## DUAL SPEED MINIK

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The Dual Speed Mini-K Kinechek Speed Regulator minimize delamination and breakout, hence the name is specially designed for drilling carbon fiber and other composite materials, especially in handoperated drilling applications.

During the drilling of an in-line hole, a negative deformation plane forms as chip formation stops and the tool approaches the end of the cut. The shearing of the negative deformation plane contributes to burr formation and breakout as cracks spread along the plane causing destruction of the desired finished exit hole. When drilling carbon fiber and other composite materials, this breakout can occur as "delamination" which is a costly problem.

The "Dual Speed" function increases production efficiency and reduces worker fatigue, while eliminating delamination and breakout. The first part of the stroke is the "Fast Feed" (F.F.) feature, which is freely managed by the worker (SPEED 1)\* to drill as quickly as possible through the workpiece. The final 1/4 inch of the stroke is the "Control Feed" (C.F.). As the drill nears the exit hole, the C.F. engages and slows down the forward motion (SPEED 2) \*\* to "Dual Speed". Although the C.F. for our standard unit is fixed at 1/4 inch, this dimension can be customized to your particular application

Available Speeds: Extra Fast (3021D-19-x), Fast (3023D-19-x), Standard (3022D-19-x), and Slow (3024D-19-x).

Available Overall Stroke Lengths: 1/2 inch, 1 inch, 1 1/4 inch, and 1 1/2 inch.

Maximum Load Capacity: 400 lbs.

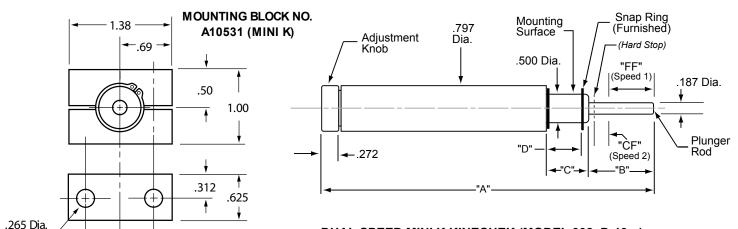
\* The F.F. (SPEED 1) is not affected by the unit's adjustment knob. It IS, however, subject to the viscosity of the unit's internal fluid. For instance, the F.F. of a "Standard Speed" Dual Speed Mini-K unit will have more resistance (or move slower) than a "Fast Speed". In hand-held applications, SPEED 1 is directly proportional to the force applied by the worker. The length of the F.F. can be customized to a particular custom application but, once it is established, it cannot be altered.

\*\* The C.F. (SPEED 2) is controlled by the adjustment knob just like a regular Mini-K Kinechek. The overall range of speeds attained by the unit's adjustment knob is also governed by the viscosity of the internal fluid, defined by the model number's speed designation.

Model No. *	Stroke	Weight	"A"	"B" (Rod Length)	"C"	"FF" (Fast Feed <sup>1</sup> )	"CF" (Control Feed <sup>2</sup> )
302_D-19-1/2	1/2 in.	3.25 oz.	4.22 in.	.625 in.	.72 in.	.25 in.	.25 in.
302_D-19-1	1 in.	3.70 oz.	5.72 in.	1.125 in.	.72 in.	.75 in.	.25 in.
302_D-19-1 1/4	1 1/4 in.	5.3 oz.	6.58 in.	1.375 in.	.72 in.	1.00 in.	.25 in.
302_D-19-1 1/2	1 1/2 in.	5.6 oz.	7.08 in.	1.625 in.	.97 in.	1.25 in.	.25 in.

- = Possible Fluid Speed Variations: "1" Extra Fast, "2" Standard, "3" Fast,
- 1 The "Fast Feed" (F.F.) length can be customized to your application, which will also determine the length of the remaining "Control Feed" (C.F.)
- 2 The STANDARD "Control Feed" (C.F.) is 1/4".

.437 -.875



DUAL SPEED MINI K KINECHEK (MODEL 302 D-19- )

2 Holes