AEROSPACE AND DEFENSE



FULLERTON TOOL COMPANY

Drill Reamer

Can be used for hand drilling, robot or CNC.



EXCELS IN CFRP, CFRP/NOMEX, GFRP/NOMEX, CFRP/AL, AL/AL, CARBON/CARBON,

- Solid carbide provides rigidity and reduces runout over high speed steel.
- Elongated double-angle geometry eliminates thrust and exit side delamination.
- Bright polished finishes provide superior edge quality and optimum surface chip flow.
- Straight Shanks are used in general purpose applications, threaded shanks available on request.
- Optional Diamond and DLC coatings to address the specific demands of your application, as needed.

8213
STANDARD LENGTH
3" OAL

3"



DIA		LOC	EDP
#40	.0980	3	DR-0980-3
1/8	.1250	3	DR-1250-3
#30	.1285	3	DR-1285-3
#28	.1406	3	DR-1406-3
5/32	.1562	3	DR-1562-3
#21	.1590	3	DR-1590-3
#20	.1610	3	DR-1610-3
3/16	.1875	3	DR-1875-3
#11	.1910	3	DR-1910-3
#10	.1935	3	DR-1935-3
#8	.1990	3	DR-1990-3
#7	.2010	3	DR-2010-3
13/64	.2031	3	DR-2031-3
7/32	.2188	3	DR-2188-3
1/4	.2500	3	DR-2500-3
	.2510	3	DR-2510-3
5/16	.3125	3	DR-3125-3
3/8	.3750	3	DR-3750-3

F FIBER
O OTHER

Carbro

TOLERANCES	DIAMETER
	+.0005"-.0000"
	+0.013mm-0.000mm

Drill Reamer

Can be used for hand drilling, robot or CNC.

4”



8214 STANDARD LENGTH 4” OAL

DIA		LOC	EDP
#40	.0980	4	DR-0980-4
1/8	.1250	4	DR-1250-4
#30	.1285	4	DR-1285-4
#28	.1406	4	DR-1406-4
5/32	.1562	4	DR-1562-4
#21	.1590	4	DR-1590-4
#20	.1610	4	DR-1610-4
3/16	.1875	4	DR-1875-4
#11	.1910	4	DR-1910-4
#10	.1935	4	DR-1935-4
#8	.1990	4	DR-1990-4
#7	.2010	4	DR-2010-4
13/64	.2031	4	DR-2031-4
7/32	.2188	4	DR-2188-4
1/4	.2500	4	DR-2500-4
	.2510	4	DR-2510-4
5/16	.3125	4	DR-3125-4

6”



8216 STANDARD LENGTH 6” OAL

DIA		LOC	EDP
#40	.0980	6	DR-0980-6
1/8	.1250	6	DR-1250-6
#30	.1285	6	DR-1285-6
#28	.1406	6	DR-1406-6
5/32	.1562	6	DR-1562-6
#21	.1590	6	DR-1590-6
#20	.1610	6	DR-1610-6
3/16	.1875	6	DR-1875-6
#11	.1910	6	DR-1910-6
#10	.1935	6	DR-1935-6
#8	.1990	6	DR-1990-6
#7	.2010	6	DR-2010-6
13/64	.2031	6	DR-2031-6
7/32	.2188	6	DR-2188-6
1/4	.2500	6	DR-2500-6
	.2510	6	DR-2510-6
5/16	.3125	6	DR-3125-6
3/8	.3750	6	DR-3750-6

F FIBER

0 OTHER

Carbro

TOLERANCES	DIAMETER
	+.0005”-.0000”
	+0.013mm-0.000mm

Dagger Drill

For drilling graphite/epoxy laminates. Can be used in combination with aluminum.



WORKS IN A WIDE RANGE OF COMPOSITES AND PLASTICS.

- Excels in hand drilling, assembly applications.
- Can also be used in CNC applications.
- Straight Shanks are used in general purpose applications, threaded shanks available on request.
- Optional Diamond and DLC coatings to address the specific demands of your application, as needed.

8413
STANDARD LENGTH
3" OAL

3"



DIA		LOC	EDP
#40	.0980	3	DD-0980-3
1/8	.1250	3	DD-1250-3
#30	.1285	3	DD-1285-3
#28	.1406	3	DD-1406-3
5/32	.1562	3	DD-1562-3
#21	.1590	3	DD-1590-3
#20	.1610	3	DD-1610-3
3/16	.1875	3	DD-1875-3
#11	.1910	3	DD-1910-3
#10	.1935	3	DD-1935-3
#8	.1990	3	DD-1990-3
#7	.2010	3	DD-2010-3
13/64	.2031	3	DD-2031-3
7/32	.2188	3	DD-2188-3
1/4	.2500	3	DD-2500-3
5/16	.3125	3	DD-3125-3
3/8	.3750	3	DD-3750-3

N N-FERROUS
F FIBER
O OTHER

Carbro

TOLERANCES	DIAMETER
	+.0000"-.0005"
	+0.000mm-0.013mm

Dagger Drill

For drilling graphite/epoxy laminates. Can be used in combination with aluminum.

4"



8414 STANDARD LENGTH 4" OAL

DIA		LOC	EDP
#40	.0980	4	DD-0980-4
1/8	.1250	4	DD-1250-4
#30	.1285	4	DD-1285-4
#28	.1406	4	DD-1406-4
5/32	.1562	4	DD-1562-4
#21	.1590	4	DD-1590-4
#20	.1610	4	DD-1610-4
3/16	.1875	4	DD-1875-4
#11	.1910	4	DD-1910-4
#10	.1935	4	DD-1935-4
#8	.1990	4	DD-1990-4
#7	.2010	4	DD-2010-4
13/64	.2031	4	DD-2031-4
7/32	.2188	4	DD-2188-4
1/4	.2500	4	DD-2500-4
5/16	.3125	4	DD-3125-4
3/8	.3750	4	DD-3750-4

6"



8416 STANDARD LENGTH 6" OAL

DIA		LOC	EDP
#40	.0980	6	DD-0980-6
1/8	.1250	6	DD-1250-6
#30	.1285	6	DD-1285-6
#28	.1406	6	DD-1406-6
5/32	.1562	6	DD-1562-6
#21	.1590	6	DD-1590-6
#20	.1610	6	DD-1610-6
3/16	.1875	6	DD-1875-6
#11	.1910	6	DD-1910-6
#10	.1935	6	DD-1935-6
#8	.1990	6	DD-1990-6
#7	.2010	6	DD-2010-6
13/64	.2031	6	DD-2031-6
7/32	.2188	6	DD-2188-6
1/4	.2500	6	DD-2500-6
5/16	.3125	6	DD-3125-6
3/8	.3750	6	DD-3750-6

