

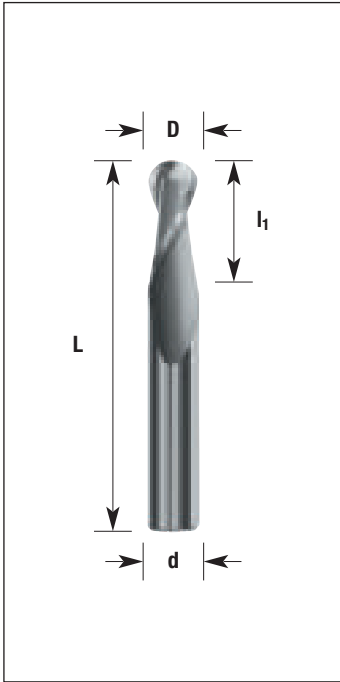
end mills - ball nosed

Schafffräser - kugelspitze

fraise en bout - bout arrondi

fresas frontales - radio de esquina

frese sferiche



122

Z=2

	tol: D 1 - 7mm +0.000/-0.051mm > 7 - 25mm +0.000/-0.076mm	tol: d h6								
Micro Grain K10/K30	<table border="0"> <tr> <td>1.1 - 1.3</td> <td>4.1 - 5.3</td> </tr> <tr> <td>1.4 - 1.6</td> <td>6.1 - 8.3</td> </tr> <tr> <td>2.1 - 2.3</td> <td>9.1</td> </tr> <tr> <td>3.1 - 3.4</td> <td></td> </tr> </table>	1.1 - 1.3	4.1 - 5.3	1.4 - 1.6	6.1 - 8.3	2.1 - 2.3	9.1	3.1 - 3.4		
1.1 - 1.3	4.1 - 5.3									
1.4 - 1.6	6.1 - 8.3									
2.1 - 2.3	9.1									
3.1 - 3.4										

D mm	d mm	L mm	h ₁ mm	Part Nr
2	3	38	6	12207870
2.5	3	38	7	12209840
3	3	38	12	12211810
3.5	4	50	12	12213780
4	4	50	14	12215750
4.5	5	50	14	12217720
5	5	50	16	12219680
6	6	63	19	12223620
7	8	63	19	12227560
8	8	63	19	12231500
9	10	70	22	12235430
10	10	70	22	12239370
11	11	70	25	12243310
12	12	75	25	12247240
14	14	88	30	12255120
16	16	88	32	12262990
18	18	100	36	12270870
20	20	100	38	12278740

end mills - ball nosed

Schafffräser - kugelspitze





fraise en bout - bout arrondit

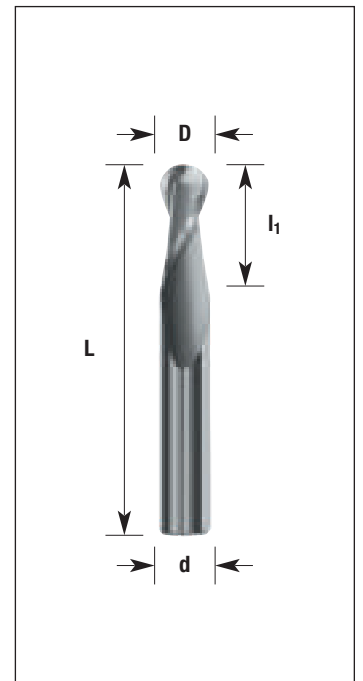
fresas frontales - radio de esqina

fresa sferiche

122

Z=2

		tol: D $\frac{1}{16}'' - \frac{1}{4}'' +0.000''/-0.002''$ $> \frac{1}{4}'' - 1'' +0.000''/-0.003''$	tol: d $+0.000''/-0.0005''$								
Micro Grain K10/K30	<table border="0"> <tr> <td>1.1 - 1.3</td> <td>4.1 - 5.3</td> </tr> <tr> <td>1.4 - 1.6</td> <td>6.1 - 8.3</td> </tr> <tr> <td>2.1 - 2.3</td> <td>9.1</td> </tr> <tr> <td>3.1 - 3.4</td> <td></td> </tr> </table>	1.1 - 1.3	4.1 - 5.3	1.4 - 1.6	6.1 - 8.3	2.1 - 2.3	9.1	3.1 - 3.4			
1.1 - 1.3	4.1 - 5.3										
1.4 - 1.6	6.1 - 8.3										
2.1 - 2.3	9.1										
3.1 - 3.4											



