

INDEXABLE DRILLS



Indexable drills

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A

Turning

Indexable insert drill



ZD03	ZTD02	ZTD03	ZTD04	ZTD05	
16-58	13-50	13-73	13-59.5	17-50	Diameter
C30	C22	C24	C26	C28	Page

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Milling



ZSD02	ZSD03	ZSD04	ZSD05	
12-63	12-63	12-63	12-63	Diameter
C10	C13	C16	C19	Page

Drilling inserts

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Drilling



SPGT-EM	SPGT-PM	SPMX-EM	SPMX-LM	SPMX-XM	WCMX-53	WCMX-D	WCMX-PG	
05 06 07 09 11 14	05 06 07 09 11 14	04 05 06 07 09 11 14	04 05 06 07 09 11 14	04 05 06 07 09 11 14	03 04 05 06 08	06 08	03 04 05 06 08	Edge length
C34	C34	C33	C33	C33	C35	C35	C35	Page

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Drilling

XM P M



Single-sided chip breaker for medium machining operations. All-round geometry with excellent chip control for steel and cast iron.

LM P M



Single-sided chip breaker for medium machining operations. All-round geometry with excellent chip control for soft steel.

PM P M K



For machining of steel, stainless steel and cast iron.

EM P M S



For machining of steel, stainless steel and heat-resistant alloys.

PG P K



For machining of steel and cast iron.

D P M K



For machining of steel, stainless steel and cast iron.

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P M K N



Turning

For machining of steel, stainless steel, cast iron and non-ferrous metals.

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Drilling

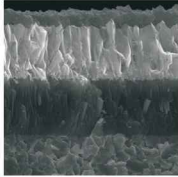

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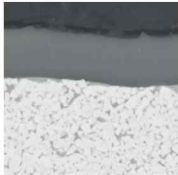
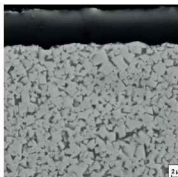
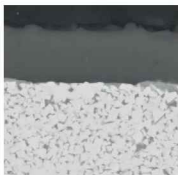
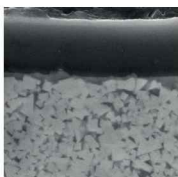
Coated cemented carbide CVD

Grade	ISO	Micro structure	Grade description
YB6338	P20 - P40 K20 - K40		CVD coated P20-P40/K20-K40 carbide substrate for operation with higher cutting speed and feed rate in steel and cast iron.
YBD252	K20 - K35		CVD coated K20-K35 carbide substrate. Optimized for medium to roughing operation of cast iron and Steel. Good wear resistance and toughness at higher cutting speed.

B

Milling

Coated cemented carbide PVD

Grade	ISO	Micro structure	Grade description
YBG105	S05 - S20		PVD multilayer coated S05-S20 carbide substrate for finishing to medium application of super alloy material but also stainless steel. Good wear resistance and thermal stability in a wide application field.
YBG202	P10 - P30 M10 - M25		PVD coated M10-M25/P10-P30 carbide substrate for finishing to medium application of stainless steel and steel (milling). Good wear resistance in a wide application field.
YBS203	S15 - S25		For processing heat-resistant materials. A special carbon substrate and the latest PVD coating technology enable a very good wear behaviour, high fracture toughness and high thermal stability.
YBG205	P10 - P30 M20 - M40 S15-S25		PVD multilayer coated P10-P30/M20-M40/S15-S25 carbide substrate for finishing to medium machining of stainless steel, super alloys and steel (milling). Excellent wear resistance and thermal stability in a wide range of applications.
YB9320	P10 - P30 M10 - M25		PVD multilayer coated P10-P30/M10-M25 carbide substrate for finishing to medium machining of stainless steel, super alloys and steel (grooving/milling). Optimised coating stability for higher wear resistance and thermal stability in a wide range of applic

C

Drilling


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Technical Information

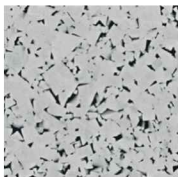
E

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Coated cemented carbide PVD

Grade	ISO	Micro structure	Grade description
YBG212	P25 - P35 M25-M40		PVD coated M25-M40/P25-P35 carbide substrate for steel and stainless steel. Especially for inner insert at drilling operation.

Uncoated cemented carbide

Grade	ISO	Micro structure	Grade description
YD201	K10 - K30 N10 - N30		Uncoated N10-N30/K10-K30 carbide substrate for medium application in aluminum and other material.

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Application fields of grades – indexable drills

	ISO	HC ¹ (CVD)	HC ¹ (PVD)	HT	HW	PCBN & PCD
A Turning	P01					
	P10					
	P20	YBD252	YBG202			
	P30	YB6338	YBG205			
	P40		YBG212			
B Milling	M01					
	M10		YBG202			
	M20		YB9320			
	M30		YBG205			
	M40		YBS203			
C Drilling	K01					
	K10	YBD252	YBG202			
	K20	YB6338	YBG205			
	K30					
	K40					YBG212
D Technical Information	N01					
	N10					
	N20				YD201	
	N30					
E Index	S01		YBG202			
	S10		YB9320			
	S20		YBG205			
	S30		YBS203			YBG212
H	H01					
	H10					
	H20					
	H30					

P	Steel
M	Stainless steel
K	Cast iron

N	Non-ferrous alloys
S	Heat-resistant alloys
H	Hardened materials

HC¹ Coated cemented carbide
 HT Uncoated cermet
 HW Uncoated cemented carbide

ZSD – 03 300 – XP – 32 S P 09 – 02

1 **2** **3** **4** **5** **6** **7** **8** **9**

Type	
Code	Description
ZSD	Indexable drill (SPMX*)
ZTD	Indexable drill (SPGT*)
ZD	Indexable drill (WCMX*)

1

L/D relation	
Code	Description
02	2xD
03	3xD
04	4xD
05	5xD

2

Diameter [mm]	
Code	Description
130	13
...	



3

Shank type	
Code	Description
XP	Weldon shank

4

Coupling size [mm]



5

Insert shape
W 
S 

6

Clearance angle	
Code	Description
C	7°
P	11°

7

Cutting edge length [mm]		
Code	Insert shape	
	W 	S 
03	3,8	
04	4,3	
05	5,4	5
06	6,5	6
08	8,7	7,94
09		9,8
11		11,5
12		12,7
14		14,3

8

Number of teeth

9

A

Turning

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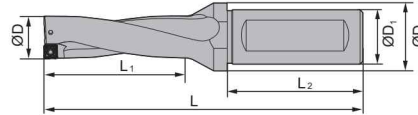
Technical Information

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Indexable drills series

ZSD02



Article	*	Stock	Dimensions [mm]							kg	Inserts
			ØD	ØD1	ØD2	L1	L2	L			
ZSD02-120-XP20-SP04-02	*	•	12	20	25	27	50	94	0.162	SPMX040204**	
ZSD02-125-XP20-SP04-02	*	•	12.5	20	25	28	50	95	0.164	SPMX040204**	
ZSD02-130-XP20-SP04-02	*	•	13	20	25	29	50	96	0.167	SPMX040204**	
ZSD02-135-XP20-SP04-02	*	•	13.5	20	25	30	50	97	0.169	SPMX040204**	
ZSD02-140-XP20-SP04-02	*	•	14	20	25	31	50	98	0.172	SPMX040204**	
ZSD02-145-XP20-SP04-02	*	•	14.5	20	25	32	50	99	0.176	SPMX040204**	
ZSD02-150-XP20-SP05-02	*	•	15	20	25	33	50	100	0.179	SPMX050204**	
ZSD02-155-XP20-SP05-02	*	•	15.5	20	25	34	50	101	0.185	SPMX050204**	
ZSD02-160-XP20-SP05-02	*	•	16	20	25	35	50	102	0.189	SPMX050204**	
ZSD02-165-XP20-SP05-02	*	•	16.5	20	25	36	50	103	0.193	SPMX050204**	
ZSD02-170-XP20-SP05-02	*	•	17	20	25	37	50	104	0.201	SPMX050204**	
ZSD02-175-XP20-SP05-02	*	•	17.5	20	25	38	50	105	0.207	SPMX050204**	
ZSD02-180-XP25-SP06-02	*	•	18	25	32	39	56	113	0.304	SPMX060204**	
ZSD02-185-XP25-SP06-02	*	•	18.5	25	32	40	56	114	0.308	SPMX060204**	
ZSD02-190-XP25-SP06-02	*	•	19	25	32	41	56	115	0.313	SPMX060204**	
ZSD02-195-XP25-SP06-02	*	•	19.5	25	32	42	56	116	0.317	SPMX060204**	
ZSD02-200-XP25-SP06-02	*	•	20	25	32	43	56	117	0.323	SPMX060204**	
ZSD02-205-XP25-SP06-02	*	•	20.5	25	32	44	56	118	0.327	SPMX060204**	
ZSD02-210-XP25-SP06-02	*	•	21	25	32	45	56	119	0.33	SPMX060204**	
ZSD02-215-XP25-SP06-02	*	•	21.5	25	32	46	56	120	0.341	SPMX060204**	
ZSD02-220-XP25-SP06-02	*	•	22	25	32	47	56	121	0.346	SPMX060204**	
ZSD02-225-XP25-SP07-02	*	•	22.5	25	32	48	56	122	0.34	SPMX07T308**	
ZSD02-230-XP25-SP07-02	*	•	23	25	32	49	56	123	0.348	SPMX07T308**	
ZSD02-235-XP25-SP07-02	*	•	23.5	25	32	50	56	124	0.353	SPMX07T308**	
ZSD02-240-XP25-SP07-02	*	•	24	25	32	51	56	125	0.36	SPMX07T308**	
ZSD02-245-XP25-SP07-02	*	•	24.5	25	32	52	56	126	0.367	SPMX07T308**	
ZSD02-250-XP25-SP07-02	*	•	25	25	32	53	56	127	0.373	SPMX07T308**	
ZSD02-255-XP25-SP07-02	*	•	25.5	25	32	54	56	128	0.382	SPMX07T308**	
ZSD02-260-XP25-SP07-02	*	•	26	25	32	55	56	129	0.391	SPMX07T308**	
ZSD02-265-XP25-SP07-02	*	○	26.5	25	32	56	56	130	0.4	SPMX07T308**	
ZSD02-270-XP25-SP07-02	*	•	27	25	32	57	56	131	0.409	SPMX07T308**	
ZSD02-275-XP25-SP07-02	*	•	27.5	25	32	58	56	132	0.418	SPMX07T308**	
ZSD02-280-XP32-SP09-02	*	•	28	32	37	59	60	139	0.599	SPMX090408**	

• Ex stock ○ On demand



* Internal cooling

System code > C9

Grade selection > C8



Technical info > C201

Cutting data > C36

Article	✱	Stock	Dimensions [mm]							Inserts 
			ØD	ØD1	ØD2	L1	L2	L		
ZSD02-290-XP32-SP09-02	✱	●	29	32	37	60	60	141	0.619	SPMX090408**
ZSD02-300-XP32-SP09-02	✱	●	30	32	37	61	60	143	0.64	SPMX090408**
ZSD02-310-XP32-SP09-02	✱	●	31	32	37	65	60	145	0.663	SPMX090408**
ZSD02-320-XP32-SP09-02	✱	●	32	32	37	67	60	147	0.687	SPMX090408**
ZSD02-330-XP32-SP09-02	✱	●	33	32	37	69	60	149	0.713	SPMX090408**
ZSD02-340-XP40-SP11-02	✱	●	34	40	47	71	70	166	1.101	SPMX110408**
ZSD02-350-XP40-SP11-02	✱	●	35	40	47	73	70	168	1.136	SPMX110408**
ZSD02-360-XP40-SP11-02	✱	●	36	40	47	75	70	170	1.166	SPMX110408**
ZSD02-370-XP40-SP11-02	✱	●	37	40	47	77	70	172	1.202	SPMX110408**
ZSD02-380-XP40-SP11-02	✱	●	38	40	47	79	70	174	1.235	SPMX110408**
ZSD02-390-XP40-SP11-02	✱	●	39	40	47	81	70	176	1.271	SPMX110408**
ZSD02-400-XP40-SP11-02	✱	●	40	40	47	83	70	178	1.311	SPMX110408**
ZSD02-410-XP40-SP11-02	✱	●	41	40	47	85	70	180	1.347	SPMX110408**
ZSD02-420-XP40-SP11-02	✱	○	42	40	52	87	70	189	1.491	SPMX140512**
ZSD02-430-XP40-SP14-02	✱	○	43	40	52	89	70	191	1.496	SPMX140512**
ZSD02-440-XP40-SP14-02	✱	○	44	40	52	91	70	193	1.499	SPMX140512**
ZSD02-450-XP40-SP14-02	✱	○	45	40	52	93	70	195	1.535	SPMX140512**
ZSD02-460-XP40-SP14-02	✱	○	46	40	52	95	70	197	1.562	SPMX140512**
ZSD02-470-XP40-SP14-02	✱	○	47	40	52	97	70	199	1.644	SPMX140512**
ZSD02-480-XP40-SP14-02	✱	○	48	40	52	99	70	201	1.697	SPMX140512**
ZSD02-490-XP40-SP14-02	✱	○	49	40	52	102	70	203	1.757	SPMX140512**
ZSD02-500-XP40-SP14-02	✱	○	50	40	52	103	70	205	1.817	SPMX140512**
ZSD02-510-XP50-SP14-02	✱	○	51	50	57	105	80	217	2.46	SPMX140512**
ZSD02-520-XP50-SP14-02	✱	○	52	50	57	107	80	219	2.527	SPMX140512**
ZSD02-530-XP50-SP14-02	✱	○	53	50	57	109	80	221	2.594	SPMX140512**
ZSD02-540-XP50-SP09-04	✱	○	54	50	57	111	80	223	2.612	SPMX090408**
ZSD02-550-XP50-SP09-04	✱	○	55	50	57	113	80	225	2.673	SPMX090408**
ZSD02-560-XP50-SP09-04	✱	○	56	50	57	115	80	227	2.747	SPMX090408**
ZSD02-570-XP50-SP09-04	✱	○	57	50	57	117	80	229	2.816	SPMX090408**
ZSD02-580-XP50-SP09-04	✱	○	58	50	57	119	80	231	2.889	SPMX090408**
ZSD02-590-XP50-SP09-04	✱	○	59	50	57	121	80	233	2.967	SPMX090408**
ZSD02-600-XP50-SP09-04	✱	○	60	50	57	123	80	235	3.115	SPMX090408**
ZSD02-610-XP50-SP09-04	✱	○	61	50	57	125	80	237	3.195	SPMX090408**
ZSD02-620-XP50-SP09-04	✱	○	62	50	57	127	80	239	3.285	SPMX090408**
ZSD02-630-XP50-SP09-04	✱	○	63	50	57	129	80	241	3.368	SPMX090408**

● Ex stock ○ On demand

✱ Internal cooling

Spare parts								
	Insert	SPMX040204**	SPMX050204**	SPMX060204**	SPMX07T308**	SPMX090408**	SPMX110408**	SPMX140512**
	Screw	I60M1.8x4 (0.5Nm)	I60M2x4.3 (0.5Nm)	I60M2.2x5.5 (0.8Nm)	I60M2.5x6.5 (1.0Nm)	I60M3.5x8 (2.7Nm)	I60M4x10 (3.4Nm)	I60M5x13 (6.7Nm)
	Wrench	WT05IP	WT06IP	WT07IP	WT07IP	WT15IP	WT15IP	WT20IP

System code > C9

Grade selection > C8

Technical info > C201

Cutting data > C36



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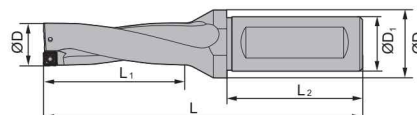
Grade selection > C8

Technical info > C201

Cutting data > C36

Indexable drills series

ZSD03



Article	*	Stock	Dimensions [mm]							kg	Inserts
			ØD	ØD1	ØD2	L1	L2	L			
ZSD03-120-XP20-SP04-02	*	●	12	20	25	39	50	105	0.165	SPMX040204**	
ZSD03-125-XP20-SP04-02	*	●	12.5	20	25	41	50	107	0.169	SPMX040204**	
ZSD03-130-XP20-SP04-02	*	●	13	20	25	42	50	108	0.171	SPMX040204**	
ZSD03-135-XP20-SP04-02	*	●	13.5	20	25	44	50	110	0.175	SPMX040204**	
ZSD03-140-XP20-SP04-02	*	●	14	20	25	45	50	111	0.178	SPMX040204**	
ZSD03-145-XP20-SP04-02	*	●	14.5	20	25	47	50	113	0.182	SPMX040204**	
ZSD03-150-XP20-SP05-02	*	●	15	20	25	48	50	114	0.189	SPMX050204**	
ZSD03-155-XP20-SP05-02	*	●	15.5	20	25	50	50	116	0.192	SPMX050204**	
ZSD03-160-XP20-SP05-02	*	●	16	20	25	51	50	117	0.201	SPMX050204**	
ZSD03-165-XP20-SP05-02	*	●	16.5	20	25	53	50	119	0.203	SPMX050204**	
ZSD03-170-XP20-SP05-02	*	●	17	20	25	54	50	120	0.205	SPMX050204**	
ZSD03-175-XP20-SP05-02	*	●	17.5	20	25	56	50	122	0.206	SPMX050204**	
ZSD03-180-XP25-SP06-02	*	●	18	25	32	57	56	131	0.319	SPMX060204**	
ZSD03-185-XP25-SP06-02	*	●	18.5	25	32	59	56	133	0.326	SPMX060204**	
ZSD03-190-XP25-SP06-02	*	●	19	25	32	60	56	134	0.332	SPMX060204**	
ZSD03-195-XP25-SP06-02	*	●	19.5	25	32	62	56	136	0.339	SPMX060204**	
ZSD03-200-XP25-SP06-02	*	●	20	25	32	63	56	137	0.344	SPMX060204**	
ZSD03-205-XP25-SP06-02	*	●	20.5	25	32	65	56	139	0.352	SPMX060204**	
ZSD03-210-XP25-SP06-02	*	●	21	25	32	66	56	140	0.368	SPMX060204**	
ZSD03-215-XP25-SP06-02	*	●	21.5	25	32	68	56	142	0.37	SPMX060204**	
ZSD03-220-XP25-SP06-02	*	●	22	25	32	69	56	143	0.375	SPMX060204**	
ZSD03-225-XP25-SP07-02	*	●	22.5	25	32	71	56	145	0.397	SPMX07T308**	
ZSD03-230-XP25-SP07-02	*	●	23	25	32	72	56	147	0.383	SPMX07T308**	
ZSD03-235-XP25-SP07-02	*	●	23.5	25	32	74	56	149	0.395	SPMX07T308**	
ZSD03-240-XP25-SP07-02	*	●	24	25	32	75	56	150	0.406	SPMX07T308**	
ZSD03-245-XP25-SP07-02	*	●	24.5	25	32	77	56	152	0.423	SPMX07T308**	
ZSD03-250-XP25-SP07-02	*	●	25	25	32	78	56	153	0.431	SPMX07T308**	
ZSD03-255-XP25-SP07-02	*	●	25.5	25	32	80	56	155	0.44	SPMX07T308**	
ZSD03-260-XP25-SP07-02	*	●	26	25	32	81	56	156	0.453	SPMX07T308**	
ZSD03-265-XP25-SP07-02	*	●	26.5	25	32	83	56	158	0.467	SPMX07T308**	
ZSD03-270-XP25-SP07-02	*	●	27	25	32	84	56	160	0.504	SPMX07T308**	
ZSD03-275-XP25-SP07-02	*	●	27.5	25	32	86	56	162	0.682	SPMX07T308**	
ZSD03-280-XP32-SP09-02	*	●	28	32	37	87	60	169	0.707	SPMX090408**	

● Ex stock ○ On demand

* Internal cooling

System code > C9

Grade selection > C8

Technical info > C201

Cutting data > C36



Indexable drills Drilling bodies

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Drilling

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Technical Information

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Article	*	Stock	Dimensions [mm]							kg	Inserts 
			ØD	ØD1	ØD2	L1	L2	L			
ZSD03-290-XP32-SP09-02	*	•	29	32	37	90	60	172	0.739	SPMX090408**	
ZSD03-300-XP32-SP09-02	*	•	30	32	37	93	60	175	0.754	SPMX090408**	
ZSD03-310-XP32-SP09-02	*	•	31	32	37	96	60	178	0.771	SPMX090408**	
ZSD03-320-XP32-SP09-02	*	•	32	32	37	99	60	181	0.806	SPMX090408**	
ZSD03-330-XP32-SP09-02	*	•	33	32	37	102	60	184	0.847	SPMX090408**	
ZSD03-340-XP40-SP11-02	*	•	34	40	47	105	70	200	1.208	SPMX110408**	
ZSD03-350-XP40-SP11-02	*	•	35	40	47	108	70	203	1.248	SPMX110408**	
ZSD03-360-XP40-SP11-02	*	•	36	40	47	111	70	206	1.302	SPMX110408**	
ZSD03-370-XP40-SP11-02	*	•	37	40	47	114	70	209	1.341	SPMX110408**	
ZSD03-380-XP40-SP11-02	*	•	38	40	47	117	70	212	1.395	SPMX110408**	
ZSD03-390-XP40-SP11-02	*	•	39	40	47	120	70	215	1.447	SPMX110408**	
ZSD03-400-XP40-SP11-02	*	•	40	40	47	123	70	218	1.505	SPMX110408**	
ZSD03-410-XP40-SP11-02	*	•	41	40	47	126	70	221	1.549	SPMX110408**	
ZSD03-420-XP40-SP11-02	*	○	42	40	52	129	70	231	1.716	SPMX140512**	
ZSD03-430-XP40-SP14-02	*	•	43	40	52	132	70	234	1.656	SPMX140512**	
ZSD03-440-XP40-SP14-02	*	○	44	40	52	135	70	237	1.708	SPMX140512**	
ZSD03-450-XP40-SP14-02	*	○	45	40	52	138	70	240	1.776	SPMX140512**	
ZSD03-460-XP40-SP14-02	*	○	46	40	52	141	70	243	1.851	SPMX140512**	
ZSD03-470-XP40-SP14-02	*	○	47	40	52	144	70	245	1.924	SPMX140512**	
ZSD03-480-XP40-SP14-02	*	○	48	40	52	147	70	249	2.003	SPMX140512**	
ZSD03-490-XP40-SP14-02	*	○	49	40	52	150	70	252	2.094	SPMX140512**	
ZSD03-500-XP40-SP14-02	*	○	50	40	52	153	70	255	2.184	SPMX140512**	
ZSD03-510-XP50-SP14-02	*	○	51	50	57	156	80	268	2.882	SPMX140512**	
ZSD03-520-XP50-SP14-02	*	○	52	50	57	159	80	271	2.974	SPMX140512**	
ZSD03-530-XP50-SP14-02	*	○	53	50	57	162	80	274	3.071	SPMX140512**	
ZSD03-540-XP50-SP09-04	*	○	54	50	57	165	80	277	3.116	SPMX090408**	
ZSD03-550-XP50-SP09-04	*	○	55	50	57	168	80	280	3.208	SPMX090408**	
ZSD03-560-XP50-SP09-04	*	○	56	50	57	171	80	283	3.315	SPMX090408**	
ZSD03-570-XP50-SP09-04	*	○	57	50	57	174	80	286	3.499	SPMX090408**	
ZSD03-580-XP50-SP09-04	*	○	58	50	57	177	80	289	3.53	SPMX090408**	
ZSD03-590-XP50-SP09-04	*	○	59	50	57	180	80	292	3.649	SPMX090408**	
ZSD03-600-XP50-SP09-04	*	○	60	50	57	183	80	295	3.838	SPMX090408**	
ZSD03-610-XP50-SP09-04	*	○	61	50	57	186	80	298	3.961	SPMX090408**	
ZSD03-620-XP50-SP09-04	*	○	62	50	57	189	80	301	4.103	SPMX090408**	
ZSD03-630-XP50-SP09-04	*	○	63	50	57	192	80	304	4.238	SPMX090408**	

- Ex stock ○ On demand
- * Internal cooling

Spare parts		SPMX040204**	SPMX050204**	SPMX060204**	SPMX07T308**	SPMX090408**	SPMX110408**	SPMX140512**
	Screw	I60M1.8x4 (0.5Nm)	I60M2x4.3 (0.5Nm)	I60M2.2x5.5 (0.8Nm)	I60M2.5x6.5 (1.0Nm)	I60M3.5x8 (2.7Nm)	I60M4x10 (3.4Nm)	I60M5x13 (6.7Nm)
	Wrench	WT05IP	WT06IP	WT07IP	WT07IP	WT15IP	WT15IP	WT20IP

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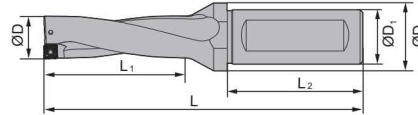
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Indexable drills series

ZSD04



Article	*	Stock	Dimensions [mm]							kg	Inserts
			ØD	ØD1	ØD2	L1	L2	L			
ZSD04-120-XP20-SP04-02	*	•	12	20	25	51	50	117	0.169	SPMX040204**	
ZSD04-125-XP20-SP04-02	*	•	12.5	20	25	53	50	119	0.173	SPMX040204**	
ZSD04-130-XP20-SP04-02	*	•	13	20	25	55	50	121	0.177	SPMX040204**	
ZSD04-135-XP20-SP04-02	*	•	13.5	20	25	57	50	123	0.181	SPMX040204**	
ZSD04-140-XP20-SP04-02	*	•	14	20	25	59	50	125	0.186	SPMX040204**	
ZSD04-145-XP20-SP04-02	*	•	14.5	20	25	61	50	127	0.191	SPMX040204**	
ZSD04-150-XP20-SP05-02	*	•	15	20	25	63	50	129	0.2	SPMX050204**	
ZSD04-155-XP20-SP05-02	*	•	15.5	20	25	65	50	131	0.203	SPMX050204**	
ZSD04-160-XP20-SP05-02	*	•	16	20	25	67	50	133	0.207	SPMX050204**	
ZSD04-165-XP20-SP05-02	*	•	16.5	20	25	69	50	135	0.214	SPMX050204**	
ZSD04-170-XP20-SP05-02	*	•	17	20	25	71	50	137	0.218	SPMX050204**	
ZSD04-175-XP20-SP05-02	*	•	17.5	20	25	73	50	139	0.222	SPMX050204**	
ZSD04-180-XP25-SP06-02	*	•	18	25	32	75	56	149	0.34	SPMX060204**	
ZSD04-185-XP25-SP06-02	*	•	18.5	25	32	77	56	151	0.341	SPMX060204**	
ZSD04-190-XP25-SP06-02	*	•	19	25	32	79	56	153	0.369	SPMX060204**	
ZSD04-195-XP25-SP06-02	*	•	19.5	25	32	81	56	155	0.382	SPMX060204**	
ZSD04-200-XP25-SP06-02	*	•	20	25	32	83	56	157	0.367	SPMX060204**	
ZSD04-205-XP25-SP06-02	*	•	20.5	25	32	85	56	159	0.37	SPMX060204**	
ZSD04-210-XP25-SP06-02	*	•	21	25	32	87	56	161	0.413	SPMX060204**	
ZSD04-215-XP25-SP06-02	*	•	21.5	25	32	89	56	163	0.426	SPMX060204**	
ZSD04-220-XP25-SP06-02	*	•	22	25	32	91	56	165	0.441	SPMX060204**	
ZSD04-225-XP25-SP07-02	*	•	22.5	25	32	93	56	167	0.407	SPMX07T308**	
ZSD04-230-XP25-SP07-02	*	•	23	25	32	95	56	170	0.421	SPMX07T308**	
ZSD04-235-XP25-SP07-02	*	•	23.5	25	32	97	56	172	0.483	SPMX07T308**	
ZSD04-240-XP25-SP07-02	*	•	24	25	32	99	56	174	0.502	SPMX07T308**	
ZSD04-245-XP25-SP07-02	*	•	24.5	25	32	101	56	176	0.517	SPMX07T308**	
ZSD04-250-XP25-SP07-02	*	•	25	25	32	103	56	178	0.52	SPMX07T308**	
ZSD04-255-XP25-SP07-02	*	•	25.5	25	32	105	56	181	0.5	SPMX07T308**	
ZSD04-260-XP25-SP07-02	*	•	26	25	32	107	56	182	0.512	SPMX07T308**	
ZSD04-265-XP25-SP07-02	*	•	26.5	25	32	109	56	184	0.52	SPMX07T308**	
ZSD04-270-XP25-SP07-02	*	•	27	25	32	111	56	187	0.617	SPMX07T308**	
ZSD04-275-XP25-SP07-02	*	•	27.5	25	32	113	56	190	0.642	SPMX07T308**	
ZSD04-280-XP32-SP09-02	*	○	28	32	37	115	60	199	0.748	SPMX090408**	

• Ex stock ○ On demand



* Internal cooling

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Technical info > C201

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Article	*	Stock	Dimensions [mm]							Inserts 
			ØD	ØD1	ØD2	L1	L2	L		
ZSD04-290-XP32-SP09-02	*	●	29	32	37	119	60	203	0.793	SPMX090408**
ZSD04-300-XP32-SP09-02	*	●	30	32	37	123	60	207	0.832	SPMX090408**
ZSD04-305-XP32-SP09-02	*	●	30.5	32	37	125	60	209	0.854	SPMX090408**
ZSD04-310-XP32-SP09-02	*	●	31	32	37	127	60	211	0.872	SPMX090408**
ZSD04-320-XP32-SP09-02	*	●	32	32	37	131	60	215	0.922	SPMX090408**
ZSD04-330-XP32-SP09-02	*	●	33	32	37	135	60	219	0.973	SPMX090408**
ZSD04-340-XP40-SP11-02	*	●	34	40	47	139	70	234	1.326	SPMX110408**
ZSD04-350-XP40-SP11-02	*	●	35	40	47	143	70	238	1.384	SPMX110408**
ZSD04-360-XP40-SP11-02	*	●	36	40	47	147	70	242	1.445	SPMX110408**
ZSD04-370-XP40-SP11-02	*	●	37	40	47	151	70	246	1.499	SPMX110408**
ZSD04-380-XP40-SP11-02	*	●	38	40	47	155	70	250	1.563	SPMX110408**
ZSD04-390-XP40-SP11-02	*	●	39	40	47	159	70	254	1.629	SPMX110408**
ZSD04-400-XP40-SP11-02	*	●	40	40	47	163	70	258	1.697	SPMX110408**
ZSD04-405-XP40-SP11-02	*	●	40.5	40	47	165	70	260	1.737	SPMX110408**
ZSD04-410-XP40-SP11-02	*	●	41	40	47	167	70	262	1.775	SPMX110408**
ZSD04-420-XP40-SP11-02	*	○	42	40	52	171	70	273	1.948	SPMX140512**
ZSD04-430-XP40-SP14-02	*	○	43	40	52	175	70	277	1.952	SPMX140512**
ZSD04-440-XP40-SP14-02	*	○	44	40	52	179	70	281	1.962	SPMX140512**
ZSD04-450-XP40-SP14-02	*	○	45	40	52	183	70	285	2.06	SPMX140512**
ZSD04-460-XP40-SP14-02	*	○	46	40	52	187	70	289	2.157	SPMX140512**
ZSD04-470-XP40-SP14-02	*	●	47	40	52	191	70	293	2.256	SPMX140512**
ZSD04-480-XP40-SP14-02	*	○	48	40	52	195	70	297	2.361	SPMX140512**
ZSD04-490-XP40-SP14-02	*	○	49	40	52	199	70	301	2.489	SPMX140512**
ZSD04-500-XP40-SP14-02	*	○	50	40	52	203	70	305	2.589	SPMX140512**
ZSD04-510-XP50-SP14-02	*	○	51	50	57	207	80	319	3.292	SPMX140512**
ZSD04-520-XP50-SP14-02	*	○	52	50	57	211	80	323	3.435	SPMX140512**
ZSD04-530-XP50-SP14-02	*	○	53	50	57	215	80	327	3.574	SPMX140512**
ZSD04-540-XP50-SP09-04	*	○	54	50	57	219	80	331	3.604	SPMX090408**
ZSD04-550-XP50-SP09-04	*	○	55	50	57	223	80	335	3.731	SPMX090408**
ZSD04-560-XP50-SP09-04	*	○	56	50	57	227	80	339	3.868	SPMX090408**
ZSD04-570-XP50-SP09-04	*	○	57	50	57	231	80	343	4.01	SPMX090408**
ZSD04-580-XP50-SP09-04	*	○	58	50	57	235	80	347	4.156	SPMX090408**
ZSD04-590-XP50-SP09-04	*	○	59	50	57	239	80	351	4.312	SPMX090408**
ZSD04-600-XP50-SP09-04	*	○	60	50	57	243	80	355	4.558	SPMX090408**
ZSD04-610-XP50-SP09-04	*	○	61	50	57	247	80	359	4.72	SPMX090408**
ZSD04-620-XP50-SP09-04	*	○	62	50	57	251	80	363	4.886	SPMX090408**
ZSD04-630-XP50-SP09-04	*	○	63	50	57	255	80	367	5.068	SPMX090408**

● Ex stock ○ On demand

* Internal cooling

Spare parts								
	Insert	SPMX040204**	SPMX050204**	SPMX060204**	SPMX07T308**	SPMX090408**	SPMX110408**	SPMX140512**
	Screw	I60M1.8x4 (0.5Nm)	I60M2x4.3 (0.5Nm)	I60M2.2x5.5 (0.8Nm)	I60M2.5x6.5 (1.0Nm)	I60M3.5x8 (2.7Nm)	I60M4x10 (3.4Nm)	I60M5x13 (6.7Nm)
	Wrench	WT05IP	WT06IP	WT07IP	WT07IP	WT15IP	WT15IP	WT20IP

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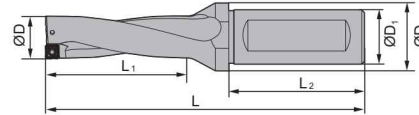
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ZSD05



Article	*	Stock	Dimensions [mm]							kg	Inserts
			ØD	ØD1	ØD2	L1	L2	L			
ZSD05-120-XP20-SP04-02	*	●	12	20	25	63	50	129	0.173	SPMX040204**	
ZSD05-125-XP20-SP04-02	*	●	12.5	20	25	66	50	132	0.179	SPMX040204**	
ZSD05-130-XP20-SP04-02	*	●	13	20	25	68	50	134	0.183	SPMX040204**	
ZSD05-135-XP20-SP04-02	*	●	13.5	20	25	71	50	137	0.189	SPMX040204**	
ZSD05-140-XP20-SP04-02	*	●	14	20	25	73	50	139	0.194	SPMX040204**	
ZSD05-145-XP20-SP04-02	*	●	14.5	20	25	76	50	141	0.2	SPMX040204**	
ZSD05-150-XP20-SP05-02	*	●	15	20	25	78	50	144	0.206	SPMX050204**	
ZSD05-155-XP20-SP05-02	*	●	15.5	20	25	81	50	147	0.214	SPMX050204**	
ZSD05-160-XP20-SP05-02	*	●	16	20	25	83	50	149	0.219	SPMX050204**	
ZSD05-165-XP20-SP05-02	*	●	16.5	20	25	86	50	152	0.223	SPMX050204**	
ZSD05-170-XP20-SP05-02	*	●	17	20	25	88	50	154	0.23	SPMX050204**	
ZSD05-175-XP20-SP05-02	*	●	17.5	20	25	91	50	157	0.239	SPMX050204**	
ZSD05-180-XP25-SP06-02	*	●	18	25	32	93	56	167	0.355	SPMX060204**	
ZSD05-185-XP25-SP06-02	*	●	18.5	25	32	96	56	170	0.36	SPMX060204**	
ZSD05-190-XP25-SP06-02	*	●	19	25	32	98	56	172	0.369	SPMX060204**	
ZSD05-195-XP25-SP06-02	*	●	19.5	25	32	101	56	175	0.382	SPMX060204**	
ZSD05-200-XP25-SP06-02	*	●	20	25	32	103	56	177	0.39	SPMX060204**	
ZSD05-205-XP25-SP06-02	*	●	20.5	25	32	106	56	180	0.401	SPMX060204**	
ZSD05-210-XP25-SP06-02	*	●	21	25	32	108	56	182	0.413	SPMX060204**	
ZSD05-215-XP25-SP06-02	*	●	21.5	25	32	111	56	185	0.426	SPMX060204**	
ZSD05-220-XP25-SP06-02	*	●	22	25	32	113	56	187	0.441	SPMX060204**	
ZSD05-225-XP25-SP07-02	*	●	22.5	25	32	116	56	190	0.442	SPMX07T308**	
ZSD05-230-XP25-SP07-02	*	●	23	25	32	118	56	194	0.461	SPMX07T308**	
ZSD05-235-XP25-SP07-02	*	●	23.5	25	32	121	56	197	0.483	SPMX07T308**	
ZSD05-240-XP25-SP07-02	*	●	24	25	32	123	56	199	0.497	SPMX07T308**	
ZSD05-245-XP25-SP07-02	*	●	24.5	25	32	126	56	202	0.517	SPMX07T308**	
ZSD05-250-XP25-SP07-02	*	●	25	25	32	128	56	204	0.533	SPMX07T308**	
ZSD05-255-XP25-SP07-02	*	●	25.5	25	32	131	56	207	0.555	SPMX07T308**	
ZSD05-260-XP25-SP07-02	*	●	26	25	32	133	56	209	0.571	SPMX07T308**	
ZSD05-265-XP25-SP07-02	*	●	26.5	25	32	136	56	212	0.593	SPMX07T308**	
ZSD05-270-XP25-SP07-02	*	●	27	25	32	138	56	214	0.617	SPMX07T308**	
ZSD05-275-XP25-SP07-02	*	●	27.5	25	32	141	56	217	0.642	SPMX07T308**	
ZSD05-280-XP32-SP09-02	*	●	28	32	37	143	60	223	0.791	SPMX090408**	

● Ex stock ○ On demand

* Internal cooling

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Article	*	Stock	Dimensions [mm]							kg	Inserts 
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ZSD05-290-XP32-SP09-02	*	•	29	32	37	148	60	228	0.837	SPMX090408**	
ZSD05-300-XP32-SP09-02	*	•	30	32	37	153	60	233	0.943	SPMX090408**	
ZSD05-310-XP32-SP09-02	*	•	31	32	37	158	60	238	0.943	SPMX090408**	
ZSD05-320-XP32-SP09-02	*	•	32	32	37	163	60	243	1.001	SPMX090408**	
ZSD05-330-XP32-SP09-02	*	•	33	32	37	168	60	249	1.067	SPMX090408**	
ZSD05-340-XP40-SP11-02	*	•	34	40	47	173	70	268	1.44	SPMX110408**	
ZSD05-350-XP40-SP11-02	*	•	35	40	47	178	70	273	1.505	SPMX110408**	
ZSD05-360-XP40-SP11-02	*	•	36	40	47	183	70	278	1.575	SPMX110408**	
ZSD05-370-XP40-SP11-02	*	•	37	40	47	188	70	283	1.723	SPMX110408**	
ZSD05-380-XP40-SP11-02	*	•	38	40	47	193	70	288	1.723	SPMX110408**	
ZSD05-390-XP40-SP11-02	*	•	39	40	47	198	70	293	1.808	SPMX110408**	
ZSD05-400-XP40-SP11-02	*	•	40	40	47	203	70	298	1.894	SPMX110408**	
ZSD05-410-XP40-SP11-02	*	•	41	40	47	208	70	303	1.991	SPMX110408**	
ZSD05-420-XP40-SP11-02	*	○	42	40	52	213	70	315	2.182	SPMX140512**	
ZSD05-430-XP40-SP14-02	*	•	43	40	52	218	70	320	2.11	SPMX140512**	
ZSD05-440-XP40-SP14-02	*	•	44	40	52	223	70	325	2.22	SPMX140512**	
ZSD05-450-XP40-SP14-02	*	•	45	40	52	228	70	330	2.331	SPMX140512**	
ZSD05-460-XP40-SP14-02	*	•	46	40	52	233	70	335	2.45	SPMX140512**	
ZSD05-470-XP40-SP14-02	*	○	47	40	52	238	70	340	2.582	SPMX140512**	
ZSD05-480-XP40-SP14-02	*	•	48	40	52	243	70	345	2.693	SPMX140512**	
ZSD05-490-XP40-SP14-02	*	•	19	40	52	248	70	350	2.823	SPMX140512**	
ZSD05-500-XP40-SP14-02	*	•	50	40	52	253	70	355	2.958	SPMX140512**	
ZSD05-510-XP50-SP14-02	*	○	51	50	57	258	80	370	3.7	SPMX140512**	
ZSD05-520-XP50-SP14-02	*	○	52	50	57	263	80	375	3.848	SPMX140512**	
ZSD05-530-XP50-SP14-02	*	○	53	50	57	268	80	380	3.998	SPMX140512**	
ZSD05-540-XP50-SP09-04	*	○	54	50	57	273	80	385	4.035	SPMX090408**	
ZSD05-550-XP50-SP09-04	*	○	55	50	57	278	80	390	4.203	SPMX090408**	
ZSD05-560-XP50-SP09-04	*	○	56	50	57	283	80	395	4.368	SPMX090408**	
ZSD05-570-XP50-SP09-04	*	○	57	50	57	288	80	400	4.671	SPMX090408**	
ZSD05-580-XP50-SP09-04	*	○	58	50	57	293	80	405	4.866	SPMX090408**	
ZSD05-590-XP50-SP09-04	*	○	59	50	57	298	80	410	5.047	SPMX090408**	
ZSD05-600-XP50-SP09-04	*	○	60	50	57	303	80	415	5.192	SPMX090408**	
ZSD05-610-XP50-SP09-04	*	○	61	50	57	308	80	420	5.4	SPMX090408**	
ZSD05-620-XP50-SP09-04	*	○	62	50	57	313	80	425	5.619	SPMX090408**	
ZSD05-630-XP50-SP09-04	*	○	63	50	57	318	80	430	5.834	SPMX090408**	

• Ex stock ○ On demand

* Internal cooling

Spare parts

Insert	SPMX040204**	SPMX050204**	SPMX060204**	SPMX07T308**	SPMX090408**	SPMX110408**	SPMX140512**
 Screw	I60M1.8x4 (0.5Nm)	I60M2x4.3 (0.5Nm)	I60M2.2x5.5 (0.8Nm)	I60M2.5x6.5 (1.0Nm)	I60M3.5x8 (2.7Nm)	I60M4x10 (3.4Nm)	I60M5x13 (6.7Nm)
 Wrench	WT05IP	WT06IP	WT07IP	WT07IP	WT15IP	WT15IP	WT20IP

System code > C9

Grade selection > C8

Technical info > C201

Cutting data > C36

Insert



C33

A

Turning

B

Milling

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System code > C9

Grade selection > C8

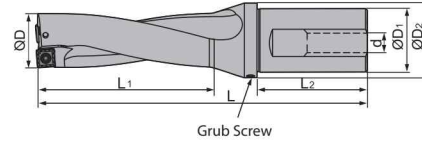
Technical info > C201

Cutting data > C36



Indexable drills series

ZTD02



Article	*	Stock	Dimensions [mm]								kg	Inserts
			ØD	ØD1	ØD2	L1	L2	L	d			
ZTD02-130-XP20-SP05-02	*	•	13	20	25	31	50	98	M13×1	0.165	SPGT0502**	
ZTD02-140-XP20-SP05-02	*	•	14	20	25	33	50	100	M13×1	0.171	SPGT0502**	
ZTD02-150-XP20-SP05-02	*	•	15	20	25	35	50	102	M13×1	0.176	SPGT0502**	
ZTD02-160-XP20-SP05-02	*	•	16	20	25	37	50	104	M13×1	0.184	SPGT0502**	
ZTD02-170-XP25-SP06-02	*	•	17	25	32	39	56	117	M16×1,5	0.325	SPGT0602**	
ZTD02-180-XP25-SP06-02	*	•	18	25	32	41	56	119	M16×1,5	0.332	SPGT0602**	
ZTD02-190-XP25-SP06-02	*	•	19	25	32	43	56	121	M16×1,5	0.342	SPGT0602**	
ZTD02-200-XP25-SP06-02	*	•	20	25	32	45	56	123	M16×1,5	0.353	SPGT0602**	
ZTD02-210-XP25-SP06-02	*	•	21	25	32	47	56	125	M16×1,5	0.35	SPGT0602**	
ZTD02-220-XP25-SP07-02	*	•	22	25	32	49	56	127	M16×1,5	0.367	SPGT07T3**	
ZTD02-230-XP25-SP07-02	*	•	23	25	32	51	56	129	M16×1,5	0.38	SPGT07T3**	
ZTD02-235-XP25-SP07-02	*	○	23.5	25	32	52	56	130	M16×1,5	0.361	SPGT07T3**	
ZTD02-240-XP25-SP07-02	*	•	24	25	32	53	56	131	M16×1,5	0.443	SPGT07T3**	
ZTD02-250-XP25-SP07-02	*	•	25	25	32	55	56	133	M16×1,5	0.41	SPGT07T3**	
ZTD02-260-XP25-SP07-02	*	•	26	25	32	57	56	135	M16×1,5	0.454	SPGT07T3**	
ZTD02-270-XP25-SP07-02	*	•	27	25	32	59	56	137	M16×1,5	0.445	SPGT07T3**	
ZTD02-280-XP32-SP09-02	*	•	28	32	37	61	60	146	M22×2	0.661	SPGT0904**	
ZTD02-290-XP32-SP09-02	*	•	29	32	37	63	60	148	M22×2	0.682	SPGT0904**	
ZTD02-300-XP32-SP09-02	*	•	30	32	37	65	60	150	M22×2	0.702	SPGT0904**	
ZTD02-310-XP32-SP09-02	*	•	31	32	37	67	60	152	M22×2	0.759	SPGT0904**	
ZTD02-320-XP32-SP09-02	*	•	32	32	37	69	60	154	M22×2	0.742	SPGT0904**	
ZTD02-330-XP32-SP09-02	*	•	33	32	37	71	60	156	M22×2	0.774	SPGT0904**	
ZTD02-340-XP40-SP11-02	*	•	34	40	47	73	70	173	(BSPT)RC1/4	1.2	SPGT1104**	
ZTD02-350-XP40-SP11-02	*	•	35	40	47	75	70	175	(BSPT)RC1/4	1.23	SPGT1104**	
ZTD02-360-XP40-SP11-02	*	•	36	40	47	77	70	177	(BSPT)RC1/4	1.26	SPGT1104**	
ZTD02-370-XP40-SP11-02	*	•	37	40	47	79	70	179	(BSPT)RC1/4	1.29	SPGT1104**	
ZTD02-380-XP40-SP11-02	*	•	38	40	47	81	70	181	(BSPT)RC1/4	1.33	SPGT1104**	
ZTD02-390-XP40-SP11-02	*	•	39	40	47	83	70	183	(BSPT)RC1/4	1.39	SPGT1104**	
ZTD02-400-XP40-SP11-02	*	•	40	40	47	85	70	185	(BSPT)RC1/4	1.43	SPGT1104**	
ZTD02-410-XP40-SP11-02	*	•	41	40	47	87	70	187	(BSPT)RC1/4	1.44	SPGT1104**	
ZTD02-420-XP40-SP14-02	*	•	42	40	52	89	70	199	(BSPT)RC1/4	1.62	SPGT1405**	
ZTD02-430-XP40-SP14-02	*	•	43	40	52	91	70	201	(BSPT)RC1/4	1.67	SPGT1405**	
ZTD02-440-XP40-SP14-02	*	•	44	40	52	93	70	203	(BSPT)RC1/4	1.71	SPGT1405**	

• Ex stock ○ On demand


* Internal cooling

System code > C9

Grade selection > C8




Technical info > C201

Cutting data > C36


Article	* Stock	Dimensions [mm]									kg	Inserts 
		ØD	ØD1	ØD2	L1	L2	L	d				
ZTD02-450-XP40-SP14-02	* •	45	40	52	95	70	205	(BSPT)RC1/4		1.76	SPGT1405**	
ZTD02-460-XP40-SP14-02	* •	46	40	52	97	70	207	(BSPT)RC1/4		1.81	SPGT1405**	
ZTD02-470-XP40-SP14-02	* •	47	40	52	99	70	209	(BSPT)RC1/4		1.87	SPGT1405**	
ZTD02-480-XP40-SP14-02	* •	48	40	52	101	70	211	(BSPT)RC1/4		1.92	SPGT1405**	
ZTD02-490-XP40-SP14-02	* •	49	40	52	103	70	213	(BSPT)RC1/4		1.98	SPGT1405**	
ZTD02-500-XP40-SP14-02	* •	50	40	52	105	70	215	(BSPT)RC1/4		2.05	SPGT1405**	

• Ex stock ○ On demand

* Internal cooling

Spare parts							
Insert	SPGT0502**	SPGT0602**	SPGT07T3**	SPGT0904**	SPGT1104**	SPGT1405**	
 Grub screw					M6×6 (7.0Nm)	M8×8 (10.2Nm)	
 Screw	I60M2×4.3 (0.5Nm)	I60M2.2×5.5 (0.8Nm)	I60M2.5×6.5 (1.0Nm)	I60M3.5×8 (2.7Nm)	I60M4×10 (3.4Nm)	I60M5×13 (6.7Nm)	
 Wrench	WT06IP	WT07IP	WT07IP	WT15IP	WT15IP	WT20IP	

Insert



C34

A
Turning

B
Milling

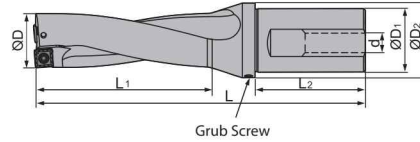
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Indexable drills series

ZTD03



Article	*	Stock	Dimensions [mm]								kg	Inserts
			ØD	ØD1	ØD2	L1	L2	L	d			
ZTD03-130-XP20-SP05-02	*	•	13	20	25	44	50	111	M13×1	0.179	SPGT0502**	
ZTD03-140-XP20-SP05-02	*	•	14	20	25	47	50	114	M13×1	0.186	SPGT0502**	
ZTD03-150-XP20-SP05-02	*	•	15	20	25	50	50	117	M13×1	0.195	SPGT0502**	
ZTD03-160-XP20-SP05-02	*	•	16	20	25	53	50	120	M13×1	0.214	SPGT0502**	
ZTD03-170-XP25-SP06-02	*	•	17	25	32	56	56	134	M16×1,5	0.32	SPGT0602**	
ZTD03-180-XP25-SP06-02	*	•	18	25	32	59	56	137	M16×1,5	0.331	SPGT0602**	
ZTD03-190-XP25-SP06-02	*	•	19	25	32	62	56	140	M16×1,5	0.342	SPGT0602**	
ZTD03-200-XP25-SP06-02	*	•	20	25	32	65	56	143	M16×1,5	0.356	SPGT0602**	
ZTD03-210-XP25-SP06-02	*	•	21	25	32	68	56	146	M16×1,5	0.391	SPGT0602**	
ZTD03-220-XP25-SP07-02	*	•	22	25	32	71	56	149	M16×1,5	0.391	SPGT07T3**	
ZTD03-230-XP25-SP07-02	*	•	23	25	32	74	56	152	M16×1,5	0.442	SPGT07T3**	
ZTD03-240-XP25-SP07-02	*	•	24	25	32	77	56	155	M16×1,5	0.485	SPGT07T3**	
ZTD03-250-XP25-SP07-02	*	•	25	25	32	80	56	158	M16×1,5	0.492	SPGT07T3**	
ZTD03-260-XP25-SP07-02	*	•	26	25	32	83	56	161	M16×1,5	0.497	SPGT07T3**	
ZTD03-270-XP25-SP07-02	*	•	27	25	32	86	56	164	M16×1,5	0.521	SPGT07T3**	
ZTD03-280-XP32-SP09-02	*	•	28	32	37	89	60	174	M22×2	0.75	SPGT0904**	
ZTD03-285-XP32-SP09-02	*	○	28.5	32	37	91	60	171	M22×2	0.699	SPGT0904**	
ZTD03-290-XP32-SP09-02	*	•	29	32	37	92	60	177	M22×2	0.777	SPGT0904**	
ZTD03-300-XP32-SP09-02	*	•	30	32	37	95	60	180	M22×2	0.81	SPGT0904**	
ZTD03-310-XP32-SP09-02	*	•	31	32	37	98	60	183	M22×2	0.831	SPGT0904**	
ZTD03-320-XP32-SP09-02	*	•	32	32	37	101	60	186	M22×2	0.867	SPGT0904**	
ZTD03-330-XP32-SP09-02	*	•	33	32	37	104	60	189	M22×2	0.928	SPGT0904**	
ZTD03-340-XP40-SP11-02	*	•	34	40	47	107	70	207	(BSPT)RC1/4	1.33	SPGT1104**	
ZTD03-350-XP40-SP11-02	*	•	35	40	47	110	70	210	(BSPT)RC1/4	1.371	SPGT1104**	
ZTD03-360-XP40-SP11-02	*	•	36	40	47	113	70	213	(BSPT)RC1/4	1.414	SPGT1104**	
ZTD03-370-XP40-SP11-02	*	•	37	40	47	116	70	216	(BSPT)RC1/4	1.448	SPGT1104**	
ZTD03-380-XP40-SP11-02	*	•	38	40	47	119	70	219	(BSPT)RC1/4	1.498	SPGT1104**	
ZTD03-390-XP40-SP11-02	*	•	39	40	47	122	70	222	(BSPT)RC1/4	1.554	SPGT1104**	
ZTD03-400-XP40-SP11-02	*	•	40	40	47	125	70	225	(BSPT)RC1/4	1.667	SPGT1104**	
ZTD03-410-XP40-SP11-02	*	•	41	40	47	128	70	228	(BSPT)RC1/4	1.653	SPGT1104**	
ZTD03-420-XP40-SP14-02	*	•	42	40	52	131	70	241	(BSPT)RC1/4	1.903	SPGT1405**	
ZTD03-430-XP40-SP14-02	*	•	43	40	52	134	70	244	(BSPT)RC1/4	1.951	SPGT1405**	
ZTD03-440-XP40-SP14-02	*	•	44	40	52	137	70	247	(BSPT)RC1/4	2.039	SPGT1405**	

• Ex stock ○ On demand


* Internal cooling

System code > C9

Grade selection > C8




Technical info > C201

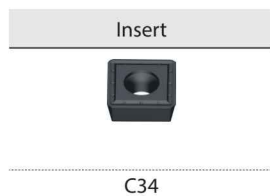
Cutting data > C36

Article	*	Stock	Dimensions [mm]								kg	Inserts 
			ØD	ØD1	ØD2	L1	L2	L	d			
ZTD03-450-XP40-SP14-02	*	•	45	40	52	140	70	250	(BSPT)RC1/4	2.12	SPGT1405**	
ZTD03-460-XP40-SP14-02	*	•	46	40	52	143	70	253	(BSPT)RC1/4	2.186	SPGT1405**	
ZTD03-470-XP40-SP14-02	*	•	47	40	52	146	70	256	(BSPT)RC1/4	2.264	SPGT1405**	
ZTD03-480-XP40-SP14-02	*	•	48	40	52	149	70	259	(BSPT)RC1/4	2.341	SPGT1405**	
ZTD03-490-XP40-SP14-02	*	•	49	40	52	152	70	262	(BSPT)RC1/4	2.43	SPGT1405**	
ZTD03-500-XP40-SP14-02	*	•	50	40	52	155	70	265	(BSPT)RC1/4	2.52	SPGT1405**	
ZTD03-508-XP40-SP14-02	*	○	50.8	40	57	157	70	267	(BSPT)RC1/4	2.484	SPGT1405**	
ZTD03-510-XP50-SP07-04	*	○	51	50	62	158	80	278	(BSPT)RC1/4	3.128	SPGT07T3**	
ZTD03-530-XP50-SP07-04	*	○	53	50	62	164	80	284	(BSPT)RC1/4	3.426	SPGT07T3**	
ZTD03-540-XP50-SP09-04	*	○	54	50	57	167	80	287	(BSPT)RC1/4	3.292	SPGT0904**	
ZTD03-550-XP50-SP09-04	*	○	55	50	57	170	80	290	(BSPT)RC1/4	3.29	SPGT0904**	
ZTD03-570-XP50-SP09-04	*	○	57	50	67	176	80	296	(BSPT)RC1/4	3.853	SPGT0904**	
ZTD03-580-XP50-SP09-04	*	○	58	50	62	179	80	299	(BSPT)RC1/4	3.851	SPGT0904**	
ZTD03-590-XP50-SP09-04	*	○	59	50	62	182	80	302	(BSPT)RC1/4	3.814	SPGT0904**	
ZTD03-600-XP50-SP09-04	*	○	60	50	67	185	80	305	(BSPT)RC1/4	4.217	SPGT0904**	
ZTD03-620-XP50-SP09-04	*	○	62	50	67	191	80	311	(BSPT)RC1/4	4.454	SPGT0904**	
ZTD03-630-XP50-SP09-04	*	○	63	50	67	194	80	314	(BSPT)RC1/4	4.6	SPGT0904**	
ZTD03-640-XP50-SP09-04	*	○	64	50	67	197	80	317	(BSPT)RC1/4	4.574	SPGT0904**	
ZTD03-650-XP50-SP09-04	*	○	65	50	67	200	80	320	(BSPT)RC1/4	4.882	SPGT0904**	
ZTD03-660-XP50-SP09-04	*	○	66	50	67	203	80	323	(BSPT)RC1/4	5.024	SPGT0904**	
ZTD03-670-XP50-SP11-04	*	○	67	50	82	206	80	326	(BSPT)RC1/4	5.181	SPGT1104**	
ZTD03-730-XP50-SP11-04	*	○	73	50	85	224	80	344	(BSPT)RC1/4	6.71	SPGT1104**	

