

Solid carbide  
high-performance reamers

## **SuperR-HS**

 **STOCK**

Chip – by Chip – to the Top

# Supre

High-performance reamers  
for virtually any application

- from Ø 1.97 up to 42.00 mm as standard
- maximum cutting rates
- shortest machining times
- optimum hole qualities
- broad range of application



# SuperR-HS

## Maximum performance for all materials

With the SuperR-HS range Stock provides high-performance reamers for virtually any application. The perfect combination of special geometries, tool material and coatings provides optimal results for all reaming operations.

### Perfect machining of through holes

The specially developed straight-flute geometry is unique with reamers for through holes:

- extremely high cutting rates also for deep holes
- exceptional coolant delivery due to longitudinal grooves in the shank or radial coolant exits directly at the cutting edge
- trouble-free chip evacuation ahead of the cutting edge
- chips do not return back within the flutes
- the excellent reamed surface remains optimally preserved

### Maximum performance in blind holes

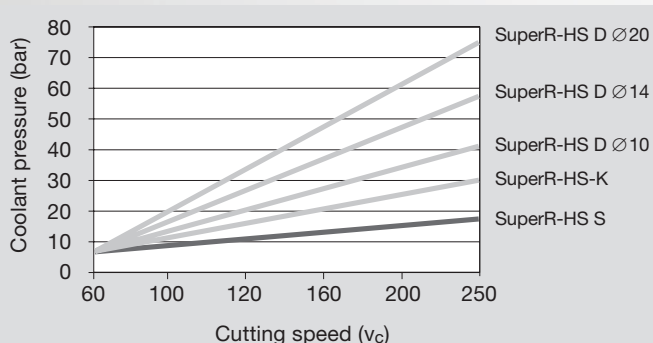
SuperR-HS high-performance reamers for the machining of blind holes are internally cooled with a central coolant duct:

- especially large cross-section ensures the optimal delivery of the coolant to the cutting edge of the tool
- straight-fluted tool geometry ensures the safe evacuation of the optimally formed chips
- excellent cutting rates and optimal surfaces

- For the machining of cast iron or aluminium, Stock provides solid carbide high-performance reamers in the semi-standard range for excellent surfaces.
- For highest requirements in machining steel, carbide or cermet tipped head reamers are available on request.

Please contact us, we will be glad to advise you (also see page 13).

## Optimal coolant supply



Coolant pressure – cutting speed  
valid for standard dimensions





## ISO-CODES

<b>P</b>	Steel, high-alloyed steel
<b>M</b>	Stainless steel
<b>K</b>	Grey cast iron, spheroidal and malleable cast iron
<b>N</b>	Aluminium and other non-ferrous metals
<b>S</b>	Special-, super- and Ti-alloys
<b>H</b>	Hardened steel and hard cast iron

Recommendations regarding tool suitability for the following application groups can be found on the following program pages:

- optimal suitability
- limited suitability








## PICTOGRAMS



TOOL MATERIAL	<b>VHM</b>	Solid carbide				
SURFACE FINISH	<b>AlTiN nano</b>					
Ø TOLERANCE	<b>H7</b>	<b>+0,005</b>				
CUTTING DIRECTION	<b>R</b>	right-hand				
SHANK FORM	<b>HA</b>					
HELIX ANGLE	<b>0°</b>					
STANDARD	<b>WN</b>	to Stock standard				
TYPE	<table border="1"> <tr> <td>SuperR-<b>HS-S</b></td> <td>SuperR-<b>HS-D</b></td> <td>SuperR-<b>HS-KS</b></td> <td>SuperR-<b>HS-KD</b></td> </tr> </table>	SuperR- <b>HS-S</b>	SuperR- <b>HS-D</b>	SuperR- <b>HS-KS</b>	SuperR- <b>HS-KD</b>	
SuperR- <b>HS-S</b>	SuperR- <b>HS-D</b>	SuperR- <b>HS-KS</b>	SuperR- <b>HS-KD</b>			

# SuperR-HS high-performance reamers

## Types

P	M	K	N	S	H	Type	Tool material	Surface finish	Standard	d1/mm	Catalogue no.
<b>Solid carbide high-performance reamers</b>											
•	•	•	•	•	•	SuperR-HS-S	Solid carbide	AlTiN nano	Stock std.	2.000 - 20.000	<b>72870</b>
											
•	•	•	•	•	•	SuperR-HS-D	Solid carbide	AlTiN nano	Stock std.	2.000 - 20.000	<b>72871</b>
											
•	•	•	•	•	•	SuperR-HS-S	Solid carbide	AlTiN nano	Stock std.	1.970 - 12.030	<b>72872</b>
											
