

Ink Supply Systems for Sheetfed Offset

Lincoln – Systems for the Graphic Industry



Ink supply from cartridges, 200 kg drums or 300 kg containers – our systems help to increase the productivity of your printing presses.

Ink Supply During Printing Press Operation

Optimum Press Capacity Utilization

The automation and centralization of the ink supply in your facility – that's our job. Our experience enables us to provide custom tailored system solutions as well as for your process chain.

Especially when large quantities of the primary scale colours apply, the central ink supply systems provide genuine advantages for your printing presses.

The ink is supplied directly from the ink supplier's container to the press without additional handling or intervention – irrespective of container type and size.

System Benefits

- Improved process automation
- Easier handling and stocking
- Safe supply of ink
- Closed system avoids impurities
- Less residual waste in the containers
- Cost effective disposal or return of empty containers
- 300 kg containers are stackable and are returned to the supplier for cleaning and refilling.
- Savings through bulk purchases
- Space saving

Complete Pump Range for all Applications

Lincoln offers decades of experience in pumping high-viscous materials such as offset ink. For over 30 years our proven pumps have successfully been implemented into the market-place. Our pumps have now even been further enhanced for modern offset ink applications.

Lincoln offers seven different pneumatic air-motors that can be combined with a variety of pump tubes to match each individual application. Irrespective of ink viscosity or pumping distance, we have the right pump combination for your application.

In addition to a full pneumatic pump range, we also offer hydraulic driven pumps. Compressed air is an expensive drive medium that is not always available in sufficient quantities. In this situation the ink supply is provided by hydraulic pumps with a supplemental hydraulic power pack. All that is needed is an electrical supply connection.

Several System Advantages Comprising the Following Components

Tubing

High pressure hydraulic tubing that is properly matched to the parameters of the system is used to connect the pump to the press. The diameter of the tubing depends on the layout of the system. This method is quick and easy to install. All tubing is properly flushed and cleaned before the system is commissioned.

Filter

Contamination in the ink fountains must be avoided at all times, which is why we install a 200 micron ink filter directly at the pump outlet.



Consumption Measurement

Ink consumption measurement tells exactly how much ink was used for each individual press. This is ideal for calculation or costing purposes and



Lincoln inkpumps are proven in thousands of applications in the graphic industry – here the LIP4BA.



Innovative System Modules – Safe, Reliable, User-friendly

UV Ink Supply Systems and Cartridge Systems

UV Ink Supply Systems for Sheetfed and Form Printing Presses

The special composition and reactivity of UV-type inks require careful attention in pumping systems. Lincoln has developed special high-performance pumps for this application.

The proper pumping system offers operators an easy way to handle these types of ink.



UV inks are extremely viscous and direct contact with the ink should be avoided.

UV ink supply systems are available in all versions as offered for conventional systems.

The systems range from a tap station to a full automatic ink fountain filling system. Intelligent control systems allow several presses to be supplied with ink from a single pump station. Our systems offer flexibility and a maintenance-friendly design that is convincing.

Cartridge Systems

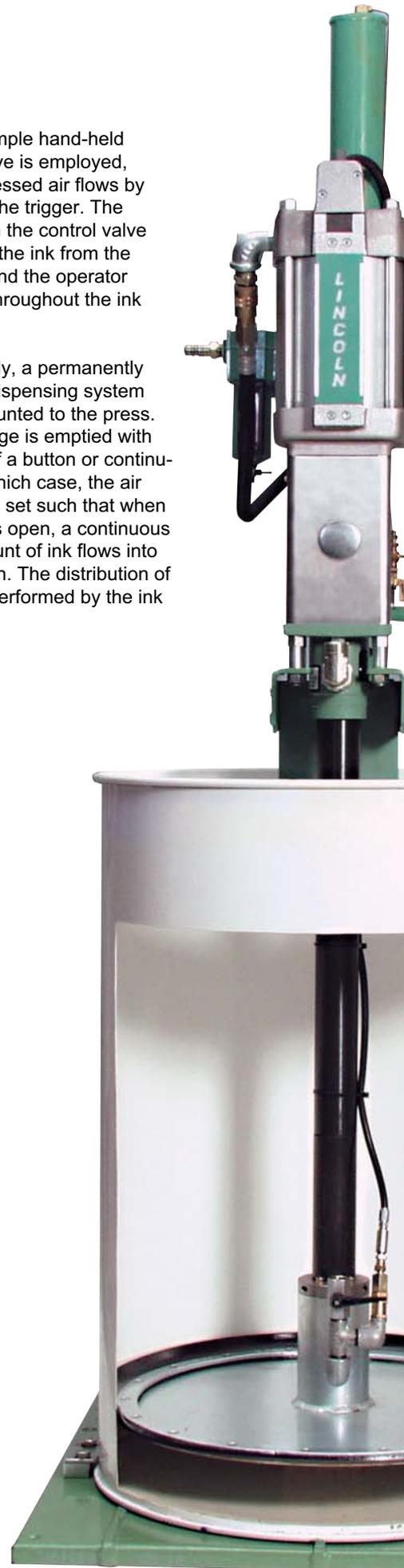
The 2 kg ink cartridge is an innovative and practical packaging system that has gained wide acceptance. Additionally, special cartridge