• Ex stock ○ On demand

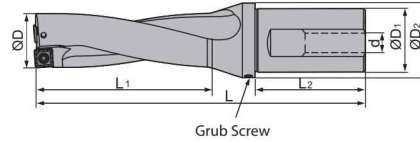
* Internal cooling

Spare parts							
Insert	SPGT0502**	SPGT0602**	SPGT07T3**	SPGT0904**	SPGT1104**	SPGT1405**	
 Grub screw					M6×6 (7.0Nm)	M8×8 (10.2Nm)	
 Screw	I60M2×4.3 (0.5Nm)	I60M2.2×5.5 (0.8Nm)	I60M2.5×6.5 (1.0Nm)	I60M3.5×8 (2.7Nm)	I60M4×10 (3.4Nm)	I60M5×13 (6.7Nm)	
 Wrench	WT06IP	WT07IP	WT07IP	WT15IP	WT15IP	WT20IP	



Indexable drills series

ZTD04



Grub Screw

Article	*	Stock	Dimensions [mm]								kg	Inserts
			ØD	ØD1	ØD2	L1	L2	L	d			
ZTD04-130-XP20-SP05-02	*	o	13	20	25	57	50	124	M13x1	0.185	SPGT0502**	
ZTD04-140-XP20-SP05-02	*	o	14	20	25	61	50	128	M13x1	0.195	SPGT0502**	
ZTD04-150-XP20-SP05-02	*	o	15	20	25	65	50	132	M13x1	0.205	SPGT0502**	
ZTD04-160-XP20-SP05-02	*	o	16	20	25	69	50	136	M13x1	0.216	SPGT0502**	
ZTD04-165-XP25-SP06-02	*	o	16.5	25	32	71	56	137	M16x1,5	0.332	SPGT0602**	
ZTD04-170-XP25-SP06-02	*	o	17	25	32	73	56	151	M16x1,5	0.333	SPGT0602**	
ZTD04-180-XP25-SP06-02	*	o	18	25	32	77	56	155	M16x1,5	0.347	SPGT0602**	
ZTD04-190-XP25-SP06-02	*	o	19	25	32	81	56	159	M16x1,5	0.362	SPGT0602**	
ZTD04-200-XP25-SP06-02	*	o	20	25	32	85	56	163	M16x1,5	0.381	SPGT0602**	
ZTD04-210-XP25-SP06-02	*	o	21	25	32	89	56	167	M16x1,5	0.4	SPGT0602**	
ZTD04-215-XP25-SP07-02	*	o	21.5	25	32	91	56	165	M16x1,5	0.407	SPGT07T3**	
ZTD04-220-XP25-SP07-02	*	o	22	25	32	93	56	171	M16x1,5	0.391	SPGT07T3**	
ZTD04-230-XP25-SP07-02	*	o	23	25	32	97	56	175	M16x1,5	0.484	SPGT07T3**	
ZTD04-240-XP25-SP07-02	*	o	24	25	32	101	56	179	M16x1,5	0.513	SPGT07T3**	
ZTD04-250-XP25-SP07-02	*	o	25	25	32	105	56	183	M16x1,5	0.494	SPGT07T3**	
ZTD04-260-XP25-SP07-02	*	o	26	25	32	109	56	187	M16x1,5	0.535	SPGT07T3**	
ZTD04-270-XP25-SP07-02	*	o	27	25	32	113	56	191	M16x1,5	0.582	SPGT07T3**	
ZTD04-275-XP25-SP07-02	*	o	27.5	25	32	115	56	192	M16x1,5	0.571	SPGT07T3**	
ZTD04-280-XP32-SP09-02	*	o	28	32	37	117	60	202	M22x2	0.653	SPGT0904**	
ZTD04-290-XP32-SP09-02	*	o	29	32	37	121	60	206	M22x2	0.846	SPGT0904**	
ZTD04-300-XP32-SP09-02	*	o	30	32	37	125	60	210	M22x2	0.893	SPGT0904**	
ZTD04-310-XP32-SP09-02	*	o	31	32	37	129	60	214	M22x2	0.914	SPGT0904**	
ZTD04-320-XP32-SP09-02	*	o	32	32	37	133	60	218	M22x2	0.966	SPGT0904**	
ZTD04-330-XP32-SP09-02	*	o	33	32	37	137	60	222	M22x2	1.016	SPGT0904**	
ZTD04-340-XP40-SP11-02	*	o	34	40	47	141	70	241	(BSPT)RC1/4	1.46	SPGT1104**	
ZTD04-350-XP40-SP11-02	*	o	35	40	47	145	70	245	(BSPT)RC1/4	1.52	SPGT1104**	
ZTD04-360-XP40-SP11-02	*	o	36	40	47	149	70	249	(BSPT)RC1/4	1.579	SPGT1104**	
ZTD04-370-XP40-SP11-02	*	o	37	40	47	153	70	253	(BSPT)RC1/4	1.592	SPGT1104**	
ZTD04-380-XP40-SP11-02	*	o	38	40	47	157	70	257	(BSPT)RC1/4	1.801	SPGT1104**	
ZTD04-390-XP40-SP11-02	*	o	39	40	47	161	70	261	(BSPT)RC1/4	1.801	SPGT1104**	
ZTD04-400-XP40-SP11-02	*	o	40	40	47	165	70	265	(BSPT)RC1/4	1.874	SPGT1104**	
ZTD04-410-XP40-SP11-02	*	o	41	40	47	169	70	269	(BSPT)RC1/4	1.861	SPGT1104**	
ZTD04-420-XP40-SP14-02	*	o	42	40	52	173	70	283	(BSPT)RC1/4	2.168	SPGT1405**	

● Ex stock ○ On demand


* Internal cooling

System code > C9

Grade selection > C8

Technical info > C201




Cutting data > C36

Article	*	Stock	Dimensions [mm]								kg	Inserts 
			ØD	ØD1	ØD2	L1	L2	L	d			
ZTD04-430-XP40-SP14-02	*	○	43	40	52	177	70	287	(BSPT)RC1/4	2.17	SPGT1405**	
ZTD04-440-XP40-SP14-02	*	○	44	40	52	181	70	291	(BSPT)RC1/4	2.31	SPGT1405**	
ZTD04-450-XP40-SP14-02	*	○	45	40	52	185	70	295	(BSPT)RC1/4	2.421	SPGT1405**	
ZTD04-460-XP40-SP14-02	*	○	46	40	52	189	70	299	(BSPT)RC1/4	2.507	SPGT1405**	
ZTD04-470-XP40-SP14-02	*	○	47	40	52	193	70	303	(BSPT)RC1/4	2.612	SPGT1405**	
ZTD04-480-XP40-SP14-02	*	○	48	40	52	197	70	307	(BSPT)RC1/4	2.66	SPGT1405**	
ZTD04-490-XP40-SP14-02	*	○	49	40	52	201	70	311	(BSPT)RC1/4	2.836	SPGT1405**	
ZTD04-500-XP40-SP14-02	*	○	50	40	52	205	70	315	(BSPT)RC1/4	2.954	SPGT1405**	
ZTD04-520-XP50-SP07-04	*	○	52	50	62	213	80	325	(BSPT)RC1/4	3.685	SPGT07T3**	
ZTD04-530-XP50-SP07-04	*	○	53	50	62	217	80	329	(BSPT)RC1/4	3.777	SPGT07T3**	
ZTD04-540-XP50-SP09-04	*	○	54	50	57	222	80	333	(BSPT)RC1/4	3.906	SPGT0904**	
ZTD04-545-XP50-SP09-04	*	○	54.5	50	68	221	80	335	(BSPT)RC1/4	4.167	SPGT0904**	
ZTD04-595-XP50-SP09-04	*	○	59.5	50	68	241	80	355	(BSPT)RC1/4	4.784	SPGT0904**	

• Ex stock ○ On demand

* Internal cooling

Spare parts

	Insert	SPGT0502**	SPGT0602**	SPGT07T3**	SPGT0904**	SPGT1104**	SPGT1405**
	Grub screw					M6×6 (7.0Nm)	M8×8 (10.2Nm)
	Screw	I60M2×4.3 (0.5Nm)	I60M2.2×5.5 (0.8Nm)	I60M2.5×6.5 (1.0Nm)	I60M3.5×8 (2.7Nm)	I60M4×10 (3.4Nm)	I60M5×13 (6.7Nm)
	Wrench	WT06IP	WT07IP	WT07IP	WT15IP	WT15IP	WT20IP

Insert



C34

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Turning

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Drilling

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System code > C9

Grade selection > C8

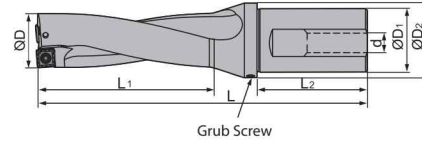
Technical info > C201

Cutting data > C36



Indexable drills series

ZTD05



Article	*	Stock	Dimensions [mm]								kg	Inserts
			ØD	ØD1	ØD2	L1	L2	L	d			
ZTD05-170-XP25-SP06-02	*	○	17	25	32	90	56	168	M13×1	0.374	SPGT0602**	
ZTD05-180-XP25-SP06-02	*	○	18	25	32	95	56	173	M13×1	0.394	SPGT0602**	
ZTD05-190-XP25-SP06-02	*	○	19	25	32	100	56	178	M13×1	0.415	SPGT0602**	
ZTD05-200-XP25-SP06-02	*	○	20	25	32	105	56	183	M13×1	0.44	SPGT0602**	
ZTD05-210-XP25-SP06-02	*	○	21	25	32	110	56	188	M16×1,5	0.466	SPGT0602**	
ZTD05-220-XP25-SP07-02	*	○	22	25	32	115	56	193	M16×1,5	0.476	SPGT07T3**	
ZTD05-230-XP25-SP07-02	*	○	23	25	32	120	56	198	M16×1,5	0.507	SPGT07T3**	
ZTD05-240-XP25-SP07-02	*	○	24	25	32	125	56	203	M16×1,5	0.542	SPGT07T3**	
ZTD05-250-XP25-SP07-02	*	○	25	25	32	130	56	208	M16×1,5	0.561	SPGT07T3**	
ZTD05-260-XP25-SP07-02	*	○	26	25	32	135	56	213	M16×1,5	0.613	SPGT07T3**	
ZTD05-270-XP25-SP07-02	*	○	27	25	32	140	56	218	M16×1,5	0.665	SPGT07T3**	
ZTD05-280-XP32-SP09-02	*	○	28	32	37	145	60	230	M16×1,5	0.891	SPGT0904**	
ZTD05-290-XP32-SP09-02	*	○	29	32	37	150	60	235	M16×1,5	0.965	SPGT0904**	
ZTD05-300-XP32-SP09-02	*	○	30	32	37	155	60	240	M16×1,5	0.959	SPGT0904**	
ZTD05-310-XP32-SP09-02	*	○	31	32	37	160	60	245	M16×1,5	1.042	SPGT0904**	
ZTD05-320-XP32-SP09-02	*	○	32	32	37	165	60	250	M22×2	1.11	SPGT0904**	
ZTD05-330-XP32-SP09-02	*	○	33	32	37	170	60	255	M22×2	1.117	SPGT0904**	
ZTD05-340-XP40-SP11-02	*	○	34	40	47	175	70	275	M22×2	1.57	SPGT1104**	
ZTD05-350-XP40-SP11-02	*	○	35	40	47	180	70	280	M22×2	1.65	SPGT1104**	
ZTD05-360-XP40-SP11-02	*	○	36	40	47	185	70	285	M22×2	1.712	SPGT1104**	
ZTD05-370-XP40-SP11-02	*	○	37	40	47	190	70	290	M22×2	1.802	SPGT1104**	
ZTD05-380-XP40-SP11-02	*	○	38	40	47	195	70	295	(BSPT)RC1/4	1.873	SPGT1104**	
ZTD05-390-XP40-SP11-02	*	○	39	40	47	200	70	300	(BSPT)RC1/4	1.962	SPGT1104**	
ZTD05-400-XP40-SP11-02	*	○	40	40	47	205	70	305	(BSPT)RC1/4	2.068	SPGT1104**	
ZTD05-410-XP40-SP11-02	*	○	41	40	47	210	70	310	(BSPT)RC1/4	2.167	SPGT1104**	
ZTD05-420-XP40-SP14-02	*	○	42	40	52	215	70	325	(BSPT)RC1/4	2.39	SPGT1405**	
ZTD05-430-XP40-SP14-02	*	○	43	40	52	220	70	330	(BSPT)RC1/4	2.502	SPGT1405**	
ZTD05-440-XP40-SP14-02	*	○	44	40	52	225	70	335	(BSPT)RC1/4	2.612	SPGT1405**	
ZTD05-450-XP40-SP14-02	*	○	45	40	52	230	70	340	(BSPT)RC1/4	2.733	SPGT1405**	
ZTD05-460-XP40-SP14-02	*	○	46	40	52	235	70	345	(BSPT)RC1/4	2.854	SPGT1405**	
ZTD05-470-XP40-SP14-02	*	○	47	40	52	240	70	350	(BSPT)RC1/4	2.894	SPGT1405**	
ZTD05-480-XP40-SP14-02	*	○	48	40	52	245	70	355	(BSPT)RC1/4	3.109	SPGT1405**	
ZTD05-490-XP40-SP14-02	*	○	49	40	52	250	70	360	(BSPT)RC1/4	3.271	SPGT1405**	
ZTD05-500-XP40-SP14-02	*	○	50	40	52	255	70	365	(BSPT)RC1/4	3.425	SPGT1405**	

● Ex stock ○ On demand




* Internal cooling


System code > C9

Grade selection > C8

Technical info > C201

Cutting data > C36

Spare parts						
	Insert	SPGT0602**	SPGT07T3**	SPGT0904**	SPGT1104**	SPGT1405**
	Grub screw				M6×6 (7.0Nm)	M8×8 (10.2Nm)
	Screw	I60M2.2×5.5 (0.8Nm)	I60M2.5×6.5 (1.0Nm)	I60M3.5×8 (2.7Nm)	I60M4×10 (3.4Nm)	I60M5×13 (6.7Nm)
	Wrench	WT07IP	WT07IP	WT15IP	WT15IP	WT20IP

Insert

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Turning

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Milling

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System code > C9

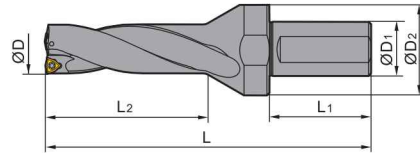
Grade selection > C8

Technical info > C201

Cutting data > C36

Indexable drills series

ZD03



Article	*	Stock	Dimensions [mm]							kg	Inserts
			ØD	ØD1	ØD2	L1	L2	L			
ZD03-160-XP25-WC03-02	*	•	16	25	32	56	52	129	0.33	WCMX0302**	
ZD03-170-XP25-WC03-02	*	•	17	25	32	56	55	133	0.33	WCMX0302**	
ZD03-180-XP25-WC03-02	*	•	18	25	32	56	58	137	0.35	WCMX0302**	
ZD03-190-XP25-WC03-02	*	•	19	25	32	56	61	140	0.36	WCMX0302**	
ZD03-200-XP25-WC03-02	*	•	20	25	32	56	64	143	0.37	WCMX0302**	
ZD03-210-XP25-WC04-02	*	•	21	25	45	56	67	153	0.51	WCMX0402**	
ZD03-220-XP25-WC04-02	*	•	22	25	45	56	70	156	0.54	WCMX0402**	
ZD03-230-XP25-WC04-02	*	•	23	25	45	56	73	159	0.55	WCMX0402**	
ZD03-240-XP25-WC04-02	*	•	24	25	45	56	76	162	0.57	WCMX0402**	
ZD03-250-XP25-WC04-02	*	•	25	25	45	56	79	165	0.6	WCMX0402**	
ZD03-260-XP32-WC05-02	*	•	26	32	55	60	83	176	0.93	WCMX0503**	
ZD03-270-XP32-WC05-02	*	•	27	32	55	60	86	180	0.97	WCMX0503**	
ZD03-280-XP32-WC05-02	*	•	28	32	55	60	89	184	1.01	WCMX0503**	
ZD03-290-XP32-WC05-02	*	•	29	32	55	60	92	188	1.05	WCMX0503**	
ZD03-300-XP32-WC05-02	*	•	30	32	55	60	95	192	1.08	WCMX0503**	
ZD03-310-XP40-WC06-02	*	•	31	40	60	70	98	203	1.44	WCMX06T3**	
ZD03-320-XP40-WC06-02	*	•	32	40	60	70	101	206	1.48	WCMX06T3**	
ZD03-330-XP40-WC06-02	*	•	33	40	60	70	104	209	1.52	WCMX06T3**	
ZD03-340-XP40-WC06-02	*	•	34	40	60	70	107	212	1.55	WCMX06T3**	
ZD03-350-XP40-WC06-02	*	•	35	40	60	70	110	215	1.61	WCMX06T3**	
ZD03-360-XP40-WC06-02	*	•	36	40	60	70	113	218	1.66	WCMX06T3**	
ZD03-370-XP40-WC06-02	*	•	37	40	60	70	116	221	1.71	WCMX06T3**	
ZD03-380-XP40-WC06-02	*	•	38	40	60	70	119	225	1.76	WCMX06T3**	
ZD03-390-XP40-WC06-02	*	•	39	40	60	70	122	228	1.82	WCMX06T3**	
ZD03-400-XP40-WC06-02	*	•	40	40	60	70	125	231	1.93	WCMX06T3**	
ZD03-410-XP40-WC06-02	*	•	41	40	60	70	128	234	1.94	WCMX06T3**	
ZD03-420-XP40-WC08-02	*	•	42	40	60	70	131	239	2.18	WCMX0804**	
ZD03-430-XP40-WC08-02	*	•	43	40	60	70	134	242	2.245	WCMX0804**	
ZD03-440-XP40-WC08-02	*	•	44	40	60	70	137	245	2.34	WCMX0804**	
ZD03-450-XP40-WC08-02	*	•	45	40	60	70	140	248	2.34	WCMX0804**	
ZD03-460-XP40-WC08-02	*	•	46	40	60	70	143	251	2.49	WCMX0804**	
ZD03-470-XP40-WC08-02	*	•	47	40	60	70	146	253	2.88	WCMX0804**	
ZD03-480-XP40-WC08-02	*	•	48	40	70	70	149	255	2.55	WCMX0804**	

• Ex stock ◦ On demand


* Internal cooling

System code > C9

Grade selection > C8



Technical info > C201

Cutting data > C36


Article	*	Stock	Dimensions [mm]							kg	Inserts 
			ØD	ØD1	ØD2	L1	L2	L			
ZD03-490-XP40-WC08-02	*	○	49	40	70	70	152	257	2.619	WCMX0804**	
ZD03-500-XP40-WC08-02	*	●	50	40	70	70	155	259	2.62	WCMX0804**	
ZD03-510-XP40-WC08-02	*	○	51	40	70	70	158	261	2.62	WCMX0804**	
ZD03-520-XP40-WC08-02	*	○	52	40	70	70	70	263	2.808	WCMX0804**	
ZD03-530-XP40-WC08-02	*	○	53	40	70	70	164	265	2.906	WCMX0804**	
ZD03-540-XP40-WC08-02	*	●	54	40	70	70	167	267	2.983	WCMX0804**	
ZD03-550-XP40-WC08-02	*	○	55	40	70	70	170	269	3.126	WCMX0804**	
ZD03-560-XP40-WC08-02	*	○	56	40	70	70	173	271	3.157	WCMX0804**	
ZD03-580-XP40-WC08-02	*	●	58	40	70	70	179	275	3.501	WCMX0804**	

● Ex stock ○ On demand

* Internal cooling

Spare parts						
	Insert	WCMX0302**	WCMX0402**	WCMX0503**	WCMX06T3**	WCMX0804**
	Screw	I60M2.5×6.5 (1.0Nm)	I60M2.5×6.5T (1.0Nm)	I60M3×7 (1.8Nm)	I60M3×7 (1.8Nm)	I60M3.5×10.4 (2.7Nm)
	Wrench	WT06IP	WT07IP	WT15IP	WT15IP	WT20IP

Insert



Medium Cut

C35

System code > C9

Grade selection > C8

Technical info > C201

Cutting data > C36



A

Turning

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Milling

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W C M X 08 04 12 R – PG

1 2 3 4 5 6 7 8 9

A



Turning

Insert shape

W	
S	



1

Clearance angle

C	
P	

2

Tolerance class


			
Code	I.C [mm]	m [mm]	S [mm]
G	±0,025	±0,025	±0,130
M	±0,05-0,13	±0,08-0,18	±0,130

3

B

Milling

Fastening features (metric)

Insert shape	
T	
X	Special

4

Cutting edge length l [mm]

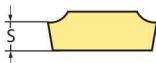
I.C [mm]	Insert shape	
	S	W
3,8		03
4,3		04
5,4		05
6,35	06	
6,5		06
8,0		08
8,7	08	
9,252	09	
12,7	12	

5

C

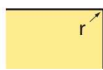
Drilling

Insert thickness S [mm]

			
Code	S	Code	S
00	0,79	05	5,56
T0	0,99	T5	5,95
01	1,59	06	6,35
T1	1,98	T6	6,75
02	2,38	07	7,94
T2	2,58	09	9,52
03	3,18	T9	9,72
T3	3,97	11	11,11
04	4,76	12	12,70
T4	4,96		

6

Nose radius r [mm]

	
Code	r
04	0,4
08	0,8
12	1,2

7

Rotation direction

Code	Description
R	Right
L	Left

8

D

Technical Information

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Chip breaker overview (on page C3)

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SPMX	L	I.C	S	d
04 02	4	4	2.38	2.2
05 02	5	5	2.38	2.2
06 02	6	6	2.38	2.5
07 T3	7.94	7.94	3.97	2.8
09 04	9.8	9.8	4.3	4.1
11 04	11.5	11.5	4.76	4.4
14 05	14.3	14.3	5.2	5.5

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

Drilling inserts

SP** milling insert			HC ¹ (CVD)	HC ¹ (PVD)	HW
	P				
	M				
	K				
	N				
	S				
	H				
ISO		r	YB6338 YBD252	YBG105 YBG202 YBS203 YBG205 YB9320 YBG212	YD201
	SPMX040203-EM	0.3	●	●	
	SPMX050204-EM	0.4	●	●	
	SPMX060204-EM	0.4	●	●	
	SPMX07T308-EM	0.8	●	●	
	SPMX090408-EM	0.8	●	●	
	SPMX110408-EM	0.8	●	●	
	SPMX140512-EM	1.2	●	●	
	SPMX040203-LM	0.3		○	
	SPMX050204-LM	0.4		○	
	SPMX060204-LM	0.4		○	
	SPMX07T308-LM	0.8		○	
	SPMX090408-LM	0.8		○	
	SPMX110408-LM	0.8		○	
	SPMX140512-LM	1.2		○	
	SPMX040203-XM	0.3		○	
	SPMX050204-XM	0.4		●	
	SPMX060204-XM	0.4		●	
	SPMX07T308-XM	0.8		●	○
	SPMX090408-XM	0.8		●	
	SPMX110408-XM	0.8		●	
	SPMX140512-XM	1.2		●	

● Ex stock ○ On demand

HC¹ Coated carbide
HW Uncoated carbide

Tool holder			
ZSD02	ZSD03	ZSD04	ZSD05
C10	C13	C16	C19

System code > C32

Grade selection > C8

Technical info > C201




Cutting data > C36



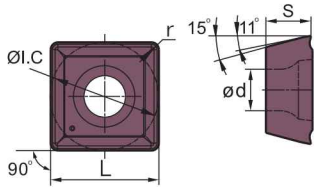
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












































Turning

SPGT	L	I.C	S	d
05 02	5	5	2.38	2.2
06 02	6	6	2.38	2.6
07 T3	7.94	7.94	3.97	2.8
09 04	9.8	9.8	4.76	4.2
11 04	11.5	11.5	4.76	4.4
14 05	14.3	14.3	5.2	5.75

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

Drilling inserts







SP** drilling insert				HC ¹ (CVD)		HC ¹ (PVD)					HW	
	P											
	M											
	K											
	N											
	S											
	H											
ISO		r	YB6338 YBD252			YBG105 YBG202 YBS203 YBG205 YB9320 YBG212					YD201	
	SPGT050204-PM	0.4										
	SPGT060204-PM	0.4										
	SPGT07T308-PM	0.8										
	SPGT090408-PM	0.8										
	SPGT110408-PM	0.8										
	SPGT140512-PM	1.2										
	SPGT050204-EM	0.4										
	SPGT060204-EM	0.4										
	SPGT07T308-EM	0.8										
	SPGT090408-EM	0.8										
	SPGT110408-EM	0.8										
	SPGT140512-EM	1.2										

● Ex stock ○ On demand

HC¹ Coated carbide
HW Uncoated carbide

D

Technical Information

Tool holder			
ZTD02	ZTD03	ZTD04	ZTD05
			
C22	C24	C26	C28

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System code > C32

Grade selection > C8

Technical info > C201

Cutting data > C36

WCMX	L	I.C	S	d
03 02	3.8	5.56	2.38	2.8
04 02	4.3	6.35	2.38	3.1
05 03	5.4	7.94	3.18	3.2
06 T3	6.5	9.525	3.97	3.7
08 04	8.7	12.7	4.76	4.3

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

Drilling inserts

WC** drilling insert			HC ¹ (CVD)		HC ¹ (PVD)					HW
	P									
	M									
	K									
	N									
	S									
	H									
ISO		r	YB6338 YBD252		YBG105 YBG202 YBS203 YBG205 YB9320 YBG212					YD201
	WCMX030208R-53	0.8	●		○					
	WCMX040208R-53	0.8	●		○					
	WCMX050308R-53	0.8	●		○					
	WCMX06T308R-53	0.8	●		○				○	
	WCMX080412R-53	1.2	●		○					
	WCMX06T308-D	0.8	○							
	WCMX080412-D	1.2	●							
	WCMX030208R-PG	0.8			○					
	WCMX040208R-PG	0.8			○					
	WCMX050308R-PG	0.8	○		○	○				
	WCMX06T308R-PG	0.8			○					
	WCMX080412R-PG	1.2			○					

● Ex stock ○ On demand

HC¹ Coated carbide
HW Uncoated carbide

Tool holder
ZD03

C30

Indexable drills

	Material group	Composition / structure / heat treatment		HB	Machining group	ZSD*		ZSD*		
						SPMX04		SPMX05/06		
						v_c [m/min]	f [mm]	v_c [m/min]	f [mm]	
A Turning	P Unalloyed steel	approx. 0,15 % C	annealed	125	1	200-300	0,05-0,08	200-300	0,05-0,10	
		approx. 0,45 % C	annealed	190	2	200-300	0,05-0,08	200-300	0,05-0,10	
		approx. 0,45 % C	tempered	250	3	200-300	0,05-0,08	200-300	0,05-0,10	
		approx. 0,75 % C	annealed	270	4	200-300	0,05-0,08	200-300	0,05-0,10	
		approx. 0,75 % C	tempered	300	5	200-300	0,05-0,08	200-300	0,05-0,10	
	B Milling	P Low-alloyed steel		annealed	180	6	140-220	0,05-0,08	140-220	0,05-0,10
				tempered	275	7	140-220	0,05-0,08	140-220	0,05-0,10
				tempered	300	8	140-220	0,05-0,08	140-220	0,05-0,10
				tempered	350	9	140-220	0,05-0,08	140-220	0,05-0,10
	C Drilling	M Stainless steel	ferritic/martensitic	annealed	200	12	110-230	0,05-0,08	110-230	0,05-0,10
			martensitic	tempered	240	13	110-230	0,05-0,08	110-230	0,05-0,10
K Cast iron with spheroidal graphite		austenitic	quench hardened	180	14	110-230	0,05-0,08	110-230	0,05-0,10	
		austenitic-ferritic		230	15	110-230	0,05-0,08	110-230	0,05-0,10	
		N Aluminium wrought alloys	perlitic/ferritic		180	16	170-240	0,05-0,08	170-240	0,05-0,10
			perlitic (martensitic)		260	17	170-240	0,05-0,08	170-240	0,05-0,10
D Technical Information		K Cast iron with spheroidal graphite	ferritic		160	18	130-200	0,05-0,08	130-200	0,05-0,10
			perlitic		250	19	130-200	0,05-0,08	130-200	0,05-0,10
		N Cast aluminium alloys	ferritic		130	20	120-220	0,05-0,08	120-220	0,05-0,10
			perlitic		230	21	120-220	0,05-0,08	120-220	0,05-0,10
E Index		N Aluminium wrought alloys	cannot be hardened		60	22				
	hardenable		hardened	100	23					
	N Cast aluminium alloys	$\leq 12\% \text{ Si}$, cannot be hardened			75	24				
		$\leq 12\% \text{ Si}$, hardenable	hardened		90	25				
		$> 12\% \text{ Si}$, cannot be hardened			130	26				
	S Heat-resistant alloys	Copper and copper alloys (bronze/brass)	machining steel, PB > 1%			110	27			
			CuZn, CuSnZn			90	28			
			CuSn, Pb-free copper, electrolytic copper			100	29			
	H Hardened steel	S Heat-resistant alloys	Fe-based alloys	annealed		200	30			
				hardened		280	31			
			Ni or Co bass	annealed		250	32			
hardened					350	33				
cast			320	34						
H Hard cast iron	Titanium alloys	pure titanium		R_m 400	35					
		α and β alloys	hardened	R_m 1050	36					
	Hardened steel			hardened and tempered	55 HRC	37				
				hardened and tempered	60 HRC	38				
X Non-metallic materials	Hardened cast iron			cast	400	39				
				hardened and tempered	55 HRC	40				
		Thermoplasts				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. The values have to be adapted in individual cases. With hole depths of 5xD adjust the cutting data accordingly to the application. For examples of material for cutting tool groups view page D11.

CARBIDE DRILLS

SOLID CARBIDE DRILLS

Solid carbide drills

Product overview	C40-C41
Grade overview	C42
System code – solide carbide drills	C44-C45
SU series	C47-C88
SL/SP series	C89-C108
UD series	C109-C116
GD series	C117-C126
SH series	C127-C128
SC series	C129-C132
PA series	C133-C136
PC series	C137-C140
NC-tapping device – SC series	C141-C143
Recommended cutting data	C144-C149
Trouble shooting	C202-C205
Technical information	C201-C207
Special tools	C150-C151



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Solid carbide drills Product overview

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B Milling
C Drilling
D Technical Information
E Index

	Products	Solid Carbide Drills	L/D	*	Ø	Application						Type	Page
						P	M	K	N	S	H		
SU	1534SU03		3xD		0.9-20	✓	✓	✓				Twist drills	C48
	1534SU03C		3xD	*	3-20	✓	✓	✓				Twist drills	C48
	1634SU03C		3xD	*	3-20	✓	✓	✓				Twist drills	C72
	1734SU03C		3xD	*	3-20	✓	✓	✓				Twist drills	C80
	1536SU05		5xD		2-20	✓	✓	✓				Twist drills	C59
	1536SU05C		5xD	*	3-20	✓	✓	✓				Twist drills	C59
	1636SU05C		5xD	*	3-20	✓	✓	✓				Twist drills	C76
	1736SU05C		5xD	*	3-20	✓	✓	✓				Twist drills	C84
	1538SU08C		8xD	*	3-18	✓	✓	✓				Twist drills	C69
	1557SU03		3xD		M4-M16	✓	✓	✓				Step drills	C88
SL SP	1588SL10C		10xD	*	3-14	✓	✓	✓	✓	✓		Deep hole drills	C89
	1588SL12C		12xD	*	3-21	✓	✓	✓	✓	✓		Deep hole drills	C92
	1588SL15C		15xD	*	3-14	✓	✓	✓	✓	✓		Deep hole drills	C96
	1588SL20C		20xD	*	3-14	✓	✓	✓	✓	✓		Deep hole drills	C99
	1588SL30C		30xD	*	3-10	✓	✓	✓	✓	✓		Deep hole drills	C102
	1534SP03C		3xD	*	3.03-20.03	✓	✓	✓	✓	✓		Pilot drills	C104
UD	1534UD03C		3xD	*	3-20	✓	✓			✓		Twist drills	C110
	1536UD05C		5xD	*	3-20	✓	✓			✓		Twist drills	C113
GD	1534GD03C		3xD	*	3-20	✓		✓				Twist drills	C118
	1536GD05C		5xD	*	3-20	✓		✓				Twist drills	C121
	1636GD05C		5xD	*	5-20	✓		✓				Twist drills	C124
SH	1534SH03		3xD		3-16						✓	Twist drills	C127
SC	1105SC03		3xD		2-16				✓			Twist drills	C129
	1101SC05		5xD		2-16				✓			Twist drills	C132
PA	1165PA03		3xD		3-20				✓			Three-lips drills	C133
PC	1576PC05		5xD		4-20			✓				Straight flute drills	C137
	1576PC05C		5xD	*	4-20			✓				Straight flute drills	C137

✓ Very suitable ✓ Suitable

* With internal cooling SC*: Centuring drills

	Products	Solid Carbide Drills	L/D	*	Ø	Application						Type	Page
						P	M	K	N	S	H		
PC	1579PC15C		15xD	*	5-14			✓				Straight flute drills	C139
SC*	1143SC90		-		5-20	✓	✓	✓	✓			Centuring drills	C141
	1143SC120		-	*	5-20	✓	✓	✓	✓			Centuring drills	C142
	1143SC142			*	5-20	✓	✓	✓	✓			Centuring drills	C143

✓ Very suitable ✓ Suitable

* With internal cooling SC*: Centuring drills

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A

Turning

Coated cemented carbide PVD

Grade	Grade description
-------	-------------------

KDG303	PVD coated P10–P20/M10–M20/K10–K20 carbide grade for steel, stainless steel and cast iron. Good wear resistance and toughness for a wide application field.
---------------	---

B

Milling

KDG304	PVD coated carbide substrate for machining caststeel and cast iron. Optimised toughness for high feeds.
---------------	---

KDG305	PVD coated carbide substrate for machining stainless steel and HRSA. High process reliability due to improved wear resistance.
---------------	--

C

Drilling

Uncoated cemented carbide

Grade	Grade description
-------	-------------------

YK20F	Uncoated K20 carbide substrate for steel, cast iron and non ferrous materials.
--------------	--

D

Technical Information

YK30F	Uncoated K30 carbide substrate for steel, stainless steel, cast iron and non ferrous materials.
--------------	---

E

Index

1 5 3 6 SU 05 (C) – 0850 (S)

1

2

3

4

5

6

7

8

9

A

Turning

Type	
Code	Description
1	Forets

1

Shank type	
Code	Description
1	Straight shank
2	Square shank DIN 10
3	Double flattened straight shank DIN 1809
5	Straight shank DIN 6535 HA
6	Weldon shank DIN 6535 HB
7	Whistle Notch shank DIN 6535 HE
9	Morse taper shank

2

B

Milling

Drill type	
Code	Description
0	Twist drill
3	Universal twist drill
4	NC tapping device
5	Step drill
6	Three-lips drill
7	Straight flute drill
8	Deep hole drill

3

Tool length	
Code	Description
1	DIN 338
2	DIN 1897
3	QJ/ZZQ(TO)01.001.002
4	DIN 6537 K
5	DIN 6539
6	DIN 6537 L
7	Factory standard ZCC-C
8	Factory standard ZCC-D
9	Factory standard ZCC-E

4

C

Drilling

Application	
Code	Description
UD	Twist drills for tough materials
GD	Twist drills for high feeds
SU	Twist drill for general machining
SUK	Twist drill for cast iron
SL	Twist drill for deep hole drilling
SLK	Deep hole drill for cast iron
SP	Pilot drill
SH	Twist drill for hardened materials
SC	Twist drill for non-ferrous metals and cast iron
PA	Three-lips drill for non-ferrous metals and cast iron
PC	Straight flute drill for non-ferrous metals and cast iron

5

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L/D relation		Angle	
Drill		NC tapping device	
Code	Description	Code	Description
03	3xD	90	90°
05	5xD	120	120°
08	8xD		
10	10xD		
12	12xD		
15	15xD		
20	20xD		
30	30xD		

With inner cooling

6

7

Bore diameter [mm]	
Code	Description
0200	2,0
0850	8,5
1800	18,0
...	

Shank diameter [mm]	
Code	Description
S	4,0

8

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a Boring b Drilling c Profile drilling d Centering

IMPORTANT INFORMATION

Recommended applications for the **SU series**

Feed calculator

ISO group	Material	Cutting speed v_c (m/min)	Feed factor F_m
P	Low-alloy steel	180	0,015
	High-alloy steel	120	0,012
M	Stainless steels	80	0,01
K	Cast iron	250	0,018
	Cast steel	180	0,015
S	H RSA	45	0,008
N	Aluminium	400	0,02

Formula: feed per revolution (F_n) $D \times F_m$
Example: drill diameter (D) 10 mm
material high-alloy steel

$$F_n = 10 \text{ mm} \times 0,012 = 0,12 \text{ mm/rev.}$$



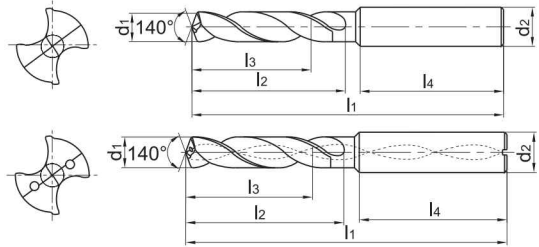
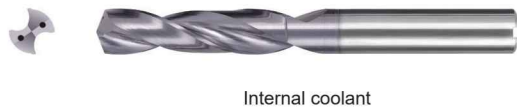
Fig.: 1536SU05C

SU(K) drill 3xD **General machining** Add K (SUK) to the code for use on Cast Iron

1534SU03/1534SU03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SU03-0090S		0.9	4	47	4.2	3.4	37.9	○
1534SU03-0100S		1	4	47	4.7	3.8	37.6	●
1534SU03-0105S		1.05	4	47	4.9	3.9	37.5	●
1534SU03-0110S		1.1	4	47	5.2	4.1	37.2	○
1534SU03-0115S		1.15	4	47	5.4	4.3	37.1	○
1534SU03-0120S		1.2	4	47	5.6	4.5	37	●
1534SU03-0125S		1.25	4	47	5.9	4.7	36.8	○
1534SU03-0130S		1.3	4	47	6.1	4.9	36.6	●
1534SU03-0135S		1.35	4	47	6.3	5.1	36.5	○
1534SU03-0140S		1.4	4	47	6.6	5.3	36.3	○
1534SU03-0145S		1.45	4	47	6.8	5.4	36.2	○
1534SU03-0147S		1.47	4	47	6.9	5.5	36.1	●
1534SU03-0150S		1.5	4	47	7.1	5.6	36	●
1534SU03-0155S		1.55	4	47	7.3	5.8	35.8	○
1534SU03-0160S		1.6	4	47	7.5	6	35.7	●
1534SU03-0165S		1.65	4	47	7.8	6.2	35.5	○
1534SU03-0170S		1.7	4	47	8	6.4	35.4	●
1534SU03-0175S		1.75	4	47	8.2	6.6	35.2	○
1534SU03-0180S		1.8	4	47	8.5	6.8	35	●
1534SU03-0185S		1.85	4	47	8.7	6.9	34.9	○
1534SU03-0190S		1.9	4	47	8.9	7.1	34.8	●
1534SU03-0195S		1.95	4	47	9.2	7.3	34.5	○
1534SU03-0200		2	6	62	20	14	36	●
1534SU03-0210		2.1	6	62	20	14	36	●
1534SU03-0220		2.2	6	62	20	14	36	●
1534SU03-0230		2.33	3	59	13.8	14	36	●
1534SU03-0240		2.4	6	62	20	14	36	●
1534SU03-0250		2.5	6	62	20	14	36	●
1534SU03-0260		2.6	6	62	20	14	36	●
1534SU03-0270		2.7	6	62	20	14	36	●
1534SU03-0280		2.8	6	62	20	14	36	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field

Type	P	M	K	N	S	H
1534SU*	✓	✓	✓			
1534SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 3xD

General machining

Add K (SUK) to the code for use on Cast Iron

1534SU03/1534SU03C



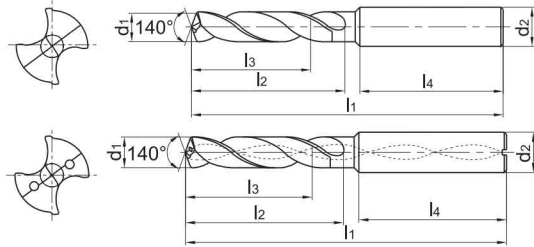
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SU03-0290		2.9	6	62	20	14	36	●
1534SU03-0300		3	6	62	20	14	36	●
1534SU03C-0300	*	3	6	62	20	14	36	●
1534SU03-0310		3.1	6	62	20	14	36	●
1534SU03C-0310	*	3.1	6	62	20	14	36	●
1534SU03-0320		3.2	6	62	20	14	36	●
1534SU03C-0320	*	3.2	6	62	20	14	36	●
1534SU03-0325		3.25	6	62	20	14	36	●
1534SU03C-0325	*	3.25	6	62	20	14	36	●
1534SU03-0330		3.3	6	62	20	14	36	●
1534SU03C-0330	*	3.3	6	62	20	14	36	●
1534SU03-0340		3.4	6	62	20	14	36	●
1534SU03C-0340	*	3.4	6	62	20	14	36	●
1534SU03-0350		3.5	6	62	20	14	36	●
1534SU03C-0350	*	3.5	6	62	20	14	36	●
1534SU03-0360		3.6	6	62	20	14	36	●
1534SU03C-0360	*	3.6	6	62	20	14	36	●
1534SU03-0370		3.7	6	62	20	14	36	●
1534SU03C-0370	*	3.7	6	62	20	14	36	●
1534SU03-0380		3.8	6	66	24	17	36	●
1534SU03C-0380	*	3.8	6	66	24	17	36	●
1534SU03-0390		3.9	6	66	24	17	36	●
1534SU03C-0390	*	3.9	6	66	24	17	36	●
1534SU03-0400		4	6	66	24	17	36	●
1534SU03C-0400	*	4	6	66	24	17	36	●
1534SU03-0410		4.1	6	66	24	17	36	●
1534SU03C-0410	*	4.1	6	66	24	17	36	●
1534SU03-0420		4.2	6	66	24	17	36	●
1534SU03C-0420	*	4.2	6	66	24	17	36	●
1534SU03-0430		4.3	6	66	24	17	36	●
1534SU03C-0430	*	4.3	6	66	24	17	36	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1534SU*	✓	✓	✓			
1534SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SU(K) drill 3xD **General machining** Add K (SUK) to the code for use on Cast Iron

1534SU03/1534SU03C



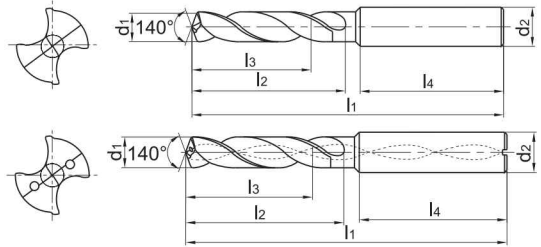
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SU03-0440		4.4	6	66	24	17	36	●
1534SU03C-0440	*	4.4	6	66	24	17	36	●
1534SU03-0450		4.5	6	66	24	17	36	●
1534SU03C-0450	*	4.5	6	66	24	17	36	●
1534SU03-0460		4.6	6	66	24	17	36	●
1534SU03C-0460	*	4.6	6	66	24	17	36	●
1534SU03-0465		4.65	6	66	24	17	36	●
1534SU03C-0465	*	4.65	6	66	24	17	36	●
1534SU03-0470		4.7	6	66	24	17	36	●
1534SU03C-0470	*	4.7	6	66	24	17	36	●
1534SU03-0480		4.8	6	66	28	20	36	●
1534SU03C-0480	*	4.8	6	66	28	20	36	●
1534SU03-0490		4.9	6	66	28	20	36	●
1534SU03C-0490	*	4.9	6	66	28	20	36	●
1534SU03-0500		5	6	66	28	20	36	●
1534SU03C-0500	*	5	6	66	28	20	36	●
1534SU03-0510		5.1	6	66	28	20	36	●
1534SU03C-0510	*	5.1	6	66	28	20	36	●
1534SU03-0520		5.2	6	66	28	20	36	●
1534SU03C-0520	*	5.2	6	66	28	20	36	●
1534SU03-0530		5.3	6	66	28	20	36	●
1534SU03C-0530	*	5.3	6	66	28	20	36	●
1534SU03-0540		5.4	6	66	28	20	36	●
1534SU03C-0540	*	5.4	6	66	28	20	36	●
1534SU03-0550		5.5	6	66	28	20	36	●
1534SU03C-0550	*	5.5	6	66	28	20	36	●
1534SU03-0555		5.55	6	66	28	20	36	●
1534SU03C-0555	*	5.55	6	66	28	20	36	●
1534SU03-0560		5.6	6	66	28	20	36	●
1534SU03C-0560	*	5.6	6	66	28	20	36	●
1534SU03-0570		5.7	6	66	28	20	36	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field

Type	P	M	K	N	S	H
1534SU*	✓	✓	✓			
1534SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 3xD

General machining

Add K (SUK) to the code for use on Cast Iron

1534SU03/1534SU03C



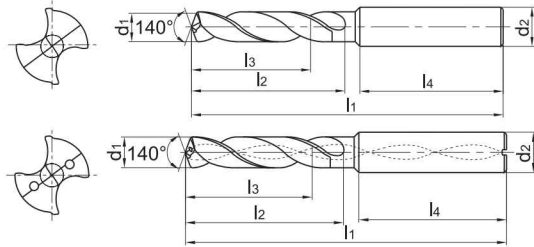
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SU03C-0570	*	5.7	6	66	28	20	36	●
1534SU03-0580		5.8	6	66	28	20	36	●
1534SU03C-0580	*	5.8	6	66	28	20	36	●
1534SU03-0590		5.9	6	66	28	20	36	●
1534SU03C-0590	*	5.9	6	66	28	20	36	●
1534SU03-0600		6	6	66	28	20	36	●
1534SU03C-0600	*	6	6	66	28	20	36	●
1534SU03-0610		6.1	8	79	34	24	36	●
1534SU03C-0610	*	6.1	8	79	34	24	36	●
1534SU03-0620		6.2	8	79	34	24	36	●
1534SU03C-0620	*	6.2	8	79	34	24	36	●
1534SU03-0630		6.3	8	79	34	24	36	●
1534SU03C-0630	*	6.3	8	79	34	24	36	●
1534SU03-0640		6.4	8	79	34	24	36	●
1534SU03C-0640	*	6.4	8	79	34	24	36	●
1534SU03-0650		6.5	8	79	34	24	36	●
1534SU03C-0650	*	6.5	8	79	34	24	36	●
1534SU03-0660		6.6	8	79	34	24	36	●
1534SU03C-0660	*	6.6	8	79	34	24	36	●
1534SU03-0670		6.7	8	79	34	24	36	●
1534SU03C-0670	*	6.7	8	79	34	24	36	●
1534SU03-0675		6.75	8	79	34	24	36	●
1534SU03C-0675	*	6.75	8	79	34	24	36	●
1534SU03-0680		6.8	8	79	34	24	36	●
1534SU03C-0680	*	6.8	8	79	34	24	36	●
1534SU03-0690		6.9	8	79	34	24	36	●
1534SU03C-0690	*	6.9	8	79	34	24	36	●
1534SU03-0700		7	8	79	34	24	36	●
1534SU03C-0700	*	7	8	79	34	24	36	●
1534SU03-0710		7.1	8	79	41	29	36	●
1534SU03C-0710	*	7.1	8	79	41	29	36	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field						
Type	P	M	K	N	S	H
1534SU*	✓	✓	✓			
1534SUK*			✓			

- ✓ Very suitable
- ✓ Suitable



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SU(K) drill 3xD **General machining** Add K (SUK) to the code for use on Cast Iron

1534SU03/1534SU03C



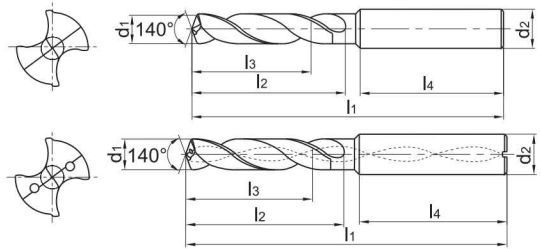
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SU03-0720		7.2	8	79	41	29	36	●
1534SU03C-0720	*	7.2	8	79	41	29	36	●
1534SU03-0730		7.3	8	79	41	29	36	●
1534SU03C-0730	*	7.3	8	79	41	29	36	●
1534SU03-0740		7.4	8	79	41	29	36	●
1534SU03C-0740	*	7.4	8	79	41	29	36	●
1534SU03-0745		7.45	8	79	41	29	36	○
1534SU03C-0745	*	7.45	8	79	41	29	36	○
1534SU03-0750		7.5	8	79	41	29	36	●
1534SU03C-0750	*	7.5	8	79	41	29	36	●
1534SU03-0760		7.6	8	79	41	29	36	●
1534SU03C-0760	*	7.6	8	79	41	29	36	●
1534SU03-0770		7.7	8	79	41	29	36	●
1534SU03C-0770	*	7.7	8	79	41	29	36	●
1534SU03-0780		7.8	8	79	41	29	36	●
1534SU03C-0780	*	7.8	8	79	41	29	36	●
1534SU03-0790		7.9	8	79	41	29	36	●
1534SU03C-0790	*	7.9	8	79	41	29	36	●
1534SU03-0800		8	8	79	41	29	36	●
1534SU03C-0800	*	8	8	79	41	29	36	●
1534SU03-0810		8.1	10	89	47	35	40	●
1534SU03C-0810	*	8.1	10	89	47	35	40	●
1534SU03-0820		8.2	10	89	47	35	40	●
1534SU03C-0820	*	8.2	10	89	47	35	40	●
1534SU03-0830		8.3	10	89	47	35	40	●
1534SU03C-0830	*	8.3	10	89	47	35	40	●
1534SU03-0840		8.4	10	89	47	35	40	●
1534SU03C-0840	*	8.4	10	89	47	35	40	●
1534SU03-0850		8.5	10	89	47	35	40	●
1534SU03C-0850	*	8.5	10	89	47	35	40	●
1534SU03-0860		8.6	10	89	47	35	40	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field

Type	P	M	K	N	S	H
1534SU*	✓	✓	✓			
1534SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 3xD

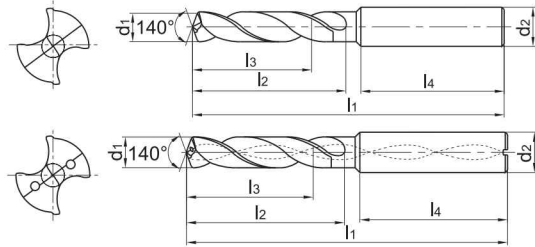
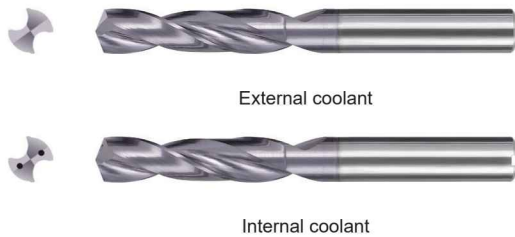
General machining

Add K (SUK) to the code for use on Cast Iron

1534SU03/1534SU03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SU03C-0860	*	8.6	10	89	47	35	40	●
1534SU03-0870		8.7	10	89	47	35	40	●
1534SU03C-0870	*	8.7	10	89	47	35	40	●
1534SU03-0880		8.8	10	89	47	35	40	●
1534SU03C-0880	*	8.8	10	89	47	35	40	●
1534SU03-0890		8.9	10	89	47	35	40	●
1534SU03C-0890	*	8.9	10	89	47	35	40	●
1534SU03-0900		9	10	89	47	35	40	●
1534SU03C-0900	*	9	10	89	47	35	40	●
1534SU03-0910		9.1	10	89	47	35	40	●
1534SU03C-0910	*	9.1	10	89	47	35	40	●
1534SU03-0920		9.2	10	89	47	35	40	●
1534SU03C-0920	*	9.2	10	89	47	35	40	●
1534SU03-0930		9.3	10	89	47	35	40	●
1534SU03C-0930	*	9.3	10	89	47	35	40	●
1534SU03-0935		9.35	10	89	47	35	40	○
1534SU03C-0935	*	9.35	10	89	47	35	40	○
1534SU03-0940		9.4	10	89	47	35	40	●
1534SU03C-0940	*	9.4	10	89	47	35	40	●
1534SU03-0945		9.45	10	89	47	35	40	○
1534SU03C-0945	*	9.45	10	89	47	35	40	○
1534SU03-0950		9.5	10	89	47	35	40	●
1534SU03C-0950	*	9.5	10	89	47	35	40	●
1534SU03-0960		9.6	10	89	47	35	40	●
1534SU03C-0960	*	9.6	10	89	47	35	40	●
1534SU03-0970		9.7	10	89	47	35	40	●
1534SU03C-0970	*	9.7	10	89	47	35	40	●
1534SU03-0980		9.8	10	89	47	35	40	●
1534SU03C-0980	*	9.8	10	89	47	35	40	●
1534SU03-0990		9.9	10	89	47	35	40	●
1534SU03C-0990	*	9.9	10	89	47	35	40	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field						
Type	P	M	K	N	S	H
1534SU*	✓	✓	✓			
1534SUK*			✓			

- ✓ Very suitable
- ✓ Suitable



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SU(K) drill 3xD **General machining** Add K (SUK) to the code for use on Cast Iron

