

ULTRATOOL® Spotting Drills

Series 525

Short Length • 25° RH Helix
82° • 90° • 120° • 140° • 150° included angles
Four Facet Point • Constant Web • No OD Clearance • Produces True Centers



new! Additional sizes and included angles!



Diam	LOF	OAL	82° EDP#	90° EDP#	120° EDP#	140° EDP#	150° EDP#	UnCoated Price	Coated Price
1/8	1/2	2"	52135	52580	52581	52582	52143	\$10.50	\$12.30
3/16	5/8	2"	52136	52585	52586	52587	52144	\$13.10	\$15.30
1/4	3/4	2-1/2	52137	52516	52515	52514	52145	\$16.20	\$20.30
5/16	3/4	2-1/2	52138	52590	52591	52592	52146	\$21.60	\$26.60
3/8	1"	2-1/2	52139	52524	52525	52526	52147	\$23.40	\$28.70
1/2	1"	3"	52140	52532	52533	52534	52148	\$40.40	\$47.50
5/8	1-1/4	3-1/2	52141	52540	52541	52542	52149	\$77.30	\$88.30
3/4	1-1/2	4"	52142	52548	52549	52550	52150	\$122.30	\$135.30

SFR Drill Specifications:
Diameter +.0000/-0.0003
Point Angle ±1°

Series 525
Metric Sizes



SFR Drill Specifications (mm):
Diameter +0.000/-0.008mm
Point Angle ±1°

Diam	LOF	OAL	82° EDP#	90° EDP#	120° EDP#	140° EDP#	150° EDP#	UnCoated Price	Coated Price
3.0mm	12	57	52151	52588	52589	52594	52159	\$10.50	\$12.30
5.0mm	16	63	52152	52595	52596	52593	52160	\$13.10	\$15.30
6.0mm	19	63	52153	52506	52507	52505	52161	\$16.20	\$20.30
8.0mm	19	63	52154	52508	52509	52504	52162	\$23.40	\$28.70
10.0mm	25	70	52155	52510	52511	52503	52163	\$36.80	\$43.70
12.0mm	25	74	52156	52512	52513	52502	52164	\$40.40	\$47.50
16.0mm	32	89	52157	52517	52518	52519	52165	\$77.30	\$88.30
20.0mm	38	100	52158	52521	52522	52523	52166	\$122.30	\$135.30

Now Ultra-Tool offers 5 different angles of dedicated spotting drills. For true spot drilling, use a 525 with an angle slightly larger than the following finishing drill. The 525 Series can also be used for countersinking and is typically faster than traditional center drilling applications.

Combined Drill & Countersink Center Drills by ULTRATOOL®

Series 560

Combined Drill & Countersink
Double End • 60°/ 82°/ 90° Incl. Angle • RH Cut



The solid carbide Ultra-Tool® Series 560 Combined Drill & Countersink is the high-productivity alternative to equivalent HSS centerdrilling designs, featuring a slight helix for great chip evacuation. Available in 3 different angles.



Series 750 - Sets

Combined Drill & Countersink Sets
Includes 1 ea. 560 #1 • #2 • #3 • #4 • #5 • #6

Included Angle	EDP#	Price	Coated
60°	76060	\$183.20	\$221.90
82°	76082	\$183.20	\$221.90
90°	76090	\$183.20	\$221.90

Tool	Body Diam	Drill Diam	OAL	60°	82°	90°	UnCoated Price	Coated Price
#00	1/8	.025	1-1/2	56099	56199	56299	\$13.70	\$16.30
#0	1/8	1/32	1-1/2	56000	56100	56200	\$12.90	\$15.50
#1	1/8	3/64	1-1/2	56001	56101	56201	\$12.10	\$14.70
#2	3/16	5/64	2"	56002	56102	56202	\$18.90	\$22.10
#3	1/4	7/64	2"	56003	56103	56203	\$21.20	\$26.20
#4	5/16	1/8	2-1/2	56004	56104	56204	\$31.30	\$37.80
#5	7/16	3/16	2-3/4	56005	56105	56205	\$45.60	\$55.60
#6	1/2	7/32	3"	56006	56106	56206	\$61.50	\$72.00
#7	5/8	1/4	3-1/2	56007	56107	56207	\$100.70	\$117.20
#8	3/4	5/16	4"	56008	56108	56208	\$129.30	\$148.80

