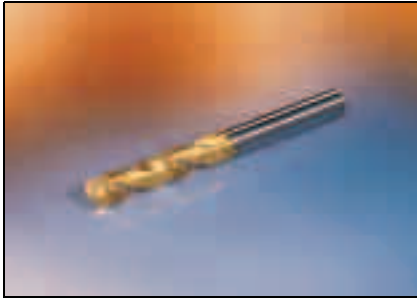


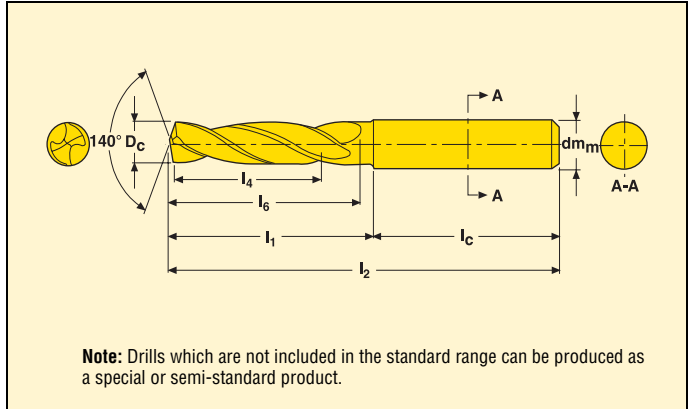
Solid carbide drills SD10

Drilling depth ~ 3xD Short version - Inch diameter

Cylindrical shank DIN 6537A



- External coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 pinch.

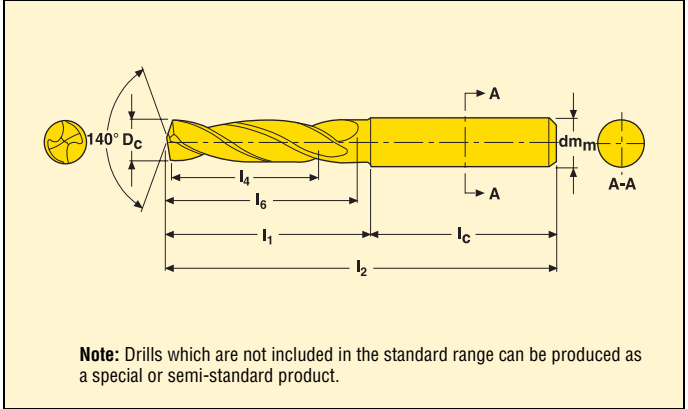


Drill Dia. D_c (inch)		Max drilling depth L_4 (inch)	Part No.	Dimensions in Inch				
				L_2	L_1	L_c	L_6	dm_m
0.1250	1/8	0.55	SD10-01250-055-0236R1	2.441	1.024	1.417	0.787	0.236
0.1406	9/64	0.59	SD10-01406-059-0236R1	2.441	1.024	1.417	0.787	0.236
0.1563	5/32	0.67	SD10-01563-067-0236R1	2.598	1.181	1.417	0.945	0.236
0.1719	11/64	0.71	SD10-01719-071-0236R1	2.598	1.181	1.417	0.945	0.236
0.1875	3/16	0.79	SD10-01875-079-0236R1	2.598	1.181	1.417	1.102	0.236
0.2031	13/64	0.79	SD10-02031-079-0236R1	2.598	1.181	1.417	1.102	0.236
0.2188	7/32	0.83	SD10-02188-083-0236R1	2.598	1.181	1.417	1.102	0.236
0.2344	15/64	0.83	SD10-02344-083-0236R1	2.598	1.181	1.417	1.102	0.236
0.2500	1/4	0.91	SD10-02500-091-0315R1	3.110	1.693	1.417	1.614	0.315
0.2656	17/64	0.91	SD10-02656-098-0315R1	3.110	1.693	1.417	1.614	0.315
0.2813	9/32	0.98	SD10-02813-098-0315R1	3.110	1.693	1.417	1.614	0.315
0.2969	19/64	1.06	SD10-02969-106-0315R1	3.110	1.693	1.417	1.614	0.315
0.3125	5/16	1.06	SD10-03125-106-0315R1	3.110	1.693	1.417	1.614	0.315
0.3281	21/64	1.06	SD10-03281-106-0394R1	3.504	1.929	1.574	1.850	0.394
0.3438	11/32	1.14	SD10-03438-114-0394R1	3.504	1.929	1.574	1.850	0.394
0.3594	23/64	1.14	SD10-03594-114-0394R1	3.504	1.929	1.574	1.850	0.394
0.3750	3/8	1.14	SD10-03750-122-0394R1	3.504	1.929	1.574	1.850	0.394
0.3906	25/64	1.22	SD10-03906-122-0394R1	3.504	1.929	1.574	1.850	0.394
0.4063	13/32	1.22	SD10-04063-122-0472R1	4.016	2.244	1.772	2.165	0.472
0.4219	27/64	1.30	SD10-04219-130-0472R1	4.016	2.244	1.772	2.165	0.472
0.4375	7/16	1.30	SD10-04375-130-0472R1	4.016	2.244	1.772	2.165	0.472
0.4531	29/64	1.30	SD10-04531-130-0472R1	4.016	2.244	1.772	2.165	0.472
0.4688	15/32	1.42	SD10-04688-142-0472R1	4.016	2.244	1.772	2.165	0.472
0.4844	31/64	1.42	SD10-04844-142-0551R1	4.016	2.244	1.772	2.165	0.551
0.5000	1/2	1.42	SD10-05000-142-0551R1	4.213	2.441	1.772	2.362	0.551
0.5156	33/64	1.46	SD10-05156-146-0551R1	4.213	2.441	1.772	2.362	0.551
0.5312	17/32	1.46	SD10-05312-146-0551R1	4.213	2.441	1.772	2.362	0.551
0.5469	35/64	1.46	SD10-05469-146-0551R1	4.213	2.441	1.772	2.362	0.551
0.5625	9/16	1.49	SD10-05625-149-0630R1	4.528	2.638	1.890	2.559	0.630

Solid carbide drills SD10

Drilling depth ~ 3xD Short Version - Metric diameter

Cylindrical shank DIN 6537A

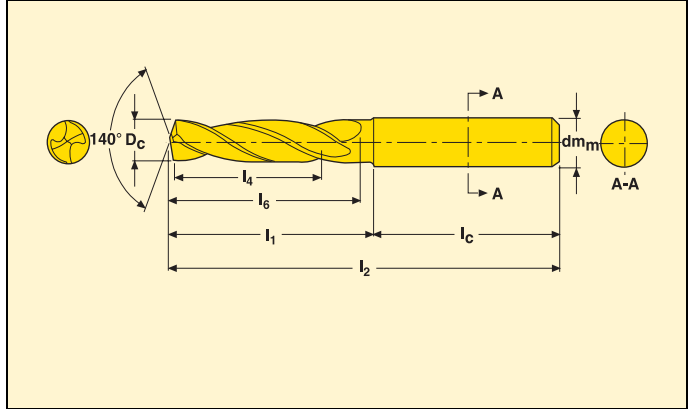


- External coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ inch.

Drill dia. D_c (mm)	Drill dia. D_c (inch)	Max drilling depth l_4 (inch)	Part No.	Dimensions in Inch				
				l_2	l_1	l_c	l_6	dm_m
3.00	0.1181	0.55	SD10-3.0-14-6R1	2.441	1.024	1.417	0.787	0.236
3.10	0.1220	0.55	SD10-3.1-14-6R1	2.441	1.024	1.417	0.787	0.236
3.20	0.1260	0.55	SD10-3.2-14-6R1	2.441	1.024	1.417	0.787	0.236
3.30	0.1299	0.55	SD10-3.3-14-6R1	2.441	1.024	1.417	0.787	0.236
3.40	0.1339	0.55	SD10-3.4-14-6R1	2.441	1.024	1.417	0.787	0.236
3.50	0.1378	0.59	SD10-3.5-15-6R1	2.441	1.024	1.417	0.787	0.236
3.60	0.1417	0.59	SD10-3.6-15-6R1	2.441	1.024	1.417	0.787	0.236
3.70	0.1457	0.59	SD10-3.7-15-6R1	2.441	1.024	1.417	0.787	0.236
3.80	0.1496	0.67	SD10-3.8-17-6R1	2.598	1.181	1.417	0.945	0.236
3.90	0.1535	0.67	SD10-3.9-17-6R1	2.598	1.181	1.417	0.945	0.236
4.00	0.1575	0.67	SD10-4.0-17-6R1	2.598	1.181	1.417	0.945	0.236
4.10	0.1614	0.67	SD10-4.1-17-6R1	2.598	1.181	1.417	0.945	0.236
4.20	0.1654	0.67	SD10-4.2-17-6R1	2.598	1.181	1.417	0.945	0.236
4.30	0.1693	0.71	SD10-4.3-18-6R1	2.598	1.181	1.417	0.945	0.236
4.40	0.1732	0.71	SD10-4.4-18-6R1	2.598	1.181	1.417	0.945	0.236
4.50	0.1772	0.71	SD10-4.5-18-6R1	2.598	1.181	1.417	0.945	0.236
4.60	0.1811	0.71	SD10-4.6-18-6R1	2.598	1.181	1.417	1.024	0.236
4.70	0.1850	0.71	SD10-4.7-18-6R1	2.598	1.181	1.417	1.024	0.236
4.80	0.1890	0.79	SD10-4.8-20-6R1	2.598	1.181	1.417	1.102	0.236
4.90	0.1929	0.79	SD10-4.9-20-6R1	2.598	1.181	1.417	1.102	0.236
5.00	0.1969	0.79	SD10-5.0-20-6R1	2.598	1.181	1.417	1.102	0.236
5.10	0.2008	0.79	SD10-5.1-20-6R1	2.598	1.181	1.417	1.102	0.236
5.20	0.2047	0.79	SD10-5.2-20-6R1	2.598	1.181	1.417	1.102	0.236
5.50	0.2165	0.83	SD10-5.5-21-6R1	2.598	1.181	1.417	1.102	0.236
5.80	0.2283	0.83	SD10-5.8-21-6R1	2.598	1.181	1.417	1.102	0.236
6.00	0.2362	0.83	SD10-6.0-21-6R1	2.598	1.181	1.417	1.102	0.236
6.50	0.2559	0.91	SD10-6.5-23-8R1	3.110	1.693	1.417	1.339	0.315
6.60	0.2598	0.91	SD10-6.6-23-8R1	3.110	1.693	1.417	1.339	0.315
6.80	0.2677	0.98	SD10-6.8-25-8R1	3.110	1.693	1.417	1.339	0.315
6.90	0.2717	0.98	SD10-6.9-25-8R1	3.110	1.693	1.417	1.339	0.315

Intermediate diameters - Drilling depth ~ 3xD Short Version - Inch diameter

Cylindrical shank DIN 6537A



- External coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ inch.

Drill dia. D_c (inch)	Max drilling depth l_4 (inch)	Part No.	Dimensions in Inch				
			l_2	l_1	l_c	l_g	dm_m
.1181-.1339	0.551	SD10-x.xxxx-055-0236R1	2.441	1.024	1.417	.787	0.236
.1343-.1476	0.591	SD10-x.xxxx-059-0236R1	2.441	1.024	1.417	.787	0.236
.1480-.1654	0.669	SD10-x.xxxx-067-0236R1	2.598	1.181	1.417	.945	0.236
.1657-.1870	0.709	SD10-x.xxxx-071-0236R1	2.598	1.181	1.417	.945	0.236
.1874-.2047	0.787	SD10-x.xxxx-079-0236R1	2.598	1.181	1.417	1.024	0.236
.2051-.2362	0.827	SD10-x.xxxx-083-0236R1	2.598	1.181	1.417	1.102	0.236
.2366-.2598	0.906	SD10-x.xxxx-091-0315R1	3.110	1.693	1.417	1.339	0.315
.2602-.2755	0.984	SD10-x.xxxx-098-0315R1	3.110	1.693	1.417	1.339	0.315
.2760-.2953	0.984	SD10-x.xxxx-098-0315R1	3.110	1.693	1.417	1.614	0.315
.2957-.3150	1.063	SD10-x.xxxx-106-0315R1	3.110	1.693	1.417	1.614	0.315
.3154-.3346	1.063	SD10-x.xxxx-106-0394R1	3.504	1.929	1.575	1.850	0.394
.3350-.3740	1.142	SD10-x.xxxx-114-0394R1	3.504	1.929	1.575	1.850	0.394
.3744-.3937	1.220	SD10-x.xxxx-122-0394R1	3.504	1.929	1.575	1.850	0.394
.3941-.4134	1.220	SD10-x.xxxx-122-0472R1	4.016	2.244	1.772	2.165	0.472
.4138-.4646	1.299	SD10-x.xxxx-130-0472R1	4.016	2.244	1.772	2.165	0.472
.4650-.4724	1.417	SD10-x.xxxx-142-0472R1	4.016	2.244	1.772	2.165	0.472
.4728-.5118	1.417	SD10-x.xxxx-142-0551R1	4.213	2.441	1.772	2.362	0.551
.5122-.5512	1.457	SD10-x.xxxx-146-0551R1	4.213	2.441	1.772	2.362	0.551
.5516-.5906	1.496	SD10-x.xxxx-149-0630R1	4.528	2.638	1.890	2.559	0.630
.5909-.6299	1.532	SD10-x.xxxx-153-0630R1	4.528	2.638	1.890	2.559	0.630
.6303-.6693	1.575	SD10-x.xxxx-157-0709R1	4.843	2.953	1.890	2.874	0.709
.6697-.7087	1.614	SD10-x.xxxx-161-0709R1	4.843	2.953	1.890	2.874	0.709

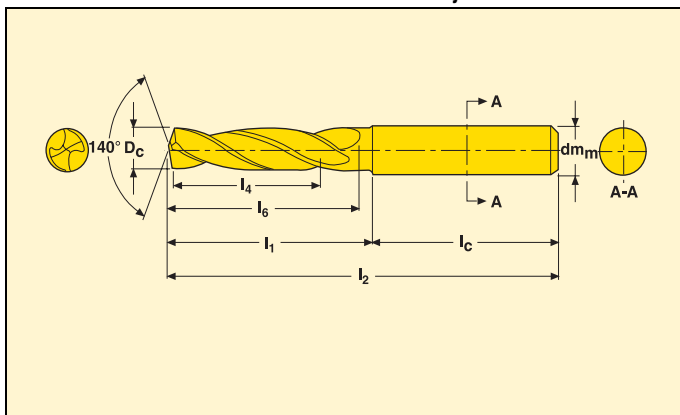
The drills are available in \varnothing increments of .0004 inch. Fill in required cutting \varnothing instead of -x.xxxx- as in the ordering example.
Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 1/4 inch (.2500): SD10-0.2500-091-0315R1.**

Intermediate diameters - Drilling depth ~ 3xD Short Version - Metric diameter

Cylindrical shank DIN 6537A



- External coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 µm.

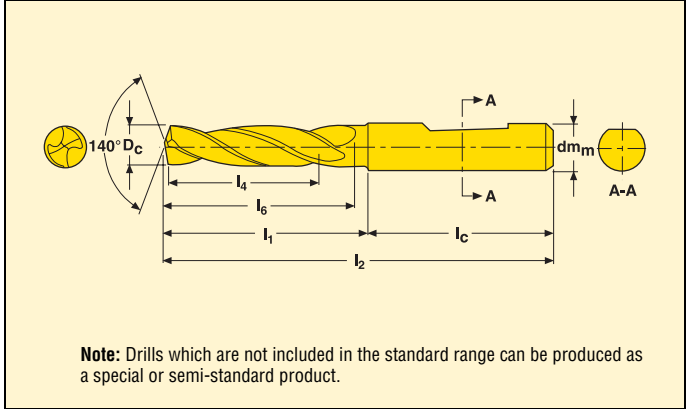


Drill dia. D _c (mm)	Max drilling depth l ₄ (mm)	Part No.	Dimensions in mm				
			l ₂	l ₁	l _c	l ₆	dm _m
3.00-3.40	14	SD10-x.xx-14-6R1	62	26	36	20	6
3.41-3.75	15	SD10-x.xx-15-6R1	62	26	36	20	6
3.76-4.20	17	SD10-x.xx-17-6R1	66	30	36	24	6
4.21-4.75	18	SD10-x.xx-18-6R1	66	30	36	24	6
4.76-5.20	20	SD10-x.xx-20-6R1	66	30	36	26	6
5.21-6.00	21	SD10-x.xx-21-6R1	66	30	36	28	6
6.01-6.60	23	SD10-x.xx-23-8R1	79	43	36	34	8
6.61-7.00	25	SD10-x.xx-25-8R1	79	43	36	34	8
7.01-7.50	25	SD10-x.xx-25-8R1	79	43	36	41	8
7.51-8.00	27	SD10-x.xx-27-8R1	79	43	36	41	8
8.01-8.50	27	SD10-x.xx-27-10R1	89	49	40	47	10
8.51-9.50	29	SD10-x.xx-29-10R1	89	49	40	47	10
9.51-10.00	31	SD10-x.xx-31-10R1	89	49	40	47	10
10.01-10.50	31	SD10-x.xx-31-12R1	102	57	45	55	12
10.51-11.80	33	SD10-x.xx-33-12R1	102	57	45	55	12
11.81-12.00	36	SD10-x.xx-36-12R1	102	57	45	55	12
12.01-13.00	36	SD10-x.xx-36-14R1	107	62	45	60	14
13.01-14.00	37	SD10-x.xx-37-14R1	107	62	45	60	14
14.01-15.00	38	SD10-x.xx-38-16R1	115	67	48	65	16
15.01-16.00	39	SD10-x.xx-39-16R1	115	67	48	65	16
16.01-17.00	40	SD10-x.xx-40-18R1	123	75	48	73	18
17.01-18.00	41	SD10-x.xx-41-18R1	123	75	48	73	18

The drills are available in Ø increments of 0.01 mm. Fill in required cutting Ø instead of -x.xx- according to the ordering example. Cutting Ø tolerance is equal to m7 unless otherwise specified. **Ordering example for Ø 11.3 mm:** SD10-11.30-33-12R1.

Drilling depth ~ 3xD Short Version - Metric diameter

Whistle Notch shank DIN 6537B

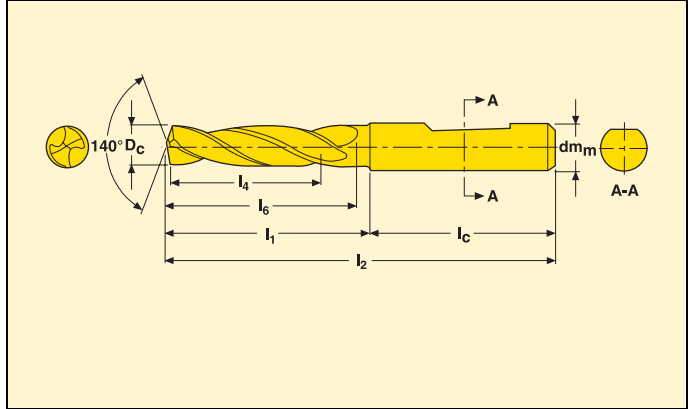
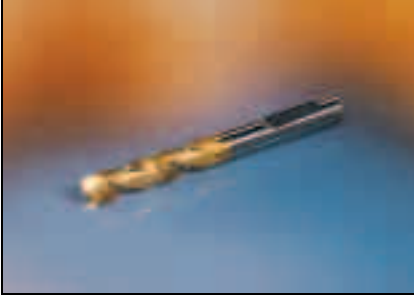


- External coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ inch.

