

Cutting and Turning Tools



Our Company

Special Cutting Tools

Circular- and
Thread Milling Tools

Cutting and Turning Tools

Driven Toolholders for
CNC Machining Centers

Driven Toolholders for
CNC Turning Machines

Multi-Spindle Technology

Modular Quick Change System
„mi“ and Hydroflex

Static Toolholders for
CNC Turning Machines

High Performance Precision
and Standard Chucks

Terms of Sale and Delivery

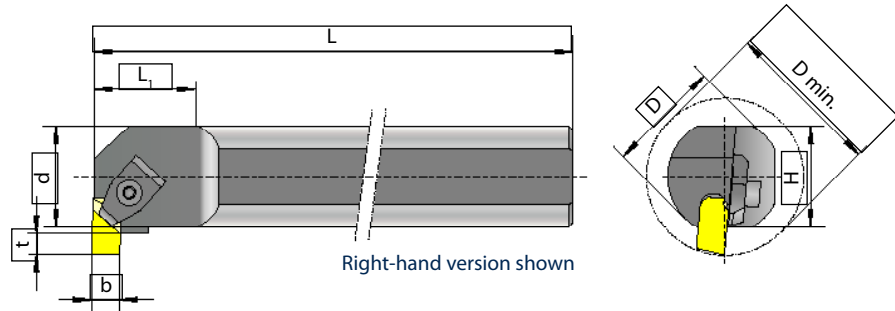


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Internal Machining $\geq \text{Ø} 14$ Plunge-Cutting and Special Grooves

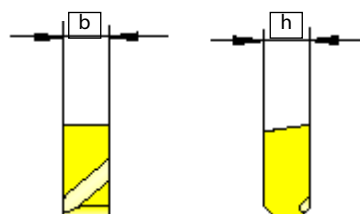
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- Inserts see below



- ! Right holder - left insert
- Left holder - right insert

| Order No. | | Designation | Insert | D _{min.} mm | b mm | t mm | D _{h8} mm | d mm | H mm | L ₁ mm | L mm | Spare part No. | | |
|------------|-----------|-------------|--------|-------------------------|---------|---------|-----------------------|---------|---------|----------------------|---------|----------------|--------|--------|
| right-hand | left-hand | | | | | | | | | | | Clamping-claw | Screw | Wrench |
| 132881 | 132958 | I 310 R/L | 3 L/R | 14 | 3 | 2,0 | 16 | 10 | 14 | 25 | 140 | 107682 | 114712 | 107577 |
| 132937 | 132928 | I 312 R/L | 3 L/R | 16 | 3 | 2,0 | 16 | 12 | 14 | 35 | 150 | 107682 | 114712 | 107577 |
| 132959 | 132944 | I 316 R/L | 3 L/R | 20 | 3 | 2,0 | 16 | 16 | 14 | 25 | 175 | 107682 | 114712 | 107577 |
| 132972 | 132946 | I 414 R/L | 4 L/R | 19 | 4 | 3,0 | 16 | 14 | 14 | 45 | 175 | 107603 | 114747 | 107583 |
| 132909 | 132908 | I 416 R/L | 4 L/R | 21 | 4 | 3,0 | 16 | 16 | 14 | 40 | 175 | 107603 | 114747 | 107583 |
| 132939 | 132947 | I 420 R/L | 4 L/R | 25 | 4 | 3,0 | 20 | 20 | 18 | 40 | 200 | 107603 | 114747 | 107583 |
| 132951 | 132988 | I 425 R/L | 4 L/R | 30 | 4 | 3,0 | 25 | 25 | 22 | 40 | 220 | 107603 | 114747 | 107583 |
| 132962 | 132980 | I 620 R/L | 6 L/R | 26 | 6 | 4,0 | 20 | 20 | 18 | 37 | 200 | 107540 | 114688 | 107578 |
| 132931 | 132940 | I 625 R/L | 6 L/R | 31 | 6 | 4,0 | 25 | 25 | 22 | 42 | 220 | 107540 | 114688 | 107578 |
| 132954 | 132953 | I 632 R/L | 6 L/R | 38 | 6 | 4,0 | 32 | 32 | 28 | 47 | 250 | 107540 | 114688 | 107578 |
| 133007 | 132974 | I 825 R/L | 8 L/R | 33 | 8 | 5,5 | 25 | 25 | 22 | 50 | 220 | 107540 | 114688 | 107578 |
| 132975 | 133000 | I 832 R/L | 8 L/R | 40 | 8 | 5,5 | 32 | 32 | 28 | 50 | 250 | 107540 | 114688 | 107578 |
| 133008 | 133006 | I 840 R/L | 8 L/R | 48 | 8 | 5,5 | 40 | 40 | 36 | 61 | 300 | 107540 | 114688 | 107578 |

Unprofiled Carbide Inserts



| Size | b mm | h mm | Order No. right-hand | K10 | P25 | FKN | Order No. left-hand | K10 | P25 | FKN |
|------|---------|---------|-------------------------|--------|--------|--------|------------------------|--------|--------|--------|
| 3 | 3 | 3 | | 142773 | 142756 | 107348 | | 142699 | 142811 | 107343 |
| 4 | 4 | 4 | | 142757 | 142764 | 142776 | | 142820 | 142824 | 142805 |
| 6 | 6 | 6 | | 142841 | 142770 | 142827 | | 142828 | 142882 | 142848 |
| 8 | 8 | 8 | | 142806 | 142896 | 142823 | | 142897 | 142816 | 107356 |

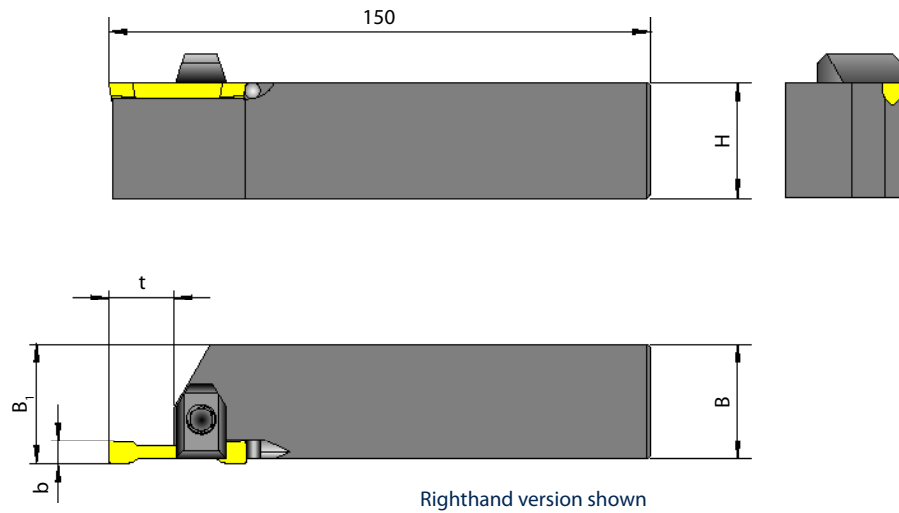
Various forms of insert profiles.
Other profiles according to DIN or drawing are available
on request.



External Machining, Grooving and Copy Turning

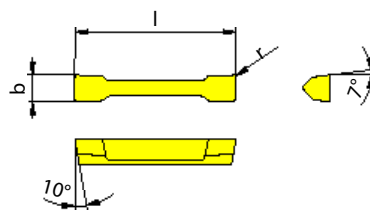
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- Inserts Page 66-67

The insert is positioned and clamped secure in a precision ground pocket. This allows for high cutting forces as well as machining in axial direction. In addition, copy turning is possible.



| Order No. | | Designation | Insert | b mm | t mm | H mm | B mm | B ₁ mm | Spare part No. | | |
|------------|-----------|--------------|----------|---------|---------|---------|---------|----------------------|----------------|--------|--------|
| right-hand | left-hand | | | | | | | | Clamping-claw | Screw | Wrench |
| 133038 | 132923 | R/L 2020-318 | DE 42-1 | 3,18 | 10 | 20 | 20 | 20,5 | 143184 | 107444 | 107578 |
| 133065 | 133033 | R/L 2020-398 | DE 42-15 | 3,98 | 10 | 20 | 20 | 20,5 | 143184 | 107444 | 107578 |
| 133133 | 133126 | R/L 2525-476 | DE 42-2 | 4,76 | 15 | 25 | 25 | 25,5 | 143184 | 107444 | 107578 |
| 133087 | 133107 | R/L 3232-476 | DE 42-2 | 4,76 | 15 | 32 | 32 | 32,5 | 143184 | 107444 | 107578 |
| 133064 | 133140 | R/L 3232-635 | 107620 | 6,35 | 18 | 32 | 32 | 32,7 | 143186 | 107562 | 107620 |

