

# Cutting and Gouging Tips



<b>Quick Specs</b>	<b>Typical Applications</b>	<b>Oxy-Fuel Processes</b>	<b>Fuel Gases</b>	<b>Tip Types</b>	<b>Gas Mixing</b>
	Farm and ranch	Cutting	Acetylene	Specialty	In the tip
	Metal fabrication	Gouging	Propane	Heavy-duty	
	Construction and demolition		Natural gas	Medium-duty	
	Maintenance and repair		Propylene		
DIY/home hobbyist					

## Longest lasting tips for dependable performance.



Smith Equipment® has the cutting tips to match any job and material thickness. Achieve faster and cleaner cuts by choosing the right tip to reduce gas consumption and minimize the need for cleaning or grinding.

**Fully swaged** tip for mirror-smooth passages. Delivers stable gas flows for fast starts and precision cuts. Reduces slag build up and saves time on clean up.

**Concave-shaped end** reduces backfire and resists flameout during accidental contact with the base metal while cutting.

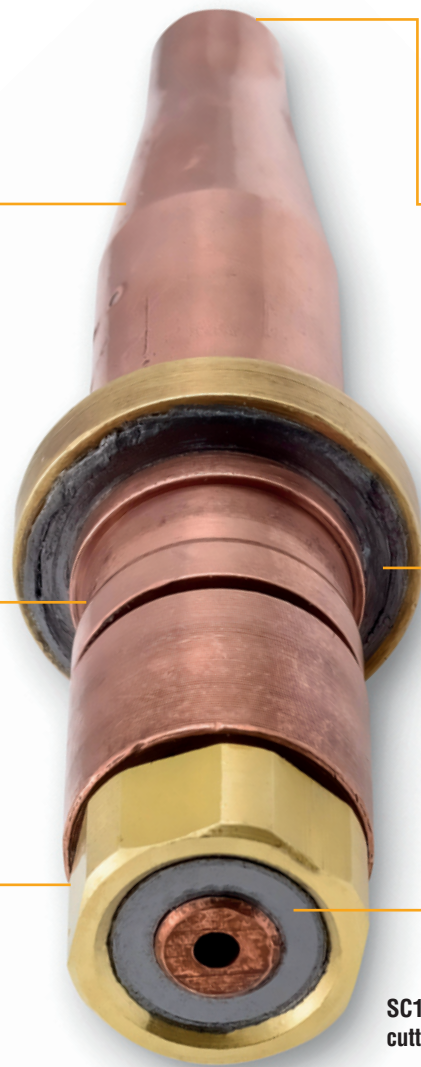
**In-tip gas mix** assures lowest volume of volatile mixed gas in the system for safest operation. Sustained backfire is isolated in the tip, helping protect the operator and the torch.

**Hand tighten only** to seat the tip, saving time and tools when changing tips.

**Graf-Tite™ soft seats** compress and conform to the shape of the torch head for positive seating, eliminating leaks even when tips are nicked. Soft seat withstands extremely high temperature for longer tip life.

**Removable high-pressure seat nut** for safer and easier cleaning from back of tip.

SC12-2 one-piece cutting tip shown.



