



ALTERNATE FUEL SOLUTIONS

ONE TORCH, ALL FUELS

Complete Lineup

- ▶ Torches, Handles and Attachments
- ▶ LPG Regulators
- ▶ Heating Nozzles
- ▶ Cutting Tips
- ▶ Outfits



Alternative Fuel Solutions

What you need to know about alternative fuels, torches, regulators, hoses and torch tips.

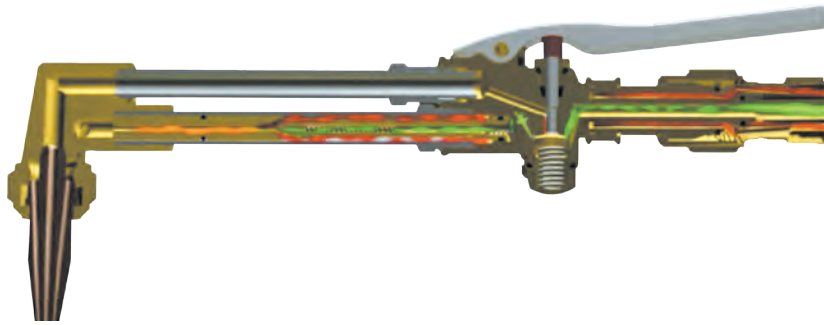
Torches – One Torch for ALL Fuel Gases

In the early years of gas cutting, equipment was initially designed to operate on low pressure fuel gas (acetylene) and city-gas (natural gas). These torches utilized a venturi design to siphon the fuel gas, because the fuel gases were not pressurized or only available at a very low service pressure.

As higher cylinder and line pressure became the norm, Victor improved the torch design and patented the “universal multi-fuel mixer” that blends any industrial fuel gas with oxygen.

Today, fuel gases have cylinder and line pressures above 70 psig. Fuel gas manufacturers recommend operational gas pressures of 5-40 psig for gas equipment. Our Victor line of torches are specifically designed to offer optimized performance with any industrial fuel gas.

Victor torches utilize the proven performance of high efficiency mixers. Victor’s universal multi-fuel mixers evenly blend gases to provide performance and deliver maximum fuel efficiency. In addition to proven performance with any fuel gas, only Victor torches include built-in flashback arrestors and check valves to provide optimum safety.



Alternative Fuels – Switching from Acetylene to Propylene or Other Fuel Gases

Switching from oxy-acetylene to oxy-propylene or other alternative gases requires changing the fuel gas regulator and torch tips. A T-grade hose should be used with alternate fuels. Victor Professional outfits are equipped with a T-grade hose. As noted, your Victor torch can easily accommodate any industrial fuel gas.

Alternative fuels such as propylene or propane can be used effectively with the right equipment. This brochure features the Victor products that are well suited to these alternative fuels.





Different Fuel Gases Require Different Regulators

When changing from oxy-acetylene to other fuel gases you need to change the regulator. The Compressed Gas Association (CGA) Safety Bulletin SB-8-2009 advises against using the same regulator with different gases. A regulator for use with propane or propylene must be marked "L.P. Gas" to indicate that it can be used with liquid petroleum fuel gases.

Victor EDGE™ series models are color-coded and labeled for easy identification – for example, orange for L.P. and green for oxygen. Victor offers a complete line of EDGE regulators suited for any application, including medium and high capacity, high flow, pipeline-line and station models. This brochure outlines the various EDGE models available, or you may contact your local Thermadyne representative to help identify the right Victor regulator for any fuel gas or application.



Cutting and Heating Tips are Designed for Specific Fuel Gases

While a Victor torch can be used with various fuel gases, the torch tip must be changed. Tips are designed for specific fuel gases to optimize its heating performance.

Fuel gases have different burning rates. Victor engineers consumables to match the characteristics of each fuel gas. The slower burning rate of alternative fuels require using a recessed tip to allow for proper flame attachment. Acetylene torch tips are one-piece designs, while alternative fuel torch tips are generally two-piece with specially configured passage ways that provide optimum performance.



Acetylene Tip



Propylene Tip

The ordering information charts in this guide will help you find the right torch tip for your fuel gas and application. In addition, Victor offers a wide range of heating and cutting nozzles, and those are also featured.

**For more information
on alternative fuel solutions, be sure to visit
www.thermadyne.com/alternativefueloptions**

Torches, Handles and Attachments

VanGuard™ Straight Cutting Torches

For use with any fuel gas

- Includes built-in patented flashback arrestors and reverse flow check valves for added safety.

ST 2600FC Straight Cutting Torch

- Uses Series 1 cutting tips
- For use with any fuel gas

OPTIONS

Head Angles: 75°, 90°, 180°

Torch Lengths:

17", 21", 27", 36", 48", 72", 96"

Cutting Capacity: 8" (203.2mm)



ST 1000FC Straight Cutting Torch

- Uses Series 1 cutting tips
- For use with any fuel gas, 5 PSIG and above

OPTIONS

Head Angles: 75°, 90°, 180°

Torch Lengths:

17", 21", 36", 48"

Cutting Capacity:

5" (127mm)



ST 900FC Straight Cutting Torch

- Uses Series 1 cutting tips
- For use with any fuel gas, 5 PSIG and above

OPTIONS

Head Angles: 75°, 90°, 180°

Torch Lengths:

17", 21", 27", 36", 48", 72", 96"

Cutting Capacity: 5" (127mm)



Torch Handles

For use with any fuel gas

- Covers a full range of welding, cutting and heating needs.
- Threaded assembly for economical service.
- Meets or exceeds CGA E-5.
- ETL Listed to UL 123.

HD 310C Victor Heavy Industry Torch Handle

The HD 310C is compatible with high capacity heating nozzles and is performance matched to the CA 2460 Series cutting attachment.

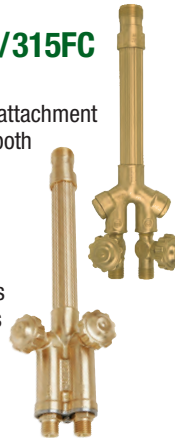
- Built-in reverse flow check valves
- Use flashback arrestors



VanGuard H 315FC/315FC Heavy Duty Torch Handles

The CA 2460 Series cutting attachment is performance matched to both the H 315FC and 315FC torch handle

- H 315FC is a high flow torch handle
- Built-in flashback arrestors & reverse flow check valves



VanGuard 100FC Medium Duty Torch Handle

- The CA 1350 Series cutting attachment is performance matched to the 100FC torch handle
- Built-in flashback arrestors and reverse flow check valves



Cutting Attachments

For use with any fuel gas

- Universal gas mixer optimizes performance with any fuel gas
- Stainless steel tubes for strength, durability and heat resistance
- Brass coupling nut & double "O" ring tapered seal gives quick gas-tight seal without a tightening wrench
- Die-forged brass head for maximum durability

CA 2460 300 Series Heavy Duty Cutting Attachment

The CA 2460 Series cutting attachment is performance matched for use with H 315FC and the 315FC torch handle.

