FULLERTON

ADVANCED COMPOSITE TOOLING

MATRX
ADVANCED COMPOSITE TOOLING

- PCD Routers
- PCD End Mills - COMING SOON!
- Composite End Mills
- Composite Poly Drills
- Composite Burr Routers

FC-1 CVD DIAMOND COATED TOOLING
VS PCD TIPPED TOOLING

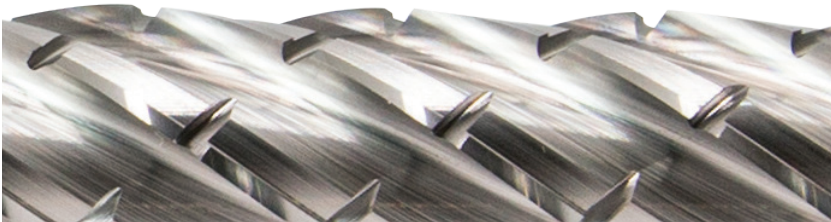This quick guide will help identify which type of tooling is best for your application.

	FC-1 CVD DIAMOND COATED	PCD-TIPPED
EASY TO SHAPE CUSTOM TOOLING	✓	✓
HIGH FEED RATES	✓	✗
TOOL COST	MID	HIGH
RECONDITIONING	✗	✓
STRONG CUTTING EDGE	✓	✗
HIGH SPEED APPLICATIONS	✓	✓
TOOL GEOMETRY CONTROL	✓	✓
COMPOSITES WITH METALICS	✓	✓

CUSTOM PCD TOOLING

Need a custom tool? Our FAST team is dedicated to help you select the right tool for your manufacturing process. By examining your manufacturing process, we can create the right tool for you. Sometimes that means making a slight alteration to one of our standard tools while at other times, we are creating completely custom tools designed specifically for your application.

No matter your needs, our FAST team has the experience and knowledge to help you select the right tool for your process.

WHY PCD?

Our PCD tooling is vacuum brazed and consists of a bi-modal grade of Poly-Crystalline Diamond (PCD) to create nothing but the most abrasive resistant tooling.

Our PCD tooling:
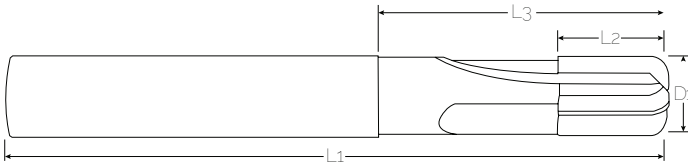
• Improves cycle times.
• Produces more parts per shift.
• Allows for high material removal rates.
• Allows for 2 to 3 times faster cutting speed capabilities over conventional cutting tools.
• Has a tool life up to 10 times longer than carbide.
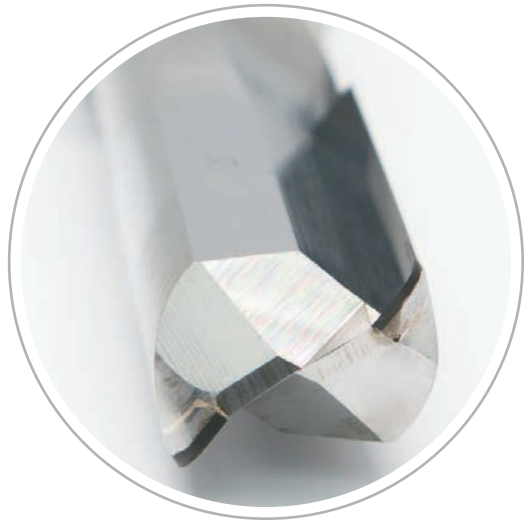
PCD Router

6900 Series MATRX PCD R-1

- Produces clean part edges.
- Increases resistance to abrasive wear.
- Reduces formation of built-up edges.
- Pure Polycrystalline Diamond Structure (PCD).
- Larger Corner Radii are Available Upon Request.

