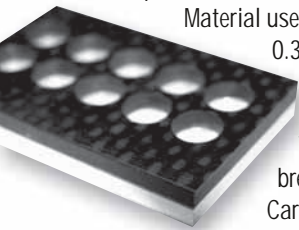


Drilling Holes in Composites?

RobbJack and Crystallume are proud to introduce our new expanded line of diamond-coated aircraft drills.



These tools were developed in a NIST (*National Institute of Science and Technology*) program that involved a research partnership with Boeing Aircraft and three other large manufacturing companies. Information from that program is presented in the chart below.



Material used in the study was 8-276 carbon fiber laminate, 0.30" thick. Test tools were .191 and .251 diameter drill countersinks. The graph compares the number of holes drilled vs. the thrust required.

The test was concluded at 50 lbs. of thrust when breakout and haloing became unacceptable.

Carbide lasted approximately 200 holes, PCD lasted 1,500 holes and Crystallume DCC lasted 2,700 holes. Also, note that the sharper carbide tool started with the lowest thrust while the PCD and Crystallume DCC started with about the same thrust (even though the PCD is a ground edge and the Crystallume DCC is a coated, faceted edge). These test lab results were repeated on the production floor.

Features

Common Rivet Sizes Available from Stock

Standard Drills are Four Facet, 118°

Other Drill Points Available

Custom Tools Available

Applications

The most cost-effective and efficient way to drill holes in high-performance composite materials.

Diamond Coated Aircraft Drills

Part Number	Decimal Equivalent	Tolerance from Nominal		Flute Length	OAL	List Price
		Min	Max			
P810-100345-1	0.0980	+0.000	-0.005	1.40	2.70	\$103.00
P810-100334-1	0.1285	+0.000	-0.005	1.40	2.70	\$103.00
P810-100402-1	0.1421	+0.000	-0.005	1.40	2.70	\$113.30
P810-100409-1	0.1560	+0.000	-0.005	1.40	2.70	\$113.30
P810-100335-1	0.1655	+0.000	-0.005	1.40	2.70	\$113.30
P810-100404-1	0.1734	+0.000	-0.005	1.40	2.70	\$113.30
P810-100400-1	0.1900	+0.000	-0.005	1.40	2.70	\$123.60
P810-100336-1	0.1915	+0.000	-0.005	1.40	2.70	\$123.60
P810-100411-1	0.1990	+0.000	-0.005	1.40	2.70	\$123.60
P810-100405-1	0.2055	+0.000	-0.005	1.40	2.70	\$123.60
P810-100346-1	0.2210	+0.000	-0.005	1.40	2.70	\$123.60
P810-100337-1	0.2515	+0.000	-0.005	1.40	2.70	\$123.60
P810-100406-1	0.2590	+0.000	-0.005	1.40	2.70	\$139.05
P810-100407-1	0.2710	+0.000	-0.005	1.40	2.70	\$149.35
P810-100412-1	0.2770	+0.000	-0.005	1.40	2.70	\$149.35
P810-100408-1	0.2800	+0.000	-0.005	1.40	2.70	\$164.80
P810-100410-1	0.2812	+0.000	-0.005	1.40	2.70	\$164.80
P810-100338-1	0.3135	+0.000	-0.005	1.50	2.70	\$195.70
P810-100341-1	0.3765	+0.000	-0.005	1.50	2.70	\$216.30

DCC Drill Test Results in Carbon Fiber Reinforced Composites

