



08901

ZPrinter 310 Product Specification

REV 02

Features and Performance Targets:

- One HP C4800A print head (304 nozzles)
- Monochrome printing only
- Build volume 8" X 10" X 8"
- Compatible with zp102 and zp14 material systems
- Approximately 2X speed of Z400
- Pumpless, valveless, gravity fed fluid system
- Passive service station
- Enhanced reliability due to removal and minimization of failure-prone components
- User-removable and replaceable gantry
- User-removable and replaceable electronics system
- User-removable and replaceable service station
- Ethernet connectivity
- Universal power input
- CSA approval

Subsystem Specifications:

Power:

- Input voltage: 100-120 VAC or 200-240 VAC manually switchable
- Input frequency: 50 – 60 Hz
- Current: 1.6A at 100V, .8A at 200V

Structural:

- Total system weight (empty): 250 lbs.
- Machine envelope: 32" W X 43" H X 29" D
- Working height (floor to box tops): 35 inches
- Box top height over deck: 2 inches
- Mobility: 4 swivel casters, front two casters lockable

Powder system:

- Build piston size: 9" (slow) X 10.5" (fast)
- Feed piston size: 9" (slow) X 10.5" (fast)
- Build piston stroke: 11"
- Feed piston stroke: 11"
- Feed volume (max): 1040 in³
- Overspread capability: 37.5% max at full build
- Overflow capacity: 530 in³
- Piston resolution: .00025" (half step)

Fluid system:

- Binder supply volume: 122 in³ (2000 mL)
- Waste volume: 61 in³ (1000 mL)
- Print head life: 30B pixels = 64 in³ (1050 mL)
- Binder pressure at septum (gauge): 1.82" – 4.10" = .066 – .148 psi (453 – 1020 Pa)

Service station:

- PEG capacity: 3.5 in³ (58 mL)
- PEG applicator material: polyester needled felt

Slow Axis:

- Drive ratio: 45 mm/rev (1.77165 inch/rev)
- Encoder resolution: 1000CPR before quadrature
- Functional resolution: 4000CPR = .01125 mm/count (.000443 inch/count)
- Spread speed: 16.9 in/s
- Acceleration 36 in/s² (.1g)
- Stroke: 19.215" ± .056"

Fast Axis

- Velocity-based print head firing
- Drive ratio: 1.2 inch/rev (30.48 mm/rev)
- Encoder resolution: 1000CPR before quadrature
- Functional resolution: 4000CPR = .0003 inch/count (.00762 mm/count)
- Retrace speed: 40 in/s
- Acceleration 540 in/s² (1.5g)
- Stroke: 12.462" ± .037"

Product Lifetime:

Through 2005
1000 Units