

OPERATION

CUT CHARTS

The following *Cut Charts* provide the necessary information in order for the operator using the MAX200 machine torch system to be successful in plasma arc cutting. The Cut Charts are divided into two areas: (1) above water cutting (pages 4-11 through 4-33) and (2) under water cutting, where the water table water is 3" above the top surface of the workpiece (pages 4-34 through 4-45).

The following table provides the operator with a quick reference of the consumables used for all cutting and gouging applications with the MAX200 machine torch. Also listed are the consumables used with the water-muffler.

MAX200 Machine Torch Consumables

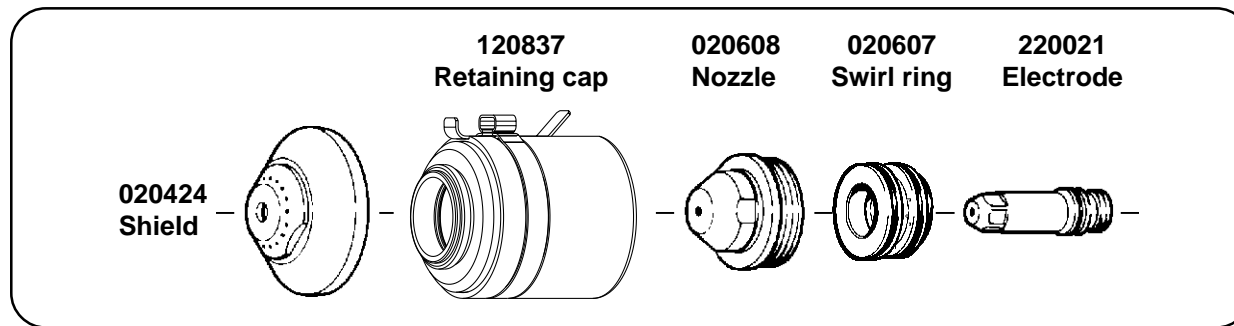
Plasma Gas/ Shield Gas	Nozzle Type (Amps)	Part Numbers				
		Shield	Retaining Cap	Nozzle	Swirl Ring	Electrode
Air/Air	200	020424	120837	020608	020607	220021
	100	020448	120837	020611	020607	120547
	40	020688	120837	020689	020613	220021
	200 gouging	020485	120837	020615	020607	220021
O ₂ /Air	200	020424	120837	020605	020604	220021
	100	020448	120837	020616	020617	120547
H35/N ₂	200	020602	120837	020608	020607	020415
	100	020448	120837	020611	020607	020415
	200 gouging	020485	120837	020615	020607	020415
N ₂ /CO ₂	200	020424	120837	020608	020607	020415
N ₂ /Air	200	020424	120837	020608	020607	020415
Beveling Consumables						
O ₂ /Air	200 beveling	120260	120837	120259	120833	120258
Water Tube 120257						
Consumables Used with MAX200 Water-Muffler						
Air/Air	200	020566	120837	020608	020607	220021
	100	020618	120837	020611	020607	120547
O ₂ /Air	200	020566	120837	020605	020604	220021
	100	020618	120837	020616	020617	120547
N ₂ /CO ₂	200	020566	120837	020608	020607	020415
N ₂ /Air	200	020566	120837	020608	020607	020415

MAX200 Machine Torch - Above Water

Mild Steel

200 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical. Some surface nitriding can occur.



4-11

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
3/16	Air	44-48 / 58-62	Air	60	1/8	200	130	200	5080	90	90
1/4		(66 SCFH)		(270 SCFH)	1/8		130	135	3400		
					1/8		135	115	2900	0.5	
3/8					1/8		135	100	2540	1.0	
1/2					4		140	80	2030	2.0	
5/8					4		145	60	1520	2.0	
3/4					3/16	5	150	45	1140	2.5	
7/8					1/4	6	155	30	760	2.5	
1					1/4	6	160	25	635	2.5	
1-1/4					1/4	6	165	15	380		
1-1/2					1/4	6	170	10	250		
1-3/4					5/16	8	180	7	180		
2					5/16	8	185	5	130		

Production cutting above 1 inch (25 mm) not recommended.

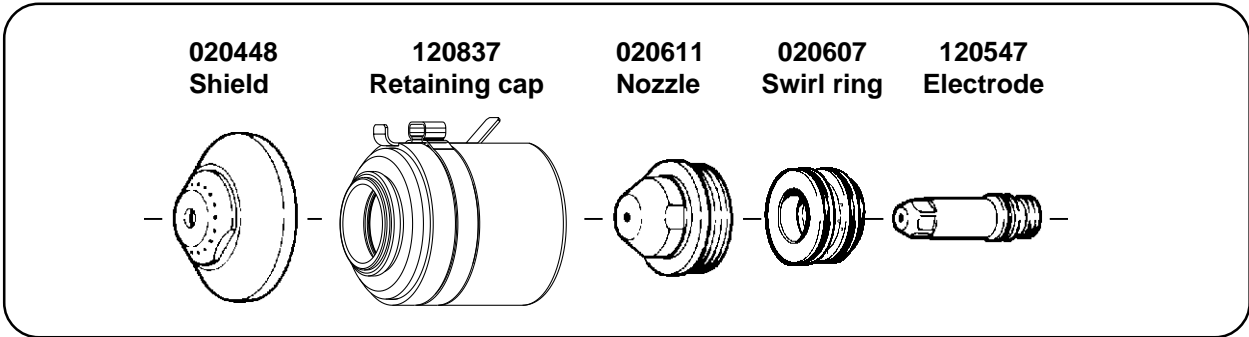
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Mild Steel

100 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross level and is very economical. Some surface nitriding can occur. While this process may be used on thicker materials, optimal recommended range is to 3/8 inch (10 mm).



4-12

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
2		Air	22-26 / 48-52	Air	60	3/32 2.5	80	120	6050		90	90
1/8	3		22-26 / 54-58		60	3/32 2.5	100	125	185 4700	0.5		
3/16	5		(37 SCFH)		(270 SCFH)	1/8 3		125	175 4450	0.5		
1/4	6					1/8 3		130	125 3175	0.5		
3/8	10					1/8 3		135	50 1270	1.0		
1/2	12					1/8 3		140	35 890			
5/8	15					4		145	25 635			
3/4	20					3/16 5		150	20 510			

Production cutting above 3/8 inch (10 mm) not recommended.

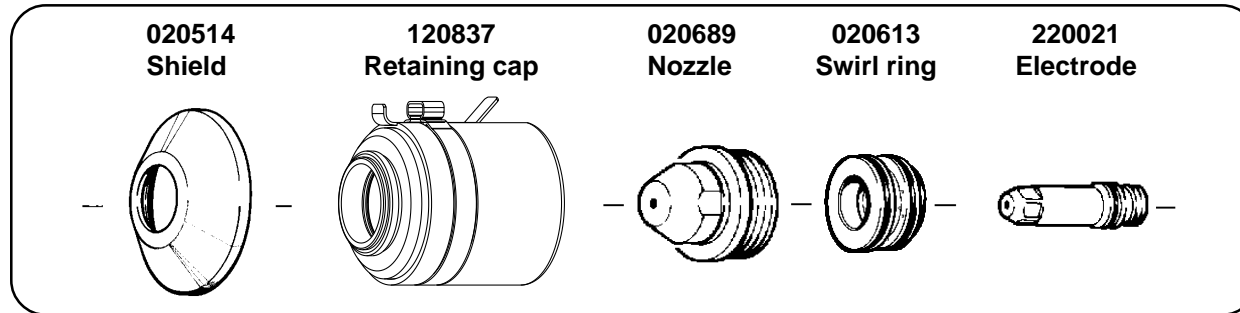
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Mild Steel

40 amps • Air Plasma / Air Shield

This gas combination gives good cut speeds, low dross levels and is very economical. Some surface nitriding can occur.



4-13

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)	
.050 (18 GA.)	Air (25 SCFH)	16-20 / 56-60	Air	60 (275 SCFH)	3/32	2.5	40	110	0.5	90	90	
1/16					2.5	110		320				8100
.075 2					2.5	110		220				5600
1/8 3					2.5	110		140				3550
.158 4					2.5	115		120				3050
.197 5					2.5	115		50				1250
1/4 6					2.5	120		35				850
3/8 10	2.5	125	20	500								

Production cutting above 1/8 inch (3 mm) not recommended.

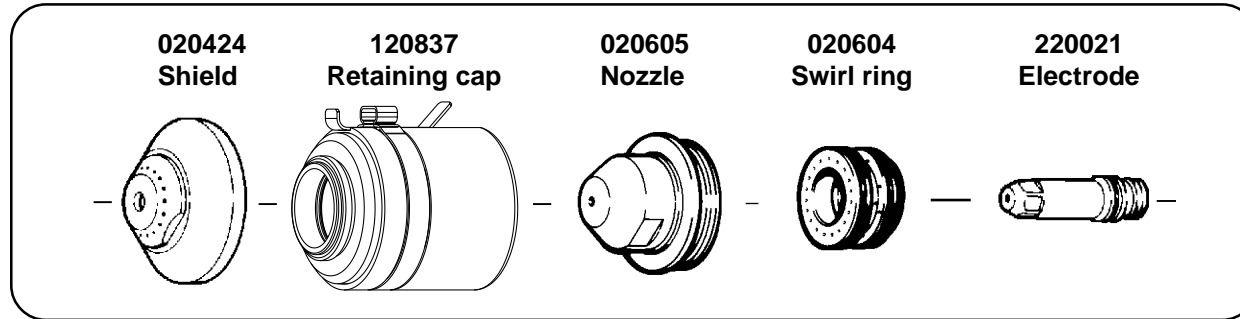
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Mild Steel

200 amps • O₂ Plasma / Air Shield

This gas combination gives superior cut speed, minimum dross, minimum amount of surface nitriting and excellent weldability.



