

HORIZON 03i

TECHNICAL SPECIFICATION

Screen Frames	Specification		
	Type	External (w x l x t)	Internal (w x l)
Standard	DEK 265	736 x 736 x 38mm (29" x 29")	660 x 660mm (26" x 26")
Configurable as Standard	Adjustable Stencil Mount	Configurable between 29" to 12" in under 2 secs	
Image Position	Centre, Front, Custom		

Board Handling	Specification
Minimum Size	40 x 50mm
Maximum Size	508 x 508mm
Thickness	0.2mm - 6mm
Maximum Weight	1Kg
Warpage	Up to 8mm including PCB thickness
Underside Component Clearance	Programmable 3mm - 42mm
Transport Conveyors	Programmable motorized
Transport Direction	Left to Right Right to Left Left to Left Right to Right
Interface Protocols	All popular interfaces available
Board Location	Patented Over the Top Clamps Edge clamping* Vacuum* Foil-less Clamps with vacuum*
Registration	Fully Automatic Vision

Process Parameters	Specification
Print Speed	2mm - 150mm/sec
Print Pressure	0 - 20kg Programmable
Print Gap	0 - 6mm
Stencil Separation	Speed: 0.1 - 20mm/sec Distance: 0 - 3mm
Print Modes	ProFlow Print Print Print Flood Flood Print Adhesive
Paste Knead	Programmable: Number, Period, On Demand

* denotes machine option

TECHNICAL SPECIFICATIONS



Vision	Specification
Vision System	Cognex
Camera Lighting	Software Controlled Programmable LED Lighting
Fiducials	2
Fiducial Types	Synthetic fiducial library or unique pattern recognition
Fiducial Size	0.5mm - 3.0mm
Fiducial Position	Anywhere on PCB
Fiducial Error Recovery	Auto Lighting Adjustment Auto Fiducial Search

Performance	Specification
Alignment	Stencil to Board Process Capability 1.33 Cpk @ $\pm 25\mu\text{m}$ Including Process#
Cycle Time	14 secs (12 secs with Speedup)
Product Changeover	2 minutes
New Product Set Up	<10 minutes

Operator Interface	Specification
Hardware	Colour TFT Display, keyboard and trackball
Software Operating System	Windows XP
Manuals	Electronically on CD-ROM Hard Copies Available*

Options	Specification
Underscreen Cleaner	Paper - Fully programmable wet/dry and vacuum assisted paper underscreen cleaner Vortex - Fully programmable wet/dry and vacuum assisted foam cassette underscreen cleaner
Temperature and Humidity Sensor	Sensor to measure and display temperature and humidity within the printing area. SPC output available
Statistical Process Control (SPC)	On board package to collect, manage and display critical process parameters
Networking	LAN package to transfer data within the factory network. Package includes DEK netfile software, which can target product and SPC files to location on the networks
Paste Roll Lamps	Illumination of the printing area
Anti Static covers	ESD protected cover package
ProFlow	Fully enclosed, high speed DirEKt Imaging system Optional Temperature Control Unit
2D Inspection	Full inspection capability of screen and board: - Basic paste on Pad & Stencil aperture blockage Automatically triggered recovery sequences Inspection outputs available to Statistical Process Control software option
Hawkeye	400mm per second ² deposit verification

DEKs machine, accuracy and repeatability qualification is undertaken using, production environment process variables. Print Speeds, Print Pressures, Rising Table and Camera Movements are included in the process capability figure

PECIFICATION

Options	Specifications
Tooling	Magnetic Pillars MultiFlex with or without vacuum Dedicated Vacuum Plates Gridlock
Paste Dispenser	Fully programmable automatic paste dispensing system. Available for 1kg and 500g cartridges
Environmental Control	Controls the temperature of the printing area
Board Clamps Alternatives	Edge Clamps Foil-less Clamps
Remote Event Monitoring	Desktop application for remote status monitoring and reliability analysis of the printer
Generic Equipment Model	On board package for communications with host using TCP/IP interface
Off Line Editor	Off line software package to generate and edit product files. Available on board or via network

