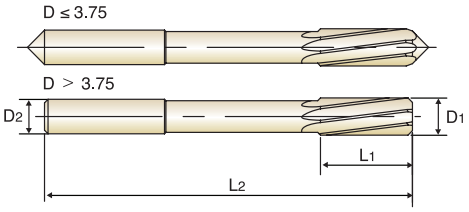
# HSS-E, NC MACHINE REAMERS WITH WHOLE-NUMBER SHANK Ø

## HSS-E, NC-MASCHINENREIBAHLEN mit GERADZAHLIGEN SCHAFT Ø
## ALÉSOIRS HSS-E MACHINE CN AVEC DIFFÉRENTES TOLÉRANCES DE QUEUE
## ALESATORI A MACCHINA IN HSS-E CON GAMMA Ø NOMINALI

▶ O.D. Tolerances
Whole-number Ø and 1/10 size : DIN 1420 for H7
1/100 size : from Ø2.01 to Ø5.03 : +0.004/-0.000mm
from Ø5.97 to Ø12.03 : +0.005/-0.000mm
▶ Shank Diameter Tolerances : h6
▶ LH Spiral Flutes / Right Hand Cut
▶ Chamfer Angle - Up to Ø3.75 : 15°
- Over Ø3.75 : 45°

▶ Ø Toleranzen:
ganzzahlige Ø und 1/10 Größen : DIN 1420 für H7
1/100 Größen : ab Ø2,01 bis Ø5,03 : +0.004/-0.000mm
von Ø5,97 bis Ø12,03 : +0.005/-0.000mm
▶ Schaft-Durchmesser Toleranzen : h6
▶ linksspiralig/ rechtsscheidend
▶ Anschnittwinkel - bis Ø3,75 : 15°
- über Ø3,75 : 45°






Hole type



HSS-E | H7 | LH7° | 15° | 45° | Bright

up to Ø3.75 over Ø3.75

p.A388

Unit : mm

| EDP No. | Reamer Diameter D1 | Shank Diameter D2 | Flute Length L1 | Overall Length L2 |
|---|---|---|---|---|
| K21B100200 | 2.0 | 2 | 11 | 49 |
| K21B100201 | 2.01 | 2 | 11 | 49 |
| K21B100202 | 2.02 | 2 | 11 | 49 |
| K21B100203 | 2.03 | 2 | 11 | 49 |
| K21B100210 | 2.1 | 2 | 11 | 49 |
| K21B100220 | 2.2 | 3 | 12 | 53 |
| K21B100230 | 2.3 | 3 | 12 | 53 |
| K21B100240 | 2.4 | 3 | 14 | 57 |
| K21B100248 | 2.48 | 3 | 14 | 57 |
| K21B100249 | 2.49 | 3 | 14 | 57 |
| K21B100250 | 2.5 | 3 | 14 | 57 |
| K21B100251 | 2.51 | 3 | 14 | 57 |
| K21B100252 | 2.52 | 3 | 14 | 57 |
| K21B100253 | 2.53 | 3 | 14 | 57 |
| K21B100260 | 2.6 | 3 | 14 | 57 |
| K21B100270 | 2.7 | 3 | 15 | 61 |
| K21B100280 | 2.8 | 3 | 15 | 61 |
| K21B100290 | 2.9 | 3 | 15 | 61 |
| K21B100297 | 2.97 | 3 | 15 | 61 |
| K21B100298 | 2.98 | 3 | 15 | 61 |
| K21B100299 | 2.99 | 3 | 15 | 61 |
| K21B100300 | 3.0 | 3 | 15 | 61 |
| K21B100301 | 3.01 | 4 | 16 | 65 |