4-14

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/4 6	O ₂	48-52 / 64-68 (72 SCFH)	Air	60 (270 SCFH)	1/8 3	200	120	160 4060	0.5	120	90
8					1/8 3		125 3000	0.5			
3/8 10					1/8 3		125 100 2540	1.0			
1/2 12					4		125 80 2030	2.0			
5/8 15					4		130 70 1780	2.0			
3/4 20					3/16 5		135 55 1400	2.5			
7/8					1/4 6		135 45 1140	2.5			
1 25					1/4 6		140 35 890	2.5			
1-1/4 32					1/4 6		150 22 560				
1-1/2					1/4 6		155 15 380				
1-3/4					5/16 8		165 10 250				
2 50					5/16 8		170 7 180				

Production cutting above 1 inch (25 mm) not recommended.

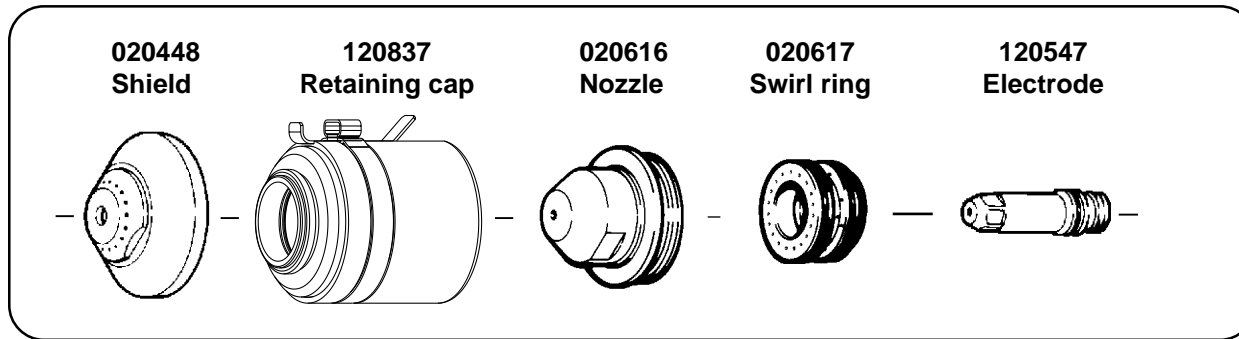
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Mild Steel

100 amps • O₂ Plasma / Air Shield

This gas combination gives good cut speed, low dross level and is very economical. Some surface nitriding can occur. While this process may be used on thicker materials, optimal recommended range is to 3/8 inch (10 mm).



4-15

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)	
1/8	3	O ₂	12-16 / 52-56	Air	60	3/32	100	105	240	6100	0.5	120	90	
3/16	5					1/8		3	110	180				4550
1/4	6					1/8		3	110	110				3050
3/8	10					1/8		3	115	70				1780
1/2	12					1/8		3	115	50				1270
5/8	15					4		125	40	1020				
3/4	20	3/16	5	130	30	760								

Production cutting above 3/8 inch (10 mm) not recommended.

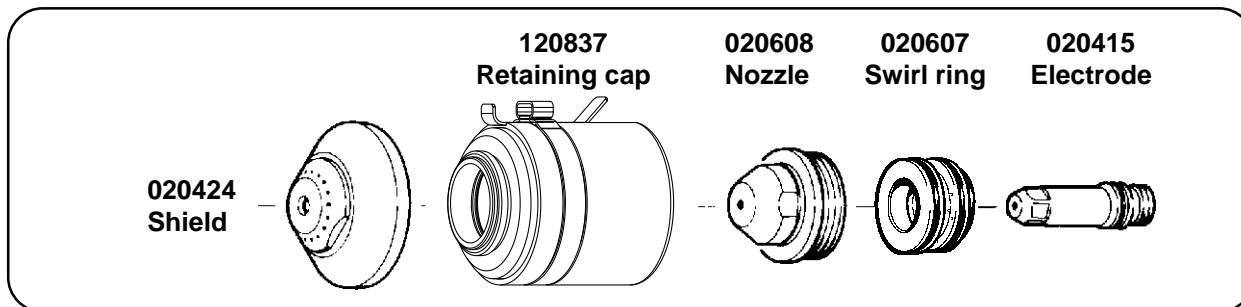
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Mild Steel

200 amps • N₂ Plasma / CO₂ Shield

This gas combination is used when cut edge quality and surface nitriting are less important. Electrode life is extended when this combination is used.



4-16

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)		Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
3/16	5	N ₂	36-40 / 52-56 (60 SCFH)	CO ₂	60 (210 SCFH)	1/8	3	200	120	130	3300	0.5	120	90
1/4	6					1/8	3		125	110	2800	1.0		
3/8	10					1/8	3		130	85	2160	1.5		
1/2	12					1/8	3		130	55	1400	2.0		
5/8	15						4		135	45	1140	2.0		
3/4	20					3/16	5		145	25	635	2.5		
7/8						1/4	6		150	20	510	3.0		
1	25					1/4	6		160	15	380	3.0		
1-1/4	32	1/4	6	165	10	250								
1-1/2		1/4	6	175	5	130								

Production cutting above 1 inch (25 mm) not recommended.

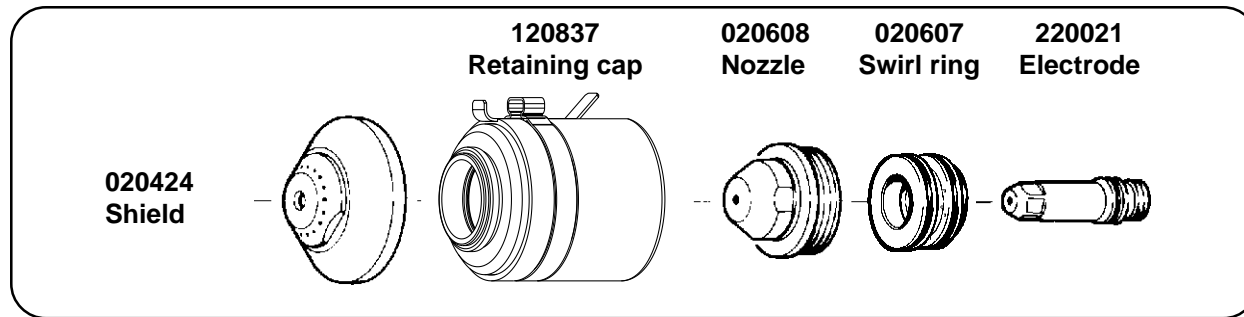
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Stainless Steel

200 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical. Some surface nitriding and surface oxidation of alloying elements can occur.



4-17

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)		
3/16	5	Air	44-48 / 58-62 (66 SCFH)	Air	60 (270 SCFH)	1/8	200	125	220	5600	90	90		
1/4	6					1/8		3	130	195			5000	0.5
3/8	10					1/8		3	130	145			3700	1.0
1/2	12					1/8		3	135	105			2700	2.0
5/8	15					4		140	75	1900			2.0	
3/4	20					3/16		5	140	55			1400	2.5
7/8						1/4		6	145	40			1000	3.0
1	25					1/4		6	150	30			760	
1-1/4	32					1/4		6	160	15			380	
1-1/2						1/4		6	170	10			250	

Production cutting above 7/8 inch (21 mm) not recommended.

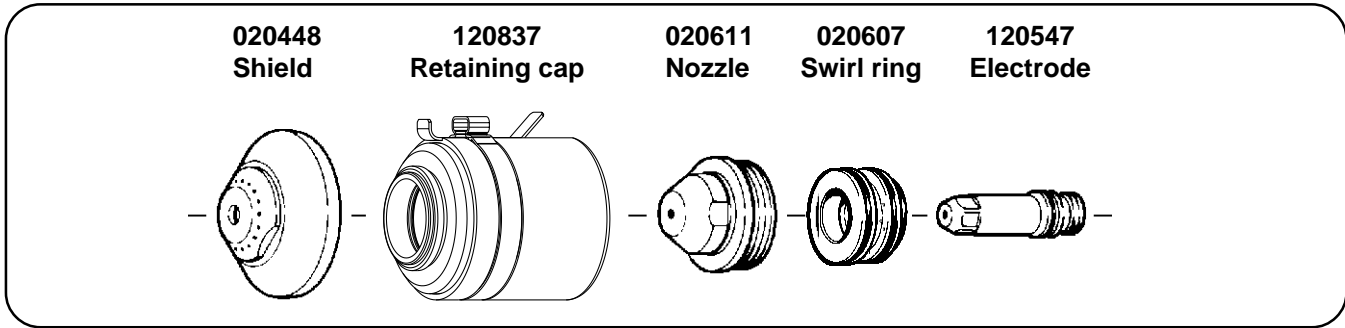
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Stainless Steel

100 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical. Some surface nitriding and surface oxidation of alloying elements can occur.



4-18

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)		Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/8	3	Air	22-26 / 54-58 (37 SCFH)	Air	60 (270 SCFH)	3/32	2.5	100	125	140	3560	0.5	90	90
3/16	5					1/8	3		130	110	2800			
1/4	6					1/8	3		130	80	2030			
3/8	10					1/8	3		135	55	1400			
1/2	12					1/8	3		140	35	890			
5/8	15					4	145		25	635				
3/4	20	3/16	5	150	20	510								

Production cutting above 3/8 inch (10 mm) not recommended.

