Product Information Guide

Roland TrueVIS™ SG Series Printer/Cutters
SG-540, SG-300

Contents

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What You Need to Know

Part of Roland DG's next-generation TrueVIS™ family, the SG series includes affordably-priced 54-inch (SG-540) and 30-inch (SG-300) models that incorporate a host of advanced features. TrueVIS SG printer/cutters come with two new FlexFire™ print heads for high efficiency and quality, new cutting technology for increased accuracy and downforce, a Bluetooth-enabled mobile control panel, and brilliant 4-color TrueVIS INK.

With the integrated printing and cutting technology of TrueVIS at your fingertips, you can print and automatically contour cut dynamic decals, signs and vehicle graphics, plus brilliant banners, amazing apparel, and more. New FlexFire print heads deliver vibrant color and razor-sharp image output that cannot be matched by latex or other devices. Added productivity – up to 60 percent faster than previous comparable models – means you can print more, and profit more.

MSRP:

SG-300 Printer/Cutter	**$11,995 US**
SG-540 Printer/Cutter	**$14,995 US**
TrueVIS INK 500 ml	**$114.99 (.23 cents per ml)**
Accessories:	
Take Up Unit TU-2 540/300	**$2,095.00**

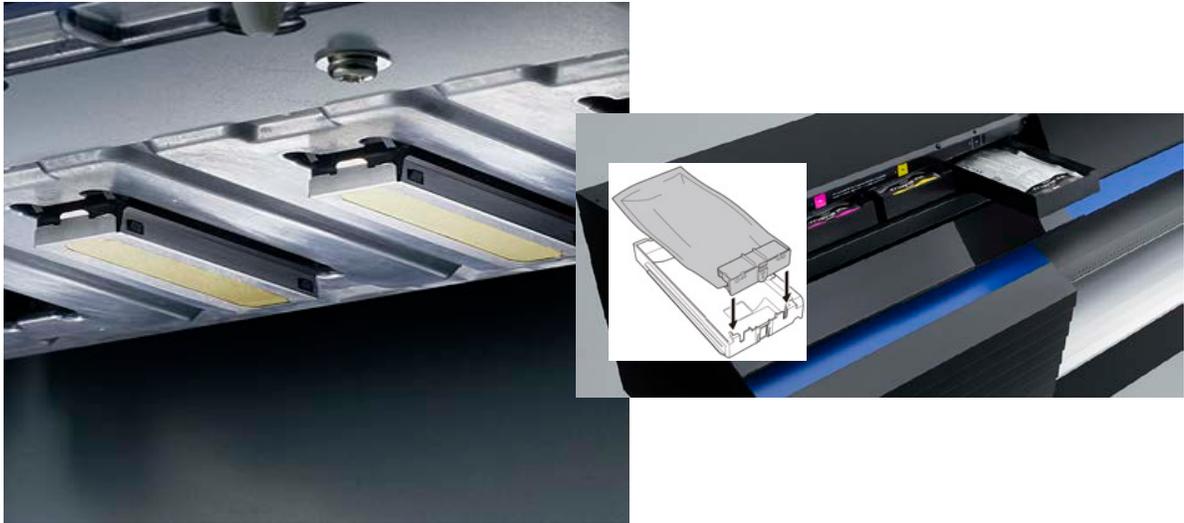## What should you tell your customers about the SG-540/300?

- New TrueVIS INK, available in CMYK for the SG series, offers brilliant color across a wide variety of substrates
- TrueVIS INK is GREENGUARD Gold Certified
- Two new FlexFire print heads fire precision droplets in three sizes and a wide print swath for high-quality output and efficient ink usage
- New Bluetooth-enabled Roland DG MobilePanel allows the user to access SG printer/cutter control panel functions from a smartphone or tablet
- New cutting technology increases downforce, improves accuracy and saves time
- New VersaWorks® Dual RIP Software
    - New core engine offers improved handling of files with transparencies, blurs and drop-shadow effects
    - Improved Processing Speed. I changed to improved processing speeds
    - Ability to save queue templates
    - New variable data in RIP editing capabilities
    - Automatically generate White or special effects color plates in RIP
    - Maintained clipped position
    - Rotate 90/270 degrees (previously only 180 degrees was possible)
- Two-Year Trouble-Free Warranty

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Key Features and Benefits

New Roland FlexFire™ Print Head Technology and TrueVIS™ INK
Deliver Our Highest Quality Prints Yet

TrueVIS SG series printer/cutters are equipped with two newly-developed FlexFire print heads, which more flexibly control the metallic plate attached to the ink chamber for a higher firing frequency. FlexFire print heads also deliver precision droplet placement in three sizes, plus a 25 percent wider print swath compared to previous Roland DG models.