▶ NEXT PAGE

◎ : Excellent ○ : Good

| ISO | P | | | | | | | | | | | M | | | K | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Non-alloy steel | | | | | Low alloy steel | | | | High alloyed steel, and tool steel | | Stainless steel | | | Grey cast iron | | Nodular cast iron | | Malleable cast iron | |
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| HRc | | 13 | 25 | 28 | 32 | 10 | 29 | 32 | 38 | 15 | 35 | 15 | 23 | 10 | 10 | 26 | 3 | 25 | | 21 |
| HB | 125 | 190 | 250 | 270 | 300 | 180 | 275 | 300 | 350 | 200 | 325 | 200 | 240 | 180 | 180 | 260 | 160 | 250 | 130 | 230 |
| Recommended | ◎ | ◎ | ○ | ○ | | ◎ | ○ | | | ○ | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| ISO | N | | | | | | | | | | S | | | | | | | H | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Aluminum-wrought alloy | | Aluminum-cast, alloyed | | | Copper and Copper Alloys (Bronze / Brass) | | | Non Metallic Materials | | Heat Resistant Super Alloys | | | | | Titanium Alloys | | Hardened steel | | Chilled Cast Iron | Hardened Cast Iron |
| VDI 3323 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| HRc | | | | | | | | | | | 15 | 30 | 25 | 38 | 34 | | | 55 | 60 | 42 | 55 |
| HB | 60 | 100 | 75 | 90 | 130 | 110 | 90 | 100 | | | 200 | 280 | 250 | 350 | 320 | 400Rm | 1050Rm | 550 | 630 | 400 | 550 |
| Recommended | ○ | ○ | ○ | ○ | | ○ | ○ | ○ | | | | | | | | | | | | | |

# YG REAMERS

**K21B1 SERIES**

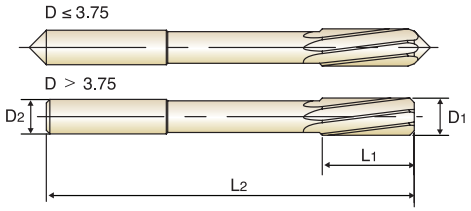
## HSS-E, NC MACHINE REAMERS WITH WHOLE-NUMBER SHANK Ø

**HSS-E, NC-MASCHINENREIBAHLEN mit GERADZAHLIGEN SCHAFT Ø**
**ALÉSOIRS HSS-E MACHINE CN AVEC DIFFÉRENTES TOLÉRANCES DE QUEUE**
**ALESATORI A MACCHINA IN HSS-E CON GAMMA Ø NOMINALI**

▶ O.D. Tolerances
Whole-number Ø and 1/10 size : DIN 1420 for H7
1/100 size : from Ø2.01 to Ø5.03 : +0.004/-0.000mm
from Ø5.97 to Ø12.03 : +0.005/-0.000mm
▶ Shank Diameter Tolerances : h6
▶ LH Spiral Flutes / Right Hand Cut
▶ Chamfer Angle - Up to Ø3.75 : 15°
- Over Ø3.75 : 45°

▶ Ø Toleranzen:
ganzzahlige Ø und 1/10 Größen : DIN 1420 für H7
1/100 Größen : ab Ø2,01 bis Ø5,03 : +0.004/-0.000mm
von Ø5,97 bis Ø12,03 : +0.005/-0.000mm
▶ Schaft-Durchmesser Toleranzen : h6
▶ linksspiralig/ rechtsscheidend
▶ Anschnittwinkel - bis Ø3,75 : 15°
- über Ø3,75 : 45°






Hole type

HSS-E | H7 | LH7° | 15° | 45° | Bright

up to Ø3.75 over Ø3.75

p.A388

Unit : mm

| EDP No. | Reamer Diameter D1 | Shank Diameter D2 | Flute Length L1 | Overall Length L2 |
|---|---|---|---|---|
| K21B100302 | 3.02 | 4 | 16 | 65 |
| K21B100303 | 3.03 | 4 | 16 | 65 |
| K21B100310 | 3.1 | 4 | 16 | 65 |
| K21B100320 | 3.2 | 4 | 16 | 65 |
| K21B100330 | 3.3 | 4 | 16 | 65 |
| K21B100340 | 3.4 | 4 | 18 | 70 |
| K21B100350 | 3.5 | 4 | 18 | 70 |
| K21B100360 | 3.6 | 4 | 18 | 70 |
| K21B100370 | 3.7 | 4 | 18 | 70 |
| K21B100380 | 3.8 | 4 | 19 | 75 |
| K21B100390 | 3.9 | 4 | 19 | 75 |
| K21B100397 | 3.97 | 4 | 19 | 75 |
| K21B100398 | 3.98 | 4 | 19 | 75 |
| K21B100399 | 3.99 | 4 | 19 | 75 |
| K21B100400 | 4.0 | 4 | 19 | 75 |
| K21B100401 | 4.01 | 4 | 19 | 75 |
| K21B100402 | 4.02 | 4 | 19 | 75 |
| K21B100403 | 4.03 | 4 | 19 | 75 |
| K21B100410 | 4.1 | 4 | 19 | 75 |
| K21B100420 | 4.2 | 4 | 19 | 75 |
| K21B100430 | 4.3 | 5 | 21 | 80 |
| K21B100440 | 4.4 | 5 | 21 | 80 |
| K21B100450 | 4.5 | 5 | 21 | 80 |
| K21B100460 | 4.6 | 5 | 21 | 80 |

