

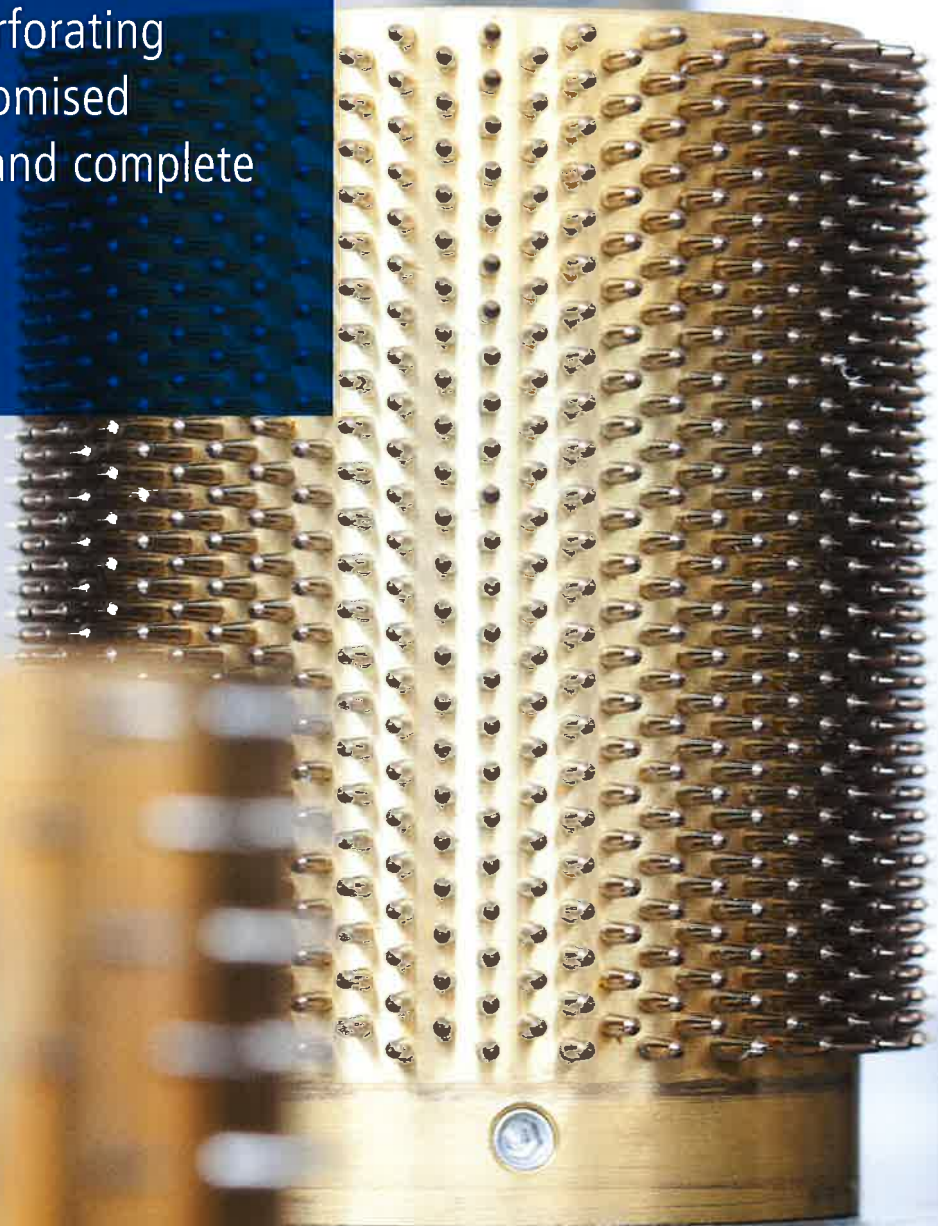
Perforating



with pin tools
and machines



Your partner for perforating
solutions with customised
perforating rollers and complete
perforating units.





Benefit from our know-how in application of perforating tools for perforating, embossing, transporting, cutting, tearing and separating.

Our experienced staff will be happy to help you with the specification and development of your special perforating solution. We also have a perforating laboratory at our disposal. We can offer optimised spare parts for existing applications. Our innovative and tailor-made solutions increase your competitive advantage.

Perforation trials

Our laboratory line allows hot and cold perforation trials with various pin patterns. With the lab equipment we can carry out everything from simple feasibility tests to

industrial production runs. You are welcome to send us sample material for basic test after prior consultation (ideal dimensions max. 200 x 600 mm or 2x A4).

Toll perforation

The industrial line with perforating, cutting, winding and unwinding is available for pilot series as well as for contract perforations. Various perforating tools with different pin patterns are available.