CORNER RADIUS · **BALL** · **SD TOOL LENGTH** · **2**

D1	L2	L3	L1	FLUTES	0.010 R	0.060 R	BALL
1/4	3/8	3/4	2-1/2	2	25700	-	25712
	1/2	1-1/2	3	2	-	-	25713
	3/4	1-1/2	3	2	25701	-	-
3/8	3/8	3/4	2-1/2	2	25702	-	25714
	3/4	1-1/2	4	2	25703	-	25715
1/2	1/2	1	4	2	25718	25704	25716
	1	2	4	2	25719	25705	25717

Visit fullertontool.com for a full listing of available EDPs.
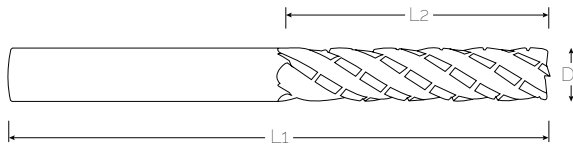
Composite End Mill

5500 Series MARTX EM-1

- Multi-flute design allows for ultimate material removal rates.
- High shear and low cutting forces provide a clean edge without fibers.
- Minimal material delamination or tearing of fibers.
- Chipbreakers produce clean shearing of fibers.
- Constructed from Dura Carb 3D wear-resistant carbide.
- Available uncoated and with FC-1 CVD Diamond Coating.

SQUARE CORNER RADIUS BALL CENTER CUTTING FCI COATING SD STANDARD 5

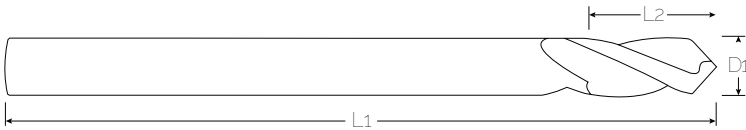|	D1	L2	L1	FLUTES	R	5500 Series Uncoated	5500 Series FC-1 Coated
Imperial	1/8	1/2	1-1/2	5	0.010	25000	25025
		1	3	5	0.010	25001	25026
	1/4	3/4	2-1/2	5	0.020	25002	25027
		1-1/2	4	5	0.020	25003	25028
	3/8	1	2-1/2	5	0.030	25004	25029
		2	4	5	0.030	25005	25030
	1/2	1-1/4	3-1/2	5	0.030	25006	25031
		2-3/8	5	5	0.030	25007	25032
Metric	6.0	18.0	64.0	5	0.25	25016	25041
		36.0	76.5	5	0.25	25017	25042
	8.0	24.0	64.0	5	0.50	25018	25043
		48.0	100.0	5	0.50	25019	25044
	10.0	30.0	76.0	5	1.00	25020	25045
		60.0	100.0	5	1.00	25021	25046
	12.0	36.0	90.0	5	1.00	25022	25047
		60.0	127.0	5	1.00	25023	25048

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Composite PolyDrill

1566 / 5566 Series MATRX

- Produces a clean, burr-free hole without breakout.
- Three-flute design allows for ultimate material removal rates.
- Burr teeth provide a clean shearing of the material's fibers.
- 90° Point.
- Minimal material delamination.
- 1566 Constructed from Dura Carb and 5566 Constructed from Dura Carb 3D wear-resistant carbide.
- Available uncoated, with FC-1 CVD Diamond Coating, and with TiAlN Coating.