Carbide Inserts Size DE42

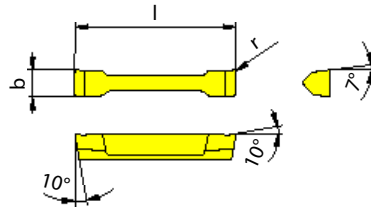


| Size | b mm | r mm | l mm | Order No. | FKN | Order No. | TINA-MATIC |
|---------------|---------|---------|---------|-----------|--------|-----------|------------|
| DE 42-1-R 04 | 3,18 | 0,4 | 38,1 | | 142844 | | 142872 |
| DE 42-1-R 08 | 3,18 | 0,8 | 38,1 | | 107360 | | 142860 |
| DE 42-15-R 04 | 3,98 | 0,4 | 38,1 | | 142879 | | 142851 |
| DE 42-15-R 08 | 3,98 | 0,8 | 38,1 | | 107350 | | 142935 |
| DE 42-2-R 04 | 4,76 | 0,4 | 38,1 | | 142921 | | 142975 |
| DE 42-2-R 08 | 4,76 | 0,8 | 38,1 | | 107371 | | 142810 |
| 107620-R 04 | 6,35 | 0,4 | 38,1 | | 142958 | | 143020 |
| 107620-R 08 | 6,35 | 0,8 | 38,1 | | 107396 | | 143028 |

■ = Available on stock. ○ = Available by request, delivery time app. 2-3 weeks. - = Not available.

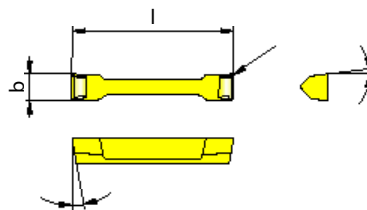
External Machining, Grooving and Copy Turning

Carbide Inserts Size DE42



with ground chip-breaker

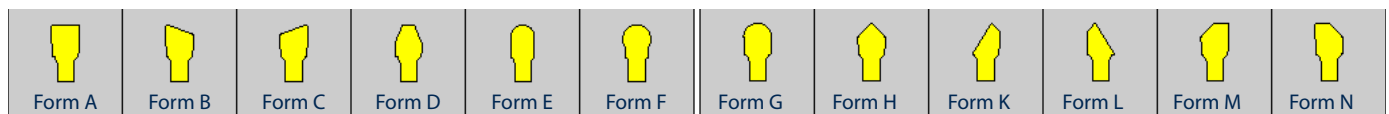
| Size | b mm | r mm | l mm | Order No. | FKN | Order No. | TINA-MATIC |
|---------------|------|------|------|-----------|--------|-----------|------------|
| DE 42-1-R 04 | 3,18 | 0,4 | 38,1 | | 142877 | | 142863 |
| DE 42-1-R 08 | 3,18 | 0,8 | 38,1 | | 142918 | | 142942 |
| DE 42-15-R 04 | 3,98 | 0,4 | 38,1 | | 142919 | | 142912 |
| DE 42-15-R 08 | 3,98 | 0,8 | 38,1 | | 107369 | | 142888 |
| DE 42-2-R 04 | 4,76 | 0,4 | 38,1 | | 142983 | | 142995 |
| DE 42-2-R 08 | 4,76 | 0,8 | 38,1 | | 107378 | | 142929 |
| 107620-R 04 | 6,35 | 0,4 | 38,1 | | 143029 | | 143044 |
| 107620-R 08 | 6,35 | 0,8 | 38,1 | | 107384 | | 142999 |



with sintered chip-breaker

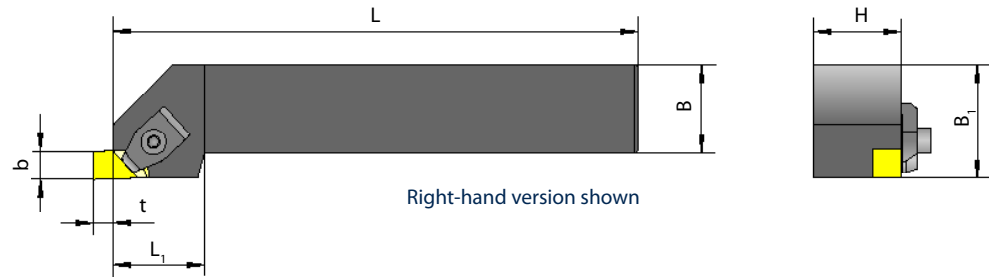
| Size | b mm | r mm | l mm | Order No. | FKN | Order No. | TINA-MATIC |
|---------------|------|------|------|-----------|--------|-----------|------------|
| DE 42-15-R 04 | 3,98 | 0,4 | 38,1 | | 107375 | | 142954 |
| DE 42-2-R 04 | 4,76 | 0,4 | 38,1 | | 143002 | | 143019 |

VARIOUS FORMS: Various forms of insert profiles, manufactured upon request, in large or small series.



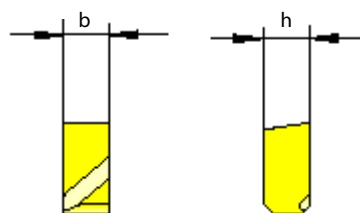
External Machining Plunge-Cutting and Special Grooves

- Cutting Data Page 78
- Carbide Grades Page 79
- Inserts see below



| Order No. | | Designation | Insert | b mm | t mm | H mm | B mm | B ₁ mm | L mm | L ₁ mm | Spare part No. | | |
|------------|-----------|-------------|--------|---------|---------|---------|---------|----------------------|---------|----------------------|----------------|--------|--------|
| right-hand | left-hand | | | | | | | | | | Clamping-claw | Screw | Wrench |
| 132979 | 132915 | A 410 R/L | 4 R/L | 4,0 | 3,0 | 10 | 10 | 12 | 100 | 14 | 107603 | 114747 | 107583 |
| 132971 | 132929 | A 412 R/L | 4 R/L | 4,0 | 3,0 | 12 | 12 | 16 | 125 | 12 | 107603 | 114747 | 107583 |
| 132914 | 132916 | A 416 R/L | 4 R/L | 4,0 | 3,0 | 16 | 16 | 20 | 140 | 14 | 107603 | 114747 | 107583 |
| 132964 | 132945 | A 420 R/L | 4 R/L | 4,0 | 3,0 | 20 | 20 | 25 | 140 | 16 | 107603 | 114747 | 107583 |
| 132960 | 132938 | A 425 R/L | 4 R/L | 4,0 | 3,0 | 25 | 25 | 32 | 150 | 25 | 107603 | 114747 | 107583 |
| 132997 | 132989 | A 612 R/L | 6 R/L | 6,0 | 4,0 | 12 | 12 | 16 | 125 | 18 | 107540 | 114688 | 107578 |
| 132961 | 132921 | A 616 R/L | 6 R/L | 6,0 | 4,0 | 16 | 16 | 20 | 140 | 18 | 107540 | 114688 | 107578 |
| 132949 | 132952 | A 620 R/L | 6 R/L | 6,0 | 4,0 | 20 | 20 | 25 | 150 | 18 | 107540 | 114688 | 107578 |
| 132920 | 132930 | A 625 R/L | 6 R/L | 6,0 | 4,0 | 25 | 25 | 32 | 150 | 23 | 107540 | 114688 | 107578 |
| 132963 | 132998 | A 816 R/L | 8 R/L | 8,0 | 5,5 | 16 | 16 | 20 | 140 | 25 | 107540 | 114688 | 107578 |
| 132982 | 132999 | A 820 R/L | 8 R/L | 8,0 | 5,5 | 20 | 20 | 25 | 150 | 25 | 107540 | 114688 | 107578 |
| 132966 | 132955 | A 825 R/L | 8 R/L | 8,0 | 5,5 | 25 | 25 | 32 | 150 | 26 | 107540 | 114688 | 107578 |
| 132932 | 132990 | A 832 R/L | 8 R/L | 8,0 | 5,5 | 32 | 32 | 40 | 180 | 30 | 107540 | 114688 | 107578 |
| 132991 | 132984 | A 1025 R/L | 10 R/L | 10,0 | 7,0 | 25 | 25 | 32 | 150 | 35 | 143181 | 114715 | 107620 |
| 132976 | 133001 | A 1225 R/L | 12 R/L | 12,0 | 7,0 | 25 | 25 | 32 | 150 | 35 | 143181 | 114715 | 107620 |

