

VersaStudio



BY2-20

20" Desktop Direct-to-Film Printer



Product Information Guide



Make Your Mark

 Roland

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Product Overview

The Direct-to-Film (DTF) market continues to experience strong global growth as businesses seek flexible, high-quality garment decoration solutions. Entrepreneurs, retail shops, apparel brands, and promotional product businesses are increasingly looking for equipment that combines professional output with ease of use and predictable operating costs. The Roland DG VersaStudio BY2-20 is designed to meet this demand by providing a professional desktop DTF solution that helps users enter the market quickly, operate efficiently, and grow profitably.

Built for Business Success

The BY2-20 combines professional print quality, intelligent workflow automation, and advanced production stability into a compact platform that makes DTF production accessible to both new and experienced users. It's a professional desktop DTF solution designed to help businesses enter and grow within one of the fastest-growing segments of digital printing. By combining outstanding print quality, streamlined workflows, reliable production, and cost-efficient operation, the BY2-20 empowers users to focus on what matters most.

VersaStudio
BY2-20



Product Overview

Roland DG's VersaStudio BY2-20 is a professional 20-inch desktop direct-to-film printer designed to help businesses enter and grow in the rapidly expanding custom apparel market. Combining outstanding print quality, simplified workflow automation, cost-efficient operation, and enhanced production reliability, the BY2-20 makes professional DTF production accessible to both new and experienced users.

Equipped with VersaWorks 7, Roland DG Connect Designer, S-PG2 inks, and an optimized DTF-specific architecture, the BY2-20 delivers vibrant graphics, durable transfers, and efficient day-to-day production for apparel decorators, print shops, entrepreneurs, and promotional product businesses.

- **Launch Date:** June 24, 2026
- **Available for sale in all Roland DGA territories**

VersaStudio BY2-20



Product Overview

What's New on the BY2-20

Enhanced DTF Architecture

- New DTF-optimized internal ink path layout
- Improved ink supply pressure through raised cartridge and tubing position
- Internal cooling system with cooling fan and air guide design maintains ink delivery stability during production runs
- Additional filtration for improved ink delivery performance
- Raised cartridge height (+110 mm)
- Increased head pressure
- Reduced negative pressure fluctuations
- Improved white ink delivery

Dual White Ink Configuration

- Expanded from CMYKW to CMYKWW
- Dual white ink cartridges and supply lines
- Improved white ink delivery and production consistency

Lower Operating Costs

- New compatibility with 500 ml S-PG2 ink cartridges
- Reduced cost per milliliter compared to 220 ml cartridges
- Improved economics for growing production environments



Simplified Workflow

- VersaWorks 7 automatic white layer generation
- Support for automated white layer creation from PNG, PDF, EPS, and PS files
- Reduced artwork preparation time
- Easier operation for first-time DTF users

Improved Serviceability

- User-replaceable cap and wiper
- Enhanced maintenance notifications and cleaning guidance
- Improved daily maintenance workflow

Design & Usability Enhancements

- Front-loading media design
- Multi-color LED status indicators
- Unified industrial design shared with Roland DG's DTF product family
- Integrated heater, dryer, and sheet-cut functionality

BY2-20



Product Overview

Feature	BY-20	BY2-20
Ink Layout	CMYKW	CMYKWW
White Ink Lines	Single	Dual
Cartridge Size	220 ml	220ml / 500 ml
Cooling System	Standard	Enhanced
Filtration	Standard	Last Chance Filter
White Generation	Manual	Automated
Stability Rate	69.2%	98-100%

Features and Benefits

S-PG2 Ink w/ Dual White Cartridges*



SPG2 500 ml can be used with BY2-20

New Internal Ink Path Layout optimized for DTF printer

Internal Cooling System

Heater & Dryer

Front-Loading Mechanism

Print and Cut function

LED with Multiple Colors

User-Replaceable Cap/Wiper

Sheet Cut function



Product Overview

BY2-20 - \$7995

Ink cartridges and Cleaning liquid:

- SPG2 CMYK, Wh \$49.99 **(220 ml)**
- SPG2 CMYK, Wh \$69.99 **(500 ml)**
- SPG2-CL (6000007710) \$33.15 **(100 ml)**
- **1 Year Industry-Leading Warranty**

Optional:

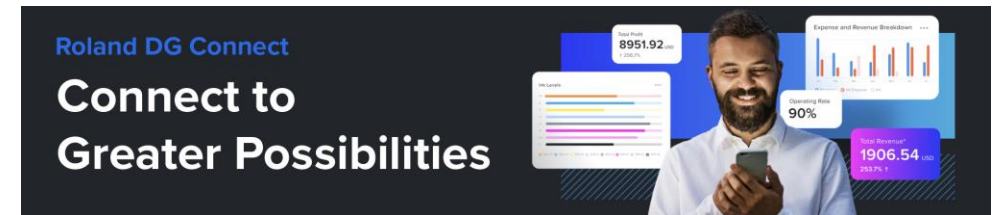
- PTF-COMBO Vastex Dryer Shaker **\$6,346.99**
- All ZEC and USA contour cutting blades
- XD-CH3 Standard or XD-CH4 PRO Series Blade Holders



Software Overview

- VersaWorks 7.6 and above (Windows 10 and above, macOS 11 and above)
- Roland DG Connect version 4.0 and above
- Roland DG Connect HUB version 3.0 and above
- PECK2 service utility version 3.8 and above

All software supports Windows 10 and above, macOS 11 and above



Software Workflow

Create Artwork in Roland DG Connect Designer

Design your graphic, add text or images, and make any necessary edits. Connect Designer simplifies artwork creation and prepares files for production.

Send the Job to VersaWorks 7

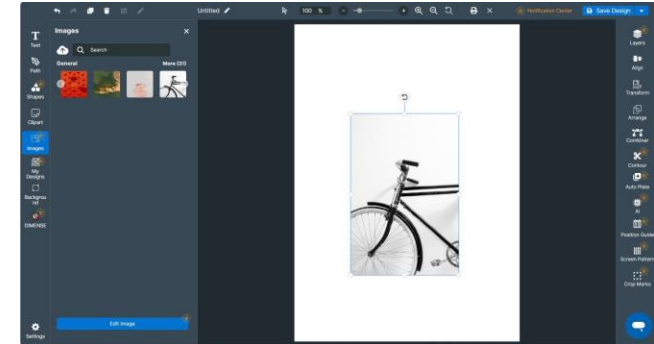
Export or send the design directly to VersaWorks 7, where print settings are applied. VersaWorks 7 processes the file, manages color settings, generates white layers for DTF printing when needed, and prepares the job for output.

Output to the VersaStudio BY2-20

From VersaWorks 7, send the RIP-processed job to the BY2-20 printer. The BY2-20 prints the design onto DTF transfer film using S-PG2 inks, ready for powder application, curing, and heat transfer to the garment.

Workflow Summary:

DG Connect Designer → VersaWorks 7 → BY-20 Printer → Powder/Cure → Heat Press to Garment



BY2-20



Complete Workflow Overview

Create Artwork in Roland DG Connect Designer

- Design and prepare artwork.
- Add graphics, text, and sizing as needed.

Process the Job in VersaWorks 7

- Import the design into VersaWorks 7.
- Configure print settings, color management, and white ink layers.
- RIP the file and send it to the printer.

Print to the VersaStudio BY-20

- The BY2-20 prints the image onto DTF transfer film using S-PG2 inks.

Apply Powder and Cure - Automated

- Feed the printed film into the powder shaker and dryer.
- Adhesive powder is automatically applied to the wet ink.
- Excess powder is removed, and the adhesive is cured with heat.
- **Manual Powdering is also possible.** Manually add powder to wet ink and shake off excess powder. Use a standalone oven or hover press to cure the inks and powder -- then press onto the garment

Vastex PTF Combo allows for semi-automated workflow with added safety features to prevent the spread of powder in the work area. Perfect for **16 x 18" (2 sq ft) Gang Sheets** that can be powdered and cured in about **90 seconds per sheet**.

Heat Transfer to Garment

- Position the cured transfer on the garment.
- Apply with a heat press according to the transfer specifications.
- Peel the film and perform a finishing press if required.