•	•	•	•	•	•	SuperR-HS-D	Solid carbide	AlTiN nano	Stock std.	1.970 - 12.030	<b>72873</b>
											
•	•	•	•	•	•	SuperR-HS-KS	Solid carbide	AlTiN nano	Stock std.	14.000 - 42.000	<b>72874</b>
											
•	•	•	•	•	•	SuperR-HS-KD	Solid carbide	AlTiN nano	Stock std.	14.000 - 42.000	<b>72875</b>
											
									Stock std.	<b>78719</b>	

### Application examples for Stock's SuperR-HS-S and SuperR-HS-D solid carbide high-performance reamers with highest feed rates and tool life

Our solid carbide high-performance reamers have shown their performance in several applications, see following table:

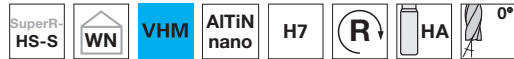
Tool type	SuperR-HS-S	SuperR-HS-D	SuperR-HS-D	SuperR-HS-S
catalogue no.	72870	72871	special reamer for tighter tolerances	72870
component machined	hinge	ring	valve body	ring
workpiece material	gen. steel	alloyed steel	gen. steel	alloyed steel
hole diameter (mm)	9	8	5.9	15
hole tolerance	H7	H7	H6	IT 5
reaming depth (mm)	30	25	48	20
cutting speed $v_c$ (m/min.)	120	200	190	250
feed rate $v_f$ (mm/min.)	4200	12700	6100	7200
tool life (m)	60	100	55	70

## Carbide reamers

### Solid carbide high-performance reamers

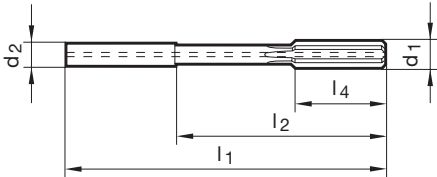


Catalogue no. 72870



P	M	K	N	S	H
•	•	○		•	•

- with axial coolant duct, for reaming blind holes
- for highest cutting rates and exceptional hole quality
- straight flutes, with extremely unequal flute spacing
- straight shank tol. h6 for clamping in hydraulic chucks and shrink fit chucks
- considerable process cost saving potential



d1 mm	d2 h6 mm	l1 mm	l2 mm	l4 mm	Z	Code no.
2.000	4.000	50.000	22.000	8.000	4	2.000
2.500	4.000	50.000	22.000	8.000	4	2.500
3.000	4.000	68.000	40.000	12.000	4	3.000
3.500	4.000	68.000	40.000	12.000	4	3.500
4.000	4.000	68.000	40.000	12.000	4	4.000
4.500	6.000	76.000	40.000	12.000	4	4.500
5.000	6.000	76.000	40.000	12.000	4	5.000
5.500	6.000	76.000	40.000	12.000	4	5.500
6.000	6.000	76.000	40.000	12.000	4	6.000
6.500	8.000	101.000	65.000	16.000	6	6.500
7.000	8.000	101.000	65.000	16.000	6	7.000
7.500	8.000	101.000	65.000	16.000	6	7.500
8.000	8.000	101.000	65.000	16.000	6	8.000
8.500	10.000	101.000	61.000	19.000	6	8.500
9.000	10.000	101.000	61.000	19.000	6	9.000
9.500	10.000	101.000	61.000	19.000	6	9.500
10.000	10.000	101.000	61.000	19.000	6	10.000
10.500	12.000	130.000	85.000	19.000	6	10.500

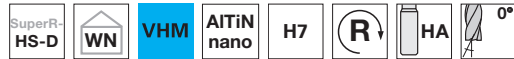
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12.000	12.000	130.000	85.000	19.000	6	12.000
13.000	14.000	130.000	85.000	22.000	6	13.000
14.000	14.000	130.000	85.000	22.000	6	14.000
15.000	16.000	150.000	102.000	22.000	6	15.000
16.000	16.000	150.000	102.000	22.000	6	16.000
17.000	18.000	150.000	102.000	25.000	6	17.000
18.000	18.000	150.000	102.000	25.000	6	18.000
19.000	20.000	150.000	100.000	25.000	6	19.000
20.000	20.000	150.000	100.000	25.000	6	20.000

## Carbide reamers

### Solid carbide high-performance reamers

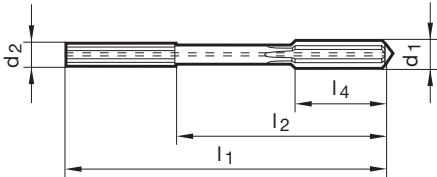


Catalogue no. 72871



P	M	K	N	S	H
•	•	○		•	•

- coolant supply through longitudinal grooves on shank, for reaming through holes
- straight flutes, with extremely unequal flute spacing
- for highest cutting rates and exceptional hole quality
- straight shank tol. h6 for clamping in hydraulic chucks and shrink fit chucks
- considerable process cost saving potential

