



DELEVEL
CARBIDE CUTTING TOOLS

DELEVELTOOL.COM

Cutting Tools Catalog

EDITION
2026



DRILLS

Solid carbide, coolant, deep-hole, micro and replaceable-head drills

BORING

Small-diameter boring, grooving and threading tools

MILLING

Anti-vibration, multi-flute and ball nose end mills

THREADS & MODULAR

Thread mills and modular tool systems

Replaceable-tip Drills

Steel drill bodies with exchangeable carbide tips. Replace only the worn tip, not the whole drill. Side-locking, two-screw and rear-locking systems from Ø8 to Ø52 mm.



TPD

Side-locking tips, Ø8–32.9 mm, 3xD to 8xD

SMD

Two-screw tips, Ø12–32 mm, 1.5xD to 12xD

KS

Rear-locking tips, Ø12.5–52 mm, 3xD to 12xD

TPD Series

Side-locking replaceable-tip drills



One body, many sizes

Each body takes tips over a 0.5–1 mm diameter band in 0.1 mm steps.

Side screw lock

The tip is clamped in the body by a side screw.

Applications

Moulds, automotive parts, construction and mining machinery components.

Ø8–32.9

tip diameter range, mm

0.1 mm

tip diameter step

3 · 5 · 8xD

body lengths

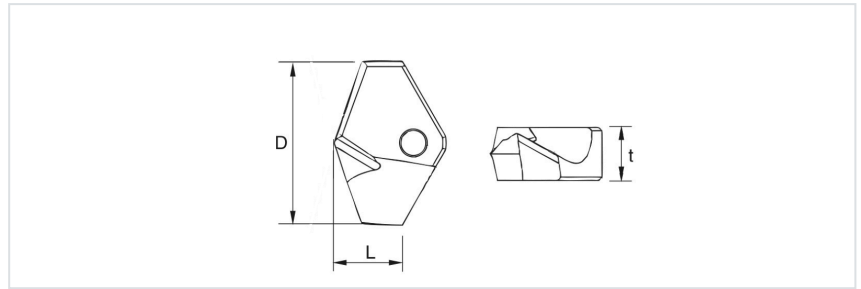
d1 16–32

shank diameter, mm

TPD Drill Tips

Side-locking carbide tips, Ø8.0–32.9 mm

WC	0.1
CARBIDE	STEP, MM



TIP CODE	DIA. D	LENGTH L	THICK. t	DIA. RANGE D	SCREW	WRENCH	TORQUE N·m
TPD080B-109B	8.0–10.9	5.5	3.5	8.0–12.9	FTNB0209	TW06P	0.4
TPD110B-119B	11.0–11.9	5.8	3.5	13.0–14.9	FTNB02512	TW07S	0.8
TPD120B-129B	12.0–12.9	6.3	3.5	15.0–17.9	FTNB02514	TW07S	0.8
TPD130B-139B	13.0–13.9	6.5	4.0	18.0–19.9	FTNB0316	TW09S	1.2
TPD140B-149B	14.0–14.9	6.8	4.0	20.0–23.9	FTNB0319	TW09S	1.2
TPD150B-159B	15.0–15.9	7.0	4.0	24.0–25.9	FTNB03522	TW15S	3
TPD160B-169B	16.0–16.9	7.7	5.5	26.0–27.9	FTNB03524	TW15S	3
TPD170B-179B	17.0–17.9	7.9	5.5	28.0–29.9	FTNB0426	TW15S	3
TPD180B-189B	18.0–18.9	8.1	6.0	30.0–32.9	FTNB0528	TW20-100	4
TPD190B-199B	19.0–19.9	8.3	6.0				
TPD200B-209B	20.0–20.9	9.7	6.5				
TPD210B-219B	21.0–21.9	9.4	6.5				
TPD220B-229B	22.0–22.9	9.6	7.0				
TPD230B-239B	23.0–23.9	9.8	7.0				
TPD240B-249B	24.0–24.9	10.7	7.5				
TPD250B-259B	25.0–25.9	10.9	7.5				
TPD260B-269B	26.0–26.9	11.0	8.5				
TPD270B-279B	27.0–27.9	11.8	8.5				
TPD280B-289B	28.0–28.9	12.6	9.5				
TPD290B-299B	29.0–29.9	12.9	9.5				
TPD300B-309B	30.0–30.9	13.0	10				
TPD310B-319B	31.0–31.9	13.3	10				
TPD320B-329B	32.0–32.9	13.5	10				

ORDERING TIPS

Tip code = TPD + diameter × 10 + B. Example: Ø8.5 mm = TPD085B, Ø15.2 mm = TPD152B. Any 0.1 mm size inside each band.

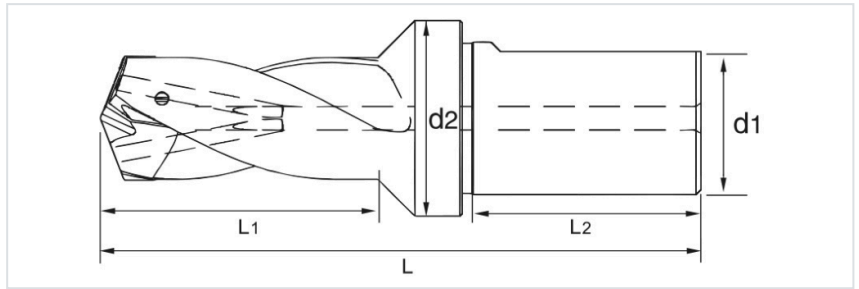
Dimensions in mm. Bodies and tips are ordered separately. Other diameters, lengths and tip geometries are made to order from 5 pieces, 15–30 working days. Stock varies by code; please confirm on inquiry.

TPD-3D Drill Bodies

Side-locking drill bodies, 3xD hole depth

3xD

DEPTH



ORDER CODE	TIP DIA. D	SHANK d1	COLLAR d2	FLUTE L1	SHANK L2	OAL L
TPD090-16A-3D	9.0–9.9	16	20	20.0	48	85
TPD100-16A-3D	10.0–10.4	16	20	30.0	48	95
TPD105-16A-3D	10.5–10.9	16	20	31.5	48	96
TPD110-16A-3D	11.0–11.4	16	20	33.0	48	98
TPD115-16A-3D	11.5–11.9	16	20	34.5	48	99
TPD120-16A-3D	12.0–12.4	16	20	36.0	48	102
TPD125-16A-3D	12.5–12.9	16	20	37.5	48	104
TPD130-16A-3D	13.0–13.4	16	20	39.0	48	107
TPD135-16A-3D	13.5–13.9	16	20	40.5	48	109
TPD140-16A-3D	14.0–14.4	16	20	42.0	48	111
TPD145-16A-3D	14.5–14.9	16	20	43.5	48	114
TPD150-20A-3D	15.0–15.4	20	25	45.0	50	118
TPD155-20A-3D	15.5–15.9	20	25	46.5	50	120
TPD160-20A-3D	16.0–16.4	20	25	48.0	50	122
TPD165-20A-3D	16.5–16.9	20	25	49.5	50	124
TPD170-20A-3D	17.0–17.4	20	25	51.0	50	127
TPD175-20A-3D	17.5–17.9	20	25	52.5	50	129
TPD180-25A-3D	18.0–18.4	25	33	54.0	56	137
TPD185-25A-3D	18.5–18.9	25	33	55.5	56	139
TPD190-25A-3D	19.0–19.4	25	33	57.0	56	142

