



## KNURLING WHEEL WITHOUT CHAMFER – METRIC – POWDER METAL, S590

Standard version	Dimension			Standard Pitch	Type				
	Diameter	Width	Bore		AA	BL30°	BL15°	BR30°	BR15°
No. 16	8,9	2,5	4	○	✓	✓	✓	✓	✓
No. 16	10	3	6	○	✓	✓	✓	✓	✓
No. 16	14,5	3	5	○	✓	✓	✓	✓	✓
No. 16	15	4	8	○	✓	✓	✓	✓	✓
No. 16	21,5	5	8	●	✓	✓	✓	✓	✓
No. 16	25	6	8	●	✓	✓	✓	✓	✓
No. 16	32	13	16	■	✓	✓	✓	✓	✓
No. 16	42	13	16	■	✓	✓	✓	✓	✓

Further dimensions and customized knurling wheels available on demand.

✓ = Stock item / immediate availability  
 ☑ = Available on demand

### STANDARD PITCH SIZES / PROFILE ANGLE 90°

●	0,3 / 0,4 / 0,5 / 0,6 / 0,7 / 0,8 / 0,9 / 1,0 / 1,2 / 1,5 / 1,6 / 1,8 / 2,0
○	0,3 / 0,4 / 0,5 / 0,6 / 0,7 / 0,8 / 0,9 / 1,0 / 1,2 / 1,5
■	0,6 / 0,8 / 1,0 / 1,2 / 1,5
□	0,6 / 0,8 / 1,0 / 1,2
☑	On demand

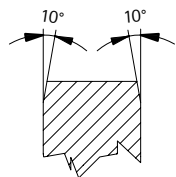
## SPECIAL PITCHES

Further pitch sizes and customized knurling wheels available on demand.

## ALTERNATIVE TYPES, METRIC

Powder Metal (PM)		Carbide (HM)		High Speed Automatic Steel (HSS)	
No.	Type	No.	Type	No.	Type
No. 18	milled, 10° chamfer	No. 55	ground, without chamfer	No. 15	milled, without chamfer
No. 35	ground, without chamfer	No. 57	ground, 10° chamfer	No. 17	milled, with chamfer
No. 37	ground, 10° chamfer				

Further versions available on demand.



Order No. PM = Nr. 18  
 Order No. HSS = Nr. 17

## PROTECTION CHAMFER

For cut knurling applications difficult to machine materials, a 10° chamfer on the knurling wheel might bring better results. The chamfer can prevent teeth breaking out.

## PVD-COATINGS

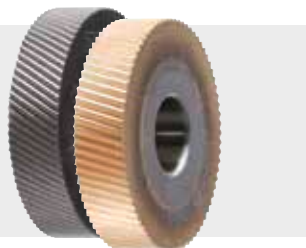
- TiN-coatings
- TiCN-coatings
- TiAlN-coatings
- TiAlCN-coatings

## SPECIAL HEAT-TREATMENT

- TENIFER®-nitriding
- Defined hardness

## SURFACE TREATMENT

- Polished knurling wheels



## No. 60 – BEAD KNURLING WHEELS



**Note:** Please specify the bead diameter.

## No. 70 – CONICAL KNURLING WHEELS



**Note:** The completeness of the teeth numbers on the knurling wheel depends on the width/pitch of the knurl.

## No. 80 – CONVEX / CONCAVE KNURLING WHEELS

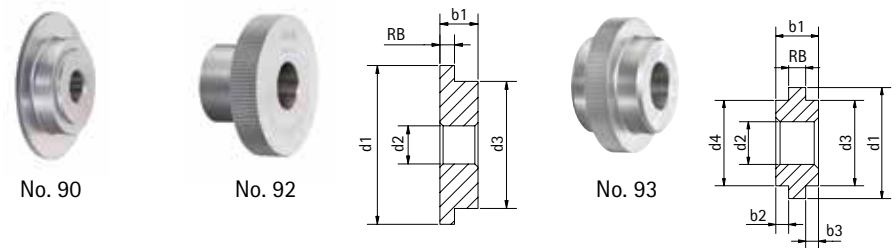


Model DL, DR, FL, FR: maximum 20° spiral angle

\* With radius < 3 = formed version

With radius > 3 = milled version

## No. 90, 92, 93 – SPECIAL KNURLING WHEELS



The picture of knurling wheel No. 90 is only an example. No. 90 stands for all special designs, which are not covered by No. 92 and No. 93.