



DREX[®]-TOOLS

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All sizes indicated in this catalogue
are to be considered in mm.

The indicated references are not binding and
can be varied without notice.

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Roller Burnishing Tools

The company DREX®-TOOLS has since 1980 a great experience in the fields of the burnishing. The company, with the support of technical assistance with big experience has created a new line of tools. This is due to the continuous improvement that the market demands and also to new needs of our customers. As a result of this, we are now able to offer on the worldwide market innovative products of valuable quality, that can provide the company several advantages for what concern the relation time/money. Thanks to its multiyear experience in the field of the burnishing, DREX®-TOOLS is become an important referring point for the roller burnishing tools technology.



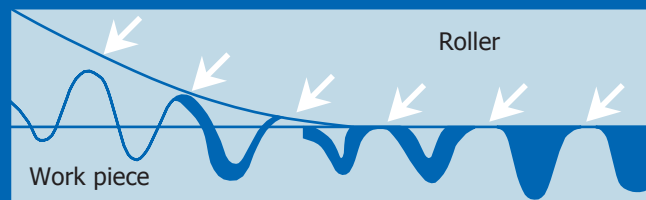
- Accurate tolerance of the size and the taper.
- Fast and accurate adjustment mechanism.
- Fast execution of the processing in one single pass.
- Precise and mirror-like finishing of the surface.
- Suitable to lathes, boring machines, drilling and CNC machines.

Roller burnishing tools technology

The roller burnishing is a cold working process which produces a fine surface finished by the planetary rotation of hardened rolls over a bored or turned metal surface, improving the surface finishing.

In the burnishing process, the pressure generated by the rolls on the touch-point of a surface, generates a small deformation of the surface's structure of the part. Since all machined surfaces consist of a series of peaks and valleys of irregular height and spacing, the plastic deformation created by the roller burnishing is a displacement of the material in the peaks which cold flow under pressure into the valleys. The result is a mirror-like finishing with a tough, work hardened, wear and corrosion resistant surface.

The roller burnishing pressure required depends from a number of factors like ductility and tensile strengths of the material, surface roughness before and after roller burnishing, and diameter and shape of the rolls.



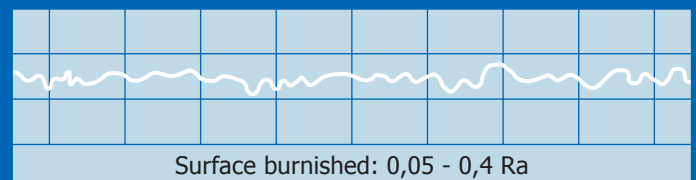
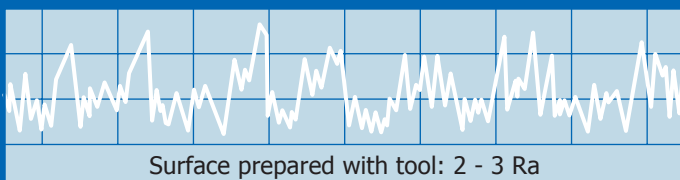
Advantages of roller burnishing

With the roller burnishing a high surface finishing can be obtained on a lot of metals. Bored or turned surfaces with a superficial roughness of 3 RA can be finished at 0,4 - 0,05 RA in only one single pass. Roller burnishing replaces grinding, honing, lapping and other expensive secondary operations.

A micrometrical adjustment system permit the setting of the tool with small increments in order to cover the tolerance range of any part.

Depending on the type of the material, the surface hardness can be increased to more than 10 RC by burnishing and also the resistance becomes more high.

With roller burnishing tools it is possible to work a big quantity of pieces. In many cases rolls and cones hold the sizes through 15.000 to 20.000 operations.



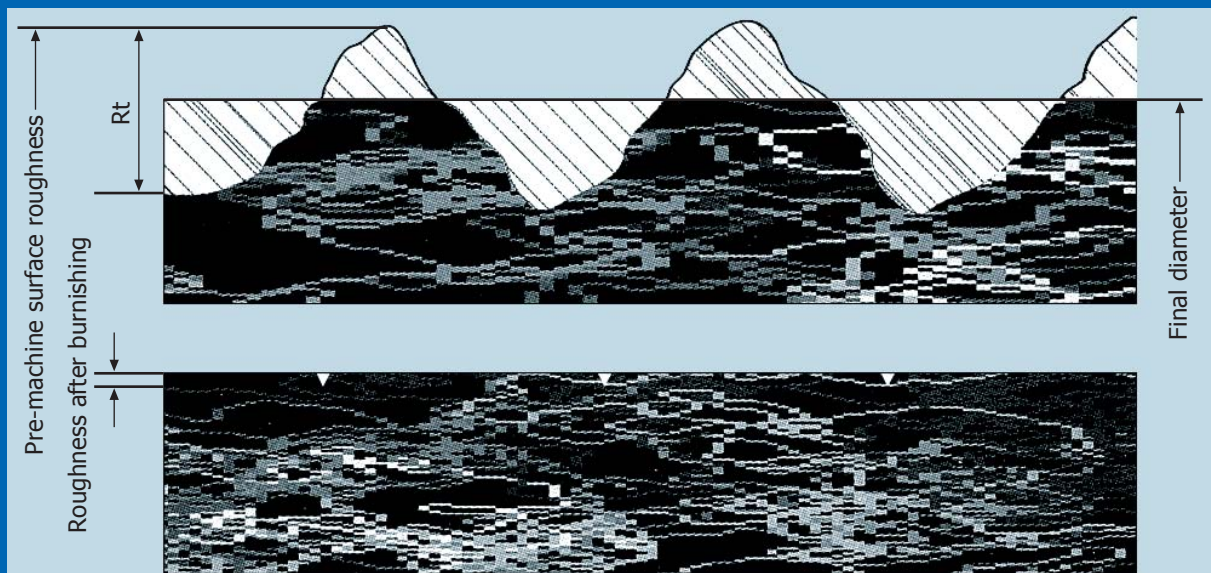
Pre-machining of the work piece

The work piece must be prepared for the roller burnishing with the right stock allowance and the right surface finishing rate. The amount of the stock allowance depends from the job conditions, the material properties, the wall thickness of the part, the type of the machined surface and the quality of the desired surface finishing. The following chart shows typical stock allowances for internal and external burnishing. However, because of the number of variables involved, these references should be considered only not binding.

An exact stock allowance can be established by tests. It is important never to burnish parts with too much stock allowance: a roller burnishing in such conditions reduces the life of the tool but can also produce flaking of the burnishing surface.

High ductility materials have an elongation of more than 18% and a hardness less than RC 25. They include annealed steel, aluminium, brass, bronze a.s.o.

Low ductility materials have an elongation less than 18% and a hardness of max. RC 45.



Surface profile before and after the roller burnishing

Stock allowance - Surface finishing chart

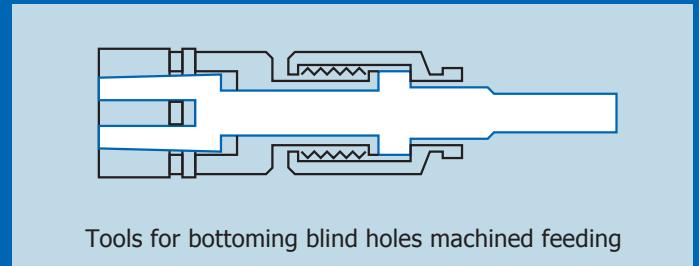
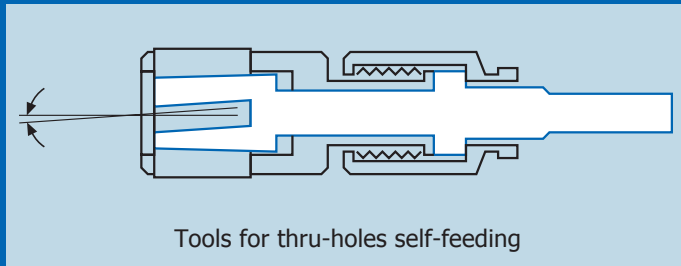
Workpiece size range mm		Inside surfaces					Outside surfaces				
		Stock allowance mm	Surface finish Ra (Rt)				Stock allowance mm	Surface finish Ra (Rt)			
			Machined Ra (Rt)		Roller burnished Ra (Rt)			Machined Ra (Rt)		Roller burnished Ra (Rt)	
High Ductility Material	3 - 12	0.010 0.017	2.0 3.1	(8) (12)	0.2 0.2	(1) (1)	0.010 0.015	2.0 2.5	(8) (10)	0.2 0.2	(1) (1)
	12 - 25	0.017 0.040	1.5 3.1	(6) (12)	0.2 0.2	(1) (1)	0.012 0.025	2.0 4.5	(8) (18)	0.2 0.2	(1) (1)
	25 - 50	0.025 0.050	1.5 3.1	(6) (12)	0.2 0.2	(1) (1)	0.017 0.025	2.5 4.5	(10) (18)	0.2 0.2	(1) (1)
	50 - 165	0.040 0.075	1.5 5.0	(6) (20)	0.2 0.2	(1) (1)	0.025 0.050	3.1 10.1	(12) (40)	0.2 0.2	(1) (1)
Low Ductility Material	3 - 12	0.010 0.017	2.0 2.5	(8) (10)	0.4 0.4	(2) (2)	0.008 0.012	1.5 2.3	(6) (9)	0.4 0.4	(2) (2)
	12 - 25	0.017 0.025	2.2 3.1	(9) (12)	0.4 0.4	(2) (2)	0.012 0.018	2.5 3.5	(10) (14)	0.4 0.4	(2) (2)
	25 - 50	0.025 0.040	3.1 4.5	(12) (18)	0.4 0.4	(2) (2)	0.012 0.025	2.5 4.5	(10) (18)	0.4 0.4	(2) (2)
	50 - 165	0.040 0.050	3.0 5.0	(12) (20)	0.4 0.6	(2) (3)	0.020 0.035	3.1 5.0	(12) (20)	0.4 0.4	(2) (2)

Kind of the tools

Self feeding tools: they are used for thru-style roller burnishing; the tool self-feeds itself independently from the machine's feed or any other external power; the only required thing is the rotation of the tool or of the work piece. The tool should be allowed to feed according to its natural rate without being forced; if used on machines equipped with self feeding, the machine feed should be slightly more (+10 ÷ 20%) than the natural feed rate of the tool.

Full bottoming style tools: these tools are supplied with non-feed cages, therefore the feed has to be given by the machine and has to be exact to obtain the closest approach to the bottom, most constantly as possible. A feed rate from 30% to 100% as shown in the chart for thru style tools is normally exhaustive for all bottoming applications. Therefore it is possible to establish the right feed rate depends from the possibility of machine's set up.

The tool is designed for conventional right hand rotation. It's possible to work with the rotation of the work piece or of the tool. The speed of the rotation is not binding but if higher than that recommended it will reduce the tool's life. If long tools are used, the speed should be reduced to prevent excessive whip.



Speed and feed rate chart

Burnishing diameter	Inside		Outside	
	Speed/RPM *	Feed mm/rev **	Speed/RPM *	Feed mm/rev **
5	1500	0,12	1000	0,15
12	1000	0,32	700	0,3
40	600	1,3	400	1,0
65	300	1,5	250	1,8
95	250	1,8	200	2,7
165	200	3,4	-	-

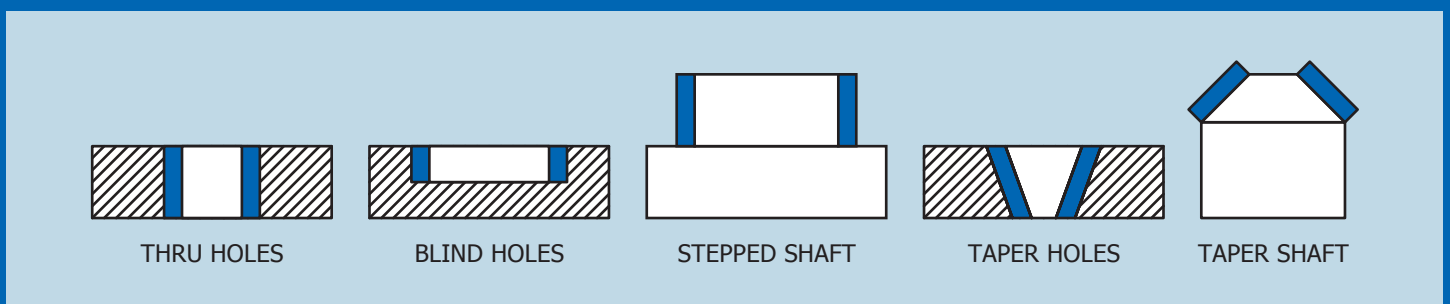
* In case of special requirements, speeds can be increased or decreased by 50%.

** In case of special requirements, the feed can be increased by 30%.

Since the speed of the rotation is not determined to the performance, it will be used high speed to obtain cycles of rapid production.

Surface that can be burnished

Good results have been obtained rolling inside thru and blind surfaces, taper and flat surfaces.



Roller burnishing tools for thru and blind holes

Thru holes series **TH** : diameter range from Ø6 to Ø350 mm

Blind holes series **TB** : diameter range from Ø6 to Ø350 mm

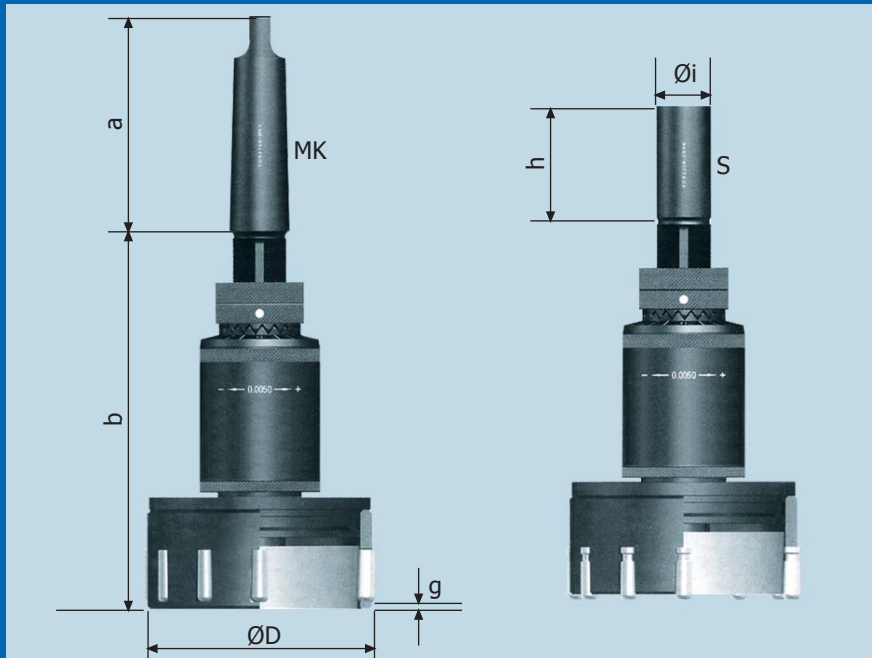
Technical characteristics

The roller burnishing tools series **TH** and **TB** thanks to their micrometric regulation's system can process burnishing in H8 tolerance: once adjusted on the diameter, they can process a high number of holes without any other regulation.

These tools are capable to process all kinds of materials with 1.400 N/mm² tensile strength and hardness up to max. 45 HRC. The tools work with a right hand rotation, it is possible to work with the rotation of the work piece or of the tool.

For the tools from diameter 6 to diameter 80 the adjustment precision is 0,0025 mm, for the tools with a diameter bigger than 80 mm the adjustment precision is 0,0050 mm.

Two different types of tools can be produced: series **TH** for thru holes and series **TB** for blind holes. Tools series **TH** are supplied with an automatic feeding (self-feeding): the tool self-feeds itself independently from the machine's feed or any other external power, the only required thing is the rotation of the tool or of the work piece. The tool should be allowed to feed according to its natural rate without being forced; if used on machined equipped with self feeding, the machine feed should be slightly more (+10 ÷ 20%) than the natural feed rate of the tool. On request can be supplied tools series **TH** with cage without self-feeding to use with machine feeding. Tools series **TB** can only be supplied with machine feeding.



