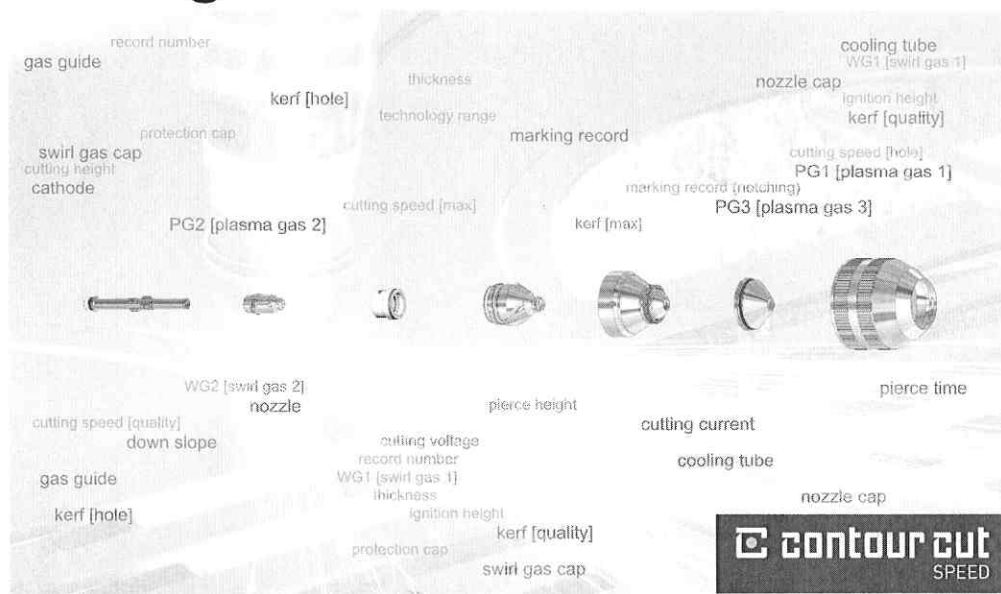


**Kjellberg®**  
**FINSTERWALDE**

the  
**FINE FOCUS™**  
company

## Cutting data manual



- Power source
- Plasma gas control unit
- Plasma machine torch

**Smart Focus 200**  
**FlowControl-300**  
**PerCut 2000**

**Base Edition**

data version: 3 - valid from: 08.12.2015

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**Appendix**

<b>A</b>	<b>Order form for consumables .....</b>	<b>A-1</b>
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## References

### 1 References

#### General

- Cutting parameters and results may differ because of material composition, material surface and shape of workpiece.
- The compliance of the determined cutting distance is very important.
- The specified **cutting voltages serve as a guideline only**. They depend on a number of conditions such as cutting height, cathode burn-off, good electrical contact between workpiece and cutting table and length of the hose package.
- The pierce time is adjusted at profile-cutting-machine.

#### Technology range HiFinox

For cutting quality reasons please don't use nozzles in HiFinox technology which you have previously used in mild steel cutting.

#### Marking

- Marking is possible only with power sources and gas consoles, which are arranged for the operation of this technology.
- Reset the pierce time at the profile-cutting-machine
- Don't enlarge the ignition height
- If marking records are indicated under the cutting charts to the individual cutting record, these can be used without consumable changes - by it however in every case the optimal marking quality is not reached.



#### Information

Please note the explanations in the instruction manual under "Plasma marking, Plasma notching, Plasma punching"

Abbreviations and symbols

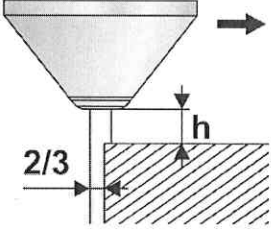
▶	abbreviations / symbols	explanation
	(i)	<p><u>intern</u> eingestellt = intern adjusted The gas parameters of the ignition gas are internally adjusted. An adjusting by hand is not required/ not possible.</p>
	(K)	<p><u>Kantenstart</u> = edge start Edge start is necessary if hole piercing is no longer useful or possible due to the material thickness, because the consumables may be damaged already after a short time by material splashes and suffer the cut quality.</p> <p>A secure ignition of pilot arc provided, the plasma torch has to be placed in this way that approximately one third of the plasma arc already cuts the workpiece while ignition and two-thirds are still outside of the workpiece.</p> <p>Ignition height is equivalent to the cutting height h.</p> 
	*	undetermined

Fig. 1: explanation of the used abbreviations and symbols at the cutting chart

## Consumable overview

### 2 Consumable overview

#### Smart Focus 200

#### FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

material	thickness [mm]	cutting current [A]	ZG [ignition gas]	PG [plasma gas]	WG [swirl gas]	#
1.0037 S235	1 - 30	35 - 200	Air	O2	Air, O2	1
	10 - 60	60 - 200			Air	
1.4301 CrNi	1 - 6	55	N2	N2	N2, N2/H2	2
	5 - 60	130 - 200	Ar	Ar, H2	N2	
3.3535 AlMg3	1 - 6	55	N2	N2	N2, N2/H2	3
	6 - 60	130 - 200	Ar	Ar, H2		

#### Smart Focus 200








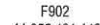


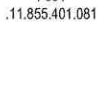










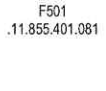







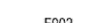




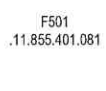
#1

#### FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235

PG (O2)

thickness [mm]	cutting current [A]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap
								
1 - 6	35	 F902 .11.855.401.142	 F012 .11.855.411.320	 G101C .11.848.221.145C	F2007 .11.855.401.407	F3004 .11.855.401.1604	F4120 .11.855.411.1520	 F501 .11.855.401.081
10	60				F2008 .11.855.401.408	F3028 .11.855.401.1628	F4020 .11.855.401.1520	
4 - 10	90				F2010 .11.855.401.410		F4030 .11.855.401.1530	
10 - 15								
4 - 15								
								