Unprofiled Carbide Inserts



Right-hand version shown

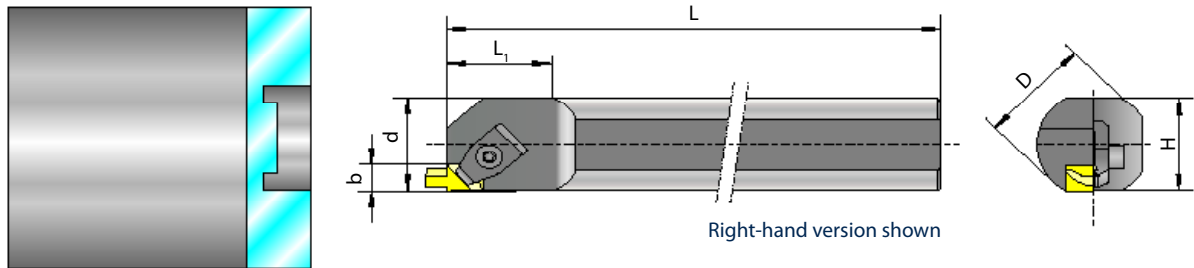
| Size | b mm | h mm | Order No. right-hand | K10 | P25 | FKN | Order No. left-hand | K10 | P25 | FKN |
|------|---------|---------|-------------------------|--------|--------|--------|------------------------|--------|--------|--------|
| | | | | 3 | 3 | 3 | | 142773 | 142756 | 107348 |
| 4 | 4 | 4 | 142757 | 142764 | 142776 | 142820 | 142824 | 142805 | | |
| 6 | 6 | 6 | 142841 | 142770 | 142827 | 142828 | 142882 | 142848 | | |
| 8 | 8 | 8 | 142806 | 142896 | 142823 | 142897 | 142816 | 107356 | | |
| 10 | 10 | 10 | 142871 | - | 142802 | 107346 | 142817 | 142818 | | |
| 12 | 12 | 12 | 142842 | - | 142909 | 142843 | - | 142916 | | |

Various forms of insert profiles.
Other profiles according to DIN or drawing are available
on request.



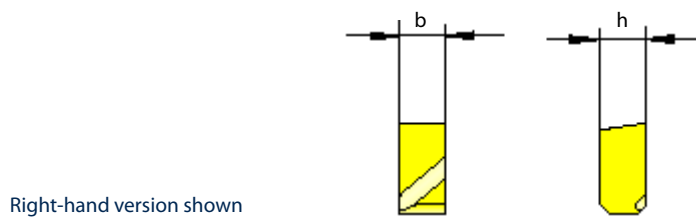
Axial Internal Machining $\geq \text{Ø } 6-40$

- Cutting Data Page 78
- Carbide Grades Page 79
- Inserts see below



| Order No. | | Designation | Insert | Bore Ø min. mm | b _{max.} mm | D _{h8} mm | d mm | H mm | L ₁ mm | L mm | Spare part No. | | |
|------------|-----------|-----------------|---------|----------------------|-------------------------|-----------------------|---------|---------|----------------------|---------|----------------|--------|--------|
| right-hand | left-hand | | | | | | | | | | Clamping-claw | Screw | Wrench |
| 132907 | 132913 | I 312 R/L Axial | I 3 R/L | 6 | 3 | 16 | 12 | 14 | 35 | 150 | 107682 | 114712 | 107577 |
| 132948 | 132965 | I 420 R/L Axial | I 4 R/L | 11 | 4 | 20 | 20 | 18 | 28 | 200 | 107603 | 114747 | 107583 |
| 132981 | 132973 | I 625 R/L Axial | I 6 R/L | 23 | 6 | 25 | 25 | 22 | 25 | 220 | 107540 | 114688 | 107578 |

Unprofiled Carbide Inserts



| Size | b mm | h mm | Order No. right-hand | K10 | P25 | FKN | Order No. left-hand | K10 | P25 | FKN |
|------|---------|---------|-------------------------|--------|--------|--------|------------------------|--------|--------|--------|
| | | | | 3 | 3 | 3 | | 142773 | 142756 | 107348 |
| 4 | 4 | 4 | 142757 | 142764 | 142776 | 142820 | 142824 | 142805 | | |
| 6 | 6 | 6 | 142841 | 142770 | 142827 | 142828 | 142882 | 142848 | | |

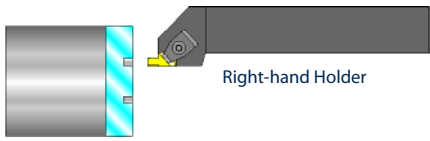
Various forms of insert profiles.
Other profiles according to DIN or drawing are available
on request.



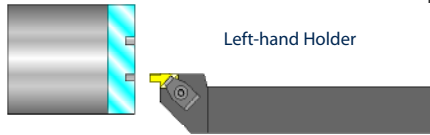
Axial Internal Machining $\geq \varnothing 6-40$



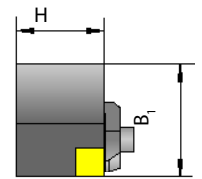
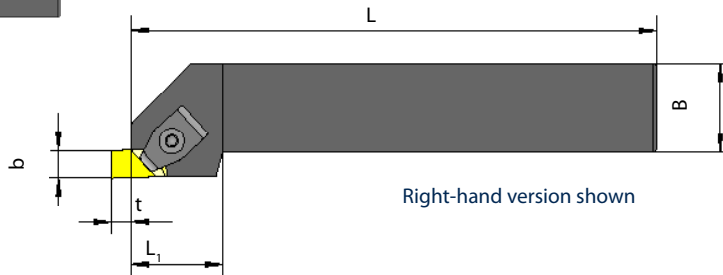
Direction of rotation left-hand



Direction of rotation right-hand



- Cutting Data Page 78
- Carbide Grades Page 79
- Inserts see below

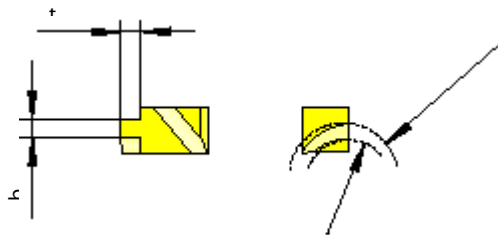


Right-hand version shown

Spare part No.

| Order No. | | Designation | Insert | b mm | t mm | H mm | B mm | B1 mm | L mm | L1 mm | Clamping-claw | Screw | Wrench |
|------------|-----------|-------------|--------|------|------|------|------|-------|------|-------|---------------|--------|--------|
| right-hand | left-hand | | | | | | | | | | | | |
| 132979 | 132915 | A 410 R/L | 4 R/L | 4 | 3,0 | 10 | 10 | 12 | 100 | 14 | 107603 | 114747 | 107583 |
| 132971 | 132929 | A 412 R/L | 4 R/L | 4 | 3,0 | 12 | 12 | 16 | 125 | 12 | 107603 | 114747 | 107583 |
| 132914 | 132916 | A 416 R/L | 4 R/L | 4 | 3,0 | 16 | 16 | 20 | 140 | 14 | 107603 | 114747 | 107583 |
| 132964 | 132945 | A 420 R/L | 4 R/L | 4 | 3,0 | 20 | 20 | 25 | 140 | 16 | 107603 | 114747 | 107583 |
| 132960 | 132938 | A 425 R/L | 4 R/L | 4 | 3,0 | 25 | 25 | 32 | 150 | 25 | 107603 | 114747 | 107583 |
| 132997 | 132989 | A 612 R/L | 6 R/L | 6 | 4,0 | 12 | 12 | 16 | 125 | 18 | 107540 | 114688 | 107578 |
| 132961 | 132921 | A 616 R/L | 6 R/L | 6 | 4,0 | 16 | 16 | 20 | 140 | 18 | 107540 | 114688 | 107578 |
| 132949 | 132952 | A 620 R/L | 6 R/L | 6 | 4,0 | 20 | 20 | 25 | 150 | 18 | 107540 | 114688 | 107578 |
| 132920 | 132930 | A 625 R/L | 6 R/L | 6 | 4,0 | 25 | 25 | 32 | 150 | 23 | 107540 | 114688 | 107578 |
| 132963 | 132998 | A 816 R/L | 8 R/L | 8 | 5,5 | 16 | 16 | 20 | 140 | 25 | 107540 | 114688 | 107578 |
| 132982 | 132999 | A 820 R/L | 8 R/L | 8 | 5,5 | 20 | 20 | 25 | 150 | 25 | 107540 | 114688 | 107578 |
| 132966 | 132955 | A 825 R/L | 8 R/L | 8 | 5,5 | 25 | 25 | 32 | 150 | 26 | 107540 | 114688 | 107578 |
| 132932 | 132990 | A 832 R/L | 8 R/L | 8 | 5,5 | 32 | 32 | 40 | 180 | 30 | 107540 | 114688 | 107578 |