Automated shaker and oven for long unattended runs



PTF-COMBO – perfect for quick processing of gang sheets. Semi automated



Heat press for finishing



Workflow Summary

DG Connect Designer → VersaWorks 7 → BY-20 Printer → Powder Shaker & Dryer → Heat Press → Finished Garment

Regional Notes (North & South America)

- Common install language kits: English and Spanish
- Dealer training resources centralized in Irvine, CA and Atlanta, GA
- Demand insights:
 - **The Market Is Moving From "Getting Into DTF" to "Doing DTF Profitably"**
 - Industry analysts note that DTF is entering an optimization phase where consistency and repeatability matter more than simply owning a printer.
 - Entry-Level and small business demand remains extremely strong.
 - The fastest-growing customer segments continue to be:
 - **Entrepreneurs**
 - **Side-hustle operators**
 - **Home-based apparel businesses**
 - **Small print shops**
 - **Promotional product companies**

BY2-20



Specifications

Specifications Table		
		BY2-20
Printing method		Piezo ink-jet method
Media	Width	150 to 515 mm (5.91 to 20.27 in.)
	Thickness	Max. 1.0 mm (39.3 mil) with liner, for printing Max. 0.4 mm (15.7 mil) with liner and 0.22 mm (8.6 mil) without liner, for cutting
	Roll outer diameter	Max. 150 mm (5.9 in.)
	Roll weight	Max. 6 kg (13.22 lb.)
	Core diameter	76.2 mm (3 in.) or 50.8 mm (2 in.)
Printing/cutting width (*1)		Max. 480 mm (18.89 in.)
Ink	Type	S-PG2 INK 220 ml or 500 ml cartridge
	Colors	Five colors (cyan, magenta, yellow, black, and white[×2])
Printing resolution (dots per inch)		Max. 1,440 dpi
Cutting speed		10 to 150 mm/sec (0.4 to 5.9 in./sec)
Blade force (*2)		30 to 500 gf
Blade	Type	Roland CAMM-1 series blade
	Offset	0.000 to 1.500 mm (0.0 to 59 mil)
Software resolution (when cutting)		0.025 mm/step (0.98 mil/step)
Media heating system (*3)		Print heater set temperature: 30°C to 35°C (86°F to 95°F) Dryer set temperature: 30°C to 38°C (86°F to 100.4°F)
Connectivity		Ether net (100BASE-TX/1000BASE-T, automatic switching)
Power-saving function		Automatic sleep feature
Rated input		100-240 VAC, 50/60 Hz, 2.1 A
Power consumption	During operation	Approx. 185 W
	Sleep mode	Approx. 32 W
Acoustic noise level	During operation	62 dB (A) or less
	During standby	60 dB (A) or less
Dimensions (Width x Depth x Height)		1,069 (W) × 787 (D) × 622 (H) mm (42.09 [W] × 30.99 [D] × 24.49 [H] in.)
Weight		66 kg (145.51 lb.)
Environment	During operation	Temperature: 20 to 28°C (68 to 82.4 °F), humidity: 40 to 60%RH (no condensation)
	Not operating	Temperature: 5 to 40°C (41 to 104°F), Humidity: 20 to 80%RH (no condensation)
Included items		Power cord, Media holders, Replacement blade for separating knife, User's Manual, Software (VersaWorks, Roland DG Connect), etc.

Logistics & Delivery Information

Operational Environment:

The temperature range of work area should be 68°F to 90°F.

The humidity range of work area should be between 50% to 80% (no condensation).

The printer must not be exposed to direct sunlight or near air-conditioning or heating equipment.

Minimum Recommended Computer and Screen Configuration:

Dual Core CPU, 2.0 GHz CPU or faster, 2 GB RAM or more, 100 GB Free Space on Hard Drive, Windows 10, 100 Mb/s Ethernet network card, High-Resolution monitor - SXGA (1,280 X 1,024 pixels) or better.

Required Power Configuration

Printer:

Voltage and frequency: AC 100 to 240V ±10%, 50/60 Hz

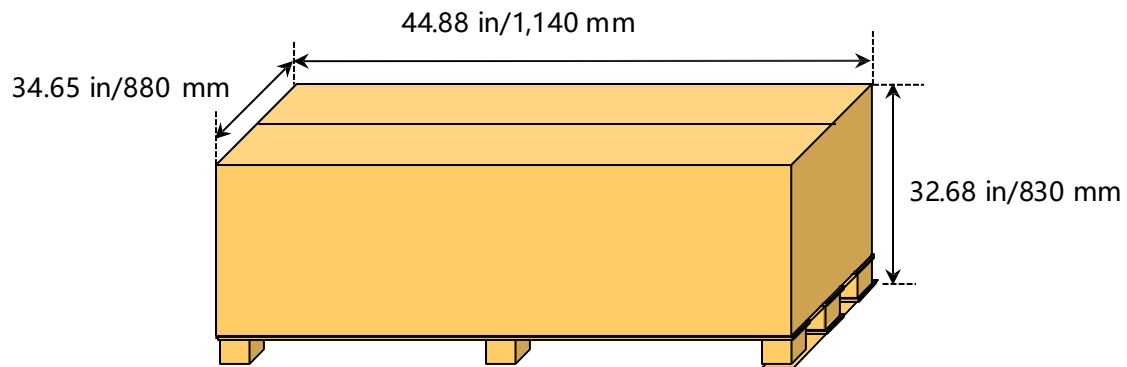
Required power capacity: 5.5 A or more

Number of power outlets: 1 for printer

Items	Date
Mass Production Starts	May 9, 2026
Shipment Starts	End of June 2026
Official Announcement	June 24, 2026
Global Sales Start	June 24, 2026