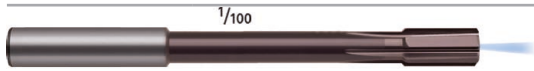


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3.500	4.000	68.000	40.000	12.000	4	3.500
4.000	4.000	68.000	40.000	12.000	4	4.000
4.500	6.000	76.000	40.000	12.000	4	4.500
5.000	6.000	76.000	40.000	12.000	4	5.000
5.500	6.000	76.000	40.000	12.000	4	5.500
6.000	6.000	76.000	40.000	12.000	4	6.000
6.500	8.000	101.000	65.000	16.000	6	6.500
7.000	8.000	101.000	65.000	16.000	6	7.000
7.500	8.000	101.000	65.000	16.000	6	7.500
8.000	8.000	101.000	65.000	16.000	6	8.000
8.500	10.000	101.000	61.000	19.000	6	8.500
9.000	10.000	101.000	61.000	19.000	6	9.000
9.500	10.000	101.000	61.000	19.000	6	9.500
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10.500	12.000	130.000	85.000	19.000	6	10.500

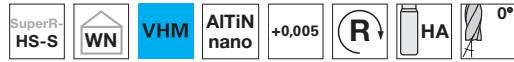
d1 mm	d2 h6 mm	l1 mm	l2 mm	l4 mm	Z	Code no.
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13.000	14.000	130.000	85.000	22.000	6	13.000
14.000	14.000	130.000	85.000	22.000	6	14.000
15.000	16.000	150.000	102.000	22.000	6	15.000
16.000	16.000	150.000	102.000	22.000	6	16.000
17.000	18.000	150.000	102.000	25.000	6	17.000
18.000	18.000	150.000	102.000	25.000	6	18.000
19.000	20.000	150.000	100.000	25.000	6	19.000
20.000	20.000	150.000	100.000	25.000	6	20.000

## Carbide reamers

### Solid carbide high-performance reamers

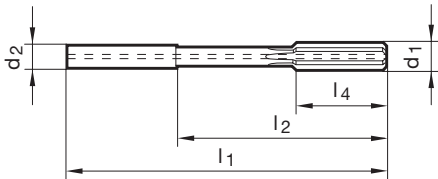


Catalogue no. 72872



P	M	K	N	S	H
•	•	○		•	•

- with axial coolant duct, for reaming blind holes
- for highest cutting rates and exceptional hole quality
- straight flutes, with extremely unequal flute spacing
- straight shank tol. h6 for clamping in hydraulic chucks and shrink fit chucks
- considerable process cost saving potential



d1 mm	d2 h6 mm	l1 mm	l2 mm	l4 mm	Z	Code no.
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2.000	4.000	50.000	22.000	8.000	4	2.000
2.010	4.000	50.000	22.000	8.000	4	2.010
2.020	4.000	50.000	22.000	8.000	4	2.020
2.030	4.000	50.000	22.000	8.000	4	2.030
2.970	4.000	68.000	40.000	12.000	4	2.970
2.980	4.000	68.000	40.000	12.000	4	2.980
2.990	4.000	68.000	40.000	12.000	4	2.990
3.000	4.000	68.000	40.000	12.000	4	3.000
3.010	4.000	68.000	40.000	12.000	4	3.010
3.020	4.000	68.000	40.000	12.000	4	3.020
3.030	4.000	68.000	40.000	12.000	4	3.030
3.970	4.000	68.000	40.000	12.000	4	3.970
3.980	4.000	68.000	40.000	12.000	4	3.980
3.990	4.000	68.000	40.000	12.000	4	3.990
4.000	4.000	68.000	40.000	12.000	4	4.000
4.010	4.000	68.000	40.000	12.000	4	4.010
4.020	4.000	68.000	40.000	12.000	4	4.020
4.030	4.000	68.000	40.000	12.000	4	4.030
4.970	6.000	76.000	40.000	12.000	4	4.970
4.980	6.000	76.000	40.000	12.000	4	4.980
4.990	6.000	76.000	40.000	12.000	4	4.990
5.000	6.000	76.000	40.000	12.000	4	5.000
5.010	6.000	76.000	40.000	12.000	4	5.010
5.020	6.000	76.000	40.000	12.000	4	5.020
5.030	6.000	76.000	40.000	12.000	4	5.030
5.970	6.000	76.000	40.000	12.000	4	5.970
5.980	6.000	76.000	40.000	12.000	4	5.980