Unprofiled carbide inserts for axial clearance grooves



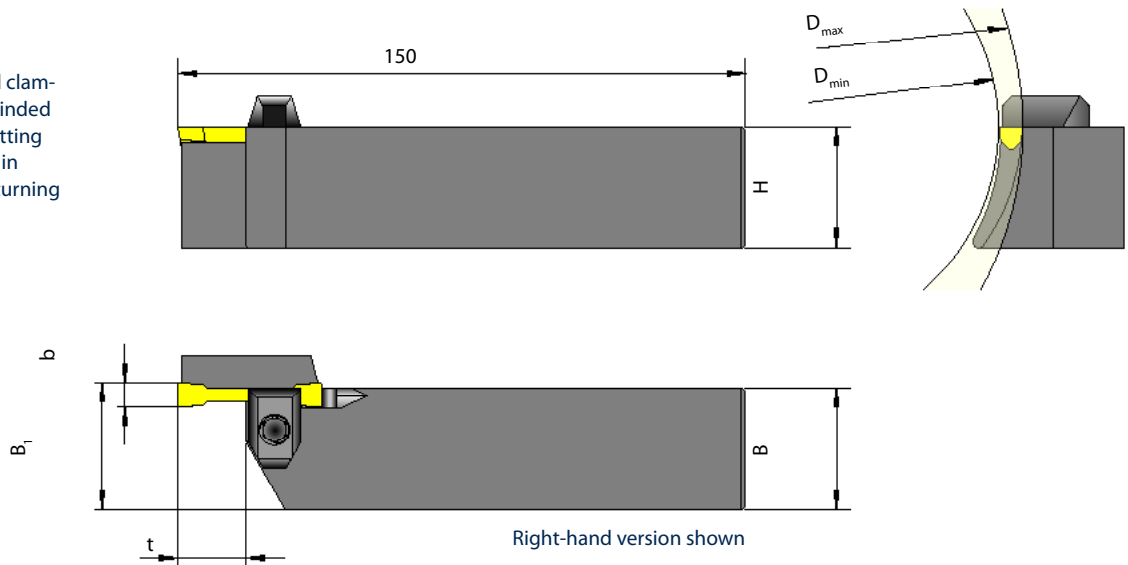
Right-hand version shown

| Size | b1 mm | tmax. mm | Dmin. mm | Dmax. mm | Order No. | FKN | Order No. | TINA-MATIC |
|-------|-------|----------|----------|----------|-----------|--------|-----------|------------|
| A 4 R | 1,5 | 3,0 | 6 | 12 | | 142819 | | 142795 |
| A 4 L | 1,5 | 3,0 | 6 | 12 | | 107354 | | 142837 |
| A 6 R | 2,0 | 3,5 | 11 | 25 | | 142853 | | 142800 |
| A 6 L | 2,0 | 3,5 | 11 | 25 | | 107358 | | 142801 |
| A 8 R | 2,5 | 5,0 | 23 | 40 | | 107361 | | 142791 |
| A 8 L | 2,5 | 5,0 | 23 | 40 | | 107353 | | 142869 |

Axial External Machining $\geq \varnothing 35$

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- Carbide Grades Page 79
- Inserts Page 74
- Other sizes for holders and inserts are available on request

The insert is positioned and clamped secure in a precision grinded prisma. Thus allows high cutting forces as well as machining in radial direction. Also copy, turning is possible.

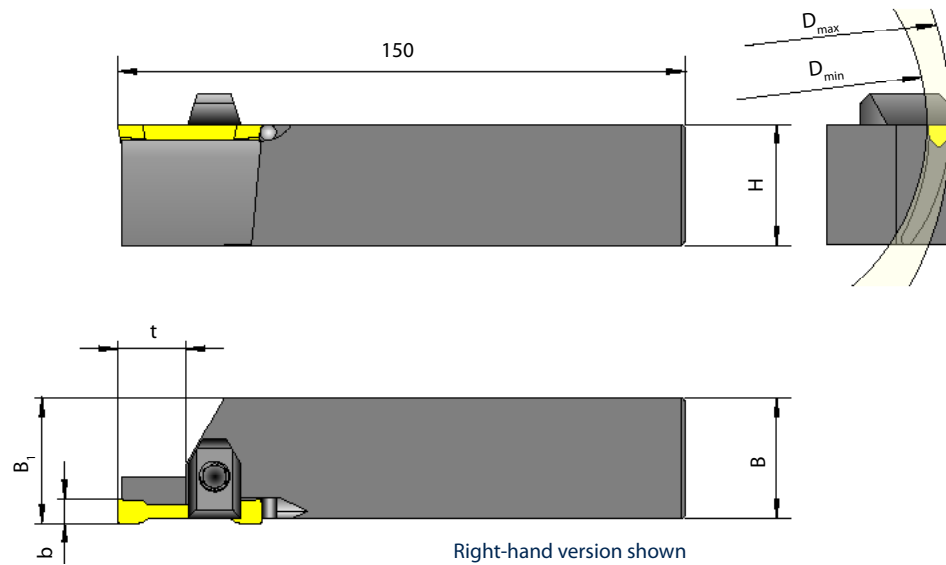


| Order No. | | Designation | Insert | b mm | t mm | H mm | B mm | B ₁ mm | D _{min.} mm | D _{max.} mm | Spare part No. | | |
|------------|-----------|-----------------------|----------|---------|---------|---------|---------|----------------------|-------------------------|-------------------------|----------------|--------|--------|
| right-hand | left-hand | | | | | | | | | | Clamping-claw | Screw | Wrench |
| 132985 | 133010 | R/L 2020-318-39-60 | DE 42-1 | 3,18 | 10 | 20 | 20 | 20,5 | 39 | 60 | 143184 | 107444 | 107578 |
| 133002 | 133011 | R/L 2020-318-54-85 | DE 42-1 | 3,18 | 10 | 20 | 20 | 20,5 | 54 | 85 | 143184 | 107444 | 107578 |
| 132986 | 133014 | R/L 2020-318-79-125 | DE 42-1 | 3,18 | 10 | 20 | 20 | 20,5 | 79 | 125 | 143184 | 107444 | 107578 |
| 133009 | 132987 | R/L 2020-318-119-225 | DE 42-1 | 3,18 | 10 | 20 | 20 | 20,5 | 119 | 225 | 143184 | 107444 | 107578 |
| 132967 | 133003 | R/L 2020-318-219-1000 | DE 42-1 | 3,18 | 10 | 20 | 20 | 20,5 | 219 | 1000 | 143184 | 107444 | 107578 |
| 133039 | 133023 | R/L 2020-398-37-60 | DE 42-15 | 3,98 | 10 | 20 | 20 | 20,5 | 37 | 60 | 143184 | 107444 | 107578 |
| 133040 | 133024 | R/L 2020-398-52-85 | DE 42-15 | 3,98 | 10 | 20 | 20 | 20,5 | 52 | 85 | 143184 | 107444 | 107578 |
| 133047 | 133004 | R/L 2020-398-77-125 | DE 42-15 | 3,98 | 10 | 20 | 20 | 20,5 | 77 | 125 | 143184 | 107444 | 107578 |
| 132993 | 133005 | R/L 2020-398-117-225 | DE 42-15 | 3,98 | 10 | 20 | 20 | 20,5 | 117 | 225 | 143184 | 107444 | 107578 |
| 132924 | 132994 | R/L 2020-398-217-1000 | DE 42-15 | 3,98 | 10 | 20 | 20 | 20,5 | 217 | 1000 | 143184 | 107444 | 107578 |
| 133019 | 133028 | R/L 2525-476-35-60 | DE 42-2 | 4,76 | 15 | 25 | 25 | 26,0 | 35 | 60 | 143184 | 107444 | 107578 |
| 133025 | 133021 | R/L 2525-476-50-85 | DE 42-2 | 4,76 | 15 | 25 | 25 | 26,0 | 50 | 85 | 143184 | 107444 | 107578 |
| 132996 | 133043 | R/L 2525-476-75-125 | DE 42-2 | 4,76 | 15 | 25 | 25 | 26,0 | 75 | 125 | 143184 | 107444 | 107578 |
| 133074 | 133083 | R/L 2525-476-115-225 | DE 42-2 | 4,76 | 15 | 25 | 25 | 26,0 | 115 | 225 | 143184 | 107444 | 107578 |
| 133026 | 133057 | R/L 2525-476-215-1000 | DE 42-2 | 4,76 | 15 | 25 | 25 | 26,0 | 215 | 1000 | 143184 | 107444 | 107578 |
| 133027 | 133029 | R/L 3232-476-35-60 | DE 42-2 | 4,76 | 15 | 32 | 32 | 33,0 | 35 | 60 | 143184 | 107444 | 107578 |
| 133075 | 133066 | R/L 3232-476-50-85 | DE 42-2 | 4,76 | 15 | 32 | 32 | 33,0 | 50 | 85 | 143184 | 107444 | 107578 |
| 133042 | 133084 | R/L 3232-476-75-125 | DE 42-2 | 4,76 | 15 | 32 | 32 | 33,0 | 75 | 125 | 143184 | 107444 | 107578 |
| 133020 | 133076 | R/L 3232-476-115-225 | DE 42-2 | 4,76 | 15 | 32 | 32 | 33,0 | 115 | 225 | 143184 | 107444 | 107578 |
| 132969 | 133067 | R/L 3232-476-215-1000 | DE 42-2 | 4,76 | 15 | 32 | 32 | 33,0 | 215 | 1000 | 143184 | 107444 | 107578 |
| 133121 | 133055 | R/L 3232-635-47-85 | 107620 | 6,35 | 18 | 32 | 32 | 33,0 | 47 | 85 | 143186 | 107562 | 107620 |
| 133053 | 133088 | R/L 3232-635-72-125 | 107620 | 6,35 | 18 | 32 | 32 | 33,0 | 72 | 125 | 143186 | 107562 | 107620 |
| 133114 | 133139 | R/L 3232-635-112-225 | 107620 | 6,35 | 18 | 32 | 32 | 33,0 | 112 | 225 | 143186 | 107562 | 107620 |
| 133054 | 133095 | R/L 3232-635-212-1000 | 107620 | 6,35 | 18 | 32 | 32 | 33,0 | 212 | 1000 | 143186 | 107562 | 107620 |

