

miniTURNTM *Solid Carbide*

Economical machining of small components



– EN –



ZCC Cutting Tools Europe GmbH

your Partner | your Value

The Company

Zhuzhou Cemented Carbide Cutting Tools Co., Ltd. (ZCC-CT), based in Zhuzhou, China, is the largest Chinese manufacturer of carbide tools. It is also a key company of China Tungsten High-Tech Material Co. Ltd. part of the China Minmetals Corporation.

Since its founding in 1953, ZCC Cutting Tools Co., Ltd. has grown to become one of the world's leading carbide manufacturers with more than 2,000 employees by using the latest technologies and employing highly skilled personnel. The company continuously modernises production technologies and expands its production capacities to enable the company's ongoing growth. As part of Minmetals Corporation, ZCC-CT is able to cover the entire value chain of modern carbide tool production itself, from raw material extraction through to the coated end product and all associated intermediate steps.

By drawing on the latest in European production technology, the company offers products that consistently meet the highest quality standards. Our extensive product range includes carbide/solid carbide, cermet, CBN, PCD and ceramic inserts, carbide tools, tool holders, milling bodies and the accompanying tool systems. All products are consistently produced to accepted international standards, including ISO, DIN, ANSI, JIS and BSI. In addition, ZCC-CT offers customised solutions and special carbide products built to individual specifications.

ZCC-CT invests heavily in research and development. The associated investments go beyond that of most competitors. ZCC Cutting Tools' excellently trained engineers, scientists and a competent, international team, research the necessary fundamentals. These form the basis for the ongoing development of new products and the improvement of existing ones.

The company continuously introduces improvements in quality to meet the customers' ever-increasing demands for new and innovative products and to maximise the benefit of each individual

customer. Both production and administration in China are subject to the ISO 9001:2008 standard, while environmental management is subject to the requirements set out in ISO 14001:2004.

The foundation of the European headquarters of ZCC-CT, ZCC Cutting Tools Europe GmbH and the European central warehouse, both located in Düsseldorf (Germany), dates back to 2003. Today, all European countries as well as the adjacent markets are served from there.

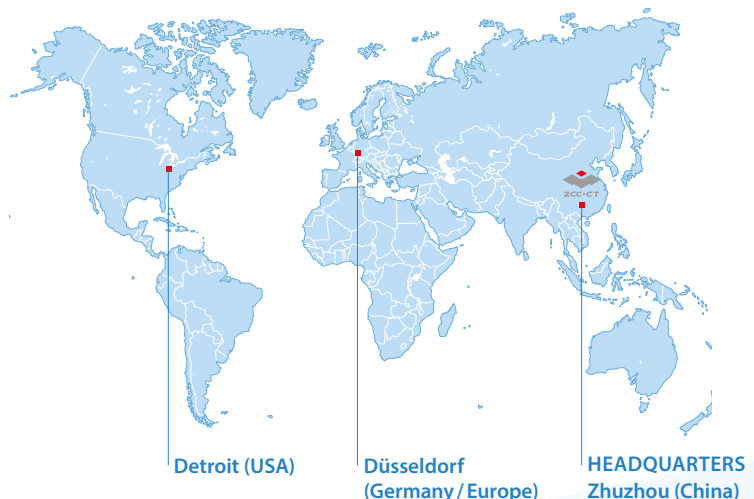
The quality management system of ZCC Cutting Tools Europe GmbH is certified in the area of 'distribution and logistics of metal-working tools' in accordance with ISO 9001:2008.

A test and demonstration centre is also available for optimizing customer processes according to individual requirements.

External sales staff and distribution partners in Europe work hand in hand to support customers across the region. Our friendly ZCC-CT application engineers are also available to support you with their expertise and experience by phone, e-mail or in person at your production facility.

The entire field and office sales force is available to answer enquiries from clients across Europe in their native language. Together with employees from the logistics team and with the help of a sophisticated service system, they ensure that all orders are delivered as quickly as possible to you. Branch offices in France and Great Britain add to additional regional proximity to customers.

ZCC Cutting Tools Europe GmbH and all of our employees are there for you and have your back as a competent partner for all matters concerning machining production. This is how we define 'your partner – your value'.



Member of Minmetals Group

miniTURN

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miniTURN™ *Solid Carbide*

Economical machining of small components

YOUR BENEFITS

- Chip-forming elements for **optimum chip control**
- Precision-ground cutting edges for **low cutting forces**
- New **YPG202** grade with enhanced heat resistance for **maximum tool life**
- Ultra-smooth coating surface for **minimal heat transfer**