▶ NEXT PAGE

◎ : Excellent ○ : Good

| ISO | P | | | | | | | | | | | M | | | K | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Non-alloy steel | | | | | Low alloy steel | | | | High alloyed steel, and tool steel | | Stainless steel | | | Grey cast iron | | Nodular cast iron | | Malleable cast iron | |
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| HRc | | 13 | 25 | 28 | 32 | 10 | 29 | 32 | 38 | 15 | 35 | 15 | 23 | 10 | 10 | 26 | 3 | 25 | | 21 |
| HB | 125 | 190 | 250 | 270 | 300 | 180 | 275 | 300 | 350 | 200 | 325 | 200 | 240 | 180 | 180 | 260 | 160 | 250 | 130 | 230 |
| Recommended | ◎ | ◎ | ○ | ○ | | ◎ | ○ | | | ○ | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| ISO | N | | | | | | | | | | S | | | | | | | H | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Aluminum-wrought alloy | | Aluminum-cast, alloyed | | | Copper and Copper Alloys (Bronze / Brass) | | | Non Metallic Materials | | Heat Resistant Super Alloys | | | | | Titanium Alloys | | Hardened steel | | Chilled Cast Iron | Hardened Cast Iron |
| VDI 3323 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| HRc | | | | | | | | | | | 15 | 30 | 25 | 38 | 34 | | | 55 | 60 | 42 | 55 |
| HB | 60 | 100 | 75 | 90 | 130 | 110 | 90 | 100 | | | 200 | 280 | 250 | 350 | 320 | 400Rm | 1050Rm | 550 | 630 | 400 | 550 |
| Recommended | ○ | ○ | ○ | ○ | | ○ | ○ | ○ | | | | | | | | | | | | | |


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YG-1 CO., LTD.

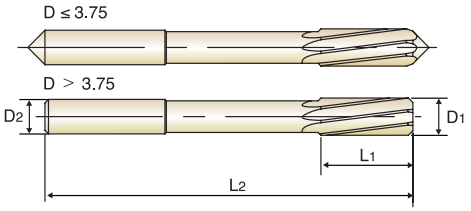
# HSS-E, NC MACHINE REAMERS WITH WHOLE-NUMBER SHANK Ø

## HSS-E, NC-MASCHINENREIBAHLEN mit GERADZAHLIGEN SCHAFT Ø
## ALÉSOIRS HSS-E MACHINE CN AVEC DIFFÉRENTES TOLÉRANCES DE QUEUE
## ALESATORI A MACCHINA IN HSS-E CON GAMMA Ø NOMINALI

▶ O.D. Tolerances
Whole-number Ø and 1/10 size : DIN 1420 for H7
1/100 size : from Ø2.01 to Ø5.03 : +0.004/-0.000mm
from Ø5.97 to Ø12.03 : +0.005/-0.000mm
▶ Shank Diameter Tolerances : h6
▶ LH Spiral Flutes / Right Hand Cut
▶ Chamfer Angle - Up to Ø3.75 : 15°
- Over Ø3.75 : 45°

▶ Ø Toleranzen:
ganzzahlige Ø und 1/10 Größen : DIN 1420 für H7
1/100 Größen : ab Ø2,01 bis Ø5,03 : +0.004/-0.000mm
von Ø5,97 bis Ø12,03 : +0.005/-0.000mm
▶ Schaft-Durchmesser Toleranzen : h6
▶ linksspiralig/ rechtsscheidend
▶ Anschnittwinkel - bis Ø3,75 : 15°
- über Ø3,75 : 45°






