

## Welding Nozzles

It is important to select the correct size and type of nozzle to suit the nature of the job and the gas being used.

The use of a nozzle too large for the job may result in the welder turning down the flow of gases to try and set the small flame required. This creates a very unstable, soft flame which usually results in a backfire or flashback. Conversely, using a nozzle too small for the job results in turning up the gas flow and thus creating a very harsh flame. This is not dangerous but the flame tends to lift away from the tip of the nozzle and makes control of weld metal very difficult.

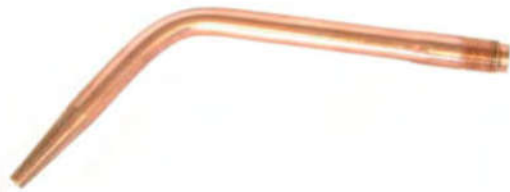
Afrox oxy-acetylene welding nozzles may also be used successfully with oxygen and Handigas for brazing and braze welding. It is usually necessary to use a larger nozzle than for oxy-acetylene due to the different ratio of oxygen to Handigas and the larger volumes involved.

Afrox oxy-acetylene welding nozzles may be used successfully with oxygen and hydrogen for special brazing and braze welding applications.

Type 2 Torch					Gas Consumptions		Item Number
Nozzle Size	Material Thickness (mm)	Nozzle Length (mm)	Oxygen Pressure (kPa)	Acetylene Pressure (kPa)	Oxygen (kg/h)	Acetylene (kg/h)	
1	0,9	140	15	15	0,04 0,06	0,03 0,05	W005037
2	1,2	140	15	15	0,07 0,15	0,06 0,11	W005038
3	2,0	140	15	15	0,11 0,21	0,09 0,16	W005039
5	2,6	140	15	15	0,21 0,25	0,16 0,19	W005040
7	3,2	185	15	15	0,28 0,38	0,22 0,28	W005041
10	4,0	185	20	20	0,41 0,47	0,31 0,35	W005042
13	5,0	185	30	30	0,54 0,66	0,40 0,50	W005043
18	6,5	290	40	40	0,62 0,83	0,56 0,62	W005044
25	8,2	290	40	40	0,61 1,20	0,77 0,89	W005045
35	10	290	60	60	1,45 1,49	1,08 1,11	W005046
45	13	345	60	60	1,88 1,99	1,39 1,48	W005047
55	19	345	60	60	2,29 2,71	1,70 2,01	W005048
70	25	345	60	60	2,85 3,23	2,16 2,41	W005049
90	25+	345	60	60	3,72 4,20	2,78 3,15	W005050



Combi-Lite Torch Mixer (PortaPak®)							
Nozzle Size	Material Thickness (mm)	Nozzle Length (mm)	Oxygen Pressure (kPa)	Acetylene Pressure (kPa)	Gas Consumptions		Item Number
					Oxygen (kg/h)	Acetylene (kg/h)	
1	0,9	140	15	15	0,04 0,06	0,03 0,05	W005090
2	1,2	140	15	15	0,07 0,15	0,06 0,11	W005091
3	2,0	140	15	15	0,11 0,21	0,09 0,16	W005092
5	2,6	140	15	15	0,21 0,25	0,16 0,19	W005093
7	3,2	140	15	15	0,28 0,38	0,22 0,28	W005094
10	4,0	140	20	20	0,41 0,47	0,31 0,35	W005095
13	5,0	140	30	30	0,54 0,66	0,40 0,50	W005096
18	6,5	210	30	30	0,62 0,83	0,56 0,62	W005097
25	8,2	210	50	50	0,61 1,20	0,77 0,89	W005098



Combi-Lite Torch Cutting Attachment (PortaPak®)							
Nozzle Size	Material Thickness (mm)	Nozzle Length (mm)	Oxygen Pressure (kPa)	Acetylene Pressure (kPa)	Gas Consumptions		Item Number
					Oxygen (kg/h)	Acetylene (kg/h)	
1	0,9	40	15	15	0,04 0,06	0,03 0,05	W005701
2	1,2	40	15	15	0,07 0,15	0,06 0,11	W005702
3	2,0	40	15	15	0,11 0,21	0,09 0,16	W005703
5	2,6	40	15	15	0,21 0,25	0,16 0,19	W005704
7	3,2	40	15	15	0,28 0,38	0,22 0,28	W005705
10	4,0	40	20	20	0,41 0,47	0,31 0,35	W005706





R.D. VINCENT (PTY) LTD REG. NO. 1975/004192/07 Trading as:

**VINCENT INDUSTRIAL SUPPLIES**

P.O. BOX 1249 WITBANK 1035	48 INDUSTRIA CRESCENT EXTENSION 25 WITBANK	TEL: 013 692 8151/2/3 FAX: 013 692 8154 dennis@vincentis.co.za
----------------------------------	--	--

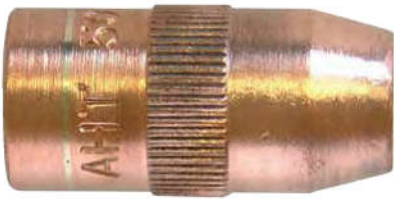
WEBSITE: <http://www.vincentis.co.za>

## Heating Nozzles

### Acetylene Spot Heating - A-HT

Nozzle Type	Oxygen Pressure (kPa)	Acetylene Pressure (kPa)	Gas Consumptions		Heat Output (kJ)	Use Mixer Item Number	Item Number
			Oxygen (kg/h)	Acetylene (kg/h)			
A-HT 25	30	30	1,46	1,20	55 000	W005802	W005051
A-HT 50	40	40	2,65	1,96	96 000	W005802	W005052
A-HT 100	70	50	3,98	3,27	146 000	W005802	W005053

Use with the Type 2 torch and bent neck tube 200 mm long (Item Number W005930).



### LPG Superheating

Nozzle Type	Oxygen Pressure Lo - Hi	LPG Pressure Lo - Hi	Gas Consumptions				Heat Output (kJ)	Use Mixer Item Number	Item Number
			Oxygen Lo (kg/h)	Oxygen Hi (kg/h)	LPG Lo (kg/h)	LPG Hi (kg/h)			
1H	70 - 200	15 - 50	4,64	9,68	1,64	3,74	76 000 172 000	W010402	W010406
2H	110 - 250	20 - 57	6,37	11,54	2,36	4,14	108 000 198 000	W010402	W010407
3H	180 - 500	30 - 110	11,01	21,88	4,14	8,08	193 000 380 000	W010402	W010408
4H	250 - 570	35 - 130	14,06	24,66	5,32	9,06	249 000 428 000	W010402	W010409
5H	350 - 870	85 - 200	16,84	37,13	6,31	13,79	265 000 652 000	W010402	W010410

Use with Type 2 torch, high capacity mixer and extension tube.



#### Please Note

- Heat output figures vary considerably with flame setting and regulator pressures
- Two typical readings are therefore given for each nozzle size at low and high pressures.