Drill dia. D_c (mm)	Drill dia. D_c (inch)	Max drilling depth l_4 (inch)	Part No.	Dimensions in Inch				
				l_2	l_1	l_c	l_6	dm_m
3.00	0.1181	0.55	SD10-3.0-14-6R5	2.441	1.024	1.417	0.787	0.236
3.10	0.1220	0.55	SD10-3.1-14-6R5	2.441	1.024	1.417	0.787	0.236
3.20	0.1260	0.55	SD10-3.2-14-6R5	2.441	1.024	1.417	0.787	0.236
3.30	0.1299	0.55	SD10-3.3-14-6R5	2.441	1.024	1.417	0.787	0.236
3.40	0.1339	0.55	SD10-3.4-14-6R5	2.441	1.024	1.417	0.787	0.236
3.50	0.1378	0.59	SD10-3.5-15-6R5	2.441	1.024	1.417	0.787	0.236
3.60	0.1417	0.59	SD10-3.6-15-6R5	2.441	1.024	1.417	0.787	0.236
3.70	0.1457	0.59	SD10-3.7-15-6R5	2.441	1.024	1.417	0.787	0.236
3.80	0.1496	0.67	SD10-3.8-17-6R5	2.598	1.181	1.417	0.945	0.236
3.90	0.1535	0.67	SD10-3.9-17-6R5	2.598	1.181	1.417	0.945	0.236
4.00	0.1575	0.67	SD10-4.0-17-6R5	2.598	1.181	1.417	0.945	0.236
4.10	0.1614	0.67	SD10-4.1-17-6R5	2.598	1.181	1.417	0.945	0.236
4.20	0.1654	0.67	SD10-4.2-17-6R5	2.598	1.181	1.417	0.945	0.236
4.30	0.1693	0.71	SD10-4.3-18-6R5	2.598	1.181	1.417	0.945	0.236
4.40	0.1732	0.71	SD10-4.4-18-6R5	2.598	1.181	1.417	0.945	0.236
4.50	0.1772	0.71	SD10-4.5-18-6R5	2.598	1.181	1.417	0.945	0.236
4.60	0.1811	0.71	SD10-4.6-18-6R5	2.598	1.181	1.417	1.024	0.236
4.70	0.1850	0.71	SD10-4.7-18-6R5	2.598	1.181	1.417	1.024	0.236
4.80	0.1890	0.79	SD10-4.8-20-6R5	2.598	1.181	1.417	1.102	0.236
4.90	0.1929	0.79	SD10-4.9-20-6R5	2.598	1.181	1.417	1.102	0.236
5.00	0.1969	0.79	SD10-5.0-20-6R5	2.598	1.181	1.417	1.102	0.236
5.10	0.2008	0.79	SD10-5.1-20-6R5	2.598	1.181	1.417	1.102	0.236
5.20	0.2047	0.79	SD10-5.2-20-6R5	2.598	1.181	1.417	1.102	0.236
5.50	0.2165	0.83	SD10-5.5-21-6R5	2.598	1.181	1.417	1.102	0.236
5.80	0.2283	0.83	SD10-5.8-21-6R5	2.598	1.181	1.417	1.102	0.236
6.00	0.2362	0.83	SD10-6.0-21-6R5	2.598	1.181	1.417	1.102	0.236
6.50	0.2559	0.91	SD10-6.5-23-8R5	3.110	1.693	1.417	1.339	0.315
6.60	0.2598	0.91	SD10-6.6-23-8R5	3.110	1.693	1.417	1.339	0.315
6.80	0.2677	0.98	SD10-6.8-25-8R5	3.110	1.693	1.417	1.339	0.315
6.90	0.2717	0.98	SD10-6.9-25-8R5	3.110	1.693	1.417	1.339	0.315

Intermediate diameters - Drilling depth ~ 3xD Short Version - Inch diameter

Whistle Notch shank DIN 6537B



- External coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ inch.
- Drilling depth ~ 3 x D.

Drill dia. D_c (inch)	Max drilling depth l_4 (inch)	Part No.	Dimensions in Inch				
			l_2	l_1	l_c	l_g	dm_m
.1181-.1339	0.551	SD10-x.xxxx-055-0236R5	2.441	1.024	1.417	0.787	0.236
.1343-.1476	0.591	SD10-x.xxxx-059-0236R5	2.441	1.024	1.417	0.787	0.236
.1480-.1654	0.669	SD10-x.xxxx-067-0236R5	2.598	1.181	1.417	0.945	0.236
.1657-.1870	0.709	SD10-x.xxxx-071-0236R5	2.598	1.181	1.417	0.945	0.236
.1874-.2047	0.787	SD10-x.xxxx-079-0236R5	2.598	1.181	1.417	1.024	0.236
.2051-.2362	0.827	SD10-x.xxxx-083-0236R5	2.598	1.181	1.417	1.102	0.236
.2366-.2598	0.906	SD10-x.xxxx-091-0315R5	3.110	1.693	1.417	1.339	0.315
.2602-.2755	0.984	SD10-x.xxxx-098-0315R5	3.110	1.693	1.417	1.339	0.315
.2760-.2953	0.984	SD10-x.xxxx-098-0315R5	3.110	1.693	1.417	1.614	0.315
.2957-.3150	1.063	SD10-x.xxxx-106-0315R5	3.110	1.693	1.417	1.614	0.315
.3154-.3346	1.063	SD10-x.xxxx-106-0394R5	3.504	1.929	1.575	1.850	0.394
.3350-.3740	1.142	SD10-x.xxxx-114-0394R5	3.504	1.929	1.575	1.850	0.394
.3744-.3937	1.220	SD10-x.xxxx-122-0394R5	3.504	1.929	1.575	1.850	0.394
.3941-.4134	1.220	SD10-x.xxxx-122-0472R5	4.016	2.244	1.772	2.165	0.472
.4138-.4646	1.299	SD10-x.xxxx-130-0472R5	4.016	2.244	1.772	2.165	0.472
.4650-.4724	1.417	SD10-x.xxxx-142-0472R5	4.016	2.244	1.772	2.165	0.472
.4728-.5118	1.417	SD10-x.xxxx-142-0551R5	4.213	2.441	1.772	2.362	0.551
.5122-.5512	1.457	SD10-x.xxxx-146-0551R5	4.213	2.441	1.772	2.362	0.551
.5516-.5906	1.496	SD10-x.xxxx-149-0630R5	4.528	2.638	1.890	2.559	0.630
.5909-.6299	1.532	SD10-x.xxxx-153-0630R5	4.528	2.638	1.890	2.559	0.630
.6303-.6693	1.575	SD10-x.xxxx-157-0709R5	4.843	2.953	1.890	2.874	0.709
.6697-.7087	1.614	SD10-x.xxxx-116-0709R5	4.843	2.953	1.890	2.874	0.709

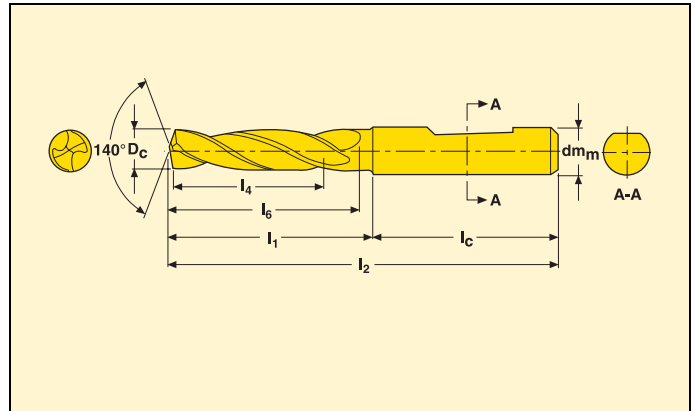
The drills are available in \varnothing increments of .0004 inch. Fill in required cutting \varnothing instead of -x.xxxx- as in the ordering example. Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 1/4 inch (.2500):** SD10-0.2500-091-0315R5

Intermediate diameters - Drilling depth ~ 3xD Short Version - Metric diameter

Whistle Notch shank DIN 6537B



- External coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 pinch.
- Drilling depth ~ 3 x D.



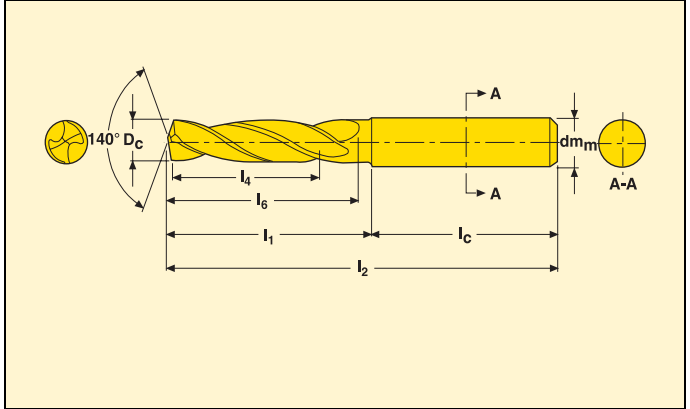
Drill dia. D_c (mm)	Max drilling depth l_4 (mm)	Part No.	Dimensions in mm				
			l_2	l_1	l_c	l_6	dm_m
3.00-3.40	14	SD10-x.xx-14-6R5	62	26	36	20	6
3.41-3.75	15	SD10-x.xx-15-6R5	62	26	36	20	6
3.76-4.20	17	SD10-x.xx-17-6R5	66	30	36	24	6
4.21-4.75	18	SD10-x.xx-18-6R5	66	30	36	24	6
4.76-5.20	20	SD10-x.xx-20-6R5	66	30	36	26	6
5.21-6.00	21	SD10-x.xx-21-6R5	66	30	36	28	6
6.01-6.60	23	SD10-x.xx-23-8R5	79	43	36	34	8
6.61-7.00	25	SD10-x.xx-25-8R5	79	43	36	34	8
7.01-7.50	25	SD10-x.xx-25-8R5	79	43	36	41	8
7.51-8.00	27	SD10-x.xx-27-8R5	79	43	36	41	8
8.01-8.50	27	SD10-x.xx-27-10R5	89	49	40	47	10
8.51-9.50	29	SD10-x.xx-29-10R5	89	49	40	47	10
9.51-10.00	31	SD10-x.xx-31-10R5	89	49	40	47	10
10.01-10.50	31	SD10-x.xx-31-12R5	102	57	45	55	12
10.51-11.80	33	SD10-x.xx-33-12R5	102	57	45	55	12
11.81-12.00	36	SD10-x.xx-36-12R5	102	57	45	55	12
12.01-13.00	36	SD10-x.xx-36-14R5	107	62	45	60	14
13.01-14.00	37	SD10-x.xx-37-14R5	107	62	45	60	14
14.01-15.00	38	SD10-x.xx-38-16R5	115	67	48	65	16
15.01-16.00	39	SD10-x.xx-39-16R5	115	67	48	65	16
16.01-17.00	40	SD10-x.xx-40-18R5	123	75	48	73	18
17.01-18.00	41	SD10-x.xx-41-18R5	123	75	48	73	18

The drills are available in \varnothing increments of 0.01 mm. Fill in required cutting \varnothing instead of -x.xx- according to the ordering example. Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 11.3 mm:** SD10-11.30-33-12R5.

Solid carbide drills SD20

Drilling depth ~ 3xD Short version - Inch diameter

Cylindrical shank DIN 6537A



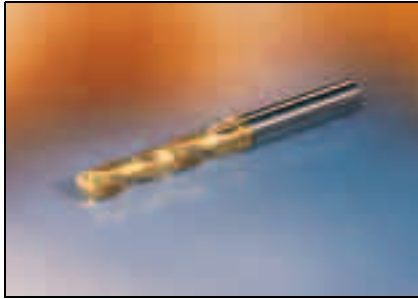
- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μinch .

Drill Dia. D_c (inch)		Max drilling depth l_4 (inch)	Part No.	Dimensions in Inch				
				l_2	l_1	l_c	l_6	dm_m
0.2344	15/64	0.83	SD20-02344-083-0236R1	2.598	1.181	1.417	1.102	0.236
0.2500	1/4	0.91	SD20-02500-091-0315R1	3.110	1.693	1.417	1.339	0.315
0.2656	17/64	0.98	SD20-02656-098-0315R1	3.110	1.693	1.417	1.339	0.315
0.2813	9/32	0.98	SD20-02813-098-0315R1	3.110	1.693	1.417	1.614	0.315
0.2969	19/64	1.06	SD20-02969-106-0315R1	3.110	1.693	1.417	1.614	0.315
0.3125	5/16	1.06	SD20-03125-106-0315R1	3.110	1.693	1.417	1.614	0.315
0.3281	21/64	1.06	SD20-03281-106-0394R1	3.504	1.929	1.575	1.850	0.394
0.3438	11/32	1.14	SD20-03438-114-0394R1	3.504	1.929	1.575	1.850	0.394
0.3594	23/64	1.14	SD20-03594-114-0394R1	3.504	1.929	1.575	1.850	0.394
0.3750	3/8	1.22	SD20-03750-122-0394R1	3.504	1.929	1.575	1.850	0.394
0.3906	25/64	1.22	SD20-03906-122-0394R1	3.504	1.929	1.575	1.850	0.394
0.4063	13/32	1.22	SD20-04063-122-0472R1	4.016	2.244	1.772	2.165	0.472
0.4219	27/64	1.30	SD20-04219-130-0472R1	4.016	2.244	1.772	2.165	0.472
0.4375	7/16	1.30	SD20-04375-130-0472R1	4.016	2.244	1.772	2.165	0.472
0.4531	29/64	1.30	SD20-04531-130-0472R1	4.016	2.244	1.772	2.165	0.472
0.4688	15/32	1.42	SD20-04688-142-0472R1	4.016	2.244	1.772	2.165	0.472
0.4844	31/64	1.42	SD20-04844-142-0551R1	4.213	2.441	1.772	2.362	0.551
0.5000	1/2	1.42	SD20-05000-142-0551R1	4.213	2.441	1.772	2.362	0.551
0.5156	33/64	1.46	SD20-05156-146-0551R1	4.213	2.441	1.772	2.362	0.551
0.5312	17/32	1.46	SD20-05312-146-0551R1	4.213	2.441	1.772	2.362	0.551
0.5469	35/64	1.46	SD20-05469-146-0551R1	4.213	2.441	1.772	2.362	0.551

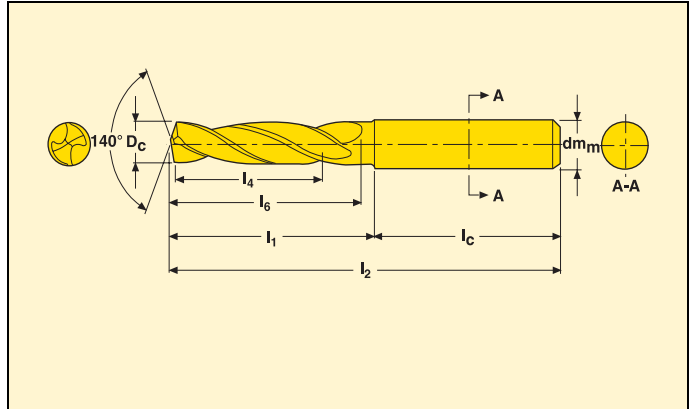
Solid carbide drills SD20

Drilling depth ~ 3xD Short Version - Metric diameter

Cylindrical shank DIN 6537A



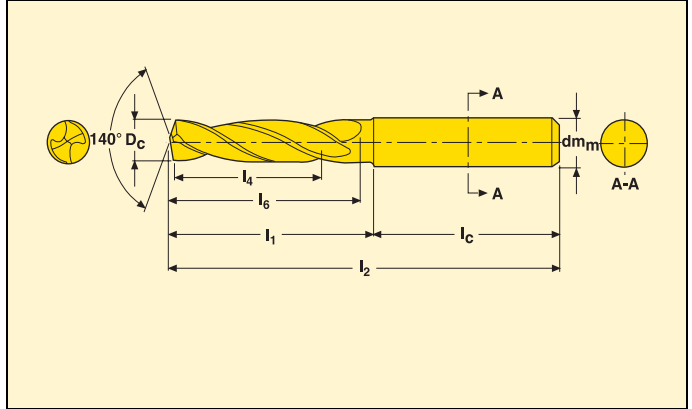
- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 pinch.



Drill dia. D _c (mm)	Drill dia. D _c (inch)	Max drilling depth l ₄ (inch)	Part No.	Dimensions in Inch				
				l ₂	l ₁	l _c	l ₆	dm _m
6.0	0.2362	0.83	SD20-6.0-21-6R1	2.598	1.181	1.417	1.102	0.236
6.5	0.2559	0.91	SD20-6.5-23-8R1	3.110	1.693	1.417	1.339	0.315
6.6	0.2598	0.91	SD20-6.6-23-8R1	3.110	1.693	1.417	1.339	0.315
6.8	0.2677	0.98	SD20-6.8-25-8R1	3.110	1.693	1.417	1.339	0.315
6.9	0.2717	0.98	SD20-6.9-25-8R1	3.110	1.693	1.417	1.339	0.315
7.0	0.2756	0.98	SD20-7.0-25-8R1	3.110	1.693	1.417	1.339	0.315
7.5	0.2953	0.98	SD20-7.5-25-8R1	3.110	1.693	1.417	1.614	0.315
7.8	0.3071	1.06	SD20-7.8-27-8R1	3.110	1.693	1.417	1.614	0.315
8.0	0.3150	1.06	SD20-8.0-27-8R1	3.110	1.693	1.417	1.614	0.315
8.8	0.3465	1.14	SD20-8.8-29-10R1	3.504	1.929	1.575	1.850	0.394
9.0	0.3543	1.14	SD20-9.0-29-10R1	3.504	1.929	1.575	1.850	0.394
9.5	0.3740	1.14	SD20-9.5-29-10R1	3.504	1.929	1.575	1.850	0.394
9.8	0.3858	1.22	SD20-9.8-31-10R1	3.504	1.929	1.575	1.850	0.394
10.0	0.3937	1.22	SD20-10.0-31-10R1	3.504	1.929	1.575	1.850	0.394
10.2	0.4016	1.22	SD20-10.2-31-12R1	4.016	2.244	1.772	2.165	0.472
10.5	0.4134	1.22	SD20-10.5-31-12R1	4.016	2.244	1.772	2.165	0.472
10.8	0.4252	1.30	SD20-10.8-33-12R1	4.016	2.244	1.772	2.165	0.472
11.0	0.4331	1.30	SD20-11.0-33-12R1	4.016	2.244	1.772	2.165	0.472
11.5	0.4528	1.30	SD20-11.5-33-12R1	4.016	2.244	1.772	2.165	0.472
11.8	0.4646	1.30	SD20-11.8-33-12R1	4.016	2.244	1.772	2.165	0.472
12.0	0.4724	1.42	SD20-12.0-36-12R1	4.016	2.244	1.772	2.165	0.472
12.3	0.4843	1.42	SD20-12.3-36-14R1	4.213	2.441	1.772	2.362	0.551
12.5	0.4921	1.42	SD20-12.5-36-14R1	4.213	2.441	1.772	2.362	0.551
13.0	0.5118	1.42	SD20-13.0-36-14R1	4.213	2.441	1.772	2.362	0.551
13.5	0.5315	1.46	SD20-13.5-37-14R1	4.213	2.441	1.772	2.362	0.551
14.0	0.5512	1.46	SD20-14.0-37-14R1	4.213	2.441	1.772	2.362	0.551

Intermediate diameters - Drilling depth ~ 3xD Short version

Cylindrical shank DIN 6537A



- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 µm.