	D1	L2	L1	FLUTES	1566 Series TiAlN Coated	5566 Series Uncoated	5566 Series FC-1 Coated
Imperial	0.1910	1	4	3	-	25319	25300
	1/4	1-1/2	4	3	15676	25322	25303
	0.2520	1-1/2	4	3	-	25323	25304
	5/16	1-1/2	4-1/2	3	-	25327	25308
	1/2	1-1/2	6	3	15678	25337	25318
Metric	5.00	32.00	100.00	3	15660	25320	25301
	6.00	32.00	100.00	3	15662	25321	25302
	6.50	38.00	105.00	3	15663	25324	25305
	7.00	38.00	105.00	3	15664	25325	25306
	7.50	38.00	110.00	3	15665	25326	25307
	8.00	38.00	115.00	3	15666	25328	25309
	8.50	38.00	120.00	3	15667	25329	25310
	9.00	38.00	125.00	3	15668	25330	25311
	9.50	38.00	125.00	3	15669	25331	25312
	10.00	38.00	130.00	3	15670	25332	25313
	10.50	38.00	137.00	3	15671	25333	25314
	11.00	38.00	140.00	3	15672	25334	25315
	11.50	38.00	143.00	3	15673	25335	25316
	12.00	38.00	150.00	3	15674	25336	25317

Visit fullertontool.com for a full listing of available EDPs.
1566 Series Drills Not Available with FC-1 Coating.

Composite Burr Router

2600 / 5600 Series MATRX BR-1

- Produces clean shearing of the material's fibers.
- Increased relief angles deliver results without tearing fibers.
- Available with 4 different end cuts:
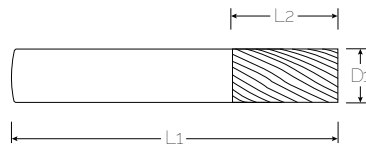
  Style A - No End Cut

  Style B - Burr, End Cut

  Style C - End Mill End Cut

  Style D - 135° Drill Point

  each specialized for application specific uses.
- 2600 Constructed from Dura Carb and 5600 Constructed from Dura Carb 3D wear-resistant carbide.
- Available uncoated and with FC-1 CVD Diamond Coating.
- Allows for aggressive removal rates.
- Right-hand cut.

	D1	L2	L1	2600 Series Uncoated	5600 Series Uncoated	5600 Series FC-1 Coated
Style A	1/8	1/2	1-1/2	26125	25200	25250
	3/16	5/8	2	26187	25201	25251
	1/4	3/4	2-1/2	26250	25202	25252
	1/4	1	3	26260	25203	25253
	3/8	1	2-1/2	26375	25204	25254
	1/2	1	3	26500	25205	25255
Style B	1/8	1/2	1-1/2	26126	25206	25256
	3/16	5/8	2	26188	25207	25257
	1/4	3/4	2-1/2	26251	25208	25258
	1/4	1	3	26261	25209	25259
	3/8	1	2-1/2	26376	25210	25260
	1/2	1	3	26501	25211	25261
Style C	1/8	1/2	1-1/2	26127	25212	25262
	3/16	5/8	2	26189	25213	25263
	1/4	3/4	2-1/2	26252	25214	25264
	1/4	1	3	26262	25215	25265
	3/8	1	2-1/2	26377	25216	25266
	1/2	1	3	26502	25217	25267
Style D	1/8	1/2	1-1/2	26128	25218	25268
	3/16	5/8	2	26190	25219	25269
	1/4	3/4	2-1/2	26253	25220	25270
	1/4	1	3	26263	25221	25271
	3/8	1	2-1/2	26378	25222	25272
	1/2	1	3	26503	25223	25273

Visit fullertontool.com for a full listing of available EDPs.
2600 Series Burrs Not Available with FC-1 Coating.

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Calculate optimal settings instantly from the convenience of your phone or tablet, regardless if you're slotting, peel milling or trichoidial milling. Available for Android & iOS, it will soon be your favorite resource when tooling up a machine.

ABOUT FULLERTON TOOL COMPANY

Fullerton Tool Company is a third-generation, family owned business that specializes in the design and production of solid carbide cutting tools for a wide variety of industries. Founded in 1942, the company manufactures high quality end mills, drills, reamers, burrs, saws, keyseat cutters and PCD tooling. Fullerton's Advanced Solutions Team (FAST) is the foundation of the company's commitment to continuously improve, innovate and provide vast product diversity. Fullerton is an ISO 9001:2015 certified company.

FAST
FULLERTON ADVANCED SOLUTIONS TEAM

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