

Cutting and Gouging Tips

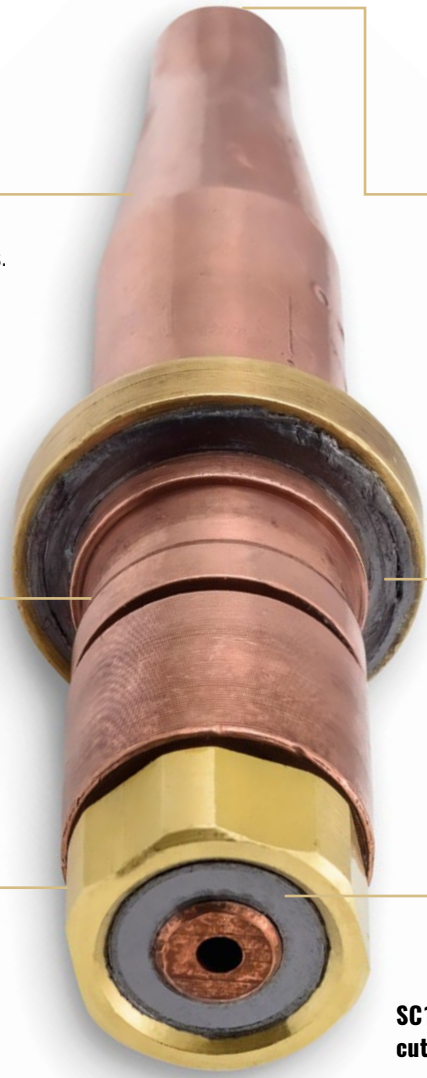
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Quick Specs	Typical Applications	Oxy-Fuel Processes	Fuel Gases	Tip Types	Gas Mixing	
	Shipbuilding Railroad Salvage Pipeline	Farm and ranch Metal fabrication Construction and demolition	Cutting Gouging	Acetylene Propane Natural gas Propylene	Specialty Heavy-duty Medium-duty	In the tip

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 (SC12, MC12 and SC46 tips only) 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 tip end (acetylene tips only) reduces backfire and resists flameout when making accidental contact with base metal while cutting.

In-tip gas mixing ensures lowest amount of mixed gas in the system. Sustained backfire can be isolated in the tip, helping protect the operator and the torch.

Slip-in tip design. No wrench is needed, allowing for quick and easy tip changes.

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 allows safer and easier cleaning from back of tip.

SC12-2 one-piece cutting tip shown.



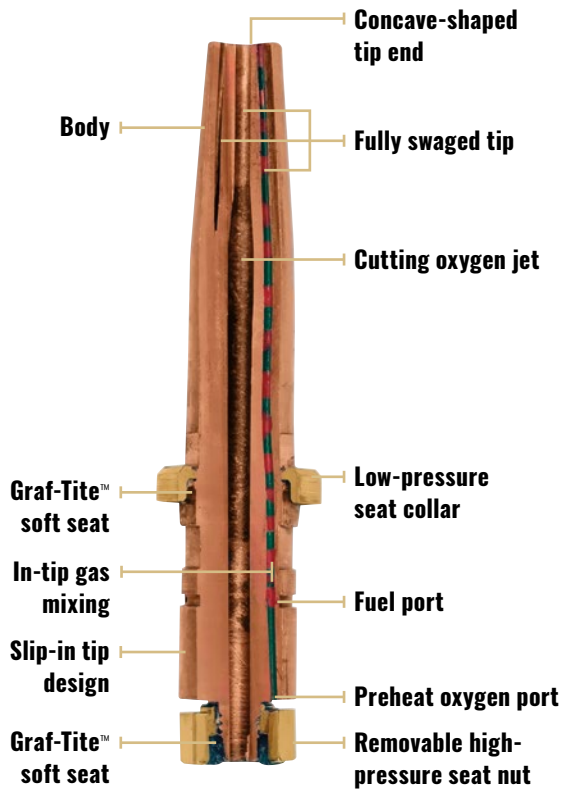
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f y t i n



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)