10 - 40	130	 F902 .11.855.401.142	 F005 .11.855.401.350	 G101C .11.848.221.145C	F2012 .11.855.401.412	F3028 .11.855.401.1628	F4030 .11.855.401.1530	 F501 .11.855.401.081
6 - 20	160				F2014 .11.855.401.414			
12 - 40								
12 - 30								
								
15 - 25	200	 F902 .11.855.401.142	 F006 .11.855.401.360	 G101C .11.848.221.145C	 F2017 .11.855.401.417	 F3028 .11.855.401.1628	F4030 .11.855.401.1530	 F501 .11.855.401.081
30 - 40							F4035 .11.855.401.1535	
50 - 60							F4040 .11.855.401.1540	
15 - 25							F4030 .11.855.401.1530	
30							F4035 .11.855.401.1535	

**Consumable overview**

**Smart Focus 200**








**#2**

**FlowControl-300 - PerCut 2000**








data version: 3 - valid from: 08.12.2015 - Base Edition

**stainless steel - 1.4301 CrNi**

**PG (N<sub>2</sub>)**

thickness [mm]	cutting current [A]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap
								
1 - 6	55	F941 .11.855.441.141	F042 .11.855.441.520	G101 .11.848.221.145	F2010 .11.855.401.410	F3008 .11.855.401.1608	F4025 .11.855.401.1525	F501 .11.855.401.081

**PG (Ar, H<sub>2</sub>)**

								
5 - 12	130	F941 .11.855.441.141	F052 .11.855.451.520	G105 .11.848.221.149	F2514 .11.855.451.614	F3018 .11.855.401.1618	F4030 .11.855.401.1530	F501 .11.855.401.081
15 - 40					F2515 .11.855.451.615	F3008 .11.855.401.1608	F4035 .11.855.401.1535	
15 - 60							F4040 .11.855.401.1540	



**Smart Focus 200**








**#3**

FlowControl-300 - PerCut 2000








data version: 3 - valid from: 08.12.2015 - Base Edition

aluminium - 3.3535 AlMg3

PG (N2)

thickness [mm]	cutting current [A]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap
								
1 - 6	55	F941 .11.855.441.141	F042 .11.855.441.520	G101 .11.848.221.145	F2010 .11.855.401.410	F3008 .11.855.401.1608	F4020 .11.855.401.1520	F501 .11.855.401.081

PG (Ar, H2)

thickness [mm]	cutting current [A]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap
								
6 - 40	130	F941 .11.855.441.141	F052 .11.855.451.520	G104 .11.848.221.148	F2014 .11.855.401.414	F3008 .11.855.401.1608	F4530 .11.855.451.1530	F501 .11.855.401.081
10 - 60	200				F2017 .11.855.401.417		F4540 .11.855.451.1540	

## Cutting data overview

### 3 Cutting data overview

#### Smart Focus 200

#### FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

material	thickness [mm]	cutting current [A]	ZG [ignition gas]	PG [plasma gas]	WG [swirl gas]	technology	#
1.0037 S235	1 - 6	35	Air	O2	Air, O2	Contour Cut	1
	4 - 10	60					2
	4 - 8	60			Air	Contour Cut Speed	3
	10	60					4
	4 - 15	90			Air, O2	Contour Cut	5
	4 - 8	90					6
	10 - 15	90			Air	Contour Cut Speed	7
	6 - 20	130					8
	6 - 8	130			Air, O2	Contour Cut	9
	10 - 40	130				Contour Cut Speed	10
	12 - 30	160			Air, O2	Contour Cut	11
	12 - 40	160					12
	15 - 30	200			Air, O2	Contour Cut	13
	15 - 60	200				Contour Cut Speed	14
1.4301 CrNi	1 - 6	55	N2	N2	N2, N2/H2	HiFinox	15
	5 - 40	130	Ar	Ar, H2	N2	Ar/H2 Mix	16
	15 - 60	200					17
3.3535 AlMg3	1 - 6	55	N2	N2	N2, N2/H2	HiFinox	18
	6 - 40	130	Ar	Ar, H2		Ar/H2 Mix	19
	10 - 60	200					20

#### Smart Focus 200

#1

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (1 - 6 mm)

Contour Cut

cutting records (35 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG1: O2, WG2: Air)

	record number	cutting current [A]	thickness [mm]	technology range												cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
				PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cutting speed [max] [mm/min]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

marking records

ZG (PG1: Ar)

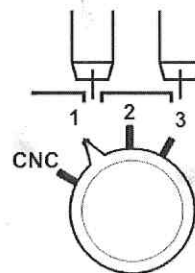
500	10	-	1	(i)	0	0	0	0	2,5	2,5	-	2,0	80	5000	-	-	F902	F012	G101C	F2007	F3004	F4120	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	------	---	---	------	------	-------	-------	-------	-------	------	---	---	----

1.0037 S235 CC more :F1 35A  
1.0mm

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>		O <sub>2</sub>	Air
	6.0		2.8	3.0
	6.0		2.8	3.0

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



technology range

## Cutting data overview

### Smart Focus 200

#2

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (4 - 10 mm)

Contour Cut

cutting records (60 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG1: O2, WG2: Air)

	record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
42		4		(i)	8	0	2	3	4,0	4,0	0,2	2,0	129	2500	1,8	3000	1,6		F902	F012	G101C	F2008	F3028	F4020	F501	501	-	200
43		5		(i)	8	0	2	3	4,0	4,0	0,3	2,0	126	2000	1,7	3000	1,7	200										
44	60	6	1	(i)	8	0	1,5	2	4,0	4,0	0,4	2,0	123	1500	1,7	2900	1,7	200										
45		8		(i)	8	0	1,5	2	4,0	4,0	0,5	2,0	126	1000	1,8	2200	1,6	200										
46		10		(i)	8	0	1,5	2	4,0	4,0	0,6	2,5	134	1000	1,9	1500	1,9	200										

marking records

ZG (PG1: Ar)