Product features

Many products can be refined by perforation. We gladly help you developing a new product and optimise it for the following properties:

- Improving process efficiency
- Refinement of the products
- Enlargement of the application spectrum of a product

Applications

- Vapour or water permeability
- Air permeability/breathability
- Noise and heat insulation
- Higher absorption capacity

- Filtration
- Improved adhesive properties
- Controlled material transport
- Improved acoustics
- Tear-off lines for packaging

Materials

In principle, most materials can be deformed or perforated with hot or cold needles. These are mostly roll goods such as:

- Plastic films
- Nonwovens
- Laminated (sub-roof) foils
- Rubber
- Paper
- Foamed plastics

- Metal foils and sheets up to 0.5mm thickness
- Leather and imitation leather
- Textiles
- composite materials

More info

Burckhardt pin and perforating tools are high-precision parts that are available in a wide variety of designs.

For more detailed information on the technical feasibility of your requirement, please contact our contact persons, who you will find on our website.

Customised perforating units

Development, design and construction of perforating units.

According to your needs, we develop a tailor-made customer solution for your application.

We build machines with numerous options as well as specially developed parts to realise your application.

Existing machine types	B-SMART	PAB 2.0	Premium BS
			
Description	Simple, stable and economical construction for cold perforation, dragged application	Flexible design for cold and hot perforation Quick perforating tool change, easy operation for operator + maintenance	Solid high-precision modular calender system for high demands on pressure, working width, precision for cold and hot perforation.
Perforating roller	Standard carrier roller: Ø 80 g6 mm. Chrome steel Diameter over needle max. 130 mm	Standard carrier roller: Ø 110g6 mm Hard chrome-plated surface. Diameter over needle max. 160 mm	Standard carrier roller: Ø 160 – 350 g6 mm Hard chrome-plated surface. Diameter over needle: 180 – 400 mm
Counter roller	Standard counter roller: Ø 130 mm "Tampico" roller brush cover	Standard counter roller: Ø 160/180mm "Tampico" roller brush cover <u>Options:</u> Rubber roller cover „EPDM various hardnesses" / Felt	Standard counter roller: Ø 200 – 500 mm "Tampico" roller brush cover <u>Options:</u> Roller cover rubber „EPDM various hardness" / Felt / hole counter roller for 3D perforation
Max material web width	1'600 mm (standard)	1'600 mm	5'000 mm
Heating system	Without heating system	Internal Electrical Resistance Heating Perforating Roller External infrared ceramic radiators <u>Option:</u> External shortwave infrared emitter for materials with high fire risk	Internal thermos-fluid heating Perforating roller Incl. internal spiral construction carrier roller <u>Option:</u> External induction heating
Working temperature	Ambient max 60°C	380°C	250 – 330°C
Drive system	Perforating roller and counter roller dragged through material web	Perforating roller driven by servo motor Counter roller dragged by material web	Perforating roller driven by servo motor Counter roller dragged by material web <u>Options:</u> counter roller driven by servo motor/counter roller driven by gear/for synchronisation „male/female" perforation
Speed	300m/min	300m/min	300m/min
Motor	No drive	2.2 kW servo motor	5.5 – 18 kW
Infeed of the penetration depth	Manual adjustment by means of adjustment wheel Visualisation on analogue dial gauge Adjustment steps 0.1mm	Electronic adjustment Visualisation and adjustment on control panel Adjustment steps 0.1 mm	Manual adjustment by means of ratchet Visualisation on analogue dial gauge Adjustment steps 0,1mm. <u>Option:</u> Electric spindle stroke gear, visualisation and adjustment on control panel, Adjustment steps 0.1mm
Electronic control		Control panel for electrical components. Integrated Siemens panel and push buttons. Operation/visualisation and parameter settings of all dynamic and mechanical settings such as speed, piercing depth, synchronisation, line integration via 0–10V signal or 4–20mA, manual adjustment of synchronisation, line speed and perforating speed on the touch panel. Modem for remote maintenance	Control cabinet for electrical components. Autonomous touch panel Siemens on wheels with 4 m cable. Operation/visualisation and parameter settings of all dynamic and mechanical settings such as speed, piercing depth, synchronisation, line integration using 0
Energy connection	Electricity: 220V / 24V <u>Option</u> el. pneumatic valve Compressed air: 6 – 8 bar	Electricity: 400V / 50Hz/400V (USA 480 V, 60 Hz) Compressed air: 6–8 bar	Electricity: 400V, 50 Hz, (USA 480 V, 60 Hz) Compressed air: 6–8 bar
Energy demand/consumption	< 1 kW	5 – 30kW (heating variants)	8 – 80 kW (drive / heating variants)
Dimensions	Depth: 500 mm Width: Working width + 610 mm Height: 500 mm	Depth: 900 mm Width: Working width + 1300 mm Height: 1100 mm	Depth: 750 mm Width: Working width + 1500 mm Height: 1350 mm

All brochures, dimension sheets and enquiry forms can be downloaded online at www.burckhardt.com.