ORDER CODE	TIP DIA. D	SHANK d1	COLLAR d2	FLUTE L1	SHANK L2	OAL L
TPD195-25A-3D	19.5–19.9	25	33	58.5	56	144
TPD200-25A-3D	20.0–20.4	25	33	60.0	56	146
TPD205-25A-3D	20.5–20.9	25	33	61.5	56	148
TPD210-25A-3D	21.0–21.4	25	33	63.0	60	151
TPD215-25A-3D	21.5–21.9	25	33	64.5	60	153
TPD220-25A-3D	22.0–22.4	25	33	66.0	60	155
TPD225-25A-3D	22.5–22.9	25	33	67.5	60	157
TPD230-25A-3D	23.0–23.4	25	33	69.0	60	160
TPD235-25A-3D	23.5–23.9	25	33	70.5	60	162
TPD240-32A-3D	24.0–24.4	32	43	72.0	60	168
TPD245-32A-3D	24.5–24.9	32	43	73.5	60	170
TPD250-32A-3D	25.0–25.4	32	43	75.0	60	173
TPD255-32A-3D	25.5–25.9	32	43	76.5	60	175
TPD260-32A-3D	26.0–26.9	32	43	78.0	60	177
TPD270-32A-3D	27.0–27.9	32	43	81.0	60	182
TPD280-32A-3D	28.0–28.9	32	43	84.0	60	186
TPD290-32A-3D	29.0–29.9	32	43	87.0	60	191
TPD300-32A-3D	30.0–30.9	32	43	90.0	60	194
TPD310-32A-3D	31.0–31.9	32	43	93.0	60	199
TPD320-32A-3D	32.0–32.9	32	43	96.0	60	201

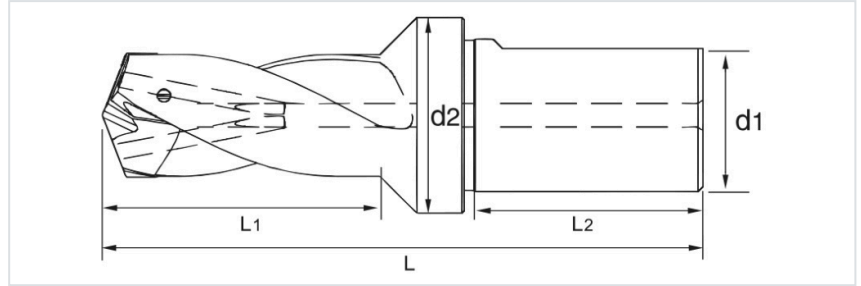
Dimensions in mm. Bodies and tips are ordered separately. Other diameters, lengths and tip geometries are made to order from 5 pieces, 15–30 working days. Stock varies by code; please confirm on inquiry. Each body takes the TPD tips of its D range, e.g. TPD150-20A-3D takes TPD150B–TPD154B.

TPD-5D Drill Bodies

Side-locking drill bodies, 5xD hole depth

5xD

DEPTH



ORDER CODE	TIP DIA. D	SHANK d1	COLLAR d2	FLUTE L1	SHANK L2	OAL L
TPD090-16A-5D	9.0–9.9	16	20	45.0	48	110
TPD100-16A-5D	10.0–10.4	16	20	50.0	48	115
TPD105-16A-5D	10.5–10.9	16	20	52.5	48	117
TPD110-16A-5D	11.0–11.4	16	20	55.0	48	120
TPD115-16A-5D	11.5–11.9	16	20	57.5	48	123
TPD120-16A-5D	12.0–12.4	16	20	60.0	48	126
TPD125-16A-5D	12.5–12.9	16	20	62.5	48	129
TPD130-16A-5D	13.0–13.4	16	20	65.0	48	133
TPD135-16A-5D	13.5–13.9	16	20	67.5	48	136
TPD140-16A-5D	14.0–14.4	16	20	70.0	48	139
TPD145-16A-5D	14.5–14.9	16	20	72.5	48	143
TPD150-20A-5D	15.0–15.4	20	25	75.0	50	148
TPD155-20A-5D	15.5–15.9	20	25	77.5	50	151
TPD160-20A-5D	16.0–16.4	20	25	80.0	50	154
TPD165-20A-5D	16.5–16.9	20	25	82.5	50	157
TPD170-20A-5D	17.0–17.4	20	25	85.0	50	161
TPD175-20A-5D	17.5–17.9	20	25	87.5	50	164
TPD180-25A-5D	18.0–18.4	25	33	90.0	56	173
TPD185-25A-5D	18.5–18.9	25	33	92.5	56	176
TPD190-25A-5D	19.0–19.4	25	33	95.0	56	180

ORDER CODE	TIP DIA. D	SHANK d1	COLLAR d2	FLUTE L1	SHANK L2	OAL L
TPD195-25A-5D	19.5–19.9	25	33	97.5	56	183
TPD200-25A-5D	20.0–20.4	25	33	100.0	56	186
TPD205-25A-5D	20.5–20.9	25	33	102.5	56	189
TPD210-25A-5D	21.0–21.4	25	33	105.0	60	193
TPD215-25A-5D	21.5–21.9	25	33	107.5	60	196
TPD220-25A-5D	22.0–22.4	25	33	110.0	60	199
TPD225-25A-5D	22.5–22.9	25	33	112.5	60	202
TPD230-25A-5D	23.0–23.4	25	33	115.0	60	206
TPD235-25A-5D	23.5–23.9	25	33	117.5	60	209
TPD240-32A-5D	24.0–24.4	32	43	120.0	60	216
TPD245-32A-5D	24.5–24.9	32	43	122.5	60	219
TPD250-32A-5D	25.0–25.4	32	43	125.0	60	223
TPD255-32A-5D	25.5–25.9	32	43	127.5	60	226
TPD260-32A-5D	26.0–26.9	32	43	130.0	60	229
TPD270-32A-5D	27.0–27.9	32	43	135.0	60	236
TPD280-32A-5D	28.0–28.9	32	43	140.0	60	242
TPD290-32A-5D	29.0–29.9	32	43	145.0	60	249
TPD300-32A-5D	30.0–30.9	32	43	150.0	60	254
TPD310-32A-5D	31.0–31.9	32	43	155.0	60	261
TPD320-32A-5D	32.0–32.9	32	43	160.0	60	265

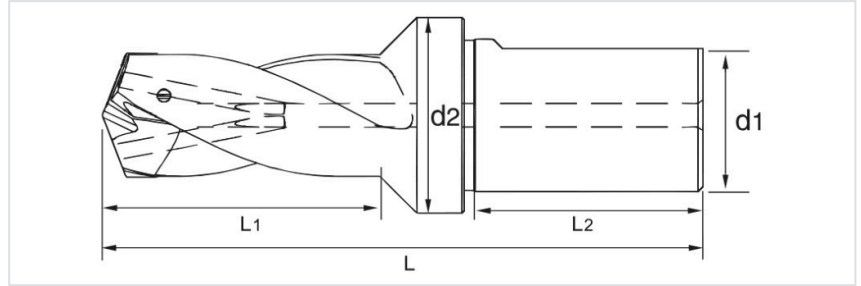
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TPD-8D Drill Bodies

