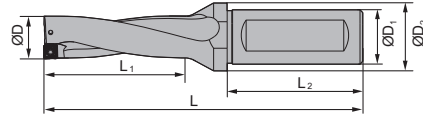


Indexable drills series

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		SPMX040204**	SPMX050204**	SPMX060204**	SPMX07T308**	SPMX090408**	SPMX110408**	SPMX140512**
	Insert 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

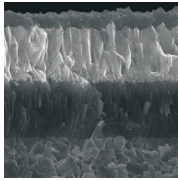



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A

Turning

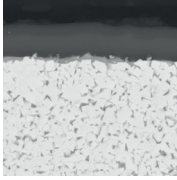
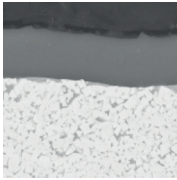
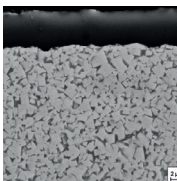
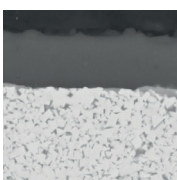
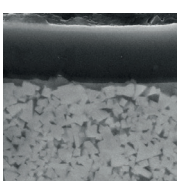
Coated cemented carbide CVD

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

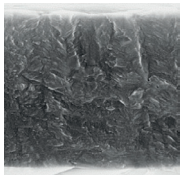
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Technical Information

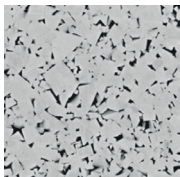
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Coated cemented carbide PVD

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
F Index	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

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