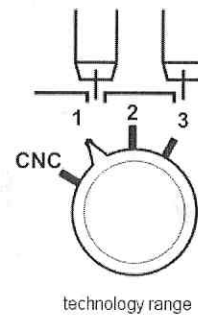
501	10	-	1	(i)	0	0	0	0	2,5	2,5	-	2,0	82	*	*	5000	*	F902	F012	G101C	F2008	F3028	F4020	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	---	---	------	---	------	------	-------	-------	-------	-------	------	---	---	----

42 1.0037 S235 CC more :F1 60A  
4.0mm

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>		O <sub>2</sub>	Air
	8.0		2.0	3.0
	8.0		2.0	3.0

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



#### Smart Focus 200

#3

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (4 - 8 mm)

Contour Cut Speed

cutting records (60 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG1: O2, WG2: Air)

record number	cutting current [A]	thickness [mm]	technology range																cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
8	4	60	(i)	8	0	2.5	3.5	4.0	4.0	0.2	2.0	127	2500	1.8	4100	1.5	F902	F012	G101C	F2008	F3028	F4020	F501	501	-	200		
9	5		(i)	8	0	2	3	4.0	4.0	0.3	2.0	125	2200	1.7	3100	1.7										200		
10	6		(i)	8	0	1.5	2	4.0	4.0	0.4	2.0	123	1600	1.7	3000	1.7										200		
11	8		(i)	8	0	1.5	2	4.0	4.0	0.5	2.0	126	1300	1.7	2400	1.6										200		

marking records

ZG (PG1: Ar)

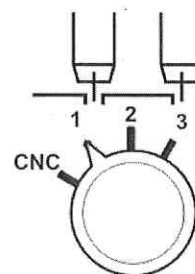
501	10	-	1	(i)	0	0	0	0	2.5	2.5	-	2.0	82	*	*	5000	*	F902	F012	G101C	F2008	F3028	F4020	F501	*	*	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	---	---	------	---	------	------	-------	-------	-------	-------	------	---	---	----

B 1.0037 S235 CCS more :F1 60A  
 4.0mm

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>		O <sub>2</sub>	Air
	8.0		2.5	3.5
	8.0		2.5	3.5

new data: <COPY>  
 select record: <F2>  
 OK

switch positions on the Smart Focus



technology range

## Cutting data overview

### Smart Focus 200

#4

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (10 mm)

Contour Cut Speed

cutting records (60 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG2: Air)

record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
12	60	10	1	(i)	8	0	0	1.5	4.0	4.0	0.6	3.0	131	300	1.7	1600	1.6	F902	F012	G101C	F2008	F3028	F4020	F501	501	-	200

marking records

ZG (PG1: Ar)

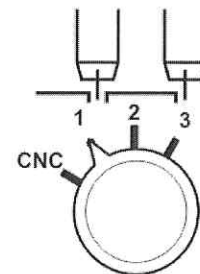
501	10	-	1	(i)	0	0	0	0	2.5	2.5	-	2.0	82	*	*	5000	*	F902	F012	G101C	F2008	F3028	F4020	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	---	---	------	---	------	------	-------	-------	-------	-------	------	---	---	----

12 1.0037 S235 CCS  
10.0mm more :F1 60A

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>			Air
	8.0			1.5
	8.0			1.5

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



technology range

#### Smart Focus 200

#5

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (4 - 15 mm)

Contour Cut

cutting records (90 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG1: O2, WG2: Air)

	record number	cutting current [A]	thickness [mm]	technology range																cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]		
				PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]														
47		4		(i)	8	0	2.5	3	4,0	4,0	0,2	2,0	122	4400	2,0	4800	2,0														200
48		5		(i)	8	0	1,5	2	4,0	4,0	0,3	2,0	120	3500	2,2	4000	2,0														200
49		6		(i)	8	0	1,5	2,5	4,0	4,0	0,4	2,5	122	3000	2,4	3500	1,9														200
50	90	8	1	(i)	8	0	1,5	2,5	4,0	4,0	0,5	2,5	127	1200	2,3	2200	2,3		F902	F012	G101C	F2010	F3028	F4030	F501	502	-				200
51		10		(i)	8	0	1,5	2	4,0	4,0	0,6	2,5	131	1000	2,5	1600	2,6														200
52		12		(i)	8	0	1,5	2	4,0	6,0	0,8	3,5	138	900	2,9	1500	2,6														200
53		15		(i)	8	0	1,5	2,5	4,0	10,0	1,0	3,5	137	800	2,9	1300	2,7														200

marking records

ZG (PG1: Ar)

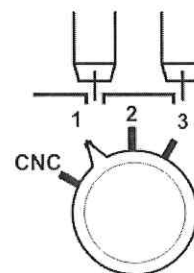
502	10	-	1	(i)	0	0	0	0	2.5	2.5	-	2.0	82	*	*	5000	*	F902	F012	G101C	F2010	F3028	F4030	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	---	---	------	---	------	------	-------	-------	-------	-------	------	---	---	----

47 1.0037 S235 CC more :F1 90A  
4.0mm

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>		O <sub>2</sub>	Air
	8.0		2.5	3.0
	8.0		2.5	3.0

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



## Cutting data overview

### Smart Focus 200

#6

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (4 - 8 mm)

Contour Cut Speed

cutting records (90 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG1: O2, WG2: Air)

	record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
13	90	4	1	(i)	8	0	2,5	3	4,0	4,0	0,2	2,0	121	4400	2,0	6000	1,8	F902	F012	G101C	F2010	F3028	F4030	F501	502	-	200	
14		5		(ii)	8	0	1,5	2	4,0	4,0	0,3	2,0	119	4200	2,3	4200	1,9										200	
15		6		(iii)	8	0	1,7	2,5	4,0	4,0	0,4	2,5	122	3300	2,4	3700	1,8										200	
16		8		(iv)	8	0	1,5	2,5	4,0	4,0	0,5	2,5	124	1800	2,3	2800	1,9										200	

marking records

ZG (PG1: Ar)