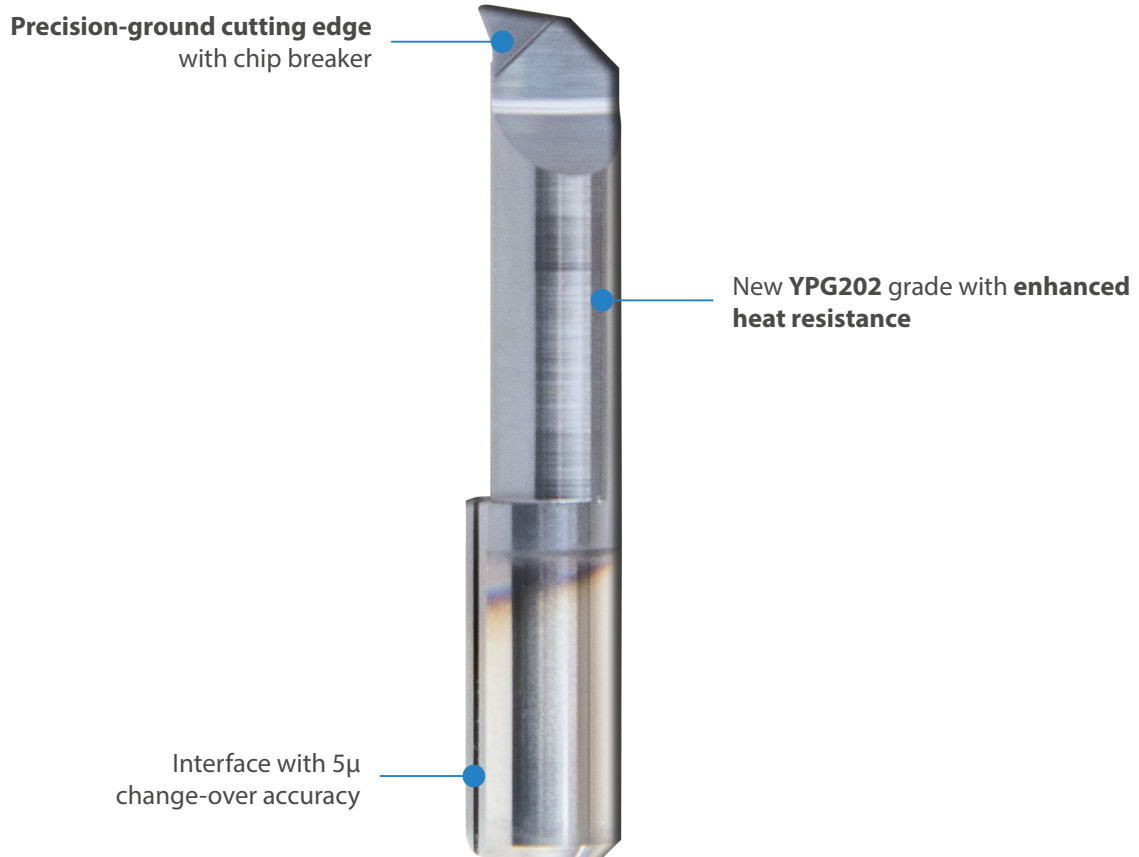


Fig.: T1.7.68.21.020R YPG202

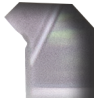
Types

T1-T4



Turning
Profiling

C1



Turning
Chamfering

B1



Back turning

G1-G2



Grooving
Turning

P1-P4



Threading

F1-F3



Face grooving
































miniTURN[™] Solid Carbide

All inserts and holders can be ordered via our **online ordering system!**
Log in now with your customer data!

<https://www.zccct-europe.com/en/services/tools-order/>

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Inserts

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P1		Threading		A19
P2				A20
P3				A21
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Inserts (T1–T4, C1, B1)

T1	6	60	21	020	L/R	YPG202
1	2	3	4	5	6	7
Series	Shank square section D (h6) [mm]		Min. bore diameter D_{min} [mm]			
1	2		3			
Effective length L_1 [mm]	Radius R [μ m]		Type			
4	5		6			
Grade						
7						

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miniTURN

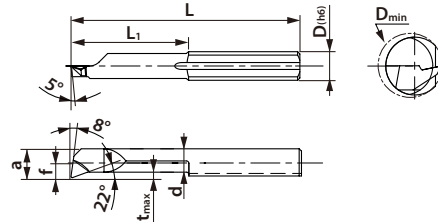
T1 – Turning and profiling



– Front side 8° / Clearance angle 20°



Right hand style



Article	Dimensions [mm]									YPG202	
	D (h6)	D _{min}	L ₁	L	R	t _{max}	a	f	d	L	R
T1.4.10.04.008L/R	4	1	4	20	0,08	0,1	0,9	0,6	0,7	○	●
T1.4.10.06.008L/R	4	1	6	22	0,08	0,1	0,9	0,6	0,7	○	●
T1.4.10.08.008L/R	4	1	8	24	0,08	0,1	0,9	0,6	0,7	○	●
T1.4.20.06.010L/R	4	2	6	22	0,10	0,2	1,7	0,6	1,4	○	●
T1.4.20.11.005L/R	4	2	11	27	0,08	0,2	1,7	0,6	1,4	—	○
T1.4.20.11.010L/R	4	2	11	27	0,10	0,2	1,7	0,6	1,4	●	●
T1.4.30.11.015L/R	4	3	11	27	0,15	0,3	2,8	0,8	2,4	○	●
T1.4.30.16.005L/R	4	3	16	32	0,05	0,3	2,8	0,8	2,4	—	○
T1.4.30.16.015L/R	4	3	16	32	0,15	0,3	2,8	0,8	2,4	○	●
T1.4.30.21.015L/R	4	3	21	37	0,15	0,3	2,8	0,8	2,4	○	●
T1.4.40.11.005L/R	4	4	11	27	0,05	0,3	3,7	1,7	3,3	○	○
T1.4.40.16.005L/R	4	4	16	32	0,05	0,3	3,7	1,7	3,3	○	●
T1.4.40.21.005L/R	4	4	21	37	0,05	0,3	3,7	1,7	3,3	○	●
T1.4.40.11.020L/R	4	4	11	27	0,20	0,3	3,7	1,7	3,3	○	●
T1.4.40.16.020L/R	4	4	16	32	0,20	0,3	3,7	1,7	3,3	○	●
T1.4.40.21.020L/R	4	4	21	37	0,20	0,3	3,7	1,7	3,3	●	●
T1.4.40.26.020L/R	4	4	26	37	0,20	0,3	3,7	1,7	3,3	—	●
T1.5.50.11.020L/R	5	5	11	27	0,20	0,5	4,6	2,1	4,0	○	●
T1.5.50.16.020L/R	5	5	16	32	0,20	0,5	4,6	2,1	4,0	○	●
T1.5.50.21.005L/R	5	5	21	37	0,05	0,5	4,6	2,1	4,0	—	○
T1.5.50.21.020L/R	5	5	21	37	0,20	0,5	4,6	2,1	4,0	●	●
T1.5.50.26.020L/R	5	5	26	42	0,20	0,5	4,6	2,1	4,0	—	●
T1.5.50.31.020L/R	5	5	31	47	0,20	0,5	4,6	2,1	4,0	○	●
T1.6.60.16.020L/R	6	6	16	32	0,20	0,5	5,6	2,6	5,0	○	●
T1.6.60.21.020L/R	6	6	21	37	0,20	0,5	5,6	2,6	5,0	○	●
T1.6.60.26.020L/R	6	6	26	42	0,20	0,5	5,6	2,6	5,0	●	●
T1.6.60.36.020L/R	6	6	36	52	0,20	0,5	5,6	2,6	5,0	●	●
T1.7.68.21.020L/R	7	7	21	37	0,20	0,5	6,3	2,8	5,7	○	●
T1.7.68.26.020L/R	7	7	26	42	0,20	0,5	6,3	2,8	5,7	○	●
T1.7.68.31.020L/R	7	7	31	47	0,20	0,5	6,3	2,8	5,7	○	●
T1.7.68.41.020L/R	7	7	41	57	0,20	0,5	6,3	2,8	5,7	—	●

● Ex stock ○ On demand

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Uncoated grade (HW) YD201 on demand

miniTURN

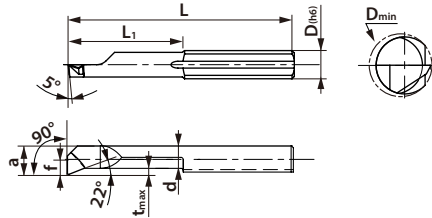
T2 – Turning and profiling



– Front side 0° / Clearance angle 22°



Right hand style



Article	Dimensions [mm]										YPG202	
	D (h6)	D _{min}	L ₁	L	R	t _{max}	a	f	d	L	R	
T2.4.40.11.015L/R	4	4	11	27	0,15	0,5	3,5	1,5	2,9	○	●	
T2.4.40.16.015R	4	4	16	32	0,15	0,5	3,5	1,5	2,9	—	●	
T2.5.50.11.015L/R	5	5	11	27	0,15	0,7	4,4	1,9	3,6	○	○	
T2.5.50.16.015L/R	5	5	16	32	0,15	0,7	4,4	1,9	3,6	○	●	
T2.5.50.21.015L/R	5	5	21	37	0,15	0,7	4,4	1,9	3,6	○	●	
T2.6.60.16.015L/R	6	6	16	32	0,15	0,9	5,4	2,4	4,4	○	○	
T2.6.60.21.015L/R	6	6	21	37	0,15	0,9	5,4	2,4	4,4	○	●	

