

*Imagine harnessing the power of the sun in your workshop.*

Plasma welding is a sophisticated welding process that utilizes an ionized gas known as plasma to produce an extremely high temperature arc.

This method is renowned for its precision, making it ideal for intricate work on thin or thicker metals and is more forgiving than Laser welding.

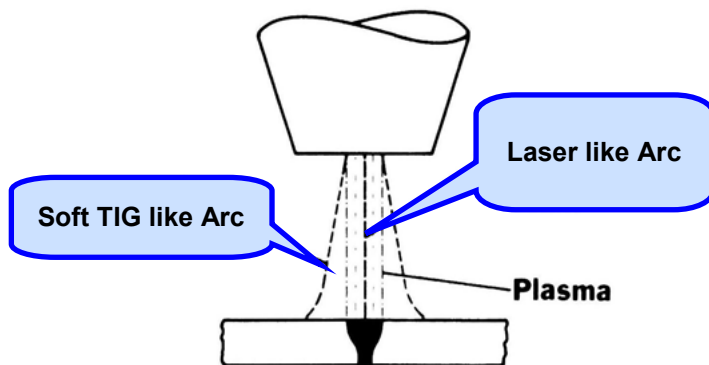
The process begins with the ionization of gas, often argon, to create plasma. This Plasma is then directed through a nozzle to generate a concentrated, high-temperature arc. The heat from this arc melts the metals, which fuse together upon cooling.

### Features and Benefits of the SANPAW 150PW

- **Precision:** The concentrated arc allows for precise control, making it suitable for delicate work.
- **Versatility:** (Handheld or Automation) Capable of welding both thin and thick materials with a Soft TIG like Arc or a stiff columnar Laser like arc.
- **Applications:** Plasma welding is widely used in industries such as Tool & Die, aerospace, automotive, and electronics, where precision and quality are paramount.



- **Plasma Welding Torch:** Dual Flow, with Plasma Gas and Shield Gas options. (Handheld torch shown)



- **Welding Arc Modes:** Soft Tig like Arc or Laser like Arc.

# SANPAW 150PW

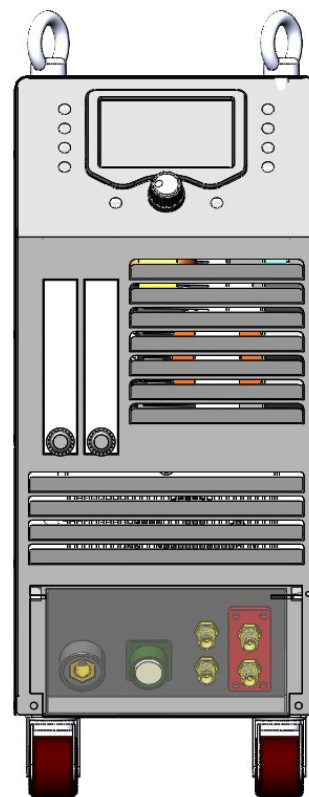
## DC Plasma Welding

The SANPAW 150PW 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.

| Torch<br>(Rating)  | System<br>Description | w/12.5 ft. Torch and Leads | w/25 ft. Torch and Leads |
|--------------------|-----------------------|----------------------------|--------------------------|
| P-75<br>(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<br>(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<br>(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.

|                                                                          |                  |
|--------------------------------------------------------------------------|------------------|
| <b>SANPAW 150PW (Unit Only)</b>                                          | 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           |



## 150PW Easy find Guide



| Part No.         | Description                      |
|------------------|----------------------------------|
| IDU-W150PW-U1DVP | 150PW                            |
| MS1105           | Running Gear/Cylinder Rack       |
| TK1014B          | Coolant (Sold by Box = 4 Gallon) |



**Plasma Welding Torch**  
Select Torch from Page 4  
(H = Phenolic Handle, M = Rack & Pinion)



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



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



| Part Number | Description       |
|-------------|-------------------|
| MS1000      | 12.5ft. Gas Hose. |



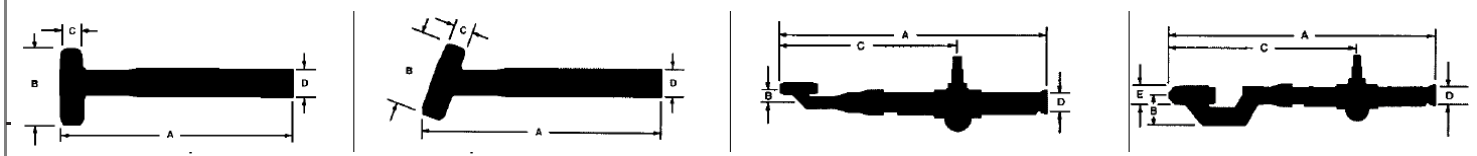
| Part Number | Description     |
|-------------|-----------------|
| WCE0006     | 15ft. Work Lead |
| WCE0008-25  | 25ft. Work Lead |



| Part Number | Description        |
|-------------|--------------------|
| FC1000      | 15ft. Foot Control |
| FC1001      | 25ft. Foot Control |

## Torch Specifications

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



(H) designates torch with molded handle.

(M) designates torch with rack and pinion assembly.

| Output @<br>Duty Cycle | Input          | 208/240/400/480 Volt 1/3 Phase |            |            |            |
|------------------------|----------------|--------------------------------|------------|------------|------------|
|                        |                | 208<br>VAC                     | 240<br>VAC | 480<br>VAC | 575<br>VAC |
| 200A @ 35%             | Power (KVA/Kw) | 3 ph                           | 9.4/9      |            |            |
|                        | Current (Amps) | 3 ph                           | 26         | 22.4       | 11.2       |
|                        | Power (KVA/Kw) | 1 ph                           | 9.4/9      |            |            |
|                        | Current (Amps) | 1 ph                           | 43.7       | 37.8       | 18.9       |

|               |                             |                                                       |                    |                          |
|---------------|-----------------------------|-------------------------------------------------------|--------------------|--------------------------|
| Rated Output  | Amps<br>Volts<br>Duty Cycle | 0.5/200A<br>18/33V<br>150A @ 60%, 200A @ 35%          | Contractor Control | Remote Input             |
| Output Ranges | Low<br>High                 | 0.5 - 20A<br>5 - 200A                                 | Current Control    | Remote or Panel          |
| Load Volts    | 12 - 25V                    |                                                       | Analog Control     | 0 - 10 Volts DC Input    |
| OCV           | 60VDC                       |                                                       | Dimensions         | Height: 25.49" (647.5mm) |
| Input Hz      | 50/60Hz                     |                                                       | Weight:            | Width: 10.69" (271.5mm)  |
| Flow Meters   | Plasma<br>Shield            | .5 - 3.0 SCFH (.25-1.5lpm)<br>5 - 30 SCFH (2.5-15lpm) |                    | Length: 23.23" (590mm)   |
|               |                             |                                                       |                    | 79.4 lbs (36 kg)         |