These charts provide an easy selection guide for Victor equipment. Torches have been grouped by function: Heavy, Medium and Light Duty, and provide a quick reference allowing you to select the proper torch handle, welding or heating nozzle, tip ends, plus cutting attachment and cutting tip series to meet your needs.

Heavy Duty Equipment User Guide

Torch Handle	Welding Nozzles	Fuel Gas	Heating Nozzles	Fuel Gas	Cutting Attachment	Head Angle	Fuel Gas	Tip Series	Special Attachments
315FC	RTE, W, ET	A/H	MFA	A/H	CA 2460	90°	All	1	TE
					CA 2461	75°		1	TEN
H 315FC	RTEN	NG/P	MFN	NG/P	CA 2462	180°		1	TEMFA
			Type 55	*ALL	CA 2470	90°		3	TEMFN

RTE, RTEN welding nozzles use tip ends.
*Type 55 heating nozzle - uses H 315FC or 315FC torch handle. All fuel gases except acetylene.

Medium Duty Equipment User Guide

Torch Handle	Welding Nozzles	Fuel Gas	Heating Nozzles	Fuel Gas	Cutting Attachment	Head Angle	Fuel Gas	Tip Series	Special Attachments
100FC	ET, ET-1, FE-1, UN-1, W-1	A/H	MFA-1	A	CA 1350	90°	All	3	TE
					CA 1351	75°		3	TEN
	UN-1	NG/P	MFN-1	NG/P	CA 1352	180°		3	TEMFA TEMFN

UN-1, FE-1 welding nozzles use tip ends.

Light Duty Equipment User Guide

Torch Handle	Welding Nozzles	Fuel Gas	Cutting Attachment	Head Angle	Fuel Gas	Tip Series	Special Attachments
J-28	ET, FE-J, UN-J, W-J	A/H	CA 1260	90°	All	3	TE TEN TEMFA TEMFN
J-40	UN-J, UNN-J	NG/P					

UN-J, UNN-J, FE-J welding nozzles use tip ends.

MFA - For Use with HD 310C Series Torch Handle

Type MFA, for use with Acetylene					
Tip Size	Oxygen Pressure (PSIG)	Acetylene Pressure (PSIG)	Oxygen Consumption (SCFH)	Acetylene Consumption (SCFH)	BTU Per Hour
12 **15**	50/60 50/60	12/15 12/15	66/165 99/244	60/150 90/220	See Below

MFN - For Use with HD 310C Series Torch Handle.

Type MFN, for use with all fuel gases except Acetylene					
Tip Size	Oxygen Pressure (PSIG)	Acetylene Pressure (PSIG)	Oxygen Consumption (SCFH)	Acetylene Consumption (SCFH)	BTU Per Hour
12 **15** **20**	30/125 30/125 40/135	15/25 15/25 15/25	120/640 200/800 300/100	30/160 50/200 75/250	See Below
WARNING: Not for use with acetylene.					

Type 55 - For Use with HD 310C Series Torch Handle.

Type 55, for use with all fuel gases except Acetylene					
Tip Size	Oxygen Pressure (PSIG)	Acetylene Pressure (PSIG)	Oxygen Consumption (SCFH)	Acetylene Consumption (SCFH)	BTU Per Hour
10 **15** **20**	30/125 30/125 40/135	15/25 15/25 15/25	120/640 200/800 300/100	30/160 50/200 75/250	See Below
WARNING: Not for use with acetylene.					

To approximate gross BTU output, multiply flow rate by BTU value listed below.

Acetylene.....1470
Propane.....2498
Methane.....1000
Natural Gas.....1000
Butane.....3374
Propylene 2371

WARNING:

- Use flashback arrestors.
- Although built to Victor's quality and safety standards, due to the cutting capacity and/or design of each torch, flashback arrestors are not manufactured into these Victor heavy industry torches.
- To reduce the risk of personal injury, death and/or property damage, use sufficient capacity flashback arrestors with all Victor heavy industry torch products.
- Alternative fuel gas only refers to propane, natural gas, propylene gases. Acetylene, hydrogen and gasoline are NOT included as an alternative gas.

For Use with 100 and 300 Series Torch Handles.

