

30- and 45-Flame Heads

# **OXWELD®**

## **Multi-Flame Heating Heads**

**30-Flame Heating Head ..... Part No. 10X08**  
**45-Flame Heating Head ..... Part No. 10X19**

### **! CAUTION**

These INSTRUCTIONS are for experienced operators. If you are not fully familiar with the principles of operation and safe practices for oxy-fuel gas equipment, we urge you to read our booklet "Precautions and Safe Practices, for Welding, Cutting and Heating", Form 2035. Do NOT permit untrained persons to install, operate, or maintain this equipment. Do NOT attempt to install or operate this equipment until you have read and fully understand these Instructions. If you do not fully understand these Instructions, contact your supplier for further information.

## **I. TO CONNECT**

### **A. Water Connections**

Water inlet and outlet connections and water tubing are supplied with each heating head, but are not assembled to the head at the factory. You can use the connections supplied, or you may prefer to use connections of a different type. If you wish to use other connections, refer to the drawing on the reverse side of this sheet for thread sizes.

Tin and sweat the connections in place. Then attach the water inlet and outlet tubes.

### **B. Head to Torch**

The 30- and 45-Flame Heads connect directly to the W-42 Torch. If desired, you can connect the head to the torch by means of an angle adaptor or a flexible metal hose adaptor. Your ESAB representative will be glad to supply you with full information on what adaptors should be ordered to meet your requirements.

Connect the heating-head water inlet tube to a suitable water supply, or the outlet of the water-cooling jacket on the torch, if a water jacket is to be used. Connect the heating-head water outlet tube to an adequate water drain.

**IMPORTANT:** *Use only clean water. Do not use the water at more than 50 lbs. per sq. in. Higher pressures may damage the heating head or the torch water jacket. Make sure there is water flow before lighting the head.*

### **C. Tips**

Use only OXWELD screw-type tips in these heads. Heads can be adapted to curved or irregular-shaped surfaces by using several different lengths of tips, and by using orifice plugs (21512) in place of tips not needed. Tips are available in the following combinations of lengths and drill sizes:

**Be sure this information reaches the operator.  
You can get extra copies through your supplier.**



**ESAB Welding &  
Cutting Products**

## Screw-Type Tips

Tip Drill Size	Part Number				
	Length (Inches)				
	9/16	11/16	13/16	15/16	17/16
50		*5277321		12Z28	
52	5276653	63Z67		12Z29	
53			13Z73	12Z27	
54				12Z26	
56	12Z83 *64Z63	12Z84 *5276940	12Z85 *64Z50	12Z25	12Z86
60	63Z32	63Z33	64Z51	63Z62	
65				63Z38	
68		63Z34	63Z36	63Z39 *5277514	
72	63Z20		63Z37		

\* For use with fuel gases other than acetylene.  
NOTE: Orifice plug P/N 21512 as required.

## II. OPERATING DATA

The following acetylene consumption data for various size tips at different flame lengths should be used only for estimating purposes. The flame lengths shown are for neutral flames (equal amounts of oxygen and acetylene.)

Flame Length (in.)	Acetylene Consumption Per Tip, Cu. Ft. Per Hr.								
	Tip Size								
	50	52	53	54	56	60	65	68	72
3/16	11.5	9.5	8.5	7.5	5.5	4.5	3.5	3	2.5
1/4	13.5	11.5	10	9	6.5	5	4	3.5	2.75
5/16	16	13.5	12	10.5	8	6	4.5	4	3.25
3/8	19	16	14	12.5	9.5	7	5.5	5	3.5
7/16	23	19.5	17	15	11	8.5	6.5	5.5	4

## III. MAINTENANCE INSTRUCTIONS

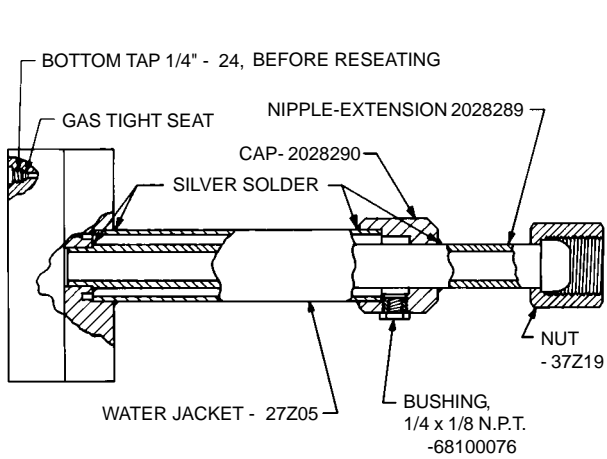
For all replacements or repairs other than cleaning of tips and seating surfaces and replacing water connections, the heating head should be sent to ESAB Remanufacturing Center, Ebenezer Road, Florence, South Carolina 29501.

The specific parts and repair information shown on the drawing is provided for experienced and qualified persons engaged in the repair of oxy-fuel gas apparatus.

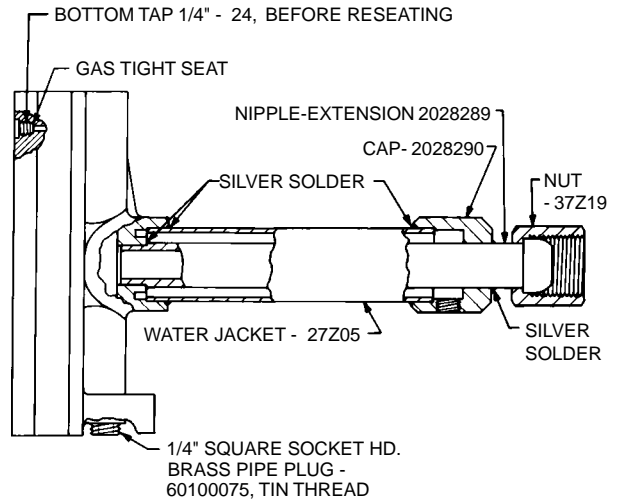
ESAB offers economical repair services through the above Remanufacturing Center.

If the orifice of a heating tip becomes clogged, clean it by hand with the correct size drill (shown in table above) or a copper or soft brass wire. Occasionally wipe the seating surfaces of the tips and head with a clean soft cloth to prevent dirt from being imbedded in the seats and causing backfires.

## IV. REPLACEMENT PARTS LIST



**30- FLAME HEAD - 10X08**



**45 - FLAME HEAD - 10X19**

<b>PARTS SUPPLIED (NOT ILLUSTRATED)</b>		
<i><b>DESCRIPTION</b></i>	<i><b>PART NO.</b></i>	<i><b>USED ON</b></i>
WATER CONNECTION ( <i>ELBOW</i> )	82W70 (1/8" N.P.T.) 84W51 (1/4" N.P.T.)	30 FLAME 45 FLAME
WATER CONNECTION ( <i>STRAIGHT</i> )	82W69 (1/8" N.P.T.) 82W75 (1/4" N.P.T.)	30 FLAME 45 FLAME
WATER CONNECTION UNIT	82W71 82W76	30 FLAME 45 FLAME
WATER TUBING	54Z24	45 FLAME 30 FLAME
NO. 60 WRENCH ( <i>FOR TIPS</i> )	50Y05	ALL