d1 mm	d2 h6 mm	l1 mm	l2 mm	l4 mm	Z	Code no.
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6.010	6.000	76.000	40.000	12.000	4	6.010
6.020	6.000	76.000	40.000	12.000	4	6.020
6.030	6.000	76.000	40.000	12.000	4	6.030
7.000	8.000	101.000	65.000	16.000	6	7.000
7.970	8.000	101.000	65.000	16.000	6	7.970
7.980	8.000	101.000	65.000	16.000	6	7.980
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8.020	8.000	101.000	65.000	16.000	6	8.020
8.030	8.000	101.000	65.000	16.000	6	8.030
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9.980	10.000	101.000	61.000	19.000	6	9.980
9.990	10.000	101.000	61.000	19.000	6	9.990
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12.010	12.000	130.000	85.000	19.000	6	12.010
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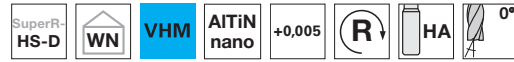


## Carbide reamers

### Solid carbide high-performance reamers

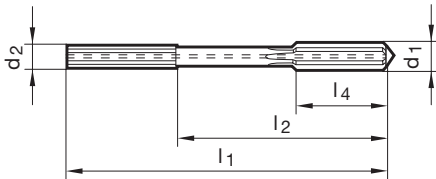


Catalogue no. 72873



P	M	K	N	S	H
•	•	○		•	•

- coolant supply through longitudinal grooves on shank, for reaming through holes
- straight flutes, with extremely unequal flute spacing
- for highest cutting rates and exceptional hole quality
- straight shank tol. h6 for clamping in hydraulic chucks and shrink fit chucks
- considerable process cost saving potential

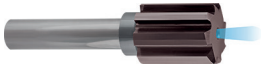


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2.000	4.000	50.000	22.000	8.000	4	2.000
2.010	4.000	50.000	22.000	8.000	4	2.010
2.020	4.000	50.000	22.000	8.000	4	2.020
2.030	4.000	50.000	22.000	8.000	4	2.030
2.970	4.000	68.000	40.000	12.000	4	2.970
2.980	4.000	68.000	40.000	12.000	4	2.980
2.990	4.000	68.000	40.000	12.000	4	2.990
3.000	4.000	68.000	40.000	12.000	4	3.000
3.010	4.000	68.000	40.000	12.000	4	3.010
3.020	4.000	68.000	40.000	12.000	4	3.020
3.030	4.000	68.000	40.000	12.000	4	3.030
3.970	4.000	68.000	40.000	12.000	4	3.970
3.980	4.000	68.000	40.000	12.000	4	3.980
3.990	4.000	68.000	40.000	12.000	4	3.990
4.000	4.000	68.000	40.000	12.000	4	4.000
4.010	4.000	68.000	40.000	12.000	4	4.010
4.020	4.000	68.000	40.000	12.000	4	4.020
4.030	4.000	68.000	40.000	12.000	4	4.030
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4.980	6.000	76.000	40.000	12.000	4	4.980
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5.000	6.000	76.000	40.000	12.000	4	5.000
5.010	6.000	76.000	40.000	12.000	4	5.010
5.020	6.000	76.000	40.000	12.000	4	5.020
5.030	6.000	76.000	40.000	12.000	4	5.030
5.970	6.000	76.000	40.000	12.000	4	5.970
5.980	6.000	76.000	40.000	12.000	4	5.980

d1 mm	d2 h6 mm	l1 mm	l2 mm	l4 mm	Z	Code no.
5.990	6.000	76.000	40.000	12.000	4	5.990
6.000	6.000	76.000	40.000	12.000	4	6.000
6.010	6.000	76.000	40.000	12.000	4	6.010
6.020	6.000	76.000	40.000	12.000	4	6.020
6.030	6.000	76.000	40.000	12.000	4	6.030
7.000	8.000	101.000	65.000	16.000	6	7.000
7.970	8.000	101.000	65.000	16.000	6	7.970
7.980	8.000	101.000	65.000	16.000	6	7.980
7.990	8.000	101.000	65.000	16.000	6	7.990
8.000	8.000	101.000	65.000	16.000	6	8.000
8.010	8.000	101.000	65.000	16.000	6	8.010
8.020	8.000	101.000	65.000	16.000	6	8.020
8.030	8.000	101.000	65.000	16.000	6	8.030
9.000	10.000	101.000	61.000	19.000	6	9.000
9.970	10.000	101.000	61.000	19.000	6	9.970
9.980	10.000	101.000	61.000	19.000	6	9.980
9.990	10.000	101.000	61.000	19.000	6	9.990
10.000	10.000	101.000	61.000	19.000	6	10.000
10.010	10.000	101.000	61.000	19.000	6	10.010
10.020	10.000	101.000	61.000	19.000	6	10.020
10.030	10.000	101.000	61.000	19.000	6	10.030
11.000	12.000	130.000	85.000	19.000	6	11.000
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11.980	12.000	130.000	85.000	19.000	6	11.980
11.990	12.000	130.000	85.000	19.000	6	11.990
12.000	12.000	130.000	85.000	19.000	6	12.000
12.010	12.000	130.000	85.000	19.000	6	12.010
12.020	12.000	130.000	85.000	19.000	6	12.020
12.030	12.000	130.000	85.000	19.000	6	12.030

