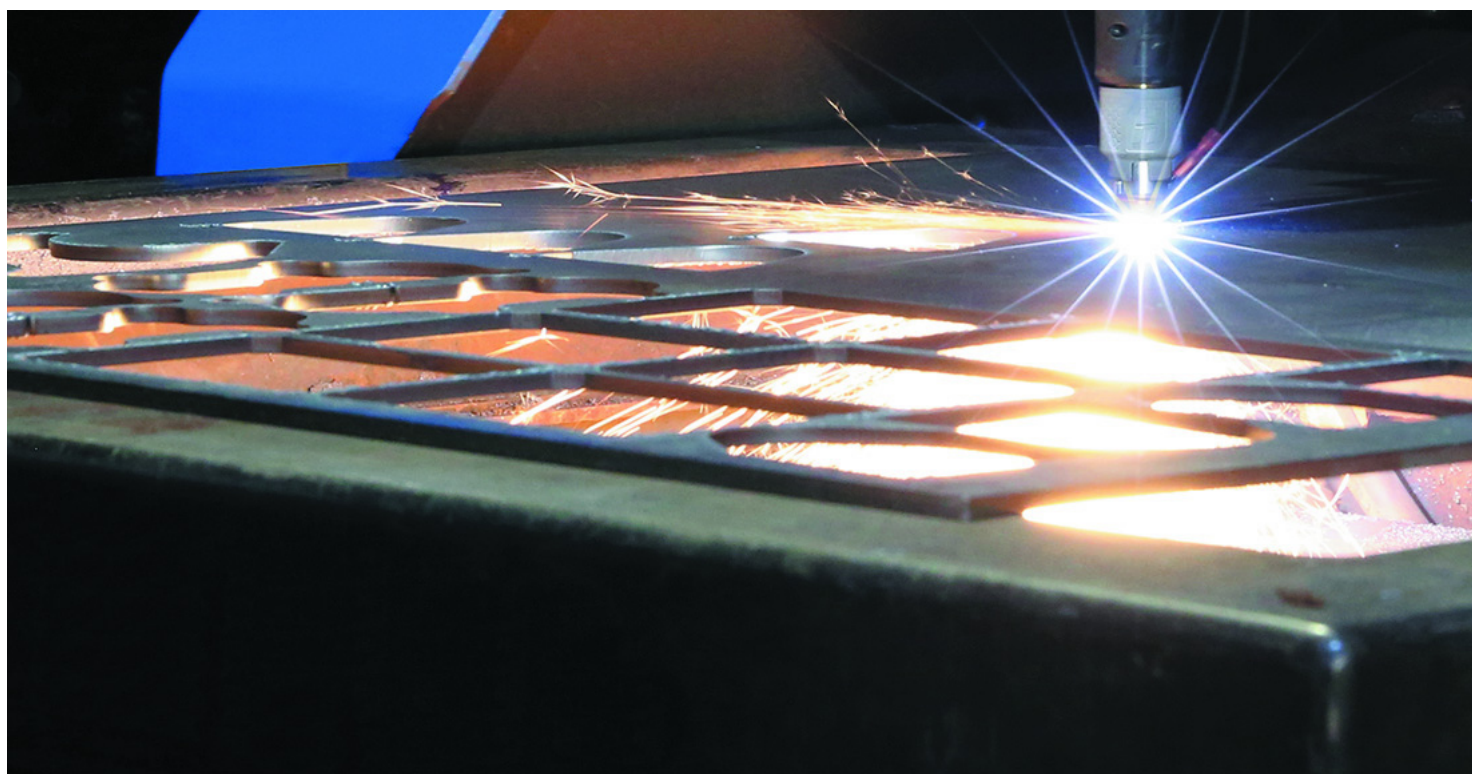


Hypertherm[®]

Powermax65/85/105 SYNC[®]

Tabelas de Corte



810500MU – REVISION 2





Alusolda

Aluguel de Máquinas de Solda

Powermax, SYNC, SmartSYNC, and Hypertherm are trademarks of Hypertherm, Inc. and may be registered in the United States and other countries. All other trademarks are the property of their respective holders.

Environmental stewardship is one of Hypertherm's core values, and it is critical to our success and our customers' success. We are striving to reduce the environmental impact of everything we do. For more information: www.hypertherm.com/environment.

Powermax65/85/105 SYNC

Cut Charts Guide



810500MU
REVISION 2

MULTILINGUAL
Multilingual instructions

Alusolda

Aluguel de Máquinas de Solda

March 2022

Hypertherm, Inc.

21 Great Hollow Road, P.O. Box 5010
Hanover, NH 03755 USA
603-643-3441 Tel (Main Office)
603-643-5352 Fax (All Departments)
info@hypertherm.com (Main Office)
800-643-9878 Tel (Technical Service)
technical.service@hypertherm.com (Technical Service)
800-737-2978 Tel (Customer Service)
customer.service@hypertherm.com (Customer Service)

Hypertherm México, S.A. de C.V.

52 55 5681 8109 Tel
52 55 5681 7978 Tel
soporte.tecnico@hypertherm.com (Technical Service)

Hypertherm Plasmatechnik GmbH

Sophie-Scholl-Platz 5
63452 Hanau
Germany
00 800 33 24 97 37 Tel
00 800 49 73 73 29 Fax
31 (0) 165 596900 Tel (Technical Service)
00 800 4973 7843 Tel (Technical Service)
technicalservice.emeia@hypertherm.com (Technical Service)

Hypertherm (Singapore) Pte Ltd.

