

- Designed for machining Carbon Fiber Reinforced Polymer (CFRP) and Glass Fiber Reinforced Polymer (GFRP) materials
- High-performance tungsten carbide substrate that provides superior bonding of the CVD diamond coating
- Highest grade CVD diamond coating in the industry for increased wear resistance and longer tool life
- Micro-geometry optimized for cutting fiber based composite materials

RECOMMENDED OPERATIONS

	PERIPHERAL (P)	LIGHT PERIPHERAL (LP)	FINISHING (F)
AE	25%DC < \leq 40%DC	5%DC < \leq 25%DC	\leq 5%DC
AP	1.0 to 15 x DC	2.0 x DC	APMX

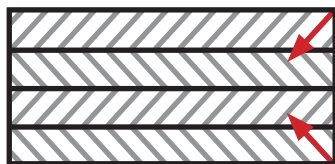
COATING



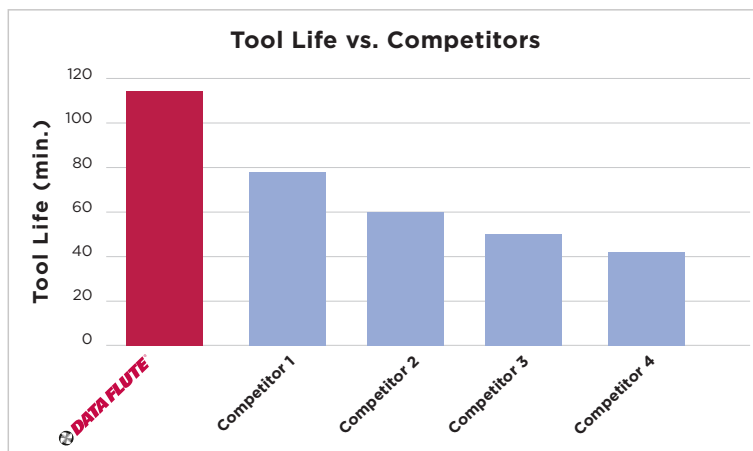
CVD Diamond Coated Compression Router

Carbon Fiber Reinforced Polymer (CFRP) and Glass Fiber Reinforced Polymer (GFRP) materials are increasingly used in the aerospace, automobile, energy, electronics, and many other industries for their high strength-to-weight ratios.

Compression routers are designed to address the common problems of delamination and fraying during machining of these materials. Used primarily for periphery finishing, the design of the compression router provides an excellent surface finish by compressing the chip to the center of the tool which minimizes the risk of chip-out and damage to the material.



The right-hand and left-hand helix of the compression router creates cutting forces in opposite directions. This "squeezes" the composite layers together, minimizing fraying and delamination.



Part Number	Dia. of Cut DC	Shank DCON	Length of Cut APMX	Overall Length OAL/FL	Coating	EDP #
DCOM40125-000C65	0.125	0.125	0.500	2.000	C65	55304-65-D
DCOM60250-000C65	0.250	0.250	1.000	2.500	C65	55305-65-D
DCOM60375-000C65	0.375	0.375	1.000	3.000	C65	55306-65-D
DCOML60375-000C65	0.375	0.375	1.500	4.000	C65	55307-65-D
DCOM60500-000C65	0.500	0.500	1.000	3.000	C65	55308-65-D
DCOML60500-000C65	0.500	0.500	1.500	4.000	C65	55309-65-D

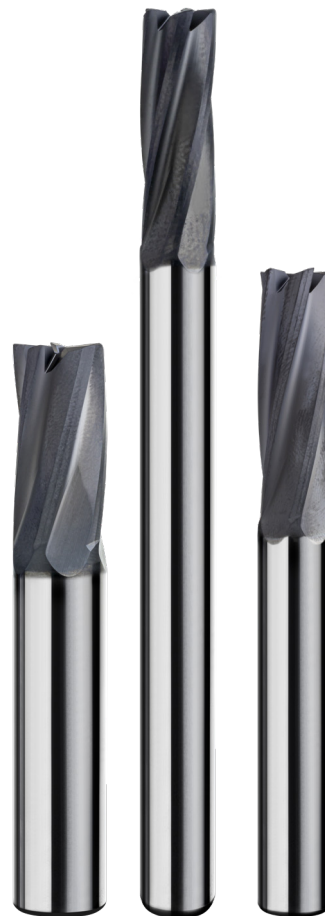
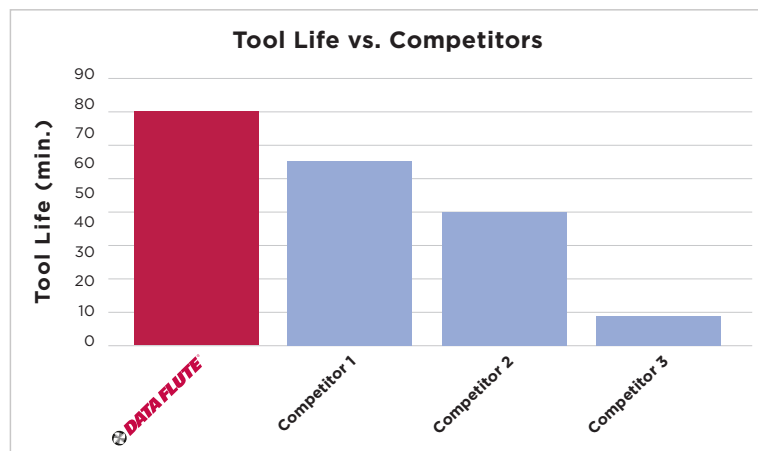
Dimensions in Inches