Logistics & Delivery Information

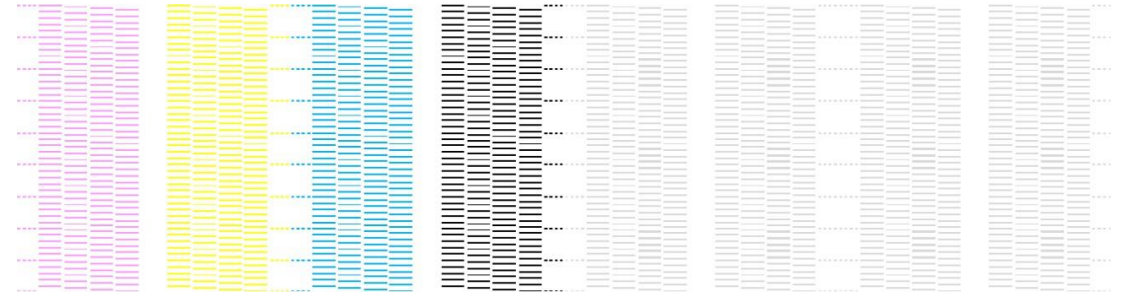
	Description	Required time	Accumulated time
1	Unpacking	10 min.	10 min.
2	Printer installation	10 min.	20 min.
3	Register Roland DG Connect	10 min.	30 min.
4	Software installation	20 min.	50 min.
5	Ink filling	20 min.	80 min.
6	Printer initial settings	20 min.	100 min.
7	Register media	Depending on the user	Depending on the user

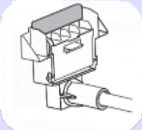



Daily Maintenance

Startup Nozzle Check

1. Print the nozzle check pattern from the BY2-20 Utility
2. Check for any missing or deflected nozzles. If there are any missing, take note of which nozzles are missing and prepare for daily startup procedure.



Daily Maintenance	Schedule	Tools needed (Included)
Start-up cleaning 	<ul style="list-style-type: none"> • Before daily work • When a media jam occurs • When nozzle dropout or deflection persists and cannot be resolved • When the printer has not been used for more than one week 	<ul style="list-style-type: none"> • Head Nozzle Refresher • Cleaning sheet (1 sheet) • Dropper • Cleaning solution (S-PG2-CL)
Daily shut-down cleaning 	<ul style="list-style-type: none"> • When daily work is finished • When the following message is displayed: "The time for daily shut-down cleaning has arrived." 	<ul style="list-style-type: none"> • Cleaning stick (1 piece) • Dropper • Tweezers • Cleaning liquid (S-PG2-CL)

To prevent the printhead from drying out, complete start-up cleaning within 10 minutes and daily shut-down cleaning within 30 minutes.