Tool structure

Roller burnishing tools series **TH** and **TB** consist of a body and a rolling head. The tool body includes a special adjustment mechanism; cage, cone and rollers are the part of the rolling heads. The tool shank can be straight or Morse taper.

The tools with diameter over 34mm can execute an unlimited rolling length. The tools with a diameter under 35mm can execute standard rolling length (see chart below). Special tools with longer rolling lengths can be produced on request.

Diameter range Ø	Shank Morse Taper	Shank Straight (Øixh)	a	b	c	g	Note
006-014	MK2	Ø20 h6 x 50	78.5	146	34	1.5	Standard rolling length 50 mm Longer lengths on request
015-021				146		2	
022-034				139		2.5	
035-049				142.5		3	Unlimited roller length
050-080	MK3	Ø25 h6 x 56	98	177.5	48	3.5	
081-160	MK4	Ø32 h6 x 60	123	195	62	4	
161-350	MK5	Ø40 h6 x 80	155.5	272.5	89	4.5	

Tool's characteristics

The roller burnishing tools series TH and TB have a wide diameter range. For example, a roller burnishing tool type TH-020.00-1-50-MK2 with nominal size of 20 mm can process all sizes between Ø 19,90 mm and Ø 20,90 mm. Tools for special diameters and lengths can be produced on request.

- **Choice of the tool**

Choose the tool according to the diameter to burnish, the type of the hole (thru or blind hole), the rolling length and the type of the shank.

- **Processing diameter**

Select carefully the diameter that you need to process. (e.g. 25,43 ...).

- **Choice of the cage** - To establish according to the machine and the work piece.

- Automatic feeding (self-feeding) for thru holes: **code 1**
- Machine feeding (not self-feeding) for thru holes **only on request: code 2**
- Machine feeding (not self-feeding) for blind holes: **code 3**

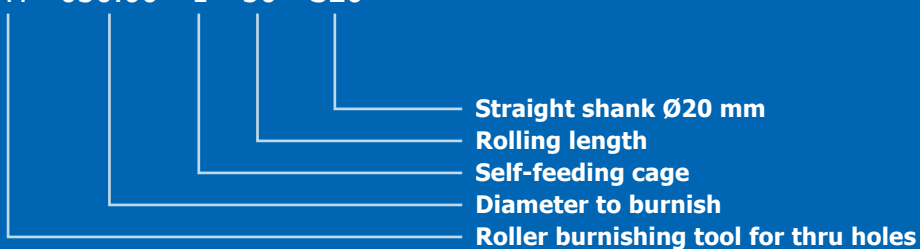
- **Standard rolling length 50 or 100 mm** (to specify only for diameter from 6 to 34).

It doesn't need to be stated for diameter over 34 mm because of the unlimited rolling length; it must be stated for diameter under 35 mm. Besides standard models, the rolling lengths can be 150, 200, 250, 300 mm. Special requests for rolling lengths not mentioned above will be evaluated case by case.

- **Shank** - According to your needs: **MK** = Morse taper shank / **S** = Straight shank

Order sample: Roller burnishing tool for thru holes Ø 30,00 mm, rolling length 50 mm, straight shank Ø 20 mm.

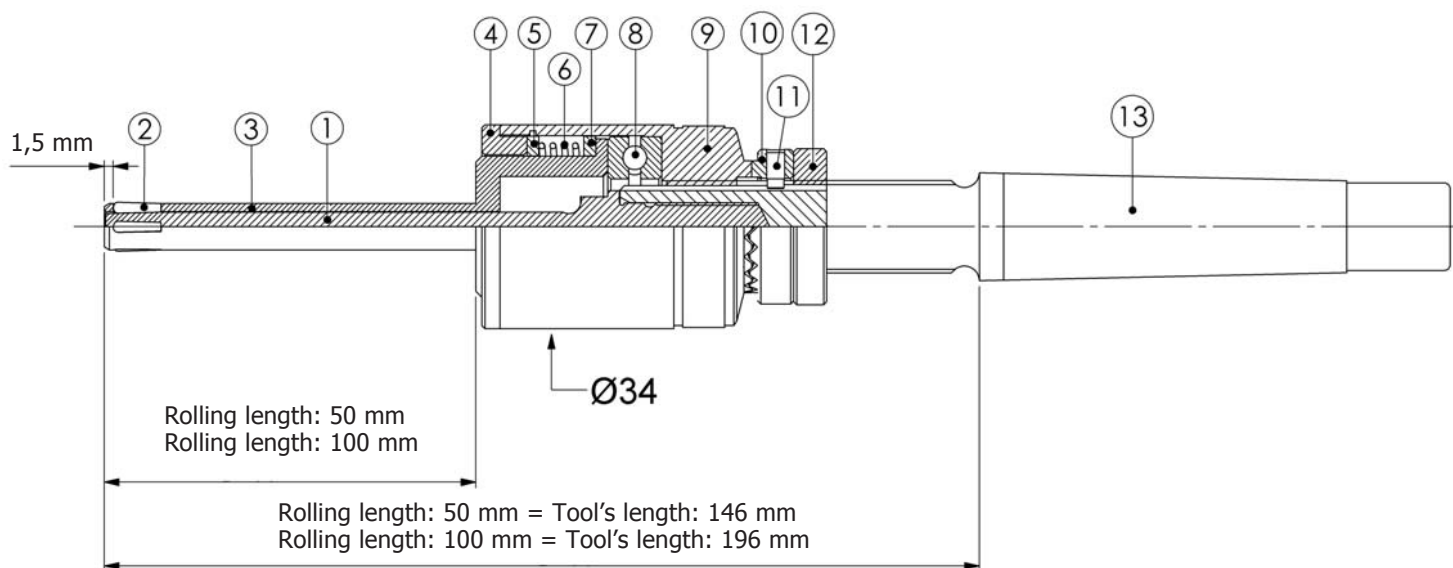
Code: TH - 030.00 - 1 - 50 - S20



Roller burnishing tools for thru and blind holes

Thru holes series TH: diameter range from Ø6 to Ø14 mm

Blind holes series TB: diameter range from Ø6 to Ø14 mm



- | | | |
|-----------------|------------------|--------------------------|
| 1 - Cone | 5 - Thrust ring | 9 - Housing |
| 2 - Rollers | 6 - Spring | 10 - Adjustment gear |
| 3 - Cage | 7 - Thrust ring | 11 - Pin |
| 4 - Housing nut | 8 - Ball bearing | 12 - Adjustment nut lock |
| | | 13 - Shank |

Thru holes series TH rolling length 50 mm self-feeding

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
6,0	TH-006.00-1-50-MMK2/S20	-0,05/+0,20	MK2	500100	3	TM-006.00-1-50	TG-006.00-1-50	---	TX1.1 MK2
7,0	TH-007.00-1-50-MK2/S20	-0,05/+0,20		500100	3	TM-007.00-1-50	TG-007.00-1-50	---	
8,0	TH-008.00-1-50-MK2/S20	-0,05/+0,20		500100	4	TM-008.00-1-50	TG-008.00-1-50	---	
9,0	TH-009.00-1-50-MK2/S20	-0,10/+0,40		500108	4	TM-009.00-1-50	TG-009.00-1-50	---	
10,0	TH-010.00-1-50-MK2/S20	-0,10/+0,40	S 20	500108	4	TM-010.00-1-50	TG-010.00-1-50	---	TX1.1 S20
11,0	TH-011.00-1-50-MK2/S20	-0,10/+0,40	Ø20x50	500108	4	TM-011.00-1-50	TG-011.00-1-50	---	
12,0	TH-012.00-1-50-MK2/S20	-0,10/+0,40		500102	4	TM-012.00-1-50	TG-012.00-1-50	---	
13,0	TH-013.00-1-50-MK2/S20	-0,10/+0,40		500102	4	TM-013.00-1-50	TG-013.00-1-50	---	
14,0	TH-014.00-1-50-MK2/S20	-0,10/+0,40		500102	4	TM-014.00-1-50	TG-014.00-1-50	---	

Blind holes series TB rolling length 50 mm

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
6,0	TB-006.00-3-50-MK2/S20	-0,05/+0,20	MK2	500308	3	TM-006.00-3-50	TG-006.00-3-50	---	TX1.1 MK2
7,0	TB-007.00-3-50-MK2/S20	-0,05/+0,20		500308	3	TM-007.00-3-50	TG-007.00-3-50	---	
8,0	TB-008.00-3-50-MK2/S20	-0,05/+0,20		500308	4	TM-008.00-3-50	TG-008.00-3-50	---	
9,0	TB-009.00-3-50-MK2/S20	-0,05/+0,40		500300	4	TM-009.00-3-50	TG-009.00-3-50	---	
10,0	TB-010.00-3-50-MK2/S20	-0,05/+0,40	S 20	500300	4	TM-010.00-3-50	TG-010.00-3-50	---	TX1.1 S20
11,0	TB-011.00-3-50-MK2/S20	-0,05/+0,40	Ø20x50	500300	4	TM-011.00-3-50	TG-011.00-3-50	---	
12,0	TB-012.00-3-50-MK2/S20	-0,05/+0,40		500301	4	TM-012.00-3-50	TG-012.00-3-50	---	
13,0	TB-013.00-3-50-MK2/S20	-0,05/+0,40		500301	4	TM-013.00-3-50	TG-013.00-3-50	---	
14,0	TB-014.00-3-50-MK2/S20	-0,05/+0,40		500301	4	TM-014.00-3-50	TG-014.00-3-50	---	

Thru holes series TH rolling length 100 mm self-feeding

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
6,0	TH-006.00-1-100-MK2/S20	-0,05/+0,20	MK2	500100	3	TM-006.00-1-100	TG-006.00-1-100	---	TX1.1 MK2
7,0	TH-007.00-1-100-MK2/S20	-0,05/+0,20		500100	3	TM-007.00-1-100	TG-007.00-1-100	---	
8,0	TH-008.00-1-100-MK2/S20	-0,05/+0,20		500100	4	TM-008.00-1-100	TG-008.00-1-100	---	
9,0	TH-009.00-1-100-MK2/S20	-0,10/+0,40		500108	4	TM-009.00-1-100	TG-009.00-1-100	---	
10,0	TH-010.00-1-100-MK2/S20	-0,10/+0,40	S 20	500108	4	TM-010.00-1-100	TG-010.00-1-100	---	TX1.1 S20
11,0	TH-011.00-1-100-MK2/S20	-0,10/+0,40	Ø20x50	500108	4	TM-011.00-1-100	TG-011.00-1-100	---	
12,0	TH-012.00-1-100-MK2/S20	-0,10/+0,40		500102	4	TM-012.00-1-100	TG-012.00-1-100	---	
13,0	TH-013.00-1-100-MK2/S20	-0,10/+0,40		500102	4	TM-013.00-1-100	TG-013.00-1-100	---	
14,0	TH-014.00-1-100-MK2/S20	-0,10/+0,40		500102	4	TM-014.00-1-100	TG-014.00-1-100	---	

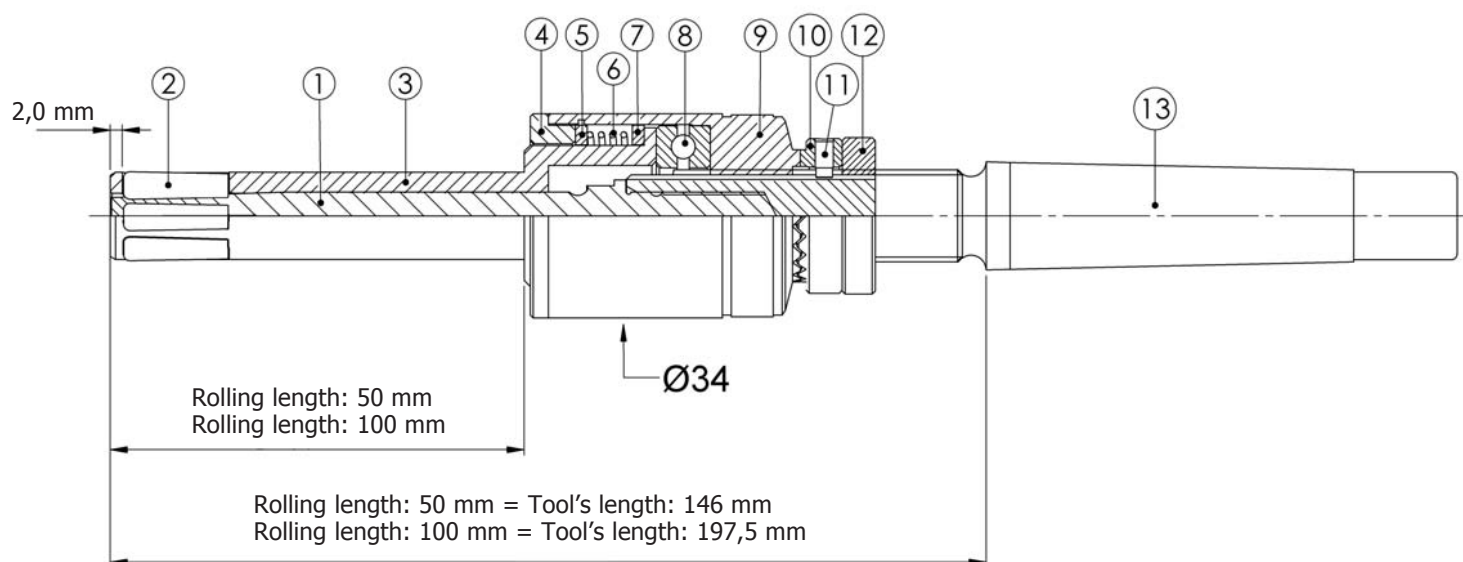
Blind holes series TB rolling length 100 mm

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
6,0	TB-006.00-3-100-MK2/S20	-0,05/+0,20	MK2	500308	3	TM-006.00-3-100	TG-006.00-3-100	---	TX1.1 MK2
7,0	TB-007.00-3-100-MK2/S20	-0,05/+0,20		500308	3	TM-007.00-3-100	TG-007.00-3-100	---	
8,0	TB-008.00-3-100-MK2/S20	-0,05/+0,20		500308	4	TM-008.00-3-100	TG-008.00-3-100	---	
9,0	TB-009.00-3-100-MK2/S20	-0,05/+0,40		500300	4	TM-009.00-3-100	TG-009.00-3-100	---	
10,0	TB-010.00-3-100-MK2/S20	-0,05/+0,40	S 20	500300	4	TM-010.00-3-100	TG-010.00-3-100	---	TX1.1 S20
11,0	TB-011.00-3-100-MK2/S20	-0,05/+0,40	Ø20x50	500300	4	TM-011.00-3-100	TG-011.00-3-100	---	
12,0	TB-012.00-3-100-MK2/S20	-0,05/+0,40		500301	4	TM-012.00-3-100	TG-012.00-3-100	---	
13,0	TB-013.00-3-100-MK2/S20	-0,05/+0,40		500301	4	TM-013.00-3-100	TG-013.00-3-100	---	
14,0	TB-014.00-3-100-MK2/S20	-0,05/+0,40		500301	4	TM-014.00-3-100	TG-014.00-3-100	---	

Roller burnishing tools for thru and blind holes

Thru holes series TH: diameter range from Ø15 to Ø21 mm

Blind holes series TB: diameter range from Ø15 to Ø21 mm



- | | | |
|-----------------|------------------|--------------------------|
| 1 - Cone | 5 - Thrust ring | 9 - Housing |
| 2 - Rollers | 6 - Spring | 10 - Adjustment gear |
| 3 - Cage | 7 - Thrust ring | 11 - Pin |
| 4 - Housing nut | 8 - Ball bearing | 12 - Adjustment nut lock |
| | | 13 - Shank |