Type MFA, MFA-1, for use with Acetylene					
Tip Size	Oxygen Pressure (PSIG)	Acetylene Pressure (PSIG)	Oxygen Consumption (SCFH)	Acetylene Consumption (SCFH)	BTU Per Hour
2	4/8	4/8	3/10	3/9	
4	8/12	6/10	7/22	6/20	
6	10/15	8/12	15/44	14/40	See Below
8	20/30	10/15	33/88	30/80	
10	30/40	12/15	44/110	40/100	

Type MFN, MFN-1, for use with Propane & Natural Gas					
Tip Size	Oxygen Pressure (PSIG)	Fuel Pressure (PSIG)	Oxygen Consumption (SCFH)	Fuel Consumption (SCFH)	BTU Per Hour
6	8/20	2/10	20/80	5.5/20	
8	10/20	10/15	40/140	10/35	See Below
10	10/30	12/20	80/320	20/80	

For Use with 300 Series Torch Handles.

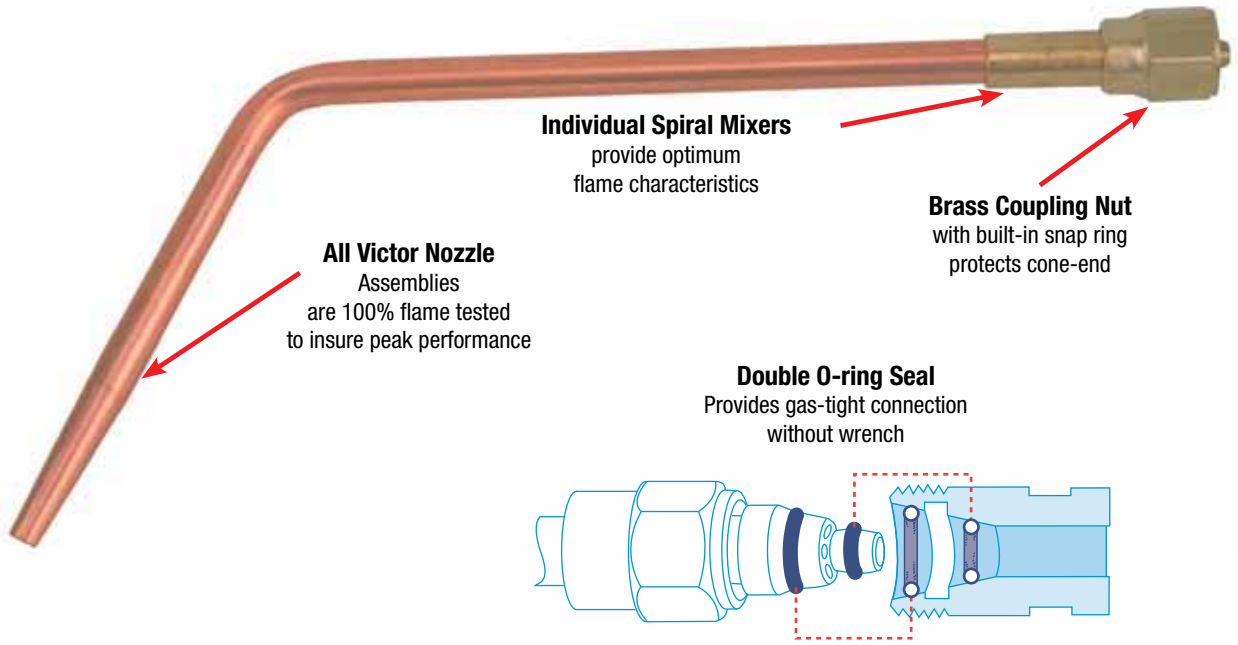
Type 55, for use with Propylene based fuel gases, Methane, Propane, Butane, Liquid Air Fuel gases, pressurized Natural Gas					
Tip Size	Oxygen Pressure (PSIG)	Acetylene Pressure (PSIG)	Oxygen Consumption (SCFH)	Acetylene Consumption (SCFH)	BTU Per Hour
6	70/80	15/20	160	65	See Below
8	70/85	15/25	220	85	

Approximate Gross BTU Content Per Cubic Foot.

Acetylene **1470**	**Natural Gas** ... **1000**
Propane **2498**	**Butane** **3374**
Methane **1000**	**Propylene** **2371**

Type 55 nozzles NOT for use with ACETYLENE.

WARNING: At no time should the withdrawal rate of an individual acetylene cylinder exceed 1/7 of the cylinder contents per hour. If additional flow capacity is required use an acetylene manifold system of sufficient size to supply the necessary volume.



Exclusive "OPTIMIZED" nozzles with a large choice of types and sizes, plus uniformity of tip orifice and size for all series

Victor offers a complete range of nozzles, tips and elbows with a size for every application including: welding, brazing, heating, descaling, hard facing, flame priming, etc.