Head Angles: 75°, 90°, 180°

Handle Length: 10.5" (266.7mm)

Cutting Range: 8" (200 mm)



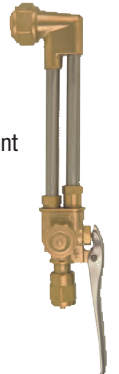
CA 1350 100 Series Medium Duty Cutting Attachment

The CA 1350 Series cutting attachment is performance matched for use with the 100FC torch handle.

Head Angles: 75°, 90°, 180°

Handle Length: 8" (203.2mm)

Cutting Range: 6" (152 mm)



Model 315FC (Illustrated)

Brass Head → For strength and durability

Heavy Ribbed Barrel → Provides ventilation and sure grip

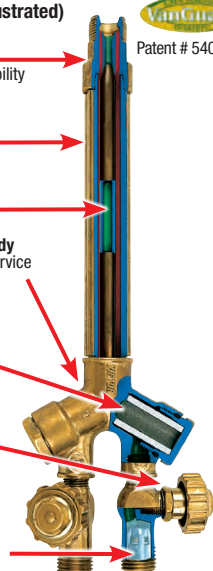
Tube With-In-A-Tube → Designed for greater handle strength

Die-Forged Brass Body → Threaded for easier service

"Built-In" Flashback Arrestors → No need for accessory flash arrestors

Control Valves With Stainless Steel Ball Stems → Have TEFLON packing for smooth gas tight operation

"Built-In" Reverse Flow check valves → Flow check valves for added operator safety no need for accessory check valves



Patent # 5407348

Additional Products

- 320 Torch Extension
- J Series Handles & Cutting Attachments

Ordering Information

STRAIGHT TORCHES					
ST 2600FC Series					
Part No.	Model No.	Lever Position	Tip Series	Head Angle	Length
0381-1486	SST 2600FC	Top Rear	1	90°	17" (43.2cm)
0381-1487	SST 2601FC			75°	
0381-1480	ST 2600FC	Top Rear	1	90°	21" (53.3cm)
0381-1482	ST 2601FC			75°	
0381-1483	ST 2601FCL*			75°	
0381-1484	ST 2602FC			180°	
0381-1490	ST 2610FC	Top Rear	1	90°	27" (68.6cm)
0381-1491	ST 2611FC			75°	
0381-1492	ST 2612FC			180°	
0381-1496	ST 2630FC	Top Rear	1	90°	36" (91.4cm)
0381-1498	ST 2631FC			75°	
0381-1500	ST 2632FC			180°	
0381-1502	ST 2650FC	Top Rear	1	90°	48" (121.9cm)
0381-1503	ST 2651FC			75°	
0381-1514	ST 2651FCL*			75°	
0381-1504	ST 2652FC			180°	
0381-1515	ST 2652FCL*			180°	
0381-1506	ST 2670FC	Top Rear	1	90°	72" (182.9cm)
0381-1508	ST 2671FC			75°	
0381-1510	ST 2672FC			180°	
0381-1513	ST 2692FC			180°	
* Locking lever					
ST 1000FC Series					
0381-1640	SST 1000FC	Bottom Rear	1	90°	17" (43.2cm)
0381-1642	SST 1001FC			75°	
0381-1641	ST 1000FC	Bottom Rear	1	90°	21" (53.3cm)
0381-1643	ST 1001FC			75°	
0381-1644	ST 1030FC	Bottom Rear	1	90°	36" (91.4cm)
0381-1645	ST 1031FC			75°	
0381-1646	ST 1032FC			180°	
0381-1647	ST 1050FC	Bottom Rear	1	90°	48" (121.9cm)
0381-1648	ST 1051FC			75°	
0381-1649	ST 1052FC			180°	
ST 900FC Series					
0381-1620	SST 900FC	Top Rear	1	90°	17" (43.2cm)
0381-1622	SST 901FC			75°	
0381-1621	ST 900FC	Top Rear	1	90°	21" (53.3cm)
0381-1623	ST 901FC			75°	
0381-1628	ST 912FC	Top Rear	1	180°	27" (68.6cm)
0381-1624	ST 930FC	Top Rear	1	90°	36" (91.4cm)
0381-1625	ST 931FC			75°	
0381-1626	ST 932FC			180°	
0381-1629	ST 950FC			90°	
0381-1630	ST 951FC	Top Rear	1	75°	48" (121.9cm)
0381-1631	ST 952FC			180°	
0381-1654	ST 972FC	Top Rear	1	180°	72" (182.9cm)
0381-1685	ST 991FC	Top Rear	1	75°	96" (243.8cm)

HANDLES						
HD 310C						
Part No.	Model No.	Description	Hose Connection	Gas	Weight	Length
0382-0015	HD 310C	Heavy Industry High Capacity	"B" 9/16"-18	All	28 oz.	11" (279.4mm)
H 315FC and 315FC						
0382-0316	H 315FC	High Flow Torch Handle	9/16"-18	All	20 oz.	9" (228.6mm)
0382-0034	315FC	"VanGuard" Heavy Duty	9/16"-18	All	18 oz.	9" (228.6mm)
0387-0008	315FC	"VanGuard" Heavy Duty (Clamshell)	9/16"-18	All	18 oz.	9" (228.6mm)
320 Torch Extension						
0382-0019		320 Torch Extension	9/16"-18	All	16 oz.	12" (304.9mm)
100FC						
0382-0032	100FC	"VanGuard" Medium Duty	9/16"-18	All	14 oz.	8.5" (215.9mm)
0387-0011	100FC	"VanGuard" Medium Duty (Clamshell)	9/16"-18	All	14 oz.	8.5" (215.9mm)
J-28 and J-40						
0382-0006	J-40	Standard Light Duty	3/8"-24	All	5.5 oz.	3.75" (95.3mm)
0382-0127	J-28	Light Duty	3/8"-24	All	8.5 oz.	6" (152.4mm)
J-40 handle does not have check valves or flashback arrestors. J-28 handle includes accessory reverse flow check valves for regulator use.						