● Ex stock ○ On demand

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Uncoated grade (HW) YD201 on demand

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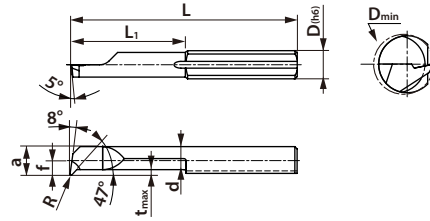
T3 – Turning and profiling



– Front side 8° / Clearance angle 47°



Right hand style



Article	Dimensions [mm]									YPG202	
	D (h6)	D _{min}	L ₁	L	R	t _{max}	a	f	d	L	R
T3.4.22.11.010L/R	4	2,2	11	27	0,1	0,4	1,95	0,6	1,45	○	●
T3.4.27.16.010L/R	4	2,7	16	32	0,1	0,5	2,45	0,45	1,85	○	●
T3.4.32.16.010L/R	4	3,2	16	32	0,1	0,6	2,95	0,95	2,25	○	●
T3.4.40.11.015L/R	4	4	11	27	0,15	0,8	3,5	1,5	2,6	○	○
T3.4.40.16.015L/R	4	4	16	32	0,15	0,8	3,5	1,5	2,6	○	○
T3.4.40.21.015L/R	4	4	21	37	0,15	0,8	3,5	1,5	2,6	○	●
T3.5.50.16.015L/R	5	5	11	27	0,15	1	4,4	1,9	3,3	○	●
T3.5.50.26.015L/R	5	5	26	42	0,15	1	4,4	1,9	3,3	○	●
T3.6.60.21.015L/R	6	6	21	37	0,15	1,8	5,3	2,3	3,4	○	●
T3.6.60.31.015L/R	6	6	31	47	0,15	1,8	5,3	2,3	3,4	○	●

● Ex stock ○ On demand

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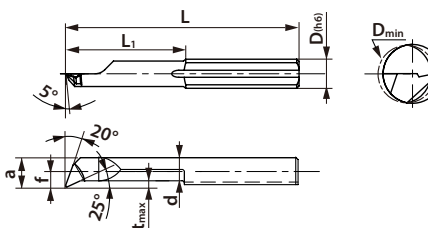
Uncoated grade (HW) YD201 on demand

miniTURN
T4 – Turning and profiling


– Front side 20° / Clearance angle 25°



Right hand style



Article	Dimensions [mm]										YPG202	
	D (h6)	D _{min}	L ₁	L	R	t _{max}	a	f	d	L	R	
T4.4.27.06.010L/R	4	2,7	6	22	0,1	0,3	2,45	0,45	2,05	○	●	
T4.4.27.11.010L/R	4	2,7	11	27	0,1	0,3	2,45	0,45	2,05	○	○	
T4.4.27.16.010L/R	4	2,7	16	32	0,1	0,3	2,45	0,45	2,05	○	●	
T4.4.40.11.015L/R	4	4	11	27	0,15	0,8	3,5	1,5	2,6	○	○	
T4.4.40.16.015L/R	4	4	16	32	0,15	0,8	3,5	1,5	2,6	○	●	
T4.4.40.21.015L/R	4	4	21	37	0,15	0,8	3,5	1,5	2,6	○	○	
T4.5.50.11.020L/R	5	5	11	27	0,2	1	4,4	1,9	3,3	○	●	
T4.5.50.26.020L/R	5	5	26	42	0,2	1	4,4	1,9	3,3	○	○	
T4.6.60.21.020L/R	6	6	21	37	0,2	1,8	5,3	2,3	3,4	○	●	
T4.6.60.31.020L/R	6	6	31	47	0,2	1,8	5,3	2,3	3,4	○	○	

● Ex stock ○ On demand

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Uncoated grade (HW) YD201 on demand

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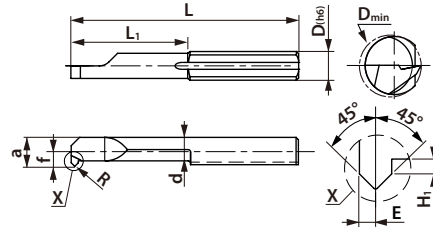
miniTURN

Turning

C1 – Turning and chamfering



Right hand style



B

Milling

Article	Dimensions [mm]											YPG202	
	D (h6)	D _{min}	L ₁	L	R	t _{max}	a	f	d	E	H ₁	L	R
C1.4.40.16.005R L/R	4	4	16	32	0,5	0,8	3,7	1,7	2,8	0,4	0,23	○	●
C1.5.50.21.010R L/R	5	5	21	37	0,1	1,2	4,4	1,9	3,1	0,7	0,5	○	●
C1.6.60.26.015R L/R	6	6	26	42	0,15	1,4	5,3	2,3	3,8	0,7	0,5	○	●
C1.7.68.41.020R L/R	7	7	41	57	0,2	1,8	6,3	2,8	4,4	1	0,7	○	○

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Uncoated grade (HW) YD201 on demand

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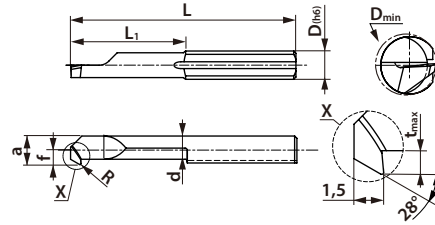
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miniTURN

B1 – Back turning



Right hand style



Article	Dimensions [mm]										YPG202	
	D (h6)	D _{min}	L ₁	L	R	t _{max}	a	f	d	L	R	
B1.4.30.16.005L/R	4	3	16	32	0,05	0,5	2,6	0,6	2	○	●	
B1.4.40.21.010L/R	4	4	21	37	0,1	0,8	3,5	1,5	2,6	○	○	
B1.5.50.31.015L/R	5	5	31	47	0,15	1	4,4	1,9	3,3	○	●	
B1.6.60.31.015L/R	6	6	31	47	0,15	1,8	5,3	2,3	3,4	○	●	
B1.7.70.31.015L/R	7	7	31	47	0,15	2,5	6,3	2,8	3,7	○	●	

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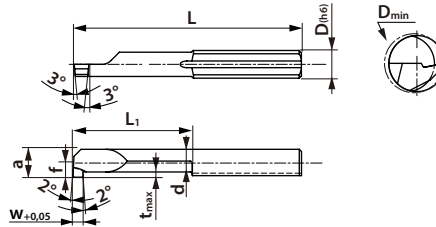
Inserts (G1–G2, F1–F3)

