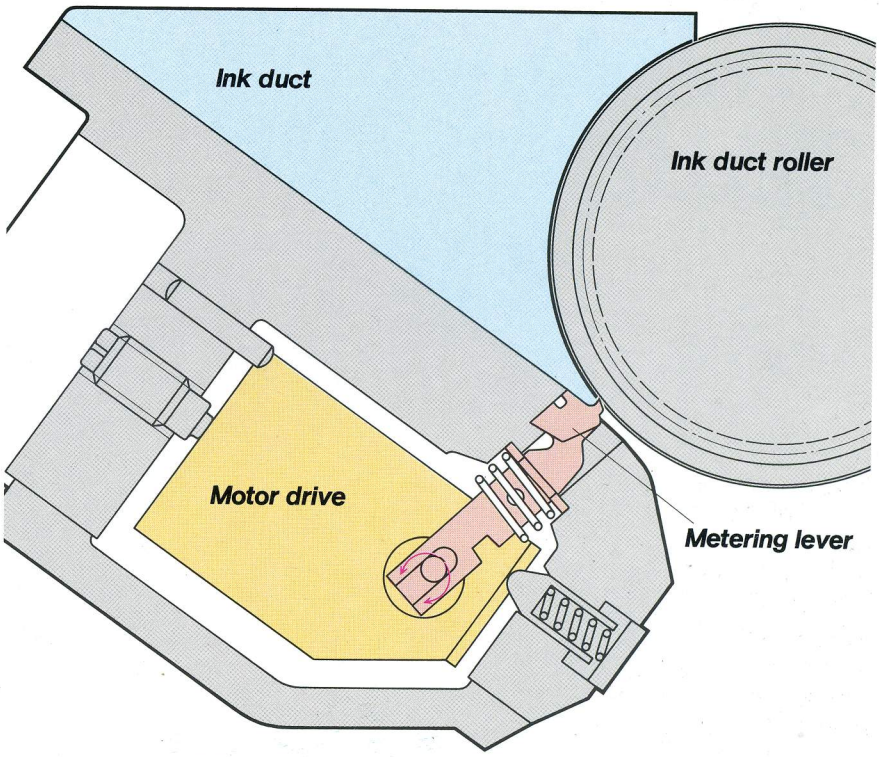
Design of the ink ducts



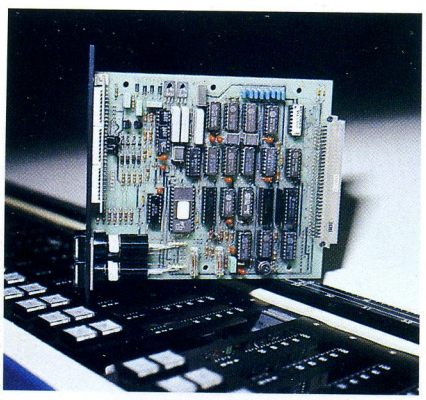
In order to be able to adjust the ink film exactly in defined zones across the width of the press, the continuous ink knife has been replaced by a number of 30 mm wide metering levers. 24 such units make up the ink duct on the Rapida SR 0 and 34 on the SR III. Each metering segment has a motor drive. A strong spring presses it against an adjusting screw which also allows manual adjustment of that segment in case of a motor failure.

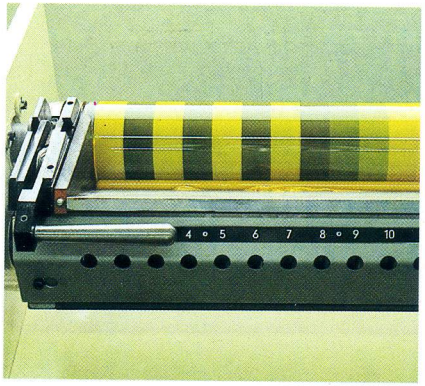
The eccentric motor tilts each metering lever in such a manner that the gap to the ink duct roller is changed from a few thousandths to a few tenths of a millimetre. The metering segment is designed to avoid actual contact with the duct roller surface and the system is, therefore, not liable to wear.

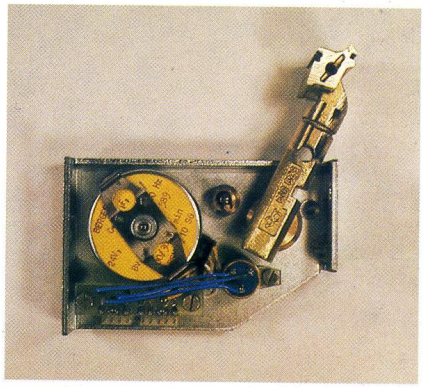
The metering levers are sealed to one another and to the ink duct, and the sealing has stood up well during field testing.

In addition, the levers are drilled through to allow greasing from grease nipples left and right on the duct cheeks. Grease can be pressed in so that it emerges between the individual levers, pushing ink and dirt particles to the outside.

The shape of the cam on the motor is such that the movement of the metering lever surface in relation to the duct roller is largely tangential, allowing very fine metering of the ink within each zone. The adjustment of the metering lever is not linear but progressive,







i e ten steps in the lower range (thin ink film) result in a different gap change in millimetres than ten steps in the upper range (thick film). This means that a thin ink film is adjusted in much finer steps than a thick film.

In addition, there is the very important advantage that the profile of the metering lever avoids excessive pressure on the tip as surplus ink is peeled back into the duct rather than scraped.