N N-FERROUS

F FIBER

0 OTHER

Carbro

TOLERANCES	DIAMETER
	+.0000"-.0005"
	+0.000mm-0.013mm

Poly Drill

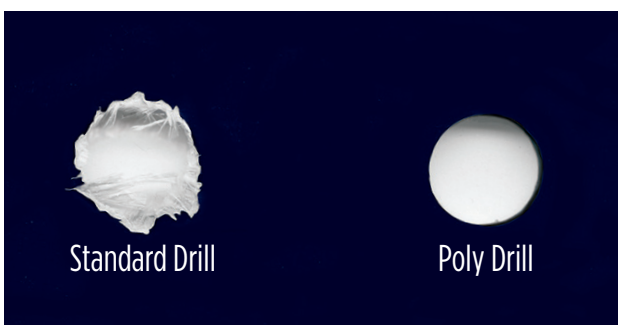
poly drill

Produces a clean burr-free hole with no breakout, thereby eliminating a secondary operation of sanding or deburring.

1566 STANDARD LENGTH 90° Point



DIA		LOC	SHANK	OAL	EDP
					TIALN
5.00	.1969	32.00	5.00	100.00	15660
6.00	.2362	32.00	6.00	100.00	15662
1/4	.2500	1 1/2	0.2500	4	15676
6.50	.2559	38.00	6.50	105.00	15663
7.00	.2756	38.00	7.00	105.00	15664
7.50	.2953	38.00	7.50	110.00	15665
8.00	.3150	38.00	8.00	115.00	15666
8.50	.3346	38.00	8.50	120.00	15667
9.00	.3543	38.00	9.00	125.00	15668
9.50	.3740	38.00	9.50	125.00	15669
V	.3770	1 1/2	.3770	5	15659
10.00	.3937	38.00	10.00	130.00	15670
10.50	.4134	38.00	10.50	137.00	15671
11.00	.4331	38.00	11.00	140.00	15672
11.50	.4528	38.00	11.50	143.00	15673
12.00	.4724	38.00	12.00	150.00	15674
1/2	.5000	1 1/2	0.5000	6	15678





F FIBER

O OTHER

TOLERANCES	DIAMETER	SHANK	30° HELIX
	+.0000"-.001"	+.0000"-.0005"	
	+0.00mm-0.025mm	+0.000mm-0.013mm	

Matrx Drill

Produces a clean burr-free hole with no breakout, thereby eliminating a secondary operation of sanding or deburring.

90° | 3 | UNCOATED | FCI

FC1 = Diamond Coating



5566 STANDARD LENGTH 90° Point

DIA		LOC	SHANK	OAL	EDP	
					UNCOATED	FC 1
11	.1910	1	.2500	4	25319	25300
5.00	.1969	32.00	5.00	100.00	25320	25301
6.00	.2362	32.00	6.00	100.00	25321	25302
1/4	.2500	1 1/2	.2500	4	25322	25303
	.2520	1 1/2	.2520	4	25323	25304
6.50	.2559	38.00	6.50	105.00	25324	25305
17/64	.2656	1 1/2	.2656	4	25338	25339
7.00	.2756	38.00	7.00	105.00	25325	25306
9/32	.2812	1 1/2	.2812	4	25340	25341
7.50	.2953	38.00	7.50	110.00	25326	25307
5/16	.3125	1 1/2	.3125	4 1/2	25327	25308
8.00	.3150	38.00	8.00	115.00	25328	25309
8.50	.3346	38.00	8.50	120.00	25329	25310
9.00	.3543	38.00	9.00	125.00	25330	25311
9.50	.3740	38.00	9.50	125.00	25331	25312
3/8	.3750	1 1/2	.3750	5	25342	25343
25/64	.3906	1 1/2	.3906	5	25344	25345
10.00	.3937	38.00	10.00	130.00	25332	25313
10.50	.4134	38.00	10.50	137.00	25333	25314
11.00	.4331	38.00	11.00	140.00	25334	25315
7/16	.4375	1 1/2	.4375	6	25346	25347
11.50	.4528	38.00	11.50	143.00	25335	25316
12.00	.4724	38.00	12.00	150.00	25336	25317
1/2	.5000	1 1/2	.5000	6	25337	25318
33/64	.5156	1 1/2	.5156	6	25348	25349

- Works well in fiber reinforced thermoplastics and composite materials commonly found in the automotive, aerospace, appliance, and recreation industries. Patent #5636948

F FIBER

O OTHER

TOLERANCES	DIAMETER	SHANK	30° HELIX
	+.0000"-.001"	+.0000"-.0005"	
	+0.00mm-0.025mm	+0.000mm-0.013mm	

Aircraft Extension Drill

For drilling holes where reach is normally not accessible with jobbers or taper length drills.

8466 STANDARD LENGTH 135° Point

6" P3 = 135° SPLIT POINT



DIA		LOC	OAL	EDP
#40	.0980	1-3/8	6	AED-0980-6
1/8	.1250	1-5/8	6	AED-1250-6
#30	.1285	1-5/8	6	AED-1285-6
#28	.1406	1-3/4	6	AED-1406-6
5/32	.1562	2	6	AED-1562-6
#21	.1590	2-1/8	6	AED-1590-6
#20	.1610	2-1/8	6	AED-1610-6
#19	.1660	2-1/8	6	AED-1660-6
3/16	.1875	2-5/16	6	AED-1875-6
#11	.1910	2-5/16	6	AED-1910-6
#10	.1935	2-7/16	6	AED-1935-6
#8	.1990	2-7/16	6	AED-1990-6
#7	.2010	2-7/16	6	AED-2010-6
13/64	.2031	2-7/16	6	AED-2031-6
7/32	.2188	2-1/2	6	AED-2188-6
1/4	.2500	2-3/4	6	AED-2500-6
5/16	.3125	3-3/16	6	AED-3125-6
3/8	.3750	3-5/8	6	AED-3750-6

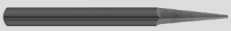
- Double Margin available Aircraft Extension and Jobber drills. Contact customer service.