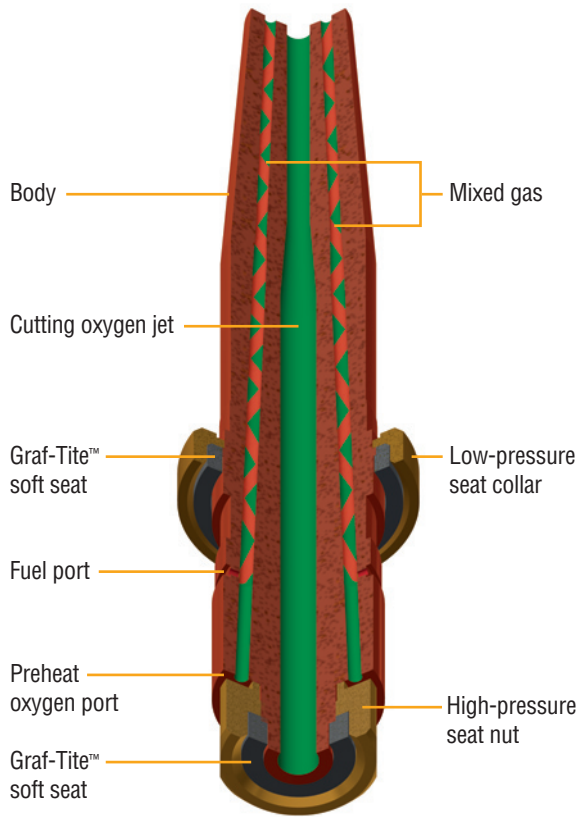
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## One-Piece Cutting and Gouging Tips



### Materials of construction

- Body: tellurium copper
- Seats: graphite
- Seat collars: brass

### General cutting (medium preheat)

- SC12 and MC12 Series (acetylene)



### General cutting (9-inch long for hard-to-reach areas)

- SC12-4X9 (acetylene)



### Dirty, heavily coated metal/scraping (used where there is excessive reflected heat)

- SC46 Series (propane/natural gas)



### River or riser cutting (cuts bolts and bulk heads, use with heavy-duty torch to cut boiler tubes)

- SC14-3 (acetylene)

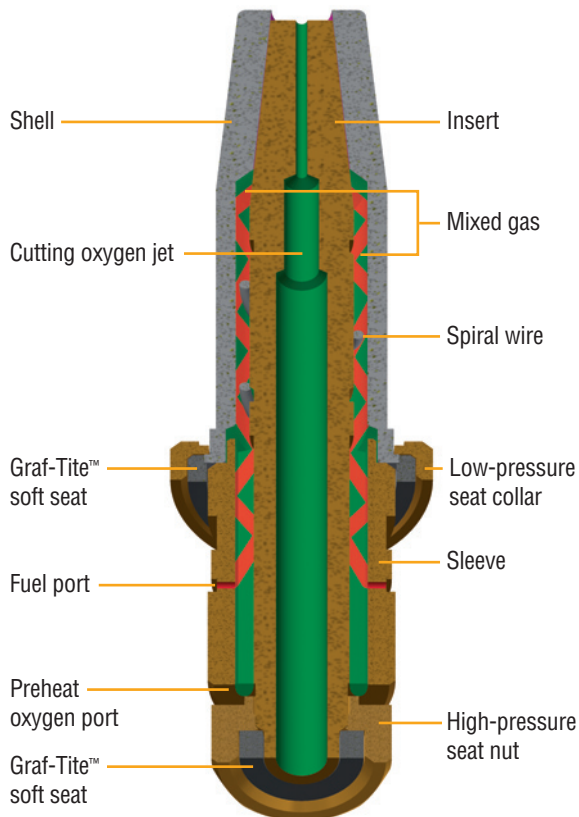


### Gouging (edge preparation, removal of old welds or cracks, veeing and groove cutting)

- SC13 Series and MC13-3 (acetylene)



## Two-Piece Cutting and Gouging Tips (Alternate fuel)



### Materials of construction

- Insert: brass
- Sleeve: brass
- Shell: tellurium copper
- Seats: graphite
- Seat collars: brass
- Spiral wire (select tips): stainless steel

### General cutting (medium preheat)

- SC40 and MC40 Series (propane/natural gas)
- SC60 Series (propylene)



### Heavy preheat (for faster start, excellent for scraping and coated metal)

- SC50 Series (propane/natural gas)