Thru holes series TH rolling length 50 mm self-feeding

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
15,0	TH-015.00-1-50-MK2/S20	-0,10/+0,90	MK2	500111	5	TM-015.00-1	TG-015.00-1-50	---	TX1.2-50-MK2
16,0	TH-016.00-1-50-MK2/S20	-0,10/+0,90		500111	5	TM-016.00-1	TG-016.00-1-50	---	
17,0	TH-017.00-1-50-MK2/S20	-0,10/+0,90		500111	5	TM-017.00-1	TG-017.00-1-50	---	
18,0	TH-018.00-1-50-MK2/S20	-0,10/+0,90	S 20	500111	5	TM-018.00-1	TG-018.00-1-50	---	TX1.2-50-S20
19,0	TH-019.00-1-50-MK2/S20	-0,10/+0,90	Ø20x50	500112	5	TM-019.00-1	TG-019.00-1-50	---	
20,0	TH-020.00-1-50-MK2/S20	-0,10/+0,90		500112	5	TM-020.00-1	TG-020.00-1-50	---	
21,0	TH-021.00-1-50-MK2/S20	-0,10/+0,90		500112	5	TM-021.00-1	TG-021.00-1-50	---	

Blind holes series TB rolling length 50 mm

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
15,0	TB-015.00-3-50-MK2/S20	-0,05/+0,40	MK2	500310	5	TM-015.00-3	TG-015.00-3-50	---	TX1.2-50-MK2
16,0	TB-016.00-3-50-MK2/S20	-0,05/+0,40		500310	5	TM-016.00-3	TG-016.00-3-50	---	
17,0	TB-017.00-3-50-MK2/S20	-0,05/+0,40		500310	5	TM-017.00-3	TG-017.00-3-50	---	
18,0	TB-018.00-3-50-MK2/S20	-0,05/+0,40	S 20	500310	5	TM-018.00-3	TG-018.00-3-50	---	TX1.2-50-S20
19,0	TB-019.00-3-50-MK2/S20	-0,05/+0,40	Ø20x50	500311	5	TM-019.00-3	TG-019.00-3-50	---	
20,0	TB-020.00-3-50-MK2/S20	-0,05/+0,40		500311	5	TM-020.00-3	TG-020.00-3-50	---	
21,0	TB-021.00-3-50-MK2/S20	-0,05/+0,40		500311	5	TM-021.00-3	TG-021.00-3-50	---	

Thru holes series TH rolling length 100 mm self-feeding

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
15,0	TH-015.00-1-100-MK2/S20	-0,10/+0,90	MK2	500111	5	TM-015.00-1	TG-015.00-1-100	---	TX1.2-100-MK2
16,0	TH-016.00-1-100-MK2/S20	-0,10/+0,90		500111	5	TM-016.00-1	TG-016.00-1-100	---	
17,0	TH-017.00-1-100-MK2/S20	-0,10/+0,90		500111	5	TM-017.00-1	TG-017.00-1-100	---	
18,0	TH-018.00-1-100-MK2/S20	-0,10/+0,90	S 20	500111	5	TM-018.00-1	TG-018.00-1-100	---	TX1.2-100-S20
19,0	TH-019.00-1-100-MK2/S20	-0,10/+0,90	Ø20x50	500112	5	TM-019.00-1	TG-019.00-1-100	---	
20,0	TH-020.00-1-100-MK2/S20	-0,10/+0,90		500112	5	TM-020.00-1	TG-020.00-1-100	---	
21,0	TH-021.00-1-100-MK2/S20	-0,10/+0,90		500112	5	TM-021.00-1	TG-021.00-1-100	---	

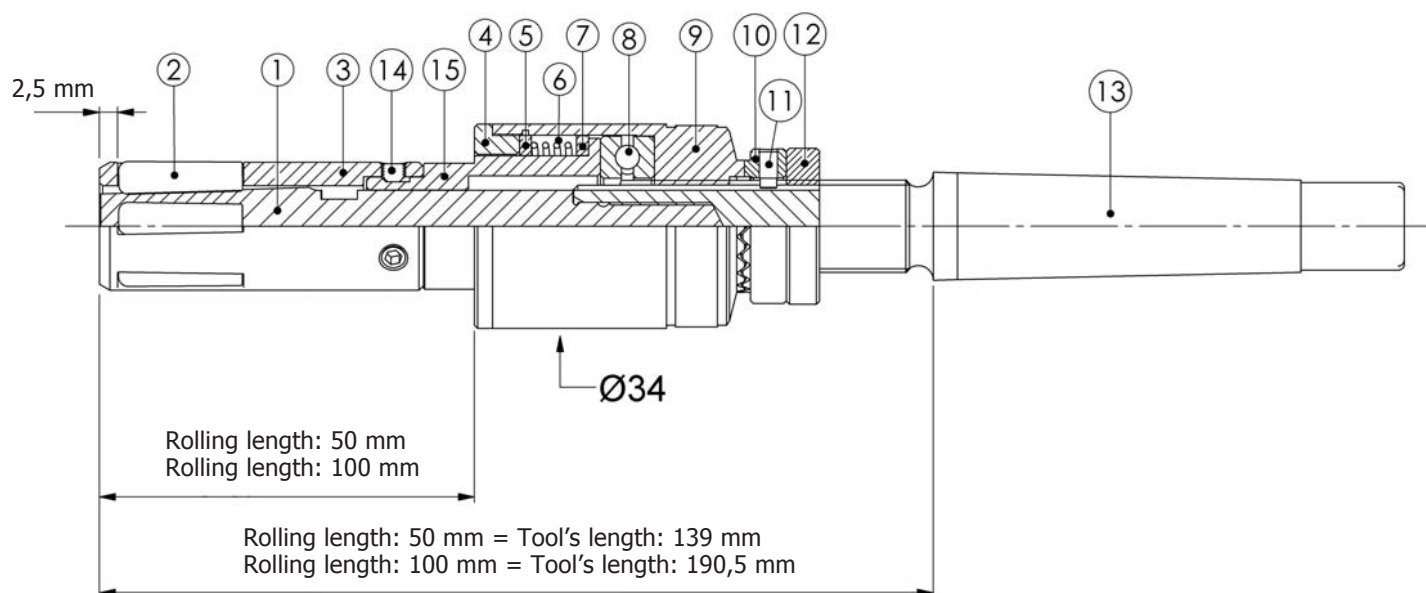
Blind holes series TB rolling length 100 mm

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
15,0	TB-015.00-3-100-MK2/S20	-0,05/+0,40	MK2	500310	5	TM-015.00-3	TG-015.00-3-100	---	TX1.2-100-MK2
16,0	TB-016.00-3-100-MK2/S20	-0,05/+0,40		500310	5	TM-016.00-3	TG-016.00-3-100	---	
17,0	TB-017.00-3-100-MK2/S20	-0,05/+0,40		500310	5	TM-017.00-3	TG-017.00-3-100	---	
18,0	TB-018.00-3-100-MK2/S20	-0,05/+0,40	S 20	500310	5	TM-018.00-3	TG-018.00-3-100	---	TX1.2-100-S20
19,0	TB-019.00-3-100-MK2/S20	-0,05/+0,40	Ø20x50	500311	5	TM-019.00-3	TG-019.00-3-100	---	
20,0	TB-020.00-3-100-MK2/S20	-0,05/+0,40		500311	5	TM-020.00-3	TG-020.00-3-100	---	
21,0	TB-021.00-3-100-MK2/S20	-0,05/+0,40		500311	5	TM-021.00-3	TG-021.00-3-100	---	

Roller burnishing tools for thru and blind holes

Thru holes series TH: diameter range from Ø22 to Ø31 mm

Blind holes series TB: diameter range from Ø22 to Ø31 mm



- | | | |
|-----------------|----------------------|--------------------------|
| 1 - Cone | 6 - Spring | 11 - Pin |
| 2 - Rollers | 7 - Thrust ring | 12 - Adjustment nut lock |
| 3 - Cage | 8 - Ball bearing | 13 - Shank |
| 4 - Housing nut | 9 - Housing | 14 - Screw |
| 5 - Thrust ring | 10 - Adjustment gear | 15 - Sleeve |

Thru holes series TH rolling length 50 mm self-feeding

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
22,0	TH-022.00-1-50-MK2/S20	-0,10/+0,90	MK2 S 20 Ø20x50	500112	5	TM-022.00-1	TG-022.00-1	TSL3001	TX1.2-50-MK2 TX1.2-50-S20
23,0	TH-023.00-1-50-MK2/S20	-0,10/+0,90		500112	5	TM-023.00-1	TG-023.00-1	TSL3001	
24,0	TH-024.00-1-50-MK2/S20	-0,10/+0,90		500112	5	TM-024.00-1	TG-024.00-1	TSL3001	
25,0	TH-025.00-1-50-MK2/S20	-0,10/+0,90		500113	5	TM-025.00-1	TG-025.00-1	TSL3007	
26,0	TH-026.00-1-50-MK2/S20	-0,10/+0,90		500113	5	TM-026.00-1	TG-026.00-1	TSL3007	
27,0	TH-027.00-1-50-MK2/S20	-0,10/+0,90		500113	5	TM-027.00-1	TG-027.00-1	TSL3007	
28,0	TH-028.00-1-50-MK2/S20	-0,10/+0,90		500109	5	TM-028.00-1	TG-028.00-1	TSL3007	
29,0	TH-029.00-1-50-MK2/S20	-0,10/+0,90		500109	5	TM-029.00-1	TG-029.00-1	TSL3007	
30,0	TH-030.00-1-50-MK2/S20	-0,10/+0,90		500109	5	TM-030.00-1	TG-030.00-1	TSL3007	
31,0	TH-031.00-1-50-MK2/S20	-0,10/+0,90		500109	5	TM-031.00-1	TG-031.00-1	TSL3007	

Blind holes series TB rolling length 50 mm

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
22,0	TB-022.00-3-50-MK2/S20	-0,05/+0,40	MK2 S 20 Ø20x50	500311	5	TM-022.00-3	TG-022.00-3	TSL3001	TX1.2-50-MK2 TX1.2-50-S20
23,0	TB-023.00-3-50-MK2/S20	-0,05/+0,40		500311	5	TM-023.00-3	TG-023.00-3	TSL3001	
24,0	TB-024.00-3-50-MK2/S20	-0,05/+0,40		500311	5	TM-024.00-3	TG-024.00-3	TSL3001	
25,0	TB-025.00-3-50-MK2/S20	-0,05/+0,40		500312	5	TM-025.00-3	TG-025.00-3	TSL3007	
26,0	TB-026.00-3-50-MK2/S20	-0,05/+0,40		500312	5	TM-026.00-3	TG-026.00-3	TSL3007	
27,0	TB-027.00-3-50-MK2/S20	-0,05/+0,40		500312	5	TM-027.00-3	TG-027.00-3	TSL3007	
28,0	TB-028.00-3-50-MK2/S20	-0,05/+0,40		500307	5	TM-028.00-3	TG-028.00-3	TSL3007	
29,0	TB-029.00-3-50-MK2/S20	-0,05/+0,40		500307	5	TM-029.00-3	TG-029.00-3	TSL3007	
30,0	TB-030.00-3-50-MK2/S20	-0,05/+0,40		500307	5	TM-030.00-3	TG-030.00-3	TSL3007	
31,0	TB-031.00-3-50-MK2/S20	-0,05/+0,40		500307	5	TM-031.00-3	TG-031.00-3	TSL3007	

Thru holes series TH rolling length 100 mm self-feeding

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
22,0	TH-022.00-1-100-MK2/S20	-0,10/+0,90	MK2 S 20 Ø20x50	500112	5	TM-022.00-1	TG-022.00-1	TSL3002	TX1.2-100-MK2 TX1.2-100-S20
23,0	TH-023.00-1-100-MK2/S20	-0,10/+0,90		500112	5	TM-023.00-1	TG-023.00-1	TSL3002	
24,0	TH-024.00-1-100-MK2/S20	-0,10/+0,90		500112	5	TM-024.00-1	TG-024.00-1	TSL3002	
25,0	TH-025.00-1-100-MK2/S20	-0,10/+0,90		500113	5	TM-025.00-1	TG-025.00-1	TSL3008	
26,0	TH-026.00-1-100-MK2/S20	-0,10/+0,90		500113	5	TM-026.00-1	TG-026.00-1	TSL3008	
27,0	TH-027.00-1-100-MK2/S20	-0,10/+0,90		500113	5	TM-027.00-1	TG-027.00-1	TSL3008	
28,0	TH-028.00-1-100-MK2/S20	-0,10/+0,90		500109	5	TM-028.00-1	TG-028.00-1	TSL3008	
29,0	TH-029.00-1-100-MK2/S20	-0,10/+0,90		500109	5	TM-029.00-1	TG-029.00-1	TSL3008	
30,0	TH-030.00-1-100-MK2/S20	-0,10/+0,90		500109	5	TM-030.00-1	TG-030.00-1	TSL3008	
31,0	TH-031.00-1-100-MK2/S20	-0,10/+0,90		500109	5	TM-031.00-1	TG-031.00-1	TSL3008	

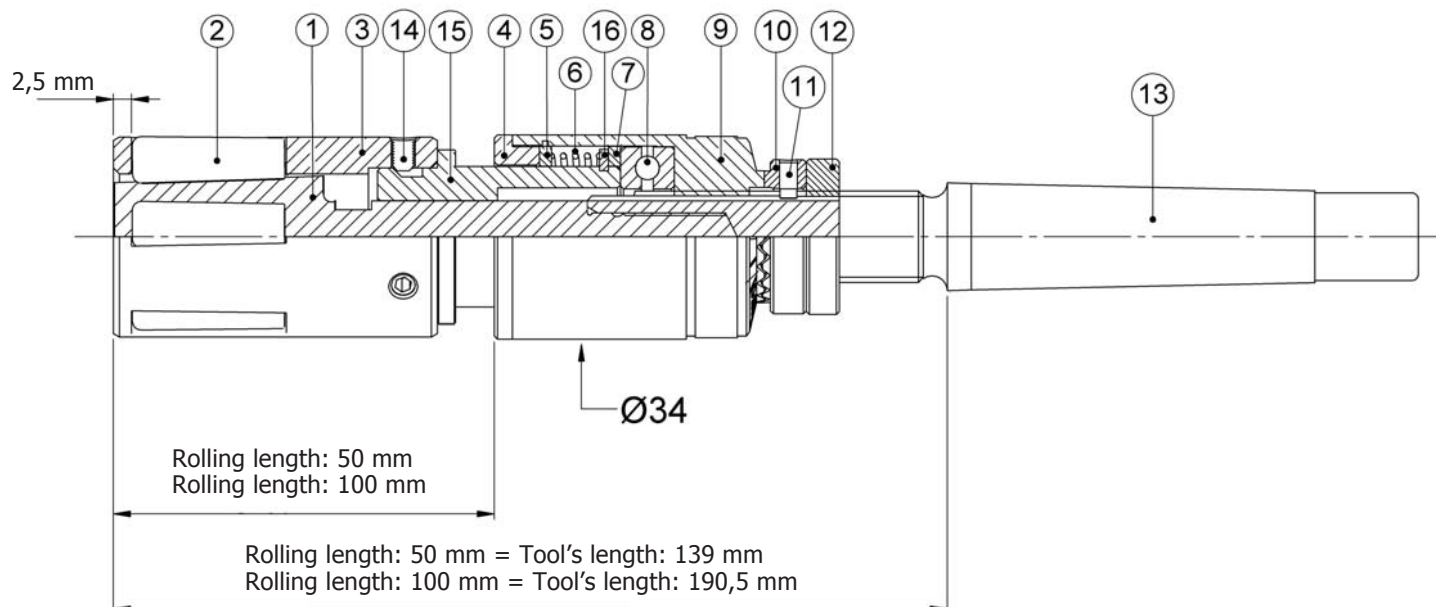
Blind holes series TB rolling length 100 mm