Carbide Pocket Scriber

The pocket **S.E.D.** tool is handy and easy to use. It's a pocket scriber, engraving and deburring tool. It will mark, engrave and debur in glass, ceramics, plastics, hardended steel and many other materials. Solid carbide cutter is held in a steel collet mounted in an aluminum body.

SCRIBER STANDARD LENGTH



END STYLE		OAL	FLUTE LENGTH	END DIM	INCL ANGLE	PART NO
		1-1/2	7/16	.060	ST	201
		1-1/2	7/16	.060	°4	202
		1-1/2	7/16	.045	°4	203
		1-1/2	7/16	.030	°4	204
		1-1/2	7/16	.015	°6	205
		1-1/2	7/16	.060	°4	206
		1-1/2	7/16	.045	°6	207
		1-1/2	7/16	.030	°6	208
		1-1/2	7/16	.015	°6	209
		1-1/2	7/16	POINT		210
	Handle Only	-	-	-	-	225
Full Set	-	-	-	-	-	200

N N-FERROUS

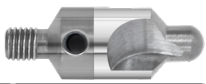
Carbro

- Get the handle free when you purchase a full set.

TOLERANCES	DIAMETER
	+.0000"-.0005"
	+0.000mm-0.013mm

Piloted Countersink

Can be used in aluminum, Derlin, HDPE & UHMW.



9100
STANDARD
LENGTH
2 FL

	COUNTERSINK	BODY SIZE	PILOT	ANGLE	FLUTES	EDP UNCOATED
3/8	CS	.375	.0980	100	3	CS-375-0980-100-3

	COUNTERSINK	BODY SIZE	PILOT	ANGLE	FLUTES	EDP UNCOATED
1/2	CS	.500	.0980	100	3	CS-500-0980-100-3
	CS	.500	.1285	100	3	CS-500-1285-100-3
	CS	.500	.1875	100	3	CS-500-1875-100-3
	CS	.500	.2500	100	3	CS-500-2500-100-3

- Designed to enlarge and bevel already drilled holes.
- Angles available: **100°,82°,90°**



PERFECT FOR KEEPING SCREWS FLUSH WITH THE DRILLED MATERIAL.



Kevlar
COUNTERSINKS AVAILABLE

N
N-FERROUS

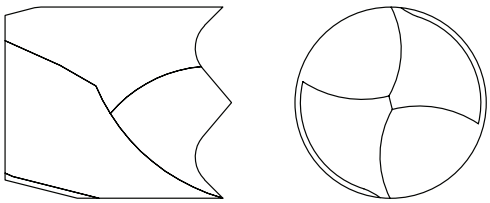
Carbro

TOLERANCES	DIAMETER
	+.0000"-.0005"
	+0.000mm-0.013mm

Brad Point Drills

For drilling reinforced graphite, Kevlar, and resin type materials.
This product is available via custom order only. For pricing details and lead times, please contact our quoting team directly at Quotes@fullertontool.com.

8100
STANDARD
LENGTH



- For drilling pliable materials.
- Works well in coarse grain materials.

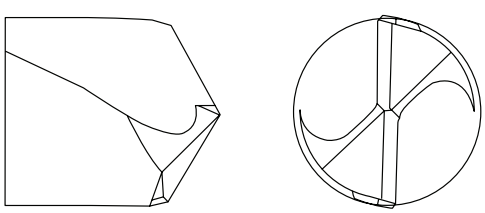


EXCELS IN DRILLING KEVLAR LAMINATES.

8 Facet Drills

For drilling graphite / aluminum laminates. Designed to drill composite & aluminum stack material.
This product is available via custom order only. For pricing details and lead times, please contact our quoting team directly at Quotes@fullertontool.com.

8400
STANDARD
LENGTH
2 FL



- **SELF CENTERING** Produces less burr on exit side of hole.
- Helps the corner from breaking down.



N N-FERROUS
F FIBER
O OTHER

Carbro

TOLERANCES	DIAMETER
	+.0000"-.0005"
	+0.000mm-0.013mm

Double Margin Drill

For drilling graphite and aluminum laminates.
This product is available via custom order only. For pricing details and lead times, please contact our quoting team directly at Quotes@fullertontool.com.



2 UNCOATED

8500
STANDARD
LENGTH

- Makes a true hole and smoother finish while providing a more accurate, rounder drilled hole.

DESIGNED WITH A SECOND MARGIN THAT BURNISHES THE CAVITY.

Core Drills

Used to enlarge previous drilled holes in composites, fiberglass and stacked materials.
This product is available via custom order only. For pricing details and lead times, please contact our quoting team directly at Quotes@fullertontool.com.



8650
STANDARD
LENGTH

N N-FERROUS
F FIBER
O OTHER

TOLERANCES	DIAMETER
	+.0000"-.0005"
	+0.000mm-0.013mm

Carbro

JIT Reamers

24/HR Just-in-time delivery

Straight Flute Standard Sizes available in 1400 Series Stub.

12 pieces or less. All Styles.
Order Deadline - 3:00pm est.



