DATA SHEET

Xerox® MHF1 / MHF4 Industrial Inkjet Reservoir Printhead

With nearly half a million units produced and delivered to customers, the proven stainless steel construction of the M-Series Industrial Inkjet Printhead with on-board reservoir (available in mono, 2-color or 4-color configurations) is the robust solution that system integrators need. Each of the 880 nozzles (up to 300 npi) is precisely aligned to deliver consistent drops over hundreds of billions of cycles at temperatures up to 130°C, enabling a compact package that can successfully meet a vast array of fluidic requirements.

KEY PERFORMANCE DIMENSIONS

- **880-Jet Array**—All of the M-Series Printhead's 880 jets are precisely aligned during the manufacturing process. High nozzle count systems require fewer printheads and simpler alignment mechanisms.
- **Stainless Steel Construction**—The ink wetted areas of the M-Series Printhead are all stainless steel from the ink inlet to the nozzle. This makes the unit compatible with virtually any type of ink chemistry and sturdy enough for industrial applications.
- **High Temperature Operation**—The M-Series Printhead can be operated at temperatures as high as 130°C. This further increases the latitude of jettable materials by allowing temperature to be used to adjust material viscosity to an appropriate level.
- **High Frequency Operation**—With a maximum operating frequency of 43 kHz, the M-Series Printhead provides superior throughput and performance.

Operating Parameters	Unit of Measure	Xerox® M-Series
Number of addressable jets		880
Single (mono) color nozzle spacing	microns (npi)	84.4 (300)
Two-Color nozzle spacing	microns (npi)	168.8 (150)
Four-Color (closest) nozzle spacing	microns (npi)	337.5 (75)
Rows of nozzles		16
Drop size	picoliters	15–30
Drop size variation, 1 sigma	percent	~ 2
Jet straightness, 1 sigma	mrad	~ 6.6
Nominal drop velocity	m/s	3.3 to 7.5
Drop velocity variation. 1 sigma	percent	4
Operating temperature	°C	room to 130
Fluid viscosity	cP	6 to 11
Fluid surface tension	dyne/cm	25 to 40
Maximum operating frequency	kHz	43 kHz
Internal filter	microns absolute	33
Meniscus vacuum	mBar (H_20)	1.25 (0.5)
Wetted materials		316L Stainless Steel
Ejection cycles successfully tested (waveform dependent)	billion drops per jet	500

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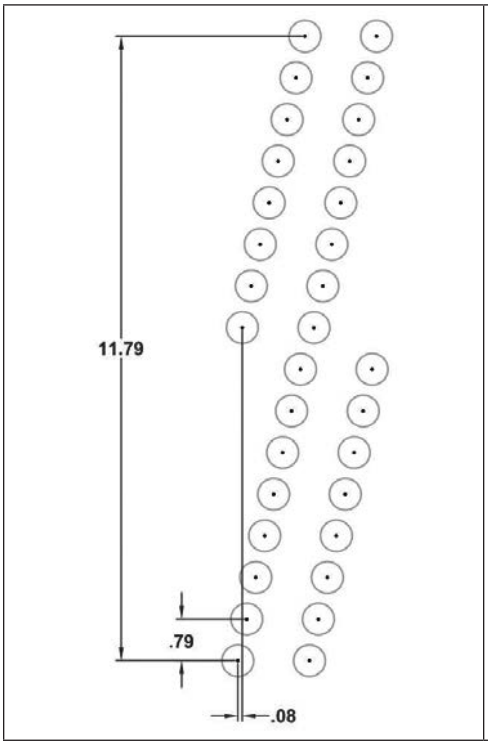
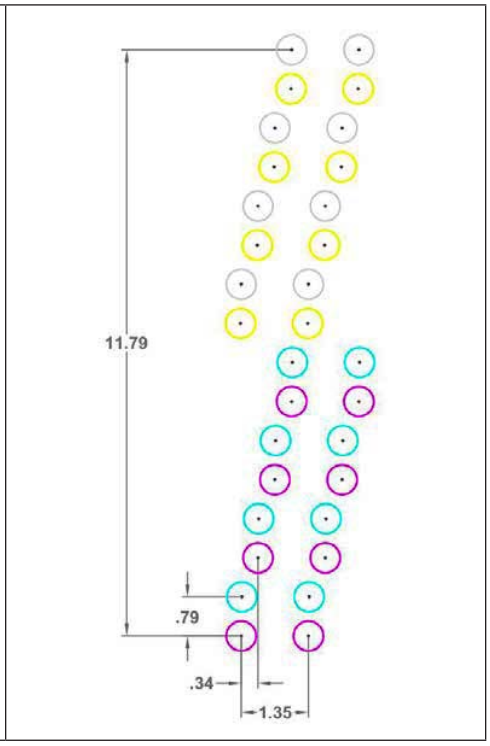
Industrial Inkjet Reservoir Printhead