CUTTING ATTACHMENTS				
300 Series • CA 2460 and 2470				
Part No.	Model No.	Cutting Range	Tip Series	Head Angle
0381-0816	CA 2460	8" (203.2mm)	1	90°
0387-0000	CA 2460 CS	8" (203.2mm)	1	90°
0381-0817	CA 2461	8" (203.2mm)	1	75°
0381-0818	CA 2462	8" (203.2mm)	1	180°
0381-0823	CA 2470	7" (177.8mm)	3	90°
100 Series • CA 1350				
0381-0418	CA 1350	6" (152.4mm)	3	90°
0387-0005	CA 1350 CS	6" (152.4mm)	3	90°
0381-0420	CA 1351	6" (152.4mm)	3	75°
0381-0421	CA 1352	6" (152.4mm)	3	180°
J Series • CA 1260				
0381-0162	CA 1260	3" (76.2mm)	3	90°
0387-0003	CA 1260 CS	3" (76.2mm)	3	90°
CS Clamshell Pkg.				

EDGE™ Regulators

EDGE ESS7 High Flow Regulator Series

Developed specifically for high flow applications such as heavy cutting, the ESS7 High Flow regulator really delivers superior performance, safety and ease of use. This model also provides even more consistent flow performance over the SR 700 that it replaces.

- Replaces SR 700 series
- Forged brass body
- High strength Zinc-Aluminum housing cap
- 2.5" gauge with updated artwork
- Color-coded SLAM impact absorbing safety knob
- **Meets or exceeds CGA E-4 and ASTM G-175 Promoted Ignition Test**
- ETL Listed to UL 252



EDGE™ ESS4 Series High Capacity and EDGE ESS3 Series Medium Capacity

The ESS4 Series – the heavy duty, high capacity, single stage design regulator series that set the standard for the complete line of EDGE regulators. Its outstanding flow performance provides better flow control across a full range of cylinder pressures, with exceptional sensitivity and precision in delivery pressure. The ESS3 Series are medium capacity, single stage design regulators with the same safety and design benefits of the ESS4.

- Forged brass body
- Zinc-Aluminum housing cap
- High impact ABS gauge guard
- Stem type seat mechanism
- External self reseating relief valve in high pressure models
- Sintered inlet filter – nickel plated bronze
- Color-coded SLAM™ impact absorbing safety knob
- **Meets or exceeds CGA E-4 and ASTM G-175 Promoted Ignition Test**
- ETL Listed to UL 252



EDGE™ ESL4 Pipeline—Line Regulator Series

Designed for gas distribution/pipeline systems, the ESL4 line regulator improves upon previous Victor® regulators with added EDGE benefits including the ergonomic, color coded adjusting knob and updated gauges.

- 4 port forged brass body
- High strength Zinc-Aluminum housing cap
- 2.5" gauge with updated artwork
- Color-coded SLAM impact absorbing safety knob
- For inlet pressures up to 350 psig (3000 psig for Oxygen and Inerts)
- Meets or exceeds CGA E-4
- ETL Listed to UL 252



EDGE EST4 Pipeline—Station Regulator Series

Ideal for weld station use and other gas distribution applications, the EST4 station regulator is fitted with the appropriate station style CGA connections for use with oxygen, inert or fuel gases. Along with the color coded adjusting knob and new gauges, this regulator not only improves productivity but looks good doing it.

- 4 port forged brass body
- High strength Zinc-Aluminum housing cap
- 2.5" gauge with updated artwork
- Color-coded SLAM impact absorbing safety knob
- For inlet pressures up to 200 psig
- Side entry and rear entry inlet versions available
- Meets or exceeds CGA E-4
- ETL Listed to UL 252



Ordering Information

ESS7 High Flow EDGE Series Regulators		
Part No.	Model No.	Gas Type
0781-5188	ESS7-125-510LP	LP Gas
ESS4 Heavy Flow EDGE Series Regulators		
0781-5135	ESS4-40-510LP	LP Gas (longer swivel)
0781-5136	ESS4-125-510LP	LP Gas (longer swivel)
ESS3 Medium Flow EDGE Series Regulators		
0781-5108	ESS3-40-510LP	LP Gas
0781-5109	ESS3-125-510LP	LP Gas
EST4 EDGE Series Pipeline – Station Regulators		
0781-5195	EST4-80-025	Hydrogen, Methane, Natural Gas, LP Gas
0781-5212	EST4-80-025R	Hydrogen, Methane, Natural Gas, LP Gas
0781-5196	EST4-125-025	Hydrogen, Methane, Natural Gas, LP Gas
0781-5213	EST4-125-025R	Hydrogen, Methane, Natural Gas, LP Gas
ESL4 EDGE Series Pipeline – Line Regulators		
0781-5210	ESL4-80-250F	Hydrogen, Methane, Natural Gas, LP Gas
0781-5211	ESL4-125-250F	Hydrogen, Methane, Natural Gas, LP Gas

Model Numbering Explanation

New Model No.	Series	Type	Capacity	Max. Delivery Pressure	CGA Connection	Suffix
ESS4-125-510LP	E	SS	4	125	510	LP

Standard Industrial
EDGE Regulators - "E"

"7" - High Flow
"4" - High Capacity
"3" - Medium Capacity

"SS" - Single Stage, Side Inlet
"LC" - Liquid Cylinder
"ST" - Station
"SL" - Line

"R" - Rear Entry
"A" - Acetylene
"F" - Fuel Gas
"X" - Oxygen
"LP" - Liquefied Petroleum

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to learn
more



Heating and Cutting Nozzles

Type 55 Multi-Flame Heating Nozzles

(All Alternate Fuel Gases)
Heavy Duty Heating Nozzle

The Type 55 Series multi-flame heating nozzles feature a raised center point on the head to prevent bumping the plate and compressing the flame. The center point and improved mixer design combine to provide greater resistance to flashback and improved performance. Type 55s can be ordered in a complete assembly or individual components. Multi-flame heating head for heat treating, straightening & priming.

