



## Configuration

		PUMA <sup>1</sup>	PUMA <sup>2</sup>	PUMA <sup>4</sup>
Machine base	Pick & Place head with 1x spindle, optional up to 2x dispensing axis	●		
	Pick & Place head with 2x spindles, optional up to 2x dispensing axis		●	
	Pick & Place head with 4x spindles, optional 1x dispensing axis			●
	Dual Bottom Camera System			●
	Stand Alone type (PCB table, magnetic PCB holder, support pins)	○	○	○
	In Line type (Conveyor 3 stage, support pins, manual width adjust.)	○	○	○
	Dispensing preparation kit (Dot plate, purge and z-height calibration station)	○	○	○
	Interior lighting LED	●	●	●
	Signal tower (3 color)	●	●	●
	<b>Clean room compatible ISO7 (class 10'000)</b>	●	●	●
PCB Handling	SMEMA interface	●	●	●
	Inline systems: Conveyor direction L/R, R/L, batch mode R/R, L/L	●	●	●
	Inline systems: Automatic conveyor width adjustment	○	○	○
	Inline systems: Conveyor extensions	○	○	○
	Inline systems: PCB inspection station on conveyor	○	○	○
Control and software	ePlace P&P/Disp. software (En, De, Ru, Pl, Zh, Es, Cs, Ja)	●	●	●
	Machine PC with Windows 10 OS and 21.5" touch screen	●	●	●
	Technical support software	●	●	●
Alignment systems	Cognex SMD4 PatMax vision license (fiducials, chip, QFP, asymm. BGA and leads)	●	●	●
	Multi Field of View license (MFOV)	○	○	○
	Vision Box for 80x80mm components	○	○	○
	Laser height measurement	○	○	○
Dispensing valves (Cartridge sizes)	Jet valve (5, 10, 30 cm <sup>3</sup> )	○	○	○
	Pneumatic-Jet valve (5, 10 cm <sup>3</sup> )	○	○	○
	Time/pressure valve (5, 10, 30 cm <sup>3</sup> )	○	○	○
	Archimedean screw valve (5, 10, 30 cm <sup>3</sup> )	○	○	○
	Volume Dispenser valve (10, 30, 50 cm <sup>3</sup> )	○	○	○
	Cartridge level control	○	○	○
	Dispenser Needle Heating	○	○	○
Various	Standard User Level Management (software)	●	●	●
	Bad mark sensing with vision (software)	●	●	●
	Universal CAD conversion (software)	●	●	●
	Automatic Placement constraints (software)	●	●	●
	Basic calibration set P&P	●	●	●
	Maintenance kit	●	●	●
	Key Performance Indicator (KPI) (software)	○	○	○
	Process Improvement Tool P&P (PIT1) (software)	○	○	○
	Barcode Reading over Top Camera (software)	○	○	○
	Disp. Process Control Adjustment & Stabilization (PCAS) (software)	○	○	○
	Second touch screen for machine backside	○	○	○
	Keyboard and mouse holder underneath monitor	○	○	○
	CVU (Electrical Component Verification)	○	○	○
	Tray Slider (space for 2 additional JEDEC trays)	○	○	○
	Tray Changer (space for up to 18 JEDEC trays)	○	○	○
Extended Feeder Rack (additional feeder lanes)	○	○	○	