Periodic Parts Replacement Information

CAP TOP replacement

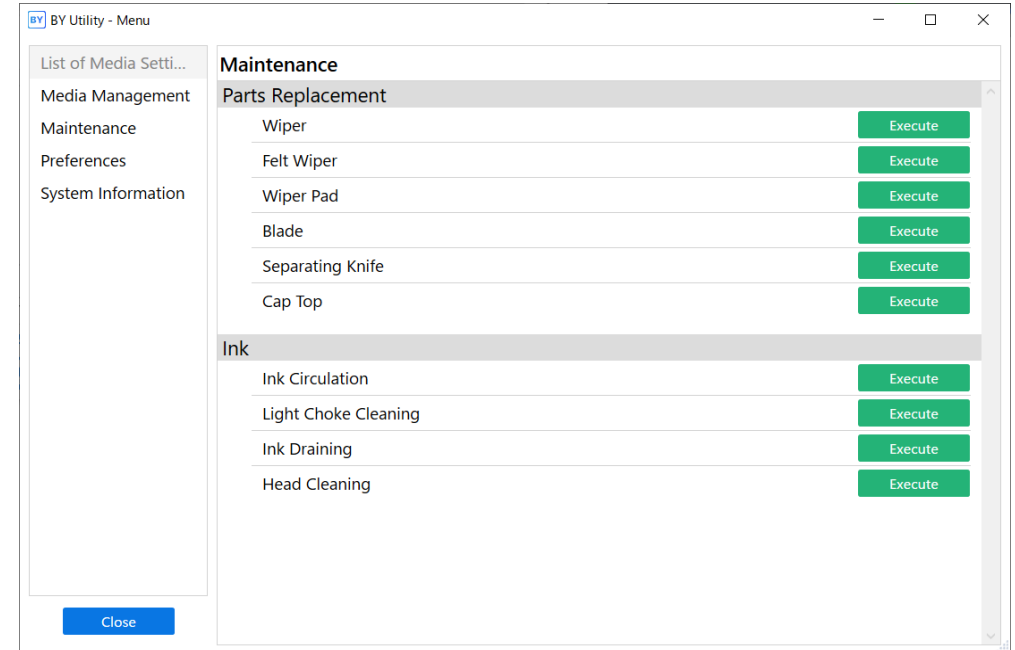
- CAP TOP is user-replaceable. Video instructions for replacement procedure available in the BY2 Utility.
- When an RCE is performing the replacement, replace the CAP TOP as a set with tubes using the service procedures.

Replacement of separating knife

- Replacement procedure is available in BY2 Utility.

Cleaning of scraper

- Procedure instruction for cleaning of scraper is shown in the video for manual cleanings.



Periodic Parts Replacement Information

Name	Estimated replacement time
Printhead	6 billion shots/nozzle
Wiper	Wiping 3,000 times
Felt wiper	Wiping 800 times
Cap top	6 months
Scan motor	3,000 hours
Ink tube	3,000 hours
Pinch roller	Replacement depending on wear and tear
Cutter protection	Replacement depending on the condition of the scratch
Wiper pad	3 months
Lithium battery	24 months
Drain pack	1.8 L



Thank You!

Detailed Specifications Addendum

Print Speeds

Media	Print Mode	Mode	Resolution (dpi)		Pass	Direction	Scan Speed (mm/s)	Print Speeds	
			Scan	Feed				m ² /h	ft ² /h
Generic Film Dark	High Quality	CMYK	1,440	720	16	Uni	508	1.13	12.16
		CMYK->W	1,440	720	16	Uni	508	0.28	3.01
		W	1,440	720	16	Bi	508	1.82	19.59
Generic Film Light	Standard	CMYK	1,440	720	12	Bi	508	2.34	25.19
		CMYK->W	1,440	720	12	Bi	508	0.62	6.67
		W	1,440	720	8	Bi	508	3.37	36.28
Generic Film Light	High Speed	CMYK	1,440	720	10	Bi	508	2.76	29.71
		CMYK->W	1,440	720	10	Bi	508	1.11	11.95
		W	1,440	720	6	Bi	508	4.31	46.39

Detailed Specifications Addendum

Ink Consumption

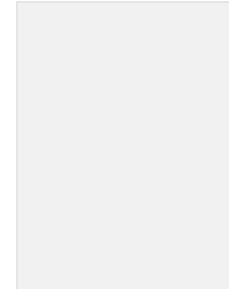
Print Mode						Ink Consumption		
Profile	Quality	Resolution	Pass	Direction	Color	N5A	N2A	White
Generic Film Dark	High Quality	1,440 x 720	16	Uni	CMYK	0.75 ml	0.41 ml	-
				Uni	CMYK>Wh	0.76 ml	0.41 ml	4.67 ml
				Bi	Wh	-	-	4.67 ml
	Standard	1,440 x 720	12	Bi	CMYK	0.66 ml	0.38 ml	-
				Bi	CMYK>Wh	0.66 ml	0.38 ml	4.67 ml
				8	Bi	Wh	-	-
	High Speed	1,440 x 720	10	Bi	CMYK	0.72 ml	0.39 ml	-
				Bi	CMYK>Wh	0.73 ml	0.39 ml	4.27 ml
			6	Bi	Wh	-	-	2.13 ml



