



# Produce your colours quicker, reproducible and at lower cost

Our automatic dispensing systems significantly improve the efficiency of your printing processes by giving you a complete ink logistics solution. This fast, accurate and just-in-time production of printing ink - also known as colour on demand - improves quality, reduces stock levels and optimises inventory control. So you can increase your margins while offering a better end product.

All GSE automatic dispensing systems are characterised by minimal machine downtime, better reuse of printing ink, lower maintenance cost and extremely high equipment reliability. They are also straightforward to install and easy to operate. What's more, their modular design allows a perfect match with your existing production equipment, as well as easy expansion.

### Meeting all your production requirements

All our systems incorporate a unique valve design and selflearning software to ensure rapid, accurate and splash free dispensing – even with fluctuations in viscosity. They are also safe, reliable, clean and easy to operate. Other standard features include automatic valve cleaning after every dispensing cycle to maintain colour integrity, circulation control to minimise ink settling and ensure consistent colour quality, and air-operated valves and pumps that require very little maintenance. The advanced GSE Ink manager software package is supplied as standard.



#### Water-based, solvent-based and UV curable inks

Our extensive range of ink dispensing solutions offers you exceptional efficiency and accuracy with water-based, solvent-based and UV curable inks. Our systems for water-based printing inks are fitted with extremely durable hoses, appendages and pumps, as well as stainless steel flow-rate valves with high-integrity seals. The solvent-based ink systems accept solutions with ethyl acetate, ethanol and iso-propanol as standard, and can also be configured for MEK and Toluene. Long-lasting hoses, fittings and pumps are standard. All our automatic dispensing systems for solvent-based inks comply with CE and are explosion-proof executed, and those intended for Europe are ATEX-compliant.

Our dispensing system for UV curable inks is ideal for the label industry. It excludes all light that would cause the ink to cure, and is perfect for high-volume production using these viscous inks. All GSE waterbased ink dispensing systems can be converted for use with UV curable inks.

# **GSE Ink manager:** total control at your fingertips

GSE Ink manager is the best-in-class software package that gives you the control and information required to run "lean and smart" ink and printing operations. GSE Ink manager is supplied as standard with GSE ink dispensing systems.





Resulting from years of development and intensive collaboration with different market players, GSE Ink manager is fully tailored to the needs of modern printing houses. In developing the software, a process approach has been kept in mind. All relevant workflow steps relating to ink logistics are supported. GSE Ink manager provides a total solution for managing all ink-related information. It far exceeds just the machine control of the dispensing system.

### Modern user interface

Thanks to the fresh, intuitive Windows interface, the software is easy to learn and work with. You can sort, hide, drag and drop columns. You can save any lay-out you have designed. The software also includes extensive search, reporting and connectivity functions.

### Basic package and optional modules

GSE Ink manager comes with a host of functionalities in the basic package. The job list helps you to schedule production runs and enables the division of work preparation and ink production. Standard functionalities include formula management, colour corrections and stock management. Other key features are tracking dispense and event histories, report generation and user management with user groups. Thanks to the modular design, you can tailor the software to your needs and workflows (please find the table below).

Optional software modules:
GSE Return ink management
GSE Order management
GSE Traceability
GSE Article management
GSE Advanced logistics
GSE Advanced reporting
GZE Hazard symbol printing
GSE Colour connect
GSE MIS connect

### Peace of mind

Being a leading dispensing solutions supplier involves much more than just providing high quality equipment. It also means continuing to care about your business long after installation has taken place. That is why we have put together a unique service package to help you keep your equipment operating at the highest level of efficiency throughout its working life. We have more than 45 years experience in gravimetric dispensing solutions. We therefore can offer you an unrivalled level of expertise to solve any issues you may have.

### Direct access to the assistance you need

Your first point of contact will be our support desk. We use sophisticated equipment to communicate with your dispensing system, register problems and provide helpdesk assistance. You receive a fast and thorough analysis of the situation, so a solution can be found and you can resume production as quickly as possible.

