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

3D (Air Blow)

Slotting

Work Material		Thermopla	astic Resin	Fiber-Re	nermoset Resin ber-Reinforced rmoplastic Resin	
Cutting Speed (SFM)		60	-70	50	50-70	
Depth of Cut			aa 3D	ar 1D		
Mill	Mill Dia.		Feed	Speed	Feed	
Inch	mm	(RPM)	(in/min)	(RPM)	(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		Thermopla	astic Resin	Thermoset Resin Fiber-Reinforced Thermoplastic Resin	
Cutting Speed (SFM)		100	-150	60-70	
Depth of Cut aa ar		aa ar 3D 0.2D			
Mill	Mill Dia.		Feed	Speed	Feed
Inch	mm	(RPM)	(in/min)	(RPM)	(in/min)
0.5	-	40,000	94.5	38,200	90.2
0.5 1	-	40,000 31,800	94.5 150.4	38,200 19,100	90.2 90.2
	- - 1/16				
	- - 1/16 -	31,800	150.4	19,100	90.2
1 –	-	31,800 25,300	150.4 148.3	19,100 13,500	90.2 83.4
1 - 2	- 1/16 - - 1/8	31,800 25,300 20,700	150.4 148.3 146.9	19,100 13,500 9,500	90.2 83.4 78.7
1 - 2	- - 1/8 -	31,800 25,300 20,700 14,900	150.4 148.3 146.9 140.9	19,100 13,500 9,500 7,400	90.2 83.4 78.7 87.4
1 - 2 3 -	-	31,800 25,300 20,700 14,900 14,400	150.4 148.3 146.9 140.9 140.9	19,100 13,500 9,500 7,400 7,100	90.2 83.4 78.7 87.4 83.7
1 - 2 3 -	- - 1/8 -	31,800 25,300 20,700 14,900 14,400 11,900	150.4 148.3 146.9 140.9 140.9 140.6	19,100 13,500 9,500 7,400 7,100 5,600	90.2 83.4 78.7 87.4 83.7 66.1

Plunging

Hardness

Work Material		Thermopla	astic Resin	Fiber-Re	ermoset Resin ber-Reinforced rmoplastic Resin	
Cutting Speed (SFM)		50-	-70	50-70		
Depth of Cut aa		aa ar 1D –				
Mill Dia.		Speed	Feed		Feed	
Inch	mm	(RPM)	(in/min)	(RPM)	(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		Thermopl	astic Resin	Thermoset Resin Fiber-Reinforced Thermoplastic Resin	
Cutting (SF	Cutting Speed (SFM)		100	50-70	
Depth of Cut aa ar		aa ar 5D 0.1D			
	Mill Dia.		Feed	Speed (RPM)	Feed
Inch	mm	(RPM)		, ,	(III/IIIII)
1 OF					
0.5	-	31,800	75.2	31,800	75.2
1	-	19,100	90.2	19,100	90.2
1 –	- - 1/16				
	- - 1/16 -	19,100	90.2	19,100	90.2
1 -	-	19,100 15,300	90.2 81.4	19,100 13,500	90.2 83.4
1 - 2	- 1/16 - - - 1/8	19,100 15,300 12,700	90.2 81.4 75.2	19,100 13,500 9,500	90.2 83.4 78.7
1 - 2	- - 1/8 -	19,100 15,300 12,700 9,500	90.2 81.4 75.2 67.3	19,100 13,500 9,500 7,400	90.2 83.4 78.7 87.4
1 - 2 3 -	-	19,100 15,300 12,700 9,500 9,200	90.2 81.4 75.2 67.3 68.8	19,100 13,500 9,500 7,400 7,100	90.2 83.4 78.7 87.4 83.7
1 - 2 3 -	- - 1/8 -	19,100 15,300 12,700 9,500 9,200 8,000	90.2 81.4 75.2 67.3 68.8 75.6	19,100 13,500 9,500 7,400 7,100 5,600	90.2 83.4 78.7 87.4 83.7 66.1

Plunging

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

- 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.