1534SU03/1534SU03C



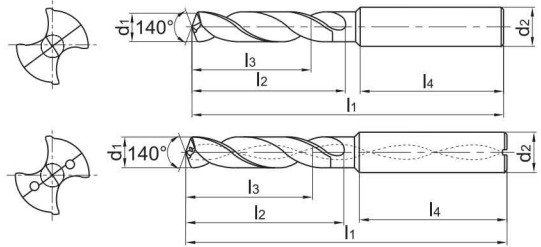
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SU03-1000		10	10	89	47	35	40	●
1534SU03C-1000	*	10	10	89	47	35	40	●
1534SU03-1010		10.1	12	102	55	40	45	●
1534SU03C-1010	*	10.1	12	102	55	40	45	●
1534SU03-1020		10.2	12	102	55	40	45	●
1534SU03C-1020	*	10.2	12	102	55	40	45	●
1534SU03-1025		10.25	12	102	55	40	45	●
1534SU03C-1025	*	10.25	12	102	55	40	45	●
1534SU03-1030		10.3	12	102	55	40	45	●
1534SU03C-1030	*	10.3	12	102	55	40	45	●
1534SU03-1040		10.4	12	102	55	40	45	●
1534SU03C-1040	*	10.4	12	102	55	40	45	●
1534SU03-1050		10.5	12	102	55	40	45	●
1534SU03C-1050	*	10.5	12	102	55	40	45	●
1534SU03-1060		10.6	12	102	55	40	45	●
1534SU03C-1060	*	10.6	12	102	55	40	45	●
1534SU03-1070		10.7	12	102	55	40	45	●
1534SU03C-1070	*	10.7	12	102	55	40	45	●
1534SU03-1080		10.8	12	102	55	40	45	●
1534SU03C-1080	*	10.8	12	102	55	40	45	●
1534SU03-1090		10.9	12	102	55	40	45	●
1534SU03C-1090	*	10.9	12	102	55	40	45	●
1534SU03-1100		11	12	102	55	40	45	●
1534SU03C-1100	*	11	12	102	55	40	45	●
1534SU03-1110		11.1	12	102	55	40	45	●
1534SU03C-1110	*	11.1	12	102	55	40	45	●
1534SU03-1120		11.2	12	102	55	40	45	●
1534SU03C-1120	*	11.2	12	102	55	40	45	●
1534SU03-1125		11.25	12	102	55	40	45	○
1534SU03C-1125	*	11.25	12	102	55	40	45	○
1534SU03-1130		11.3	12	102	55	40	45	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1534SU*	✓	✓	✓			
1534SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 3xD

General machining

Add K (SUK) to the code for use on Cast Iron

1534SU03/1534SU03C



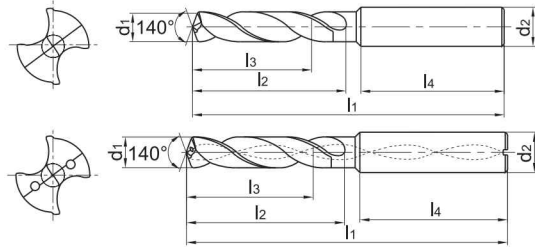
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SU03C-1130	*	11.3	12	102	55	40	45	●
1534SU03-1135		11.35	12	102	55	40	45	○
1534SU03C-1135	*	11.35	12	102	55	40	45	○
1534SU03-1140		11.4	12	102	55	40	45	●
1534SU03C-1140	*	11.4	12	102	55	40	45	●
1534SU03-1145		11.45	12	102	55	40	45	○
1534SU03C-1145	*	11.45	12	102	55	40	45	○
1534SU03-1150		11.5	12	102	55	40	45	●
1534SU03C-1150	*	11.5	12	102	55	40	45	●
1534SU03-1160		11.6	12	102	55	40	45	●
1534SU03C-1160	*	11.6	12	102	55	40	45	●
1534SU03-1170		11.7	12	102	55	40	45	●
1534SU03C-1170	*	11.7	12	102	55	40	45	●
1534SU03-1180		11.8	12	102	55	40	45	●
1534SU03C-1180	*	11.8	12	102	55	40	45	●
1534SU03-1190		11.9	12	102	55	40	45	●
1534SU03C-1190	*	11.9	12	102	55	40	45	●
1534SU03-1200		12	12	102	55	40	45	●
1534SU03C-1200	*	12	12	102	55	40	45	●
1534SU03-1210		12.1	14	107	60	43	45	●
1534SU03C-1210	*	12.1	14	107	60	43	45	●
1534SU03-1220		12.2	14	107	60	43	45	●
1534SU03C-1220	*	12.2	14	107	60	43	45	●
1534SU03-1225		12.25	14	107	60	43	45	●
1534SU03C-1225	*	12.25	14	107	60	43	45	●
1534SU03-1230		12.3	14	107	60	43	45	●
1534SU03C-1230	*	12.3	14	107	60	43	45	●
1534SU03-1250		12.5	14	107	60	43	45	●
1534SU03C-1250	*	12.5	14	107	60	43	45	●
1534SU03-1270		12.7	14	107	60	43	45	●
1534SU03C-1270	*	12.7	14	107	60	43	45	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field						
Type	P	M	K	N	S	H
1534SU*	✓	✓	✓			
1534SUK*			✓			

- ✓ Very suitable
- ✓ Suitable



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SU(K) drill 3xD **General machining** Add K (SUK) to the code for use on Cast Iron

1534SU03/1534SU03C



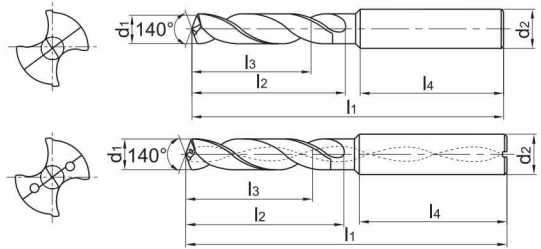
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SU03-1275		12.75	14	107	60	43	45	●
1534SU03C-1275	*	12.75	14	107	60	43	45	●
1534SU03-1280		12.8	14	107	60	43	45	●
1534SU03C-1280	*	12.8	14	107	60	43	45	●
1534SU03-1300		13	14	107	60	43	45	●
1534SU03C-1300	*	13	14	107	60	43	45	●
1534SU03-1310		13.1	14	107	60	43	45	●
1534SU03C-1310	*	13.1	14	107	60	43	45	●
1534SU03-1335	*	13.35	14	107	60	43	45	●
1534SU03-1350		13.5	14	107	60	43	45	●
1534SU03C-1350	*	13.5	14	107	60	43	45	●
1534SU03-1380		13.8	14	107	60	43	45	●
1534SU03C-1380	*	13.8	14	107	60	43	45	●
1534SU03-1400		14	14	107	60	43	45	●
1534SU03C-1400	*	14	14	107	60	43	45	●
1534SU03-1420		14.2	16	107	60	43	45	●
1534SU03C-1420	*	14.2	16	107	60	43	45	●
1534SU03-1425		14.25	16	115	65	45	48	●
1534SU03C-1425	*	14.25	16	115	65	45	48	●
1534SU03-1430		14.3	16	115	65	45	48	●
1534SU03C-1430	*	14.3	16	115	65	45	48	●
1534SU03-1450		14.5	16	115	65	45	48	●
1534SU03C-1450	*	14.5	16	115	65	45	48	●
1534SU03-1475		14.75	16	115	65	45	48	●
1534SU03C-1475	*	14.75	16	115	65	45	48	●
1534SU03-1480		14.8	16	115	65	45	48	●
1534SU03C-1480	*	14.8	16	115	65	45	48	●
1534SU03-1500		15	16	115	65	45	48	●
1534SU03C-1500	*	15	16	115	65	45	48	●
1534SU03-1510		15.1	16	115	65	45	48	●
1534SU03C-1510	*	15.1	16	115	65	45	48	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field

Type	P	M	K	N	S	H
1534SU*	✓	✓	✓			
1534SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 3xD

General machining

Add K (SUK) to the code for use on Cast Iron

1534SU03/1534SU03C



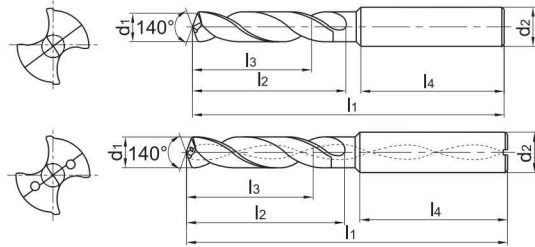
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SU03-1530		15.3	16	115	65	45	48	●
1534SU03C-1535	*	15.35	16	115	65	45	48	○
1534SU03-1550		15.5	16	115	65	45	48	●
1534SU03C-1550	*	15.5	16	115	65	45	48	●
1534SU03-1580		15.8	16	115	65	45	48	●
1534SU03C-1580	*	15.8	16	115	65	45	48	●
1534SU03-1600		16	16	115	65	45	48	●
1534SU03C-1600	*	16	16	115	65	45	48	●
1534SU03-1610		16.1	18	123	73	51	48	●
1534SU03-1650		16.5	18	123	73	51	48	●
1534SU03C-1650	*	16.5	18	123	73	51	48	●
1534SU03-1675		16.75	18	123	73	51	48	●
1534SU03C-1675	*	16.75	18	123	73	51	48	●
1534SU03-1680		16.8	18	123	73	51	48	●
1534SU03C-1680	*	16.8	18	123	73	51	48	●
1534SU03-1700		17	18	123	73	51	48	●
1534SU03C-1700	*	17	18	123	73	51	48	●
1534SU03-1750		17.5	18	123	73	51	48	●
1534SU03C-1750	*	17.5	18	123	73	51	48	●
1534SU03-1780		17.8	18	123	73	51	48	●
1534SU03C-1780	*	17.8	18	123	73	51	48	●
1534SU03-1800		18	18	123	73	51	48	●
1534SU03C-1800	*	18	18	123	73	51	48	●
1534SU03-1850		18.5	20	131	79	55	50	●
1534SU03C-1850	*	18.5	20	131	79	55	50	●
1534SU03-1880		18.8	20	131	79	55	50	●
1534SU03C-1880	*	18.8	20	131	79	55	50	●
1534SU03-1900		19	20	131	79	55	50	●
1534SU03C-1900	*	19	20	131	79	55	50	●
1534SU03-1950		19.5	20	131	79	55	50	●
1534SU03C-1950	*	19.5	20	131	79	55	50	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1534SU*	✓	✓	✓			
1534SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



A

SU(K) drill 3xD **General machining** Add K (SUK) to the code for use on Cast Iron

Turning

1534SU03/1534SU03C



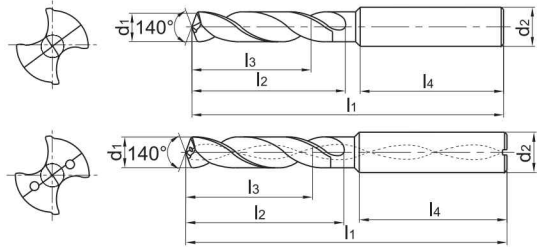
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



B

Milling

Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SU03-1980		19.8	20	131	79	55	50	●
1534SU03C-1980	*	19.8	20	131	79	55	50	●
1534SU03-2000		20	20	131	79	55	50	●
1534SU03C-2000	*	20	20	131	79	55	50	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

C

Drilling

Application field

Type	P	M	K	N	S	H
1534SU*	✓	✓	✓			
1534SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

D

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System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 5xD

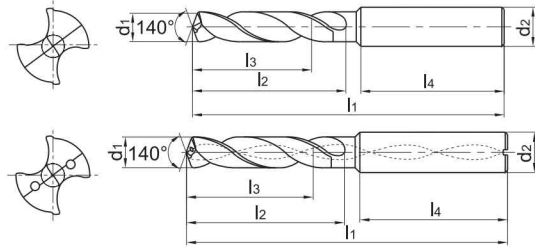
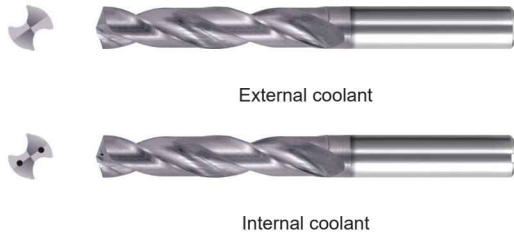
General machining

Add K (SUK) to the code for use on Cast Iron

1536SU05/1536SU05C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1536SU05-0200		2	6	66	28	23	36	●
1536SU05-0210		2.1	6	66	28	23	36	●
1536SU05-0220		2.2	6	66	28	23	36	●
1536SU05-0230		2.3	6	66	28	23	36	●
1536SU05-0240		2.4	6	66	28	23	36	●
1536SU05-0250		2.5	6	66	28	23	36	●
1536SU05-0260		2.6	6	66	28	23	36	●
1536SU05-0270		2.7	6	66	28	23	36	●
1536SU05-0280		2.8	6	66	28	23	36	●
1536SU05-0290		2.9	6	66	28	23	36	●
1536SU05-0300		3	6	66	28	23	36	●
1536SU05C-0300	*	3	6	66	28	23	36	●
1536SU05-0310		3.1	6	66	28	23	36	●
1536SU05C-0310	*	3.1	6	66	28	23	36	●
1536SU05-0320		3.2	6	66	28	23	36	●
1536SU05C-0320	*	3.2	6	66	28	23	36	●
1536SU05-0325		3.25	6	66	28	23	36	●
1536SU05C-0325	*	3.25	6	66	28	23	36	●
1536SU05-0330		3.3	6	66	28	23	36	●
1536SU05C-0330	*	3.3	6	66	28	23	36	●
1536SU05-0340		3.4	6	66	28	23	36	●
1536SU05C-0340	*	3.4	6	66	28	23	36	●
1536SU05-0350		3.5	6	66	28	23	36	●
1536SU05C-0350	*	3.5	6	66	28	23	36	●
1536SU05-0360		3.6	6	66	28	23	36	●
1536SU05C-0360	*	3.6	6	66	28	23	36	●
1536SU05-0370		3.7	6	66	28	23	36	●
1536SU05C-0370	*	3.7	6	66	28	23	36	●
1536SU05-0380		3.8	6	74	36	29	36	●
1536SU05C-0380	*	3.8	6	74	36	29	36	●
1536SU05-0390		3.9	6	74	36	29	36	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field						
Type	P	M	K	N	S	H
1536SU*	✓	✓	✓			
1536SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SU(K) drill 5xD **General machining** Add K (SUK) to the code for use on Cast Iron

1536SU05/1536SU05C



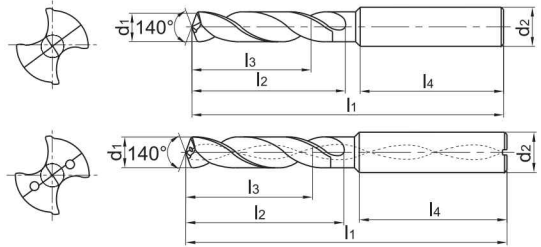
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1536SU05C-0390	*	3.9	6	74	36	29	36	●
1536SU05-0400		4	6	74	36	29	36	●
1536SU05C-0400	*	4	6	74	36	29	36	●
1536SU05-0410		4.1	6	74	36	29	36	●
1536SU05C-0410	*	4.1	6	74	36	29	36	●
1536SU05-0420		4.2	6	74	36	29	36	●
1536SU05C-0420	*	4.2	6	74	36	29	36	●
1536SU05-0430		4.3	6	74	36	29	36	●
1536SU05C-0430	*	4.3	6	74	36	29	36	●
1536SU05-0440		4.4	6	74	36	29	36	●
1536SU05C-0440	*	4.4	6	74	36	29	36	●
1536SU05-0450		4.5	6	74	36	29	36	●
1536SU05C-0450	*	4.5	6	74	36	29	36	●
1536SU05-0460		4.6	6	74	36	29	36	●
1536SU05C-0460	*	4.6	6	74	36	29	36	●
1536SU05-0465		4.65	6	74	36	29	36	●
1536SU05C-0465	*	4.65	6	74	36	29	36	●
1536SU05-0470		4.7	6	74	36	29	36	●
1536SU05C-0470	*	4.7	6	74	36	29	36	●
1536SU05-0480		4.8	6	82	44	35	36	●
1536SU05C-0480	*	4.8	6	82	44	35	36	●
1536SU05-0490		4.9	6	82	44	35	36	●
1536SU05C-0490	*	4.9	6	82	44	35	36	●
1536SU05-0500		5	6	82	44	35	36	●
1536SU05C-0500	*	5	6	82	44	35	36	●
1536SU05-0510		5.1	6	82	44	35	36	●
1536SU05C-0510	*	5.1	6	82	44	35	36	●
1536SU05-0520		5.2	6	82	44	35	36	●
1536SU05C-0520	*	5.2	6	82	44	35	36	●
1536SU05-0530		5.3	6	82	44	35	36	●
1536SU05C-0530	*	5.3	6	82	44	35	36	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field

Type	P	M	K	N	S	H
1536SU*	✓	✓	✓			
1536SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 5xD

General machining

Add K (SUK) to the code for use on Cast Iron

1536SU05/1536SU05C



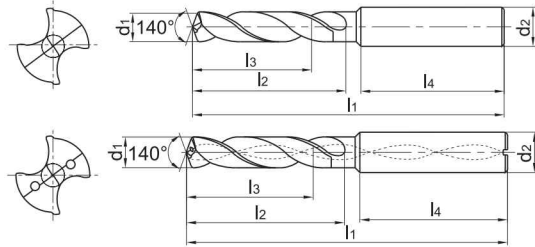
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1536SU05-0540		5.4	6	82	44	35	36	●
1536SU05C-0540	*	5.4	6	82	44	35	36	●
1536SU05-0550		5.5	6	82	44	35	36	●
1536SU05C-0550	*	5.5	6	82	44	35	36	●
1536SU05-0555		5.55	6	82	44	35	36	●
1536SU05C-0555	*	5.55	6	82	44	35	36	●
1536SU05-0560		5.6	6	82	44	35	36	●
1536SU05C-0560	*	5.6	6	82	44	35	36	●
1536SU05-0570		5.7	6	82	44	35	36	●
1536SU05C-0570	*	5.7	6	82	44	35	36	●
1536SU05-0580		5.8	6	82	44	35	36	●
1536SU05C-0580	*	5.8	6	82	44	35	36	●
1536SU05-0590		5.9	6	82	44	35	36	●
1536SU05C-0590	*	5.9	6	82	44	35	36	●
1536SU05-0600		6	6	82	44	35	36	●
1536SU05C-0600	*	6	6	82	44	35	36	●
1536SU05-0610		6.1	8	91	53	43	36	●
1536SU05C-0610	*	6.1	8	91	53	43	36	●
1536SU05-0620		6.2	8	91	53	43	36	●
1536SU05C-0620	*	6.2	8	91	53	43	36	●
1536SU05-0630		6.3	8	91	53	43	36	●
1536SU05C-0630	*	6.3	8	91	53	43	36	●
1536SU05-0640		6.4	8	91	53	43	36	●
1536SU05C-0640	*	6.4	8	91	53	43	36	●
1536SU05-0650		6.5	8	91	53	43	36	●
1536SU05C-0650	*	6.5	8	91	53	43	36	●
1536SU05-0660		6.6	8	91	53	43	36	●
1536SU05C-0660	*	6.6	8	91	53	43	36	●
1536SU05-0670		6.7	8	91	53	43	36	●
1536SU05C-0670	*	6.7	8	91	53	43	36	●
1536SU05-0675		6.75	8	91	53	43	36	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field						
Type	P	M	K	N	S	H
1536SU*	✓	✓	✓			
1536SUK*			✓			

- ✓ Very suitable
- ✓ Suitable



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SU(K) drill 5xD **General machining** Add K (SUK) to the code for use on Cast Iron

1536SU05/1536SU05C



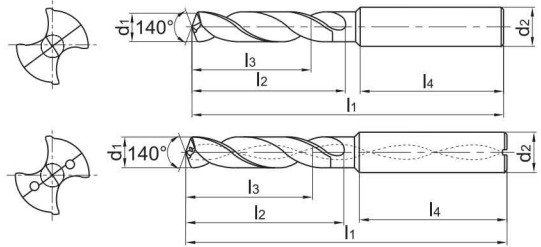
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1536SU05C-0675	*	6.75	8	91	53	43	36	●
1536SU05-0680		6.8	8	91	53	43	36	●
1536SU05C-0680	*	6.8	8	91	53	43	36	●
1536SU05-0690		6.9	8	91	53	43	36	●
1536SU05C-0690	*	6.9	8	91	53	43	36	●
1536SU05-0700		7	8	91	53	43	36	●
1536SU05C-0700	*	7	8	91	53	43	36	●
1536SU05-0710		7.1	8	91	53	43	36	●
1536SU05C-0710	*	7.1	8	91	53	43	36	●
1536SU05-0720		7.2	8	91	53	43	36	●
1536SU05C-0720	*	7.2	8	91	53	43	36	●
1536SU05-0730		7.3	8	91	53	43	36	●
1536SU05C-0730	*	7.3	8	91	53	43	36	●
1536SU05-0740		7.4	8	91	53	43	36	●
1536SU05C-0740	*	7.4	8	91	53	43	36	●
1536SU05-0745		7.45	8	91	53	43	36	●
1536SU05C-0745	*	7.45	8	91	53	43	36	●
1536SU05-0750		7.5	8	91	53	43	36	●
1536SU05C-0750	*	7.5	8	91	53	43	36	●
1536SU05-0760		7.6	8	91	53	43	36	●
1536SU05C-0760	*	7.6	8	91	53	43	36	●
1536SU05-0770		7.7	8	91	53	43	36	●
1536SU05C-0770	*	7.7	8	91	53	43	36	●
1536SU05-0780		7.8	8	91	53	43	36	●
1536SU05C-0780	*	7.8	8	91	53	43	36	●
1536SU05-0790		7.9	8	91	53	43	36	●
1536SU05C-0790	*	7.9	8	91	53	43	36	●
1536SU05-0800		8	8	91	53	43	36	●
1536SU05C-0800	*	8	8	91	53	43	36	●
1536SU05-0810		8.1	10	103	61	49	40	●
1536SU05C-0810	*	8.1	10	103	61	49	40	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field

Type	P	M	K	N	S	H
1536SU*	✓	✓	✓			
1536SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 5xD

General machining

Add K (SUK) to the code for use on Cast Iron

1536SU05/1536SU05C



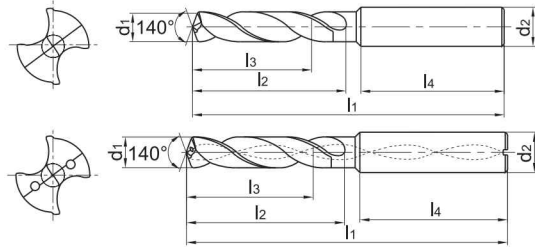
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1536SU05-0820		8.2	10	103	61	49	40	●
1536SU05C-0820	*	8.2	10	103	61	49	40	●
1536SU05-0830		8.3	10	103	61	49	40	●
1536SU05C-0830	*	8.3	10	103	61	49	40	●
1536SU05-0840		8.4	10	103	61	49	40	●
1536SU05C-0840	*	8.4	10	103	61	49	40	●
1536SU05-0850		8.5	10	103	61	49	40	●
1536SU05C-0850	*	8.5	10	103	61	49	40	●
1536SU05-0860		8.6	10	103	61	49	40	●
1536SU05C-0860	*	8.6	10	103	61	49	40	●
1536SU05-0870		8.7	10	103	61	49	40	●
1536SU05C-0870	*	8.7	10	103	61	49	40	●
1536SU05-0880		8.8	10	103	61	49	40	●
1536SU05C-0880	*	8.8	10	103	61	49	40	●
1536SU05-0890		8.9	10	103	61	49	40	●
1536SU05C-0890	*	8.9	10	103	61	49	40	●
1536SU05-0900		9	10	103	61	49	40	●
1536SU05C-0900	*	9	10	103	61	49	40	●
1536SU05-0910		9.1	10	103	61	49	40	●
1536SU05C-0910	*	9.1	10	103	61	49	40	●
1536SU05-0920		9.2	10	103	61	49	40	●
1536SU05C-0920	*	9.2	10	103	61	49	40	●
1536SU05-0930		9.3	10	103	61	49	40	●
1536SU05C-0930	*	9.3	10	103	61	49	40	●
1536SU05-0935		9.35	10	103	61	49	40	●
1536SU05C-0935	*	9.35	10	103	61	49	40	○
1536SU05-0940		9.4	10	103	61	49	40	●
1536SU05C-0940	*	9.4	10	103	61	49	40	●
1536SU05-0945		9.45	10	103	61	49	40	●
1536SU05C-0945	*	9.45	10	103	61	49	40	○
1536SU05-0950		9.5	10	103	61	49	40	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1536SU*	✓	✓	✓			
1536SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SU(K) drill 5xD **General machining** Add K (SUK) to the code for use on Cast Iron

1536SU05/1536SU05C



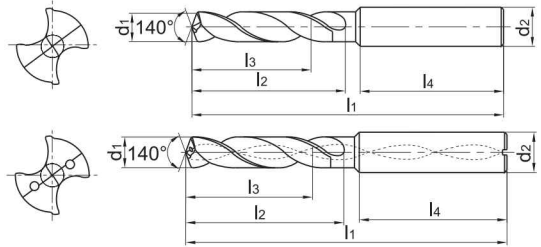
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1536SU05C-0950	*	9.5	10	103	61	49	40	●
1536SU05-0960		9.6	10	103	61	49	40	●
1536SU05C-0960	*	9.6	10	103	61	49	40	●
1536SU05-0970		9.7	10	103	61	49	40	●
1536SU05C-0970	*	9.7	10	103	61	49	40	●
1536SU05-0980		9.8	10	103	61	49	40	●
1536SU05C-0980	*	9.8	10	103	61	49	40	●
1536SU05-0990		9.9	10	103	61	49	40	●
1536SU05C-0990	*	9.9	10	103	61	49	40	●
1536SU05-1000		10	10	103	61	49	40	●
1536SU05C-1000	*	10	10	103	61	49	40	●
1536SU05-1010		10.1	12	118	71	56	45	●
1536SU05C-1010	*	10.1	12	118	71	56	45	●
1536SU05-1020		10.2	12	118	71	56	45	●
1536SU05C-1020	*	10.2	12	118	71	56	45	●
1536SU05-1025		10.25	12	118	71	56	45	●
1536SU05C-1025	*	10.25	12	118	71	56	45	●
1536SU05-1030		10.3	12	118	71	56	45	●
1536SU05C-1030	*	10.3	12	118	71	56	45	●
1536SU05-1040		10.4	12	118	71	56	45	●
1536SU05C-1040	*	10.4	12	118	71	56	45	●
1536SU05-1050		10.5	12	118	71	56	45	●
1536SU05C-1050	*	10.5	12	118	71	56	45	●
1536SU05-1060		10.6	12	118	71	56	45	●
1536SU05C-1060	*	10.6	12	118	71	56	45	●
1536SU05-1070		10.7	12	118	71	56	45	●
1536SU05C-1070	*	10.7	12	118	71	56	45	●
1536SU05-1080		10.8	12	118	71	56	45	●
1536SU05C-1080	*	10.8	12	118	71	56	45	●
1536SU05-1090		10.9	12	118	71	56	45	●
1536SU05C-1090	*	10.9	12	118	71	56	45	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field

Type	P	M	K	N	S	H
1536SU*	✓	✓	✓			
1536SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 5xD

General machining

Add K (SUK) to the code for use on Cast Iron

1536SU05/1536SU05C



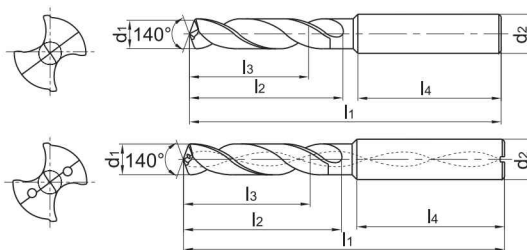
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1536SU05-1100		11	12	118	71	56	45	●
1536SU05C-1100	*	11	12	118	71	56	45	●
1536SU05-1110		11.1	12	118	71	56	45	●
1536SU05C-1110	*	11.1	12	118	71	56	45	●
1536SU05-1120		11.2	12	118	71	56	45	●
1536SU05C-1120	*	11.2	12	118	71	56	45	●
1536SU05-1125		11.25	12	118	71	56	45	●
1536SU05C-1125	*	11.25	12	118	71	56	45	○
1536SU05-1130		11.3	12	118	71	56	45	●
1536SU05C-1130	*	11.3	12	118	71	56	45	●
1536SU05-1135		11.35	12	118	71	56	45	●
1536SU05C-1135	*	11.35	12	118	71	56	45	○
1536SU05-1140		11.4	12	118	71	56	45	●
1536SU05C-1140	*	11.4	12	118	71	56	45	●
1536SU05-1145		11.45	12	118	71	56	45	○
1536SU05C-1145	*	11.45	12	118	71	56	45	○
1536SU05-1150		11.5	12	118	71	56	45	●
1536SU05C-1150	*	11.5	12	118	71	56	45	●
1536SU05-1160		11.6	12	118	71	56	45	●
1536SU05C-1160	*	11.6	12	118	71	56	45	●
1536SU05-1170		11.7	12	118	71	56	45	●
1536SU05C-1170	*	11.7	12	118	71	56	45	●
1536SU05-1180		11.8	12	118	71	56	45	●
1536SU05C-1180	*	11.8	12	118	71	56	45	●
1536SU05-1190		11.9	12	118	71	56	45	●
1536SU05C-1190	*	11.9	12	118	71	56	45	●
1536SU05-1200		12	12	118	71	56	45	●
1536SU05C-1200	*	12	12	118	71	56	45	●
1536SU05-1210		12.1	14	124	77	60	45	●
1536SU05C-1210	*	12.1	14	124	77	60	45	●
1536SU05-1220		12.2	14	124	77	60	45	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1536SU*	✓	✓	✓			
1536SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SU(K) drill 5xD **General machining** Add K (SUK) to the code for use on Cast Iron

1536SU05/1536SU05C



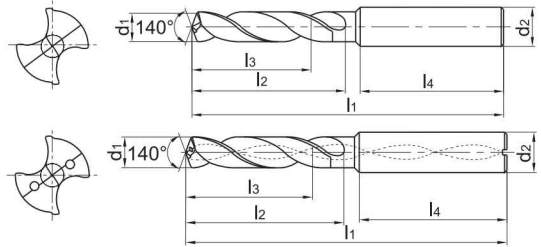
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1536SU05C-1220	*	12.2	14	124	77	60	45	●
1536SU05-1225		12.25	14	124	77	60	45	●
1536SU05C-1225	*	12.25	14	124	77	60	45	●
1536SU05-1230		12.3	14	124	77	60	45	●
1536SU05C-1230	*	12.3	14	124	77	60	45	●
1536SU05-1250		12.5	14	124	77	60	45	●
1536SU05C-1250	*	12.5	14	124	77	60	45	●
1536SU05-1270		12.7	14	124	77	60	45	●
1536SU05C-1270	*	12.7	14	124	77	60	45	●
1536SU05-1275		12.75	14	124	77	60	45	●
1536SU05C-1275	*	12.75	14	124	77	60	45	●
1536SU05-1280		12.8	14	124	77	60	45	●
1536SU05C-1280	*	12.8	14	124	77	60	45	●
1536SU05-1300		13	14	124	77	60	45	●
1536SU05C-1300	*	13	14	124	77	60	45	●
1536SU05-1310		13.1	14	124	77	60	45	●
1536SU05C-1310	*	13.1	14	124	77	60	45	●
1536SU05-1335		13.35	14	124	77	60	56	○
1536SU05C-1335	*	13.35	14	124	77	60	56	○
1536SU05-1350		13.5	14	124	77	60	45	●
1536SU05C-1350	*	13.5	14	124	77	60	45	●
1536SU05-1380		13.8	14	124	77	60	45	●
1536SU05C-1380	*	13.8	14	124	77	60	45	●
1536SU05-1400		14	14	124	77	60	45	●
1536SU05C-1400	*	14	14	124	77	60	45	●
1536SU05-1420		14.2	16	124	77	60	45	●
1536SU05C-1420	*	14.2	16	124	77	60	45	●
1536SU05-1425		14.25	16	133	83	63	48	●
1536SU05C-1425	*	14.25	16	133	83	63	48	●
1536SU05-1430		14.3	16	133	83	63	48	●
1536SU05C-1430	*	14.3	16	133	83	63	48	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1536SU*	✓	✓	✓			
1536SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 5xD

General machining

Add K (SUK) to the code for use on Cast Iron

1536SU05/1536SU05C



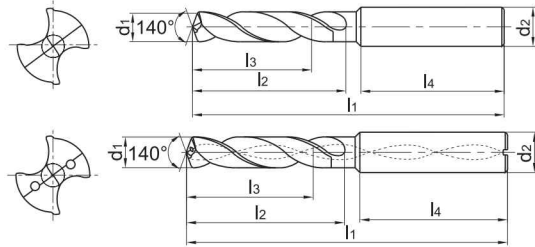
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1536SU05-1450		14.5	16	133	83	63	48	●
1536SU05C-1450	*	14.5	16	133	83	63	48	●
1536SU05-1475		14.75	16	133	83	63	48	●
1536SU05C-1475	*	14.75	16	133	83	63	48	●
1536SU05-1480		14.8	16	133	83	63	48	●
1536SU05C-1480	*	14.8	16	133	83	63	48	●
1536SU05-1500		15	16	133	83	63	48	●
1536SU05C-1500	*	15	16	133	83	63	48	●
1536SU05-1510		15.1	16	133	83	63	48	●
1536SU05C-1510	*	15.1	16	133	83	63	48	●
1536SU05-1530	*	15.3	16	133	83	63	48	●
1536SU05-1535		15.35	16	133	83	63	48	○
1536SU05C-1535	*	15.35	16	133	83	63	48	○
1536SU05-1550		15.5	16	133	83	63	48	●
1536SU05C-1550	*	15.5	16	133	83	63	48	●
1536SU05-1580		15.8	16	133	83	63	48	●
1536SU05C-1580	*	15.8	16	133	83	63	48	●
1536SU05-1600		16	16	133	83	63	48	●
1536SU05C-1600	*	16	16	133	83	63	48	●
1536SU05-1650		16.5	18	143	93	71	48	●
1536SU05C-1650	*	16.5	18	143	93	71	48	●
1536SU05-1675		16.75	18	143	93	71	48	●
1536SU05C-1675	*	16.75	18	143	93	71	48	●
1536SU05-1680		16.8	18	143	93	71	48	●
1536SU05C-1680	*	16.8	18	143	93	71	48	●
1536SU05-1700		17	18	143	93	71	48	●
1536SU05C-1700	*	17	18	143	93	71	48	●
1536SU05-1750		17.5	18	143	93	71	48	●
1536SU05C-1750	*	17.5	18	143	93	71	48	●
1536SU05-1780		17.8	18	143	93	71	48	●
1536SU05C-1780	*	17.8	18	143	93	71	48	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1536SU*	✓	✓	✓			
1536SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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A

SU(K) drill 5xD **General machining** Add K (SUK) to the code for use on Cast Iron

Turning

1536SU05/1536SU05C



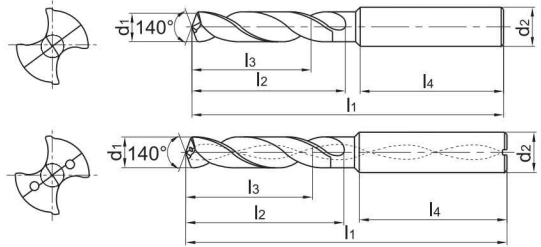
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



B

Milling

Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1536SU05-1800		18	18	143	93	71	48	●
1536SU05C-1800	*	18	18	143	93	71	48	●
1536SU05-1850		18.5	20	153	101	77	50	●
1536SU05C-1850	*	18.5	20	153	101	77	50	●
1536SU05-1880		18.8	20	153	101	77	50	●
1536SU05C-1880	*	18.8	20	153	101	77	50	●
1536SU05-1900		19	20	153	101	77	50	●
1536SU05C-1900	*	19	20	153	101	77	50	●
1536SU05-1950		19.5	20	153	101	77	50	●
1536SU05C-1950	*	19.5	20	153	101	77	50	●
1536SU05-1980		19.8	20	153	101	77	50	●
1536SU05C-1980	*	19.8	20	153	101	77	50	●
1536SU05-2000		20	20	153	101	77	50	●
1536SU05C-2000	*	20	20	153	101	77	50	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

C

Drilling

D

Technical Information

Application field						
Type	P	M	K	N	S	H
1536SU*	✓	✓	✓			
1536SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

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System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 8xD

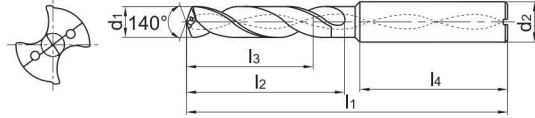
General machining

Add K (SUK) to the code for use on Cast Iron

1538SU08C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1538SU08C-0300	*	3	6	72	34	29	36	●
1538SU08C-0310	*	3.1	6	72	34	29	36	●
1538SU08C-0320	*	3.2	6	72	34	29	36	●
1538SU08C-0330	*	3.3	6	72	34	29	36	●
1538SU08C-0340	*	3.4	6	72	34	29	36	●
1538SU08C-0350	*	3.5	6	72	34	29	36	●
1538SU08C-0360	*	3.6	6	72	34	29	36	●
1538SU08C-0370	*	3.7	6	72	34	29	36	●
1538SU08C-0380	*	3.8	6	81	43	36	36	●
1538SU08C-0390	*	3.9	6	81	43	36	36	●
1538SU08C-0400	*	4	6	81	43	36	36	●
1538SU08C-0410	*	4.1	6	81	43	36	36	●
1538SU08C-0420	*	4.2	6	81	43	36	36	●
1538SU08C-0430	*	4.3	6	81	43	36	36	●
1538SU08C-0440	*	4.4	6	81	43	36	36	●
1538SU08C-0450	*	4.5	6	81	43	36	36	●
1538SU08C-0460	*	4.6	6	81	43	36	36	●
1538SU08C-0470	*	4.7	6	81	43	36	36	●
1538SU08C-0480	*	4.8	6	95	57	48	36	●
1538SU08C-0490	*	4.9	6	95	57	48	36	●
1538SU08C-0500	*	5	6	95	57	48	36	●
1538SU08C-0510	*	5.1	6	95	57	48	36	●
1538SU08C-0520	*	5.2	6	95	57	48	36	●
1538SU08C-0530	*	5.3	6	95	57	48	36	●
1538SU08C-0540	*	5.4	6	95	57	48	36	●
1538SU08C-0550	*	5.5	6	95	57	48	36	●
1538SU08C-0560	*	5.6	6	95	57	48	36	●
1538SU08C-0570	*	5.7	6	95	57	48	36	●
1538SU08C-0580	*	5.8	6	95	57	48	36	●
1538SU08C-0590	*	5.9	6	95	57	48	36	●
1538SU08C-0600	*	6	6	95	57	48	36	●
1538SU08C-0610	*	6.1	8	114	76	66	36	●
1538SU08C-0620	*	6.2	8	114	76	66	36	●
1538SU08C-0630	*	6.3	8	114	76	66	36	●
1538SU08C-0640	*	6.4	8	114	76	66	36	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1538SU*	✓	✓	✓			
1538SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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Solid carbide drills SU series

SU(K) drill 8xD

General machining

Add K (SUK) to the code for use on Cast Iron

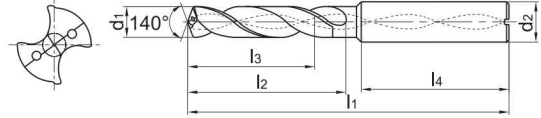
1538SU08C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1538SU08C-0650	*	6.5	8	114	76	66	36	●
1538SU08C-0660	*	6.6	8	114	76	66	36	●
1538SU08C-0670	*	6.7	8	114	76	66	36	●
1538SU08C-0680	*	6.8	8	114	76	66	36	●
1538SU08C-0690	*	6.9	8	114	76	66	36	●
1538SU08C-0700	*	7	8	116	76	66	36	●
1538SU08C-0710	*	7.1	8	116	76	66	36	●
1538SU08C-0720	*	7.2	8	116	76	66	36	●
1538SU08C-0730	*	7.3	8	116	76	66	36	●
1538SU08C-0740	*	7.4	8	116	76	66	36	●
1538SU08C-0750	*	7.5	8	116	76	66	36	●
1538SU08C-0760	*	7.6	8	116	76	66	36	●
1538SU08C-0770	*	7.7	8	116	76	66	36	●
1538SU08C-0780	*	7.8	8	116	76	66	36	●
1538SU08C-0790	*	7.9	8	116	76	66	36	●
1538SU08C-0800	*	8	8	116	76	66	36	●
1538SU08C-0810	*	8.1	10	142	95	83	40	●
1538SU08C-0820	*	8.2	10	142	95	83	40	●
1538SU08C-0830	*	8.3	10	142	95	83	40	●
1538SU08C-0840	*	8.4	10	142	95	83	40	●
1538SU08C-0850	*	8.5	10	142	95	83	40	●
1538SU08C-0860	*	8.6	10	142	95	83	40	●
1538SU08C-0870	*	8.7	10	142	95	83	40	●
1538SU08C-0880	*	8.8	10	142	95	83	40	●
1538SU08C-0890	*	8.9	10	142	95	83	40	●
1538SU08C-0900	*	9	10	142	95	83	40	●
1538SU08C-0910	*	9.1	10	142	95	83	40	●
1538SU08C-0920	*	9.2	10	142	95	83	40	●
1538SU08C-0930	*	9.3	10	142	95	83	40	●
1538SU08C-0940	*	9.4	10	142	95	83	40	●
1538SU08C-0950	*	9.5	10	142	95	83	40	●
1538SU08C-0960	*	9.6	10	142	95	83	40	●
1538SU08C-0970	*	9.7	10	142	95	83	40	●
1538SU08C-0980	*	9.8	10	142	95	83	40	●
1538SU08C-0990	*	9.9	10	142	95	83	40	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1538SU*	✓	✓	✓			
1538SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 8xD

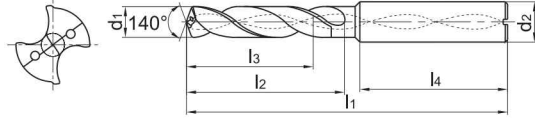
General machining

Add K (SUK) to the code for use on Cast Iron

1538SU08C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1538SU08C-1000	*	10	10	142	95	83	40	●
1538SU08C-1010	*	10.1	12	162	114	99	45	●
1538SU08C-1020	*	10.2	12	162	114	99	45	●
1538SU08C-1030	*	10.3	12	162	114	99	45	●
1538SU08C-1040	*	10.4	12	162	114	99	45	●
1538SU08C-1050	*	10.5	12	162	114	99	45	●
1538SU08C-1060	*	10.6	12	162	114	99	45	●
1538SU08C-1070	*	10.7	12	162	114	99	45	●
1538SU08C-1080	*	10.8	12	162	114	99	45	●
1538SU08C-1090	*	10.9	12	162	114	99	45	●
1538SU08C-1100	*	11	12	162	114	99	45	●
1538SU08C-1110	*	11.1	12	162	114	99	45	●
1538SU08C-1120	*	11.2	12	162	114	99	45	●
1538SU08C-1130	*	11.3	12	162	114	99	45	●
1538SU08C-1140	*	11.4	12	162	114	99	45	●
1538SU08C-1150	*	11.5	12	162	114	99	45	●
1538SU08C-1160	*	11.6	12	162	114	99	45	●
1538SU08C-1170	*	11.7	12	162	114	99	45	●
1538SU08C-1180	*	11.8	12	162	114	99	45	●
1538SU08C-1190	*	11.9	12	162	114	99	45	●
1538SU08C-1200	*	12	12	162	114	99	45	●
1538SU08C-1250	*	12.5	14	178	133	116	45	●
1538SU08C-1270	*	12.7	14	178	133	116	45	●
1538SU08C-1280	*	12.8	14	178	133	116	45	●
1538SU08C-1300	*	13	14	178	133	116	45	●
1538SU08C-1350	*	13.5	14	178	133	116	45	●
1538SU08C-1400	*	14	14	178	133	116	45	●
1538SU08C-1450	*	14.5	16	204	152	132	48	●
1538SU08C-1480	*	14.8	16	204	152	132	48	●
1538SU08C-1500	*	15	16	204	152	132	48	●
1538SU08C-1550	*	15.5	16	204	152	132	48	●
1538SU08C-1600	*	16	16	204	152	132	48	●
1538SU08C-1650	*	16.5	18	223	171	149	48	●
1538SU08C-1700	*	17	18	223	171	149	48	●
1538SU08C-1750	*	17.5	18	223	171	149	48	●
1538SU08C-1800	*	18	18	223	171	149	48	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field						
Type	P	M	K	N	S	H
1538SU*	✓	✓	✓			
1538SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44 Machining instructions > C201 Cutting data > C144 Nonstandard order > C150



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SU(K) drill 3xD

General machining

Add K (SUK) to the code for use on Cast Iron

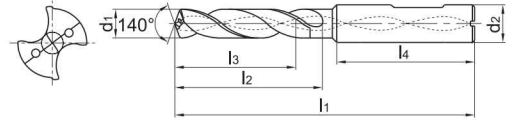
1634SU03C



- Type of shank: DIN 6535HB
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1634SU03C-0300	*	3	6	62	20	14	36	●
1634SU03C-0310	*	3.1	6	62	20	14	36	●
1634SU03C-0320	*	3.2	6	62	20	14	36	●
1634SU03C-0325	*	3.25	6	62	20	14	36	○
1634SU03C-0330	*	3.3	6	62	20	14	36	●
1634SU03C-0340	*	3.4	6	62	20	14	36	●
1634SU03C-0350	*	3.5	6	62	20	14	36	●
1634SU03C-0360	*	3.6	6	62	20	14	36	●
1634SU03C-0370	*	3.7	6	62	20	14	36	●
1634SU03C-0380	*	3.8	6	66	24	17	36	●
1634SU03C-0390	*	3.9	6	66	24	17	36	●
1634SU03C-0400	*	4	6	66	24	17	36	●
1634SU03C-0410	*	4.1	6	66	24	17	36	●
1634SU03C-0420	*	4.2	6	66	24	17	36	●
1634SU03C-0430	*	4.3	6	66	24	17	36	●
1634SU03C-0440	*	4.4	6	66	24	17	36	●
1634SU03C-0450	*	4.5	6	66	24	17	36	●
1634SU03C-0460	*	4.6	6	66	24	17	36	●
1634SU03C-0465	*	4.65	6	66	24	17	36	○
1634SU03C-0470	*	4.7	6	66	24	17	36	●
1634SU03C-0480	*	4.8	6	66	28	20	36	●
1634SU03C-0490	*	4.9	6	66	28	20	36	●
1634SU03C-0500	*	5	6	66	28	20	36	●
1634SU03C-0510	*	5.1	6	66	28	20	36	●
1634SU03C-0520	*	5.2	6	66	28	20	36	●
1634SU03C-0530	*	5.3	6	66	28	20	36	●
1634SU03C-0540	*	5.4	6	66	28	20	36	●
1634SU03C-0550	*	5.5	6	66	28	20	36	●
1634SU03C-0555	*	5.55	6	66	28	20	36	●
1634SU03C-0560	*	5.6	6	66	28	20	36	●
1634SU03C-0570	*	5.7	6	66	28	20	36	●
1634SU03C-0580	*	5.8	6	66	28	20	36	●
1634SU03C-0590	*	5.9	6	66	28	20	36	●
1634SU03C-0600	*	6	6	66	28	20	36	●
1634SU03C-0610	*	6.1	8	79	34	24	36	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1634SU*	✓	✓	✓			
1634SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 3xD

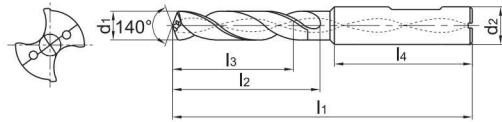
General machining

Add K (SUK) to the code for use on Cast Iron

1634SU03C



- Type of shank: DIN 6535HB
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1634SU03C-0620	*	6.2	8	79	34	24	36	●
1634SU03C-0630	*	6.3	8	79	34	24	36	●
1634SU03C-0640	*	6.4	8	79	34	24	36	●
1634SU03C-0650	*	6.5	8	79	34	24	36	●
1634SU03C-0660	*	6.6	8	79	34	24	36	●
1634SU03C-0670	*	6.7	8	79	34	24	36	●
1634SU03C-0675	*	6.75	8	79	34	24	36	○
1634SU03C-0680	*	6.8	8	79	34	24	36	●
1634SU03C-0690	*	6.9	8	79	34	24	36	●
1634SU03C-0700	*	7	8	79	34	24	36	●
1634SU03C-0710	*	7.1	8	79	41	29	36	●
1634SU03C-0720	*	7.2	8	79	41	29	36	●
1634SU03C-0730	*	7.3	8	79	41	29	36	●
1634SU03C-0740	*	7.4	8	79	41	29	36	●
1634SU03C-0745	*	7.45	8	79	41	29	36	○
1634SU03C-0750	*	7.5	8	79	41	29	36	●
1634SU03C-0760	*	7.6	8	79	41	29	36	●
1634SU03C-0770	*	7.7	8	79	41	29	36	●
1634SU03C-0780	*	7.8	8	79	41	29	36	●
1634SU03C-0790	*	7.9	8	79	41	29	36	●
1634SU03C-0800	*	8	8	79	41	29	36	●
1634SU03C-0810	*	8.1	10	89	47	35	40	●
1634SU03C-0820	*	8.2	10	89	47	35	40	●
1634SU03C-0830	*	8.3	10	89	47	35	40	●
1634SU03C-0840	*	8.4	10	89	47	35	40	●
1634SU03C-0850	*	8.5	10	89	47	35	40	●
1634SU03C-0860	*	8.6	10	89	47	35	40	●
1634SU03C-0870	*	8.7	10	89	47	35	40	●
1634SU03C-0880	*	8.8	10	89	47	35	40	●
1634SU03C-0890	*	8.9	10	89	47	35	40	●
1634SU03C-0900	*	9	10	89	47	35	40	●
1634SU03C-0910	*	9.1	10	89	47	35	40	●
1634SU03C-0920	*	9.2	10	89	47	35	40	●
1634SU03C-0930	*	9.3	10	89	47	35	40	●
1634SU03C-0935	*	9.35	10	89	47	35	40	○

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1634SU*	✓	✓	✓			
1634SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SU(K) drill 3xD

General machining

Add K (SUK) to the code for use on Cast Iron

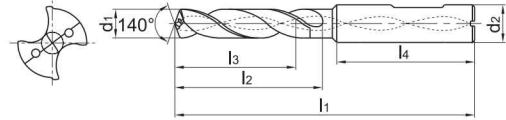
1634SU03C



- Type of shank: DIN 6535HB
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1634SU03C-0940	*	9.4	10	89	47	35	40	●
1634SU03C-0945	*	9.45	10	89	47	35	40	○
1634SU03C-0950	*	9.5	10	89	47	35	40	●
1634SU03C-0960	*	9.6	10	89	47	35	40	●
1634SU03C-0970	*	9.7	10	89	47	35	40	●
1634SU03C-0980	*	9.8	10	89	47	35	40	●
1634SU03C-0990	*	9.9	10	89	47	35	40	●
1634SU03C-1000	*	10	10	89	47	35	40	●
1634SU03C-1010	*	10.1	12	102	55	40	45	●
1634SU03C-1020	*	10.2	12	102	55	40	45	●
1634SU03C-1025	*	10.25	12	102	55	40	45	○
1634SU03C-1030	*	10.3	12	102	55	40	45	●
1634SU03C-1040	*	10.4	12	102	55	40	45	●
1634SU03C-1050	*	10.5	12	102	55	40	45	●
1634SU03C-1060	*	10.6	12	102	55	40	45	●
1634SU03C-1070	*	10.7	12	102	55	40	45	●
1634SU03C-1080	*	10.8	12	102	55	40	45	●
1634SU03C-1090	*	10.9	12	102	55	40	45	●
1634SU03C-1100	*	11	12	102	55	40	45	●
1634SU03C-1110	*	11.1	12	102	55	40	45	●
1634SU03C-1120	*	11.2	12	102	55	40	45	●
1634SU03C-1125	*	11.25	12	102	55	40	45	○
1634SU03C-1130	*	11.3	12	102	55	40	45	●
1634SU03C-1135	*	11.35	12	102	55	40	45	○
1634SU03C-1140	*	11.4	12	102	55	40	45	●
1634SU03C-1145	*	11.45	12	102	55	40	45	○
1634SU03C-1150	*	11.5	12	102	55	40	45	●
1634SU03C-1160	*	11.6	12	102	55	40	45	●
1634SU03C-1170	*	11.7	12	102	55	40	45	●
1634SU03C-1180	*	11.8	12	102	55	40	45	●
1634SU03C-1190	*	11.9	12	102	55	40	45	●
1634SU03C-1200	*	12	12	102	55	40	45	●
1634SU03C-1210	*	12.1	14	107	60	43	45	●
1634SU03C-1220	*	12.2	14	107	60	43	45	●
1634SU03C-1225	*	12.25	14	107	60	43	45	○

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1634SU*	✓	✓	✓			
1634SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 3xD

General machining

Add K (SUK) to the code for use on Cast Iron

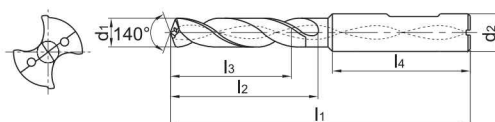
1634SU03C



- Type of shank: DIN 6535HB
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1634SU03C-1230	*	12.3	14	107	60	43	45	●
1634SU03C-1250	*	12.5	14	107	60	43	45	●
1634SU03C-1270	*	12.7	14	107	60	43	45	●
1634SU03C-1275	*	12.75	14	107	60	43	45	○
1634SU03C-1280	*	12.8	14	107	60	43	45	●
1634SU03C-1300	*	13	14	107	60	43	45	●
1634SU03C-1310	*	13.1	14	107	60	43	45	●
1634SU03C-1335	*	13.35	14	107	60	43	45	○
1634SU03C-1350	*	13.5	14	107	60	43	45	●
1634SU03C-1380	*	13.8	14	107	60	43	45	●
1634SU03C-1400	*	14	14	107	60	43	45	●
1634SU03C-1420	*	14.2	16	107	60	43	45	○
1634SU03C-1425	*	14.25	16	115	65	45	48	○
1634SU03C-1430	*	14.3	16	115	65	45	48	○
1634SU03C-1450	*	14.5	16	115	65	45	48	●
1634SU03C-1475	*	14.75	16	115	65	45	48	○
1634SU03C-1480	*	14.8	16	115	65	45	48	●
1634SU03C-1500	*	15	16	115	65	45	48	●
1634SU03C-1510	*	15.1	16	115	65	45	48	○
1634SU03C-1535	*	15.35	16	115	65	45	48	○
1634SU03C-1550	*	15.5	16	115	65	45	48	○
1634SU03C-1580	*	15.8	16	115	65	45	48	○
1634SU03C-1600	*	16	16	115	65	45	48	●
1634SU03C-1650	*	16.5	18	123	73	51	48	○
1634SU03C-1675	*	16.75	18	123	73	51	48	○
1634SU03C-1680	*	16.8	18	123	73	51	48	○
1634SU03C-1700	*	17	18	123	73	51	48	●
1634SU03C-1750	*	17.5	18	123	73	51	48	●
1634SU03C-1780	*	17.8	18	123	73	51	48	○
1634SU03C-1800	*	18	18	123	73	51	48	●
1634SU03C-1850	*	18.5	20	131	79	55	50	○
1634SU03C-1880	*	18.8	20	131	79	55	50	○
1634SU03C-1900	*	19	20	131	79	55	50	○
1634SU03C-1950	*	19.5	20	131	79	55	50	●
1634SU03C-1980	*	19.8	20	131	79	55	50	○
1634SU03C-2000	*	20	20	131	79	55	50	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1634SU*	✓	✓	✓			
1634SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SU(K) drill 5xD