Data: ISO N5A
Size: A4 Size
Color Settings: Ture Rich Color 3



Data: ISO N2A
Size: A4 Size
Color Settings: Ture Rich Color 3



Data: White Solid
Color Size: A4 Size
Color Settings: Density Adjustment

Detailed Specifications Addendum

Ink Consumption

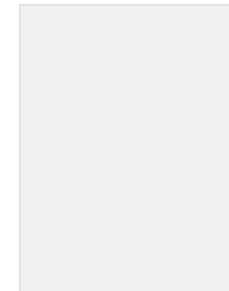
Print Mode						Ink Consumption		
Profile	Quality	Resolution	Pass	Direction	Color	N5A	N2A	White
Generic Film Light	High Quality	1,440 x 720	16	Uni	CMYK	0.72 ml	0.40 ml	-
				Uni	CMYK>Wh	0.73 ml	0.40 ml	1.82 ml
				Bi	Wh	-	-	1.82 ml
	Standard	1,440 x 720	12	Bi	CMYK	0.70 ml	0.39 ml	-
				Bi	CMYK>Wh	0.71 ml	0.40 ml	1.82 ml
				8	Bi	Wh	-	-
	High Speed	1,440 x 720	10	Bi	CMYK	0.71 ml	0.39 ml	-
				Bi	CMYK>Wh	0.72 ml	0.39 ml	1.82 ml
			6	Bi	Wh	-	-	0.91 ml



Data: ISO N5A
Size: A4 Size
Color Settings: Ture Rich Color 3



Data: ISO N2A
Size: A4 Size
Color Settings: Ture Rich Color 3



Data: White Solid Color
Size: A4 Size
Color Settings: Density Adjustment

Detailed Specifications Addendum

Ink Consumption

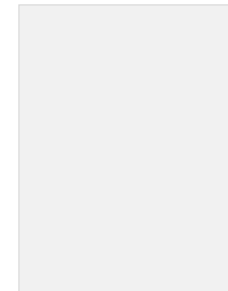
Print Mode						Ink Consumption		
Profile	Quality	Resolution	Pass	Direction	Color	N5A	N2A	White
Generic Film Dark2	High Quality	1,440x720	16	Uni	CMYK	0.71 ml	0.38 ml	-
				Uni	CMYK>Wh	0.72 ml	0.38 ml	4.67 ml
				Bi	Wh	-	-	4.67 ml
	Standard	1,440x720	12	Bi	CMYK	0.69 ml	0.36 ml	-
				Bi	CMYK>Wh	0.69 ml	0.37 ml	4.67 ml
				8	Bi	Wh	-	-
	High Speed	1,440x720	10	Bi	CMYK	0.72 ml	0.38 ml	-
				Bi	CMYK>Wh	0.73 ml	0.38 ml	4.26 ml
				6	Bi	Wh	-	-



Data: ISO N5A
Size: A4 Size
Color Settings: Ture Rich Color 3



Data: ISO N2A
Size: A4 Size
Color Settings: Ture Rich Color 3

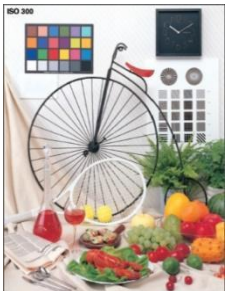


Data: White Solid Color
Size: A4 Size
Color Settings: Density Adjustment

Detailed Specifications Addendum

Ink Consumption CMYKOrReWhWh

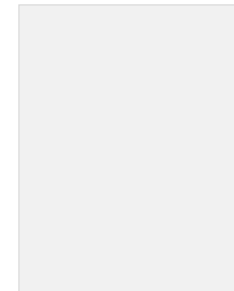
Print Mode						Ink Consumption		
Profile	Quality	Resolution	Pass	Direction	Color	N5A	N2A	White
Generic Film Light2	High Quality	1,440x720	16	Uni	CMYK	0.70ml	0.38ml	-
				Uni	CMYK>Wh	0.71ml	0.38ml	1.81ml
				Bi	Wh	-	-	1.81ml
	Standard	1,440x720	12	Bi	CMYK	0.68ml	0.37ml	-
				Bi	CMYK>Wh	0.69ml	0.38ml	1.81ml
				8	Bi	Wh	-	-
	High Speed	1,440x720	10	Bi	CMYK	0.69ml	0.38ml	-
				Bi	CMYK>Wh	0.71ml	0.38ml	1.81ml
				6	Bi	Wh	-	-



Data: ISO N5A
Size: A4 Size
Color Settings: Ture Rich Color 3



Data: ISO N2A
Size: A4 Size
Color Settings: Ture Rich Color 3



Data: White Solid Color
Size: A4 Size
Color Settings: Density Adjustment