- Sizes 10, 15 & 20 for use with HD 310C torch handles and 3/8" hose
- Smaller sizes available for use with 300 and 100 Series torch handles

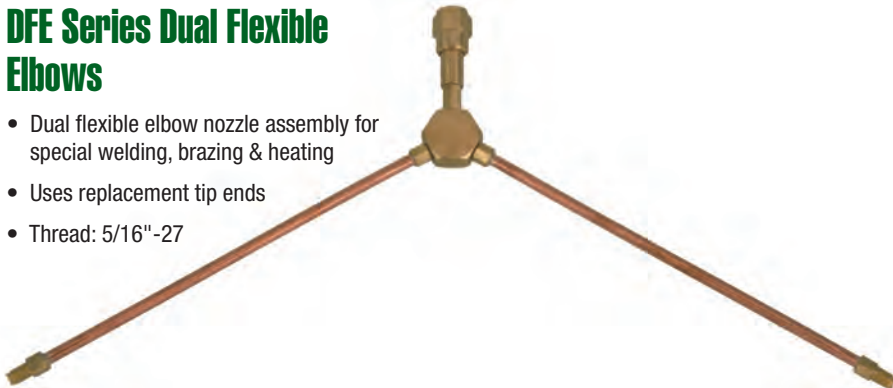
Mixer & Nut Assembly

- 0328-0012 For use with pressures from 10 PSIG and up.
- 0328-0013 For use with pressures from 2 to 10 PSIG.



DFE Series Dual Flexible Elbows

- Dual flexible elbow nozzle assembly for special welding, brazing & heating
- Uses replacement tip ends
- Thread: 5/16"-27



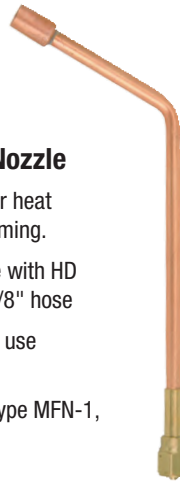
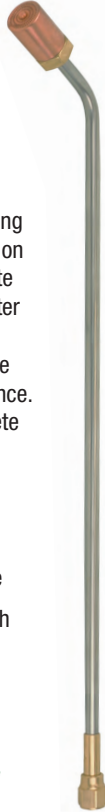
Type MFN

(Propane/Natural Gas and propylene)

Heavy Duty Heating Nozzle

Multi-flame heating head for heat treating, straightening & priming.

- Sizes 12, 15 & 20 for use with HD 310C torch handle and 3/8" hose
- 300 Series torch handles use size 8 & 10
- 100 Series torches use Type MFN-1, Size 6 & 8



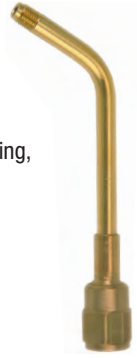
FE Series Flexible Elbows

- Flexible elbow for special welding, brazing, & heating needs
- Multi-fuel gas service
- Uses replacement tip ends
- Thread: 5/16"-27



UN Series Universal Nozzles

- Standard bend nozzle for welding, brazing & heating
- Uses replacement tip ends
- 65° tip angle
- Thread: 5/16"-27



TEN

300, 100 & J SERIES

Flame characteristic - Long Cone



TEMFN

300, 100 & J SERIES

Flame characteristic - Multi-flame



Series 1 Type MFTN

LP (Propane/Natural Gas)

For preheating before welding, descaling and paint burning etc. Not for use with cutting attachments.



CHT Adaptor (0312-0089)

Concentrated Heating Tip Adaptor for straightening, bending and forming of plate.

- For use with Alternate Fuels
- Use with HPP or HPN size 5 cutting tip, multi-flame elbow, mixer and nut assembly



Ordering Information

Type 55 Multi-Flame Heating Nozzles						Type MFTN				
Part No.	Type	Available Size	Available Length	Fuel Gas Usage	Series	Part No.	Size			
0323-0324	55	10	28" (711.2mm)	Fuel Gas Usage - ALL, except Acetylene	HD 310C	0330-0521	10			
0323-0325		15				0330-0522	12			
0323-0326		20								
0323-0327	55	6	11" (279.4mm)		300					
0323-0328		8								
0324-0188	55-1	6			100					
Series 300 • Type 55 Components						Tip Size, Length, Thread Size				
Part No.	Available Size	Application / Description	Available Length	Available Angles	Series	Part No.	Type	Size(s)	Length	Thread
0311-0240	6	Multi-Flame Heads	-	-	300	0311-0485	TEN	2	1.5" (38.1mm)	5/16"-27
0311-0241	8		-	-	300	0311-0486		3	1.63" (41.4mm)	5/16"-27
0304-0002	-	Multi-Flame Elbows	14" (355.6mm)	65°	300	0311-0487		4	1.88" (47.8mm)	5/16"-27
0304-0095	-		16" (406.4mm)	180°	300	0311-0488		5	2" (50.8mm)	5/16"-27
0304-0011	-		26" 660.4mm)	65°	300	*0311-0585		6	2.25" (57.2mm)	0.393-27
0328-0012	Mixer and nut assembly, for use with pressures from 10 PSIG and up.				300	0311-0306		TEMFN	3	1.5" (38.1mm)
0328-0013	Mixer and nut assembly, for use with pressures from 2 to 10 PSIG.				300	0311-0307	4			
0312-0064	Extension Adapter - Thread specifications 1/4"-18 NPT(F) x 1/2"-27 UNS(F). Not for use with acetylene.				300	0311-0676	6			
						0311-0677	7			
						0311-0678	8			
						0311-0679	9			
					0311-0680	10				
						Adapter for tip ends to fit tip tube: 5/16" 27(F) x 1/8"-27(M) 0312-0071 * Fit nozzles RTE Only. For 300, 100 and J Series				

MFN Multi Flame Heating Heads					
Part No.	Type	Size	Tip End Replacement	Length	Series
0323-0303	MFN	12	-	17.5" (444.5mm)	HD 310C
0323-0304		15	-		
0323-0305		20	-		
0323-0292	MFN	8	0311-0560	12.0" (304.8mm)	300
0323-0302		10	-	17.5" (444.5mm)	
0324-0117	MFN-1	6	0311-0611	12.0" (304.8mm)	100
0324-0118		8	0311-0612		

FE Series Flexible Elbows					
Part No.	Type	Fuel Gas Usage	Tip End Replacements	Length	Series
0323-0191	FE	Multi-Gas Fuel Service	TEN, TEMFN	11.5" (292.1mm)	300
0324-0066	FE-1	Multi-Gas Fuel Service	TEN, TEMFN	11.5" (292.1mm)	100
0325-0102	FE-J	Multi-Gas Fuel Service	TEN, TEMFN	11.5" (292.1mm)	J

DFE Series Dual Elbows					
Part No.	Type	Fuel Gas Usage	Tip End Replacements	Length	Series
0323-0192	DFE	Multi-Gas Fuel Service	TEN, TEMFN	-	300
0324-0092	DFE-1	Multi-Gas Fuel Service	TEN, TEMFN	-	100
0325-0108	DFE-J	Multi-Gas Fuel Service	TEN, TEMFN	-	J

UN Series Universal Nozzles					
Part No.	Type	Fuel Gas Usage	Tip End Replacements	Length	Series
0323-0242	UN	Multi-Gas Fuel Service	TEN, TEMFN	5" (127.0mm)	300
0324-0094	UN-1	Multi-Gas Fuel Service	TEN, TEMFN	5" (127.0mm)	100
0325-0101	UN-J	Multi-Gas Fuel Service	TEN, TEMFN	5" (127.0mm)	J

Cutting Tips

PROPYLENE

Two Piece

Series 1 Type GPP

Hand & machine torch cutting.