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
22,0	TB-022.00-3-100-MK2/S20	-0,05/+0,40	MK2 S 20 Ø20x50	500311	5	TM-022.00-3	TG-022.00-3	TSL3002	TX1.2-100-MK2 TX1.2-100-S20
23,0	TB-023.00-3-100-MK2/S20	-0,05/+0,40		500311	5	TM-023.00-3	TG-023.00-3	TSL3002	
24,0	TB-024.00-3-100-MK2/S20	-0,05/+0,40		500311	5	TM-024.00-3	TG-024.00-3	TSL3002	
25,0	TB-025.00-3-100-MK2/S20	-0,05/+0,40		500312	5	TM-025.00-3	TG-025.00-3	TSL3008	
26,0	TB-026.00-3-100-MK2/S20	-0,05/+0,40		500312	5	TM-026.00-3	TG-026.00-3	TSL3008	
27,0	TB-027.00-3-100-MK2/S20	-0,05/+0,40		500312	5	TM-027.00-3	TG-027.00-3	TSL3008	
28,0	TB-028.00-3-100-MK2/S20	-0,05/+0,40		500307	5	TM-028.00-3	TG-028.00-3	TSL3008	
29,0	TB-029.00-3-100-MK2/S20	-0,05/+0,40		500307	5	TM-029.00-3	TG-029.00-3	TSL3008	
30,0	TB-030.00-3-100-MK2/S20	-0,05/+0,40		500307	5	TM-030.00-3	TG-030.00-3	TSL3008	
31,0	TB-031.00-3-100-MK2/S20	-0,05/+0,40		500307	5	TM-031.00-3	TG-031.00-3	TSL3008	

Roller burnishing tools for thru and blind holes

Thru holes series TH: diameter range from Ø32 to Ø34 mm

Blind holes series TB: diameter range from Ø32 to Ø34 mm



- | | | | |
|-----------------|------------------|--------------------------|-------------------|
| 1 - Cone | 5 - Thrust ring | 9 - Housing | 13 - Shank |
| 2 - Rollers | 6 - Spring | 10 - Adjustment gear | 14 - Screw |
| 3 - Cage | 7 - Thrust ring | 11 - Pin | 15 - Sleeve |
| 4 - Housing nut | 8 - Ball bearing | 12 - Adjustment nut lock | 16 - Locking ring |

Thru holes series TH rolling length 50 mm self-feeding

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
32,0	TH-032.00-1-50-MK2/S20	-0,10/+0,90	MK2	500109	5	TM-032.00-1	TG-032.00-1	TSL3013	TX1.3-50-MK2
33,0	TH-033.00-1-50-MK2/S20	-0,10/+0,90	S 20	500109	5	TM-033.00-1	TG-033.00-1	TSL3013	TX1.3-50-S20
34,0	TH-034.00-1-50-MK2/S20	-0,10/+0,90	Ø20x50	500109	5	TM-034.00-1	TG-034.00-1	TSL3013	

Blind holes series TB rolling length 50 mm

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
32,0	TB-032.00-3-50-MK2/S20	-0,05/+0,40	MK2	500307	5	TM-032.00-3	TG-032.00-3	TSL3013	TX1.3-50-MK2
33,0	TB-033.00-3-50-MK2/S20	-0,05/+0,40	S 20	500307	5	TM-033.00-3	TG-033.00-3	TSL3013	TX1.3-50-S20
34,0	TB-034.00-3-50-MK2/S20	-0,05/+0,40	Ø20x50	500307	5	TM-034.00-3	TG-034.00-3	TSL3013	

Thru holes series TH rolling length 100 mm self-feeding

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
32,0	TH-032.00-1-100-MK2/S20	-0,10/+0,90	MK2	500109	5	TM-032.00-1	TG-032.00-1	TSL3014	TX1.3-100-MK2
33,0	TH-033.00-1-100-MK2/S20	-0,10/+0,90	S 20	500109	5	TM-033.00-1	TG-033.00-1	TSL3014	TX1.3-100-S20
34,0	TH-034.00-1-100-MK2/S20	-0,10/+0,90	Ø20x50	500109	5	TM-034.00-1	TG-034.00-1	TSL3014	

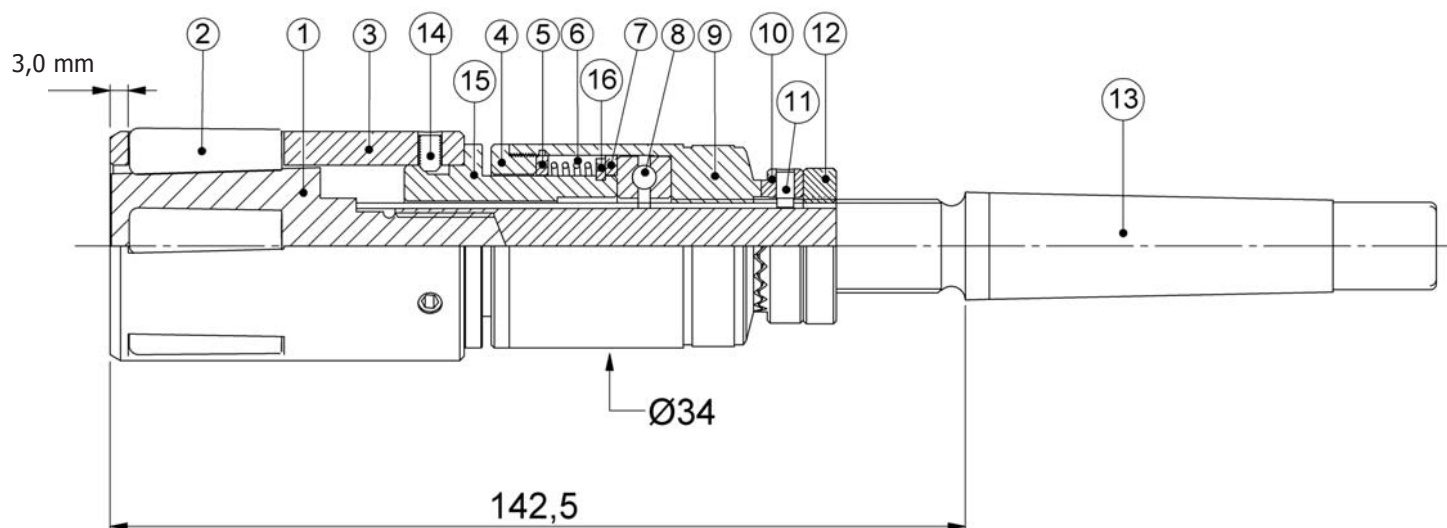
Blind holes series TB rolling length 100 mm

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
32,0	TB-032.00-3-100-MK2/S20	-0,05/+0,40	MK2	00307	5	TM-032.00-3	TG-032.00-3	TSL3014	TX1.3-100-MK2
33,0	TB-033.00-3-100-MK2/S20	-0,05/+0,40	S 20	500307	5	TM-033.00-3	TG-033.00-3	TSL3014	TX1.3-100-S20
34,0	TB-034.00-3-100-MK2/S20	-0,05/+0,40	Ø20x50	500307	5	TM-034.00-3	TG-034.00-3	TSL3014	

Roller burnishing tools for thru and blind holes

Thru holes series TH: diameter range from Ø35 to Ø49 mm

Blind holes series TB: diameter range from Ø35 to Ø49 mm



- | | | | |
|-----------------|------------------|--------------------------|-------------------|
| 1 - Cone | 5 - Thrust ring | 9 - Housing | 13 - Shank |
| 2 - Rollers | 6 - Spring | 10 - Adjustment gear | 14 - Screw |
| 3 - Cage | 7 - Thrust ring | 11 - Pin | 15 - Sleeve |
| 4 - Housing nut | 8 - Ball bearing | 12 - Adjustment nut lock | 16 - Locking ring |

Thru holes series TH unlimited rolling length self-feeding

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
35,0	TH-035.00-1-MK2/S20	-0,10/+0,90	MK2	500109	6	TM-035.00-1	TG-035.00-1	TSL3019	TX1.3-IL-MK2
36,0	TH-036.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-036.00-1	TG-036.00-1	TSL3019	
37,0	TH-037.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-037.00-1	TG-037.00-1	TSL3020	
38,0	TH-038.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-038.00-1	TG-038.00-1	TSL3020	
39,0	TH-039.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-039.00-1	TG-039.00-1	TSL3020	
40,0	TH-040.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-040.00-1	TG-040.00-1	TSL3020	
41,0	TH-041.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-041.00-1	TG-041.00-1	TSL3021	
42,0	TH-042.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-042.00-1	TG-042.00-1	TSL3021	
43,0	TH-043.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-043.00-1	TG-043.00-1	TSL3021	
44,0	TH-044.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-044.00-1	TG-044.00-1	TSL3021	
45,0	TH-045.00-1-MK2/S20	-0,10/+0,90	S 20	500109	6	TM-045.00-1	TG-045.00-1	TSL3021	TX1.3-IL-S20
46,0	TH-046.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-046.00-1	TG-046.00-1	TSL3022	
47,0	TH-047.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-047.00-1	TG-047.00-1	TSL3022	
48,0	TH-048.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-048.00-1	TG-048.00-1	TSL3022	
49,0	TH-049.00-1-MK2/S20	-0,10/+0,90		500109	6	TM-049.00-1	TG-049.00-1	TSL3022	

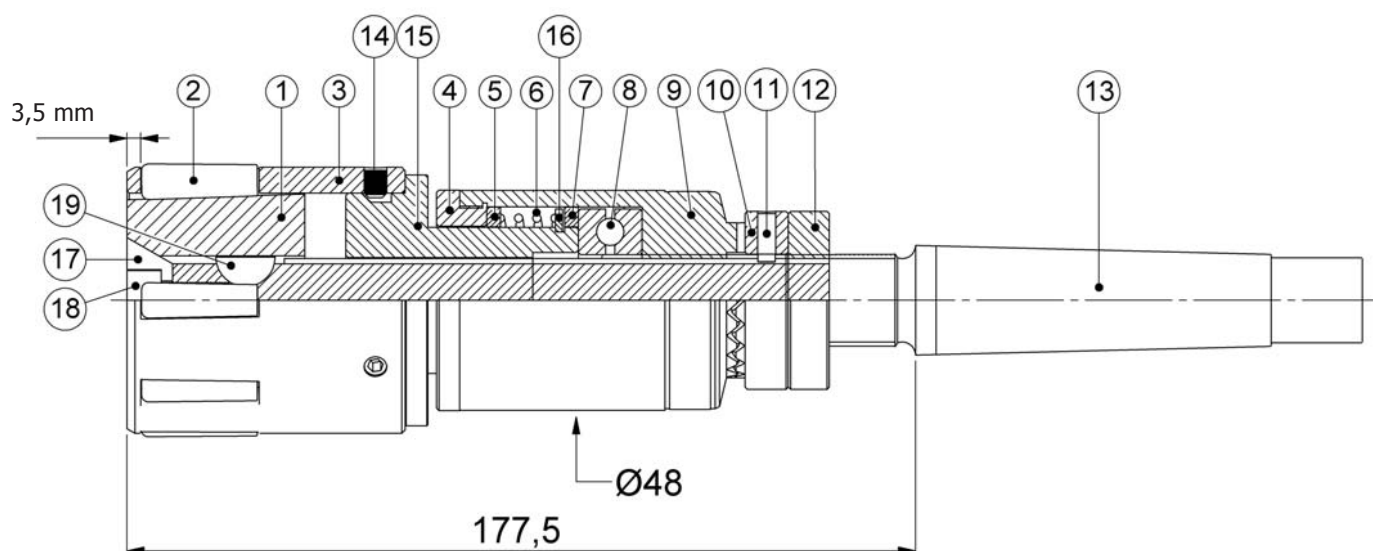
Blind holes series TB unlimited rolling length

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
35,0	TB-035.00-3-MK2/S20	-0,05/+0,40	MK2	500307	6	TM-035.00-3	TG-035.00-3	TSL3019	TX1.3-IL-MK2
36,0	TB-036.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-036.00-3	TG-036.00-3	TSL3019	
37,0	TB-037.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-037.00-3	TG-037.00-3	TSL3020	
38,0	TB-038.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-038.00-3	TG-038.00-3	TSL3020	
39,0	TB-039.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-039.00-3	TG-039.00-3	TSL3020	
40,0	TB-040.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-040.00-3	TG-040.00-3	TSL3020	
41,0	TB-041.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-041.00-3	TG-041.00-3	TSL3021	
42,0	TB-042.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-042.00-3	TG-042.00-3	TSL3021	
43,0	TB-043.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-043.00-3	TG-043.00-3	TSL3021	
44,0	TB-044.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-044.00-3	TG-044.00-3	TSL3021	
45,0	TB-045.00-3-MK2/S20	-0,05/+0,40	S 20	500307	6	TM-045.00-3	TG-045.00-3	TSL3021	TX1.3-IL-S20
46,0	TB-046.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-046.00-3	TG-046.00-3	TSL3022	
47,0	TB-047.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-047.00-3	TG-047.00-3	TSL3022	
48,0	TB-048.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-048.00-3	TG-048.00-3	TSL3022	
49,0	TB-049.00-3-MK2/S20	-0,05/+0,40		500307	6	TM-049.00-3	TG-049.00-3	TSL3022	

Roller burnishing tools for thru and blind holes

Thru holes series TH: diameter range from Ø50 to Ø80 mm

Blind holes series TB: diameter range from Ø50 to Ø80 mm



- | | | | | |
|-----------------|------------------|--------------------------|-------------------|-------------------|
| 1 - Cone | 5 - Thrust ring | 9 - Housing | 13 - Shank | 17 - Conical ring |
| 2 - Rollers | 6 - Spring | 10 - Adjustment gear | 14 - Screw | 18 - Screw |
| 3 - Cage | 7 - Thrust ring | 11 - Pin | 15 - Sleeve | 19 - Wedge |
| 4 - Housing nut | 8 - Ball bearing | 12 - Adjustment nut lock | 16 - Locking ring | |

Thru holes series TH unlimited rolling length self-feeding

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
50,0	TH-050.00-1-MK3/S25	-0,10/+0,90	MK3 S 25 Ø25x56	500109	8	TM-050.00-1	TG-050.00-1	TSL3023	TX2 MK3 TX2 S25
51,0	TH-051.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-051.00-1	TG-051.00-1	TSL3023	
52,0	TH-052.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-052.00-1	TG-052.00-1	TSL3024	
53,0	TH-053.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-053.00-1	TG-053.00-1	TSL3024	
54,0	TH-054.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-054.00-1	TG-054.00-1	TSL3024	
55,0	TH-055.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-055.00-1	TG-055.00-1	TSL3025	
56,0	TH-056.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-056.00-1	TG-056.00-1	TSL3025	
57,0	TH-057.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-057.00-1	TG-057.00-1	TSL3025	
58,0	TH-058.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-058.00-1	TG-058.00-1	TSL3026	
59,0	TH-059.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-059.00-1	TG-059.00-1	TSL3026	
60,0	TH-060.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-060.00-1	TG-060.00-1	TSL3026	
61,0	TH-061.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-061.00-1	TG-061.00-1	TSL3027	
62,0	TH-062.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-062.00-1	TG-062.00-1	TSL3027	
63,0	TH-063.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-063.00-1	TG-063.00-1	TSL3027	
64,0	TH-064.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-064.00-1	TG-064.00-1	TSL3028	
65,0	TH-065.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-065.00-1	TG-065.00-1	TSL3028	
66,0	TH-066.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-066.00-1	TG-066.00-1	TSL3028	
67,0	TH-067.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-067.00-1	TG-067.00-1	TSL3029	
68,0	TH-068.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-068.00-1	TG-068.00-1	TSL3029	
69,0	TH-069.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-069.00-1	TG-069.00-1	TSL3029	
70,0	TH-070.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-070.00-1	TG-070.00-1	TSL3030	
71,0	TH-071.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-071.00-1	TG-071.00-1	TSL3030	
72,0	TH-072.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-072.00-1	TG-072.00-1	TSL3030	
73,0	TH-073.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-073.00-1	TG-073.00-1	TSL3031	
74,0	TH-074.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-074.00-1	TG-074.00-1	TSL3031	
75,0	TH-075.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-075.00-1	TG-075.00-1	TSL3031	
76,0	TH-076.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-076.00-1	TG-076.00-1	TSL3032	
77,0	TH-077.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-077.00-1	TG-077.00-1	TSL3032	
78,0	TH-078.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-078.00-1	TG-078.00-1	TSL3032	
79,0	TH-079.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-079.00-1	TG-079.00-1	TSL3033	
80,0	TH-080.00-1-MK3/S25	-0,10/+0,90		500109	8	TM-080.00-1	TG-080.00-1	TSL3033	

