



The zeus® RD2 series is the first choice for producing RGE profiles in axial tool direction. Working axially, the knurl width can be chosen according to any size required. The tool series offers many add-ons, that simplify the tool handling. Due to its modular design, the RD2 is suitable for both right-hand and left-hand operations. For the swiss type autolathe versions the flexible shank system allows a conversion to different shank sizes.

APPLICATION ADVANTAGES:

EASY TOOL HANDLING:

- Easy appliance and tool handling
- Minimal work piece preparation
- Integrated set screws for easy adjustment of the clearance angle
- Pin with face – fixed by a screw – for a quick replacement of the knurling wheel
- Click-pin® versions for still faster and safer change of knurling wheels

HIGH WEAR RESISTANCE:

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

MODULAR PRODUCT DESIGN:

- Modular shank system for cost-effective use on all CNC- / and cam- controlled swiss type auto lathes
- Modular system: universal knurling tool for both right- / and left-hand orientation. Retooling through fast and easy turning of the knurling head

MODULAR PRODUCT DESIGN

For swiss type autolathe versions:



CLICK-PIN®-SYSTEM



For fast and safe change of the knurling wheel:

- > No more break off through overtightening
- > No more loosening through impact, hits or vibration
- > Quick change and positioning of the knurling wheel



KNURLING TO SHOULDER

Tool types for knurling to shoulder:



APPLICATION EXAMPLE:

Threaded bushing M5



APPLICATION:

Material: C35Pb
 Knurling Profile/Pitch (DIN 82): RGE30° / P. 0.8
 Machine: Tornos SAS 16DC
 No. of pcs. produced/ knurling wheel: 120,000

APPLICATION PARAMETERS zeus® RD2:

Knurling tool: 141-16M150604
 Knurling wheel: BL30° 15x6x4, P. 0.8
 BR30° 15x6x4, P. 0.8
 Cycle time: 0.8 sec/piece
 Speed rate: 68 m/min
 Feed rate: 0.2 mm/rev
 Tool life knurling wheel: 1,600 min/knurling wheel
 Performance: 19.2 m²/knurling wheel



zeus® FORM KNURLING TOOL 141:
**THE GENERALIST WITH TWO KNURLING WHEELS –
DOUBLE THE RIGIDITY, EASY TO USE!**


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°

Knurling wheels:

2 x AA

1 x BL30° / 1 x BR30°

1 x BL45° / 1 x BR45°

Tool direction:

- Plunge knurling
- Feed knurling

Product highlights:

- Flexible centering of the tool head
- Integrated set screws for clearance angle adjustment
- Pin with face – fixed by a screw – for a quick replacement of the knurling wheel
- Carbide pins
- Special surface hardening for increased wear resistance

ORDER EXAMPLE:

Tool holder No. **141-20M200806-A-(Z)** with ClickPin®

Product series: 141-20M
Shank size 20 x 20 mm: 200806
Modular: A
For knurling wheels 20 x 8 x 6 (Ø x width x bore): (Z)
Model A

TOOL TYPES:

Tool holder No.	Working area Ø mm	a mm	b mm	c mm	d mm	e mm	f mm	x mm
141-20M200806-A	10-80	20	20	130	20	50	42	2,5
141-25M250806-A	50-200	25	20	156	20	56	55	2,5

With ClickPin®:

141-20M200806-A-Z	10-80	20	20	130	20	50	42	2,5
141-25M250806-A-Z	50-200	25	20	156	20	56	55	2,5

Tool holder No.	Working area Ø mm	a inch	b mm	c mm	d mm	e mm	f mm	x mm
141-80M581414-A	6-15	5/8"	16	119	16	29	34	2
141-85M343814-A	10-80	3/4"	20	130	20	50	41	2
141-90M343814-A	10-80	1"	20	140	20	50	41	2

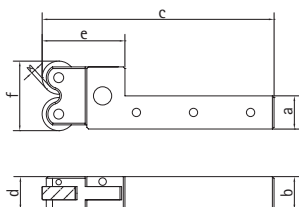
Knurling wheels mm (Ø x width x bore)	Spare part Pin
20 x 8 x 6	06TER0965
25 x 8 x 6	06TER0965
20 x 8 x 6	06TER1018
25 x 8 x 6	06TER1018



06TER0965
06TER0969
06TER0989



06TER1018


CLICK-PIN®-SYSTEM:


For fast and safe change of the knurling wheel:

- > No more break off through overtightening
- > No more loosening through impact, hits or vibration
- > Quick change and positioning of the knurling wheel

FLEXIBILITY:

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