1410
STUB
LENGTH
4" OAL

45°
Lead Angle

VARY BY DIAMETER | CENTER CUTTING | STB | UNCOATED

SIZE RANGE	FLUTE LENGTH	SHANK	OAL	FLUTES	EDP		
					ST	RH	LH
.0312 - .0394	3/8	.0312	1 1/2	4	1410S01	1410R01	1410L01
.0395 - .0484	3/8	.0312	1 1/2	4	1410S02	1410R02	1410L02
.0485 - .0574	3/8	.0469	1 1/2	4	1410S03	1410R03	1410L03
.0575 - .0654	3/8	.0469	1 1/2	4	1410S04	1410R04	1410L04
.0655 - .0804	1/2	.0625	2	4	1410S05	1410R05	1410L05
.0805 - .0964	1/2	.0781	2	4	1410S06	1410R06	1410L06
.0965 - .1124	5/8	.0938	2 1/4	4	1410S07	1410R07	1410L07
.1125 - .1284	5/8	.1094	2 1/4	4	1410S08	1410R08	1410L08
.1285 - .1444	3/4	.1250	2 1/2	4	1410S09	1410R09	1410L09
.1445 - .1594	3/4	.1406	2 1/2	4	1410S10	1410R10	1410L10
.1595 - .1744	7/8	.1562	2 3/4	4	1410S11	1410R11	1410L11
.1745 - .1914	7/8	.1719	2 3/4	4	1410S12	1410R12	1410L12
.1915 - .2234	1	.1875	3	6	1410S13	1410R13	1410L13
.2235 - .2544	1	.2188	3	6	1410S14	1410R14	1410L14
.2545 - .2844	1 1/8	.2500	3 1/4	6	1410S15	1410R15	1410L15
.2845 - .3164	1 1/8	.2812	3 1/4	6	1410S16	1410R16	1410L16
.3165 - .3484	1 1/4	.3125	3 1/2	6	1410S17	1410R17	1410L17
.3485 - .3794	1 1/4	.3438	3 1/2	6	1410S18	1410R18	1410L18
.3795 - .4104	1 1/2	.3750	4	6	1410S19	1410R19	1410L19
.4105 - .4414	1 1/2	.4062	4	6	1410S20	1410R20	1410L20
.4415 - .4724	1 1/2	.4375	4	6	1410S21	1410R21	1410L21
.4725 - .5054	1 1/2	.4688	4	6	1410S22	1410R22	1410L22

Coatings at Tolerances as Low as .0001" (Additional Charges May Apply)
Manufactured using Female and Male Centers for improved concentricity.
Male Centers on items up to .1124" (2.86mm) **/ 45° Lead Angle**
Speeds and Feeds, see fullertontool.com

AVAILABLE ON FAST quotes

TOLERANCES	DIAMETER		SHANK
	UP TO 1.0100"	+.0002"-.0000"	+.0005"-.0005"
	OVER 1.0100"	+.0003"-.0000"	+0.013mm-0.013mm
	UP TO 25.654mm	+0.005mm-0.000mm	
	OVER 25.655mm	+0.008mm-0.000mm	
	.0001" Tolerances Available (+20%)		

24/HR Just-in-time delivery.

JIT Reamers

12 pieces or less. All Styles.
Order Deadline - 3:00pm est.

Straight Flute Standard Sizes available in 1450 Series Standard.



1450
STANDARD
LENGTH
4" OAL

45°
Lead Angle

SIZE RANGE	FLUTE LENGTH	SHANK	OAL	FLUTES	STEEL SHANK	EDP		
						ST	RH	LH
.1105 - .1284	7/8	.1094	3 1/2	4		1450S01	1450R01	1450L01
.1285 - .1444	7/8	.1250	3 1/2	4		1450S02	1450R02	1450L02
.1445 - .1594	1	.1406	4	4		1450S03	1450R03	1450L03
.1595 - .1744	1	.1562	4	4		1450S04	1450R04	1450L04
.1745 - .1914	1 1/8	.1719	4 1/2	4		1450S05	1450R05	1450L05
.1915 - .2234	1 1/4	.1875	5	6		1450S06	1450R06	1450L06
.2235 - .2544	1 1/2	.2188	6	6		1450S07	1450R07	1450L07
.2545 - .2844	1 1/2	.2500	6	6		1450S08	1450R08	1450L08
.2845 - .3164	1 5/8	.2812	6	6		1450S09	1450R09	1450L09
.3165 - .3484	1 5/8	.3125	6	6		1450S10	1450R10	1450L10
.3485 - .3794	1 3/4	.3438	7	6	✓	1450S11	1450R11	1450L11
.3795 - .4104	1 3/4	.3750	7	6	✓	1450S12	1450R12	1450L12
.4105 - .4414	1 3/4	.4062	7	6	✓	1450S13	1450R13	1450L13
.4415 - .4724	1 3/4	.4375	8	6	✓	1450S14	1450R14	1450L14
.4725 - .5054	1 3/4	.4688	8	6	✓	1450S15	1450R15	1450L15
.5055 - .5360	1 7/8	.5000	9	6	✓	1450S16	1450R16	1450L16
.5361 - .5670	1 7/8	.5000	9	6	✓	1450S16B	1450R16B	1450L16B
.5671 - .5990	1 7/8	.5625	9	6	✓	1450S17	1450R17	1450L17
.5991 - .6300	1 7/8	.5625	9	6	✓	1450S17B	1450R17B	1450L17B
.6301 - .6630	2	.6250	9 1/2	6	✓	1450S18	1450R18	1450L18
.6631 - .6930	2	.6250	9 1/2	6	✓	1450S18B	1450R18B	1450L18B
.6931 - .7250	2	.6875	9 1/2	6	✓	1450S19	1450R19	1450L19
.7251 - .7560	2	.6875	9 1/2	6	✓	1450S19B	1450R19B	1450L19B
.7561 - .7870	2	.7500	10	8	✓	1450S20	1450R20	1450L20
.7871 - .8190	2	.7812	10	8	✓	1450S21	1450R21	1450L21
.8191 - .8500	2	.8125	10	8	✓	1450S22	1450R22	1450L22
.8501 - .8820	2	.8438	10	8	✓	1450S23	1450R23	1450L23
.8821 - .9120	2	.8750	10	8	✓	1450S24	1450R24	1450L24
.9121 - .9440	2	.9062	10	8	✓	1450S25	1450R25	1450L25
.9441 - .9760	2	.9375	10	8	✓	1450S26	1450R26	1450L26
.9761 - 1.0100	2	.9688	10	8	✓	1450S27	1450R27	1450L27

Straight Flute Standard Sizes available in 1400 Series Standard Available with Coatings at Tolerances as Low as .0001"
(Additional Charges May Apply)
Steel Shanks on items with cutting diameter **.3485"** and over.
Female Centers / 45° Lead Angle
Due to temperatures reached in the coating process,
Fullerton Tool cannot guarantee concentricity on reamers with cutting diameter .3485" and over.

AVAILABLE ON FAST quotes

TOLERANCES	DIAMETER		SHANK
	UP TO 1.0100"	+.0002"-.0000"	+.0005"-.0005"
	OVER 1.0100"	+.0003"-.0000"	+0.013mm-0.013mm
	UP TO 25.654mm	+0.005mm-0.000mm	
	OVER 25.655mm	+0.008mm-0.000mm	
	.0001" Tolerances Available (+20%)		

Pilot Reamers

Ensure accurate and consistent hole sizing. Perfect for final sizing of critical component fits, with smooth finishes that adhere to aerospace & defense tolerances.