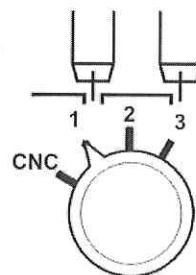
502	10	-	1	(i)	0	0	0	0	2,5	2,5	-	2,0	82	*	*	5000	*	F902	F012	G101C	F2010	F3028	F4030	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	---	---	------	---	------	------	-------	-------	-------	-------	------	---	---	----

13 1.0037 S235 CCS  
4,0mm  
more : F1 90A

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>		O <sub>2</sub>	Air
	8.0		2.5	3.0
	8.0		2.5	3.0

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



technology range



#### Smart Focus 200

#7

#### FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

#### mild steel - 1.0037 S235 (10 - 15 mm)

#### Contour Cut Speed

#### cutting records (90 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG2: Air)

	record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
17		10		(i)	8	0	0	1,5	4,0	4,0	0,6	2,5	126	600	2,2	1800	2,1		F902	F012	G101C	F2010	F3028	F4030	F501	502	-	200
18	90	12	1	(i)	8	0	0	1,5	4,0	6,0	0,8	2,5	128	600	2,2	1600	2,2											200
19		15		(i)	8	0	0	1,5	4,0	10,0	1,0	3,0	133	600	2,2	1300	2,4											200

#### marking records

ZG (PG1: Ar)

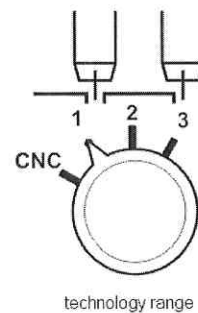
502	10	-	1	(i)	0	0	0	0	2,5	2,5	-	2,0	82	*	*	5000	*	F902	F012	G101C	F2010	F3028	F4030	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	---	---	------	---	------	------	-------	-------	-------	-------	------	---	---	----

17 1.0037 S235 CCS  
10.0mm more : F1 **90A**

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>			Air
	8.0			1.5
	8.0			1.5

new data: <COPY>  
select record: <F2>  
OK

#### switch positions on the Smart Focus



## Cutting data overview

### Smart Focus 200

#8

#### FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (6 - 20 mm)

Contour Cut

#### cutting records (130 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG1: O2, WG2: Air)

	record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	piece height [mm]	piece time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
54	130	6	1	(i)	8	0	2	2,5	4,0	4,0	0,4	2,5	131	3200	2,7	3600	2,5	F902	F005	G101C	F2012	F3028	F4030	F501	503	-	200	
55		8		(i)	8	0	1,5	3	4,0	4,0	0,5	3,0	134	1400	2,7	2500	2,5										200	
56		10		(i)	8	0	1,5	4	4,0	4,0	0,6	3,0	134	1400	2,7	2400	2,3										200	
57		12		(i)	8	0	2	4	4,0	6,0	0,8	4,0	141	1200	2,7	2000	2,6										200	
58		15		(i)	8	0	2	4	4,0	10,0	1,0	4,0	144	900	2,9	1500	2,7										200	
59	20	(ii)	8	0	2	4	4,0	15,0	1,0	4,0	147	600	3,2	1100	3,3											200		

#### marking records

ZG (PG1: Ar)

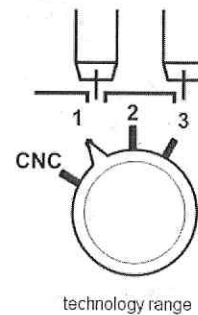
503	12	-	1	(i)	0	0	0	2,5	2,5	-	2,0	82	*	*	5000	*		F902	F005	G101C	F2012	F3028	F4030	F501	-	-	10
-----	----	---	---	-----	---	---	---	-----	-----	---	-----	----	---	---	------	---	--	------	------	-------	-------	-------	-------	------	---	---	----

54 1.0037 S235 CC more :F1 130A  
6.0mm

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>		O <sub>2</sub>	Air
	8.0		2.0	2.5
	8.0		2.0	2.5

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



#### Smart Focus 200

#9

#### FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (6 - 8 mm)

#### Contour Cut Speed

#### cutting records (130 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG1: O2, WG2: Air)

	record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
20	130	6	1	(i)	8	0	2	2,5	4,0	4,0	0,4	2,5	130	3400	2,6	4100	2,3	F902	F005	G101C	F2012	F3028	F4030	F501	503	-	200	
21		(ii)		8	0	3	4	4,0	4,0	0,5	3,0	132	2500	2,6	3700	2,5												

#### marking records

ZG (PG1: Ar)

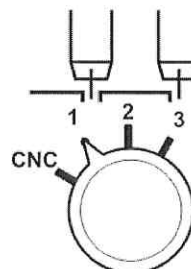
503	12	-	1	(0)	0	0	0	0	2,5	2,5	-	2,0	82	*	*	5000	*	F902	F005	G101C	F2012	F3028	F4030	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	---	---	------	---	------	------	-------	-------	-------	-------	------	---	---	----

20 1.0037 S235 CCS more : F1 130A  
6.0mm

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>		O <sub>2</sub>	Air
	8.0		2.0	2.5
	8.0		2.0	2.5

new data: <COPY>  
select record: <F2>  
OK

#### switch positions on the Smart Focus



technology range

## Cutting data overview

### Smart Focus 200

#10

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (10 - 40 mm)

Contour Cut Speed

cutting records (130 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG2: Air)

record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	Pierce height [mm]	Pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
22	10	(i)	8	0	0	2,5	4,0	4,0	0,6	2,5	128	1200	2,4	3000	2,2			F902	F005	G101C	F2012	F3028	F4030	F501	503	-	200
23	12	(i)	8	0	0	2	4,0	6,0	0,8	3,5	138	1200	2,4	2200	2,3												200
24	15	(i)	8	0	0	2	4,0	10,0	1,0	4,0	143	700	2,7	1600	2,5												200
25	130	20	1	(i)	8	0	0	2,5	4,0	15,0	1,0	4,5	147	400	3,0	1200	3,0										200
26	25	(i)	8	0	0	2,5	4,0	18,0	1,2	4,5	150	400	3,2	1000	3,2												200
27	30	(i)	8	0	0	2	5,5	(K)	1,0	5,5	162	*	*	500	4,0												200
28	40	(i)	8	0	0	1,5	6,5	(K)	1,0	6,5	174	*	*	300	5,0												200

marking records

ZG (PG1: Ar)

