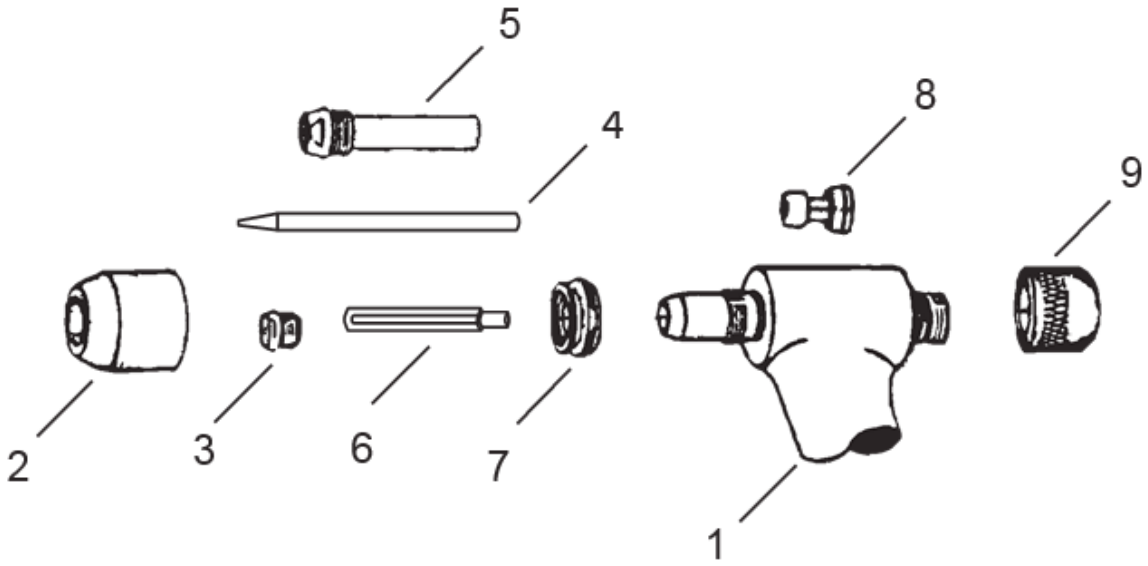
Torch (Rating)	System Description	w/12.5 ft. Torch and Leads	w/25 ft. Torch and Leads
P-75 (75 amps)	PWH-75, 70 degree	PAW150P7570H125	PAW150P7570H25
	PWH-75, 90 degree	PAW150P7590H125	PAW150P7590H25
	PWH-75, 180 degree	PAW150P75180H125	PAW150P75180H25
	PWM-75, 180 degree	PAW150P75180M125	PAW150P75180M25
P-15 (150 amps)	PWH-15, 70 degree	PAW150P1570H125	PAW150P1570H25
	PWH-15, 90 degree	PAW150P1590H125	PAW150P1590H25
	PWH-15, 180 degree	PAW150P15180H125	PAW150P15180H25
	PWM-15, 180 degree	PAW150P15180M125	PAW150P15180M25
P-22 (200 amps)	PWH-22, 70 degree	PAW150P2270H125	PAW150P2270H25
	PWH-22, 90 degree	PAW150P2290H125	PAW150P2290H25
	PWH-22, 180 degree	PAW150P22180H125	PAW150P22180H25
	PWH-22A, 180 degree	PAW150P22180H125	PAW150P22180H25
	PWM-22, 180 degree	PAW150P22180M125	PAW150P22180M25
	PWM-22A, 180 degree	PAW150P22180MA125	PAW150P22180MA25

- PWH designates a torch with a molded handle. **(Good for Hand Held.)**
- PWM designates a torch with rack and pinion.
- Torch amperage rating based on minimum electrode set back.