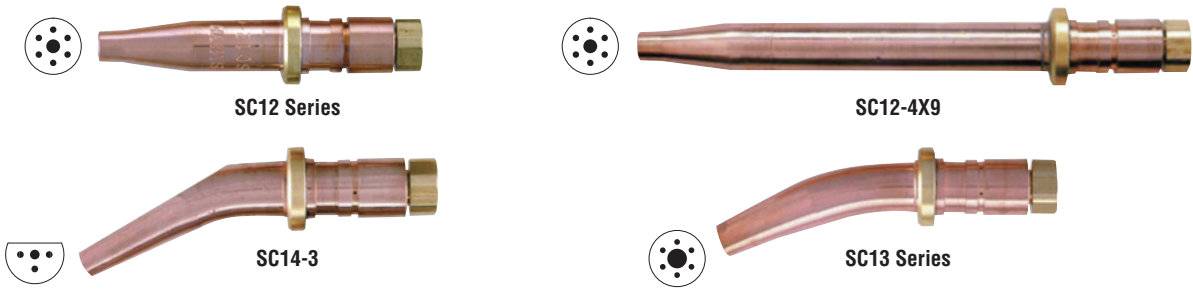


### Gouging (edge preparation, removal of old welds or cracks, veeing and groove cutting)

- SC2 Series (propane)



# SC Series Heavy-Duty Cutting and Gouging Tips (Acetylene)



## For use with the following torches:

**Cutting torches:** SC220, SC225, SC229, SC229S, SC360, SC365, SC369, SC925, SC929, SC930, SC935, SC939, SC940, SC945, SC949, SC960, SC965, SC969

**Combination torches:** SC205 + WH200, SC209 + WH200

**Machine torches:** SC770, SC772A

Gas Service	Tip Type	Stock No.	Metal Thickness	Regulator Pressure (psig)		Gas Consumption (scfh)		
				Oxygen	Fuel Gas	Oxygen	Fuel Gas	
Acetylene	<b>General Cutting Tips (One-Piece)</b>	<b>SC12-00</b>	3/16 in. (5 mm)	20	10	31	6.5	
		<b>SC12-0</b>	1/4 in. (6 mm)	30	10	47.5	7	
		<b>SC12-0</b>	3/8 in. (10 mm)	35	10	57.5	7	
		<b>SC12-1</b>	1/2 in. (13 mm)	35	10	86	9.5	
		<b>SC12-1</b>	5/8 in. (16 mm)	40	10	96	9.5	
		<b>SC12-2</b>	3/4 in. (19 mm)	36	10	117	10.5	
		<b>SC12-2</b>	1 in. (25 mm)	41	10	127	10.5	
		<b>SC12-2</b>	1-1/4 in. (32 mm)	51	10	147	10.5	
		<b>SC12-3</b>	1-1/2 in. (38 mm)	42	10	184	12	
		<b>SC12-3</b>	2 in. (51 mm)	47	10	194	12	
		<b>SC12-4</b>	2-1/2 in. (64 mm)	38	10	255	13	
		<b>SC12-4</b>	3 in. (76 mm)	44	10	280	13	
		<b>SC12-4</b>	4 in. (102 mm)	54	10	331	14	
		<b>SC12-5</b>	5 in. (127 mm)	56	10	450	26**	
		<b>SC12-5</b>	6 in. (162 mm)	67	10	515	26**	
		<b>SC12-5</b>	8 in. (203 mm)	78	10	580	26**	
		<b>SC12-6*</b>	10 in. (254 mm)	83	10	782	28**	
		<b>SC12-6*</b>	12 in. (305 mm)	125	10	1,007	28**	
		<b>Extra Long Cutting Tip (One-Piece)</b>	<b>SC12-4X9</b>	4 in. (102 mm)	50	10	331	14
		<b>River/Riser Cutting Tip (One-Piece)</b>	<b>SC14-3</b>	1-1/2 in. (38 mm)	40	10	190	20
	<b>Gouging Tips (One-Piece)</b>	<b>SC13-3</b>	3/8 x 1/4 in. (10 x 6 mm)	20	10	151	35	
		<b>SC13-5</b>	1/2 x 3/8 in. (13 x 10 mm)	25	10	246	50	

\*Not for use with SC205 and SC209 combination torch attachments.

