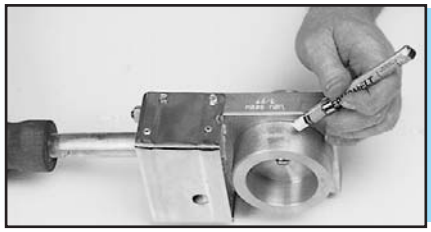
A socket fusion tool kit, including heat tool and various sizes of heads is available from Orion.

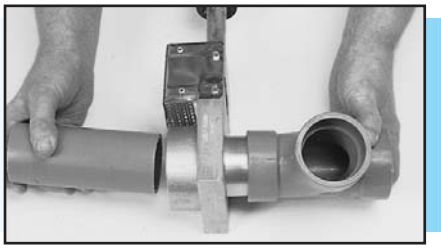
Note:
- Make all field cuts of pipe square and true using a pipe cutter designed for plastic pipe.
- Make certain heads are installed properly on heat tool. Heads are marked “M” and “F”, indicating male and female.
- Bevel the leading edge of each pipe section with a 1/8” 45 degree chamfer. This will minimize the amount of bead on the inside of the fitting when fused



Step 1
Check the heads for proper temperature (**482 - 520°F** or **250°- 270°C**). If necessary, adjust the thermostat dial so that the 488°F Tempil stick burns, but the 525°F does not. ***NOTE: The newest Orion fusion tools may have a temperature dial in degrees celcius which has a maximum temperature of 300°C. If this is the case, see temperature conversion chart below.*** Heat tools are factory set, however settings can vary due to factors such as weather, current variances, cord lengths, generators, etc. These variables should be checked on site. To increase tool temperature, turn dial “in” (clockwise). To decrease, turn screw “out” (counterclockwise).

Step 2
Measure depth of fitting. Subtract $^{1}/_{16}$".

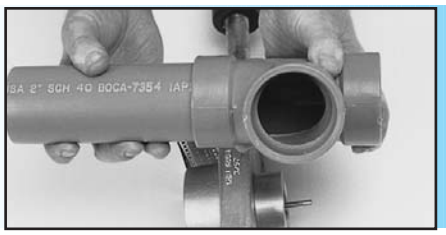
Step 3
Transfer measurement to pipe. Mark pipe with measurement obtained in Step 2.



Step 4
Insert fitting on the male side of the heat tool. Then insert pipe on the female side. Do not insert past the mark on the pipe.

Step 5
Keep pipe and fitting absolutely straight on heat tool.

Use the chart below to determine how long to leave the pipe and fittings on the heater bushings.It should be noted that pipe and fittings will normally have a slight interference with the fusion tools. However, if the pipe and/or fittings do not fit tightly on the heater bushing, the heating time should be started when the components have swelled to just contact the surface of the bushing.



Step 6
Hold joint under pressure for 15 seconds to allow surfaces to fuse. Do not stress joint until fully cooled.

Clean any melted material from heater bushings using a cotton rag. Do not use abrasive materials to clean the heater bushings.

Confirm the heater bushings are the correct temperature before fusing next joint.

The following chart shows the approximate time that the pipe and fitting should be held on the heater bushings. These times are a guideline ony. It may be necessary to increase or decrease times to obtain the correct melt conditions.

Fusion Times in seconds

	1-1/2”	2”	3”	4”	6”
PP	12-15 sec	15-20 sec	20-25 sec	25-30 sec	30-35 sec
PVDF	12-15 sec	15-20 sec	20-25 sec	25-30 sec	30-35 sec

Temperature Conversion Factors

°F = Degrees in Farenheight
°C = Degrees in Celcius(Centigrade)

°F = (°C x 1.8) + 32
°C= (°F - 32) x .555

°F	°C
122	50
212	100
300	150
392	200
482	250
520	270
572	300

NOTE: DO NOT TEST ANY ORION PIPING SYSTEM WITH COMPRESSED AIR OR GASSES. TEST HYDROSTATICALLY ONLY