Solaris @ Kallang 164
164 Kallang Way #03-13
Singapore 349248, Republic of Singapore
65 6841 2489 Tel
65 6841 2490 Fax
marketing.asia@hypertherm.com (Marketing)
techsupportapac@hypertherm.com (Technical Service)

Hypertherm Japan Ltd.

Level 9, Edobori Center Building
2-1-1 Edobori, Nishi-ku
Osaka 550-0002 Japan
81 6 6225 1183 Tel
81 6 6225 1184 Fax
htjapan.info@hypertherm.com (Main Office)
techsupportapac@hypertherm.com (Technical Service)

Hypertherm Europe B.V.

Vaartveld 9, 4704 SE
Roosendaal, Nederland
31 165 596907 Tel
31 165 596901 Fax
31 165 596908 Tel (Marketing)
31 (0) 165 596900 Tel (Technical Service)
00 800 4973 7843 Tel (Technical Service)
technicalservice.emeia@hypertherm.com (Technical Service)

Hypertherm (Shanghai) Trading Co., Ltd.

B301, 495 ShangZhong Road
Shanghai, 200231
PR China
86-21-80231122 Tel
86-21-80231120 Fax
86-21-80231128 Tel (Technical Service)
techsupport.china@hypertherm.com (Technical Service)

South America & Central America: Hypertherm Brasil Ltda.

Rua Bras Cubas, 231 – Jardim Maia
Guarulhos, SP – Brasil
CEP 07115-030
55 11 2409 2636 Tel
tecnico.sa@hypertherm.com (Technical Service)

Hypertherm Korea Branch

#3904. APEC-ro 17. Heaundae-gu. Busan.
Korea 48060
82 (0)51 747 0358 Tel
82 (0)51 701 0358 Fax
marketing.korea@hypertherm.com (Marketing)
techsupportapac@hypertherm.com (Technical Service)

Hypertherm Pty Limited

GPO Box 4836
Sydney NSW 2001, Australia
61 7 3103 1695 Tel
61 7 3219 9010 Fax
au.sales@hypertherm.com (Main Office)
techsupportapac@hypertherm.com (Technical Service)

Hypertherm (India) Thermal Cutting Pvt. Ltd

A-18 / B-1 Extension,
Mohan Co-Operative Industrial Estate,
Mathura Road, New Delhi 110044, India
91-11-40521201/ 2/ 3 Tel
91-11 40521204 Fax
htindia.info@hypertherm.com (Main Office)
technicalservice.emeia@hypertherm.com (Technical Service)



Contents

Using the Cut Charts (English).....	7
使用切割表 (简体中文/ Simplified Chinese).....	9
使用切割表 (繁體中文/ Traditional Chinese).....	11
Používání tabulek parametrů (Česky/Czech).....	13
Utilisation des tableaux de coupe (Français/French).....	15
Verwendung der Schneidtabellen (Deutsch/German).....	17
Menggunakan Bagan Pemotongan (Bahasa Indonesia/Indonesian).....	19
Utilizzo delle tabelle di taglio (Italiano/Italian).....	21
切断条件表の使用法 (日本語/ Japanese).....	23
절단 도표 사용(한국어/Korean).....	25
Korzystanie z wykresów cięcia (Polski/Polish).....	27
Como usar as tabelas de corte (Português/Portuguese).....	29
Использование технологических карт резки (Русский/Russian).....	31
Cómo utilizar las tablas de corte (Español/Spanish).....	33
การใช้แผนภูมิการตัด (ภาษาไทย/Thai).....	35
Kesim Tablolarının Kullanılması (Türkçe/Turkish).....	37
Sử dụng Biểu đồ Cắt (Tiếng Việt/Vietnamese).....	39

Contents

Cut charts	41
Mild Steel – 105 A – Air.....	41
Stainless Steel – 105 A – Air.....	42
Aluminum – 105 A – Air.....	43
Mild Steel – 85 A – Air.....	44
Stainless Steel – 85 A – Air.....	45
Aluminum – 85 A – Air.....	46
Mild Steel – 65 A – Air.....	47
Stainless Steel – 65 A – Air.....	48
Aluminum – 65 A – Air.....	49
Mild Steel – 45 A – Air.....	50
Stainless Steel – 45 A – Air.....	51
Aluminum – 45 A – Air.....	52
Mild Steel – FineCut High Speed – Air.....	53
Stainless Steel – FineCut High Speed – Air.....	54
Mild Steel – FineCut Low Speed – Air.....	55
Stainless Steel – FineCut Low Speed – Air.....	56
Stainless Steel – 105 A – F5.....	57
Stainless Steel – 85 A – F5.....	58
Stainless Steel – 65 A – F5.....	59
Stainless Steel – 45 A – F5.....	60

Como usar as tabelas de corte (Português/Portuguese)

ADVERTÊNCIA



RISCOS DE EXPLOSÃO – CORTE COM ALUMÍNIO PRÓXIMO À ÁGUA

Cortes subaquáticos com gases combustíveis ou alumínio podem causar risco de explosão.

- NÃO corte sob a água com gases combustíveis que contenham hidrogênio.
- NÃO corte ligas de alumínio sob a água ou em mesas de água, a não ser que consiga evitar o acúmulo de hidrogênio.

Fazer isso pode causar uma explosão durante a operação do sistema de corte. Consulte o *Safety and Compliance Manual (Manual de Segurança e de Conformidade)* (80669C) para obter mais informações.

ADVERTÊNCIA




RISCO DE EXPLOSÃO – CORTE COM GASES INFLAMÁVEIS OU GASES OXIDANTES

Não use gases inflamáveis ou gases oxidantes com os sistemas Powermax. Esses gases podem causar condições explosivas durante as operações de corte a plasma.