### Global support network with local presence

Our dedicated service-oriented engineers are highly qualified and have many years of hands-on experience working with a wide variety of dispensing equipment. Our service team, complemented with our global network of local service representatives, can assist you with on-site maintenance and problem solving. Furthermore, they use their training and expertise to get the best of your system.





### The right spare part — wherever you are

Spare parts are extremely important, especially if you need them in a hurry. That is why we hold them in stock in numerous locations worldwide.

#### Support and service contracts

We also have a full support and service program for keeping your equipment performing optimally by remote support and regular planned servicing. This greatly reduces downtime while increasing your productivity.

### Improving performance through system upgrades

We are continually developing new solutions to further increase the functionality and productivity of your dispensing equipment. Upgrading your software, for instance, will shorten dispensing times and enhance the system's effectiveness. In addition, we carry out extensions for bringing your equipment right up to date.

### Colorsat FCS

The Formula Checkweigh System (FCS) gives you full control over the management and (manual) weighing of ink batches. The FCS comprises a 15 kg / 33 lb scale (35 kg / 77 lb optional), and a computer with keyboard and monitor. The control computer is positioned next to the electronic scale or can be mounted on the back of the monitor with a special bracket. The system bulks up a desired formula to a desired batch size, calculates the individual weight of each component of the formula and then leads the operator through a step-by-step controlled weighing process. For every batch weighed a label is printed with an optional barcode for identification purposes.



- equipped with GSE Ink manager
- suitable for all inks (including offset)
- easy self-installation
- simple future system growth
- can be connected with all major colour formulation systems
- small footprint









## Colorsat Switch & Colorsat Match

The Colorsat Switch and Match systems are specially suited to narrow web printers and users of relatively low ink volumes. Both systems have a dispensing range of between 1 and 10 kg (~ 2 and 22 lb), mixing inks from a maximum of 20 components (Match) or 24 components (Switch), with viscositie of up to 2500 mPas (2500 cP). Both dispensers are designed for dispensing production batches of UV-curable and water-based inks. The Switch, however, is also suitable for solvent-based inks. Typically, a 5 kg (10 lb) recipe formed from four components is dispensed in less than four minutes. The systems differ in how inks are connected: ink buckets can be directly connected to the Switch, while the Match is equipped with internal storage tanks that are easy to refill.



- fast installation
- ergonomic design features
- flexible arrangement of system and storage drums
- low maintenance
- small footprint







### Colorsat Slim

The Colorsat Slim is the economical dispensing solution for printers. The system can be executed with up to 24 different components. The system is equipped with GSE Ink manager software featuring fully automated and computerised dispensing of water or solvent based inks. A dispensing accuracy of 1g (0.002 lb) for batches up to 25 kg ( $\sim$ 55 lb) and a batch capacity of 20 kg (~44 lb) with four components in less than four minutes complies with most demanding dispensing requirements.

#### Colorsat® Slim

- fast installation
- easy to operate, clean and maintain
- flexible arrangement of system and storage drums







## **Colorsat Compact**

The Colorsat Compact series is designed for fully automated and computerised dispensing of up to 32 different components and 2 on/off water or solvent valves. Two different models are available for either solvent-based or water-based inks. A dispensing accuracy of 1 g (0.002 lb) is standard for maximum batch sizes up to 25 kg (~55 lb), with accuracy of 0.1g (0.0002 lb) available as an option. Each model is also available as a high version, for dispensing larger batches (up to 600 kg /  $\sim 1300 \text{ lb}$ ). Colorsat Compact systems have a typical dispensing speed faster than two and a half minutes for a 20 kg (~44 lb) batch with four components.



