

# Spiralbohrmesser – System

Interchangeable within the same system size

**GRANLUND**  
Tools

Das Spiralbohrersystem ist optimal geeignet für grössere Bohrungen in verschiedenen Werkstoffen, wie zum Beispiel Stahl, Stahlguss und Grauguss.

Eine komplette Einheit besteht aus Halter, Schneidkopf, rollierender Führung und Führungsbolzen.

Standardabmessung von 31 – 100 mm, andere Abmessungen auf Anfrage.

Die verschiedenen Durchmesser sind in 7 Gruppen eingeteilt, so kann ein Halter für mehrere Schneidköpfe verwendet werden.



Size	Schneidkopf Typ B		Führungshülse Typ R		Führungsbolzen Typ RT	Halter Typ A		
	D mm tol. h10	Bestell Nr.	D mm Tol. c9	Bestell Nr.	Bestell Nr.	L mm	MK	Bestell Nr.
11	32	11B-32	14	11R-14	11RT	65	3	11A-065-MK3
	34	11B-34	15	11R-15		65	4	11A-065-MK4
	35	11B-35	18	11R-18		180	3	11A-180-MK3
	36	11B-36	20	11R-20		180	4	11A-180-MK4
12	38	12B-38	20	12/13R-20	12/13RT	80	3	12A-080-MK3
	39	12B-39	22	12/13R-22		80	4	12A-080-MK4
			24	12/13R-24		200	3	12A-200-MK3
			25	12/13R-25		200	4	12A-200-MK4
13	40	13B-40	20	12/13R-20	12/13RT	80	3	13A-080-MK3
	41	13B-41	22	12/13R-22		80	4	13A-080-MK4
	42	13B-42	24	12/13R-24		200	3	13A-200-MK3
	43	13B-43	25	12/13R-25		200	4	13A-200-MK4
	44	13B-44						
14	46	14B-46	24	14R-24	14RT	90	3	14A-090-MK3
	47	14B-47	25	14R-25		90	4	14A-090-MK4
	48	14B-48	26	14R-26		225	3	14A-225-MK3
	49	14B-49	28	14R-28		225	4	14A-225-MK4
	50	14B-50	30	14R-30				
	51	14B-51						
	52	14B-52						
15	53	15B-53	28	15R-28	15RT	100	4	15A-100-MK4
	54	15B-54	30	15R-30		100	5	15A-100-MK5
	55	15B-55	32	15R-32		250	4	15A-250-MK4
	56	15B-56	35	15R-35		250	5	15A-250-MK5
	57	15B-57	40	15R-40				
	58	15B-58						
	59	15B-59						
	60	15B-60						
	61	15B-61						
	62	15B-62						
	63	15B-63						
	64	15B-64						
	65	15B-65						
	16	66	16B-66	32	16R-32	16RT	110	4
68		16B-68	34	16R-34		110	5	16A-110-MK5
69		16B-69	35	16R-35		260	4	16A-260-MK4
70		16B-70	38	16R-38		260	5	16A-260-MK5
71		16B-71	40	16R-40				
72		16B-72	50	16R-50				
74		16B-74						
75		16B-75						
76		16B-76						
77		16B-77						
17	82	17B-82	38	17R-38	17RT	130	4	17A-130-MK4
	84	17B-84	40	17R-40		130	5	17A-130-MK5
	85	17B-85	42	17R-42		280	4	17A-280-MK4
	86	17B-86	45	17R-45		280	5	17A-280-MK5
	88	17B-88	50	17R-50				
	90	17B-90	55	17R-55				
	92	17B-92	60	17R-60				
	94	17B-94	65	17R-65				
	95	17B-95	70	17R-70				
	96	17B-96	80	17R-80				
	98	17B-98						
	100	17B-100						

Sonderabmessungen auf Anfrage.

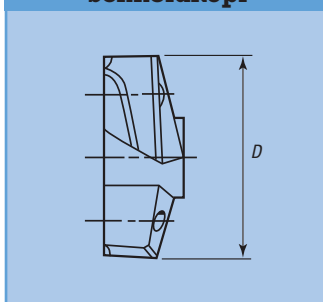
## Zerspanungsrichtwerte

v		
Werkstoff	Festigkeit/Härte N/mm <sup>2</sup>	V m/min
Stahl	< 500	15 - 20
Stahl	500-900	10 - 15
Stahlguss		5 - 12
Grauguss		10 - 15
Nichtrostender Stahl		5 - 15

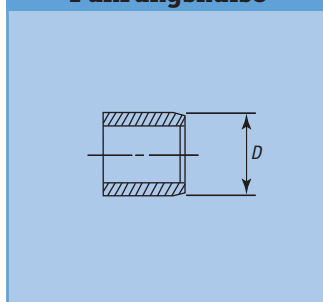
## Vorschub

Durchmesser mm	Vorschub mm/U
32 - 45	0,2 - 0,3
46 - 65	0,3 - 0,4
66 - 100	0,4 - 0,6