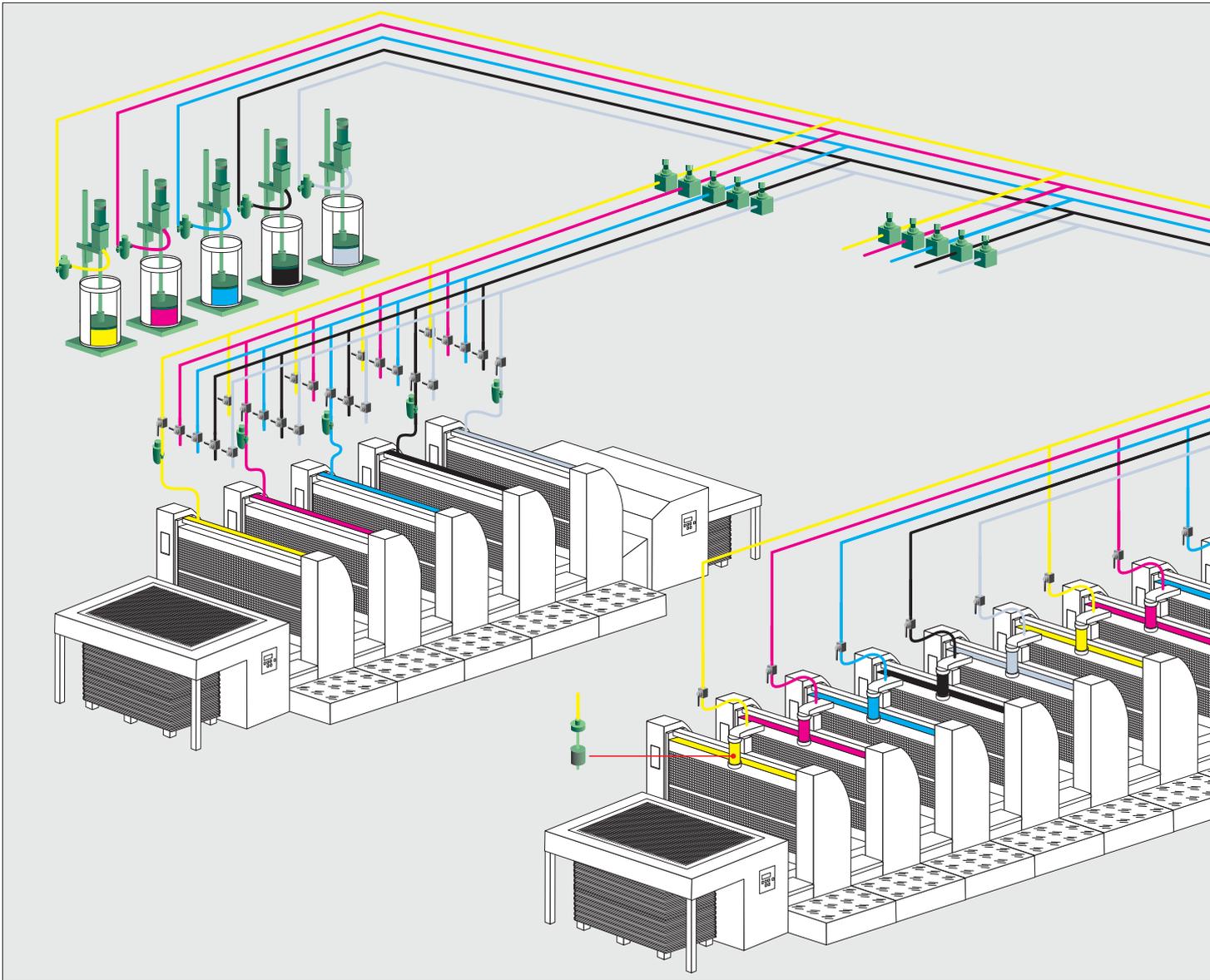


emptying systems help facilitate operator intervention, and keep residue ink to a bare minimum, thus resulting in true savings.

When a simple hand-held control valve is employed, the compressed air flows by activating the trigger. The pressure in the control valve dispenses the ink from the cartridge and the operator applies it throughout the ink fountain.

Alternatively, a permanently mounted dispensing system can be mounted to the press. The cartridge is emptied with the push of a button or continuously, in which case, the air pressure is set such that when the valve is open, a continuous small amount of ink flows into the fountain. The distribution of the ink is performed by the ink duct roller.