PART NUMBER EXPLANATION

Z T 1 0 D _ _ _ _ X _ _ _ _ X _ C

step reamer prefix	blank code	<1.0"	large cutting diameter	pilot cutting diameter	length of pilot X D	cutting

1450 STANDARD LENGTH 45° Lead Angle CUTTING

VARY BY DIAMETER · UNCOATED



Blank Code	LOW Diameter	HIGH Diameter	Smallest Cutting	Pilot Length		Flute Length	OAL	Shank Size	Steel Shank
	Head OD		Pilot OD	1xD OR 2xD		Both steps combined			
01	0.1105	0.1284	0.1017	1XD	2XD	1.250"	4.0"	.1094"	
02	0.1285	0.1444	0.1182	1XD	2XD	1.500"	6.0"	.1250"	
03	0.1445	0.1594	0.1329	1XD	2XD	1.500"	6.0"	.1406"	
04	0.1595	0.1744	0.1467	1XD	2XD	1.500"	6.0"	.1562"	
05	0.1745	0.1914	0.1605	1XD	2XD	1.500"	6.0"	.1719"	
06	0.1915	0.2234	0.1762	1XD	2XD	1.500"	6.0"	.1875"	
07	0.2235	0.2544	0.2056	1XD	2XD	1.500"	6.0"	.2188"	
08	0.2545	0.2844	0.2341	1XD	2XD	1.500"	6.0"	.2500"	
09	0.2845	0.3164	0.2617	1XD	2XD	1.625"	6.0"	.2812"	
10	0.3165	0.3484	0.2912	1XD	2XD	1.625"	6.0"	.3125"	
11	0.3485	0.3794	0.3206	1XD	2XD	1.750"	6.0"	.3438"	x
12	0.3795	0.4104	0.3491	1XD	2XD	1.750"	6.0"	.3750"	x
13	0.4105	0.4414	0.3777	1XD	2XD	1.750"	6.0"	.4062"	x
14	0.4415	0.4724	0.4062	1XD	2XD	1.750"	6.0"	.4375"	x
15	0.4725	0.5054	0.4347	1XD	2XD	1.750"	6.0"	.4688"	x
16	0.5055	0.5360	0.4725	1XD	2XD	1.750"	6.0"	.5000"	x
17	0.5361	0.5670	0.5025	1XD	2XD	1.875"	6.0"	.5000"	x
18	0.5671	0.5990	0.5325	1XD	2XD	1.875"	6.0"	.5625"	x
19	0.5991	0.6250	0.5625	1XD	2XD	1.875"	6.0"	.5625"	x

NO Female center on shank end.

PART NUMBER EXPLANATION

Z T 1 0 D _ _ _ _ X _ _ _ _ X _ N

step reamer prefix	blank code	<1.0"	large cutting diameter	pilot cutting diameter	length of pilot X D	NON cutting

1450 STANDARD LENGTH 45° Lead Angle NON-CUTTING

Blank Code	LOW Diameter	HIGH Diameter	Smallest Cutting	Pilot Length		Flute Length	OAL	Shank Size	Steel Shank
	Head OD		Pilot OD	1xD OR 2xD		Both steps combined			
01	0.1105	0.1284	0.0829	1XD	2XD	1.250"	4.0	.1094	
02	0.1285	0.1444	0.0964	1XD	2XD	1.500"	6.0	.1250	
03	0.1445	0.1594	0.1084	1XD	2XD	1.500"	6.0	.1406	
04	0.1595	0.1744	0.1196	1XD	2XD	1.500"	6.0	.1562	
05	0.1745	0.1914	0.1309	1XD	2XD	1.500"	6.0	.1719	
06	0.1915	0.2234	0.1436	1XD	2XD	1.500"	6.0	.1875	
07	0.2235	0.2544	0.1676	1XD	2XD	1.500"	6.0	.2188	
08	0.2545	0.2844	0.1909	1XD	2XD	1.500"	6.0	.2500	
09	0.2845	0.3164	0.2134	1XD	2XD	1.625"	6.0	.2812	
10	0.3165	0.3484	0.2374	1XD	2XD	1.625"	6.0	.3125	
11	0.3485	0.3794	0.2614	1XD	2XD	1.750"	6.0	.3438	x
12	0.3795	0.4104	0.2846	1XD	2XD	1.750"	6.0	.3750	x
13	0.4105	0.4414	0.3079	1XD	2XD	1.750"	6.0	.4062	x
14	0.4415	0.4724	0.3311	1XD	2XD	1.750"	6.0	.4375	x
15	0.4725	0.5054	0.3544	1XD	2XD	1.750"	6.0	.4688	x
16	0.5055	0.5360	0.4725	1XD	2XD	1.750"	6.0	.5000"	x
17	0.5361	0.5670	0.5025	1XD	2XD	1.875"	6.0	.5000"	x
18	0.5671	0.5990	0.5325	1XD	2XD	1.875"	6.0	.5625"	x
19	0.5991	0.6250	0.5625	1XD	2XD	1.875"	6.0	.5625"	x

NO Female center on shank end.

TOLERANCES	DIAMETER		SHANK
	UP TO 1.0100"	+.0002"-.0000"	+.0005"-.0005"
	UP TO 25.654mm	+0.005mm-0.000mm	

Threaded Tooling

Customized threaded tooling solutions, including reamers, step reamers, drill reamers, drills, core drills, and dagger drills, designed for durability and precision to meet the rigorous standards of the aerospace and defense sector.

This product is available via custom order only. For pricing details and lead times, please contact our quoting team directly at Quotes@fullertontool.com.



- Threaded adapters available.



Rivet Shaver

Designed to trim excess material from flush-head rivets.

- **Multi-flute**
- 1/4, 3/8, 1/2 Stocked, others available upon request.



9000
STANDARD
LENGTH
2 FL

DIA	FLUTES	OAL	THREAD	EDP UNCOATED
1/4	8	.800	1/4-28	CC8801-1
5/16	8	.800	1/4-28	CC8801-2
3/8	10	.925	1/4-28	CC8801-3
1/2	14	.925	1/4-28	CC8801-4



TOLERANCES	DIAMETER
	+.0000"-.0005"
	+0.000mm-0.013mm

N N-FERROUS
F FIBER
O OTHER

Carbro

Kevlar Routers

Specially designed for hand and machine routing of Kevlar materials.