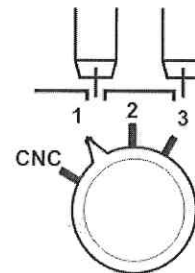
503	12	-	1	(i)	0	0	0	0	2,5	2,5	-	2,0	82	*	*	5000	*	F902	F005	G101C	F2012	F3028	F4030	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	---	---	------	---	------	------	-------	-------	-------	-------	------	---	---	----

22 1.0037 S235 CCS more : F1 130A  
10.0mm

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>			Air
	8.0			2.5
	8.0			2.5

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



technology range

## Cutting data overview

### Smart Focus 200

#12

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (12 - 40 mm)

Contour Cut Speed

cutting records (160 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG2: Air)

record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
29	12	(i)	8	0	0	3	4,0	6,0	0,8	2,5	133	1200	2,6	3400	2,4			F902	F005	G101C	F2014	F3028	F4030	F501	504	-	200
30	15	(i)	8	0	0	2,5	4,0	10,0	1,0	3,0	135	800	2,8	2600	2,6												200
31	20	(i)	8	0	0	2	4,0	15,0	1,0	3,0	141	500	3,3	1400	3,1												200
32	25	(i)	8	0	0	2	4,0	18,0	1,2	3,5	145	400	3,5	1100	3,5												200
33	30	(i)	8	0	0	2	5,5	18,0	1,6	5,5	158	400	3,5	800	3,6												200
34	40	(i)	8	0	0	2	6,0	(K)	1,0	6,0	169	*	*	400	5,1												200

marking records

ZG (PG1: Ar)

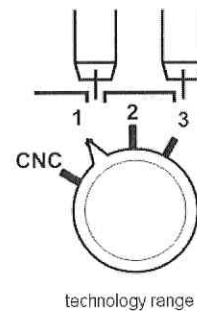
504	14	-	1	(i)	0	0	0	0	2,5	2,5	-	2,0	66	*	*	5000	*	F902	F005	G101C	F2014	F3028	F4030	F501	-	-	10
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29 1.0037 S235 CCS more : F1 160A  
12.0mm

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>			Air
	8.0			3.0
	8.0			3.0

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



#### Smart Focus 200

#11

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (12 - 30 mm)

Contour Cut

cutting records (160 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG1: O2, WG2: Air)

record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
60	12	(I)	8	0	3	4	4,0	6,0	0,8	4,0	143	1200	3,1	2400	3,0			F902	F005	G101C	F2014	F3028	F4030	F501	504	-	200
61	15	(I)	8	0	3	4	4,0	10,0	1,0	4,0	148	900	3,6	1700	3,2												200
62	160	20	1	(I)	8	0	3	4	4,0	15,0	1,0	4,0	151	800	3,7	1300	3,7										200
63	25	(I)	8	0	2,5	3,5	5,5	18,0	1,2	4,5	152	400	3,8	1000	4,2												200
64	30	(I)	8	0	2	3	5,5	18,0	1,6	5,5	163	400	3,8	700	4,5												200

marking records

ZG (PG1: Ar)

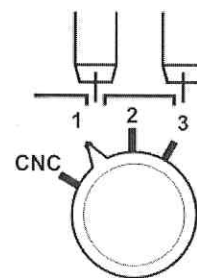
504	14	-	1	(I)	0	0	0	0	2,5	2,5	-	2,0	66	*	*	5000	*	F902	F005	G101C	F2014	F3028	F4030	F501	-	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	---	---	------	---	------	------	-------	-------	-------	-------	------	---	---	---	----

60 1.0037 S235 CC more : F1 160A  
12.0mm

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>		O <sub>2</sub>	Air
	8.0		3.0	4.0
	8.0		3.0	4.0

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



technology range

#### Smart Focus 200

#13

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (15 - 30 mm)

Contour Cut

cutting records (200 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG1: O2, WG2: Air)

	record number	cutting current [A]	thickness [mm]	technology range												cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
				PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

marking records

ZG (PG1: Ar)

505	16	-	1	(i)	0	0	0	0	2,5	2,5	-	2,0	61	*	*	4000	*	F902	F006	G101C	F2017	F3028	F4030	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	---	---	------	---	------	------	-------	-------	-------	-------	------	---	---	----

marking records (notching)

ZG (PG1: N2) - WG (WG1: N2)

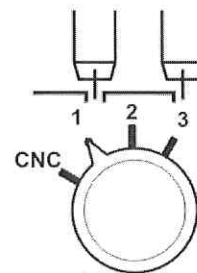
507	20	-	1	(i)	0	0	1,5	0	2,5	2,5	-	2,0	106	*	*	5000	*	F902	F006	G101C	F2017	F3028	F4030	F501	-	-	10
508	-	-	-	(i)	0	0	1,5	0	2,5	2,5	-	2,0	106	*	*	5000	*						F4035		-	-	10

66 1.0037 S235 CC  
15.0mm more : F1 200A

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>		O <sub>2</sub>	Air
	8.0		3.5	4.0
	8.0		3.5	4.0

new data: <COPY>  
select record: <F2>  
DK

switch positions on the Smart Focus



technology range

## Cutting data overview

### Smart Focus 200

#14

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

mild steel - 1.0037 S235 (15 - 60 mm)

Contour Cut Speed

cutting records (200 A)

