

Special purpose finishing systems



Dürselen application-specific drilling and
finishing systems

Design, development and manufacture of specific
interfaces, peripherals and custom finishing systems

 **Dürselen**

Dürselen offers practical and cost effective solutions for specific applications

The Dürselen range of standard paper drilling systems includes models for many different applications and capacity requirements. For work outside these standard applications, Dürselen develops application-specific solutions.

For example ...

... drilling platform PB.01 STE, equipped with a 7-spindle-head and six standard heads (fig. 1).

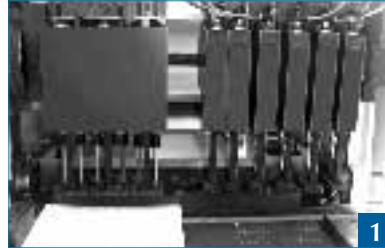
With the programmable sliding table PB.01 STE can be used for several applications without the need for a re-set:

.. to the left air navigation maps are drilled with a seven hole pattern - the 7-spindle-head allows narrow distances between holes (down to 19.05 mm / 3/4") in a single stroke.

.. to the right six standard heads are set for spiral or twin wire binding patterns using multiple strokes and a programmed sliding table movement. The extended travel of the sliding table (fig.2) allows both applications without re-setting.

... drilling platform PB.05 for drilling large paper sizes before cutting (fig. 3).

This machine drills large sheets (up to 1,050 x 1,050 mm / 42" x 42"), printed with multiple images, such as tags. It is also successfully used for endorsement of misprints such as banknotes and stamps. Using the PB.05 with a programmable back stop the pile is repositioned automatically for the next row after each drilling stroke. Drilling sheets



before cutting increases productivity substantially and eliminates manual handling of small piles. An air table allows easy handling of heavy piles. For asymmetric hole patterns, two freely programmable drill heads can be used for X-Y controlled positioning. The cost-effective production and the reduced handling with the PB.05 lead to short payback periods and high return on investment.

... drilling platform PB.06 for large sheets with asymmetric hole patterns, for example Flip-Charts.

Depending on the hole pattern, either directly driven drill heads or standard drill heads produce the hanging patterns required. A large air table allows easy handling of heavy piles.

... "Cut-o-Drill" paper drilling integrated in a Perfecta guillotine (fig. 4).

The "Cut-o-Drill" drills large sheets before cutting. The back gauge of the guillotine doubles as the back stop for the drill and positions the pile beneath the drilling beam.

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Dürselen drills can be used in-line with other finishing equipment. This requires development of interfaces between systems. Work flow, capacities, speed differences, orientation and available footprint influence individual solution design. Dürselen develop and build the interfaces, handling and peripheral units required to link equipment in practical, operationally efficient finishing systems, turning and controlling work flows as required. **For example...**

... automated drilling system using twin PB.09 drilling stations for narrow hole separation using standard heads (fig. 5 and 6).

This finishing system operates on three shifts in a production line for personal organisers. The stations drill the seven hole pattern using 3 and 4 drilling heads respectively. Dürselen designed and manufactured the entire system including the interfacing with upstream equipment and curved belt delivery.

... cut and drill system PB.07-S01 for loose leaf production from glued signatures, after 3-knife-trimming. The system (fig. 7) comprises two horizontal cutting stations, jogger and drilling station. After the glue is cut off, piles are jogged and trimmed to final size to be followed by drilling on a horizontal drilling unit. The PB.07-S01 output capacity is 700 (50 mm high) piles an hour.

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... automated in-line drilling and round cornering system PB.09-ES.09. Linking these two systems is a cost-effective solution for loose-leaf-collections requiring drilling and round cornering on two corners. Each machine has a jogging station eliminating manual handling. The combined drilling and punching produces up to 900 piles an hour; both machines can be quickly reconfigured as stand alone units.



In-line drilling and round cornering



Punching tool on round cornering system ES.09

... flexible on-demand jog-trim-drill finishing system PB.11. Developed specifically for in-line finishing after digital printing, the line receives, jogs, trims (0 to 4 sides) and drills the hole pattern required for each specific pile. All work

flow data on trim sizes and hole patterns are transmitted by barcode, data transfer from a network or an upstream machine or are entered at the control system. Set-up is automatic, requires no delay and is without operator intervention. PB.11 is very successful in digital printing applications producing loose leaf sets in short runs or variable data runs of one.



Flexible finishing centre PB.11



Pile clamping system on PB.11

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