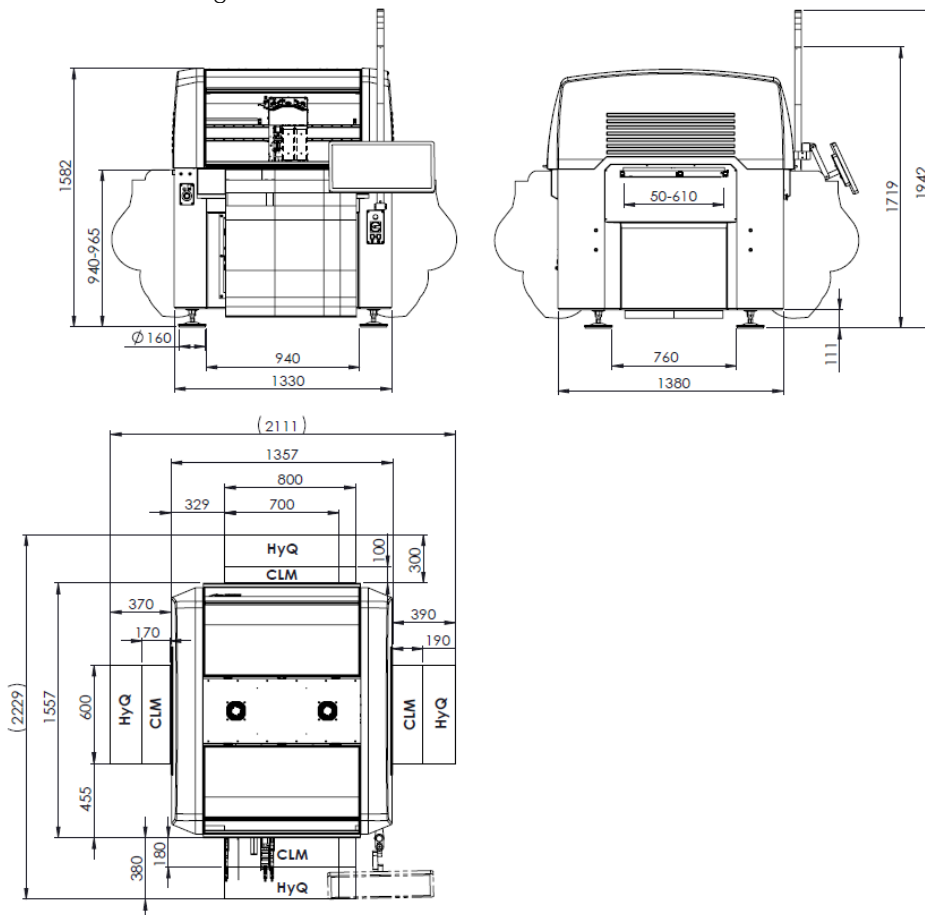
● standard feature ○ optional feature



### Machine Dimensions, Packaging and Supplies

Machine dimensions	Machine footprint without hood (L x W)	1380 x 1330 mm (54 x 52")
	Machine footprint with hood (L x W)	1557 x 1357 (61 x 53")
	Operating floor space (L x W)	2600 x 2500 mm (102 x 98")
	Machine height (without / with light tower)	1582 mm (62") / 1942 mm (76")
	Approx. machine weight (without / with full feeder)	1670 kg (3680 lb) / 1920 kg (4233 lb)
	Approx. floor loading (with full feeder)	1050 kg/m <sup>2</sup> (1.5 lb/sq.in)
Supplies	Packaging weight	80 kg (176 lb)
	Electrical	3 x 400 VAC/50Hz (or 3 x 208VAC/60Hz with optional transformer)
	Power consumption (peak)	3 kW
	Entry Fuse	16A / 400V
	Min. Wire cross section	1.5 mm <sup>2</sup>
	Electrical connector	400V, CEE-16, 16A, 400V, 5P 3L+N+PE 6h, red color
	Compressed air	6 - 7 bar (87 - 102 psi), clean and filtered, dry, ISO 8573-1: class 3 (max. part diameter 5µm, dew point < -20°C, oil ≤ 1 mg/m <sup>3</sup> )
	Air consumption	max. 60 NI/min (2.1 cfm)
Environment	Air connection	Push-in connector for outer hose Ø8 mm
	Performance temperature range / humidity	22 - 24°C / 50 - 70% RH
	Operational temperature range / humidity	15 - 30°C / 30 - 70% RH (non condensing)
	Noise level	max. 75 dB (A)

### Dimension Drawings



- 1) Values reached using hyQ feeder type only
- 2) Some feeder type «CSM» are also compatible. See System Description for possibilities and details
- 3) **Used speed mode "Accurate", up to 4 different speed modes available.** Only applicable at zero height and within performance temperature / humidity range

More information available in the PUMA System Description and Product Notes. Please ask for it.

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