Side-locking drill bodies, 8xD hole depth

8xD

DEPTH



ORDER CODE	TIP DIA. D	SHANK d1	COLLAR d2	FLUTE L1	SHANK L2	OAL L
TPD100-16A-8D	10.0–10.4	16	20	80	48	145.0
TPD105-16A-8D	10.5–10.9	16	20	84	48	149.0
TPD110-16A-8D	11.0–11.4	16	20	88	48	153.0
TPD115-16A-8D	11.5–11.9	16	20	92	48	157.0
TPD120-16A-8D	12.0–12.4	16	20	96	48	162.0
TPD125-16A-8D	12.5–12.9	16	20	100	48	166.5
TPD130-16A-8D	13.0–13.4	16	20	104	48	172.0
TPD135-16A-8D	13.5–13.9	16	20	108	48	176.5
TPD140-16A-8D	14.0–14.4	16	20	112	48	181.0
TPD145-16A-8D	14.5–14.9	16	20	116	48	186.5
TPD150-20A-8D	15.0–15.4	20	25	120	50	193.0
TPD155-20A-8D	15.5–15.9	20	25	124	50	197.5
TPD160-20A-8D	16.0–16.4	20	25	128	50	202.0
TPD165-20A-8D	16.5–16.9	20	25	132	50	206.5
TPD170-20A-8D	17.0–17.4	20	25	136	50	212.0
TPD175-20A-8D	17.5–17.9	20	25	140	50	216.5
TPD180-25A-8D	18.0–18.4	25	33	144	56	227.0
TPD185-25A-8D	18.5–18.9	25	33	148	56	231.5
TPD190-25A-8D	19.0–19.4	25	33	152	56	237.0
TPD195-25A-8D	19.5–19.9	25	33	156	56	241.5

ORDER CODE	TIP DIA. D	SHANK d1	COLLAR d2	FLUTE L1	SHANK L2	OAL L
TPD200-25A-8D	20.0–20.4	25	33	160	56	246.0
TPD205-25A-8D	20.5–20.9	25	33	164	56	250.5
TPD210-25A-8D	21.0–21.4	25	33	168	60	256.0
TPD215-25A-8D	21.5–21.9	25	33	172	60	260.5
TPD220-25A-8D	22.0–22.4	25	33	176	60	265.0
TPD225-25A-8D	22.5–22.9	25	33	180	60	269.5
TPD230-25A-8D	23.0–23.4	25	33	184	60	275.0
TPD235-25A-8D	23.5–23.9	25	33	188	60	279.5
TPD240-32A-8D	24.0–24.4	32	43	192	60	288.0
TPD245-32A-8D	24.5–24.9	32	43	196	60	292.5
TPD250-32A-8D	25.0–25.4	32	43	200	60	298.0
TPD255-32A-8D	25.5–25.9	32	43	204	60	302.5
TPD260-32A-8D	26.0–26.9	32	43	208	60	307.0
TPD270-32A-8D	27.0–27.9	32	43	216	60	317.0
TPD280-32A-8D	28.0–28.9	32	43	224	60	326.0
TPD290-32A-8D	29.0–29.9	32	43	232	60	336.0
TPD300-32A-8D	30.0–30.9	32	43	240	60	344.0
TPD310-32A-8D	31.0–31.9	32	43	248	60	354.0
TPD320-32A-8D	32.0–32.9	32	43	256	60	361.0

Dimensions in mm. Bodies and tips are ordered separately. Other diameters, lengths and tip geometries are made to order from 5 pieces, 15–30 working days. Stock varies by code; please confirm on inquiry. Each body takes the TPD tips of its D range, e.g. TPD150-20A-8D takes TPD150B–TPD154B.

SMD Series

Replaceable-tip drills with two-screw tip clamping



Two tip types

SMDT tips for hard materials, TCEA tips for soft materials.

Accurate seating

Runout at both ends 0–0.02 mm after the tip is mounted and checked.

Long reach

Bodies from 1.5xD to 12xD hole depth.

Ø12–32

body range, mm

1.5xD–12xD

hole depths

h7

tip diameter tolerance

16–32

shank D1, mm

SMD Drill Bodies

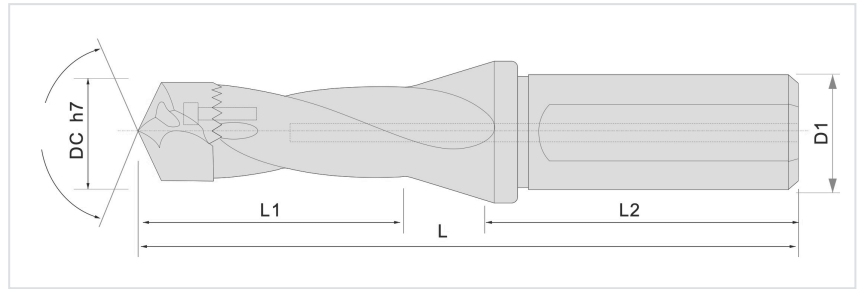
Two-screw replaceable-tip drill bodies

h7

TIP DC

1.5-12

XD



TIP SIZE DC	DEPTH L/D	ORDER CODE	DRILL. L1	OAL L	SHANK D1	SHANK L2
12.0-12.4	1.5D	SMD-1.5D-028-C16(12.0)	28	91	16	48
	3D	SMD-3D-046-C16(12.0)	46	107	16	48
	5D	SMD-5D-071-C16(12.0)	71	132	16	48
12.5-12.9	1.5D	SMD-1.5D-028-C16(13.0)	28	91	16	48
	3D	SMD-3D-046-C16(13.0)	46	107	16	48
	5D	SMD-5D-071-C16(13.0)	71	132	16	48
13.0-13.4	1.5D	SMD-1.5D-030-C16	30	92	16	48
	3D	SMD-3D-049-C16	49	112	16	48
	5D	SMD-5D-076-C16	76	142	16	48
13.5-14.5	1.5D	SMD-1.5D-034-C16	34	96	16	48
	3D	SMD-3D-055-C16	55	119	16	48
	5D	SMD-5D-084-C16	84	149	16	48
	8D	SMD-8D-127-C16	127	194	16	48
	12D	SMD-12D-171-C16	171	239	16	48
14.6-15.5	1.5D	SMD-1.5D-035-C20	35	100	20	50
	3D	SMD-3D-058-C20	58	129	20	50
	5D	SMD-5D-089-C20	89	159	20	50
	8D	SMD-8D-136-C20	136	204	20	50
	12D	SMD-12D-183-C20	183	253	20	50
15.6-16.5	1.5D	SMD-1.5D-038-C20	38	103	20	50
	3D	SMD-3D-062-C20	62	134	20	50
	5D	SMD-5D-095-C20	95	169	20	50
	8D	SMD-8D-144-C20	144	214	20	50
	12D	SMD-12D-195-C20	195	266	20	50
16.6-17.5	1.5D	SMD-1.5D-039-C20	39	105	20	50
	3D	SMD-3D-066-C20	66	140	20	50
	5D	SMD-5D-101-C20	101	175	20	50
	8D	SMD-8D-154-C20	154	225	20	50
	12D	SMD-12D-207-C20	207	278	20	50
17.6-18.5	1.5D	SMD-1.5D-043-C20	43	107	20	50
	3D	SMD-3D-070-C20	70	145	20	50
	5D	SMD-5D-107-C20	107	180	20	50
	8D	SMD-8D-162-C20	162	230	20	50
	12D	SMD-12D-219-C20	219	291	20	50