## Carbide reamers

### Solid carbide high-performance reamers

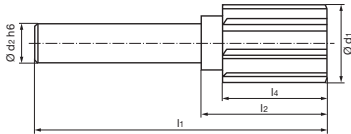


Catalogue no. 72874



<b>P</b>	<b>M</b>	<b>K</b>	<b>N</b>	<b>S</b>	<b>H</b>
•	•	○	•	•	•

- for highest cutting rates and exceptional hole quality
- with axial coolant duct, for reaming blind holes



d1 mm	d2 h6 mm	l1 mm	l2 mm	l4 mm	Z	Code no.
14.000	6.000	66.000	30.000	25.000	8	14.000
15.000	6.000	66.000	30.000	25.000	8	15.000
16.000	8.000	66.000	30.000	25.000	8	16.000
18.000	8.000	66.000	30.000	25.000	8	18.000
20.000	10.000	70.000	30.000	25.000	8	20.000
22.000	10.000	70.000	30.000	25.000	8	22.000
24.000	12.000	75.000	30.000	25.000	8	24.000
25.000	12.000	75.000	30.000	25.000	8	25.000
26.000	12.000	75.000	30.000	25.000	8	26.000
28.000	12.000	75.000	30.000	25.000	8	28.000
30.000	16.000	78.000	30.000	25.000	8	30.000
32.000	16.000	78.000	30.000	25.000	8	32.000
34.000	20.000	80.000	30.000	25.000	8	34.000
36.000	20.000	80.000	30.000	25.000	8	36.000
38.000	20.000	80.000	30.000	25.000	8	38.000
40.000	20.000	80.000	30.000	25.000	8	40.000
42.000	20.000	80.000	30.000	25.000	8	42.000

## Carbide reamers

### Solid carbide high-performance reamers

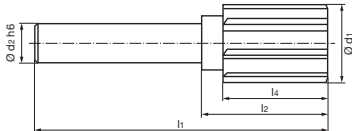


Catalogue no. 72875



P	M	K	N	S	H
•	•	○	•	•	•

- for highest cutting rates and exceptional hole quality
- with radial coolant supply and spiral point for optimal chip evacuation in feed direction when machining through holes



d1 mm	d2 h6 mm	l1 mm	l2 mm	l4 mm	Z	Code no.
14.000	6.000	66.000	30.000	25.000	8	14.000
15.000	6.000	66.000	30.000	25.000	8	15.000
16.000	8.000	66.000	30.000	25.000	8	16.000
18.000	8.000	66.000	30.000	25.000	8	18.000
20.000	10.000	70.000	30.000	25.000	8	20.000
22.000	10.000	70.000	30.000	25.000	8	22.000
24.000	12.000	75.000	30.000	25.000	8	24.000
25.000	12.000	75.000	30.000	25.000	8	25.000
26.000	12.000	75.000	30.000	25.000	8	26.000
28.000	12.000	75.000	30.000	25.000	8	28.000
30.000	16.000	78.000	30.000	25.000	8	30.000
32.000	16.000	78.000	30.000	25.000	8	32.000
34.000	20.000	80.000	30.000	25.000	8	34.000
36.000	20.000	80.000	30.000	25.000	8	36.000
38.000	20.000	80.000	30.000	25.000	8	38.000
40.000	20.000	80.000	30.000	25.000	8	40.000
42.000	20.000	80.000	30.000	25.000	8	42.000