SANPAW 150PW (Unit Only)	IDU-W150PW-U1DVP
12.5 ft. Gas Hose (2 Required)	MS1000
Argon Regulator	MS1005
Hydrogen Regulator	MS1006
Note: 2 regulators required , one for Plasma Gas and one for Shield Gas.	
25ft. Foot Control	FC1001
25ft. Hand Pendant	HP1425
1ft. Adaptor, 14-Pin Amp to 14-Pin Amphenol.	ADC001
15ft. Work Lead	WCE0006
Coolant (Sold by the Gallon = 1 Gallon.)	TK1014
Coolant (Sold by the Box = 4 Gallons).	TK1014B
Running Gear Dual Cylinder Rack	MS1105



Torch Parts



Common Torch Consumables included in Spare Parts Kit.

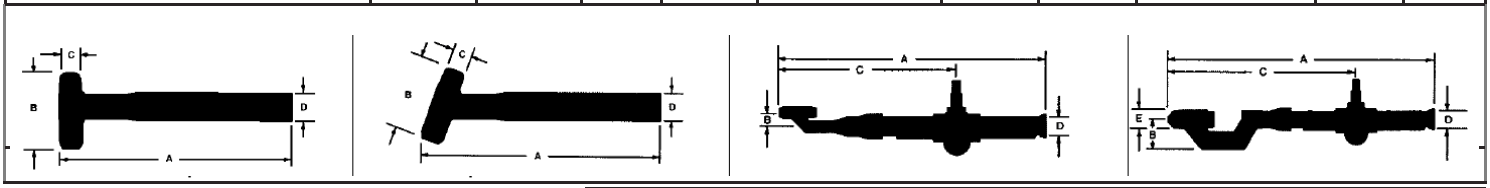
ITEM NO.	PART DESCRIPTION	P-75 TORCH P75-2000	P-15 TORCH P15-2000	P-22 TORCH P22-2000
2	Shield Cup	P75-3001	P15-3001	P22-3001
3	Tip	P75-3006 (.045) 25A-lg P75-3007 (.062) 35A-lg P75-3008 (.081) 50A-lg	P15-3011 (.046) 50A-ext P15-3013 (.081) 100A-ext P15-3014 (.093) 130A-ext	P22-3006 (.062) 100A-ext P22-3007 (.093) 125A-ext P22-3009 (.125) 150A-ext
4	Electrode	P75-3009 (.093) std	P15-3015 (.093) std.	P22-3010 (.187) ext.
5	Liner	N/A	N/A	P22-3011
6	Gas Distributor	P75-3013 (.093-electrode)	P15-3017	P22-3012
7	Gas Diffuser	N/A	P15-3019	P22-3015
8	Collet Assembly	P75-3017 (.093-electrode)	P15-3021	P22-3018
9	Back Cap	P75-3019 (std-electrode)	P15-3022 (std-electrode)	P22-3020 (ext-electrode)
N/S	Collar	N/A	N/A	P22-3016
N/S	O-ring (liner)	N/A	N/A	P22-3024
N/S	O-ring (internal)	N/A	N/A	P22-3025
N/S	O-ring (back-cap)	P75-3016	P15-3020	P22-3017
N/S	Gasket (shield cup)	P75-3015	P15-3018	P22-3013
N/S	Lubricant	PAW-LUBE	PAW-LUBE	PAW-LUBE
N/S	Gauge/Wrench	P75-2006 Not Included	P15-2006 Not Included	P22-2020 Not Included

NOTE: Tip ratings @ minimum electrode setback.
*Tip maximum current rating not to exceed the maximum output of SANPAW 150PW.

