

redcube – Drop on Demand Piezo inkjet printer using UV cured inks

Functional description

The redcube from Hapa is a compact DOD Piezo inkjet printing module, using solvent-free UV cured inks, for integration into any production process. It prints graphics, text, variable data, data matrix symbols and barcodes on substrates as they are led past the print head on a conveyor or material handling system.



Printing parameters

- Vertical maximum print width 36 mm
- Horizontal maximum print width 144 mm
- Prints up to 75 m/min. continuous or intermittent
- Print resolution up to 360 dpi
- UV Lamp or UV LED curing, air or water-cooled
- Black standard – spot color possible on request
- Typical in/online installation space requirement of 350 mm



Key benefits

- Exceptional print quality at high printing speeds with sharp contrast
- Extremely durable print – long lasting, abrasion resistant and resilient to temperature, moisture and solvents
- Wide range of substrates, lacquered and unlacquered, rough, smooth, porous or non-porous
- Non contact printing – no deformation of the substrate
- Instant curing – highly accurate print control, material immediately available for further inline processing



Technical specifications and variants

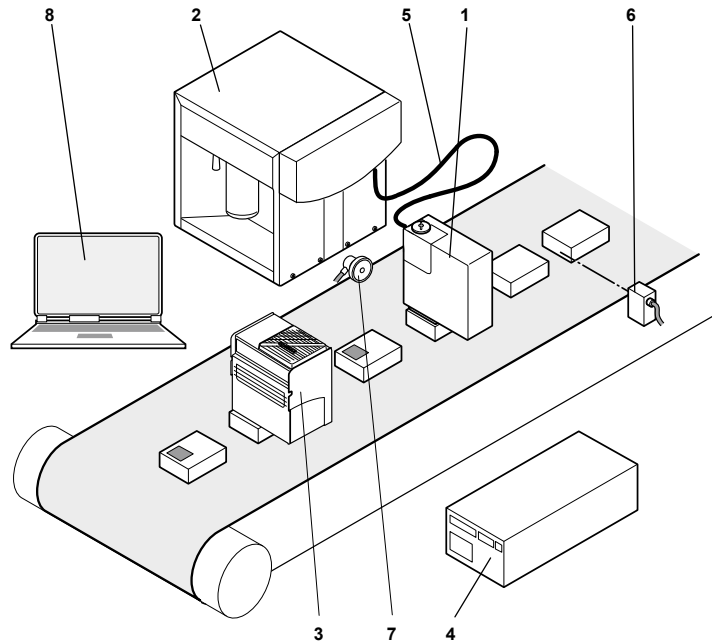
Technical specifications / variants	RC 36 SL	RC 36 SM	RC 72 SL	RC 72 SM	RC 72 SLI	RC 144 SL	RC 144 SM	RC 144 SLI	
Print width [mm]	36	36	72	72	72	144	144	144	
Resolution [dpi]	360	360	360	360	360	360	360	360	
Max print speed [m/min]	30	30	30	30	75	30	30	75	
Droplet size [pl]	42	14	42	14	30	42	14	30	
Print orientation	Vertical /side printing Horizontal /top side printing						Horizontal / top printing		
Interfaces	The redcube can be run standalone using RC Control or fully integrated using multiple industry interface standards including the following: XML based proprietary protocol over TCPIP, Modbus TCP and FTP, ProfiNet, Profibus, EtherCat, CAN/CANopen via fieldbus coupling modules; HTTP & HTTP (SOAP), Windows Driver								
Options	Spot color, CFR 21 Part 11, serialization extension, mounting brackets, pre-treatment								

Physical dimensions

	Dimensions (W x D x H)	Weight	Power supply
redcube print head 36 or 72	70 x 190 x 190 mm	2.5 kg	100-230 VAC, 50-60 Hz, 1 Ph+N+PE, 1 kVA
redcube print head 144	70 x 250 x 190 mm	3.2 kg	
redcube supply unit	331 x 383 x 365 mm	25 kg	
UV curing unit	Various units available. Size/Weight depends on application.		110-230 V 50/60 Hz switch mode, 1.5 kVA
UV LED power supply unit	331 x 407 x 148 mm	6.5 kg	

redcube's main components

- 1 redcube print head
- 2 Supply unit and ink system
- 3 UV curing unit
- 4 UV power supply
- 5 2 m connection cable (up to 5 m, optional)
- 6 Trigger sensor
- 7 Encoder
- 8 Control software and HMI (optional)



Recommended operating ranges

Ambient temperature	15 to 25 °C
Ambient air humidity	30% – 70%: avoid condensation
Optimum printing distance	0.7 to 1.4 mm
Air quality	Dust-free
Warm air output (air cooled curing unit)	100 m ³ /h at 80 °C

Software & hardware specifications and requirements

Computing requirements	<ul style="list-style-type: none"> ■ Windows XP to Windows 7 ■ .NET (DotNET) Framework 4 Client Profile* ■ Microsoft Visual C++ 2010 x 86 Redistributable* ■ Windows Installer 4.5* ■ Firefox (current version) ■ Minimum screen resolution of 1024 × 768 pixel ■ 100 MB Ethernet network connection ■ Minimum Intel i3 processor recommended <p style="text-align: right; font-size: small;">* installed with RC Control</p>
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