

Boley **BE42**

## Fast and simultaneous machining with two turrets

### The Machine Concept

The new Boley BE42 is prepared for bar work or chuck work up to 140mm.

Because of the flexible combination of 2 spindles and 2 turrets the fast machining of complex work pieces is possible. The machines comes ready to run with C-Axis in the main spindle (indexing 0.001°) and 15°-indexing in the sub spindle (C-Axis as option), 2 turrets with 12 tool stations for VDI 20mm tools and driven tools at every single station.

The liquid cooled main spindle enables revolutions up to 8.000 min<sup>-1</sup>.

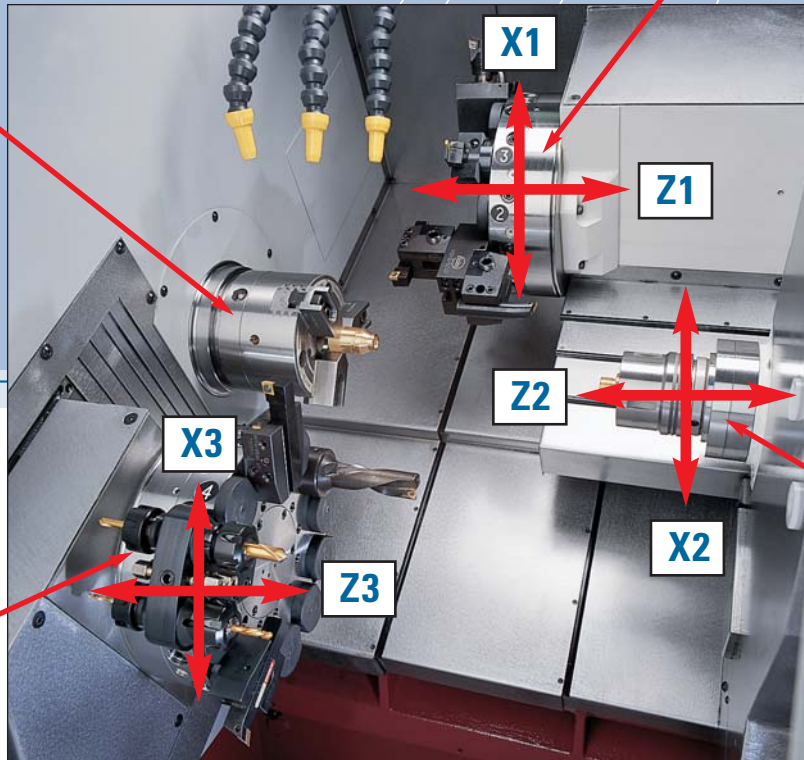
- Chuck and bar work
- Simultaneous machining with 3 tools
- Indexing of both turrets in 36 positions
- Driven tools on all turret tool stations
- Hydraulic clamping system for main spindle
- Liquid cooled main spindle
- Mitsubishi- Control on WIN95 basis
- C-Axis on sub spindle as option (8<sup>th</sup> NC-Axis)

**Main Spindle**

- C-Axis as standard
- max. 8000 min<sup>-1</sup>
- Hydraulic clamping

**Turret 1**

- 12 tool stations
- all for driven tools
- max. 4500 min<sup>-1</sup>
- 36 positions



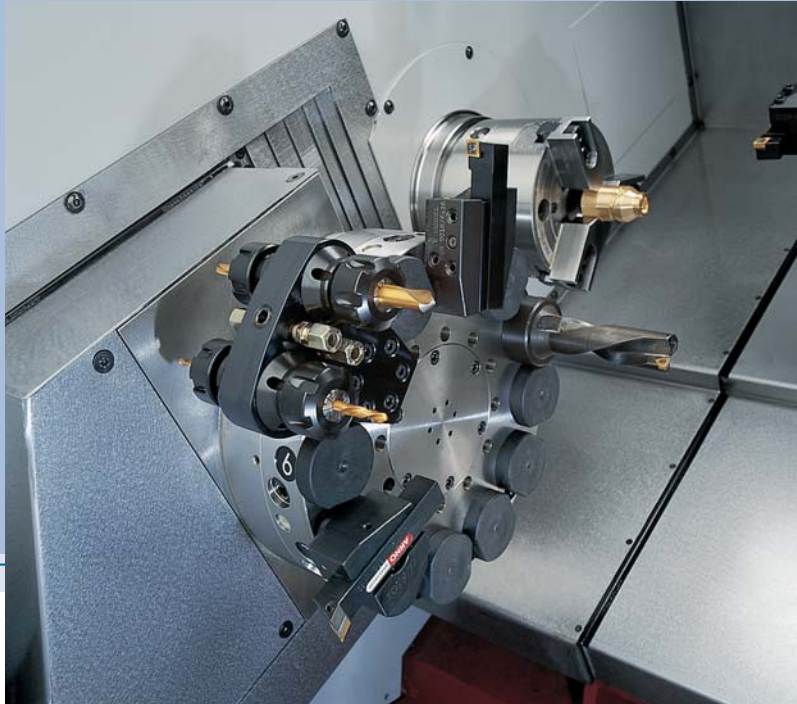
**Sub Spindle**

- C-Axis as option
- max. 6000 min<sup>-1</sup>

**Turret 2**

- 12 tool stations
- all for driven tools
- max. 4500 min<sup>-1</sup>
- 36 positions