Maximum Ink Quality at Minimal Cost

A major step forward in eco-solvent technology, TrueVIS INK delivers a wide color gamut and improved output, while minimizing ink costs. Users will appreciate the 500 ml pouches, which fit neatly into reusable cartridges and slide into a hidden ink bay for clean usage and less waste.

New Ink Management System

- LED Indicator lights let you know when the pouch is empty
- Replaceable ink pouch reduces waste
- RFID
  - Fewer read errors compared to IC Chip
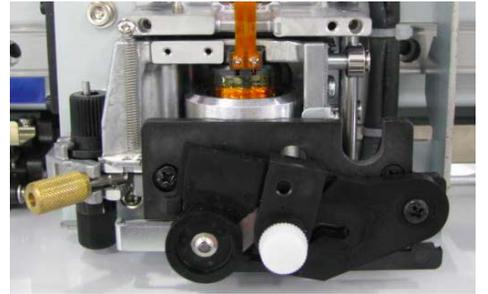 - More information stored on cartridge.

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Extreme TrueVIS™ Color

TrueVIS Color, achieved through the precision combination of Roland DG's FlexFire™ print heads and TrueVIS INK, results in amazingly vibrant colors and stunning details.
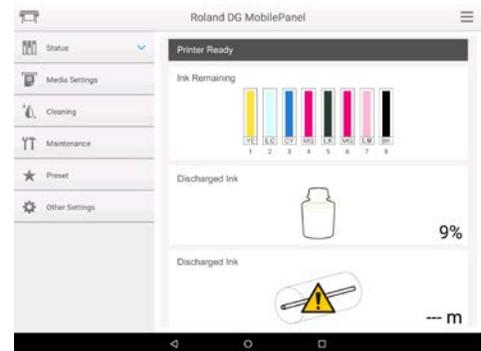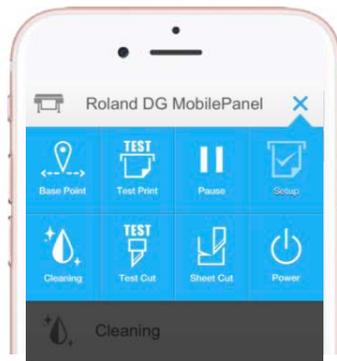
New Cutting Technology Improves Accuracy and Saves Time

Roland DG pioneered integrated contour cutting, and we continue to improve and refine this innovative technology. The TrueVIS SG Series features our most advanced print/cut technology to date. A new carriage and blade offer increased downforce and accuracy, allowing you to work with a wider variety of media.

Remote Control Your Production with New, Smart Technology

In addition to featuring a built-in control panel, SG series printer/cutters boast a new Roland DG MobilePanel that allows you to perform control panel functions with your smartphone or tablet, from just about anywhere in your shop or office, using a Bluetooth connection. This allows you to receive status updates or remotely manage production, test printing, and cleaning functions.

NEW VersaWorks® Dual RIP Software

VersaWorks Dual – bundled with every TrueVIS printer/cutter – features a new core engine for better file processing (including files with transparencies), plus advanced, easy-to-use functionality.

- Native PDF processing, including files with transparencies
- Supports up to four Roland devices
- User-friendly interface
- Predictive Ink Calculator
- Built-in Pantone® and Roland Color spot color libraries
- Variable data printing
- Embedded ICC support ink level adjustment tools
- Advanced cropping, tiling and nesting options

Two-Year Trouble-Free Warranty

Roland TrueVIS™ inkjets combine unbeatable performance with legendary Roland reliability. As further proof of the unmatched reliability of these advanced printer/cutters, Roland offers an unprecedented Two-Year Trouble-Free Warranty for the SG when equipped exclusively with Roland inks and the warranty is registered within 60 days of delivery.