General machining

Add K (SUK) to the code for use on Cast Iron

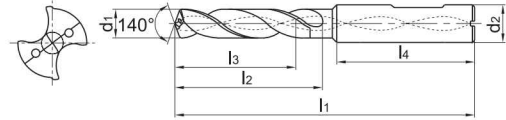
1636SU05C



- Type of shank: DIN 6535HB
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1636SU05C-0300	*	3	6	62	20	14	36	●
1636SU05C-0310	*	3.1	6	66	28	23	36	●
1636SU05C-0320	*	3.2	6	66	28	23	36	●
1636SU05C-0325	*	3.25	6	66	28	23	36	○
1636SU05C-0330	*	3.3	6	66	28	23	36	●
1636SU05C-0340	*	3.4	6	66	28	23	36	●
1636SU05C-0350	*	3.5	6	66	28	23	36	●
1636SU05C-0360	*	3.6	6	66	28	23	36	●
1636SU05C-0370	*	3.7	6	66	28	23	36	●
1636SU05C-0380	*	3.8	6	74	36	29	36	●
1636SU05C-0390	*	3.9	6	74	36	29	36	●
1636SU05C-0400	*	4	6	74	36	29	36	●
1636SU05C-0410	*	4.1	6	74	36	29	36	●
1636SU05C-0420	*	4.2	6	74	36	29	36	●
1636SU05C-0430	*	4.3	6	74	36	29	36	●
1636SU05C-0440	*	4.4	6	74	36	29	36	●
1636SU05C-0450	*	4.5	6	74	36	29	36	●
1636SU05C-0460	*	4.6	6	74	36	29	36	●
1636SU05C-0465	*	4.65	6	74	36	29	36	●
1636SU05C-0470	*	4.7	6	74	36	29	36	●
1636SU05C-0480	*	4.8	6	82	44	35	36	●
1636SU05C-0490	*	4.9	6	82	44	35	36	●
1636SU05C-0500	*	5	6	82	44	35	36	●
1636SU05C-0510	*	5.1	6	82	44	35	36	●
1636SU05C-0520	*	5.2	6	82	44	35	36	●
1636SU05C-0530	*	5.3	6	82	44	35	36	●
1636SU05C-0540	*	5.4	6	82	44	35	36	●
1636SU05C-0550	*	5.5	6	82	44	35	36	●
1636SU05C-0555	*	5.55	6	82	44	35	36	●
1636SU05C-0560	*	5.6	6	82	44	35	36	●
1636SU05C-0570	*	5.7	6	82	44	35	36	●
1636SU05C-0580	*	5.8	6	82	44	35	36	●
1636SU05C-0590	*	5.9	6	82	44	35	36	●
1636SU05C-0600	*	6	6	82	44	35	36	●
1636SU05C-0610	*	6.1	8	91	53	43	36	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1636SU*	✓	✓	✓			
1636SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 5xD

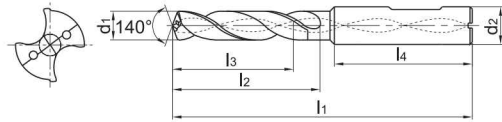
General machining

Add K (SUK) to the code for use on Cast Iron

1636SU05C



- Type of shank: DIN 6535HB
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1636SU05C-0620	*	6.2	8	91	53	43	36	●
1636SU05C-0630	*	6.3	8	91	53	43	36	●
1636SU05C-0640	*	6.4	8	91	53	43	36	●
1636SU05C-0650	*	6.5	8	91	53	43	36	●
1636SU05C-0660	*	6.6	8	91	53	43	36	●
1636SU05C-0670	*	6.7	8	91	53	43	36	●
1636SU05C-0675	*	6.75	8	91	53	43	36	●
1636SU05C-0680	*	6.8	8	91	53	43	36	●
1636SU05C-0690	*	6.9	8	91	53	43	36	●
1636SU05C-0700	*	7	8	91	53	43	36	●
1636SU05C-0710	*	7.1	8	91	53	43	36	●
1636SU05C-0720	*	7.2	8	91	53	43	36	●
1636SU05C-0730	*	7.3	8	91	53	43	36	●
1636SU05C-0740	*	7.4	8	91	53	43	36	●
1636SU05C-0745	*	7.45	8	91	53	43	36	●
1636SU05C-0750	*	7.5	8	91	53	43	36	●
1636SU05C-0760	*	7.6	8	91	53	43	36	●
1636SU05C-0770	*	7.7	8	91	53	43	36	●
1636SU05C-0780	*	7.8	8	91	53	43	36	●
1636SU05C-0790	*	7.9	8	91	53	43	36	●
1636SU05C-0800	*	8	8	91	53	43	36	●
1636SU05C-0810	*	8.1	10	103	61	49	40	●
1636SU05C-0820	*	8.2	10	103	61	49	40	●
1636SU05C-0830	*	8.3	10	103	61	49	40	●
1636SU05C-0840	*	8.4	10	103	61	49	40	●
1636SU05C-0850	*	8.5	10	103	61	49	40	●
1636SU05C-0860	*	8.6	10	103	61	49	40	●
1636SU05C-0870	*	8.7	10	103	61	49	40	●
1636SU05C-0880	*	8.8	10	103	61	49	40	●
1636SU05C-0890	*	8.9	10	103	61	49	40	●
1636SU05C-0900	*	9	10	103	61	49	40	●
1636SU05C-0910	*	9.1	10	103	61	49	40	●
1636SU05C-0920	*	9.2	10	103	61	49	40	●
1636SU05C-0930	*	9.3	10	103	61	49	40	●
1636SU05C-0935	*	9.35	10	103	61	49	40	○

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1636SU*	✓	✓	✓			
1636SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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Solid carbide drills SU series

SU(K) drill 5xD

General machining

Add K (SUK) to the code for use on Cast Iron

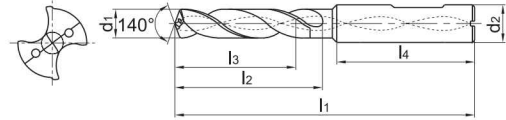
1636SU05C



- Type of shank: DIN 6535HB
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1636SU05C-0940	*	9.4	10	103	61	49	40	●
1636SU05C-0945	*	9.45	10	103	61	49	40	○
1636SU05C-0950	*	9.5	10	103	61	49	40	●
1636SU05C-0960	*	9.6	10	103	61	49	40	●
1636SU05C-0970	*	9.7	10	103	61	49	40	●
1636SU05C-0980	*	9.8	10	103	61	49	40	●
1636SU05C-0990	*	9.9	10	103	61	49	40	●
1636SU05C-1000	*	10	10	103	61	49	40	●
1636SU05C-1010	*	10.1	12	118	71	56	45	●
1636SU05C-1020	*	10.2	12	118	71	56	45	●
1636SU05C-1025	*	10.25	12	118	71	56	45	●
1636SU05C-1030	*	10.3	12	118	71	56	45	●
1636SU05C-1040	*	10.4	12	118	71	56	45	●
1636SU05C-1050	*	10.5	12	118	71	56	45	●
1636SU05C-1060	*	10.6	12	118	71	56	45	●
1636SU05C-1070	*	10.7	12	118	71	56	45	●
1636SU05C-1080	*	10.8	12	118	71	56	45	●
1636SU05C-1090	*	10.9	12	118	71	56	45	●
1636SU05C-1100	*	11	12	118	71	56	45	●
1636SU05C-1110	*	11.1	12	118	71	56	45	●
1636SU05C-1120	*	11.2	12	118	71	56	45	●
1636SU05C-1125	*	11.25	12	118	71	56	45	○
1636SU05C-1130	*	11.3	12	118	71	56	45	●
1636SU05C-1135	*	11.35	12	118	71	56	45	○
1636SU05C-1140	*	11.4	12	118	71	56	45	●
1636SU05C-1145	*	11.45	12	118	71	56	45	○
1636SU05C-1150	*	11.5	12	118	71	56	45	●
1636SU05C-1160	*	11.6	12	118	71	56	45	●
1636SU05C-1170	*	11.7	12	118	71	56	45	●
1636SU05C-1180	*	11.8	12	118	71	56	45	●
1636SU05C-1190	*	11.9	12	118	71	56	45	●
1636SU05C-1200	*	12	12	118	71	56	45	●
1636SU05C-1210	*	12.1	14	124	77	60	45	●
1636SU05C-1220	*	12.2	14	124	77	60	45	●
1636SU05C-1225	*	12.25	14	124	77	60	45	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1636SU*	✓	✓	✓			
1636SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 5xD

General machining

Add K (SUK) to the code for use on Cast Iron

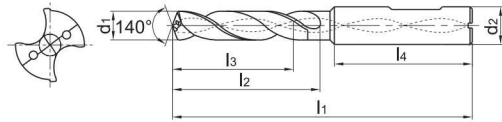
1636SU05C



- Type of shank: DIN 6535HB
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1636SU05C-1230	*	12.3	14	124	77	60	45	●
1636SU05C-1250	*	12.5	14	124	77	60	45	●
1636SU05C-1270	*	12.7	14	124	77	60	45	●
1636SU05C-1275	*	12.75	14	124	77	60	45	○
1636SU05C-1280	*	12.8	14	124	77	60	45	●
1636SU05C-1300	*	13	14	124	77	60	45	●
1636SU05C-1310	*	13.1	14	124	77	60	45	●
1636SU05C-1335	*	13.35	14	124	77	60	56	○
1636SU05C-1350	*	13.5	14	124	77	60	45	●
1636SU05C-1380	*	13.8	14	124	77	60	45	●
1636SU05C-1400	*	14	14	124	77	60	45	●
1636SU05C-1420	*	14.2	16	124	77	60	45	●
1636SU05C-1425	*	14.25	16	133	83	63	48	●
1636SU05C-1430	*	14.3	16	133	83	63	48	●
1636SU05C-1450	*	14.5	16	133	83	63	48	●
1636SU05C-1475	*	14.75	16	133	83	63	48	○
1636SU05C-1480	*	14.8	16	133	83	63	48	●
1636SU05C-1500	*	15	16	133	83	63	48	●
1636SU05C-1510	*	15.1	16	133	83	63	48	●
1636SU05C-1535	*	15.35	16	133	83	63	48	○
1636SU05C-1550	*	15.5	16	133	83	63	48	●
1636SU05C-1580	*	15.8	16	133	83	63	48	●
1636SU05C-1600	*	16	16	133	83	63	48	●
1636SU05C-1650	*	16.5	18	143	93	71	48	●
1636SU05C-1675	*	16.75	18	143	93	71	48	○
1636SU05C-1680	*	16.8	18	143	93	71	48	●
1636SU05C-1700	*	17	18	143	93	71	48	●
1636SU05C-1750	*	17.5	18	143	93	71	48	●
1636SU05C-1780	*	17.8	18	143	93	71	48	●
1636SU05C-1800	*	18	18	143	93	71	48	●
1636SU05C-1850	*	18.5	20	153	101	77	50	●
1636SU05C-1880	*	18.8	20	153	101	77	50	●
1636SU05C-1900	*	19	20	153	101	77	50	●
1636SU05C-1950	*	19.5	20	153	101	77	50	●
1636SU05C-1980	*	19.8	20	153	101	77	50	●
1636SU05C-2000	*	20	20	153	101	77	50	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1636SU*	✓	✓	✓			
1636SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SU(K) drill 3xD

General machining

Add K (SUK) to the code for use on Cast Iron

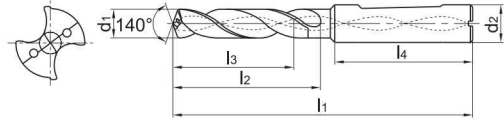
1734SU03C



- Whistle Notch clamping surface
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1734SU03C-0300	*	3	6	66	28	23	36	●
1734SU03C-0310	*	3.1	6	62	20	14	36	●
1734SU03C-0320	*	3.2	6	62	20	14	36	●
1734SU03C-0325	*	3.25	6	62	20	14	36	○
1734SU03C-0330	*	3.3	6	62	20	14	36	●
1734SU03C-0340	*	3.4	6	62	20	14	36	●
1734SU03C-0350	*	3.5	6	62	20	14	36	●
1734SU03C-0360	*	3.6	6	62	20	14	36	●
1734SU03C-0370	*	3.7	6	62	20	14	36	●
1734SU03C-0380	*	3.8	6	66	24	17	36	●
1734SU03C-0390	*	3.9	6	66	24	17	36	●
1734SU03C-0400	*	4	6	66	24	17	36	●
1734SU03C-0410	*	4.1	6	66	24	17	36	●
1734SU03C-0420	*	4.2	6	66	24	17	36	●
1734SU03C-0430	*	4.3	6	66	24	17	36	●
1734SU03C-0440	*	4.4	6	66	24	17	36	●
1734SU03C-0450	*	4.5	6	66	24	17	36	●
1734SU03C-0460	*	4.6	6	66	24	17	36	●
1734SU03C-0465	*	4.65	6	66	24	17	36	○
1734SU03C-0470	*	4.7	6	66	24	17	36	●
1734SU03C-0480	*	4.8	6	66	28	20	36	●
1734SU03C-0490	*	4.9	6	66	28	20	36	●
1734SU03C-0500	*	5	6	66	28	20	36	●
1734SU03C-0510	*	5.1	6	66	28	20	36	●
1734SU03C-0520	*	5.2	6	66	28	20	36	●
1734SU03C-0530	*	5.3	6	66	28	20	36	●
1734SU03C-0540	*	5.4	6	66	28	20	36	●
1734SU03C-0550	*	5.5	6	66	28	20	36	●
1734SU03C-0555	*	5.55	6	66	28	20	36	●
1734SU03C-0560	*	5.6	6	66	28	20	36	●
1734SU03C-0570	*	5.7	6	66	28	20	36	●
1734SU03C-0580	*	5.8	6	66	28	20	36	●
1734SU03C-0590	*	5.9	6	66	28	20	36	●
1734SU03C-0600	*	6	6	66	28	20	36	●
1734SU03C-0610	*	6.1	8	79	34	24	36	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1734SU*	✓	✓	✓			
1734SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 3xD

General machining

Add K (SUK) to the code for use on Cast Iron

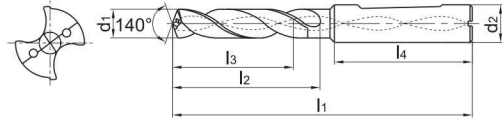
1734SU03C



- Whistle Notch clamping surface
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1734SU03C-0620	*	6.2	8	79	34	24	36	●
1734SU03C-0630	*	6.3	8	79	34	24	36	●
1734SU03C-0640	*	6.4	8	79	34	24	36	●
1734SU03C-0650	*	6.5	8	79	34	24	36	●
1734SU03C-0660	*	6.6	8	79	34	24	36	●
1734SU03C-0670	*	6.7	8	79	34	24	36	●
1734SU03C-0675	*	6.75	8	79	34	24	36	●
1734SU03C-0680	*	6.8	8	79	34	24	36	●
1734SU03C-0690	*	6.9	8	79	34	24	36	●
1734SU03C-0700	*	7	8	79	34	24	36	●
1734SU03C-0710	*	7.1	8	79	41	29	36	●
1734SU03C-0720	*	7.2	8	79	41	29	36	●
1734SU03C-0730	*	7.3	8	79	41	29	36	●
1734SU03C-0740	*	7.4	8	79	41	29	36	●
1734SU03C-0745	*	7.45	8	79	41	29	36	○
1734SU03C-0750	*	7.5	8	79	41	29	36	●
1734SU03C-0760	*	7.6	8	79	41	29	36	●
1734SU03C-0770	*	7.7	8	79	41	29	36	●
1734SU03C-0780	*	7.8	8	79	41	29	36	●
1734SU03C-0790	*	7.9	8	79	41	29	36	●
1734SU03C-0800	*	8	8	79	41	29	36	●
1734SU03C-0810	*	8.1	10	89	47	35	40	●
1734SU03C-0820	*	8.2	10	89	47	35	40	●
1734SU03C-0830	*	8.3	10	89	47	35	40	●
1734SU03C-0840	*	8.4	10	89	47	35	40	●
1734SU03C-0850	*	8.5	10	89	47	35	40	●
1734SU03C-0860	*	8.6	10	89	47	35	40	●
1734SU03C-0870	*	8.7	10	89	47	35	40	●
1734SU03C-0880	*	8.8	10	89	47	35	40	●
1734SU03C-0890	*	8.9	10	89	47	35	40	●
1734SU03C-0900	*	9	10	89	47	35	40	●
1734SU03C-0910	*	9.1	10	89	47	35	40	●
1734SU03C-0920	*	9.2	10	89	47	35	40	●
1734SU03C-0930	*	9.3	10	89	47	35	40	●
1734SU03C-0935	*	9.35	10	89	47	35	40	○

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1734SU*	✓	✓	✓			
1734SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SU(K) drill 3xD **General machining** Add K (SUK) to the code for use on Cast Iron

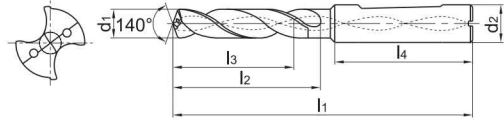
1734SU03C



- Whistle Notch clamping surface
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1734SU03C-0940	*	9.4	10	89	47	35	40	●
1734SU03C-0945	*	9.45	10	89	47	35	40	○
1734SU03C-0950	*	9.5	10	89	47	35	40	●
1734SU03C-0960	*	9.6	10	89	47	35	40	●
1734SU03C-0970	*	9.7	10	89	47	35	40	●
1734SU03C-0980	*	9.8	10	89	47	35	40	●
1734SU03C-0990	*	9.9	10	89	47	35	40	●
1734SU03C-1000	*	10	10	89	47	35	40	●
1734SU03C-1010	*	10.1	12	102	55	40	45	●
1734SU03C-1020	*	10.2	12	102	55	40	45	●
1734SU03C-1025	*	10.25	12	102	55	40	45	●
1734SU03C-1030	*	10.3	12	102	55	40	45	●
1734SU03C-1040	*	10.4	12	102	55	40	45	●
1734SU03C-1050	*	10.5	12	102	55	40	45	●
1734SU03C-1060	*	10.6	12	102	55	40	45	●
1734SU03C-1070	*	10.7	12	102	55	40	45	●
1734SU03C-1080	*	10.8	12	102	55	40	45	●
1734SU03C-1090	*	10.9	12	102	55	40	45	●
1734SU03C-1100	*	11	12	102	55	40	45	●
1734SU03C-1110	*	11.1	12	102	55	40	45	●
1734SU03C-1120	*	11.2	12	102	55	40	45	●
1734SU03C-1125	*	11.25	12	102	55	40	45	○
1734SU03C-1130	*	11.3	12	102	55	40	45	●
1734SU03C-1135	*	11.35	12	102	55	40	45	○
1734SU03C-1140	*	11.4	12	102	55	40	45	●
1734SU03C-1145	*	11.45	12	102	55	40	45	○
1734SU03C-1150	*	11.5	12	102	55	40	45	●
1734SU03C-1160	*	11.6	12	102	55	40	45	●
1734SU03C-1170	*	11.7	12	102	55	40	45	●
1734SU03C-1180	*	11.8	12	102	55	40	45	●
1734SU03C-1190	*	11.9	12	102	55	40	45	●
1734SU03C-1200	*	12	12	102	55	40	45	●
1734SU03C-1210	*	12.1	14	107	60	43	45	●
1734SU03C-1220	*	12.2	14	107	60	43	45	●
1734SU03C-1225	*	12.25	14	107	60	43	45	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1734SU*	✓	✓	✓			
1734SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 3xD

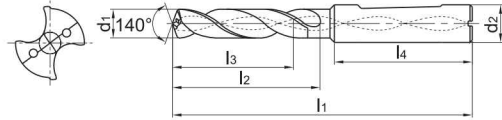
General machining

Add K (SUK) to the code for use on Cast Iron

1734SU03C



- Whistle Notch clamping surface
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1734SU03C-1230	*	12.3	14	107	60	43	45	●
1734SU03C-1250	*	12.5	14	107	60	43	45	●
1734SU03C-1270	*	12.7	14	107	60	43	45	●
1734SU03C-1275	*	12.75	14	107	60	43	45	●
1734SU03C-1280	*	12.8	14	107	60	43	45	●
1734SU03C-1300	*	13	14	107	60	43	45	●
1734SU03C-1310	*	13.1	14	107	60	43	45	●
1734SU03C-1335	*	13.35	14	107	60	43	45	○
1734SU03C-1350	*	13.5	14	107	60	43	45	●
1734SU03C-1380	*	13.8	14	107	60	43	45	●
1734SU03C-1400	*	14	14	107	60	43	45	●
1734SU03C-1420	*	14.2	16	107	60	43	45	●
1734SU03C-1425	*	14.25	16	115	65	45	48	●
1734SU03C-1430	*	14.3	16	115	65	45	48	●
1734SU03C-1450	*	14.5	16	115	65	45	48	●
1734SU03C-1475	*	14.75	16	115	65	45	48	●
1734SU03C-1480	*	14.8	16	115	65	45	48	●
1734SU03C-1500	*	15	16	115	65	45	48	●
1734SU03C-1510	*	15.1	16	115	65	45	48	●
1734SU03C-1535	*	15.35	16	115	65	45	48	○
1734SU03C-1550	*	15.5	16	115	65	45	48	●
1734SU03C-1580	*	15.8	16	115	65	45	48	●
1734SU03C-1600	*	16	16	115	65	45	48	●
1734SU03C-1650	*	16.5	18	123	73	51	48	●
1734SU03C-1675	*	16.75	18	123	73	51	48	●
1734SU03C-1680	*	16.8	18	123	73	51	48	●
1734SU03C-1700	*	17	18	123	73	51	48	●
1734SU03C-1750	*	17.5	18	123	73	51	48	●
1734SU03C-1780	*	17.8	18	123	73	51	48	●
1734SU03C-1800	*	18	18	123	73	51	48	●
1734SU03C-1850	*	18.5	20	131	79	55	50	●
1734SU03C-1880	*	18.8	20	131	79	55	50	●
1734SU03C-1900	*	19	20	131	79	55	50	●
1734SU03C-1950	*	19.5	20	131	79	55	50	●
1734SU03C-1980	*	19.8	20	131	79	55	50	●
1734SU03C-2000	*	20	20	131	79	55	50	●

- Ex stock ○ On demand
- All articles SUK on demand
- * With internal cooling

Application field						
Type	P	M	K	N	S	H
1734SU*	✓	✓	✓			
1734SUK*			✓			

- ✓ Very suitable
- ✓ Suitable



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SU(K) drill 5xD

General machining

Add K (SUK) to the code for use on Cast Iron

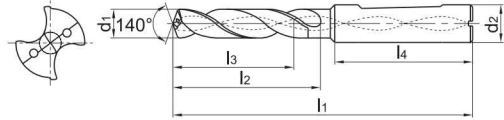
1736SU05C



- Whistle Notch clamping surface
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1736SU05C-0300	*	3	6	66	28	23	36	●
1736SU05C-0310	*	3.1	6	66	28	23	36	●
1736SU05C-0320	*	3.2	6	66	28	23	36	●
1736SU05C-0325	*	3.25	6	66	28	23	36	○
1736SU05C-0330	*	3.3	6	66	28	23	36	●
1736SU05C-0340	*	3.4	6	66	28	23	36	●
1736SU05C-0350	*	3.5	6	66	28	23	36	●
1736SU05C-0360	*	3.6	6	66	28	23	36	●
1736SU05C-0370	*	3.7	6	66	28	23	36	●
1736SU05C-0380	*	3.8	6	74	36	29	36	●
1736SU05C-0390	*	3.9	6	74	36	29	36	●
1736SU05C-0400	*	4	6	74	36	29	36	●
1736SU05C-0410	*	4.1	6	74	36	29	36	●
1736SU05C-0420	*	4.2	6	74	36	29	36	●
1736SU05C-0430	*	4.3	6	74	36	29	36	●
1736SU05C-0440	*	4.4	6	74	36	29	36	●
1736SU05C-0450	*	4.5	6	74	36	29	36	●
1736SU05C-0460	*	4.6	6	74	36	29	36	●
1736SU05C-0465	*	4.65	6	74	36	29	36	○
1736SU05C-0470	*	4.7	6	74	36	29	36	●
1736SU05C-0480	*	4.8	6	82	44	35	36	●
1736SU05C-0490	*	4.9	6	82	44	35	36	●
1736SU05C-0500	*	5	6	82	44	35	36	●
1736SU05C-0510	*	5.1	6	82	44	35	36	●
1736SU05C-0520	*	5.2	6	82	44	35	36	●
1736SU05C-0530	*	5.3	6	82	44	35	36	●
1736SU05C-0540	*	5.4	6	82	44	35	36	●
1736SU05C-0550	*	5.5	6	82	44	35	36	●
1736SU05C-0555	*	5.55	6	82	44	35	36	●
1736SU05C-0560	*	5.6	6	82	44	35	36	●
1736SU05C-0570	*	5.7	6	82	44	35	36	●
1736SU05C-0580	*	5.8	6	82	44	35	36	●
1736SU05C-0590	*	5.9	6	82	44	35	36	●
1736SU05C-0600	*	6	6	82	44	35	36	●
1736SU05C-0610	*	6.1	8	91	53	43	36	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1736SU*	✓	✓	✓			
1736SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 5xD

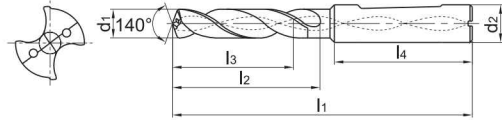
General machining

Add K (SUK) to the code for use on Cast Iron

1736SU05C



- Whistle Notch clamping surface
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1736SU05C-0620	*	6.2	8	91	53	43	36	●
1736SU05C-0630	*	6.3	8	91	53	43	36	●
1736SU05C-0640	*	6.4	8	91	53	43	36	●
1736SU05C-0650	*	6.5	8	91	53	43	36	●
1736SU05C-0660	*	6.6	8	91	53	43	36	●
1736SU05C-0670	*	6.7	8	91	53	43	36	●
1736SU05C-0675	*	6.75	8	91	53	43	36	●
1736SU05C-0680	*	6.8	8	91	53	43	36	●
1736SU05C-0690	*	6.9	8	91	53	43	36	●
1736SU05C-0700	*	7	8	91	53	43	36	●
1736SU05C-0710	*	7.1	8	91	53	43	36	●
1736SU05C-0720	*	7.2	8	91	53	43	36	●
1736SU05C-0730	*	7.3	8	91	53	43	36	●
1736SU05C-0740	*	7.4	8	91	53	43	36	●
1736SU05C-0745	*	7.45	8	91	53	43	36	○
1736SU05C-0750	*	7.5	8	91	53	43	36	●
1736SU05C-0760	*	7.6	8	91	53	43	36	●
1736SU05C-0770	*	7.7	8	91	53	43	36	●
1736SU05C-0780	*	7.8	8	91	53	43	36	●
1736SU05C-0790	*	7.9	8	91	53	43	36	●
1736SU05C-0800	*	8	8	91	53	43	36	●
1736SU05C-0810	*	8.1	10	103	61	49	40	●
1736SU05C-0820	*	8.2	10	103	61	49	40	●
1736SU05C-0830	*	8.3	10	103	61	49	40	●
1736SU05C-0840	*	8.4	10	103	61	49	40	●
1736SU05C-0850	*	8.5	10	103	61	49	40	●
1736SU05C-0860	*	8.6	10	103	61	49	40	●
1736SU05C-0870	*	8.7	10	103	61	49	40	●
1736SU05C-0880	*	8.8	10	103	61	49	40	●
1736SU05C-0890	*	8.9	10	103	61	49	40	●
1736SU05C-0900	*	9	10	103	61	49	40	●
1736SU05C-0910	*	9.1	10	103	61	49	40	●
1736SU05C-0920	*	9.2	10	103	61	49	40	●
1736SU05C-0930	*	9.3	10	103	61	49	40	●
1736SU05C-0935	*	9.35	10	103	61	49	40	○

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1736SU*	✓	✓	✓			
1736SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SU(K) drill 5xD **General machining** Add K (SUK) to the code for use on Cast Iron

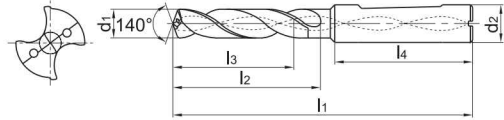
1736SU05C



- Whistle Notch clamping surface
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1736SU05C-0940	*	9.4	10	103	61	49	40	●
1736SU05C-0945	*	9.45	10	103	61	49	40	○
1736SU05C-0950	*	9.5	10	103	61	49	40	●
1736SU05C-0960	*	9.6	10	103	61	49	40	●
1736SU05C-0970	*	9.7	10	103	61	49	40	●
1736SU05C-0980	*	9.8	10	103	61	49	40	●
1736SU05C-0990	*	9.9	10	103	61	49	40	●
1736SU05C-1000	*	10	10	103	61	49	40	●
1736SU05C-1010	*	10.1	12	118	71	56	45	●
1736SU05C-1020	*	10.2	12	118	71	56	45	●
1736SU05C-1025	*	10.25	12	118	71	56	45	●
1736SU05C-1030	*	10.3	12	118	71	56	45	●
1736SU05C-1040	*	10.4	12	118	71	56	45	●
1736SU05C-1050	*	10.5	12	118	71	56	45	●
1736SU05C-1060	*	10.6	12	118	71	56	45	●
1736SU05C-1070	*	10.7	12	118	71	56	45	●
1736SU05C-1080	*	10.8	12	118	71	56	45	●
1736SU05C-1090	*	10.9	12	118	71	56	45	●
1736SU05C-1100	*	11	12	118	71	56	45	●
1736SU05C-1110	*	11.1	12	118	71	56	45	●
1736SU05C-1120	*	11.2	12	118	71	56	45	●
1736SU05C-1125	*	11.25	12	118	71	56	45	○
1736SU05C-1130	*	11.3	12	118	71	56	45	●
1736SU05C-1135	*	11.35	12	118	71	56	45	○
1736SU05C-1140	*	11.4	12	118	71	56	45	●
1736SU05C-1145	*	11.45	12	118	71	56	45	○
1736SU05C-1150	*	11.5	12	118	71	56	45	●
1736SU05C-1160	*	11.6	12	118	71	56	45	●
1736SU05C-1170	*	11.7	12	118	71	56	45	●
1736SU05C-1180	*	11.8	12	118	71	56	45	●
1736SU05C-1190	*	11.9	12	118	71	56	45	●
1736SU05C-1200	*	12	12	118	71	56	45	●
1736SU05C-1210	*	12.1	14	124	77	60	45	●
1736SU05C-1220	*	12.2	14	124	77	60	45	●
1736SU05C-1225	*	12.25	14	124	77	60	45	○

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1736SU*	✓	✓	✓			
1736SUK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SU(K) drill 5xD

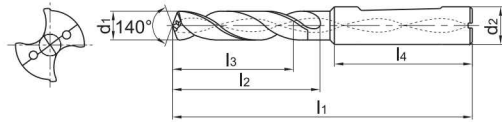
General machining

Add K (SUK) to the code for use on Cast Iron

1736SU05C



- Whistle Notch clamping surface
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1736SU05C-1230	*	12.3	14	124	77	60	45	●
1736SU05C-1250	*	12.5	14	124	77	60	45	●
1736SU05C-1270	*	12.7	14	124	77	60	45	●
1736SU05C-1275	*	12.75	14	124	77	60	45	●
1736SU05C-1280	*	12.8	14	124	77	60	45	●
1736SU05C-1300	*	13	14	124	77	60	45	●
1736SU05C-1310	*	13.1	14	124	77	60	45	●
1736SU05C-1335	*	13.35	14	124	77	60	56	○
1736SU05C-1350	*	13.5	14	124	77	60	45	●
1736SU05C-1380	*	13.8	14	124	77	60	45	●
1736SU05C-1400	*	14	14	124	77	60	45	●
1736SU05C-1420	*	14.2	16	124	77	60	45	●
1736SU05C-1425	*	14.25	16	133	83	63	48	●
1736SU05C-1430	*	14.3	16	133	83	63	48	●
1736SU05C-1450	*	14.5	16	133	83	63	48	●
1736SU05C-1475	*	14.75	16	133	83	63	48	●
1736SU05C-1480	*	14.8	16	133	83	63	48	●
1736SU05C-1500	*	15	16	133	83	63	48	●
1736SU05C-1510	*	15.1	16	133	83	63	48	●
1736SU05C-1535	*	15.35	16	133	83	63	48	○
1736SU05C-1550	*	15.5	16	133	83	63	48	●
1736SU05C-1580	*	15.8	16	133	83	63	48	●
1736SU05C-1600	*	16	16	133	83	63	48	●
1736SU05C-1650	*	16.5	18	143	93	71	48	●
1736SU05C-1675	*	16.75	18	143	93	71	48	●
1736SU05C-1680	*	16.8	18	143	93	71	48	●
1736SU05C-1700	*	17	18	143	93	71	48	●
1736SU05C-1750	*	17.5	18	143	93	71	48	●
1736SU05C-1780	*	17.8	18	143	93	71	48	●
1736SU05C-1800	*	18	18	143	93	71	48	●
1736SU05C-1850	*	18.5	20	153	101	77	50	●
1736SU05C-1880	*	18.8	20	153	101	77	50	●
1736SU05C-1900	*	19	20	153	101	77	50	●
1736SU05C-1950	*	19.5	20	153	101	77	50	●
1736SU05C-1980	*	19.8	20	153	101	77	50	●
1736SU05C-2000	*	20	20	153	101	77	50	●

● Ex stock ○ On demand

All articles SUK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1736SU*	✓	✓	✓			
1736SUK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SU drill 3xD General machining

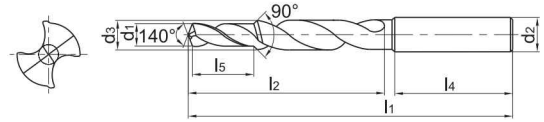
1557SU03



– Type of shank DIN 6535HA



External coolant



Turning

B

Article	*	Dimensions [mm]							Grade
		d ₁ (m8)	d ₂ (h6)	d ₃ (m7)	l ₁	l ₂	l ₄	l ₅	
1557SU03-M4		3.3	6	4.5	66	28	36	11.4	●
1557SU03-M5		4.2	6	6	66	28	36	13.6	●
1557SU03-M6		5	8	7	79	41	36	16.5	●
1557SU03-M8		6.75	10	9.5	89	47	40	21	●
1557SU03-M8x1.0		7	10	9.8	89	47	40	21	○
1557SU03-M10		8.5	12	12	102	55	45	25.5	●
1557SU03-M10x1.0		9	12	12	102	55	45	25.5	○
1557SU03-M12		10.25	14	14	107	60	45	30	●
1557SU03-M14		12	16	16	115	65	48	34.5	●
1557SU03-M16		14	18	18	123	73	48	38.5	●

● Ex stock ○ On demand

* With internal cooling

Milling

C

Application field						
P	M	K	N	S	H	
✓	✓	✓				✓ Very suitable
						✓ Suitable

Drilling

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System code > C44

Machining instructions > C201

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SL(K) drill 10xD **General machining** Add K (SLK) to the code for use on Cast Iron

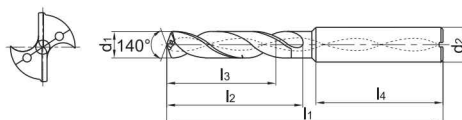
1588SL10C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL10C-0300	*	3	6	80	43	39	36	●
1588SL10C-0310	*	3.1	6	80	43	39	36	○
1588SL10C-0320	*	3.2	6	80	43	39	36	●
1588SL10C-0330	*	3.3	6	80	43	39	36	●
1588SL10C-0340	*	3.4	6	80	43	39	36	●
1588SL10C-0350	*	3.5	6	80	43	39	36	●
1588SL10C-0360	*	3.6	6	80	43	39	36	●
1588SL10C-0370	*	3.7	6	80	43	39	36	●
1588SL10C-0380	*	3.8	6	80	43	39	36	●
1588SL10C-0390	*	3.9	6	80	43	39	36	●
1588SL10C-0400	*	4	6	92	55	50	36	●
1588SL10C-0410	*	4.1	6	92	55	50	36	●
1588SL10C-0420	*	4.2	6	92	55	50	36	●
1588SL10C-0430	*	4.3	6	92	55	50	36	●
1588SL10C-0440	*	4.4	6	92	55	50	36	●
1588SL10C-0450	*	4.5	6	92	55	50	36	●
1588SL10C-0460	*	4.6	6	92	55	50	36	●
1588SL10C-0470	*	4.7	6	92	55	50	36	●
1588SL10C-0480	*	4.8	6	92	55	50	36	●
1588SL10C-0490	*	4.9	6	92	55	50	36	●
1588SL10C-0500	*	5	6	104	68	61	36	●
1588SL10C-0510	*	5.1	6	104	68	61	36	●
1588SL10C-0520	*	5.2	6	104	68	61	36	●
1588SL10C-0530	*	5.3	6	104	68	61	36	●
1588SL10C-0540	*	5.4	6	104	68	61	36	●
1588SL10C-0550	*	5.5	6	104	68	61	36	●
1588SL10C-0560	*	5.6	6	104	68	61	36	●
1588SL10C-0570	*	5.7	6	104	68	61	36	●
1588SL10C-0580	*	5.8	6	104	68	61	36	●
1588SL10C-0590	*	5.9	6	104	68	61	36	●
1588SL10C-0600	*	6	6	104	68	61	36	●
1588SL10C-0610	*	6.1	8	117	80	71	36	●
1588SL10C-0620	*	6.2	8	117	80	71	36	●
1588SL10C-0630	*	6.3	8	117	80	71	36	●
1588SL10C-0640	*	6.4	8	117	80	71	36	●

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SL(K) drill 10xD **General machining** Add K (SLK) to the code for use on Cast Iron

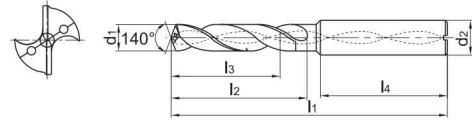
1588SL10C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL10C-0650	*	6.5	8	117	80	71	36	●
1588SL10C-0660	*	6.6	8	117	80	71	36	●
1588SL10C-0670	*	6.7	8	117	80	71	36	●
1588SL10C-0680	*	6.8	8	117	80	71	36	●
1588SL10C-0690	*	6.9	8	117	80	71	36	●
1588SL10C-0700	*	7	8	117	80	71	36	●
1588SL10C-0710	*	7.1	8	130	94	84	36	●
1588SL10C-0720	*	7.2	8	130	94	84	36	●
1588SL10C-0730	*	7.3	8	130	94	84	36	●
1588SL10C-0740	*	7.4	8	130	94	84	36	●
1588SL10C-0750	*	7.5	8	130	94	84	36	●
1588SL10C-0760	*	7.6	8	130	94	84	36	●
1588SL10C-0770	*	7.7	8	130	94	84	36	●
1588SL10C-0780	*	7.8	8	130	94	84	36	●
1588SL10C-0790	*	7.9	8	130	94	84	36	●
1588SL10C-0800	*	8	8	130	94	84	36	●
1588SL10C-0810	*	8.1	10	148	105	94	40	●
1588SL10C-0820	*	8.2	10	148	105	94	40	●
1588SL10C-0830	*	8.3	10	148	105	94	40	●
1588SL10C-0840	*	8.4	10	148	105	94	40	●
1588SL10C-0850	*	8.5	10	148	105	94	40	●
1588SL10C-0860	*	8.6	10	148	105	94	40	●
1588SL10C-0870	*	8.7	10	148	105	94	40	●
1588SL10C-0880	*	8.8	10	148	105	94	40	●
1588SL10C-0890	*	8.9	10	148	105	94	40	●
1588SL10C-0900	*	9	10	148	105	94	40	●
1588SL10C-0910	*	9.1	10	158	115	103	40	●
1588SL10C-0920	*	9.2	10	158	115	103	40	●
1588SL10C-0930	*	9.3	10	158	115	103	40	●
1588SL10C-0940	*	9.4	10	158	115	103	40	●
1588SL10C-0950	*	9.5	10	158	115	103	40	●
1588SL10C-0960	*	9.6	10	158	115	103	40	●
1588SL10C-0970	*	9.7	10	158	115	103	40	●
1588SL10C-0980	*	9.8	10	158	115	103	40	●
1588SL10C-0990	*	9.9	10	158	115	103	40	●

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SL(K) drill 10xD **General machining** Add K (SLK) to the code for use on Cast Iron

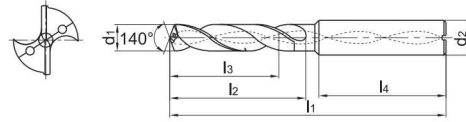
1588SL10C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL10C-1000	*	10	10	158	115	103	40	●
1588SL10C-1010	*	10.1	12	183	135	121	45	●
1588SL10C-1020	*	10.2	12	183	135	121	45	●
1588SL10C-1030	*	10.3	12	183	135	121	45	●
1588SL10C-1040	*	10.4	12	183	135	121	45	●
1588SL10C-1050	*	10.5	12	183	135	121	45	●
1588SL10C-1060	*	10.6	12	183	135	121	45	●
1588SL10C-1070	*	10.7	12	183	135	121	45	●
1588SL10C-1080	*	10.8	12	183	135	121	45	●
1588SL10C-1090	*	10.9	12	183	135	121	45	●
1588SL10C-1100	*	11	12	183	135	121	45	●
1588SL10C-1110	*	11.1	12	183	135	121	45	●
1588SL10C-1120	*	11.2	12	183	135	121	45	●
1588SL10C-1130	*	11.3	12	183	135	121	45	●
1588SL10C-1140	*	11.4	12	183	135	121	45	●
1588SL10C-1150	*	11.5	12	183	135	121	45	●
1588SL10C-1160	*	11.6	12	183	135	121	45	●
1588SL10C-1170	*	11.7	12	183	135	121	45	●
1588SL10C-1180	*	11.8	12	183	135	121	45	●
1588SL10C-1190	*	11.9	12	183	135	121	45	●
1588SL10C-1200	*	12	12	183	135	121	45	●
1588SL10C-1225	*	12.25	14	209	160	144	45	●
1588SL10C-1250	*	12.5	14	209	160	144	45	●
1588SL10C-1270	*	12.7	14	209	160	144	45	●
1588SL10C-1275	*	12.75	14	209	160	144	45	●
1588SL10C-1280	*	12.8	14	209	160	144	45	●
1588SL10C-1300	*	13	14	209	160	144	45	●
1588SL10C-1310	*	13.1	14	209	160	144	45	●
1588SL10C-1350	*	13.5	14	209	160	144	45	●
1588SL10C-1380	*	13.8	14	209	160	144	45	●
1588SL10C-1400	*	14	14	209	160	144	45	●

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



SL(K) drill 12xD General machining Add K (SLK) to the code for use on Cast Iron

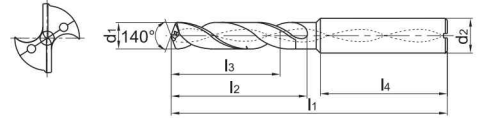
1588SL12C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL12C-0300	*	3	6	90	50	40	36	●
1588SL12C-0310	*	3.1	6	90	50	40	36	●
1588SL12C-0320	*	3.2	6	90	50	40	36	●
1588SL12C-0330	*	3.3	6	90	50	40	36	●
1588SL12C-0340	*	3.4	6	90	50	40	36	●
1588SL12C-0350	*	3.5	6	90	50	40	36	●
1588SL12C-0360	*	3.6	6	90	50	40	36	●
1588SL12C-0370	*	3.7	6	90	50	46	36	●
1588SL12C-0380	*	3.8	6	90	50	46	36	●
1588SL12C-0390	*	3.9	6	90	50	46	36	●
1588SL12C-0400	*	4	6	102	64	56	36	●
1588SL12C-0410	*	4.1	6	102	64	56	36	●
1588SL12C-0420	*	4.2	6	102	64	56	36	●
1588SL12C-0430	*	4.3	6	102	64	56	36	●
1588SL12C-0440	*	4.4	6	102	64	56	36	●
1588SL12C-0450	*	4.5	6	102	64	56	36	●
1588SL12C-0460	*	4.6	6	102	64	56	36	●
1588SL12C-0470	*	4.7	6	102	64	56	36	●
1588SL12C-0480	*	4.8	6	102	64	56	36	●
1588SL12C-0490	*	4.9	6	102	64	56	36	●
1588SL12C-0500	*	5	6	116	78	72	36	●
1588SL12C-0510	*	5.1	6	116	78	72	36	●
1588SL12C-0520	*	5.2	6	116	78	72	36	●
1588SL12C-0530	*	5.3	6	116	78	72	36	○
1588SL12C-0540	*	5.4	6	116	78	72	36	○
1588SL12C-0550	*	5.5	6	116	78	72	36	●
1588SL12C-0560	*	5.6	6	116	78	72	36	●
1588SL12C-0570	*	5.7	6	116	78	72	36	●
1588SL12C-0580	*	5.8	6	116	78	72	36	●
1588SL12C-0590	*	5.9	6	116	78	72	36	●
1588SL12C-0600	*	6	6	116	78	72	36	●
1588SL12C-0610	*	6.1	8	131	93	84	36	●
1588SL12C-0620	*	6.2	8	131	93	84	36	●
1588SL12C-0630	*	6.3	8	131	93	84	36	●
1588SL12C-0640	*	6.4	8	131	93	84	36	●

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SL(K) drill 12xD **General machining** Add K (SLK) to the code for use on Cast Iron

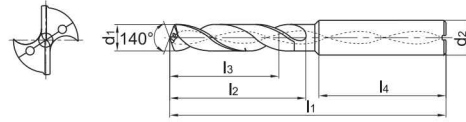
1588SL12C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL12C-0650	*	6.5	8	131	93	84	36	●
1588SL12C-0660	*	6.6	8	131	93	84	36	●
1588SL12C-0670	*	6.7	8	131	93	84	36	●
1588SL12C-0680	*	6.8	8	131	93	84	36	●
1588SL12C-0690	*	6.9	8	131	93	84	36	●
1588SL12C-0700	*	7	8	131	93	84	36	●
1588SL12C-0710	*	7.1	8	146	108	96	36	●
1588SL12C-0720	*	7.2	8	146	108	96	36	●
1588SL12C-0730	*	7.3	8	146	108	96	36	●
1588SL12C-0740	*	7.4	8	146	108	96	36	●
1588SL12C-0750	*	7.5	8	146	108	96	36	●
1588SL12C-0760	*	7.6	8	146	108	96	36	○
1588SL12C-0770	*	7.7	8	146	108	96	36	○
1588SL12C-0780	*	7.8	8	146	108	96	36	●
1588SL12C-0790	*	7.9	8	146	108	96	36	○
1588SL12C-0800	*	8	8	146	108	96	36	●
1588SL12C-0810	*	8.1	10	162	120	108	40	●
1588SL12C-0820	*	8.2	10	162	120	108	40	●
1588SL12C-0830	*	8.3	10	162	120	108	40	●
1588SL12C-0840	*	8.4	10	162	120	108	40	●
1588SL12C-0850	*	8.5	10	162	120	108	40	●
1588SL12C-0860	*	8.6	10	162	120	108	40	●
1588SL12C-0870	*	8.7	10	162	120	108	40	●
1588SL12C-0880	*	8.8	10	162	120	108	40	●
1588SL12C-0890	*	8.9	10	162	120	108	40	●
1588SL12C-0900	*	9	10	162	120	108	40	●
1588SL12C-0910	*	9.1	10	174	132	120	40	○
1588SL12C-0920	*	9.2	10	174	132	120	40	●
1588SL12C-0930	*	9.3	10	174	132	120	40	●
1588SL12C-0940	*	9.4	10	174	132	120	40	●
1588SL12C-0950	*	9.5	10	174	132	120	40	●
1588SL12C-0960	*	9.6	10	174	132	120	40	○
1588SL12C-0970	*	9.7	10	174	132	120	40	●
1588SL12C-0980	*	9.8	10	174	132	120	40	●
1588SL12C-0990	*	9.9	10	174	132	120	40	○

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



SL(K) drill 12xD General machining Add K (SLK) to the code for use on Cast Iron

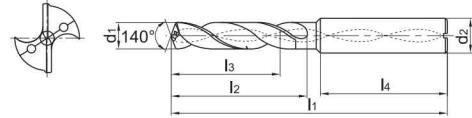
1588SL12C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL12C-1000	*	10	10	174	132	120	40	●
1588SL12C-1010	*	10.1	12	204	156	144	45	●
1588SL12C-1020	*	10.2	12	204	156	144	45	●
1588SL12C-1030	*	10.3	12	204	156	144	45	●
1588SL12C-1040	*	10.4	12	204	156	144	45	●
1588SL12C-1050	*	10.5	12	204	156	144	45	●
1588SL12C-1060	*	10.6	12	204	156	144	45	●
1588SL12C-1070	*	10.7	12	204	156	144	45	○
1588SL12C-1080	*	10.8	12	204	156	144	45	○
1588SL12C-1090	*	10.9	12	204	156	144	45	○
1588SL12C-1100	*	11	12	204	156	144	45	●
1588SL12C-1110	*	11.1	12	204	156	144	45	●
1588SL12C-1120	*	11.2	12	204	156	144	45	●
1588SL12C-1130	*	11.3	12	204	156	144	45	○
1588SL12C-1140	*	11.4	12	204	156	144	45	○
1588SL12C-1150	*	11.5	12	204	156	144	45	●
1588SL12C-1160	*	11.6	12	204	156	144	45	○
1588SL12C-1170	*	11.7	12	204	156	144	45	●
1588SL12C-1180	*	11.8	12	204	156	144	45	●
1588SL12C-1190	*	11.9	12	204	156	144	45	○
1588SL12C-1200	*	12	12	204	156	144	45	●
1588SL12C-1250	*	12.5	14	230	182	168	45	○
1588SL12C-1270	*	12.7	14	230	182	168	45	○
1588SL12C-1280	*	12.8	14	230	182	168	45	○
1588SL12C-1300	*	13	14	230	182	168	45	○
1588SL12C-1350	*	13.5	14	230	182	168	45	○
1588SL12C-1400	*	14	14	230	182	168	45	○
1588SL12C-1450	*	14.5	16	260	208	194	48	○
1588SL12C-1500	*	15	16	260	208	194	48	○
1588SL12C-1550	*	15.5	16	260	208	194	48	○
1588SL12C-1600	*	16	16	260	208	194	48	○
1588SL12C-1650	*	16.5	18	286	234	218	48	○
1588SL12C-1700	*	17	18	286	234	218	48	○
1588SL12C-1750	*	17.5	18	286	234	218	48	○
1588SL12C-1800	*	18	18	286	234	218	48	○

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SL(K) drill 12xD **General machining** Add K (SLK) to the code for use on Cast Iron

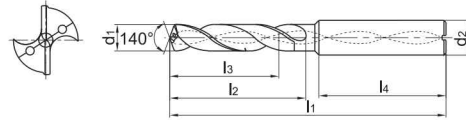
1588SL12C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL12C-1850	*	18.5	20	310	258	240	48	○
1588SL12C-1900	*	19	20	310	258	240	48	○
1588SL12C-1950	*	19.5	20	310	258	240	48	○
1588SL12C-2000	*	20	20	310	258	240	48	○
1588SL12C-2050	*	20.5	22	310	258	240	48	○
1588SL12C-2100	*	21	22	310	258	240	48	○

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

- ✓ Very suitable
- ✓ Suitable

A

Turning

B

Milling

C

Drilling

D

Technical Information

E

Index

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



SL(K) drill 15xD General machining Add K (SLK) to the code for use on Cast Iron

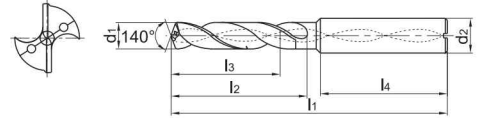
1588SL15C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL15C-0300	*	3	6	100	60	50	36	●
1588SL15C-0310	*	3.1	6	105	65	55	36	●
1588SL15C-0320	*	3.2	6	105	65	55	36	○
1588SL15C-0330	*	3.3	6	105	65	55	36	●
1588SL15C-0335	*	3.35	6	105	65	55	36	○
1588SL15C-0340	*	3.4	6	105	65	55	36	●
1588SL15C-0350	*	3.5	6	105	65	55	36	●
1588SL15C-0360	*	3.6	6	112	72	62	36	○
1588SL15C-0370	*	3.7	6	112	72	68	36	●
1588SL15C-0380	*	3.8	6	112	72	68	36	●
1588SL15C-0390	*	3.9	6	112	72	68	36	○
1588SL15C-0400	*	4	6	112	72	64	36	●
1588SL15C-0410	*	4.1	6	120	80	72	36	○
1588SL15C-0420	*	4.2	6	120	80	72	36	○
1588SL15C-0430	*	4.3	6	120	80	72	36	○
1588SL15C-0440	*	4.4	6	120	80	72	36	○
1588SL15C-0450	*	4.5	6	120	80	72	36	●
1588SL15C-0460	*	4.6	6	128	88	80	36	●
1588SL15C-0470	*	4.7	6	128	88	80	36	○
1588SL15C-0480	*	4.8	6	128	88	80	36	●
1588SL15C-0490	*	4.9	6	128	88	80	36	●
1588SL15C-0500	*	5	6	128	88	82	36	●
1588SL15C-0510	*	5.1	6	136	96	90	36	●
1588SL15C-0520	*	5.2	6	136	96	90	36	○
1588SL15C-0530	*	5.3	6	136	96	90	36	●
1588SL15C-0540	*	5.4	6	136	96	90	36	○
1588SL15C-0550	*	5.5	6	136	96	90	36	○
1588SL15C-0560	*	5.6	6	144	104	98	36	○
1588SL15C-0570	*	5.7	6	144	104	98	36	○
1588SL15C-0580	*	5.8	6	144	104	98	36	○
1588SL15C-0590	*	5.9	6	144	104	98	36	○
1588SL15C-0600	*	6	6	144	104	98	36	○
1588SL15C-0610	*	6.1	8	152	112	103	36	●
1588SL15C-0620	*	6.2	8	152	112	103	36	●
1588SL15C-0630	*	6.3	8	152	112	103	36	○

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SL(K) drill 15xD **General machining** Add K (SLK) to the code for use on Cast Iron

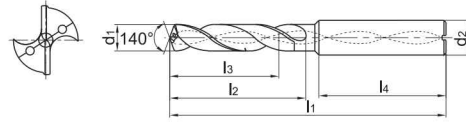
1588SL15C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL15C-0640	*	6.4	8	152	112	103	36	●
1588SL15C-0650	*	6.5	8	152	112	103	36	●
1588SL15C-0660	*	6.6	8	160	120	111	36	○
1588SL15C-0670	*	6.7	8	160	120	111	36	●
1588SL15C-0680	*	6.8	8	160	120	111	36	○
1588SL15C-0690	*	6.9	8	160	120	111	36	○
1588SL15C-0700	*	7	8	160	120	111	36	●
1588SL15C-0710	*	7.1	8	170	130	118	36	○
1588SL15C-0720	*	7.2	8	170	130	118	36	○
1588SL15C-0730	*	7.3	8	170	130	118	36	○
1588SL15C-0740	*	7.4	8	170	130	118	36	○
1588SL15C-0750	*	7.5	8	170	130	118	36	○
1588SL15C-0760	*	7.6	8	180	140	128	36	○
1588SL15C-0770	*	7.7	8	180	140	128	36	○
1588SL15C-0780	*	7.8	8	180	140	128	36	○
1588SL15C-0790	*	7.9	8	180	140	128	36	○
1588SL15C-0800	*	8	8	180	140	128	36	●
1588SL15C-0810	*	8.1	10	194	150	138	40	○
1588SL15C-0820	*	8.2	10	194	150	138	40	○
1588SL15C-0830	*	8.3	10	194	150	138	40	○
1588SL15C-0840	*	8.4	10	194	150	138	40	○
1588SL15C-0850	*	8.5	10	194	150	138	40	●
1588SL15C-0860	*	8.6	10	204	160	148	40	●
1588SL15C-0870	*	8.7	10	204	160	148	40	○
1588SL15C-0880	*	8.8	10	204	160	148	40	●
1588SL15C-0890	*	8.9	10	204	160	148	40	○
1588SL15C-0900	*	9	10	204	160	148	40	○
1588SL15C-0910	*	9.1	10	216	172	160	40	○
1588SL15C-0920	*	9.2	10	216	172	160	40	○
1588SL15C-0930	*	9.3	10	216	172	160	40	○
1588SL15C-0940	*	9.4	10	216	172	160	40	○
1588SL15C-0950	*	9.5	10	216	172	160	40	○
1588SL15C-0960	*	9.6	10	226	182	170	40	○
1588SL15C-0970	*	9.7	10	226	182	170	40	○
1588SL15C-0980	*	9.8	10	226	182	170	40	○