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

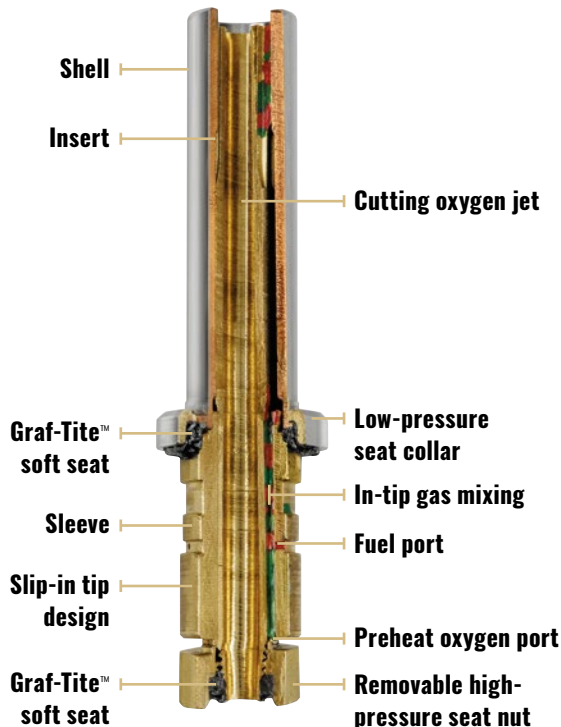
- SC14-3 (acetylene)



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 and MC60 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/natural gas)

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



SC12 Series



SC12-4X9



SC14-3



SC13 Series

SC12 Series medium preheat cutting tips are for general hand and machine cutting and provide excellent preheat characteristics required for machine cutting. SC12-4X9 extra long cutting tip is for hard-to-reach areas. SC14-3 cutting tip is for cutting heads of bolts and rivets. The size 4 tip can also be used in 180-degree head cutting torch to cut out boiler tubes and works equally well for cutting risers and bulk heads. SC13 Series gouging tips are for edge preparation, removal of welds or gouging cracked metals.

Compatible cutting torches

SC Series, Gas Axe™ and machine torches

Compatible cutting attachments

SC200 Series

TIP TYPE	STOCK NO.	METAL THICKNESS INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	PREHEAT/CUTTING (SCFH)		SPEED (IPM)	CUTTING JET SIZE
			OXYGEN	ACETYLENE		OXYGEN	ACETYLENE		
General Cutting Tips (One-Piece)	SC12-00	3/16 (5)	20	10	.050	31	6.5	26	68
	SC12-0	1/4 (6)	30	10	.055	47.5	7	22	62
	SC12-0	3/8 (10)	35	10	.055	57.5	7	20	62
	SC12-1	1/2 (13)	35	10	.080	86	9.5	19	56
	SC12-1	5/8 (16)	40	10	.080	96	9.5	17	56
	SC12-2	3/4 (19)	36	10	.095	117	10.5	16	54
	SC12-2	1 (25)	41	10	.095	127	10.5	14	54
	SC12-2	1-1/4 (32)	51	10	.095	147	10.5	13	54
	SC12-3	1-1/2 (38)	42	10	.100	184	12	12	51
	SC12-3	2 (51)	47	10	.100	194	12	10	51
	SC12-4	2-1/2 (64)	38	10	.125	255	13	9	45
	SC12-4	3 (76)	44	10	.125	280	13	8	45
	SC12-4	4 (102)	54	10	.125	331	14	7	45
	SC12-5	5 (127)	56	10	.150	450	26**	7	41
	SC12-5	6 (152)	67	10	.150	515	26**	6	41
	SC12-5	8 (203)	78	10	.150	580	26**	5.5	41
	SC12-6*	10 (254)	83	10	.230	782	28**	5	32
	SC12-6*	12 (305)	125	10	.230	1,007	28**	4.5	32
Extra Long Cutting Tip (One-Piece)	SC12-4X9	4 (102)	50	10	.125	331	14	—	45
Rivet/Riser Cutting Tip (One-Piece)	SC14-3	1-1/2 (38) rivets	40	10	.100	190	20	—	51
Gouging Tips (One-Piece)	SC13-3	3/8 (10) wide, 1/4 (6) deep	20	10	—	151	35	—	50 / 29
	SC13-5	1/2 (13) wide, 3/8 (10) deep	25	10	—	246	50	—	39 / 10

*Not for use with SC200 Series cutting attachments.

**Minimum of one 350 cu. ft. cylinder required.

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



SC40 Series two-piece medium preheat cutting tips are for general hand and machine cutting. SC46 Series cutting tips are designed for cutting dirty or heavily coated metals, including rugged duty like scrapping, heavy construction, or where excessive reflected heat is present. SC50 Series heavy preheat two-piece cutting tips are for hand and machine cutting and can cut up to 20-inch thick steel.