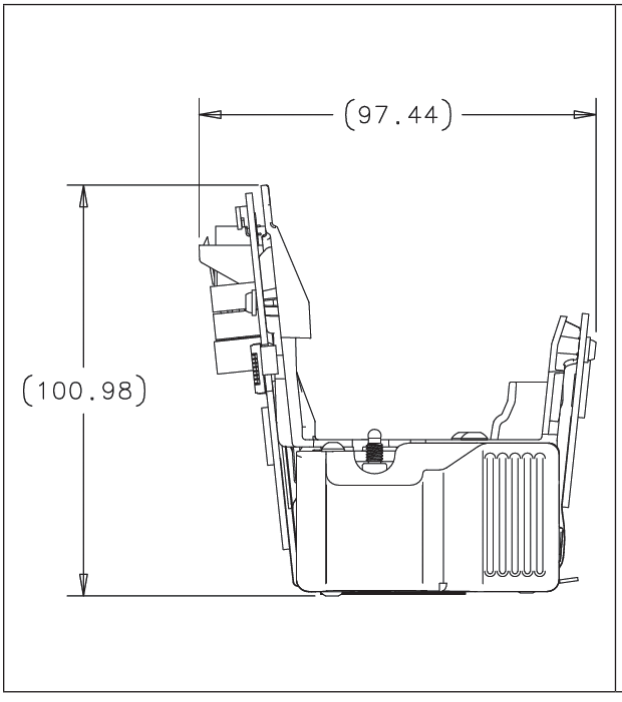
Note: All dimension are in millimeters unless otherwise noted.



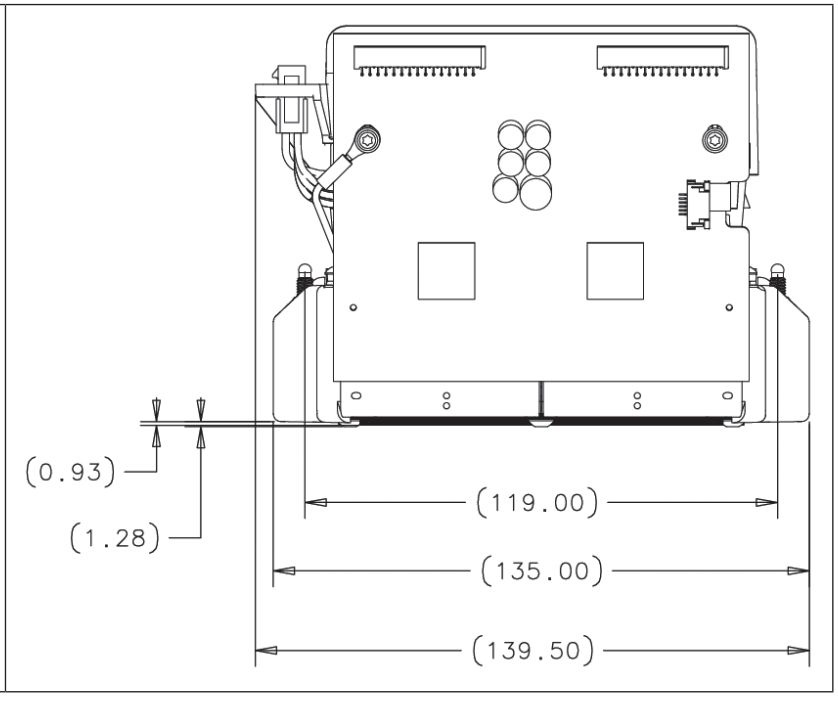
MHF1 (Mono) Printhead



MHF4 (Four-Color) Printhead



M-Series Printhead Side View



M-Series Printhead Top Side View

For production information, please contact us at **OEMSales@xerox.com**
or visit **www.xerox.com/printheads**