Drill dia. D_c (inch/mm)	Max drilling depth l_4 (inch/mm)	Part No.	Dimensions in Inch/mm				
			l_2	l_1	l_c	l_6	dm_m
		inch-version					
.1480-.1870	0.709	SD20-x.xxxx-071-0236R1	2.598	1.181	1.417	0.945	0.236
.1874-.2402	0.827	SD20-x.xxxx-083-0236R1	2.598	1.181	1.417	1.102	0.236
.2406-.2598	0.906	SD20-x.xxxx-091-0315R1	3.110	1.693	1.417	1.339	0.315
.2602-.2756	0.984	SD20-x.xxxx-098-0315R1	3.110	1.693	1.417	1.339	0.315
.2760-.2953	0.984	SD20-x.xxxx-098-0315R1	3.110	1.693	1.417	1.614	0.315
.2957-.3150	1.063	SD20-x.xxxx-106-0315R1	3.110	1.693	1.417	1.614	0.315
.3154-.3346	1.063	SD20-x.xxxx-106-0394R1	3.504	1.929	1.575	1.850	0.394
.3350-.3740	1.142	SD20-x.xxxx-114-0394R1	3.504	1.929	1.575	1.850	0.394
.3744-.3937	1.220	SD20-x.xxxx-122-0394R1	3.504	1.929	1.575	1.850	0.394
.3941-.4134	1.220	SD20-x.xxxx-122-0472R1	4.016	2.244	1.772	2.165	0.472
.4138-.4646	1.299	SD20-x.xxxx-130-0472R1	4.016	2.244	1.772	2.165	0.472
.4650-.4724	1.417	SD20-x.xxxx-142-0472R1	4.016	2.244	1.772	2.165	0.472
.4728-.5118	1.417	SD20-x.xxxx-142-0551R1	4.213	2.441	1.772	2.362	0.551
.5122-.5512	1.457	SD20-x.xxxx-146-0551R1	4.213	2.441	1.772	2.362	0.551
		mm-version					
3.76-4.75	18	SD20-x.xx-18-6R1	66	30	36	24	6
4.76-6.10	21	SD20-x.xx-21-6R1	66	30	36	28	6
6.11-6.60	23	SD20-x.xx-23-8R1	79	43	36	34	8
6.61-7.00	25	SD20-x.xx-25-8R1	79	43	36	34	8
7.01-7.50	25	SD20-x.xx-25-8R1	79	43	36	41	8
7.51-8.00	27	SD20-x.xx-27-8R1	79	43	36	41	8
8.01-8.50	27	SD20-x.xx-27-10R1	89	49	40	47	10
8.51-9.50	29	SD20-x.xx-29-10R1	89	49	40	47	10
9.51-10.00	31	SD20-x.xx-31-10R1	89	49	40	47	10
10.01-10.50	31	SD20-x.xx-31-12R1	102	57	45	55	12
10.51-11.80	33	SD20-x.xx-33-12R1	102	57	45	55	12
11.81-12.00	36	SD20-x.xx-36-12R1	102	57	45	55	12
12.01-13.00	36	SD20-x.xx-36-14R1	107	62	45	60	14
13.01-14.00	37	SD20-x.xx-37-14R1	107	62	45	60	14

The drills are available in \varnothing increments of .0004 inch (0.01 mm). Fill in required cutting \varnothing instead of -x.xxxx- according to the ordering example. Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 1/4 inch (.2500):** SD20-0.2500-091-0315R1.

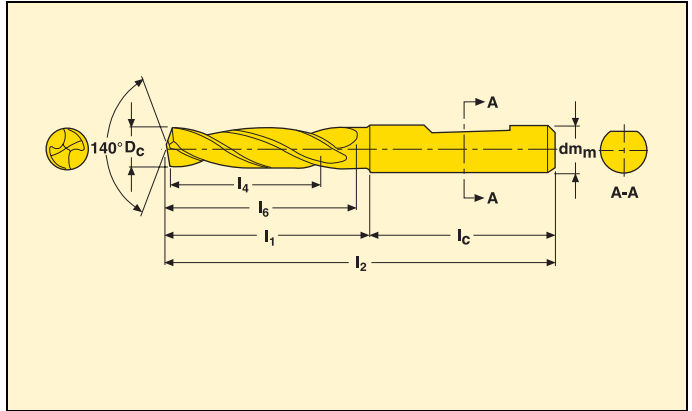
Solid carbide drills SD20

Drilling depth ~ 3xD Short version - Metric diameter

Whistle Notch shank DIN 6537B



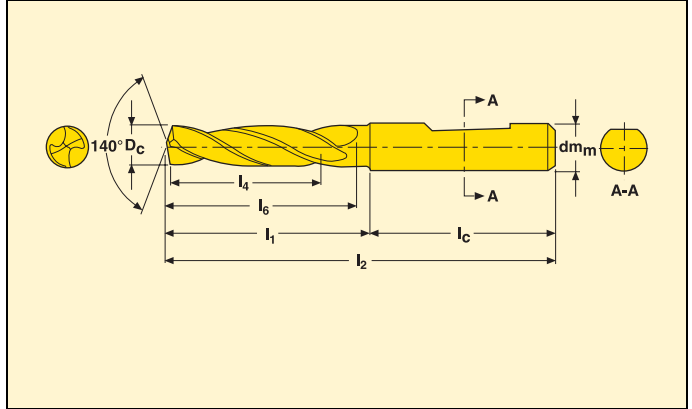
- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 pinch.



Drill dia. D _c (mm)	Drill dia. D _c (inch)	Max drilling depth l ₄ (inch)	Part No.	Dimensions in Inch				
				l ₂	l ₁	l _c	l ₆	dm _m
6.0	0.2362	0.83	SD20-6.0-21-6R5	2.598	1.181	1.417	1.102	0.236
6.5	0.2559	0.91	SD20-6.5-23-8R5	3.110	1.693	1.417	1.339	0.315
6.6	0.2598	0.91	SD20-6.6-23-8R5	3.110	1.693	1.417	1.339	0.315
6.8	0.2677	0.98	SD20-6.8-25-8R5	3.110	1.693	1.417	1.339	0.315
6.9	0.2717	0.98	SD20-6.9-25-8R5	3.110	1.693	1.417	1.339	0.315
7.0	0.2756	0.98	SD20-7.0-25-8R5	3.110	1.693	1.417	1.339	0.315
7.5	0.2953	0.98	SD20-7.5-25-8R5	3.110	1.693	1.417	1.614	0.315
7.8	0.3071	1.06	SD20-7.8-27-8R5	3.110	1.693	1.417	1.614	0.315
8.0	0.3150	1.06	SD20-8.0-27-8R5	3.110	1.693	1.417	1.614	0.315
8.5	0.3346	1.06	SD20-8.5-27-10R5	3.504	1.929	1.575	1.850	0.394
8.8	0.3465	1.14	SD20-8.8-29-10R5	3.504	1.929	1.575	1.850	0.394
9.0	0.3543	1.14	SD20-9.0-29-10R5	3.504	1.929	1.575	1.850	0.394
9.5	0.3740	1.14	SD20-9.5-29-10R5	3.504	1.929	1.575	1.850	0.394
9.8	0.3858	1.22	SD20-9.8-31-10R5	3.504	1.929	1.575	1.850	0.394
10.0	0.3937	1.22	SD20-10.0-31-10R5	3.504	1.929	1.575	1.850	0.394
10.2	0.3937	1.22	SD20-10.2-31-12R5	3.504	1.929	1.772	1.850	0.394
10.5	0.4134	1.22	SD20-10.5-31-12R5	4.016	2.244	1.772	2.165	0.472
10.8	0.4252	1.30	SD20-10.8-33-12R5	4.016	2.244	1.772	2.165	0.472
11.0	0.4331	1.30	SD20-11.0-33-12R5	4.016	2.244	1.772	2.165	0.472
11.5	0.4528	1.30	SD20-11.5-33-12R5	4.016	2.244	1.772	2.165	0.472
11.8	0.4646	1.30	SD20-11.8-33-12R5	4.016	2.244	1.772	2.165	0.472
12.0	0.4724	1.42	SD20-12.0-36-12R5	4.016	2.244	1.772	2.165	0.472
12.3	0.4843	1.42	SD20-12.3-36-14R5	4.213	2.441	1.772	2.362	0.551
12.5	0.4921	1.42	SD20-12.5-36-14R5	4.213	2.441	1.772	2.362	0.551
13.0	0.5118	1.42	SD20-13.0-36-14R5	4.213	2.441	1.772	2.362	0.551
13.5	0.5315	1.46	SD20-13.5-37-14R5	4.213	2.441	1.772	2.362	0.551
14.0	0.5512	1.46	SD20-14.0-37-14R5	4.213	2.441	1.772	2.362	0.551

Intermediate diameters - Drilling depth ~ 3xD Short version

Whistle Notch shank DIN 6537B



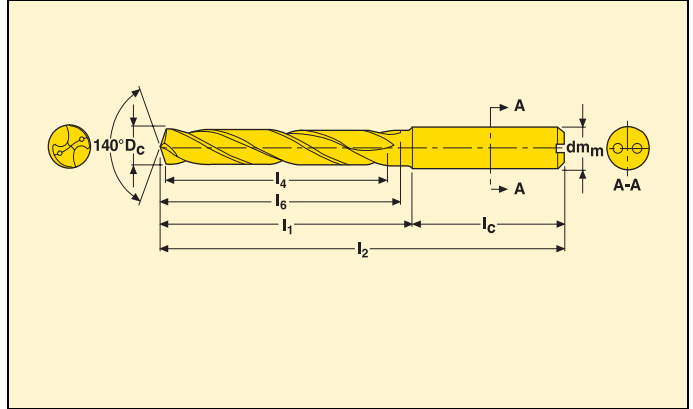
- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ inch.

Drill dia. D_c (inch/mm)	Max drilling depth I_4 (inch/mm)	Part No.	Dimensions in Inch/mm				
			I_2	I_1	I_3	I_6	dm_m
inch-version							
.1480-.1870	0.709	SD20-x.xxxx-071-0236R5	2.598	1.181	1.417	0.945	0.236
.1874-.2402	0.827	SD20-x.xxxx-083-0236R5	2.598	1.181	1.417	1.102	0.236
.2406-.2598	0.906	SD20-x.xxxx-091-0315R5	3.110	1.693	1.417	1.339	0.315
.2602-.2756	0.984	SD20-x.xxxx-098-0315R5	3.110	1.693	1.417	1.339	0.315
.2760-.2953	0.984	SD20-x.xxxx-098-0315R5	3.110	1.693	1.417	1.614	0.315
.2957-.3150	1.063	SD20-x.xxxx-106-0315R5	3.110	1.693	1.417	1.614	0.315
.3154-.3346	1.063	SD20-x.xxxx-106-0394R5	3.504	1.929	1.575	1.850	0.394
.3350-.3740	1.142	SD20-x.xxxx-114-0394R5	3.504	1.929	1.575	1.850	0.394
.3744-.3937	1.220	SD20-x.xxxx-122-0394R5	3.504	1.929	1.575	1.850	0.394
.3941-.4134	1.220	SD20-x.xxxx-122-0472R5	4.016	2.244	1.772	2.165	0.472
.4138-.4646	1.299	SD20-x.xxxx-130-0472R5	4.016	2.244	1.772	2.165	0.472
.4650-.4724	1.417	SD20-x.xxxx-142-0472R5	4.016	2.244	1.772	2.165	0.472
.4728-.5118	1.417	SD20-x.xxxx-142-0551R5	4.213	2.441	1.772	2.362	0.551
.5122-.5512	1.457	SD20-x.xxxx-146-0551R5	4.213	2.441	1.772	2.362	0.551
mm-version							
3.76-4.75	18	SD20-x.xx-18-6R5	66	30	36	24	6
4.76-6.10	21	SD20-x.xx-21-6R5	66	30	36	28	6
6.11-6.60	23	SD20-x.xx-23-8R5	79	43	36	34	8
6.61-7.00	25	SD20-x.xx-25-8R5	79	43	36	34	8
7.01-7.50	25	SD20-x.xx-25-8R5	79	43	36	41	8
7.51-8.00	27	SD20-x.xx-27-8R5	79	43	36	41	8
8.01-8.50	27	SD20-x.xx-27-10R5	89	49	40	47	10
8.51-9.50	29	SD20-x.xx-29-10R5	89	49	40	47	10
9.51-10.00	31	SD20-x.xx-31-10R5	89	49	40	47	10
10.01-10.50	31	SD20-x.xx-31-12R5	102	57	45	55	12
10.51-11.80	33	SD20-x.xx-33-12R5	102	57	45	55	12
11.81-12.00	36	SD20-x.xx-36-12R5	102	57	45	55	12
12.01-13.00	36	SD20-x.xx-36-14R5	107	62	45	60	14
13.01-14.00	37	SD20-x.xx-37-14R5	107	62	45	60	14

The drills are available in \varnothing increments of 0.01 mm (.0004"). Fill in required cutting \varnothing instead of -x.xx- according to the ordering example. Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 11.30 mm:** SD20-11.30-33-12R5.

Drilling depth ~ 5xD long version - Inch diameter

Cylindrical shank DIN 6537A



- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 pinch.

Drill Dia. D _c (inch)	Max drilling depth I ₄ (inch)	Part No.	Dimensions in Inch					
			I ₂	I ₁	I _c	I ₆	dm _m	
0.2343	15/64	1.26	SD25-02343-126-0236R1	3.228	1.811	1.417	1.732	0.236
0.2500	1/4	1.38	SD25-02500-138-0315R1	3.583	2.165	1.417	2.087	0.315
0.2656	17/64	1.57	SD25-02656-157-0315R1	3.583	2.165	1.417	2.087	0.315
0.2813	9/32	1.57	SD25-02813-157-0315R1	3.583	2.165	1.417	2.087	0.315
0.2969	19/64	1.57	SD25-02969-157-0315R1	3.583	2.165	1.417	2.087	0.315
0.3125	5/16	1.65	SD25-03125-165-0315R1	3.583	2.165	1.417	2.087	0.315
0.3281	21/64	1.65	SD25-03281-165-0394R1	4.055	2.480	1.575	2.402	0.394
0.3438	11/32	1.77	SD25-03438-177-0394R1	4.055	2.480	1.575	2.402	0.394
0.3594	23/64	1.77	SD25-03594-177-0394R1	4.055	2.480	1.575	2.402	0.394
0.3750	3/8	1.77	SD25-03750-177-0394R1	4.055	2.480	1.575	2.402	0.394
0.3906	25/64	1.89	SD25-03906-189-0394R1	4.055	2.480	1.575	2.402	0.394
0.4063	13/32	1.89	SD25-04063-189-0472R1	4.646	2.874	1.772	2.795	0.472
0.4219	27/64	1.89	SD25-04219-189-0472R1	4.646	2.874	1.772	2.795	0.472
0.4375	7/16	2.21	SD25-04375-221-0472R1	4.646	2.874	1.772	2.795	0.472
0.4531	29/64	2.21	SD25-04531-221-0472R1	4.646	2.874	1.772	2.795	0.472
0.4688	15/32	2.21	SD25-04688-221-0472R1	4.646	2.874	1.772	2.795	0.472
0.5000	1/2	2.21	SD25-05000-221-0551R1	4.882	3.110	1.772	3.031	0.551
0.5312	17/32	2.32	SD25-05312-232-0551R1	4.882	3.110	1.772	3.031	0.551
0.5625	9/16	2.36	SD25-05625-236-0630R1	5.236	3.346	1.890	3.268	0.630
0.6250	5/8	2.44	SD25-06250-244-0630R1	5.236	3.346	1.890	3.268	0.630
0.6563	21/32	2.52	SD25-06563-252-0709R1	5.630	3.740	1.890	3.661	0.709
0.6875	11/16	2.60	SD25-06875-260-0709R1	5.630	3.740	1.890	3.661	0.709

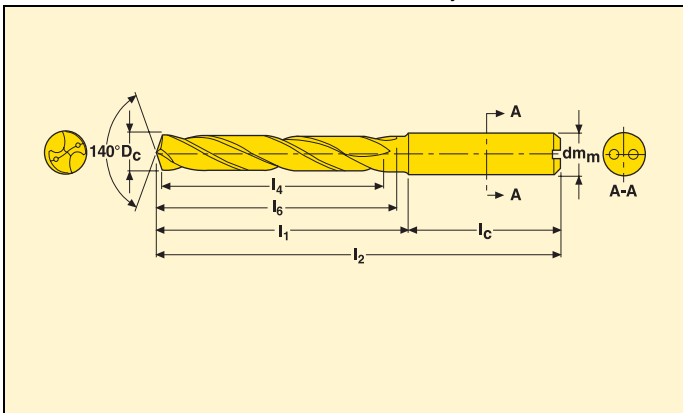
Solid carbide drills SD25

Drilling depth ~ 5xD long version - Metric diameter

Cylindrical shank DIN 6537A



- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ inch.



Drill dia. D_c (mm)	Drill dia. D_c (inch)	Max drilling depth I_4 (inch)	Part No.	Dimensions in Inch				
				I_2	I_1	I_c	I_6	dm_m
3.0	0.1181	0.83	SD25-3.0-18-6R1	2.598	1.181	1.417	1.024	0.236
3.1	0.1220	0.83	SD25-3.1-18-6R1	2.598	1.181	1.417	1.024	0.236
3.2	0.1260	0.83	SD25-3.2-18-6R1	2.598	1.181	1.417	1.024	0.236
3.3	0.1299	0.83	SD25-3.3-18-6R1	2.598	1.181	1.417	1.024	0.236
3.4	0.1339	0.83	SD25-3.4-18-6R1	2.598	1.181	1.417	1.024	0.236
3.5	0.1378	0.83	SD25-3.5-18-6R1	2.598	1.181	1.417	1.024	0.236
3.6	0.1417	0.83	SD25-3.6-18-6R1	2.598	1.181	1.417	1.024	0.236
3.7	0.1456	0.83	SD25-3.7-18-6R1	2.598	1.181	1.417	1.024	0.236
3.8	0.1496	1.06	SD25-3.8-18-6R1	2.913	1.496	1.417	1.339	0.236
3.9	0.1535	1.06	SD25-3.9-18-6R1	2.913	1.496	1.417	1.339	0.236
4.0	0.1574	1.06	SD25-4.0-27-6R1	2.913	1.496	1.417	1.339	0.236
4.1	0.1614	1.06	SD25-4.1-27-6R1	2.913	1.496	1.417	1.339	0.236
4.2	0.1653	1.06	SD25-4.2-27-6R1	2.913	1.496	1.417	1.339	0.236
4.3	0.1692	1.06	SD25-4.3-27-6R1	2.913	1.496	1.417	1.339	0.236
4.4	0.1732	1.06	SD25-4.4-27-6R1	2.913	1.496	1.417	1.339	0.236
4.5	0.1771	1.06	SD25-4.5-27-6R1	2.913	1.496	1.417	1.339	0.236
4.6	0.1811	1.06	SD25-4.6-27-6R1	2.913	1.496	1.417	1.339	0.236
4.7	0.1850	1.06	SD25-4.7-27-6R1	2.913	1.496	1.417	1.339	0.236
4.8	0.1890	1.26	SD25-4.8-32-6R1	3.228	1.811	1.417	1.732	0.236
4.9	0.1929	1.26	SD25-4.9-32-6R1	3.228	1.811	1.417	1.732	0.236
5.0	0.1969	1.26	SD25-5.0-32-6R1	3.228	1.811	1.417	1.732	0.236
5.1	0.2008	1.26	SD25-5.1-32-6R1	3.228	1.811	1.417	1.732	0.236
5.2	0.2047	1.26	SD25-5.2-32-6R1	3.228	1.811	1.417	1.732	0.236
5.3	0.2087	1.26	SD25-5.3-32-6R1	3.228	1.811	1.417	1.732	0.236
5.4	0.2126	1.26	SD25-5.4-32-6R1	3.228	1.811	1.417	1.732	0.236
5.5	0.2165	1.26	SD25-5.5-32-6R1	3.228	1.811	1.417	1.732	0.236
5.6	0.2205	1.26	SD25-5.6-32-6R1	3.228	1.811	1.417	1.732	0.236
5.7	0.2244	1.26	SD25-5.7-32-6R1	3.228	1.811	1.417	1.732	0.236
5.8	0.2283	1.26	SD25-5.8-32-6R1	3.228	1.811	1.417	1.732	0.236
5.9	0.2323	1.26	SD25-5.9-32-6R1	3.228	1.811	1.417	1.732	0.236
6.0	0.2362	1.26	SD25-6.0-32-6R1	3.228	1.811	1.417	1.732	0.236