Compatible cutting torches
SC Series, Gas Axe™ and machine torches

Compatible cutting attachments
SC200 Series

TIP TYPE	STOCK NO.	METAL THICKNESS INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	PREHEAT/CUTTING (SCFH)		PREHEAT/CUTTING (SCFH)		SPEED (IPM)	CUTTING JET SIZE
			OXYGEN	PROPANE/NATURAL GAS		OXYGEN	PROPANE	OXYGEN	NATURAL GAS		
General Cutting Tips (Two-Piece)	SC40-0	1/4 (6)	30	10	.055	78	8	78	8	22	62
	SC40-0	3/8 (10)	35	10	.055	88	8	88	8	20	62
	SC40-1	1/2 (13)	35	10	.080	113	8	113	8	19	56
	SC40-1	5/8 (16)	40	10	.080	123	8	123	8	17	56
	SC40-2	3/4 (19)	36	10	.095	143	8	143	8	16	54
	SC40-2	1 (25)	41	10	.095	153	8	153	8	14	54
	SC40-2	1-1/4 (32)	51	10	.095	173	8	173	8	13	54
	SC40-3	1-1/2 (38)	42	10	.100	208	8	208	8	12	51
	SC40-3	2 (51)	47	10	.100	218	8	218	8	10	51
	SC40-4	2-1/2 (64)	38	10	.125	305	15	305	15	9	45
	SC40-4	3 (76)	44	10	.125	330	15	330	15	8	45
	SC40-4	4 (102)	54	10	.125	380	15	380	15	7	45
Dirty or Coated Metal Cutting Tips (One-Piece)	SC46-2	3/4 (19)	36	10	.095	175	15	175	41	16	54
	SC46-2	1 (25)	41	10	.095	185	15	185	41	14	54
	SC46-2	1-1/4 (32)	51	10	.095	205	15	205	41	13	54
	SC46-4	2-1/2 (64)	38	10	.125	310	15	310	41	9	45
	SC46-4	3 (76)	44	10	.125	335	15	335	41	8	45
	SC46-4	4 (102)	54	10	.150	385	15	385	41	7	45
	SC46-5*	5 (127)	56	10	.150	525	22	510	52	7	41
	SC46-5*	6 (152)	67	10	.150	590	22	575	52	6	41
	SC46-5*	8 (203)	78	10	.150	655	22	640	52	5	41
	SC46-6*	10 (254)	83	12	.200	855	22	840	52	5	32
SC46-6*	12 (305)	125	12	.230	1,080	22	1,065	52	4.5	32	
Heavy Preheat Cutting Tips (Two-Piece)	SC50-0	1/4 (6)	30	10	.055	87	13	102	38	22	62
	SC50-0	3/8 (10)	35	10	.055	97	13	112	38	20	62
	SC50-1	1/2 (13)	35	10	.080	145	15	145	40	19	56
	SC50-1	5/8 (16)	40	10	.080	155	15	155	40	17	56
	SC50-2	3/4 (19)	36	10	.095	175	15	175	40	16	54
	SC50-2	1 (25)	41	10	.095	185	15	185	40	14	54
	SC50-2	1-1/4 (32)	51	10	.095	210	16	205	40	13	54
	SC50-3	1-1/2 (38)	42	10	.100	245	16	240	40	12	51
	SC50-3	2 (51)	47	10	.100	255	16	250	40	10	51
	SC50-4	2-1/2 (64)	38	10	.125	315	16	315	45	9	45
	SC50-4	3 (76)	44	10	.125	340	16	340	45	8	45
	SC50-4	4 (102)	54	10	.125	395	17	390	45	7	45
	SC50-5	5 (127)	56	10	.150	500	17	502	50	7	41
	SC50-5	6 (152)	67	10	.150	565	17	567	50	6	41
	SC50-5	8 (203)	78	10	.150	640	20	632	50	5	41
	SC50-6*	10 (254)	83	10	.230	980	50	870	75	5	32
	SC50-6*	12 (305)	125	12	.230	1,255	60	1,140	100	4.5	32
	SC50-7**	14 (354)	125	20	.250	1,580	62	1,450	120	4	28
	SC50-8**	16 (406)	125	18	.300	1,875	80	1,720	135	3.5	17
	SC50-8**	18 (457)	125	20	.340	2,200	85	2,050	150	3.5	17
SC50-9**	20 (508)	125	23	.350	2,570	90	2,400	150	3	3	

*Not for use with SC200 Series cutting attachments.

**For use with Gas Axe only.

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



SC2 Series

SC2 Series two-piece gouging tips are for removing old welds or cracks, veeing and groove cutting.