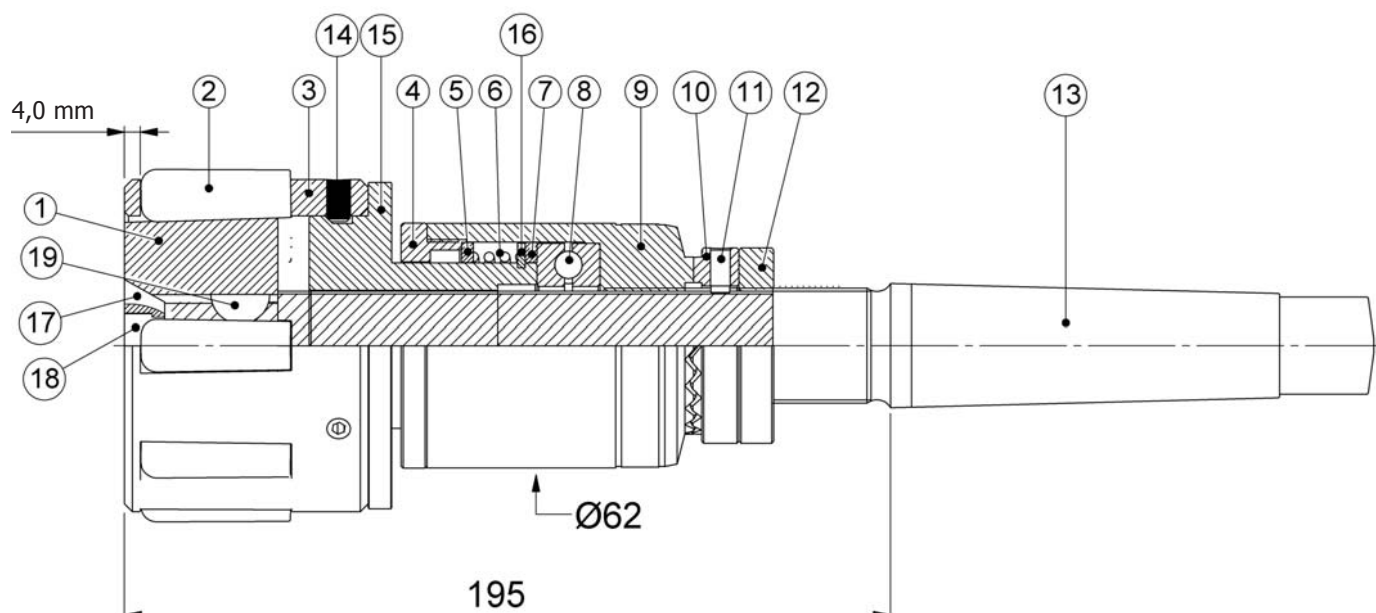
Blind holes series TB unlimited rolling length

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
50,0	TB-050.00-3-MK3/S25	-0,10/+0,90	MK3 S 25 Ø25x56	500307	8	TM-050.00-3	TG-050.00-3	TSL3023	TX2 MK3 TX2 S25
51,0	TB-051.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-051.00-3	TG-051.00-3	TSL3023	
52,0	TB-052.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-052.00-3	TG-052.00-3	TSL3024	
53,0	TB-053.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-053.00-3	TG-053.00-3	TSL3024	
54,0	TB-054.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-054.00-3	TG-054.00-3	TSL3024	
55,0	TB-055.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-055.00-3	TG-055.00-3	TSL3025	
56,0	TB-056.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-056.00-3	TG-056.00-3	TSL3025	
57,0	TB-057.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-057.00-3	TG-057.00-3	TSL3025	
58,0	TB-058.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-058.00-3	TG-058.00-3	TSL3026	
59,0	TB-059.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-059.00-3	TG-059.00-3	TSL3026	
60,0	TB-060.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-060.00-3	TG-060.00-3	TSL3026	
61,0	TB-061.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-061.00-3	TG-061.00-3	TSL3027	
62,0	TB-062.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-062.00-3	TG-062.00-3	TSL3027	
63,0	TB-063.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-063.00-3	TG-063.00-3	TSL3027	
64,0	TB-064.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-064.00-3	TG-064.00-3	TSL3028	
65,0	TB-065.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-065.00-3	TG-065.00-3	TSL3028	
66,0	TB-066.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-066.00-3	TG-066.00-3	TSL3028	
67,0	TB-067.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-067.00-3	TG-067.00-3	TSL3029	
68,0	TB-068.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-068.00-3	TG-068.00-3	TSL3029	
69,0	TB-069.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-069.00-3	TG-069.00-3	TSL3029	
70,0	TB-070.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-070.00-3	TG-070.00-3	TSL3030	
71,0	TB-071.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-071.00-3	TG-071.00-3	TSL3030	
72,0	TB-072.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-072.00-3	TG-072.00-3	TSL3030	
73,0	TB-073.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-073.00-3	TG-073.00-3	TSL3031	
74,0	TB-074.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-074.00-3	TG-074.00-3	TSL3031	
75,0	TB-075.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-075.00-3	TG-075.00-3	TSL3031	
76,0	TB-076.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-076.00-3	TG-076.00-3	TSL3032	
77,0	TB-077.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-077.00-3	TG-077.00-3	TSL3032	
78,0	TB-078.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-078.00-3	TG-078.00-3	TSL3032	
79,0	TB-079.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-079.00-3	TG-079.00-3	TSL3033	
80,0	TB-080.00-3-MK3/S25	-0,10/+0,90		500307	8	TM-080.00-3	TG-080.00-3	TSL3033	

Roller burnishing tools for thru and blind holes

Thru holes series TH: diameter range from Ø81 to Ø100 mm

Blind holes series TB: diameter range from Ø81 to Ø100 mm



- | | | | | |
|-----------------|------------------|--------------------------|-------------------|-------------------|
| 1 - Cone | 5 - Thrust ring | 9 - Housing | 13 - Shank | 17 - Conical ring |
| 2 - Rollers | 6 - Spring | 10 - Adjustment gear | 14 - Screw | 18 - Screw |
| 3 - Cage | 7 - Thrust ring | 11 - Pin | 15 - Sleeve | 19 - Wedge |
| 4 - Housing nut | 8 - Ball bearing | 12 - Adjustment nut lock | 16 - Locking ring | |

Thru holes series TH unlimited rolling length self-feeding

Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
81,0	TH-081.00-1-MK4/S32	-0,10/+0,90	MK4 S 32 Ø32x60	500107	8	TM-081.00-1	TG-081.00-1	TSL0703	TX3 MK4 TX3 S32
82,0	TH-082.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-082.00-1	TG-082.00-1	TSL0703	
83,0	TH-083.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-083.00-1	TG-083.00-1	TSL0703	
84,0	TH-084.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-084.00-1	TG-084.00-1	TSL0703	
85,0	TH-085.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-085.00-1	TG-085.00-1	TSL0703	
86,0	TH-086.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-086.00-1	TG-086.00-1	TSL0703	
87,0	TH-087.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-087.00-1	TG-087.00-1	TSL0703	
88,0	TH-088.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-088.00-1	TG-088.00-1	TSL0703	
89,0	TH-089.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-089.00-1	TG-089.00-1	TSL0703	
90,0	TH-090.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-090.00-1	TG-090.00-1	TSL0703	
91,0	TH-091.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-091.00-1	TG-091.00-1	TSL0703	
92,0	TH-092.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-092.00-1	TG-092.00-1	TSL0703	
93,0	TH-093.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-093.00-1	TG-093.00-1	TSL0703	
94,0	TH-094.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-094.00-1	TG-094.00-1	TSL0703	
95,0	TH-095.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-095.00-1	TG-095.00-1	TSL0703	
96,0	TH-096.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-096.00-1	TG-096.00-1	TSL0703	
97,0	TH-097.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-097.00-1	TG-097.00-1	TSL0703	
98,0	TH-098.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-098.00-1	TG-098.00-1	TSL0703	
99,0	TH-099.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-099.00-1	TG-099.00-1	TSL0703	
100,0	TH-100.00-1-MK4/S32	-0,10/+0,90		500107	8	TM-100.00-1	TG-100.00-1	TSL0703	

Blind holes series TB unlimited rolling length

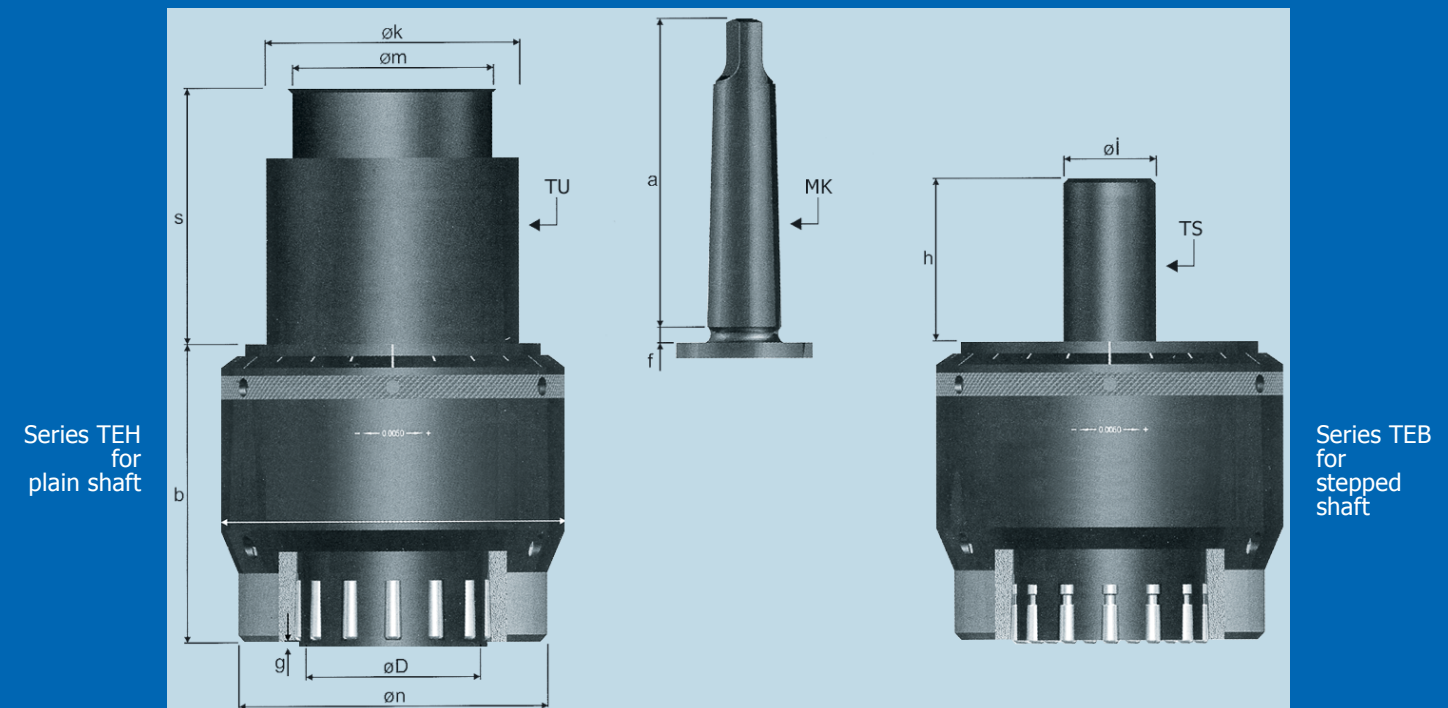
Hole Ø	Type of the tool	Adjustment	Shank	Rollers Type	Rollers No.	Cone	Cage	Sleeve	Tool body
81,0	TB-081.00-3-MK4/S32	-0,05/+0,40	MK4 S 32 Ø32x60	500306	8	TM-081.00-3	TG-081.00-3	TSL0703	TX3 MK4 TX3 S32
82,0	TB-082.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-082.00-3	TG-082.00-3	TSL0703	
83,0	TB-083.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-083.00-3	TG-083.00-3	TSL0703	
84,0	TB-084.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-084.00-3	TG-084.00-3	TSL0703	
85,0	TB-085.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-085.00-3	TG-085.00-3	TSL0703	
86,0	TB-086.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-086.00-3	TG-086.00-3	TSL0703	
87,0	TB-087.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-087.00-3	TG-087.00-3	TSL0703	
88,0	TB-088.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-088.00-3	TG-088.00-3	TSL0703	
89,0	TB-089.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-089.00-3	TG-089.00-3	TSL0703	
90,0	TB-090.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-090.00-3	TG-090.00-3	TSL0703	
91,0	TB-091.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-091.00-3	TG-091.00-3	TSL0703	
92,0	TB-092.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-092.00-3	TG-092.00-3	TSL0703	
93,0	TB-093.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-093.00-3	TG-093.00-3	TSL0703	
94,0	TB-094.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-094.00-3	TG-094.00-3	TSL0703	
95,0	TB-095.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-095.00-3	TG-095.00-3	TSL0703	
96,0	TB-096.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-096.00-3	TG-096.00-3	TSL0703	
97,0	TB-097.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-097.00-3	TG-097.00-3	TSL0703	
98,0	TB-098.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-098.00-3	TG-098.00-3	TSL0703	
99,0	TB-099.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-099.00-3	TG-099.00-3	TSL0703	
100,0	TB-100.00-3-MK4/S32	-0,05/+0,40		500306	8	TM-100.00-3	TG-100.00-3	TSL0703	

Series TE for outside diameters

Outside diameters for plain shafts series TEH from Ø 3 to 85 mm
Outside diameters for stepped shafts series TEB from Ø 3 to 85 mm

Technical characteristics

Roller burnishing tools for outside diameters series TE, thanks to their micrometric regulation's system can process burnishing in H8 tolerance: once adjusted on the diameter, they can process a high number of holes without any further regulations. These tools are capable to roller all kinds of materials with 1.400 N/mm² tensile strength and hardness up to max. 45 HRC. The tools work with a right hand rotation, it is possible to work with the rotation of the work piece or of the tool. These tools can be used on each type of machine tool. The adjustment capacity is 0,5 mm and the tool adjustment precision is 0,005mm. Two different types of tools can be produced: series TEH for plain shafts, series TEB for stepped shafts. Series TEH are supplied with self-feeding cage. On demand it is possible to supply the tool with a cage without self-feeding. In this case, the feed is mechanical. Series TEB are supplied only with a cage without self-feeding.



Tool structure

Roller burnishing tools series TE consist of a body and a rolling head. The tool body has a precious adjustment mechanism. Cage, cone and rollers are the parts of the rolling heads. The tool shank may be Morse Taper or cylindrical. Rolling lengths are related to shank selection. TU shanks have unlimited rolling length, while TS and MK shanks have a limited length (see table below).

Diameter range Ø	Tool shank Morse Taper or cylindrical shank			b	c	g	n	a	f
	For limited rolling length		For unlimited rolling length						
	MK	Cylindrical TS	Cylindrical TU						
03-14	MK2	Ø20 h6 x 50	Ø25 h6 x 60 drilled Ø15	min 95 / max 105	54	2,0	44	78,5	5
15-24	MK3	Ø25 h6 x 56	Ø40 h6 x 70 drilled Ø26	min 100 / max 110	74	2,5	62	98	5
25-49	MK4	Ø40 h6 x 70	Ø80 h6 x 90 drilled Ø50	min 119 / max 129	106	3,0	94	123	5
50-85	MK4	Ø40 h6 x 70	Ø110 h6 x 110 drilled Ø87	min 128 / max 138	149	3,5	138	123	5

Tool's characteristics

The roller burnishing tools series TE have a wide adjustment's range. For example, the roller burnishing tool type TEH-030.00-1-100-MK4 with a nominal size of 30 mm is capable to process all sizes between diameter 29,90 mm and diameter 30,40 mm. Tools for special diameters and lengths can be produced on request.

