eBore™
Slide

Operating instruction
Fine Boring Slide for finish machining
for Ø 200–1020mm

ERICKSON™

Contents

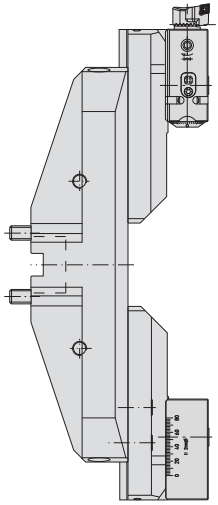
Kennametal tools are subject to constant further technical development. You can obtain up-to-date information from our product catalogue as well as on our website www.kennametal.com.

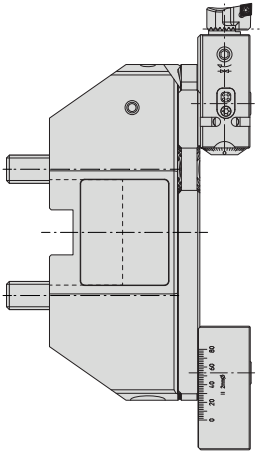
Overview of use and boring ranges:

Different modular tool components for Ø 200 – 1020 mm are available for the digital eBore Bridge:

Serrated slides (KZS) eBore Bridge L:
Serrated slides in aluminum
6655287, 6655289 and 6655288
Connection: D60
Boring Ø: 465 – 1020 mm
(Example: Finish machining with Fine Boring Slide and counterweight)

Serrated slides (KZS) eBore Bridge S:
Serrated slides in aluminum
6655282, 6655284, 6655285, 6655286
Connection: D60
Boring Ø: 200 – 505 mm
(Example: Finish machining with Fine Boring Slide and and counterweight)





1. Basic safety information

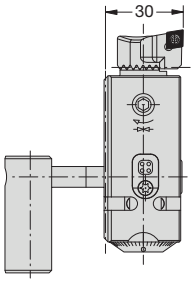
Before first use, please read the operating instruction carefully. These provide important safety information and information concerning use and maintenance of the tool.

This boring tool is designed for finishing bores in metallic materials. Specific information on the machining of individual metallic materials is not the subject of this operating instruction. No other application is permitted and could be dangerous. The manufacturer cannot be held responsible for damage or injury caused by improper use. A damaged tool could endanger your safety! Decommission the tool immediately and contact your supplier. This tool complies with the prescribed safety regulations. Repairs must be undertaken only by trained personnel. Improper repairs can represent a considerable risk for the user. Warranty provisions can be implemented in the event that original Erickson spare parts and accessories are used. Keep the operating instruction in a safe place for future use.

2. Application

The precision boring tool eBore Bridge S/L is intended for machining precision holes in the 200 – 1020 mm range. The following finish machining tool is available:
Fine Boring Slide with optional available digital readout module (0.002 mm in Ø).

The precision boring tool assembly comprises the respective precision boring tool, the corresponding clamping elements and an insert holder. For the boring range Ø 200 – 1020 mm, the precision boring tool is mounted on a serrated slide **(KZS)**. A counterweight should be used in finish machining to reduce imbalance.



Precision boring tool
Fine Boring Slide

3. Tool features

- Precision boring tool with optional digital display in combination with an electronic positioning system. In digital mode the slider‘s adjustment range is measured directly
- Precision threaded spindle for precision adjustment.
- Maintenance-free
- on the tool end, the tool is serrated for both frictional and positive engagement of insert holders taking various types of indexible inserts
- standard insert holders can be converted to carry out back boring.
  Attention: Back boring then takes place with the machine spindle rotating anti-clockwise.
- Storage temperature:
  – 10 °C to + 65 °C (14° F to 149° F).
- Operating temperature:
  + 10 °C to + 40 °C (50° F to 104° F).

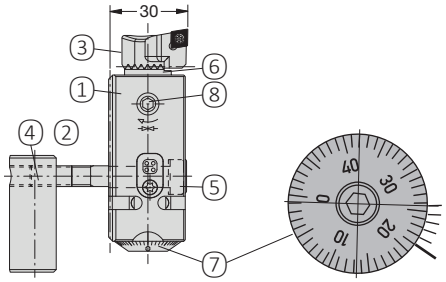
4. Operation

For torques, see “6. Accessories” and “7. Spare parts” from page 11-12.

Fitting the precision boring tool

Depending on the required diameter, the precision boring tool ① can be fitted on different serrated slides. For this purpose, use the associated clamping elements ② (page 12). Please note: the long side of the clamping bolt ④ (See Operating Instructions eBore Bridge S/L Ø 200 - 1020, page 4) has to be mounted turned away from the cutting edge, with the flat part pointing in the direction of the screwhead.

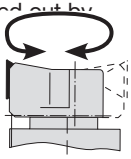
Fine Boring Slide



Fitting the insert holder

The slider ⑥ of the precision boring tool is provided with serrations, which provide a perfect fit for the insert holder ③.

Reverse machining can be carried out by turning the insert holder through
Attention: Back boring then takes place with the machine spindle rotating anti-clockwise.