General Purpose



One Piece

Series 1 Type MTHP

High speed machine cutting up to 8" (203.7mm).

General Purpose



Two Piece

Series 3 Type GPP

Hand cutting. (Series 3 for small cutting head).

General Purpose



Two Piece

Series 1 Type BTMP

High performance bevel tip for use with mild steel, HSLA, T-1, HY-80.

Special Application



Two Piece

Series 1 Type HPP

Heavy pre-heat for scrap, bevel and other heavy pre-heat requirements.

Special Application



One Piece

Series 1 Type 318MP

Gouging and rivet washing.

General Purpose



One Piece

Series 1 Type 303MP

Hand & machine torch cutting.

General Purpose



One Piece Bent

Series 1 Type GTB/GTB

Gouging tip.

Special Application



PROPANE & NATURAL GAS

Two Piece

Series 1 Type GPN

Hand & machine torch cutting.

General Purpose



One Piece Bent

Series 1 Type 218

Deseaming, gouging, weld preparation, removing defective welds, rivet washing.

Special Application



Two Piece

Series 3 Type GPN

Hand torch cutting. (Series 3 for small cutting head).

General Purpose



Two Piece

Series 1 Type CSN

Coarse spline for scrap cutting.

Special Application



Two Piece

Series 1 Type HPN

Heavy pre-heat for scrap, bevel and other heavy pre-heat requirements.

Special Application



One Piece

Series 1 Type 207

Rivet washing.

Special Application



Two Piece

Series 1 Type MTHN

High speed machine cutting up to 10" (254mm).

Special Application



One Piece Bent

Series 1 Type 234

Copy to come.

Special Application



One Piece

Series 1 Type 200

Hand & machine torch cutting.

General Purpose



One Piece Bent

Series 1 Type 244

Cutting close to bulkheads, rivet washing.

Special Application



One Piece

Series 1 Type HDN

Mill and foundry, scrap cutting under severe conditions.

General Purpose



One Piece

Series 1 Type MCN

Coarse spline for extra heavy pre-heat and wide kerf for demolition, ripping and rail car repair.

Special Application



One Piece

Series 1 Type HDNL

Extra length. Mill and foundry, scrap cutting under severe conditions.

Special Application



Two Piece

Series 1 Type BTN

High performance bevel tip for use with mild steel, HSLA, T-1, HY-80.

Special Application



Ordering Information

PROPYLENE									
	Series 1 • Type GPP		Series 3 Type GPP	Series 1 Type HPP	Series 1 Type 303MP	Series 1 Type MTHP	Series 1 Type BTMP	Series 1 Type 318MP	Series 1 Type GTB
Size	Boxed	Clamshell	Boxed	Boxed	Boxed	Boxed	Boxed	Boxed	Boxed
000	0333-0260	-	-	-	-	-	-	-	-
00	0333-0261	-	0333-0389	-	0330-0187	0333-0352	-	-	-
0	0333-0262	0387-0154	0333-0390	0333-0282	0330-0188	0333-0353	-	-	-
1	0333-0263	0387-0155	0333-0391	0333-0283	0330-0189	0333-0354	-	-	-
2	0333-0264	0387-0156	0333-0392	0333-0284	0330-0193	0333-0355	-	-	-
3	0333-0265	-	0333-0393	0333-0285	0330-0194	0333-0356	-	0330-0333	0333-0414
4	0333-0266	-	0333-0394	0333-0286	0330-0195	0333-0357	0333-0209	0330-0335	0333-0415
5	0333-0267	-	0333-0395	0333-0287	0330-0196	0333-0358	0333-0210	-	-
6	0333-0268	-	-	0333-0288	0330-0197	-	0333-0211	0330-0336	-
7	0333-0269	-	-	-	-	-	-	-	-
8	0333-0270	-	-	0333-0290	-	-	-	-	-
10	-	-	-	0333-0291	-	-	-	-	-
12	-	-	-	0333-0292	-	-	-	-	-

PROPANE & NATURAL GAS										
	Series 1 • Type GPN		Series 3 • Type GPN		Series 1 Type HPN	Series 1 Type MTHN	Series 1 Type 200	Series 1 Type HDN	Series 1 Type HDNL	Series 1 Type 218
Size	Boxed	Clamshell	Boxed	Clamshell	Boxed	Boxed	Boxed	Boxed	Boxed	Boxed
000	0333-0300	-	-	-	-	-	-	-	-	-
00	0333-0301	-	0333-0398	0387-0182	-	0333-0363	-	-	-	-
0	0333-0302	0387-0172	0333-0399	-	0333-0322	0333-0364	0330-0143	-	-	-
1	0333-0303	0387-0173	0333-0400	0387-0184	0333-0323	0333-0365	0330-0144	-	-	-
2	0333-0304	0387-0174	0333-0401	0387-0185	0333-0324	0333-0366	0330-0145	-	-	-
3	0333-0305	-	0333-0402	-	0333-0325	0333-0367	0330-0146	-	-	0330-0162
4	0333-0306	-	0333-0403	-	0333-0326	0333-0368	0330-0147	-	-	0330-0178
5	0333-0307	-	0333-0404	-	0333-0327	0333-0369	0330-0148	-	-	-
6	0333-0308	-	-	-	0333-0328	0333-0370	0330-0149	0330-0504	0330-0553	0330-0179
7	0333-0309	-	-	-	-	-	-	-	-	-
8	0333-0310	-	-	-	0333-0330	0333-0372	-	0330-0505	0330-0554	0330-0183
10	-	-	-	-	0333-0331	-	-	0330-0506	0330-0547	0330-0184
12	-	-	-	-	0333-0332	-	-	0330-0507	0330-0548	-
14	-	-	-	-	-	-	-	0330-0508	0330-0549	-
16	-	-	-	-	-	-	-	-	0330-0550	-