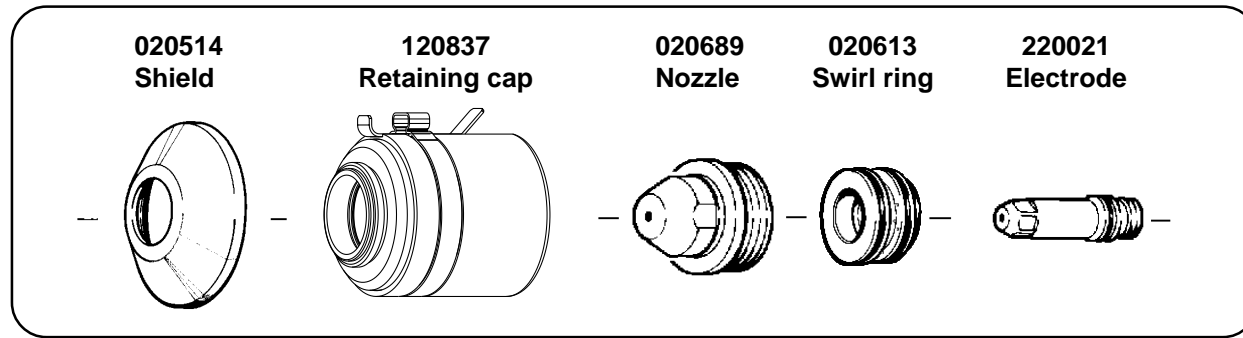
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Stainless Steel

40 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical. Some surface nitriding and surface oxidation of alloying elements can occur.



4-19

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)		
.050 (18 GA.)	Air	16-20 / 56-60 (25 SCFH)	Air	60 (275 SCFH)	3/32	2.5	40	120	0.5	90	90		
1/16					3/32	2.5		120				120	3050
1/8 3					3/32	2.5		125				75	1900
1/4 6					1/8	3		135				30	750
3/8 10					1/8	3		140				12	300

Production cutting above 1/8 inch (3 mm) not recommended.

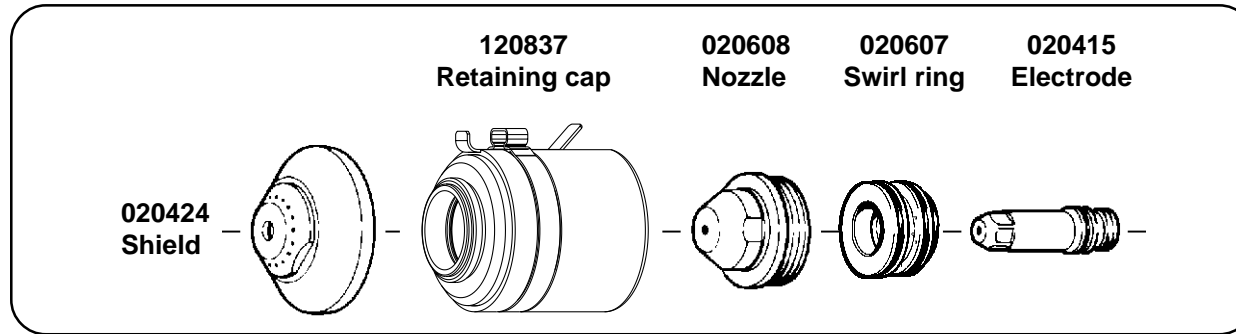
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Stainless Steel

200 amps • N₂ Plasma / Air Shield

This gas combination is used when cut edge quality, surface nitriting and surface oxidation of alloying elements are less important. Electrode life is extended when this combination is used.



4-20

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)	
3/16	N ₂	34-38 / 50-54 (60 SCFH)	Air	60 (270 SCFH)	1/8	200	125	135	3430	120	90	
1/4					1/8		130	120	3050			0.5
3/8					1/8		130	100	2540			1.0
1/2					1/8		135	75	1900			2.0
5/8							140	60	1520			2.0
3/4					3/16		140	45	1140			2.5
7/8					1/4		145	35	890			2.5
1					1/4		150	20	510			
1-1/4					1/4		160	15	380			
1-1/2					1/4		160	10	250			

Production cutting above 7/8 inch (20 mm) not recommended.

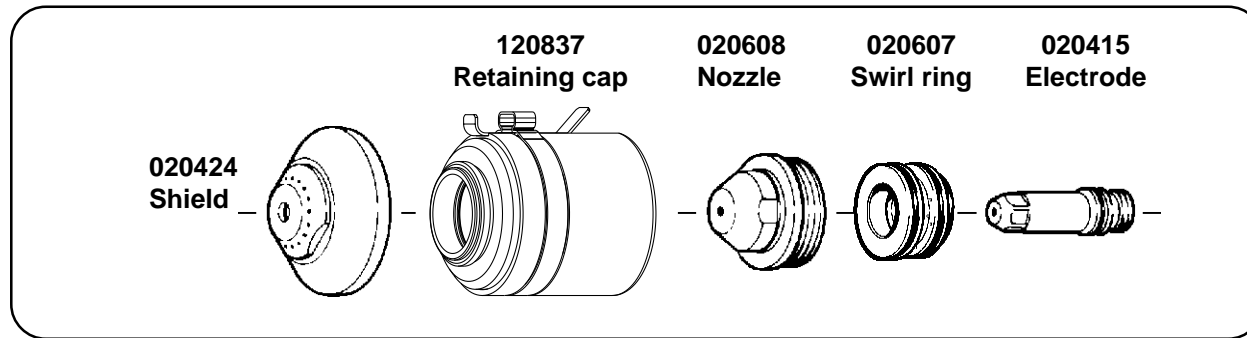
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Stainless Steel

200 amps • N₂ Plasma / CO₂ Shield

This gas combination is used when surface nitriding and surface oxidation of alloying elements is less important. Electrode life is extended when using this gas combination.



4-21

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)		
3/16	5	N ₂	36-40 / 52-56 (60 SCFH)	CO ₂	60 (210 SCFH)	1/8	3	200	125	190	4800	0.5	120	90
1/4	6					1/8	3		130	170	4300	1.0		
3/8	10					1/8	3		130	125	3200	1.5		
1/2	12					1/8	3		135	95	2400	2.0		
5/8	15						4		140	70	1800	2.0		
3/4	20					3/16	5		140	50	1250	2.5		
7/8						1/4	6		145	40	1000	3.0		
1	25					1/4	6		150	30	760			
1-1/4	32	1/4	6	160	15	380								
1-1/2		1/4	6	170	10	250								

Production cutting above 7/8 inch (20 mm) not recommended.

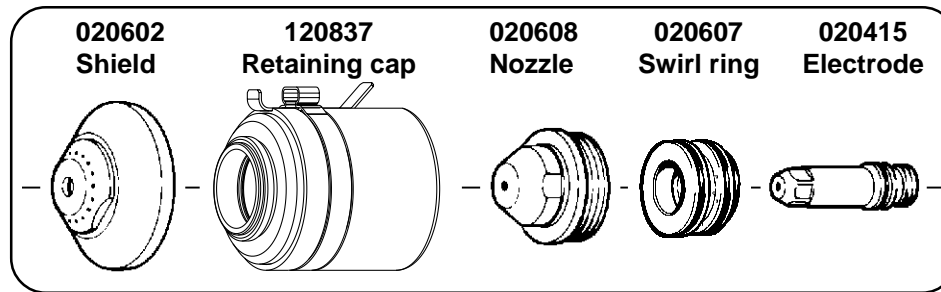
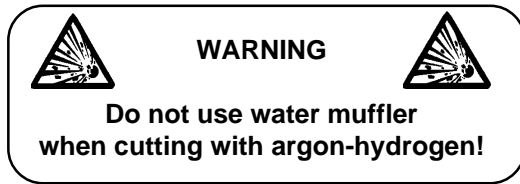
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Stainless Steel

200 amps • H35 Plasma / N₂ Shield

This gas combination (Hypertherm recommends a mixture of 35% hydrogen and 65% argon for the plasma gas) gives maximum thickness cutting capability, minimum dross levels, minimum amount of surface contamination, excellent weldability and excellent cut quality on thicknesses greater than 1/2". On thicknesses less than 1/2", excessive dross levels may be experienced. Electrode life is extended when this combination is used.



4-22

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/4 6	H35	36-40 / 62-66 (70 SCFH)	N₂	60 (275 SCFH)	3/16 5	200	135	62 1600	1.0	120	90
3/8 10					3/16 5		140	52 1300			
1/2 12					3/16 5		140	42 1100	2.0		
5/8 15					1/4 6		145	37 940	2.0		
3/4 20					1/4 6		150	32 810	2.5		
7/8					5/16 8		155	27 690	2.5		
1 25					5/16 8		155	22 560			
1-1/4 32					5/16 8		165	16 400			
1-1/2					5/16 8		170	11 280			
1-3/4					5/16 8		180	8 200			
2					5/16 8		185	6 150			

Note: Maximum piercing thickness 3/4" (20mm) and IHS recommended.

Production cutting above 7/8 inch (20 mm) not recommended.


* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water


Stainless Steel

100 amps • H35 Plasma / N₂ Shield

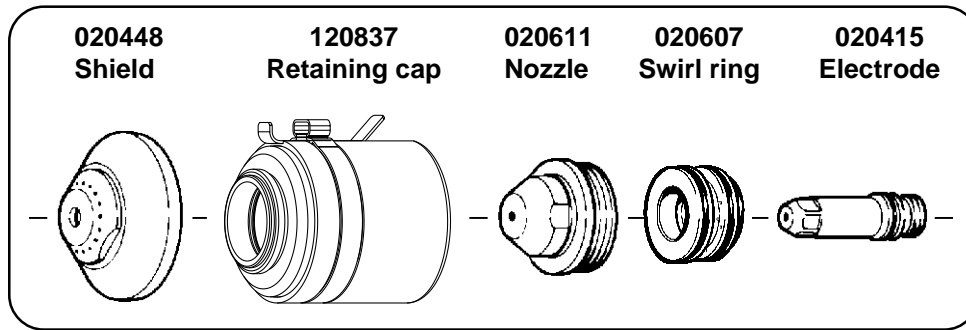
This gas combination gives good cut speed, but may result in severe dross. Some surface nitriding and surface oxidation of alloying elements can occur.



WARNING



Do not use water muffler when cutting with argon-hydrogen!