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	G1	6	60	21	20	L/R	YPG202
	1	2	3	4	5	6	7
Series	Shank square section D (h6) [mm]		Min. bore diameter D_{min} [mm]				
	1	2	3	4	5	6	7
Effective length L_1 [mm]	Grooving width [in 0,1 mm]		Type				
	4	5	6				
Grade							
	7						

miniTURN**G1 – Grooving and turning**

Right hand style



Article	Dimensions [mm]										YPG202	
	D (h6)	D _{min}	L ₁	L	w+0,06	t _{max}	a	f	d	L	R	
G1.4.20.06.05L/R	4	2	6	22	0,5	0,4	1,75	0,6	1,15	○	○	
G1.4.20.11.05L/R	4	2	11	27	0,5	0,4	1,75	0,6	1,15	○	○	
G1.4.30.06.07L/R	4	3	6	22	0,75	0,6	2,7	0,7	1,9	○	○	
G1.4.30.11.07L/R	4	3	11	27	0,75	0,6	2,7	0,7	1,9	○	○	
G1.4.40.11.10L/R	4	4	11	27	1	0,8	3,5	1,5	2,4	○	○	
G1.4.40.16.10L/R	4	4	16	32	1	0,8	3,5	1,5	2,4	○	○	
G1.5.50.16.10L/R	5	5	16	32	1	1	4,4	1,9	3,2	○	○	
G1.5.50.21.10L/R	5	5	21	37	1	1	4,4	1,9	3,2	○	●	
G1.5.50.26.10L/R	5	5	26	42	1	1	4,4	1,9	3,2	○	●	
G1.5.50.31.10L/R	5	5	31	47	1	1	4,4	1,9	3,2	●	●	
G1.5.50.16.15L/R	5	5	16	32	1,5	1	4,4	1,9	3,2	○	○	
G1.5.50.21.15L/R	5	5	21	37	1,5	1	4,4	1,9	3,2	○	●	
G1.5.50.26.15L/R	5	5	26	42	1,5	1	4,4	1,9	3,2	○	●	
G1.5.50.31.15L/R	5	5	31	47	1,5	1	4,4	1,9	3,2	●	●	
G1.5.50.16.20L/R	5	5	16	32	2	1	4,4	1,9	3,2	○	○	
G1.5.50.21.20L/R	5	5	21	37	2	1	4,4	1,9	3,2	●	●	
G1.5.50.26.20L/R	5	5	26	42	2	1	4,4	1,9	3,2	●	●	
G1.5.50.31.20L/R	5	5	31	47	2	1	4,4	1,9	3,2	●	●	
G1.6.60.16.10L/R	6	6	16	32	1	1,8	5,3	2,3	3,3	●	●	
G1.6.60.21.10L/R	6	6	21	37	1	1,8	5,3	2,3	3,3	○	○	
G1.6.60.26.10L/R	6	6	26	42	1	1,8	5,3	2,3	3,3	○	○	
G1.6.60.36.10L/R	6	6	36	52	1	1,8	5,3	2,3	3,3	○	○	
G1.6.60.16.15L/R	6	6	16	32	1,5	1,8	5,3	2,3	3,3	○	●	
G1.6.60.21.15L/R	6	6	21	37	1,5	1,8	5,3	2,3	3,3	○	○	
G1.6.60.26.15L/R	6	6	26	42	1,5	1,8	5,3	2,3	3,3	○	○	
G1.6.60.36.15L/R	6	6	36	52	1,5	1,8	5,3	2,3	3,3	○	○	
G1.6.60.16.20L/R	6	6	16	32	2	1,8	5,3	2,3	3,3	○	○	
G1.6.60.21.20L/R	6	6	21	37	2	1,8	5,3	2,3	3,3	○	●	
G1.6.60.26.20L/R	6	6	26	42	2	1,8	5,3	2,3	3,3	○	○	
G1.6.60.31.20L/R	6	6	31	47	2	1,8	5,3	2,3	3,3	○	○	
G1.7.70.16.10L/R	7	7	16	32	1	2,5	6,3	2,8	3,6	○	○	
G1.7.70.26.10L/R	7	7	26	42	1	2,5	6,3	2,8	3,6	○	○	
G1.7.70.31.10L/R	7	7	31	47	1	2,5	6,3	2,8	3,6	●	●	
G1.7.70.36.10L/R	7	7	36	52	1	2,5	6,3	2,8	3,6	○	●	
G1.7.70.46.10L/R	7	7	46	62	1	2,5	6,3	2,8	3,6	○	○	

● Ex stock ○ On demand

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Uncoated grade (HW) YD201 on demand

A

Turning

B

Milling

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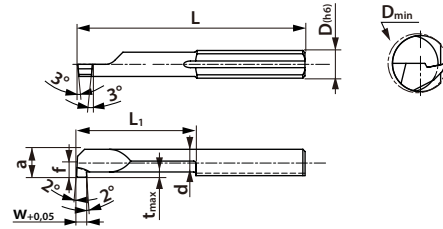
Index

miniTURN

G1 – Grooving and turning



Right hand style



Article	Dimensions [mm]									YPG202	
	D (h6)	D _{min}	L ₁	L	w+0,06	t _{max}	a	f	d	L	R
G1.7.70.16.15L/R	7	7	16	32	1,5	2,5	6,3	2,8	3,6	○	●
G1.7.70.26.15L/R	7	7	26	42	1,5	2,5	6,3	2,8	3,6	○	○
G1.7.70.31.15L/R	7	7	31	47	1,5	2,5	6,3	2,8	3,6	●	●
G1.7.70.36.15L/R	7	7	36	52	1,5	2,5	6,3	2,8	3,6	○	○
G1.7.70.41.15L/R	7	7	41	57	1,5	2,5	6,3	2,8	3,6	○	○
G1.7.70.16.20L/R	7	7	16	32	2	2,5	6,3	2,8	3,6	●	●
G1.7.70.26.20L/R	7	7	26	42	2	2,5	6,3	2,8	3,6	○	●
G1.7.70.31.20L/R	7	7	31	47	2	2,5	6,3	2,8	3,6	●	●
G1.7.70.36.20L/R	7	7	36	52	2	2,5	6,3	2,8	3,6	●	○
G1.7.70.41.20L/R	7	7	41	57	2	2,5	6,3	2,8	3,6	○	○