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SL(K) drill 15xD General machining Add K (SLK) to the code for use on Cast Iron

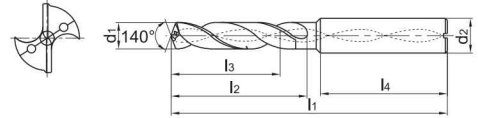
1588SL15C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL15C-0990	*	9.9	10	226	182	170	40	○
1588SL15C-1000	*	10	10	226	182	170	40	●
1588SL15C-1010	*	10.1	12	240	190	178	45	○
1588SL15C-1020	*	10.2	12	240	190	178	45	○
1588SL15C-1030	*	10.3	12	240	190	178	45	○
1588SL15C-1040	*	10.4	12	240	190	178	45	○
1588SL15C-1050	*	10.5	12	240	190	178	45	○
1588SL15C-1060	*	10.6	12	248	198	186	45	○
1588SL15C-1070	*	10.7	12	248	198	186	45	○
1588SL15C-1080	*	10.8	12	248	198	186	45	○
1588SL15C-1090	*	10.9	12	248	198	186	45	○
1588SL15C-1100	*	11	12	248	198	186	45	●
1588SL15C-1110	*	11.1	12	262	212	200	45	○
1588SL15C-1120	*	11.2	12	262	212	200	45	○
1588SL15C-1130	*	11.3	12	262	212	200	45	○
1588SL15C-1140	*	11.4	12	262	212	200	45	○
1588SL15C-1150	*	11.5	12	262	212	200	45	●
1588SL15C-1160	*	11.6	12	272	222	210	45	○
1588SL15C-1170	*	11.7	12	272	222	210	45	○
1588SL15C-1180	*	11.8	12	272	222	210	45	○
1588SL15C-1190	*	11.9	12	272	222	210	45	○
1588SL15C-1200	*	12	12	272	222	210	45	●

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SL(K) drill 20xD **General machining** Add K (SLK) to the code for use on Cast Iron

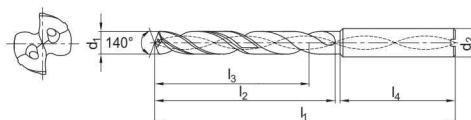
1588SL20C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL20C-0300	*	3	6	110	70	62	36	●
1588SL20C-0310	*	3.1	6	123	83	72	36	●
1588SL20C-0320	*	3.2	6	123	83	72	36	●
1588SL20C-0330	*	3.3	6	123	83	72	36	●
1588SL20C-0340	*	3.4	6	123	83	72	36	●
1588SL20C-0350	*	3.5	6	123	83	72	36	●
1588SL20C-0360	*	3.6	6	136	96	84	36	●
1588SL20C-0370	*	3.7	6	136	96	84	36	●
1588SL20C-0380	*	3.8	6	136	96	84	36	●
1588SL20C-0390	*	3.9	6	136	96	84	36	●
1588SL20C-0400	*	4	6	136	96	84	36	●
1588SL20C-0410	*	4.1	6	148	108	96	36	●
1588SL20C-0420	*	4.2	6	148	108	96	36	●
1588SL20C-0430	*	4.3	6	148	108	96	36	○
1588SL20C-0440	*	4.4	6	148	108	96	36	○
1588SL20C-0450	*	4.5	6	148	108	96	36	●
1588SL20C-0460	*	4.6	6	158	118	106	36	○
1588SL20C-0470	*	4.7	6	158	118	106	36	○
1588SL20C-0480	*	4.8	6	158	118	106	36	●
1588SL20C-0490	*	4.9	6	158	118	106	36	○
1588SL20C-0500	*	5	6	158	118	106	36	●
1588SL20C-0510	*	5.1	6	168	128	116	36	○
1588SL20C-0520	*	5.2	6	168	128	116	36	●
1588SL20C-0530	*	5.3	6	168	128	116	36	●
1588SL20C-0540	*	5.4	6	168	128	116	36	●
1588SL20C-0550	*	5.5	6	168	128	116	36	●
1588SL20C-0560	*	5.6	6	180	140	126	36	○
1588SL20C-0570	*	5.7	6	180	140	126	36	○
1588SL20C-0580	*	5.8	6	180	140	126	36	●
1588SL20C-0590	*	5.9	6	180	140	126	36	○
1588SL20C-0600	*	6	6	180	140	126	36	●
1588SL20C-0610	*	6.1	8	192	150	132	36	○
1588SL20C-0620	*	6.2	8	192	150	132	36	○
1588SL20C-0630	*	6.3	8	192	150	132	36	●
1588SL20C-0640	*	6.4	8	192	150	132	36	○

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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Solid carbide drills SL/SP series

SL(K) drill 20xD **General machining** Add K (SLK) to the code for use on Cast Iron

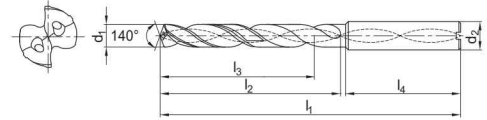
1588SL20C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL20C-0650	*	6.5	8	192	150	132	36	●
1588SL20C-0660	*	6.6	8	202	162	144	36	○
1588SL20C-0670	*	6.7	8	202	162	144	36	○
1588SL20C-0680	*	6.8	8	202	162	144	36	●
1588SL20C-0690	*	6.9	8	202	162	144	36	○
1588SL20C-0700	*	7	8	202	162	144	36	●
1588SL20C-0710	*	7.1	8	213	173	155	36	○
1588SL20C-0720	*	7.2	8	213	173	155	36	○
1588SL20C-0730	*	7.3	8	213	173	155	36	○
1588SL20C-0740	*	7.4	8	213	173	155	36	○
1588SL20C-0750	*	7.5	8	213	173	155	36	●
1588SL20C-0760	*	7.6	8	223	183	165	36	○
1588SL20C-0770	*	7.7	8	223	183	165	36	○
1588SL20C-0780	*	7.8	8	223	183	165	36	○
1588SL20C-0790	*	7.9	8	223	183	165	36	○
1588SL20C-0800	*	8	8	223	183	165	36	●
1588SL20C-0810	*	8.1	10	239	195	176	40	○
1588SL20C-0820	*	8.2	10	239	195	176	40	○
1588SL20C-0830	*	8.3	10	239	195	176	40	○
1588SL20C-0840	*	8.4	10	239	195	176	40	○
1588SL20C-0850	*	8.5	10	239	195	176	40	●
1588SL20C-0860	*	8.6	10	249	205	186	40	○
1588SL20C-0870	*	8.7	10	249	205	186	40	○
1588SL20C-0880	*	8.8	10	249	205	186	40	○
1588SL20C-0890	*	8.9	10	249	205	186	40	○
1588SL20C-0900	*	9	10	249	205	186	40	○
1588SL20C-0910	*	9.1	10	262	218	196	36	○
1588SL20C-0920	*	9.2	10	262	218	196	36	○
1588SL20C-0930	*	9.3	10	262	218	196	36	○
1588SL20C-0940	*	9.4	10	262	218	196	36	○
1588SL20C-0950	*	9.5	10	262	218	196	36	○
1588SL20C-0960	*	9.6	10	272	228	206	40	○
1588SL20C-0970	*	9.7	10	272	228	206	40	○
1588SL20C-0980	*	9.8	10	272	228	206	40	○
1588SL20C-0990	*	9.9	10	272	228	206	40	○

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SL(K) drill 20xD **General machining** Add K (SLK) to the code for use on Cast Iron

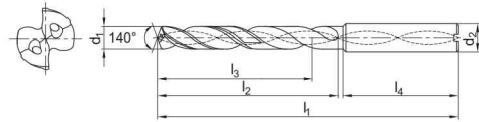
1588SL20C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL20C-1000	*	10	10	272	228	206	40	●
1588SL20C-1010	*	10.1	12	292	242	220	45	○
1588SL20C-1020	*	10.2	12	292	242	220	45	○
1588SL20C-1030	*	10.3	12	292	242	220	45	○
1588SL20C-1040	*	10.4	12	292	242	220	45	○
1588SL20C-1050	*	10.5	12	292	242	220	45	○
1588SL20C-1060	*	10.6	12	300	250	228	45	○
1588SL20C-1070	*	10.7	12	300	250	228	45	○
1588SL20C-1080	*	10.8	12	300	250	228	45	○
1588SL20C-1090	*	10.9	12	300	250	228	45	○
1588SL20C-1100	*	11	12	300	250	228	45	○
1588SL20C-1110	*	11.1	12	315	265	240	45	○
1588SL20C-1120	*	11.2	12	315	265	240	45	○
1588SL20C-1130	*	11.3	12	315	265	240	45	○
1588SL20C-1140	*	11.4	12	315	265	240	45	○
1588SL20C-1150	*	11.5	12	315	265	240	45	○
1588SL20C-1160	*	11.6	12	325	275	250	45	○
1588SL20C-1170	*	11.7	12	325	275	250	45	○
1588SL20C-1180	*	11.8	12	325	275	250	45	○
1588SL20C-1190	*	11.9	12	325	275	250	45	○
1588SL20C-1200	*	12	12	325	275	250	45	○
1588SL20C-1250	*	12.5	14	325	275	250	45	○
1588SL20C-1300	*	13	14	338	290	265	45	○
1588SL20C-1350	*	13.5	14	338	290	265	45	○
1588SL20C-1400	*	14	14	367	318	290	45	○

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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Solid carbide drills SL/SP series

SL(K) drill 30xD

General machining

Add K (SLK) to the code for use on Cast Iron

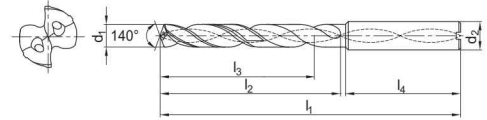
1588SL30C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL30C-0300	*	3	6	140	100	92	36	●
1588SL30C-0310	*	3.1	6	160	120	108	36	○
1588SL30C-0320	*	3.2	6	160	120	108	36	●
1588SL30C-0330	*	3.3	6	160	120	108	36	○
1588SL30C-0340	*	3.4	6	160	120	108	36	●
1588SL30C-0350	*	3.5	6	160	120	108	36	●
1588SL30C-0360	*	3.6	6	176	136	124	36	○
1588SL30C-0370	*	3.7	6	176	136	124	36	○
1588SL30C-0380	*	3.8	6	176	136	124	36	●
1588SL30C-0390	*	3.9	6	176	136	124	36	●
1588SL30C-0400	*	4	6	176	136	124	36	●
1588SL30C-0410	*	4.1	6	192	152	140	36	○
1588SL30C-0420	*	4.2	6	192	152	140	36	○
1588SL30C-0430	*	4.3	6	192	152	140	36	○
1588SL30C-0440	*	4.4	6	192	152	140	36	○
1588SL30C-0450	*	4.5	6	192	152	140	36	●
1588SL30C-0460	*	4.6	6	208	168	156	36	○
1588SL30C-0470	*	4.7	6	208	168	156	36	○
1588SL30C-0480	*	4.8	6	208	168	156	36	●
1588SL30C-0490	*	4.9	6	208	168	156	36	●
1588SL30C-0500	*	5	6	208	168	156	36	●
1588SL30C-0510	*	5.1	6	228	188	170	36	○
1588SL30C-0520	*	5.2	6	228	188	170	36	●
1588SL30C-0530	*	5.3	6	228	188	170	36	○
1588SL30C-0540	*	5.4	6	228	188	170	36	○
1588SL30C-0550	*	5.5	6	228	188	170	36	●
1588SL30C-0560	*	5.6	6	240	200	182	36	○
1588SL30C-0570	*	5.7	6	240	200	182	36	○
1588SL30C-0580	*	5.8	6	240	200	182	36	●
1588SL30C-0590	*	5.9	6	240	200	182	36	○
1588SL30C-0600	*	6	6	240	200	182	36	●
1588SL30C-0610	*	6.1	8	260	220	202	36	○
1588SL30C-0620	*	6.2	8	260	220	202	36	○
1588SL30C-0630	*	6.3	8	260	220	202	36	●
1588SL30C-0640	*	6.4	8	260	220	202	36	○

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field

Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SL(K) drill 30xD **General machining** Add K (SLK) to the code for use on Cast Iron

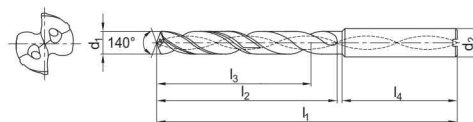
1588SL30C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1588SL30C-0650	*	6.5	8	260	220	202	36	●
1588SL30C-0660	*	6.6	8	272	232	214	36	○
1588SL30C-0670	*	6.7	8	272	232	214	36	○
1588SL30C-0680	*	6.8	8	272	232	214	36	●
1588SL30C-0690	*	6.9	8	272	232	214	36	○
1588SL30C-0700	*	7	8	272	232	214	36	●
1588SL30C-0710	*	7.1	8	290	250	232	36	○
1588SL30C-0720	*	7.2	8	290	250	232	36	○
1588SL30C-0730	*	7.3	8	290	250	232	36	○
1588SL30C-0740	*	7.4	8	290	250	232	36	○
1588SL30C-0750	*	7.5	8	290	250	232	36	○
1588SL30C-0760	*	7.6	8	305	265	246	36	○
1588SL30C-0770	*	7.7	8	305	265	246	36	○
1588SL30C-0780	*	7.8	8	305	265	246	36	○
1588SL30C-0790	*	7.9	8	305	265	246	36	○
1588SL30C-0800	*	8	8	305	265	246	36	●
1588SL30C-0810	*	8.1	10	330	285	265	40	○
1588SL30C-0820	*	8.2	10	330	285	265	40	○
1588SL30C-0830	*	8.3	10	330	285	265	40	○
1588SL30C-0840	*	8.4	10	330	285	265	40	○
1588SL30C-0850	*	8.5	10	330	285	265	40	●
1588SL30C-0860	*	8.6	10	340	295	275	40	○
1588SL30C-0870	*	8.7	10	340	295	275	40	○
1588SL30C-0880	*	8.8	10	340	295	275	40	○
1588SL30C-0890	*	8.9	10	340	295	275	40	○
1588SL30C-0900	*	9	10	340	295	275	40	○
1588SL30C-0910	*	9.1	10	360	315	292	40	○
1588SL30C-0920	*	9.2	10	360	315	292	40	○
1588SL30C-0930	*	9.3	10	360	315	292	40	○
1588SL30C-0940	*	9.4	10	360	315	292	40	○
1588SL30C-0950	*	9.5	10	360	315	292	40	○
1588SL30C-0960	*	9.6	10	372	328	305	40	○
1588SL30C-0970	*	9.7	10	372	328	305	40	○
1588SL30C-0980	*	9.8	10	372	328	305	40	○
1588SL30C-0990	*	9.9	10	372	328	305	40	○
1588SL30C-1000	*	10	10	372	328	305	40	○

● Ex stock ○ On demand

All articles SLK on demand

* With internal cooling

Application field						
Type	P	M	K	N	S	H
1588SL*	✓	✓	✓	✓	✓	
1588SLK*			✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

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SP drill 3xD

General machining

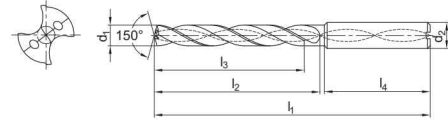
1534SP03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (h7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SP03C-0303	*	3.03	6	62	20	14	36	●
1534SP03C-0313	*	3.13	6	62	20	14	36	○
1534SP03C-0323	*	3.23	6	62	20	14	36	○
1534SP03C-0333	*	3.33	6	62	20	14	36	●
1534SP03C-0343	*	3.43	6	62	20	14	36	●
1534SP03C-0353	*	3.53	6	62	20	14	36	●
1534SP03C-0363	*	3.63	6	62	20	14	36	○
1534SP03C-0373	*	3.73	6	62	20	14	36	○
1534SP03C-0383	*	3.83	6	66	24	17	36	○
1534SP03C-0393	*	3.93	6	66	24	17	36	○
1534SP03C-0403	*	4.03	6	66	24	17	36	●
1534SP03C-0413	*	4.13	6	66	24	17	36	○
1534SP03C-0423	*	4.23	6	66	24	17	36	○
1534SP03C-0433	*	4.33	6	66	24	17	36	○
1534SP03C-0443	*	4.43	6	66	24	17	36	○
1534SP03C-0453	*	4.53	6	66	24	17	36	●
1534SP03C-0463	*	4.63	6	66	24	17	36	○
1534SP03C-0473	*	4.73	6	66	24	17	36	○
1534SP03C-0483	*	4.83	6	66	28	20	36	○
1534SP03C-0493	*	4.93	6	66	28	20	36	○
1534SP03C-0503	*	5.03	6	66	28	20	36	●
1534SP03C-0513	*	5.13	6	66	28	20	36	○
1534SP03C-0523	*	5.23	6	66	28	20	36	○
1534SP03C-0533	*	5.33	6	66	28	20	36	○
1534SP03C-0543	*	5.43	6	66	28	20	36	○
1534SP03C-0553	*	5.53	6	66	28	20	36	●
1534SP03C-0563	*	5.63	6	66	28	20	36	○
1534SP03C-0573	*	5.73	6	66	28	20	36	○
1534SP03C-0583	*	5.83	6	66	28	20	36	○
1534SP03C-0593	*	5.93	6	66	28	20	36	○
1534SP03C-0603	*	6.03	6	66	28	20	36	●
1534SP03C-0613	*	6.13	8	79	34	24	36	○
1534SP03C-0623	*	6.23	8	79	34	24	36	○
1534SP03C-0633	*	6.33	8	79	34	24	36	○
1534SP03C-0643	*	6.43	8	79	34	24	36	○
1534SP03C-0653	*	6.53	8	79	34	24	36	●
1534SP03C-0663	*	6.63	8	79	34	24	36	○

● Ex stock ○ On demand

Pilot drill Ø = Deep drill Ø + 0,03 mm

* With internal cooling

Application field

P	M	K	N	S	H
✓	✓	✓	✓	✓	

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SP drill 3xD

General machining

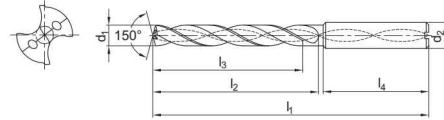
1534SP03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (h7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SP03C-0673	*	6.73	8	79	34	24	36	○
1534SP03C-0683	*	6.83	8	79	34	24	36	○
1534SP03C-0693	*	6.93	8	79	34	24	36	○
1534SP03C-0703	*	7.03	8	79	34	24	36	●
1534SP03C-0713	*	7.13	8	79	41	29	36	○
1534SP03C-0723	*	7.23	8	79	41	29	36	○
1534SP03C-0733	*	7.33	8	79	41	29	36	●
1534SP03C-0743	*	7.43	8	79	41	29	36	○
1534SP03C-0753	*	7.53	8	79	41	29	36	●
1534SP03C-0763	*	7.63	8	79	41	29	36	○
1534SP03C-0773	*	7.73	8	79	41	29	36	○
1534SP03C-0783	*	7.83	8	79	41	29	36	○
1534SP03C-0793	*	7.93	8	79	41	29	36	○
1534SP03C-0803	*	8.03	8	79	41	29	36	●
1534SP03C-0813	*	8.13	10	89	47	35	40	○
1534SP03C-0823	*	8.23	10	89	47	35	40	○
1534SP03C-0833	*	8.33	10	89	47	35	40	●
1534SP03C-0843	*	8.43	10	89	47	35	40	○
1534SP03C-0853	*	8.53	10	89	47	35	40	○
1534SP03C-0863	*	8.63	10	89	47	35	40	○
1534SP03C-0873	*	8.73	10	89	47	35	40	○
1534SP03C-0883	*	8.83	10	89	47	35	40	●
1534SP03C-0893	*	8.93	10	89	47	35	40	○
1534SP03C-0903	*	9.03	10	89	47	35	40	●
1534SP03C-0913	*	9.13	10	89	47	35	40	○
1534SP03C-0923	*	9.23	10	89	47	35	40	○
1534SP03C-0933	*	9.33	10	89	47	35	40	○
1534SP03C-0943	*	9.43	10	89	47	35	40	○
1534SP03C-0953	*	9.53	10	89	47	35	40	●
1534SP03C-0963	*	9.63	10	89	47	35	40	○
1534SP03C-0973	*	9.73	10	89	47	35	40	●
1534SP03C-0983	*	9.83	10	89	47	35	40	●
1534SP03C-0993	*	9.93	10	89	47	35	40	○
1534SP03C-1003	*	10.03	10	89	47	35	40	●
1534SP03C-1013	*	10.13	12	102	55	40	45	○
1534SP03C-1023	*	10.23	12	102	55	40	45	○
1534SP03C-1033	*	10.33	12	102	55	40	45	○

● Ex stock ○ On demand

Pilot drill Ø = Deep drill Ø + 0,03 mm

* With internal cooling

Application field					
P	M	K	N	S	H
✓	✓	✓	✓	✓	

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SP drill 3xD

General machining

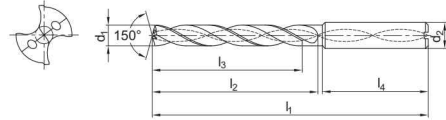
1534SP03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (h7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SP03C-1043	*	10.43	12	102	55	40	45	○
1534SP03C-1053	*	10.53	12	102	55	40	45	●
1534SP03C-1063	*	10.63	12	102	55	40	45	○
1534SP03C-1073	*	10.73	12	102	55	40	45	○
1534SP03C-1083	*	10.83	12	102	55	40	45	●
1534SP03C-1093	*	10.93	12	102	55	40	45	○
1534SP03C-1103	*	11.03	12	102	55	40	45	●
1534SP03C-1113	*	11.13	12	102	55	40	45	○
1534SP03C-1123	*	11.23	12	102	55	40	45	○
1534SP03C-1133	*	11.33	12	102	55	40	45	○
1534SP03C-1143	*	11.43	12	102	55	40	45	○
1534SP03C-1153	*	11.53	12	102	55	40	45	●
1534SP03C-1163	*	11.63	12	102	55	40	45	○
1534SP03C-1173	*	11.73	12	102	55	40	45	○
1534SP03C-1183	*	11.83	12	102	55	40	45	●
1534SP03C-1193	*	11.93	12	102	55	40	45	○
1534SP03C-1203	*	12.03	12	102	55	40	45	●
1534SP03C-1213	*	12.13	14	107	60	43	45	○
1534SP03C-1223	*	12.23	14	107	60	43	45	○
1534SP03C-1233	*	12.33	14	107	60	43	45	○
1534SP03C-1243	*	12.43	14	107	60	43	45	○
1534SP03C-1253	*	12.53	14	107	60	43	45	●
1534SP03C-1263	*	12.63	14	107	60	43	45	○
1534SP03C-1273	*	12.73	14	107	60	43	45	○
1534SP03C-1283	*	12.83	14	107	60	43	45	○
1534SP03C-1293	*	12.93	14	107	60	43	45	○
1534SP03C-1303	*	13.03	14	107	60	43	45	○
1534SP03C-1353	*	13.53	14	107	60	43	45	○
1534SP03C-1403	*	14.03	14	107	60	43	45	○
1534SP03C-1453	*	14.53	16	115	65	45	48	○
1534SP03C-1503	*	15.03	16	115	65	45	48	○
1534SP03C-1553	*	15.53	16	115	65	45	48	○
1534SP03C-1603	*	16.03	16	115	65	45	48	○
1534SP03C-1653	*	16.53	18	123	73	51	48	○
1534SP03C-1703	*	17.03	18	123	73	51	48	○
1534SP03C-1753	*	17.53	18	123	73	51	48	○
1534SP03C-1803	*	18.03	18	123	73	51	48	○

● Ex stock ○ On demand

Pilot drill Ø = Deep drill Ø + 0,03 mm

* With internal cooling

Application field

P	M	K	N	S	H
✓	✓	✓	✓	✓	

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SP drill 3xD

General machining

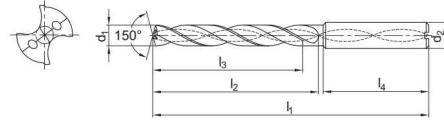
1534SP03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (h7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SP03C-1853	*	18.53	20	131	79	55	50	○
1534SP03C-1903	*	19.03	20	131	79	55	50	○
1534SP03C-1953	*	19.53	20	131	79	55	50	○
1534SP03C-2003	*	20.03	20	131	79	55	50	○

- Ex stock ○ On demand

Pilot drill Ø = Deep drill Ø + 0,03 mm

- * With internal cooling

Application field					
P	M	K	N	S	H
✓	✓	✓	✓	✓	

- ✓ Very suitable
- ✓ Suitable

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IMPORTANT INFORMATION

Recommended applications for the **UD series**

Feed calculator

ISO group	Material	Cutting speed v_c (m/min)	Feed factor F_m
M	Stainless steels	80	0,02
S	Ni- / Co-based alloys	40	0,01
S	Titanium alloys	60	0,012

Formula: feed per revolution (F_n) $D \times F_m$
Example: drill diameter (D) 10 mm
 material stainless steel

$F_n = 10 \text{ mm} \times 0,02 = 0,2 \text{ mm/r}$
--



Fig.: 1536UD05C

UD drill 3xD Steel, stainless steel, heat-resistant alloys

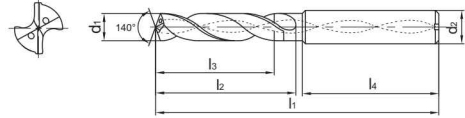
1534UD03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG305
1534UD03C-0300	*	3	6	62	20	14	36	●
1534UD03C-0310	*	3.1	6	62	20	14	36	○
1534UD03C-0320	*	3.2	6	62	20	14	36	○
1534UD03C-0330	*	3.3	6	62	20	14	36	●
1534UD03C-0340	*	3.4	6	62	20	14	36	○
1534UD03C-0350	*	3.5	6	62	20	14	36	●
1534UD03C-0360	*	3.6	6	62	20	14	36	○
1534UD03C-0370	*	3.7	6	62	20	14	36	●
1534UD03C-0380	*	3.8	6	66	24	17	36	○
1534UD03C-0390	*	3.9	6	66	24	17	36	○
1534UD03C-0400	*	4	6	66	24	17	36	●
1534UD03C-0410	*	4.1	6	66	24	17	36	○
1534UD03C-0420	*	4.2	6	66	24	17	36	●
1534UD03C-0430	*	4.3	6	66	24	17	36	●
1534UD03C-0440	*	4.4	6	66	24	17	36	○
1534UD03C-0450	*	4.5	6	66	24	17	36	●
1534UD03C-0460	*	4.6	6	66	24	17	36	○
1534UD03C-0465	*	4.65	6	66	24	17	36	●
1534UD03C-0470	*	4.7	6	66	24	17	36	○
1534UD03C-0480	*	4.8	6	66	28	20	36	●
1534UD03C-0490	*	4.9	6	66	28	20	36	○
1534UD03C-0500	*	5	6	66	28	20	36	●
1534UD03C-0510	*	5.1	6	66	28	20	36	○
1534UD03C-0520	*	5.2	6	66	28	20	36	○
1534UD03C-0530	*	5.3	6	66	28	20	36	○
1534UD03C-0540	*	5.4	6	66	28	20	36	○
1534UD03C-0550	*	5.5	6	66	28	20	36	●
1534UD03C-0560	*	5.6	6	66	28	20	36	○
1534UD03C-0570	*	5.7	6	66	28	20	36	●
1534UD03C-0580	*	5.8	6	66	28	20	36	○
1534UD03C-0590	*	5.9	6	66	28	20	36	●
1534UD03C-0600	*	6	6	66	28	20	36	●
1534UD03C-0610	*	6.1	8	79	34	24	36	○
1534UD03C-0620	*	6.2	8	79	34	24	36	○
1534UD03C-0630	*	6.3	8	79	34	24	36	○
1534UD03C-0640	*	6.4	8	79	34	24	36	○
1534UD03C-0650	*	6.5	8	79	34	24	36	●

- Ex stock ○ On demand
- * With internal cooling

Application field

P	M	K	N	S	H
✓	✓			✓	

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

UD drill 3xD

Steel, stainless steel, heat-resistant alloys

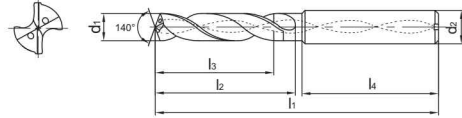
1534UD03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG305
1534UD03C-0660	*	6.6	8	79	34	24	36	○
1534UD03C-0670	*	6.7	8	79	34	24	36	○
1534UD03C-0680	*	6.8	8	79	34	24	36	●
1534UD03C-0690	*	6.9	8	79	34	24	36	○
1534UD03C-0700	*	7	8	79	34	24	36	●
1534UD03C-0710	*	7.1	8	79	41	29	36	○
1534UD03C-0720	*	7.2	8	79	41	29	36	○
1534UD03C-0730	*	7.3	8	79	41	29	36	○
1534UD03C-0740	*	7.4	8	79	41	29	36	●
1534UD03C-0750	*	7.5	8	79	41	29	36	●
1534UD03C-0760	*	7.6	8	79	41	29	36	○
1534UD03C-0770	*	7.7	8	79	41	29	36	○
1534UD03C-0780	*	7.8	8	79	41	29	36	○
1534UD03C-0790	*	7.9	8	79	41	29	36	○
1534UD03C-0800	*	8	8	79	41	29	36	●
1534UD03C-0810	*	8.1	10	89	47	35	40	○
1534UD03C-0820	*	8.2	10	89	47	35	40	○
1534UD03C-0830	*	8.3	10	89	47	35	40	○
1534UD03C-0840	*	8.4	10	89	47	35	40	○
1534UD03C-0850	*	8.5	10	89	47	35	40	●
1534UD03C-0860	*	8.6	10	89	47	35	40	○
1534UD03C-0870	*	8.7	10	89	47	35	40	○
1534UD03C-0880	*	8.8	10	89	47	35	40	●
1534UD03C-0890	*	8.9	10	89	47	35	40	○
1534UD03C-0900	*	9	10	89	47	35	40	●
1534UD03C-0910	*	9.1	10	89	47	35	40	○
1534UD03C-0920	*	9.2	10	89	47	35	40	○
1534UD03C-0930	*	9.3	10	89	47	35	40	●
1534UD03C-0940	*	9.4	10	89	47	35	40	○
1534UD03C-0950	*	9.5	10	89	47	35	40	●
1534UD03C-0960	*	9.6	10	89	47	35	40	○
1534UD03C-0970	*	9.7	10	89	47	35	40	○
1534UD03C-0980	*	9.8	10	89	47	35	40	○
1534UD03C-0990	*	9.9	10	89	47	35	40	○
1534UD03C-1000	*	10	10	89	47	35	40	●
1534UD03C-1020	*	10.2	12	102	55	40	45	●
1534UD03C-1050	*	10.5	12	102	55	40	45	●

- Ex stock ○ On demand
- * With internal cooling

Application field					
P	M	K	N	S	H
✓	✓			✓	

- ✓ Very suitable
- ✓ Suitable

System code > C44 Machining instructions > C201 Cutting data > C144 Nonstandard order > C150



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UD drill 3xD Steel, stainless steel, heat-resistant alloys

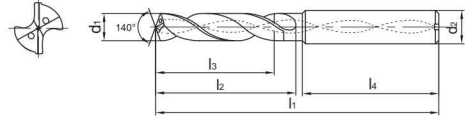
1534UD03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG305
1534UD03C-1100	*	11	12	102	55	40	45	●
1534UD03C-1150	*	11.5	12	102	55	40	45	●
1534UD03C-1200	*	12	12	102	55	40	45	●
1534UD03C-1250	*	12.5	14	107	60	43	45	●
1534UD03C-1300	*	13	14	107	60	43	45	●
1534UD03C-1350	*	13.5	14	107	60	43	45	●
1534UD03C-1400	*	14	14	107	60	43	45	●
1534UD03C-1450	*	14.5	16	115	65	45	48	●
1534UD03C-1500	*	15	16	115	65	45	48	●
1534UD03C-1550	*	15.5	16	115	65	45	48	●
1534UD03C-1600	*	16	16	115	65	45	48	●
1534UD03C-1650	*	16.5	18	123	73	51	48	●
1534UD03C-1700	*	17	18	123	73	51	48	●
1534UD03C-1750	*	17.5	18	123	73	51	48	●
1534UD03C-1800	*	18	18	123	73	51	48	●
1534UD03C-1850	*	18.5	20	131	79	55	50	●
1534UD03C-1900	*	19	20	131	79	55	50	●
1534UD03C-1950	*	19.5	20	131	79	55	50	●
1534UD03C-2000	*	20	20	131	79	55	50	●

- Ex stock ○ On demand
- * With internal cooling

Application field

P	M	K	N	S	H
✓	✓			✓	

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

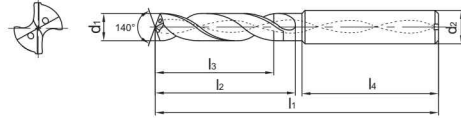
Nonstandard order > C150

UD drill 5xD**Steel, stainless steel, heat-resistant alloys****1536UD05C**

- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG305
1536UD05C-0300	*	3	6	66	28	23	36	●
1536UD05C-0310	*	3.1	6	66	28	23	36	●
1536UD05C-0320	*	3.2	6	66	28	23	36	○
1536UD05C-0330	*	3.3	6	66	28	23	36	●
1536UD05C-0340	*	3.4	6	66	28	23	36	●
1536UD05C-0350	*	3.5	6	66	28	23	36	●
1536UD05C-0360	*	3.6	6	66	28	23	36	○
1536UD05C-0370	*	3.7	6	66	28	23	36	●
1536UD05C-0380	*	3.8	6	74	36	29	36	●
1536UD05C-0390	*	3.9	6	74	36	29	36	○
1536UD05C-0400	*	4	6	74	36	29	36	●
1536UD05C-0410	*	4.1	6	74	36	29	36	○
1536UD05C-0420	*	4.2	6	74	36	29	36	●
1536UD05C-0430	*	4.3	6	74	36	29	36	○
1536UD05C-0440	*	4.4	6	74	36	29	36	○
1536UD05C-0450	*	4.5	6	74	36	29	36	●
1536UD05C-0460	*	4.6	6	74	36	29	36	○
1536UD05C-0465	*	4.65	6	74	36	29	36	●
1536UD05C-0470	*	4.7	6	74	36	29	36	○
1536UD05C-0480	*	4.8	6	82	44	35	36	○
1536UD05C-0490	*	4.9	6	82	44	35	36	○
1536UD05C-0500	*	5	6	82	44	35	36	●
1536UD05C-0510	*	5.1	6	82	44	35	36	●
1536UD05C-0520	*	5.2	6	82	44	35	36	●
1536UD05C-0530	*	5.3	6	82	44	35	36	○
1536UD05C-0540	*	5.4	6	82	44	35	36	○
1536UD05C-0550	*	5.5	6	82	44	35	36	●
1536UD05C-0560	*	5.6	6	82	44	35	36	○
1536UD05C-0570	*	5.7	6	82	44	35	36	○
1536UD05C-0580	*	5.8	6	82	44	35	36	●
1536UD05C-0590	*	5.9	6	82	44	35	36	○
1536UD05C-0600	*	6	6	82	44	35	36	●
1536UD05C-0610	*	6.1	8	91	53	43	36	○
1536UD05C-0620	*	6.2	8	91	53	43	36	○
1536UD05C-0630	*	6.3	8	91	53	43	36	○
1536UD05C-0640	*	6.4	8	91	53	43	36	○
1536UD05C-0650	*	6.5	8	91	53	43	36	●

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
✓	✓			✓	

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



UD drill 5xD Steel, stainless steel, heat-resistant alloys

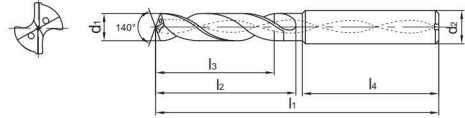
1536UD05C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG305
1536UD05C-0660	*	6.6	8	91	53	43	36	○
1536UD05C-0670	*	6.7	8	91	53	43	36	●
1536UD05C-0680	*	6.8	8	91	53	43	36	●
1536UD05C-0690	*	6.9	8	91	53	43	36	○
1536UD05C-0700	*	7	8	91	53	43	36	●
1536UD05C-0710	*	7.1	8	91	53	43	36	○
1536UD05C-0720	*	7.2	8	91	53	43	36	○
1536UD05C-0730	*	7.3	8	91	53	43	36	○
1536UD05C-0740	*	7.4	8	91	53	43	36	●
1536UD05C-0750	*	7.5	8	91	53	43	36	●
1536UD05C-0760	*	7.6	8	91	53	43	36	○
1536UD05C-0770	*	7.7	8	91	53	43	36	○
1536UD05C-0780	*	7.8	8	91	53	43	36	○
1536UD05C-0790	*	7.9	8	91	53	43	36	○
1536UD05C-0800	*	8	8	91	53	43	36	●
1536UD05C-0810	*	8.1	10	103	61	49	40	○
1536UD05C-0820	*	8.2	10	103	61	49	40	○
1536UD05C-0830	*	8.3	10	103	61	49	40	●
1536UD05C-0840	*	8.4	10	103	61	49	40	●
1536UD05C-0850	*	8.5	10	103	61	49	40	●
1536UD05C-0860	*	8.6	10	103	61	49	40	○
1536UD05C-0870	*	8.7	10	103	61	49	40	○
1536UD05C-0880	*	8.8	10	103	61	49	40	○
1536UD05C-0890	*	8.9	10	103	61	49	40	○
1536UD05C-0900	*	9	10	103	61	49	40	●
1536UD05C-0910	*	9.1	10	103	61	49	40	○
1536UD05C-0920	*	9.2	10	103	61	49	40	○
1536UD05C-0930	*	9.3	10	103	61	49	40	●
1536UD05C-0940	*	9.4	10	103	61	49	40	○
1536UD05C-0950	*	9.5	10	103	61	49	40	●
1536UD05C-0960	*	9.6	10	103	61	49	40	○
1536UD05C-0970	*	9.7	10	103	61	49	40	○
1536UD05C-0980	*	9.8	10	103	61	49	40	○
1536UD05C-0990	*	9.9	10	103	61	49	40	○
1536UD05C-1000	*	10	10	103	61	49	40	●
1536UD05C-1020	*	10.2	12	118	71	56	45	●
1536UD05C-1050	*	10.5	12	118	71	56	45	●

- Ex stock ○ On demand
- * With internal cooling

Application field

P	M	K	N	S	H
✓	✓			✓	

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

UD drill 5xD

Steel, stainless steel, heat-resistant alloys

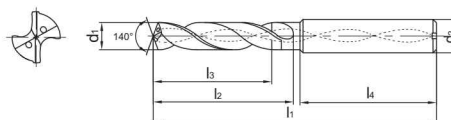
1536UD05C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG305
1536UD05C-1100	*	11	12	118	71	56	45	●
1536UD05C-1150	*	11.5	12	118	71	56	45	●
1536UD05C-1200	*	12	12	118	71	56	45	●
1536UD05C-1250	*	12.5	14	124	77	60	45	●
1536UD05C-1300	*	13	14	124	77	60	45	●
1536UD05C-1350	*	13.5	14	124	77	60	45	●
1536UD05C-1400	*	14	14	124	77	60	45	●
1536UD05C-1450	*	14.5	16	133	83	63	48	●
1536UD05C-1500	*	15	16	133	83	63	48	●
1536UD05C-1550	*	15.5	16	133	83	63	48	●
1536UD05C-1600	*	16	16	133	83	63	48	●
1536UD05C-1650	*	16.5	18	143	93	71	48	●
1536UD05C-1700	*	17	18	143	93	71	48	●
1536UD05C-1750	*	17.5	18	143	93	71	48	●
1536UD05C-1800	*	18	18	143	93	71	48	●
1536UD05C-1850	*	18.5	20	153	101	77	50	●
1536UD05C-1900	*	19	20	153	101	77	50	●
1536UD05C-1950	*	19.5	20	153	101	77	50	●
1536UD05C-2000	*	20	20	153	101	77	50	●

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
✓	✓			✓	

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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IMPORTANT INFORMATION

Recommended applications for the **GD series**

Feed calculator

ISO group	Material	Cutting speed v_c (m/min)	Feed factor* F_m
P	Low-alloy steel	130	0,04
	High-alloy steel	100	0,03
K	Cast iron	160	0,04
	Cast steel	130	0,03

Formula: feed per revolution (F_n) $D \times F_m$
Example: drill diameter (D) 10 mm
 material high-alloy steel

$$F_n = 10 \text{ mm} \times 0,03 = 0,3 \text{ mm/rev.}$$

*The stated values are maximum values. For unstable clamping set-ups or low-powered machines, we recommend reducing the feed by around 30% for a drill diameter of $\varnothing 12$ mm or greater.



Fig.: 1536GD05C

Solid carbide drills GD series

GD drill 3xD

Steel, cast iron

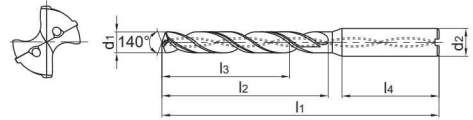
1534GD03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]				Grade		
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂		l ₃	l ₄
1534GD03C-0300	*	3	6	62	20	14	36	●
1534GD03C-0310	*	3.1	6	62	20	14	36	●
1534GD03C-0320	*	3.2	6	62	20	14	36	●
1534GD03C-0330	*	3.3	6	62	20	14	36	●
1534GD03C-0340	*	3.4	6	62	20	14	36	●
1534GD03C-0350	*	3.5	6	62	20	14	36	●
1534GD03C-0360	*	3.6	6	62	20	14	36	●
1534GD03C-0370	*	3.7	6	62	20	14	36	●
1534GD03C-0380	*	3.8	6	66	24	17	36	●
1534GD03C-0390	*	3.9	6	66	24	17	36	●
1534GD03C-0400	*	4	6	66	24	17	36	●
1534GD03C-0410	*	4.1	6	66	24	17	36	●
1534GD03C-0420	*	4.2	6	66	24	17	36	●
1534GD03C-0430	*	4.3	6	66	24	17	36	●
1534GD03C-0440	*	4.4	6	66	24	17	36	●
1534GD03C-0450	*	4.5	6	66	24	17	36	●
1534GD03C-0460	*	4.6	6	66	24	17	36	●
1534GD03C-0465	*	4.65	6	66	24	17	36	●
1534GD03C-0470	*	4.7	6	66	24	17	36	●
1534GD03C-0480	*	4.8	6	66	28	20	36	●
1534GD03C-0490	*	4.9	6	66	28	20	36	●
1534GD03C-0500	*	5	6	66	28	20	36	●
1534GD03C-0510	*	5.1	6	66	28	20	36	●
1534GD03C-0520	*	5.2	6	66	28	20	36	●
1534GD03C-0530	*	5.3	6	66	28	20	36	●
1534GD03C-0540	*	5.4	6	66	28	20	36	●
1534GD03C-0550	*	5.5	6	66	28	20	36	●
1534GD03C-0560	*	5.6	6	66	28	20	36	●
1534GD03C-0570	*	5.7	6	66	28	20	36	●
1534GD03C-0580	*	5.8	6	66	28	20	36	●
1534GD03C-0590	*	5.9	6	66	28	20	36	●
1534GD03C-0600	*	6	6	66	28	20	36	●
1534GD03C-0610	*	6.1	8	79	34	24	36	●
1534GD03C-0620	*	6.2	8	79	34	24	36	●
1534GD03C-0630	*	6.3	8	79	34	24	36	●
1534GD03C-0640	*	6.4	8	79	34	24	36	●
1534GD03C-0650	*	6.5	8	79	34	24	36	●

- Ex stock ○ On demand
- * With internal cooling

Application field

P	M	K	N	S	H
✓		✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

GD drill 3xD

Steel, cast iron

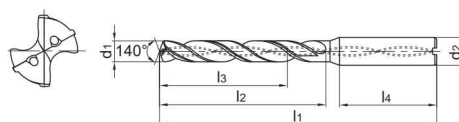
1534GD03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	
1534GD03C-0660	*	6.6	8	79	34	24	36	●
1534GD03C-0670	*	6.7	8	79	34	24	36	●
1534GD03C-0680	*	6.8	8	79	34	24	36	●
1534GD03C-0690	*	6.9	8	79	34	24	36	●
1534GD03C-0700	*	7	8	79	34	24	36	●
1534GD03C-0710	*	7.1	8	79	41	29	36	●
1534GD03C-0720	*	7.2	8	79	41	29	36	●
1534GD03C-0730	*	7.3	8	79	41	29	36	●
1534GD03C-0740	*	7.4	8	79	41	29	36	●
1534GD03C-0750	*	7.5	8	79	41	29	36	●
1534GD03C-0760	*	7.6	8	79	41	29	36	●
1534GD03C-0770	*	7.7	8	79	41	29	36	●
1534GD03C-0780	*	7.8	8	79	41	29	36	●
1534GD03C-0790	*	7.9	8	79	41	29	36	●
1534GD03C-0800	*	8	8	79	41	29	36	●
1534GD03C-0810	*	8.1	10	89	47	35	40	●
1534GD03C-0820	*	8.2	10	89	47	35	40	●
1534GD03C-0830	*	8.3	10	89	47	35	40	●
1534GD03C-0840	*	8.4	10	89	47	35	40	●
1534GD03C-0850	*	8.5	10	89	47	35	40	●
1534GD03C-0860	*	8.6	10	89	47	35	40	●
1534GD03C-0870	*	8.7	10	89	47	35	40	●
1534GD03C-0880	*	8.8	10	89	47	35	40	●
1534GD03C-0890	*	8.9	10	89	47	35	40	●
1534GD03C-0900	*	9	10	89	47	35	40	●
1534GD03C-0910	*	9.1	10	89	47	35	40	●
1534GD03C-0920	*	9.2	10	89	47	35	40	●
1534GD03C-0930	*	9.3	10	89	47	35	40	●
1534GD03C-0940	*	9.4	10	89	47	35	40	●
1534GD03C-0950	*	9.5	10	89	47	35	40	●
1534GD03C-0960	*	9.6	10	89	47	35	40	●
1534GD03C-0970	*	9.7	10	89	47	35	40	●
1534GD03C-0980	*	9.8	10	89	47	35	40	●
1534GD03C-0990	*	9.9	10	89	47	35	40	●
1534GD03C-1000	*	10	10	89	47	35	40	●
1534GD03C-1020	*	10.2	12	102	55	40	45	●
1534GD03C-1050	*	10.5	12	102	55	40	45	●

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
✓		✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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Solid carbide drills GD series

GD drill 3xD

Steel, cast iron

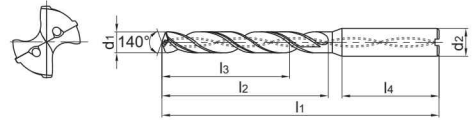
1534GD03C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG304
1534GD03C-1100	*	11	12	102	55	40	45	●
1534GD03C-1140	*	11.4	12	102	55	40	45	●
1534GD03C-1150	*	11.5	12	102	55	40	45	●
1534GD03C-1200	*	12	12	102	55	40	45	●
1534GD03C-1250	*	12.5	14	107	60	43	45	●
1534GD03C-1300	*	13	14	107	60	43	45	●
1534GD03C-1350	*	13.5	14	107	60	43	45	●
1534GD03C-1400	*	14	14	107	60	43	45	●
1534GD03C-1450	*	14.5	16	115	65	45	48	●
1534GD03C-1500	*	15	16	115	65	45	48	●
1534GD03C-1550	*	15.5	16	115	65	45	48	●
1534GD03C-1600	*	16	16	115	65	45	48	●
1534GD03C-1650	*	16.5	18	123	73	51	48	●
1534GD03C-1700	*	17	18	123	73	51	48	●
1534GD03C-1750	*	17.5	18	123	73	51	48	●
1534GD03C-1800	*	18	18	123	73	51	48	●
1534GD03C-1850	*	18.5	20	131	79	55	50	●
1534GD03C-1900	*	19	20	131	79	55	50	●
1534GD03C-1950	*	19.5	20	131	79	55	50	●
1534GD03C-2000	*	20	20	131	79	55	50	●

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
✓		✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

GD drill 5xD

Steel, cast iron

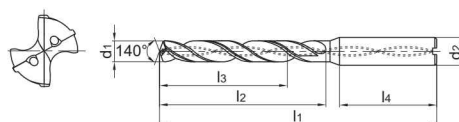
1536GD05C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG304
1536GD05C-0300	*	3	6	66	28	23	36	●
1536GD05C-0310	*	3.1	6	66	28	23	36	●
1536GD05C-0320	*	3.2	6	66	28	23	36	●
1536GD05C-0330	*	3.3	6	66	28	23	36	●
1536GD05C-0340	*	3.4	6	66	28	23	36	●
1536GD05C-0350	*	3.5	6	66	28	23	36	●
1536GD05C-0360	*	3.6	6	66	28	23	36	●
1536GD05C-0370	*	3.7	6	66	28	23	36	●
1536GD05C-0380	*	3.8	6	74	36	29	36	●
1536GD05C-0390	*	3.9	6	74	36	29	36	●
1536GD05C-0400	*	4	6	74	36	29	36	●
1536GD05C-0410	*	4.1	6	74	36	29	36	●
1536GD05C-0420	*	4.2	6	74	36	29	36	●
1536GD05C-0430	*	4.3	6	74	36	29	36	●
1536GD05C-0440	*	4.4	6	74	36	29	36	●
1536GD05C-0450	*	4.5	6	74	36	29	36	●
1536GD05C-0460	*	4.6	6	74	36	29	36	●
1536GD05C-0465	*	4.65	6	74	36	29	36	●
1536GD05C-0470	*	4.7	6	74	36	29	36	●
1536GD05C-0480	*	4.8	6	82	44	35	36	●
1536GD05C-0490	*	4.9	6	82	44	35	36	●
1536GD05C-0500	*	5	6	82	44	35	36	●
1536GD05C-0508	*	5.08	6	82	44	35	36	○
1536GD05C-0510	*	5.1	6	82	44	35	36	●
1536GD05C-0520	*	5.2	6	82	44	35	36	●
1536GD05C-0530	*	5.3	6	82	44	35	36	●
1536GD05C-0540	*	5.4	6	82	44	35	36	●
1536GD05C-0550	*	5.5	6	82	44	35	36	●
1536GD05C-0560	*	5.6	6	82	44	35	36	●
1536GD05C-0570	*	5.7	6	82	44	35	36	●
1536GD05C-0580	*	5.8	6	82	44	35	36	●
1536GD05C-0590	*	5.9	6	82	44	35	36	●
1536GD05C-0600	*	6	6	82	44	35	36	●
1536GD05C-0610	*	6.1	8	91	53	43	36	●
1536GD05C-0620	*	6.2	8	91	53	43	36	●
1536GD05C-0630	*	6.3	8	91	53	43	36	●
1536GD05C-0640	*	6.4	8	91	53	43	36	●

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
✓		✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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Solid carbide drills GD series

GD drill 5xD

Steel, cast iron

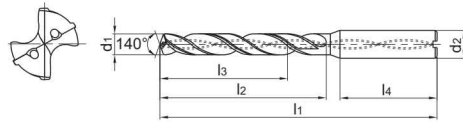
1536GD05C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG304
1536GD05C-0650	*	6.5	8	91	53	43	36	●
1536GD05C-0660	*	6.6	8	91	53	43	36	●
1536GD05C-0670	*	6.7	8	91	53	43	36	●
1536GD05C-0680	*	6.8	8	91	53	43	36	●
1536GD05C-0690	*	6.9	8	91	53	43	36	●
1536GD05C-0700	*	7	8	91	53	43	36	●
1536GD05C-0710	*	7.1	8	91	53	43	36	●
1536GD05C-0720	*	7.2	8	91	53	43	36	●
1536GD05C-0730	*	7.3	8	91	53	43	36	●
1536GD05C-0740	*	7.4	8	91	53	43	36	●
1536GD05C-0750	*	7.5	8	91	53	43	36	●
1536GD05C-0760	*	7.6	8	91	53	43	36	●
1536GD05C-0770	*	7.7	8	91	53	43	36	●
1536GD05C-0780	*	7.8	8	91	53	43	36	●
1536GD05C-0790	*	7.9	8	91	53	43	36	●
1536GD05C-0800	*	8	8	91	53	43	36	●
1536GD05C-0810	*	8.1	10	103	61	49	40	●
1536GD05C-0820	*	8.2	10	103	61	49	40	●
1536GD05C-0830	*	8.3	10	103	61	49	40	●
1536GD05C-0840	*	8.4	10	103	61	49	40	●
1536GD05C-0850	*	8.5	10	103	61	49	40	●
1536GD05C-0860	*	8.6	10	103	61	49	40	●
1536GD05C-0870	*	8.7	10	103	61	49	40	●
1536GD05C-0880	*	8.8	10	103	61	49	40	●
1536GD05C-0890	*	8.9	10	103	61	49	40	●
1536GD05C-0900	*	9	10	103	61	49	40	●
1536GD05C-0910	*	9.1	10	103	61	49	40	●
1536GD05C-0920	*	9.2	10	103	61	49	40	●
1536GD05C-0930	*	9.3	10	103	61	49	40	●
1536GD05C-0940	*	9.4	10	103	61	49	40	●
1536GD05C-0950	*	9.5	10	103	61	49	40	●
1536GD05C-0960	*	9.6	10	103	61	49	40	●
1536GD05C-0970	*	9.7	10	103	61	49	40	●
1536GD05C-0980	*	9.8	10	103	61	49	40	●
1536GD05C-0990	*	9.9	10	103	61	49	40	●
1536GD05C-1000	*	10	10	103	61	49	40	●
1536GD05C-1010	*	10.1	12	118	71	56	45	●

- Ex stock ○ On demand
- * With internal cooling

Application field

P	M	K	N	S	H
✓		✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

GD drill 5xD

Steel, cast iron

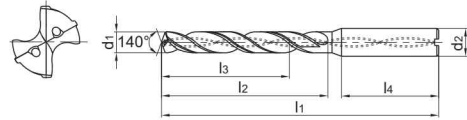
1536GD05C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG304
1536GD05C-1020	*	10.2	12	118	71	56	45	●
1536GD05C-1030	*	10.3	12	118	71	56	45	●
1536GD05C-1040	*	10.4	12	118	71	56	45	●
1536GD05C-1050	*	10.5	12	118	71	56	45	●
1536GD05C-1060	*	10.6	12	118	71	56	45	●
1536GD05C-1070	*	10.7	12	118	71	56	45	●
1536GD05C-1080	*	10.8	12	118	71	56	45	●
1536GD05C-1090	*	10.9	12	118	71	56	45	●
1536GD05C-1100	*	11	12	118	71	56	45	●
1536GD05C-1130	*	11.3	12	118	71	56	45	●
1536GD05C-1140	*	11.4	12	118	71	56	45	●
1536GD05C-1150	*	11.5	12	118	71	56	45	●
1536GD05C-1200	*	12	12	118	71	56	45	●
1536GD05C-1250	*	12.5	14	124	77	60	45	●
1536GD05C-1280	*	12.8	14	124	77	60	45	●
1536GD05C-1300	*	13	14	124	77	60	45	●
1536GD05C-1350	*	13.5	14	124	77	60	45	●
1536GD05C-1380	*	13.8	14	124	77	60	45	○
1536GD05C-1400	*	14	14	124	77	60	45	●
1536GD05C-1450	*	14.5	16	133	83	63	48	●
1536GD05C-1500	*	15	16	133	83	63	48	●
1536GD05C-1510	*	15.1	16	133	83	63	48	○
1536GD05C-1550	*	15.5	16	133	83	63	48	●
1536GD05C-1600	*	16	16	133	83	63	48	●
1536GD05C-1650	*	16.5	18	143	93	71	48	●
1536GD05C-1700	*	17	18	143	93	71	48	●
1536GD05C-1750	*	17.5	18	143	93	71	48	●
1536GD05C-1800	*	18	18	143	93	71	48	●
1536GD05C-1850	*	18.5	20	153	101	77	50	●
1536GD05C-1900	*	19	20	153	101	77	50	●
1536GD05C-1950	*	19.5	20	153	101	77	50	●
1536GD05C-2000	*	20	20	153	101	77	50	●