Um exemplo de gás oxidante é o oxigênio. Exemplos de gases inflamáveis: acetileno, propileno, metano e hidrogênio puro. Consulte o *Safety and Compliance Manual (Manual de Segurança e de Conformidade)* (80669C) para obter mais informações.

Para obter mais informações

- Para obter mais informações sobre como integrar seu sistema Powermax® com uma configuração de corte mecanizado, consulte o *Powermax65/85/105 SYNC Mechanized Cutting Guide (Guia de corte mecanizado)* (810480).
- Para obter mais informações sobre o sistema, consulte o *Powermax65/85/105 SYNC Operator Manual (Manual do Operador)* (810470).

 Faça o download desses documentos em www.hypertherm.com/docs.

Sobre as tabelas de corte

As tabelas de corte nesse guia são um bom ponto de partida. Ajuste as variáveis nas tabelas de corte conforme necessário para obter os resultados ideais para o seu equipamento de corte e ambiente.


As tabelas de corte estão incluídas para:

- Corte de aço-carbono, aço inoxidável e alumínio a 45 A–105 A com ar usando refis de corte padrão
- Corte de aço-carbono e aço inoxidável com ar usando refis FineCut (a Hypertherm **não** recomenda cortar alumínio com cartuchos FineCut)
- Corte de aço inoxidável a 45 A–105 A com F5 usando cartuchos de corte padrão (a Hypertherm **não** recomenda cortar com F5 usando cartuchos FineCut)




A Hypertherm coletou os dados da tabela de corte usando refis novos e obedecendo a todos os requisitos de alimentação elétrica, suprimento de gás e condições do local.

Selecione o cartucho que melhor se adequa ao material que deseja cortar

	Espessura do material no sistema métrico (mm)											
	0,5	1	2	3	5	8	10	12	15	20	25	30
FineCut	■	■	■	■	■	■	■	■	■	■	■	■
45 A	■	■	■	■	■	■	■	■	■	■	■	■
65 A	■	■	■	■	■	■	■	■	■	■	■	■
85 A	■	■	■	■	■	■	■	■	■	■	■	■
105 A	■	■	■	■	■	■	■	■	■	■	■	■

Qualidade de corte ideal
Qualidade de corte quase ideal
Menor qualidade de corte ou velocidade

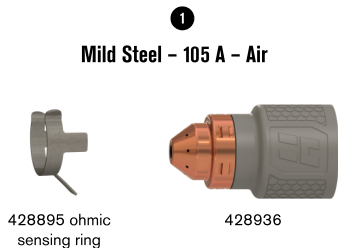
	Espessura do material no sistema imperial (pol)										
	0,02	0,06	1/8	1/4	3/8	1/2	5/8	3/4	1	1-1/4	1-1/2
FineCut	■	■	■	■	■	■	■	■	■	■	■
45 A	■	■	■	■	■	■	■	■	■	■	■
65 A	■	■	■	■	■	■	■	■	■	■	■
85 A	■	■	■	■	■	■	■	■	■	■	■
105 A	■	■	■	■	■	■	■	■	■	■	■

Elementos da tabela de corte

A ilustração a seguir identifica os elementos presentes em cada tabela de corte.

Como usar as tabelas de corte (Português/Portuguese)

Amostra



Mild Steel - 105 A - Air

2 Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		mm	%		mm/min	volts	mm/min	volts	
6	3.2	6.4	200	0.5	3960	143	4880	143	2.2
20				1.0	790	153	940	152	2.8
40				Edge start		200	172	250	170

2 English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		inches	%		in/min	volts	in/min	volts	
1/4	0.125	0.25	200	0.5	156	143	192	143	0.086
3/4				1.0	33	152	40	151	0.108
1-1/2				Edge start		9	170	10	168

4

Gas flow rate - slpm / scfh

236 / 500	Hot (cutflow)
311 / 660	Cold (postflow)

1

Tipo de metal:

- Aço-carbono
- Aço inoxidável
- Alumínio

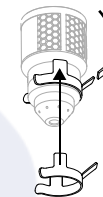
Processo de corte:

- A = corrente. A corrente se aplica a todos os ajustes apresentados na página em questão.
- Nas tabelas **FineCut**, a corrente para cada espessura está incluída na tabela de corte. Esse guia inclui tabelas para alta velocidade e baixa velocidade. Configurações de alta velocidade podem proporcionar melhor qualidade de corte e menos escória em algumas espessuras, se a mesa de corte permitir o corte nessa configuração.

Tipos de gás:

- Ar (ou nitrogênio)
- F5

Use um **anel de sensoriamento ôhmico** para conectar um cartucho mecanizado a um sistema de controle de altura da tocha (THC). Instale-o no cartucho, conforme mostrado. O kit 428895 inclui 3 anéis de sensoriamento ôhmico (420580).



2

Metric = Medida métrica

English = Medida imperial

Material Thickness = Espessura da peça de trabalho (metal que está sendo cortado).

Cut Height = Distância entre a ponta do refil e a peça de trabalho durante o corte.

Initial Pierce Height = Distância entre a ponta do refil e a peça de trabalho quando a tocha é disparada, antes da descida até a altura de corte.

Pierce Delay = Tempo em que o arco plasma permanece parado na altura de perfuração enquanto corta a peça de trabalho.

Best Quality (Cut Speed e Arc Voltage*) = Configurações que fornecem o ponto de partida para alcançar a melhor qualidade de corte (melhor ângulo, mínimo de escória, melhor acabamento da superfície de corte). Ajuste a velocidade de sua aplicação e do sistema de corte para obter o resultado desejado.