1800
STANDARD LENGTH



DIA	DECIMAL SIZE	LOC	OAL	CUT	END TYPE A	END TYPE B	END TYPE C	END TYPE D	END TYPE E
1/4	.2500	1	3	MEDIUM	1605KM-3A	1605KM-3B	1605KM-3C	1605KM-3D	1605KM-3E
				COARSE	1605KC-3A	1605KC-3B	1605KC-3C	1605KC-3D	1605KC-3E

- Available in both medium and coarse cut.
- Use coarse when roughing out major portions of material to shape thicker material.
- Use medium when roughing thinner material or trimming parts to final shape.
- Available only in 1/4" diameter, 1" LOC, 3" OAL.

CFRP Routers

Specially designed for composites and laminates resulting in minimixed delamination and excellent part finishes.

XXXX
STANDARD LENGTH



DIA	LOC	SHANK	OAL	FLUTES	EDP
					COATED
1/4	3/4	1/4	2-1/2	10	-

- Ideal for trimming CFRP.
- Burr End Style



EXCELLENT IN S-GLASS AND OTHER FIBERGLASS MATERIALS.

F FIBER
O OTHER

Carbro

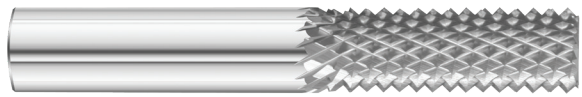
TOLERANCES	DIAMETER
	+.0000"-.0005"
	+0.000mm-0.013mm

2600 constructed from Dura Carb and 5600 constructed from Dura Carb 3D wear-resistant carbide.

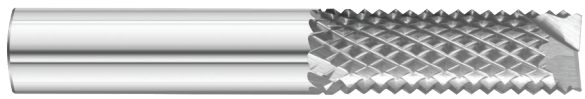
A — **No End Cut**
Recommended for edge work where the end of the router is not in contact with the work piece.



B — **Burr Style End Cut**
Recommended for bottom cutting to produce an even, smooth surface with square corners



C — **End Mill End Cut**
Recommended for bottom cutting where smooth surface and square corners are required.



D — **135° Drill Point**
Recommended for plunging through the work piece before routing operations begin.



FC1 = Diamond Coating



2600 5600 STANDARD LENGTH

DIA	LOC	SHANK	OAL	EDP 2600 UC	EDP 5600 UC	EDP 5600 FC 1
Style A - No End Cut						
1/8	1/2	1/8	1 1/2	26125	25200	25250
3/16	5/8	3/16	2	26187	25201	25251
1/4	3/4	1/4	2 1/2	26250	25202	25252
	1	1/4	3	26260	25203	25253
3/8	1	3/8	2 1/2	26375	25204	25254
1/2	1	1/2	3	26500	25205	25255
Style B - Burr Style End Cut						
1/8	1/2	1/8	1 1/2	26126	25206	25256
3/16	5/8	3/16	2	26188	25207	25257
1/4	3/4	1/4	2 1/2	26251	25208	25258
	1	1/4	3	26261	25209	25259
3/8	1	3/8	2 1/2	26376	25210	25260
1/2	1	1/2	3	26501	25211	25261
Style C - End Mill End Cut						
1/8	1/2	1/8	1 1/2	26127	25212	25262
3/16	5/8	3/16	2	26189	25213	25263
1/4	3/4	1/4	2 1/2	26252	25214	25264
	1	1/4	3	26262	25215	25265
3/8	1	3/8	2 1/2	26377	25216	25266
1/2	1	1/2	3	26502	25217	25267
Style D - 135° Drill Point						
1/8	1/2	1/8	1 1/2	26128	25218	25268
3/16	5/8	3/16	2	26190	25219	25269
1/4	3/4	1/4	2 1/2	26253	25220	25270
	1	1/4	3	26263	25221	25271
3/8	1	3/8	2 1/2	26378	25222	25272
1/2	1	1/2	3	26503	25223	25273

U UNIVERSAL
F FIBER
O OTHER

TOLERANCES	DIAMETER	SHANK
	+.0000"-.0050"	h6
	+0.00mm-0.10mm	

Routers

Suitable in various materials including titanium, super alloys, hardened & stainless steels, cast iron, graphite, brass & copper, hi & low silicon aluminum, composites, plastics, and wood.

1600
ST FLUTE
RH CUT
1 flute

DIA	LOC	OAL	SPIRAL	CUT	FLUTES	EDP UNCOATED
1/8	1/2	1-1/2	ST	RHC	1	1600-1250
3/16	1/2	2	ST	RHC	1	1600-1875
1/4	3/4	2-1/2	ST	RHC	1	1600-2500
3/8	3/4	2-1/2	ST	RHC	1	1600-3750
1/2	1	3	ST	RHC	1	1600-5000



1610
ST FLUTE
RH CUT
2 flute

DIA	LOC	OAL	SPIRAL	CUT	FLUTES	EDP UNCOATED
1/8	1/2	1-1/2	ST	RHC	2	1610-1250
3/16	1/2	2	ST	RHC	2	1610-1875
1/4	3/4	2-1/2	ST	RHC	2	1610-2500
3/8	3/4	2-1/2	ST	RHC	2	1610-3750
1/2	1	3	ST	RHC	2	1610-5000



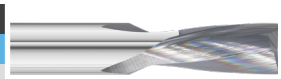
1620
RH SPIRAL
RH CUT
2 flute

DIA	LOC	OAL	SPIRAL	CUT	FLUTES	EDP UNCOATED
1/8	1/2	1-1/2	RH	RHC	2	1620-1250
3/16	1/2	2	RH	RHC	2	1620-1875
1/4	3/4	2-1/2	RH	RHC	2	1620-2500
3/8	3/4	2-1/2	RH	RHC	2	1620-3750
1/2	1	3	RH	RHC	2	1620-5000



1630
LH SPIRAL
RH CUT
2 flute

DIA	LOC	OAL	SPIRAL	CUT	FLUTES	EDP UNCOATED
1/8	1/2	1-1/2	LH	RHC	2	1630-1250
3/16	1/2	2	LH	RHC	2	1630-1875
1/4	3/4	2-1/2	LH	RHC	2	1630-2500
3/8	3/4	2-1/2	LH	RHC	2	1630-3750
1/2	1	3	LH	RHC	2	1630-5000