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
✓		✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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Solid carbide drills GD series

GD drill 5xD

Steel, cast iron

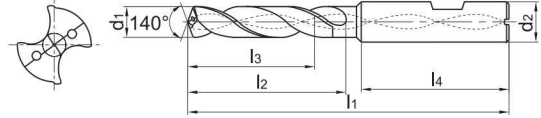
1636GD05C



- Type of shank DIN 6535HB
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG304
1636GD05C-0500	*	5	6	82	44	35	36	●
1636GD05C-0550	*	5.5	6	82	44	35	36	●
1636GD05C-0600	*	6	6	82	44	35	36	●
1636GD05C-0650	*	6.5	8	91	53	43	36	●
1636GD05C-0680	*	6.8	8	91	53	43	36	●
1636GD05C-0700	*	7	8	91	53	43	36	●
1636GD05C-0740	*	7.4	8	91	53	43	36	●
1636GD05C-0750	*	7.5	8	91	53	43	36	●
1636GD05C-0780	*	7.8	8	91	53	43	36	●
1636GD05C-0800	*	8	8	91	53	43	36	●
1636GD05C-0850	*	8.5	10	103	61	49	40	●
1636GD05C-0880	*	8.8	10	103	61	49	40	●
1636GD05C-0900	*	9	10	103	61	49	40	●
1636GD05C-0930	*	9.3	10	103	61	49	40	●
1636GD05C-0950	*	9.5	10	103	61	49	40	●
1636GD05C-0980	*	9.8	10	103	61	49	40	●
1636GD05C-1000	*	10	10	103	61	49	40	●
1636GD05C-1020	*	10.2	12	118	71	56	45	●
1636GD05C-1050	*	10.5	12	118	71	56	45	●
1636GD05C-1080	*	10.8	12	118	71	56	45	●
1636GD05C-1100	*	11	12	118	71	56	45	●
1636GD05C-1150	*	11.5	12	118	71	56	45	●
1636GD05C-1180	*	11.8	12	118	71	56	45	●
1636GD05C-1200	*	12	12	118	71	56	45	●
1636GD05C-1250	*	12.5	14	124	77	60	45	●
1636GD05C-1280	*	12.8	14	124	77	60	45	○
1636GD05C-1300	*	13	14	124	77	60	45	●
1636GD05C-1350	*	13.5	14	124	77	60	45	●
1636GD05C-1380	*	13.8	14	124	77	60	45	●
1636GD05C-1400	*	14	14	124	77	60	45	●
1636GD05C-1450	*	14.5	16	133	83	63	48	●
1636GD05C-1480	*	14.8	16	133	83	63	48	●
1636GD05C-1500	*	15	16	133	83	63	48	●
1636GD05C-1550	*	15.5	16	133	83	63	48	●
1636GD05C-1580	*	15.8	16	133	83	63	48	●
1636GD05C-1600	*	16	16	133	83	63	48	●
1636GD05C-1650	*	16.5	18	143	93	71	48	●

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
✓		✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

GD drill 5xD

Steel, cast iron

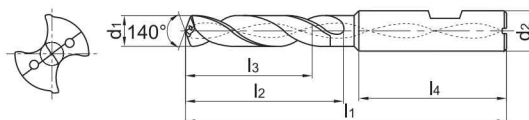
1636GD05C



- Type of shank DIN 6535HB
- Coolant exit, axial concentric



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG304
1636GD05C-1680	*	16.8	18	143	93	71	48	○
1636GD05C-1700	*	17	18	143	93	71	48	●
1636GD05C-1750	*	17.5	18	143	93	71	48	●
1636GD05C-1780	*	17.8	18	143	93	71	48	●
1636GD05C-1800	*	18	18	143	93	71	48	●
1636GD05C-1850	*	18.5	20	153	101	77	50	●
1636GD05C-1880	*	18.8	20	153	101	77	50	○
1636GD05C-1900	*	19	20	153	101	77	50	●
1636GD05C-1950	*	19.5	20	153	101	77	50	●
1636GD05C-1980	*	19.8	20	153	101	77	50	●
1636GD05C-2000	*	20	20	153	101	77	50	●

- Ex stock ○ On demand
- * With internal cooling

Application field					
P	M	K	N	S	H
✓		✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



SH drill 3xD

Hard materials

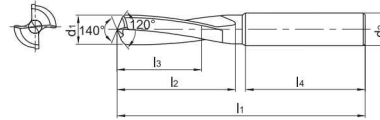
1534SH03



- Type of shank DIN 6535HA



External coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	KDG303
1534SH03-0300		3	6	62	20	14	36	○
1534SH03-0330		3.3	6	62	20	14	36	●
1534SH03-0400		4	6	66	24	17	36	○
1534SH03-0420		4.2	6	66	24	17	36	●
1534SH03-0500		5	6	66	28	20	36	○
1534SH03-0600		6	6	66	28	20	36	○
1534SH03-0675		6.75	8	79	34	24	36	○
1534SH03-0700		7	8	79	34	24	36	○
1534SH03-0800		8	8	79	41	29	36	○
1534SH03-0850		8.5	10	89	47	35	40	○
1534SH03-0900		9	10	89	47	35	40	○
1534SH03-1000		10	10	89	47	35	40	○
1534SH03-1025		10.25	12	102	55	40	45	○
1534SH03-1050		10.5	12	102	55	40	45	○
1534SH03-1200		12	12	102	55	40	45	○
1534SH03-1250		12.5	14	107	60	43	45	○
1534SH03-1400		14	14	107	60	43	45	○
1534SH03-1450		14.5	16	115	65	45	48	○
1534SH03-1600		16	16	115	65	45	48	○
1534SH03-2000		20	20	131	79	53	50	○

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
					✓

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



SC drill 3xD

Non-ferrous metals

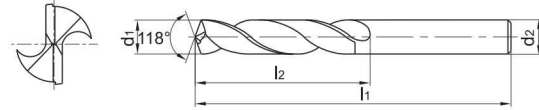
1105SC03



- Factory standard



External coolant



Article	*	Dimensions [mm]				Grade
		d ₁ (h8)	d ₂ (h7)	l ₁	l ₂	YK20F
1105SC03-0200		2	2	38	12	○
1105SC03-0250		2.5	2.5	43	14	○
1105SC03-0280		2.8	2.8	46	16	○
1105SC03-0300		3	3	46	16	○
1105SC03-0310		3.1	3.1	49	18	○
1105SC03-0320		3.2	3.2	49	18	○
1105SC03-0330		3.3	3.3	49	18	○
1105SC03-0340		3.4	3.4	52	20	○
1105SC03-0350		3.5	3.5	52	20	○
1105SC03-0360		3.6	3.6	52	20	○
1105SC03-0370		3.7	3.7	52	20	○
1105SC03-0380		3.8	3.8	55	22	○
1105SC03-0390		3.9	3.9	55	22	○
1105SC03-0400		4	4	55	22	○
1105SC03-0410		4.1	4.1	55	22	○
1105SC03-0420		4.2	4.2	55	22	○
1105SC03-0430		4.3	4.3	58	24	○
1105SC03-0440		4.4	4.4	58	24	○
1105SC03-0450		4.5	4.5	58	24	○
1105SC03-0460		4.6	4.6	58	24	○
1105SC03-0470		4.7	4.7	58	24	○
1105SC03-0480		4.8	4.8	62	26	○
1105SC03-0490		4.9	4.9	62	26	○
1105SC03-0500		5	5	62	26	○
1105SC03-0510		5.1	5.1	62	26	○
1105SC03-0520		5.2	5.2	62	26	○
1105SC03-0530		5.3	5.3	62	26	○
1105SC03-0540		5.4	5.4	66	28	○
1105SC03-0550		5.5	5.5	66	28	○
1105SC03-0560		5.6	5.6	66	28	○
1105SC03-0570		5.7	5.7	66	28	○
1105SC03-0580		5.8	5.8	66	28	○
1105SC03-0590		5.9	5.9	66	28	○
1105SC03-0600		6	6	66	28	○
1105SC03-0610		6.1	6.1	70	31	○
1105SC03-0620		6.2	6.2	70	31	○
1105SC03-0630		6.3	6.3	70	31	○
1105SC03-0640		6.4	6.4	70	31	○

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SC drill 3xD

Non-ferrous metals

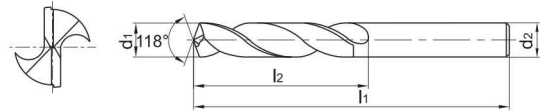
1105SC03



– Factory standard



External coolant



Article	*	Dimensions [mm]				Grade
		d ₁ (h8)	d ₂ (h7)	l ₁	l ₂	YK20F
1105SC03-0650		6.5	6.5	70	31	○
1105SC03-0660		6.6	6.6	70	31	○
1105SC03-0670		6.7	6.7	70	31	○
1105SC03-0680		6.8	6.8	74	34	○
1105SC03-0690		6.9	6.9	74	34	○
1105SC03-0700		7	7	74	34	○
1105SC03-0710		7.1	7.1	74	34	○
1105SC03-0720		7.2	7.2	74	34	○
1105SC03-0730		7.3	7.3	74	34	○
1105SC03-0740		7.4	7.4	74	34	○
1105SC03-0750		7.5	7.5	74	34	○
1105SC03-0760		7.6	7.6	79	37	○
1105SC03-0770		7.7	7.7	79	37	○
1105SC03-0780		7.8	7.8	79	37	○
1105SC03-0790		7.9	7.9	79	37	○
1105SC03-0800		8	8	79	37	○
1105SC03-0810		8.1	8.1	79	37	○
1105SC03-0820		8.2	8.2	79	37	○
1105SC03-0830		8.3	8.3	79	37	○
1105SC03-0840		8.4	8.4	79	37	○
1105SC03-0850		8.5	8.5	79	37	○
1105SC03-0860		8.6	8.6	84	40	○
1105SC03-0870		8.7	8.7	84	40	○
1105SC03-0880		8.8	8.8	84	40	○
1105SC03-0890		8.9	8.9	84	40	○
1105SC03-0900		9	9	84	40	○
1105SC03-0910		9.1	9.1	84	40	○
1105SC03-0920		9.2	9.2	84	40	○
1105SC03-0930		9.3	9.3	84	40	○
1105SC03-0940		9.4	9.4	84	40	○
1105SC03-0950		9.5	9.5	84	40	○
1105SC03-0960		9.6	9.6	89	43	○
1105SC03-0970		9.7	9.7	89	43	○
1105SC03-0980		9.8	9.8	89	43	○
1105SC03-0990		9.9	9.9	89	43	○
1105SC03-1000		10	10	89	43	○
1105SC03-1010		10.1	10.1	89	43	○
1105SC03-1020		10.2	10.2	89	43	○

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SC drill 3xD

Non-ferrous metals

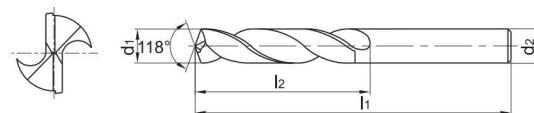
1105SC03



- Factory standard



External coolant



Article	*	Dimensions [mm]				Grade
		d ₁ (h8)	d ₂ (h7)	l ₁	l ₂	YK20F
1105SC03-1040		10.4	10.4	89	43	○
1105SC03-1050		10.5	10.5	89	43	○
1105SC03-1070		10.7	10.7	95	47	○
1105SC03-1080		10.8	10.8	95	47	○
1105SC03-1100		11	11	95	47	○
1105SC03-1150		11.5	11.5	95	47	○
1105SC03-1200		12	12	102	51	○
1105SC03-1250		12.5	12.5	102	51	○
1105SC03-1280		12.8	12.8	102	51	○
1105SC03-1300		13	13	102	51	○
1105SC03-1310		13.1	13.1	102	51	○
1105SC03-1350		13.5	13.5	107	54	○
1105SC03-1400		14	14	107	54	○
1105SC03-1430		14.3	14.3	111	56	○
1105SC03-1450		14.5	14.5	111	56	○
1105SC03-1500		15	15	111	56	○
1105SC03-1600		16	16	115	58	○

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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SC drill 5xD

Non-ferrous metals

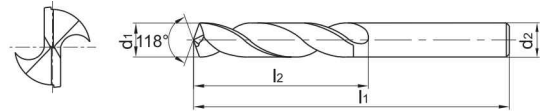
1101SC05



– Factory standard



External coolant



Article	*	Dimensions [mm]				Grade
		d ₁ (h8)	d ₂ (h7)	l ₁	l ₂	YK20F
1101SC05-0200		2	2	49	24	○
1101SC05-0250		2.5	2.5	57	30	○
1101SC05-0280		2.8	2.8	61	33	○
1101SC05-0300		3	3	61	33	○
1101SC05-0350		3.5	3.5	70	39	○
1101SC05-0380		3.8	3.8	75	43	○
1101SC05-0400		4	4	75	43	○
1101SC05-0420		4.2	4.2	75	43	○
1101SC05-0450		4.5	4.5	80	47	○
1101SC05-0480		4.8	4.8	86	52	○
1101SC05-0500		5	5	86	52	○
1101SC05-0550		5.5	5.5	93	57	○
1101SC05-0580		5.8	5.8	93	57	○
1101SC05-0600		6	6	93	57	○
1101SC05-0650		6.5	6.5	101	63	○
1101SC05-0680		6.8	6.8	109	69	○
1101SC05-0700		7	7	109	69	○
1101SC05-0750		7.5	7.5	109	69	○
1101SC05-0780		7.8	7.8	117	75	○
1101SC05-0800		8	8	117	75	○
1101SC05-0850		8.5	8.5	117	75	○
1101SC05-0880		8.8	8.8	125	81	○
1101SC05-0900		9	9	125	81	○
1101SC05-0950		9.5	9.5	125	81	○
1101SC05-0980		9.8	9.8	133	87	○
1101SC05-1000		10	10	133	87	○
1101SC05-1050		10.5	10.5	133	87	○
1101SC05-1080		10.8	10.8	142	94	○
1101SC05-1100		11	11	142	94	○
1101SC05-1150		11.5	11.5	142	94	○
1101SC05-1200		12	12	151	101	○
1101SC05-1250		12.5	12.5	151	101	○
1101SC05-1300		13	13	151	101	○
1101SC05-1350		13.5	13.5	160	108	○
1101SC05-1400		14	14	160	108	○
1101SC05-1450		14.5	14.5	169	114	○
1101SC05-1500		15	15	169	114	○
1101SC05-1550		15.5	15.5	178	120	○
1101SC05-1600		16	16	178	120	○

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

PA drill 3xD

Non-ferrous metals

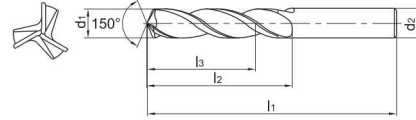
1165PA03



- Factory standard



External coolant



Article	*	Dimensions [mm]					Grade	
		d ₁ (h7)	d ₂ (h7)	l ₁	l ₂	l ₃	KDG303	YK30F
1165PA03-0300		3	3	46	16	12	●	●
1165PA03-0310		3.1	3.1	49	18	14	○	○
1165PA03-0320		3.2	3.2	49	18	14	○	●
1165PA03-0330		3.3	3.3	49	18	14	○	○
1165PA03-0340		3.4	3.4	52	20	15	○	●
1165PA03-0350		3.5	3.5	52	20	15	○	○
1165PA03-0360		3.6	3.6	52	20	15	○	○
1165PA03-0370		3.7	3.7	52	20	15	○	○
1165PA03-0380		3.8	3.8	55	22	17	○	○
1165PA03-0390		3.9	3.9	55	22	17	○	○
1165PA03-0400		4	4	55	22	17	○	○
1165PA03-0410		4.1	4.1	55	22	17	○	○
1165PA03-0420		4.2	4.2	55	22	17	○	○
1165PA03-0430		4.3	4.3	58	24	18	○	○
1165PA03-0440		4.4	4.4	58	24	18	○	○
1165PA03-0450		4.5	4.5	58	24	18	○	○
1165PA03-0460		4.6	4.6	58	24	18	○	○
1165PA03-0470		4.7	4.7	58	24	18	○	○
1165PA03-0480		4.8	4.8	62	26	20	○	○
1165PA03-0490		4.9	4.9	62	26	20	○	○
1165PA03-0500		5	5	62	26	20	○	○
1165PA03-0510		5.1	5.1	62	26	20	○	○
1165PA03-0520		5.2	5.2	62	26	20	○	○
1165PA03-0530		5.3	5.3	62	26	20	○	○
1165PA03-0540		5.4	5.4	66	28	21	○	○
1165PA03-0550		5.5	5.5	66	28	21	○	○
1165PA03-0560		5.6	5.6	66	28	21	○	○
1165PA03-0570		5.7	5.7	66	28	21	○	○
1165PA03-0580		5.8	5.8	66	28	21	○	○
1165PA03-0590		5.9	5.9	66	28	21	○	○
1165PA03-0600		6	6	66	28	21	○	○
1165PA03-0610		6.1	6.1	70	31	23	○	○
1165PA03-0620		6.2	6.2	70	31	23	○	○
1165PA03-0630		6.3	6.3	70	31	23	○	○
1165PA03-0640		6.4	6.4	70	31	23	○	○
1165PA03-0650		6.5	6.5	70	31	23	○	○
1165PA03-0660		6.6	6.6	70	31	23	○	●
1165PA03-0670		6.7	6.7	70	31	23	○	●

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



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PA drill 3xD

Non-ferrous metals

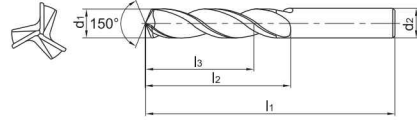
1165PA03



– Factory standard



External coolant



Article	*	Dimensions [mm]					Grade	
		d ₁ (h7)	d ₂ (h7)	l ₁	l ₂	l ₃	KDG303	YK30F
1165PA03-0680		6.8	6.8	74	34	25	○	○
1165PA03-0690		6.9	6.9	74	34	25	○	○
1165PA03-0700		7	7	74	34	25	○	○
1165PA03-0710		7.1	7.1	74	34	25	○	○
1165PA03-0720		7.2	7.2	74	34	25	○	○
1165PA03-0730		7.3	7.3	74	34	25	○	○
1165PA03-0740		7.4	7.4	74	34	25	○	○
1165PA03-0750		7.5	7.5	74	34	25	○	○
1165PA03-0760		7.6	7.6	79	37	27	○	○
1165PA03-0770		7.7	7.7	79	37	27	○	○
1165PA03-0780		7.8	7.8	79	37	27	○	○
1165PA03-0790		7.9	7.9	79	37	27	○	○
1165PA03-0800		8	8	79	37	27	○	○
1165PA03-0810		8.1	8.1	79	37	27	○	○
1165PA03-0820		8.2	8.2	79	37	27	○	○
1165PA03-0830		8.3	8.3	79	37	27	○	○
1165PA03-0840		8.4	8.4	79	37	27	○	○
1165PA03-0850		8.5	8.5	79	37	27	○	○
1165PA03-0860		8.6	8.6	84	40	29	○	●
1165PA03-0870		8.7	8.7	84	40	29	○	○
1165PA03-0880		8.8	8.8	84	40	29	○	○
1165PA03-0890		8.9	8.9	84	40	29	○	○
1165PA03-0900		9	9	84	40	29	○	○
1165PA03-0910		9.1	9.1	84	40	29	○	○
1165PA03-0920		9.2	9.2	84	40	29	○	○
1165PA03-0930		9.3	9.3	84	40	29	○	○
1165PA03-0940		9.4	9.4	84	40	29	○	○
1165PA03-0950		9.5	9.5	84	40	29	○	○
1165PA03-0960		9.6	9.6	89	43	31	○	○
1165PA03-0970		9.7	9.7	89	43	31	○	○
1165PA03-0980		9.8	9.8	89	43	31	○	○
1165PA03-0990		9.9	9.9	89	43	31	○	○
1165PA03-1000		10	10	89	43	31	○	○
1165PA03-1010		10.1	10.1	89	43	31	○	○
1165PA03-1020		10.2	10.2	89	43	31	○	○
1165PA03-1030		10.3	10.3	89	43	31	○	○
1165PA03-1050		10.5	10.5	89	43	31	○	○
1165PA03-1100		11	11	95	47	33	○	○

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

PA drill 3xD

Non-ferrous metals

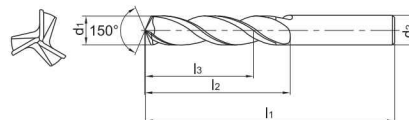
1165PA03



– Factory standard



External coolant



Article	*	Dimensions [mm]					Grade	
		d ₁ (h7)	d ₂ (h7)	l ₁	l ₂	l ₃	KDG303	YK30F
1165PA03-1120		11.2	11.2	95	47	33	○	○
1165PA03-1150		11.5	11.5	95	47	33	○	○
1165PA03-1180		11.8	11.8	95	47	33	○	○
1165PA03-1200		12	12	102	51	35	○	○
1165PA03-1210		12.1	12.1	102	51	35	○	○
1165PA03-1250		12.5	12.5	102	51	35	○	○
1165PA03-1300		13	13	102	51	35	○	○
1165PA03-1350		13.5	13.5	107	54	37	○	○
1165PA03-1400		14	14	107	54	37	○	○
1165PA03-1450		14.5	14.5	111	56	38	○	○
1165PA03-1500		15	15	111	56	38	○	○
1165PA03-1550		15.5	15.5	115	58	38	○	○
1165PA03-1600		16	16	115	58	38	○	○
1165PA03-1650		16.5	16.5	119	60	39	○	○
1165PA03-1700		17	17	119	60	39	○	○
1165PA03-1750		17.5	17.5	123	62	40	○	○
1165PA03-1800		18	18	123	62	40	○	○
1165PA03-1850		18.5	18.5	127	64	41	○	○
1165PA03-1900		19	19	127	64	41	○	○
1165PA03-1950		19.5	19.5	131	66	42	○	○
1165PA03-2000		20	20	131	66	42	○	○

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

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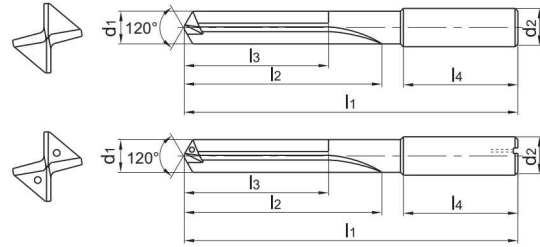
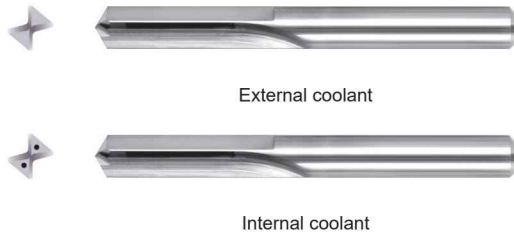
PC drill 5xD

Cast iron

1576PC05/1576PC05C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade	
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	YK20F	
1576PC05-0400		4	6	74	36	29	36	○	
1576PC05C-0400	*	4	6	74	36	29	36	●	
1576PC05-0420		4.2	6	74	36	29	36	○	
1576PC05C-0420	*	4.2	6	74	36	29	36	●	
1576PC05-0500		5	6	82	44	35	36	○	
1576PC05C-0500	*	5	6	82	44	35	36	●	
1576PC05-0600		6	6	82	44	35	36	○	
1576PC05C-0600	*	6	6	82	44	35	36	●	
1576PC05-0675		6.75	8	91	53	43	36	○	
1576PC05C-0675	*	6.75	8	91	53	43	36	●	
1576PC05-0700		7	8	91	53	43	36	○	
1576PC05C-0700	*	7	8	91	53	43	36	●	
1576PC05-0800		8	8	91	53	43	36	○	
1576PC05C-0800	*	8	8	91	53	43	36	●	
1576PC05-0850		8.5	10	103	61	49	40	○	
1576PC05C-0850	*	8.5	10	103	61	49	40	●	
1576PC05-0900		9	10	103	61	49	40	○	
1576PC05C-0900	*	9	10	103	61	49	40	●	
1576PC05-1000		10	10	103	61	49	40	○	
1576PC05C-1000	*	10	10	103	61	49	40	●	
1576PC05-1025		10.25	12	118	71	56	45	○	
1576PC05C-1025	*	10.25	12	118	71	56	45	●	
1576PC05-1100		11	12	118	71	56	45	○	
1576PC05C-1100	*	11	12	118	71	56	45	●	
1576PC05-1200		12	12	118	71	56	45	○	
1576PC05C-1200	*	12	12	118	71	56	45	●	
1576PC05-1300		13	14	124	77	60	45	○	
1576PC05C-1300	*	13	14	124	77	60	45	●	
1576PC05-1400		14	14	124	77	60	45	○	
1576PC05C-1400	*	14	14	124	77	60	45	●	
1576PC05-1500		15	16	133	83	63	48	○	
1576PC05C-1500	*	15	16	133	83	63	48	○	
1576PC05-1550		15.5	16	133	83	63	48	○	

- Ex stock ○ On demand
- * With internal cooling

Application field					
P	M	K	N	S	H
		✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44 Machining instructions > C201 Cutting data > C144 Nonstandard order > C150



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PC drill 5xD Cast iron

1576PC05/1576PC05C

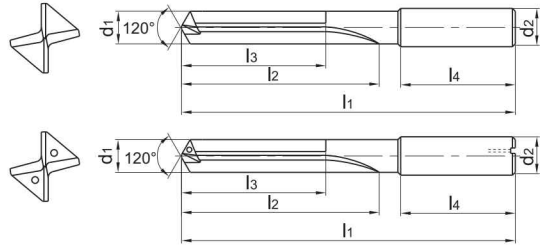
- Type of shank DIN 6535HA
- Coolant exit, axial concentric



External coolant



Internal coolant



Article	*	Dimensions [mm]						Grade
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	YK20F
1576PC05C-1550	*	15.5	16	133	83	63	48	○
1576PC05-1600		16	16	133	83	63	48	○
1576PC05C-1600	*	16	16	133	83	63	48	○
1576PC05-1700		17	18	143	93	71	48	○
1576PC05C-1700	*	17	18	143	93	71	48	○
1576PC05-1750		17.5	18	143	93	71	48	○
1576PC05C-1750	*	17.5	18	143	93	71	48	○
1576PC05-1800		18	18	143	93	71	48	○
1576PC05C-1800	*	18	18	143	93	71	48	●
1576PC05-1950		19.5	20	153	101	77	50	○
1576PC05C-1950	*	19.5	20	153	101	77	50	○
1576PC05-2000		20	20	153	101	77	50	○
1576PC05C-2000	*	20	20	153	101	77	50	○

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
		✓			

✓ Very suitable

✓ Suitable

System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

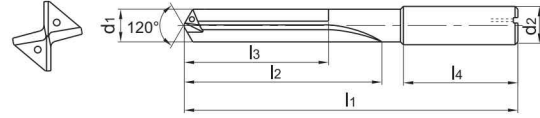
PC drill 15xD

Cast iron

1579PC15C



- Type of shank DIN 6535HA
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Grade	
		d ₁ (m7)	d ₂ (h6)	l ₁	l ₂	l ₃	l ₄	YK20F	
1579PC15C-0500	*	5	6	145	105	96	36		○
1579PC15C-0600	*	6	6	145	105	96	36		○
1579PC15C-0800	*	8	8	180	137	127	36		○
1579PC15C-0900	*	9	10	217	170	158	40		○
1579PC15C-1000	*	10	10	217	170	158	40		○
1579PC15C-1100	*	11	12	258	205	190	45		○
1579PC15C-1200	*	12	12	258	205	190	45		○
1579PC15C-1400	*	14	14	290	236	219	45		○

- Ex stock ○ On demand
- * With internal cooling

Application field					
P	M	K	N	S	H
		✓			

- ✓ Very suitable
- ✓ Suitable

System code > C44

Machining instructions > C201

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Nonstandard order > C150



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SC drill – NC tapping device 90°

General machining

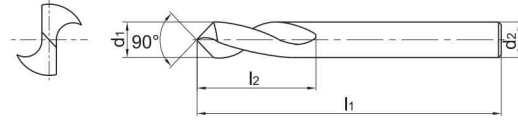
1143SC90



– Factory standard



External coolant



Article	*	Dimensions [mm]				Grade	
		d ₁ (h6)	d ₂ (h6)	l ₁	l ₂	KDG303	YK30F
1143SC90-0500		5	5	62	10	●	
1143SC90-0600		6	6	66	15	●	
1143SC90-0800		8	8	79	17	●	
1143SC90-1000		10	10	89	20	●	
1143SC90-1200		12	12	102	25	●	
1143SC90-1400		14	14	107	30	●	
1143SC90-1600		16	16	115	35	●	
1143SC90-2000		20	20	131	40	●	○

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
✓	✓	✓	✓		

✓ Very suitable

✓ Suitable

A

Turning

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Milling

C

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System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



A

SC drill – NC tapping device 120°

General machining

Turning

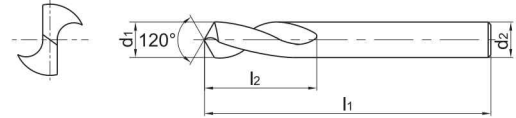
1143SC120



– Factory standard



External coolant



B

Milling

Article	*	Dimensions [mm]				Grade
		d ₁ (h6)	d ₂ (h6)	l ₁	l ₂	KDG303
1143SC120-0400		4	4	62	10	○
1143SC120-0500		5	5	62	10	●
1143SC120-0600		6	6	66	15	●
1143SC120-0800		8	8	79	17	●
1143SC120-1000		10	10	89	20	●
1143SC120-1200		12	12	102	25	●
1143SC120-1400		14	14	107	30	●
1143SC120-1600		16	16	115	35	●
1143SC120-2000		20	20	131	42	●

● Ex stock ○ On demand

* With internal cooling

C

Drilling

Application field						
P	M	K	N	S	H	
✓	✓	✓	✓			✓ Very suitable
						✓ Suitable

D

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System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150

SC drill – NC tapping device 142°

General machining

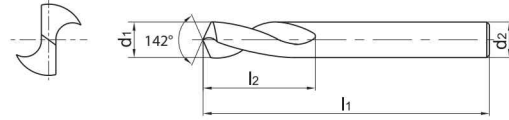
1143SC142



– Factory standard



External coolant



Article	*	Dimensions [mm]				Grade
		d ₁ (h6)	d ₂ (h6)	l ₁	l ₂	KDG303
1143SC142-0500		5	5	62	10	●
1143SC142-0600		6	6	66	15	●
1143SC142-0800		8	8	79	17	●
1143SC142-1000		10	10	89	20	●
1143SC142-1200		12	12	102	25	●
1143SC142-1400		14	14	107	30	●
1143SC142-1600		16	16	115	35	●
1143SC142-2000		20	20	131	42	●

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
✓	✓	✓	✓		

✓ Very suitable

✓ Suitable

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System code > C44

Machining instructions > C201

Cutting data > C144

Nonstandard order > C150



Guide for recommended cutting data – solid carbide drilling

Solid carbide drills

Material group	Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]									
					SU Series			SU-Drill			SU Step Drill			
					3-5xD			8xD			3xD			
			KDG 303			KDG 303			KDG 303					
					Coolant									
					internal	external	f-group	internal	external	f-group	internal	external	f-group	
P Unalloyed steel	ca. 0,15 % C	annealed	125	1	150	135	8	135	125	7	150	135	8	
	ca. 0,45 % C	annealed	190	2	130	120	8	120	110	7	130	120	8	
	ca. 0,45 % C	tempered	250	3	120	110	6	110	100	5	120	110	6	
	ca. 0,75 % C	annealed	270	4	110	100	6	100	90	5	110	100	6	
	ca. 0,75 % C	tempered	300	5	100	90	6	90	85	5	100	90	6	
P Low-alloyed steel		annealed	180	6	130	120	8	120	110	7	130	120	8	
		tempered	275	7	110	100	6	100	90	5	110	100	6	
		tempered	300	8	100	90	6	90	85	5	100	90	6	
		tempered	350	9	90	85	6	85	80	5	90	85	6	
P High-alloyed steel and high-alloyed tool steel		annealed	200	10	120	110	8	110	100	7	120	110	8	
		hardened and tempered	325	11	100	90	6	90	85	5	100	90	6	
M Stainless steel	ferritic/martensitic	annealed	200	12	80	75	5	75	70	5	80	75	5	
	martensitic	tempered	240	13	55	50	5	50	45	5	55	50	5	
	austenitic	quench hardened	180	14	60	55	5	55	50	5	60	55	5	
	austenitic-ferritic		230	15	50	45	5	45	45	5	50	45	5	
K Grey cast iron	perlitic/ferritic		180	16	135	125	8	125	115	7	135	125	8	
	perlitic (martensitic)		260	17	110	100	8	100	90	7	110	100	8	
	ferritic		160	18	120	110	8	110	100	7	120	110	8	
	perlitic		250	19	80	75	8	75	70	7	80	75	8	
	ferritic		130	20	130	120	8	120	110	7	130	120	8	
K Malleable cast iron	perlitic		230	21	80	75	8	75	70	7	80	75	8	
N Aluminium wrought alloys	cannot be hardened		60	22										
	hardenable	hardened	100	23										
	Cast aluminium alloys	≤ 12% Si, cannot be hardened		75	24									
		≤ 12% Si, hardenable	hardened	90	25									
		> 12% Si, cannot be hardened		130	26									
Copper and copper alloys (bronze/brass)	machining steel, PB> 1%		110	27										
	CuZn, CuSnZn		90	28										
	CuSn, Pb-free copper, electrolytic copper		100	29										
S Heat-resistant alloys	Fe-based alloys	annealed	200	30										
		hardened	280	31										
	Ni or Co base	annealed	250	32										
		hardened	350	33										
Titanium alloys	cast	320	34											
	pure titanium		R _m 400	35										
Titanium alloys	α and β alloys	hardened	R _m 1050	36										
H Hardened steel		hardened and tempered	55 HRC	37										
		hardened and tempered	60 HRC	38										
	Hard cast iron	cast	400	39										
H Hardened cast iron		hardened and tempered	55 HRC	40										
X Non-metallic materials	Thermoplasts			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. The values have to be adapted in individual cases. With hole depths of 5xD adjust the cutting data accordingly to the application. f-group = feed rate recommendations on page C126. For examples of material for cutting tool groups view page D22.

Recommend feed rate

Solid carbide drilling

f-group	Feed rate [mm]																			
	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20
1	0,01	0,02	0,03	0,04	0,04	0,05	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,08	0,09	0,09	0,09	0,09	0,10	0,10
2	0,01	0,02	0,03	0,04	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,09	0,10	0,10	0,10	0,11	0,11	0,11
3	0,01	0,02	0,04	0,05	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,10	0,10	0,11	0,11	0,12	0,12	0,12	0,13	0,13
4	0,02	0,03	0,04	0,06	0,06	0,07	0,08	0,09	0,09	0,10	0,11	0,11	0,12	0,12	0,13	0,13	0,14	0,14	0,15	0,15
5	0,02	0,03	0,05	0,06	0,07	0,09	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,14	0,15	0,15	0,16	0,16	0,17	0,17
6	0,02	0,04	0,06	0,07	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	0,18	0,18	0,19	0,19	0,20
7	0,02	0,04	0,06	0,09	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,18	0,19	0,20	0,20	0,21	0,22	0,22	0,23
8	0,03	0,05	0,07	0,10	0,11	0,13	0,14	0,15	0,16	0,17	0,18	0,20	0,21	0,22	0,23	0,23	0,24	0,25	0,26	0,26
9	0,03	0,06	0,08	0,11	0,13	0,15	0,16	0,17	0,18	0,20	0,21	0,23	0,24	0,25	0,26	0,27	0,28	0,29	0,29	0,30
10	0,04	0,07	0,10	0,13	0,15	0,17	0,19	0,20	0,21	0,23	0,24	0,26	0,27	0,29	0,30	0,31	0,32	0,33	0,34	0,35
11	0,04	0,07	0,11	0,15	0,17	0,20	0,21	0,23	0,24	0,26	0,28	0,30	0,32	0,33	0,35	0,36	0,37	0,38	0,39	0,40
12	0,05	0,09	0,13	0,17	0,20	0,23	0,25	0,26	0,28	0,30	0,32	0,35	0,36	0,38	0,40	0,41	0,42	0,44	0,45	0,46
13	0,05	0,10	0,15	0,20	0,23	0,26	0,28	0,30	0,32	0,35	0,37	0,40	0,42	0,44	0,46	0,47	0,49	0,50	0,52	0,53
14	0,06	0,11	0,17	0,23	0,26	0,30	0,33	0,35	0,37	0,40	0,43	0,46	0,48	0,50	0,53	0,54	0,56	0,58	0,59	0,61
15	0,07	0,13	0,20	0,26	0,30	0,35	0,37	0,40	0,43	0,46	0,49	0,53	0,55	0,58	0,61	0,62	0,64	0,66	0,68	0,70

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.

1. Select the appropriate product series.
2. Determine the immersion.
3. Select the used material and read the cutting speed.
4. Determine the feed rate group and have a look at the appropriate feed rate recommendations.
5. Select the diameter of tool and determine the immersion.

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Solid carbide drills

Material group	Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
					SL-Drill		SL-Drill		SP-Drill		ST-Drill		
					12-15xD		20-30xD		3xD		3-5xD		
					KDG 303		KDG 303		KDG 303		KDG 303		
				Coolant									
				Int.	f-group	Int.	f-group	Int.	f-group	Int.	f-group		
P Unalloyed steel	approx. 0,15 % C	annealed	125	1	130	7	95	7	165	8	150	8	
	approx. 0,45 % C	annealed	190	2	110	7	80	7	145	8	130	8	
	approx. 0,45 % C	tempered	250	3	100	5	70	5	135	6	120	6	
	approx. 0,75 % C	annealed	270	4	85	5	60	5	125	6	110	6	
	approx. 0,75 % C	tempered	300	5	75	5	55	5	110	6	100	6	
P Low-alloyed steel		annealed	180	6	110	7	80	7	145	8	130	8	
		tempered	275	7	85	5	60	5	125	6	110	6	
		tempered	300	8	75	5	55	5	110	6	100	6	
		tempered	350	9	65	5	50	5	100	6	90	6	
P High-alloyed steel and high-alloyed tool steel		annealed	200	10	100	7	70	7	135	8	120	8	
		hardened and tempered	325	11	75	5	55	5	110	6	100	6	
M Stainless steel	ferritic/martensitic	annealed	200	12	60	4	55	4	90	5	80	5	
	martensitic	tempered	240	13	35	4	30	4	65	5	55	5	
	austenitic	quench hardened	180	14	40	4	35	4	70	5	60	5	
	austenitic-ferritic		230	15	35	4	35	4	55	5	50	5	
K Grey cast iron	perlitic/ferritic		180	16	125	7	90	7	150	8			
	perlitic (martensitic)		260	17	100	7	70	7	125	8			
K Cast iron with spheroidal graphite	ferritic		160	18	110	7	80	7	135	8			
	perlitic		250	19	70	7	50	7	90	8			
K Malleable cast iron	ferritic		130	20	120	7	85	7	145	8			
	perlitic		230	21	70	7	50	7	90	8			
N Aluminium wrought alloys	cannot be hardened		60	22	150	8	105	8	170	8			
	hardenable	hardened	100	23	150	8	105	8	170	8			
	Cast aluminium alloys	$\leq 12\%$ Si, cannot be hardened		75	24	150	8	105	8	170	8		
		$\leq 12\%$ Si, hardenable	hardened	90	25	150	8	105	8	170	8		
		$> 12\%$ Si, cannot be hardened		130	26	150	8	105	8	170	8		
N Copper and copper alloys (bronze/brass)	machining steel, PB > 1%		110	27	150	8	105	8	170	8			
	CuZn, CuSnZn		90	28	150	8	105	8	170	8			
	CuSn, Pb-free copper, electrolytic copper		100	29	150	8	105	8	170	8			
S Heat-resistant alloys	Fe-based alloys	annealed	200	30	30	4	20	4	30	5	30	5	
		hardened	280	31	35	4	25	4	35	5	35	5	
	Ni or Co bass	annealed	250	32	35	4	25	4	35	5	35	5	
		hardened	350	33	15	4	10	4	15	5	15	5	
		cast	320	34	15	4	10	4	15	5	15	5	
S Titanium alloys	pure titanium	R_m 400	35	30	4	20	4	30	5	30	5		
	α and β alloys	hardened	R_m 1050	36	30	4	20	4	30	5	30	5	
H Hardened steel		hardened and tempered	55 HRC	37									
		hardened and tempered	60 HRC	38									
	Hard cast iron	cast	400	39									
H Hardened cast iron		hardened and tempered	55 HRC	40									
X Non-metallic materials	Thermoplasts			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.
 The values have to be adapted in individual cases.
 With hole depths of 5xD adjust the cutting data accordingly to the application.
 f-group = feed rate recommendations on page C148.
 For examples of material for cutting tool groups view page D11.

Recommended feed rate

Solid carbide drills

f-group	Feed rate [mm]																			
	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20
1	0,01	0,02	0,03	0,04	0,04	0,05	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,08	0,09	0,09	0,09	0,09	0,10	0,10
2	0,01	0,02	0,03	0,04	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,09	0,10	0,10	0,10	0,10	0,11	0,11
3	0,01	0,02	0,04	0,05	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,10	0,10	0,11	0,11	0,12	0,12	0,12	0,13	0,13
4	0,02	0,03	0,04	0,06	0,06	0,07	0,08	0,09	0,09	0,10	0,11	0,11	0,12	0,12	0,13	0,13	0,14	0,14	0,15	0,15
5	0,02	0,03	0,05	0,06	0,07	0,09	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,14	0,15	0,15	0,16	0,16	0,17	0,17
6	0,02	0,04	0,06	0,07	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	0,18	0,18	0,19	0,19	0,20
7	0,02	0,04	0,06	0,09	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,18	0,19	0,20	0,20	0,21	0,22	0,22	0,23
8	0,03	0,05	0,07	0,10	0,11	0,13	0,14	0,15	0,16	0,17	0,18	0,20	0,21	0,22	0,23	0,23	0,24	0,25	0,26	0,26
9	0,03	0,06	0,08	0,11	0,13	0,15	0,16	0,17	0,18	0,20	0,21	0,23	0,24	0,25	0,26	0,27	0,28	0,29	0,29	0,30
10	0,04	0,07	0,10	0,13	0,15	0,17	0,19	0,20	0,21	0,23	0,24	0,26	0,27	0,29	0,30	0,31	0,32	0,33	0,34	0,35
11	0,04	0,07	0,11	0,15	0,17	0,20	0,21	0,23	0,24	0,26	0,28	0,30	0,32	0,33	0,35	0,36	0,37	0,38	0,39	0,40
12	0,05	0,09	0,13	0,17	0,20	0,23	0,25	0,26	0,28	0,30	0,32	0,35	0,36	0,38	0,40	0,41	0,42	0,44	0,45	0,46
13	0,05	0,10	0,15	0,20	0,23	0,26	0,28	0,30	0,32	0,35	0,37	0,40	0,42	0,44	0,46	0,47	0,49	0,50	0,52	0,53
14	0,06	0,11	0,17	0,23	0,26	0,30	0,33	0,35	0,37	0,40	0,43	0,46	0,48	0,50	0,53	0,54	0,56	0,58	0,59	0,61
15	0,07	0,13	0,20	0,26	0,30	0,35	0,37	0,40	0,43	0,46	0,49	0,53	0,55	0,58	0,61	0,62	0,64	0,66	0,68	0,70

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.

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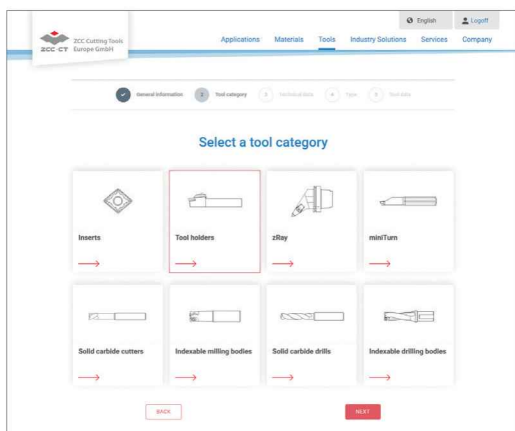
Example: Special tool holder



Example: Special solid carbide step drill

The easy way to order your custom-made special tool

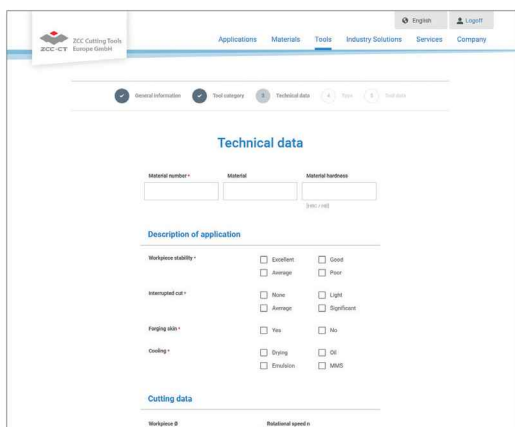
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Defining the tool parameters

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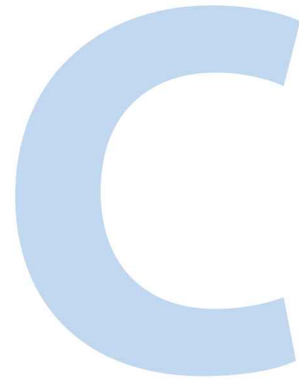


Now go directly to the new **special tool form** on our website and get started.

SOLID CARBIDE REAMERS

Solid carbide reamers

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A

Turning

Products	Solid carbide reamers	Ø	Application						Type	Page
			P	M	K	N	S	H		
3101H7		4-20			✓	✓			Right helical flute	C157
3102H7		4-20			✓	✓			Straight flute	C158
3112H7		4-20	✓		✓				Straight flute with inner hole	C159
3103H7		4-20			✓	✓			Left helical flute	C163

✓ Very suitable ✓ Suitable

B

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Coated cemented carbide PVD

Grade	Grade description
KRG102	PVD coated P10–P20/K10–K20 carbide substrate for steel and cast iron.

Uncoated cemented carbide

Grade	Grade description
YK10F	Uncoated N10/K10 carbide substrate for cast iron and non ferrous materials.

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3 1 0 1 H7 – 0850

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A

Turning

Type	
Code	Description
3	Reamer

Shank type	
Code	Description
1	Straight shank
2	Straight shank DIN10
5	Straight shank DIN 6535 HA
9	Morse taper shank

B

Milling

1

2

Coolant supply	
Code	Description
0	External
1	Internal

Flute	
Code	Description
1	Right-hand twist
2	Straight flute
3	Left-hand twist

3

4

C

Drilling

Classe de tolérance	
Code	Description
H7	The tolerance class of the reamed hole is equivalent to H7 (GB/T1800-1804)

Diameter [mm]	
Code	Description
0850	8,5
...	

5

6

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a Reaming

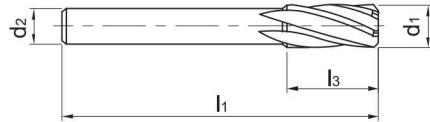
Reamer, right-hand twist

Cast iron, non-ferrous metals

3101H7



– Factory standard



Article	*	Dimensions [mm]				Teeth	Grade
		d ₁	d ₂ (h6)	l ₁	l ₃		YK10F
3101H7-0400		4	3.55	56	20	4	●
3101H7-0500		5	4	63	22	6	○
3101H7-0600		6	5	63	22	6	○
3101H7-0700		7	6.3	71	25	6	○
3101H7-0800		8	6.3	71	25	6	○
3101H7-0900		9	8	71	25	6	○
3101H7-1000		10	8	71	25	6	○
3101H7-1200		12	10	80	28	6	○
3101H7-1300		13	10	80	28	6	○
3101H7-1450		14.5	12.5	90	32	6	○
3101H7-1600		16	12.5	90	32	6	○

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
		✓	✓		

✓ Very suitable

✓ Suitable

System code > C156

Machining instructions > C201

Cutting data > C164

Nonstandard order > C170

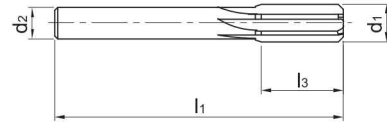
A

Reamer, straight flute **Cast iron, non-ferrous metals**

3102H7



– Factory standard



Turning

B

Article	*	Dimensions [mm]				Teeth	Grade
		d ₁	d ₂ (h6)	l ₁	l ₃		YK10F
3102H7-0400		4	3.55	56	20	4	○
3102H7-0500		5	4	63	22	6	○
3102H7-0600		6	5	63	22	6	○
3102H7-1000		10	8	71	25	6	○
3102H7-1050		10.5	8	71	25	6	○
3102H7-1100		11	10	80	28	6	○
3102H7-1300		13	10	80	28	6	○
3102H7-1400		14	12.5	90	32	6	○

● Ex stock ○ On demand

* With internal cooling

Milling

C

Application field					
P	M	K	N	S	H
		✓	✓		

✓ Very suitable

✓ Suitable

Drilling

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System code > C156

Machining instructions > C201

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Nonstandard order > C170

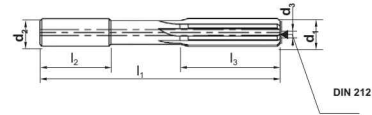
Reamer, straight flute

Steel, cast iron

3112H7



- Factory standard
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Teeth	Grade
		d ₁	d ₂ (h6)	d ₃ (m7)	l ₁	l ₂	l ₃		KRG102
3112H7-0295	*	2.95	4	0.6	70	28	20	4	○
3112H7-0296	*	2.96	4	0.6	70	28	20	4	○
3112H7-0297	*	2.97	4	0.6	70	28	20	4	○
3112H7-0298	*	2.98	4	0.6	70	28	20	4	○
3112H7-0299	*	2.99	4	0.6	70	28	20	4	○
3112H7-0300	*	3	3.5	0.6	70	28	20	4	●
3112H7-0301	*	3.01	4	0.6	70	28	20	4	●
3112H7-0302	*	3.02	4	0.6	70	28	20	4	●
3112H7-0303	*	3.03	4	0.6	70	28	20	4	●
3112H7-0318	*	3.18	4	0.6	70	28	20	4	○
3112H7-0348	*	3.48	4	0.6	70	28	20	4	○
3112H7-0350	*	3.5	4	0.6	70	28	20	4	○
3112H7-0395	*	3.95	4	0.6	70	28	20	4	○
3112H7-0396	*	3.96	4	0.6	70	28	20	4	○
3112H7-0397	*	3.97	4	0.6	70	28	20	4	○
3112H7-0398	*	3.98	4	0.6	70	28	20	4	○
3112H7-0399	*	3.99	4	0.6	70	28	20	4	○
3112H7-0400	*	4	4	0.6	70	28	20	6	●
3112H7-0401	*	4.01	4	1	70	28	20	4	●
3112H7-0402	*	4.02	4	1	70	28	20	4	●
3112H7-0403	*	4.03	4	1	70	28	20	4	●
3112H7-0404	*	4.04	4	1	70	28	20	4	○
3112H7-0405	*	4.05	4	1	70	28	20	4	○
3112H7-0407	*	4.07	4	1	70	28	20	4	○
3112H7-0408	*	4.08	4	1	70	28	20	4	●
3112H7-0450	*	4.5	5	1	70	28	20	4	○
3112H7-0452	*	4.52	5	1	70	28	20	4	○
3112H7-0457	*	4.57	5	1	70	28	20	4	○
3112H7-0495	*	4.95	5	1	70	28	22	6	○
3112H7-0496	*	4.96	5	1	70	28	22	6	○
3112H7-0497	*	4.97	5	1	70	28	22	6	○
3112H7-0498	*	4.98	5	1	70	28	22	6	○
3112H7-0499	*	4.99	5	1	70	28	22	6	○
3112H7-0500	*	5	5	1	70	28	22	6	●
3112H7-0501	*	5.01	5	1	70	28	22	6	●
3112H7-0502	*	5.02	5	1	70	28	22	6	●
3112H7-0503	*	5.03	5	1	70	28	22	6	●

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
✓		✓			

✓ Very suitable

✓ Suitable

System code > C156

Machining instructions > C201

Cutting data > C164

Nonstandard order > C170



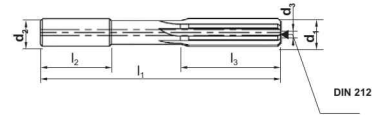
Reamer, straight flute

Steel, cast iron

3112H7



- Factory standard
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Teeth	Grade
		d ₁	d ₂ (h6)	d ₃ (m7)	l ₁	l ₂	l ₃		
3112H7-0504	*	5.04	5	1	70	28	22	6	○
3112H7-0505	*	5.05	5	1	70	28	22	6	○
3112H7-0550	*	5.5	6	1	70	28	22	6	○
3112H7-0553	*	5.53	6	1	70	28	22	6	○
3112H7-0561	*	5.61	6	1	70	28	22	6	○
3112H7-0593	*	5.93	6	1	70	28	22	6	○
3112H7-0595	*	5.95	6	1	100	36	22	6	●
3112H7-0596	*	5.96	6	1	100	36	22	6	●
3112H7-0597	*	5.97	6	1	100	36	22	6	●
3112H7-0598	*	5.98	6	1	100	36	22	6	●
3112H7-0599	*	5.99	6	1	100	36	22	6	●
3112H7-0600	*	6	6	1	100	36	22	6	●
3112H7-0601	*	6.01	6	1.3	100	36	22	6	●
3112H7-0602	*	6.02	6	1.3	100	36	22	6	●
3112H7-0603	*	6.03	6	1.3	100	36	22	6	●
3112H7-0635	*	6.35	8	1.3	100	36	22	6	○
3112H7-0650	*	6.5	8	1.3	100	36	22	6	○
3112H7-0655	*	6.55	8	1.3	100	36	22	6	○
3112H7-0693	*	6.93	8	1.3	100	36	22	6	○
3112H7-0695	*	6.95	8	1.3	110	42	25	6	○
3112H7-0696	*	6.96	8	1.3	110	42	25	6	○
3112H7-0697	*	6.97	8	1.3	110	42	25	6	○
3112H7-0698	*	6.98	8	1.3	110	42	25	6	○
3112H7-0699	*	6.99	8	1.3	110	42	25	6	○
3112H7-0700	*	7	8	1.3	110	42	25	6	●
3112H7-0701	*	7.01	8	1.3	110	42	25	6	●
3112H7-0702	*	7.02	8	1.3	110	42	25	6	●
3112H7-0703	*	7.03	8	1.3	110	42	25	6	●
3112H7-0750	*	7.5	8	1.3	110	42	25	6	○
3112H7-0770	*	7.7	8	1.3	110	42	25	6	○
3112H7-0793	*	7.93	8	1.3	110	42	25	6	○
3112H7-0795	*	7.95	8	1.3	110	42	25	6	○
3112H7-0796	*	7.96	8	1.3	110	42	25	6	○
3112H7-0797	*	7.97	8	1.3	110	42	25	6	○
3112H7-0798	*	7.98	8	1.3	110	42	25	6	○
3112H7-0799	*	7.99	8	1.3	110	42	25	6	○
3112H7-0800	*	8	8	1.3	110	42	25	6	●

