

S ONE SERIES

Product Specification Document

REV 001

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Notice

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1 Introduction

The S One range of cutters has been designed to produce computer-generated graphic designs on cut sheet or roll vinyl media. Using the integrated optical positioning system (OPOS) allows contour cutting of printed sheets of material. By replacing the knife with a pen, these cutters can also be used to produce inexpensive previews of new graphic designs on paper.

2 Models

The S One series are available in different sizes and different configurations. Depending on the region, certain sizes and or configurations may not be available. Also branding may be different. In this section we refer to the basic model names S1D60, S1D75, S1D120, S1D140 and D160. Where known, it is marked if a specification is configuration depended

3 Feature list

3.1 Hardware

- Integrated roll feed system with media flanges
- Fully adjustable media widths.
- Stand with basket (Optional on S1D60 and S1D75).
- Back Media sensor for media detection.
- USB, Ethernet and WIFI capabilities
 - *Note: WIFI only available in Europe, US and Canada – see detailed list 7.7*
- Integrated OPOS positioning and alignment system.
 - With barcode recognition
 - OPOS X sensor automatically raised and lowered

3.2 Interface

- Portrait Capacitive Touchscreen – 320x240 pixels
- English, Spanish, French, German, Italian, Dutch, Polish, Latvian, Čeština, Portuguese
- Metric or English

3.3 Functionality

- Four separate adjustable user configurations stored in the non-volatile memory: (inclusive X&Y Calibration / exclusive OPOS parameters).
- Autoload for automatic media pull from roll.
- Concatenation and curve smoothing to obtain better cut quality.
- OptiCut drag-movement optimization.
- Overcut for easy weeding.
- FlexCut for cutting through.
- Panelling.
- Vector Sorting.
- Multiple recut feature (up to 999).
- Automatic cut sheet after job.
- Flash Eproms (upgrade over communication port).
- Print & cut alignment technology : OPOS 2.0, OPOS X, OPOS XY, OPOS XY2, OPOS EXTRA

3.4 Software

- GoSign
 - Finishing software cut and print and cut jobs
 - Material Database
 - Windows 7, Windows 8 or Windows 10 (no home version)
 - Action sets to automate the workflow
 - Sorting facilities to shorten the output time
 - Material Database
 - Vector clean up




- MacSign™
 - Plugin for Illustrator, for direct cutting to Summa roll cutter.
 - MacOS X (10.2 or higher)
 - Connection by USB or TCP/IP.
 - OPOS support
 - Registration required.

- Summa Cutter Control
 - Program to control cutter parameters.
 - Windows 7, 8 and 10.
 - Utility to upgrade firmware
 - Possibility to store user configurations on hard disk
 - OPOS Barcode Server

4 Accessories and consumables

The following accessories and consumables are available for your S One cutter:

Part description	Part number	Included	Picture
Quick start S one	MI9810	1	<Picture needed>
Stand and basket manual	MI9811	1	<Picture needed>
Power cable (Regional - contact local dealer for exact part number)	-	1	
USB Cable 5 m	399-111	1	
Ethernet shielded cable 5m	MC1200	1	
Media flanges (set of 2)	391-510	1	
Razor blade holder	391-290	1	
Razor blade (set of 10)	391-146	1 extra blade	
Standard drag knife holder	393-1008	1	
Drag knife 60° (up to 0.6 mm cutting depth)	391-231	-	
Standard drag knife (set of 5)	391-360	2 knives	
Drag knife holder for sandblast knife	391-363	-	
Sandblast drag knife (set of 5)	391-358	-	
Plotter pen (set of 4)	MP06BK	-	
Rollerball pen (set of 5 black or blue)	395-430 395-431	-	

Fuse	MF9003	-	
Cutting strip short	391-386	1 installed	
Cutting strip long	400-565		

5 Options

Part description	Part number	Picture
Stand S1D60 (Includes stand and mesh basket)	393-1125	<Picture needed>
Stand S1D75 (Includes stand and mesh basket)	393-1128	<Picture needed>

7 Technical Specifications

7.1 Machine dimensions

	S1D60		S1D60 with stand		S1D75		S1D120		S1D140		S1D160	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
Height	304	12	1112	43.8	1112	43.8	1112	43.8	1112	43.8	1112	43.8
Width	970	38.2	970	38.2	1120	44.1	1615	63.6	1765	69.5	1960	77.2
Depth	406	16	704	27.7	704	27.7	704	27.7	704	27.7	704	27.7
Depth Open basket	-	-	1116	43.9	1116	43.9	1116	43.9	1116	43.9	1116	43.9
	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs
Weight	18	39.7	-	-	36	79.4	43	94.8	43.5	95.9	48	105.9

