

DICEbase Expandable Print Engines



Product Overview

The DICE™ print engines from PPSI have been developed for single pass high speed applications, up to 400 fpm (122 mpm). The DICE™ printer produces vibrant, precise and durable images with resolutions from 360 to 1200 dpi. The DICE™ is flexible and customizable. The DICE™ offers printers in a wide array of print heads choices from leading manufacturers.

The DICE™ is designed for ease of use and maintenance setting users free from costs like service contracts and click charges. DICE™ users have some of the lowest operating costs in digital print. The DICE™ printer is a durable digital print platform designed to operate reliably in challenging environments.

The DICE™ is easy to integrate into existing equipment and processes, protecting users investments and improving productivity. The DICE™ automatic head tending system eliminates dependence upon manual operator intervention keeping the printhead safe and clean.

DICEbase Series – These are flat print engines for single-pass conveyor or web applications. They provide manufacturers with the flexibility to print high resolution color images on a wide variety of substrates, and to print short-runs and variable data. Our Industrial Inkjet print solutions are durable, reliable and designed to be robust enough operate in harsh manufacturing environments.

DICEbase printers are designed to; Provide mass customization of parts, add customization to web-based printing system, add color and improve resolution, add an image and branding on products.

Application areas include product decoration, packaging, graphics and labels, ceramic tiles, plastic films, outdoor and indoor signs, printed circuit board legends, and functional fluids.

The DICE™ print engines have been qualified with a wide variety of inks include; aqueous, solvent and UV and UV-LED curable inks.



DICEbase- (4 colors)

Features of the DICE™ Print Engines

Each DICEblade print module fits into permanent mounts which returns the print bar to the precise in register position each time you move it. Print quality is improved because the print bar can be perfectly placed within microns.

The DICEblade can be easily and quickly removed for service, This allows complete access to both sides of each printhead, drive electronics and ink supply.

The Blade version of the DICE™ print engine has spaces for 10 print bars. The blades can be positioned as required by the customer. Each Blade is either an inkjet color or a UV pinning lamp. This allows the print engine to be reconfigured.

A self contained head tending system that cleans and covers the printheads keeping them safe in harsh environments. This insures maximum printhead life and performance and prevents nozzle outs.



Printheads	Standard DICEblade Frame Sizes														
	12.25"			16.00"			19.25"			23.25"			31.00"		
	311 mm			406.4 mm			489 mm			590 mm			787 mm		
	# Heads	Print Width	Rear offset	# Heads	Print Width	Rear offset	# Heads	Print Width	Rear offset	# Heads	Print Width	Rear offset	# Heads	Print Width	Rear offset
Fujifilm SG 1024	2	5	2.97	4	10	2.97	6	15	2.12	7	17.5	2.87	10	25	2.97
Fujifilm Samba	4	6.71	2.76	6	10.11	2.76	8	13.54	2.85	10	16.96	3.15	15	25.4	2.7
Xaar 1003	2	5.4	2.76	4	10.8	2.75	5	13.5	2.75	6	16.2	2.87	9	24.3	2.75
Kyocera KJ4	1	4.25	2.75	2	8.5	2.75	3	12.75	2.75	4	17	2.87	6	25.5	2.75
Ricoh Gen 5	2	5.4	2.76	4	10.8	2.75	5	13.5	2.75	6	16.2	2.87	9	24.3	2.75
Memjet DL	N/A	N/A	N/A	1	8.5	3.75	1	8.5	3.75	2	17	3.125	3	25.5	2.75

DICE™ print engines include a complete system of hardware and software to go from common computer image file formats to printed images on a wide variety of substrates.



Modular Control System



DICEbase Over a Conveyor

Specifications

Configuration	Flat printbar for mounting over conveyor or web. Variable width.
Imaging Width	1.7" to 25.5" (wider available custom order)
Print Speed	Up to 400 ft/min (122 m/min) at 600 dpi (printhead dependent)
Print Resolution	360 to 1200 dpi actual (Printhead dependent)
Number of Colors	Up to 10, 4 color process (Cyan, Magenta, Yellow, Black), others available (Lc, Lm, white, clear, etc.)
Inks	UV and UV-LED curable and water based inks; Custom formulations also available; in 1 and 5 liter cubitainers
Substrates	Paper, plastic, film, metal, foil
Computer	Integrated industrial PC with MS Windows, monitor, keyboard and mouse
Software	Printer server and engine (RIP) with optional variable data printing module
Optional Components	UV curing system, DICE™ custom press mount or free standing print engine mount, pre-treatment module, machine vision
Size	DICEbase: Depends on configuration Control box: 33"w x 40"d x 47"h
Approx. Weight	DICEbase: Depends on configuration Control box: 500lbs
Printheads	Fujifilm SG 1024 & Samba, Xaar 1003, Kyocera KJ4, Memjet DL, Ricoh Gen 5
Power	85-240VAC, single phase, 50-60Hz 200 amps; Air: 70psi @2CFM

