

Product Overview

The patent pending DICEblade is a self contained single-pass printing subsystem that provides monochrome printing capability. Multiple DICEblades can be combined to provide process color printing.

PPSI developed the DICEblade for high-speed single-pass inkjet printing applications. Capable of 122 m/min (400 ft/min) from 400 to 1200 dpi, they represent the state of the art for inkjet printing systems. The DICEblade is designed for flexibility and supports different print head manufacturers, multiple jetting fluid types.

Capabilities

Each DICEblade comes equipped with everything needed to produce a high quality, reliable, print in an easy to implement unit. The blade includes a re-circulating ink system, drive electronics, printheads, and automated head tending.

The DICEblade provides precise in-register printing even after it's moved for cleaning or maintenance. The blade mates with kinematic mounts that are built into the printbar returning to the exact position every time. Blades can be moved in and out for maintenance and up and down for automated head tending and returned aligned with the substrate for precise drop placement.

The DICEblade can be easily and quickly removed for service via a sliding rail. This allows complete access to both sides of each printhead, drive electronics and ink supply. This design makes self-servicing the DICEblade simple, drastically reducing down time and eliminating maintenance contracts.

DICEblades are an ideal design for wide format printing. The blade system is configured with a pinning lamp for each color. This ensures excellent side to side color balance across the substrate.

Versatility

The DICEblade modular components can be combined to create a digital printer. Simply arrange the modules side by side either over an arch roller for web applications or on a flat frame for conveyor applications or parts printing.

A single DICEblade can provide a spot color process. DICEblades of different colors can also be joined together into a full process color print engine for graphic applications. You can create up to a ten color digital print engine with one controller.

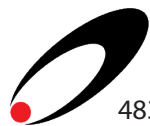
DICEblade are configurable in length. The DICEblade frame can be built to include extra spaces for blades that can be populated at a later date with new blades adding new colors, coatings or other custom formulations for jetting. Additionally, the DICEblade print bar can be built with extra space for print heads that can be added later creating more print width.



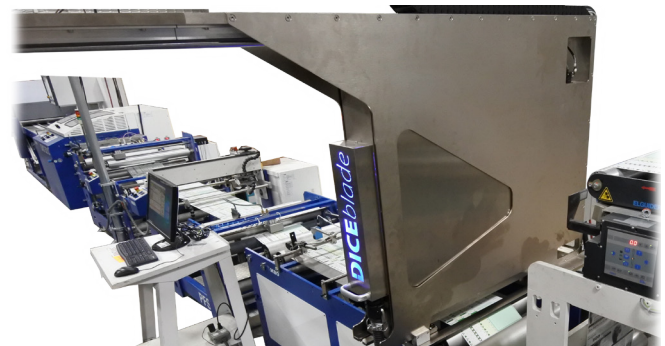
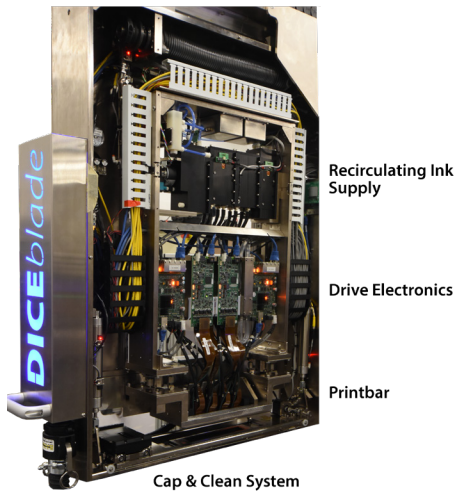
The DICEblade