4-23

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)		Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/8	3	H35	32-36/ 56-60	N₂	60	3/32	2.5	100	130	50	1260	0.5	120	90
3/16	5					1/8	3		135	40	1060			
1/4	6					1/8	3		140	35	890			
3/8	10					1/8	3		140	30	750			
1/2	13					1/8	3		145	25	630			

Note: Maximum piercing thickness 3/8-inch (10 mm) and IHS recommended.

Production cutting above 3/8 inch (10 mm) not recommended.

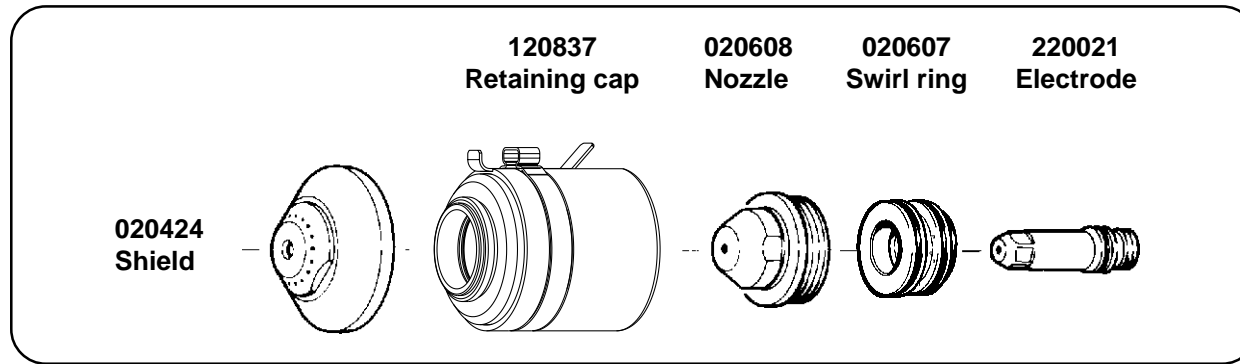
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Aluminum

200 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical.



4-24

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)		Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
3/16	5	Air	44-48 / 58-62 (66 SCFH)	Air	60 (270 SCFH)	1/8	3	200	130	220	5600	0.5	90	90
1/4	6					1/8	3		140	190	4800	1.0		
3/8	10					1/8	3		140	145	3700	2.0		
1/2	12					1/8	3		145	110	2800	2.5		
5/8	15						4		150	85	2200	2.5		
3/4	20					3/16	5		155	65	1650	2.5		
7/8						1/4	6		160	50	1300	2.5		
1	25					1/4	6		165	35	900			
1-1/4	32					1/4	6		170	20	500			
1-1/2						1/4	6		175	12	300			

Production cutting above 7/8 inch (21 mm) not recommended.

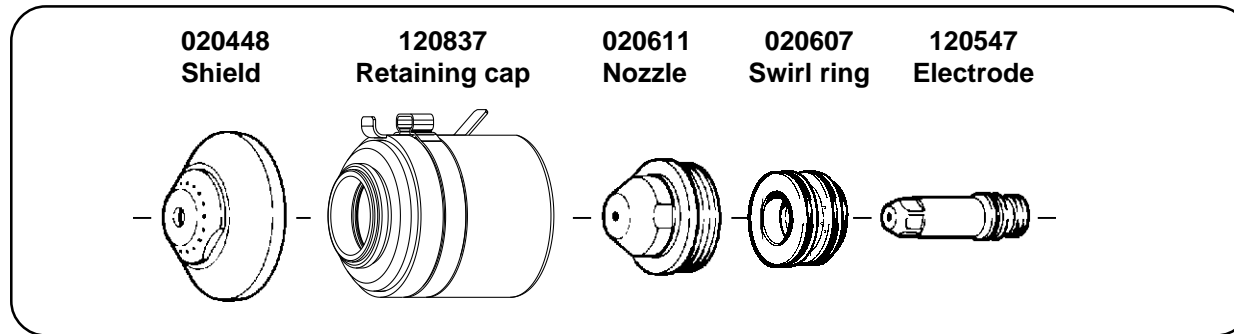
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Aluminum

100 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical.



4-25

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/8 3	Air	22-26 / 54-58 (37 SCFH)	Air	60 (270 SCFH)	3/32 2.5	100	135	110 2800		90	90
3/16 5					1/8 3		140 2290	0.5			
1/4 6					1/8 3		145 1780	0.5			
3/8 10					1/8 3		145 1270	0.5			
1/2 12					1/8 3		150 1010				
5/8 15					4		155 760				
3/4 20					3/16 5		160 635				

Production cutting above 3/8 inch (10 mm) not recommended.

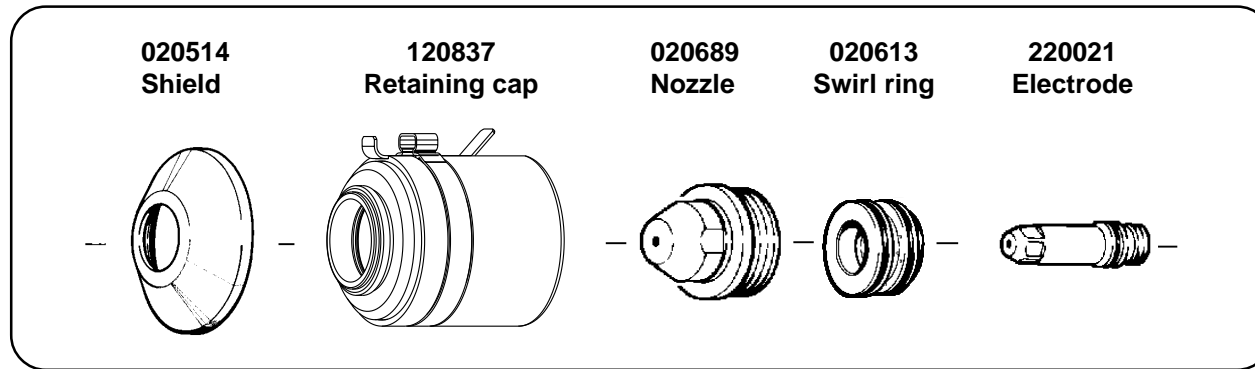
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Aluminum

40 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical.



4-26

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)	
3/32	Air	16-20 / 56-60 (25 SCFH)	Air	60 (275 SCFH)	3/32	2.5	40	140	3550	0.5	90	90
1/8					3	130		2550				
1/4					6	140		900				
3/8					10	150		350				

Production cutting above 1/8 inch (3 mm) not recommended.

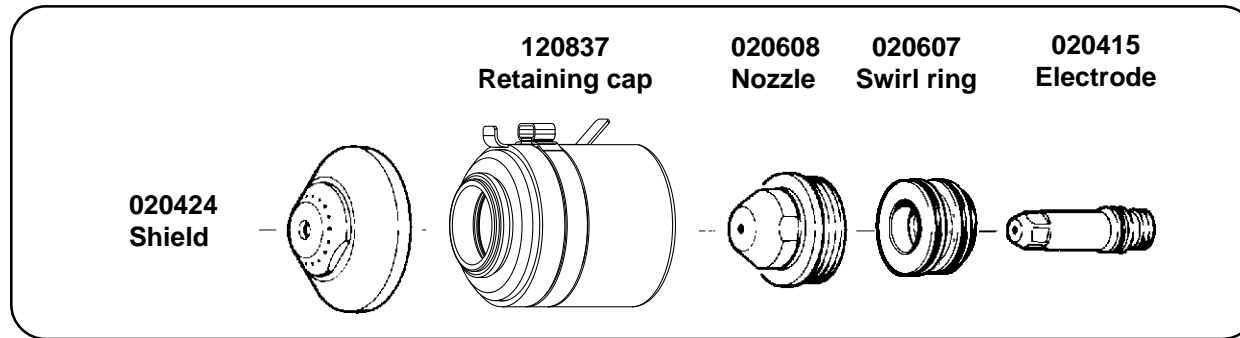
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Aluminum

200 amps • N₂ Plasma/ Air Shield

This gas combination is used when cut edge quality is less important. Electrode life is extended when this combination is used.



4-27

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
3/16 5	N ₂	34-38 / 54-54 (60 SCFH)	Air	60 (270 SCFH)	1/8 3	200	130	180 4570	0.5	120	90
1/4 6					1/8 3		135 160 4060	1.0			
3/8 10					1/8 3		135 120 3050	1.5			
1/2 12					1/8 3		140 80 2030	2.0			
5/8 15					4		140 70 1780	2.0			
3/4 20					3/16 5		150 50 1270	2.5			
7/8					1/4 6		160 35 890	2.5			
1 25					1/4 6		165 25 635				
1-1/4 32					1/4 6		175 20 510				
1-1/2					1/4 6		185 10 250				

Production cutting above 7/8 inch (20 mm) not recommended.

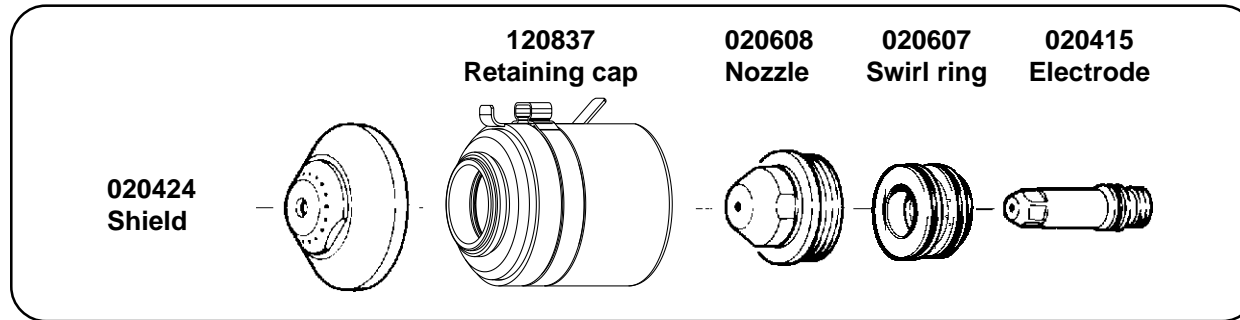
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Aluminum

200 amps • N₂ Plasma / CO₂ Shield

This gas combination is used when cut edge quality is less important. Electrode life is extended when this combination is used.