Axial Internal Machining $\geq \varnothing 35$

- Cutting Data Page 78
- Carbide Grades Page 79
- Inserts Page 74
- Other sizes for holders and inserts are available on request

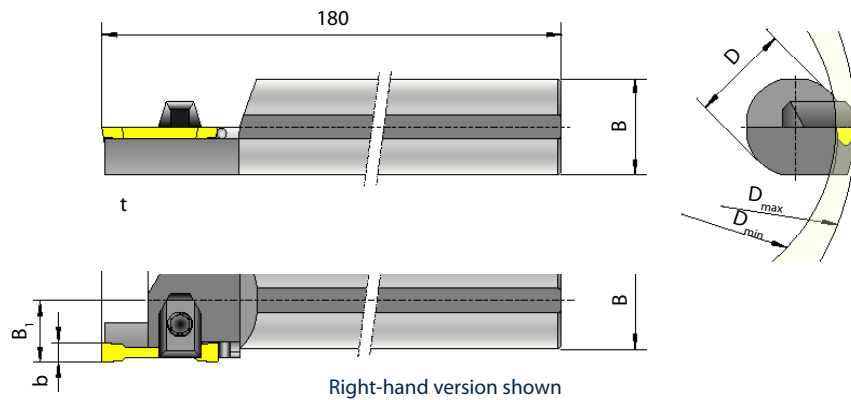
The insert is positioned and clamped secure in a precision grinded prisma. Thus allows high cutting forces as well as machining in radial direction. Also copy, turning is possible.



| Order No. | | Designation | Insert | b mm | t mm | H mm | B mm | B ₁ mm | D _{min.} mm | D _{max.} mm | Spare part No. | | |
|------------|-----------|-----------------------|----------|---------|---------|---------|---------|----------------------|-------------------------|-------------------------|----------------|--------|--------|
| right-hand | left-hand | | | | | | | | | | Clamping-claw | Screw | Wrench |
| 132977 | 132956 | R/L 2020-318-39-60 | DE 42-1 | 3,18 | 10 | 20 | 20 | 20,0 | 39 | 60 | 143184 | 107444 | 107578 |
| 132922 | 133015 | R/L 2020-318-54-85 | DE 42-1 | 3,18 | 10 | 20 | 20 | 20,0 | 54 | 85 | 143184 | 107444 | 107578 |
| 133012 | 133013 | R/L 2020-318-79-125 | DE 42-1 | 3,18 | 10 | 20 | 20 | 20,0 | 79 | 125 | 143184 | 107444 | 107578 |
| 132978 | 133022 | R/L 2020-318-119-225 | DE 42-1 | 3,18 | 10 | 20 | 20 | 20,0 | 119 | 225 | 143184 | 107444 | 107578 |
| 132992 | 133030 | R/L 2020-318-219-1000 | DE 42-1 | 3,18 | 10 | 20 | 20 | 20,0 | 219 | 1000 | 143184 | 107444 | 107578 |
| 133016 | 133032 | R/L 2020-398-37-60 | DE 42-15 | 3,98 | 10 | 20 | 20 | 20,0 | 37 | 60 | 143184 | 107444 | 107578 |
| 133048 | 133041 | R/L 2020-398-52-85 | DE 42-15 | 3,98 | 10 | 20 | 20 | 20,0 | 52 | 85 | 143184 | 107444 | 107578 |
| 133017 | 133018 | R/L 2020-398-77-125 | DE 42-15 | 3,98 | 10 | 20 | 20 | 20,0 | 77 | 125 | 143184 | 107444 | 107578 |
| 133031 | 133056 | R/L 2020-398-117-225 | DE 42-15 | 3,98 | 10 | 20 | 20 | 20,0 | 117 | 225 | 143184 | 107444 | 107578 |
| 132994 | 132968 | R/L 2020-398-217-1000 | DE 42-15 | 3,98 | 10 | 20 | 20 | 20,0 | 217 | 1000 | 143184 | 107444 | 107578 |
| 132970 | 133034 | R/L 2525-476-35-60 | DE 42-2 | 4,76 | 15 | 25 | 25 | 25,0 | 35 | 60 | 143184 | 107444 | 107578 |
| 133077 | 133079 | R/L 2525-476-50-85 | DE 42-2 | 4,76 | 15 | 25 | 25 | 25,0 | 50 | 85 | 143184 | 107444 | 107578 |
| 133058 | 133086 | R/L 2525-476-75-125 | DE 42-2 | 4,76 | 15 | 25 | 25 | 25,0 | 75 | 125 | 143184 | 107444 | 107578 |
| 133091 | 133049 | R/L 2525-476-115-225 | DE 42-2 | 4,76 | 15 | 25 | 25 | 25,0 | 115 | 225 | 143184 | 107444 | 107578 |
| 133085 | 133069 | R/L 2525-476-215-1000 | DE 42-2 | 4,76 | 15 | 25 | 25 | 25,0 | 215 | 1000 | 143184 | 107444 | 107578 |
| 133068 | 133104 | R/L 3232-476-35-60 | DE 42-2 | 4,76 | 15 | 32 | 32 | 32,0 | 35 | 60 | 143184 | 107444 | 107578 |
| 133078 | 133092 | R/L 3232-476-50-85 | DE 42-2 | 4,76 | 15 | 32 | 32 | 32,0 | 50 | 85 | 143184 | 107444 | 107578 |
| 133097 | 133050 | R/L 3232-476-75-125 | DE 42-2 | 4,76 | 15 | 32 | 32 | 32,0 | 75 | 125 | 143184 | 107444 | 107578 |
| 133098 | 133080 | R/L 3232-476-115-225 | DE 42-2 | 4,76 | 15 | 32 | 32 | 32,0 | 115 | 225 | 143184 | 107444 | 107578 |
| 133044 | 133093 | R/L 3232-476-215-1000 | DE 42-2 | 4,76 | 15 | 32 | 32 | 32,0 | 215 | 1000 | 143184 | 107444 | 107578 |
| 133089 | 133116 | R/L 3232-635-47-85 | 107620 | 6,35 | 18 | 32 | 32 | 32,0 | 47 | 85 | 143186 | 107562 | 107620 |
| 133100 | 133145 | R/L 3232-635-72-125 | 107620 | 6,35 | 18 | 32 | 32 | 32,0 | 72 | 125 | 143186 | 107562 | 107620 |
| 133122 | 133063 | R/L 3232-635-112-225 | 107620 | 6,35 | 18 | 32 | 32 | 32,0 | 112 | 225 | 143186 | 107562 | 107620 |
| 133115 | 133127 | R/L 3232-635-212-1000 | 107620 | 6,35 | 18 | 32 | 32 | 32,0 | 212 | 1000 | 143186 | 107562 | 107620 |