● Ex stock ○ On demand

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Uncoated grade (HW) YD201 on demand

miniTURN

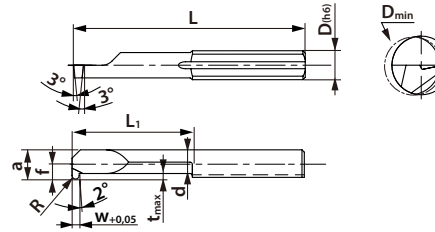
G2 – Grooving and turning



– With full radius



Right hand style



Article	Dimensions [mm]											YPG202	
	D (h6)	D _{min}	L ₁	L	R	w±0,05	t _{max}	a	f	d	L	R	
G2.4.40.16.050.10L/R	4	4	16	32	0,5	1	0,8	3,5	1,5	2,5	●	○	
G2.5.50.21.050.10L/R	5	5	21	37	0,5	1	1	4,4	1,9	3,2	○	●	
G2.5.50.21.075.15L/R	5	5	21	37	0,8	2	1,0	4,4	1,9	3,2	○	○	
G2.6.60.26.050.10L/R	6	6	26	42	0,5	1	2	5,3	2,3	3,3	●	●	
G2.6.60.26.100.20L/R	6	6	26	42	1,0	2	1,8	5,3	2,3	3,3	●	●	
G2.6.60.36.075.15L/R	6	6	36	52	0,8	2	2	5,3	2,3	3,3	●	●	
G2.7.70.31.075.15L/R	7	7	31	47	0,8	2	2,5	6,3	2,8	3,6	○	○	
G2.7.70.31.100.20L/R	7	7	31	47	1,0	2	3	6,3	2,8	3,6	○	○	

● Ex stock ○ On demand

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Uncoated grade (HW) YD201 on demand

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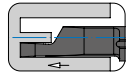
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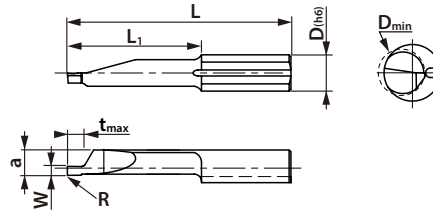
A

miniTURN

F1 – Face grooving



– With corner radius



Right hand style

B

Article	Dimensions [mm]									YPG202	
	D (h6)	D _{min}	L ₁	L	R	w+0,05	t _{max}	a	L	R	
F1.6.50.21.003.10L/R	6	5	21	37	0,03	1	2	4,2	●	●	
F1.6.50.21.005.15L/R	6	5	21	37	0,05	1,5	3	4,2	○	●	
F1.6.50.21.005.20L/R	6	5	21	37	0,05	2	5	4,2	○	●	
F1.6.60.21.005.10L/R	6	6	21	37	0,05	1	2	5,2	○	○	
F1.6.60.21.005.15L/R	6	6	21	37	0,05	1,5	3	5,2	○	●	
F1.6.60.21.005.20L/R	6	6	21	37	0,05	2	5	5,2	○	●	
F1.6.60.16.005.25L/R	6	6	16	31	0,05	2,5	5	5,2	○	●	
F1.7.80.21.008.10L/R	7	8	21	37	0,08	1	2	5,9	○	○	
F1.7.80.21.015.15L/R	7	8	21	37	0,15	1,5	3	5,9	○	○	
F1.7.80.21.015.20L/R	7	8	21	37	0,15	2	4	5,9	○	○	
F1.7.80.21.015.25L/R	7	8	21	37	0,15	2,5	5	5,9	○	●	
F1.7.80.21.015.30L/R	7	8	21	37	0,15	3	6	5,9	●	●	

● Ex stock ○ On demand

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Uncoated grade (HW) YD201 on demand

Milling

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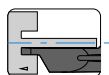
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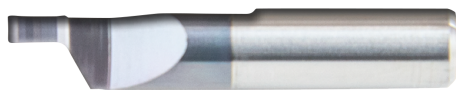
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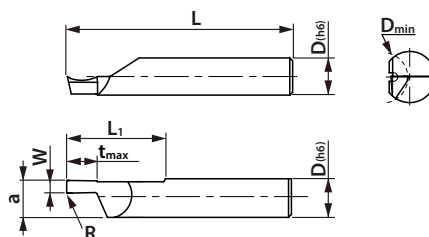
F2 – Face grooving



– On the pivot with corner radius



Right hand style



Article	Dimensions [mm]								YPG202	
	D (h6)	D _{min}	L _i	L	R	w+0,05	t _{max}	a	L	R
F2.6.60.16.010.15L/R	6	6	16	31	0,1	1,5	5	4,2	○	●
F2.6.60.16.015.20L/R	6	6	16	31	0,15	2	3,15	5,2	●	●
F2.6.60.16.015.25L/R	6	6	16	31	0,15	2,5	5	5,2	○	●
F2.6.65.16.015.30L/R	6	6,5	16	31	0,15	3	6	5,2	○	●

● Ex stock ○ On demand

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Uncoated grade (HW) YD201 on demand

A

Turning

B

Milling

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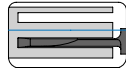
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A

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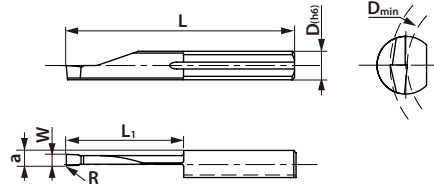
F3 – Face grooving



– With corner radius



Right hand style



Turning

B

Milling

Article	Dimensions [mm]							YPG202	
	D (h6)	D _{min}	L ₁	L	R	w+0,05	a	L	R
F3.8.150.15.030.20L/R	8	15	15	37	0,3	2	5,9	●	●
F3.8.150.15.030.30L	8	15	20	37	0,3	3	5,9	●	–
F3.8.150.20.030.30L/R	8	15	20	37	0,3	3	5,9	●	●
F3.8.150.20.150.30L	8	15	25	37	1,5	3	5,9	●	–
F3.8.150.25.030.30L	8	15	25	37	0,3	3	5,9	●	–
F3.8.150.25.150.30L	8	15	25	37	1,5	3	5,9	●	–
F3.8.150.30.030.30L	8	15	30	37	0,3	3	5,9	●	–
F3.8.150.30.150.30L	8	15	30	37	1,5	3	5,9	●	–
F3.8.150.30.030.40R	8	15	30	37	0,3	4	5,9	–	●
F3.8.150.40.030.40R	8	15	40	57	0,3	4	5,9	–	●
F3.8.150.20.030.50L	8	15	20	37	0,3	5	5,9	●	–

● Ex stock ○ On demand

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Uncoated grade (HW) YD201 on demand

Drilling

D

Technical Information

F

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Inserts (P1–P4)

P1

6

58

21

603

L/R

YPG202

1

2

3

4

5

6

7

Series

1

Shank square section D (h6)
[mm]

2

Min. bore diameter D_{min}
[mm]

3

Effective length L_1
[mm]

4

Thread pitch [mm]

Code	Inch (partial profile)
601	60° / 0,5–0,7 mm / 48–36 TPI
602	60° / 0,5–1,0 mm / 48–24 TPI
603	60° / 1,0–1,5 mm / 24–16 TPI
551	55° / 28–18 TPI
552	55° / 24–16 TPI