Features of the DICEblade System

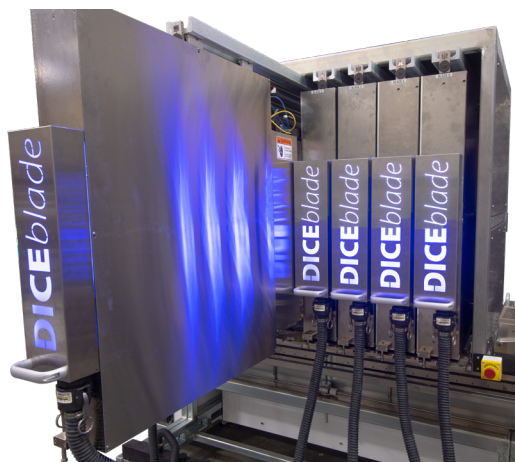
- All in one design with integrated recirculating ink supply, drive electronics, automated head capping, and non-contact head maintenance
- Unique pull-out design allows for easy access to both sides of the DICEblade for simple maintenance and reduced downtime eliminating the need for maintenance contracts
- Repeatable print bar placement allowing for 5 μ m jetting accuracy
- Available with printheads from leading manufacturers like Fujifilm, Konica Minolta, Kyocera, Ricoh, Xaar and Memjet
- Capable of jetting multiple fluid types including aqueous, solvent based UV and UV-LED curable
- Application areas include product decoration, packaging, graphics and labels, ceramic tiles, plastic films, outdoor and indoor signs, printed circuit board legends and functional fluids
- Scalable print widths from single head applications to wide format arrays. Arrays of over 60" plus available in custom configurations



Printheads	Standard DICEblade Frame Sizes										
		Size 1		Size 2		Size 3		Size 4		Size 5	
	Frame Width	43.25" (1099 mm)		47.00" (1194 mm)		50.25" (1276 mm)		54.28" (1379 mm)		62.00" (1575 mm)	
	Resolutions / Speeds	# Heads	Width mm	# Heads	Width mm	# Heads	Width mm	# Heads	Width mm	# Heads	Width mm
Fujifilm Samba	1200 dpi / 200 fpm (61 m/min) 600 dpi / 400 fpm (122 m/min)	4	171	6	257	8	344	12	517	20	864
Fujifilm SG 1024	400 dpi / 180 fpm (55 m/min)	2	127	4	254	6	381	7	445	10	635
Ricoh Gen 5	600 dpi / 125 fpm (38 m/min)	3	160	4	213	5	267	8	427	12	640
Konica Minolta 1800i	600 dpi / 160 fpm (49 m/min)	2	148	3	223	4	297	6	445	8	593
Konica Minolta 1024i	360 dpi / 150 fpm (45 m/min)	2	141	3	211	4	281	6	422	8	563
Kyocera KJ4	600 dpi / 250 fpm (76 m/min)	1	108	2	216	3	324	4	432	5	540
Xaar 1003	360 dpi / 80 fpm (24 m/min)	2	139	3	208	4	277	6	416	8	554
Memjet DL	1600 dpi / 50 fpm (15 m/min)	1	72	1	72	2	144	2	144	3	217



DICEblade Monochrome mounted over existing equipment



5 Color System with a DICEblade in maintenance position

Parameters	DICEblade
Imaging Width ¹	1.7 in (43 mm) up to 60 in (1524 mm)
Print Speeds ²	Up to 121 m/min at 1200 dpi x 600 dpi
Print Resolution	360 dpi - 1600 dpi
Jetting Fluids	Aqueous, UV-Curable, Solvents, and Custom Formulations
Substrates	Labels, Plastic Films, Indoor/Outdoor Signage, Ceramic Tiles, Printed Circuit Boards, and Functional Substrates
Computer	Windows 10 PC, Monitor, Mouse, and Keyboard
Drive Electronics / Software	GIS, Meteor, PLC Code
Power ³	200-240 VAC, 50/60 Hz
Product Dimensions ⁴	7in W x 42.5in H x [Frame Width] L Control box: 36"x14"x60"
Approx. Weight	Depends on configuration Control box: 500lbs

¹ Standard sizes listed. Larger widths available in custom orders

² Depends upon printhead type

³ Amperage will vary with print width

⁴ See Configuration Options Table for available frame sizes