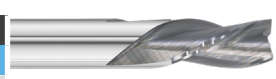
1640
RH SPIRAL
RH CUT
3 flute

DIA	LOC	OAL	SPIRAL	CUT	FLUTES	EDP UNCOATED
1/8	1/2	1-1/2	RH	RHC	3	1640-1250
3/16	1/2	2	RH	RHC	3	1640-1875
1/4	3/4	2-1/2	RH	RHC	3	1640-2500
3/8	3/4	2-1/2	RH	RHC	3	1640-3750
1/2	1	3	RH	RHC	3	1640-5000



1650
LH SPIRAL
RH CUT
3 flute

DIA	LOC	OAL	SPIRAL	CUT	FLUTES	EDP UNCOATED
1/8	1/2	1-1/2	LH	RHC	3	1650-1250
3/16	1/2	2	LH	RHC	3	1650-1875
1/4	3/4	2-1/2	LH	RHC	3	1650-2500
3/8	3/4	2-1/2	LH	RHC	3	1650-3750
1/2	1	3	LH	RHC	3	1650-5000



TOLERANCES	DIAMETER
	+.0000”-.0002”
	+0.000mm-0.05mm

5500 STANDARD LENGTH Radius End



DIA	LOC	SHANK	OAL	RADIUS	EDP	
					UNCOATED	FC1
1/8	1/2	1/8	1 1/2	.0100	25000	25025
	1	1/8	3	.0100	25001	25026
1/4	3/4	1/4	2 1/2	.0200	25002	25027
	1-1/2	1/4	4	.0200	25003	25028
3/8	1	3/8	2 1/2	.0300	25004	25029
	2	3/8	4	.0300	25005	25030
1/2	1-1/4	1/2	3 1/2	.0300	25006	25031
	2-3/8	1/2	5	.0300	25007	25032



The MATRX is a 5-flute, high performance router that allows for ultimate material removal rates in carbon composites, fiberglass, fiber reinforced materials, plastics, and green ceramics. Its high shear and low cutting forces provide a clean edge with minimal material delamination or tearing of fibers. The MATRX is available uncoated or with FC1 coating.

TOLERANCES	DIAMETER	SHANK	35° HELIX
	+.0000"-.003"	h6	
	+0.00mm-0.0762mm		

F FIBER

0 OTHER

Carbro

Compression Router

Unique solid carbide compression routers are designed for precision applications requiring high feed rates and optimum finishes.

1300 STANDARD LENGTH



DIA	DECIMAL	UPCUT-FLUTE	LOC	OAL	EDP		
					UNCOATED	FC1	FC2
1/8	0.1250	.225	1/2	2	CR-1250	CR-1250-FC1	CR-1250-FC2
1/4	0.2500	3/16	3/4	2-1/2	CR-2500	CR-2500-FC1	CR-2500-FC2
3/8	0.3750	1/4	1	2-1/2	CR-3750	CR-3750-FC1	CR-3750-FC2
1/2	0.5000	1/4	1-1/8	3	CR-5000	CR-5000-FC1	CR-5000-FC2

- Suitable for CFRP and double-sided laminated materials.
- Produces enhanced edge finish.
- Features counteracting flute geometries that compress material inward to eliminate burrs, tear out, and delamination during machining.



RIGHT AND LEFT ENGINEERED HELIX'S. RIGHT HAND CUTTING, END CUTTING TO CENTER FOR PLUNGE CUTTING APPLICATIONS.

N N-FERROUS

F FIBER

0 OTHER

Carbro

TOLERANCES	DIAMETER
	+.0000"-.0002"
	+0.000mm-0.05mm

fullertontool.com | 989.799.4550

Honeycomb Router

For hand and machine routing of sandwiched honeycomb materials.



1350
STANDARD
LENGTH

DIA	LOC	OAL	FLUTES	EDP CC6
1/4	1-1/8"	3	4	1350-2500
3/8	1-1/8"	3	8	1350-3750
1/2	1-5/8"	4	8	1350-5000

Custom Tooling Solutions

Welcome to the world where machining meets customization, and 'standard' takes a backseat. In the demanding realm of aerospace and defense manufacturing, generic tools simply don't meet the mark. That's why we specialize in crafting customized solutions that adapt to your specific challenges. Our tools are designed to navigate the complex geometries and exact specifications required by the aerospace and defense sectors, ensuring superior performance where it matters most.

Types of Tooling: • End Mills • Drills • Routers • Reamers • Saws • Keyseat Cutters



So, are you ready to take your machining story to the next chapter? With our custom tooling solutions, it's not just about getting the job done; it's about redefining efficiency, cost-effectiveness, and unrivaled precision. Get started by contacting our quoting team at **quotes@fullertontool.com** or **800.248.8315**.

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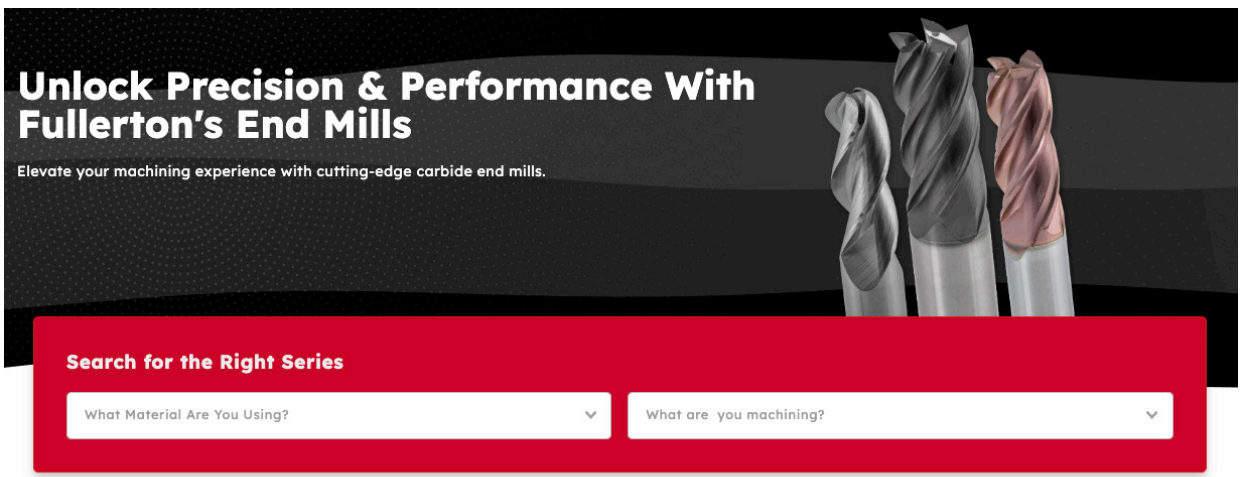
0 OTHER

