

BSP

Process automation for manufacturing lamination stacks using the BRUDERER BSP stacking tool control



Made to fulfill demands.

Made by BRUDERER.

The BRUDERER stacking tool control is perfectly adapted to the demands of today's stamping companies specialising in lamination stacks. Customers enjoy shorter set-up times, increased productivity and the highest levels of production quality. The patented strip thickness measurer directly integrated into the BRUDERER BSV servo feeder guarantees the utmost process stability, while the automatic motor parameterisation provides accurate indexing station positioning, optimising overall performance.

Advantages of the BSP system



Slider control for a maximum of **32 freely programmable pneumatic sliders**



Strip thickness measurement integrated into the BSP including stack height adjustment



Control of a maximum of **six freely programmable rotating stations**



Freely programmable **slider and rotating station control for one to eight programmes**



Tool monitoring of a maximum of **16 channels**



Position monitoring for a maximum of **eight channels** with **envelope monitoring**



Conveyor belt control for up to **eight conveyor belts**

BSP technical specifications

Rotating stations	1–6 stations, angle can be freely selected via hot plug-in
Motor	Low load range: 3.22 Nm AM8033-1JHo F3 (72 mm) Medium load range: 13.8 Nm AM8054-1JHo F5 (104 mm) Increased load range: 21.1 Nm AM8062-1JHo F6 (142 mm)
Safety functions	Safe torque off (STO)
Strip thickness measurer	Inductive/integrated into BSVL/BSV 170–500/ including stack height adjustment
Slider control	32 freely programmable sliders including M12 monitoring and stack height control
Conveyor belts	1–6 conveyor belts
Position monitoring	1–8 channels
Data processing	Data exportable via CSV/process data via OPC UA
Design	Stand-alone/integrated B3 control
Tool safety	4–16

Advantages of the BSP system in detail



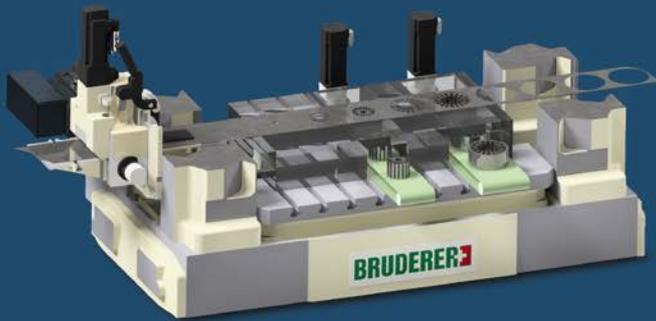
Future-proofed B3 control

- Based on the latest automation technology: TwinCat 3.1/.NET Core/React
- Intuitive control
- Freely configurable home screen
- Data exchange via OPC UA/Export of stack measurement data via CSV
- Stand-alone for B2/integrated into BSTA B3 and BSTL



Intuitive programming system

- Up to eight stack programmes
- Programming system developed with customers for efficient stacking
- Flexible function assignment within the programmes
- Production of reusable metal shapes speeds up programming
- Freely selectable correction sequence and slide position



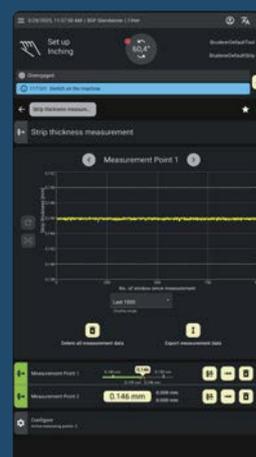
Rotating stations

- Up to six rotating stations
- Motor load range of 3.2 to 21 Nm
- Free twisting or shifting in plus and minus direction including torque cut-off
- One-cable solution
- Automatic motor recognition (plug and play)
- Graphic position and torque monitoring
- Can also be used as BRUDERER BSA servo axis
- Automatic calculation of drive parameters



B3 process monitoring

- Freely programmable bypass functions
- Optional: tool safety for up to 16 channels
- Optional: Position monitoring for up to eight channels with envelope curve monitoring
- Optional: double sheet control system
- Sliding control for up to 32 sliders including two monitoring channels per slide
- Self-learning monitoring channels



BSP strip thickness measurement

- Patented strip thickness measurement system integrated into BSV/BSVL
- Inductive/tactile capture of strip thickness
- Stack height adjustment
- 1 to 2 measuring points in feed

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