## Second turret



- Same design of both turrets
- 12 tool according to DIN 69880-20x40
- Up to 24 tools on each turret
- Rapid feed X3 = 20 m/min
- Rapid feed Z3 = 24 m/min
- Axis stroke X3 = 110 mm
- Axis stroke Z3 = 170 mm
- Intelligent servo-motors

## The Tooling System

The Boley BE42 is equipped with 2 turrets with 12 tooling stations according to DIN 69880-20x40. Therefore the machine is compatible to all Boley tool holders.

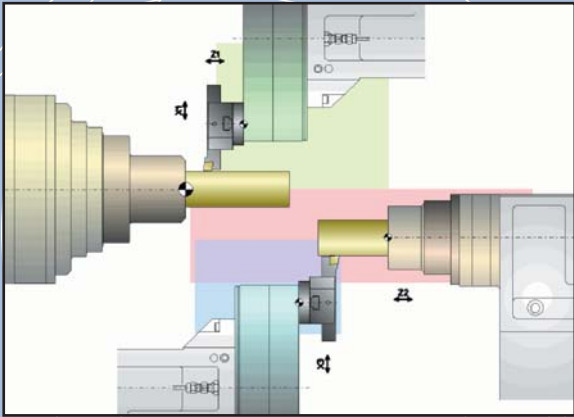
Besides the possibility of using driven tools on each station - as usual on Boley machines - the turret has an indexing of 36 positions.

In combination with the tool holders developed by Boley more than one tool can be used per tool station. In daily work up to 20 to 24 tool holders can be used on one turret.

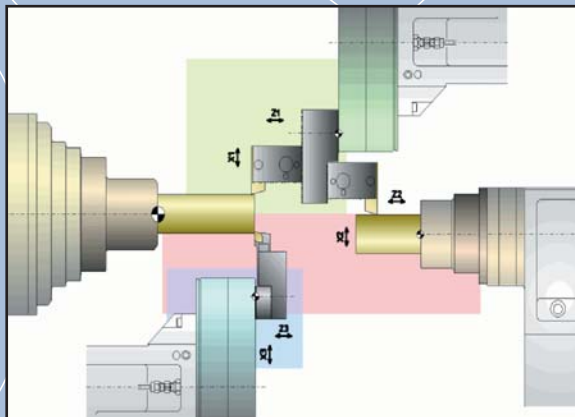


# Machining Samples BE42

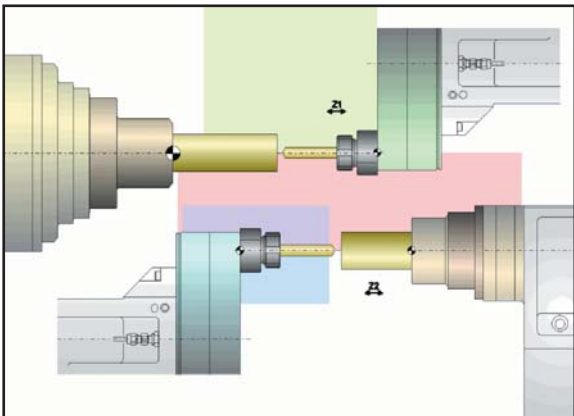
Machining with both turrets and both spindles offers a variety of simultaneous function with up to 3 tools.



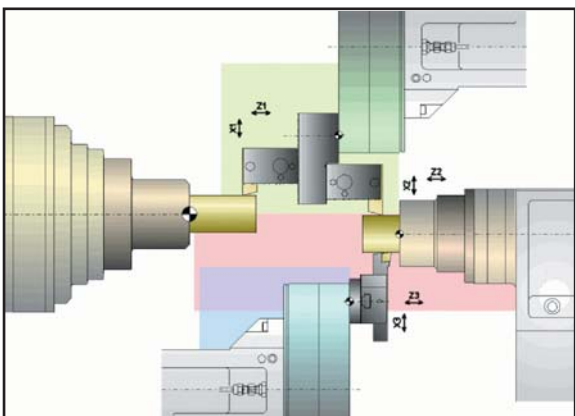
Front turning by Turret 1 , Back turning by Turret 2