Highest Production (Cut Speed e Arc Voltage*) = Configurações que aumentam as velocidades de corte em 20%–30%. Essas velocidades geram um maior número de peças cortadas, mas não necessariamente com a melhor qualidade de corte possível.

Kerf Width = Largura do material removido pelo processo de corte. As larguras de kerf servem somente para referência. A Hypertherm as obtém por meio das configurações de "Best Quality (melhor qualidade)". As diferenças entre instalações e composição do material podem causar resultados reais diferentes dos resultados apresentados nas tabelas.

* Para informações sobre como usar a tensão do arco para controlar a altura de corte, consulte o *Powermax65/85/105 SYNC Mechanized Cutting Guide (Guia de Corte Mecanizado)* (810480).

3

Unidades de medida:

- mm = milímetros
- % = porcentagem
- seconds = segundos
- mm/min = milímetros por minuto
- volts = volts
- inches = polegadas
- in/min = polegadas por minuto
- A = corrente (tabelas FineCut)

Edge start = Iniciar o corte pela borda da peça de trabalho.

4

Cada tabela de corte relaciona as taxas de fluxo de gás quente e frio.

- slpm = litros por minuto padrão
- scfh = pés cúbicos por hora padrão

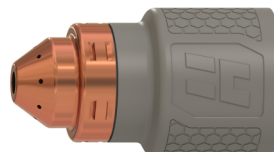
Hot (cutflow) = O arco plasma está ativo e há uma vazão constante de gás durante o corte.

Cold (postflow) = O arco plasma está desativado e há uma vazão constante de gás por vários segundos após o término do corte. Essa faixa de fluxo também se aplica ao modo de teste de gás.

Mild Steel – 105 A – Air



428895
ohmic sensing ring



428936

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width	
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage		
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm	
6	3.2	6.4	200	0.5	3960	143	4880	143	2.2	
8					3020	144	3730	144	2.3	
10				0.8	2240	145	2740	145	2.4	
12					1700	146	2080	146	2.5	
16				1.0	1090	149	1320	149	2.7	
20					790	153	940	152	2.8	
25		Edge Start				530	157	580	156	2.9
30						380	162	410	161	3.3
32						330	164	360	163	3.6
35						280	167	300	166	4.0
40						200	172	250	170	5.1

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width	
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage		
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches	
1/4	0.125	0.250	200	0.5	156	143	192	143	0.086	
3/8					94	145	116	145	0.095	
1/2				0.8	61	147	75	146	0.101	
5/8					43	149	53	149	0.105	
3/4				1.0	33	152	40	151	0.108	
7/8					26	155	30	154	0.111	
1		Edge Start				20	158	22	157	0.117
1-1/8						16	161	18	160	0.126
1-1/4						13	164	14	163	0.139
1-1/2						9	170	10	168	0.183

Gas flow rate – slpm / scfh

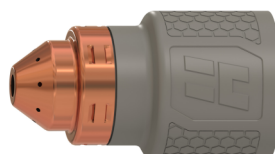
236 / 500	Hot (cutflow)
311 / 660	Cold (postflow)

Cut Charts

Stainless Steel – 105 A – Air



428895
ohmic sensing ring



428936

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width	
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage		
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm	
6	3.2	6.4	200	0.5	4700	139	5690	139	1.9	
8					3250	142	3890	142	2.1	
10					2180	144	2620	144	2.2	
12					1550	147	1880	146	2.4	
16		7.9	250	0.8	940	151	1120	150	2.6	
20					660	155	790	154	2.8	
25		Edge Start				460	159	530	158	2.9
30						330	162	360	162	2.8
32						300	163	330	163	2.8

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width	
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage		
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches	
1/4	0.125	0.250	200	0.5	185	140	224	140	0.075	
3/8					94	144	112	143	0.086	
1/2					55	148	67	147	0.096	
5/8					37	151	45	150	0.103	
3/4		0.310	250	1.3	28	154	34	153	0.109	
7/8					22	157	27	156	0.113	
1		Edge Start				17	160	20	159	0.114
1-1/8						14	161	16	161	0.113
1-1/4						12	163	13	163	0.110

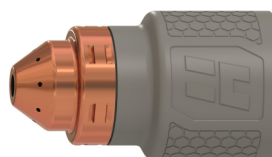
Gas flow rate – slpm / scfh

236 / 500	Hot (cutflow)
311 / 660	Cold (postflow)

Aluminum - 105 A - Air



428895
ohmic sensing ring



428936

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width		
		mm	%		Cut Speed	Arc Voltage	Cut Speed	Arc Voltage			
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm		
6	3.2	6.4	200	0.5	5660	146	6730	146	2.3		
8					3760	148	4500	147	2.4		
10					2590	149	3230	148	2.4		
12					1930	151	2490	149	2.5		
16				1320	156	1650	153	2.5			
20				1020	160	1190	157	2.6			
25				Edge Start			660	166	810	163	2.7
30				Edge Start			430	172	560	168	3.0
32	Edge Start			380	174	510	170	3.1			

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width		
		inches	%		Cut Speed	Arc Voltage	Cut Speed	Arc Voltage			
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches		
1/4	0.125	0.250	200	0.5	223	146	265	146	0.093		
3/8					110	149	136	148	0.096		
1/2					70	152	91	150	0.098		
5/8					52	155	66	153	0.100		
3/4				43	159	50	156	0.102			
7/8				Edge Start			34	162	40	159	0.105
1				Edge Start			26	166	31	163	0.109
1-1/8				Edge Start			19	170	24	167	0.114
1-1/4	Edge Start			15	174	20	170	0.122			