- **Choice of the tool** - Choose the tool according to the diameter to burnish and to the presence or not of a shoulder. The rolling length changes according to the type of the shank.

- **Processing diameter** - Select carefully the diameter that you need to process (e.g. 25,43...)

- **Choice of the cage** - To establish according to the machine and the workpiece.

- Automatic feeding (self-feeding) for outside diameters for plain shafts : **code 1**

- Machine feeding (not self-feeding) for outside diameters for plain shafts **only on request: code 2**

- Machine feeding (not self-feeding) for outside diameters for stepped shafts: **code 3**

- **Rolling lengths** - The rolling length changes according to the choice of the shank. The shanks TU have an unlimited rolling length. Shanks TS and MK have a limited rolling length. If you have to burnish a long workpiece a shank with unlimited rolling length is recommended.

- **Shanks** - According to your needs.

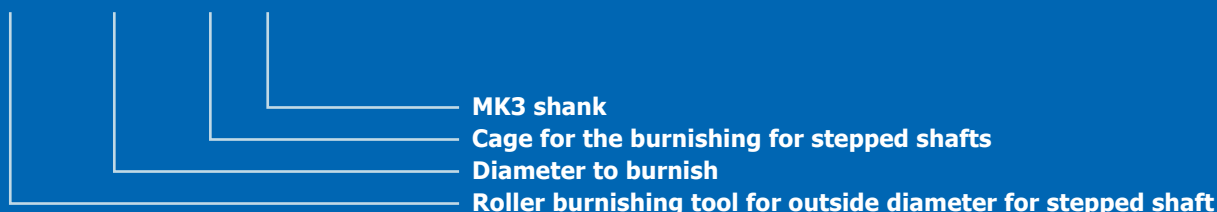
MK: Morse Taper for limited rolling lengths

TS: straight shank for limited rolling lengths

TU: straight shank for unlimited rolling lengths

Order sample : Roller burnishing tools for outside diameter 15 mm, rolling length 75 mm for stepped shaft, Morse Taper shank 3.

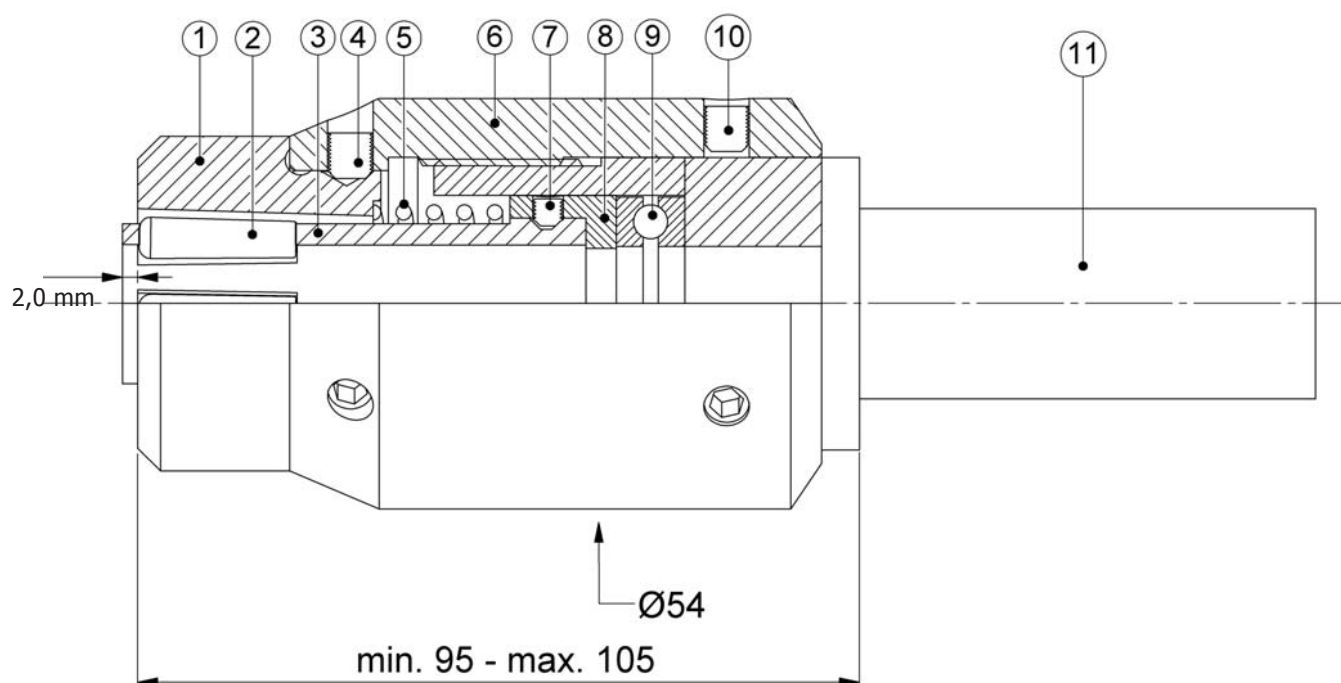
Code : **TEB - 015.00 - 3 - MK3**



Series TE for outside diameters

Outside diameters for plain shafts series TEH from diameter 3 to 14 mm

Outside diameters for stepped shafts series TEB from diameter 3 to 14 mm



- | | | |
|-------------|----------------|------------------|
| 1 - Cone | 5 - Spring | 9 - Ball bearing |
| 2 - Rollers | 6 - Housing | 10 - Screw |
| 3 - Cage | 7 - Screw | 11 - Shank |
| 4 - Screw | 8 - Frame ring | |

Outside diameters for plain shafts series TEH self-feeding

Ø	Type of the tool	Adjustment	Shanks			Rollers code	Rollers No.	Cone	Cage	Tool body
			MK	straight TS	straight TU					
3,0	TEH-003.00-1-XX	-0,10/+0,40	MK2	TS20	TU25	500112	3	TEM-003.00-1	TEG-003.00-1	TEX1
4,0	TEH-004.00-1-XX	-0,10/+0,40				500112	3	TEM-004.00-1	TEG-004.00-1	
5,0	TEH-005.00-1-XX	-0,10/+0,40				500112	3	TEM-005.00-1	TEG-005.00-1	
6,0	TEH-006.00-1-XX	-0,10/+0,40				500112	3	TEM-006.00-1	TEG-006.00-1	
7,0	TEH-007.00-1-XX	-0,10/+0,40				500112	3	TEM-007.00-1	TEG-007.00-1	
8,0	TEH-008.00-1-XX	-0,10/+0,40				500112	3	TEM-008.00-1	TEG-008.00-1	
9,0	TEH-009.00-1-XX	-0,10/+0,40				500112	4	TEM-009.00-1	TEG-009.00-1	
10,0	TEH-010.00-1-XX	-0,10/+0,40				500112	4	TEM-010.00-1	TEG-010.00-1	
11,0	TEH-011.00-1-XX	-0,10/+0,40				500112	4	TEM-011.00-1	TEG-011.00-1	
12,0	TEH-012.00-1-XX	-0,10/+0,40				500112	5	TEM-012.00-1	TEG-012.00-1	
13,0	TEH-013.00-1-XX	-0,10/+0,40				500112	5	TEM-013.00-1	TEG-013.00-1	
14,0	TEH-014.00-1-XX	-0,10/+0,40				500112	5	TEM-014.00-1	TEG-014.00-1	

Shank type MK2

Straight shank type TS Ø20x50

Straight shank type TU Ø25x60 drilled inside Ø15

rolling length 75 mm

rolling length 75 mm

unlimited rolling length

Outside diameters for stepped shafts series TEB

Ø	Type of the tool	Adjustment	Shanks			Rollers code	Rollers No.	Cone	Cage	Tool body
			MK	straight TS	straight TU					
3,0	TEB-003.00-3-XX	-0,10/+0,40	MK2	TS20	TU25	500311	3	TEM-003.00-3	TEG-003.00-3	TEX1
4,0	TEB-004.00-3-XX	-0,10/+0,40				500311	3	TEM-004.00-3	TEG-004.00-3	
5,0	TEB-005.00-3-XX	-0,10/+0,40				500311	3	TEM-005.00-3	TEG-005.00-3	
6,0	TEB-006.00-3-XX	-0,10/+0,40				500311	3	TEM-006.00-3	TEG-006.00-3	
7,0	TEB-007.00-3-XX	-0,10/+0,40				500311	3	TEM-007.00-3	TEG-007.00-3	
8,0	TEB-008.00-3-XX	-0,10/+0,40				500311	3	TEM-008.00-3	TEG-008.00-3	
9,0	TEB-009.00-3-XX	-0,10/+0,40				500311	4	TEM-009.00-3	TEG-009.00-3	
10,0	TEB-010.00-3-XX	-0,10/+0,40				500311	4	TEM-010.00-3	TEG-010.00-3	
11,0	TEB-011.00-3-XX	-0,10/+0,40				500311	4	TEM-011.00-3	TEG-011.00-3	
12,0	TEB-012.00-3-XX	-0,10/+0,40				500311	5	TEM-012.00-3	TEG-012.00-3	
13,0	TEB-013.00-3-XX	-0,10/+0,40				500311	5	TEM-013.00-3	TEG-013.00-3	
14,0	TEB-014.00-3-XX	-0,10/+0,40				500311	5	TEM-014.00-3	TEG-014.00-3	

Shank type MK2

Straight shank type TS Ø20x50

Straight shank type TU Ø25x60 drilled inside Ø15

rolling length 75 mm

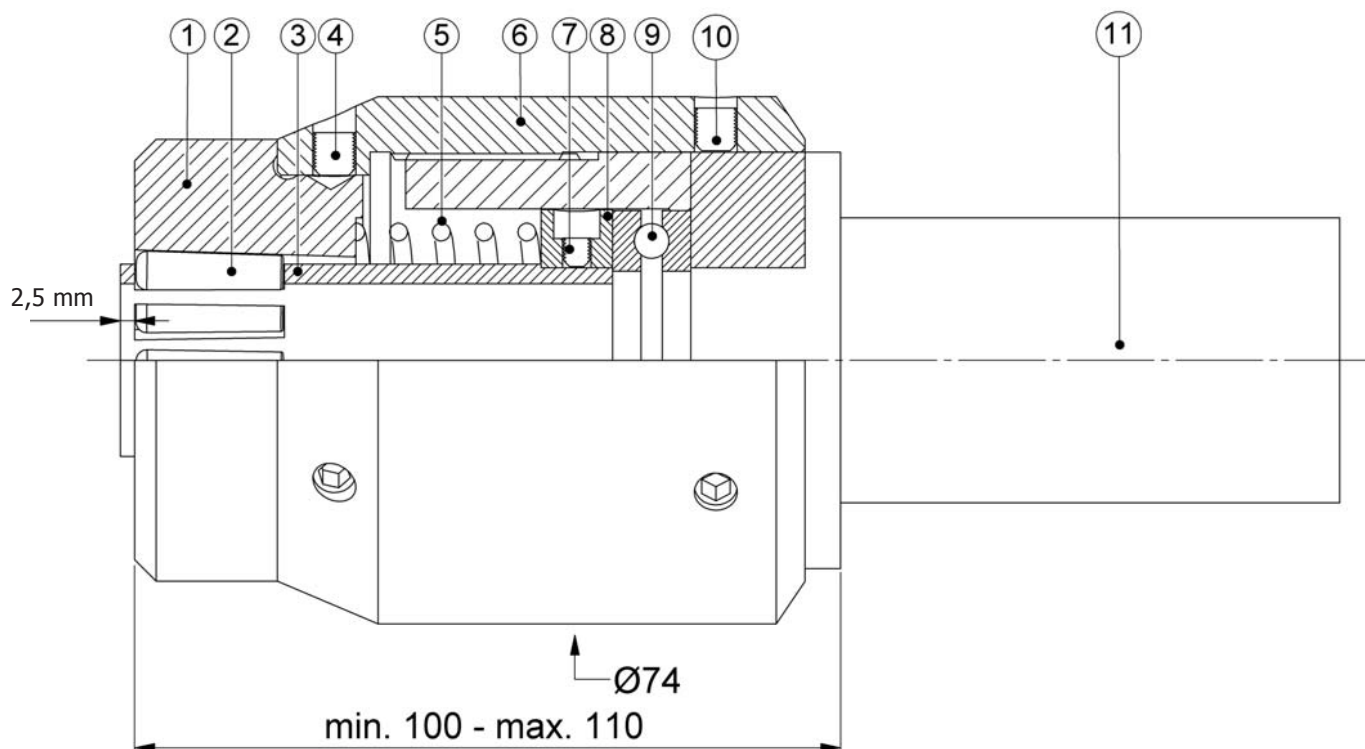
rolling length 75 mm

unlimited rolling length

Series TE for outside diameters

Outside diameters for plain shafts series TEH from diameter 15 to 24 mm

Outside diameters for stepped shafts series TEB from diameter 15 to 24 mm



- 1 - Cone 5 - Spring 9 - Ball bearing
2 - Rollers 6 - Housing 10 - Screw
3 - Cage 7 - Screw 11 - Shank
4 - Screw 8 - Frame ring

Outside diameters for plain shafts series TEH self-feeding

Ø	Type of the tool	Adjustment	Shanks			Rollers code	Rollers No.	Cone	Cage	Tool body
			MK	straight TS	straight TU					
15,0	TEH-015.00-1-XX	-0,10/+0,40	MK3	TS25	TU40	500112	5	TEM-015.00-1	TEG-015.00-1	TEX2
16,0	TEH-016.00-1-XX	-0,10/+0,40				500112	5	TEM-016.00-1	TEG-016.00-1	
17,0	TEH-017.00-1-XX	-0,10/+0,40				500112	5	TEM-017.00-1	TEG-017.00-1	
18,0	TEH-018.00-1-XX	-0,10/+0,40				500112	6	TEM-018.00-1	TEG-018.00-1	
19,0	TEH-019.00-1-XX	-0,10/+0,40				500112	6	TEM-019.00-1	TEG-019.00-1	
20,0	TEH-020.00-1-XX	-0,10/+0,40				500112	6	TEM-020.00-1	TEG-020.00-1	
21,0	TEH-021.00-1-XX	-0,10/+0,40				500112	6	TEM-021.00-1	TEG-021.00-1	
22,0	TEH-022.00-1-XX	-0,10/+0,40				500112	7	TEM-022.00-1	TEG-022.00-1	
23,0	TEH-023.00-1-XX	-0,10/+0,40				500112	7	TEM-023.00-1	TEG-023.00-1	
24,0	TEH-024.00-1-XX	-0,10/+0,40				500112	7	TEM-024.00-1	TEG-024.00-1	

Shank type MK3

Straight shank type TS Ø25x56

Straight shank type TU Ø40x70 drilled inside Ø26

rolling length 75 mm

rolling length 75 mm

unlimited rolling length

Outside diameters for stepped shafts series TEB

Ø	Type of the tool	Adjustment	Shanks			Rollers code	Rollers No.	Cone	Cage	Tool body
			MK	straight TS	straight TU					
15,0	TEB-015.00-3-XX	-0,10/+0,40	MK3	TS25	TU40	500311	5	TEM-015.00-3	TEG-015.00-3	TEX2
16,0	TEB-016.00-3-XX	-0,10/+0,40				500311	5	TEM-016.00-3	TEG-016.00-3	
17,0	TEB-017.00-3-XX	-0,10/+0,40				500311	5	TEM-017.00-3	TEG-017.00-3	
18,0	TEB-018.00-3-XX	-0,10/+0,40				500311	6	TEM-018.00-3	TEG-018.00-3	
19,0	TEB-019.00-3-XX	-0,10/+0,40				500311	6	TEM-019.00-3	TEG-019.00-3	
20,0	TEB-020.00-3-XX	-0,10/+0,40				500311	6	TEM-020.00-3	TEG-020.00-3	
21,0	TEB-021.00-3-XX	-0,10/+0,40				500311	6	TEM-021.00-3	TEG-021.00-3	
22,0	TEB-022.00-3-XX	-0,10/+0,40				500311	7	TEM-022.00-3	TEG-022.00-3	
23,0	TEB-023.00-3-XX	-0,10/+0,40				500311	7	TEM-023.00-3	TEG-023.00-3	
24,0	TEB-024.00-3-XX	-0,10/+0,40				500311	7	TEM-024.00-3	TEG-024.00-3	