Hole type



HSS-E | H7 | LH7° | 15° | 45° | Bright

up to Ø3.75 over Ø3.75

p.A388

Unit : mm

| EDP No. | Reamer Diameter D1 | Shank Diameter D2 | Flute Length L1 | Overall Length L2 |
|---|---|---|---|---|
| K21B100480 | 4.8 | 5 | 23 | 86 |
| K21B100490 | 4.9 | 5 | 23 | 86 |
| K21B100497 | 4.97 | 5 | 23 | 86 |
| K21B100498 | 4.98 | 5 | 23 | 86 |
| K21B100499 | 4.99 | 5 | 23 | 86 |
| K21B100500 | 5.0 | 5 | 23 | 86 |
| K21B100501 | 5.01 | 5 | 23 | 86 |
| K21B100502 | 5.02 | 5 | 23 | 86 |
| K21B100503 | 5.03 | 5 | 23 | 86 |
| K21B100510 | 5.1 | 5 | 23 | 86 |
| K21B100520 | 5.2 | 5 | 23 | 86 |
| K21B100550 | 5.5 | 6 | 26 | 93 |
| K21B100560 | 5.6 | 6 | 26 | 93 |
| K21B100570 | 5.7 | 6 | 26 | 93 |
| K21B100580 | 5.8 | 6 | 26 | 93 |
| K21B100590 | 5.9 | 6 | 26 | 93 |
| K21B100597 | 5.97 | 6 | 26 | 93 |
| K21B100598 | 5.98 | 6 | 26 | 93 |
| K21B100599 | 5.99 | 6 | 26 | 93 |
| K21B100600 | 6.0 | 6 | 26 | 93 |
| K21B100601 | 6.01 | 6 | 28 | 101 |
| K21B100602 | 6.02 | 6 | 28 | 101 |
| K21B100603 | 6.03 | 6 | 28 | 101 |
| K21B100610 | 6.1 | 6 | 28 | 101 |

▶ NEXT PAGE

◎ : Excellent ○ : Good

| ISO | P | | | | | | | | | | | M | | | K | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Non-alloy steel | | | | | Low alloy steel | | | | High alloyed steel, and tool steel | | Stainless steel | | | Grey cast iron | | Nodular cast iron | | Malleable cast iron | |
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| HRc | | 13 | 25 | 28 | 32 | 10 | 29 | 32 | 38 | 15 | 35 | 15 | 23 | 10 | 10 | 26 | 3 | 25 | | 21 |
| HB | 125 | 190 | 250 | 270 | 300 | 180 | 275 | 300 | 350 | 200 | 325 | 200 | 240 | 180 | 180 | 260 | 160 | 250 | 130 | 230 |
| Recommended | ◎ | ◎ | ○ | ○ | | ◎ | ○ | | | ○ | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| ISO | N | | | | | | | | | | S | | | | | | | H | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Aluminum-wrought alloy | | Aluminum-cast, alloyed | | | Copper and Copper Alloys (Bronze / Brass) | | | Non Metallic Materials | | Heat Resistant Super Alloys | | | | | Titanium Alloys | | Hardened steel | | Chilled Cast Iron | Hardened Cast Iron |
| VDI 3323 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| HRc | | | | | | | | | | | 15 | 30 | 25 | 38 | 34 | | | 55 | 60 | 42 | 55 |
| HB | 60 | 100 | 75 | 90 | 130 | 110 | 90 | 100 | | | 200 | 280 | 250 | 350 | 320 | 400Rm | 1050Rm | 550 | 630 | 400 | 550 |
| Recommended | ○ | ○ | ○ | ○ | | ○ | ○ | ○ | | | | | | | | | | | | | |

# YG REAMERS

**K21B1 SERIES**

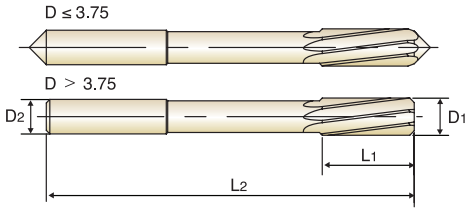
## HSS-E, NC MACHINE REAMERS WITH WHOLE-NUMBER SHANK Ø

**HSS-E, NC-MASCHINENREIBAHLEN mit GERADZAHLIGEN SCHAFT Ø**
**ALÉSOIRS HSS-E MACHINE CN AVEC DIFFÉRENTES TOLÉRANCES DE QUEUE**
**ALESATORI A MACCHINA IN HSS-E CON GAMMA Ø NOMINALI**

▶ O.D. Tolerances
Whole-number Ø and 1/10 size : DIN 1420 for H7
1/100 size : from Ø2.01 to Ø5.03 : +0.004/-0.000mm
from Ø5.97 to Ø12.03 : +0.005/-0.000mm
▶ Shank Diameter Tolerances : h6
▶ LH Spiral Flutes / Right Hand Cut
▶ Chamfer Angle - Up to Ø3.75 : 15°
- Over Ø3.75 : 45°