Gas flow rate - slpm / scfh

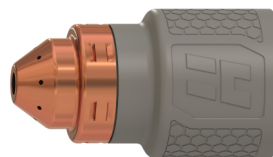
236 / 500	Hot (cutflow)
311 / 660	Cold (postflow)

Cut Charts

Mild Steel – 85 A – Air



428895
ohmic sensing ring



428934

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width	
		mm	%		mm/min	volts	mm/min	volts		
3	3.2	3.8	120	0.0	6930	134	9580	131	1.5	
4				0.2	5560	134	7140	132	1.7	
6				0.2	3560	135	4220	134	1.9	
8				0.5	2360	136	2820	135	2.1	
10		4.8	150	0.5	1630	137	2030	137	2.3	
12					1240	138	1520	138	2.4	
16					840	142	970	142	2.6	
20		6.4	200	1.5	580	147	660	145	2.8	
25		Edge Start				360	153	430	150	3.0
30		Edge Start				200	159	300	155	3.4

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width	
		inches	%		in/min	volts	in/min	volts		
10 GA	0.125	0.150	120	0.2	250	134	334	132	0.063	
3/16					185	134	226	133	0.070	
1/4				130	135	153	134	0.077		
3/8				70	136	86	136	0.088		
1/2		0.188	150	1.0	46	139	55	139	0.096	
5/8					34	142	39	142	0.103	
3/4					25	146	28	144	0.108	
7/8		Edge Start				19	150	22	147	0.114
1		Edge Start				13	153	17	150	0.120
1-1/8		Edge Start				9	157	13	153	0.128
1-1/4	Edge Start				6	161	10	157	0.139	

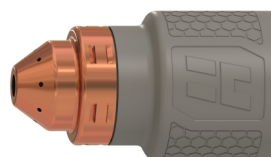
Gas flow rate – slpm / scfh

212 / 450	Hot (cutflow)
264 / 560	Cold (postflow)

Stainless Steel – 85 A – Air



428895
ohmic sensing ring



428934

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		mm	%		Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm
3	3.2	3.8	120	0.2	8100	132	9860	131	1.3
4					6220	133	7570	132	1.6
6					3630	135	4470	134	2.0
8					2260	137	2790	136	2.3
10		4.8	150	0.5	1500	139	1880	138	2.4
12					1040	142	1350	140	2.5
16					690	147	790	144	2.5
20					Edge Start	480	151	530	148
25		300	155	380		152	3.5		

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		inches	%		Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches
10 GA	0.125	0.150	120	0.2	275	133	335	131	0.060
3/16					199	134	243	133	0.071
1/4					131	135	161	134	0.082
3/8					65	139	81	137	0.094
1/2		0.188	150	1.0	36	142	47	141	0.098
5/8					27	146	32	144	0.098
3/4					21	150	23	147	0.102
7/8					Edge Start	16	153	18	150
1		11	155	15		152	0.141		

Gas flow rate – slpm / scfh

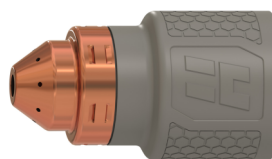
212 / 450	Hot (cutflow)
264 / 560	Cold (postflow)

Cut Charts

Aluminum - 85 A - Air



428895
ohmic sensing ring



428934

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		mm	%		Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm
3	3.2	3.8	120	0.2	7980	137	9520	135	1.9
4					6050	138	7470	136	2.0
6					3630	140	4750	138	2.2
8					2440	142	3250	141	2.4
10		4.8	150	0.5	1780	145	2390	143	2.5
12					1400	148	1850	146	2.6
16					940	154	1190	150	2.7
20					580	158	890	155	2.8
25	Edge Start				380	162	530	159	3.0

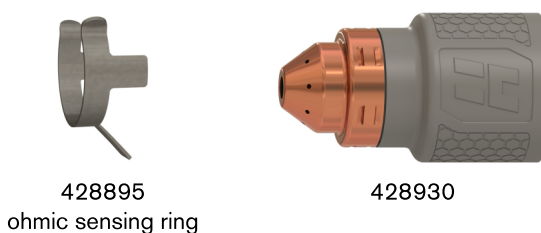
English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		inches	%		Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches
1/8	0.125	0.150	120	0.2	300	137	360	136	0.076
1/4					133	140	174	139	0.089
3/8					75	144	101	143	0.097
1/2					51	149	68	146	0.102
5/8		0.188	150	1.0	38	153	48	150	0.106
3/4					26	157	37	154	0.109
7/8					19	160	29	157	0.113
1					15	162	20	159	0.119
	Edge Start								

Gas flow rate - slpm / scfh

212 / 450	Hot (cutflow)
264 / 560	Cold (postflow)

Mild Steel – 65 A – Air



Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm
3	3.2	3.8	120	0.1	5330	133	6250	132	1.3
4					4220	133	5000	131	1.4
6				0.2	2570	133	3200	132	1.5
8				0.5	1550	135	2130	133	1.7
10				0.7	1040	137	1500	135	1.9
12				1.2	840	139	1120	137	2.0
16		6.4	200	2.0	560	145	660	143	2.3
20		Edge Start			380	151	430	148	2.5
25	Edge Start			200	155	280	153	2.8	

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches
10 GA	0.125	0.150	120	0.1	191	133	225	132	0.053
3/16					138	133	166	131	0.057
1/4				0.5	93	133	117	132	0.062
3/8				0.7	44	136	64	134	0.072
1/2				1.2	30	140	40	138	0.081
5/8				0.250	200	2.0	22	145	27
3/4		Edge Start			16	150	19	147	0.097
7/8		Edge Start			11	153	14	151	0.104
1	Edge Start			8	155	10	153	0.110	