Drilling depth ~ 5xD long version - Metric diameter

Cylindrical shank DIN 6537A

Drill dia. D_c (mm)	Drill dia. D_c (inch)	Max drilling depth l_4 (inch)	Part No.	Dimensions in Inch				
				l_2	l_1	l_c	l_6	dm_m
6.1	0.2402	1.26	SD25-6.1-32-6R1	3.228	1.811	1.417	1.732	0.236
6.2	0.2441	1.38	SD25-6.2-35-8R1	3.583	2.165	1.417	2.087	0.315
6.3	0.248	1.38	SD25-6.3-35-8R1	3.583	2.165	1.417	2.087	0.315
6.4	0.252	1.38	SD25-6.4-35-8R1	3.583	2.165	1.417	2.087	0.315
6.5	0.2559	1.38	SD25-6.5-35-8R1	3.583	2.165	1.417	2.087	0.315
6.6	0.2598	1.38	SD25-6.6-35-8R1	3.583	2.165	1.417	2.087	0.315
6.7	0.2638	1.38	SD25-6.7-35-8R1	3.583	2.165	1.417	2.087	0.315
6.8	0.2677	1.57	SD25-6.8-40-8R1	3.583	2.165	1.417	2.087	0.315
6.9	0.2717	1.57	SD25-6.9-40-8R1	3.583	2.165	1.417	2.087	0.315
7.0	0.2756	1.57	SD25-7.0-40-8R1	3.583	2.165	1.417	2.087	0.315
7.1	0.2795	1.57	SD25-7.1-40-8R1	3.583	2.165	1.417	2.087	0.315
7.2	0.2835	1.57	SD25-7.2-40-8R1	3.583	2.165	1.417	2.087	0.315
7.3	0.2874	1.57	SD25-7.3-40-8R1	3.583	2.165	1.417	2.087	0.315
7.4	0.2913	1.57	SD25-7.4-40-8R1	3.583	2.165	1.417	2.087	0.315
7.5	0.2953	1.57	SD25-7.5-40-8R1	3.583	2.165	1.417	2.087	0.315
7.6	0.2992	1.65	SD25-7.6-42-8R1	3.583	2.165	1.417	2.087	0.315
7.7	0.3031	1.65	SD25-7.7-42-8R1	3.583	2.165	1.417	2.087	0.315
7.8	0.3071	1.65	SD25-7.8-42-8R1	3.583	2.165	1.417	2.087	0.315
7.9	0.311	1.65	SD25-7.9-42-8R1	3.583	2.165	1.417	2.087	0.315
8.0	0.315	1.65	SD25-8.0-42-8R1	3.583	2.165	1.417	2.087	0.315
8.1	0.3189	1.65	SD25-8.1-42-10R1	4.055	2.480	1.575	2.402	0.394
8.2	0.3228	1.65	SD25-8.2-42-10R1	4.055	2.480	1.575	2.402	0.394
8.3	0.3268	1.65	SD25-8.3-42-10R1	4.055	2.480	1.575	2.402	0.394
8.4	0.3307	1.65	SD25-8.4-42-10R1	4.055	2.480	1.575	2.402	0.394
8.5	0.3346	1.65	SD25-8.5-42-10R1	4.055	2.480	1.575	2.402	0.394
8.6	0.3386	1.77	SD25-8.6-45-10R1	4.055	2.480	1.575	2.402	0.394
8.7	0.3425	1.77	SD25-8.7-45-10R1	4.055	2.480	1.575	2.402	0.394
8.8	0.3465	1.77	SD25-8.8-45-10R1	4.055	2.480	1.575	2.402	0.394
8.9	0.3504	1.77	SD25-8.9-45-10R1	4.055	2.480	1.575	2.402	0.394
9.0	0.3543	1.77	SD25-9.0-45-10R1	4.055	2.480	1.575	2.402	0.394
9.1	0.3583	1.77	SD25-9.1-45-10R1	4.055	2.480	1.575	2.402	0.394
9.2	0.3622	1.77	SD25-9.2-45-10R1	4.055	2.480	1.575	2.402	0.394
9.3	0.3661	1.77	SD25-9.3-45-10R1	4.055	2.480	1.575	2.402	0.394
9.4	0.3701	1.77	SD25-9.4-45-10R1	4.055	2.480	1.575	2.402	0.394
9.5	0.3740	1.77	SD25-9.5-45-10R1	4.055	2.480	1.575	2.402	0.394
9.6	0.3780	1.89	SD25-9.6-48-10R1	4.055	2.480	1.575	2.402	0.394
9.7	0.3819	1.89	SD25-9.7-48-10R1	4.055	2.480	1.575	2.402	0.394
9.8	0.3858	1.89	SD25-9.8-48-10R1	4.055	2.480	1.575	2.402	0.394
9.9	0.3898	1.89	SD25-9.9-48-10R1	4.055	2.480	1.575	2.402	0.394
10.0	0.3937	1.89	SD25-10.0-48-10R1	4.055	2.480	1.575	2.402	0.394

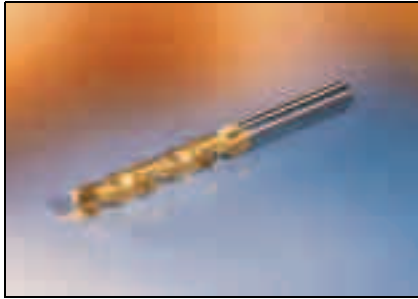
Drilling depth ~ 5xD long version - Metric diameter

Cylindrical shank DIN 6537A

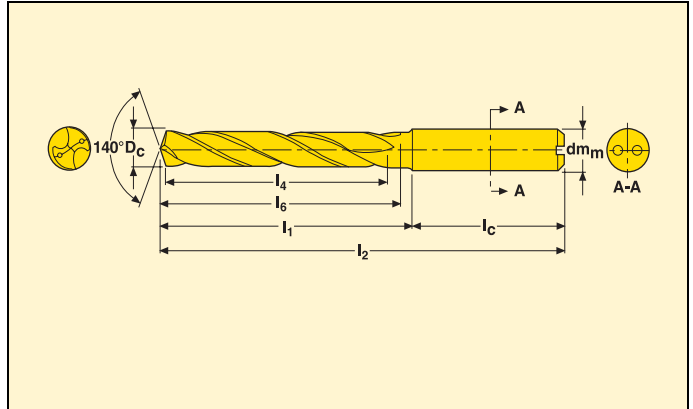
Drill dia. D _c (mm)	Drill dia. D _c (inch)	Max drilling depth l ₄ (inch)	Part No.	Dimensions in Inch				
				l ₂	l ₁	l _c	l ₆	dm _m
10.2	0.4016	1.89	SD25-10.2-48-12R1	4.646	2.874	1.772	2.795	0.472
10.5	0.4134	1.89	SD25-10.5-48-12R1	4.646	2.874	1.772	2.795	0.472
10.7	0.4213	2.20	SD25-10.7-56-12R1	4.646	2.874	1.772	2.795	0.472
10.8	0.4252	2.20	SD25-10.8-56-12R1	4.646	2.874	1.772	2.795	0.472
11.0	0.4331	2.20	SD25-11.0-56-12R1	4.646	2.874	1.772	2.795	0.472
11.2	0.4409	2.20	SD25-11.2-56-12R1	4.646	2.874	1.772	2.795	0.472
11.3	0.4449	2.20	SD25-11.3-56-12R1	4.646	2.874	1.772	2.795	0.472
11.5	0.4528	2.20	SD25-11.5-56-12R1	4.646	2.874	1.772	2.795	0.472
11.7	0.4606	2.20	SD25-11.7-56-12R1	4.646	2.874	1.772	2.795	0.472
11.8	0.4646	2.20	SD25-11.8-56-12R1	4.646	2.874	1.772	2.795	0.472
12.0	0.4724	2.20	SD25-12.0-56-12R1	4.646	2.874	1.772	2.795	0.472
12.3	0.4843	2.20	SD25-12.3-56-14R1	4.882	3.110	1.772	3.031	0.551
12.5	0.4921	2.20	SD25-12.5-56-14R1	4.882	3.110	1.772	3.031	0.551
12.8	0.5039	2.20	SD25-12.8-56-14R1	4.882	3.110	1.772	3.031	0.551
13.0	0.5118	2.20	SD25-13.0-56-14R1	4.882	3.110	1.772	3.031	0.551
13.1	0.5157	2.32	SD25-13.1-59-14R1	4.882	3.110	1.772	3.031	0.551
13.3	0.5236	2.32	SD25-13.3-59-14R1	4.882	3.110	1.772	3.031	0.551
13.5	0.5315	2.32	SD25-13.5-59-14R1	4.882	3.110	1.772	3.031	0.551
13.7	0.5394	2.32	SD25-13.7-59-14R1	4.882	3.110	1.772	3.031	0.551
13.8	0.5433	2.32	SD25-13.8-59-14R1	4.882	3.110	1.772	3.031	0.551
14.0	0.5512	2.32	SD25-14.0-59-14R1	4.882	3.110	1.772	3.031	0.551
14.2	0.5590	2.36	SD25-14.2-60-16R1	5.236	3.346	1.890	3.268	0.630
14.5	0.5709	2.36	SD25-14.5-60-16R1	5.236	3.346	1.890	3.268	0.630
14.7	0.5787	2.36	SD25-14.7-60-16R1	5.236	3.346	1.890	3.268	0.630
14.8	0.5827	2.36	SD25-14.8-60-16R1	5.236	3.346	1.890	3.268	0.630
15.0	0.5906	2.36	SD25-15.0-60-16R1	5.236	3.346	1.890	3.268	0.630
15.25	0.6004	2.44	SD25-15.25-62-16R1	5.236	3.346	1.890	3.268	0.630
15.5	0.6102	2.44	SD25-15.5-62-16R1	5.236	3.346	1.890	3.268	0.630
15.7	0.6181	2.44	SD25-15.7-62-16R1	5.236	3.346	1.890	3.268	0.630
15.8	0.6220	2.44	SD25-15.8-62-16R1	5.236	3.346	1.890	3.268	0.630
16.0	0.6299	2.44	SD25-16.0-62-16R1	5.236	3.346	1.890	3.268	0.630
16.5	0.6496	2.52	SD25-16.5-64-18R1	5.630	3.740	1.890	3.661	0.709
16.7	0.6575	2.52	SD25-16.7-64-18R1	5.630	3.740	1.890	3.661	0.709
16.8	0.6614	2.52	SD25-16.8-64-18R1	5.630	3.740	1.890	3.661	0.709
17.0	0.6693	2.52	SD25-17.0-64-18R1	5.630	3.740	1.890	3.661	0.709
17.5	0.6890	2.60	SD25-17.5-66-18R1	5.630	3.740	1.890	3.661	0.709
17.7	0.6968	2.60	SD25-17.7-66-18R1	5.630	3.740	1.890	3.661	0.709
17.8	0.7008	2.60	SD25-17.8-66-18R1	5.630	3.740	1.890	3.661	0.709
18.0	0.7087	2.60	SD25-18.0-66-18R1	5.630	3.740	1.890	3.661	0.709

Intermediate diameters - Drilling depth ~ 5xD long version

Cylindrical shank DIN 6537A



- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 µinch.



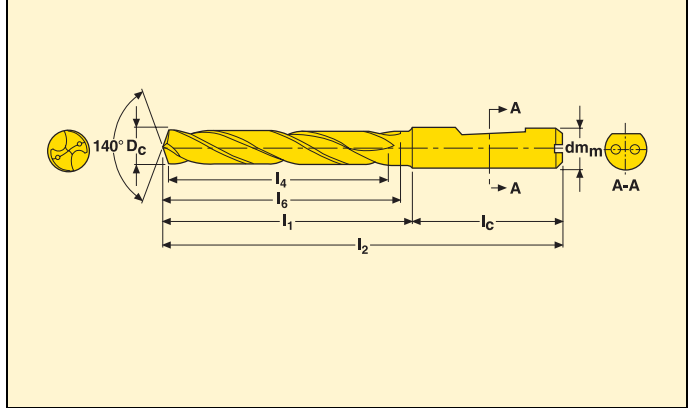
Drill dia. D_c (inch/mm)	Max drilling depth l_4 (inch/mm)	Part No.	Dimensions in Inch/mm				
			l_2	l_1	l_c	l_6	d_m
		inch-version					
.1181-.1476	0.827	SD25-x.xxxx-083-0236R1	2.599	1.181	1.417	1.024	0.236
.1480-.1870	1.063	SD25-x.xxxx-106-0236R1	2.913	1.496	1.417	1.339	0.236
.1874-.2402	1.260	SD25-x.xxxx-126-0236R1	3.228	1.811	1.417	1.732	0.236
.2406-.2638	1.378	SD25-x.xxxx-138-0315R1	3.583	2.165	1.417	2.087	0.315
.2642-.2953	1.575	SD25-x.xxxx-157-0315R1	3.583	2.165	1.417	2.087	0.315
.2957-.3150	1.654	SD25-x.xxxx-165-0315R1	3.583	2.165	1.417	2.087	0.315
.3154-.3346	1.654	SD25-x.xxxx-165-0394R1	4.055	2.480	1.575	2.402	0.394
.3350-.3740	1.772	SD25-x.xxxx-177-0394R1	4.055	2.480	1.575	2.402	0.394
.3744-.3937	1.890	SD25-x.xxxx-189-0394R1	4.055	2.480	1.575	2.402	0.394
.3941-.4134	1.890	SD25-x.xxxx-189-0472R1	4.646	2.874	1.772	2.795	0.472
.4138-.4724	2.205	SD25-x.xxxx-221-0472R1	4.646	2.874	1.772	2.795	0.472
.4728-.5118	2.205	SD25-x.xxxx-221-0551R1	4.882	3.110	1.772	3.031	0.551
.5122-.5512	2.323	SD25-x.xxxx-232-0551R1	4.882	3.110	1.772	3.031	0.551
.5516-.5906	2.362	SD25-x.xxxx-236-0630R1	5.236	3.346	1.890	3.268	0.630
.5909-.6299	2.441	SD25-x.xxxx-244-0630R1	5.236	3.346	1.890	3.268	0.630
.6303-.6693	2.520	SD25-x.xxxx-252-0709R1	5.630	3.740	1.890	3.661	0.709
.6697-.7087	2.598	SD25-x.xxxx-260-0709R1	5.630	3.740	1.890	3.661	0.709
		mm-version					
3.00-3.75	21	SD25-x.xx-21-6R1	66	30	36	26	6
3.76-4.75	27	SD25-x.xx-27-6R1	74	38	36	34	6
4.76-6.10	32	SD25-x.xx-32-6R1	82	46	36	44	6
6.11-6.70	35	SD25-x.xx-35-8R1	91	55	36	53	8
6.71-7.50	40	SD25-x.xx-40-8R1	91	55	36	53	8
7.51-8.00	42	SD25-x.xx-42-8R1	91	55	36	53	8
8.01-8.50	42	SD25-x.xx-42-10R1	103	63	40	61	10
8.51-9.50	45	SD25-x.xx-45-10R1	103	63	40	61	10
9.51-10.00	48	SD25-x.xx-48-10R1	103	63	40	61	10
10.01-10.50	48	SD25-x.xx-48-12R1	118	73	45	71	12
10.51-12.00	56	SD25-x.xx-56-12R1	118	73	45	71	12
12.01-13.00	56	SD25-x.xx-56-14R1	124	79	45	77	14
13.01-14.00	59	SD25-x.xx-59-14R1	124	79	45	77	14
14.01-15.00	60	SD25-x.xx-60-16R1	133	85	48	83	16
15.01-16.00	62	SD25-x.xx-62-16R1	133	85	48	83	16
16.01-17.00	64	SD25-x.xx-64-18R1	143	95	48	93	18
17.01-18.00	66	SD25-x.xx-66-18R1	143	95	48	93	18

The drills are available in \varnothing increments of .0004 inch (0.01 mm). Fill in required cutting \varnothing instead of -x.xxxx- according to the ordering example. Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 1/4 inch (.2500):** SD25-0.2500-138-0315R1.

Solid carbide drills SD25

Drilling depth ~ 5xD long version - Metric diameter

Whistle Notch shank DIN 6537B



- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ inch.

Drill dia. D_c (mm)	Drill dia. D_c (inch)	Max drilling depth l_4 (inch)	Part No.	Dimensions in Inch				
				l_2	l_1	l_c	l_6	dm_m
4.0	0.1574	1.06	SD25-4.0-27-6R5	2.913	1.496	1.417	1.338	0.236
4.1	0.1614	1.06	SD25-4.1-27-6R5	2.913	1.496	1.417	1.338	0.236
4.2	0.1653	1.06	SD25-4.2-27-6R5	2.913	1.496	1.417	1.338	0.236
4.3	0.1692	1.06	SD25-4.3-27-6R5	2.913	1.496	1.417	1.338	0.236
4.4	0.1732	1.06	SD25-4.4-27-6R5	2.913	1.496	1.417	1.338	0.236
4.5	0.1771	1.06	SD25-4.5-27-6R5	2.913	1.496	1.417	1.338	0.236
4.6	0.1811	1.06	SD25-4.6-27-6R5	2.913	1.496	1.417	1.338	0.236
4.7	0.1850	1.06	SD25-4.7-27-6R5	2.913	1.496	1.417	1.338	0.236
4.8	0.1889	1.25	SD25-4.8-32-6R5	3.228	1.811	1.417	1.732	0.236
4.9	0.1929	1.25	SD25-4.9-32-6R5	3.228	1.811	1.417	1.732	0.236
5.0	0.1969	1.26	SD25-5.0-32-6R5	3.228	1.811	1.417	1.732	0.236
5.1	0.2008	1.26	SD25-5.1-32-6R5	3.228	1.811	1.417	1.732	0.236
5.2	0.2047	1.26	SD25-5.2-32-6R5	3.228	1.811	1.417	1.732	0.236
5.3	0.2087	1.26	SD25-5.3-32-6R5	3.228	1.811	1.417	1.732	0.236
5.4	0.2126	1.26	SD25-5.4-32-6R5	3.228	1.811	1.417	1.732	0.236
5.5	0.2165	1.26	SD25-5.5-32-6R5	3.228	1.811	1.417	1.732	0.236
5.6	0.2205	1.26	SD25-5.6-32-6R5	3.228	1.811	1.417	1.732	0.236
5.7	0.2244	1.26	SD25-5.7-32-6R5	3.228	1.811	1.417	1.732	0.236
5.8	0.2283	1.26	SD25-5.8-32-6R5	3.228	1.811	1.417	1.732	0.236
5.9	0.2323	1.26	SD25-5.9-32-6R5	3.228	1.811	1.417	1.732	0.236
6.0	0.2362	1.26	SD25-6.0-32-6R5	3.228	1.811	1.417	1.732	0.236
6.1	0.2402	1.26	SD25-6.1-32-6R5	3.228	1.811	1.417	1.732	0.236
6.2	0.2441	1.38	SD25-6.2-35-8R5	3.583	2.165	1.417	2.087	0.315
6.3	0.2480	1.38	SD25-6.3-35-8R5	3.583	2.165	1.417	2.087	0.315
6.4	0.2520	1.38	SD25-6.4-35-8R5	3.583	2.165	1.417	2.087	0.315
6.5	0.2559	1.38	SD25-6.5-35-8R5	3.583	2.165	1.417	2.087	0.315
6.6	0.2598	1.38	SD25-6.6-35-8R5	3.583	2.165	1.417	2.087	0.315
6.7	0.2638	1.38	SD25-6.7-35-8R5	3.583	2.165	1.417	2.087	0.315
6.8	0.2677	1.57	SD25-6.8-40-8R5	3.583	2.165	1.417	2.087	0.315
6.9	0.2717	1.57	SD25-6.9-40-8R5	3.583	2.165	1.417	2.087	0.315
7.0	0.2756	1.57	SD25-7.0-40-8R5	3.583	2.165	1.417	2.087	0.315
7.1	0.2795	1.57	SD25-7.1-40-8R5	3.583	2.165	1.417	2.087	0.315
7.2	0.2835	1.57	SD25-7.2-40-8R5	3.583	2.165	1.417	2.087	0.315
7.3	0.2874	1.57	SD25-7.3-40-8R5	3.583	2.165	1.417	2.087	0.315
7.4	0.2913	1.57	SD25-7.4-40-8R5	3.583	2.165	1.417	2.087	0.315
7.5	0.2953	1.57	SD25-7.5-40-8R5	3.583	2.165	1.417	2.087	0.315
7.6	0.2992	1.65	SD25-7.6-42-8R5	3.583	2.165	1.417	2.087	0.315
7.7	0.3031	1.65	SD25-7.7-42-8R5	3.583	2.165	1.417	2.087	0.315
7.8	0.3071	1.65	SD25-7.8-42-8R5	3.583	2.165	1.417	2.087	0.315
7.9	0.3110	1.65	SD25-7.9-42-8R5	3.583	2.165	1.417	2.087	0.315
8.0	0.3150	1.65	SD25-8.0-42-8R5	3.583	2.165	1.417	2.087	0.315

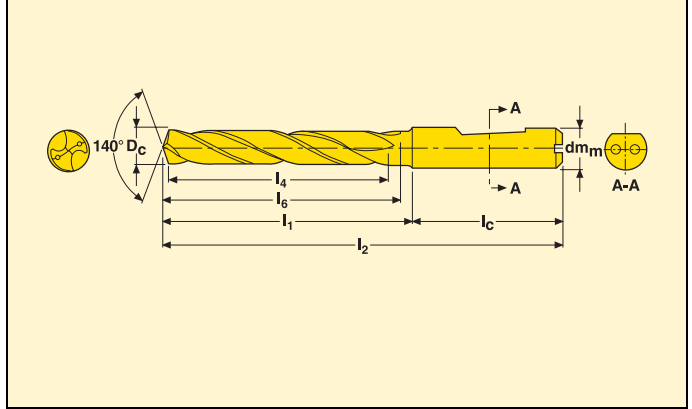
Drilling depth ~ 5xD long version - Metric diameter

Whistle Notch shank DIN 6537B

Drill dia. D _c (mm)	Drill dia. D _c (inch)	Max drilling depth l ₄ (inch)	Part No.	Dimensions in Inch				
				l ₂	l ₁	l _c	l ₆	dm _m
8.1	0.3189	1.65	SD25-8.1-42-10R5	4.055	2.480	1.575	2.402	0.394
8.2	0.3228	1.65	SD25-8.2-42-10R5	4.055	2.480	1.575	2.402	0.394
8.3	0.3268	1.65	SD25-8.3-42-10R5	4.055	2.480	1.575	2.402	0.394
8.4	0.3307	1.65	SD25-8.4-42-10R5	4.055	2.480	1.575	2.402	0.394
8.5	0.3346	1.65	SD25-8.5-42-10R5	4.055	2.480	1.575	2.402	0.394
8.6	0.3386	1.77	SD25-8.6-45-10R5	4.055	2.480	1.575	2.402	0.394
8.7	0.3425	1.77	SD25-8.7-45-10R5	4.055	2.480	1.575	2.402	0.394
8.8	0.3465	1.77	SD25-8.8-45-10R5	4.055	2.480	1.575	2.402	0.394
8.9	0.3504	1.77	SD25-8.9-45-10R5	4.055	2.480	1.575	2.402	0.394
9.0	0.3543	1.77	SD25-9.0-45-10R5	4.055	2.480	1.575	2.402	0.394
9.1	0.3583	1.77	SD25-9.1-45-10R5	4.055	2.480	1.575	2.402	0.394
9.2	0.3622	1.77	SD25-9.2-45-10R5	4.055	2.480	1.575	2.402	0.394
9.3	0.3661	1.77	SD25-9.3-45-10R5	4.055	2.480	1.575	2.402	0.394
9.4	0.3701	1.77	SD25-9.4-45-10R5	4.055	2.480	1.575	2.402	0.394
9.5	0.3740	1.77	SD25-9.5-45-10R5	4.055	2.480	1.575	2.402	0.394
9.6	0.3780	1.89	SD25-9.6-48-10R5	4.055	2.480	1.575	2.402	0.394
9.7	0.3819	1.89	SD25-9.7-48-10R5	4.055	2.480	1.575	2.402	0.394
9.8	0.3858	1.89	SD25-9.8-48-10R5	4.055	2.480	1.575	2.402	0.394
9.9	0.3898	1.89	SD25-9.9-48-10R5	4.055	2.480	1.575	2.402	0.394
10.0	0.3937	1.89	SD25-10.0-48-10R5	4.055	2.480	1.575	2.402	0.394
10.2	0.4016	1.89	SD25-10.2-48-12R5	4.646	2.874	1.772	2.795	0.472
10.5	0.4134	1.89	SD25-10.5-48-12R5	4.646	2.874	1.772	2.795	0.472
10.7	0.4213	2.20	SD25-10.7-56-12R5	4.646	2.874	1.772	2.795	0.472
10.8	0.4252	2.20	SD25-10.8-56-12R5	4.646	2.874	1.772	2.795	0.472
11.0	0.4331	2.20	SD25-11.0-56-12R5	4.646	2.874	1.772	2.795	0.472
11.2	0.4409	2.20	SD25-11.2-56-12R5	4.646	2.874	1.772	2.795	0.472
11.3	0.4449	2.20	SD25-11.3-56-12R5	4.646	2.874	1.772	2.795	0.472
11.5	0.4528	2.20	SD25-11.5-56-12R5	4.646	2.874	1.772	2.795	0.472
11.7	0.4606	2.20	SD25-11.7-56-12R5	4.646	2.874	1.772	2.795	0.472
11.8	0.4646	2.20	SD25-11.8-56-12R5	4.646	2.874	1.772	2.795	0.472
12.0	0.4724	2.20	SD25-12.0-56-12R5	4.646	2.874	1.772	2.795	0.472
12.3	0.4843	2.20	SD25-12.3-56-14R5	4.882	3.110	1.772	3.031	0.551
12.5	0.4921	2.20	SD25-12.5-56-14R5	4.882	3.110	1.772	3.031	0.551
12.7	0.5000	2.20	SD25-12.7-56-14R5	4.882	3.110	1.772	3.031	0.551
12.8	0.5039	2.20	SD25-12.8-56-14R5	4.882	3.110	1.772	3.031	0.551
13.0	0.5118	2.20	SD25-13.0-56-14R5	4.882	3.110	1.772	3.031	0.551
13.1	0.5157	2.32	SD25-13.1-59-14R5	4.882	3.110	1.772	3.031	0.551
13.3	0.5236	2.32	SD25-13.3-59-14R5	4.882	3.110	1.772	3.031	0.551
13.5	0.5315	2.32	SD25-13.5-59-14R5	4.882	3.110	1.772	3.031	0.551
13.7	0.5394	2.32	SD25-13.7-59-14R5	4.882	3.110	1.772	3.031	0.551
13.8	0.5433	2.32	SD25-13.8-59-14R5	4.882	3.110	1.772	3.031	0.551
14.0	0.5512	2.32	SD25-14.0-59-14R5	4.882	3.110	1.772	3.031	0.551
14.2	0.5590	2.36	SD25-14.2-60-16R5	5.236	3.346	1.890	3.031	0.630
14.5	0.5709	2.36	SD25-14.5-60-16R5	5.236	3.346	1.890	3.268	0.630
14.7	0.5787	2.36	SD25-14.7-60-16R5	5.236	3.346	1.890	3.268	0.630
14.8	0.5827	2.36	SD25-14.8-60-16R5	5.236	3.346	1.890	3.268	0.630
15.0	0.5906	2.36	SD25-15.0-60-16R5	5.236	3.346	1.890	3.268	0.630
15.25	0.6004	2.44	SD25-15.25-62-16R5	5.236	3.346	1.890	3.268	0.630
15.5	0.6102	2.44	SD25-15.5-62-16R5	5.236	3.346	1.890	3.268	0.630
15.7	0.6181	2.44	SD25-15.7-62-16R5	5.236	3.346	1.890	3.268	0.630
15.8	0.6220	2.44	SD25-15.8-62-16R5	5.236	3.346	1.890	3.268	0.630
16.0	0.6299	2.44	SD25-16.0-62-16R5	5.236	3.346	1.890	3.268	0.630
16.5	0.6496	2.52	SD25-16.5-64-18R5	5.630	3.740	1.890	3.661	0.709
16.7	0.6575	2.52	SD25-16.7-64-18R5	5.630	3.740	1.890	3.661	0.709
16.8	0.6614	2.52	SD25-16.8-64-18R5	5.630	3.740	1.890	3.661	0.709
17.0	0.6693	2.52	SD25-17.0-64-18R5	5.630	3.740	1.890	3.661	0.709
17.5	0.6890	2.60	SD25-17.5-66-18R5	5.630	3.740	1.890	3.661	0.709
17.7	0.6968	2.60	SD25-17.7-66-18R5	5.630	3.740	1.890	3.661	0.709
17.8	0.7008	2.60	SD25-17.8-66-18R5	5.630	3.740	1.890	3.661	0.709
18.0	0.7087	2.60	SD25-18.0-66-18R5	5.630	3.740	1.890	3.661	0.709

Intermediate diameters - Drilling depth ~ 5xD long version

Whistle Notch shank DIN 6537B



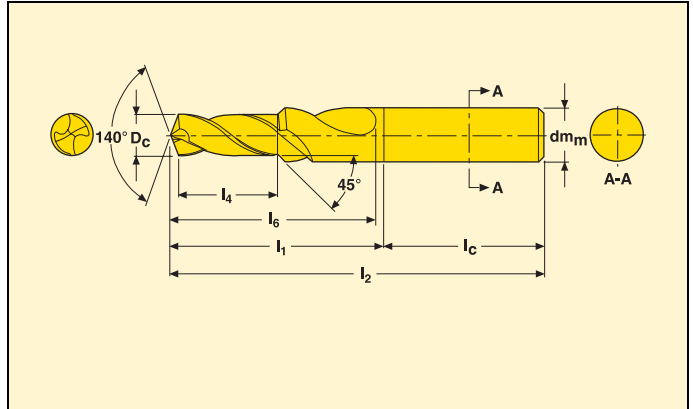
- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ inch.

Drill dia. D_c (inch/mm)	Max drilling depth I_4 (inch/mm)	Part No.	Dimensions in Inch/mm				
			I_2	I_1	I_3	I_6	dm_m
inch-version							
.1181-.1476	0.827	SD25-x.xxxx-083-0236R5	2.599	1.181	1.417	1.024	0.236
.1480-.1870	1.063	SD25-x.xxxx-106-0236R5	2.913	1.496	1.417	1.339	0.236
.1874-.2402	1.260	SD25-x.xxxx-126-0236R5	3.228	1.811	1.417	1.732	0.236
.2406-.2638	1.378	SD25-x.xxxx-138-0315R5	3.583	2.165	1.417	2.087	0.315
.2642-.2953	1.575	SD25-x.xxxx-157-0315R5	3.583	2.165	1.417	2.087	0.315
.2957-.3150	1.654	SD25-x.xxxx-165-0315R5	3.583	2.165	1.417	2.087	0.315
.3154-.3346	1.654	SD25-x.xxxx-165-0394R5	4.055	2.480	1.575	2.402	0.394
.3350-.3740	1.772	SD25-x.xxxx-177-0394R5	4.055	2.480	1.575	2.402	0.394
.3744-.3937	1.890	SD25-x.xxxx-189-0394R5	4.055	2.480	1.575	2.402	0.394
.3941-.4134	1.890	SD25-x.xxxx-189-0472R5	4.646	2.874	1.772	2.795	0.472
.4138-.4724	2.205	SD25-x.xxxx-221-0472R5	4.646	2.874	1.772	2.795	0.472
.4728-.5118	2.205	SD25-x.xxxx-221-0551R5	4.882	3.110	1.772	3.031	0.551
.5122-.5512	2.323	SD25-x.xxxx-232-0551R5	4.882	3.110	1.772	3.031	0.551
.5516-.5906	2.362	SD25-x.xxxx-236-0630R5	5.236	3.346	1.890	3.268	0.630
.5909-.6299	2.441	SD25-x.xxxx-244-0630R5	5.236	3.346	1.890	3.268	0.630
.6303-.6693	2.520	SD25-x.xxxx-252-0709R5	5.630	3.740	1.890	3.661	0.709
.6697-.7087	2.598	SD25-x.xxxx-260-0709R5	5.630	3.740	1.890	3.661	0.709
mm-version							
3.00-3.75	21	SD25-x.xx-21-6R5	66	30	36	26	6
3.76-4.75	27	SD25-x.xx-27-6R5	74	38	36	34	6
4.76-6.10	32	SD25-x.xx-32-6R5	82	46	36	44	6
6.11-6.70	35	SD25-x.xx-35-8R5	91	55	36	53	8
6.71-7.50	40	SD25-x.xx-40-8R5	91	55	36	53	8
7.51-8.00	42	SD25-x.xx-42-8R5	91	55	36	53	8
8.01-8.50	42	SD25-x.xx-42-10R5	103	63	40	61	10
8.51-9.50	45	SD25-x.xx-45-10R5	103	63	40	61	10
9.51-10.00	48	SD25-x.xx-48-10R5	103	63	40	61	10
10.01-10.50	48	SD25-x.xx-48-12R5	118	73	45	71	12
10.51-12.00	56	SD25-x.xx-56-12R5	118	73	45	71	12
12.01-13.00	56	SD25-x.xx-56-14R5	124	79	45	77	14
13.01-14.00	59	SD25-x.xx-59-14R5	124	79	45	77	14
14.01-15.00	60	SD25-x.xx-60-16R5	133	85	48	83	16
15.01-16.00	62	SD25-x.xx-62-16R5	133	85	48	83	16
16.01-17.00	64	SD25-x.xx-64-18R5	143	95	48	93	18
17.01-18.00	66	SD25-x.xx-66-18R5	143	95	48	93	18

The drills are available in \varnothing increments of 0.01 mm (.0004"). Fill in required cutting \varnothing instead of -x.xx- according to the ordering example. Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 11.3 mm:** SD25-11.30-33-12R5.

For M4 - M16 thread

Cylindrical shank DIN 6537A



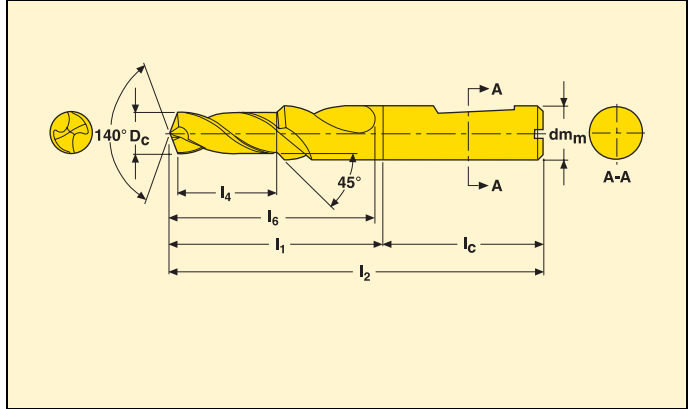
- External coolant.
- Coating: TiAlN
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 pinch.

Tap Drill Type	Drill dia. D_c (mm)	Tap Drill Size	Part No.	Dimensions in mm					
				l_2	l_1	l_c	l_6	l_4	dm_m
Normal Pitch Metric Thread	3.30	M4	SD10-C45-3.3-11.4-6R1	66	26	36	20	11.4	6
	3.40	M4	SD10-C45-3.4-11.4-6R1	66	26	36	20	11.4	6
	4.20	M5	SD10-C45-4.2-13.6-6R1	66	30	36	24	13.6	6
	4.30	M5	SD10-C45-4.3-13.6-6R1	66	30	36	24	13.6	6
	5.00	M6	SD10-C45-5.0-16.5-8R1	79	43	36	28	16.5	8
	5.10	M6	SD10-C45-5.1-16.5-8R1	79	43	36	28	16.5	8
	6.80	M8	SD10-C45-6.8-21.0-10R1	89	53	36	34	21.0	10
	6.90	M8	SD10-C45-6.9-21.0-10R1	89	53	36	34	21.0	10
	8.50	M10	SD10-C45-8.5-25.5-12R1	102	62	40	47	25.5	12
	8.70	M10	SD10-C45-8.7-25.5-12R1	102	62	40	47	25.5	12
	10.20	M12	SD10-C45-10.2-30.0-14R1	107	62	45	55	30.0	14
	10.40	M12	SD10-C45-10.4-30.0-14R1	107	62	45	55	30.0	14
	12.00	M14	SD10-C45-12.0-34.5-16R1	115	70	45	60	34.5	16
	12.25	M14	SD10-C45-12.25-34.5-16R1	115	70	45	60	34.5	16
14.00	M16	SD10-C45-14.0-38.5-18R1	123	75	48	65	38.5	18	
14.25	M16	SD10-C45-14.25-38.5-18R1	123	75	48	65	38.5	18	
Fine Pitch Metric Thread	7.00	M8x1.0	SD10-C45-7.0-21.0-10R1	89	53	36	34	21.0	10
	9.00	M10x1.0	SD10-C45-9.0-25.5-12R1	102	62	40	47	25.5	12
	10.00	M12x1.5	SD10-C45-10.5-30.0-14R1	107	62	45	55	30.0	14
	12.00	M14x1.5	SD10-C45-12.5-34.5-16R1	115	70	45	60	34.5	16
	14.00	M16x1.5	SD10-C45-14.5-38.5-18R1	123	75	48	65	38.5	18

Solid carbide chamfer drills SD10

For M4 - M16 thread

Whistle Notch shank DIN 6537B



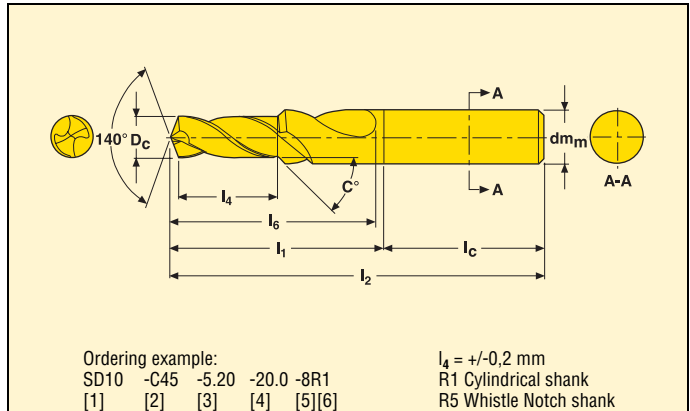
- External coolant.
- Coating: TiAlN
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μm inch.

Tap Drill Type	Drill dia. D_c (mm)	Tap Drill Size	Part No.	Dimensions in mm					
				l_2	l_1	l_c	l_6	l_4	dm_m
Normal Pitch Metric Thread	3.30	M4	SD10-C45-3.3-11.4-6R5	66	26	36	20	11.4	6
	3.40	M4	SD10-C45-3.4-11.4-6R5	66	26	36	20	11.4	6
	4.20	M5	SD10-C45-4.2-13.6-6R5	66	30	36	24	13.6	6
	4.30	M5	SD10-C45-4.3-13.6-6R5	66	30	36	24	13.6	6
	5.00	M6	SD10-C45-5.0-16.5-8R5	79	43	36	28	16.5	8
	5.10	M6	SD10-C45-5.1-16.5-8R5	79	43	36	28	16.5	8
	6.80	M8	SD10-C45-6.8-21.0-10R5	89	53	36	34	21.0	10
	6.90	M8	SD10-C45-6.9-21.0-10R5	89	53	36	34	21.0	10
	8.50	M10	SD10-C45-8.5-25.5-12R5	102	62	40	47	25.5	12
	8.70	M10	SD10-C45-8.7-25.5-12R5	102	62	40	47	25.5	12
	10.20	M12	SD10-C45-10.2-30.0-14R5	107	62	45	55	30.0	14
	10.40	M12	SD10-C45-10.4-30.0-14R5	107	62	45	55	30.0	14
	12.00	M14	SD10-C45-12.0-34.5-16R5	115	70	45	60	34.5	16
	12.25	M14	SD10-C45-12.25-34.5-16R5	115	70	45	60	34.5	16
14.00	M16	SD10-C45-14.0-38.5-18R5	123	75	48	65	38.5	18	
14.25	M16	SD10-C45-14.25-38.5-18R5	123	75	48	65	38.5	18	
Fine Pitch Metric Thread	7.00	M8x1.0	SD10-C45-7.0-21.0-10R5	89	53	36	34	21.0	10
	9.00	M10x1.0	SD10-C45-9.0-25.5-12R5	102	62	40	47	25.5	12
	10.00	M12x1.5	SD10-C45-10.5-30.0-14R5	107	62	45	55	30.0	14
	12.00	M14x1.5	SD10-C45-12.5-34.5-16R5	115	70	45	60	34.5	16
	14.00	M16x1.5	SD10-C45-14.5-38.5-18R5	123	75	48	65	38.5	18

SD10 Intermediate diameters - Metric diameter



- External coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 pinch.

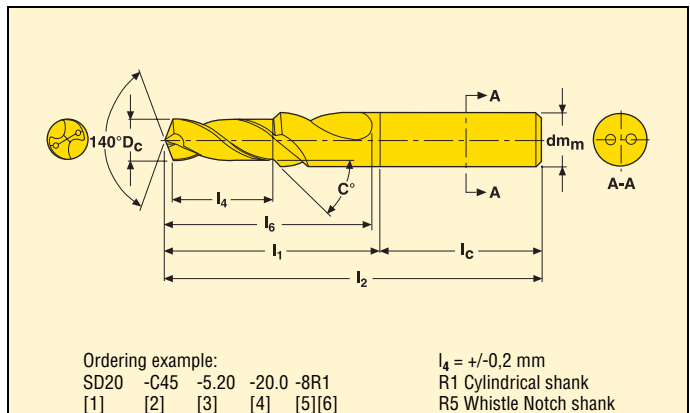


[1] Type of drill	[2] Chamfer C (°)	[3] Drill dia. D _c (mm)	[4] Drill depth l ₄ (mm)	Dimensions in mm			[6] Shank type
				[5] d _m	l ₂	l _c	
SD10	30-75	3,0-5,5	5-15	6	66	36	R1/R5
SD10	30-75	4,76-7,5	5-26	8	79	36	R1/R5
SD10	30-75	6,0-9,5	5-28	10	89	40	R1/R5
SD10	30-75	7,2-11,5	5-32	12	102	45	R1/R5
SD10	30-75	8,4-13,5	5-33	14	107	45	R1/R5
SD10	30-75	10,01-15,5	5-34	16	115	48	R1/R5
SD10	30-75	12,01-17,5	5-39	18	123	48	R1/R5

SD20 Intermediate diameters - Metric diameter



- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 pinch.



[1] Type of drill	[2] Chamfer C (°)	[3] Drill dia. D _c (mm)	[4] Drill depth l ₄ (mm)	Dimensions in mm			[6] Shank type
				[5] d _m	l ₂	l _c	
SD20	30-75	4,0-5,5	5-15	6	66	36	R1/R5
SD20	30-75	5,1-7,5	5-26	8	79	36	R1/R5
SD20	30-75	6,8-9,5	5-28	10	89	40	R1/R5
SD20	30-75	8,5-11,5	5-32	12	102	45	R1/R5
SD20	30-75	10,2-13,5	5-33	14	107	45	R1/R5
SD20	30-75	12,0-15,5	5-34	16	115	48	R1/R5
SD20	30-75	14,0-17,5	5-39	18	123	48	R1/R5

Superalloy drill -M

- For drilling in Superalloys, duplex stainless steels and hardened steels.
- Sharp, positive and strong cutting edges.
 - Large back taper
 - Narrow land margins
 - Small edge honing
 - Large front clearance
 - (Ti,Al)N coating
- High hole quality
 - Less deformation hardening of workpiece, exit burrs and residual stresses in hole surface.



Titanium drill -T

- For drilling in Titanium, Titanium alloys and Aluminium
- The sharpest and most easy cutting geometry within the Solid carbide drill range.
- Uncoated
- Developed to reduce exit burrs and minimize residual stresses in the workpiece.



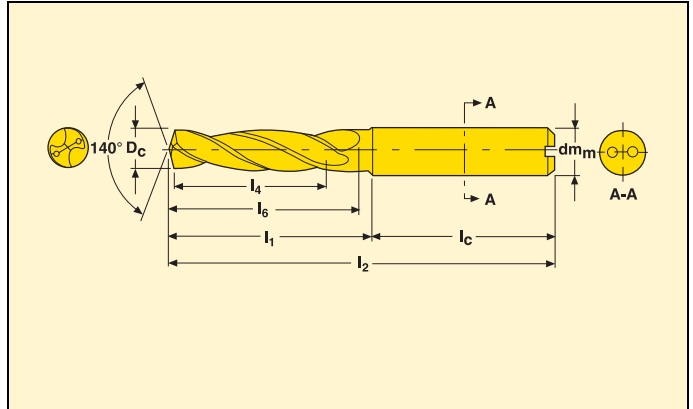
Solid carbide drills SD20 - For Super alloys

Drilling depth ~ 3xD - Inch/metric diameters

Cylindrical shank DIN 6537A



- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 pinch.

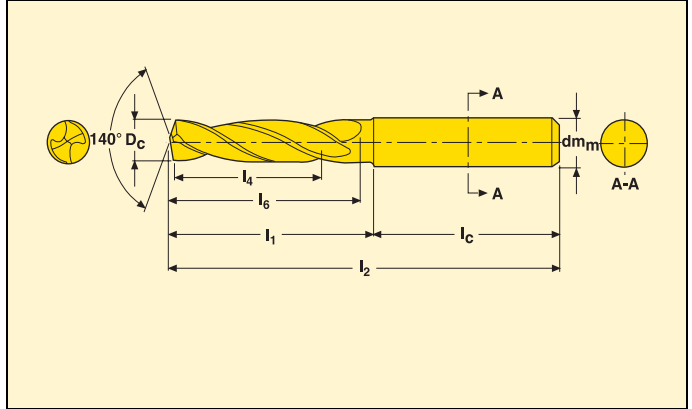


Drill dia. D_c (mm)	Drill dia. D_c (inch)	Max drilling depth l_4 (inch)	Part No.	Dimensions in Inch				
				l_2	l_1	l_c	l_6	dm_m
4.76	0.1875	0.787	SD20-01875-075-0236R1-M	2.598	1.181	1.417	1.102	0.236
5.00	0.1969	0.787	SD20-5.0-20-6R1-M	2.598	1.181	1.417	1.102	0.236
5.56	0.2188	0.827	SD20-02188-083-0236R1-M	2.598	1.181	1.417	1.102	0.236
6.00	0.2362	0.827	SD20-6.0-21-6R1-M	2.598	1.181	1.417	1.102	0.236
6.35	0.2500	0.906	SD20-02500-091-0315R1-M	3.110	1.693	1.417	1.339	0.315
6.50	0.2560	0.906	SD20-6.5-23-8R1-M	3.110	1.693	1.417	1.339	0.315
6.60	0.2598	0.906	SD20-6.6-23-8R1-M	3.110	1.693	1.417	1.339	0.315
6.75	0.2656	0.984	SD20-02656-098-0315R1-M	3.110	1.693	1.417	1.339	0.315
6.80	0.2677	0.984	SD20-6.8-25-8R1-M	3.110	1.693	1.417	1.339	0.315
6.90	0.2717	0.984	SD20-6.9-25-8R1-M	3.110	1.693	1.417	1.339	0.315
7.00	0.2760	0.984	SD20-7.0-25-8R1-M	3.110	1.693	1.417	1.339	0.315
7.14	0.2813	0.984	SD20-02813-098-0315R1-M	3.110	1.693	1.417	1.614	0.315
7.50	0.2953	0.984	SD20-7.5-25-8R1-M	3.110	1.693	1.417	1.614	0.315
7.80	0.3071	1.063	SD20-7.8-27-8R1-M	3.110	1.693	1.417	1.614	0.315
7.94	0.3125	1.063	SD20-03125-106-0315R1-M	3.110	1.693	1.417	1.614	0.315
8.00	0.3150	1.063	SD20-8.0-27-8R1-M	3.110	1.693	1.417	1.614	0.315
8.50	0.3346	1.063	SD20-8.5-29-10R1-M	3.504	1.929	1.575	1.850	0.394
8.73	0.3438	1.142	SD20-03438-114-0394R1-M	3.504	1.929	1.575	1.850	0.394
8.80	0.3465	1.142	SD20-8.8-29-10R1-M	3.504	1.929	1.575	1.850	0.394
9.00	0.3543	1.142	SD20-9.0-29-10R1-M	3.504	1.929	1.575	1.850	0.394
9.13	0.3594	1.142	SD20-03594-114-0394R1-M	3.504	1.929	1.575	1.850	0.394
9.50	0.3740	1.142	SD20-9.5-29-10R1-M	3.504	1.929	1.575	1.850	0.394
9.53	0.3750	1.142	SD20-03750-122-0394R1-M	3.504	1.929	1.575	1.850	0.394
9.80	0.3858	1.220	SD20-9.8-31-10R1-M	3.504	1.929	1.575	1.850	0.394
10.00	0.3937	1.220	SD20-10.0-31-10R1-M	3.504	1.929	1.575	1.850	0.394
10.20	0.4016	1.220	SD20-10.2-31-12R1-M	4.016	2.244	1.772	2.165	0.472
10.34	0.4063	1.220	SD20-04063-122-0472R1-M	4.016	2.244	1.772	2.165	0.472
10.50	0.4134	1.220	SD20-10.5-31-12R1-M	4.016	2.244	1.772	2.165	0.472
10.72	0.4219	1.220	SD20-04219-130-0472R1-M	4.016	2.244	1.772	2.165	0.472
10.80	0.4252	1.299	SD20-10.8-33-12R1-M	4.016	2.244	1.772	2.165	0.472
11.00	0.4331	1.299	SD20-11.0-33-12R1-M	4.016	2.244	1.772	2.165	0.472
11.11	0.4375	1.299	SD20-04375-130-0472R1-M	4.016	2.244	1.772	2.165	0.472
11.50	0.4528	1.299	SD20-11.5-33-12R1-M	4.016	2.244	1.772	2.165	0.472
11.80	0.4646	1.299	SD20-11.8-33-12R1-M	4.016	2.244	1.772	2.165	0.472
12.00	0.4724	1.417	SD20-12.0-36-12R1-M	4.016	2.244	1.772	2.165	0.472
12.30	0.4843	1.417	SD20-12.3-36-14R1-M	4.213	2.441	1.772	2.362	0.551
12.50	0.4921	1.417	SD20-12.5-36-14R1-M	4.213	2.441	1.772	2.362	0.551
12.70	0.5000	1.417	SD20-05000-142-0551R1-M	4.213	2.441	1.772	2.362	0.551
13.00	0.5118	1.417	SD20-13.0-36-14R1-M	4.213	2.441	1.772	2.362	0.551
13.50	0.5315	1.457	SD20-13.5-37-14R1-M	4.213	2.441	1.772	2.362	0.551
14.00	0.5512	1.457	SD20-14.0-37-14R1-M	4.213	2.441	1.772	2.362	0.551

Solid carbide drills SD10 - For Super alloys

Intermediate diameters - Drilling depth ~ 3 x D short version - Inch diameter

Cylindrical shank DIN 6537A



- External coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ inch.

Drill dia. D_c (inch)	Max drilling depth l_4 (inch)	Part No.	Dimensions in Inch				
			l_2	l_1	l_c	l_6	dm_m
.1181-.1339	0.551	SD10-x-xxxx-055-0236R1-M	2.441	1.024	1.417	0.787	0.236
.1343-.1476	0.591	SD10-x-xxxx-059-0236R1-M	2.441	1.024	1.417	0.787	0.236
.1480-.1654	0.669	SD10-x-xxxx-067-0236R1-M	2.598	1.181	1.417	0.945	0.236
.1657-.1870	0.709	SD10-x-xxxx-071-0236R1-M	2.598	1.181	1.417	0.945	0.236
.1874-.2047	0.787	SD10-x-xxxx-079-0236R1-M	2.598	1.181	1.417	1.024	0.236
.2051-.2362	0.827	SD10-x-xxxx-083-0236R1-M	2.598	1.181	1.417	1.102	0.236
.2366-.2598	0.906	SD10-x-xxxx-091-0315R1-M	3.110	1.693	1.417	1.339	0.315
.2602-.2953	0.984	SD10-x-xxxx-098-0315R1-M	3.110	1.693	1.417	1.339	0.315
.2957-.3150	1.063	SD10-x-xxxx-106-0315R1-M	3.110	1.693	1.417	1.614	0.315
.3154-.3346	1.063	SD10-x-xxxx-106-0394R1-M	3.504	1.929	1.575	1.614	0.394
.3350-.3740	1.142	SD10-x-xxxx-114-0394R1-M	3.504	1.929	1.575	1.850	0.394
.3744-.3937	1.220	SD10-x-xxxx-122-0394R1-M	3.504	1.929	1.575	2.165	0.394
.3941-.4134	1.220	SD10-x-xxxx-122-0472R1-M	4.016	2.244	1.772	2.165	0.472
.4138-.4646	1.299	SD10-x-xxxx-130-0472R1-M	4.016	2.244	1.772	2.165	0.472
.4650-.4724	1.417	SD10-x-xxxx-142-0472R1-M	4.016	2.244	1.772	2.165	0.472
.4728-.5118	1.417	SD10-x-xxxx-142-0551R1-M	4.213	2.441	1.772	2.362	0.551
.5122-.5512	1.457	SD10-x-xxxx-146-0551R1-M	4.213	2.441	1.772	2.362	0.551
.5516-.5906	1.496	SD10-x-xxxx-149-0630R1-M	4.528	2.638	1.890	2.559	0.630
.5909-.6299	1.535	SD10-x-xxxx-153-0630R1-M	4.528	2.638	1.890	2.559	0.630
.6303-.6693	1.575	SD10-x-xxxx-157-0709R1-M	4.483	2.953	1.890	2.874	0.709
.6697-.7087	1.614	SD10-x-xxxx-161-0709R1-M	4.483	2.953	1.890	2.874	0.709

The drills are available in \varnothing increments of .0004 inch. Fill in required cutting \varnothing instead of -x-xxxx- according to the ordering example. Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 1/4 inch (.2500):** SD10-0.2500-091-0315R1-M.

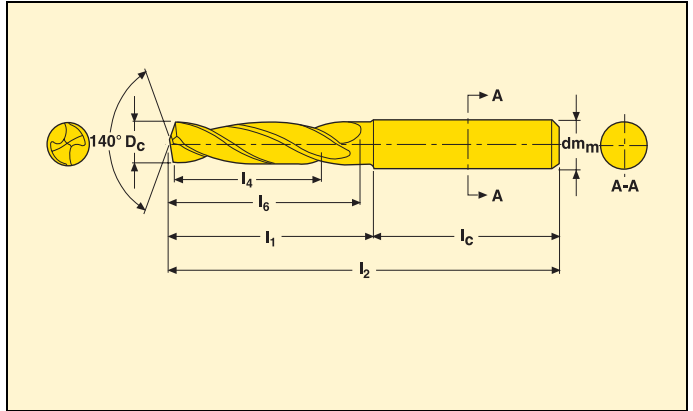
Solid carbide drills SD10 - For Super alloys

Intermediate diameters - Drilling depth ~ 3 x D short version - Metric diameter

Cylindrical shank DIN 6537A



- External coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 pinch.



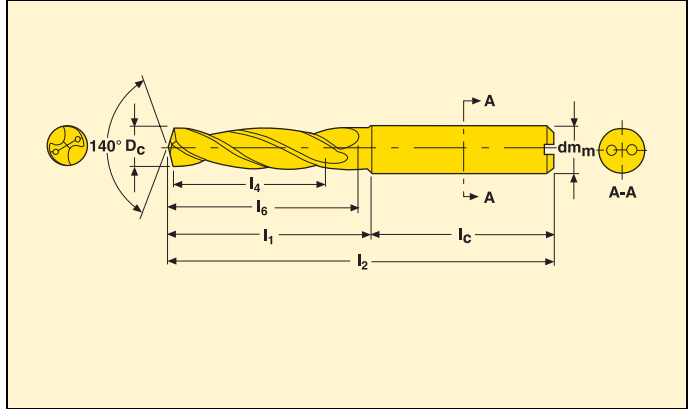
Drill dia. D_c (mm)	Max drilling depth l_4 (mm)	Part No.	Dimensions in mm				
			l_2	l_1	l_c	l_6	d_{m_m}
3.00-3.40	14	SD10-x.xx-14-6R1-M	62	26	36	20	6
3.41-3.75	15	SD10-x.xx-15-6R1-M	62	26	36	20	6
3.76-4.20	17	SD10-x.xx-17-6R1-M	66	30	36	24	6
4.21-4.75	18	SD10-x.xx-18-6R1-M	66	30	36	24	6
4.76-5.20	20	SD10-x.xx-20-6R1-M	66	30	36	26	6
5.21-6.00	21	SD10-x.xx-21-6R1-M	66	30	36	28	6
6.01-6.60	23	SD10-x.xx-23-8R1-M	79	43	36	34	8
6.61-7.50	25	SD10-x.xx-25-8R1-M	79	43	36	34	8
7.51-8.00	27	SD10-x.xx-27-8R1-M	79	43	36	41	8
8.01-8.50	27	SD10-x.xx-27-10R1-M	89	49	40	41	10
8.51-9.50	29	SD10-x.xx-29-10R1-M	89	49	40	47	10
9.51-10.00	31	SD10-x.xx-31-10R1-M	89	49	40	55	10
10.01-10.50	31	SD10-xx.xx-31-12R1-M	102	57	45	55	12
10.51-11.80	33	SD10-xx.xx-33-12R1-M	102	57	45	55	12
11.81-12.00	36	SD10-xx.xx-36-12R1-M	102	57	45	55	12
12.01-13.00	36	SD10-xx.xx-36-14R1-M	107	62	45	60	14
13.01-14.00	37	SD10-xx.xx-37-14R1-M	107	62	45	60	14
14.01-15.00	38	SD10-xx.xx-38-16R1-M	115	67	48	65	16
15.01-16.00	39	SD10-xx.xx-39-16R1-M	115	67	48	65	16
16.01-17.00	40	SD10-xx.xx-40-18R1-M	123	75	48	73	18
17.01-18.00	41	SD10-xx.xx-41-18R1-M	123	75	48	73	18

The drills are available in Ø increments of 0.01 mm. Fill in required cutting Ø instead of -x.xx- according to the ordering example. Cutting Ø tolerance is equal to m7 unless otherwise specified. **Ordering example** for Ø 11.30 mm: SD10-11.30-33-12R1-M.