SANPAW 150PW DC Plasma Welding

Torch Specifications

	Type	Part No.	Torch Lead Length	Current Rating	Coolant Requirements	Torch Dimensions A	B	C	D	E
P75 Torch	PWH-75 70°	P75-1000(H)	12.5 ft.	75 Amps (DCSP)	2,000 BTU/hr (504 K/Cal/hr) 1/4 gpm coolant flow @ 50 PSI (0.9 lpm @ 3.7 kg/cm2)	7-15/16" (202mm)	1-11/16" (43 mm)	5/8" (16mm)	7/8" (22 mm)	
		P75-1001(H)	25 ft.							
	PWH-75 90°	P75-1002 (H)	12.5 ft.			7-3/4" (196mm)	1-11/16" (43 mm)	5/8" (16mm)	7/8" (22 mm)	
		P75-1003 (H)	25 ft.							
	PWM-75 180° Offset	P75-1004 (H) P75-1005 (M)	12.5 ft.			18-1/4" (463 mm)	13/16" (21 mm)	Min. 7-1/8" (181 mm) Max. 15" (381 mm)	1-3/8" (35 mm)	
		P75-1007 (H) P75-1006 (M)	25 ft.							
15 Torch	PWH-15 70°	P15-1000 (H)	12.5 ft.	150 Amps (DCSP)	6,000 BTU/hr (1513 K/Cal/hr) 1/3 gpm coolant flow @ 50 PSI (1.25 lpm @ 3.7 kg/cm2)	8-3/4" (222 mm)	2-5/8" (67 mm)	7/8" (22 mm)	1-1/16" (27 mm)	
		P15-1001 (H)	25 ft.							
	PWH-15 90°	P15—1002 (H)	12.5 ft.			8-1/2" (216 mm)	2-5/8" (67 mm)	7/8" (22 mm)	1-1/16" (27 mm)	
		P15-1003 (H)	25 ft.							
	PWM-15 180° Offset	P15-1004 (H) P15-1005 (M)	12.5 ft.			19-1/4" (489 mm)	1" (25 mm)	Min. 9-1/4" (235 mm) Max. 16-3/4" (425 mm)	1-3/8" (35 mm)	
		P15-1006 (H) P15-1007 (M)	25 ft.							
P22 Torch	PWH-22 70°	P22-1000 (H)	12.5 ft	200 Amps (DCSP)	8,000 BTU/hr (2017 K/Cal/hr) 1/2 gpm coolant flow @ 50 PSI (1.9 lpm @ 3.7 kg/cm2)	12-1/2" (318 mm)	3-3/16" (81 mm)	1-1/4" (32 mm)	1-3/8" (35 mm)	
		P22-1001 (H)	25 ft.							
	PWH-22 90°	P22-1002 (H)	12.5 ft.			12-1/4" (311 mm)	3-3/16" (81 mm)	1-1/4" (32 mm)	1-3/8" (35 mm)	
		P22-1003 (H)	25 ft.							
	PWM-22 180° Offset	P22-1004 (M)	12.5 ft.			18" (457 mm)	1-3/4' (44 mm)	Min. 8-1/4" (209 mm) Max. 16" (406 mm)	1-3/8" (35 mm)	1-1/4" (32mm)
		P22-1005 (M)	25 ft.							
	PWM-22A 180° Inline	P22-1006 (H) P22-1008 (M)	12.5 ft.			21" (.53 m)	1-3/4" (44 mm)	Min. 11-1/4" (286 mm) Max. 19" (483 mm)	1-3/8" (35 mm)	1-1/4" (32mm)
		P22-1007 (H) P22-1009 (M)	25 ft.							



(H) designates torch with molded handle.

(M) designates torch with rack and pinion assembly.

Output @ Duty Cycle	Input	208 - 460 Volt Three Phase				
			208 VAC	240 VAC	480 VAC	575 VAC
200A @ 35%	Power (KVA/Kw)	3 ph	9.4/9			
	Current (Amps)	3 ph	26	22.4	11.2	N/A
	Power (KVA/Kw)	1 ph	9.4/9			
	Current (Amps)	1 ph	43.7	37.8	18.9	N/A

Rated Output	Amps	0.5/200A
	Volts	18/33V
	Duty Cycle	150A @ 60%, 200A @ 35%
Output Ranges	Low	0.5 - 20A
	High	5 - 200A
Load Volts	12 - 25V	
OCV	60VDC	
Input Hz	50/60Hz	
Flow Meters	Plasma	.5 - 3.0 SCFH (.25-1.5lpm)
	Shield	5 - 30 SCFH (2.5-15lpm)

Contractor Control	**Remote Input**
Current Control	Remote or Panel
Analog Control	0 - 10 Volts DC Input
Dimensions	Height: 25.49" (647.5mm)
	Width: 10.69" (271.5mm)
	Length: 23.23" (590mm)
Weight:	79.4 lbs (36 kg)

SANPAW 150PW DC Plasma Welding

150PW Easy Find Guide — Build your own Handheld System.

