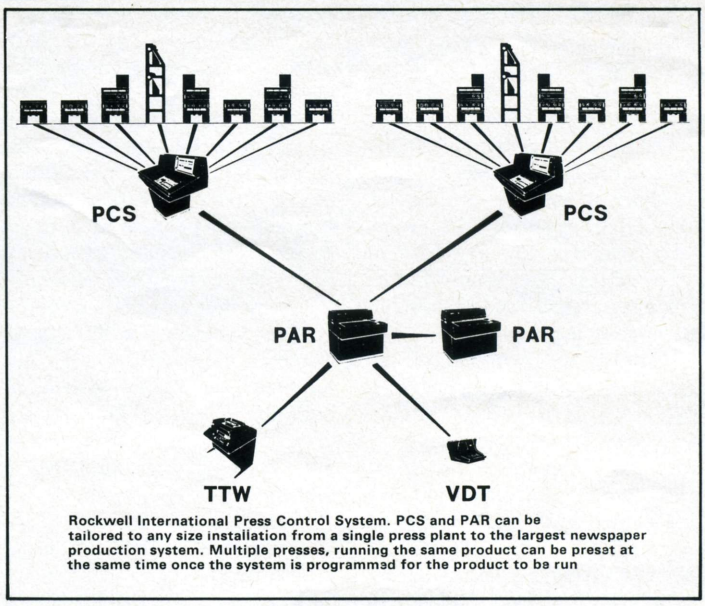
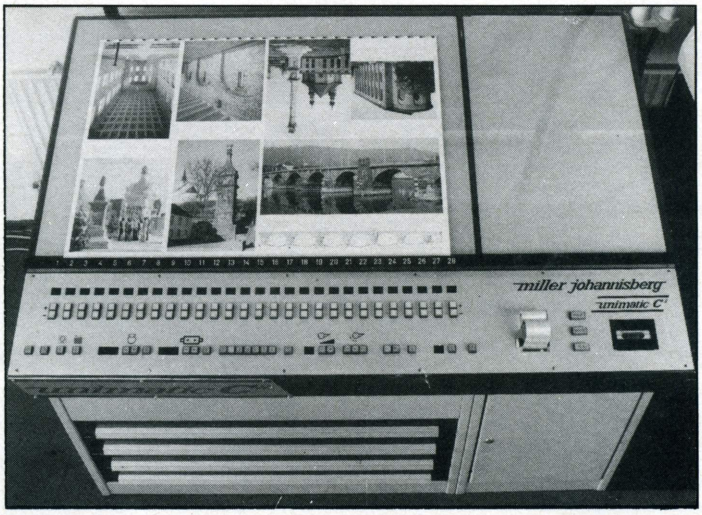
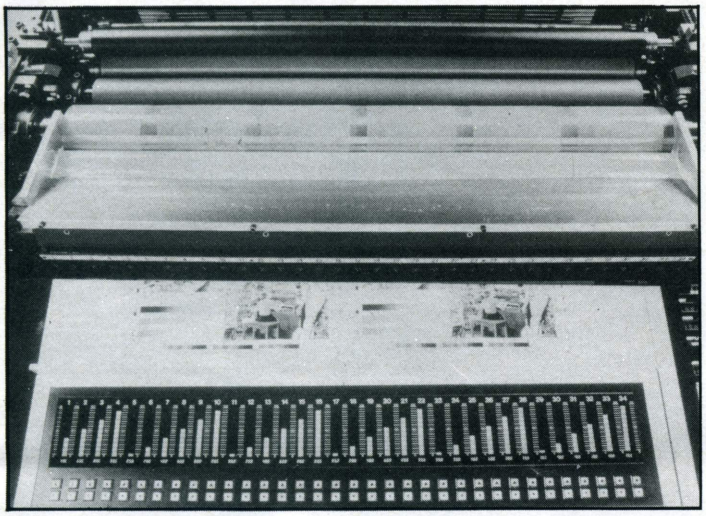


Rockwell International Press Control System. PCS and PAR can be tailored to any size installation from a single press plant to the largest newspaper production system. Multiple presses, running the same product can be presst at the same time once the system is programmad for the product to be run

Rockwell Goss PCS and PAR systems for web presses.





Above: Miller-Johannisberg Unimatic C3 remote control system.
Left: Komori PQC shows the blade profile on the control panel.

Zirkon Forta 660 has recently developed centralised ink control with magnetic tape storage of duct settings.

Finally, OMCSA is developing a press management system, AC5, which will include centralised control, a VDU and keyboard for input of data and displaying of press status.

Development towards total control on web presses has not been as fast as with sheet-fed, although the requirement must be somewhat greater. However, a scanning stroboscopic densitometer has been developed by Macbeth in the USA. The unit consists of series of xenon tubes positioned across the web, about 1/8th in above the web and located over an idler roller in order to eliminate web flutter and hence variation in focal length. The xenon tubes produces a pulse of light at 100,000 watts at peak power at one flash per second. By electronic means the effect of any stray light can be eliminated.

The probes, four in all, traverse the web, taking readings at predetermined points. They are connected to a VDU which provides a visual numerical read-out of the ink densities. Tolerance levels can be programmed in which when exceeded a warning signal is actuated. A running chart provides a permanent record of variation and its frequency.

The majority of ink control systems tend to be developed by press manufacturers for inclusion on their own presses. However, a system has been developed that is claimed can be fitted to any press, web and sheet-fed. The designers, Peretta, have developed a segmented duct with motorised keys controlled from an off-press console. Able to be post-fitted, it allows the possibility of colour on older presses to be more closely controlled.

The systems described relate to their existing designs; there are several other systems also available. Drupa indicated the degree of evolutionary change in these systems, as well as demonstrating new systems.

The whole area of press control is one of growth and by the end of the decade the off-press console, controlling not only colour but damp, register, web tension and other press functions through various monitoring systems, will become the norm on probably all but the smallest presses.

However, the concept of accurate control and the ability to precisely preset the ducts must remain imperfectly attainable until such factors as standardisation of ink, control of ink temperature and damp and the behaviour of paper are more closely studied. These and other factors play an important part in determining ink film thickness and hence the required colour density of the print.

Plugging the automation gaps

By Bob Durrant

Any discussion on the subject of colour control on printing presses must start with two basic understandings.

First, the visual quality of the printed product is almost invariably decided by personal inspection. Only in rare instances, such as MICR numbers on cheques or bar codes on packages, can a machine decide whether a given print is of acceptable quality.

Because print quality is a subjective matter, it is not possible to have a purely linear control situation. We still cannot say: 'The ink keys are set at certain specified openings, therefore the quality of