	Series 1 Type CSN	Series 1 Type 207	Series 1 Type 234	Series 1 Type 244	Series 1 Type MCN	Series 1 Type BTN	Series 1 Type GTB
Size	Boxed	Boxed	Boxed	Boxed	Boxed	Boxed	Boxed
000	-	-	-	-	-	-	-
00	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-
2	-	-	0330-0341	0330-0344	-	-	-
3	-	-	-	-	-	-	0333-0414
4	-	0330-0166	-	-	-	0333-0206	0333-0415
5	-	-	-	-	-	0333-0207	-
6	-	-	-	-	0330-0543	0333-0208	-
7	-	-	-	-	-	-	-
8	0333-0411	-	-	-	-	-	-
10	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-

Look for Victor® Color Coded Packages

Propylene (Orange)

Propane/Natural Gas (Blue)

Cutting Tip Charts

PROPYLENE

Cutting Tip Series GPP, HPP							Cutting Tip Series MTHP • High Speed Machine Cutting						
Metal Thickness	Tip Size	Cutting Oxygen (PSIG)***	Preheat Oxygen (PSIG)*	Preheat Fuel Gas (PSIG)	Speed I.P.M.	Kerf Width	Metal Thickness	Tip Size	Cutting Oxygen (PSIG)***	Preheat Oxygen (PSIG)*	Preheat Fuel Gas (PSIG)	Speed I.P.M.	Kerf Width
1/8"	000	20/25	FOR 3-HOSE MACHINES TORCHES ONLY	2/5	24/26	.04	1/4"	00	20/25	SEE BELOW	SEE BELOW	23/30	.05
1/4"	00	20/25		2/5	21/25	.05	3/8"	00	20/25			22/29	.05
3/8"	0	25/30		3/5	20/24	.06	1/2"	0	25/30			20/28	.06
1/2"	0	25/30		3/5	18/22	.06	3/4"	0	25/30			18/26	.06
3/4"	1	30/35		3/6	15/20	.08	1"	1	30/35			17/24	.07
1"	2	35/40		3/6	14/18	.09	1 1/4"	1	35/40			16/20	.07
1 1/2"	2	40/45		4/8	12/16	.09	1 1/2"	1	40/45			12/16	.07
2"	3	40/50		4/8	10/14	.10	2"	2	40/50			11/15	.09
2 1/2"	3	45/50		5/9	9/12	.10	2 1/2"	2	45/50			10/13	.09
3"	4	40/50		6/9	8/11	.12	3"	2	40/50			9/11	.09
4"	5	45/55		6/9	7/10	.14	4"	3	45/55			7/10	.11
5"	5	50/55		6/10	6/9	.14	5"	3	50/55			6/8	.11
6"	6	45/55		6/10	5/7	.17	6"	3	45/55			5/7	.11
8"	6	55/65		8/12	4/8	.18	7"	4	55/65			5/6	.14
10"	7	55/65		8/12	3/5	.34	8"	4	55/65			4/6	.34
12"	8	60/70		10/14	3/4	.41	9"	5	60/70			4/5	.18
15"	10	50/70		10/16	2/4	-	10"	5	50/70			3/5	.18
18"	12	45/65		-	4/6	-							

NOTICE: The above data applies to all torches with the following exceptions:

Torch Series	Preheat Oxygen (PSIG)	Preheat Fuel (PSIG)
MT 200/MT 300	N/A	5 PSIG - UP

NOTICE: These speeds and pressure settings apply only to mild steel in good condition. Torches with flashback arrestors require up to 25% more pressure as tip size increases.

CAUTION: High gas withdrawal rates may require cylinder manifold. Consult your gas supplier.

PROPANE & NATURAL GAS

Cutting Tip Series GPN, HPN							Cutting Tip Series MTHN • High Speed Machine Cutting						
Metal Thickness	Tip Size	Cutting Oxygen (PSIG)***	Preheat Oxygen (PSIG)*	Preheat Fuel Gas (PSIG)	Speed I.P.M.	Kerf Width	Metal Thickness	Tip Size	Cutting Oxygen (PSIG)*	Preheat Oxygen (PSIG)	Preheat Fuel Gas (PSIG)	Speed I.P.M.	Kerf Width
1/8"	000	20/25	SEE BELOW	3/5	24/28	.04	1/4"	00	85/95	SEE BELOW	SEE BELOW	23/30	.05
1/4"	00	20/25		3/5	21/25	.05	3/8"	00	85/95			22/29	.05
3/8"	0	25/30		3/5	20/24	.06	1/2"	0	85/95			18/26	.06
1/2"	0	30/35		3/5	18/22	.06	3/4"	0	85/95			17/24	.06
3/4"	1	30/35		3/6	15/20	.08	1"	1	85/95			15/22	.07
1"	2	35/40		3/6	14/18	.09	1 1/2"	1	85/95			12/16	.07
1 1/2"	2	40/45		5/9	12/16	.09	2"	2	85/95			11/15	.09
2"	3	40/45		5/9	10/14	.10	2 1/2"	2	85/95			10/13	.09
2 1/2"	3	45/50		6/10	9/12	.10	3"	2	85/95			9/11	.09
3"	4	40/50		8/12	8/11	.12	4"	3	85/95			7/10	.11
4"	5	45/55		8/12	7/10	.14	6"	3	85/95			5/7	.11
5"	5	50/55		8/12	6/9	.14	8"	4	85/95			4/6	.14
6"	6**	45/55		10/15	5/7	.17	10"	5	85/95			3/5	.18
8"	6**	55/65		10/15	4/6	.18							
12"	8**	60/70		10/15	3/5	.24							

NOTICE: The above data applies to all torches with the following exceptions:

Torch Series	Preheat Oxygen (PSIG)	Preheat Fuel (PSIG)
MT 200N	N/A	8 oz. - UP
MT 300N	10-25 PSIG	8 oz. - UP

NOTICE: Data compiled using mild steel as test material.

* Pressure is measured at the torch inlet on MTH Series Tips. Torches with flashback arrestors require up to 25% more pressure as tip size increases.

NOTICE * The above data applies to all torches with the following exceptions:

Torch Series	Preheat Oxygen (PSIG)	Preheat Fuel (PSIG)
MT 200N	N/A	8 oz. - UP
MT 300N 000-6	20-55 PSIG	8 oz. - UP
ST 900C	N/A	5 PSIG - UP

** For best results use ST 2600FC series torches and 3/8" hose when using tip size 6 or larger.

*** All pressures are measured at the regulator using 25' x 1/4" hose through tip size 5 and 25' x 3/8" hose for top sizes 6 and larger. Torches with flashback arrestors require up to 25% more pressure as tip size increases.