Setting the machining diameter

An adjusting device or gauge is needed to set the machining diameter. Carry out a rough preset with a cap screw ⑤ only loosely screwed in by sliding the precision boring tool onto the serrated part of the serrated slide **(KZS)** in aluminum with the aid of a threaded pin, if available.
The precision boring tool is provided with a scale as an adjustment aid. See also operating instructions for eBore Bridge S/L Ø 200 - 1020 mm.

4.1 Precision setting of the precision Fine Fine Boring Slide

The brushed chrome-plated scale ⑦ ensures reading accuracy of the diameter setting. The slider ⑥ is provided with a travel limitation. During machining, the slider must be clamped with the cap screw ⑧. This clamping must be opened or clamped before and after every setting procedure.

Please follow the sequence of operations for setting the diameter as set out below.

**Do not apply force during the setting procedure!
The adjustment mechanism could be damaged.**

4.2 Adjustment of bore diameter

Please observe sequence:

1. Release threaded clamping pin ⑧
2. Turn scale ⑦ to adjust tool diameter.
   - On tool presetting device
   - On machine using gage cut or trial drill
   - 1 turn of scale:
     0.5 mm (.020“) adjustment in Ø
   - 1 scale mark:
     0.01 mm (.001“) adjustment in Ø

2.1 Readjust tool (increase Ø) readjust scale to required value

or

2.2 Reset tool

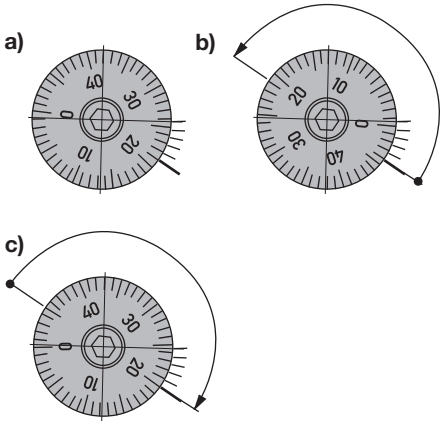
- Determine value set on tool (Fig a, scale value 21)
- Turn scale back by one half-turn, left direction of rotation (Fig. b)
- Set new (smaller) scale value (Fig. c, scale value 20)

3. Tighten threaded clamping pin, tighten-

ing torque 5 Nm

The path of the slider is restricted. Any attempts to adjust against the end stop may damage the tool.

Example:



4.3 Setting the boring diameter with external digital display

The eBore fine boring tools can optionally be operated with an electronical measuring system with an digital readout module. **Please refer to the eBore external readout module Operating Manual.**

5. Maintenance

No maintenance required!

To ensure the tool has a long service life, it must be cleaned after use. A light film of oil should be applied to the visible, uncoated steel parts from time to time.

6. Accessories

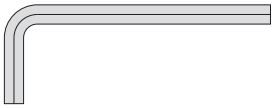
Service keys are included in the delivery.

Service keys

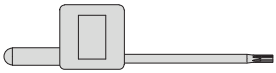
Service key / Type	Order No.
s4 / DIN911	1138315
s6 / DIN911	1138331

Torx key / Type	Order No.
T 8 / FT	1021593
T 15 / FT	1021605

Type DIN911

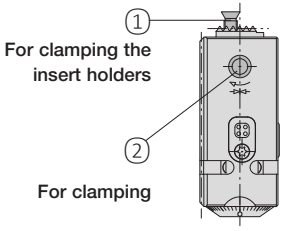


Type FT



Counterweight:
see Operating Instructions eBore Bridge S/L Ø 200 - 1020 mm.

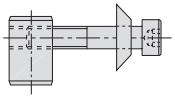
7. Spare parts



Precision boring tool Order No.	Countersunk screw ① Order No.	Key (torque)	Clamping screw ② Order No.	Key (torque)
6655302	6738786	T 20 / FT (5 Nm) (44.25 in.lbs.)	–	s4 / DIN911 (6 Nm) (53.1 in.lbs.)

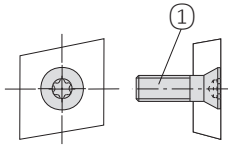
Clamping elements (Cap screw, Clamping bolts, Disc spring)

Applications and boring ranges		Clamping elements Order No.	Key (torque)
eBore Bridge S/L	200-1020 mm	6655304	s6 / DIN911 (25 Nm)



Clamping screws for replaceable inserts

Replaceable inserts form	Countersunk screw ① Order No.	Torx key (torque)
CC..06	6738799	T 8 / FT (1,2 Nm) (10.62 in.lbs)
CC..09	6738798	T15/FT (3,0 Nm) (26.55 in.lbs)



8. Technical data

Max. permissible speed:

In principle, max. permissible speeds involve a risk due to the centrifugal energies involved. It is therefore essential to take the safety aspects into account.

These max. permissible speeds can be found, depending on the boring range, in the operating instructions for the boring tools for pre-machining and finish machining:
- eBore Bridge S/L Ø 200 - 1020 mm