\*\*Minimum of one 350 cubic foot cylinder required.

# SC Series Heavy-Duty Cutting Tips (Propane/Natural Gas)



## For use with the following torches:

**Cutting torches:** SC220, SC225, SC229, SC229S, SC360, SC365, SC369, SC925, SC929, SC930, SC935, SC939, SC940, SC945, SC949, SC960, SC965, SC969

**Combination torches:** SC205 + WH200, SC209 + WH200

**Machine torches:** SC770, SC772A

Gas Service	Tip Type	Stock No.	Metal Thickness	Regulator Pressure (psig)		Gas Consumption (scfh)		Gas Consumption (scfh)	
				Oxygen	Fuel Gas	Oxygen	Propane	Oxygen	Natural Gas
Propane/ natural gas	General Cutting Tips (Two-Piece)	SC40-0	1/4 in. (6 mm)	30	10	78	8	78	8
		SC40-0	3/8 in. (10 mm)	35	10	88	8	88	8
		SC40-1	1/2 in. (13 mm)	35	10	113	8	113	8
		SC40-1	5/8 in. (16 mm)	40	10	123	8	123	8
		SC40-2	3/4 in. (19 mm)	36	10	143	8	143	8
		SC40-2	1 in. (25 mm)	41	10	153	8	153	8
		SC40-2	1-1/4 in. (32 mm)	51	10	173	8	173	8
		SC40-3	1-1/2 in. (38 mm)	42	10	208	8	208	8
		SC40-3	2 in. (51 mm)	47	10	218	8	218	8
		SC40-4	2-1/2 in. (64 mm)	38	10	305	15	305	15
	SC40-4	3 in. (76 mm)	44	10	330	15	330	15	
	SC40-4	4 in. (102 mm)	54	10	380	15	380	15	
	Dirty or Coated Metal Cutting Tips (One-Piece)	SC46-2	3/4 in. (19 mm)	36	10	175	15	175	41
		SC46-2	1 in. (25 mm)	41	10	185	15	185	41
		SC46-2	1-1/4 in. (32 mm)	51	10	205	15	205	41
		SC46-4	2-1/2 in. (64 mm)	38	10	310	15	310	41
		SC46-4	3 in. (76 mm)	44	10	335	15	335	41
		SC46-4	4 in. (102 mm)	54	10	385	15	385	41
		SC46-5*	5 in. (127 mm)	56	10	525	22	510	52
		SC46-5*	6 in. (152 mm)	67	10	590	22	575	52
		SC46-5*	8 in. (203 mm)	78	10	655	22	640	52
		SC46-6*	10 in. (254 mm)	83	12	855	22	840	52
	SC46-6*	12 in. (305 mm)	125	12	1,080	22	1,065	52	
	Heavy Preheat Cutting Tips (Two-Piece)	SC50-0	1/4 in. (6 mm)	30	10	87	13	102	38
		SC50-0	3/8 in. (10 mm)	35	10	97	13	112	38
		SC50-1	1/2 in. (13 mm)	35	10	145	15	145	40
		SC50-1	5/8 in. (16 mm)	40	10	155	15	155	40
		SC50-2	3/4 in. (19 mm)	36	10	175	15	175	40
		SC50-2	1 in. (25 mm)	41	10	185	15	185	40
		SC50-2	1-1/4 in. (32 mm)	51	10	210	16	205	40
		SC50-3	1-1/2 in. (38 mm)	42	10	245	16	240	40
		SC50-3	2 in. (51 mm)	47	10	255	16	250	40
		SC50-4	2-1/2 in. (64 mm)	38	10	315	16	315	45
		SC50-4	3 in. (76 mm)	44	10	340	16	340	45
		SC50-4	4 in. (102 mm)	54	10	395	17	390	45
		SC50-5	5 in. (127 mm)	56	10	500	17	502	50
		SC50-5	6 in. (162 mm)	67	10	565	17	567	50
		SC50-5	8 in. (203 mm)	78	10	640	20	632	50
		SC50-6*	10 in. (254 mm)	83	10	980	50	870	75
		SC50-6*	12 in. (305 mm)	125	12	1,255	60	1,140	100
		SC50-7**	14 in. (354 mm)	125	20	1,580	62	1,450	120
		SC50-8**	16 in. (406 mm)	125	18	1,875	80	1,720	135
SC50-8**		18 in. (457 mm)	125	20	2,200	85	2,050	150	
SC50-9**	20 in. (508 mm)	125	23	2,570	90	2,400	150		