D ins	d ins	L ins	l ₁ ins	Part Nr
1/16	1/8	1 1/2	3/16	12206250
3/32	1/8	1 1/2	9/32	12209370
1/8	1/8	1 1/2	7/16	12212500
5/32	3/16	2	1/2	12215620
3/16	3/16	2	9/16	12218750
7/32	1/4	2 1/2	5/8	12221870
1/4	1/4	2 1/2	3/4	12225000
9/32	5/16	2 1/2	3/4	12228120
5/16	5/16	2 1/2	13/16	12231250
3/8	3/8	2 1/2	7/8	12237500
7/16	7/16	2 3/4	1	12243750
1/2	1/2	3	1	12250000
9/16	9/16	3 1/2	1 1/8	12256250
5/8	5/8	3 1/2	1 1/4	12262500
3/4	3/4	4	1 1/2	12275000

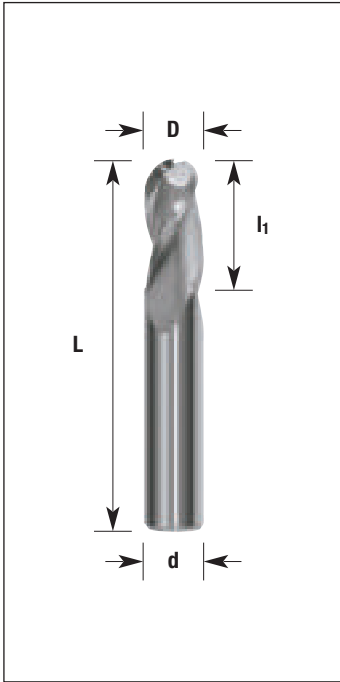
end mills - ball nosed

Schafffräser - kugelspitze

fraise en bout - bout arrondi

fresas frontales - radio de esquina

frese sferiche



123

Z=3

		tol: D 1 - 7mm +0.000/-0.051mm > 7 - 25mm +0.000/-0.076mm	tol: d h6								
Micro Grain K10/K30	<table border="0"> <tr> <td>1.1 - 1.3</td> <td>4.1 - 5.3</td> </tr> <tr> <td>1.4 - 1.6</td> <td>6.1 - 8.3</td> </tr> <tr> <td>2.1 - 2.3</td> <td>9.1</td> </tr> <tr> <td>3.1 - 3.4</td> <td></td> </tr> </table>	1.1 - 1.3	4.1 - 5.3	1.4 - 1.6	6.1 - 8.3	2.1 - 2.3	9.1	3.1 - 3.4			
1.1 - 1.3	4.1 - 5.3										
1.4 - 1.6	6.1 - 8.3										
2.1 - 2.3	9.1										
3.1 - 3.4											

D mm	d mm	L mm	h ₁ mm	Part Nr
1.5	3	38	5	12305910
2	3	38	6	12307870
2.5	3	38	7	12309840
3	3	38	12	12311810
3.5	4	50	12	12313780
4	4	50	14	12315750
5	5	50	16	12319680
6	6	63	19	12323620
8	8	63	19	12331500
9	10	70	22	12335430
10	10	70	22	12339370
11	11	70	25	12343310
12	12	75	25	12347240
16	16	88	32	12362990