ZG (PG1: Air) - PG (PG2: O2) - WG (WG2: Air)

	record number	cutting current [A]	thickness [mm]	technology range				PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [hole] [mm/min]	kerf [hole] [mm]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
35		15		(i)	8	0	0	2,5	4,5	10,0	1,0	4,0	135	800	3,1	2800	2,8													200	
36		20		(i)	8	0	0	2	4,5	15,0	1,0	4,0	137	500	3,5	1800	3,4									F4030			507	200	
37		25		(i)	8	0	0	2	5,5	18,0	1,2	4,0	140	500	3,5	1500	3,5													200	
38	200	30	1	(i)	8	0	0	2	5,5	18,0	1,6	5,5	148	500	3,7	1000	4,1					F902	F006	G101C	F2017	F3028		F501	505	200	
39		40		(i)	8	0	0	2	6,0	(K)	1,0	6,0	163	*	*	500	5,6													200	
40		50		(i)	8	0	0	2	6,5	(K)	1,5	6,5	180	*	*	200	6,7													200	
41		60		(i)	8	0	0	2	6,5	(K)	1,8	6,5	186	*	*	150	7,0										F4040				200

marking records

ZG (PG1: Ar)

505	16	-	1	(i)	0	0	0	0	2,5	2,5	-	2,0	61	*	*	4000	*	F902	F006	G101C	F2017	F3028	F4030	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	---	---	------	---	------	------	-------	-------	-------	-------	------	---	---	----

marking records (notching)

ZG (PG1: N2) - WG (WG1: N2)

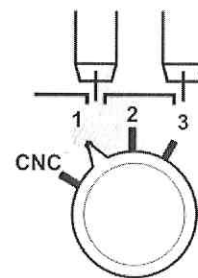
507	20	-	1	(i)	0	0	1,5	0	2,5	2,5	-	2,0	106	*	*	5000	*	F902	F006	G101C	F2017	F3028	F4030	F501	-	-	10
508	-	-	-	(i)	0	0	1,5	0	2,5	2,5	-	2,0	106	*	*	5000	*						F4035				10

35 1.0037 S235 CCS more : F1 200A  
15.0mm

PG1	PG2	PG3	WG1	WG2
Air	O <sub>2</sub>			Air
	8.0			2.5
	8.0			2.5

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



technology range



#### Smart Focus 200

#15

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

stainless steel - 1.4301 CrNi (1 - 6 mm)

HiFinox

#### cutting records (55 A)

ZG (PG1: N2) - PG (PG2: N2) - WG (WG1: N2, WG2: N2/H2)

	record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cutting speed [max] [mm/min]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]	
70	1	55	1	(i)	8	0	2,5	4	3,0	3,0	0,1	2,0	119	5500	1,3	*	*	F941	F042	G101	F2010	F3008	F4025	F501	511	-	200	
71	2			(i)	8	0	2,5	4	3,0	3,0	0,1	2,0	121	4000	1,3	*	*											200
72	3			(i)	8	0	2,5	4	3,0	3,0	0,5	2,0	124	3000	1,3	*	*											200
73	4			(i)	8	0	2,5	4	3,0	3,0	0,7	2,0	130	2700	1,4	*	*											200
74	5			(i)	8	0	2,5	4,5	4,0	4,0	0,9	4,0	138	2000	1,6	*	*											200
75	6			(i)	8	0	2,5	4,5	4,0	4,0	1,0	4,0	140	1800	1,7	*	*											200

#### marking records

ZG (PG1: Ar)

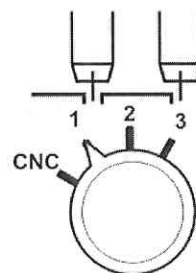
511	10	-	1	(i)	0	0	0	0	2,5	2,5	-	2,0	72	4000	*	*	F941	F042	G101	F2010	F3008	F4025	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	------	---	---	------	------	------	-------	-------	-------	------	---	---	----

70 1.4301 CrNi HiFinox  
1.0mm more :F1 55A

PG1	PG2	PG3	WG1	WG2
N <sub>2</sub>	N <sub>2</sub>		N <sub>2</sub>	N <sub>2</sub> /H <sub>2</sub>
	8.0		2.5	4.0
	8.0		2.5	4.0

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



technology range

## Cutting data overview

### Smart Focus 200

#16

#### FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

stainless steel - 1.4301 CrNi (5 - 40 mm)

Ar/H2 Mix

#### cutting records (130 A)

ZG (PG1: Ar) - PG (PG2: Ar, PG3: H2) - WG (WG1: N2)

	record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cutting speed [max] [mm/min]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]	
85	130	5	(i)	7,5	7,8	6	0	4,0	4,0	0,4	4,0	122	1600	2,7	*			F941	F052	G105	F2514	F3018	F4030	F501	512	-	10	
86		6	(i)	7,5	7,8	6	0	4,0	4,0	0,5	4,5	123	1600	2,7	*													10
87		8	(i)	7,5	7,8	4	0	4,5	4,5	0,6	3,0	116	1500	2,6	*													10
88		10	(i)	7,5	7,8	4	0	5,0	7,0	0,8	3,0	116	1400	2,6	*													10
89		12	(i)	7,5	7,8	3	0	5,0	8,0	1,0	3,0	117	1200	2,7	*								10					
90		15	(i)	7,5	7,8	3	0	5,0	9,0	1,2	3,0	126	900	3,1	*								10					
91		20	(i)	7,5	7,8	2,5	0	5,0	10,0	1,5	5,0	128	650	3,2	*								10					
92		25	(i)	7,5	7,8	2,5	0	5,0	10,0	1,8	5,0	129	500	3,6	*								10					
93	30	(i)	7,5	7,8	2,5	0	5,5	(K)	1,5	5,5	132	350	3,8	*			10											
94	40	(i)	7,5	7,8	2,5	0	6,0	(K)	1,8	6,0	144	180	4,1	*			10											

#### marking records

ZG (PG1: Ar)