TIP SIZE DC	DEPTH L/D	ORDER CODE	DRILL. L1	OAL L	SHANK D1	SHANK L2
18.6-19.5	1.5D	SMD-1.5D-044-C25	44	115	25	56
	3D	SMD-3D-073-C25	73	160	25	56
	5D	SMD-5D-112-C25	112	195	25	56
	8D	SMD-8D-171-C25	171	255	25	56
19.6-20.5	1.5D	SMD-1.5D-047-C25	47	118	25	56
	3D	SMD-3D-077-C25	77	160	25	56
	5D	SMD-5D-118-C25	118	200	25	56
	8D	SMD-8D-179-C25	179	270	25	56
20.6-21.5	1.5D	SMD-1.5D-048-C25	48	119	25	56
	3D	SMD-3D-080-C25	80	160	25	56
	5D	SMD-5D-123-C25	123	200	25	56
	8D	SMD-8D-188-C25	188	266	25	56
21.6-22.8	1.5D	SMD-1.5D-051-C25	51	124	25	56
	3D	SMD-3D-084-C25	84	165	25	56
	5D	SMD-5D-129-C25	129	205	25	56
	8D	SMD-8D-196-C25	196	275	25	56
22.9-23.8	1.5D	SMD-1.5D-051-C25	51	122	25	56
	3D	SMD-3D-087-C25	87	165	25	56
	5D	SMD-5D-134-C25	134	215	25	56
	8D	SMD-8D-205-C25	205	285	25	56
23.9-24.8	1.5D	SMD-1.5D-054-C32	54	129	32	60
	3D	SMD-3D-091-C32	91	175	32	60
	5D	SMD-5D-140-C32	140	225	32	60
	8D	SMD-8D-213-C32	213	300	32	60
	12D	SMD-12D-292-C32	292	376	32	60

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SMD Drill Bodies

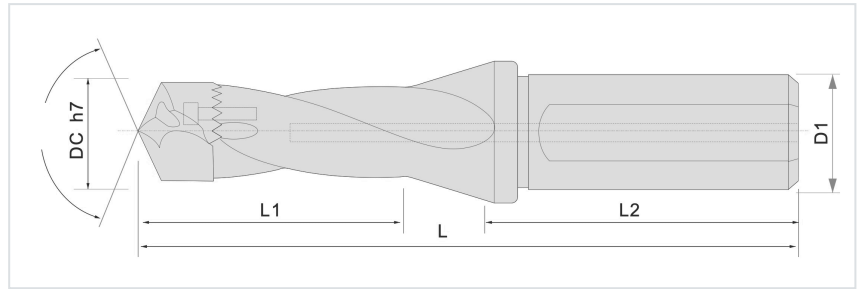
Two-screw replaceable-tip drill bodies

h7

TIP DC

1.5-12

XD



TIP SIZE DC	DEPTH L/D	ORDER CODE	DRILL. L1	OAL L	SHANK D1	SHANK L2
24.9-25.8	1.5D	SMD-1.5D-054-C32	54	129	32	60
	3D	SMD-3D-093-C32	93	175	32	60
	5D	SMD-5D-145-C32	145	230	32	60
	8D	SMD-8D-222-C32	222	305	32	60
	12D	SMD-12D-305-C32	305	388	32	60
25.9-26.8	1.5D	SMD-1.5D-057-C32	57	132	32	60
	3D	SMD-3D-097-C32	97	180	32	60
	5D	SMD-5D-151-C32	151	235	32	60
	8D	SMD-8D-230-C32	230	315	32	60
26.9-27.8	1.5D	SMD-1.5D-058-C32	58	133	32	60
	3D	SMD-3D-099-C32	99	180	32	60
	5D	SMD-5D-156-C32	156	240	32	60
	8D	SMD-8D-239-C32	239	325	32	60
27.9-28.8	1.5D	SMD-1.5D-060-C32	60	135	32	60
	3D	SMD-3D-102-C32	102	185	32	60
	5D	SMD-5D-162-C32	162	245	32	60
	8D	SMD-8D-247-C32	247	330	32	60
28.9-29.8	1.5D	SMD-1.5D-061-C32	61	136	32	60
	3D	SMD-3D-105-C32	105	190	32	60
	5D	SMD-5D-167-C32	167	250	32	60
	8D	SMD-8D-256-C32	256	340	32	60
29.9-30.8	1.5D	SMD-1.5D-064-C32	64	139	32	60
	3D	SMD-3D-110-C32	110	191	32	60
	5D	SMD-5D-173-C32	173	261	32	60
	8D	SMD-8D-265-C32	265	351	32	60
31.0-32.0	3D	SMD-3D-116-C32	116	201	32	60
	5D	SMD-5D-181-C32	181	266	32	60
	8D	SMD-8D-276-C32	276	361	32	60

Dimensions in mm. Bodies and tips are ordered separately. Other diameters, lengths and tip geometries are made to order from 5 pieces, 15-30 working days. Stock varies by code; please confirm on inquiry.

