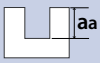
List 2430 & 2530 - EXOCARB® SEP-EL: 2 & 3 Flute, Long Length

3D (Air Blow)

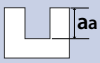
Slotting

Work Material	Thermoplastic Resin		Thermoset Resin Fiber-Reinforced Thermoplastic Resin	
Cutting Speed (SFM)	60-70		50-70	
Depth of Cut 	aa: 3D, ar: 1D			
Mill Dia. Inch	Mill Dia. mm	Speed (RPM)	Feed (in/min)	Speed (RPM)	Feed (in/min)
0.5	–	38,200	60.2	31,800	50.0
1	–	19,100	90.2	15,900	75.2
–	1/16	13,500	70.3	11,300	58.8
2	–	9,500	56.3	8,000	47.2
3	–	6,400	45.3	5,300	37.4
–	1/8	6,300	46.6	5,200	37.8
4	–	5,600	52.8	4,800	39.8
–	3/16	4,900	49.3	11,300	38.4
6	–	3,700	43.7	3,400	36.2
–	1/4	3,500	42.0	1,200	12.8

Side Milling (3D)

Work Material	Thermoplastic Resin		Thermoset Resin Fiber-Reinforced Thermoplastic Resin	
Cutting Speed (SFM)	100-150		60-70	
Depth of Cut 	aa: 3D, ar: 0.2D			
Mill Dia. Inch	Mill Dia. mm	Speed (RPM)	Feed (in/min)	Speed (RPM)	Feed (in/min)
0.5	–	40,000	94.5	38,200	90.2
1	–	31,800	150.4	19,100	90.2
–	1/16	25,300	148.3	13,500	83.4
2	–	20,700	146.9	9,500	78.7
3	–	14,900	140.9	7,400	87.4
–	1/8	14,400	140.9	7,100	83.7
4	–	11,900	140.6	5,600	66.1
–	3/16	10,400	130.2	4,900	60.9
6	–	8,000	113.4	3,700	52.4
–	1/4	7,568	107.3	1,900	26.9

Plunging

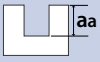
Hardness	–		–	
Work Material	Thermoplastic Resin		Thermoset Resin Fiber-Reinforced Thermoplastic Resin	
Cutting Speed (SFM)	50-70		50-70	
Depth of Cut 	aa: 1D, ar: –			
Mill Dia. Inch	Mill Dia. mm	Speed (RPM)	Feed (in/min)	Speed (RPM)	Feed (in/min)
0.5	–	31,800	12.6	31,800	12.6
1	–	15,900	18.9	15,900	18.9
–	1/16	12,100	16.1	11,300	14.7
2	–	9,500	14.2	8,000	11.8
3	–	6,400	11.4	5,300	9.4
–	1/8	6,300	11.8	5,200	9.5
4	–	5,600	13.4	4,800	9.8
–	3/16	4,900	12.5	4,300	9.5
6	–	3,700	11.0	3,400	9.1
–	1/4	3,500	10.4	1,746	4.6

5D (Air Blow)

Side Milling (5D)

Work Material	Thermoplastic Resin		Thermoset Resin Fiber-Reinforced Thermoplastic Resin	
Cutting Speed (SFM)	50-100		50-70	
Depth of Cut 	aa: 5D, ar: 0.1D			
Mill Dia. Inch	Mill Dia. mm	Speed (RPM)	Feed (in/min)	Speed (RPM)	Feed (in/min)
0.5	–	31,800	75.2	31,800	75.2
1	–	19,100	90.2	19,100	90.2
–	1/16	15,300	81.4	13,500	83.4
2	–	12,700	75.2	9,500	78.7
3	–	9,500	67.3	7,400	87.4
–	1/8	9,200	68.8	7,100	83.7
4	–	8,000	75.6	5,600	66.1
–	3/16	7,000	65.8	4,900	60.9
6	–	5,300	50.0	3,700	52.4
–	1/4	5,014	47.3	1,900	26.9

Plunging

Work Material	Thermoplastic Resin		Thermoset Resin Fiber-Reinforced Thermoplastic Resin	
Cutting Speed (SFM)	50-70		50-70	
Depth of Cut 	aa: 1D, ar: –			
Mill Dia. Inch	Mill Dia. mm	Speed (RPM)	Feed (in/min)	Speed (RPM)	Feed (in/min)
0.5	–	31,800	12.6	31,800	12.6
1	–	15,900	18.9	15,900	18.9
–	1/16	12,100	16.1	11,300	14.7
2	–	9,500	14.2	8,000	11.8
3	–	6,400	11.4	5,300	9.4
–	1/8	6,300	11.8	5,200	9.5
4	–	5,600	13.4	4,800	9.8
–	3/16	4,900	12.5	4,300	9.5
6	–	3,700	11.0	3,400	9.1
–	1/4	3,500	10.4	1,746	4.6

1. Use a rigid and precise machine and holder.
2. Please adjust the speed and feed when the cutting depth is large or when machines with low rigidity are used. The feed rate can be increased if the shape of the workpiece and method of fixation are rigid.
3. Reduce speed and feed as well as depth of cut when high precision is required.
4. When the chips wind around the end mill, reduce the speed and feed.
5. Please remove cutting chips to prevent them from getting caught or entangled.
6. For higher quality processing, the use of a water-soluble cutting fluid is recommended (excluding nylon and Bakelite).
7. Please step feed when processing by plunging.