5

Type

6

Grade

7

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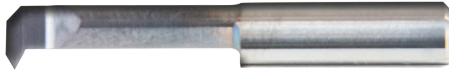
A

miniTURN

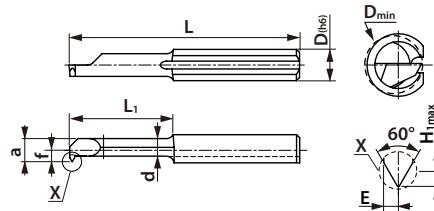
P1 – Threading



– Partial profile 60°



Right hand style



Turning

B

Article	Dimensions [mm]											YPG202	
	D (h6)	D _{min}	L ₁	L	P	a	f	d	E	H _{1max}	r _{min}	L	R
P1.4.24.11.601L/R	4	2,4	11	27	0.5–0.7 / 48–36	2,2	0,2	1,6	0,35	0,43	0,03	●	○
P1.4.38.16.601L/R	4	3,8	16	32	0.5–0.7 / 48–36	3,7	1,7	2,8	0,35	0,43	0,03	○	●
P1.4.38.11.602L/R	4	3,8	11	27	0.5–1.0 / 48–24	3,7	1,7	2,8	0,45	0,66	0,03	○	○
P1.5.48.16.602L/R	5	4,8	16	32	0.5–1.0 / 48–24	4,7	2,2	3,2	0,45	0,66	0,03	●	●
P1.5.48.16.603L/R	5	4,8	16	32	1.0–1.5 / 24–16	4,7	2,2	3,2	0,7	0,97	0,06	●	●
P1.6.58.21.603L/R	6	5,8	21	37	1.0–1.5 / 24–16	5,5	2,5	4	0,7	0,97	0,03	●	●

● Ex stock ○ On demand

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Uncoated grade (HW) YD201 on demand

Milling

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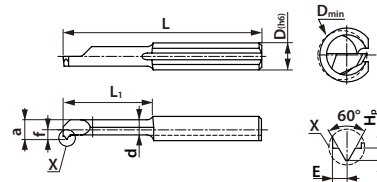
P2 – Threading



– ISO metric coarse and fine thread full profile 60°



Right hand style



Article	Dimensions [mm]											YPG202	
	D (h6)	D _{min}	L ₁	L	P	a	f	d	E	H _{1max}	r _{min}	L	R
P2.4.34.11.050 L/R	4	MF4x0.5	11	27	0,5	3,3	1,3	2,65	0,35	0,27	0,29	○	○
P2.5.50.16.050 L/R	5	MF6x0.5	16	32	0,5	4,4	1,9	3,3	0,35	0,27	0,29	○	○
P2.4.32.11.070 L/R	4	M4x0.7	11	27	0,7	3	1	2,4	0,5	0,38	0,41	○	○
P2.5.54.16.075 L/R	5	MF6x0.75	16	32	0,75	4,7	2,2	3,8	0,55	0,41	0,45	○	○
P2.4.40.11.080 L/R	4	M5x0.8	11	27	0,8	3,9	1,9	2,8	0,55	0,43	0,47	○	●
P2.5.48.16.100 L/R	5	M6x1 / MF8x1	16	32	1	4,5	2	3,4	0,7	0,54	0,59	○	●
P2.6.58.21.100 L/R	6	M7x1 / MF8x1	21	37	1	5,5	2,5	4,4	0,7	0,54	0,59	○	●
P2.6.65.21.125 L/R	6	M8x1.25 / MF10x1.25	21	37	1,25	5,9	2,9	4,8	0,9	0,68	0,73	○	●

● Ex stock ○ On demand

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Uncoated grade (HW) YD201 on demand

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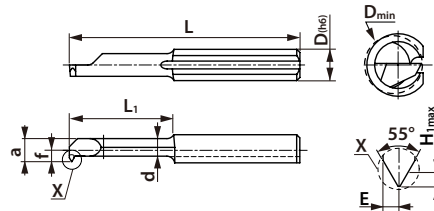
P3 – Threading



– Partial profile 55°



Right hand style



Turning

B

Article	Dimensions [mm]											YPG202	
	D (h6)	D _{min}	L ₁	L	P	a	f	d	E	H _{1max}	r _{min}	L	R
P3.4.40.11.551L/R	4	4,2	11	27	28–24	3,9	1,9	2,8	0,50	0,677	0,125	○	●
P3.5.47.16.552L/R	5	4,7	16	32	20–16	3,9	1,9	3,3	0,35	1,017	0,170	○	●

● Ex stock ○ On demand

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Milling

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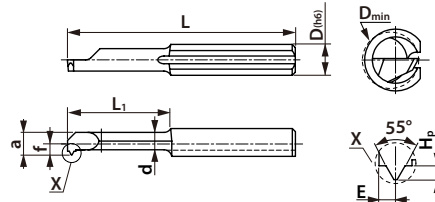
P4 – Threading



– Whitworth thread full profile 55°



Right hand style



Article	Dimensions [mm]											YPG202	
	D (h6)	D _{min}	L ₁	L	P	a	f	d	E	H _p	L	R	
P4.5.52.16.TPI28L/R	5	1/16"-28BSP / G1/16"	16	32,0	28	4,95	2,45	3,75	0,800	0,580	○	○	
P4.6.62.16.TPI19L/R	6	1/4"-19BSP / G1/4"	16	32,0	19	5,95	2,95	3,75	1,00	0,86	○	○	

● Ex stock ○ On demand

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Holders

SH 1600 06 (L/R)

1 2 3 4

Type	
Code	Description
DH	Double-sided tool holder
SH	Single-sided tool holder with G1/8" coolant connection
QH	Square tool holder with reduction sleeve
QH90	Square tool holder 90° with reduction sleeve
QHU	Universal tool holder for turning centre with reduction sleeve
RS	Reduction sleeve

**Shank square section D (h6)
[mm]**

1

2

**Bore diameter
[mm]**

Type

3

4

A

Turning

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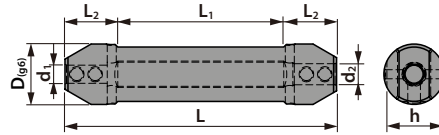
Drilling

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DH – Double-sided tool holder


Article	Stock	Dimensions [mm]						
		D (g6)	d ₁	d ₂	L	L ₁	L ₂	h
DH1600.4.5	●	16	4	5	80	50	15	15
DH1600.6.7	●	16	6	7	80	50	15	15
DH1905.4.5	○	19,05	4	5	90	55	17,5	18
DH1905.6.7	○	19,05	6	7	90	55	17,5	18
DH2000.4.5	●	20	4	5	90	55	17,5	19
DH2000.6.7	●	20	6	7	90	55	17,5	19
DH2200.4.5	○	22	4	5	90	55	17,5	19
DH2200.6.7	○	22	6	7	90	55	17,5	19
DH2500.4.5	●	25	4	5	105	75	15	24
DH2500.6.7	●	25	6	7	105	75	15	24
DH2540.4.5	○	25,4	4	5	105	75	15	24,4
DH2540.6.7	○	25,4	6	7	105	75	15	24,4