4-28

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)		
3/16	5	N ₂	36-40 / 52-56 (60 SCFH)	CO ₂	60 (210 SCFH)	1/8	3	200	135	185	4700	0.5	120	90
1/4	6					1/8	3		135	160	4050	1.0		
3/8	10					1/8	3		135	120	3050	2.0		
1/2	12					1/8	3		140	95	2400	2.5		
5/8	15						4		140	70	1800	2.5		
3/4	20					3/16	5		150	55	1400	3.0		
7/8						1/4	6		160	42	1050	3.0		
1	25					1/4	6		165	33	840			
1-1/4	32					1/4	6		175	20	510			
1-1/2						5/16	8		185	11	280			

Production cutting above 7/8 inch (20 mm) not recommended.

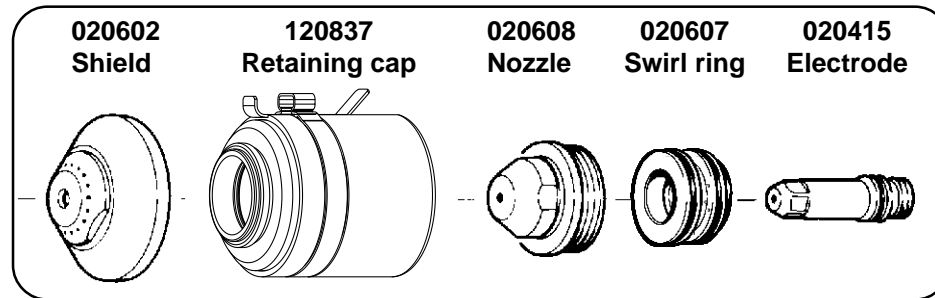
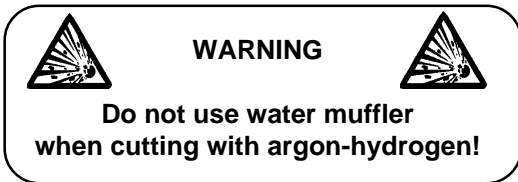
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Aluminum

200 amps • H35 Plasma / N₂ Shield

This gas combination (Hypertherm recommends a mixture of 35% hydrogen and 65% argon for the plasma gas) gives maximum thickness cutting capability, excellent cut quality and excellent weldability. Electrode life is extended when this combination is used.



Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)			
3/16	H35 (70 SCFH)	36-40 / 62-66	N₂	60 (275 SCFH)	3/16	5	200	130	170	4300	0.5	120	90	
1/4					6	3/16		5	130	155	4000			1.0
3/8					10	1/4		6	135	120	3000			2.0
1/2					12	1/4		6	140	100	2550			2.0
5/8					15	1/4		6	145	80	2000			2.5
3/4					20	5/16		8	150	60	1500			2.5
7/8					5/16	8		155	50	1250	2.5			
1					25	5/16		8	155	40	1000			
1-1/4					32	5/16		8	165	26	660			
1-1/2					5/16	8		170	18	460				
1-3/4					5/16	8		180	12	300				
2					50	5/16		8	185	7	180			

Production cutting above 7/8 inch (20 mm) not recommended.

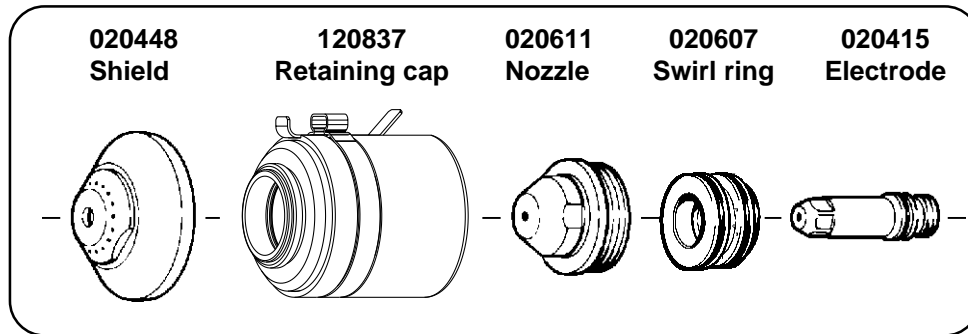
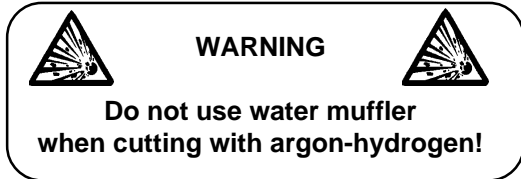
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Above Water

Aluminum

100 amps • H35 Plasma / N₂ Shield

This gas combination gives good cut speed, low dross levels and is very economical.



4-30

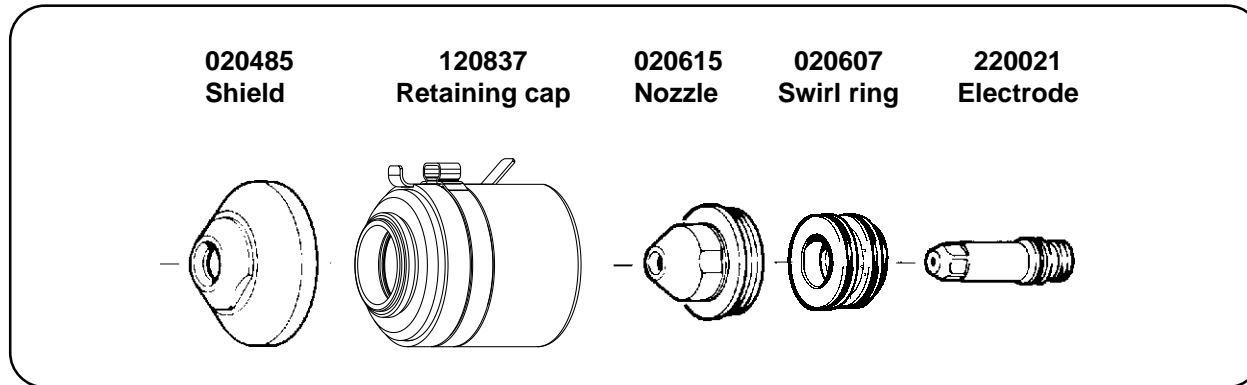
Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/8 3	H35	32-36 / 56-60 (20 SCFH)	N₂	60 (270 SCFH)	3/32 2.5	100	135	95 2440		120	90
3/16 5					1/8 3		140 2200	0.5			
1/4 6					1/8 3		145 1980	0.5			
3/8 10					1/8 3		145 1530	0.5			
1/2 12					1/8 3		150 1280				

Production cutting above 3/8 inch (10 mm) not recommended.

* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

Mild Steel Gouging

200 amps • Air Plasma / Air Shield



4-31

Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Arc Current Setting (amps)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
Air	49-51 / 50-52	Air	50	200	90	90

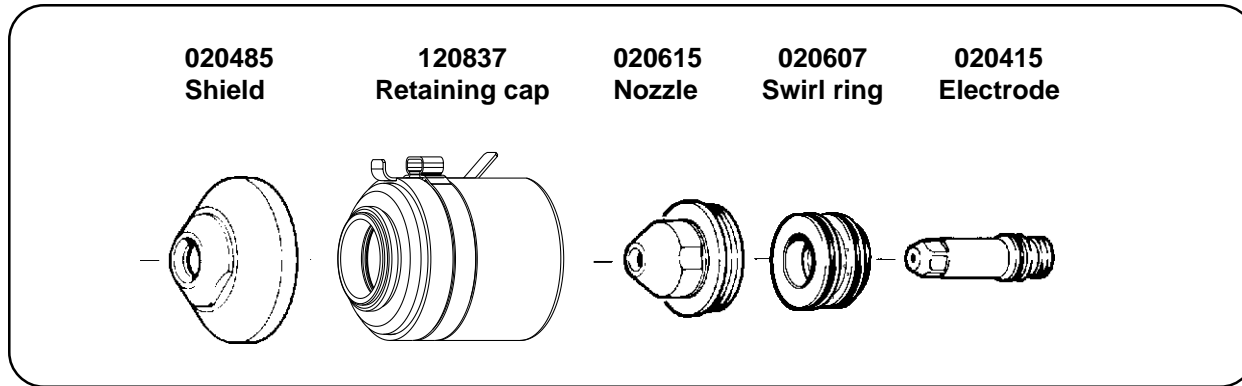
1 inch = 25.4 mm; 1 scfh = 28.316 liter/hour; 1 psi = .0689 bar = 6.895 KPa

* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

Stainless Steel Gouging

200 amps • H35 Plasma / N₂ Shield

Hypertherm recommends a mixture of 35% hydrogen and 65% argon for the plasma gas.



Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Arc Current Setting (amps)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
H35	49-51 / 50-52	N ₂	50	200	120	120

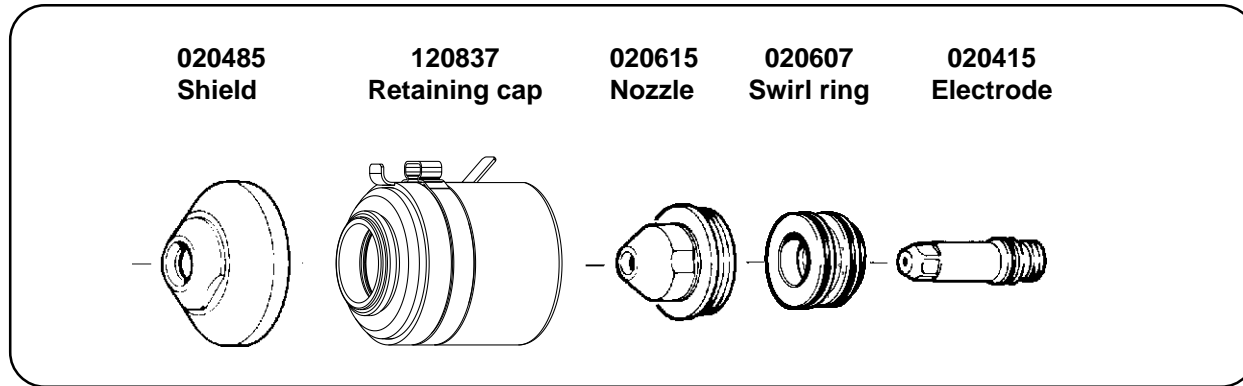
1 inch = 25.4 mm; 1 scfh = 28.316 liter/hour; 1 psi = .0689 bar = 6.895 KPa

* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

Aluminum Gouging

200 amps • H35 Plasma / N₂ Shield

Hypertherm recommends a mixture of 35% hydrogen and 65% argon for the plasma gas..



Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Arc Current Setting (amps)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
H35	49-51 / 50-52	N ₂	50	200	120	120

1 inch = 25.4 mm; 1 scfh = 28.316 liter/hour; 1 psi = .0689 bar = 6.895 KPa

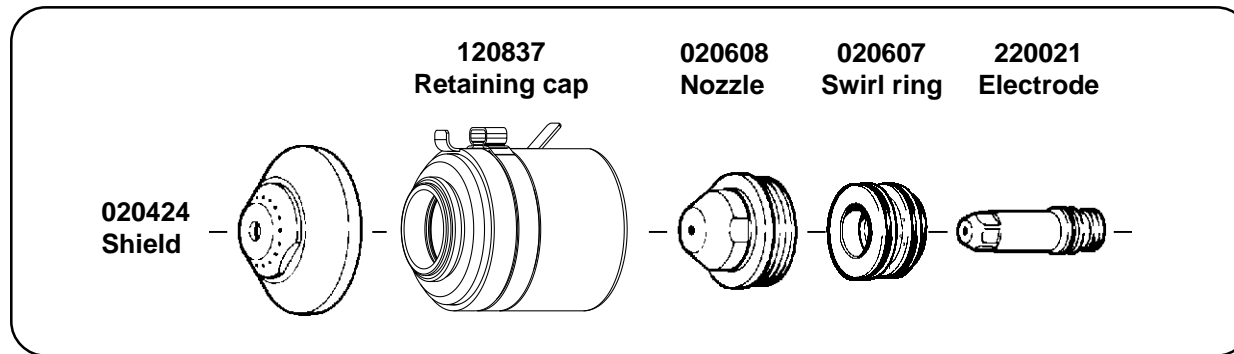
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Mild Steel

200 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical. Some surface nitriding can occur.



Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/4	6	Air	44-48 / 58-62 (66 SCFH)	Air	70 (280 SCFH)	1/8	3	200	130	130	3300	90	90
	8					1/8	3		135	110	2700		
3/8	10					1/8	3	135	95	2400	1.0		
1/2	12					1/8	3	140	75	1900	2.0		
5/8	15						4	145	50	1200	2.0		
3/4	20					3/16	5	150	35	850	2.5		
7/8						1/4	6	155	20	530	3.0		
1	25					1/4	6	165	15	400	3.0		

1 inch = 25.4 mm; 1 scfh = 28.316 liter/hour; 1 psi = .0689 bar = 6.895 KPa

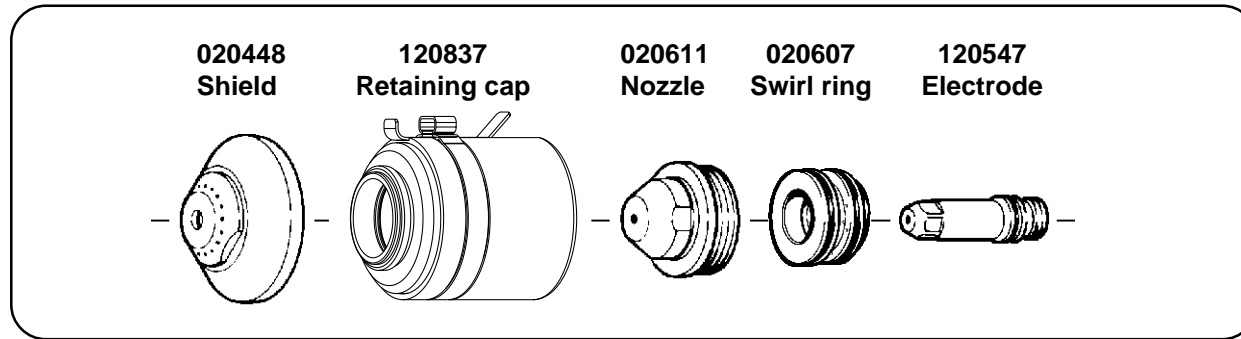
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Mild Steel

100 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross level and is very economical. Some surface nitriding can occur. While this process may be used on thicker materials, optimal recommended range is to 3/8 inch (10 mm).



4-35

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)	
2	Air	22-26 / 48-52	Air	70	5/64	2	80	120	240	6050	90	90
1/8		22-26 / 54-58		70	5/64	2	100	130	120	3050		
3/16	(37 SCFH)		(280 SCFH)		1/8	3	135	90	2300	0.5		
1/4					1/8	3	140	70	1730	0.5		
3/8					1/8	3	145	42	1050	0.5		
1/2					1/8	3	145	28	700			

Production cutting above 3/8 inch (10 mm) not recommended.

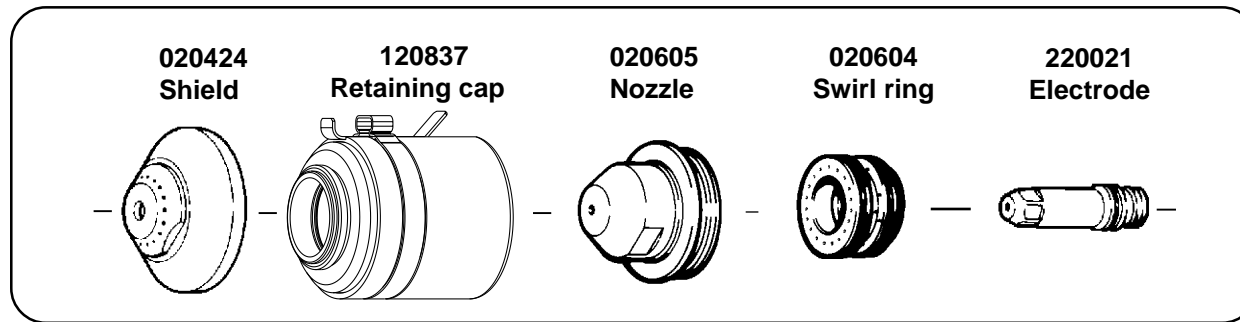
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Mild Steel

200 amps • O₂ Plasma / Air Shield

This gas combination gives superior cut speed, minimum dross, minimum amount of surface nitriting and excellent weldability.



4-36

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)		Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/4	6	O ₂	48-52 / 64-68 (72 SCFH)	Air	70 (280 SCFH)	1/8	3	200	125	145	3700	0.5	120	90
	1/8					3	110			2800				
3/8	10					1/8	3		130	80	2000	1.0		
1/2	12					1/8	3		130	70	1800	2.0		
5/8	15						4		135	60	1500	2.0		
3/4	20					3/16	5		140	48	1200	2.5		
7/8						1/4	6		140	38	950	3.0		
1	25					1/4	6		145	25	680	3.0		

1 inch = 25.4 mm; 1 scfh = 28.316 liter/hour; 1 psi = .0689 bar = 6.895 KPa

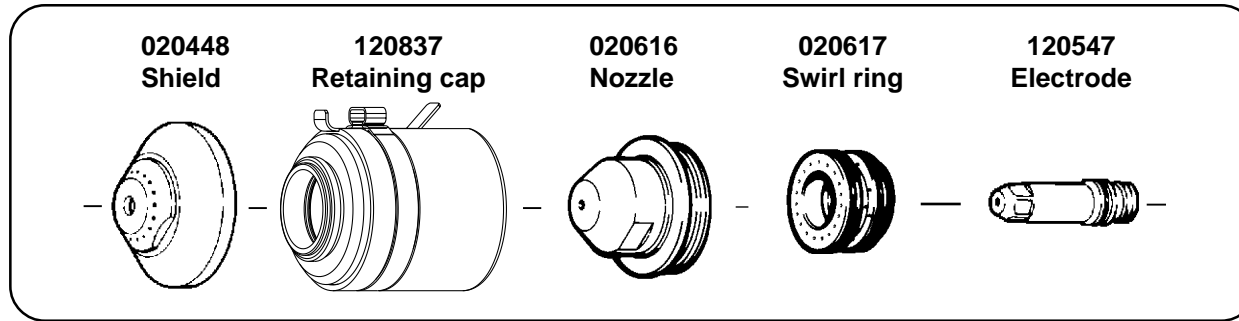
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Mild Steel

100 amps • O₂ Plasma / Air Shield

This gas combination gives good cut speed, low dross level, and is very economical. Some surface nitriding can occur. While this process may be used on thicker materials, optimal recommended range is to 3/8 inch (10 mm).



4-37

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)		Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/8	3	O ₂	20-24 / 60-64 (40 SCFH)	Air	60 (280 SCFH)	5/64	2	100	115	200	5080	0.5	120	90
3/16	5					1/8	3		120	125	3175			
1/4	6					1/8	3		120	90	2280			
3/8	10					1/8	3		125	70	1780			
1/2	12					1/8	3		125	55	1400			

Production cutting above 3/8 inch (10 mm) not recommended.

