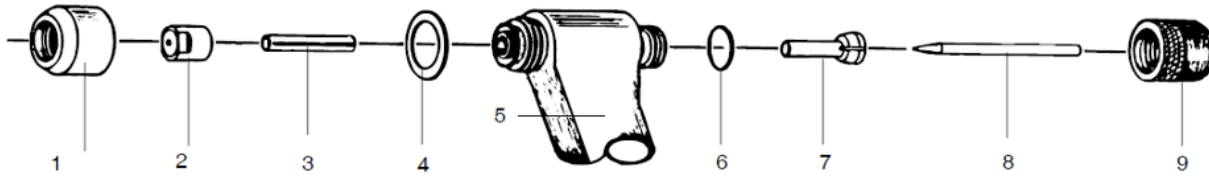


How to assemble Sanrex Plasma Welding Torches.

P75 Torch Head Assembly.

First install Back Cap O-Ring (6), Collet (7) then slide Electrode (8) through collet and install Back Cap (9). Next slide Gas Distributor (3) over electrode from front of torch. Next screw in tip (2), Snug fit do not over tighten the tip and adjust set-back. Finally install Shield Cup Gasket (4) and Shield Cup (1).



P15 Torch Head Assembly.

First install Back Cap O-Ring (9), Collet (10) then slide Electrode (5) through collet and install Back Cap (11 or 12). Next slide Gas Distributor (4) over electrode from front of torch. Next screw in tip (2 or 3) Snug fit do not over tighten the tip and adjust set-back. Finally install Shield Cup Gasket (7) then Gas diffuser (6) and Shield Cup (1).



The P22 & P30 Torches have an internal liner. There are two O-Rings inside the torch that seal the liner in the torch. The welding Tips thread into the liner.

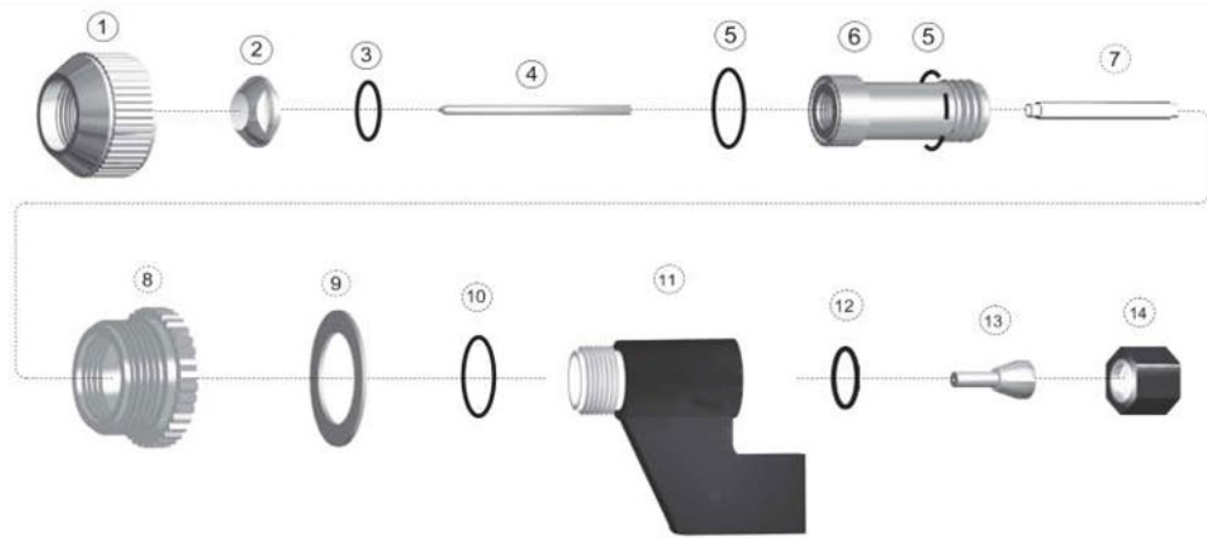
P22 Torch Head assembly

First install the Liner O-rings (Not Shown, See Liner O-Ring Installation) in the torch head, then install the shield cup gasket (9), screw on the shield cup Gas Diffuser (8), then the collar (7) and finish up with the liner (5). Make sure to add a little PAW-LUBE to the liner before installing. Install Back Cap O-Ring (Not Shown), Collet (11) and Back Cap (12) (Then slide the Gas Distributor (6) into the liner with the collar end facing back of torch. Next insert the electrode (4) and adjust set-back. Next screw in tip (2 or 3), Snug fit do not over tighten the tip. Finally install Shield Cup (1).



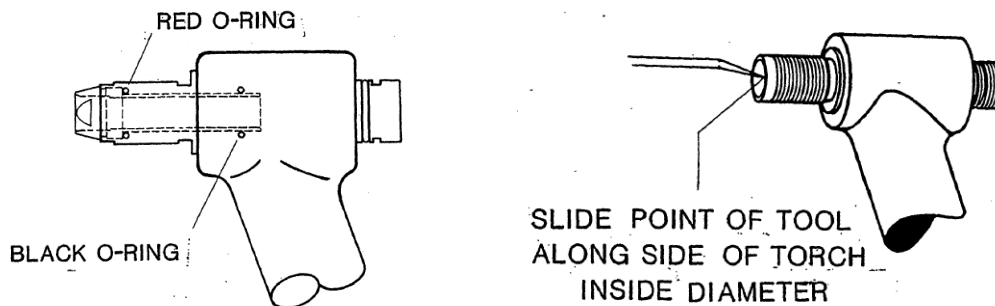
P30 Torch Head assembly

First install the Liner O-rings (5) (See Liner O-Ring Installation) in the torch head, then install Gas Diffuser gasket (10) then the Gas Diffuser (8). Next install the Gas Distributor (7) into the Liner (6), then carefully so not to damage the Liner O-Rings screw the Liner into the torch Head. Next install Back Cap O-Ring (12), then Collet (13) and back Cap (14). From the front of the torch head insert the electrode (4), then Tip O-Rings (3), tip (2) and adjust setback. Finally install Shield cup (1).



Liner O-Ring Installation

P22 procedure shown, P30 same procedure.



Installation of Liner and O-Rings

- 1) Lubricate O-rings with a Light coating of O-ring lubricant (PAW-LUBE). Use enough to make the O-ring slippery, but not enough to accumulate in the torch.
- 2) Install the black O-ring into the torch using the O-ring installation tool (P22-2010). Put the O-ring over the pointed end of the center section of the tool and slide it inside of the sleeve section. Pull the center section of the tool back until the pointed part is against the front of the sleeve section. While holding the center section of the tool back, carefully insert the sleeve section of the tool into the torch until the shoulder of the sleeve section comes up against the front of the torch.

- 3) Holding the shoulder of the sleeve section against the front of the torch, push the plunger of the tool against the O-ring. The plunger should be tapped and turned against the O-ring until the shoulder of the plunger contacts the rear, shoulder of the sleeve section spring back.
- 4) Remove the tool from the torch. If the center section of the tool does not come out easily, the O-ring has not seated. A few extra taps with the plunger should seat the O-ring.
- 5) Install red O-ring in the front of the torch.
- 6) Install the shield gas diffuser onto the front end of the torch.
- 7) Push collar onto front end of torch.
- 8) Install liner into front end of torch. Tighten liner with moderate pressure, about 35-inch pounds. Do not overtighten.