Roland OnSupport

Roland OnSupport is an online support portal that allows easy VersaWorks® software updates and provides real-time machine status feedback by sending e-mail alerts to the user's computer or smart phone. The system is designed to automatically notify users, for example, when a job is completed or ink is running low. Roland OnSupport also provides access to manuals and software updates, how-to and preventative maintenance guides, machine usage metrics, and periodic updates to firmware. Additionally, this system makes it easy for users to manage their productivity or contact Roland for support. Users can access all of the following information through OnSupport:

- Device name
- Ink type
- Serial number
- Firmware version
- Print time
- Motor operating time

- Job information (resolution, ink consumption)
- Number and frequency of cleaning cycles
- Number and frequency of sheet cuts
- Ink consumption
- Number and frequency of ink cartridges being inserted into the machine

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Competitive Analysis

Mimaki CJV150-75

- $13,995 MSRP ($11,995 Street)
- 30" Print/Cut
- Dual CMYK, CMYKLcLmLkOr, CMYKLcLm+WH, MT

Epson S40600

- $14,995 MSRP ($12,995 street w/ rebate)
- 64" Print Only (add $6,000 for cutter)
- CMYK

Mutoh VJ-628x

- $6,995 MSRP
- 24" Print Only (add $2,000 for cutter)
- CMYKLcLm + WH, MT
- Dual CMYK also available
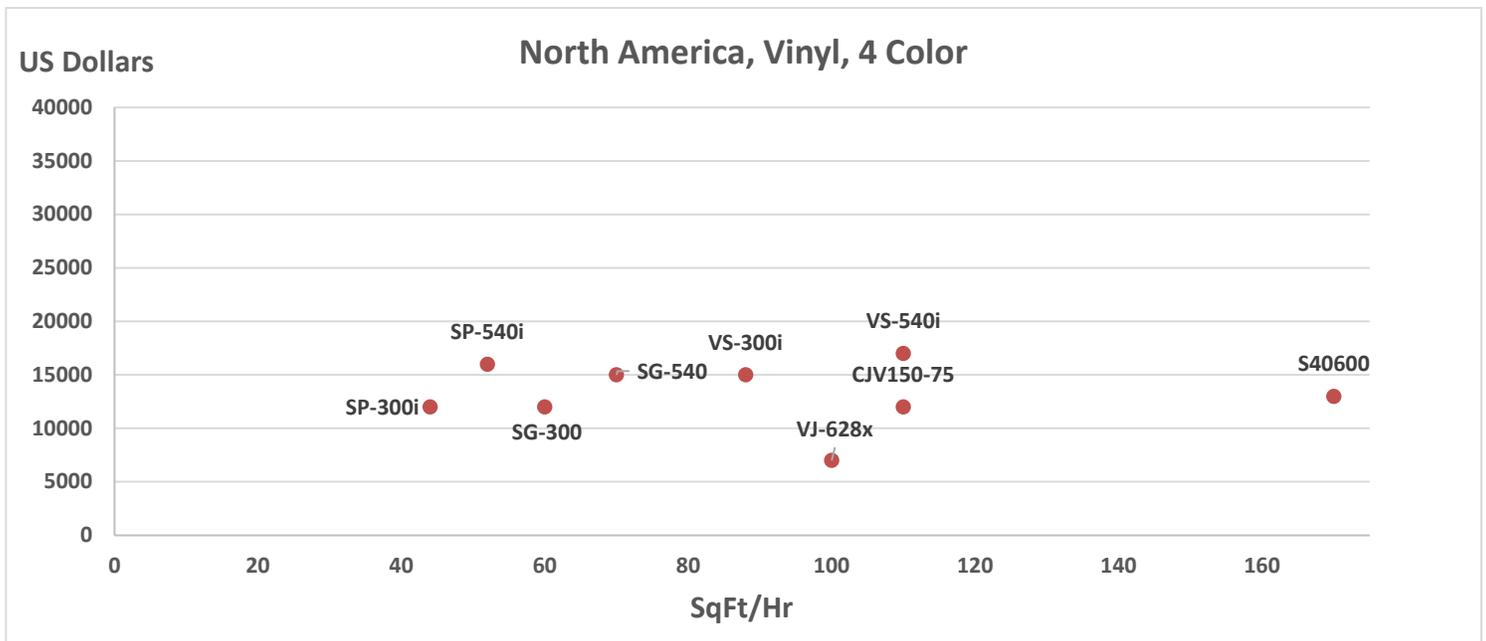- TFP PrecisionCore Head