- fast installation
- simple operation
- easy to clean and maintain
- fastest dispenser on the market







# **Colorsat Mixpoint**

The Colorsat Mixpoint is an extremely flexible, high-capacity, fully automated and computerised system that can dispense up to 64 different waterbased, solvent-based or UV curable components. It dispenses into containers, drums, buckets and cups, and interfaces with a wide range of storage tanks, mixers and refilling systems. It dispenses to an accuracy of 1 g / 0.002 lb (0.1 g / 0.0002 lb optional), and dispenses a 175 kg (~385 lb) batch, consisting of four separate components, in less than 10 minutes. The Colorsat Mixpoint can handle batches as large as 3000 kg / ~6600 lb.



- high performance and accuracy (also for large quantities)
- modular system with multiple lay out options
- centre point dispensing for all the components
- many possible options to extend in capacity and functionality







# Additional equipment

### **Colormix®**

The Colormix range of manual, semi-automatic and automatic pneumatic blenders are suitable for homogenisation of dispensed inks in buckets. The blenders are equipped with a roller conveyor and can be integrated with an optional manual or automatic system for bucket transport. The blender can be turned over a bucket with detergent, water or solvent, which makes it suitable to clean the blender blades and the shaft.



These fully-automated drum and bucket washers are an easy and efficient way of cleaning containers used to store ink. Water is forced through a series of rotary brushes that clean the inside and outside of the containers. The washer is virtually maintenance free and has a stainless steel housing. And with the optional water saving system you save 50-80% of your water consumption.

### Colorsat® Solo

The Colorsat Solo is a simple but effective solution to manually dispense process colours, base ingredients and a wide range of coatings used in the packaging and graphics industry. This excellent-value equipment allows manually operated dispensing of one component (UV curable, water-based or solvent-based) in an economical and environmental friendly way.



Colormix manual blender



Colorclean Indigo bucket washer with water saving system



# Hardware options

### Increase your capabilities

GSE offers many options for increasing the capabilities of your dispensing system. From mixers and filters to barcode readers, you can put together exactly the system that best matches your needs. For details see the option matrix.





	Spare	On/off.	Addition	Suction Suction	Internal	Conne	Conney for stone	High View for exc.	High Wolume comp. 1.000 life.	Agitat	1" The base with 2 valve	Disper	Turnt.	Tolues to disper	Solver Solver Solver	Colors Stance Copenings	Color hand-be,	Color, manual L	Color Semi-au	Color, automatic bles	Color Manual	Cart Cart Chat;	Barce Scal	Addition Addition	Smart Work st	size delion "ierand bar
FCS												•											•			
Match UV	•				•	•	•					•	•			•							•	•	•	
Match WB	•				•	•	•					•	•			•							•	•	•	
Switch UV	•					•	•	•				•	•			•							•	•	•	
Switch WB	•	•				•	•	•				•	•			•							•	•	•	
Switch SB	•	•				•	•	•				•		•	•	•							•	•	•	
Slim WB	•	•	•	•		•	•	•		•	•					•	•	•		•			•	•	•	
Slim SB	•	•	•	•		•	•	•		•	•			•	•	•	•	•		•			•	•	•	
Compact WB-L	•	•	•	•		•	•			•	•	•				•	•	•	•	•	•		•	•	•	
Compact WB-H	•	•	•	•		•	•		•	•	•					•	•	•	•	•	•	•	•	•	•	
Compact SB-L	•	•	•	•		•	•			•	•	•		•	•	•	•	•	•	•	•		•	•	•	
Compact SB-H	•	•	•	•		•	•		•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	
Mixpoint WB	•	•	•	•		•	•		•	•	•	•				•		•	•		•	•	•	•	•	
Mixpoint SB	•	•	•	•		•	•		•	•	•	•		•	•	•		•	•		•	•	•	•	•	

# **GSE Dispensing**

GSE delivers robust, fast and smart dispensing equipment, software and services to minimize inkrelated wastes in the printing workflow. The company is based in the Netherlands.

With more than 45 years of experience in the graphics, textile and coating industry, we have an installed base of more than 2,200 automatic dispensers and software packages at factories in 90 countries. We are supported by a global network of sales, service and supply chain partners.

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