end mills - ball nosed

Schafffräser - kugelspitze




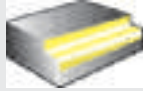
fraise en bout - bout arrondit

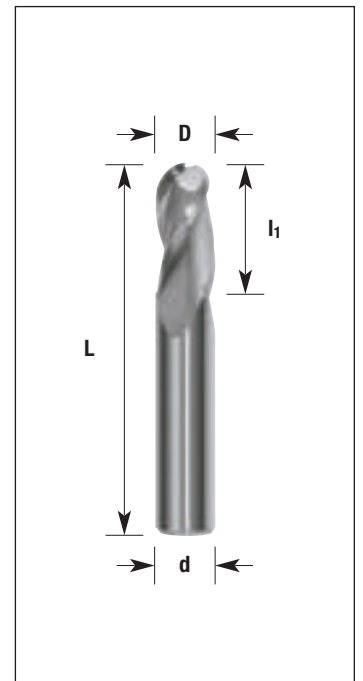
fresas frontales - radio de esqina

fresa sferiche

123

Z=3

		tol: D $\frac{1}{16}'' - \frac{1}{4}''$ $+0.000''/-0.002''$ $> \frac{1}{4}'' - 1''$ $+0.000''/-0.003''$	tol: d $+0.000''/-0.0005''$								
Micro Grain K10/K30	<table border="0"> <tr> <td>1.1 - 1.3</td> <td>4.1 - 5.3</td> </tr> <tr> <td>1.4 - 1.6</td> <td>6.1 - 8.3</td> </tr> <tr> <td>2.1 - 2.3</td> <td>9.1</td> </tr> <tr> <td>3.1 - 3.4</td> <td></td> </tr> </table>	1.1 - 1.3	4.1 - 5.3	1.4 - 1.6	6.1 - 8.3	2.1 - 2.3	9.1	3.1 - 3.4			
1.1 - 1.3	4.1 - 5.3										
1.4 - 1.6	6.1 - 8.3										
2.1 - 2.3	9.1										
3.1 - 3.4											



D ins	d ins	L ins	l ₁ ins	Part Nr
1/16	1/8	1 1/2	3/16	12306250
3/32	1/8	1 1/2	9/32	12309370
1/8	1/8	1 1/2	7/16	12312500
5/32	3/16	2	1/2	12315620
3/16	3/16	2	9/16	12318750
7/32	1/4	2 1/2	5/8	12321870
1/4	1/4	2 1/2	3/4	12325000
9/32	5/16	2 1/2	3/4	12328120
5/16	5/16	2 1/2	13/16	12331250
3/8	3/8	2 1/2	7/8	12337500
7/16	7/16	2 3/4	1	12343750
1/2	1/2	3	1	12350000
9/16	9/16	3 1/2	1 1/8	12356250
5/8	5/8	3 1/2	1 1/4	12362500

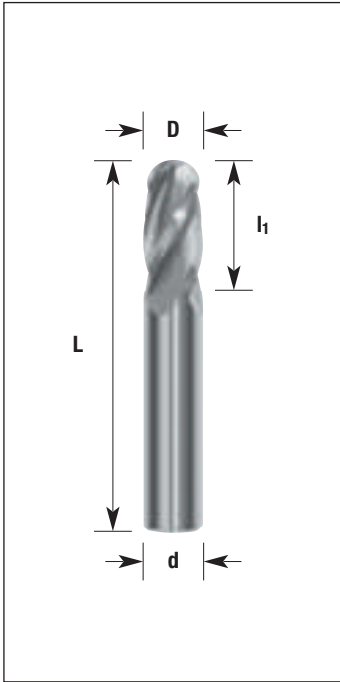
end mills - ball nosed

Schafffräser - kugelspitze

fraise en bout - bout arrondi

fresas frontales - radio de esquina

frese sferiche



124

Z = 4

		tol: D 1 - 7mm +0.000/-0.051mm > 7 - 25mm +0.000/-0.076mm	tol: d h6								
Micro Grain K10/K30	<table border="0"> <tr> <td>1.1 - 1.3</td> <td>4.1 - 5.3</td> </tr> <tr> <td>1.4 - 1.6</td> <td>6.1 - 8.3</td> </tr> <tr> <td>2.1 - 2.3</td> <td>9.1</td> </tr> <tr> <td>3.1 - 3.4</td> <td></td> </tr> </table>	1.1 - 1.3	4.1 - 5.3	1.4 - 1.6	6.1 - 8.3	2.1 - 2.3	9.1	3.1 - 3.4			
1.1 - 1.3	4.1 - 5.3										
1.4 - 1.6	6.1 - 8.3										
2.1 - 2.3	9.1										
3.1 - 3.4											