SMD Drill Tips

SMDT and TCEA tips, screws and wrenches

h7

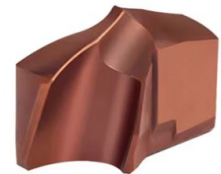
TIP DC

TIP SIZE DC	HARD MATERIALS SMDT	SOFT MATERIALS TCEA
12.0–12.5	SMDT1200 / SMDT1250	TCEA-1200 / TCEA-1250
13.0–13.5	SMDT1300 / SMDT1350	TCEA-1300 / TCEA-1350
14.0–14.5	SMDT1400 / SMDT1450	TCEA-1400 / TCEA-1450
15.0–15.5	SMDT1500 / SMDT1550	TCEA-1500 / TCEA-1550
16.0–16.5	SMDT1600 / SMDT1650	TCEA-1600 / TCEA-1650
17.0–17.5	SMDT1700 / SMDT1750	TCEA-1700 / TCEA-1750
18.0–18.5	SMDT1800 / SMDT1850	TCEA-1800 / TCEA-1850
19.0–19.5	SMDT1900 / SMDT1950	TCEA-1900 / TCEA-1950
20.0–20.5	SMDT2000 / SMDT2050	TCEA-2000 / TCEA-2050
21.0–21.5	SMDT2100 / SMDT2150	TCEA-2100 / TCEA-2150
22.0–22.5	SMDT2200 / SMDT2250	TCEA-2200 / TCEA-2250
23.0–23.5	SMDT2300 / SMDT2350	TCEA-2300 / TCEA-2350
24.0–24.5	SMDT2400 / SMDT2450	TCEA-2400 / TCEA-2450
25.0–25.5	SMDT2500 / SMDT2550	TCEA-2500 / TCEA-2550
26.0–26.5	SMDT2600 / SMDT2650	TCEA-2600 / TCEA-2650
27.0–27.5	SMDT2700 / SMDT2750	TCEA-2700 / TCEA-2750
28.0–28.5	SMDT2800 / SMDT2850	TCEA-2800 / TCEA-2850
29.0–29.5	SMDT2900 / SMDT2950	TCEA-2900 / TCEA-2950
30.0–30.5	SMDT3000 / SMDT3050	TCEA-3000 / TCEA-3050
31.0–31.5	SMDT3100 / SMDT3150	TCEA-3100 / TCEA-3150
32.0–32.5	SMDT3200 / SMDT3250	TCEA-3200
33.0–33.5	SMDT3300 / SMDT3350	—
34.0–34.5	SMDT3400 / SMDT3450	—
35.0–35.5	SMDT3500 / SMDT3550	—
36.0–36.5	SMDT3600 / SMDT3650	—
37.0–37.5	SMDT3700 / SMDT3750	—
38.0–38.5	SMDT3800 / SMDT3850	—
39.0–39.5	SMDT3900 / SMDT3950	—
40.0–40.5	SMDT4000 / SMDT4050	—
41.0	SMDT4100	—
42.0	SMDT4200	—



SMDT

hard materials



TCEA

soft materials

TIP SIZE DC	SCREW	THREAD	WRENCH
12.0–15.5	BXD02208IP	M2.2×7.5	TRDR08IP
15.6–18.5	BXD02509IP	M2.5×9.0	TRDR10IP
18.6–21.5	BXD03011IP	M3.0×10.5	TRDR15IP
21.6–24.8	BXD03512IP	M3.5×11.5	TRDR15IP
24.9–25.8	BXD04014IP	M4.0×12.4	TRDR15IP
25.9–27.8	BXD04014IP	M4.0×12.4	TRDR20IP
27.9–32.0	BXD04515IP	M4.5×15	TRDR20IP

ORDERING TIPS

Two tip codes per row: whole and half millimetre, e.g. SMDT1200 = Ø12.0, SMDT1250 = Ø12.5. Tip type for all SMD bodies: MTL / MEL.

Dimensions in mm. Bodies and tips are ordered separately. Other diameters, lengths and tip geometries are made to order from 5 pieces, 15–30 working days. Stock varies by code; please confirm on inquiry.

Installing SMD tips

Five steps for a seated tip and a straight hole. Step 5 matters: retighten after the first holes.



01

Align

Align the grooves on the tip with the drill body.



02

Tighten

Tighten the two screws in sequence.



03

Check runout

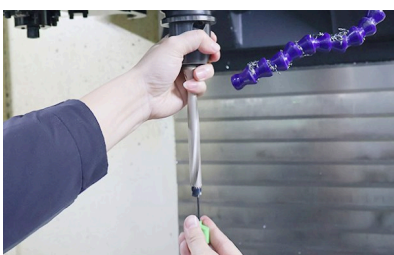
Mount in the holder and check on a tool presetter. Runout at both ends 0–0.02 mm.



04

Trial run

Use the recommended cutting data and start with a trial run of 1–3 holes.



05

Retighten

Stop the machine with the holder still installed and retighten both screws with the supplied wrench. Then continue drilling.

KS Series

Rear-locking replaceable-tip drills



Central locking screw

A central screw, turned with a long wrench from the shank end, clamps the tip.

Large diameters

Bodies from Ø12.5 to Ø52 mm, 3xD to 12xD.

Seat sizes

Each seat size takes tips over a diameter band; see the tip seat table.

Ø12.5–52

body range, mm

3xD–12xD

hole depths

h7

tip diameter tolerance

16–40

shank D, mm

KS Drill Bodies

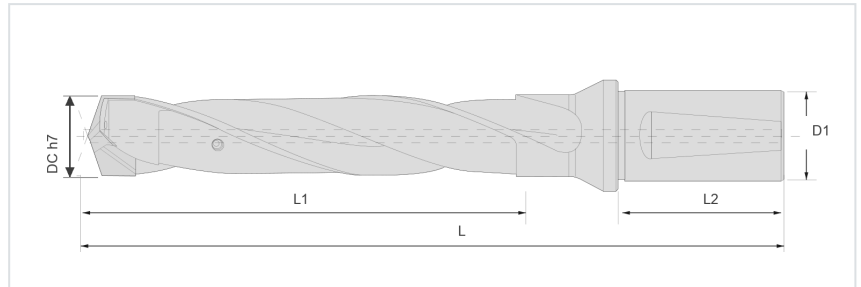
Rear-locking replaceable-tip drill bodies

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TIP DC

3-12

XD



TIP SIZE DC	DEPTH L/D	ORDER CODE	OAL L	FLUTE L1	SEAT	WRENCH
12.50-12.99	3D	KS-12.5-3D-C16	123	52	C	T6×180
	5D	KS-12.5-5D-C16	148	78	C	T6×180
	7D	KS-12.5-7D-C16	173	104	C	T6×290
	10D	KS-12.5-10D-C16	191	143	C	T6×290
	12D	KS-12.5-12D-C16	240	156	C	T6×291
13.00-13.50	3D	KS-13-3D-C16	125.5	54	C	T6×180
	5D	KS-13-5D-C16	151.5	81	C	T6×180
	7D	KS-13-7D-C16	177.5	108	C	T6×290
	10D	KS-13-10D-C16	216.5	148.5	C	T6×290
	12D	KS-13-12D-C16	247	162	C	T6×291
13.51-13.99	3D	KS-13.5-3D-C16	128	56	B	T6×180
	5D	KS-13.5-5D-C16	155	84	B	T6×180
	7D	KS-13.5-7D-C16	182	112	B	T6×290
	10D	KS-13.5-10D-C16	222	154	B	T6×290
	12D	KS-13.5-12D-C16	254	168	B	T6×291
14.00-14.50	3D	KS-14-3D-C16	129.5	58	B	T6×180
	5D	KS-14-5D-C16	157.5	87	B	T6×180
	7D	KS-14-7D-C16	185.5	116	B	T6×290
	10D	KS-14-10D-C16	227.5	159.5	B	T6×290
	12D	KS-14-12D-C16	261	174	B	T6×291
14.51-14.99	3D	KS-14.5-3D-C20	137	60	A	T6×180
	5D	KS-14.5-5D-C20	166	90	A	T6×180
	7D	KS-14.5-7D-C20	195	120	A	T6×290
	10D	KS-14.5-10D-C20	239	165	A	T6×290
	12D	KS-14.5-12D-C20	267	180	A	T6×291
15.00-15.99	3D	KS-15-3D-C20	141	64	A	T6×180
	5D	KS-15-5D-C20	171	96	A	T6×180
	7D	KS-15-7D-C20	201	128	A	T6×290
	10D	KS-15-10D-C20	246	176	A	T6×290
	12D	KS-15-12D-C20	281	192	A	T6×291