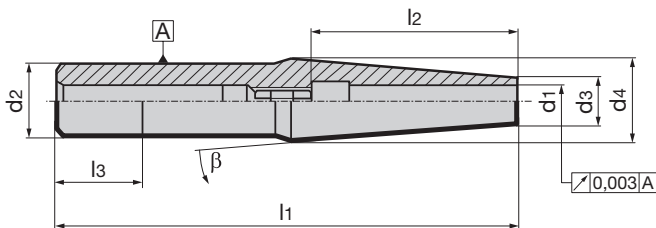
## Shrink fit chucks

### Shrink fit extensions



**Catalogue no. 78719**

- for clamping in hydraulic chucks or shrink fit chucks
- suitable for internal cooling
- for carbide tool shanks in tolerance h6 (from d1 14 mm also HSS possible)
- special designs on request



d1 h6 mm	d2 h6 mm	d3 mm	d4 mm	l1 mm	l2 ± mm	l3 mm	β °	Code no.
6.00	12.00	10.00	12.00	125.00	38.00	45.00	3	<b>6.012</b>
6.00	12.00	10.00	12.20	200.00	38.00	45.00	3	<b>6.312</b>
8.00	14.00	12.00	14.00	125.00	38.00	45.00	3	<b>8.014</b>
8.00	14.00	12.00	14.20	200.00	38.00	45.00	3	<b>8.314</b>
10.00	16.00	14.00	16.00	160.00	42.00	48.00	3	<b>10.116</b>
10.00	16.00	14.00	16.20	250.00	42.00	48.00	3	<b>10.316</b>
12.00	20.00	16.00	20.00	160.00	47.00	50.00	3	<b>12.120</b>
12.00	20.00	16.00	20.20	250.00	47.00	50.00	3	<b>12.320</b>
16.00	25.00	22.00	25.00	160.00	50.00	56.00	3	<b>16.225</b>
16.00	25.00	22.00	25.20	250.00	50.00	56.00	3	<b>16.325</b>
20.00	32.00	27.00	32.00	160.00	52.00	60.00	3	<b>20.332</b>
20.00	32.00	27.00	32.20	250.00	52.00	60.00	3	<b>20.432</b>

# REAMERS

## Questionnaire for special solutions

### Quantity

\_\_\_\_\_ (minimum quantity 5 pieces)

similar to standard item \_\_\_\_\_

### Material

Material to be cut \_\_\_\_\_

Tensile strength/hardness \_\_\_\_\_ N/mm<sup>2</sup> HRC

### Workpiece


Reaming depth \_\_\_\_\_ mm

Hole diameter-Ø \_\_\_\_\_ mm


Hole tolerance \_\_\_\_\_

#### Hole type

through hole



blind hole



#### Coolant

external

internal

\_\_\_\_\_  
coolant pressure in bar

#### Tool material

solid carbide

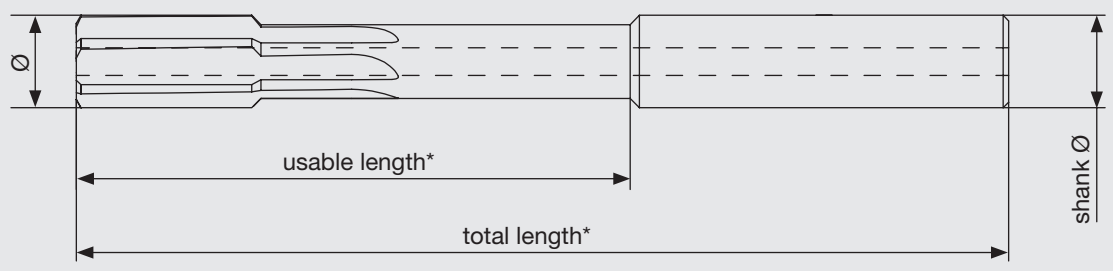
carbide head

HSS-E

cermet head

Super R-HS

### Dimensions



no     yes \_\_\_\_\_

special feature \_\_\_\_\_

\*(deviation from standard)

### Contact

Company: \_\_\_\_\_

Contact person: \_\_\_\_\_

Telephone/Fax: \_\_\_\_\_

Email address: \_\_\_\_\_

Company stamp

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

# SuperR-HS Reamers

## Application recommendations

Feed column							
Code-letter	E	F	G	H	I	J	
Tool-Ø mm	<b>3.15</b>	0.080	0.100	0.125	0.300	0.500	0.800
	<b>4.00</b>	0.100	0.125	0.160	0.300	0.500	1.000
	<b>5.00</b>	0.100	0.125	0.160	0.400	0.600	1.000
	<b>6.30</b>	0.125	0.160	0.200	0.400	0.700	1.200
	<b>8.00</b>	0.160	0.200	0.250	0.600	1.000	1.800
	<b>10.00</b>	0.200	0.250	0.315	0.600	1.200	1.800
	<b>12.50</b>	0.200	0.250	0.315	0.800	1.200	2.000
	<b>16.00</b>	0.250	0.315	0.400	0.800	1.400	2.200
	<b>20.00</b>	0.315	0.400	0.500	0.800	1.400	2.200
	<b>25.00</b>	0.400	0.500	0.630	1.000	1.600	2.500
	<b>31.50</b>	0.400	0.500	0.630	1.000	2.000	3.000
	<b>40.00</b>	0.500	0.630	0.800	1.200	2.000	3.000
	<b>50.00</b>	0.630	0.800	1.000	1.400	2.200	3.200

f (mm/rev)

For an optimal cooling lubricant supply to SuperR-HS type D reamer cutting edges for through holes we recommend clamping in hydraulic or shrink fit chucks to the maximum clamping depth.