Plasma Arc Welding Handheld Configuration

Part No.	Description
IDU-W150PW-U1DVP	150PW
MS1105	Running Gear/Cylinder Rack

Plasma Welding Torch (Hand Held)

Part No.	Description
P75-1000	2A - Torch, 70 degree, 12.5ft
P75-1001	2A - Torch, 70 degree, 25ft
P75-1002	2A - Torch, 90 degree, 12.5ft
P75-1003	2A - Torch, 90 degree, 25ft
P15-1000	3A - Torch, 70 degree, 12.5ft
P15-1001	3A - Torch, 70 degree, 25ft
P15-1002	3A - Torch, 90 degree, 12.5ft
P15-1003	3A - Torch, 90 degree, 25ft
P22-1000	4A - Torch, 70 degree, 12.5ft (Includes Torch Head Liner)
P22-1001	4A - Torch, 70 degree, 25ft (Includes Torch Head Liner)
P22-1002	4A - Torch, 90 degree, 12.5ft (Includes Torch Head Liner)
P22-1003	4A - Torch, 90 degree, 25ft (Includes Torch Head Liner)

Torch Consumables Kit

Part No.	Description
P75-2000	P75 Torch Kit
P15-2000	P15 Torch Kit
P22-2000	P22 Torch Kit

Gas Regulators (Two Required)

Part No.	Description
MS1005	Argon Regulator (Plasma Welding)
MS1006	Argon/Hydrogen Regulator (Plasma Welding)

Gas Hose (Two Required)

Part Number	Description
MS1000	12.5ft. Gas Hose.

Work Lead

Part Number	Description
WCE0006	15ft. Work Lead
WCE0008-25	25ft. Work Lead

Remote Controls

Part Number	Description
FC1000	15ft. Foot Control
FC1001	25ft. Foot Control
RC1000	15ft. Remote TIG Torch On/OFF and current cotrol. (Velcro)
RC1001	25ft. Remote TIG Torch On/OFF and current cotrol. (Velcro)
RC1002	15ft. Remote TIG Torch On/OF. (Velcro)

SANPAW 300PW DC Plasma Welding

The SANPAW 300PW Plasma welding system has many advantages over traditional automated TIG welding including: increased productivity, consistent arc starting, improved process control and reduced electrical emission interference.

This unique plasma welding system is self contained in a small package with a 300 amp power supply, control console and Sequencer. Our design reduces floor space and simplifies installation, making the initial price competitive with automated TIG systems while its increased productivity and repeatable performance allow it to pay for itself in a shorter period of time.

Features and Benefits of the SANPAW 300PW

- 5-300 Amp current range - providing quality performance on a wide variety of applications.
- Smooth DC arc - repetitive, high quality welds.
- Pilot Arc - repeatable arc starting reducing defects and rework.
- Multiple Voltage Input - 200-230/460 VAC, 3 phase, 50 or 60 hz.
- Current Limiter - limits power source output to torch capability to avoid torch damage.
- Preview Set Current - eliminates costly test set-ups/displays actual current/voltage.
- Included Weld Sequencer (Current Sloper/Pulser).
- Save 30 Programs.
- Protection devices:
  - Coolant conductivity warning circuit.
  - Coolant flow protection/interlock.
  - Coolant temperature protection/interlock.
  - Console temperature overload detection/ interlock.
- Simple to setup: A self-contained unit, which requires attaching input power, Coolant re-circulator and gases, then mounting the torch.
- Simple interface - automated or manual control.
- Can utilize a number of competitive torches.
- 3 Year Warranty.
- Certification: IEC 60974

SanRex

Customer Care
Tel: 516-625-1313
Fax: 516-625-8845

www.sanrexwelding.com
SANREX CORPORATION
PORT WASHINGTON, NY, USA

SANPAW 300PW DC Plasma Welding

The SANPAW 300PW system Package is shipped with the SANPAW 300PW unit, Coolant Recirculator, Gas & Water Hoses, appropriate torch with a torch spare parts kit. Systems do not include Input Cable, Work Lead, Regulators and Remotes.