TIP SIZE DC	DEPTH L/D	ORDER CODE	OAL L	FLUTE L1	SEAT	WRENCH
16.00-16.99	3D	KS-16-3D-C20	149	68	1	1.5×180
	5D	KS-16-5D-C20	181	102	1	1.5×180
	7D	KS-16-7D-C20	213	136	1	1.5×330
	10D	KS-16-10D-C20	261	187	1	1.5×330
	12D	KS-16-12D-C20	294	204	1	1.5×350
17.00-18.00	3D	KS-17-3D-C20	154	72	1	1.5×180
	5D	KS-17-5D-C20	188	108	1	1.5×180
	7D	KS-17-7D-C20	222	144	1	1.5×330
	10D	KS-17-10D-C20	273	198	1	1.5×330
	12D	KS-17-12D-C20	307.5	216	1	1.5×350
18.01-18.99	3D	KS-18-3D-C25	157	76	2	2.0×210
	5D	KS-18-5D-C25	193	114	2	2.0×210
	7D	KS-18-7D-C25	229	152	2	2.0×280
	10D	KS-18-10D-C25	293	209	2	2.0×280
	12D	KS-18-12D-C25	328	228	2	2.0×410
19.00-19.99	3D	KS-19-3D-C25	171	80	2	2.0×210
	5D	KS-19-5D-C25	209	120	2	2.0×210
	7D	KS-19-7D-C25	247	160	2	2.0×280
	10D	KS-19-10D-C25	304	220	2	2.0×280
	12D	KS-19-12D-C25	341	240	2	2.0×410
20.00-20.99	3D	KS-20-3D-C25	179	84	3	2.0×210
	5D	KS-20-5D-C25	219	126	3	2.0×210
	7D	KS-20-7D-C25	259	168	3	2.0×280
	10D	KS-20-10D-C25	319	231	3	2.0×280
	12D	KS-20-12D-C25	355	252	3	2.0×410
21.00-22.00	3D	KS-21-3D-C25	179.5	88	3	2.0×210
	5D	KS-21-5D-C25	221.5	132	3	2.0×210
	7D	KS-21-7D-C25	263.5	176	3	2.0×280
	10D	KS-21-10D-C25	326.5	242	3	2.0×370
	12D	KS-21-12D-C25	368	264	3	2.0×410

Dimensions in mm. Bodies and tips are ordered separately. Other diameters, lengths and tip geometries are made to order from 5 pieces, 15–30 working days. Stock varies by code; please confirm on inquiry. OAL "—": length on request. Tips are ordered by diameter and seat size.

KS Drill Bodies

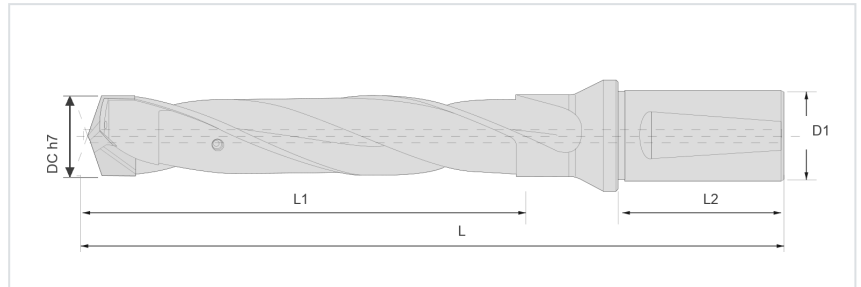
Rear-locking replaceable-tip drill bodies

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TIP DC

3-12

XD



TIP SIZE DC	DEPTH L/D	ORDER CODE	OAL L	FLUTE L1	SEAT	WRENCH
22.01-22.99	3D	KS-22-3D-C25	184	92	4	2.0×210
	5D	KS-22-5D-C25	228	138	4	2.0×210
	7D	KS-22-7D-C25	272	184	4	2.0×280
	10D	KS-22-10D-C25	338	253	4	2.0×370
	12D	KS-22-12D-C25	381.5	276	4	2.0×410
23.00-24.00	3D	KS-23-3D-C25	188.5	96	4	2.0×210
	5D	KS-23-5D-C25	234.5	144	4	2.0×210
	7D	KS-23-7D-C25	280.5	192	4	2.0×280
	10D	KS-23-10D-C25	349.5	264	4	2.0×370
	12D	KS-23-12D-C25	395	288	4	2.0×410
24.01-24.99	3D	KS-24-3D-C32	198	100	5	2.5×240
	5D	KS-24-5D-C32	246	150	5	2.5×240
	7D	KS-24-7D-C32	294	200	5	2.5×320
	10D	KS-24-10D-C32	366	275	5	2.5×420
	12D	KS-24-12D-C32	418	300	5	2.5×460
25.00-26.00	3D	KS-25-3D-C32	202	104	5	2.5×240
	5D	KS-25-5D-C32	252	156	5	2.5×240
	7D	KS-25-7D-C32	302	208	5	2.5×320
	10D	KS-25-10D-C32	377	286	5	2.5×420
	12D	KS-25-12D-C32	432	312	5	2.5×460
26.01-26.99	3D	KS-26-3D-C32	206.5	108	6	2.5×240
	5D	KS-26-5D-C32	258.5	162	6	2.5×240
	7D	KS-26-7D-C32	310.5	216	6	2.5×320
	10D	KS-26-10D-C32	388.5	297	6	2.5×420
	12D	KS-26-12D-C32	445	324	6	2.5×460
27.00-28.00	3D	KS-27-3D-C32	210.5	112	6	2.5×240
	5D	KS-27-5D-C32	264.5	168	6	2.5×240
	7D	KS-27-7D-C32	318.5	224	6	2.5×320
	10D	KS-27-10D-C32	399.5	308	6	2.5×420
	12D	KS-27-12D-C32	458.5	336	6	2.5×460

TIP SIZE DC	DEPTH L/D	ORDER CODE	OAL L	FLUTE L1	SEAT	WRENCH
28.01-28.99	3D	KS-28-3D-C32	215.5	116	7	3.0×350
	5D	KS-28-5D-C32	271.5	174	7	3.0×350
	7D	KS-28-7D-C32	327.5	232	7	3.0×450
	10D	KS-28-10D-C32	411.5	319	7	3.0×515
	12D	KS-28-12D-C32	472	348	7	3.0×530
29.00-30.00	3D	KS-29-3D-C32	219.5	120	7	3.0×350
	5D	KS-29-5D-C32	277.5	180	7	3.0×350
	7D	KS-29-7D-C32	335.5	240	7	3.0×450
	10D	KS-29-10D-C32	422.5	330	7	3.0×515
	12D	KS-29-12D-C32	485	360	7	3.0×530
30.01-30.99	3D	KS-30-3D-C32	224.5	124	8	3.0×350
	5D	KS-30-5D-C32	284.5	186	8	3.0×350
	7D	KS-30-7D-C32	344.5	248	8	3.0×450
	10D	KS-30-10D-C32	434.5	341	8	3.0×515
	12D	KS-30-12D-C32	496	372	8	3.0×530
31.00-32.00	3D	KS-31-3D-C32	229	128	8	3.0×350
	5D	KS-31-5D-C32	291	192	8	3.0×350
	7D	KS-31-7D-C32	353	256	8	3.0×450
	10D	KS-31-10D-C32	446	352	8	3.0×515
	12D	KS-31-12D-C32	508	384	8	3.0×530
32.01-32.99	3D	KS-32-3D-C40	249.5	132	9	3.0×350
	5D	KS-32-5D-C40	313.5	198	9	3.0×350
	7D	KS-32-7D-C40	377.5	264	9	3.0×450
	10D	KS-32-10D-C40	473.5	363	9	3.0×515
	12D	KS-32-12D-C40	526	396	9	3.0×600
33.00-33.99	3D	KS-33-3D-C40	257	136	9	3.0×350
	5D	KS-33-5D-C40	323	204	9	3.0×350
	7D	KS-33-7D-C40	389	272	9	3.0×450
	10D	KS-33-10D-C40	488	374	9	3.0×515
	12D	KS-33-12D-C40	538	408	9	3.0×600

