

► Application Range

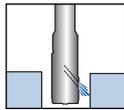
TB-REAM is suitable for high precision applications and tight hole diameter tolerance ($IT \geq 5$).

The high surface quality and accurate bore geometry achieved with the TB-REAM very often saves necessity for additional machining operations such as honing or internal grinding that had been previously required.

The reamer body has carbide guiding pads brazed on it. The adjustment system guarantees a user-friendly and easy process for adjusting the required diameter and back taper control. A strong and reliable insert clamping mechanism in the pocket, together with nickel plated body ensure long tool life.

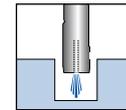
The TB-REAM reamers were designed for high speed reaming. This feature is most advantageous in mass production applications. When large batches are involved, the indexable insert with the double cutting corner provides high productivity and an extremely economical solution.

► Bore Types



► Through Hole Coolant

A reamer body for a through hole includes coolant hole outlets located behind the insert, which direct the chips forward to prevent scratching the hole surface. Moreover, extra holes are located behind the pads in order to convey lubricant and reduce the friction between the pads and the hole's surface.



► Blind Hole Coolant

For blind hole applications the coolant outlet is located at the front end of the tool. The blind hole causes the coolant with the chips to flow backwards.

► Front Angles and Cutting Geometries

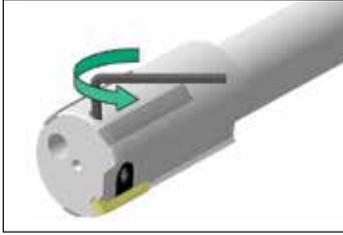
■ Indexing

Lead	L (mm)	I		Use
A	3	1		High surface quality at lower cutting conditions
B	1.3	0.5		Universal use. Ideal for high speed cutting conditions
C	0.55			Suitable for aluminum and brass
D	0.6	0.2		Geometry for blind hole and low feed rates

■ 3 standard cutting angles are available:

Lead	Angle (°)	Use
00		For cast iron applications
06		General use
12		For stainless steel and aluminum

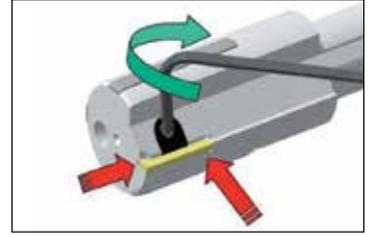
► Insert Indexing



- 1) Rotate the adjustment screws 1 turn counter-clockwise (CCW).



- 2) Rotate the clamping screw CCW from the top and/or clockwise from the bottom, turning both sides simultaneously.



- 3) Remove the insert. Clean the insert and the pocket. Place the sharp edge on the outer position.
- 4) Press the insert against the back stopper and the two adjustment pins. Tighten the clamping wedge by rotating the clamping screw CW from the top or CCW from the bottom.

► Setting Process

There are two optional setting mechanisms: a comparison micrometer and a setting device.



Comparison micrometer with dial gauge

- Low cost solution and readily available for small workshops.
- Prone to damage the cutting edge therefore not recommended.



Setting device, located between centers

- Shorter setting time
- Modular system
- Higher accuracy
- No risk of damaging the cutting edge

TaeguTec Designation: TB-SETTING L450

Using a Comparison Micrometer

- 1) Set the micrometer to the correct diameter using the precision blocks.
- 2) Adjust the frontal diameter and back taper by turning the adjustment screw C.W. The frontal diameter should be larger than the rear diameter by approximately 0.015 mm.

Using a Setting device

TaeguTec is offering a mechanical setting device. It enables an easy, quick and accurate adjustment. Due to its modular construction, it can be used for standard as well as for special and more complicated reamer adjustments.

► Using a Setting Device



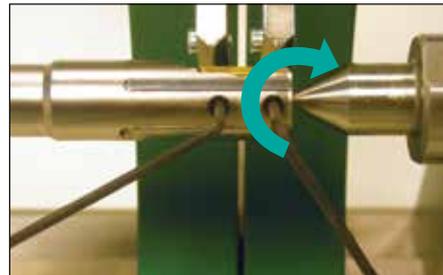
1. Place the reamer between fixture's centering pins.



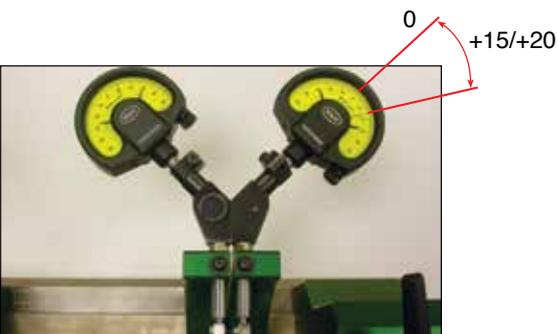
2. Use the pad as a zero reference to set the indicators to zero.



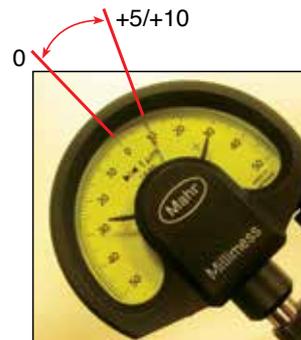
3. Rotate and position the insert against indicators.



4. Tighten the adjustment screws in a clockwise direction.



5. Adjust the frontal side of insert to +15/20 microns.



6. Adjust the back side of insert to +5/10 microns.