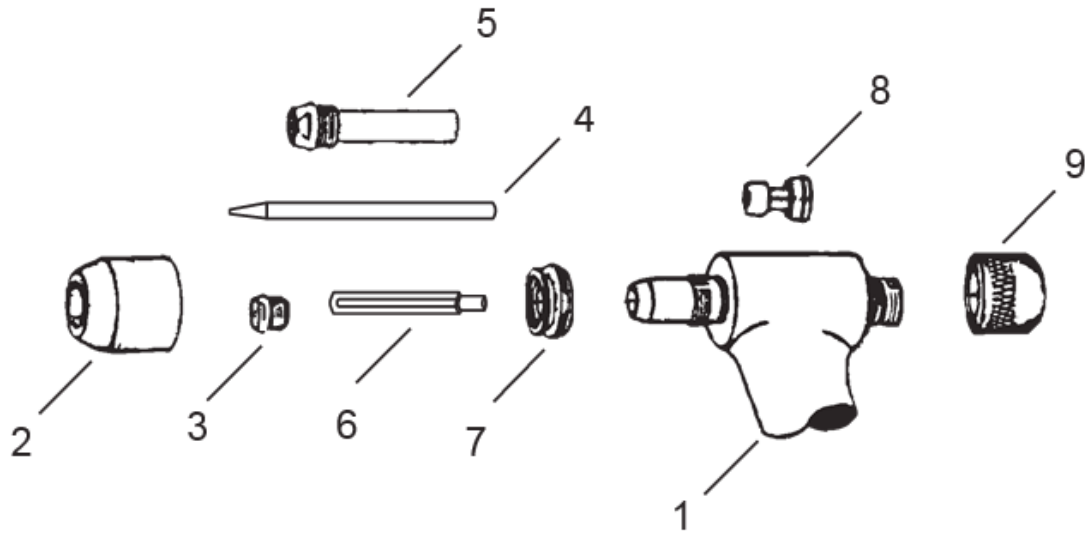
Torch (Rating)	System Description	w/12.5 ft. Torch and Leads	w/25 ft. Torch and Leads
P-15 (150 amps)	PWH-P15, 70 degree	PAW300P1570H125	PAW300P1570H25
	PWH-P15, 90 degree	PAW300P1590H125	PAW300P1590H25
	PWH-P15, 180 degree	PAW300P15180H125	PAW300P15180H25
	PWM-P15, 180 degree	PAW300P15180M125	PAW300P15180M25
P-22 (220 amps)	PWH-P22, 70 degree	PAW300P2270H125	PAW300P2270H25
	PWH-P22, 90 degree	PAW300P2290H125	PAW300P2290H25
	PWH-P22, 180 degree	PAW300P22180H125	PAW300P22180H25
	PWH-P22A, 180 degree	PAW300P22180HA125	PAW300P22180HA25
	PWM-P22, 180 degree	PAW300P22180M125	PAW300P22180M25
	PWM-P22A, 180 degree	PAW300P22180MA125	PAW300P22180MA25
P-30 (300 amps)	PWM-P30, 180 degree	PAW300P30180M125	PAW300P30180M25

- PWH designates a torch with a molded handle.
- PWM designates a torch with rack and pinion.
- Torch amperage rating based on minimum electrode set back.