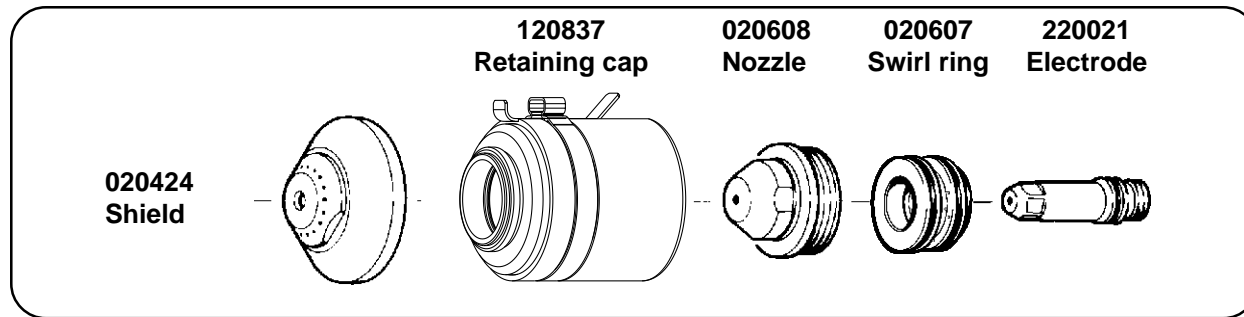
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Stainless Steel

200 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical. Some surface nitriding and surface oxidation of alloying elements can occur.



4-38

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)	
3/16	5	Air	44-48 / 58-62 (66 SCFH)	Air	70 (280 SCFH)	1/8	200	125	210	5320		90	90	
1/4	6					1/8		3	130	180	4500			0.5
3/8	10					1/8		3	135	125	3150			1.0
1/2	12					1/8		3	140	90	2300			2.0
5/8	15							4	145	60	1520			2.0
3/4	20					3/16		5	145	45	1150			2.5
7/8						1/4		6	150	30	750			3.0
1	25					1/4		6	155	22	570			

Production cutting above 7/8 inch (20 mm) not recommended.

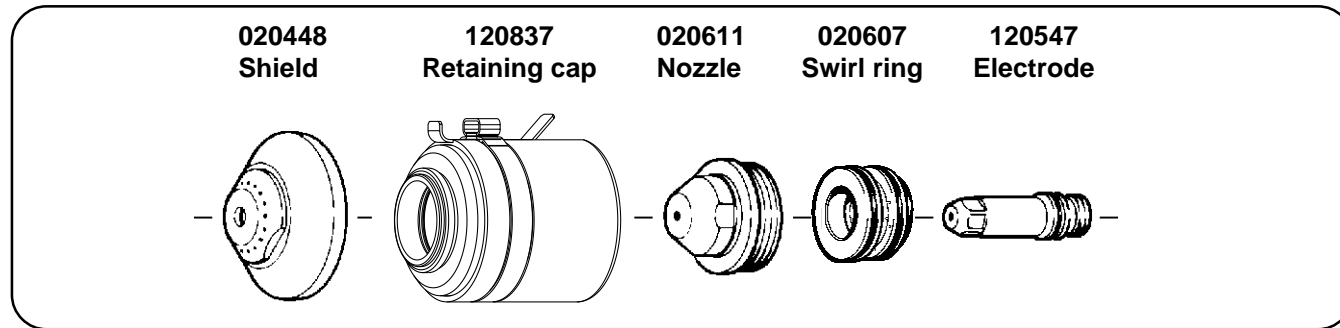
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Stainless Steel

100 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical. Some surface nitriding and surface oxidation of alloying elements can occur.



4-39

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/8 3	Air	22-26 / 54-58	Air	70	5/64 2	100	125	135 3400		90	90
3/16 5		(37 SCFH)		(280 SCFH)	1/8 3		130	100 2520	0.5		
1/4 6					1/8 3		135	65 1720	0.5		
3/8 10					1/8 3		140	45 1120	0.5		
1/2 12					1/8 3		145	25 670			

Production cutting above 3/8 inch (10 mm) not recommended.

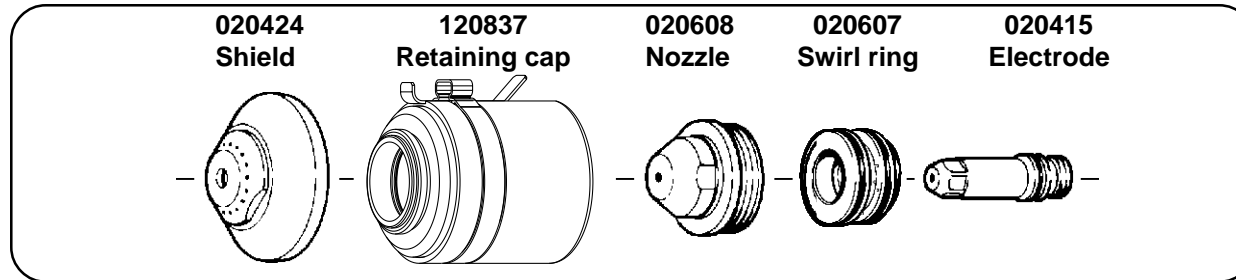
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Stainless Steel

200 amps • N₂ Plasma / Air Shield

This gas combination is used when cut edge quality, surface nitriding and surface oxidation of alloying elements are less important. Electrode life is extended when this combination is used.



4-40

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)		Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
3/16	5	N ₂	34-38 / 50-54 (60 SCFH)	Air	70 (280 SCFH)	1/8	3	200	125	130	3250		120	90
1/4	6					1/8	3		130	110	2750	0.5		
3/8	10					1/8	3		135	85	2160	1.0		
1/2	12					1/8	3		140	60	1520	2.0		
5/8	15						4		145	45	1140	2.0		
3/4	20		5	145	30	800	2.5							

1 inch = 25.4 mm; 1 scfh = 28.316 liter/hour; 1 psi = .0689 bar = 6.895 KPa

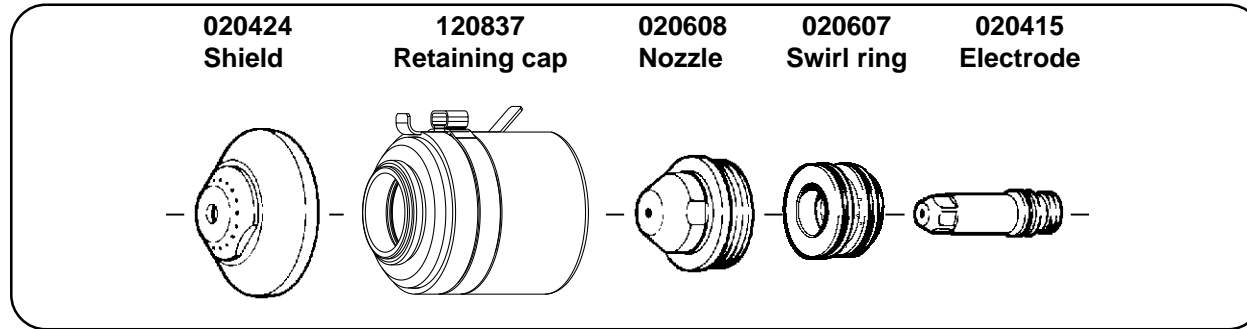
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Stainless Steel

200 amps • N₂ Plasma / CO₂ Shield

This gas combination is used when surface nitriding and surface oxidation of alloying elements is less important. Electrode life is extended when using this gas combination.



4-41

Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)		Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
3/16	5	N ₂	36-40 / 52-56 (60 SCFH)	CO ₂	70 (210 SCFH)	1/8	3	200	125	180	4550	0.5	120	90
1/4	6					1/8	3		130	150	3850	1.0		
3/8	10					1/8	3		135	110	2700	1.5		
1/2	12					1/8	3		140	75	1920	2.0		
5/8	15					4	145		50	1350	2.0			
3/4	20					3/16	5		145	38	950	2.5		
7/8		1/4	6	150	28	700	3.0							

1 inch = 25.4 mm; 1 scfh = 28.316 liter/hour; 1 psi = .0689 bar = 6.895 KPa

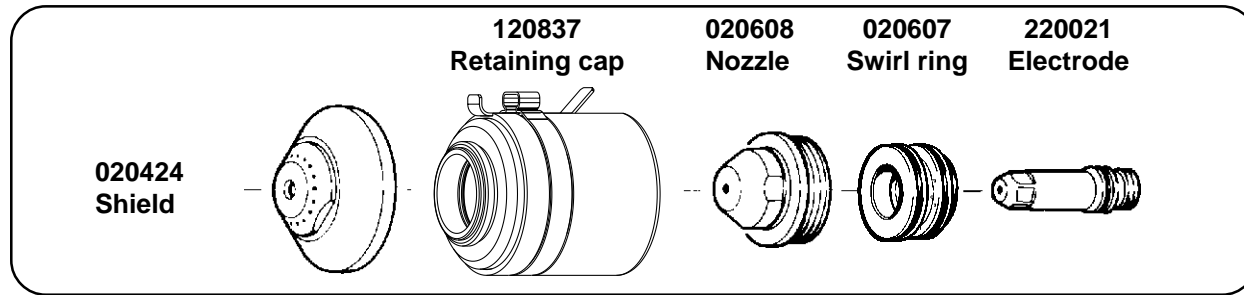
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Aluminum

200 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical.