Axial Machining $\geq \varnothing 35$ Shank $\varnothing 32$

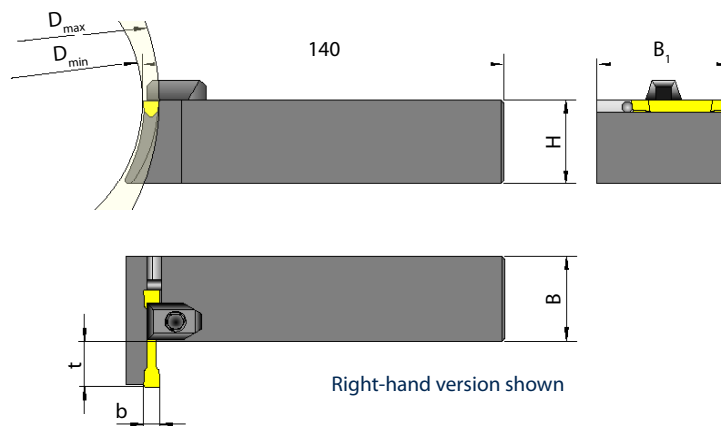
- Cutting Data Page 78
- Carbide Grades Page 79
- Inserts Page 74
- Other sizes for holders and inserts are available on request



| Order No. | | Designation | Insert | b mm | t mm | D mm | B mm | B ₁ mm | D _{min.} mm | D _{max.} mm | Spare part No. | | |
|------------|-----------|----------------------|---------|---------|---------|---------|---------|----------------------|-------------------------|-------------------------|----------------|--------|--------|
| right-hand | left-hand | | | | | | | | | | Clamping-claw | Screw | Wrench |
| 133072 | 133106 | R/L 3232-476-35-60 | DE 42-2 | 4,76 | 15 | 32 | 31 | 20 | 35 | 60 | 143184 | 107444 | 107578 |
| 133073 | 133062 | R/L 3232-476-50-85 | DE 42-2 | 4,76 | 15 | 32 | 31 | 20 | 50 | 85 | 143184 | 107444 | 107578 |
| 133125 | 133113 | R/L 3232-476-75-125 | DE 42-2 | 4,76 | 15 | 32 | 31 | 20 | 75 | 125 | 143184 | 107444 | 107578 |
| 133052 | 133132 | R/L 3232-476-115-225 | DE 42-2 | 4,76 | 15 | 32 | 31 | 20 | 115 | 225 | 143184 | 107444 | 107578 |

Axial Machining $\geq \varnothing 35$ Insert Crosswise

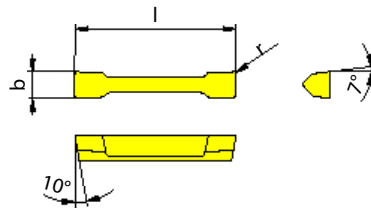
- Cutting Data Page 78
- Carbide Grades Page 79
- Inserts Page 74
- Other sizes for holders and inserts are available on request



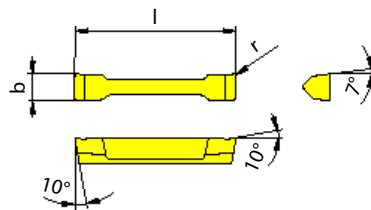
| Order No. | | Designation | Insert | b mm | t mm | H mm | B mm | B ₁ mm | D _{min.} mm | D _{max.} mm | Spare part No. | | |
|------------|-----------|-----------------------|---------|---------|---------|---------|---------|----------------------|-------------------------|-------------------------|----------------|--------|--------|
| right-hand | left-hand | | | | | | | | | | Clamping-claw | Screw | Wrench |
| 133070 | 133112 | R/L 2525-476-35-60 | DE 42-2 | 4,76 | 18 | 25 | 25 | 44 | 35 | 60 | 143184 | 107444 | 107578 |
| 133059 | 133046 | R/L 2525-476-50-85 | DE 42-2 | 4,76 | 18 | 25 | 25 | 44 | 50 | 85 | 143184 | 107444 | 107578 |
| 133035 | 133105 | R/L 2525-476-75-125 | DE 42-2 | 4,76 | 18 | 25 | 25 | 44 | 75 | 125 | 143184 | 107444 | 107578 |
| 133081 | 133119 | R/L 2525-476-115-225 | DE 42-2 | 4,76 | 18 | 25 | 25 | 44 | 115 | 225 | 143184 | 107444 | 107578 |
| 133082 | 133120 | R/L 2525-476-215-1000 | DE 42-2 | 4,76 | 18 | 25 | 25 | 44 | 215 | 1000 | 143184 | 107444 | 107578 |
| 133036 | 133051 | R/L 3232-476-35-60 | DE 42-2 | 4,76 | 18 | 32 | 32 | 51 | 35 | 60 | 143184 | 107444 | 107578 |
| 133111 | 133071 | R/L 3232-476-50-85 | DE 42-2 | 4,76 | 18 | 32 | 32 | 51 | 50 | 85 | 143184 | 107444 | 107578 |
| 133099 | 133060 | R/L 3232-476-75-125 | DE 42-2 | 4,76 | 18 | 32 | 32 | 51 | 75 | 125 | 143184 | 107444 | 107578 |
| 133037 | 133094 | R/L 3232-476-115-225 | DE 42-2 | 4,76 | 18 | 32 | 32 | 51 | 115 | 225 | 143184 | 107444 | 107578 |
| 133045 | 133061 | R/L 3232-476-215-1000 | DE 42-2 | 4,76 | 18 | 32 | 32 | 51 | 215 | 1000 | 143184 | 107444 | 107578 |

External Machining Grooving and Copy Turning

Carbide Inserts size DE42

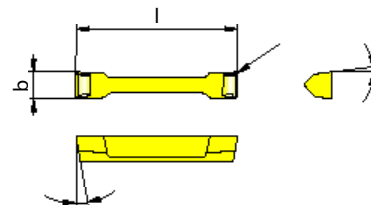


| Size | b mm | r mm | l mm | Order No. | FKN | Order No. | TINA-MATIC |
|---------------|------|------|------|-----------|--------|-----------|------------|
| DE 42-1-R 04 | 3,18 | 0,4 | 38,1 | | 142844 | | 142872 |
| DE 42-1-R 08 | 3,18 | 0,8 | 38,1 | | 107360 | | 142860 |
| DE 42-15-R 04 | 3,98 | 0,4 | 38,1 | | 142879 | | 142851 |
| DE 42-15-R 08 | 3,98 | 0,8 | 38,1 | | 107350 | | 142935 |
| DE 42-2-R 04 | 4,76 | 0,4 | 38,1 | | 142921 | | 142975 |
| DE 42-2-R 08 | 4,76 | 0,8 | 38,1 | | 107371 | | 142810 |
| 107620-R 04 | 6,35 | 0,4 | 38,1 | | 142958 | | 143020 |
| 107620-R 08 | 6,35 | 0,8 | 38,1 | | 107396 | | 143028 |



with ground chip-breaker

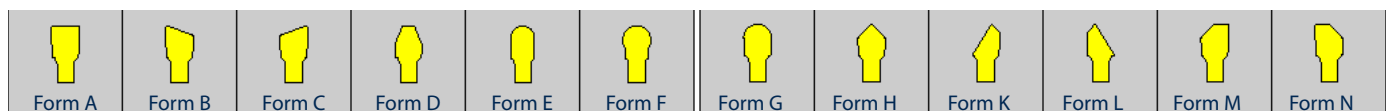
| Size | b mm | r mm | l mm | Order No. | FKN | Order No. | TINA-MATIC |
|---------------|------|------|------|-----------|--------|-----------|------------|
| DE 42-1-R 04 | 3,18 | 0,4 | 38,1 | | 142877 | | 142863 |
| DE 42-1-R 08 | 3,18 | 0,8 | 38,1 | | 142918 | | 142942 |
| DE 42-15-R 04 | 3,98 | 0,4 | 38,1 | | 142919 | | 142912 |
| DE 42-15-R 08 | 3,98 | 0,8 | 38,1 | | 107369 | | 142888 |
| DE 42-2-R 04 | 4,76 | 0,4 | 38,1 | | 142983 | | 142995 |
| DE 42-2-R 08 | 4,76 | 0,8 | 38,1 | | | | 142929 |
| 107620-R 04 | 6,35 | 0,4 | 38,1 | | 143029 | | 143044 |
| 107620-R 08 | 6,35 | 0,8 | 38,1 | | 107384 | | 142999 |



with sintered chip-breaker

| Size | b mm | r mm | l mm | Order No. | FKN | Order No. | TINA-MATIC |
|---------------|------|------|------|-----------|--------|-----------|------------|
| DE 42-15-R 04 | 3,98 | 0,4 | 38,1 | | 107375 | | 142954 |
| DE 42-2-R 04 | 4,76 | 0,4 | 38,1 | | 143002 | | 143019 |