Certification	Specification
CE	98/37/EC 89/336/EEC 73/23/EEC 2003/10/EC With Subsequent Amendments
ETL	Approval on request

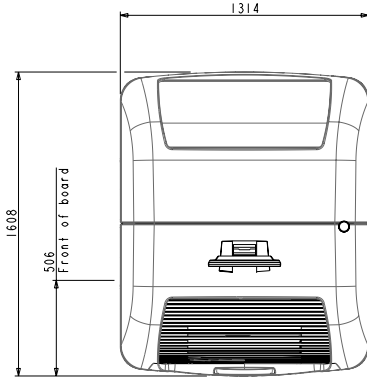
Services	Specification
Power Supply	115 volts +/- 10% at 20 amps (includes vacuum) 230 volts +/- 10% at 10 amps (includes vacuum) Single Phase 50/60Hz
Air Supply	Air to ISO 8573.1 standard quality class 2.3.3 Pressure 5 - 8 bar at 5 Litres/min

Operating Envelope	Specification
Temperature	10 - 35°C (50 - 95°F)
Humidity	30 - 70% Relative Humidity (non condensing)

Shipping Information	Specification
Approx. Weight	800kg 1760lbs
Approx. Dimensions	2050mm(L) x 1500mm(W) x 1570mm(H)



Machine Footprint



CAUTION OVER CURRENT PROTECTION.
Magnetic/thermal over current protectors protect the machines internal wiring and components from overheating/fire during fault conditions. DEK require additional machine supply protection with the fitment of an external circuit breaker, conforming to national/federal regulations, refer to table below.

Services required
Voltage:
115V or 230V Single Phase 50/60Hz

Current (without Vacuum Filtration Unit):
115V - 6A
230V - 3A

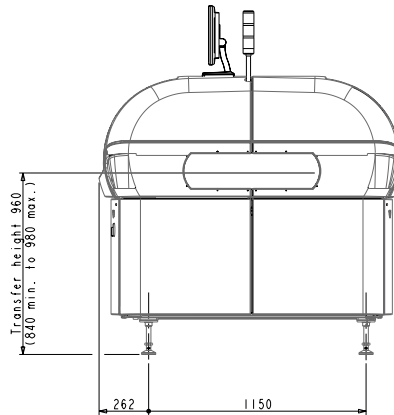
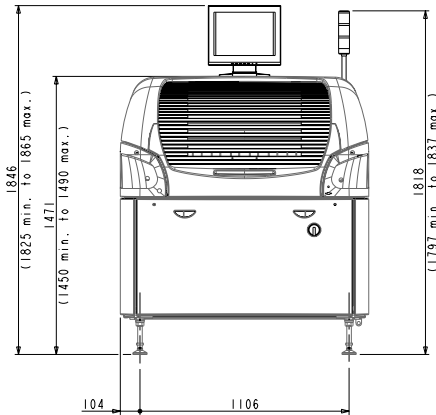
Current (with VF25 Vacuum Filtration Unit):
115V - 12A
230V - 6A

Current (with VF35 Vacuum Filtration Unit):
115V - 20A
230V - 10A

Air Supply
Air to ISO 8573.1
Standard Quality Class 2.3.3
Pressure 5 - 8bar at 5 Litre/min
Weight Boxed - 810kg, Unboxed - 660kg

Voltage	Value of circuit breaker (without internal Vac Unit)	Value of circuit breaker (with internal VF25 Vac Unit)	Value of circuit breaker (with internal VF35 Vac Unit)
115V	10A	13/16A	25A
230V	4/6A	10A	13/16A

NOTE:
All dimensions in millimetres
Board transfer height 840 - 980mm
Screen load height 925 - 1065mm



DEK[®]



A DOVER COMPANY

...know the difference

www.dek.com