

XAAR Midas Ink Supply Systems

Compact, reliable and scalable industrial fluid control solution

The new Xaar Midas Ink Supply System is a compact fluid supply system for OEMs looking for a fast time-to-market and therefore low development costs. Robust and easy to integrate, it is ideal for full production as well as prototype systems.

Ease of integration is a key advantage of the Xaar Midas Ink Supply System. It is compact and light, easy to mount and has a small ink tank capacity. This is a flexible solution with a modular design which makes it suitable for a range of applications; it can run multiple printheads out of the box as standard.

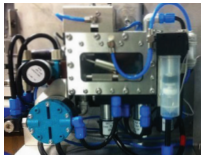
Available in three variants, the Xaar Midas Ink Supply System is suitable for single or multiple printhead configurations. In addition, it is fully compatible with the Xaar 501, Xaar 502, Xaar 1003 family, Xaar 2001+ and Xaar 2002 printheads – all of which incorporate Xaar's unique TF Technology ink recirculation.

The Xaar Midas 450 offers up to 450 ml/min recirculation flow rates needing only a 60 ml ink reservoir. This is ideal for advanced manufacturing, direct-to-shape and other applications jetting expensive fluids. The Xaar Midas 950C and 950X have a fluid flow rate of up to 950 ml/min with a 150 ml ink reservoir, targeting high volume and high throughput printing.

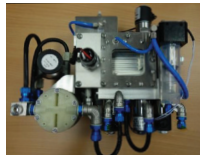
Xaar Midas Ink Supply Systems

For OEMs looking for a robust ink supply system, the Xaar Midas incorporates a number of useful design features:

- An integrated printhead shut-off valve and failsafe chamber with automatic shutdown protects against ink loss during power failure
- There is no need for external air sources or vacuum pumps
- Changing fluids in under 30 minutes is enabled via the software
- Ink temperature can be controlled up to 65°C and is recirculated within the angled tank to avoid settling, which is particularly useful for heavily pigmented inks
- Consistent high print quality in single-pass and scanning modes is ensured by the integrated hydraulic meniscus measurement system. The system automatically compensates the meniscus pressure within the printhead as fluid levels inside the integrated fluid reservoir change during usage.



Standard Xaar Midas system



Customised Xaar Midas system for materials deposition application

Features	Xaar Midas 450	Xaar Midas 950 C/X
Connectivity to printhead		
Maximum flow rate (ml/min)*	450	950
Maximum in-feed pressure (mbars)	200	200
Maximum return pressure (mbars)	-200	-200
Flow rate	3:1 to 15:1	3:1 to 15:1
Fluid temperature range (°C)	Ambient to 65 (+/- 1)	Ambient to 65 (+/- 1)
Fluid viscosity (at jetting temperature) (cP)	7 - 25	7 - 25
Built-in filter (µm)	10 - field replaceable	10 - field replaceable
Line connections (set of solenoids pairings)	1 factory fitted	Up to 2 factory fitted and 3 optional extras
Unit to printhead manifold distance (m)**	Up to 1	Up to 1
Suggested distance from bulk fluid tank to unit (m)	Up to 2 (for integrated fill pump)	Up to 2 (for integrated fill pump)
Ink system volume (ml)	60 (tank) + volume dependent on the length of tube	150 (tank) + volume dependent on the length of tube
Typical startup time (min)	15	15
Typical shutdown time (sec)***	5	5
Electrical		
Voltage (VDC)	24	24
Supply power rating (A)	6 - 8	6 - 8
Communication interface	4 wire RS422 / 485 interface Optional USB to RS422 communication gateway adapter	4 wire RS422 / 485 interface Optional USB to RS422 communication gateway adapter
Physical		
Weight (kgs)	2.94	5.74
ISS dimensions (W x D x H mm)	270 x 121 x 215	260 x 130 x 215
PSU dimensions (W x D x H mm)	45 x 200 x 80	45 x 200 x 80

* Dependent on inks and applications. ** Manifold heater is highly recommended when distance from ink supply to printhead exceeds 1m and in some cases less depending on application and fluid type. *** Shutdown may take longer if fluid requires a controlled cool-down routine (application-specific).

Options available for the Xaar Midas 450

Xaar Midas fluid degasser unit	An optional degas vacuum source is available for use with a customer supplied degas matrix
Xaar Midas remote heater top-up unit	The remote inline heater helps integrating into systems where higher fluid temperatures are required or longer pipework necessary
Xaar Midas remote pressure management manifold	The Xaar Midas remote pressure management manifold is ideal for integrating into systems where higher fluid temperatures are required or longer pipework is necessary and compensates for impedance losses due to filters and degassers
Xaar Midas communication pack	USB to RS422 communication gateway adapter

Options available for the Xaar Midas 950 C/X

Xaar Midas fluid degasser unit	An optional degas vacuum source is available for use with a customer supplied degas matrix
Xaar Midas remote heater top-up unit	The remote inline heater helps integrating into systems where higher fluid temperatures are required or longer pipework necessary
Xaar Midas communication pack	USB to RS422 communication gateway adapter
Xaar Midas 950 line connection	Set of one failsafe and one deairing solenoids



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