\*Not for use with SC205 and SC209 combination torch attachments.

\*\*For use with Gas Axe (SC900 Series) only.

## SC Series Heavy-Duty Gouging Tips (Propane/Natural Gas)



SC2 Series

### For use with the following torches:

**Cutting torches:** SC220, SC225, SC229, SC229S, SC360, SC365, SC369, SC925, SC929, SC930, SC935, SC939, SC940, SC945, SC949, SC960, SC965, SC969

**Combination torches:** SC205 + WH200, SC209 + WH200

**Machine torches:** SC770, SC772A

Gas Service	Tip Type	Stock No.	Metal Thickness	Regulator Pressure (psig)		Gas Consumption (scfh)	
				Oxygen	Fuel Gas	Oxygen	Fuel Gas
Propane/ natural gas	Gouging Tips (Two-Piece)	SC2-2	5/16 x 1/8 in. (8 x 3 mm)	60	22	389	53
		SC2-4	3/8 x 1/4 in. (10 x 6 mm)	75	22	564	53

## SC Series Heavy-Duty Cutting and Gouging Tips (Propylene)



SC60 Series

### For use with the following torches:

**Cutting torches:** SC220, SC225, SC229, SC229S, SC360, SC365, SC369, SC925, SC929, SC930, SC935, SC939, SC940, SC945, SC949, SC960, SC965, SC969

**Combination torches:** SC205 + WH200, SC209 + WH200

**Machine torches:** SC770, SC772A

Gas Service	Tip Type	Stock No.	Metal Thickness	Regulator Pressure (psig)		Gas Consumption (scfh)	
				Oxygen	Fuel Gas	Oxygen	Fuel Gas
Propylene	Medium Preheat Cutting Tips (Two-Piece)	SC60-0	1/4 in. (6 mm)	30	10	78	9
		SC60-0	3/8 in. (10 mm)	35	10	88	9
		SC60-1	1/2 in. (13 mm)	35	10	113	9
		SC60-1	5/8 in. (16 mm)	40	10	123	9
		SC60-2	3/4 in. (19 mm)	36	10	143	9
		SC60-2	1 in. (25 mm)	41	10	153	9
		SC60-2	1-1/4 in. (32 mm)	51	10	173	9
		SC60-3	1-1/2 in. (38 mm)	42	10	208	9
		SC60-3	2 in. (51 mm)	47	10	218	9
		SC60-4	2-1/2 in. (64 mm)	38	10	298	15
		SC60-4	3 in. (76 mm)	44	10	323	15
		SC60-4	4 in. (102 mm)	54	10	373	15
		SC60-5	5 in. (127 mm)	56	10	478	15
		SC60-5	6 in. (162 mm)	67	10	543	15
		SC60-5	8 in. (203 mm)	78	10	608	15
		SC60-6*	10 in. (254 mm)	83	10	808	15
SC60-6*	12 in. (305 mm)	125	10	1,033	15		

\*Not for use with SC205 and SC209 combination torch attachments.