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
✓		✓			

✓ Very suitable

✓ Suitable

System code > C156

Machining instructions > C201

Cutting data > C164

Nonstandard order > C170

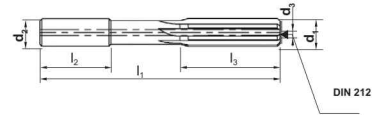
Reamer, straight flute

Steel, cast iron

3112H7



- Factory standard
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Teeth	Grade KRG102
		d ₁	d ₂ (h6)	d ₃ (m7)	l ₁	l ₂	l ₃		
3112H7-0801	*	8.01	8	2	110	42	25	6	●
3112H7-0802	*	8.02	8	2	110	42	25	6	●
3112H7-0803	*	8.03	8	2	110	42	25	6	●
3112H7-0880	*	8.8	10	2	110	42	25	6	○
3112H7-0885	*	8.85	10	2	110	42	25	6	○
3112H7-0900	*	9	10	2	110	42	25	6	●
3112H7-0901	*	9.01	10	2	110	42	25	6	●
3112H7-0902	*	9.02	10	2	110	42	25	6	○
3112H7-0903	*	9.03	10	2	110	42	25	6	●
3112H7-0920	*	9.2	10	2	110	42	25	6	○
3112H7-0930	*	9.3	10	2	110	42	25	6	○
3112H7-0993	*	9.93	10	2	110	42	25	6	○
3112H7-0995	*	9.95	10	2	110	38	25	6	○
3112H7-0996	*	9.96	10	2	110	38	25	6	○
3112H7-0997	*	9.97	10	2	110	38	25	6	○
3112H7-0998	*	9.98	10	2	110	38	25	6	○
3112H7-0999	*	9.99	10	2	110	38	25	6	○
3112H7-1000	*	10	10	2	110	38	25	6	●
3112H7-1001	*	10.01	10	2	110	38	25	6	●
3112H7-1002	*	10.02	10	2	110	38	25	6	●
3112H7-1003	*	10.03	10	2	110	38	25	6	●
3112H7-1024	*	10.24	10	2	110	38	24	6	○
3112H7-1100	*	11	12	2	110	38	28	6	●
3112H7-1101	*	11.01	10	2	110	38	24	6	●
3112H7-1102	*	11.02	10	2	110	38	24	6	○
3112H7-1103	*	11.03	10	2	110	38	24	6	●
3112H7-1155	*	11.55	12	2	110	38	28	6	○
3112H7-1195	*	11.95	12	2	110	38	28	6	○
3112H7-1196	*	11.96	12	2	110	38	28	6	○
3112H7-1197	*	11.97	12	2	110	38	28	6	○
3112H7-1198	*	11.98	12	2	110	38	28	6	○
3112H7-1199	*	11.99	12	2	110	38	28	6	○
3112H7-1200	*	12	12	2	110	38	28	6	●
3112H7-1201	*	12.01	12	2	110	38	28	6	●
3112H7-1202	*	12.02	12	2	110	38	28	6	●
3112H7-1203	*	12.03	12	2	110	38	28	6	●
3112H7-1300	*	13	14	2	110	38	28	6	●

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
✓		✓			

✓ Very suitable

✓ Suitable

System code > C156

Machining instructions > C201

Cutting data > C164

Nonstandard order > C170



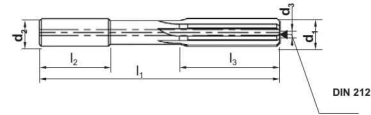
Reamer, straight flute

Steel, cast iron

3112H7



- Factory standard
- Coolant exit, axial concentric



Article	*	Dimensions [mm]						Teeth	Grade KRG102
		d ₁	d ₂ (h6)	d ₃ (m7)	l ₁	l ₂	l ₃		
3112H7-1301	*	13.01	14	2	110	38	28	6	●
3112H7-1302	*	13.02	14	2	110	38	28	6	●
3112H7-1303	*	13.03	14	2	110	38	28	6	●
3112H7-1394	*	13.94	14	2	110	38	28	6	○
3112H7-1400	*	14	14	2	110	38	32	6	●
3112H7-1401	*	14.01	14	2	110	38	28	6	●
3112H7-1402	*	14.02	14	2	110	38	28	6	●
3112H7-1403	*	14.03	14	2	110	38	28	6	●
3112H7-1500	*	15	16	2	110	38	32	6	●
3112H7-1501	*	15.01	16	2	110	38	28	6	●
3112H7-1502	*	15.02	16	2	110	38	28	6	○
3112H7-1503	*	15.03	16	2	110	38	28	6	●
3112H7-1565	*	15.65	16	2	110	38	28	6	○
3112H7-1593	*	15.93	16	2	110	38	28	6	○
3112H7-1595	*	15.95	16	2	150	52	32	6	○
3112H7-1596	*	15.96	16	2	150	52	32	6	○
3112H7-1597	*	15.97	16	2	150	52	32	6	○
3112H7-1598	*	15.98	16	2	150	52	32	6	○
3112H7-1599	*	15.99	16	2	150	52	32	6	○
3112H7-1600	*	16	16	2	150	52	32	6	●
3112H7-1601	*	16.01	16	3	150	52	32	6	●
3112H7-1602	*	16.02	16	3	150	52	32	6	○
3112H7-1603	*	16.03	16	3	150	52	32	6	●
3112H7-1800	*	18	18	3	150	52	36	6	●
3112H7-2000	*	20	20	3	150	50	36	6	●

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
✓		✓			

✓ Very suitable

✓ Suitable

System code > C156

Machining instructions > C201

Cutting data > C164

Nonstandard order > C170

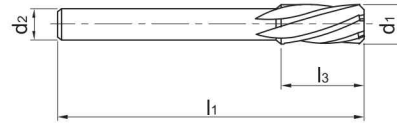
Reamer, left-hand twist

Cast iron, non-ferrous metals

3103H7



– Factory standard



Article	*	Dimensions [mm]				Teeth	Grade
		d ₁	d ₂ (h6)	l ₁	l ₃		YK10F
3103H7-0400		4	3.55	56	20	4	○
3103H7-0500		5	4	63	22	6	○
3103H7-0600		6	5	63	22	6	○
3103H7-0800		8	6.3	71	25	6	○
3103H7-0950		9.5	8	71	25	6	○
3103H7-1000		10	8	71	25	6	○
3103H7-1150		11.5	10	80	28	6	○
3103H7-1200		12	10	80	28	6	○
3103H7-1600		16	12.5	90	32	6	○
3103H7-1800		18	16	100	36	6	○

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
		✓	✓		

✓ Very suitable

✓ Suitable

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Guide for recommended cutting data – Solid carbide reamers

Solid carbide reamers

Material group	Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
					3101H7		3102H7		3112H7		3103H7		
					YK10F		YK10F		KRG102		YK10F		
					Coolant								
				external	f-group	external	f-group	internal	f-group	external	f-group		
P Unalloyed steel	ca. 0,15 % C	annealed	125	1									
	ca. 0,45 % C	annealed	190	2									
	ca. 0,45 % C	tempered	250	3									
	ca. 0,75 % C	annealed	270	4									
	ca. 0,75 % C	tempered	300	5									
	Low-alloyed steel		annealed	180	6					85	5		
			tempered	275	7					75	5		
			tempered	300	8					70	5		
			tempered	350	9					60	5		
	High-alloyed steel and high-alloyed tool steel		annealed	200	10					55	5		
		hardened and tempered	325	11					70	5			
M Stainless steel	ferritic/martensitic	annealed	200	12									
	martensitic	tempered	240	13									
	austenitic	quench hardened	180	14									
	austenitic-ferritic		230	15									
K Grey cast iron	perlitic/ferritic		180	16	23	5	23	5	75	5	23	5	
	perlitic (martensitic)		260	17	19	5	19	5	60	5	19	5	
	ferritic		160	18	19	5	19	5	60	5	19	5	
	perlitic		250	19	17	5	17	5	50	5	17	5	
	ferritic		130	20	23	5	23	5	75	5	23	5	
N Aluminium wrought alloys	perlitic		230	21	14	5	14	5	55	5	14	5	
	cannot be hardened		60	22	45	6	45	6			45	6	
	hardenable	hardened	100	23	40	6	40	6			40	6	
	Cast aluminium alloys	≤ 12% Si, cannot be hardened	75	24	37	6	37	6			37	6	
	≤ 12% Si, hardenable	hardened	90	25	35	6	35	6			35	6	
Copper and copper alloys (bronze/brass)	> 12% Si, cannot be hardened		130	26	32	6	32	6			32	6	
	machining steel, PB> 1%		110	27	37	6	37	6			37	6	
	CuZn, CuSnZn		90	28	34	6	34	6			34	6	
	CuSn, Pb-free copper, electrolytic copper		100	29	37	6	37	6			37	6	
S Heat-resistant alloys	Fe-based alloys	annealed	200	30									
		hardened	280	31									
	Ni or Co base	annealed	250	32									
		hardened	350	33									
		cast	320	34									
Titanium alloys	pure titanium		R _m 400	35									
	α and β alloys	hardened	R _m 1050	36									
H Hardened steel		hardened and tempered	55 HRC	37									
		hardened and tempered	60 HRC	38									
	Hard cast iron	cast	400	39									
	Hardened cast iron	hardened and tempered	55 HRC	40									
X Non-metallic materials	Thermoplasts			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. The values have to be adapted in individual cases. With hole depths of 5xD adjust the cutting data accordingly to the application. f-group = feed rate recommendations on page C140. For examples of material for cutting tool groups view page D22.

Recommend feed rate

Solid carbide reamers

f-group	Feed rate [mm]																				
	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20	
4	1	0,01	0,02	0,03	0,04	0,04	0,05	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,08	0,09	0,09	0,09	0,09	0,10	0,10
	2	0,01	0,02	0,03	0,04	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,10	0,10	0,10	0,10	0,11	0,11	0,11
	3	0,01	0,02	0,04	0,05	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,10	0,10	0,11	0,11	0,12	0,12	0,12	0,13	0,13
	4	0,02	0,03	0,04	0,06	0,06	0,07	0,08	0,09	0,09	0,10	0,11	0,11	0,12	0,12	0,13	0,13	0,14	0,14	0,15	0,15
5	5	0,02	0,03	0,05	0,06	0,07	0,09	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,14	0,15	0,15	0,16	0,16	0,17	0,17
	6	0,02	0,04	0,06	0,07	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	0,18	0,18	0,19	0,19	0,20
	7	0,02	0,04	0,06	0,09	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,18	0,19	0,20	0,20	0,21	0,22	0,22	0,23
	8	0,03	0,05	0,07	0,10	0,11	0,13	0,14	0,15	0,16	0,17	0,18	0,20	0,21	0,22	0,23	0,23	0,24	0,25	0,26	0,26
	9	0,03	0,06	0,08	0,11	0,13	0,15	0,16	0,17	0,18	0,20	0,21	0,23	0,24	0,25	0,26	0,27	0,28	0,29	0,29	0,30
	10	0,04	0,07	0,10	0,13	0,15	0,17	0,19	0,20	0,21	0,23	0,24	0,26	0,27	0,29	0,30	0,31	0,32	0,33	0,34	0,35
	11	0,04	0,07	0,11	0,15	0,17	0,20	0,21	0,23	0,24	0,26	0,28	0,30	0,32	0,33	0,35	0,36	0,37	0,38	0,39	0,40
	12	0,05	0,09	0,13	0,17	0,20	0,23	0,25	0,26	0,28	0,30	0,32	0,35	0,36	0,38	0,40	0,41	0,42	0,44	0,45	0,46
	13	0,05	0,10	0,15	0,20	0,23	0,26	0,28	0,30	0,32	0,35	0,37	0,40	0,42	0,44	0,46	0,47	0,49	0,50	0,52	0,53
	14	0,06	0,11	0,17	0,23	0,26	0,30	0,33	0,35	0,37	0,40	0,43	0,46	0,48	0,50	0,53	0,54	0,56	0,58	0,59	0,61
	15	0,07	0,13	0,20	0,26	0,30	0,35	0,37	0,40	0,43	0,46	0,49	0,53	0,55	0,58	0,61	0,62	0,64	0,66	0,68	0,70

Note: The given cutting values are guide values, which were determined under ideal conditions. The values have to be adapted in individual cases.

1. Select the appropriate product series.
2. Determine the immersion.
3. Select the used material and read the cutting speed.
4. Determine the feed rate group and have a look at the appropriate feed rate recommendations.
5. Select the diameter of tool and determine the immersion.

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Solid carbide reamers

Material group	Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
					3101H7		3102H7		3112H7		3103H7		
					YK10F		YK10F		KRG102		YK10F		
					Coolant								
Ext.	f-group	Ext.	f-group	Int.	f-group	Ext.	f-group	Ext.	f-group				
P Unalloyed steel	approx. 0,15 % C	annealed	125	1					85	5			
	approx. 0,45 % C	annealed	190	2					75	5			
	approx. 0,45 % C	tempered	250	3					70	5			
	approx. 0,75 % C	annealed	270	4					60	5			
	approx. 0,75 % C	tempered	300	5					55	5			
P Low-alloyed steel		annealed	180	6					75	5			
		tempered	275	7					60	5			
		tempered	300	8					55	5			
		tempered	350	9					55	5			
P High-alloyed steel and high-alloyed tool steel		annealed	200	10					70	5			
		hardened and tempered	325	11					55	5			
M Stainless steel	ferritic/martensitic	annealed	200	12									
	martensitic	tempered	240	13									
	austenitic	quench hardened	180	14									
	austenitic-ferritic		230	15									
K Grey cast iron	perlite/ferritic		180	16	23	5	23	5	75	5	23	5	
	perlite (martensitic)		260	17	19	5	19	5	60	5	19	5	
K Cast iron with spheroidal graphite	ferritic		160	18	19	5	19	5	60	5	19	5	
	perlite		250	19	17	5	17	5	50	5	17	5	
K Malleable cast iron	ferritic		130	20	23	5	23	5	75	5	23	5	
	perlite		230	21	14	5	14	5	55	5	14	5	
N Aluminium wrought alloys	cannot be hardened		60	22	45	6	45	6			45	6	
	hardenable	hardened	100	23	40	6	40	6			40	6	
	Cast aluminium alloys	$\leq 12\%$ Si, cannot be hardened		75	24	37	6	37	6			37	6
		$\leq 12\%$ Si, hardenable	hardened	90	25	35	6	35	6			35	6
		$> 12\%$ Si, cannot be hardened		130	26	32	6	32	6			32	6
Copper and copper alloys (bronze/brass)	machining steel, PB > 1%		110	27	37	6	37	6			37	6	
	CuZn, CuSnZn		90	28	34	6	34	6			34	6	
	CuSn, Pb-free copper, electrolytic copper		100	29	37	6	37	6			37	6	
S Heat-resistant alloys	Fe-based alloys	annealed	200	30									
		hardened	280	31									
	Ni or Co base	annealed	250	32									
		hardened	350	33									
		cast	320	34									
Titanium alloys	pure titanium	R_m 400	35										
	α and β alloys	hardened	R_m 1050	36									
H Hardened steel		hardened and tempered	55 HRC	37									
		hardened and tempered	60 HRC	38									
	Hard cast iron	cast	400	39									
H Hardened cast iron		hardened and tempered	55 HRC	40									
X Non-metallic materials	Thermoplasts			41									
	Thermosetting plastics			42									
	Plastic, glass-fibre reinforced GFRP			43									
	Plastic, carbon fibre reinforced CFRP			44									
	Graphite			45									
X Wood				46									

Note: The given cutting values are guide values, which were determined under ideal conditions.
 The values have to be adapted in individual cases.
 With hole depths of 5xD adjust the cutting data accordingly to the application.
 f-group = feed rate recommendations on page C168.
 For examples of material for cutting tool groups view page D11.

Recommended feed rate

Solid carbide reamers

f-group	Feed rate [mm]																			
	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20
1	0,01	0,02	0,03	0,04	0,04	0,05	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,08	0,09	0,09	0,09	0,09	0,10	0,10
2	0,01	0,02	0,03	0,04	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,09	0,10	0,10	0,10	0,10	0,11	0,11
3	0,01	0,02	0,04	0,05	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,10	0,10	0,11	0,11	0,12	0,12	0,12	0,13	0,13
4	0,02	0,03	0,04	0,06	0,06	0,07	0,08	0,09	0,09	0,10	0,11	0,11	0,12	0,12	0,13	0,13	0,14	0,14	0,15	0,15
5	0,02	0,03	0,05	0,06	0,07	0,09	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,14	0,15	0,15	0,16	0,16	0,17	0,17
6	0,02	0,04	0,06	0,07	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	0,18	0,18	0,19	0,19	0,20
7	0,02	0,04	0,06	0,09	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,18	0,19	0,20	0,20	0,21	0,22	0,22	0,23
8	0,03	0,05	0,07	0,10	0,11	0,13	0,14	0,15	0,16	0,17	0,18	0,20	0,21	0,22	0,23	0,23	0,24	0,25	0,26	0,26
9	0,03	0,06	0,08	0,11	0,13	0,15	0,16	0,17	0,18	0,20	0,21	0,23	0,24	0,25	0,26	0,27	0,28	0,29	0,29	0,30
10	0,04	0,07	0,10	0,13	0,15	0,17	0,19	0,20	0,21	0,23	0,24	0,26	0,27	0,29	0,30	0,31	0,32	0,33	0,34	0,35
11	0,04	0,07	0,11	0,15	0,17	0,20	0,21	0,23	0,24	0,26	0,28	0,30	0,32	0,33	0,35	0,36	0,37	0,38	0,39	0,40
12	0,05	0,09	0,13	0,17	0,20	0,23	0,25	0,26	0,28	0,30	0,32	0,35	0,36	0,38	0,40	0,41	0,42	0,44	0,45	0,46
13	0,05	0,10	0,15	0,20	0,23	0,26	0,28	0,30	0,32	0,35	0,37	0,40	0,42	0,44	0,46	0,47	0,49	0,50	0,52	0,53
14	0,06	0,11	0,17	0,23	0,26	0,30	0,33	0,35	0,37	0,40	0,43	0,46	0,48	0,50	0,53	0,54	0,56	0,58	0,59	0,61
15	0,07	0,13	0,20	0,26	0,30	0,35	0,37	0,40	0,43	0,46	0,49	0,53	0,55	0,58	0,61	0,62	0,64	0,66	0,68	0,70

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.

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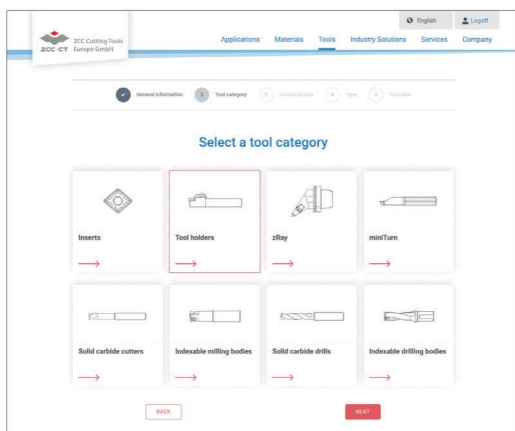
Example: Special tool holder



Example: Special solid carbide step drill

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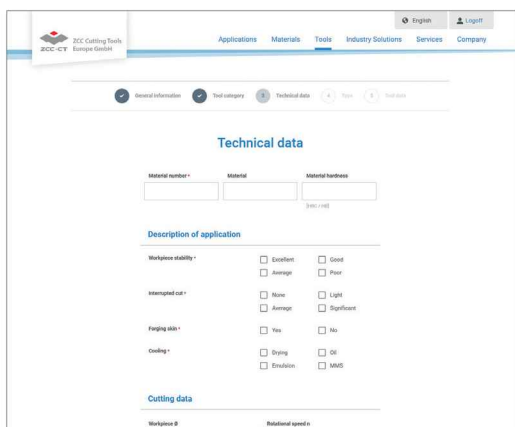
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Selecting the tool category

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Define the relevant tool parameters

Defining the tool parameters

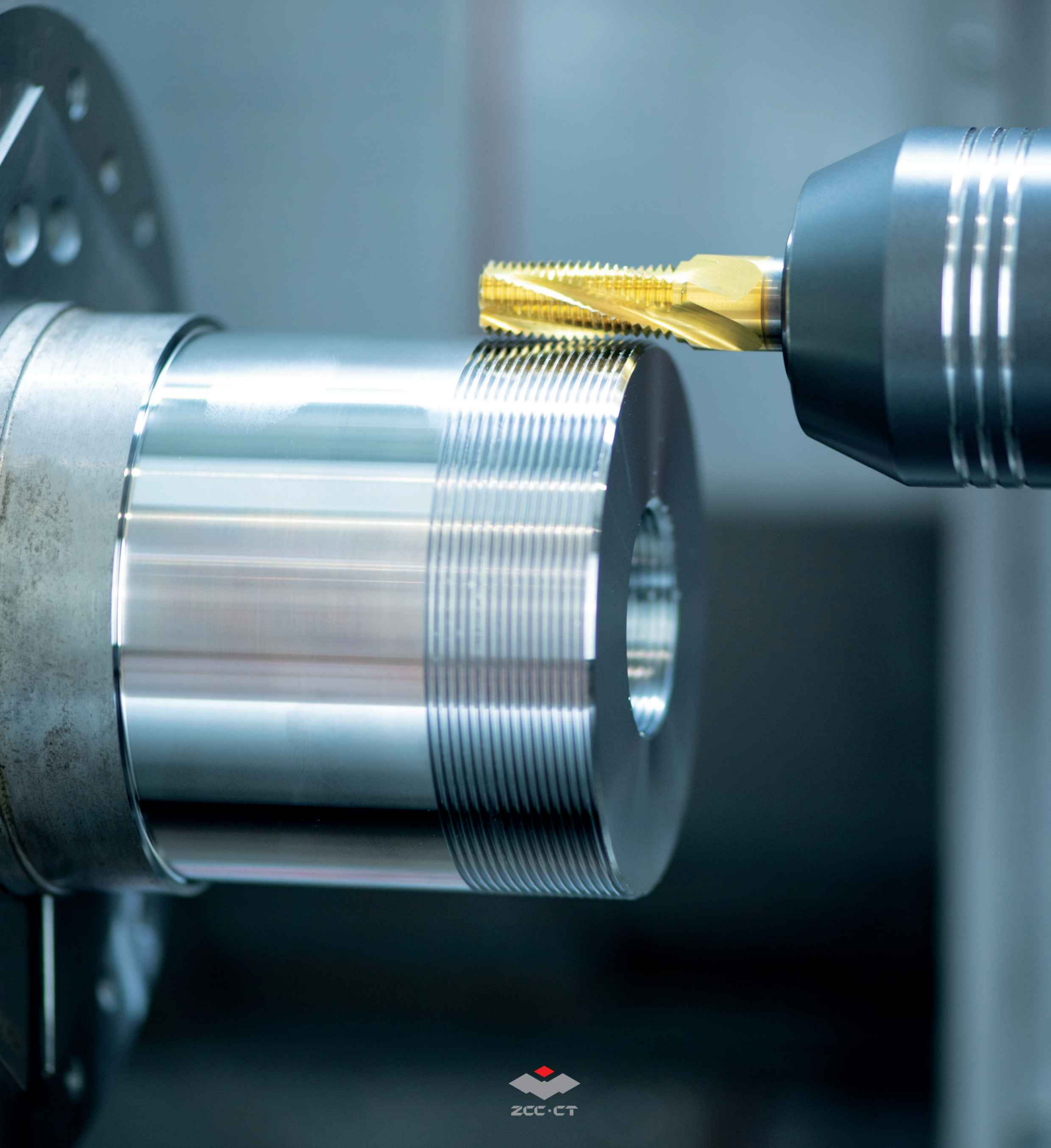
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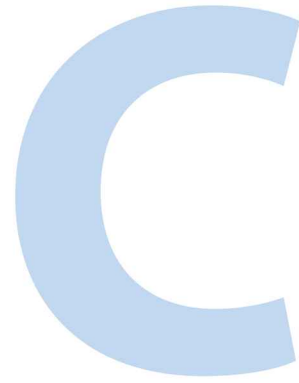
Now go directly to the new **special tool form** on our website and get started.

SOLID CARBIDE THREADING TOOLS



Solid carbide threading tools

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Grade overview	C175
System code – solid carbide threading tools	C176
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			P	M	K	N	S	H		
4122A		M1-M2.5				✓			Solid carbide thread formers	C177
4222A		M3-M16				✓			Solid carbide thread formers	C178
4122M		M1-M2.5	✓	✓					Solid carbide thread formers	C180
4222M		M3-M16	✓	✓					Solid carbide thread formers	C181
4201C		M3-M16			✓				Solid carbide tap, right-hand twist	C183
4202C		M3-M16			✓				Solid carbide tap, straight flute	C185
4201A		M3-M16				✓			Solid carbide tap, right-hand twist	C187
4202A		M3-M16				✓			Solid carbide tap, straight flute	C189
4111		M3-M20	✓		✓	✓			Solid carbide thread milling cutters	C191

✓ Very suitable ✓ Suitable

Coated cemented carbide PVD

Grade	Grade description
KTG402	PVD coated P20–P30/M20–M30 carbide substrate for steel and stainless steel. Especially for thread forming tools.

KTG4015	PVD coated P20–P30/K20–K30 carbide substrate for steel and cast iron. Especially for thread forming tools.
----------------	--

Uncoated cemented carbide

Grade	Grade description
YK40F	Uncoated K20–K30/N20–N30 carbide substrate for cast iron and non ferrous materials.

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4 2 0 1 A (C) (S) – M5x0.8 – 6H

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A

Turning

Type	
Code	Description
4	Threading tool

Shank type	
Code	Description
1	Straight shank
2	Straight shank DIN10
5	Straight shank DIN 6535 HA
9	Conical shank

B

Milling

1

2

Tool type	
Code	Description
0	Tap
1	Thread milling cutter
2	Thread former

Flute	
Code	Description
1	Right-hand twist
2	Straight
3	Left-hand twist

3

4

C

Drilling

Material	
Code	Description
A	Aluminum alloy
C	Cast iron
M	Stainless steel
P	Steel
H	Hardened steel

Coolant supply	
Code	Description
C	Internal

5

6

D

Technical Information

Blind hole	
Code	Description
S	Blind hole

Thread type	
Code	Description
M5x0.8	Standard production tolerance
...	Fine production tolerance

7

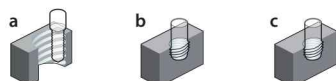
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Precision class	
Code	Description
6H	Nominal diameter x pitch
6HX	Fine production tolerance

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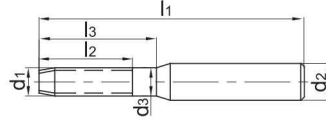




a Thread milling b Thread drilling c Thread forming

Thread former **Non-ferrous metals**

4122A 

– Factory standard



Article	* 	Dimensions [mm]								Teeth	Coredrill d	Grade YK40F
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃			
4122AS-M1*0.25-6H		1.5P	M1	0.25	3	1	40	5	6	3	0.9	○
4122AS-M1.2*0.25-6H		1.5P	M1.2	0.25	3	1.2	40	5	6	3	1.1	○
4122A-M1.6*0.35-6H		3P	M1.6	0.35	3	1.1	40	5	11	3	1.47	●
4122AS-M1.6*0.35-6H		1.5P	M1.6	0.35	3	1.1	40	5	11	3	1.47	●
4122A-M2*0.4-6H		3P	M2	0.4	3	1.5	45	6	12	3	1.85	●
4122AS-M2*0.4-6H		1.5P	M2	0.4	3	1.5	45	6	12	3	1.85	●
4122A-M2.5*0.45-6H		3P	M2.5	0.45	3	1.9	50	6	14	3	2.33	○
4122AS-M2.5*0.45-6H		1.5P	M2.5	0.45	3	1.9	50	6	14	3	2.33	●

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C176

Machining instructions > C201

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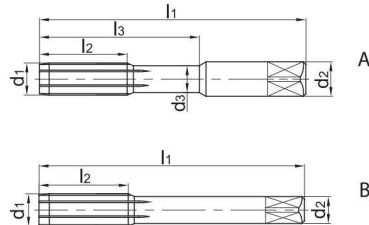
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Thread former Non-ferrous metals

4222A



- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]									Teeth	Geometry	Coredrill		Grade
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃	d			YK40F		
4222A-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	6	18	4	A	2.8	○		
4222AS-M3*0.5-6H		1.5P	M3	0.5	3.5	2.3	56	6	18	4	A	2.8	●		
4222A-M4*0.5-6H		3P	M4	0.5	4.5	3.1	63	8	21	4	A	3.8	○		
4222AS-M4*0.5-6H		1.5P	M4	0.5	4.5	3.1	63	8	21	4	A	3.8	○		
4222A-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	8	21	4	A	3.7	○		
4222AS-M4*0.7-6H		1.5P	M4	0.7	4.5	3.1	63	8	21	4	A	3.7	○		
4222A-M5*0.5-6H		3P	M5	0.5	6	4.3	70	10	25	4	A	4.8	○		
4222AS-M5*0.5-6H		1.5P	M5	0.5	6	4.3	70	10	25	4	A	4.8	○		
4222A-M5*0.8-6H		3P	M5	0.8	6	4	70	10	25	4	A	4.65	○		
4222AS-M5*0.8-6H		1.5P	M5	0.8	6	4	70	10	25	4	A	4.65	○		
4222A-M6*0.75-6H		3P	M6	0.75	6	5	80	12	30	4	A	5.7	○		
4222AS-M6*0.75-6H		1.5P	M6	0.75	6	5	80	12	30	4	A	5.7	○		
4222A-M6*1-6H		3P	M6	1	6	4.7	80	12	30	4	A	5.6	○		
4222AS-M6*1-6H		1.5P	M6	1	6	4.7	80	12	30	4	A	5.6	○		
4222A-M7*1.0-6H		3P	M7	1	7	5.7	80	14	30	4	A	6.6	○		
4222AS-M7*1.0-6H		1.5P	M7	1	7	5.7	80	14	30	4	A	6.6	○		
4222A-M8*1.0-6H		3P	M8	1	8	6.7	90	16	35	4	A	7.6	○		
4222AS-M8*1-6H		1.5P	M8	1	8	6.7	90	16	35	4	A	7.6	○		
4222A-M8*1.25-6H		3P	M8	1.25	8	6.4	90	16	35	4	A	7.45	○		
4222AS-M8*1.25-6H		1.5P	M8	1.25	8	6.4	90	16	35	4	A	7.45	○		
4222A-M10*1-6H		3P	M10	1	10	8.7	100	20	39	5	A	9.6	○		
4222AS-M10*1-6H		1.5P	M10	1	10	8.7	100	20	39	5	A	9.6	○		
4222A-M10*1.25-6H		3P	M10	1.25	10	8.4	100	20	39	5	A	9.45	○		
4222AS-M10*1.25-6H		1.5P	M10	1.25	10	8.4	100	20	39	5	A	9.45	○		
4222A-M10*1.5-6H		3P	M10	1.5	10	8.1	100	20	39	5	A	9.35	○		
4222AC-M10*1.5-6H	*	3P	M10	1.5	10	8.1	100	20	39	5	A	9.35	○		
4222AS-M10*1.5-6H		1.5P	M10	1.5	10	8.1	100	20	39	5	A	9.35	○		
4222ACS-M10*1.5-6H	*	1.5P	M10	1.5	10	8.1	100	20	39	5	A	9.35	○		
4222A-M12*1.25-6H		3P	M12	1.25	9		110	24		5	B	11.45	○		
4222AS-M12*1.25-6H		1.5P	M12	1.25	9		110	24		5	B	11.45	○		
4222A-M12*1.5-6H		3P	M12	1.5	9		110	24		5	B	11.35	○		
4222AS-M12*1.5-6H		1.5P	M12	1.5	9		110	24		5	B	11.35	○		
4222A-M12*1.75-6H		3P	M12	1.75	9		110	24		5	B	11.25	○		

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C176

Machining instructions > C201

Cutting data > C192

Nonstandard order > C198

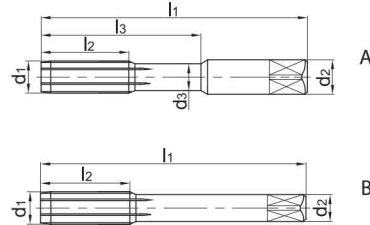
Thread former

Non-ferrous metals

4222A



- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃			d	YK40F
4222AC-M12*1.75-6H	*	3P	M12	1.75	9	110	24	5	B	11.25	○		
4222AS-M12*1.75-6H		1.5P	M12	1.75	9	110	24	5	B	11.25	○		
4222ACS-M12*1.75-6H	*	1.5P	M12	1.75	9	110	24	5	B	11.25	○		
4222A-M14*1.5-6H		3P	M14	1.5	11	110	26	6	B	13.35	○		
4222AS-M14*1.5-6H		1.5P	M14	1.5	11	110	26	6	B	13.35	○		
4222A-M14*2-6H		3P	M14	2	11	110	26	6	B	13.1	○		
4222A-M16*1.5-6H		3P	M16	1.5	12	110	27	6	B	15.35	○		
4222AS-M16*1.5-6H		1.5P	M16	1.5	12	110	27	6	B	15.35	○		
4222A-M16*2-6H		3P	M16	2	12	110	27	6	B	15.1	○		
4222AC-M16*2.0-6H	*	3P	M16	2	12	110	27	6	B	15.1	○		
4222AS-M16*2.0-6H		1.5P	M16	2	12	110	27	6	B	15.1	○		
4222ACS-M16*2.0-6H	*	1.5P	M16	2	12	110	27	6	B	15.1	○		

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
			✓		

- ✓ Very suitable
- ✓ Suitable

A

Turning

B

Milling

C

Drilling

D

Technical Information

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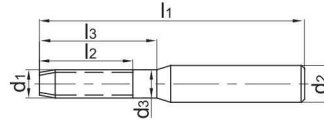
A

Thread former **Steel, stainless steel**

4122M



– Factory standard



Turning

B

Milling

Article	*	Dimensions [mm]									Teeth	Coredrill		Grade	
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃	d		KTG402	YK40F		
4122M-M1*0.25-6H		3P	M1	0.25	3		40	5	6	4	0.9	●	○		
4122MS-M1*0.25-6H		2P	M1	0.25	3		40	5	6	4	0.9	●	○		
4122M-M1.2*0.25-6H		3P	M1.2	0.25	3		40	5	6	4	1.1	○	○		
4122MS-M1.2*0.25-6H		2P	M1.2	0.25	3		40	5	6	4	1.1	○	○		
4122M-M1.6*0.35-6H		3P	M1.6	0.35	3	1.1	40	5	11	4	1.47	○	○		
4122MS-M1.6*0.35-6H		2P	M1.6	0.35	3	1.1	40	5	11	4	1.47	○	○		
4122M-M2*0.4-6H		3P	M2	0.4	3	1.5	45	6	12	4	1.85	●	○		
4122MS-M2*0.4-6H		2P	M2	0.4	3	1.5	45	6	12	4	1.85	●	○		
4122M-M2.5*0.45-6H		3P	M2.5	0.45	3	1.9	50	6	14	4	2.33	○	○		
4122MS-M2.5*0.45-6H		2P	M2.5	0.45	3	1.9	50	6	14	4	2.33	●	○		

● Ex stock ○ On demand

* With internal cooling

C

Drilling

Application field

P	M	K	N	S	H
✓	✓				

✓ Very suitable

✓ Suitable

D

Technical Information

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System code > C176

Machining instructions > C201

Cutting data > C192

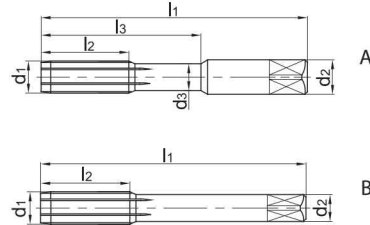
Nonstandard order > C198

Thread former **Steel, stainless steel**

4222M



- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]									Teeth	Geometry	Coredrill		Grade	
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃	d			KTG402	YK40F		
4222M-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	6	18	4	A	2.8	●	○		
4222MS-M3*0.5-6H		2P	M3	0.5	3.5	2.3	56	6	18	4	A	2.8	○	○		
4222M-M4*0.5-6H		3P	M4	0.5	4.5	3.1	63	8	21	4	A	3.8	●	○		
4222MS-M4*0.5-6H		2P	M4	0.5	4.5	3.1	63	8	21	4	A	3.8	○	○		
4222M-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	8	21	4	A	3.7	●	○		
4222MS-M4*0.7-6H		2P	M4	0.7	4.5	3.1	63	8	21	4	A	3.7	●	○		
4222M-M5*0.5-6H		3P	M5	0.5	6	4.3	70	10	25	4	A	4.8	●	○		
4222MS-M5*0.5-6H		2P	M5	0.5	6	4.3	70	10	25	4	A	4.8	●	○		
4222M-M5*0.8-6H		3P	M5	0.8	6	4	70	10	25	4	A	4.65	●	○		
4222MS-M5*0.8-6H		2P	M5	0.8	6	4	70	10	25	4	A	4.65	●	○		
4222M-M6*0.75-6H		3P	M6	0.75	6	5	80	12	30	4	A	5.7	●	○		
4222MS-M6*0.75-6H		2P	M6	0.75	6	5	80	12	30	4	A	5.7	●	○		
4222M-M6*1.0-6H		3P	M6	1	6	4.7	80	12	30	4	A	5.6	●	○		
4222MS-M6*1.0-6H		2P	M6	1	6	4.7	80	12	30	4	A	5.6	●	○		
4222M-M7*1.0-6H		3P	M7	1	7	5.7	80	14	30	4	A	6.6	○	○		
4222MS-M7*1.0-6H		2P	M7	1	7	5.7	80	14	30	4	A	6.6	○	○		
4222M-M8*1.0-6H		3P	M8	1	8	6.7	90	16	35	4	A	7.6	●	○		
4222MS-M8*1.0-6H		2P	M8	1	8	6.7	90	16	35	4	A	7.6	○	○		
4222M-M8*1.25-6H		3P	M8	1.25	8	6.4	90	16	35	4	A	7.45	●	○		
4222MS-M8*1.25-6H		2P	M8	1.25	8	6.4	90	16	35	4	A	7.45	●	○		
4222M-M10*1.0-6H		3P	M10	1	10	8.7	100	20	39	5	A	9.6	○	○		
4222MS-M10*1.0-6H		2P	M10	1	10	8.7	100	20	39	5	A	9.6	○	○		
4222M-M10*1.25-6H		3P	M10	1.25	10	8.4	100	20	39	5	A	9.45	○	○		
4222MS-M10*1.25-6H		2P	M10	1.25	10	8.4	100	20	39	5	A	9.45	●	○		
4222M-M10*1.5-6H		3P	M10	1.5	10	8.1	100	20	39	5	A	9.35	●	○		
4222MC-M10*1.5-6H	*	3P	M10	1.5	10	8.1	100	20	39	5	A	9.35	●	○		
4222MS-M10*1.5-6H		2P	M10	1.5	10	8.1	100	20	39	5	A	9.35	●	○		
4222MCS-M10*1.5-6H	*	2P	M10	1.5	10	8.1	100	20	39	5	A	9.35	●	○		
4222M-M12*1.25-6H		3P	M12	1.25	9		110	24		5	B	11.45	●	○		
4222MS-M12*1.25-6H		2P	M12	1.25	9		110	24		5	B	11.45	●	○		
4222M-M12*1.5-6H		3P	M12	1.5	9		110	24		5	B	11.35	○	○		
4222MS-M12*1.5-6H		2P	M12	1.5	9		110	24		5	B	11.35	○	○		
4222M-M12*1.75-6H		3P	M12	1.75	9		110	24		5	B	11.25	○	○		

- Ex stock ○ On demand
- * With internal cooling

Application field					
P	M	K	N	S	H
✓	✓				

- ✓ Very suitable
- ✓ Suitable

System code > C176 Machining instructions > C201 Cutting data > C192 Nonstandard order > C198



A

Turning

B

Milling

C

Drilling

D

Technical Information

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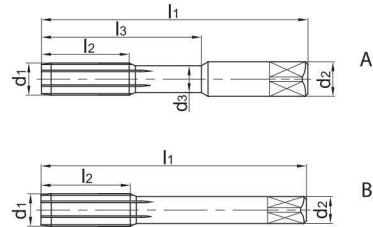
A

Thread former **Steel, stainless steel**

4222M



- Type of shank DIN 10
- Coolant exit, axial concentric



Turning

B

Milling

C

Drilling

Article	*	Dimensions [mm]									Teeth	Geometry	Coredrill		Grade	
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃	d			KTG402	YK40F		
4222MC-M12*1.75-6H	*	3P	M12	1.75	9		110	24	5	B	11.25	○	○			
4222MS-M12*1.75-6H		2P	M12	1.75	9		110	24	5	B	11.25	●	○			
4222MCS-M12*1.75-6H	*	2P	M12	1.75	9		110	24	5	B	11.25	○	○			
4222M-M14*1.5-6H		3P	M14	1.5	11		110	26	6	B	13.35	●	○			
4222MS-M14*1.5-6H		2P	M14	1.5	11		110	26	6	B	13.35	○	○			
4222M-M14*2.0-6H		3P	M14	2	11		110	26	6	B	13.1	○	○			
4222MS-M14*2.0-6H		2P	M14	2	11		110	26	6	B	13.1	○	○			
4222M-M16*1.5-6H		3P	M16	1.5	12		110	27	6	B	15.35	●	○			
4222MS-M16*1.5-6H		2P	M16	1.5	12		110	27	6	B	15.35	○	○			
4222M-M16*2.0-6H		3P	M16	2	12		110	27	6	B	15.1	○	○			
4222MC-M16*2.0-6H	*	3P	M16	2	12		110	27	6	B	15.1	○	○			
4222MS-M16*2.0-6H		2P	M16	2	12		110	27	6	B	15.1	○	○			
4222MCS-M16*2.0-6H	*	2P	M16	2	12		110	27	6	B	15.1	●	○			

● Ex stock ○ On demand

* With internal cooling

D

Technical Information

Application field

P	M	K	N	S	H
✓	✓				

✓ Very suitable

✓ Suitable

E

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System code > C176

Machining instructions > C201

Cutting data > C192

Nonstandard order > C198

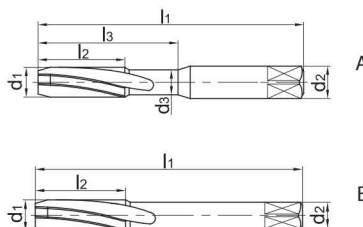
Tap, right-hand twist

Cast iron

4201C



- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]									Teeth	Geometry	Coredrill		Grade
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃	d			YK40F		
4201C-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●		
4201C-M3*0.5-6HX		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●		
4201CS-M3*0.5-6H		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●		
4201CS-M3*0.5-6HX		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●		
4201C-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●		
4201C-M4*0.7-6HX		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●		
4201CS-M4*0.7-6H		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●		
4201CS-M4*0.7-6HX		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●		
4201C-M5*0.8-6H		3P	M5	0.8	6	4	70	16	25	3	A	4.2	●		
4201C-M5*0.8-6HX		3P	M5	0.8	6	4	70	16	25	3	A	4.2	●		
4201CS-M5*0.8-6H		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	●		
4201CS-M5*0.8-6HX		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	●		
4201C-M6*0.75-6H		3P	M6	0.75	6	5	80	19	30	3	A	5.25	●		
4201C-M6*0.75-6HX		3P	M6	0.75	6	5	80	19	30	3	A	5.25	●		
4201CS-M6*0.75-6H		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	●		
4201CS-M6*0.75-6HX		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	●		
4201C-M6*1-6H		3P	M6	1	6	4.7	80	19	30	3	A	5	○		
4201CC-M6*1-6H	*	3P	M6	1	6	4.7	80	19	30	3	A	5	○		
4201C-M6*1-6HX		3P	M6	1	6	4.7	80	19	30	3	A	5	○		
4201CS-M6*1.0-6H		1.5P	M6	1	6	4.7	80	19	30	3	A	5	●		
4201CCS-M6*1-6H	*	1.5P	M6	1	6	4.7	80	19	30	3	A	5	●		
4201CS-M6*1.0-6HX		1.5P	M6	1	6	4.7	80	19	30	3	A	5	●		
4201C-M7*1-6H		3P	M7	1	7	5.7	80	19	30	3	A	6	○		
4201CS-M7*1.0-6H		1.5P	M7	1	7	5.7	80	19	30	3	A	6	●		
4201C-M8*1-6H		3P	M8	1	8	6.7	90	20	35	3	A	7	○		
4201CS-M8*1.0-6H		1.5P	M8	1	8	6.7	90	20	35	3	A	7	●		
4201C-M8*1.25-6H		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●		
4201CC-M8*1.25-6H	*	3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●		
4201C-M8*1.25-6HX		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●		
4201CS-M8*1.25-6H		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○		
4201CCS-M8*1.25-6H	*	1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○		
4201CS-M8*1.25-6HX		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○		
4201C-M10*1-6H		3P	M10	1	10	8.7	100	20	39	4	A	9	○		

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
		✓			

✓ Very suitable

✓ Suitable

System code > C176

Machining instructions > C201

Cutting data > C192

Nonstandard order > C198



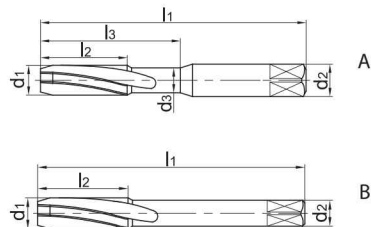
Tap, right-hand twist

Cast iron

4201C



- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]									Teeth	Geometry	Core-drill	Grade
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃	d			YK40F	
4201CS-M10*1-6H		1.5P	M10	1	10	8.7	100	20	39	4	A	9	○	
4201C-M10*1.25-6H		3P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○	
4201CS-M10*1.25-6H		1.5P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○	
4201C-M10*1.5-6H		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○	
4201CC-M10*1.5-6H	*	3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○	
4201C-M10*1.5-6HX		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○	
4201CS-M10*1.5-6H		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○	
4201CCS-M10*1.5-6H	*	1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	●	
4201CS-M10*1.5-6HX		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○	
4201C-M12*1.25-6H		3P	M12	1.25	9		110	29		4	B	10.75	○	
4201CS-M12*1.25-6H		1.5P	M12	1.25	9		110	29		4	B	10.75	○	
4201C-M12*1.5-6H		3P	M12	1.5	9		110	29		4	B	10.5	○	
4201CS-M12*1.5-6H		1.5P	M12	1.5	9		110	29		4	B	10.5	○	
4201C-M12*1.75-6H		3P	M12	1.75	9		110	29		4	B	10.25	○	
4201CC-M12*1.75-6H	*	3P	M12	1.75	9		110	29		4	B	10.25	●	
4201C-M12*1.75-6HX		3P	M12	1.75	9		110	29		4	B	10.25	○	
4201CS-M12*1.75-6H		1.5P	M12	1.75	9		110	29		4	B	10.25	○	
4201CCS-M12*1.75-6H	*	1.5P	M12	1.75	9		110	29		4	B	10.25	○	
4201CS-M12*1.75-6HX		1.5P	M12	1.75	9		110	29		4	B	10.25	○	
4201C-M14*1.5-6H		3P	M14	1.5	11		110	30		4	B	12.5	○	
4201CS-M14*1.5-6H		1.5P	M14	1.5	11		110	30		4	B	12.5	○	
4201C-M14*2-6H		3P	M14	2	11		110	30		4	B	12	○	
4201CS-M14*2-6H		1.5P	M14	2	11		110	30		4	B	12	○	
4201C-M16*1.5-6H		3P	M16	1.5	12		110	32		4	B	14.5	○	
4201CS-M16*1.5-6H		1.5P	M16	1.5	12		110	32		4	B	14.5	○	
4201C-M16*2-6H		3P	M16	2	12		110	32		4	B	14	○	
4201CS-M16*2-6H		1.5P	M16	2	12		110	32		4	B	14	○	
4201C-M16*2-6HX		3P	M16	2	12		110	32		4	B	14	○	
4201CS-M16*2-6H		1.5P	M16	2	12		110	32		4	B	14	○	
4201CS-M16*2.0-6HX		1.5P	M16	2	12		110	32		4	B	14	●	

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
		✓			

- ✓ Very suitable
- ✓ Suitable

System code > C176

Machining instructions > C201

Cutting data > C192

Nonstandard order > C198

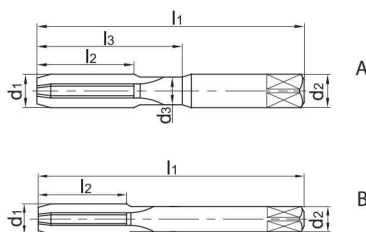
Tap, straight flute

Cast iron

4202C



- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]									Teeth	Geometry	Coredrill	Grade
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃	d			YK40F	
4202C-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○	
4202C-M3*0.5-6HX		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○	
4202CS-M3*0.5-6H		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○	
4202CS-M3*0.5-6HX		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○	
4202C-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●	
4202C-M4*0.7-6HX		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○	
4202CS-M4*0.7-6H		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○	
4202CS-M4*0.7-6HX		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○	
4202C-M5*0.8-6H		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○	
4202C-M5*0.8-6HX		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○	
4202CS-M5*0.8-6H		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	○	
4202CS-M5*0.8-6HX		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	○	
4202C-M6*0.75-6H		3P	M6	0.75	6	5	80	19	30	3	A	5.25	○	
4202C-M6*0.75-6HX		3P	M6	0.75	6	5	80	19	30	3	A	5.25	○	
4202CS-M6*0.75-6H		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	○	
4202CS-M6*0.75-6HX		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	○	
4202C-M6*1.0-6H		3P	M6	1	6	4.7	80	19	30	3	A	5	○	
4202CC-M6*1.0-6H	*	3P	M6	1	6	4.7	80	19	30	3	A	5	○	
4202C-M6*1.0-6HX		3P	M6	1	6	4.7	80	19	30	3	A	5	○	
4202CS-M6*1.0-6H		1.5P	M6	1	6	4.7	80	19	30	3	A	5	○	
4202CCS-M6*1.0-6H	*	1.5P	M6	1	6	4.7	80	19	30	3	A	5	○	
4202CS-M6*1.0-6HX		1.5P	M6	1	6	4.7	80	19	30	3	A	5	○	
4202C-M7*1.0-6H		3P	M7	1	7	5.7	80	19	30	3	A	6	○	
4202CS-M7*1.0-6H		1.5P	M7	1	7	5.7	80	19	30	3	A	6	○	
4202C-M8*1-6H		3P	M8	1	8	6.7	90	20	35	3	A	7	○	
4202CS-M8*1.0-6H		1.5P	M8	1	8	6.7	90	20	35	3	A	7	○	
4202C-M8*1.25-6H		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○	
4202CC-M8*1.25-6H	*	3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○	
4202C-M8*1.25-6HX		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○	
4202CS-M8*1.25-6H		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○	
4202CCS-M8*1.25-6H	*	1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○	
4202CS-M8*1.25-6HX		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○	
4202C-M10*1.0-6H		3P	M10	1	10	8.7	100	20	39	4	A	9	○	

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
		✓			

✓ Very suitable

✓ Suitable

System code > C176

Machining instructions > C201

Cutting data > C192

Nonstandard order > C198



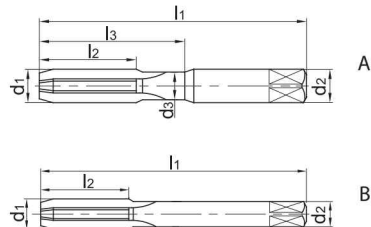
Tap, straight flute

Cast iron

4202C



- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]									Teeth	Geometry	Coredrill d	Grade YK40F
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃					
4202CS-M10*1.0-6H		1.5P	M10	1	10	8.7	100	20	39	4	A	9	○	
4202C-M10*1.25-6H		3P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○	
4202CS-M10*1.25-6H		1.5P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○	
4202C-M10*1.5-6H		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○	
4202CC-M10*1.5-6H	*	3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○	
4202C-M10*1.5-6HX		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○	
4202CS-M10*1.5-6H		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○	
4202CCS-M10*1.5-6H	*	1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○	
4202CS-M10*1.5-6HX		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○	
4202C-M12*1.25-6H		3P	M12	1.25	9		110	29		4	B	10.75	○	
4202CS-M12*1.25-6H		1.5P	M12	1.25	9		110	29		4	B	10.75	○	
4202C-M12*1.5-6H		3P	M12	1.5	9		110	29		4	B	10.5	○	
4202CS-M12*1.5-6H		1.5P	M12	1.5	9		110	29		4	B	10.5	○	
4202C-M12*1.75-6H		3P	M12	1.75	9		110	29		4	B	10.25	○	
4202CC-M12*1.75-6H	*	3P	M12	1.75	9		110	29		4	B	10.25	○	
4202C-M12*1.75-6HX		3P	M12	1.75	9		110	29		4	B	10.25	○	
4202CS-M12*1.75-6H		1.5P	M12	1.75	9		110	29		4	B	10.25	○	
4202CCS-M12*1.75-6H	*	1.5P	M12	1.75	9		110	29		4	B	10.25	○	
4202CS-M12*1.75-6HX		1.5P	M12	1.75	9		110	29		4	B	10.25	○	
4202C-M14*1.5-6H		3P	M14	1.5	11		110	30		4	B	12.5	○	
4202CS-M14*1.5-6H		1.5P	M14	1.5	11		110	30		4	B	12.5	○	
4202C-M14*2.0-6H		3P	M14	2	11		110	30		4	B	12	○	
4202CS-M14*2.0-6H		1.5P	M14	2	11		110	30		4	B	12	○	
4202C-M16*1.5-6H		3P	M16	1.5	12		110	32		4	B	14.5	○	
4202CS-M16*1.5-6H		1.5P	M16	1.5	12		110	32		4	B	14.5	○	
4202C-M16*2-6H		3P	M16	2	12		110	32		4	B	14	○	
4202CS-M16*2-6H		1.5P	M16	2	12		110	32		4	B	14	○	
4202C-M16*2-6HX		3P	M16	2	12		110	32		4	B	14	○	
4202CS-M16*2-6H		1.5P	M16	2	12		110	32		4	B	14	○	
4202CS-M16*2.0-6HX		1.5P	M16	2	12		110	32		4	B	14	○	

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
		✓			

✓ Very suitable

✓ Suitable

System code > C176

Machining instructions > C201

Cutting data > C192

Nonstandard order > C198

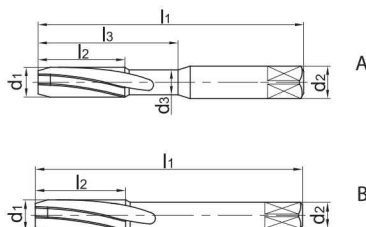
Tap, right-hand twist

Non-ferrous metals

4201A



- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]									Teeth	Geometry	Coredrill d	Grade YK40F
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃					
4201A-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●	
4201A-M3*0.5-6HX		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○	
4201AS-M3*0.5-6H		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●	
4201AS-M3*0.5-6HX		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○	
4201A-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●	
4201A-M4*0.7-6HX		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○	
4201AS-M4*0.7-6H		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●	
4201AS-M4*0.7-6HX		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○	
4201A-M5*0.8-6H		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○	
4201A-M5*0.8-6HX		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○	
4201AS-M5*0.8-6H		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	●	
4201AS-M5*0.8-6HX		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	○	
4201A-M6*0.75-6H		3P	M6	0.75	6	5	80	19	30	3	A	5.25	○	
4201A-M6*0.75-6HX		3P	M6	0.75	6	5	80	19	30	3	A	5.25	●	
4201AS-M6*0.75-6H		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	●	
4201AS-M6*0.75-6HX		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	○	
4201A-M6*1-6H		3P	M6	1	6	4.7	80	19	30	3	A	5	○	
4201AC-M6*1-6H	*	3P	M6	1	6	4.7	80	19	30	3	A	5	○	
4201A-M6*1-6HX		3P	M6	1	6	4.7	80	19	30	3	A	5	○	
4201AS-M6*1-6H		1.5P	M6	1	6	4.7	80	19	30	3	A	5	●	
4201ACS-M6*1-6H	*	1.5P	M6	1	6	4.7	80	19	30	3	A	5	●	
4201AS-M6*1-6HX		1.5P	M6	1	6	4.7	80	19	30	3	A	5	○	
4201A-M7*1-6H		3P	M7	1	7	5.7	80	19	30	3	A	6	○	
4201AS-M7*1-6H		1.5P	M7	1	7	5.7	80	19	30	3	A	6	○	
4201A-M8*1-6H		3P	M8	1	8	6.7	90	20	35	3	A	7	○	
4201AS-M8*1-6H		1.5P	M8	1	8	6.7	90	20	35	3	A	7	●	
4201A-M8*1.25-6H		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○	
4201AC-M8*1.25-6H	*	3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●	
4201A-M8*1.25-6HX		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○	
4201AS-M8*1.25-6H		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●	
4201ACS-M8*1.25-6H	*	1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●	
4201AS-M8*1.25-6HX		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○	
4201A-M10*1-6H		3P	M10	1	10	8.7	100	20	39	4	A	9	●	