D mm	d mm	L mm	h ₁ mm	Part Nr
2	3	38	6	12407870
2.5	3	38	7	12409840
3	3	38	12	12411810
3.5	4	50	12	12413780
4	4	50	14	12415750
5	5	50	16	12419680
6	6	63	19	12423620
7	8	63	19	12427560
8	8	63	19	12431500
10	10	70	22	12439370
11	11	70	25	12443310
12	12	75	25	12447240
14	14	88	30	12455120
16	16	88	32	12462990
20	20	100	38	12478740

end mills - ball nosed

Schafffräser - kugelspitze



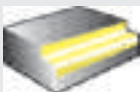

fraise en bout - bout arrondit

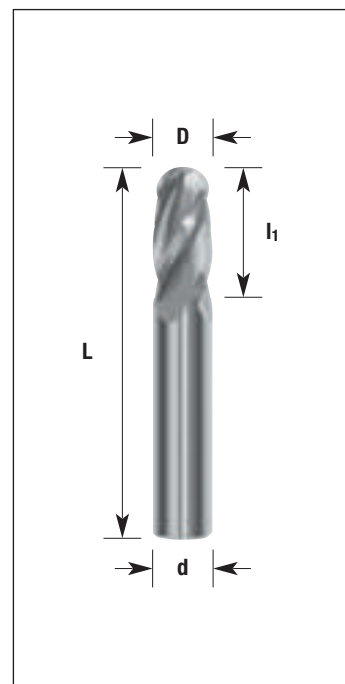
fresas frontales - radio de esquina

fresa sferiche

124

Z = 4

		tol: D $\frac{1}{16}'' - \frac{1}{4}''$ +0.000"/-0.002" $> \frac{1}{4}'' - 1''$ +0.000"/-0.003"	tol: d +0.000"/-0.0005"								
Micro Grain K10/K30	<table border="0"> <tr> <td>■ 1.1 - 1.3</td> <td>■ 4.1 - 5.3</td> </tr> <tr> <td>■ 1.4 - 1.6</td> <td>■ 6.1 - 8.3</td> </tr> <tr> <td>■ 2.1 - 2.3</td> <td>■ 9.1</td> </tr> <tr> <td>■ 3.1 - 3.4</td> <td></td> </tr> </table>	■ 1.1 - 1.3	■ 4.1 - 5.3	■ 1.4 - 1.6	■ 6.1 - 8.3	■ 2.1 - 2.3	■ 9.1	■ 3.1 - 3.4			
■ 1.1 - 1.3	■ 4.1 - 5.3										
■ 1.4 - 1.6	■ 6.1 - 8.3										
■ 2.1 - 2.3	■ 9.1										
■ 3.1 - 3.4											



D ins	d ins	L ins	l ₁ ins	Part Nr
1/16	1/8	1 1/2	3/16	12406250
3/32	1/8	1 1/2	9/32	12409370
1/8	1/8	1 1/2	7/16	12412500
5/32	3/16	2	1/2	12415620
3/16	3/16	2	9/16	12418750
7/32	1/4	2 1/2	5/8	12421870
1/4	1/4	2 1/2	3/4	12425000
9/32	5/16	2 1/2	3/4	12428120
5/16	5/16	2 1/2	13/16	12431250
3/8	3/8	2 1/2	7/8	12437500
7/16	7/16	2 3/4	1	12443750
1/2	1/2	3	1	12450000
9/16	9/16	3 1/2	1 1/8	12456250
5/8	5/8	3 1/2	1 1/4	12462500
3/4	3/4	4	1 1/2	12475000