## MC Series Medium-Duty Cutting and Gouging Tips (Acetylene)



MC12 Series



MC13-3

**For use with the following torches:**

**Combination torches:** MC505 + WH100, MC509 + WH100, CC509P + WH100

*Note: MC Series tips are also for use with AC309 + AW1A standard-duty combination torch, see page 7.*

Gas Service	Tip Type	Stock No.	Metal Thickness	Regulator Pressure (psig)		Gas Consumption (scfh)	
				Oxygen	Fuel Gas	Oxygen	Fuel Gas
Acetylene	General Cutting Tips (One-Piece)	MC12-00	1/8 in. (3 mm)	20	10	37	6
		MC12-00	3/16 in. (5 mm)	20	10	37	6
		MC12-0	1/4 in. (6 mm)	35	10	47	6
		MC12-0	3/8 in. (10 mm)	40	10	53	6
		MC12-1	1/2 in. (13 mm)	45	10	84	7
		MC12-1	5/8 in. (16 mm)	50	10	90	7
		MC12-2	3/4 in. (19 mm)	50	10	118	9
		MC12-2	1 in. (25 mm)	55	10	129	9
		MC12-3	1-1/2 in. (38 mm)	55	10	182	10
		MC12-3	2 in. (51 mm)	60	10	193	10
		MC12-4	2-1/2 in. (64 mm)	65	10	263	12
		MC12-4	3 in. (76 mm)	70	10	281	12
		MC12-4	4 in. (102 mm)	65	10	335	13
		MC12-5	5 in. (127 mm)	80	10	435	13
	MC12-5	6 in. (162 mm)	90	10	500	13	
	Gouging Tip (One-Piece)	MC13-3	3/8 x 1/4 in. (10 x 6 mm)	20	10	115	24*

\*Minimum of one 350 cubic foot cylinder required.

## MC Series Medium-Duty Cutting Tips (Propane/Natural Gas)



MC40 Series

**For use with the following torches:**

**Combination torches:** MC505 + WH100, MC509 + WH100, CC509P + WH100

*Note: MC Series tips are also for use with AC309 + AW1A standard-duty combination torch, see page 7.*

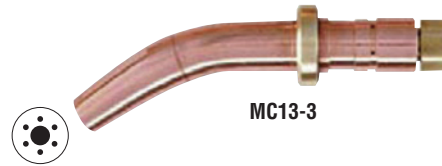
Gas Service	Tip Type	Stock No.	Metal Thickness	Regulator Pressure (psig)		Gas Consumption (scfh)	
				Oxygen	Fuel Gas	Oxygen	Fuel Gas
Propane/ natural gas	General Cutting Tips (Two-Piece)	MC40-00	3/16 in. (5 mm)	30	10	59	7
		MC40-0	1/4 in. (6 mm)	35	10	75	7
		MC40-0	3/8 in. (10 mm)	40	10	81	7
		MC40-1	1/2 in. (13 mm)	45	10	110	7
		MC40-1	5/8 in. (16 mm)	50	10	116	7
		MC40-2	3/4 in. (19 mm)	50	10	142	7
		MC40-2	1 in. (25 mm)	55	10	153	7
		MC40-2	1-1/4 in. (32 mm)	60	10	168	7
		MC40-3	1-1/2 in. (38 mm)	55	10	205	7
		MC40-3	2 in. (51 mm)	60	10	216	7
		MC40-4	2-1/2 in. (64 mm)	65	10	284	7
		MC40-4	3 in. (76 mm)	70	10	302	7
		MC40-4	4 in. (102 mm)	75	10	355	7