● Ex stock ○ On demand

Spare parts

d ₁	Screw	Wrench
4	M5x5MT	WT25L
5	M5x5MT	WT25L
6	M5x5MT	WT25L
7	M5x5MT	WT25L

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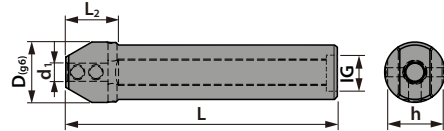
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SH – Single-sided tool holder G1/8" coolant connection



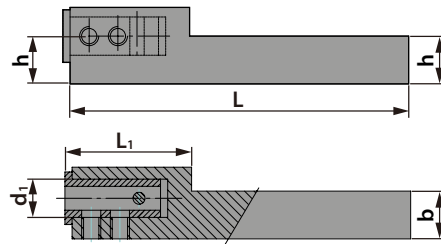
Article	Dimensions [mm]							
	Stock	*	D (g6)	d ₁	L	L ₂	h	IG
SH1600.04	●	*	16	4	75	20	15	G1/8"
SH1600.05	●	*	16	5	75	20	15	G1/8"
SH1600.06	●	*	16	6	75	20	15	G1/8"
SH1600.07	●	*	16	7	75	20	15	G1/8"
SH1600.08	○	*	16	8	75	20	15	G1/8"
SH1905.04	○	*	19,05	4	90	20	18	G1/8"
SH1905.05	○	*	19,05	5	90	20	18	G1/8"
SH1905.06	○	*	19,05	6	90	20	18	G1/8"
SH1905.07	○	*	19,05	7	90	20	18	G1/8"
SH2000.04	●	*	20	4	90	20	19	G1/8"
SH2000.05	●	*	20	5	90	20	19	G1/8"
SH2000.06	●	*	20	6	90	20	19	G1/8"
SH2000.07	●	*	20	7	90	20	19	G1/8"
SH2000.08	○	*	20	8	90	20	19	G1/8"
SH2200.04	○	*	22	4	90	20	21	G1/8"
SH2200.05	○	*	22	5	90	20	21	G1/8"
SH2200.06	○	*	22	6	90	20	21	G1/8"
SH2200.07	○	*	22	7	90	20	21	G1/8"
SH2500.04	○	*	25	4	100	20	24	G1/8"
SH2500.05	○	*	25	5	100	20	24	G1/8"
SH2500.06	○	*	25	6	100	20	24	G1/8"
SH2500.07	○	*	25	7	100	20	24	G1/8"
SH2540.04	○	*	25,4	4	100	20	24	G1/8"
SH2540.05	○	*	25,4	5	100	20	24	G1/8"
SH2540.06	○	*	25,4	6	100	20	24	G1/8"
SH2540.07	○	*	25,4	7	100	20	24	G1/8"

● Ex stock ○ On demand

Spare parts

d ₁	Screw	Wrench
4	M5x5MT	WT25L
5	M5x5MT	WT25L
6	M5x5MT	WT25L
7	M5x5MT	WT25L
8	M5x5MT	WT25L




QH – Square tool holder Reduction sleeve



Article	Stock		Dimensions [mm]						
	R	L	h	b	d ₁	L	L ₁	H ₁	B ₁
QH1010.08L/R	○	○	10	10	8	100	25	16	15
QH1212.08L/R	○	○	12	12	8	100	25	16	15
QH1616.12L/R	○	○	16	16	12	125	25	24,5	19,5

● Ex stock ○ On demand

Spare parts

Article	Screw	Wrench	Reduction sleeve
QH1010.08L/R			
QH1212.08L/R	M5x8MT	WT25L	RS08.*
QH1616.12L/R	M5x8MT	WT25L	RS12.*

A

Turning

B

Milling

C

Drilling

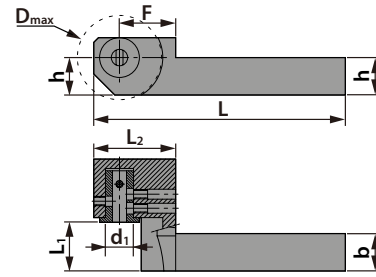
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QH90 – Universal tool holder 90° Reduction sleeve



Article	Stock		Dimensions [mm]										
	R	L	h	b	d ₁	L	L ₁	L ₂	H ₁	B ₁	B ₂	D _{max}	F
QH901010.08L/R	○	○	10	10	8	100	28	18	16,5	18	43	26	19
QH901212.12L/R	○	○	12	12	12	100	30	23	20,5	23	48	26	19
QH901616.12L/R	○	○	16	16	12	105	35	28	26	28	53	36	24

● Ex stock ○ On demand

Spare parts

Article	Screw	Wrench	Reduction sleeve
QH901010.08L/R	M5x8MT	WT25L	RS08.*
QH901212.12L/R	M5x8MT	WT25L	RS12.*
QH901616.12L/R	M5x8MT	WT25L	RS12.*

A

Turning

B

Milling

C

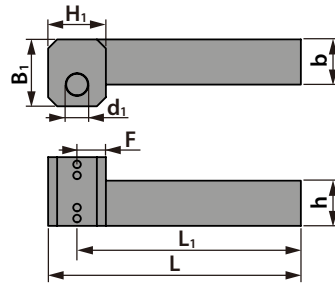
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QHU – Universal tool holder For turning centre with reduction sleeve


Article	Stock		Dimensions [mm]							
	R	L	h	b	d ₁	L	L ₁	H ₁	B ₁	F
QHU2020.12L/R	●	●	20	20	12	140	124	32	37	16
QHU2525.12L	●	—	25	25	12	140	124	32	37	16
QHU3232.12L	●	—	32	32	12	140	124	32	37	16

● Ex stock ○ On demand

Spare parts

Article	Screw	Wrench	Reduction sleeve
QHU2020.12L/R			
QHU2525.12L	M5x8MT	WT25L	RS12.*
QHU3232.12L	M5x8MT	WT25L	RS12.*

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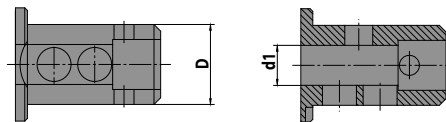
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RS – Reduction sleeve

A

Turning



B

Milling

Article	Dimensions [mm]		Stock
	d_1	D	
RS08.04	4	8	●
RS08.05	5	8	●
RS08.06	6	8	●
RS12.04	4	12	●
RS12.05	5	12	●
RS12.06	6	12	●
RS12.07	7	12	●
RS12.08	8	12	●