Solid carbide drills SD20 - For Super alloys

Intermediate diameters - Drilling depth ~ 3 x D short version - Inch/metric diameter

Cylindrical shank DIN 6537A



- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: Ra 40-80 µinch.

Drill dia. D _c (inch/mm)	Max drilling depth l ₄ (inch/mm)	Part No.	Dimensions in Inch/mm				
			l ₂	l ₁	l _c	l ₆	dm _m
		inch-version					
.1657-1870	0.709	SD20-x.xxxx-071-0236R1-M	2.598	1.181	1.417	0.945	0.236
.1874-2402	0.827	SD20-x.xxxx-083-0236R1-M	2.598	1.181	1.417	1.102	0.236
.2406-2598	0.906	SD20-x.xxxx-091-0315R1-M	3.110	1.693	1.417	1.339	0.315
.2602-2953	0.984	SD20-x.xxxx-098-0315R1-M	3.110	1.693	1.417	1.339	0.315
.2957-3150	1.063	SD20-x.xxxx-106-0315R1-M	3.110	1.693	1.417	1.614	0.315
.3154-3346	1.063	SD20-x.xxxx-106-0394R1-M	3.504	1.929	1.575	1.614	0.394
.3350-3740	1.142	SD20-x.xxxx-114-0394R1-M	3.504	1.929	1.575	1.850	0.394
.3744-3937	1.220	SD20-x.xxxx-122-0394R1-M	3.504	1.929	1.575	1.850	0.394
.3941-4134	1.220	SD20-x.xxxx-122-0472R1-M	4.016	2.244	1.772	2.165	0.472
.4138-4646	1.299	SD20-x.xxxx-130-0472R1-M	4.016	2.244	1.772	2.165	0.472
.4650-4724	1.417	SD20-x.xxxx-142-0472R1-M	4.016	2.244	1.772	2.165	0.472
.4728-5118	1.417	SD20-x.xxxx-142-0551R1-M	4.213	2.441	1.772	2.362	0.551
.5122-5512	1.457	SD20-x.xxxx-146-0551R1-M	4.213	2.441	1.772	2.362	0.551
		mm-version					
3.76-4.75	18	SD20-x.xx-18-6R1-M	66	30	36	24	6
4.76-6.10	21	SD20-x.xx-21-6R1-M	66	30	36	28	6
6.11-6.60	23	SD20-x.xx-23-8R1-M	79	43	36	34	8
6.61-7.50	25	SD20-x.xx-25-8R1-M	79	43	36	34	8
7.51-8.00	27	SD20-x.xx-27-8R1-M	79	43	36	41	8
8.01-8.50	27	SD20-x.xx-27-10R1-M	89	49	40	41	10
8.51-9.50	29	SD20-x.xx-29-10R1-M	89	49	40	47	10
9.51-10.00	31	SD20-x.xx-31-10R1-M	89	49	40	47	10
10.01-10.50	31	SD20-xx.xx-31-12R1-M	102	57	45	55	12
10.51-11.80	33	SD20-xx.xx-33-12R1-M	102	57	45	55	12
11.81-12.00	36	SD20-xx.xx-36-12R1-M	102	57	45	55	12
12.01-13.00	36	SD20-xx.xx-36-14R1-M	107	62	45	60	14
13.01-14.00	37	SD20-xx.xx-37-14R1-M	107	62	45	60	14

The drills are available in Ø increments of .0004 inch (0.01 mm). Fill in required cutting Ø instead of -x.xxxx- according to the ordering example. Cutting Ø tolerance is equal to m7 unless otherwise specified. **Ordering example for Ø 1/4 inch (.2500):** SD20-0.2500-091-0315R1-M.

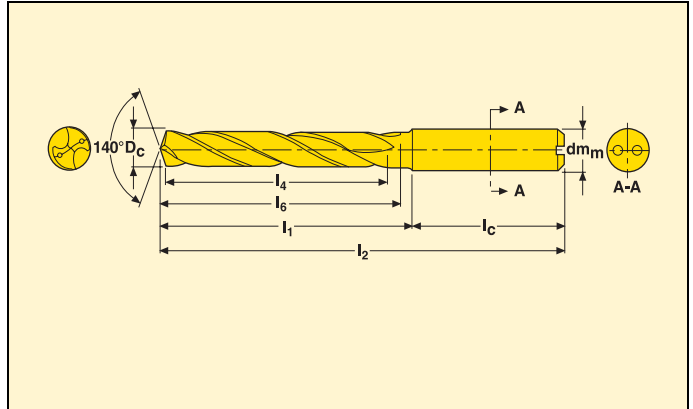
Solid carbide drills SD25 - For Super alloys

Intermediate diameters - Drilling depth ~ 5 x D long version - Inch/metric diameter

Cylindrical shank DIN 6537A



- Internal coolant.
- Coating: TiAlN.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 pinch.

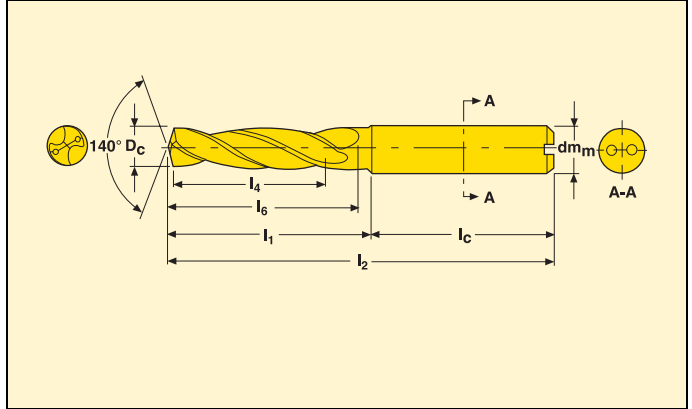


Drill dia. D_c (inch/mm)	Max drilling depth l_4 (inch/mm)	Part No.	Dimensions in Inch/mm				
			l_2	l_1	l_c	l_6	dm_m
		inch-version					
.1181-1476	0.827	SD25-x.xxxx-083-0236R1-M	2.598	1.181	1.417	1.024	0.236
.1480-1870	1.063	SD25-x.xxxx-106-0236R1-M	2.913	1.496	1.417	1.339	0.236
.1874-2402	1.260	SD25-x.xxxx-126-0236R1-M	3.228	1.811	1.417	1.732	0.236
.2406-2638	1.378	SD25-x.xxxx-138-0315R1-M	3.583	2.165	1.417	2.087	0.315
.2642-2953	1.575	SD25-x.xxxx-157-0315R1-M	3.583	2.165	1.417	2.087	0.315
.2957-3150	1.654	SD25-x.xxxx-165-0315R1-M	3.583	2.165	1.417	2.087	0.315
.3154-3346	1.654	SD25-x.xxxx-165-0394R1-M	4.055	2.480	1.575	2.402	0.394
.3350-3740	1.772	SD25-x.xxxx-177-0394R1-M	4.055	2.480	1.575	2.402	0.394
.3744-3937	1.890	SD25-x.xxxx-189-0394R1-M	4.055	2.480	1.575	2.402	0.394
.3941-4134	1.890	SD25-x.xxxx-189-0472R1-M	4.646	2.874	1.772	2.795	0.472
.4138-4724	2.205	SD25-x.xxxx-221-0472R1-M	4.646	2.874	1.772	2.795	0.472
.4728-5118	2.205	SD25-x.xxxx-221-0551R1-M	4.882	3.110	1.772	3.031	0.551
.5122-5512	2.323	SD25-x.xxxx-232-0551R1-M	4.882	3.110	1.772	3.031	0.551
.5516-5906	2.362	SD25-x.xxxx-236-0630R1-M	5.236	3.346	1.890	3.268	0.630
.5909-6299	2.441	SD25-x.xxxx-244-0630R1-M	5.236	3.346	1.890	3.268	0.630
.6303-6693	2.520	SD25-x.xxxx-252-0709R1-M	5.630	3.740	1.890	3.661	0.709
.6697-7087	2.598	SD25-x.xxxx-260-0709R1-M	5.630	3.740	1.890	3.661	0.709
		mm-version					
3.00-3.75	21	SD25-x.xx-21-6R1-M	66	30	36	26	6
3.76-4.75	27	SD25-x.xx-27-6R1-M	74	38	36	34	6
4.76-6.10	32	SD25-x.xx-32-6R1-M	82	46	36	44	6
6.01-6.70	35	SD25-x.xx-35-8R1-M	91	55	36	53	8
6.71-7.50	40	SD25-x.xx-40-8R1-M	91	55	36	53	8
7.51-8.00	42	SD25-x.xx-42-8R1-M	91	55	36	53	8
8.01-8.50	42	SD25-x.xx-42-10R1-M	103	63	40	61	10
8.51-9.50	45	SD25-x.xx-45-10R1-M	103	63	40	61	10
9.51-10.00	48	SD25-x.xx-48-10R1-M	103	63	40	61	10
10.01-10.50	48	SD25-x.xx-48-12R1-M	118	73	45	71	12
10.51-12.00	56	SD25-x.xx-56-12R1-M	118	73	45	71	12
12.01-13.00	56	SD25-x.xx-56-14R1-M	124	79	45	77	14
13.01-14.00	59	SD25-x.xx-59-14R1-M	124	79	45	77	14
14.01-15.00	60	SD25-x.xx-60-16R1-M	133	85	48	83	16
15.01-16.00	62	SD25-x.xx-62-16R1-M	133	85	48	83	16
16.01-17.00	64	SD25-x.xx-64-18R1-M	143	95	48	93	18
17.01-18.00	66	SD25-x.xx-66-18R1-M	143	95	48	93	18

The drills are available in \varnothing increments of .0004 inch (0.01 mm). Fill in required cutting \varnothing instead of -x.xxxx- according to the ordering example. Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 1/4 inch (.2500):** SD25-0.2500-138-0315R1-M.

Intermediate diameters - Drilling depth ~ 3 x D short version - Inch/metric diameter

Cylindrical shank DIN 6537A



- External coolant.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ inch.

Drill dia. D_c (inch/mm)	Max drilling depth I_4 (inch/mm)	Part No.	Dimensions in Inch/mm				
			I_2	I_1	I_3	I_5	dm_m
inch-version							
.1181-.1339	0.551	SD10-x.xxxx-055-0236R1-T	2.441	1.024	1.417	0.787	0.236
.1343-.1476	0.591	SD10-x.xxxx-059-0236R1-T	2.441	1.024	1.417	0.787	0.236
.1480-.1654	0.669	SD10-x.xxxx-067-0236R1-T	2.598	1.181	1.417	0.945	0.236
.1657-1870	0.709	SD10-x.xxxx-071-0236R1-T	2.598	1.181	1.417	0.945	0.236
.1874-.2047	0.787	SD10-x.xxxx-079-0236R1-T	2.598	1.181	1.417	1.024	0.236
.2051-.2362	0.827	SD10-x.xxxx-083-0236R1-T	2.598	1.181	1.417	1.102	0.236
.2366-.2598	0.906	SD10-x.xxxx-091-0315R1-T	3.110	1.693	1.417	1.339	0.315
.2602-.2953	0.984	SD10-x.xxxx-098-0315R1-T	3.110	1.693	1.417	1.339	0.315
.2957-.3150	1.063	SD10-x.xxxx-106-0315R1-T	3.110	1.693	1.417	1.614	0.315
.3154-.3346	1.063	SD10-x.xxxx-106-0394R1-T	3.504	1.929	1.575	1.614	0.394
.3350-.3740	1.142	SD10-x.xxxx-114-0394R1-T	3.504	1.929	1.575	1.850	0.394
.3744-.3937	1.220	SD10-x.xxxx-122-0394R1-T	3.504	1.929	1.575	2.165	0.394
.3941-.4134	1.220	SD10-x.xxxx-122-0472R1-T	4.016	2.244	1.772	2.165	0.472
.4138-.4646	1.299	SD10-x.xxxx-130-0472R1-T	4.016	2.244	1.772	2.165	0.472
.4650-.4724	1.417	SD10-x.xxxx-142-0472R1-T	4.016	2.244	1.772	2.165	0.472
.4728-.5118	1.417	SD10-x.xxxx-142-0551R1-T	4.213	2.441	1.772	2.362	0.551
.5122-.5512	1.457	SD10-x.xxxx-146-0551R1-T	4.213	2.441	1.772	2.362	0.551
mm-version							
3.00-3.40	14	SD10-x.xx-14-6R1-T	62	26	36	20	6
3.41-3.75	15	SD10-x.xx-15-6R1-T	62	26	36	20	6
3.76-4.20	17	SD10-x.xx-17-6R1-T	66	30	36	24	6
4.21-4.75	18	SD10-x.xx-18-6R1-T	66	30	36	24	6
4.76-5.20	20	SD10-x.xx-20-6R1-T	66	30	36	26	6
5.21-6.00	21	SD10-x.xx-21-6R1-T	66	30	36	28	6
6.01-6.60	23	SD10-x.xx-23-8R1-T	79	43	36	34	8
6.61-7.50	25	SD10-x.xx-25-8R1-T	79	43	36	34	8
7.51-8.00	27	SD10-x.xx-27-8R1-T	79	43	36	41	8
8.01-8.50	27	SD10-x.xx-27-10R1-T	89	49	40	41	10
8.51-9.50	29	SD10-x.xx-29-10R1-T	89	49	40	47	10
9.51-10.00	31	SD10-x.xx-31-10R1-T	89	49	40	55	10
10.01-10.50	31	SD10-xx.xx-31-12R1-T	102	57	45	55	12
10.51-11.80	33	SD10-xx.xx-33-12R1-T	102	57	45	55	12
11.81-12.00	36	SD10-xx.xx-36-12R1-T	102	57	45	55	12
12.01-13.00	36	SD10-xx.xx-36-14R1-T	107	62	45	60	14
13.01-14.00	37	SD10-xx.xx-37-14R1-T	107	62	45	60	14

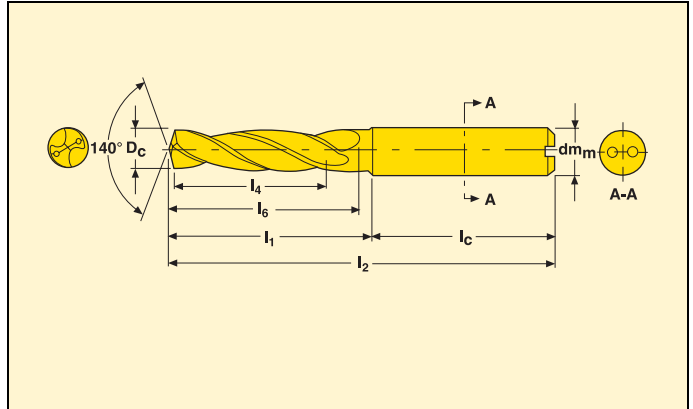
The drills are available in \varnothing increments of .0004 inch (0.01 mm). Fill in required cutting \varnothing instead of -x.xxxx- according to the ordering example. Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 1/4 inch (.2500):** SD10-0.2500-091-0315R1-T.

Intermediate diameters - Drilling depth ~ 3 x D short version - Inch/metric diameter

Cylindrical shank DIN 6537A



- Internal coolant.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ m.

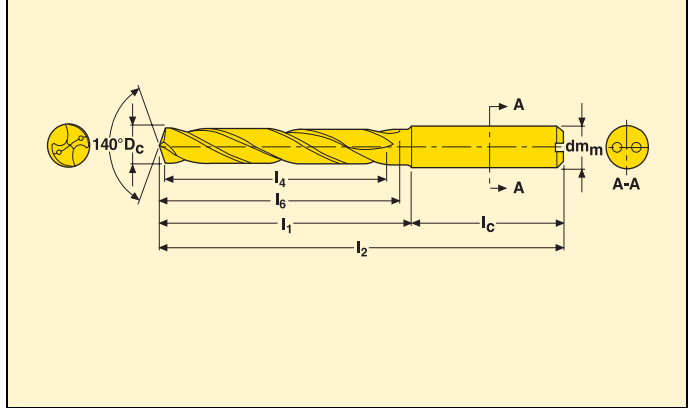


Drill dia. D_c (inch/mm)	Max drilling depth l_4 (inch/mm)	Part No.	Dimensions in Inch/mm				
			l_2	l_1	l_c	l_6	d_m
		inch-version					
.1657-1870	0.709	SD20-x.xxxx-071-0236R1-T	2.598	1.181	1.417	0.945	0.236
.1874-2402	0.827	SD20-x.xxxx-083-0236R1-T	2.598	1.181	1.417	1.102	0.236
.2406-2598	0.906	SD20-x.xxxx-091-0315R1-T	3.110	1.693	1.417	1.339	0.315
.2602-2953	0.984	SD20-x.xxxx-098-0315R1-T	3.110	1.693	1.417	1.339	0.315
.2957-3150	1.063	SD20-x.xxxx-106-0315R1-T	3.110	1.693	1.417	1.614	0.315
.3154-3346	1.063	SD20-x.xxxx-106-0394R1-T	3.504	1.929	1.575	1.614	0.394
.3350-3740	1.142	SD20-x.xxxx-114-0394R1-T	3.504	1.929	1.575	1.850	0.394
.3744-3937	1.220	SD20-x.xxxx-122-0394R1-T	3.504	1.929	1.575	1.850	0.394
.3941-4134	1.220	SD20-x.xxxx-122-0472R1-T	4.016	2.244	1.772	2.165	0.472
.4138-4646	1.299	SD20-x.xxxx-130-0472R1-T	4.016	2.244	1.772	2.165	0.472
.4650-4724	1.417	SD20-x.xxxx-142-0472R1-T	4.016	2.244	1.772	2.165	0.472
.4728-5118	1.417	SD20-x.xxxx-142-0551R1-T	4.213	2.441	1.772	2.362	0.551
.5122-5512	1.457	SD20-x.xxxx-146-0551R1-T	4.213	2.441	1.772	2.362	0.551
		mm-version					
3.76-4.75	18	SD20-x.xx-18-6R1-T	66	30	36	24	6
4.76-6.10	21	SD20-x.xx-21-6R1-T	66	30	36	28	6
6.11-6.60	23	SD20-x.xx-23-8R1-T	79	43	36	34	8
6.61-7.50	25	SD20-x.xx-25-8R1-T	79	43	36	34	8
7.51-8.00	27	SD20-x.xx-27-8R1-T	79	43	36	41	8
8.01-8.50	27	SD20-x.xx-27-10R1-T	89	49	40	41	10
8.51-9.50	29	SD20-x.xx-29-10R1-T	89	49	40	47	10
9.51-10.00	31	SD20-x.xx-31-10R1-T	89	49	40	47	10
10.01-10.50	31	SD20-x.xx-31-12R1-T	102	57	45	55	12
10.51-11.80	33	SD20-x.xx-33-12R1-T	102	57	45	55	12
11.81-12.00	36	SD20-x.xx-36-12R1-T	102	57	45	55	12
12.01-13.00	36	SD20-x.xx-36-14R1-T	107	62	45	60	14
13.01-14.00	37	SD20-x.xx-37-14R1-T	107	62	45	60	14

The drills are available in \varnothing increments of .0004 inch (0.01 mm). Fill in required cutting \varnothing instead of -x.xxxx- according to the ordering example. Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 1/4 inch (.2500):** SD20-0.2500-091-0315R1-T.