## MC Series Medium-Duty Cutting and Gouging Tips (Acetylene)



MC12 Series



MC13-3

**For use with the following torch:**

Combination torch: AC309 + AW1A

Gas Service	Tip Type	Stock No.	Metal Thickness	Regulator Pressure (psig)		Gas Consumption (scfh)	
				Oxygen	Fuel Gas	Oxygen	Fuel Gas
Acetylene	<b>General Cutting Tips (One-Piece)</b>	MC12-00	1/8 in. (3 mm)	30	10	37	6
		MC12-00	3/16 in. (5 mm)	30	10	37	6
		MC12-0	1/4 in. (6 mm)	45	10	47	6
		MC12-0	3/8 in. (10 mm)	50	10	53	6
		MC12-1	1/2 in. (13 mm)	55	10	84	7
		MC12-1	5/8 in. (16 mm)	60	10	90	7
		MC12-2	3/4 in. (19 mm)	60	10	118	9
		MC12-2	1 in. (25 mm)	65	10	129	9
		MC12-3	1-1/2 in. (38 mm)	65	10	182	10
		MC12-3	2 in. (51 mm)	70	10	193	10
		MC12-4	2-1/2 in. (64 mm)	75	10	263	12
		MC12-4	3 in. (76 mm)	80	10	281	12
		<b>Gouging Tip (One-Piece)</b>	MC13-3	3/8 x 1/4 in. (10 x 6 mm)	20	10	115

\*Minimum of one 350 cubic foot cylinder required.

## MC Series Medium-Duty Cutting Tips (Propane/Natural Gas)



MC40 Series

**For use with the following torch:**

Combination torch: AC309 + AW1A

Gas Service	Tip Type	Stock No.	Metal Thickness	Regulator Pressure (psig)		Gas Consumption (scfh)	
				Oxygen	Fuel Gas	Oxygen	Fuel Gas
Propane/ natural gas	<b>General Cutting Tips (Two-Piece)</b>	MC40-00	3/16 in. (5 mm)	40	10	59	7
		MC40-0	1/4 in. (6 mm)	45	10	75	7
		MC40-0	3/8 in. (10 mm)	50	10	81	7
		MC40-1	1/2 in. (13 mm)	55	10	110	7
		MC40-1	5/8 in. (16 mm)	60	10	116	7
		MC40-2	3/4 in. (19 mm)	60	10	142	7
		MC40-2	1 in. (25 mm)	65	10	153	7
		MC40-2	1-1/4 in. (32 mm)	70	10	168	7
		MC40-3	1-1/2 in. (38 mm)	65	10	205	7
		MC40-3	2 in. (51 mm)	70	10	216	7
		MC40-4	2-1/2 in. (64 mm)	75	10	284	7
		MC40-4	3 in. (76 mm)	80	10	302	7

# Ordering Information

Cutting and Gouging Tips	Stock No.	Description	Qty.	Price
<b>Heavy-Duty Cutting and Gouging Tips</b>				
SC12 Series Cutting Tips		For use with SC200 Series cutting, combination and machine torches		
SC12 Series Cutting Tips		One-piece tips for acetylene, see page 3		
Extra-Long Cutting Tip	<b>SC12-4X9</b>	One-piece tip for acetylene, see page 3		
Rivet/Riser Cutting Tip	<b>SC14-3</b>	One-piece tip for acetylene, see page 3		
SC13 Series Gouging Tips		One-piece tips for acetylene, see page 3		
SC40 Series Cutting Tips		Two-piece tips for propane or natural gas, see page 4		
SC46 Series Cutting Tips		One-piece tips for propane or natural gas, see page 4		
SC50 Series Cutting Tips (heavy preheat)		Two-piece tips for propane or natural gas, see page 4		
SC2 Series Gouging Tips		Two-piece tips for propane or natural gas, see page 5		
SC60 Series Cutting Tips (medium preheat)		Two-piece tips for propylene, see page 5		
<b>Medium-Duty/Standard-Duty Cutting and Gouging Tips</b>				
MC12 Series Cutting Tips		For use with MC500 Series/CC509P/AC309 combination torches		
MC12 Series Cutting Tips		One-piece tips for acetylene, see pages 6 and 7		
Gouging Tip	<b>MC13-3</b>	One-piece tip for acetylene, see pages 6 and 7		
MC40 Series Cutting Tips		Two-piece tips for propane or natural gas, see pages 6 and 7		
<b>Replacement Parts</b>				
Heavy-Duty Pressure Seats	<b>G930</b>	Graf-Tite™ soft seat – high pressure and low pressure		
Medium-Duty Pressure Seats	<b>G691</b>	Graf-Tite™ soft seat – high pressure and low pressure		

Date:

Total Quoted Price:

Distributed by:

