

Lapp Application Report

Maximum performance from Lapp



Lapp Cables for the Speedmaster XL 105 from Heidelberg Druckmaschinen



The customer

The sheet-fed offset printing machines of Heidelberg Druckmaschinen AG (Heidelberg) have made it one of the world's leading solution providers for the print media industry. The company develops and produces precision printing machines, plate imaging equipment, print finishing equipment and software for the integration of all the processes in a print shop. In addition to this, Heidelberg's portfolio of service and consultation options covers everything from spare parts supplies, consumables and selling used machines to the training courses offered at the Print Media Academy. With its headquarters in Heidelberg, development and production sites in seven

countries and approximately 250 sales branches around the world, the company has around 200,000 customers. In the business year 2009/2010 it had 16,496 members of staff all around the world and recorded a turnover of € 2.306 billion.

www.heidelberg.com

Requirements and advantages

Heidelberg particularly values the Lapp Group for its application know-how, high quality and reliability on deliveries. The ÖLFLEX® connecting and control cables used at Heidelberg are ideal for mechanical and plant engineering, while the small diameter of the UNITRONIC® data

network cables means that they save a lot of space while retaining a high level of resistance. The highly-flexible ÖLFLEX® servo-motor cables are especially abrasion-resistant, oil-resistant and flame-retardant. This increases their service life.

Products used

ÖLFLEX® CLASSIC 110 und ÖLFLEX® 150 CY connecting and control cables, UNITRONIC® 100 low-frequency data network cables, ÖLFLEX® Servo FD 790 servo-motor cable, UNITRONIC® LiYCY low-frequency data network cables and SKINTOP® screwed cable glands.

The application

The Speedmaster XL 105 is one of Heidelberg Druckmaschinen AG (Heidelberg)'s peak performance sheet-fed offset machines, a product that meets the very highest demands for quality and productivity. Every year, the global market leader in sheet-fed offset printing produces up to 3,000 printing machines of varying format classes in its highly modern printing machine factory in Wiesloch/Walldorf, taking orders from all the continents of the world. The Speedmaster XL 105 can be fitted with up to 16 printing units, and prints at a speed of up to 18,000 sheets per hour in 70 cm x 105 cm format. This requires the perfect interplay between mechanics, electronics and pneumatics.

The Lapp Kabel solution

Each printing unit has a control cabinet, a patented Heidelberg development. The control cabinet controls all of the printing unit's functions, including reading control buttons, sensors, limit switches and drive positions, and controlling pneumatic, hydraulic and electric actuators and the drives of the dampening and colour units. For this purpose, ÖLFLEX® CLASSIC 110 and ÖLFLEX® 150 CY connecting and control cables are used. Both of these cables are ideal for mechanical and plant engineering, have PVC insulation and are flame-retardant. A copper mesh gives the ÖLFLEX® 150 CY additional shielding. In critical areas, such as inside the printing unit, the cables also have additional protective tubing.

UNITRONIC® 100 low-frequency data network cables are used for the limit switches and the control section. These control and signal cables are used primarily in the milliamp range of electronics, where both small dimensions and high numbers of cores are required. In addition, their insulation is robust, flexible and high-resistance.

On the drive side, where the high-precision gears intermesh, the highly flexible ÖLFLEX® Servo FD 790 servo-motor cable is used. This is abrasion-resistant, oil-resistant and flame-retardant, and has a polyurethane (PUR) sheath. This increases its service life. It is also completely free of softeners.