Carbro

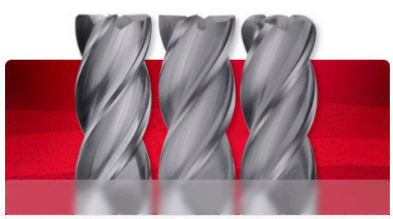
TOLERANCES	DIAMETER
	+.0000"-.0002"
	+0.000mm-0.05mm

Unleash Unmatched Precision with Fullerton's High-Performance End Mills

Experience the cutting edge of aerospace and defense machining with Fullerton's High-Performance End Mills. Designed for the most demanding materials and applications, our end mills deliver exceptional durability, precision, and speed. Whether carving through titanium or shaping complex aerospace components, Fullerton ensures every cut is a masterpiece of engineering.



High Performance End Mills



3000 Intimidator — High Performance

Our Intimidator high-performance end mill excels in slotting, roughing, and finishing applications in difficult-to-machine materials.

4 Flutes — H K M P S



3116 TiMill — High Performance

Our TiMill high-performance end mill has unsurpassed performance in high-efficiency milling in difficult-to-machining materials like titanium.

6 Flutes — M P S



3125 V-MAC — High Performance

Our V-MAC produces unsurpassed performance milling aerospace high-temp alloys, stainless steels, and inconels.

5 Flutes — M S





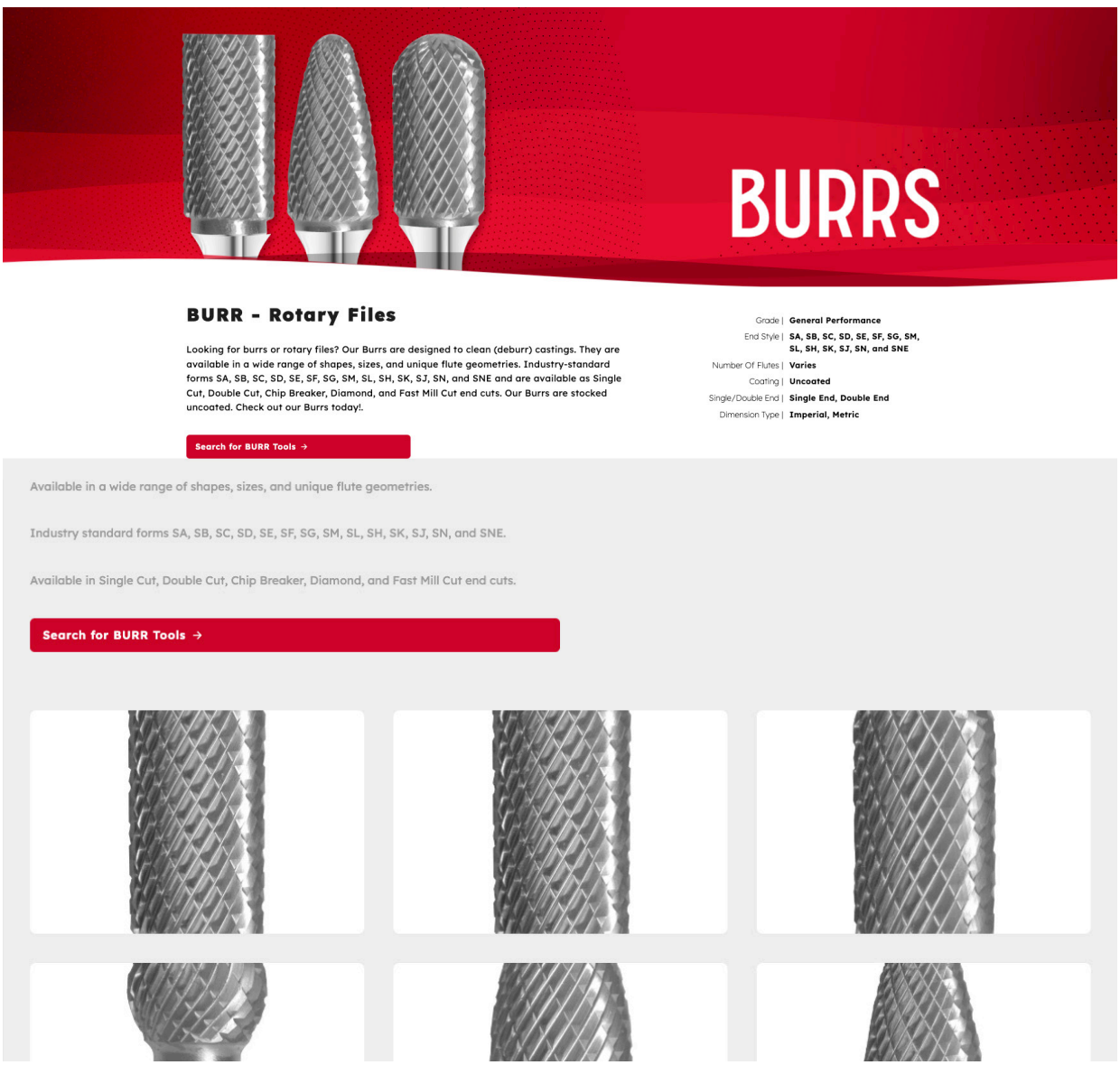


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Explore the possibilities and elevate your machining capabilities. Scan to View our HP End Mills.

Master Precision Deburring with Fullerton's Advanced Burrs

Dive into the world of expert finishing with Fullerton's high-quality Burrs, designed to tackle the toughest deburring tasks. Engineered for precision and efficiency, our Burrs handle complex deburring jobs effortlessly. From castings to intricate machine parts, these tools offer exceptional durability and performance in a variety of shapes, sizes, and unique flute geometries.



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Elevate Your Finishing Process
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FULLERTON TOOL COMPANY

ENDURANCE CARBIDE OUTLAST - OUTPERFORM

Carbro YOUR AEROSPACE TOOLING SPECIALISTS.

InovaTools GERMAN TOOLS GROUP

HOBE micro tools