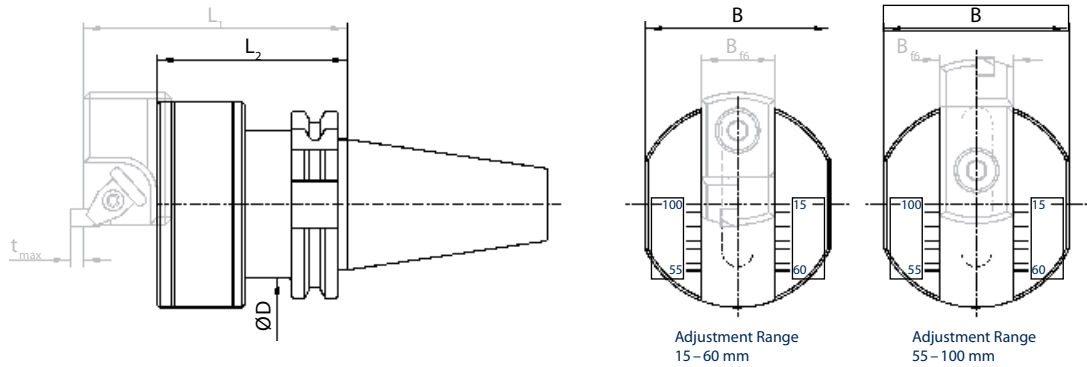
VARIOUS FORMS: Various forms of insert profiles, manufactured upon request, in large or small series.



Axial Cutting Tool with scalable Cutting Diameter and Fine-Adjustment

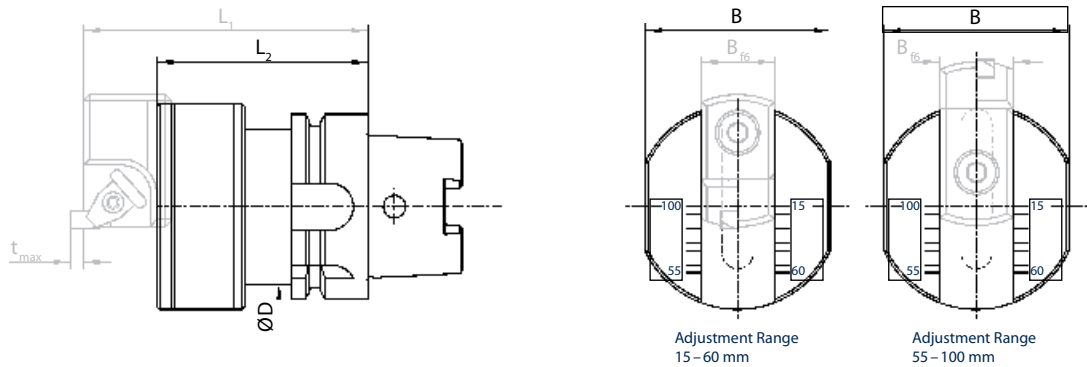
■ All Axial-Cutting Tools without Insert Holders

DIN 69871 MAS-BT



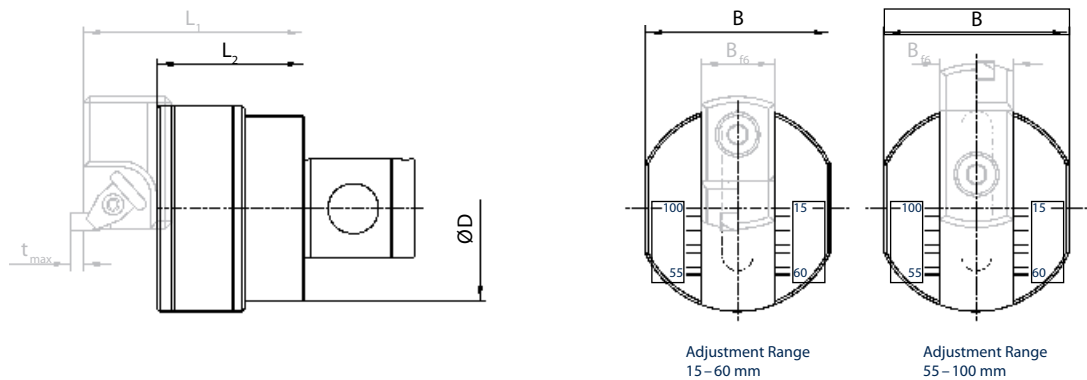
| Order No. | Adjustment Range Ø mm | Shank size | Insert size | L1 mm | L2 mm | B mm | Bf6 mm | D mm | tmax. mm |
|-----------|-----------------------|------------|-------------|-------|-------|------|--------|------|----------|
| 133134 | 15 – 100 | SK 40 | A6R | 90 | 65 | 63 | 25 | 40 | 4,0 |
| 133151 | 15 – 100 | SK 50 | A6R | 90 | 65 | 63 | 25 | 75 | 4,0 |
| 133109 | 15 – 100 | BT 40 | A6R | 90 | 65 | 63 | 25 | 40 | 4,0 |

DIN 69893



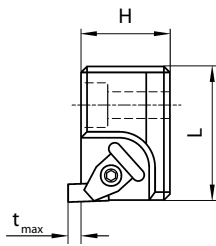
| Order No. | Adjustment Range Ø mm | Shank size | Insert size | L1 mm | L2 mm | B mm | Bf6 mm | D mm | tmax. mm |
|-----------|-----------------------|------------|-------------|-------|-------|------|--------|------|----------|
| 133118 | 15 – 100 | HSK 63 | A6R | 97 | 72 | 63 | 25 | 53 | 4,0 |

Komet® ABS

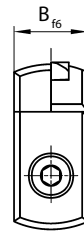


| Order No. | Adjustment Range Ø mm | Shank size | Insert size | L1 mm | L2 mm | B mm | Bf6 mm | D mm | tmax. mm |
|-----------|-----------------------|------------|-------------|-------|-------|------|--------|------|----------|
| 133096 | 15 – 60 | ABS 50 | A6R | 75 | 48 | 63 | 25 | 50 | 4,0 |
| 133135 | 15 – 100 | ABS 63 | A6R | 75 | 50 | 63 | 25 | 63 | 4,0 |

Insert Holder



Adjustment Range
15 – 60 mm

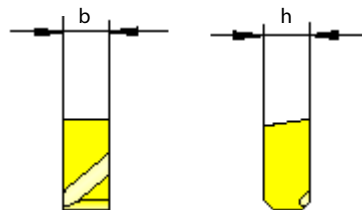


Adjustment Range
55 – 100 mm

| Order No. | Adjustment Range Ø mm | Insert size | L mm | B _{f6} mm | H mm | t _{max} mm | Spare part No. | |
|-----------|-----------------------|-------------|------|--------------------|------|---------------------|----------------|--------|
| | | | | | | | Clamping claw | Screw |
| 133117 | 15 – 60 | A 6R | 45 | 25 | 30 | 4,0 | 107540 | 114688 |
| 133090 | 55 – 100 | A 6R | 62 | 25 | 30 | 4,0 | 107540 | 114688 |

Screw torque 0,9 Nm

Unprofiled Carbide Inserts



Righthand version shown

| Size | b mm | h mm | Order No. right-hand | K10 | P25 | FKN | Order No. left-hand | K10 | P25 | FKN |
|------|------|------|----------------------|--------|--------|--------|---------------------|--------|--------|--------|
| A 6R | 6 | 6 | | 142841 | 142770 | 142827 | | 142828 | 142882 | 142848 |

Various forms of insert profiles.
Other profiles according to DIN or drawing are available on request.



