

will be enough room for any subsequent adjustments of the pile. This point should also be observed on machines with steel plates in the feeder. The pile is then raised until it is approx. 5 mm below the upper edge of the joggers (Fig. 1). During the run, this distance is regulated either with the aid of the height adjustment of the suction head (Fig. 2) or with wooden wedges. The suction head is now set in such a way that the pressure clamp closes with the back edge of the pile at the widest part of the clamp. About 10 to 15 sheets should be loosened up with the air-blast nozzles of the suction head. Regulation of the blast is possible on the finely adjustable nozzle. The side nozzles (Fig. 4) must lift up the sheets far enough to clear the upper edge of the joggers, so that they do not catch on them during transport. The strip-off brushes should prevent the feeding of double sheets. These brushes should stand parallel to the pile and leave the paper enough room to be well loosened up by the air-blast nozzles. Additional strip-off springs are normally used for board, or else the straight brushes are replaced by springs (Fig. 3). The back stops with movable weights should never be set too tightly to the pile. With lighter papers it is advisable to remove the weights from their casings; on the other hand, additional spring casings may be attached for heavy boards.

The drop suckers (Fig. 5) are supplied in two versions:

First, with a flat suction surface; second, with a concave surface. The concave suckers are recommended for materials difficult to separate, such as paper affected by static. The flat suckers are more suitable for board. Also available are rubber or plastic disks, differing in thickness and diameter, which may be used as required to suit the material and the necessary suction force. The distance between the suction nozzles and the upper

edge of the pile should not be too great, otherwise faulty suction and therefore stoppages may ensue.

If the pile has an uneven top surface, the suction surfaces can be made parallel to the pile surface by means of an adjusting screw. The normal drop suckers may be replaced by spring suckers which are specially suitable for board. These spring suckers may also be equipped with various types of nozzle and disk, so that even the most difficult materials can be faultlessly separated.

A sheet aligner (Fig. 1) ensures the smooth and parallel transfer of paper from the drop sucker to the forwarding sucker. The sheet aligner is designed to lift the paper by about 3 mm (0.012") and to remain as parallel as possible, in order to keep the position of the paper uniform. The paper feed is negatively influenced by displacement of the sheet aligner. Adjustment of the forwarding sucker to the pile is by means of a knurled screw. A general height adjustment is also possible during the machine run, bringing particular advantages in cases of uneven piles. There are also special forwarding suckers which automatically compensate for differences up to 6 cm between sucker and pile (falling suckers) and therefore make mechanical height adjustments unnecessary. By this means, equalisation with wooden wedges becomes unnecessary and sheets cannot be damaged. Height adjustment of the suction head is particularly useful, allowing the printer to match the suction head to the existing position of the pile during the machine run. It is important to pay special attention to the settings of the suction and air-blast devices. The higher the printing speed, the more indraft of air is needed. For this reason the compressor, the adjustable nozzles and the suckers should be kept free from deposits of dust and oil. These parts must therefore be

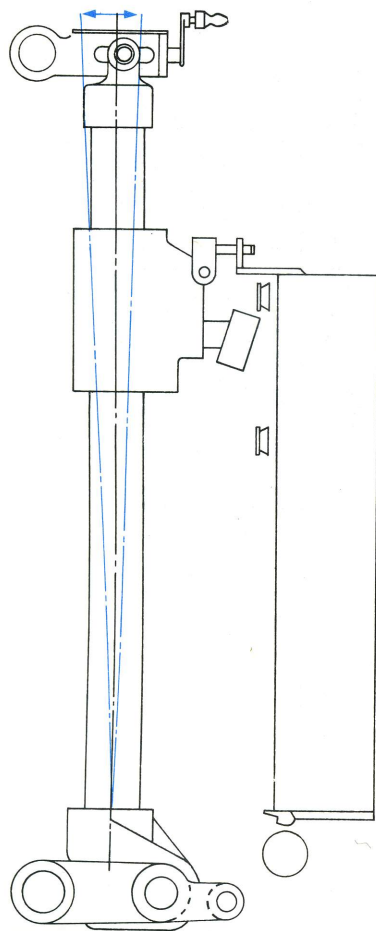


Fig. 2: Suction head height adjustment for regulation of pile height

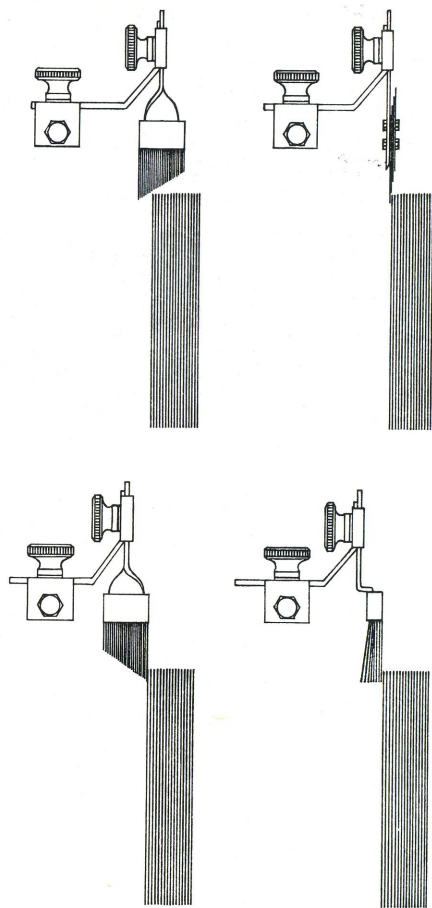


Fig. 3: Strip-off brushes and sheets

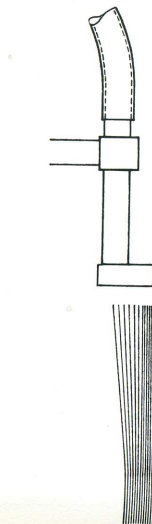


Fig. 4: Side air-blast nozzles

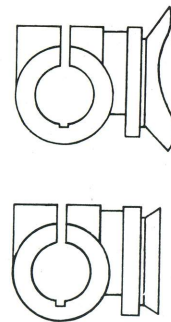


Fig. 5: The various drop suckers