Series 560L

Long Length Combined Drill & Countersink
Double End • 60°/ 82°/ 90° Incl. Angle • RH Cut



new!

The 560L is also solid carbide, double-ended, and features an extended overall length for reach applications. Choose from 3 different countersinking angle and either UnCoated or our standard SmoothCoat PVD hardcoatings.



SFR Center Drill Specifications:
Body Diameter +.0000/-0.0003
Drill Diameter +.003/-0.000
Point / C'sink Angle ±1°



Tool	Body Diam	Drill Diam	OAL	60°	82°	90°	UnCoated Price	Coated Price
#00L	1/8	.025	4"	55399	55199	55299	\$19.30	\$23.30
#0L	1/8	1/32	4"	55300	55100	55200	\$18.10	\$22.10
#1L	1/8	3/64	4"	55301	55101	55201	\$17.00	\$21.00
#2L	3/16	5/64	4"	55302	55102	55202	\$25.80	\$30.70
#3L	1/4	7/64	4"	55303	55103	55203	\$30.10	\$37.00
#4L	5/16	1/8	6"	55304	55104	55204	\$45.50	\$57.40
#5L	7/16	3/16	6"	55305	55105	55205	\$66.60	\$82.50
#6L	1/2	7/32	6"	55306	55106	55206	\$89.50	\$106.60
#7L	5/8	1/4	6"	55307	55107	55207	\$141.10	\$163.20
#8L	3/4	5/16	6"	55308	55108	55208	\$178.60	\$204.50

Application Data for ULTRATOOL® Drills



Drilling speeds and feeds are based upon hole depth of up to 3X diameter. For deeper hole ratios reduce speeds and feeds by 10% to 25%.



Drilling;
Fractional

Material	SFPM	SFPM	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"
Steel	UnCoated	SmoothCoat				Feed Rate: Inches Per Rev (IPR)						
1018 / 1020	100 to 250	100 to 300	.0010	.0030	.0050	.0070	.0090	.0100	.0110	.0120	.0140	.0160
4140 / 4340 / P20	60 to 230	60 to 260	.0010	.0030	.0050	.0070	.0090	.0100	.0110	.0120	.0140	.0160
Stainless Steel												
303 / 304 / 316	60 to 150	60 to 200	.0010	.0030	.0050	.0060	.0070	.0080	.0090	.0100	.0120	.0140
410 / 420 / 440C	40 to 100	40 to 150	.0010	.0030	.0050	.0060	.0070	.0080	.0090	.0100	.0120	.0140
15-5/17-4 ≤ 32HRc	75 to 175	75 to 200	.0010	.0015	.0025	.0040	.0050	.0060	.0070	.0080	.0090	.0100
15-5/17-4 ≥ 32HRc	50 to 125	50 to 150	.0005	.0010	.0015	.0025	.0030	.0035	.0038	.0040	.0050	.0060
13-8 / 316L	60 to 150	60 to 200	.0010	.0030	.0050	.0060	.0070	.0080	.0090	.0100	.0120	.0140
Tool Steel												
A2/D2/H13 ≤ 32HRc	60 to 150	60 to 200	.0010	.0015	.0025	.0040	.0050	.0060	.0070	.0080	.0090	.0100
A2/D2/H13 ≥ 32HRc	40 to 100	40 to 150	.0005	.0010	.0015	.0025	.0028	.0030	.0035	.0040	.0050	.0060
Titanium												
6Al-4V	40 to 150	40 to 175	.0005	.0010	.0020	.0025	.0028	.0030	.0035	.0040	.0050	.0060
High Temp Alloys												
Inconel 625	30 to 70	30 to 80	.0010	.0015	.0025	.0040	.0050	.0060	.0070	.0080	.0090	.0100
Inconel 718	30 to 45	30 to 50	.0005	.0010	.0020	.0025	.0028	.0030	.0035	.0040	.0050	.0060
Cast Iron												
Gray Iron ≤ 32HRc	150 to 300	150 to 350	.0010	.0030	.0050	.0070	.0085	.0100	.0110	.0120	.0140	.0160
Ductile Iron	150 to 300	150 to 350	.0010	.0030	.0050	.0070	.0085	.0100	.0110	.0120	.0140	.0160
Non-Ferrous												
6061 T6 Aluminum	250 to 750	250 to 1000	.0010	.0030	.0050	.0070	.0085	.0100	.0110	.0120	.0140	.0160
Copper, Brass, Bronze	150 to 400	150 to 500	.0010	.0030	.0050	.0070	.0085	.0100	.0110	.0120	.0140	.0160
Plastic	250 to 1000	250 to 1000	.0010	.0030	.0050	.0070	.0085	.0100	.0110	.0120	.0140	.0160