● Ex stock ○ On demand

C

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Cutting speeds

Material group	Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]			
					HW	HC (PVD)		
					YD201	YPG202		
P	Unalloyed steel	approx. 0,15 % C	annealed	125	1	70	150	
		approx. 0,45 % C	annealed	190	2	70	135	
		approx. 0,45 % C	tempered	250	3	50	115	
		approx. 0,75 % C	annealed	270	4	45	110	
		approx. 0,75 % C	tempered	300	5	40	105	
	Low-alloyed steel		annealed	180	6	55	135	
			tempered	275	7	45	100	
			tempered	300	8	40	90	
			tempered	350	9	40	85	
	High-alloyed steel and high-alloyed tool steel		annealed	200	10	-	100	
		hardened and tempered	325	11	-	75		
M	Stainless steel	ferritic/martensitic	annealed	200	12	60	120	
		martensitic	tempered	240	13	50	100	
		austenitic	quench hardened	180	14	50	115	
		austenitic-ferritic		230	15	40	100	
K	Grey cast iron	perlite/ferritic		180	16	55	165	
		perlite (martensitic)		260	17	45	145	
	Cast iron with spheroidal graphite	ferritic		160	18	65	175	
		perlite		250	19	50	130	
	Malleable cast iron	ferritic		130	20	-	135	
		perlite		230	21	-	130	
N	Aluminium wrought alloys	cannot be hardened		60	22	200	400	
		hardenable	hardened	100	23	150	300	
	Cast aluminium alloys	$\leq 12\%$ Si, cannot be hardened		75	24	100	200	
		$\leq 12\%$ Si, hardenable	hardened	90	25	80	160	
		$> 12\%$ Si, cannot be hardened		130	26	60	120	
	Copper and copper alloys (bronze/brass)	machining steel, PB > 1%		110	27	60	120	
		CuZn, CuSnZn		90	28	150	300	
	CuSn, Pb-free copper, electrolytic copper		100	29	60	120		
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30	30	75	
			hardened	280	31	30	40	
		Ni or Co base	annealed	250	32	30	60	
			hardened	350	33	30	55	
			cast	320	34	30	55	
	Titanium alloys	pure titanium		R _m 400	35	30	105	
α and β alloys		hardened	R _m 1050	36	-	40		
H	Hardened steel		hardened and tempered	55 HRC	37			
	Hard cast iron		hardened and tempered	60 HRC	38			
	Hardened cast iron		cast	400	39			
	Hardened cast iron		hardened and tempered	55 HRC	40			
X	Non-metallic materials	Thermoplastics			41			
		Thermosetting plastics			42			
		Plastic, glass-fibre reinforced GFRP			43			
		Plastic, carbon fibre reinforced CFRP			44			
		Graphite			45			
		Wood			46			

Note: The given cutting values are guide values, which were determined under ideal conditions.

HC Coated carbide
HW Uncoated carbide, primary component (WC)

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Drilling





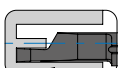
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Depth of cut a_p and feed rate f

Products	Application			Radius [mm]				
				0,03	0,05	0,1	0,15	0,2
T1-T4		Turning Profiling	Feed rate f [mm/R]	0,01-0,02	0,01-0,03	0,03-0,06	0,03-0,08	0,04-0,12
			Depth of cut a_p [mm]	0,01-0,03	0,02-0,07	0,05-0,15	0,08-0,20	0,10-0,25
C1		Turning Chamfering	Feed rate f [mm/R]	0,01-0,03				
B1		Back turning	Feed rate f [mm/R]	-	0,01-0,03	0,03-0,06	0,03-0,08	-
			Depth of cut a_p [mm]	-	0,02-0,07	0,05-0,15	0,08-0,20	-
G1-G2		Grooving Turning	Feed rate f [mm/R]	0,01-0,05				
F1-F3		Face grooving	Feed rate f [mm/R]	0,01-0,03				

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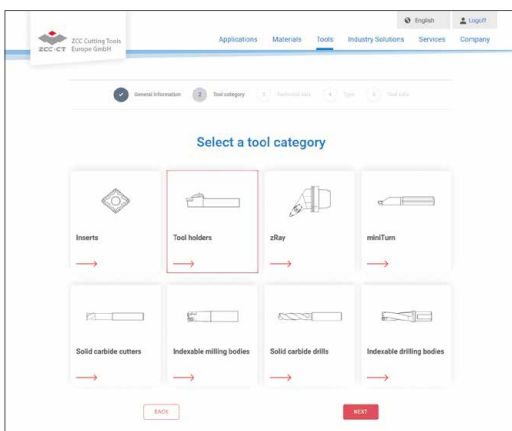
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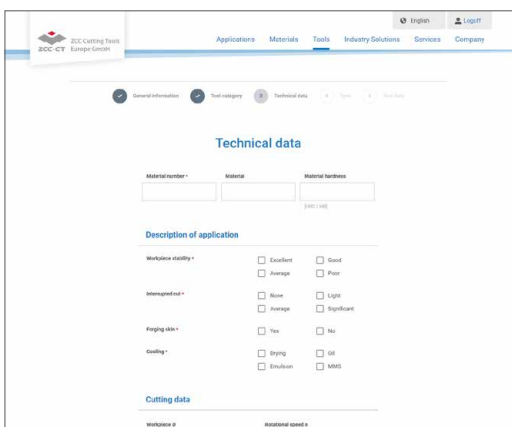
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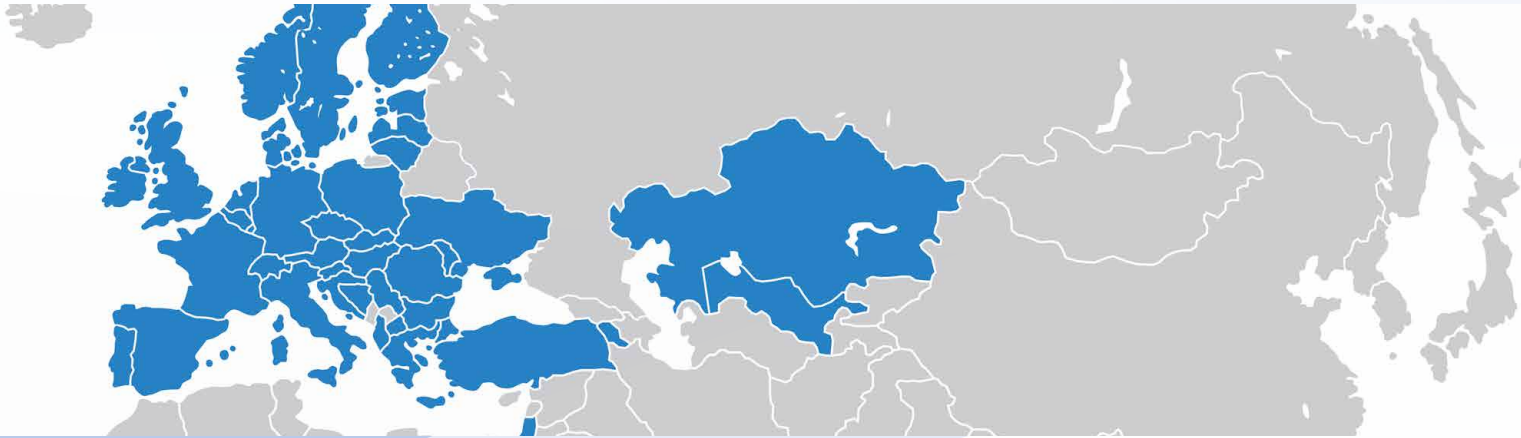
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