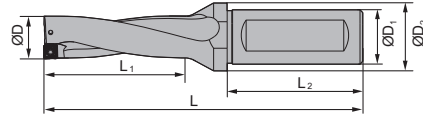


## Indexable drills series

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

System code > C9

Grade selection > C8



Technical info > C201

Cutting data > C36

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

System code > C9

Grade selection > C8

Technical info > C201

Cutting data > C36



A

Turning

B

Milling

C

Drilling

D

Technical Information

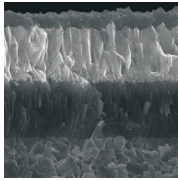

E

Index

**A**

Turning

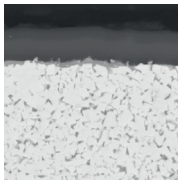
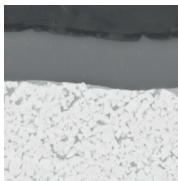
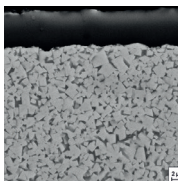
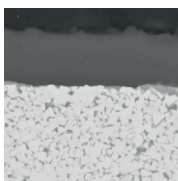
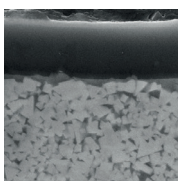
## Coated cemented carbide CVD

Grade	ISO	Micro structure	Grade description
<b>YB6338</b>	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.
<b>YBD252</b>	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
<b>YBG105</b>	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.
<b>YBG202</b>	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.
<b>YBS203</b>	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.
<b>YBG205</b>	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.
<b>YB9320</b>	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

**D**

Technical Information

**E**

Index

## Application fields of grades – indexable drills

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

<b>P</b>	Steel
<b>M</b>	Stainless steel
<b>K</b>	Cast iron

<b>N</b>	Non-ferrous alloys
<b>S</b>	Heat-resistant alloys
<b>H</b>	Hardened materials

HC<sup>1</sup> 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

B

Milling

C

Drilling

D

Technical Information

E

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