Gas flow rate – slpm / scfh

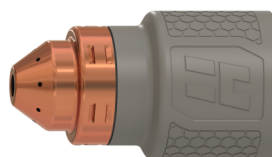
193 / 410	Hot (cutflow)
243 / 515	Cold (postflow)

Cut Charts

Stainless Steel – 65 A – Air



428895
ohmic sensing ring



428930

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		mm	%		seconds	Cut Speed	Arc Voltage	Cut Speed	
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm
2	3.2	3.8	120	0.1	8760	132	10820	131	0.8
3					7650	132	9730	131	1.1
4					5160	133	6120	131	1.3
6					2440	133	2720	132	1.6
8		0.5	1350	135	1550	134	1.8		
10		4.8	150	0.7	940	137	1120	136	2.0
12				1.2	740	139	890	138	2.1
16				Edge Start		480	144	510	143
20		Edge Start		330	149	360	148	2.5	

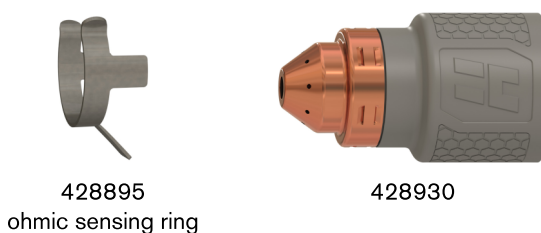
English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		inches	%		seconds	Cut Speed	Arc Voltage	Cut Speed	
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches
10 GA	0.125	0.150	120	0.1	241	132	295	131	0.047
3/16				0.2	150	133	171	132	0.055
1/4				0.5	86	134	95	133	0.064
3/8				0.7	40	136	47	135	0.075
1/2		0.188	150	1.2	27	140	31	139	0.082
5/8		Edge Start		19	144	21	143	0.087	
3/4		Edge Start		14	148	15	147	0.096	

Gas flow rate – slpm / scfh

193 / 410	Hot (cutflow)
243 / 515	Cold (postflow)

Aluminum - 65 A - Air



Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		mm	%		mm/min	Arc Voltage	mm/min	Arc Voltage	
2	3.2	3.8	120	0.1	9270	134	10800	133	1.4
3					7540	134	8920	133	1.5
4					5380	135	6880	133	1.5
6					2900	137	4110	135	1.6
8		0.5	1780	139	2590	137	1.7		
10		4.8	150	0.7	1220	142	1750	139	1.8
12				1.2	940	145	1320	142	1.9
16		Edge Start				610	151	810	148
20	Edge Start				380	157	530	153	2.4

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		inches	%		in/min	volts	in/min	volts	
1/16	0.125	0.150	120	0.1	365	134	428	133	0.056
1/8					280	134	337	133	0.059
1/4					104	137	149	135	0.064
3/8					52	141	75	138	0.069
1/2		0.188	150	1.2	34	146	48	143	0.076
5/8		Edge Start				25	151	33	147
3/4	Edge Start				17	155	23	152	0.092

Gas flow rate - slpm / scfh

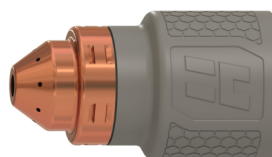
193 / 410	Hot (cutflow)
243 / 515	Cold (postflow)

Cut Charts

Mild Steel – 45 A – Air



428895
ohmic sensing ring



428925

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm
0.5	3.2	3.8	120	0.0	8890	137	12500	135	1.1
1				0.1	8890	138	10670	138	1.4
1.5					8890	138	10190	139	1.5
2				0.2	6600	139	7620	140	1.7
3				0.4	3630	141	4830	139	1.8
4					2260	142	3400	138	1.9
6					1240	141	2010	140	1.9

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches
26 GA	0.125	0.150	120	0.0	350	137	501	135	0.044
22 GA					350	137	445	137	0.049
18 GA				0.1	350	138	408	138	0.057
16 GA					350	138	398	139	0.061
14 GA				0.2	278	139	318	140	0.065
12 GA				0.4	173	140	219	140	0.071
10 GA					115	141	162	139	0.073
3/16				0.5	68	142	107	138	0.074
1/4				0.6	46	141	74	141	0.075

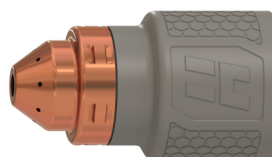
Gas flow rate – slpm / scfh

182 / 385	Hot (cutflow)
217 / 460	Cold (postflow)

Stainless Steel - 45 A - Air



428895
ohmic sensing ring



428925

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm
0.5	3.2	3.8	120	0.0	8890	127	12700	125	1.1
1				0.1	8890	134	10770	132	0.8
1.5					8890	138	10110	137	0.7
2				0.2	6220	140	8990	139	0.8
3				0.4	3230	141	4620	140	1.4
4				0.5	1960	140	2410	139	2.2
6				0.6	860	142	970	141	2.4

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches
26 GA	0.125	0.150	120	0.0	350	127	501	125	0.045
22 GA					350	131	445	130	0.035
18 GA				0.1	350	136	408	135	0.027
16 GA					350	138	401	137	0.026
14 GA				0.2	248	140	357	139	0.030
12 GA				0.4	145	141	214	140	0.048
10 GA					94	141	124	140	0.072
3/16				0.5	55	139	63	138	0.102
1/4				0.6	30	144	35	144	0.082