Operational and Performance Data

Type 55 – For Use with HD 310C Series Torch Handles					
Type 55 – for use with all fuel gases except Acetylene					
Tip Size	Oxygen Pressure (PSIG)	Fuel Pressure (PSIG)	Oxygen Consumption (SCFH)	Fuel Consumption (SCFH)	BTU Per Hour
10	70/100	15/25	356/460	150/200	See Chart
15	90/120	20/35	600/800	250/350	
20	100/150	20/35	900/1150	400/500	
WARNING: Not for use with acetylene.					
Type 55 – 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)	Fuel Pressure (PSIG)	Oxygen Consumption (SCFH)	Fuel Consumption (SCFH)	BTU Per Hour
6	70/80	15/20	160	65	See Chart
8	70/85	15/25	220	85	
Type 55-1 – For Use with 100 Series Torch Handles					
Type 55-1 – for use with Propylene based fuel gases, Methane, Propane, Butane, Liquid Air Fuel gases, pressurized Natural Gas					
Tip Size	Oxygen Pressure (PSIG)	Fuel Pressure (PSIG)	Oxygen Consumption (SCFH)	Fuel Consumption (SCFH)	BTU Per Hour
6	70/80	15/20	160	65	See Chart
MFN – For Use with HD 310C Series Torch Handles					
Type MFN – for use with all fuel gases except Acetylene					
Tip Size	Oxygen Pressure (PSIG)	Fuel Pressure (PSIG)	Oxygen Consumption (SCFH)	Fuel Consumption (SCFH)	BTU Per Hour
12	30/125	15/25	120/640	30/160	See Chart
15	30/125	15/25	200/800	50/200	
20	40/135	15/25	300/1000	75/250	
MFN / MFN-1 – For Use with 100 and 300 Series Torch Handles					
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	See Chart
8	10/20	10/15	40/140	10/35	
10	10/30	12/20	80/320	20/80	

Basic Characteristics of Fuel Gases

Fuel Gas	Acetylene	Propylene	Propane	Natural Gas
Burning Velocity	22.7 fps	15.0 fps	12.2 fps	15.2 fps
Specific Gravity (air = 1)	0.91	1.45	1.55	0.62
Neutral Flame Temp	5,720°F	5,240°F	4,579°F	4,600°F
Total BTUs/ft3	1470	2372	2563	1050
- Primary Flame BTU	507	403	295	55
- Secondary Flame BTU	963	1969	2268	995

All values are approximations. If more detailed specifications are required, contact your fuel gas supplier for the specific properties of the fuel gas.

Heavy Industry

In addition to the straight torches included in this brochure, Victor® offers several other high capacity straight torches designed for heavy cutting applications found in such industries as scrapping, demolition, and foundries. More information on these torches can be found in the Victor Industrial Gas Equipment catalog or in this Victor Professional Straight Torches Brochure, Form No. 65-2630.

Do you need special length torches?

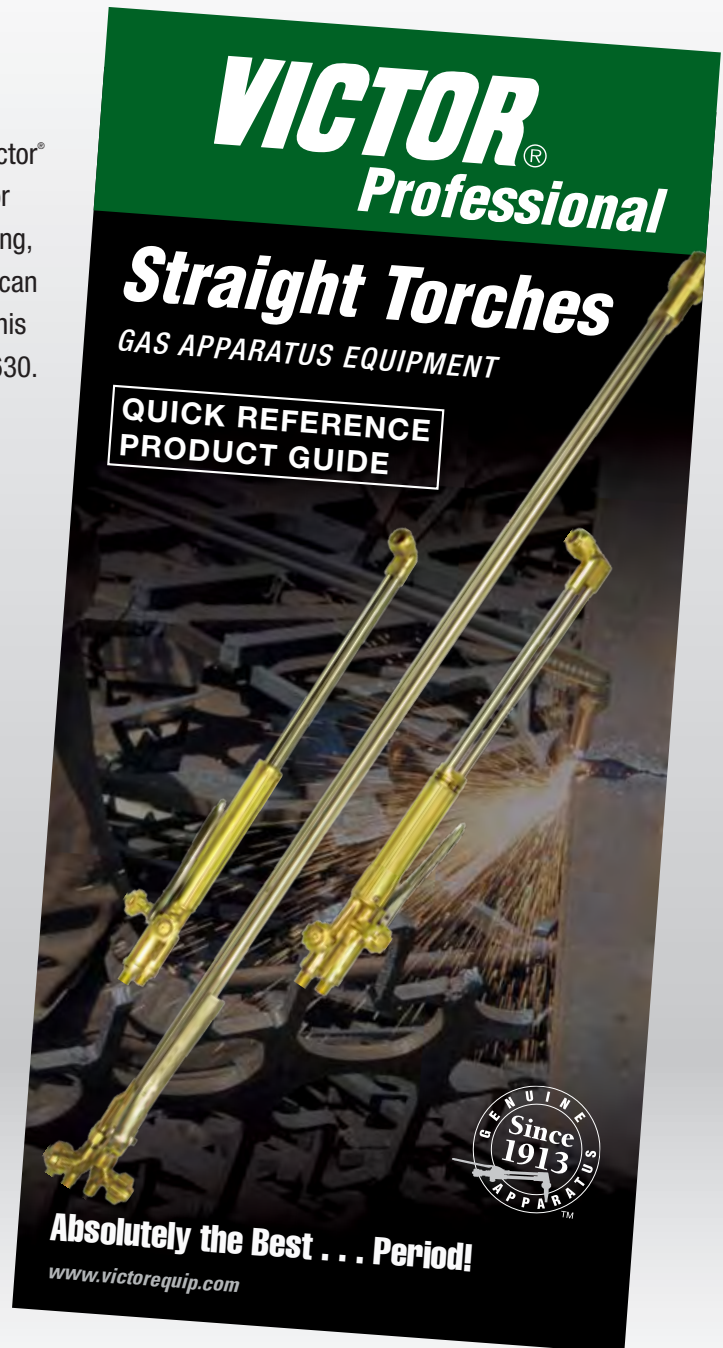
If you don't see what you need:

Call: 800-426-1888 or

Fax: 800-535-0557

Reference Heavy Industry Products. Victor welcomes your request for special length torches.