Dimensions in mm. Bodies and tips are ordered separately. Other diameters, lengths and tip geometries are made to order from 5 pieces, 15–30 working days. Stock varies by code; please confirm on inquiry. OAL "—": length on request. Tips are ordered by diameter and seat size.

KS Drill Bodies

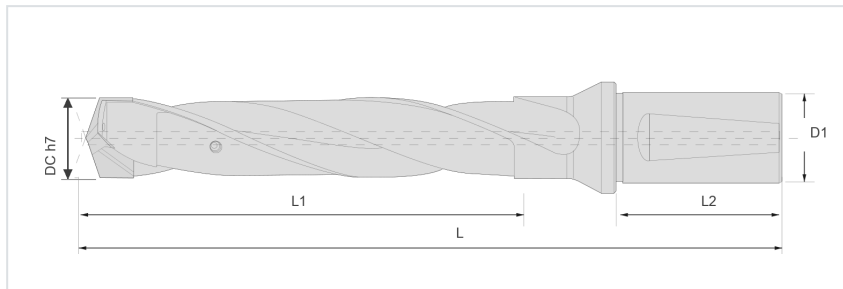
Rear-locking replaceable-tip drill bodies

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TIP DC

3-12

XD



TIP SIZE DC	DEPTH L/D	ORDER CODE	OAL L	FLUTE L1	SEAT	WRENCH
34.00-34.99	3D	KS-34-3D-C40	258.5	140	9	3.0×350
	5D	KS-34-5D-C40	326.5	210	9	3.0×350
	7D	KS-34-7D-C40	394.5	280	9	3.0×450
	10D	KS-34-10D-C40	496.5	385	9	3.0×515
	12D	KS-34-12D-C40	550	420	9	3.0×600
35.00-36.00	3D	KS-35-3D-C40	263.5	144	9	3.0×350
	5D	KS-35-5D-C40	333.5	216	9	3.0×350
	7D	KS-35-7D-C40	403.5	288	9	3.0×450
	10D	KS-35-10D-C40	508.5	396	9	3.0×515
	12D	KS-35-12D-C40	562	432	9	3.0×600
36.01-36.99	3D	KS-36-3D-C40	269	148	10	3.0×350
	5D	KS-36-5D-C40	341	222	10	3.0×350
	7D	KS-36-7D-C40	413	296	10	3.0×450
	10D	KS-36-10D-C40	521	407	10	3.0×515
	12D	KS-36-12D-C40	574	444	10	3.0×600
37.00-37.99	3D	KS-37-3D-C40	272.5	152	10	3.0×350
	5D	KS-37-5D-C40	346.5	228	10	3.0×350
	7D	KS-37-7D-C40	420.5	304	10	3.0×450
	10D	KS-37-10D-C40	531.5	418	10	3.0×515
	12D	KS-37-12D-C40	586	456	10	3.0×600
38.00-38.99	3D	KS-38-3D-C40	277	156	10	3.0×350
	5D	KS-38-5D-C40	353	234	10	3.0×350
	7D	KS-38-7D-C40	429	312	10	3.0×450
	10D	KS-38-10D-C40	543	429	10	3.0×515
	12D	KS-38-12D-C40	598	468	10	3.0×600
39.00-39.99	3D	KS-39-3D-C40	282	160	10	3.0×350
	5D	KS-39-5D-C40	360	240	10	3.0×350
	7D	KS-39-7D-C40	438	320	10	3.0×450
	10D	KS-39-10D-C40	555	440	10	3.0×515
	12D	KS-39-12D-C40	610	480	10	3.0×600
40.00-40.99	3D	KS-40-3D-C40	286	164	10	3.0×350
	5D	KS-40-5D-C40	366	246	10	3.0×350
	7D	KS-40-7D-C40	446	328	10	3.0×450
	10D	KS-40-10D-C40	566	451	10	3.0×600

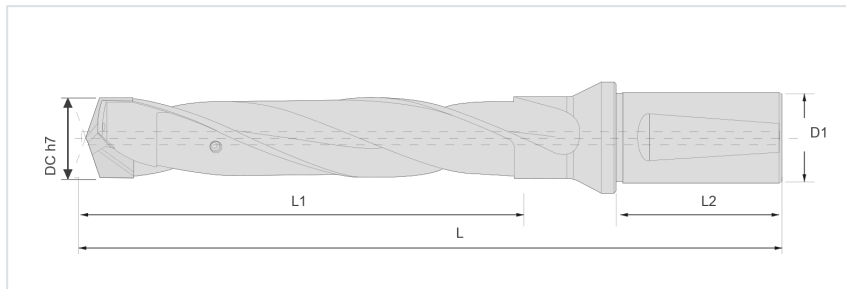
TIP SIZE DC	DEPTH L/D	ORDER CODE	OAL L	FLUTE L1	SEAT	WRENCH
41.00-41.99	3D	KS-41-3D-C40	—	168	11	3.0×350
	5D	KS-41-5D-C40	—	252	11	3.0×350
	7D	KS-41-7D-C40	—	336	11	3.0×350
	10D	KS-41-10D-C40	—	462	11	3.0×350
42.00-42.99	3D	KS-42-3D-C40	—	172	11	3.0×350
	5D	KS-42-5D-C40	—	258	11	3.0×350
	7D	KS-42-7D-C40	—	344	11	3.0×350
	10D	KS-42-10D-C40	—	473	11	3.0×350
43.00-43.99	3D	KS-43-3D-C40	—	176	11	3.0×350
	5D	KS-43-5D-C40	—	264	11	3.0×350
	7D	KS-43-7D-C40	—	352	11	3.0×350
44.00-45.00	10D	KS-43-10D-C40	—	484	11	3.0×350
	3D	KS-44-3D-C40	—	180	11	3.0×350
	5D	KS-44-5D-C40	—	270	11	3.0×350
45.01-45.99	7D	KS-44-7D-C40	—	360	11	3.0×350
	10D	KS-44-10D-C40	—	495	11	3.0×350
	3D	KS-45-3D-C40	—	184	12	3.0×350
46.00-46.99	5D	KS-45-5D-C40	—	276	12	3.0×350
	7D	KS-45-7D-C40	—	368	12	3.0×350
	10D	KS-45-10D-C40	—	506	12	3.0×350
	3D	KS-46-3D-C40	—	188	12	3.0×350
47.00-47.99	5D	KS-46-5D-C40	—	282	12	3.0×350
	7D	KS-46-7D-C40	—	376	12	3.0×350
	10D	KS-46-10D-C40	—	517	12	3.0×350
	3D	KS-47-3D-C40	—	192	12	3.0×350
48.00-48.99	5D	KS-47-5D-C40	—	288	12	3.0×350
	7D	KS-47-7D-C40	—	384	12	3.0×350
	10D	KS-47-10D-C40	—	528	12	3.0×350
49.00-49.99	3D	KS-48-3D-C40	—	196	12	3.0×350
	5D	KS-48-5D-C40	—	294	12	3.0×350
	7D	KS-48-7D-C40	—	392	12	3.0×350
50.00-50.99	10D	KS-48-10D-C40	—	539	12	3.0×350