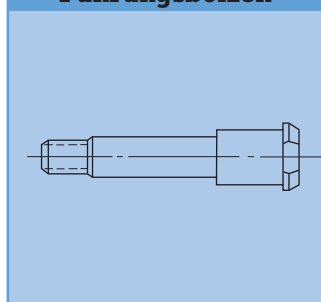
## Schneidkopf



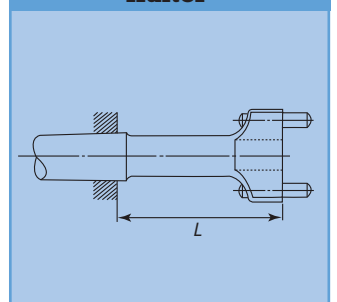
## Führungshülse



## Führungsbolzen



## Halter

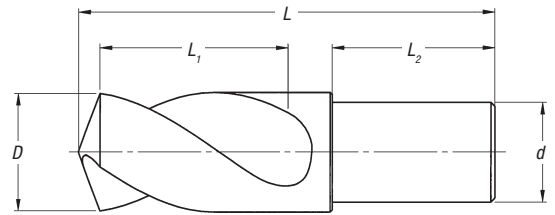




T80 ist ein massiver Hartmetallbohrer mit interner Kühlmittelzuführung und einer Bohrspitze die speziell für die Bearbeitung von HARDOX entwickelt wurde. T80 ist durch eine spezielle Beschichtung ideal zum Bohren in HARDOX. T80 steht für schnellste Bearbeitung in HARDOX 500 (80 m/min).

Mit T80 können wir ein komplettes System zum Bohren, Zapfensenken und Spitzsenken anbieten.

T80 kann mit Zapfensenker Typ H und WHV und Spitzsenker Typ KV kombiniert werden.



Part No.	D	d	L <sub>1</sub> (cutting length)	L <sub>2</sub>	L
T80-10,0	10,0	10,0	36,0	41,0	82,0
T80-12,0	12,0	12,0	36,0	41,0	82,0
T80-13,5	13,5	12,0	36,0	41,0	82,0
T80-14,0	14,0	14,0	36,0	41,0	82,0
T80-15,5	15,5	14,0	36,0	41,0	82,0
T80-17,5	17,5	16,0	55,0	41,0	103,0
T80-18,0	18,0	16,0	60,0	41,0	110,0
T80-20,0	20,0	20,0	57,0	41,0	110,0
T80-22,0	22,0	20,0	55,0	41,0	110,0
T80-24,0	24,0	20,0	55,0	41,0	110,0
T80-26,0	26,0	25,0	55,0	41,0	110,0
T80-28,0*	28,0	25,0	55,0	41,0	110,0
T80-30,0*	30,0	25,0	55,0	41,0	110,0

\* nicht lagermäßig

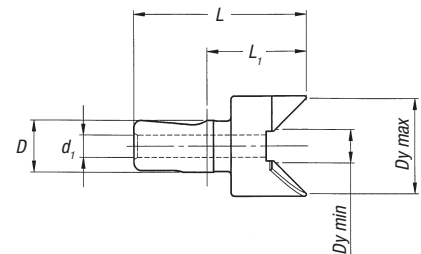
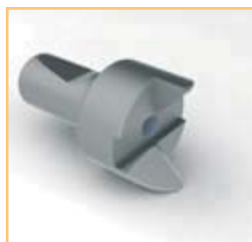
### Recommended cutting data

Material:	Hardox 400	Hardox 500	Hardox 600
Speed m/min:	30 - 80	30 - 80	25 - 70
Feed mm/rev:	0,10 - 0,25	0,05 - 0,15	0,04 - 0,12

## Pipe deburring

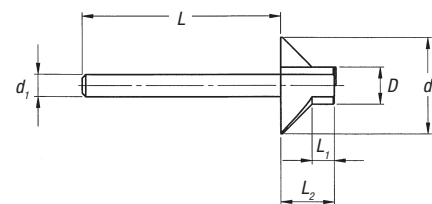
Granlund Tools newly developed system for pipe deburring is a modular system fully compatible with the counterboring system. It consists of an external 2-flute deburring tool (RGY) and an internal 2-flute deburring tool with a pilot (RGI). The two tools operate 90 degrees from each other and therefore you can machine with a very good stability. Also the inner tool has got a pilot that enhances the stability. This pilot is also equipped with a cutting edge, that removes burrs when entering the pipe. With three system sizes, you can deburr pipes between 5 and 25 mm.

The outside tool is standard and is available in three system sizes: 01RGY-15,0, ORGY-20,0 and 1RGY-30,0. The inside tool is semi finished in stock and will be finished after order. The inner tools 01RGI, ORGI, and 1RGI will be ground to your request, and therefore the delivery time is 2 weeks from order. Minimum order of inner tools is 3 pcs. Please state the inner dimension of the pipe when ordering, and the inner tool will be delivered with a pilot diameter of -0,1 mm from the dimension.



### Outside deburring tool

Part No.	Dy max	Dy min	d	d <sub>1</sub>	L	L <sub>1</sub>
01RGY-15,0	15	5	7	2,4	32,5	20,5
ORGY-20,0	20	7	10	4	41,5	20,5
1RGY-25,0	25	9	14	6	46,5	20,5



### Inside deburring tool semi finished

Part No.	D	d	d <sub>1</sub>	L	L <sub>1</sub>	L <sub>2</sub>
01RGI	Tube inside diam. -0,1	*	2,4	35	*	*
ORGI	Tube inside diam. -0,1	*	4	48	*	*
1RGI	Tube inside diam. -0,1	*	6	54	*	*

\* Will be adapted to D