consumption can accurately be booked to each job.

Measuring units located in the ink supply line to the press record the exact quantity, and every colour has its own meter. The consumption is displayed on the screen of the controller. Additionally, the logged information can also be forwarded via PC network cable to your facility management system.

Ink Filling Variations

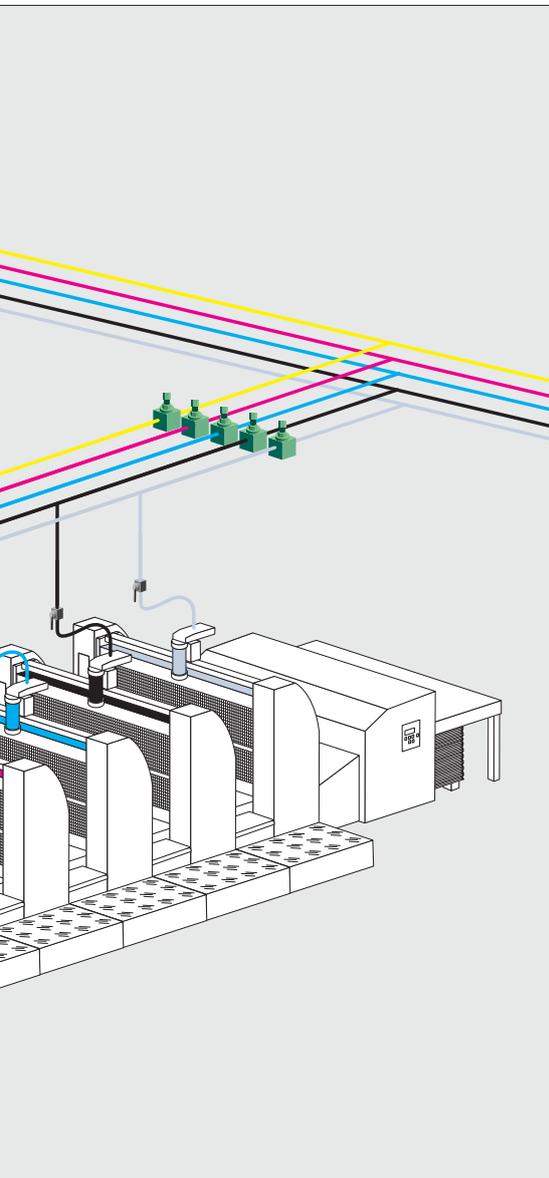
- Automated system
- Semi-automated system
- Manual system

Ink fountains on printing presses may be filled in different ways.

Automated filling is the most economical and easiest method. A sensor checks the ink level in the fountain.

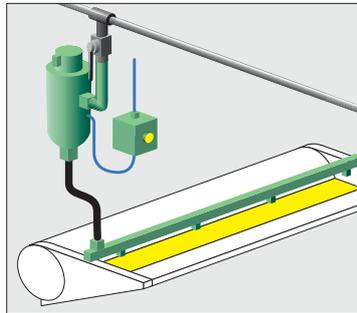
When the level drops below the normal level, the ink valve is opened and ink flows into the fountain.