Compatible cutting torches

SC Series, Gas Axe™ and machine torches

Compatible cutting attachments

SC200 Series

TIP TYPE	STOCK NO.	CAPACITY INCHES (MM)	REGULATOR PRESSURE (PSIG)		PREHEAT/CUTTING (SCFH)		CUTTING JET SIZE
			OXYGEN	PROPANE/NATURAL GAS	OXYGEN	PROPANE/NATURAL GAS	
Gouging Tips (Two-Piece)	SC2-2	5/16 (8) wide, 1/8 (3) deep	60	22	389	53	53 / 31
	SC2-4	3/8 (10) wide, 1/4 (6) deep	75	22	564	53	44 / 28

SC Series Heavy-Duty Cutting Tips (Propylene)



SC60 Series

SC60 Series two-piece medium preheat cutting tips are designed to provide optimum cutting performance with propylene gas.

Compatible cutting torches

SC Series, Gas Axe™ and machine torches

Compatible cutting attachments

SC200 Series

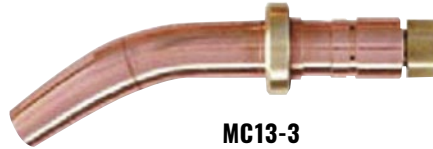
TIP TYPE	STOCK NO.	METAL THICKNESS INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	PREHEAT/CUTTING (SCFH)		SPEED (IPM)	CUTTING JET SIZE
			OXYGEN	PROPYLENE		OXYGEN	PROPYLENE		
Medium Preheat Cutting Tips (Two-Piece)	SC60-0	1/4 (6)	30	10	.053	78	9	22	62
	SC60-0	3/8 (10)	35	10	.055	88	9	20	62
	SC60-1	1/2 (13)	35	10	.080	113	9	19	56
	SC60-1	5/8 (16)	40	10	.080	123	9	17	56
	SC60-2	3/4 (19)	36	10	.095	143	9	16	54
	SC60-2	1 (25)	41	10	.095	153	9	14	54
	SC60-2	1-1/4 (32)	51	10	.095	173	9	13	54
	SC60-3	1-1/2 (38)	42	10	.100	208	9	12	51
	SC60-3	2 (51)	47	10	.100	218	9	10	51
	SC60-4	2-1/2 (64)	38	10	.125	298	15	9	45
	SC60-4	3 (76)	44	10	.125	323	15	8	45
	SC60-4	4 (102)	54	10	.125	373	15	7	45
	SC60-5	5 (127)	56	10	.150	478	15	7	41
	SC60-5	6 (153)	67	10	.150	543	15	6	41
	SC60-5	8 (203)	78	10	.150	608	15	5	41
	SC60-6*	10 (254)	83	10	.230	808	15	5	32
	SC60-6*	12 (305)	125	10	.230	1,033	15	4.5	32

*Not for use with SC200 Series cutting attachments.

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



MC12 Series



MC13-3

MC12 Series are medium preheat cutting tips for general hand cutting. Use with medium pressure acetylene and oxygen. MC13-3 gouging tip is for edge preparation, removal of old welds or defects in steel.

Compatible cutting attachments

MC500 Series, CC509P and AC309

TIP TYPE	STOCK NO.	METAL THICKNESS INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	PREHEAT/CUTTING (SCFH)		CUTTING JET SIZE
			OXYGEN	ACETYLENE		OXYGEN	ACETYLENE	
General Cutting Tips (One-Piece)	MC12-00	1/8 (3)	20 (30*)	10	.050	37	6	68
	MC12-00	3/16 (5)	20 (30*)	10	.050	37	6	68
	MC12-0	1/4 (6)	35 (45*)	10	.055	47	6	62
	MC12-0	3/8 (10)	40 (50*)	10	.055	53	6	62
	MC12-1	1/2 (13)	45 (55*)	10	.080	84	7	55
	MC12-1	5/8 (16)	50 (60*)	10	.080	90	7	55
	MC12-2	3/4 (19)	50 (60*)	10	.095	118	9	54
	MC12-2	1 (25)	55 (65*)	10	.095	129	9	54
	MC12-3	1-1/2 (38)	55 (65*)	10	.100	182	10	51
	MC12-3	2 (51)	60 (70*)	10	.100	193	10	51
	MC12-4	2-1/2 (64)	65 (75*)	10	.125	263	12	45
	MC12-4	3 (76)	70 (80*)	10	.125	281	12	45
	MC12-4	4 (102)	65	10	.125	335	13	45
	MC12-5**	5 (127)	80	10	.150	435	13	41
MC12-5**	6 (152)	90	10	.150	500	13	41	
Gouging Tip (One-Piece)	MC13-3	3/8 (10) wide, 1/4 (6) deep	20	10	—	115	24***	50 / 29

*Values in parentheses are with AC309 cutting attachment.