Function and Handling

Technical Data

Complete tool, consisting of

- Axial-Cutting-Tool
- 2 insert holders for cutting range
 - a) 15 – 60 mm
 - b) 55 – 100 mm

Advantages

This tool makes operations possible in workpieces, which cannot be clamped on turning machines.

Applications

Making grooves (DIN- or special grooves) up to a

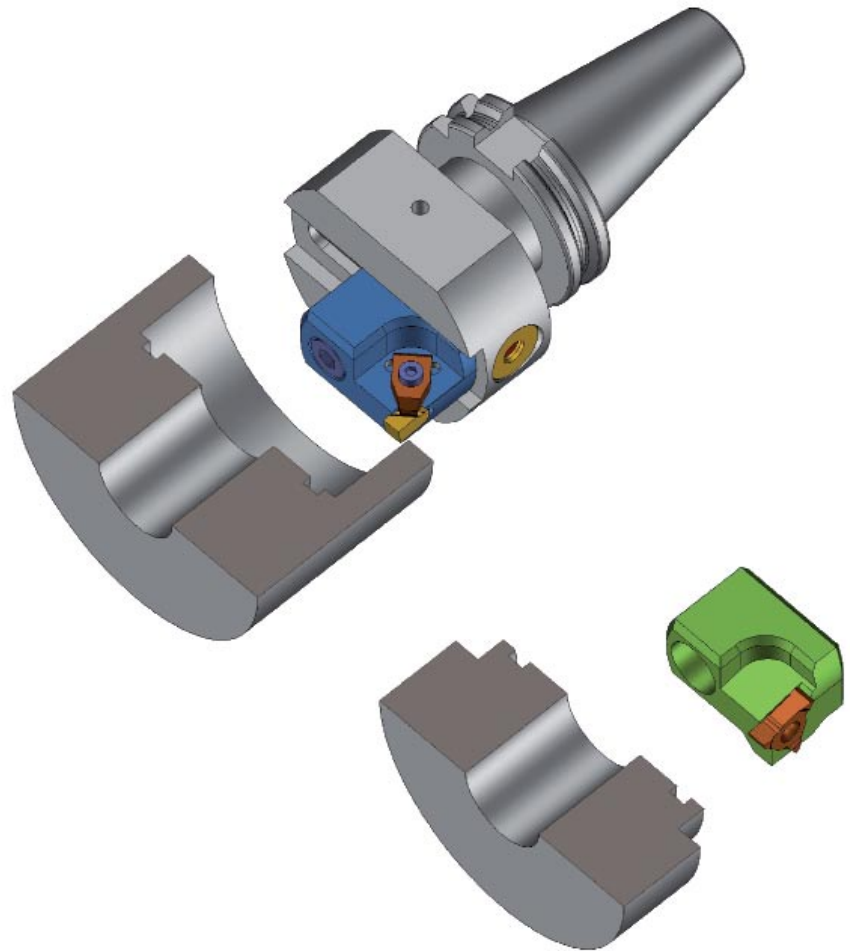
- Cutting depth of max. 4,0 mm
- Cutting width of max. 6 mm

Rough Adjustment

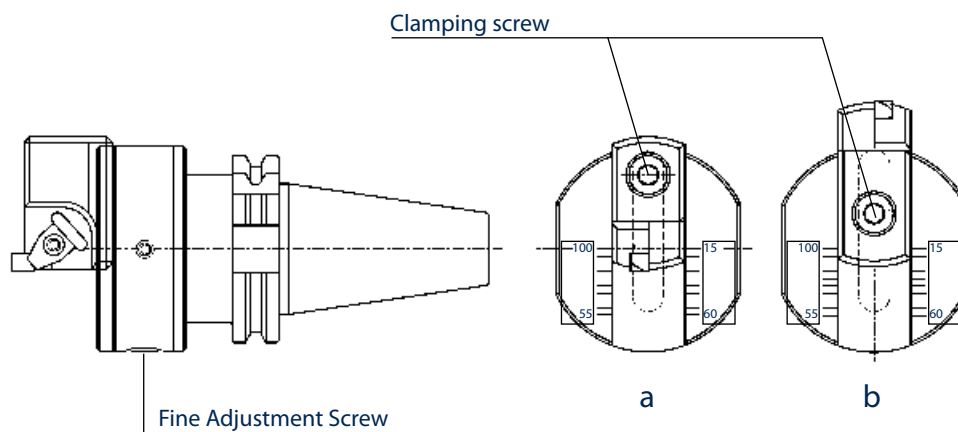
1. Removing the clamping screw
2. Rough adjustment of the insertholder over the screening system (2,5 mm)
3. Low tighten the clamping screw

Fine Adjustment

1. Fine adjustment over the fine adjustment screw
2. Tighten the clamping screw



Available with 3-edged insert and corresponding holder on demand.



Cutting Data for Axial-, Radial- and Profile Tools (Reference Values)

| | | | Radial grooving, External grooving | | | Internal grooving (Axial grooving) | | |
|--|-------------------|-----------------|--|----------|-----------|--|----------|-----------|
| | | | P | FKN | TINAMATIC | P | FKN | TINAMATIC |
| Feed per Revolution f _n (mm/U) | | | 0,05-0,5 | 0,05-0,5 | 0,05-0,5 | 0,05-0,5 | 0,05-0,5 | 0,05-0,5 |
| Material to be machined | | Brinell (HB) | Cutting Speed V _c (m/min.) | | | Cutting Speed V _c (m/min.) | | |
| Plain Carbon Steel | C < 0,25 % | 125 | 180 | | 200-160 | 125 | | 140-110 |
| | C < 0,55 % | 150 | 160 | | 190-150 | 120 | | 130-100 |
| | C < 0,80 % | 200 | 140 | | 180-130 | 100 | | 130-90 |
| Alloyed Steel | Annealed | 180 | 140 | | 180-140 | 100 | | 130-100 |
| | Quenched | 280-350 | 110-80 | | 160-90 | 80-60 | | 110-60 |
| High Alloyed Steel | Annealed | 200 | 120 | | 140-90 | 85 | | 80-60 |
| | Quenched | 325 | 60 | | 70-60 | 40 | | 50-40 |
| Stainless Steel | Ferritic Martens. | 200 | | | 220-170 | | | 150-120 |
| | Austenitic | 180 | | | 150-120 | | | 100-80 |
| Cast Steel | Unalloyed | 180 | 150 | | 130-100 | 105 | | 90-70 |
| | Alloyed | 200 | 100 | | 110-80 | 70 | | 80-60 |
| | High Alloyed | | 100 | | 100-70 | 70 | | 70-50 |
| Malleable Cast Iron | Short Chip | 130 | | 70 | 140-120 | | 50 | 100-80 |
| | Long Chip | 230 | | 60 | 100-80 | | 40 | 70-60 |
| Cast Iron | LowStrength | 180 | | 70 | 110-90 | | 50 | 80-60 |
| | HighStrength | 260 | | 60 | 100-80 | | 40 | 70-60 |
| SpheruliticIron | Ferritic | 160 | | 60 | 100-80 | | 40 | 70-60 |
| | Pearlitic | 250 | | 50 | 90-70 | | 40 | 60-50 |
| Cooper Alloys | Not Quenched | 90 | | 180 | | | 125 | 140-50 |
| | Quenched | 120 | | 150 | | | 105 | 100-40 |
| Aluminium | Casted | 100 | | 350 | 750-280 | | 240 | 530-200 |
| | Quenched | 120 | | 150 | 500-150 | | 105 | 340-260 |

* Feed rates are given for max. Depth of Cut in relation with steel cutter body

P Casted Carbide Grade uncoated (Multi Grade)

Carbide Grades

K

Uncoated universal grade for turning unalloyed grey cast iron, black heart castings, alloys and non-ferrous metals with stable machining conditions. High wear resistance.

P

Uncoated universal grade for turning steel. Good resistance to thermal and mechanical stress with high wear resistance and edge toughness.

FKN

Uncoated grade with fine grain, specifically for titanium and other alloys as well as non-ferrous metals. The homogeneous structure ensures good edge toughness and resistance to wear at high cutting speeds.

TINAMATIC

Grade with multi-layer wear-resistant coating for dry and high-speed machining. Very high thermal and chemical resistance in combination with long service life.