Roland TrueVIS SG-300

- $11,995 MSRP
- 30" Print/Cut
- CMYK
- FlexFire Print Heads

Roland TrueVIS SG-540

- $14,995 MSRP
- 54" Print/Cut
- CMYK
- FlexFire Print Heads

Competitive Price and Print Speed Comparison

North America, Vinyl, 4 Color

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Specifications

Roland TrueVIS SG Series

Specifications		SG-540	SG-300
Printing technology		Piezoelectric inkjet	
Media	**Width**	8.3 to 54 in (210 to 1371 mm)	7.2 to 30 in. (182 to 762 mm)
	Thickness	Maximum 39 mil (1.0 mm) with liner for printing	
		Maximum 16 mil (0.4 mm) with liner and 9 mil (0.22mm) without liner	
	Roll outer diameter	Maximum 8.3 in (210 mm)	
	Roll weight	Maximum 66 lbs (30 kg)	Maximum 55 lbs (25 kg)
	Core diameter *1	3 in (76.2 mm) or 2 in (50.8 mm)	
Printing/cutting width *2		Maximum 53 in (1,346 mm)	Maximum 29 in 736 mm)
Replacable Ink Pouch	**Type**	Roland TrueVIS TR Ink	
	Capacity	500 cc	
	Colors	CMYK	
Printing resolution (dots per inch)		Maximum 900 x 900 dpi	
Cutting speed		10 to 300 mm/s	
Blade force *3		30 to 500 gf	
Blade offset		0 to 0.059 in (0 to 1.5 mm)	
Software resolution (when cutting)		0.000984 in/step (0.025 mm/step)	
Distance accuracy (when printing) *4*5		Error of less than ±0.3% of distance traveled, or ±0.3 mm, whichever is	
Distance accuracy (when cutting) *4		Error of less than ±0.4% of distance traveled, or ±0.3 mm, whichever is	
		When distance correction has been performed (when the setting for [CUTTING MENU] - [CALIBRATION] has been made): Error of less than ±0.2% of distance traveled, or ±0.1 mm, whichever is greater	
Repeatability (when cutting) *4 *6		±0.1 mm or less	
Alignment accuracy for printing and cutting *4 *7		±0.5 mm or less	
Alignment accuracy for printing and cutting when reloading media *4 *8		Error of less than ±0.5% of distance traveled, or ±3 mm, whichever is greater	
Media heating system *9	**Print heater**	Setting range for the preset temperature: 86 to 112ºF (30 to 45ºC)	
	Dryer	Setting range for the preset temperature: 86 to 122ºF (30 to 50ºC)	
Connectivity		Ethernet (10BASE-T/100BASE-TX, automatic switching)	
Power-saving function		Automatic sleep feature	
Power requirements		AC 100 V to 120V ±10%, 8.0A, 50/60Hz	AC 100 to 120 V ±10%, 5.4A, 50/60 Hz or
		AC220V to 240V±10%, 4.0A, 50/60Hz	AC 220 to 240 V ±10%, 2.7A, 50/60 Hz
Power consumption	**During operation**	1,050 W	710 W
	Sleep mode	20 W	20 W
Acoustic noise level	**During operation**	65 dB (A) or less	
	During standby	48 dB (A) or less	
Environmental	**Power on (*10)**	Temperature: 20 to 32°C (68 to 90°F), humidity: 35 to 80 % RH (no condensation)	
	Power off	Temperature: 5 to 40°C (41 to 104°F), humidity: 20 to 80 % RH (no	
		SG-540	**SG-300**
Dimensions (with stand)		105.7(W) x 29.3(D) x 51.6(H) 2685(W) x 745(D) x 1310(H) mm	81.5[W] x 29.3[D] x 51.6[H] in 2070[W] x 745[D] x 1310[H]mm
Weight (with stand)		392 lb (178kg)	324lb (147kg)
Included items		Stand, power cord, blade, blade holder, media clamps, media holder, replacement blade for separating knife, software RIP, user's manual, etc.	

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Roland Versa Works Dual System Requirements	
Operating system	Windows® 10 (32/64-bit)
	Windows® 8/8.1 (32/64-bit)
	Windows® 7 Professional / Ultimate (23/64-bit)
CPU	Intel® Core™2 Duo, 2.0 GHz or faster recommended
RAM	2 GB or more recommended
Video card and monitor	A resolution of 1,280 x 1,204 or more recommended
Free hard-disk space	40 GB or more recommended
Hard-disk file system	NTFS format
Optical drive	DVD-ROM drive

*1 The media holder of this machine is exclusively for media with a paper tube core inner diameter of 3 inches. To use a 2-inch media core, please use the optionally available media flanges.