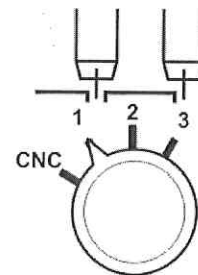
512	14	-	1	(i)	0	0	0	0	2,5	2,5	-	2,0	68	4000	*	*	F941	F052	G105	F2514	F3018	F4030	F501	-	-	10
-----	----	---	---	-----	---	---	---	---	-----	-----	---	-----	----	------	---	---	------	------	------	-------	-------	-------	------	---	---	----

85 1.4301 CrNi Ar/H2 Mix  
5.0mm more : F1 130A

PG1	PG2	PG3	WG1	WG2
Ar	Ar	H <sub>2</sub>	N <sub>2</sub>	
	7.5	7.8	6.0	
	7.5	7.8	6.0	

new data: <COPY>  
select record: <F2>  
OK

#### switch positions on the Smart Focus



technology range

#### Smart Focus 200

#17

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

stainless steel - 1.4301 CrNi (15 - 60 mm)

Ar/H2 Mix

cutting records (200 A)

ZG (PG1: Ar) - PG (PG2: Ar, PG3: H2) - WG (WG1: N2)

record number	cutting current [A]	thickness [mm]	technology range	PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cutting speed [max] [mm/min]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
95	15	(i)	8	8.5	4	0	5.0	9.0	1.0	4.0	129	1200	3.5	*			F941	F052	G105	F2515	F3008	F4040	F501	513	-	10
96	20	(i)	8	8.5	4	0	5.0	10.0	1.2	5.0	132	850	3.6	*												10
97	25	(i)	8	8.5	4	0	5.0	10.0	1.5	5.0	134	750	3.8	*												10
98	200	30	1	(i)	8	8.5	4	0	5.0	10.0	1.7	5.0	134	600	4.0	*										10
99	40	(i)	8	8.5	4	0	6.0	(K)	1.5	6.0	144	400	4.4	*												10
100	50	(i)	8	8.5	4	0	6.0	(K)	1.8	6.0	148	300	4.5	*												10
101	60	(i)	8	8.5	4	0	6.0	(K)	2.2	6.0	154	200	4.5	*												10

marking records

ZG (PG1: Ar)

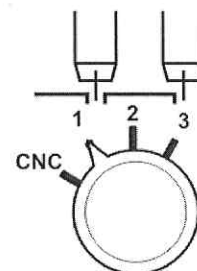
513	16	-	1	(i)	0	0	0	2.5	2.5	-	2.0	66	4000	*	*		F941	F052	G105	F2515	F3008	F4040	F501	-	-	10
-----	----	---	---	-----	---	---	---	-----	-----	---	-----	----	------	---	---	--	------	------	------	-------	-------	-------	------	---	---	----

95 1.4301 CrNi Ar/H2 Mix more : F1 200A  
15.0mm

PG1	PG2	PG3	WG1	WG2
Ar	Ar	H2	N2	
	8.0	8.5	4.0	
	8.0	8.5	4.0	

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



technology range

## Cutting data overview

### Smart Focus 200

#18

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

aluminium - 3.3535 AlMg3 (1 - 6 mm)

HiFinox

cutting records (55 A)

ZG (PG1: N2) - PG (PG2: N2) - WG (WG1: N2, WG2: N2/H2)

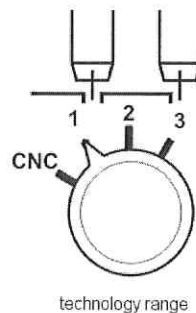
	record number	cutting current [A]	thickness [mm]	technology range		PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cutting speed [max] [mm/min]	cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
134	55	1	1	(i)	8	0	2	2	4,0	4,0	0,1	2,5	124	4500	1,5	*			F941	F042	G101	F2010	F3008	F4020	F501	-	-	200
135		2		(ii)	8	0	2	2	4,0	4,0	0,1	2,5	127	4000	1,5	*												200
136		3		(i)	8	0	2	2	4,0	4,0	0,2	2,5	127	3500	1,5	*												200
137		4		(i)	8	0	2	2	4,0	4,0	0,2	2,5	127	3000	1,5	*												200
138		5		(i)	8	0	2	2	4,0	4,0	0,4	2,5	129	2700	1,5	*												200
139		6		(i)	8	0	2	2	4,0	4,0	0,4	2,5	132	2500	1,6	*												200

134 3.3535 AlMg3 HiFinox  
1.0mm more :F1 55A

PG1	PG2	PG3	WG1	WG2
N <sub>2</sub>	N <sub>2</sub>		N <sub>2</sub>	N <sub>2</sub> /H <sub>2</sub>
	8.0		2.0	2.0
	8.0		2.0	2.0

new data: <COPY>  
select record: <F2>  
OK

switch positions on the Smart Focus



#### Smart Focus 200

#19

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

aluminium - 3.3535 AlMg3 (6 - 40 mm)

Ar/H2 Mix

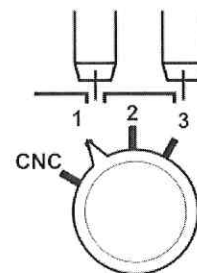
cutting records (130 A)

ZG (PG1: Ar) - PG (PG2: Ar, PG3: H2) - WG (WG1: N2, WG2: N2/H2)

	record number	cutting current [A]	thickness [mm]	technology range		PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cutting speed [max] [mm/min]		cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]
145		6	(i)	7	8	2	2	4,0	4,0	0,4	2,5	117	3500	2,4	*													10	
146		8	(i)	7	8	2	2	4,0	4,0	0,5	2,5	122	1400	2,7	*													10	
147		10	(i)	7	8	2	2	4,0	6,0	0,5	3,0	126	1300	2,8	*													10	
148		12	(i)	7	8	2	2	4,0	6,0	0,6	3,0	127	1200	2,9	*													10	
149	130	15	1	(i)	7	8	2	2	4,5	7,0	0,8	3,0	127	1200	2,9	*				F941	F052	G104	F2014	F3008	F4530	F501	-	-	10
150		20	(i)	7	8	2	2	4,5	8,0	1,0	3,0	129	1000	3,0	*													10	
151		25	(i)	7	8	2	2	5,0	10,0	1,2	4,0	141	600	3,2	*													10	
152		30	(i)	7	8	2	2	4,0	(K)	1,0	4,0	143	500	3,3	*													10	
153		40	(i)	7	8	2	2	4,0	(K)	1,2	4,0	143	300	3,4	*													10	