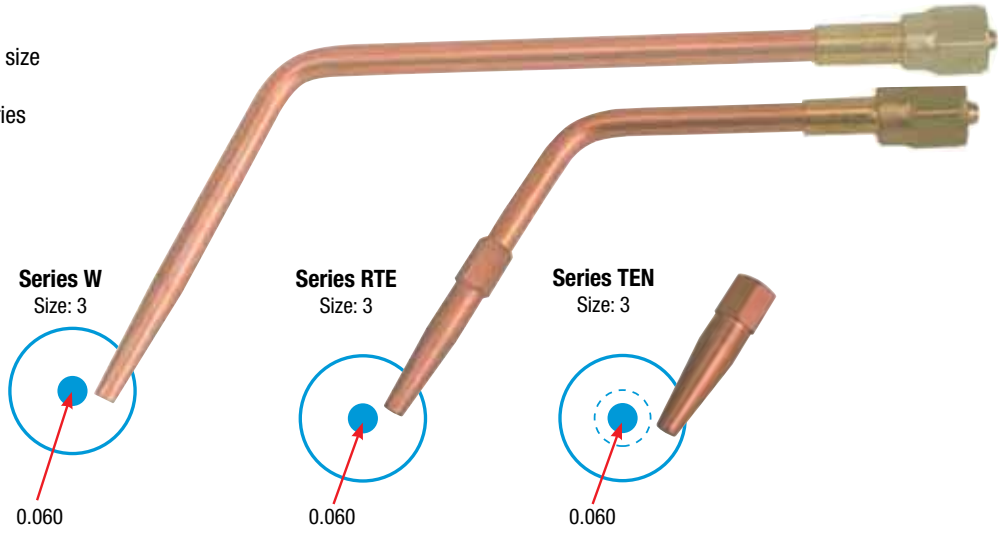
Nozzles designed for "optimum" performance - Each complete nozzle has its own built-in spiral mixer, individually designed for each tip size and flame characteristic. Each nozzle is individually swaged to insure proper alignment for uniform flame, sizing and free-flow contour.

Orifice sizes are common for all series - Regardless of nozzle series (300FC, 100FC, J), flame characteristic or fuel gas used. The uniformity of orifice sizes simplifies nozzle selection, eliminates chances of ordering and wrong size when changing from one type of nozzle to another.

Heating Tip

Type		Fuel Gas
MFTA		A

Flame orifice size
the same for
all nozzle series



Welding Nozzle Operational Data/Acetylene
Covers Series W (Heavy Duty), W-1 (Medium Duty) And W-J (Light Duty) Series

OPERATIONAL & PERFORMANCE DATA						
Metal IN	Thickness MM	Tip Size	Drill Size	Oxygen (PSIG)	Acetylene (PSIG)	Acetylene (SCFH)
1/32"	0.8	000	75 (0.022)	3 / 5	3 / 5	1 / 2
3/64"	1.2	00	70 (0.028)	3 / 5	3 / 5	1.5 / 3
5/64"	1.9	0	65 (0.035)	3 / 5	3 / 5	2 / 4
3/32"	2.4	1	60 (0.040)	3 / 5	3 / 5	3 / 6
1/8"	3.2	2	56 (0.046)	3 / 5	3 / 5	5 / 10
3/16"	4.8	3	53 (0.060)	4 / 7	3 / 6	8 / 18
1/4"	6.4	4	49 (0.073)	5 / 10	4 / 7	10 / 25
1/2"	12.7	5	43 (0.089)	6 / 12	5 / 8	15 / 35
3/4"	19.0	6	36 (0.106)	7 / 14	6 / 9	25 / 45
1.25"	32.0	7	30 (0.128)	8 / 16	8 / 10	30 / 60
2"	51.0	8	29 (0.136)	10 / 19	9 / 12	35 / 75
3"	76.2	10	27 (0.144)	12 / 24	12 / 15	50 / 100

WARNING: At no time should the withdrawal rate of an individual acetylene cylinder exceed 1/7 of the cylinder contents per hour. If additional flow capacity is required use an acetylene manifold system of sufficient size to supply the necessary volume.
Oxygen consumption (SCFH) is 1.1 times the acetylene under neutral flame conditions.

OXY-ACETYLENE & OXY-HYDROGEN				
Application	Torch Series	Nozzle Type	Available Sizes	Illustration
General purpose welding & heating. Uses replaceable tip ends. Flame characteristic - Long cone.	315FC H 315FC	RTE	000-6, 8,10	65° **Sizes: 000-6, 8** (Length 4.5") **Size: 10** (Length 14")
General purpose welding and preheating. Swaged one-piece copper elbow. Flame characteristic - Long cone.	315FC	W	000-8, 10	65° **Sizes: 000-8** (Length 4.5") **Size: 10** (Length 14")
	100FC	W-1	000-7	
	J-28 J-40	W-J	000-4	