Intermediate diameters - Drilling depth ~ 5 x D long version - Inch/metric diameter

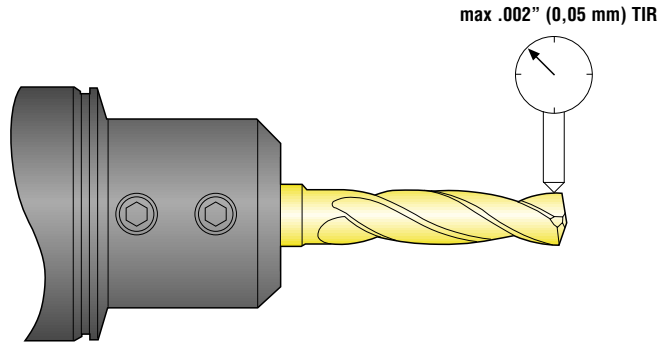
Cylindrical shank DIN 6537A



- Internal coolant.
- Hole tolerance: IT 8-9.
- Surface finish: R_a 40-80 μ m.

Drill dia. D_c (inch/mm)	Max drilling depth l_4 (inch/mm)	Part No.	Dimensions in Inch/mm				
			l_2	l_1	l_c	l_6	dm_m
		inch-version					
.1181-1476	0.827	SD25-x.xxxx-083-0236R1-T	2.598	1.181	1.417	1.024	0.236
.1480-1870	1.063	SD25-x.xxxx-106-0236R1-T	2.913	1.496	1.417	1.339	0.236
.1874-2402	1.260	SD25-x.xxxx-126-0236R1-T	3.228	1.811	1.417	1.732	0.236
.2406-2638	1.378	SD25-x.xxxx-138-0315R1-T	3.583	2.165	1.417	2.087	0.315
.2642-2953	1.575	SD25-x.xxxx-157-0315R1-T	3.583	2.165	1.417	2.087	0.315
.2957-3150	1.654	SD25-x.xxxx-165-0315R1-T	3.583	2.165	1.417	2.087	0.315
.3154-3346	1.654	SD25-x.xxxx-165-0394R1-T	4.055	2.480	1.575	2.402	0.394
.3350-3740	1.772	SD25-x.xxxx-177-0394R1-T	4.055	2.480	1.575	2.402	0.394
.3744-3937	1.890	SD25-x.xxxx-189-0394R1-T	4.055	2.480	1.575	2.402	0.394
.3941-4134	1.890	SD25-x.xxxx-189-0472R1-T	4.646	2.874	1.772	2.795	0.472
.4138-4724	2.205	SD25-x.xxxx-221-0472R1-T	4.646	2.874	1.772	2.795	0.472
.4728-5118	2.205	SD25-x.xxxx-221-0551R1-T	4.882	3.110	1.772	3.031	0.551
.5122-5512	2.323	SD25-x.xxxx-232-0551R1-T	4.882	3.110	1.772	3.031	0.551
.5516-5906	2.362	SD25-x.xxxx-236-0630R1-T	5.236	3.346	1.890	3.268	0.630
.5909-6299	2.441	SD25-x.xxxx-244-0630R1-T	5.236	3.346	1.890	3.268	0.630
.6303-6693	2.520	SD25-x.xxxx-252-0709R1-T	5.630	3.740	1.890	3.661	0.709
.6697-7087	2.598	SD25-x.xxxx-260-0709R1-T	5.630	3.740	1.890	3.661	0.709
		mm-version					
3.00-3.75	21	SD25-x.xx-21-6R1-T	66	30	36	26	6
3.76-4.75	27	SD25-x.xx-27-6R1-T	74	38	36	34	6
4.76-6.10	32	SD25-x.xx-32-6R1-T	82	46	36	44	6
6.11-6.70	35	SD25-x.xx-35-8R1-T	91	55	36	53	8
6.71-7.50	40	SD25-x.xx-40-8R1-T	91	55	36	53	8
7.51-8.00	42	SD25-x.xx-42-8R1-T	91	55	36	53	8
8.01-8.50	42	SD25-x.xx-42-10R1-T	103	63	40	61	10
8.51-9.50	45	SD25-x.xx-45-10R1-T	103	63	40	61	10
9.51-10.00	48	SD25-x.xx-48-10R1-T	103	63	40	61	10
10.01-10.50	48	SD25-xx.xx-48-12R1-T	118	73	45	71	12
10.51-12.00	56	SD25-xx.xx-56-12R1-T	118	73	45	71	12
12.01-13.00	56	SD25-xx.xx-56-14R1-T	124	79	45	77	14
13.01-14.00	59	SD25-xx.xx-59-14R1-T	124	79	45	77	14
14.01-15.00	60	SD25-xx.xx-60-16R1-T	133	85	48	83	16
15.01-16.00	62	SD25-xx.xx-62-16R1-T	133	85	48	83	16
16.01-17.00	64	SD25-xx.xx-64-18R1-T	143	95	48	93	18
17.01-18.00	66	SD25-xx.xx-66-18R1-T	143	95	48	93	18

The drills are available in \varnothing increments of .0004 inch (0.01 mm). Fill in required cutting \varnothing instead of -x.xxxx- according to the ordering example. Cutting \varnothing tolerance is equal to m7 unless otherwise specified. **Ordering example for \varnothing 1/4 inch (.2500):** SD25-0.2500-138-0315R1-T.



Set up

Holding/run-out

Keep the total indicated run-out of the drill within .002" (0,05 mm) for drills with Whistle notch shank. Drills with cylindrical shanks can be used with collet chucks, hydraulic chucks or shrink fit holders. For best result keep run-out <.001" (0,02 mm).

Stability

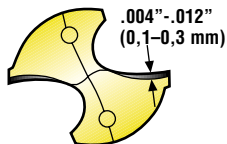
The stability of the application is most important to obtain the best tool life and hole accuracy. Check the condition of the machine spindle, fixture and fixturing of the component to secure maximum stability and rigidity. Unstable conditions can cause tool breakages.

Method

- No center drilling necessary, if it has been precentered or if the surface of the workpiece is angled or rough decrease feed by 50% during entrance.
- Adjust feed up or down to obtain as good chip formation as possible. Increased feed/rev. gives shorter chips.

Tool life

Drills should not be used with flank wear exceeding .004"-.012" (0,1-0,3mm) measured at the largest point.



SD10, SD20 and SD25 – and Chamfer Drills

The recommended start values for general applications are marked **bold**.
Reduce the values in case of poor stability in the application, high hardness of the workpiece or poor coolant pressure in combination with drilling deep holes (>3xD).

Seco material group No.	Recommended cutting speed V_c (ft/min)		Recommended feed, f (in/rev) for drill diameter			
	External coolant supply	Internal coolant supply	.118" (Ø 3 mm)	.157" (Ø 4 mm)	.197" (Ø 5 mm)	.315" (Ø 8 mm)
1	295- 330 -360	330- 390 -525	.0025- .003 -.004	.003- .004 -.005	.005- .006 -.007	.006- .008 -.009
2-3	260- 295 -330	295- 360 -460	.0025- .003 -.004	.003- .004 -.005	.005- .006 -.007	.006- .008 -.009
4-5	230- 260 -295	260- 295 -390	.0025- .003 -.004	.003- .004 -.005	.004- .005 -.006	.005- .006 -.008
6	200- 230 -260	230- 260 -330	.0025- .003 -.004	.003- .004 -.005	.004- .005 -.006	.005- .006 -.008
7	165- 200 -230	200- 230 -260	.002- .0027 -.0035	.0024- .0031 -.004	.003- .004 -.005	.004- .005 -.006
8-9	150- 180 -215	165- 200 -230	.0016- .002 -.0024	.0016- .0024 -.0031	.002- .003 -.004	.003- .004 -.005
10	115- 150 -180	130- 165 -200	.0016- .002 -.0024	.0016- .0024 .0031	.002- .003 -.004	.003- .004 -.005
11	80- 115 -145	100- 130 -165	.0012- .0016 -.002	.0012- .0016 -.002	.0015- .002 -.0027	.002- .0029 -.004
12	260- 295 -330	295- 330 -390	.004- .005 -.006	.005- .006 -.008	.007- .010 -.012	.010- .012 -.016
13-14	200- 230 -260	260- 295 -360	.003- .004 -.0055	.004- .0055 -.007	.0055- .008 -.010	.007- .010 -.012
15	200- 230 -260	230- 260 -295	.002- .0027 -.0035	.0024- .0031 -.004	.003- .004 -.005	.004- .005 -.006
16-17	330- 460 -820	330- 590 -1000	.004- .005 -.006	.005- .006 -.008	.007- .010 -.012	.010- .012 -.016

Seco material group No.	Recommended feed, f (in/rev) for drill diameter				
	.394" (Ø 10 mm)	.472" (Ø 12 mm)	.551" (Ø 14 mm)	.630" (Ø 16 mm)	.709" (Ø 18 mm)
1	.008- .010 -.011	.010- .012 -.014	.011- .013 -.015	.012- .014 -.016	.013- .015 -.017
2-3	.008- .010 -.011	.010- .012 -.014	.011- .013 -.015	.012- .014 -.016	.013- .015 -.017
4-5	.006- .008 -.010	.008- .010 -.012	.010- .011 -.013	.011- .012 -.014	.012- .014 -.016
6	.006- .008 -.010	.008- .010 -.012	.010- .011 -.013	.011- .012 -.014	.012- .014 -.016
7	.005- .006 -.008	.006- .008 -.010	.008- .009 -.011	.009- .010 -.012	.010- .012 -.014
8-9	.004- .005 -.0055	.005- .0055 -.006	.0055- .006 -.007	.006- .007 -.008	.007- .008 -.009
10	.004- .005 -.0055	.005- .0055 -.006	.0055- .006 -.007	.006- .007 -.008	.007- .008 -.009
11	.0027- .004 -.005	.003- .005 -.006	.004- .0055 -.0065	.005- .006 -.008	.005- .006 -.008
12	.010- .014 -.020	.012- .016 -.024	.014- .018 -.028	.014- .020 -.031	.014- .020 -.031
13-14	.008- .012 -.016	.010- .014 -.020	.012- .016 -.024	.012- .018 -.028	.012- .018 -.028
15	.005- .006 -.008	.006- .008 -.010	.008- .009 -.011	.009- .010 -.012	.010- .012 -.014
16-17	.010- .014 -.020	.012- .014 -.024	.014- .018 -.028	.014- .020 -.031	.014- .020 -.031

Selection of cutting data – Superalloys

The recommendations are only valid for solid carbide drills with superalloy geometry -M and for drills with Titanium geometry -T.

Geometry -T is first choice when drilling in Titanium alloys.

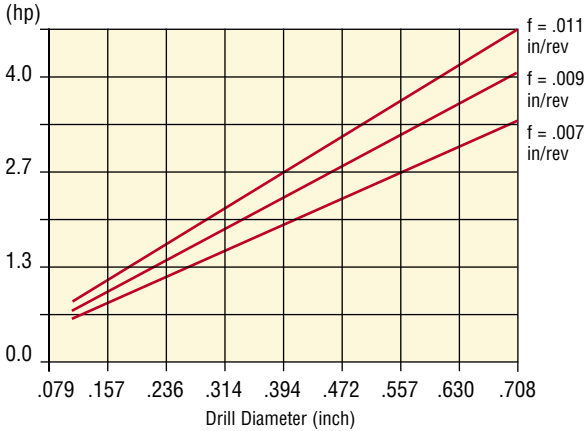
Internal through coolant should be used.

If external coolant is used the cutting speed should be reduced by 15% and maximum drilling depth should be 1 x D

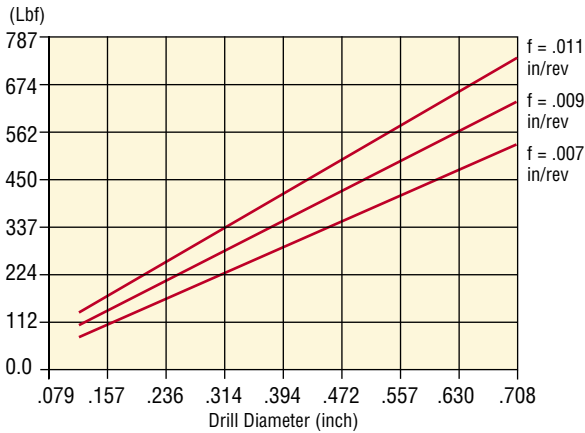
1. The machinability of the actual workpiece material is expressed in percent on page 154.
2. Starting values for feed are marked in **bold**.

Recommended cutting speed v_c (ft/min)		Recommended feed, f (in/rev) for drill diameter						
Machinability	Internal coolant supply	(5 mm) .196	(8 mm) .315	(10 mm) .394	(12 mm) .472	(14 mm) .551	(16 mm) .630	(18 mm) .709
60	245	.0031- .0039 -.0047	.0039- .0051 -.0063	.0047- .0063 -.0079	.0063- .0079 -.0098	.0079- .0094 -.0110	.0087- .0102 -.0118	.0098- .0118 -.0138
55	230	.0031- .0039 -.0047	.0039- .0051 -.0063	.0047- .0063 -.0079	.0063- .0079 -.0098	.0079- .0094 -.0110	.0087- .0102 -.0118	.0098- .0118 -.0138
50	210	.0031- .0039 -.0047	.0039- .0051 -.0063	.0047- .0063 -.0079	.0063- .0079 -.0098	.0079- .0094 -.0110	.0087- .0102 -.0118	.0098- .0118 -.0138
45	200	.0031- .0039 -.0047	.0039- .0051 -.0063	.0047- .0063 -.0079	.0063- .0079 -.0098	.0079- .0094 -.0110	.0087- .0102 -.0118	.0098- .0118 -.0138
40	165	.0031- .0039 -.0047	.0039- .0051 -.0063	.0047- .0063 -.0079	.0063- .0079 -.0098	.0079- .0094 -.0110	.0087- .0102 -.0118	.0098- .0118 -.0138
35	150	.0024- .0031 -.0039	.0039- .0047 -.0055	.0039- .0059 -.0071	.0059- .0071 -.0087	.0071- .0087 -.0102	.0079- .0098 -.0118	.0079- .0098 -.0118
30	130	.0024- .0031 -.0039	.0039- .0047 -.0055	.0039- .0059 -.0071	.0059- .0071 -.0087	.0071- .0087 -.0102	.0079- .0098 -.0118	.0079- .0098 -.0118
25	115	.0024- .0031 -.0039	.0039- .0047 -.0055	.0039- .0059 -.0071	.0059- .0071 -.0087	.0071- .0087 -.0102	.0079- .0098 -.0118	.0079- .0098 -.0118
20	115	.0016- .0020 -.0028	.0020- .0028 -.0039	.0028- .0039 -.0051	.0031- .0047 -.0059	.0039- .0055 -.0067	.0047- .0063 -.0079	.0047- .0063 -.0079
15	85	.0016- .0020 -.0028	.0020- .0028 -.0039	.0028- .0039 -.0051	.0031- .0047 -.0059	.0039- .0055 -.0067	.0047- .0063 -.0079	.0047- .0063 -.0079
10	65	.0016- .0020 -.0028	.0020- .0028 -.0039	.0028- .0039 -.0051	.0031- .0047 -.0059	.0039- .0055 -.0067	.0047- .0063 -.0079	.0047- .0063 -.0079
5	33	.0016- .0020 -.0028	.0020- .0028 -.0039	.0028- .0039 -.0051	.0031- .0047 -.0059	.0039- .0055 -.0067	.0047- .0063 -.0079	.0047- .0063 -.0079

Net power consumption



Feed force



The values showing net power and feed force consumption above are basic values and vary with type of cutting data, material and tool wear.

Formulas for calculation are on page 148.

Hole tolerances/Surface finish

Drill type	Drill tolerance	Hole tolerance*	Ø <.708" (18mm)*	Ø <1.000" (25.4mm)*	Surface finish **
SD10, SD20	m7	IT9	+.0012	+.0017	Ra ~ 40 – 80 µin
SD25					

*Hole tolerance from nominal diameter and up

**Deterioration of surface finish can occur when drilling in low carbon steel or stainless steel.

Coolant

Hole depth	Recommended pressure (psi)	Volume gal/min. for drill diameter	
		Ø .314	Ø .630
<3xD	min. 145	.5	2.3
>3xD	min. 290	.7	3.4

Coolant supply through the drill will improve chip evacuation, lubrication of the carbide and cooling.

Recommended emulsion mix is 6–8%.

Recommended pressure is 580 psi.

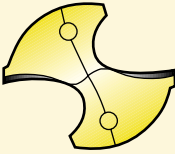
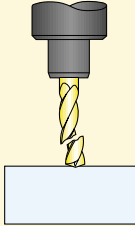
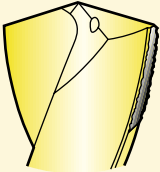
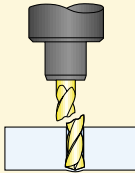
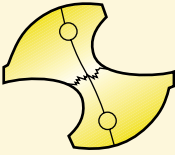
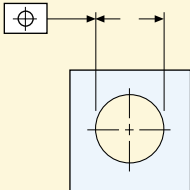
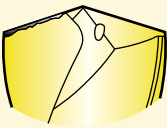
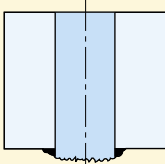
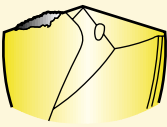
When drilling in high alloy- and stainless steel an emulsion mix of >10% is recommended.

When using an external coolant supply, direct the jet down the hole and not across it.

External coolant supply is only recommended when the drilling depth is no greater than 3xD.

Dry drilling

It is possible to drill without coolant in cast iron and steel. Oil mist through the drill is required.

<p>Rapid flank wear</p> 	<ul style="list-style-type: none"> • Check the machine spindle, fixture and clamping of the component. • Increase coolant concentration. • Reduce the cutting speed. 	<p>Breakage on contact</p> 	<ul style="list-style-type: none"> • Check for run-out and make sure it is less than .002 inch TIR. • Check the machine spindle, fixture and clamping of the component. • Reduce feed during entrance.
<p>Wear/Periphery land</p> 	<ul style="list-style-type: none"> • Check for run-out and make sure it is less than .002 inch TIR. • Check the machine spindle, fixture and clamping of the component. • Increase coolant concentration. • Reduce the cutting speed. 	<p>Breakage at hole bottom</p> 	<ul style="list-style-type: none"> • Check for run-out and make sure it is less than .002 inch TIR. • Check the machine spindle, fixture and clamping of the component. • Reduce feed during entrance. • Increase coolant pressure and adjust the feed to optimize the chip formation. • Regrind the drill.
<p>Chipping/Center</p> 	<ul style="list-style-type: none"> • Check for run-out and make sure it is less than .002 inch TIR. • Check the machine spindle, fixture and clamping of the component. • Reduce feed during entrance. • Increase coolant pressure and adjust the feed to optimize the chip formation. 	<p>Poor tolerance/positioning</p> 	<ul style="list-style-type: none"> • Check for run-out and make sure it is less than .002 inch TIR. • Check the machine spindle, fixture and clamping of the component. • Reduce feed during entrance. • Reduce the feed. • Increase coolant pressure and adjust the feed to optimize the chip formation. • Regrind the drill.
<p>Chipping/Outer corner, cutting edge</p> 	<ul style="list-style-type: none"> • Check the machine spindle, fixture and clamping of the component. • Reduce feed during entrance. • Increase coolant concentration. • Regrind the drill. • Reduce the cutting speed. 	<p>Burrs on exit</p> 	<ul style="list-style-type: none"> • Reduce the width of edge preparation (W).
<p>Built-up edge</p> 	<ul style="list-style-type: none"> • Increase coolant concentration. • Increase the cutting speed or, if the drill is worn, regrind it. 		