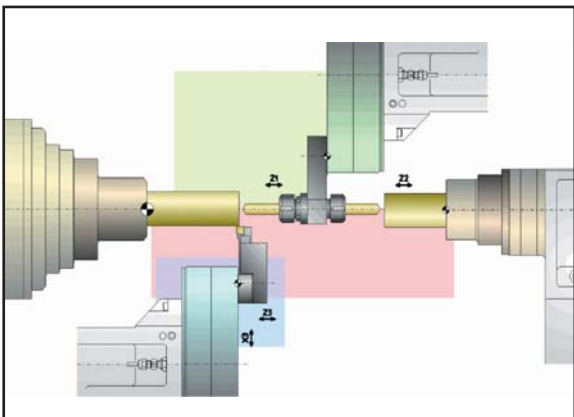
Front turning by Turret 1 and Turret 2, Back turning by Turret 1



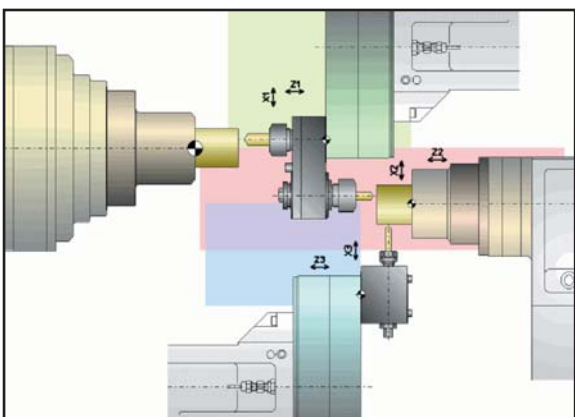
Front drilling by Turret 1 , Back drilling by Turret 2



Front turning by Turret 1 , Back turning by Turret 1 and Turret 2



Front drilling by Turret 1 and turning by Turret 2 , Back drilling by Turret 1



Rotary tool operation: Front drilling by Turret 1, Back drilling by Turret 1 and cross drilling by Turret 2

## Accessory devices



### Main Spindle collet chucking device

The hydraulic system ensures optimum clamping force for machining of bigger work pieces (up to 140 mm diameter).

### Additional useful accessories:

- Part conveyor
- Cut off tool breakage detector

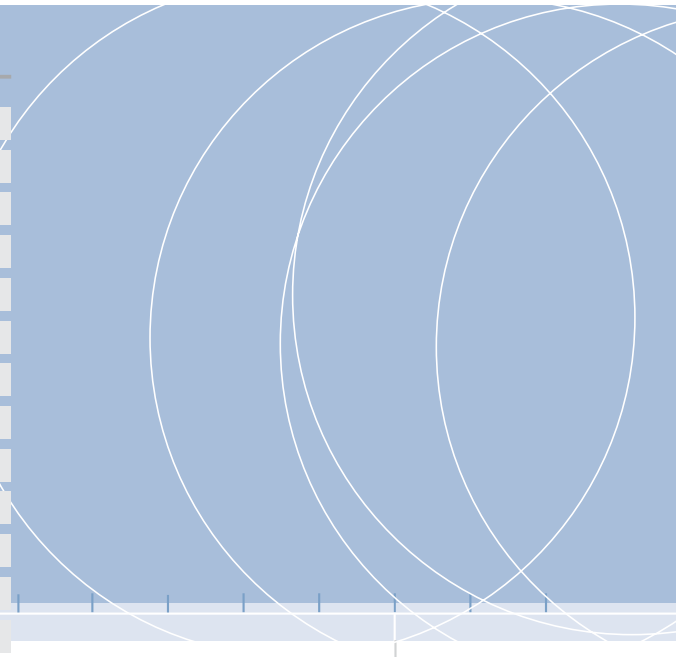
## Automation

To improve the efficiency and to optimise labour cost we offer solutions for automation together with renowned German suppliers for all Boley CNC lathes.