Gas flow rate - slpm / scfh

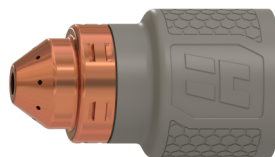
182 / 385	Hot (cutflow)
217 / 460	Cold (postflow)

Cut Charts

Aluminum - 45 A - Air



428895
ohmic sensing ring



428925

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width		
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage			
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm		
1	3.2	3.8	120	0.0	8260	131	11400	128	1.6		
2						5970	140	9040	137	1.8	
3						0.1	3350	146	6400	143	1.9
4							2210	150	4600	146	1.9
6						0.2	1240	151	2570	145	2.0

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches
1/32	0.125	0.150	120	0.0	325	129	449	126	0.062
1/16					325	137	406	134	0.069
3/32				0.1	183	143	312	140	0.073
1/8					121	147	238	144	0.074
1/4				0.2	46	150	93	143	0.081

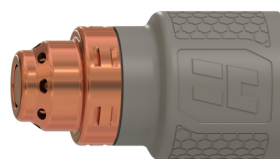
Gas flow rate - slpm / scfh

182 / 385	Hot (cutflow)
217 / 460	Cold (postflow)

Mild Steel – FineCut High Speed – Air



428895
ohmic sensing ring



428926

Metric

Material Thickness	Current	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Kerf Width
			mm	%		Cut Speed	Arc Voltage	
mm	A	mm	mm	%	seconds	mm/min	volts	mm
0.5	40	3.5	3.5	100	0.0	8900	90	0.8
0.6						8900	90	0.8
0.8						8900	90	0.6
1						8890	90	0.6
1.5	45				0.2	6550	88	0.5
2						5260	88	0.5
3						2750	90	0.8
4						2250	88	0.8

English

Material Thickness	Current	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Kerf Width
			inches	%		Cut Speed	Arc Voltage	
inches	A	inches	inches	%	seconds	in/min	volts	inches
26 GA	40	0.14	0.14	100	0.0	350	90	0.033
24 GA						350	90	0.032
22 GA						350	90	0.026
20 GA						350	90	0.024
18 GA	45				0.1	350	89	0.020
16 GA						250	88	0.021
14 GA						220	88	0.021
12 GA						115	91	0.032
10 GA	100	89	0.031					

Gas flow rate – slpm / scfh

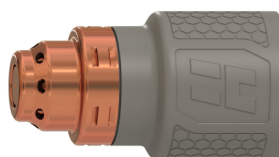
162 / 343	Hot (cutflow)
180 / 382	Cold (postflow)

Cut Charts

Stainless Steel – FineCut High Speed – Air



428895
ohmic sensing ring



428926

Metric

Material Thickness	Current	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Kerf Width
						Cut Speed	Arc Voltage	
mm	A	mm	mm	%	seconds	mm/min	volts	mm
0.5	40	0.5	3.5	700	0.0	8900	64	0.7
0.6						8900	65	0.6
0.8						8900	65	0.5
1	45				0.1	8890	64	0.4
1.5					0.3	6320	64	0.4
2					0.4	4830	65	0.4
3					0.5	2550	71	0.6
4					0.7	1050	71	0.5

English

Material Thickness	Current	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Kerf Width
						Cut Speed	Arc Voltage	
inches	A	inches	inches	%	seconds	in/min	volts	inches
26 GA	40	0.02	0.14	700	0.0	350	64	0.028
24 GA						350	65	0.024
22 GA						350	65	0.020
20 GA	45				0.1	350	65	0.016
18 GA					0.2	350	62	0.012
16 GA					0.3	240	64	0.017
14 GA					0.4	200	65	0.017
12 GA					0.5	120	71	0.026
10 GA	0.6	75	71	0.023				

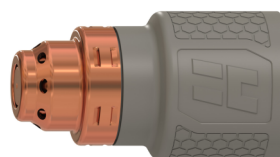
Gas flow rate – slpm / scfh

162 / 343	Hot (cutflow)
180 / 382	Cold (postflow)

Mild Steel – FineCut Low Speed – Air



428895
ohmic sensing ring



428926

Metric

Material Thickness	Current	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Kerf Width						
						Cut Speed	Arc Voltage							
mm	A	mm	mm	%	seconds	mm/min	volts	mm						
0.5	30	3.5	3.5	100	0.0	3800	98	1.0						
0.6						3800	97	1.0						
0.8						3800	95	1.0						
1	3800					95	0.9							
1.5	40				3.5	3.5	100	0.2	3800	94	1.0			
2								0.3	2370	93	1.1			
3	45							3.5	3.5	100	0.4	2750	90	0.8
4											0.6	2250	88	0.8

English

Material Thickness	Current	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Kerf Width						
						Cut Speed	Arc Voltage							
inches	A	inches	inches	%	seconds	in/min	volts	inches						
26 GA	30	0.14	0.14	100	0.0	150	98	0.042						
24 GA						150	97	0.039						
22 GA						150	95	0.040						
20 GA	150					95	0.038							
18 GA	35				0.14	0.14	100	0.1	150	94	0.035			
16 GA								0.2	150	94	0.038			
14 GA	40							0.14	0.14	100	0.3	90	93	0.042
12 GA											0.4	115	91	0.032
10 GA	45	0.14	0.14	100							0.5	100	89	0.031

Gas flow rate – slpm / scfh

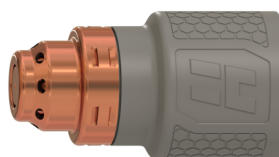
162 / 343	Hot (cutflow)
180 / 382	Cold (postflow)