Tools with feed column no. in bold are preferred choices for listed material group.

Diameter	Recommended undersize
< 6 mm	0.1-0.2 mm
< 10 mm	0.2 mm
< 16 mm	0.2-0.3 mm
< 25 mm	0.3-0.4 mm
> 25 mm	0.4 mm

### Lubricants:

- cutting oil, highly activated, surface active lubricant with effective additives which chemically react and result in a special adhesive and abrasion reducing lubricant film.
- soluble oil (emulsion)
- without lubricant
- air only

Material group	Materials examples, new designations (old designation in brackets) Figures in bold = material no. to DIN EN	Tensile strength MPa (N/mm <sup>2</sup> )	Hardness	Coolant
General purpose steels	<b>1.0035</b> S185(St33), <b>1.0486</b> P275N(StE285), <b>1.0345</b> P235GH(H1), <b>1.0425</b> P265GH(H2) <b>1.0050</b> E295 (St50-2), <b>1.0070</b> E360 (St70-2), <b>1.8937</b> P500NH (WStE500)	≤500 >500-850		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Free-cutting steels	<b>1.0718</b> 11SMnPb30 (9SMnPb28), <b>1.0736</b> 11SMn37 (9SMn36) <b>1.0727</b> 46S20 (45S20), <b>1.0728</b> (60S20), <b>1.0757</b> 46SPb20 (45SPb20)	≤850 850-1000		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Unalloyed tempering steels	<b>1.0402</b> C22, <b>1.1178</b> C30E (Ck30) <b>1.0503</b> C45, <b>1.1191</b> C45E (Ck45) <b>1.0601</b> C60, <b>1.1221</b> C60E (Ck60)	≤ 700 700-850 850-1000		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Alloyed tempering steels	<b>1.5131</b> 50MnSi4, <b>1.7003</b> 38Cr2, <b>1.7030</b> 28Cr4 <b>1.5710</b> 36NiCr6, <b>1.7035</b> 41Cr4, <b>1.7225</b> 42CrMo4	850-≤1000 1000-1200		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Unalloyed case hardened steels	<b>1.0301</b> (C10), <b>1.1121</b> C10E (Ck10)	≤750		<input checked="" type="checkbox"/>
Alloyed case hardened steels	<b>1.7043</b> 38Cr4 <b>1.5752</b> 15NiCr13 (15NiCr13), <b>1.7131</b> 16MnCr5, <b>1.7264</b> 20CrMo5	850-≤1000 1000-1200		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Nitriding steels	<b>1.8504</b> 34CrAl6 <b>1.8519</b> 31CrMoV9, <b>1.8550</b> 34CrAlNi7	≥850-≤1000 >1000-1200		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Tool steels	<b>1.1750</b> C75W, <b>1.2067</b> 102Cr6, <b>1.2307</b> 29CrMoV9 <b>1.2080</b> X210Cr12, <b>1.2083</b> X42Cr13, <b>1.2419</b> 105WCr6, <b>1.2767</b> X45NiCrMo4	≤850 >850-1000		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
High speed steels	<b>1.3243</b> S 6-5-2-5, <b>1.3343</b> S 6-5-2, <b>1.3344</b> S 6-5-3	≥650-1000		<input checked="" type="checkbox"/>
Spring steels	<b>1.5026</b> 55Si7, <b>1.7176</b> 55Cr3, <b>1.8159</b> 51CrV4 (51CrV4)		≤330 HB	<input checked="" type="checkbox"/>
Hardened steels	-		≤40-48 HRC >48-60 HRC	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Stainless steels, sulphured austenitic	<b>1.4005</b> X12CrS13, <b>1.4104</b> X14CrMoS17, <b>1.4105</b> X6CrMoS17, <b>1.4305</b> X8CrNiS18-9 <b>1.4301</b> X5CrNi18-10 (V2A), <b>1.4541</b> X6CrNiTi18-10, <b>1.4571</b> X6CrNiMoTi 17-12-2 (V4A)	≤850 ≤850 ≤850		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Stainless steels, martensitic	<b>1.4057</b> X20CrNi 17 2 (X17CrNi16-2), <b>1.4122</b> X39CrMo17-1, <b>1.4521</b> X2CrMoTi18-2	≤850		<input checked="" type="checkbox"/>