Drill Specifications:

Diameter: +.0000 / -.0003

LOC: +.060 / -.090

OAL: +.060 / -.090

Point Angle: ±1°

Helix Angle: ±1°

Note: Series 560 Combined Drill/C/sink:

Body Diameter: +.0000 / -.0003

Drill Diameter: +.003 / -.000

Ultra-Tool® drills feature diameter tolerances 40% tighter than industry standards. Plus, all shanks are SFR (shrink-fit ready).

Try our drills with standard SmoothCoat for a superb leap in lubricity, productivity, and tool life.



Complete range of Brad Point drills with D1 coating!

Application Data for ULTRATOOL® Burrs

Burr Diam	Diam Metric	# Flutes Std Cut	RPM*	Max. RPM
1/16	1.6 mm	6	60,000 - 90,000	100,000
1/8	3.2 mm	12	40,000 - 70,000	80,000
3/16	4.8 mm	15	35,000 - 60,000	70,000
1/4	6.3 mm	16	30,000 - 50,000	60,000
5/16	8.0 mm	18	20,000 - 40,000	52,000
3/8	9.5 mm	20	20,000 - 40,000	52,000
7/16	11.0 mm	22	15,000 - 40,000	50,000
1/2	12.7 mm	24	15,000 - 40,000	45,000
5/8	16.0 mm	28	12,000 - 25,000	30,000
3/4	19.0 mm	30	10,000 - 20,000	24,000
1"	25.4 mm	36	7,500 - 20,000	22,000

*Speeds are for Standard Cut. Reduce by approximately 25% with addition of Dura-Cut. Fine Cut increases flute count approximately 50%. Decrease speed accordingly. Coarse Cut decreases flute count approximately 20%. Increase speed accordingly. Lower listed speeds when cutting harder ferrous materials.

Ultra-Tool® Burrs feature higher hardness and a greater flute count than most competing brands for increased tool life.

Burr heads and solid carbide burrs are manufactured from Ultra-Carb®. Shanks are high speed steel hardened to a rating of 45-48 Rockwell C.



#1 Standard, #2 Fine, #3 Coarse, #4 DuraCut, #5 CoarseDura, #6 FineDura, #7 Fast Mill, #8 Diamond. In the event of extended lead times the next closest cut style within the same pricing category may be substituted to enhance service levels.

Burr Specifications:

Standard cylindrical helix angle: 30° ± 2°

Cutting Diameter: ± .010

Flute Count: ± 1

Shank Diameter: +0 / -.0005, TIR max .002

Brazed Burr TIR: max .005

Taper Angles: ± 1°