*2 The length of printing or cutting is subject to the limitations of the program.

*3 500 gf is the maximum instantaneous blade force. The blade force must be adjusted according to details such as the media thickness.

*4 Using Roland specified media, print travel of 1m. Temperature: 25°C (77°F), humidity: 50%. Roll media must be loaded correctly. Applicable when all pinch rollers that can be used with the media width are used. Side margins: 25 mm (1.0 in.) or more for both the left and right margins. Front margin: 35 mm (1.4 in.) or more. Excluding expansion/contraction of the media. Not guaranteed when the print heater or dryer is used. Assumes all correction and adjustment functions of the machine have been used properly.

*5 Print travel: 1 m (39.4 in.)

*6 [PREFEED] menu item must be set to "ENABLE." Range for assured repetition accuracy. 54" model -For media with a width exceeding 24 in (610 mm in.): Length 315 in (8000 mm)- 30" Model Width 24 in (610mm) or less: Length 118.2 in (4000 mm)

*7 Provided that the media feed length is 3,000 mm (118.1 in.) or less. Excludes the effects of slanted movement and of expansion and contraction of the media.

*8 Data size: 54" Model: 39.4 in. (1000 mm) in the media-feed direction, 1,346 mm (53.0 in.) in the carriage-movement direction. 30" Model: 39.4 in. (1000mm) in the media-feed direction, 29in. (736 mm) in the carriage-movement direction. No Lamination. Automatic detection of crop marks at 4 points when media is reloaded. During cutting, [PREFEED] menu item must be set to "ENABLE." Excluding possible shift caused by expansion/contraction of the media and/or by reloading the media.

*9 Warm-up is required after the power is turned on. This may require 5 to 20 minutes, depending on the operating environment. Depending on the ambient temperature and the media width, the set temperature may not be reached.

*10 Operating environment: Use the machine in an operating environment within its range

 * Roland VersaWorks Dual is a 32-bit application, which runs on 64-bit Windows® with WoW64 (windows 32-bit on Windows 64-bit).

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Four-Color Print Speed Comparison

TrueVIS™ SG-540: Vinyl, CMYK, Generic Vinyl 1					
Print Mode	**dpi**	**Print Direction**	**Pass**	**Speed (ft2/hr)**	**Speed (m2/hr)**
High Quality	900 x 900	Bi	14	59.2	5.5
Standard	**900 x 600**	**Bi**	**10**	**85**	**7.9**
High Speed	600 x 600	Bi	7	101.2	9.4
	600 x 600	Bi	8	88.27	8.2

60 Percent Faster than the SP-540i in Standard

SP-540i: Vinyl, CMYK, Generic Vinyl 1					
Print Mode	**dpi**	**Print Direction**	**Pass**	**Speed (ft2/hr)**	**Speed (m2/hr)**
High Quality	1440 x 720	Bi	16	19.4	1.8
Standard	**720 x 720**	**Bi**	**10**	**52**	**4.8**
High Speed	360 x 720	Bi	6	72	6.7

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Four-Color Consumption Comparison

Ink Type	Cartridge ML	Cartridge Price	Cost per ML
TrueVIS™ INK	500	$114.99	$0.23
Eco Sol MAX® 2	440	$128.99	$0.29

- TrueVIS INK costs 20% less than Eco-Sol MAX 2

Consumption Comparison 54" (in ml)

Media	Print mode	SG-540	SP-540i
Generic Vinyl	High Speed	3.88	5.15
	Standard	4.56	5.31
	High Quality	4.58	5.58
Generic Banner	High Speed	4.32	5.85
	Standard	4.33	5.98
	High Quality	4.31	6.86

Consumption Comparison 30" (in ml)

Media	Print mode	SG-300	SP-300i
Generic Vinyl	High Speed	4.29	5.15
	Standard	4.54	5.31
	High Quality	4.52	5.58

Consumption Calculated Using:

RIP: Roland VersaWorks® Dual
Data size: A0
Color: Prepress US

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SG Series

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Summary

The new TrueVIS™ SG series offers shops that are just starting out, or looking to expand production, all the quality and versatility of a Roland at an unbeatable price. TrueVIS ushers in a new era of integrated printing and contour cutting, and the SG delivers the performance and value needed for smaller operations to take their businesses to the next level quickly and easily.

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