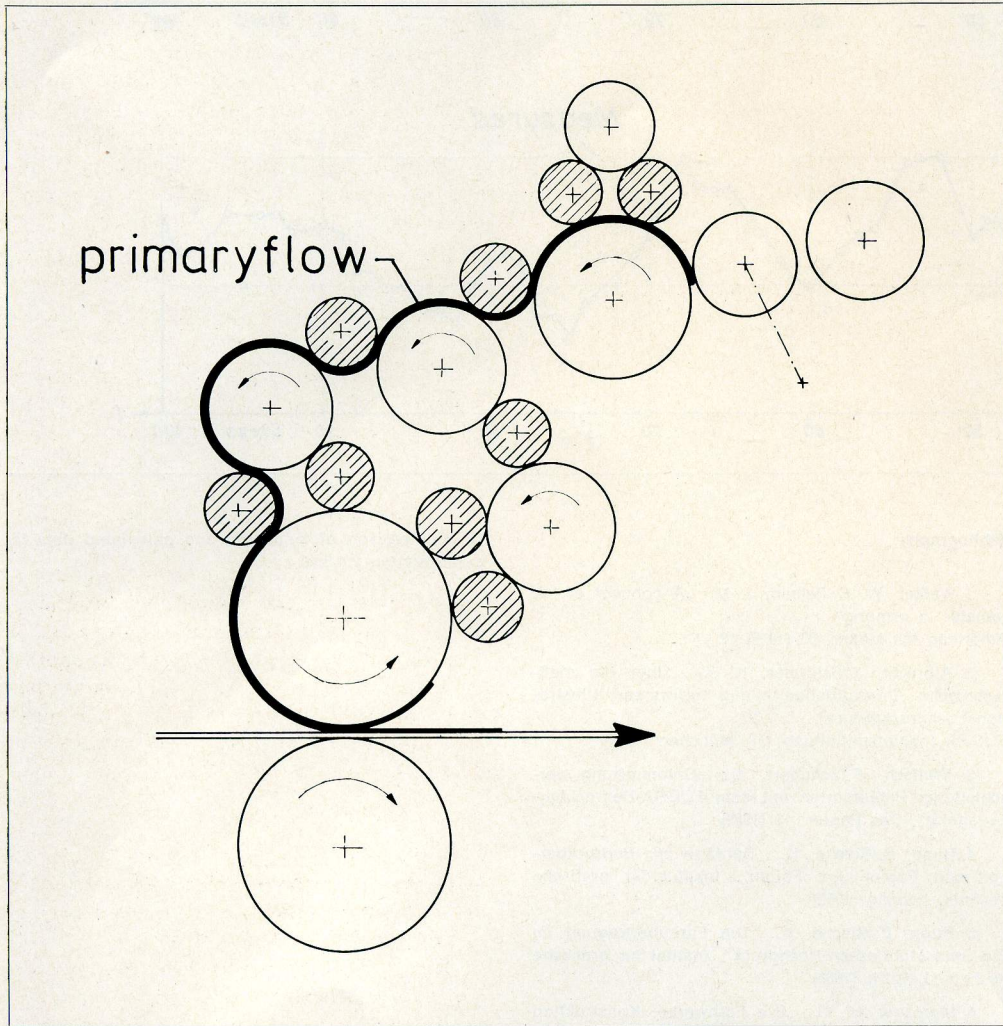
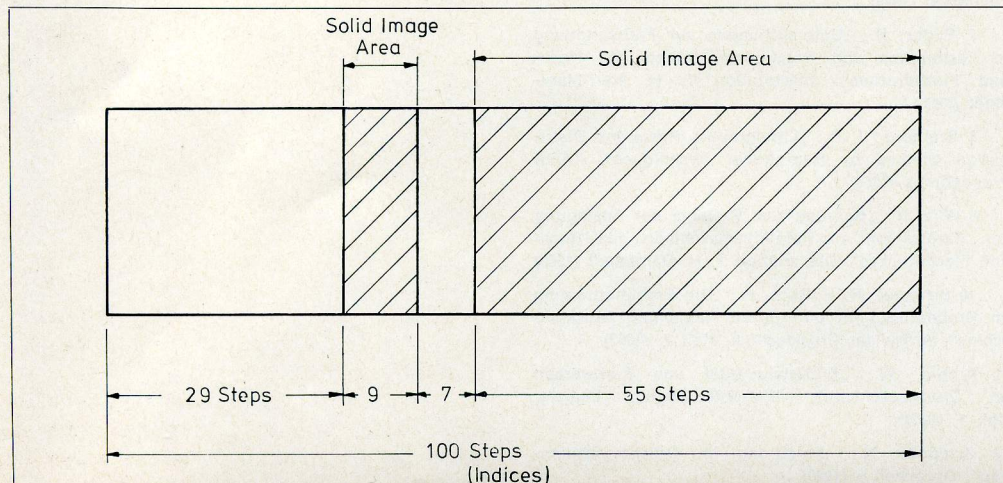


- 6 Schematic of roller configuration 1.1.2.2.
- 7 Comparison of measured and calculated data for configuration 1.1.2.2.
- 8 Roller configuration 2.4.5.10 with primaryflow
- 9 Schematic layout of printing form

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higher the accuracy with which the envelope describes the actual ink film profile.

The values calculated for any one revolution are used as initial conditions for the subsequent revolution as follows:

$$\begin{aligned} sl (ii)_{j|+1} &= sl' (ii)_{j|} \\ \dot{sl} (iii)_{j|+1} &= sl' (iii)_{j|} \end{aligned} \quad [3]$$

The computation or programming of larger inking systems involves, of course, a considerable effort in programming (fig. 4).

3.1 Assessing the shape of the curves

The shape of the curves found by computation and measurement can be compared more easily by numerical analyses. To permit a comparison between calculated and measured values, the characteristic numbers in fig. 5 have been defined. Evaluation is done for

$$s (i) \left\{ \begin{array}{l} l_1 \leq i \leq l_2 \\ \vdots \\ l_m \leq i \leq l_n \\ l_{n+1} \leq i \leq l_D \end{array} \right\} \quad [4]$$

The basis of all evaluation figures are S_{max} , S_{min} , S_{mittel} , S_{quim} . The extreme values S_{max} , S_{min} , of the discrete shape of curves can, of course, be read immediately.

Arithmetic Mean:

$$S_{mittel} = \frac{1}{l_2 - l_1} \sum_{i=l_1}^{i=l_2} s (i) \dots \dots + \frac{1}{l_n - l_m} \sum_{i=l_m}^{i=l_n} s (i) \dots \dots + \frac{1}{l_D - l_{n+1}} \sum_{i=l_{n+1}}^{i=l_D} s (i) \dots \dots \quad [5]$$

The quadratic mean of the discrete shape of the curve:

$$S_{quim} = \sqrt{\frac{\sum_{i=1}^{i=l_D} [s (i)]^2}{n}} \quad [6]$$

$$n = (l_2 - l_1) + \dots + (l_n - l_m) + (l_D - l_{n+1}) \quad [7]$$

With the values S_{max} , S_{min} , S_{mittel} , S_{quim} further characteristic numbers can be determined such as the roughness factor, form factor, average deviation, square of standard deviation, and the sum of the squares (11), (6).

With the aid of these numbers, shapes of ink film profile found by computation or ob-