Dimensions in mm. Bodies and tips are ordered separately. Other diameters, lengths and tip geometries are made to order from 5 pieces, 15–30 working days. Stock varies by code; please confirm on inquiry. OAL "—": length on request. Tips are ordered by diameter and seat size.

KS Drill Bodies

Rear-locking replaceable-tip drill bodies

h7	3-12
TIP DC	XD

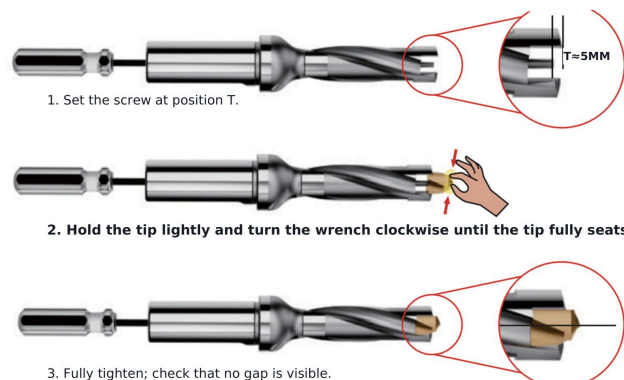


TIP SIZE DC	DEPTH L/D	ORDER CODE	OAL L	FLUTE L1	SEAT	WRENCH
49.00-49.99	3D	KS-49-3D-C40	—	200	12	3.0×350
	5D	KS-49-5D-C40	—	300	12	3.0×350
	7D	KS-49-7D-C40	—	400	12	3.0×350
	10D	KS-49-10D-C40	—	550	12	3.0×350
50.00-50.99	3D	KS-50-3D-C40	—	204	12	3.0×350
	5D	KS-50-5D-C40	—	306	12	3.0×350
	7D	KS-50-7D-C40	—	408	12	3.0×350
	10D	KS-50-10D-C40	—	561	12	3.0×350
51.00-52.00	3D	KS-51-3D-C40	—	208	12	3.0×350
	5D	KS-51-5D-C40	—	312	12	3.0×350
	7D	KS-51-7D-C40	—	416	12	3.0×350
	10D	KS-51-10D-C40	—	572	12	3.0×350

Tip seats KS TIPS

TIP DIA. D	SEAT SIZE	TIP SERIES	LOCKING SCREW
10.00-11.99	Z	HD / HP	M2.0×7.5
12.00-12.99	Y	HD / HP	M2.2×7.5
12.50-13.50	C	HD / HP	M3.0/M2.5×14
13.51-14.50	B	HD / HP	M3.0/M2.5×14
14.51-15.99	A	HD / HP	M3.0/M2.5×14
16.00-18.00	1	HD / HP	M3.5/M2.5×16
18.01-19.99	2	HD / HP	M4.0/M3.0×19
20.00-22.00	3	HD / HP	M4.0/M3.0×19
22.01-24.00	4	HD / HP	M4.0/M3.0×19
24.01-26.00	5	HD / HP	M5.0/M4.0×23
26.01-28.00	6	HD / HP	M5.0/M4.0×23
28.01-30.00	7	HD / HP	M6.0/M5.0×28
30.01-32.00	8	HD / HP	M6.0/M5.0×28
32.01-36.00	9	HD / HP	M6.0/M6.0×32
36.01-40.99	10	HD / HP	M6.0/M6.0×32
41.00-45.00	11	HD / HP	M6.0/M6.0×32
45.01-52.00	12	HD / HP	M6.0/M6.0×32

INSTALLING KS TIPS



Dimensions in mm. Bodies and tips are ordered separately. Other diameters, lengths and tip geometries are made to order from 5 pieces, 15-30 working days. Stock varies by code; please confirm on inquiry. OAL "—": length on request. Tips are ordered by diameter and seat size.

Cutting data

Starting values for replaceable-tip drills Ø12–32 mm. Adjust to machine, holder and workpiece.

WORKPIECE MATERIAL		vc m/min	Ø12–16	Ø16–22	Ø22–26	Ø26–30	Ø30–32
		cutting speed	feed f, mm/rev				
P	Low-carbon steel, long chips (<125 HB)	100–60	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25
	Low-carbon steel, short chips; free-cutting steel (<125 HB)	100–60	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25
	High- / medium-carbon steel (<25 HRC)	80–60	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25
	Alloy / tool steel (<35 HRC)	80–50	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25
	Alloy / tool steel (35–48 HRC)	60–40	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25
	PH, ferritic and martensitic steel (<35 HRC)	50–30	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25	0.15–0.25
M	Austenitic stainless steel (130–200 HB)	50–40–20	0.10–0.17–0.22	0.11–0.18–0.24	0.12–0.20	0.13–0.22	0.14–0.24
	High-strength austenitic / cast stainless steel (<25 HRC)	55–40–30	0.08–0.13–0.16	0.09–0.13–0.18	0.10–0.14–0.18	0.10–0.14–0.20	0.12–0.16
	Duplex stainless steel (<30 HRC)	55–40–20	0.08–0.13–0.16	0.09–0.13–0.18	0.10–0.14–0.18	0.10–0.14–0.20	0.12–0.16
K	Grey cast iron (<32 HRC)	140–120–60	0.15–0.25	0.15–0.30	0.15–0.30	0.15–0.30	0.15–0.30
	Alloy / ductile cast iron, medium difficulty (<28 HRC)	140–120–60	0.15–0.25	0.15–0.30	0.15–0.30	0.15–0.30	0.15–0.30
	Difficult high-alloy / ductile cast iron (<28 HRC)	100–90–60	0.17–0.22–0.28	0.15–0.30	0.15–0.30	0.15–0.30	0.15–0.30
N	Wrought aluminium alloys (Si <12%)	230–90	0.22–0.34	0.24–0.36	0.28–0.38	0.32–0.40	0.34–0.42
	Copper and copper alloys (<200 HB)	135–90	0.22–0.34	0.24–0.36	0.28–0.38	0.32–0.40	0.34–0.42

Use a rigid machine and a hydraulic, shrink-fit or high-grip collet holder. Radial runout at the tip below 0.02 mm after mounting. Values for water-soluble coolant. For diameters not listed, use the nearest listed diameter and adjust to the actual conditions.



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