Material Thickness (Inches) (mm)		Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)		Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)		Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
3/16	5	Air	44-48 / 58-62 (66 SCFH)	Air	70 (280 SCFH)	1/8	3	200	135	210	5300	0.5	90	90
1/4	6					1/8	3		140	170	4300	1.0		
3/8	10					1/8	3		145	125	3150	2.0		
1/2	12					1/8	3		150	90	2240	2.5		
5/8	15					4	155		65	1650	3.0			
3/4	20					3/16	5		160	45	1150	3.0		

1 inch = 25.4 mm; 1 scfh = 28.316 liter/hour; 1 psi = .0689 bar = 6.895 KPa

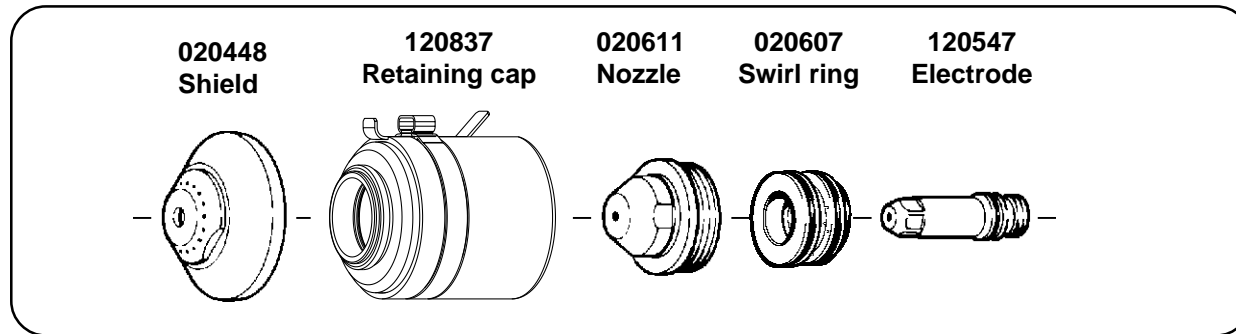
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Aluminum

100 amps • Air Plasma / Air Shield

This gas combination gives good cut speed, low dross levels and is very economical.



4-43

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/8 3	Air (37 SCFH)	22-26/ 54-58	Air (280 SCFH)	70	5/64 2	100	135	100 2650	0.5	90	90
3/16 5					1/8 3		140 2050				
1/4 6					1/8 3		145 1510				
3/8 10					1/8 3		150 1000				
1/2 12					1/8 3		155 750				

Production cutting above 3/8 inch (10 mm) not recommended.

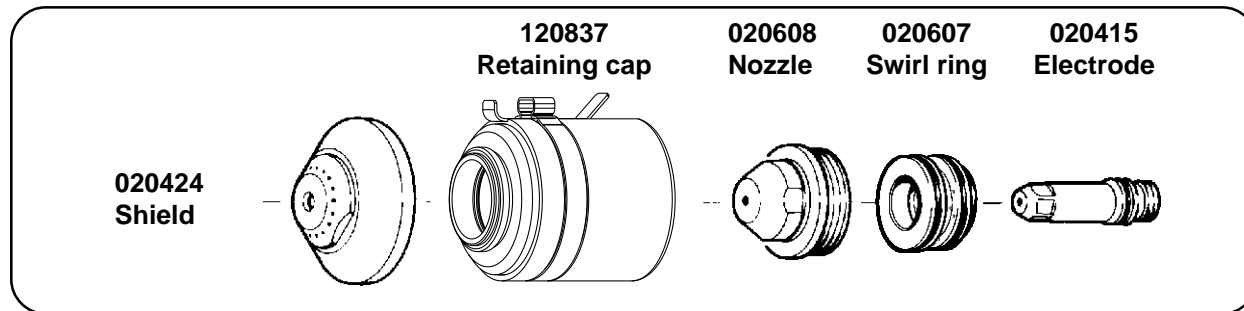
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Aluminum

200 amps • N₂ Plasma/ Air Shield

This gas combination is used when cut edge quality is less important. Electrode life is extended when this combination is used.



4-44

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
3/16 5	N ₂	34-38 / 50-54 (60 SCFH)	Air	70 (280 SCFH)	1/8 3	200	135	170 4350	0.5	120	90
1/4 6					1/8 3		140 140 3650	1.0			
3/8 10					1/8 3		140 100 2600	1.5			
1/2 12					1/8 3		145 65 1620	2.0			
5/8 15					4		145 55 1350	2.5			
3/4 20					3/16 5		155 35 890	3.0			
7/8					1/4 6		165 25 620	3.0			

1 inch = 25.4 mm; 1 scfh = 28.316 liter/hour; 1 psi = .0689 bar = 6.895 KPa

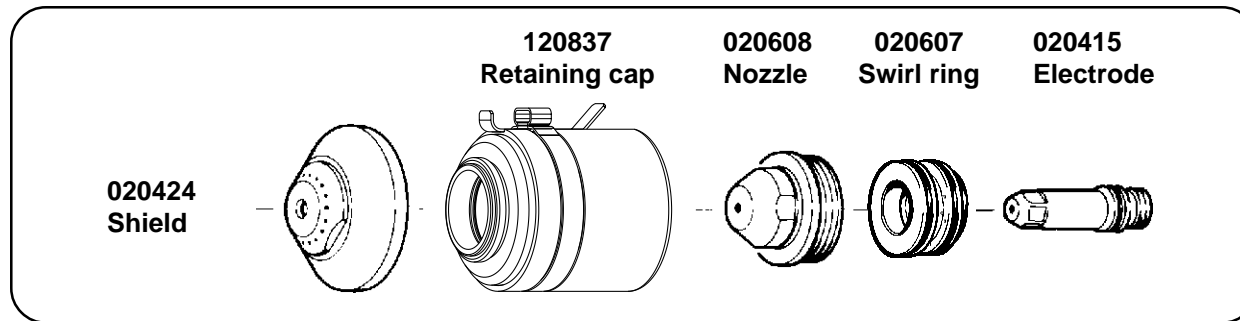
* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - 3" Under Water

Aluminum

200 amps • N₂ Plasma / CO₂ Shield

This gas combination is used when cut edge quality is less important. Electrode life is extended when this combination is used.



4-45

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
3/16 5	N ₂	36-40 / 52-56 (60 SCFH)	CO ₂	70 (220 SCFH)	1/8 3	200	130	175 4450	0.5	120	90
1/4 6					1/8 3		135 3650				
3/8 10					1/8 3		140 2600				
1/2 12					1/8 3		145 1820				
5/8 15					4		145 1350				
3/4 20					3/16 5		155 980				
7/8					1/4 6		165 750	3.0			

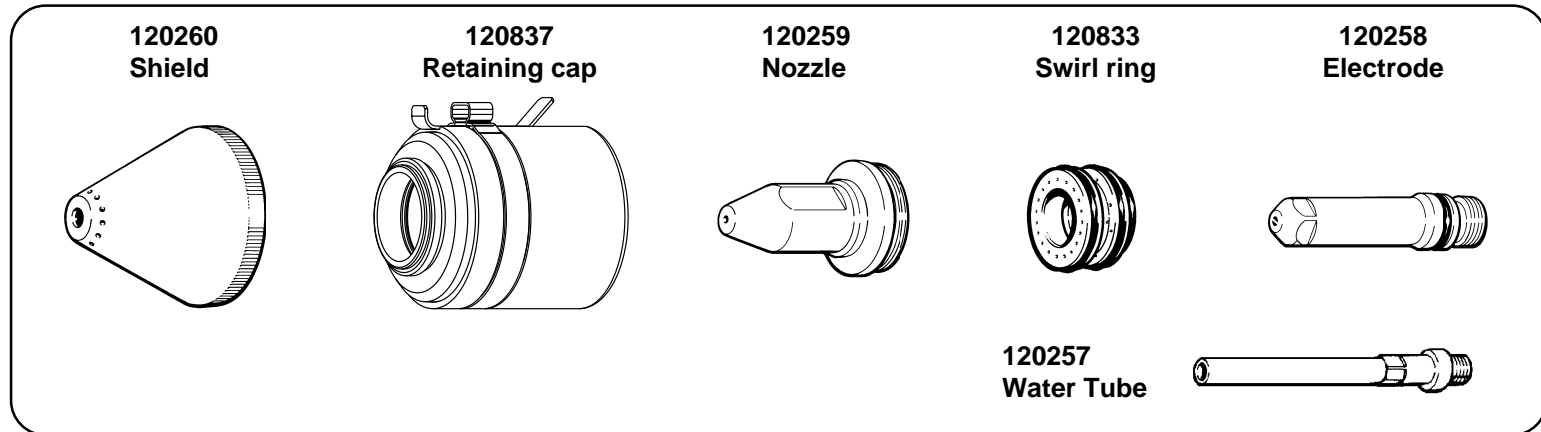
1 inch = 25.4 mm; 1 scfh = 28.316 liter/hour; 1 psi = .0689 bar = 6.895 KPa

* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.

MAX200 Machine Torch - Beveling Consumables

Mild Steel

200 amps • O₂ Plasma / Air Shield



4-46

Material Thickness (Inches) (mm)	Plasma Gas Type	Plasma Gas Pressure TEST/RUN (psi)	Shield Gas Type	Shield Gas Pressure (psi)	Torch-to-work Distance (Inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Travel Speed (ipm) (mm/min)	Approx. Motion Delay Time (sec)	Plasma Gas Inlet Pressure (psi)	Shield Gas Inlet Pressure (psi)
1/4 6	O ₂	48-52 / 64-68 (72 SCFH)	Air	60 (270 SCFH)	1/8 3	200	120	160 4060	0.5	120	90
8					1/8 3		125 3000				
3/8 10					1/8 3		125 100 2540				
1/2 12					4		125 80 2030				
5/8 15					4		130 70 1780				
3/4 20					3/16 5		135 55 1400				
7/8					1/4 6		135 45 1140				
1 25					1/4 6		140 35 890				
1-1/4 32					1/4 6		150 22 560				
1-1/2					1/4 6		155 15 380				
1-3/4	5/16 8	165 10 250									
2 50	5/16 8	170 7 180									

Production cutting above 1 inch (25 mm) not recommended.

* If leads are greater than 50 feet, increase TEST pressure 5 psi for every extra 50 feet of torch lead length.