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to learn
more

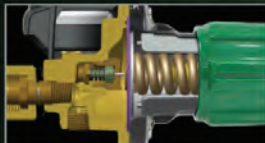


EDGE™ SERIES
VICTOR®
Professional

THE SAFEST REGULATORS ON THE MARKET



USER FRIENDLY | ADVANCED DESIGN | OUTSTANDING FLOW PERFORMANCE | UNSURPASSED SAFETY



Advanced Design – Durable and Compact: Most regulators have multiple impact points. The Victor Professional EDGE Series has a single controlled impact point – the adjusting knob. The EDGE is smaller, lighter and more compact than other heavy duty regulators. The unique configuration protects all critical elements of the regulator including: high and low pressure gauges built in and recessed into the body, safety relief valve and outlet hose connection. The internal vent system is recessed and protected under the adjusting knob, channeled for water-run off and providing protection from weather elements.



Shock Absorbing Knob: The Victor Professional EDGE Series regulator features SLAM™ (Shock Limitation and Absorption Mechanism) technology built into the adjusting knob. This revolutionary technology helps protect regulator vitals and the cylinder in the event of an accident.

V I C T O R E D G E . C O M / S A F E T Y

The EDGE is available for ALL FUELS: ■ AIR ■ LPG ■ ACETYLENE ■ OXYGEN INERT GAS CARBON DIOXIDE

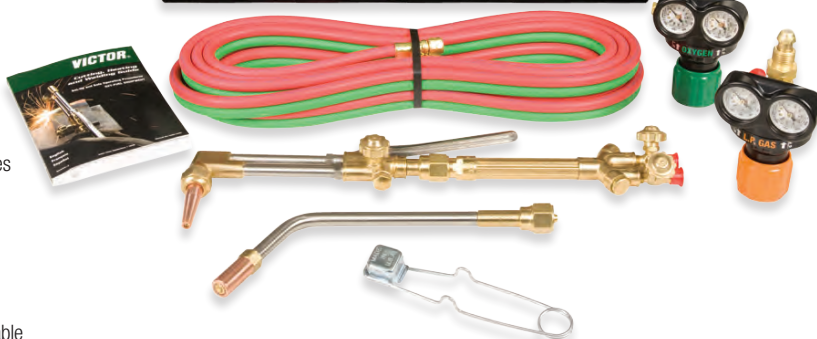
THERMADYNE, A GLOBAL MANUFACTURER AND SUPPLIER OF METAL CUTTING AND WELDING HARD GOODS is proud to support the skilled professions of welding, metalworking and fabrication trades. Victor®, Thermal Dynamics®, Thermal Arc®, Arcair®, Tweco®, TurboTorch®, Stoodly® and Cigweld® are among our family of industry leading brands.



Journeyman[®] II AF

This heavy duty outfit is capable of cutting up to 8" (203.2mm) with the appropriate cutting tip.

- ESS4 Series Regulators
- 315FC Torch Handle with Built-in Flashback Arrestors & Check Valves
- CA 2460 Cutting Attachment
- Type 55 Heating Nozzle, Size: 8
- 1-1-GPN or 1-1-GPP Cutting Tip
- T-grade Hose 20' x 1/4" (6.1m x 6.4mm)
- Striker and tip cleaner
- Soft-Sided Shade 5 Goggles



Journeyman Select AF

This heavy duty outfit is capable of cutting up to 8" (203.2mm) with the appropriate cutting tip.

- Available in either SR 450/ESS4 Series Regulators
- 315FC Torch Handle with Built-in Flashback Arrestors & Check Valves
- CA 2460 Cutting Attachment

Performer[®] AF

This medium duty outfit is capable of cutting up to 6" (152.4mm) with the appropriate cutting tip.

- ESS3 Series Regulators
- 100FC Torch handle with Built-in Flashback Arrestors & Check Valves
- CA 1350 Cutting Attachment
- Type 55-1 Heating Nozzle, Size: 6
- 0-3-GPN or 0-3-GPP Cutting tip
- T-grade hose 12.5' x 3/16" (3.8m x 4.8mm)
- Striker and tip cleaner
- Soft-Sided Shade 5 Goggles

Contender[®] AF

This heavy duty outfit is capable of cutting up to 8" (203.2mm) with the appropriate cutting tip.

- ESS3 Series Regulators
- 315FC Torch Handle with Built-in Flashback Arrestors & Check Valves
- CA 2460 Cutting Attachment
- Type 55 Heating Nozzle, Size: 8
- 1-1-GPN or 1-1-GPP Cutting Tip
- T-grade Hose 20' x 1/4" (6.1m x 6.4mm)
- Striker

Cutter[®] Select AF ST 2600FC

This heavy duty outfit is capable of cutting up to 8" (203.2mm) with the appropriate cutting tip.

- ESS4 Series Regulators
- ST 2600FC Cutting Torch with Built-in Flashback Arrestors & Check Valves

Cutter Select AF ST 900FC

This heavy duty outfit is capable of cutting up to 5" (127.0mm) with the appropriate cutting tip.

- CSR 350 Series Regulators
- ST 900FC Cutting Torch Top Rear Lever Position with Built-in Flashback Arrestors and Check Valves

Ordering Information

Part No.	Description	Torch Handle	Cutting Attachment	Cutting Tip	Heating Nozzle	Oxygen Regulators	Fuel Gas Regulator	Hose
0384-2042	Journeyman II AF	315FC	CA 2460	1-GPN	8T55	ESS4-125-540	ESS4-125-510LP	20' x 1/4"
0384-2043	Journeyman II AF	315FC	CA 2460	1-GPP	8T55	ESS4-125-540	ESS4-125-510LP	20' x 1/4"
0384-2075	Journeyman Select AF	315FC	CA 2460	—	—	ESS4-125-540	ESS4-125-510LP	—
0384-0816	Journeyman Select AF	315FC	CA 2460	—	—	SR 450D-540	SR 461B-510	—
0384-2052	Contender AF	315FC	CA 2460	1-1-GPN	8-55	ESS3-125-540	ESS3-40-510LP	20' x 1/4"
0384-2053	Contender AF	315FC	CA 2460	1-1-GPP	8-55	ESS3-125-540	ESS3-40-510LP	20' x 1/4"
0384-2047	Performer AF	100FC	CA 1350	0-3-GPN	6T55-1	ESS3-125-540	ESS3-40-510LP	12.5' x 3/16"
0384-2048	Performer AF	100FC	CA 1350	0-3-GPP	6T55-1	ESS3-125-540	ESS3-40-510LP	12.5' x 3/16"

Outfits - Straight Torches

Part No.	Description	Torch/Head Handle [°]	Oxygen Regulator	Fuel Gas Regulator
0384-2062	ST 2600FC Cutter Select AF	ST 2600FC 21" 90°	ESS4-125-540	ESS4-40-510LP
0384-0857	ST 900FC Cutter Select AF	ST 900FC 21" 90°	CSR 350D-540	CSR 361B-510

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