145 3.3535 AlMg3 Ar/H2 Mix more :F1 130A				
6.0mm				
PG1	PG2	PG3	WG1	WG2
Ar	Ar	H2	N2	N2/H2
	7.0	8.0	2.0	2.0
	7.0	8.0	2.0	2.0
new data: <COPY>				
select record: <F2>				
OK				

switch positions on the Smart Focus



technology range

## Cutting data overview

### Smart Focus 200

#20

FlowControl-300 - PerCut 2000

data version: 3 - valid from: 08.12.2015 - Base Edition

aluminium - 3.3535 AlMg3 (10 - 60 mm)

Ar/H2 Mix

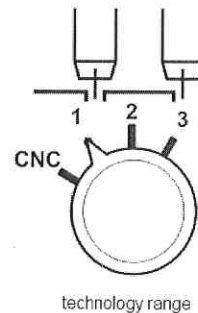
cutting records (200 A)

ZG (PG1: Ar) - PG (PG2: Ar, PG3: H2) - WG (WG1: N2, WG2: N2/H2)

	record number	cutting current [A]	thickness [mm]	technology range													cooling tube	cathode	gas guide	nozzle	nozzle cap	swirl gas cap	protection cap	marking record	marking record (notching)	down slope [ms]				
				PG1 [plasma gas 1] [bar]	PG2 [plasma gas 2] [bar]	PG3 [plasma gas 3] [bar]	WG1 [swirl gas 1] [bar]	WG2 [swirl gas 2] [bar]	ignition height [mm]	pierce height [mm]	pierce time [s]	cutting height [mm]	cutting voltage [V]	cutting speed [quality] [mm/min]	kerf [quality] [mm]	cutting speed [max] [mm/min]														
154		10	(i)	7	8	2	2	4,0	6,0	0,5	3,0	118	1600	3,1	*		F941	F052	G104	F2017	F3008	F4540	F501	-	-	10				
155		12	(i)	7	8	2	2	4,0	6,0	0,5	3,0	119	1600	3,1	*											10				
156		15	(i)	7	8	2	2	4,5	7,0	0,6	3,0	121	1500	3,3	*											10				
157		20	(i)	7	8	2	2	4,5	8,0	0,8	4,0	127	1300	3,5	*											10				
158	200	25	1	(i)	7	8	2	2	5,0	10,0	1,0	4,0	131	1100	3,8	*											10			
159		30	(i)	7	8	2	2	5,0	10,0	1,2	5,0	141	600	4,2	*											10				
160		40	(i)	7	8	2	2	5,0	(K)	1,0	5,0	143	500	4,5	*											10				
161		50	(i)	7	8	2	2	5,0	(K)	1,2	5,0	143	400	4,6	*											10				
162		60	(i)	7	8	2	2	5,0	(K)	1,5	5,0	145	350	4,8	*															

154 3.3535 AlMg3 Ar/H2 Mix					
10.0mm MORE : F1200A					
PG1	PG2	PG3	WG1	WG2	
Ar	Ar	H2	N2	N2/H2	
	7.0	8.0	2.0	2.0	
	7.0	8.0	2.0	2.0	
new data: <COPY>					
select record: <F2>					
OK					

switch positions on the Smart Focus



**Order form for consumables**

**PerCut 2000**

valid from: 08.12.2015

**mild steel (200 A)**

article number	article		Quantity
.11.855.401.142	cooling tube	F902	
.11.855.401.350	cathode	F005	
.11.855.401.360		F006	
.11.855.411.320		F012	
.11.848.221.145C	gas guide	G101C	
.11.855.401.407	nozzle	F2007	
.11.855.401.408		F2008	
.11.855.401.410		F2010	
.11.855.401.412		F2012	
.11.855.401.414		F2014	
.11.855.401.417		F2017	
.11.855.401.1604	nozzle cap	F3004	
.11.855.401.1628		F3028	
.11.855.401.1520	swirl gas cap	F4020	
.11.855.401.1530		F4030	
.11.855.401.1535		F4035	
.11.855.401.1540		F4040	
.11.855.411.1520	protection cap	F4120	
.11.855.401.081		F501	

**Order form for consumables**

**PerCut 2000**

valid from: 08.12.2015

**stainless steel (200 A)**

article number	article		Quantity
.11.855.441.141	cooling tube	F941	
.11.855.441.520	cathode	F042	
.11.855.451.520		F052	
.11.848.221.145	gas guide	G101	
.11.848.221.149		G105	
.11.855.401.410	nozzle	F2010	
.11.855.451.614		F2514	
.11.855.451.615		F2515	
.11.855.401.1608	nozzle cap	F3008	
.11.855.401.1618		F3018	
.11.855.401.1525	swirl gas cap	F4025	
.11.855.401.1530		F4030	
.11.855.401.1535		F4035	
.11.855.401.1540		F4040	
.11.855.401.081	protection cap	F501	



**PerCut 2000**

valid from: 08.12.2015

**aluminium (200 A)**

article number	article		Quantity
.11.855.441.141	cooling tube	F941	
.11.855.441.520	cathode	F042	
.11.855.451.520		F052	
.11.848.221.145	gas guide	G101	
.11.848.221.148		G104	
.11.855.401.410	nozzle	F2010	
.11.855.401.414		F2014	
.11.855.401.417		F2017	
.11.855.401.1608	nozzle cap	F3008	
.11.855.401.1520	swirl gas cap	F4020	
.11.855.451.1530		F4530	
.11.855.451.1540		F4540	
.11.855.401.081	protection cap	F501	

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