**For use with MC500 Series cutting attachments only.

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

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



MC40 Series

MC40 Series two-piece medium preheat cutting tips are for general hand cutting.

Compatible cutting attachments
MC500 Series, CC509P and AC309

TIP TYPE	STOCK NO.	METAL THICKNESS INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	PREHEAT/CUTTING (SCFH)		CUTTING JET SIZE
			OXYGEN	PROPANE/ NATURAL GAS		OXYGEN	PROPANE/ NATURAL GAS	
General Cutting Tips (Two-Piece)	MC40-0	1/4 (6)	35 (45*)	10	.055	75	7	62
	MC40-0	3/8 (10)	40 (50*)	10	.055	81	7	62
	MC40-1	1/2 (13)	45 (55*)	10	.080	110	7	55
	MC40-1	5/8 (16)	50 (60*)	10	.080	116	7	55
	MC40-2	3/4 (19)	50 (60*)	10	.095	142	7	54
	MC40-2	1 (25)	55 (65*)	10	.095	153	7	54
	MC40-2	1-1/4 (32)	60 (70*)	10	.095	168	7	54
	MC40-3	1-1/2 (38)	55 (65*)	10	.100	205	7	51
	MC40-3	2 (51)	60 (70*)	10	.100	216	7	51
	MC40-4	2-1/2 (64)	65 (75*)	10	.125	284	7	51
	MC40-4	3 (76)	70 (80*)	10	.125	302	7	51
	MC40-4	4 (102)	75	10	.125	355	7	51

*Values in parentheses are with AC309 cutting attachment.

MC Series Medium-Duty Cutting Tips (Propylene)



MC60 Series

MC60 Series two-piece medium preheat cutting tips are designed to provide optimum cutting performance with propylene gas.

Compatible cutting attachments
MC500 Series, CC509P and AC309

TIP TYPE	STOCK NO.	METAL THICKNESS INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	PREHEAT/CUTTING (SCFH)		CUTTING JET SIZE
			OXYGEN	PROPYLENE		OXYGEN	PROPYLENE	
Medium Preheat Cutting Tips (Two-Piece)	MC60-0	1/4 (6)	35 (45*)	10	.055	66	7	62
	MC60-0	3/8 (10)	40 (50*)	10	.055	72	7	62
	MC60-1	1/2 (13)	45 (55*)	10	.080	101	7	55
	MC60-1	5/8 (16)	50 (60*)	10	.080	107	7	55
	MC60-2	3/4 (19)	50 (60*)	10	.095	133	7	54
	MC60-2	1 (25)	55 (65*)	10	.095	144	7	54
	MC60-2	1-1/4 (32)	60 (70*)	10	.095	159	7	54
	MC60-3	1-1/2 (38)	55 (65*)	10	.100	212	11	51
	MC60-3	2 (51)	60 (70*)	10	.100	223	11	51
	MC60-4	2-1/2 (64)	65 (75*)	10	.125	291	11	45
	MC60-4	3 (76)	70 (80*)	10	.125	309	11	45
	MC60-4	4 (102)	75	10	.125	362	11	45

*Values in parentheses are with AC309 cutting attachment.

Ordering Information

CUTTING AND GOUGING TIPS		STOCK NO.	DESCRIPTION	QTY.	PRICE
Heavy-Duty Cutting and Gouging Tips For use with SC Series and Gas Axe™ cutting torches, machine cutting torches, and SC200 Series cutting attachments	SC12 Series Cutting Tips		One-piece tips for acetylene, see page 3		
	Extra-Long Cutting Tip	SC12-4X9	One-piece tip for acetylene, see page 3		
	Rivet/Riser Cutting Tip	SC14-3	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		
Medium-Duty/Standard-Duty Cutting and Gouging Tips For use with MC500 Series, CC509P and AC309 cutting attachments	MC12 Series Cutting Tips		One-piece tips for acetylene, see page 6		
	Gouging Tip	MC13-3	One-piece tip for acetylene, see page 6		
	MC40 Series Cutting Tips		Two-piece tips for propane or natural gas, see page 7		
	MC60 Series Cutting Tips		Two-piece tips for propylene, see page 7		
REPLACEMENT PARTS					
Heavy-Duty Pressure Seats		G930	Graf-Tite™ soft seat – high pressure and low pressure		
Medium-Duty Pressure Seats		G691	Graf-Tite™ soft seat – high pressure and low pressure		

DATE:

TOTAL QUOTED PRICE:

Distributed By:

