THOMAS
by Gardner Denver

Small liquid pumps

BIG performance

For your Continuous Inkjet Systems

Speed Dating With Maximum Uptime

Continuous inkjet systems are used around the world for marking and coding a great variety of products. The most important criteria for such applications are uptime, speed and service. Gardner Denver Thomas helps you meet them all with a range of truly advanced pump solutions.

Bottle printing

HAVE A GREAT UPTIME

Our pumps are remarkably robust. They offer long-term compatibility with high media temperatures, and superior resistance to chemical or mechanical damage caused by printing inks. Depending on whether water-based, solvent-based, UV-curable or pigmented inks are used, you can choose pump components in the most suitable material, such as EPDM, FKM, PTFE or FFKM.

DESIGN WITHOUT LIMITS

Our liquid diaphragm pumps are extremely versatile, and can be perfectly modified to your exact requirements. You just need one pump to control all the liquids in your system. It can handle a wide range of inks with different viscosities, particles, additives or solvents. And, it may be electronically regulated, and easily adjusted for a variety of printing programs.

GET THE BEAUTY OF QUALITY

Want to achieve the highest print quality from your inkjet systems? Our liquid pumps are equipped with a resonating diaphragm that minimizes cavitation and air bubbles for smooth and seamless ink transfer. You also get flawless results with our gas diaphragm pumps. They are designed to remove residual gas in the ink, maintain a constant vacuum over the print head to prevent ink dripping from nozzles, and provide positive air to avoid debris or dust from entering the inkjet.

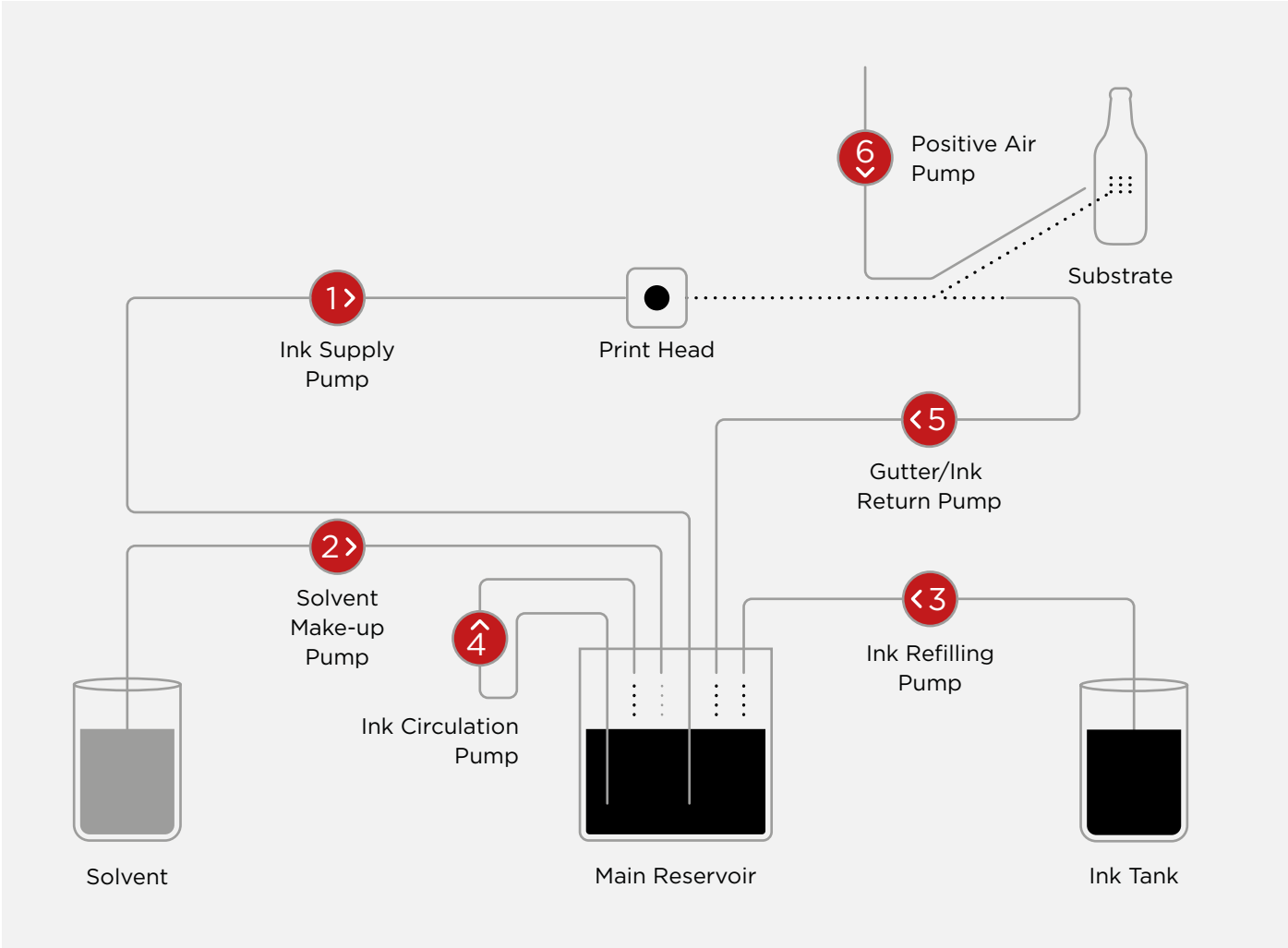
PRINT AT THE SPEED OF BUSINESS

In marking and coding, one thing is certain: the quicker, the better. Thanks to their variable pump flow rates and excellent pressure stability, our diaphragm pumps are perfect for high-speed printing. So your customers can get their products to market faster. They are also equipped with low noise emission technology to create a more pleasant working environment for users.

Egg printing

Can printing

Continuous Inkjet Fluidic System



LIQUID PUMPS

1. **Ink supply:** Ink is pumped to the print head at high pressure (usually 1 – 3.5 bar)
2. **Solvent make-up:** Volatile carrier solvents (e.g. MEK) that evaporate during printing are added to ink recovered from the gutter to maintain consistency
3. **Ink refilling:** Ink is transferred from the ink tank to the main ink reservoir
4. **Ink circulation:** Ink is circulated to prevent settlement of particles

MIXED MEDIA

5. **Gutter / Ink return:** Unused ink is transferred from the gutter to a reservoir for addition of solvent

GAS PUMPS

6. **Positive air:** Air is blown around the ink stream to prevent dust from entering the media

GDT 1210 Liquid Diaphragm Pump

Recommended applications

2› **Solvent make-up**

‹3 **Ink refilling**

Description

- Liquid diaphragm pump for smooth, continuous transfer of liquid
- Free flow rate: 180 – 250 ml/min
- Pressure: continuous pressure up to 1 bar
- Suction height: up to 6 mWg

Benefits

- ✔ Smooth, continuous flow with minimized pulses
- ✔ Bubble-free transfer of liquids
- ✔ Full compatibility with corrosive and abrasive media
- ✔ Flexible design for customized solutions

GDT 6311 Liquid Diaphragm Pump

Recommended applications

1› **Ink supply**

Description

- Liquid diaphragm pump for transfer of liquids under pressure
- Free flow rate: 150 ml/min
- Pressure: continuous pressure up to 5 bar
- Suction height: up to 4 mWg

Benefits

- ✔ Linear controllability of flow against pressure
- ✔ High reliability and lifetime even with higher pressures
- ✔ Full compatibility with corrosive and abrasive media
- ✔ Flexible design for customized solutions

GDT 6410 / 6420 Liquid Diaphragm Pump

Recommended applications

2 Solvent make-up **3 Ink refilling**
4 Ink circulation **5 Gutter / Ink return**

Description

- Liquid diaphragm pump for smooth, continuous transfer of liquids
- Free flow rate: 600 ml/min (per head)
- Pressure: continuous pressure up to 1 bar
- Suction height: up to 3 mWg

Benefits

- ✔ Smooth, continuous liquid flow with minimized pulses
- ✔ Bubble-free transfer of media
- ✔ Excellent reliability and durability even with corrosive and abrasive media
- ✔ Flexible design for customized solutions
- ✔ Reliable transfer of air/liquid mixtures

GDT 1410 / 1420 Gas Diaphragm Pump

Recommended applications

6 Positive air

Description

- Gas diaphragm pump for efficient operation with low power consumption
- Free flow rate up to 11 L/min
- Intermittent pressure up to 1.9 bar
- Intermittent vacuum up to 75%

Benefits

- ✔ Compact design with good performance to size ratio
- ✔ Smooth and balanced operation
- ✔ Pump controllability
- ✔ Configurable design for customized solutions

GDT 1610 / 1620 Gas Diaphragm Pump

Recommended applications

<5 **Gutter / Ink return**

Description

- Gas diaphragm pump for high end vacuum and performance stability
- Free flow rate up to 16 L/min
- Intermittent pressure up to 2 bar
- Intermittent vacuum up to 90%

Benefits

- ✔ Low sound and vibration over performance range
- ✔ High evacuation speed
- ✔ Performance reliability over lifetime
- ✔ Configurable design for customized solutions

GENERAL CONTACT

Gardner Denver Thomas GmbH
Livry-Gargan-Str. 10
82256 Fürstenfeldbruck
Germany

T +49 8141 2280 0
F +49 8141 8892136
thomas.de@gardnerdenver.com

Gardner Denver Hong Kong, Limited
Unit 1317-1318 Delta House
3 On Yiu Street, Siu Lek Yuen
Shatin, New Territories
Hong Kong

T +852 2690 3502
F +852 2792 4598
thomas.hk@gardnerdenver.com

Gardner Denver Thomas, Inc.
1419 Illinois Avenue
Sheboygan, WI 53081
USA

T +1 920 457 4891
F +1 920 451 4276
td.usa@gardnerdenver.com

www.trythomaspumps.com
www.gd-thomas.com
www.tricontinent.com
www.welchvacuum.com