

## Kunzmann BA 1300



**KUNZMANN**<sup>®</sup>  
FRÄSMASCHINEN

A modern vertical machining center for universal use in the series production of small to medium-sized batches.

### Unique features:

#### Design

- FEM-optimized cast iron construction in cross table design, with C-frame holding the vertical spindle and tool changer.
- The BA 1300 comes with a unique space concept that includes extra-large travel ranges, in particular along the Y-axis (750 mm) and the Z-axis (900 mm). Ideal for the machining of cube-shaped workpieces.
- Linear roller profile guideways in X-, Y- and Z-axis for dynamic axis repositioning.
- Large ball-type linear drives, 40 mm X-, Y- and Z-axis, guarantee optimum stability.
- The pneumatic weight compensation in the Z-axis supports the ball-type linear drive and ensures additional dynamics as well as optimized surface finish.
- As the machine is available with a range of spindle versions, it can be easily adapted for various machining tasks.
- The large, quick tool changer (38 or 60 pockets) allows for efficient production with minimum disruption.
- All BA 1300 models come with a slat band chip conveyor and adjustable chip bath rinsing.

#### Machining accuracy

- Polished ball-type linear drives in all axes for exceptionally high positioning and reproduction accuracy.
- Constant spindle temperature thanks to spindle cooling system that is included as standard.
- Direct incremental linear measuring system protected by sealing air in all axes for high-precision production (optional).

#### Ergonomic design

- Easy access to working area through large front doors.
- Machine table at optimized working height (approx. 1.000 mm). The table can be moved to the front of the booth to bring the clamping table and workpiece as close as possible to the operator.
- The movable operating panel and the electronic hand wheel facilitate setup and retooling of the machine.
- The smooth internal walls and adjustable chip bath rinsing make the machine easy to clean and guarantee efficient chip removal.
- The overall design of the machine with lateral booth maintenance doors facilitates maintenance.

**Control:****HEIDENHAIN TNC 640 CONTOURING CONTROL**

Modern CNC-high performance control for 3-D-processing of complex workpieces with a fast block processing time.

The control provides a hard disk as well as USB/Fast-Ethernet-Interfaces for a fast program management.

Extensive functions for graphics and simultaneous possibilities.

Especially Heidenhain TNC 640:

- Programming with Heidenhain conversational, DIN/ISO-Code
- Making of angular boring holes automatically / machining of cylindrical contours (option)
- DXF-Converter (option), load directly and convert DXF-files

**SIEMENS 840 D sl ShopMill COUNTOURING CONTROL**

Modern CNC-high performance control for 3-D-processing of complex workpieces with a fast block processing time.

The control provides a memory card as well as USB/Fast-Ethernet-Interfaces for a fast program management.

Extensive functions for graphics and simultaneous possibilities.

Especially Siemens 840 D sl:

- ShopMill user interface - Wide range of programming possibilities in the DIN/ISO code

**Tech Data:**

X-axis (longitudinal)	51.18" (1.300mm)
Y-axis (cross)	29.52" (750mm)
Z-axis (vertical)	29.59"/35.43" (650/900mm)
Main spindle drive (100%/40%)	10.0/14.0 kW
Spindle speed range	10.000/14.000/18.000 rpm
Tool taper	SK 40 / HSK 63
Feed rate	98/98/98 ft/min (30/30/30m/min)
Rapid traverse X-/Y-axis	98/98/98 ft/min (30/30/30m/min)
Contouring Control	TNC 640 (840 D sl ShopMill opt.)
Weight	20,944 lb (9.500kg)
Angular table, rigid	
Clamping surface	59.05 in x 27.55 in (1.500mm x 700mm)
T-slots	6 x 18 H 8
Loading ability	3306 lb max (1.500kg max)
Number of tool positions	38 / 60
Chip-to-Chip-time	approx. 3 sec
Coolant supply through spindle	25 / 40 bar