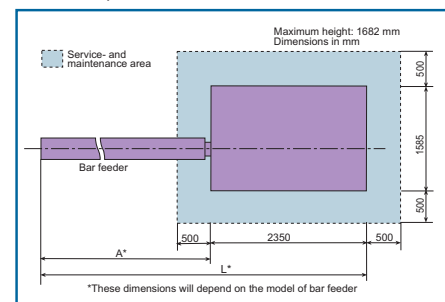


# Specification Boley BE42

Technical Data	Boley BE42
<b>Main spindle</b>	
Max. machining dia. [mm]	42
Max. machining dia. with jaw chuck [mm]	140
Motor power (built-in motor) [kW]	7,5/11
Spindle speed, stepless [rpm]	80 - 8000
Spindle speed with jaw chuck, stepless [rpm]	80 - 7500
C-axis [°]	0,001
Spindle through hole [mm]	55
<b>Sub spindle</b>	
Max. machining dia. [mm]	42
Motor power (AC-servo motor) [kW]	2.2/3.7
Spindle speed, stepless [rpm]	60 - 6000
Spindle indexing [°] (C-axis option)	15
<b>Turret 1 and 2</b>	
Tool station each turret	12
Tool station of rotary tools each turret	12
Toolholder	20 x 40 DIN 69880
Motor power of rotary tool (AC servo motor) [kW]	1
Speed of rotary tools, stepless [rpm]	45 - 4500
<b>Collets</b>	
Collet for main spindle	48 DIN 6343
Collet for sub spindle	48 DIN 6343
<b>Rapid traverses</b>	
X1,Z1,Z2,Z3 [m/min]	24
X3 [m/min]	20
X2 [m/min]	18
<b>Machine dimensions</b>	
Space requirement (without bar feeder) LxB [mm]	2350x1585
Hight spindle center [mm]	1058
Machine weight [kg]	3300
Power requirement [kVA]	17



Machine Layout Plan

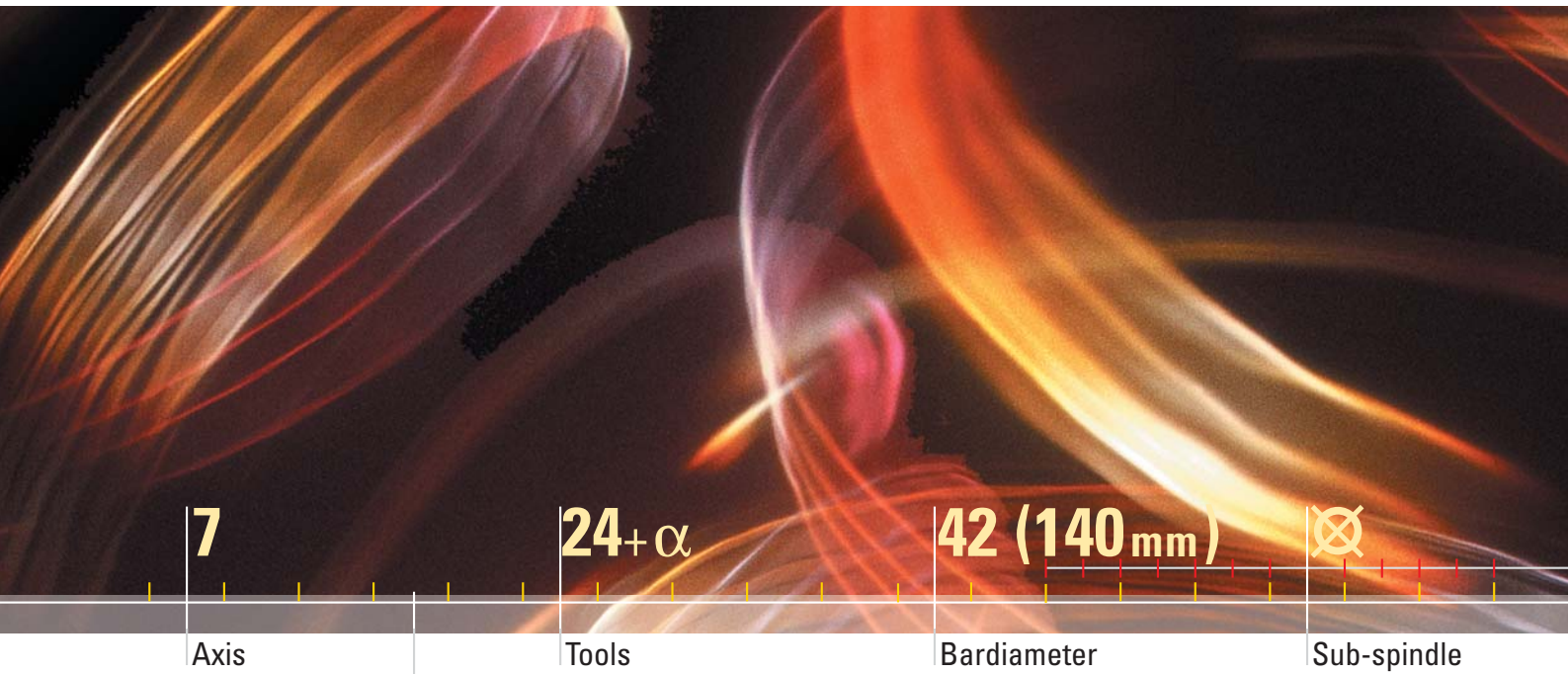


Our ongoing research and development effort mean that some of the technical information provided here may have already been overtaken by advancements. The illustrations have been selected for their informative content. They may contain special equipment which is not included in the standard scope of supply.



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**CNC-Lathe**

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machining with two turrets**