CVD Diamond Coated Versatile Router

Versatile routers are used primarily for periphery milling (both internal and external) of CFRP and GFRP materials. The center cutting geometry enables ramping also making it an excellent choice for pocket milling (internal periphery).

Data Flute geometry combines low helix angles with positive cutting edges minimizing damage of the fiber material.

Our specific combination of high-performance carbide substrate and CVD diamond coating enables higher cutting speeds, longer tool life, and reduced cutting forces and temperatures.



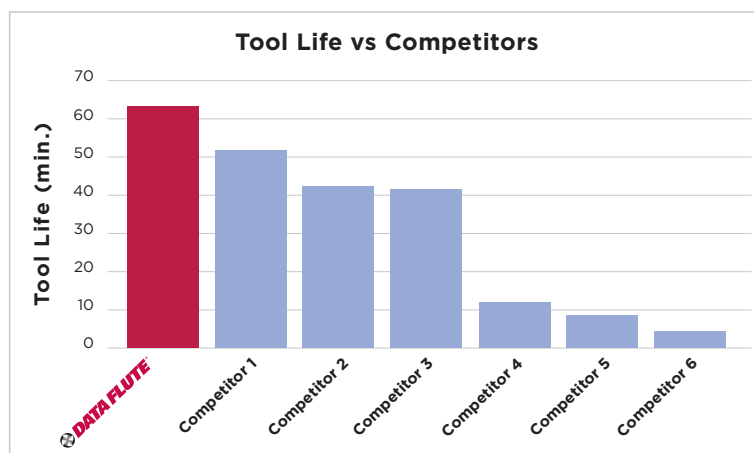
Part Number	Dia. of Cut DC	Shank DCON	Length of Cut APMX	Overall Length OAL/FL	Coating	EDP #
DVR50250-010C65	0.250	0.250	0.750	3.000	C65	55310-65-D
DVRL50250-010C65	0.250	0.250	1.500	4.000	C65	55311-65-D
DVR50375-010C65	0.375	0.375	0.750	3.000	C65	55312-65-D
DVRL50375-010C65	0.375	0.375	1.500	4.000	C65	55313-65-D
DVR50500-010C65	0.500	0.500	1.000	3.000	C65	55314-65-D
DVRL50500-010C65	0.500	0.500	1.500	4.000	C65	55615-65-D

Dimensions in Inches

CVD Diamond Coated Honeycomb/Nick Router

Honeycomb routers are used to rough out CFRP and GFRP materials where material removal rates are more important than surface finish. The honeycomb router can be used for slotting or periphery milling.

Honeycomb style routers combine the geometries of end mills and burrs, featuring an asymmetric double helix and positive cutting geometry. This reduces sidewall pressure and minimizes damage to the fiber material.



Part Number	Dia. of Cut DC	Shank DCON	Length of Cut APMX	Overall Length OAL/FL	Coating	EDP #
DHRX0250C65	0.250	0.250	0.750	3.000	C65	55316-65-D
DHRLX0250C65	0.250	0.250	1.000	4.000	C65	55317-65-D
DHRX0375C65	0.375	0.375	0.750	3.000	C65	55318-65-D
DHRLX0375C65	0.375	0.375	1.000	4.000	C65	55319-65-D
DHRX0500C65	0.500	0.500	1.000	3.000	C65	55320-65-D
DHRLX0500C65	0.500	0.500	1.500	4.000	C65	55321-65-D

Dimensions in Inches



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