The ink filling tube is mounted laterally along the ink fountain which evenly distributes the ink over the entire width of the fountain. Manual intervention is not necessary. Faults, such as under or over filling, trigger an alarm signal.



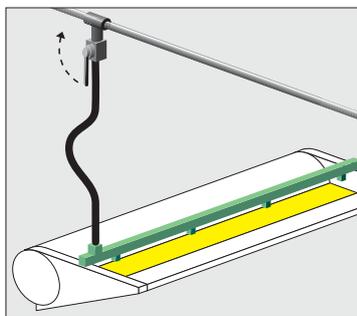
The central ink supply can also be installed to an existing cartridge system – for example the InkLine from Heidelberg. All that is needed is an adapter.

In semi-automated or manual systems, the ink level is monitored



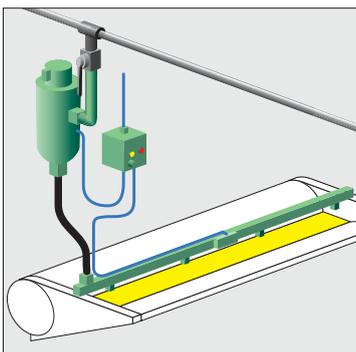
by the operator. When the ink level drops, the operator opens the valve and visually checks the filling process. The operator must be present at the press for the entire duration of the filling process.

In semi-automated systems, the ink valve is opened via a push button and stays open as long as the button is depressed. The operator must remain at the press until filling is complete.



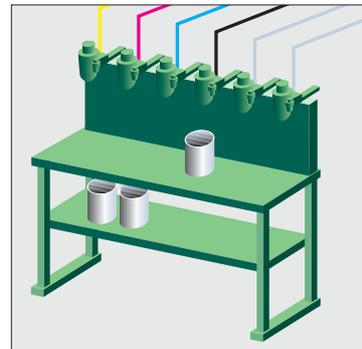
In manual systems, the ball-valve in the supply line is opened by hand. Once the desired ink level is reached, the valve must be closed again.

A tap station may be located centrally in the facility or beside the pumps, from which the operator receives the required amount of ink.

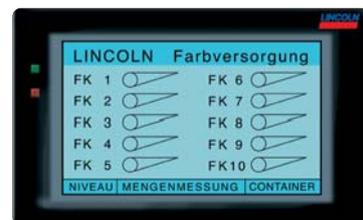


Tap Station

A tap station may be located centrally in the facility or beside the pumps, from which the operator receives the required amount of ink. The station can offer either semi-auto-mated or manual supply.



The station is largely manufactured from stainless steel for easy cleaning, and has ample space for filling canisters.



Control and Monitoring (Alarms)

Compatible modules for the control and monitoring provide several levels of operation comfort. The basic unit controls the filling directly at the press. Under or over filling will signal an alarm. The usage of a display unit at the machine control centre enables the visual display of all ink fountains on a small colour screen (touch-screen). Level control, consumption and faults may be easily read.

Lincoln GmbH – Synergy and Competence

Lincoln is the world leader in centralized lubrication systems and is also renowned in the graphic industry for its reputable and reliable pumps for offset inks.

Lincoln's ink pumps were developed



using the research and production know-how combined with the vast experience in system technology from the lubrication pump sector.

Lincoln pumps perform and operate on the same principle: they monitor supply and deliver exact metering of high viscous materials. The pump is the heart of any supply and metering system, which is why our experience with several pump types in thousands of applications was successfully utilized. The result – a clear benefit to the customer.

Lincoln now offers a wider spectrum of solutions for the graphic industry. Lincoln offers complete pump-to-press solutions, with the service and maintenance that you expect from Lincoln. All needs for the ink supply to any offset printing press are covered. The degree of automation ranges from a simple supply system for sheetfed offset, complete container systems for heat-set rotation, or bulk tank systems for newspaper applications.

Naturally, Lincoln offers lubrication systems for all printing facility applications to reduce wear and tear on your valuable machinery.

Our worldwide top-notch services in the lubrication sector encompass:

- System consulting and design
- Planning of custom-tailored systems
- Manufacturing of standard components such as pumps, metering devices and controllers
- Installation and commissioning
- After-sales service & maintenance
- Training

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