Cast iron	<b>0.6010</b> EN-GJL-100(GG10), <b>0.6020</b> EN-GJL-200(GG20) <b>0.6025</b> EN-GJL-250(GG25), <b>0.6035</b> EN-GJL-350(GG35)	850-≤1000 1000-1200		<input checked="" type="checkbox"/> <input type="checkbox"/>
Spheroidal graphite iron and malleable cast iron	<b>0.7050</b> EN-GJS-500-7(GGG50), <b>0.8035</b> EN-GJMW-350-4(GTW35) <b>0.7070</b> EN-GJS-700-2(GGG70), <b>0.8170</b> EN-GJMB-700-2(GTS70)		≤240 HB <300 HB	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Chilled cast iron	-		≤350 HB	<input checked="" type="checkbox"/>
New Cast iron GGV	<b>EN-GJV250</b> (GGV25), <b>EN-GJV350</b> (GGV35) <b>EN-GJV400</b> (GGV40), <b>EN-GJV500</b> (GGV50), SiMo6			<input checked="" type="checkbox"/> <input type="checkbox"/>
New Cast iron ADI	<b>EN-GJS-800-8</b> (ADI800), <b>EN-GJS-1000-5</b> (ADI1000) <b>EN-GJS-1200-2</b> (ADI1200), <b>EN-GJS-1400-1</b> (ADI1400)	800-1000 1200-1400		<input checked="" type="checkbox"/> <input type="checkbox"/>
Special alloys	Nimonic, Inconel, Monel, Hastelloy	≤1200		<input checked="" type="checkbox"/>
Ti and Ti-alloys	<b>3.7024</b> Ti99,5, <b>3.7114</b> TiAl5Sn2,5, <b>3.7124</b> TiCu2 <b>3.7154</b> TiAl6Zr5, <b>3.7165</b> TiAl6V4, <b>3.7184</b> TiAl4Mo4Sn2,5,-TiAl8Mo1V1	≤850 >850-1200		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Aluminium and Al-alloys	<b>3.0255</b> Al99,5, <b>3.2315</b> AlMgSi1, <b>3.3515</b> AlMg1	≤400		<input checked="" type="checkbox"/>
Al wrought alloys	<b>3.0615</b> AlMgSiPb, <b>3.1325</b> AlCuMg1, <b>3.3245</b> AlMg3Si, <b>3.4365</b> AlZnMgCu1,5	≤450		<input checked="" type="checkbox"/>
Al cast alloys ≤ 10 % Si	<b>3.2131</b> G-AlSi5Cu1, <b>3.2153</b> G-AlSi7Cu3, <b>3.2573</b> G-AlSi9	≤600		<input checked="" type="checkbox"/>
Al cast alloys > 10 % Si	<b>3.2581</b> G-AlSi12, <b>3.2583</b> G-AlSi12Cu-, G-AlSi12CuNiMg	≤600		<input checked="" type="checkbox"/>
Magnesium alloys	<b>3.5200</b> MgMn2, <b>3.5812.05</b> G-MgAl8Zn1, <b>3.5612.05</b> G-MgAl6Zn1	≤450		<input type="checkbox"/>
Copper, low alloyed	<b>2.0070</b> SE-Cu, <b>2.1020</b> CuSn6, <b>2.1096</b> G-CuSn5ZnPb	≤400		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Brass, short-chipping	<b>2.0380</b> CuZn39Pb2, <b>2.0401</b> CuZn39Pb3, <b>2.0410</b> CuZn43Pb2	≤600		<input checked="" type="checkbox"/>
Brass, long-chipping	<b>2.0250</b> CuZn20, <b>2.0280</b> CuZn33, <b>2.0332</b> CuZn37Pb0,5	≤600		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Bronze, short-chipping	<b>2.1090</b> CuSn7ZnPb, <b>2.1170</b> CuPb5Sn5, <b>2.1176</b> CuPb10Sn	≤600		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Bronze, long-chipping	<b>2.0790</b> CuNi18Zn19Pb <b>2.0916</b> CuAl5, <b>2.0960</b> CuAl9Mn, <b>2.1050</b> CuSn10 <b>2.0980</b> CuAl11Ni, <b>2.1247</b> CuBe2	>600-850 ≤850 >850-1000		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Duroplastics	Epoxy resin, Resopal, Pertinax, Moltopren		-	<input type="checkbox"/>
Thermoplastics	Plexiglas, Hostalen, Novodur, Makralon		-	<input checked="" type="checkbox"/> <input type="checkbox"/>
Kevlar	Kevlar		-	<input type="checkbox"/>
Glass/carbon-concentr. plastics	GFK/CFK		-	<input type="checkbox"/>



since  
1887



# SuperR-HS

## Solid Carbide high-performance reamers

### Our Programme

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(to your specifications or our solutions)  
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