



## List 4571: Stub Length, 4 Flute, Corner Radius

### Standard Milling

Hardness	<40 HRC			40-45 HRC		45-55 HRC		55-60 HRC		60-65 HRC										
Work Material	Mild Steels Carbon Steels Cast Iron			Tool Steels Hardened Steels Pre-hardened Steels		Hardened Steels														
Depth of Cut	<table border="1"> <tr> <th>Dia</th> <th>aa</th> <th>ar</th> </tr> <tr> <td>D=2</td> <td>1.5D</td> <td>0.05D</td> </tr> <tr> <td>2&lt;D</td> <td>1.5D</td> <td>0.10D</td> </tr> </table>			Dia	aa	ar	D=2	1.5D	0.05D	2<D	1.5D	0.10D			$aa=1.5D$ $ar=0.05D$ arMax=less than 0.04"		$aa=1.5D$ $ar=0.03D$ arMax=less than 0.02"		$aa=1.0D$ $ar=0.02D$ arMax=less than 0.02"	
	Dia	aa	ar																	
D=2	1.5D	0.05D																		
2<D	1.5D	0.10D																		
Mill Dia.	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min										
2	22,316	71.4	20,036	64.1	16,010	51.2	12,031	24.1	11,255	22.5										
3	14,878	71.4	13,358	64.1	10,673	51.2	8,021	25.7	7,503	21.0										
4	11,158	71.4	10,018	64.1	8,005	51.2	6,016	26.5	5,628	20.3										
5	8,927	85.7	8,015	76.9	6,404	61.5	4,813	25.0	4,502	21.6										
6	7,439	104.1	6,679	93.5	5,337	74.7	4,010	38.5	3,752	31.5										
8	5,579	104.9	5,009	94.2	4,002	75.2	3,008	39.7	2,814	31.5										
10	4,463	103.5	4,007	93.0	3,202	74.3	2,406	39.5	2,251	31.5										
12	3,719	104.1	3,339	93.5	2,668	74.7	2,005	39.3	1,876	32.3										

- The indicated speeds and feeds are for high speed light milling for use with high speed/high precision machining centers.
- Do not use flammable fluids because tools with considerable wear can cause sparks.
- We recommend using air blow. When using cutting fluids, use a high quality fluid with high smoke retardant.

### High Speed Light Milling

Hardness	<40 HRC			40-45 HRC		45-55 HRC		55-60 HRC		60-65 HRC	
Work Material	Mild Steels Carbon Steels Cast Iron			Tool Steels Hardened Steels Pre-hardened Steels		Hardened Steels					
Depth of Cut	$aa=1.0D$ $ar=0.05D$ arMax=less than 0.02"					$aa=1.0D$ $ar=0.03D$ arMax=less than 0.02"		$aa=1.0D$ $ar=0.02D$ arMax=less than 0.008"		$aa=1.0D$ $ar=0.01D$ arMax=less than 0.008"	
	Mill Dia.	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min
2	25,000	80.0	25,000	80.0	25,000	80.0	25,000	60.0	24,014	48.0	
3	25,000	120.0	25,000	120.0	25,000	120.0	17,012	68.0	16,010	51.2	
4	23,893	152.9	23,893	152.9	19,891	127.3	12,759	66.3	12,007	52.8	
5	19,115	183.5	19,115	183.5	15,913	152.8	10,207	65.3	9,606	53.8	
6	15,929	223.0	15,929	223.0	13,260	185.6	8,506	95.3	8,005	80.0	
8	11,947	224.6	11,947	224.6	9,945	187.0	6,380	97.0	6,004	79.2	
10	9,557	221.7	9,557	221.7	7,956	184.6	5,104	95.9	4,803	76.8	
12	7,964	223.0	7,964	223.0	6,630	185.6	4,253	97.0	4,002	78.4	

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- We recommend using air blow. When using cutting fluids, use a high quality fluid with high smoke retardant.