SANPAW 300PW (Unit Only)	ID-3000PW-U1E
• *Dynaflux® R2000 (115vac) Recirculator	TK-1016
*Note: When using equivalent cooling system refer to the Torch manufacturers cooling requirements.	
• **Argon Regulator	MS-1005
• **Hydrogen Regulator	MS-1006
**Note: 2 required, one for Plasma Gas and one for Shield Gas.	
12.5 ft. Gas Hose (2 Required)	MS-1000
12.5 ft. Water Hose (2 required)	TK-1000
Remote Controls	
• 25 ft. Foot Control	FC-1001
• 25 ft. Hand Pendant	HP-1425
• 1 ft., 14-pin Amp to 14-Pin Amphenol	ADC001
Coolant (1Gal)	TK-1014

SanRex
Customer Care
Tel: 516-625-1313
Fax: 516-625-8845
www.sanrexwelding.com
SANREX CORPORATION
PORT WASHINGTON, NY, USA

Torch Parts



Common Torch Consumables included in Spare Parts Kit.

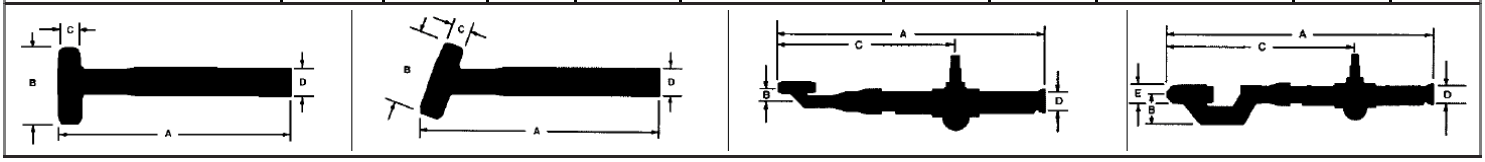
ITEM NO.	PART DESCRIPTION	P-15 TORCH P15-2000	P-22 TORCH P22-2000	P-30 TORCH P30-2000
2	Shield Cup	P15-3001	P22-3001	P30-3001 Brass, Short P30-3001 Brass, Long
3	Tip	P15-3011 (.046) 50A-ext P15-3013 (.081) 100A-ext P15-3014 (.093) 130A-ext	P22-3006 (.062) 100A-ext P22-3007 (.093) 125A-ext P22-3009 (.125) 150A-ext	P30-3005 (.093) 200A-lg P30-3006 (.113) 250A-lg P30-3007 (.125) 300A-lg
4	Electrode	P15-3015 (.093) std.	P22-3010 (.187) ext.	P30-3008 std.
5	Liner	N/A	P22-3011	P30– 3009
6	Gas Distributor (insulating sleeve)	P15-3017	P22-3012	P30-3010
7	Gas Diffuser	P15-3019	P22-3015	P30-3012
8	Collet Assembly	P15-3021	P22-3018	P30-3014
9	Back Cap	P15-3022 (std-electrode)	P22-3020 (ext-electrode)	P30-3015 (std-electrode)
N/S	Collar	N/A	P22-3016	N/A
N/S	O-ring (liner)	N/A	P22-3024	P30-3017
N/S	O-ring (internal)	N/A	P22-3025	P30– 3018
N/S	O-ring (back-cap)	P15-3020	P22-3017	P30-3013
N/S	Gasket (shield cup)	P15-3018	P22-3013	P30-3011
N/S	Lubricant	PAW-LUBE	PAW-LUBE	PAW-LUBE
N/S	Gauge/Wrench	P15-2006 Not Included	P22-2020 Not Included	P30-2010 Not Included

NOTE: Tip ratings @ minimum electrode setback.
*Tip maximum current rating not to exceed the maximum output of SANPAW 300PW.