7.2 Shipping dimensions

	S1D60		S1D75		S1D120		S1D140		S1D160	
	mm	inch	mm	inch	mm	Inch	mm	inch	mm	Inch
Height	470	18.6	470	18.6	710	28	710	28	710	28
Width	1220	48.1	1370	54	1890	74.5	2230	87.8	2230	87.8
Depth	420	16.6	420	16.6	420	16.6	420	16.6	420	16.6
	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs
Weight	23	50.7	45	99.2	68	149.9	71	156.5	74	163.2

7.3 Media handling

	S1D60		S1D75		S1D120		S1D140 ⁽⁴⁾		S1D160	
	mm	inch	mm	inch	mm	Inch	mm	inch	mm	Inch
Media Width										
Minimum	79	3.2	79	3.2	133	5.3	187	7.4	187	7.4
Maximum	705	27.7	855	33.6	1350	53.1	1500	59	1690	66.5
Pinchrollers	2		2		3		4 (3 for FX)		4	
Max .working Width	590	23.2	740	29.1	1235	48.6	1385	54.5	1580	62.2
Oversized ⁽³⁾	650	25.6	800	31.5	1295	51	1445	56.9	1640	64.6
	mm					Inch				
Max.Working Length	50 m					164 ft.				
Minimum Margins⁽²⁾	25					1				
Rear margin										
Sensor on	30					1.2				
Sensor off	20					0.8				
Tracking ⁽³⁾ performance	-8 m/26 feet max. within guaranteed specifications ⁽¹⁾ for media less than 762 mm (30" wide). -4m/13 feet max. within guaranteed specifications ⁽¹⁾ for media larger than 762 mm (30" wide).									
Thickness	0.05 to 0.25 / 0.8mm with optional sandblast knife 0.002 to 0.01 / 0.03 inch with optional sandblast knife									

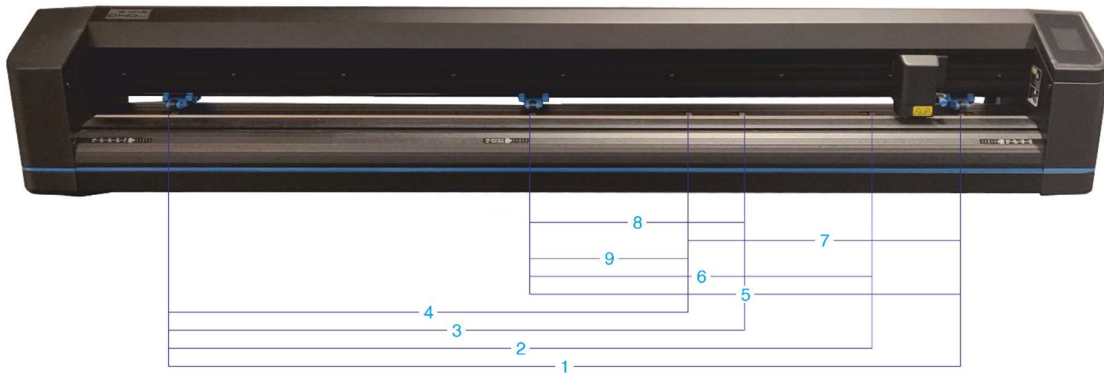
⁽¹⁾ Larger Media lengths can be handled, but compliance with specifications is not guaranteed (will be dependent on media type, media size and other parameters not mentioned here.

⁽²⁾ For positioning of the pinch rollers, these margins can be minimized using 'Oversized' mode⁽³⁾

⁽³⁾ In 'Oversized' mode the tracking performance is no longer guaranteed.

⁽⁴⁾ The FX-Series have different media specifications as the pinch rollers can only be set in a limited number of positions.

For the S1D140FX you have a total of 9 fixed positions



Position	Working area		Target media width (margin)	
	mm	Inch	mm	Inch
1.	1323	52.08	1372 (24)	54 (1.0)
2.	1172	46.18	1220 (23)	48 (0.9)
3.	954	37.55	1000 (23)	40 (1.2)
4.	864	34.01	914 (25)	36 (1.0)
5.	720	28.34	762 (21)	30 (0.8)
6.	570	22.44	610 (20)	24 (0.8)
7.	454	17.87	500 (23)	20 (1.1)
8.	350	13.77	400 (25)	16 (1.1)
9.	260	10.23	280 (10)	11 (0.4)

Minimum for scrap: (outer right position - not shown in picture)

	84	3.3	105 (10)	4.1 (0.4)
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* Media sensor should be disabled in order to use this position.