Shank type MK3

Straight shank type TS Ø25x56

Straight shank type TU Ø40x70 drilled inside Ø26

rolling length 75 mm

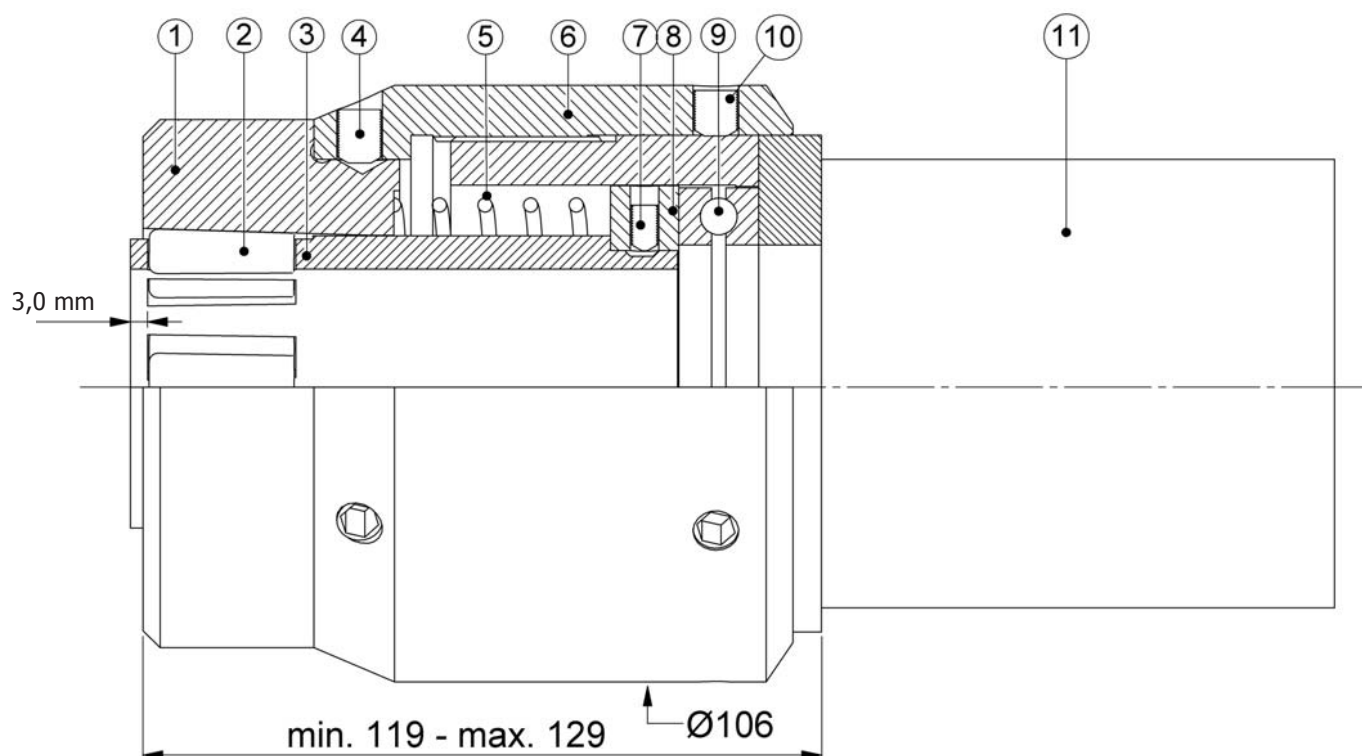
rolling length 75 mm

unlimited rolling length

Series TE for outside diameters

Outside diameters for plain shafts series TEH from diameter 25 to 49 mm

Outside diameters for stepped shafts series TEB from diameter 25 to 49 mm



- | | | |
|-------------|----------------|------------------|
| 1 - Cone | 5 - Spring | 9 - Ball bearing |
| 2 - Rollers | 6 - Housing | 10 - Screw |
| 3 - Cage | 7 - Screw | 11 - Shank |
| 4 - Screw | 8 - Frame ring | |

Outside diameters for plain shafts series TEH self-feeding

Ø	Type of the tool	Adjustment	Shanks			Rollers code	Rollers No.	Cone	Cage	Tool body
			MK	straight TS	straight TU					
25,0	TEH-025.00-1-XX	-0,10/+0,40	MK4	TS40	TU80	500109	7	TEM-025.00-1	TEG-025.00-1	TEX3
26,0	TEH-026.00-1-XX	-0,10/+0,40				500109	7	TEM-026.00-1	TEG-026.00-1	
27,0	TEH-027.00-1-XX	-0,10/+0,40				500109	7	TEM-027.00-1	TEG-027.00-1	
28,0	TEH-028.00-1-XX	-0,10/+0,40				500109	7	TEM-028.00-1	TEG-028.00-1	
29,0	TEH-029.00-1-XX	-0,10/+0,40				500109	7	TEM-029.00-1	TEG-029.00-1	
30,0	TEH-030.00-1-XX	-0,10/+0,40				500109	7	TEM-030.00-1	TEG-030.00-1	
31,0	TEH-031.00-1-XX	-0,10/+0,40				500109	7	TEM-031.00-1	TEG-031.00-1	
32,0	TEH-032.00-1-XX	-0,10/+0,40				500109	7	TEM-032.00-1	TEG-032.00-1	
33,0	TEH-033.00-1-XX	-0,10/+0,40				500109	7	TEM-033.00-1	TEG-033.00-1	
34,0	TEH-034.00-1-XX	-0,10/+0,40				500109	7	TEM-034.00-1	TEG-034.00-1	
35,0	TEH-035.00-1-XX	-0,10/+0,40				500109	7	TEM-035.00-1	TEG-035.00-1	
36,0	TEH-036.00-1-XX	-0,10/+0,40				500109	7	TEM-036.00-1	TEG-036.00-1	
37,0	TEH-037.00-1-XX	-0,10/+0,40				500109	7	TEM-037.00-1	TEG-037.00-1	
38,0	TEH-038.00-1-XX	-0,10/+0,40				500109	7	TEM-038.00-1	TEG-038.00-1	
39,0	TEH-039.00-1-XX	-0,10/+0,40				500109	9	TEM-039.00-1	TEG-039.00-1	
40,0	TEH-040.00-1-XX	-0,10/+0,40				500109	9	TEM-040.00-1	TEG-040.00-1	
41,0	TEH-041.00-1-XX	-0,10/+0,40				500109	9	TEM-041.00-1	TEG-041.00-1	
42,0	TEH-042.00-1-XX	-0,10/+0,40				500109	9	TEM-042.00-1	TEG-042.00-1	
43,0	TEH-043.00-1-XX	-0,10/+0,40				500109	9	TEM-043.00-1	TEG-043.00-1	
44,0	TEH-044.00-1-XX	-0,10/+0,40				500109	9	TEM-044.00-1	TEG-044.00-1	
45,0	TEH-045.00-1-XX	-0,10/+0,40				500109	9	TEM-045.00-1	TEG-045.00-1	
46,0	TEH-046.00-1-XX	-0,10/+0,40				500109	9	TEM-046.00-1	TEG-046.00-1	
47,0	TEH-047.00-1-XX	-0,10/+0,40				500109	9	TEM-047.00-1	TEG-047.00-1	
48,0	TEH-048.00-1-XX	-0,10/+0,40				500109	9	TEM-048.00-1	TEG-048.00-1	
49,0	TEH-049.00-1-XX	-0,10/+0,40				500109	9	TEM-049.00-1	TEG-049.00-1	

Shank type MK4

Straight shank type TS Ø40x70

Straight shank type TU Ø80x90 drilled inside Ø50

rolling length 100 mm

rolling length 100 mm

unlimited rolling length

Outside diameters for stepped shafts series TEB

Ø	Type of the tool	Adjustment	Shanks			Rollers code	Rollers No.	Cone	Cage	Tool body
			MK	straight TS	straight TU					
25,0	TEB-025.00-1-XX	-0,10/+0,40	MK4	TS40	TU80	500307	7	TEM-025.00-3MX	TEG-025.00-3	TEX3
26,0	TEB-026.00-1-XX	-0,10/+0,40				500307	7	TEM-026.00-3MX	TEG-026.00-3	
27,0	TEB-027.00-1-XX	-0,10/+0,40				500307	7	TEM-027.00-3MX	TEG-027.00-3	
28,0	TEB-028.00-1-XX	-0,10/+0,40				500307	7	TEM-028.00-3MX	TEG-028.00-3	
29,0	TEB-029.00-1-XX	-0,10/+0,40				500307	7	TEM-029.00-3MX	TEG-029.00-3	
30,0	TEB-030.00-1-XX	-0,10/+0,40				500307	7	TEM-030.00-3MX	TEG-030.00-3	
31,0	TEB-031.00-1-XX	-0,10/+0,40				500307	7	TEM-031.00-3MX	TEG-031.00-3	
32,0	TEB-032.00-1-XX	-0,10/+0,40				500307	7	TEM-032.00-3MX	TEG-032.00-3	
33,0	TEB-033.00-1-XX	-0,10/+0,40				500307	7	TEM-033.00-3MX	TEG-033.00-3	
34,0	TEB-034.00-1-XX	-0,10/+0,40				500307	7	TEM-034.00-3MX	TEG-034.00-3	
35,0	TEB-035.00-1-XX	-0,10/+0,40				500307	7	TEM-035.00-3MX	TEG-035.00-3	
36,0	TEB-036.00-1-XX	-0,10/+0,40				500307	7	TEM-036.00-3MX	TEG-036.00-3	
37,0	TEB-037.00-1-XX	-0,10/+0,40				500307	7	TEM-037.00-3MX	TEG-037.00-3	
38,0	TEB-038.00-1-XX	-0,10/+0,40				500307	7	TEM-038.00-3MX	TEG-038.00-3	
39,0	TEB-039.00-1-XX	-0,10/+0,40				500307	9	TEM-039.00-3MX	TEG-039.00-3	
40,0	TEB-040.00-1-XX	-0,10/+0,40				500307	9	TEM-040.00-3MX	TEG-040.00-3	
41,0	TEB-041.00-1-XX	-0,10/+0,40				500307	9	TEM-041.00-3MX	TEG-041.00-3	
42,0	TEB-042.00-1-XX	-0,10/+0,40				500307	9	TEM-042.00-3MX	TEG-042.00-3	
43,0	TEB-043.00-1-XX	-0,10/+0,40				500307	9	TEM-043.00-3MX	TEG-043.00-3	
44,0	TEB-044.00-1-XX	-0,10/+0,40				500307	9	TEM-044.00-3MX	TEG-044.00-3	
45,0	TEB-045.00-1-XX	-0,10/+0,40				500307	9	TEM-045.00-3MX	TEG-045.00-3	
46,0	TEB-046.00-1-XX	-0,10/+0,40				500307	9	TEM-046.00-3MX	TEG-046.00-3	
47,0	TEB-047.00-1-XX	-0,10/+0,40				500307	9	TEM-047.00-3MX	TEG-047.00-3	
48,0	TEB-048.00-1-XX	-0,10/+0,40				500307	9	TEM-048.00-3MX	TEG-048.00-3	
49,0	TEB-049.00-1-XX	-0,10/+0,40				500307	9	TEM-049.00-3MX	TEG-049.00-3	

Shank type MK4

Straight shank type TS Ø40x70

Straight shank type TU Ø80x90 drilled inside Ø50

rolling length 100 mm

rolling length 100 mm

unlimited rolling length

Series TK

For tapered internal surfaces series TKI / For tapered external surfaces series TKD / For flat surfaces series TKA

Application

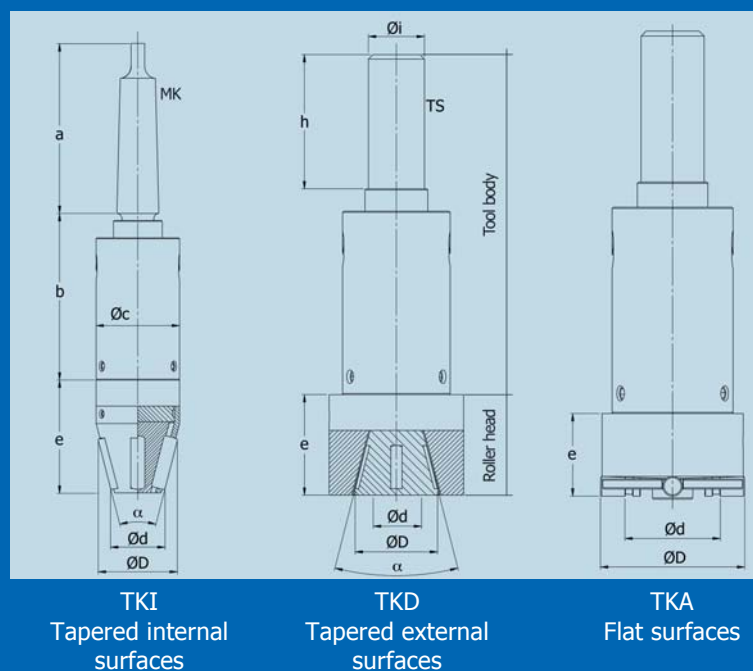
These roller burnishing tools are able to process tapered internal-external and flat surfaces. They are equipped with a special spring loaded cushion system. The present system is designed according to specification of each tool. This skill allows to exert on the work piece the right pressure. Moreover, this system provides a safety distance on the stroke that the tool has to do avoiding overload on the work piece or on the machine. In this way the same force is applied on the work piece granting accurate dimensions and high finishing quality. These tools are not equipped with the adjustment system. When the tool, **that it is realized according to the sizes of the work piece**, contacts the work piece, with a certain force carry out the burnishing. These tools can be used on every kind of machine, both the work piece and the tool can turn and the final result doesn't change. It is possible to process all kind of material with tensile strength up to 1.400 N/mm² and an hardness up to max 45 HRC.

Tool structure

Roller burnishing tools series TKA, TKD and TKI consist in a body and in a roller head. The tool body, complete with shank, includes the spring loaded cushion mechanism. This spring system is designed according to the requirements of the work specifications. The tool shank may be Morse Taper or cylindrical.

Cage, cone and rollers are the parts of the rolling head. These parts are designed according to the dimensions of the work piece and than installed in the tool body.

These tools are made on request of the customer with the draw of the work piece to burnish.

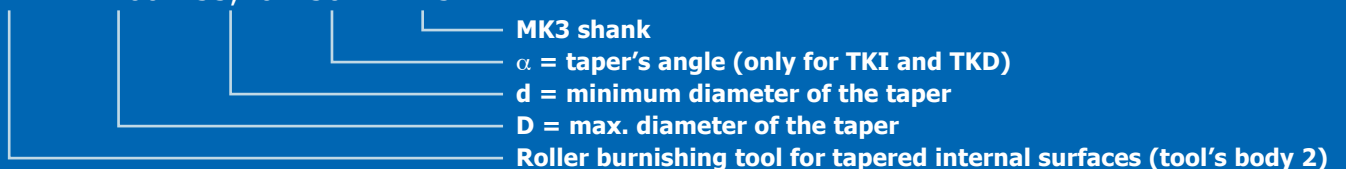


Order requirements

These tools are designed in accordance with the dimensions of the parts to process and of the type of the material. In order to choose the ideal tool for your needs, it is necessary to send us a technical drawing of the work piece and all the information regarding the type and the hardness of the material.