SANPAW 300PW DC Plasma Welding

Torch Specifications

Torch Model	Type	Part No.	Torch Lead Length	Current Rating	Coolant Requirements	Torch Dimensions A	B	C	D	E
P15 Torch	PWH-P15 70°	P15-1000 (H)	12.5 ft.	150 Amps (DCSP)	6,000 BTU/hr (1513 K/Cal/hr) 1/3 gpm coolant flow @ 50 PSI (1.25 lpm @ 3.7 kg/cm2)	8-3/4" (222 mm)	2-5/8" (67 mm)	7/8" (22 mm)	1-1/16" (27 mm)	
		P15-1001 (H)	25 ft.							
	PWH-P15 90°	P15—1002 (H)	12.5 ft.			8-1/2" (216 mm)	2-5/8" (67 mm)	7/8" (22 mm)	1-1/16" (27 mm)	
		P15-1003 (H)	25 ft.							
	PWM-P15 180° Offset	P15-1004 (H) P15-1005 (M)	12.5 ft.			19-1/4" (489 mm)	1" (25 mm)	Min. 9-1/4" (235 mm) Max. 16-3/4" (425 mm)	1-3/8" (35 mm)	
		P15-1006 (H) P15-1007 (M)	25 ft.							
P22 Torch	PWH-P22 70°	P22-1000 (H)	12.5 ft	200 Amps (DCSP)	8,000 BTU/hr (2017 K/Cal/hr) 1/2 gpm coolant flow @ 50 PSI (1.9 lpm @ 3.7 kg/cm2)	12-1/2" (318 mm)	3-3/16" (81 mm)	1-1/4" (32 mm)	1-3/8" (35 mm)	
		P22-1001 (H)	25 ft.							
	PWH-P22 90°	P22-1002 (H)	12.5 ft.			12-1/4" (311 mm)	3-3/16" (81 mm)	1-1/4" (32 mm)	1-3/8" (35 mm)	
		P22-1003 (H)	25 ft.							
	PWM-P22 180° Offset	P22-1004 (M)	12.5 ft.			18" (457 mm)	1-3/4' (44 mm)	Min. 8-1/4" (209 mm) Max. 16" (406 mm)	1-3/8" (35 mm)	1-1/4" (32mm)
		P22-1005 (M)	25 ft.							
	PWM-P22A 180° Inline	P22-1006 (H) P22-1008 (M)	12.5 ft.			21" (.53 m)m	1-3/4" (44 mm)	Min. 11-1/4" (286 mm) Max. 19" (483 mm)	1-3/8" (35 mm)	1-1/4" (32mm)
		P22-1007 (H) P22-1009 (M)	25 ft.							
P30 Torch	PWM-P30 180° Inline	P30-1000(M)	12.5 ft.	300 Amps (DCSP)	12,000 BTU/Hr (3026 K/Cal/hr) .75 gpm coolant flow @ 100 psi 2.84 lpm @ 7 kg/cm2)	22.19" (56.4cm)	2.5" (6.35cm)	Min. 12.44" (31.6CM) Max 20.19" (51.3cm)	1.38" (3.5cm)	1.63" (4.14cm)
		P30-1001(M)	25 ft.							



(H) designates torch with molded handle.

(M) designates torch with rack and pinion assembly.

Input Voltages	208 - 460 Volt Three Phase				
		208 VAC	230 VAC	460 VAC	575 VAC
Power (KVA/Kw)	3 ph	16/12			
Current (Amps)	3 ph	44	40	20	N/A

Rated Output	Amps	300A	Contractor Control	Remote Input
	Volts	32V	Current Control	Remote or Panel
	Duty Cycle	60%	Analog Control	0 - 10 Volts DC Input
Output Range	5 - 300A		Dimensions	Height: 25.59" (650 mm)
Load Volts	12 - 32V			Width: 15.75" (400 mm)
OCV	60VDC			Length: 23.62" (600 mm)
Input Hz	50/60Hz		Weight:	131 lbs. (59.4 kg)
Flow Meters	Plasma	.5 - 3.0 SCFH (.25-1.5 lpm)		
	Shield	5 - 30 SCFH (2.5-15 lpm)		

SanRex

Customer Care
Tel: 516-625-1313
Fax: 516-625-8845

www.sanrexwelding.com
SANREX CORPORATION
PORT WASHINGTON, NY, USA