7.4 Noise level

TBD dBA Cutter switched on and fan off

TBD dBA Cutter switched on and fan on

TBD dBA Cutter performing job

Cutter was mounted on a stand equipped with a basket.

The cutting speed was set to 500 mm/sec.

The media used was MacTac MaCal 8900 Pro.

7.5 Performance

Cutting specifications on 0.05 mm (0.002") wax-backed vinyl, total media thickness not greater than 0.25 mm (0.010")

Axial speed	50 to 800 mm/s	2 to 32 ips
Maximum Speed	Up to 1131 mm/s diagonal	Up to 44 ips diagonal
Default speed	700 mm/s	28 ips
Axial Acceleration	2 G	
Max. Acceleration	up to 3 G diagonal	
Addressable resolution	0.025 mm, 0.1 mm	0.001", 0.005"
Default resolution	0.025 mm	0.001"
Mechanical resolution	0.0127 mm	0.0005"
Repeatability⁽¹⁾	+/- 0.1mm	+/- 0.004"
Accuracy*	0.2% of move or 0.25 mm, whichever is greater ⁽²⁾	0.2% of move or 0.010", whichever is greater ⁽²⁾
Knife pressure	0 to 600 gr. ⁽³⁾	
Pen pressure	0 to 600 gr. ⁽³⁾	

⁽¹⁾ Valid within the guaranteed tracking length (see 7.3 Media Handling). Not valid in 'Oversized' Mode.

⁽²⁾ Excludes differences due to media expansion, stretching, etc.

⁽³⁾ Except for S1D140FX which is 400 gr.

7.6 Interface

Communication		
Ethernet	I/O Port connector	RJ45 female connector
WIFI⁽¹⁾		802.11 b/g/n
USB	I/O Port connector Mating connector Version	USB series "B" receptacle (female plug) USB series "B" plug (male plug) 1.1
Buffer Size		10 MB

⁽¹⁾ Not available on S One D140FX

7.7 WIFI

WIFI is only available in select countries.

This is due to EMC tests done according to European Directive (2014/53/EU):

- EN 303 446-1 Ver. 1.2.1
- EN 301 489-1 Ver. 2.1.1
- EN 301 489-17 Ver 3.1.1
- EN 55032:2015 + AC:2016-07
- EN 55035:2017 + AC:2019-11

And EMC tests done according to USA & CANADA standards:

- FCC Part 15B / ICES-003 issue 6

Following is a detailed list of countries covered by these tests and thus can have WIFI enabled:

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Faroe Islands, Finland, France, Georgia, Germany, Greece, Greenland, Guernsey, Holy See, Hungary, Iceland, Ireland, Isle of Man, Italy, Jersey, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, The former Yugoslav Republic of, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom of Great Britain, Northern Ireland, Monaco, Turkey

7.8 Firmware

Language	DM/PL, HP-GL (758x emulation), HP-GL/2
Supported character sets	Standard ASCII
Supported fonts	Sans serif (single stroke & medium)

7.9 Environmental

(Cutter without media)

Operating Temperature	15 to 35°C	59 to 95°F
Storage Temperature	-30 to 70°C	-22 to 158°F
Relative Humidity	35 – 75%, non-condensing	

7.10 Power consumption

Number of power cords	1
Input voltage	100-240 VAC \pm 10%
Input frequency	50/60 Hz
Maximum load per power cord	2A
Power consumption during operation	0.25 A (@ 240V) (*) 0.6 A (@ 100V) (*)
Power consumption idle	0.1 A (@ 240V) 0.25 A (@ 100V)

*Typical value, may vary depending on cut file and media

8 S One: Certifications.

Conforms to ANSI/UL Standard 62368-1 and CAN/CSA Standard C22.2 No 62368-1.

FCC Class A

CE Marking

Applicable Directives:

Directive 2014/35/EU of the European Parliament and of the Council on electrical equipment designed for use within certain voltage limits (LVD)

Directive 2014/30/EU of the European Parliament and of the Council on electromagnetic compatibility (EMC)

Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS2)

Harmonized Standards to which Conformity is declared:

EN 62368-1:2014+AC:2015

EN 55032:2012+AC:2013,

EN 55035:2017,

EN 61000-3-2:2014,

EN 61000-3-3:2013,

EN 50581:2012.

Conforms to Directive 2012/19/EU of the European Parliament and of the Council on Waste Electrical and Electronic Equipment (WEEE)

Conforms to Directive 2006/66/EC of the European Parliament and of the Council on Batteries and Accumulators and Waste Batteries and Accumulators

Contains no substances, in a concentration above 0.1 % weight by weight, included on the candidate list according to article 59 (1, 10) of Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

For the conformity assessment of the above directives all published amendments were taken into account.