Cut Charts

Stainless Steel – FineCut Low Speed – Air



428895
ohmic sensing ring



428926

Metric

Material Thickness	Current	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Kerf Width
						Cut Speed	Arc Voltage	
mm	A	mm	mm	%	seconds	mm/min	volts	mm
0.5	30	0.5	3.5	700	0.0	3800	74	0.9
0.6						3800	73	0.8
0.8						3800	71	0.7
1	40				0.1	3770	71	0.7
1.5					0.3	3570	71	0.6
2					0.4	2830	71	0.7
3					45	0.5	2550	71
4	0.7					1050	71	0.5

English

Material Thickness	Current	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Kerf Width
						Cut Speed	Arc Voltage	
inches	A	inches	inches	%	seconds	in/min	volts	inches
26 GA	30	0.02	0.14	700	0.0	150	74	0.035
24 GA						150	73	0.033
22 GA						150	71	0.030
20 GA	40				0.1	150	71	0.026
18 GA					0.2	145	71	0.026
16 GA					0.3	140	71	0.025
14 GA					0.4	110	71	0.028
12 GA	45				0.5	120	71	0.026
10 GA		0.6	75	71	0.023			

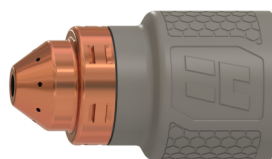
Gas flow rate – slpm / scfh

162 / 343	Hot (cutflow)
180 / 382	Cold (postflow)

Stainless Steel – 105 A – F5



428895
ohmic sensing ring



428936

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		mm	%		mm/min	volts	mm/min	volts	
6	3.2	6.4	200	0.5	2800	155	3600	153	1.2
8					2300	157	3100	155	
10					1500	159	2300	157	
12					1100	162	1500	159	
16		700	165	1000	161	1.5			
20	4.4	8.0	250	1.3	500	173	700	168	1.8
25		Edge start			400	181	500	172	2.2

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		inches	%		in/min	volts	in/min	volts	
1/4	0.125	0.250	200	0.5	117	155	150	153	0.047
3/8					65	158	99	156	0.045
1/2					36	163	48	160	0.053
5/8					28	165	38	161	0.047
3/4		20	174	28	167	0.067			
7/8	0.175	0.310	250	1.3	21	171	23	169	0.054
1		Edge start			15	183	18	172	0.090

Gas flow rate – slpm / scfh

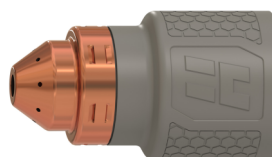
246 / 522	Hot (cutflow)
332 / 705	Cold (postflow)

Cut Charts

Stainless Steel – 85 A – F5



428895
ohmic sensing ring



428934

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm
4	3.2	3.8	120	0.2	4100	137	5400	142	1.8
6					2200	142	2900	141	1.1
8				1600	146	2100	142	1.3	
10				1300	149	1700	143	1.4	
12		4.8	150	0.8	1000	152	1200	146	1.4
16		6.4	200	1.0	600	156	800	150	1.5
20		Edge start				300	157	400	156

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width	
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage		
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches	
10 GA	0.125	0.150	120	0.2	183	136	238	142	0.073	
1/4					74	143	98	141	0.045	
3/8				54	148	70	142	0.054		
1/2				0.188	150	0.8	33	153	42	147
5/8		0.250	200	1.0	25	156	31	150	0.060	
3/4		Edge start				17	157	20	155	0.071

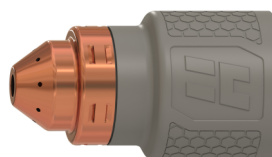
Gas flow rate – slpm / scfh

205 / 434	Hot (cutflow)
277 / 586	Cold (postflow)

Stainless Steel – 65 A – F5



428895
ohmic sensing ring



428930

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
mm	mm	mm	%	seconds	mm/min	volts	mm/min	volts	mm
4	3.2	3.8	120	0.1	3200	142	4200	143	0.8
6				0.2	1800	144	2400	145	1.0
8				0.5	1100	148	1500	148	1.1
10				0.7	700	153	900	152	1.3
12	5.0	6.0		1.2	500	157	700	154	1.5

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
					Cut Speed	Arc Voltage	Cut Speed	Arc Voltage	
inches	inches	inches	%	seconds	in/min	volts	in/min	volts	inches
10 GA	0.125	0.150	120	0.2	142	142	185	143	0.029
1/4				0.5	60	144	80	145	0.040
3/8				0.7	30	152	38	151	0.048
1/2				1.2	19	159	26	155	0.062

Gas flow rate – slpm / scfh

193 / 408	Hot (cutflow)
254 / 538	Cold (postflow)

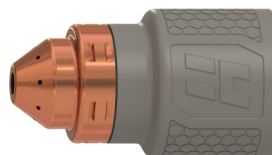
Aluguel de Máquinas de Solda

Cut Charts

Stainless Steel – 45 A – F5



428895
ohmic sensing ring



428925

Metric

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		mm	%		seconds	Cut Speed	Arc Voltage	Cut Speed	
6	3.2	4.8	150	0.6	1200	154	1200	154	0.8
7					1100		1100		

English

Material Thickness	Cut Height	Initial Pierce Height		Pierce Delay	Best Quality		Highest Production		Kerf Width
		inches	%		seconds	Cut Speed	Arc Voltage	Cut Speed	
1/4	0.125	0.18	150	0.6	46	154	46	154	0.030

Gas flow rate – slpm / scfh

176 / 374	Hot (cutflow)
222 / 470	Cold (postflow)