



zeus® FORM KNURLING TOOL 142:
THE GENERALIST WITH DOUBLE POWER UP TO A SHOULDER !



- Machine type:** Conventional and CNC – suitable for:
- Automatic short-turning lathes, Universal lathes, Turning- / milling centre
 - Multispindle automatic lathes
- Application:** Form knurling (non-cutting forming)
- Knurling profile on work piece DIN 82:**
- RAA
- RGE30°
- RGE45°

ORDER EXAMPLE:

Tool holder No. 142-16 M 150611 - A

Product series 142-16 M Model A

Shank size 16 x 16 mm For knurling wheels 15 x 6 x 6 / 11 (Ø x width x bore)

Modular

TOOL TYPES:

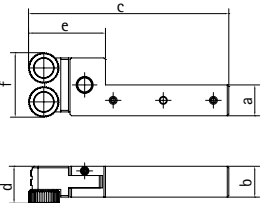
Tool holder No.	Working area Ø mm	a mm	b mm	c mm	d mm	e mm	f mm
142-16M150611-A	8-15	16	16	119	19	39	33
142-20M200813-A	10-80	20	20	130	24	50	42
142-25M200813-A	10-80	25	20	130	24	50	42

Tool holder No.	Working area Ø mm	a inch	b mm	c mm	d mm	e mm	f mm
142-80M150611-A	8-15	5/8"	16	119	19	39	33
142-85M200813-A	10-80	3/4"	20	130	24	50	42
142-90M200813-A	10-80	1"	20	130	24	50	42

Knurling wheels mm (Ø x width x bore)	Spare part Shoulder pin	Spare part Run disc
15 x 6 x 6 / 11	06TER0444	21BHR0375
20 x 8 x 6 / 13	06TER0445	21BHR0380
20 x 8 x 6 / 13	06TER0445	21BHR0380

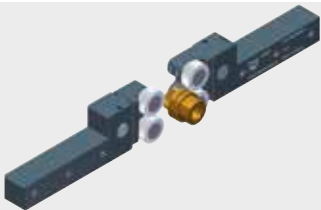


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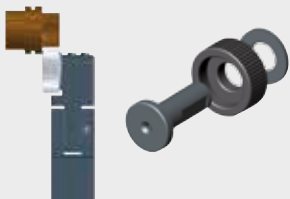
FLEXIBILITY:

Fast and easy turning of the tool head for right- / and left-hand use



KNURLING TO A SHOULDER:

Suitable for knurling up to a shoulder



APPLICATION EXAMPLE:



APPLICATION:

Material: 1.4305

Knurling Profile/Pitch (DIN 82): RAA / P. 0.3

Machine: Star SR 10J

No. of pcs. produced/ knurling wheel: 5,000

APPLICATION PARAMETERS zeus® RD2:

Knurling tool: 161-08R100404-B

Knurling wheel: AA 10x4x4, P. 0.3

Cycle time: 9 sec/piece

Speed rate: 14 m/min

Feed rate: 0.025 mm/rev

Tool life knurling wheel: 750 min/knurling wheel

Performance: 0.11 m²/knurling wheel



The zeus® RD2 series 161/162 allows for a fine machining. Due to the special tool design with two knurl holders, the lateral pressure exerted on work piece and machine is minimal. The series is therefore especially suitable for form knurling small and delicate parts. Several versions are available for different applications and machine types. Where work space is limited and tiny work piece diameters have to be knurled, this tool range should be the first choice!

APPLICATION ADVANTAGES:

RIGIDITY AND PRECISION:

- No lateral pressure – reduced strain on work piece and machine
- Round shank with four flat sides – for an optimal clamping and tool positioning (Model 162)
- Easy setting of the knurl holders to work piece and centre height

EASY TOOL HANDLING:

- Easy setting of the knurl holders to work piece diameter and centre height (Model 161)
- Easy setting of work piece diameter with setting scale (Model 161)
- Pin with face – fixed by a screw – for a quick replacement of the knurling wheels (Model 161)

HIGH WEAR RESISTANCE:

- Special surface hardening for increased tool life
- Carbide pins/bushings for higher speed rates, faster production, prolonged life

APPLICATION-ORIENTED PRODUCT DESIGN:

- Modular shank system for cost-effective use on all CNC- / and cam-controlled swiss type auto-lathes (Model 161 for swiss type autolathes)
- Suitable for limited work spaces: tool designed for small machine spaces and working in axial tool direction. Suitable for back end working
- Tool versions available for knurling to a shoulder
- Retooling accessories available for knurling to a shoulder (Model 162)

MODULAR PRODUCT DESIGN

For swiss type autolathe versions:



FINE MACHINING



SUITABLE FOR LIMITED WORK SPACES