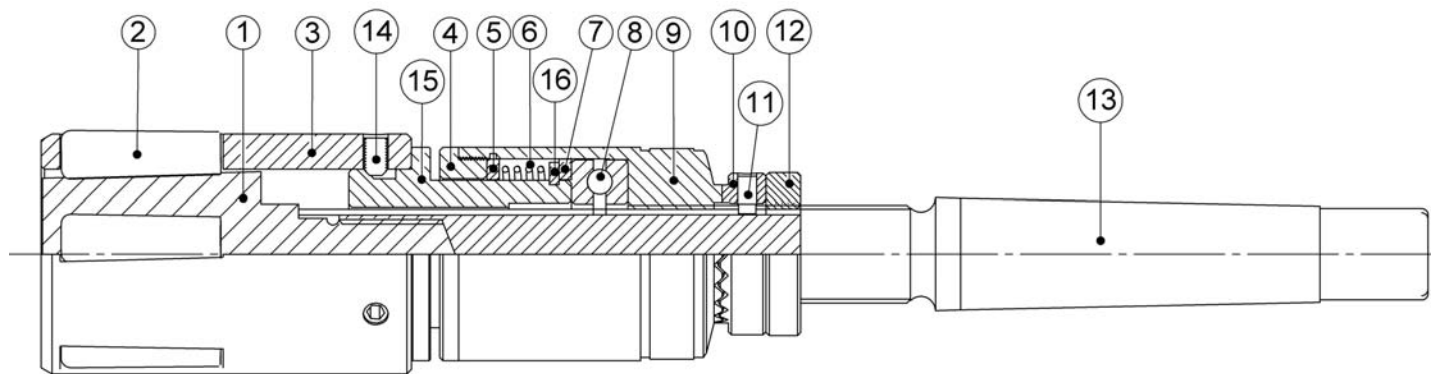
Order sample: Roller burnishing tool for tapered internal surfaces, D = max. diameter of the taper 47,00 mm, d = minimum diameter of the taper 33,20 mm, α = taper's angle 30°, MK shank.

Code : TKI.2 - 47.00 - 33,20 - 30° - MK3



Tool body	Diameter range		Shanks		a	b	c	e
	Ød	ØD	MK	Straight				
TK.1	006.00	044.99	MK2	Ø20 h6x50	78.5	65	25	Changes according to the type of the work piece and the dimensions of the surface to burnish
TK.2	045.00	099.99	MK3	Ø25 h6x56	98	92	48	
TK.3	100.00	149.99	MK4	Ø32 h6x60	123	107	63	

Spare parts of roller burnishing tools series TH and TB from Ø6 to Ø49



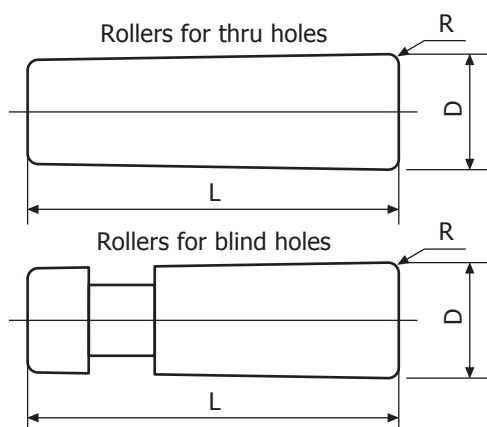
Spare parts for roller burnishing tools series TH and TB from Ø6 mm to Ø49 mm

No.	Description	Code
1	Cone	Look at the catalogue
2	Rollers	Look at the catalogue
3	Cage	Look at the catalogue
4	Housing Nut	YDX1001
5	Thrust Ring	YDX0901
6	Spring (from Ø6 to Ø14)	YDX0701T
	Spring (from Ø15 to Ø49)	YDX0701
7	Thrust Ring	YDX0901
8	Ball Bearing	YDX0601
9	Housing	YDX0501
10	Adjustment Gear	YDX0301
11	Pin	YDX0401
12	Adjustment Nut Lock	YDX0101
13	Shank	Look at the catalogue
14	Screw (only between Ø22 - 49 mm)	YDX1101
15	Sleeve (only between Ø22 - 49 mm)	Look at the catalogue
16	Locking Ring (only between Ø32 - 49 mm)	YDX1201
20	Lock Spring	YDX0201

The tool body is supplied complete with parts No. 4, 8, 9, 10, 12, 13, 20 (look at the catalogue for the code)

Spare rollers

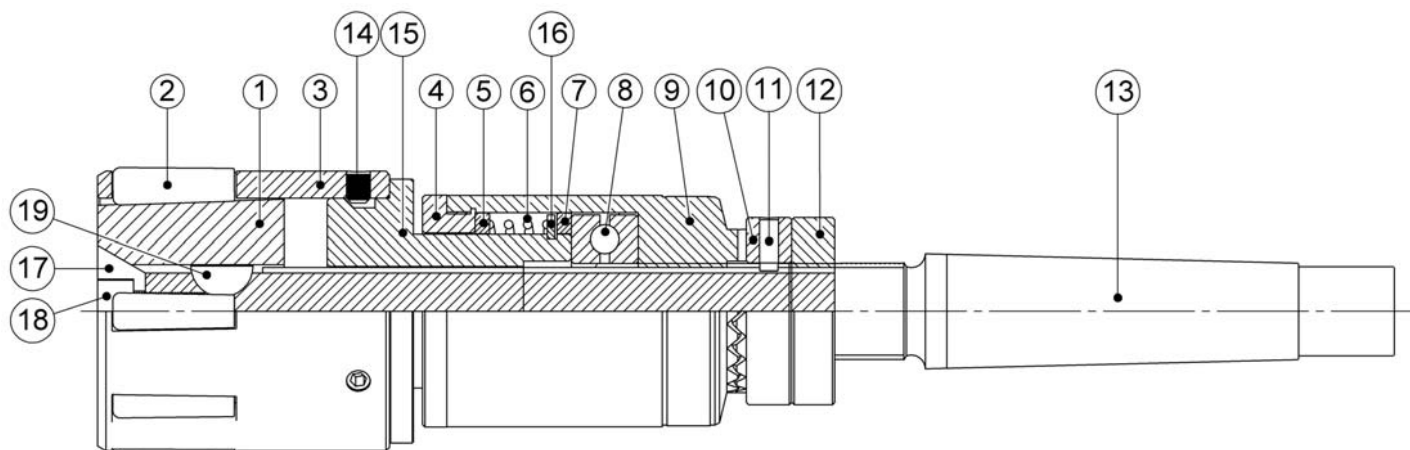
Rollers' size



Thru hole Plain shaft			
Code	ØD	Rollers L	R
500100	1,82	7,90	1,00
500108	2,60	9,52	1,00
500102	3,75	15,80	1,50
500111	4,60	22,22	1,50
500112	5,50	25,40	1,50
500113	6,70	28,60	2,00
500109	7,85	25,40	2,50
500107	13,50	38,10	4,00

Blind hole Stepped shaft			
Code	ØD	Rollers L	R
500308	1,82	7,90	0,75
500300	2,60	9,52	0,75
500301	3,75	15,80	1,00
500310	4,60	15,80	1,00
500311	5,50	17,46	1,00
500312	6,70	19,05	1,50
500307	7,85	25,40	1,50
500306	13,50	38,10	2,00

Spare parts of roller burnishing tools series TH and TB from Ø50 to Ø80

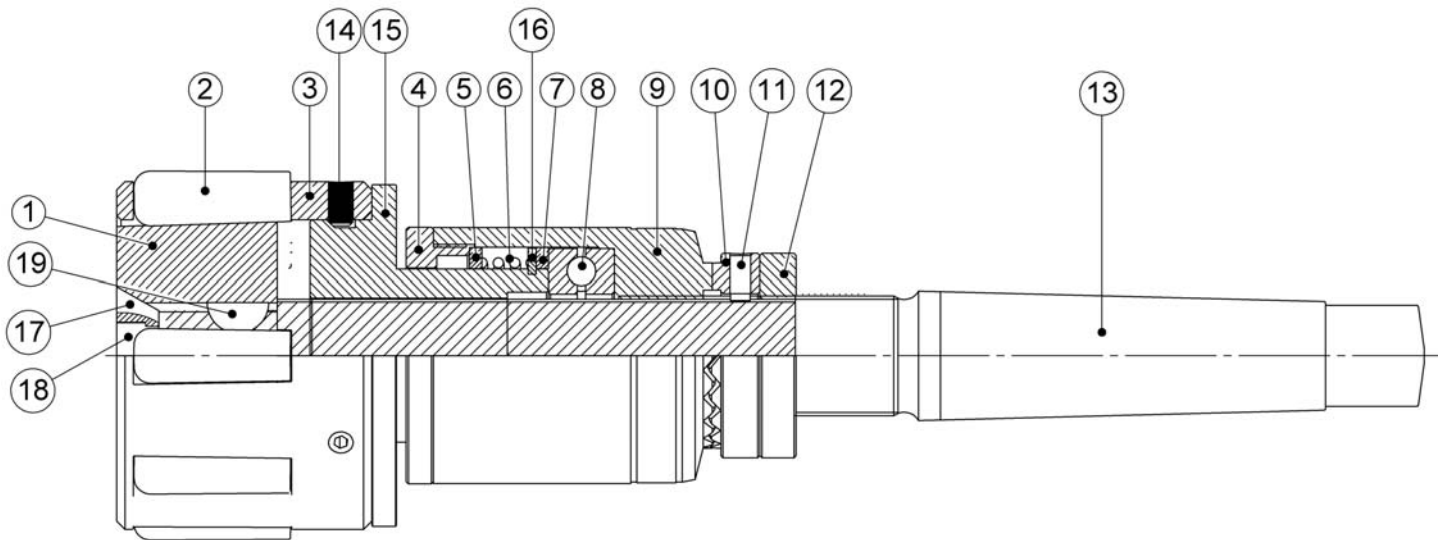


Spare parts for roller burnishing tools series TH and TB from Ø50 mm to Ø80 mm

No.	Description	Code
1	Cone	Look at the catalogue
2	Rollers	Look at the catalogue
3	Cage	Look at the catalogue
4	Housing Nut	YDX1002
5	Thrust Ring	YDX0902
6	Spring	YDX0702
7	Thrust Ring	YDX0902
8	Ball Bearing	YDX0602
9	Housing	YDX0502
10	Adjustment Gear	YDX0302
11	Pin	YDX0402
12	Adjustment Nut Lock	YDX0102
13	Shank	Look at the catalogue
14	Screw	YDX1102
15	Sleeve	Look at the catalogue
16	Locking Ring	YDX1202
17	Conical Ring	YDX1401
18	Screw	YDX1501
19	Wedge	YDX1301
20	Lock Spring	YDX0202

The tool body is supplied complete with parts No. 4, 8, 9, 10, 12, 13, 20 (look at the catalogue for the code)

Spare parts of roller burnishing tools series TH and TB from Ø81 to Ø160

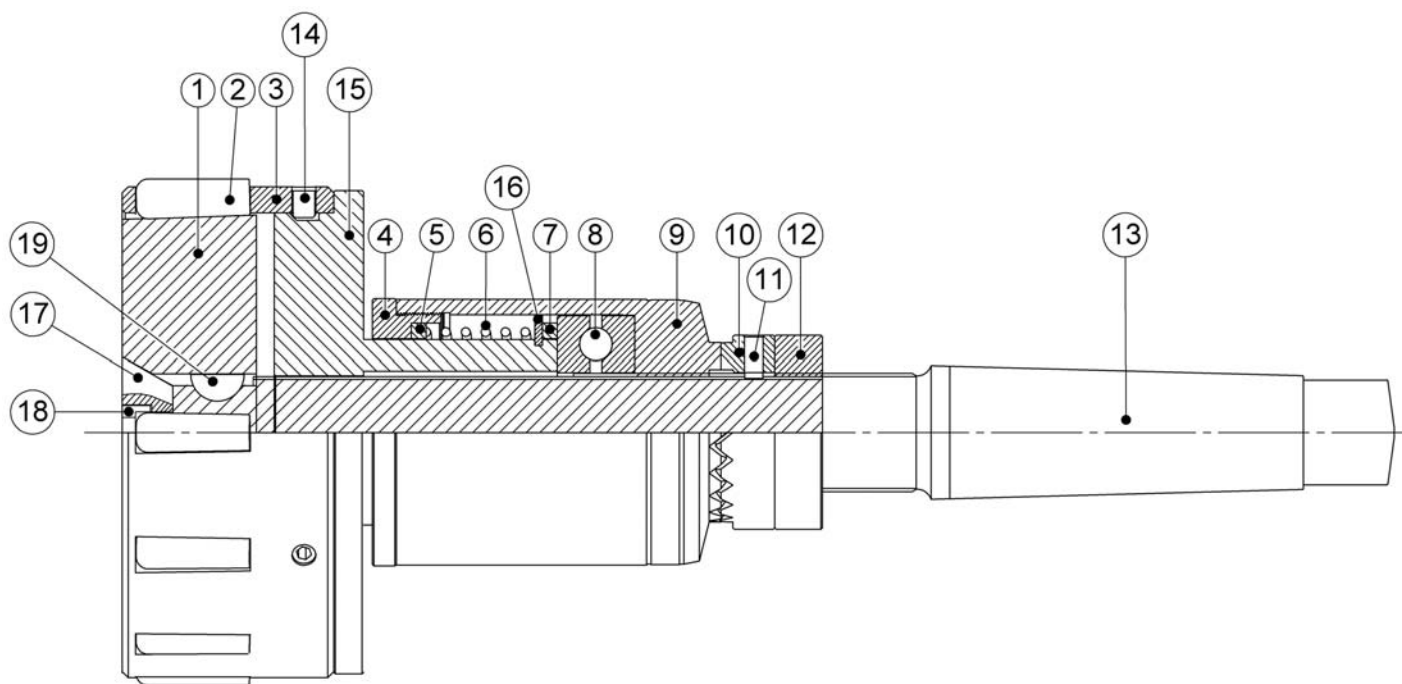


Spare parts for roller burnishing tools series TH and TB from Ø81 mm to Ø160 mm

No.	Description	Code
1	Cone	Look at the catalogue
2	Rollers	Look at the catalogue
3	Cage	Look at the catalogue
4	Housing Nut	YDX1003
5	Thrust Ring	YDX0903
6	Spring	YDX0703
7	Thrust Ring	YDX0903
8	Ball Bearing	YDX0603
9	Housing	YDX0503
10	Adjustment Gear	YDX0303
11	Pin	YDX0403
12	Adjustment Nut Lock	YDX0103
13	Shank	Look at the catalogue
14	Screw	YDX1103
15	Sleeve	Look at the catalogue
16	Locking Ring	YDX1203
17	Conical Ring	YDX1402
18	Screw	YDX1502
19	Wedge	YDX1302
20	Lock Spring	YDX0203

The tool body is supplied complete with parts No. 4, 8, 9, 10, 12, 13, 20 (look at the catalogue for the code)

Spare parts of roller burnishing tools series TH and TB from Ø161 to Ø350



Spare parts for roller burnishing tools series TH and TB from Ø161 mm to Ø350 mm

No.	Description	Code
1	Cone	Look at the catalogue
2	Rollers	Look at the catalogue
3	Cage	Look at the catalogue
4	Housing Nut	YDX1004
5	Thrust Ring	YDX0904
6	Spring	YDX0704
7	Thrust Ring	YDX0904
8	Ball Bearing	YDX0604
9	Housing	YDX0504
10	Adjustment Gear	YDX0304
11	Pin	YDX0404
12	Adjustment Nut Lock	YDX0104
13	Shank	Look at the catalogue
14	Screw	YDX1104
15	Sleeve	Look at the catalogue
16	Locking Ring	YDX1204
17	Conical Ring	YDX1403
18	Screw	YDX1503
19	Wedge	YDX1303
20	Lock Spring	YDX0204

The tool body is supplied complete with parts No. 4, 8, 9, 10, 12, 13, 20 (look at the catalogue for the code)

CAT-07

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