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C176

Machining instructions > C201

Cutting data > C192

Nonstandard order > C198



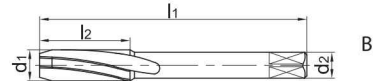
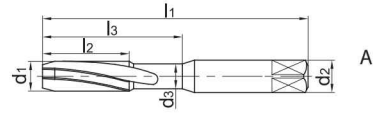
Tap, right-hand twist

Non-ferrous metals

4201A



- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]									Teeth	Geometry	Coredrill		Grade
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃	d			YK40F		
4201AS-M10*1-6H		1.5P	M10	1	10	8.7	100	20	39	4	A	9	●		
4201A-M10*1.25-6H		3P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○		
4201AS-M10*1.25-6H		1.5P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○		
4201A-M10*1.5-6H		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○		
4201AC-M10*1.5-6H	*	3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	●		
4201A-M10*1.5-6HX		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○		
4201AS-M10*1.5-6H		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	●		
4201ACS-M10*1.5-6H	*	1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○		
4201AS-M10*1.5-6HX		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○		
4201A-M12*1.25-6H		3P	M12	1.25	9		110	29		4	B	10.75	○		
4201AS-M12*1.25-6H		1.5P	M12	1.25	9		110	29		4	B	10.75	○		
4201A-M12*1.5-6H		3P	M12	1.5	9		110	29		4	B	10.5	○		
4201AS-M12*1.5-6H		1.5P	M12	1.5	9		110	29		4	B	10.5	○		
4201A-M12*1.75-6H		3P	M12	1.75	9		110	29		4	B	10.25	○		
4201AC-M12*1.75-6H	*	3P	M12	1.75	9		110	29		4	B	10.25	○		
4201A-M12*1.75-6HX		3P	M12	1.75	9		110	29		4	B	10.25	○		
4201AS-M12*1.75-6H		1.5P	M12	1.75	9		110	29		4	B	10.25	●		
4201ACS-M12*1.75-6H	*	1.5P	M12	1.75	9		110	29		4	B	10.25	○		
4201AS-M12*1.75-6HX		1.5P	M12	1.75	9		110	29		4	B	10.25	○		
4201A-M14*1.5-6H		3P	M14	1.5	11		110	30		4	B	12.5	○		
4201AS-M14*1.5-6H		1.5P	M14	1.5	11		110	30		4	B	12.5	○		
4201A-M14*2-6H		3P	M14	2	11		110	30		4	B	12	○		
4201AS-M14*2-6H		1.5P	M14	2	11		110	30		4	B	12	○		
4201A-M16*1.5-6H		3P	M16	1.5	12		110	32		4	B	14.5	○		
4201AS-M16*1.5-6H		1.5P	M16	1.5	12		110	32		4	B	14.5	○		
4201A-M16*2-6H		3P	M16	2	12		110	32		4	B	14	○		
4201AS-M16*2-6H		1.5P	M16	2	12		110	32		4	B	14	○		
4201A-M16*2-6HX		3P	M16	2	12		110	32		4	B	14	○		
4201AS-M16*2-6H		1.5P	M16	2	12		110	32		4	B	14	○		
4201AS-M16*2-6HX		1.5P	M16	2	12		110	32		4	B	14	○		

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C176

Machining instructions > C201

Cutting data > C192

Nonstandard order > C198

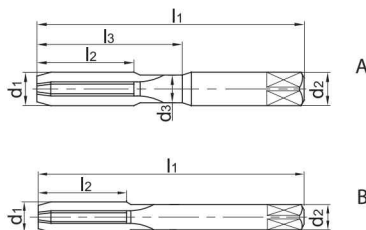
Tap, straight flute

Non-ferrous metals

4202A



- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]									Teeth	Geometry	Coredrill		Grade
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃	d			YK40F		
4202A-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○		
4202A-M3*0.5-6HX		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○		
4202AS-M3*0.5-6H		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○		
4202AS-M3*0.5-6HX		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○		
4202A-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○		
4202A-M4*0.7-6HX		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○		
4202AS-M4*0.7-6H		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○		
4202AS-M4*0.7-6HX		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○		
4202A-M5*0.8-6H		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○		
4202A-M5*0.8-6HX		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○		
4202AS-M5*0.8-6H		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	○		
4202AS-M5*0.8-6HX		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	○		
4202A-M6*0.75-6H		3P	M6	0.75	6	5	80	19	30	3	A	5.25	○		
4202A-M6*0.75-6HX		3P	M6	0.75	6	5	80	19	30	3	A	5.25	○		
4202AS-M6*0.75-6H		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	○		
4202AS-M6*0.75-6HX		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	○		
4202A-M6*1-6H		3P	M6	1	6	4.7	80	19	30	3	A	5	○		
4202AC-M6*1.0-6H	*	3P	M6	1	6	4.7	80	19	30	3	A	5	○		
4202A-M6*1-6HX		3P	M6	1	6	4.7	80	19	30	3	A	5	○		
4202AS-M6*1.0-6H		1.5P	M6	1	6	4.7	80	19	30	3	A	5	○		
4202ACS-M6*1-6H	*	1.5P	M6	1	6	4.7	80	19	30	3	A	5	○		
4202AS-M6*1.0-6HX		1.5P	M6	1	6	4.7	80	19	30	3	A	5	○		
4202A-M7*1-6H		3P	M7	1	7	5.7	80	19	30	3	A	6	○		
4202AS-M7*1.0-6H		1.5P	M7	1	7	5.7	80	19	30	3	A	6	○		
4202A-M8*1-6H		3P	M8	1	8	6.7	90	20	35	3	A	7	○		
4202AS-M8*1.0-6H		1.5P	M8	1	8	6.7	90	20	35	3	A	7	○		
4202A-M8*1.25-6H		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○		
4202AC-M8*1.25-6H	*	3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○		
4202A-M8*1.25-6HX		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○		
4202AS-M8*1.25-6H		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○		
4202ACS-M8*1.25-6H	*	1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○		
4202AS-M8*1.25-6HX		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○		
4202A-M10*1-6H		3P	M10	1	10	8.7	100	20	39	4	A	9	○		

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
			✓		

✓ Very suitable

✓ Suitable

System code > C176

Machining instructions > C201

Cutting data > C192

Nonstandard order > C198

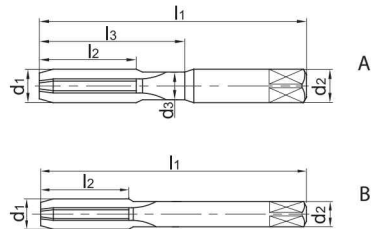


Tap, straight flute Non-ferrous metals

4202A



- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]									Teeth	Geometry	Coredrill		Grade
			d ₁	P	d ₂	d ₃	l ₁	l ₂	l ₃	d			YK40F		
4202AS-M10*1.0-6H		1.5P	M10	1	10	8.7	100	20	39	4	A	9	○		
4202A-M10*1.25-6H		3P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○		
4202AS-M10*1.25-6H		1.5P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○		
4202A-M10*1.5-6H		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○		
4202AC-M10*1.5-6H	*	3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○		
4202A-M10*1.5-6HX		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○		
4202AS-M10*1.5-6H		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○		
4202ACS-M10*1.5-6H	*	1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○		
4202AS-M10*1.5-6HX		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○		
4202A-M12*1.25-6H		3P	M12	1.25	9		110	29		4	B	10.75	○		
4202AS-M12*1.25-6H		1.5P	M12	1.25	9		110	29		4	B	10.75	○		
4202A-M12*1.5-6H		3P	M12	1.5	9		110	29		4	B	10.5	○		
4202AS-M12*1.5-6H		1.5P	M12	1.5	9		110	29		4	B	10.5	○		
4202A-M12*1.75-6H		3P	M12	1.75	9		110	29		4	B	10.25	○		
4202AC-M12*1.75-6H	*	3P	M12	1.75	9		110	29		4	B	10.25	○		
4202A-M12*1.75-6HX		3P	M12	1.75	9		110	29		4	B	10.25	○		
4202AS-M12*1.75-6H		1.5P	M12	1.75	9		110	29		4	B	10.25	●		
4202ACS-M12*1.75-6H	*	1.5P	M12	1.75	9		110	29		4	B	10.25	○		
4202AS-M12*1.75-6HX		1.5P	M12	1.75	9		110	29		4	B	10.25	○		
4202A-M14*1.5-6H		3P	M14	1.5	11		110	30		4	B	12.5	○		
4202AS-M14*1.5-6H		1.5P	M14	1.5	11		110	30		4	B	12.5	○		
4202A-M14*2-6H		3P	M14	2	11		110	30		4	B	12	○		
4202AS-M14*2.0-6H		1.5P	M14	2	11		110	30		4	B	12	○		
4202A-M16*1.5-6H		3P	M16	1.5	12		110	32		4	B	14.5	○		
4202AS-M16*1.5-6H		1.5P	M16	1.5	12		110	32		4	B	14.5	○		
4202A-M16*2-6H		3P	M16	2	12		110	32		4	B	14	○		
4202AS-M16*2-6H		1.5P	M16	2	12		110	32		4	B	14	○		
4202A-M16*2-6HX		3P	M16	2	12		110	32		4	B	14	○		
4202AS-M16*2.0-6H		1.5P	M16	2	12		110	32		4	B	14	○		
4202AS-M16*2.0-6HX		1.5P	M16	2	12		110	32		4	B	14	○		

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
			✓		

- ✓ Very suitable
- ✓ Suitable

System code > C176

Machining instructions > C201

Cutting data > C192

Nonstandard order > C198

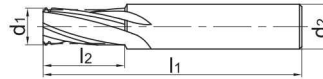
Thread milling cutter, coated

Steel, cast iron, non-ferrous metals

4111



– Factory standard



Article	*	Dimensions [mm]						Teeth	Coredrill d	Grade	
		D	d ₁	P	d ₂	l ₁	l ₂			KTG4015	YK40F
4111-M3*0.5		M3	2.35	0.5	4	50	6	3	2.5	●	●
4111-M4*0.7		M4	3.15	0.7	4	50	8	3	3.3	●	○
4111-M5*0.8		M5	4	0.8	6	50	10	3	4.2	●	○
4111-M5*0.5		M5	4.3	0.5	6	50	10	3	4.5	●	○
4111-M6*1		M6	4.75	1	6	60	12	4	5	●	●
4111-M6*0.75		M6	5	0.75	6	60	12	4	5.25	●	○
4111-M8*1.25		M8	6.45	1.25	8	60	16	4	6.75	●	●
4111-M8*1		M8	6.65	1	8	60	16	4	7	●	○
4111-M10*1.5		M10	8.1	1.5	10	75	20	4	8.5	●	○
4111-M10*1		M10	8.55	1	10	75	20	4	9	●	○
4111-M12*1.75		M12	9.75	1.75	12	75	24	4	10.25	●	○
4111-M12*1.25		M12	10.25	1.25	12	75	24	4	10.75	●	○
4111-M14*2		M14	11.4	2	14	75	28	4	12	●	○
4111-M14*1.5		M14	11.9	1.5	14	75	28	4	12.5	●	○
4111-M14*1		M14	12.35	1	14	75	20	4	13	●	○
4111-M16*2		M16	13.3	2	16	90	32	6	14	●	○
4111-M18*2.5		M18	14.75	2.5	18	90	36	6	15.5	●	○
4111-M18*1		M18	16.15	1	18	90	20	6	17	●	○
4111-M20*2.5		M20	16.65	2.5	18	100	40	6	17.5	●	○
4111-M20*2		M20	17.1	2	18	100	40	6	18	●	○

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
✓		✓	✓		

✓ Very suitable

✓ Suitable

System code > C176

Machining instructions > C201

Cutting data > C192

Nonstandard order > C198

Guide for recommended cutting data – Solid carbide threading tools

Solid carbide threading tools

Material group	Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v _c [m/min]							f-group		
					Thread former		Thread former			Thread former				
					4122A 4222A	4122M 4222M	4201C	4201A	4202C	4202A	KTG40115			
					YK40F	YK40F	YK40F	YK40F	YK40F	YK40F				
					Coolant									
					external	external	external	external	external	external	external			
P	Unalloyed steel	ca. 0,15 % C	annealed	125	1		20					100	1	
		ca. 0,45 % C	annealed	190	2		20					90	1	
		ca. 0,45 % C	tempered	250	3		20					80	1	
		ca. 0,75 % C	annealed	270	4		20					70	1	
	Low-alloyed steel		annealed	180	6		20					90	1	
			tempered	275	7		20					70	1	
			tempered	300	8		20					60	1	
			tempered	350	9		20					55	1	
High-alloyed steel and high-alloyed tool steel		annealed	200	10		20					80	1		
		hardened and tempered	325	11		20					50	1		
M	Stainless steel	ferritic/martensitic		200	12		20							
		martensitic	tempered	240	13		20							
		austenitic	quench hardened	180	14		20							
		austenitic-ferritic		230	15		20							
K	Grey cast iron	perlite/ferritic		180	16			20		20		80	1	
		perlite (martensitic)		260	17			20		20		60	1	
	Cast iron with spheroidal graphite	ferritic		160	18			15		15		80	1	
		perlite		250	19			15		15		60	1	
	Malleable cast iron	ferritic		130	20			20		20		60	1	
perlite			230	21			20		20		80	1		
N	Aluminium wrought alloys	cannot be hardened		60	22							180	1	
		hardenable	hardened	100	23							150	1	
	Cast aluminium alloys	≤ 12 % Si, cannot be hardened		75	24	30	30			30		30	150	1
		≤ 12 % Si, hardenable	hardened	90	25	25	25			25		25	150	1
		> 12 % Si, cannot be hardened		130	26								150	1
Copper and copper alloys (bronze/brass)	machining steel, PB > 1%			110	27							150	1	
	CuZn, CuSnZn			90	28							150	1	
	CuSn, Pb-free copper, electrolytic copper			100	29							150	1	
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30									
			hardened	280	31									
		Ni or Co base	annealed	250	32									
			hardened	350	33									
	Titanium alloys	pure titanium		R _m 400	35									
α and β alloys		hardened	R _m 1050	36										
H	Hardened steel		hardened and tempered	55 HRC	37									
	Hard cast iron		hardened and tempered	60 HRC	38									
	Hardened cast iron		cast	400	39									
X	Non-metallic materials		hardened and tempered	55 HRC	40									
		Thermoplasts			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.

The values have to be adapted in individual cases.

With hole depths of 5xD adjust the cutting data accordingly to the application.

f-group = feed rate recommendations on page C164.

For examples of material for cutting tool groups view page D22.

Recommend feed rate

Solid carbide threading tools

4

f-group	Feed rate [mm]																			
	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20
1	0,01	0,02	0,03	0,04	0,04	0,05	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,08	0,09	0,09	0,09	0,09	0,10	0,10
2	0,01	0,02	0,03	0,04	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,09	0,10	0,10	0,10	0,11	0,11	0,11
3	0,01	0,02	0,04	0,05	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,10	0,10	0,11	0,11	0,12	0,12	0,12	0,13	0,13
4	0,02	0,03	0,04	0,06	0,06	0,07	0,08	0,09	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,15	0,15	0,16	0,16	0,17
5	0,02	0,03	0,05	0,06	0,07	0,09	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,14	0,15	0,15	0,16	0,16	0,17	0,17
6	0,02	0,04	0,06	0,07	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	0,18	0,18	0,19	0,19	0,20
7	0,02	0,04	0,06	0,09	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,18	0,19	0,20	0,20	0,21	0,22	0,22	0,23
8	0,03	0,05	0,07	0,10	0,11	0,13	0,14	0,15	0,16	0,17	0,18	0,20	0,21	0,22	0,23	0,23	0,24	0,25	0,26	0,26
9	0,03	0,06	0,08	0,11	0,13	0,15	0,16	0,17	0,18	0,20	0,21	0,23	0,24	0,25	0,26	0,27	0,28	0,29	0,29	0,30
10	0,04	0,07	0,10	0,13	0,15	0,17	0,19	0,20	0,21	0,23	0,24	0,26	0,27	0,29	0,30	0,31	0,32	0,33	0,34	0,35
11	0,04	0,07	0,11	0,15	0,17	0,20	0,21	0,23	0,24	0,26	0,28	0,30	0,32	0,33	0,35	0,36	0,37	0,38	0,39	0,40
12	0,05	0,09	0,13	0,17	0,20	0,23	0,25	0,26	0,28	0,30	0,32	0,35	0,36	0,38	0,40	0,41	0,42	0,44	0,45	0,46
13	0,05	0,10	0,15	0,20	0,23	0,26	0,28	0,30	0,32	0,35	0,37	0,40	0,42	0,44	0,46	0,47	0,49	0,50	0,52	0,53
14	0,06	0,11	0,17	0,23	0,26	0,30	0,33	0,35	0,37	0,40	0,43	0,46	0,48	0,50	0,53	0,54	0,56	0,58	0,59	0,61
15	0,07	0,13	0,20	0,26	0,30	0,35	0,37	0,40	0,43	0,46	0,49	0,53	0,55	0,58	0,61	0,62	0,64	0,66	0,68	0,70

Note: The given cutting values are guide values, which were determined under ideal conditions. The values have to be adapted in individual cases.

1. Select the appropriate product series.
2. Determine the immersion.
3. Select the used material and read the cutting speed.
4. Determine the feed rate group and have a look at the appropriate feed rate recommendations.
5. Select the diameter of tool and determine the immersion.

A

Turning

B

Milling

C

Drilling

D

Technical Information

E

Index

Solid carbide threading tools

Material group	Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]									
					Thread former		Thread tap			Thread milling				
					4122A 4222A	4122M 4222M	4201C	4201A	4202C	4202A	4111			
					YK40F	YK40F	YK40F	YK40F	YK40F	YK40F	KTG4015			
				Coolant										
				External	External	External	External	External	External	External	External	f-group		
P	Unalloyed steel	approx. 0,15 % C	annealed	125	1		20					100	1	
		approx. 0,45 % C	annealed	190	2		20					90	1	
		approx. 0,45 % C	tempered	250	3		20					80	1	
		approx. 0,75 % C	annealed	270	4		20					70	1	
		approx. 0,75 % C	tempered	300	5		20					70	1	
	Low-alloyed steel		annealed	180	6		20					90	1	
			tempered	275	7		20					70	1	
			tempered	300	8		20					60	1	
			tempered	350	9		20					55	1	
		High-alloyed steel and high-alloyed tool steel	annealed	200	10		20					80	1	
	hardened and tempered	325	11		20					50	1			
M	Stainless steel	ferritic/martensitic	annealed	200	12		20							
		martensitic	tempered	240	13		20							
		austenitic	quench hardened	180	14		20							
		austenitic-ferritic		230	15		20							
K	Grey cast iron	perlitic/ferritic		180	16			20		20		80	1	
		perlitic (martensitic)		260	17			20		20		60	1	
	Cast iron with spheroidal graphite	ferritic		160	18			15		15		80	1	
		perlitic		250	19			15		15		60	1	
	Malleable cast iron	ferritic		130	20			20		20		60	1	
		perlitic		230	21			20		20		80	1	
N	Aluminium wrought alloys	cannot be hardened		60	22							180	1	
		hardenable	hardened	100	23							150	1	
	Cast aluminium alloys	$\leq 12\% \text{ Si}$, cannot be hardened		75	24	30	30		30		30	150	1	
		$\leq 12\% \text{ Si}$, hardenable	hardened	90	25	25	25		25		25	150	1	
		$> 12\% \text{ Si}$, cannot be hardened		130	26							150	1	
	Copper and copper alloys (bronze/brass)	machining steel, PB> 1%			110	27						150	1	
		CuZn, CuSnZn			90	28						150	1	
CuSn, Pb-free copper, electrolytic copper			100	29						150	1			
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30									
			hardened	280	31									
		Ni or Co bass	annealed	250	32									
			hardened	350	33									
	Titanium alloys	pure titanium		R _m 400	35									
		α and β alloys	hardened		R _m 1050	36								
H	Hardened steel		hardened and tempered	55 HRC	37									
			hardened and tempered	60 HRC	38									
	Hard cast iron		cast	400	39									
	Hardened cast iron		hardened and tempered	55 HRC	40									
X	Non-metallic materials	Thermoplasts			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.
 The values have to be adapted in individual cases.
 With hole depths of 5xD adjust the cutting data accordingly to the application.
 f-group = feed rate recommendations on page C196.
 For examples of material for cutting tool groups view page D11.

Recommended feed rate

Solid carbide threading tools

Groupe f	Feed rate [mm]																			
	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20
1	0,01	0,02	0,03	0,04	0,04	0,05	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,08	0,09	0,09	0,09	0,09	0,10	0,10
2	0,01	0,02	0,03	0,04	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,09	0,10	0,10	0,10	0,10	0,11	0,11
3	0,01	0,02	0,04	0,05	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,10	0,10	0,11	0,11	0,12	0,12	0,12	0,13	0,13
4	0,02	0,03	0,04	0,06	0,06	0,07	0,08	0,09	0,09	0,10	0,11	0,11	0,12	0,12	0,13	0,13	0,14	0,14	0,15	0,15
5	0,02	0,03	0,05	0,06	0,07	0,09	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,14	0,15	0,15	0,16	0,16	0,17	0,17
6	0,02	0,04	0,06	0,07	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	0,18	0,18	0,19	0,19	0,20
7	0,02	0,04	0,06	0,09	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,18	0,19	0,20	0,20	0,21	0,22	0,22	0,23
8	0,03	0,05	0,07	0,10	0,11	0,13	0,14	0,15	0,16	0,17	0,18	0,20	0,21	0,22	0,23	0,23	0,24	0,25	0,26	0,26
9	0,03	0,06	0,08	0,11	0,13	0,15	0,16	0,17	0,18	0,20	0,21	0,23	0,24	0,25	0,26	0,27	0,28	0,29	0,29	0,30
10	0,04	0,07	0,10	0,13	0,15	0,17	0,19	0,20	0,21	0,23	0,24	0,26	0,27	0,29	0,30	0,31	0,32	0,33	0,34	0,35
11	0,04	0,07	0,11	0,15	0,17	0,20	0,21	0,23	0,24	0,26	0,28	0,30	0,32	0,33	0,35	0,36	0,37	0,38	0,39	0,40
12	0,05	0,09	0,13	0,17	0,20	0,23	0,25	0,26	0,28	0,30	0,32	0,35	0,36	0,38	0,40	0,41	0,42	0,44	0,45	0,46
13	0,05	0,10	0,15	0,20	0,23	0,26	0,28	0,30	0,32	0,35	0,37	0,40	0,42	0,44	0,46	0,47	0,49	0,50	0,52	0,53
14	0,06	0,11	0,17	0,23	0,26	0,30	0,33	0,35	0,37	0,40	0,43	0,46	0,48	0,50	0,53	0,54	0,56	0,58	0,59	0,61
15	0,07	0,13	0,20	0,26	0,30	0,35	0,37	0,40	0,43	0,46	0,49	0,53	0,55	0,58	0,61	0,62	0,64	0,66	0,68	0,70

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.

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Special tools – fine-tuned to your specific application

Special applications call for special solutions optimised to the task. Special tools are able to deliver real benefits from a commercial, technical or process perspective over standard tool solutions in all industry sectors. We work with you to assess the potential in each individual case, taking into account the general conditions available at your company ZCC Cutting Tools Europe's R&D department then develops a custom solution for you at our EU headquarters in Düsseldorf to keep your machining costs as low as possible.

Why opt for special tools from ZCC Cutting Tools?

We develop customised tool solutions for you for a wide range of machining operations. We work closely with you from day one to design tools optimised to meet your needs and priorities. From design and production to logistics, we draw on many years of experience to offer a full range of expert services. Take advantage of our expertise to ensure the long-term success of your company.



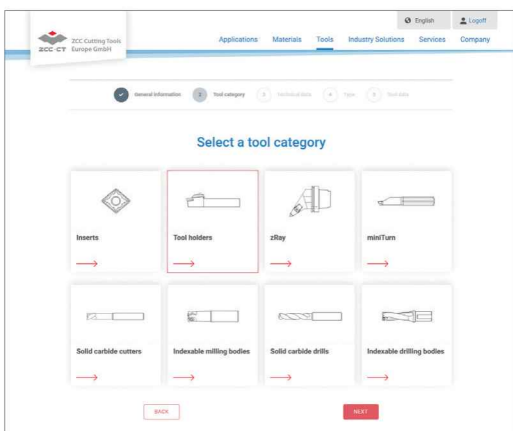
Example: Special tool holder



Example: Special solid carbide step drill

The easy way to order your custom-made special tool

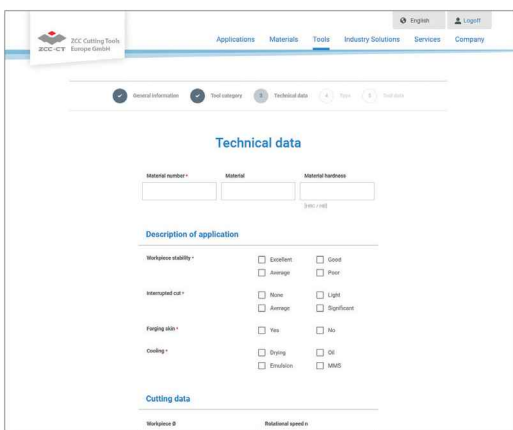
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'Online tool for special tools' launch page where you can select the tool category

Selecting the tool category

Scan the QR code on this page to go directly to the launch page of our online tool where you can request the special tool you need. You can begin by selecting the tool category you need. It's that easy.



Define the relevant tool parameters

Defining the tool parameters

You are now guided step by step through the process. You can also securely upload your drawings, diagrams and 3D models (where available).

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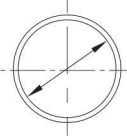
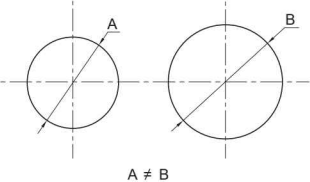
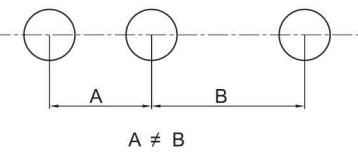
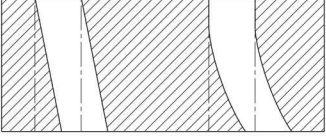
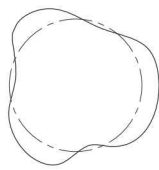
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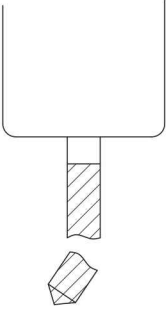


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Trouble shooting – solid carbide drills

	Error	Reason	Countermeasure
<p data-bbox="272 282 416 304">Oversized holes</p> 	<ul style="list-style-type: none"> - Insufficient clamping of workpiece and/or tool - Large radial run out - Point relief is off centre 	<ul style="list-style-type: none"> - Use precision clamping - Reduce spindle play - Check and adjust clamped drill 	
	<ul style="list-style-type: none"> - Asymmetric point angle - Large radial run out - Point relief is off centre 	<ul style="list-style-type: none"> - Regrind drill - Check quality of regrinding 	
<p data-bbox="264 526 424 548">Irregular hole size</p> 	<ul style="list-style-type: none"> - Asymmetric point angle - Large radial run out - Point relief is off centre - High wear 	<ul style="list-style-type: none"> - Use precision clamping - Reduce spindle play - Check and adjust clamped drill 	
	<ul style="list-style-type: none"> - Insufficient clamping of work piece and/or tool - Large radial run out - Point relief is off centre - High wear 	<ul style="list-style-type: none"> - Use precision clamping - Reduce spindle play - Check and adjust clamped drill 	
	<ul style="list-style-type: none"> - Feed rate too high 	<ul style="list-style-type: none"> - Reduce feed rate 	
	<ul style="list-style-type: none"> - Insufficient coolant 	<ul style="list-style-type: none"> - Increase amount of coolant or change coolant supply 	
<p data-bbox="244 963 445 985">Low position accuracy</p> 	<ul style="list-style-type: none"> - Insufficient clamping and spindle positioning - Large radial run out of spindle 	<ul style="list-style-type: none"> - Improve positioning of machine - Use precision clamping - Calibrate spindle - Check and adjust clamped drill 	
	<ul style="list-style-type: none"> - The feed direction is not vertical to the workpiece surface 	<ul style="list-style-type: none"> - Adjust feed rate vertically to workpiece surface 	
	<ul style="list-style-type: none"> - Tool isn't aligned with centre of spindle (lathe machines) 	<ul style="list-style-type: none"> - Centre the tool 	
<p data-bbox="272 1265 416 1288">Bad drill run out</p> 	<ul style="list-style-type: none"> - High tool wear 	<ul style="list-style-type: none"> - Regrind drill 	
	<ul style="list-style-type: none"> - Poor drill accuracy 	<ul style="list-style-type: none"> - Improve positioning of drill 	
	<ul style="list-style-type: none"> - Asymmetric point angle - Large radial run out - Point relief is off centre 	<ul style="list-style-type: none"> - Regrind drill - Check quality of regrinding 	
	<ul style="list-style-type: none"> - Insufficient tool stability - Uneven workpiece surface - Tool isn't aligned with centre of spindle (lathe machines) 	<ul style="list-style-type: none"> - Improve stability of tool - Before boring align the workpiece horizontally to the drill or pre-machine the workpiece 	
<p data-bbox="220 1657 469 1680">Inaccurate hole (roundness)</p> 	<ul style="list-style-type: none"> - Asymmetric point angle - Large radial run out - Point relief is off centre - High wear 	<ul style="list-style-type: none"> - Regrind drill - Check quality of regrinding 	
	<ul style="list-style-type: none"> - Insufficient clamping of work piece and/or tool - Large radial run out of spindle 	<ul style="list-style-type: none"> - Use precision clamping - Calibrate spindle - Check and adjust clamped drill 	
	<ul style="list-style-type: none"> - Clearance angle too large 	<ul style="list-style-type: none"> - Regrind the drill 	
	<ul style="list-style-type: none"> - Insufficient tool stability 	<ul style="list-style-type: none"> - Improve tool stability 	

Trouble shooting – solid carbide drills

Error	Reason	Countermeasure
Bad surface quality	– Bad drill regrinding	– Improve regrinding
	– Insufficient amount of coolant or coolant method	– Change coolant supply – Increase amount of coolant
	– Insufficient clamping – Large radial run out of spindle	– Use precision clamping – Calibrate spindle
	– Feed rate too high	– Reduce feed rate
	– High wear of cutting edge – High welding	– Regrind drill – Use a coated drill
	– Bad chip removal	– Chose a suitable drill (with an accordingly flute, helical angle etc.) – Adjust cutting speed (reduce feed rate, etc.)
Bad cylindricity 	– No symmetrical point angle – Large radial run out (drilling) – Centre insert is off centre – Large cutting edge wear – Feed rate too low	– Regrind drill – Check regrind – Increase feed rate
Breakage of drill 	– Insufficient clamping of tool and/or workpiece – Clearance angle too small – Feed rate too high – Excessive wear – Chip jamming – Drilling in uneven surfaces	– Improve stability of tool and clamping of workpiece – Use a drill with bigger clearance angle or regrind – Reduce feed rate – Regrind drill – Chose a suitable drill (considering flute geometry, helical angle, etc.) – Adjust cutting speed – Reduce feed rate – Increase rigidity of drill and clamping of machine and workpiece – Use drill with sharp centre insert – Pre-drill a centre hole – Create a straight surface (e.g. with solid carbide milling cutter) – Use a guide bush or bush plate
Chipping on the drill 	– Hard surface or blow holes – Feed rate too high – Insufficient coolant	– Check material and chose suitable grade – Change cutting conditions (cutting speed, feed rate or machining method) – Reduce feed rate – Improve/increase coolant supply
Chipping on the cutting edge 	– Poor clamping – Large radial run out – Cutting speed and feed rate too high – Clearance angle too large	– Use a more precise clamping device – Adjust the spindle – Reduce cutting speed and feed rate – Use a drill with smaller clearance angle or regrind

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Trouble shooting – solid carbide drills

Error	Reason	Countermeasure
Excessive wear 	– Overdue regrinding	– Regrind in time
	– Drill tip not in centre position	– Adjust drill with centre of spindle
	– Cutting speed too high	– Reduce cutting speed
	– Cutting angle not suitable	– Chose right cutting angle
	– Material not suitable	– Chose suitable material
	– Insufficient cooling	– Use suitable cooling
Wear and chipping on point relief	– Feed rate too high	– Reduce feed rate
	– Cutting angle not suitable	– Chose right cutting angle
	– Material not suitable	– Chose suitable material
	– Clearance angle too small	– Regrind drill
Breakage on margin	– Guide bush too large	– Change guide bush
Built up edge on margin	– High wear and heat	– Regrind drill
	– Insufficient cooling	– Change cooling method
	– Incorrect coolant	– Change coolant
	– Workpiece material is too soft	– Use drill with smaller clearance angle
High vibrations	– Clearance angle too large	– Regrind drill
	– Drill stability too low	– Improve stability
Swarf clogs the drill	– Long chips – Chip removal not fluent	– Optimise cutting data – Change drill or adjust machine
One-side wear	– Drill tip not centred	– Adjust drill with centre of spindle
	– Poor clamping	– Improve drill clamping – Check concentricity

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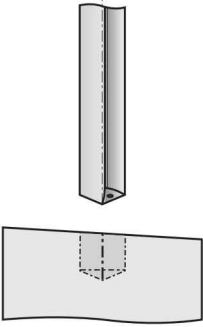
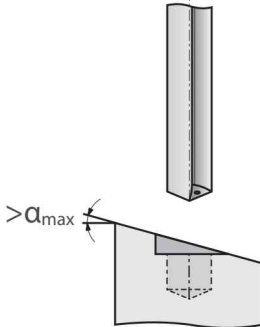
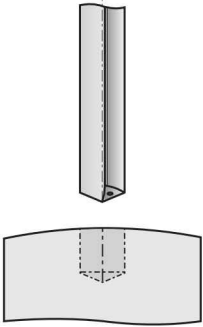
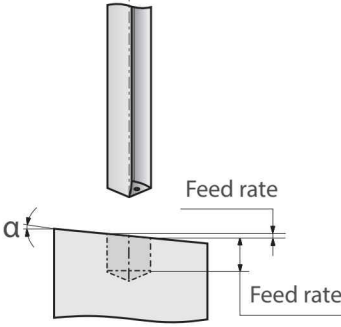
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Trouble shooting – PC series

Machining	Recommendation								
<p>Sloped surface</p> 	<p>– Inclined surfaces should be pre-machined (chamfering).</p> 								
<p>Inclined surface</p> 	<p>– Reduce feed rate accordingly.</p>  <table border="1" data-bbox="995 987 1430 1111"> <thead> <tr> <th>Inclination angle</th> <th>Max. feed rate</th> </tr> </thead> <tbody> <tr> <td>1°</td> <td>80 %</td> </tr> <tr> <td>2°</td> <td>50 %</td> </tr> <tr> <td>3°</td> <td>30 %</td> </tr> </tbody> </table>	Inclination angle	Max. feed rate	1°	80 %	2°	50 %	3°	30 %
Inclination angle	Max. feed rate								
1°	80 %								
2°	50 %								
3°	30 %								

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Trouble shooting – solid carbide reamers

Problem	Solution
Oversized hole	<ul style="list-style-type: none"> - Reduce the diameter of the reamer. - Check concentricity of the reamer and hole. - Check the radial run-out of the reamer. - Check the shank of the reamer for scratches. - Select a suitable coolant. - Adjust the cutting parameters.
Hole too small	<ul style="list-style-type: none"> - Increase the diameter of the reamer. - Reduce the cutting speed. - Reduce allowance. - Regrind or replace the reamer. - Ensure sufficient cooling.
Poor hole roundness and straightness	<ul style="list-style-type: none"> - Guarantee concentricity of the reamer chamfer. - Reduce overhang. - Check radial run-out after the reamer is clamped. - Adjust concentricity of the reamer and hole. - Check and ensure drill geometry.
Poor surface quality	<ul style="list-style-type: none"> - Reduce the cutting speed. - Ensure correct reaming allowance. - Check the cutting chamfer length of the reamer for wear and built-up edge. - Ensure stability of the machine, tool holder and reamer. - Chose the reamer according to the application. - Check the hole allowance.
Poor bore quality	<ul style="list-style-type: none"> - Pull out the reamer in cutting direction. - Reduce the cutting speed. - Use reamers with more teeth. - Check for concentricity and radial run-out. - Improve coolant supply. - Chose the optimal coolant lubrication.
Reamer breakage and thermal damage	<ul style="list-style-type: none"> - The guide chamfer is insufficient. Check the drill and drilling axis. - Adjust machining allowance. - Ensure sufficient coolant supply. - Adjust the cutting speed and feed rate. - Improve the stability of the machine, the tool holder and the cutting tool. - Change or regrind the cutting tool if the cutter wear is too high.
Damage on reamer shank	<ul style="list-style-type: none"> - Check clamping sleeve and tool holder for damage.
Short tool life	<ul style="list-style-type: none"> - Check coolant supply. - Change from straight fluted to helical fluted reamers. - Check all factors affecting machining precision.
Scratched hole surface	<ul style="list-style-type: none"> - Check the cutting edge for built-up edges and if necessary correct the cutting data. - Improve clamping of the work piece.
Trumpet-shaped entry hole	<ul style="list-style-type: none"> - Improve clamping of the work piece. - Check radial run-out of the clamped reamer. - The centre of the reamer may not be aligned with the centre of the hole. Adjust concentricity.

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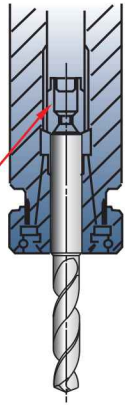
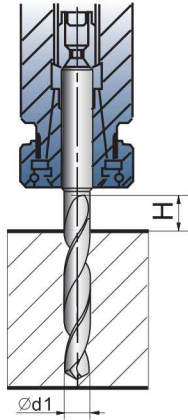
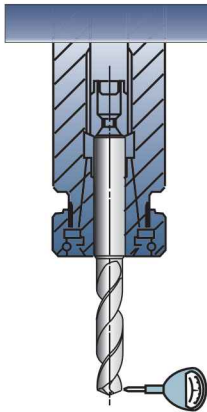
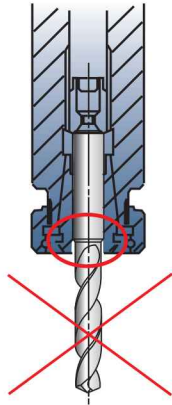
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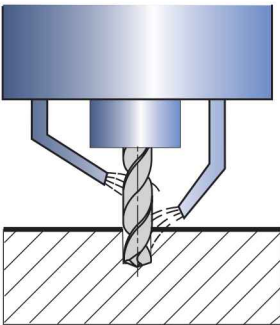
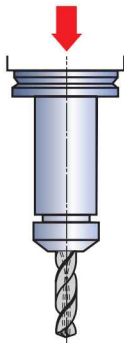
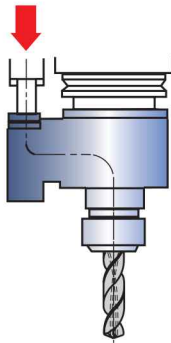
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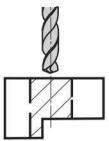

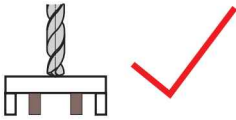
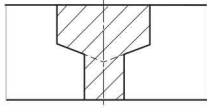
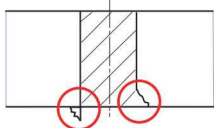
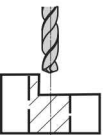
Operation notes

Correct drill clamping	Max. drilling length	Radial run-out	Wrong drill clamping
 <p>Adjusting screw</p> <p>Use precision collets</p>	 <p>$H = 1,5 \times d1$</p>	 <p>Radial run-out <math>< 0.02 \text{ mm}</math></p>	 <p>Don't clamp on the drill flutes.</p>

External coolant method	Internal coolant method	
 <p>The coolant liquid should shoot to the end and the centre of the drill as shown in the figure.</p>		 <p>Coolant pressure is about 0.5–1 mpa (coolant pressure is 2–3 mpa when the diameter is less than 5 mm), coolant volume: 1.5–4L/min</p>

Handling of coolants:

- Small chip particles and dust can cause jamming in the oil hole. A fine mesh filter should be used.
- Dirt and dust particles will adhere to the oil hole and lead to unsmooth coolant flow. Regularly change the coolant. Please ensure proper coolant supply.

Interrupted cutting	Thin work pieces	Stepped holes	Burrs and work piece chippings on exit
 <p>Reduce the feed rate when drilling interrupted cut.</p>	  <p>If bending occurs, add a supporter.</p>	 <ul style="list-style-type: none"> – First drill the larger hole, then the smaller hole. – We can offer multiple step and chamfer drills on request. 	 <ul style="list-style-type: none"> – Reduce the feed rate approx. by half when the drill exits. – Use a drill with a different point angle.
 <p>Machine a countersink with an end mill prior to drilling.</p>			

A

Turning

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Milling

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Drilling

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Technical Information

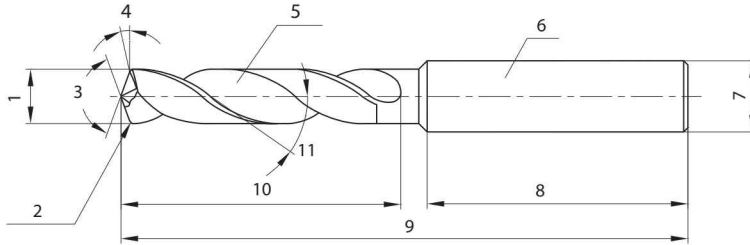
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A

Solid carbide drills

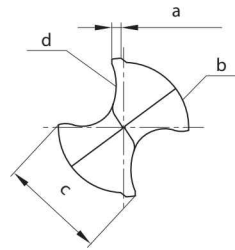
Terminology



1. Drilling diameter
2. Chamfer
3. Point angle
4. Clearance angle
5. Chip pocket
6. Shank
7. Shank diameter
8. Shank length
9. Overall length
10. Flute length
11. Helical angle

Turning

B



- a. Margin width
- b. Body clearance
- c. Land width
- d. Primary cutting edge

Milling

C

Cutting edge type

Shape	(Conical)	(Dual flats)	(Centring tip)
Shape			
Features	<ul style="list-style-type: none"> - The flank face is conical and the clearance angle increases toward the centre of drill. - Wide applications, commonly used both for soft and hard materials. 	<ul style="list-style-type: none"> - The flank face is dual flats, to facilitate cutting and initial entering. - Often used for small diameter drills. 	<ul style="list-style-type: none"> - This shape has two-stage point angles for perfect centring capabilities and reduces burrs. - It is the first choice for drilling thin plate.

Drilling

D

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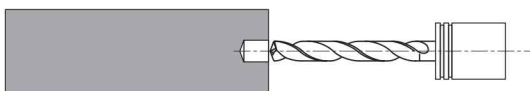
Solid carbide drills

Drill specification and cutting parameters

Chip pocket	The chip pocket ensures that the chips are removed out of the hole during processing.
Helical angle	The helical angle describes the pitch of the flute. It's specified according to the to be machined material. hardened materials small ← helical angle → large tough materials
Cutting edge length or spiral length	The cutting edge length needs to be specified according to the drilling depth, guide bushing length and the whole regrinding length. The larger the helical angle, the lower the stability. Since it greatly influences the tool life, it should be as small as possible. The recommended min. spiral length is the drilling depth plus 1.5 times of the hole diameter.
Point angle	Generally the point angle is 140°, for special applications it should be set differently. tough materials, easy to machine small ← point angle → large hardened materials and high-performance drilling
Core diameter	The core diameter is an important factor and influences the stability and the chip flow. low axial cutting force low stability for easy to machine materials small ← core diameter → large high axial cutting force high stability for hardened materials or cross holes
Chamfer width	The chamfer width influences the guidance and friction of the drill during machining. low friction and bad drill guidance small ← chamfer width → large high friction and good drill guidance
Back taper	The drill diameter is slightly reduced from cutting edge to shank to reduce friction during machining.
Body clearance	The area behind the chamfer width. The body clearance is necessary to reduce friction during machining.

Deep hole drilling

1 Preparation of the pilot hole with 1534SP03C*



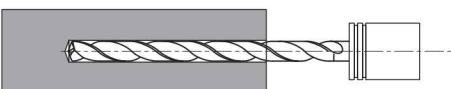
- Point angle of pilot drill must be bigger than SL drill.
- Diameter of pilot drill must be 0.01–0.04 mm bigger than SL drill.
- The pilot hole should be 1–3×D.

2 Entering the pilot hole with SL drill



- Entering the pilot hole with low cutting speed. (VC: 20–30 m/min)
- Stop 1–3 mm before end of pilot hole. (Vf = 0)
- Increase cutting speed up to recommended parameter and then start drilling at feed rate.

3 Manufacturing the deep hole



- Drilling with suitable cutting speed and feed rate.
- In case of cross holes feed rate should be reduced to 0.05 mm/rev..

4 Pulling out the drill



- After reaching the required depth reduce the cutting speed (VC: 20–30 m/min) and pull out the drill at high feed rate. (Vf: 2000 mm/min)

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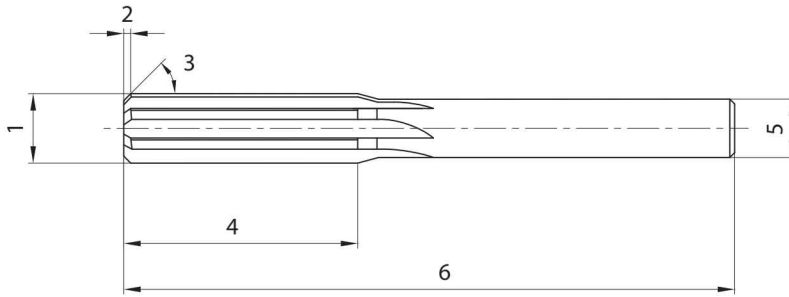
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Solid carbide reamers

Terminology

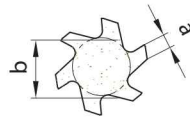
Turning



- 1.Nominal diameter
- 2.Chamfer length
- 3.Entry angle
- 4.Cutting edge length
- 5.Shank diameter
- 6.Total length

B

Milling

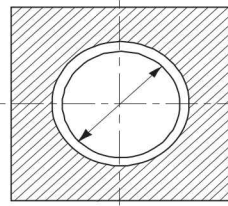


- a.Cutting edge thickness
- b.Core diameter

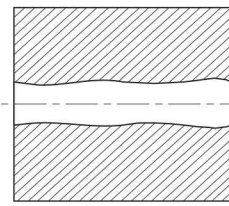
Reaming is semi-finishing and finishing of a previously formed hole within a narrow tolerance for higher surface quality, perfect roundness, cylindricity, etc.. To achieve a precisely reamed hole, the right choice of reamer and reamer diameter is important. In addition to that, the bore tolerance, the material and the machining conditions need to be taken into account. Furthermore the bore quality is strongly influenced by the radial run-out of the cutting tool.

C

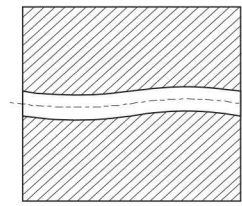
Drilling



Diameter tolerance/Allowance



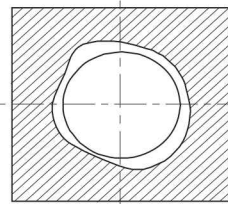
Cylindricity



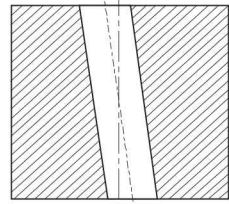
Straightness

D

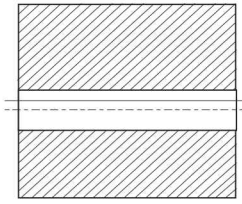
Technical Information



Roundness



Vertical deviation



Off centre

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Solid carbide thread formers

What is thread forming?

The material fibres aren't severed but compressed at the base of the thread. This is why no material is lost unlike when thread cutting.

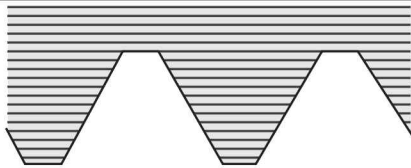
Advantages of thread forming:

- The thread is formed much more precisely.
- The thread is more resilient.
- The threads have a very smooth surface.
- Higher rotation speeds and feed rates possible than in thread cutting.
- Longer tool life increases the productivity.

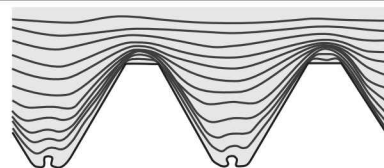
Disadvantages of thread forming:

- Higher requirements on the hole tolerance.
- Can't be used as hand tool.
- Greater heat build-up than in thread drilling.
- Limited material choice.
- Often the use of a release agent is necessary.

Thread formers should be used in materials with good cold formability. Next to steel, stainless steel and aluminium alloys, these include light metals and light metal alloys with a yield strength of 1200 N/mm². Basically, all long-chipping materials are suitable.



Fibre orientation after thread cutting



Fibre orientation after thread forming

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Turning

B

Milling

C

Drilling

D

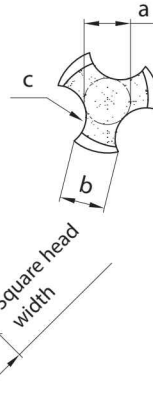
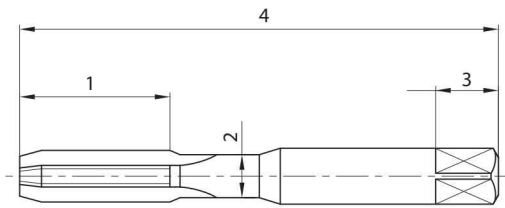
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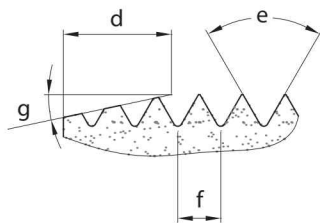
Solid carbide taps

Terminology



- 1.Thread length
- 2.Neck diameter
- 3.Square head length
- 4.Total length



- a.Core diameter
- b.Cutting edge thickness
- c.Chip pocket



Chamfer and thread profile

- d.Chamfer length
- e.Thread profile angle
- f.Pitch
- g.Chamfer angle

Chip space and application

Chip space type	Features	Application
 Helical flute tap	<ul style="list-style-type: none"> - Helical flute - No chips inside the hole - Good entering performance - Simple centring 	<ul style="list-style-type: none"> - For long-chipping materials - Suitable for blind holes - Usage in holes with groove
 Straight flute tap	<ul style="list-style-type: none"> - Straight flute - Stable cutting edge - Easy regrinding 	<ul style="list-style-type: none"> - For hard machining - For short-chipping materials - For through holes and blind holes - For wear material

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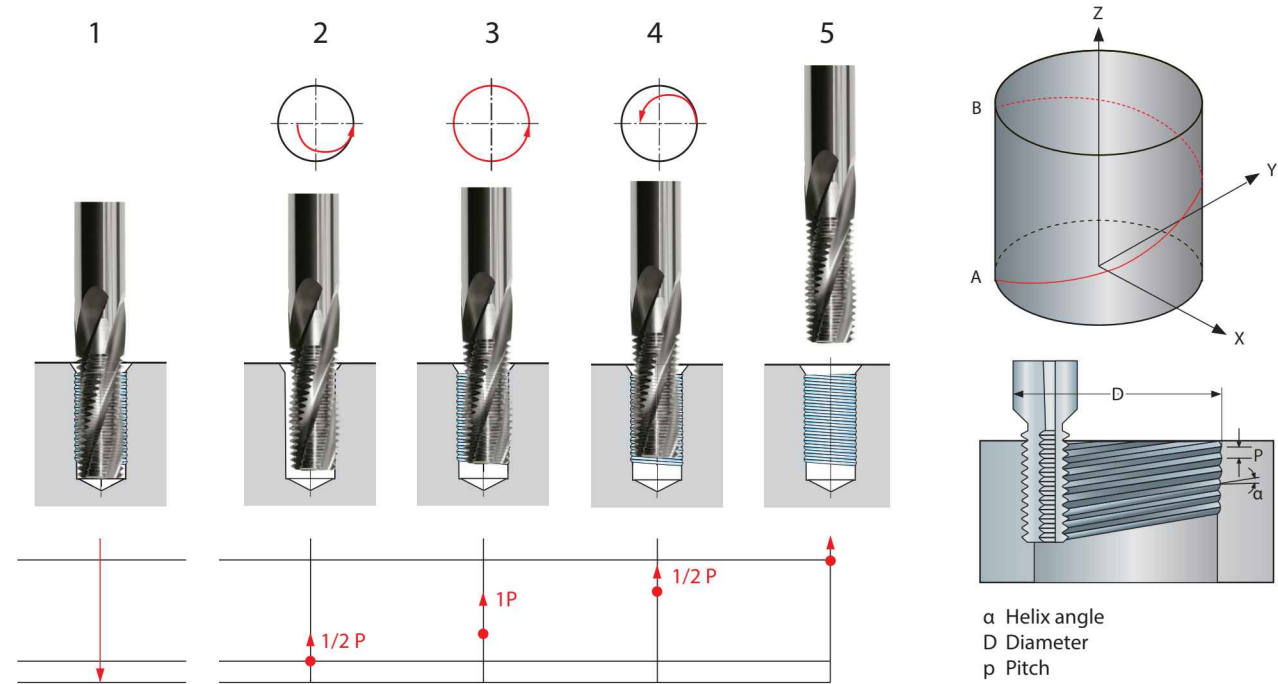
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Solid carbide thread milling cutters

Solid carbide thread milling cutters with cylindrical shank – example



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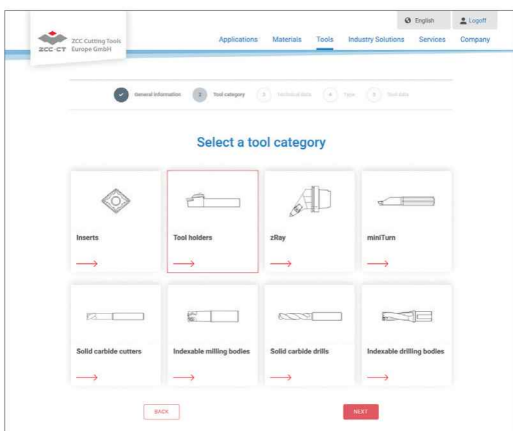
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Go directly to the special tool tailored for your drilling applications

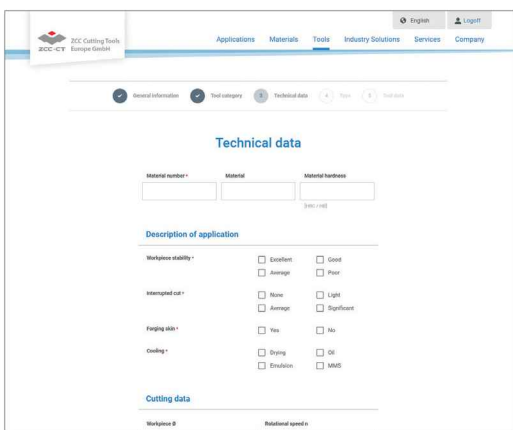
Are there drilling applications at your company where having custom tools tailored to your unique needs would deliver real benefits both in terms of logistics and at a technical and commercial level? ZCC Cutting Tools Europe is there to advise and assist you during the planning, development and ordering process. Use our new online tool to request a special tool and get your personal quotation in just a few short steps (<https://www.zcct-europe.com/en/tools/special-tools>).



'Online tool for special tools' launch page where you can select the tool category

Selecting the tool category

Scan the QR code on this page to go directly to the launch page of our online tool where you can request the special tool you need. You can begin by selecting the tool category you need. It's that easy.



Define the relevant tool parameters.

Defining the tool parameters

You are now guided step by step through the process. You can also securely upload your drawings, diagrams and 3D models (where available).

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