▶ Ø Toleranzen:
ganzzahlige Ø und 1/10 Größen : DIN 1420 für H7
1/100 Größen : ab Ø2,01 bis Ø5,03 : +0.004/-0.000mm
von Ø5,97 bis Ø12,03 : +0.005/-0.000mm
▶ Schaft-Durchmesser Toleranzen : h6
▶ linksspiralig/ rechtsscheidend
▶ Anschnittwinkel - bis Ø3,75 : 15°
- über Ø3,75 : 45°






Hole type

HSS-E | H7 | LH7° | 15° | 45° | Bright

up to Ø3.75 over Ø3.75

p.A388

Unit : mm

| EDP No. | Reamer Diameter D1 | Shank Diameter D2 | Flute Length L1 | Overall Length L2 |
|---|---|---|---|---|
| K21B100620 | 6.2 | 6 | 28 | 101 |
| K21B100630 | 6.3 | 6 | 28 | 101 |
| K21B100640 | 6.4 | 6 | 28 | 101 |
| K21B100660 | 6.6 | 6 | 28 | 101 |
| K21B100670 | 6.7 | 6 | 28 | 101 |
| K21B100680 | 6.8 | 8 | 31 | 109 |
| K21B100700 | 7.0 | 8 | 31 | 109 |
| K21B100710 | 7.1 | 8 | 31 | 109 |
| K21B100720 | 7.2 | 8 | 31 | 109 |
| K21B100730 | 7.3 | 8 | 31 | 109 |
| K21B100740 | 7.4 | 8 | 31 | 109 |
| K21B100750 | 7.5 | 8 | 31 | 109 |
| K21B100770 | 7.7 | 8 | 33 | 117 |
| K21B100780 | 7.8 | 8 | 33 | 117 |
| K21B100790 | 7.9 | 8 | 33 | 117 |
| K21B100797 | 7.97 | 8 | 33 | 117 |
| K21B100798 | 7.98 | 8 | 33 | 117 |
| K21B100799 | 7.99 | 8 | 33 | 117 |
| K21B100800 | 8.0 | 8 | 33 | 117 |
| K21B100801 | 8.01 | 8 | 33 | 117 |
| K21B100802 | 8.02 | 8 | 33 | 117 |
| K21B100803 | 8.03 | 8 | 33 | 117 |
| K21B100810 | 8.1 | 8 | 33 | 117 |
| K21B100820 | 8.2 | 8 | 33 | 117 |

▶ NEXT PAGE

◎ : Excellent ○ : Good

| ISO | P | | | | | | | | | | | M | | | K | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Non-alloy steel | | | | | Low alloy steel | | | | High alloyed steel, and tool steel | | Stainless steel | | | Grey cast iron | | Nodular cast iron | | Malleable cast iron | |
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| HRc | | 13 | 25 | 28 | 32 | 10 | 29 | 32 | 38 | 15 | 35 | 15 | 23 | 10 | 10 | 26 | 3 | 25 | | 21 |
| HB | 125 | 190 | 250 | 270 | 300 | 180 | 275 | 300 | 350 | 200 | 325 | 200 | 240 | 180 | 180 | 260 | 160 | 250 | 130 | 230 |
| Recommended | ◎ | ◎ | ○ | ○ | | ◎ | ○ | | | ○ | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| ISO | N | | | | | | | | | | S | | | | | | | H | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Aluminum-wrought alloy | | Aluminum-cast, alloyed | | | Copper and Copper Alloys (Bronze / Brass) | | | Non Metallic Materials | | Heat Resistant Super Alloys | | | | | Titanium Alloys | | Hardened steel | | Chilled Cast Iron | Hardened Cast Iron |
| VDI 3323 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| HRc | | | | | | | | | | | 15 | 30 | 25 | 38 | 34 | | | 55 | 60 | 42 | 55 |
| HB | 60 | 100 | 75 | 90 | 130 | 110 | 90 | 100 | | | 200 | 280 | 250 | 350 | 320 | 400 Rm | 1050 Rm | 550 | 630 | 400 | 550 |
| Recommended | ○ | ○ | ○ | ○ | | ○ | ○ | ○ | | | | | | | | | | | | | |


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