

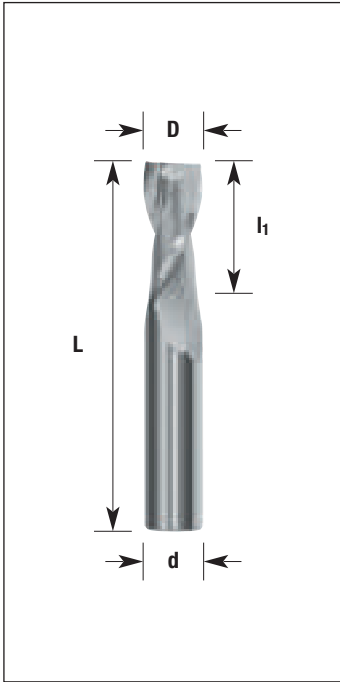
# end mills - standard length

Schafffräser - normale länge

fraise en bout - longueur normale

fresas frontales - longitud estándar

frese - lunghezza standard



**112**

**Z=2**

	<b>tol: D</b> 1 - 7mm +0.000/-0.051mm > 7 - 25mm +0.000/-0.076mm	<b>tol: d</b>  <b>h6</b>								
<b>Micro Grain K10/K30</b>	<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 <sub>1</sub> mm	Part Nr
2	3	38	6	11207870T
2.5	3	38	7	11209840T
3	3	38	12	11211810T
3.5	4	50	12	11213780T
4	4	50	14	11215750T
4.5	5	50	14	11217720T
5	5	50	16	11219680T
6	6	63	19	11223620T
7	8	63	19	11227560T
8	8	63	19	11231500T
9	10	70	22	11235430T
10	10	70	22	11239370T
11	11	70	25	11243310T
12	12	75	25	11247240T
14	14	88	30	11255120T
16	16	88	32	11262990T
18	18	100	36	11270870T
20	20	100	38	11278740T

# end mills - standard length

Schafffräser - normale länge


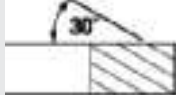


fraise en bout - longueur normale

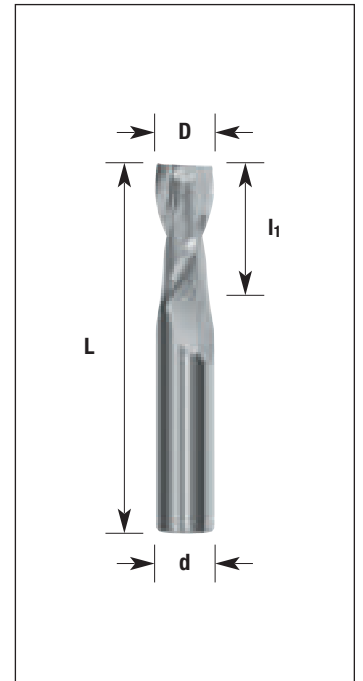
fresas frontales - longitud estándar

frese - lunghezza standard

112

Z=2

		<b>tol: D</b> $1/16'' - 1/4''$ $+0.000''/-0.002''$ $> 1/4'' - 1''$ $+0.000''/-0.003''$	<b>tol: d</b> $+0.000''/-0.0005''$								
<b>Micro Grain K10/K30</b>	<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 <sub>1</sub> ins	Part Nr
1/16	1/8	1 1/2	3/16	11206250T
3/32	1/8	1 1/2	9/32	11209370T
1/8	1/8	1 1/2	7/16	11212500T
5/32	3/16	2	1/2	11215620T
3/16	3/16	2	9/16	11218750T
7/32	1/4	2 1/2	5/8	11221870T
1/4	1/4	2 1/2	3/4	11225000T
9/32	5/16	2 1/2	3/4	11228120T
5/16	5/16	2 1/2	13/16	11231250T
3/8	3/8	2 1/2	7/8	11237500T
7/16	7/16	2 3/4	1	11243750T
1/2	1/2	3	1	11250000T
9/16	9/16	3 1/2	1 1/8	11256250T
5/8	5/8	3 1/2	1 1/4	11262500T
3/4	3/4	4	1 1/2	11275000T

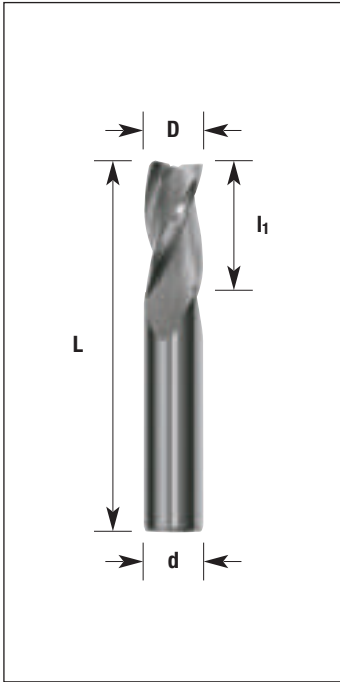
# end mills - standard length

Schafffräser - normale länge

fraise en bout - longueur normale




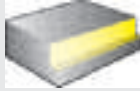
fresas frontales - longitud estándar

frese - lunghezza standard



**113**

**Z=3**

		<b>tol: D</b> 1 - 7mm +0.000/-0.051mm > 7 - 25mm +0.000/-0.076mm	<b>tol: d</b>  <b>h6</b>								
<b>Micro Grain K10/K30</b>	<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 <sub>1</sub> mm	Part Nr
2	3	38	6	11307870T
2.5	3	38	7	11309840T
3	3	38	12	11311810T
3.5	4	50	12	11313780T
4	4	50	14	11315750T
4.5	5	50	14	11317720T
5	5	50	16	11319680T
6	6	63	19	11323620T
7	8	63	19	11327560T
8	8	63	19	11331500T
9	10	70	22	11335430T
10	10	70	22	11339370T
11	11	70	25	11343310T
12	12	75	25	11347240T
14	14	88	30	11355120T
16	16	88	32	11362990T
18	18	100	36	11370870T
20	20	100	38	11378740T

# end mills - standard length

Schafffräser - normale länge




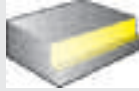
fraise en bout - longueur normale

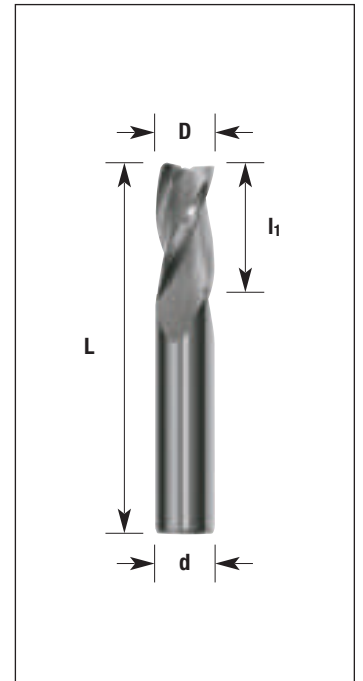
fresas frontales - longitud estándar

frese - lunghezza standard

**113**

**Z=3**

		<b>tol: D</b> $\frac{1}{16}'' - \frac{1}{4}''$ $+0.000''/-0.002''$ $> \frac{1}{4}'' - 1''$ $+0.000''/-0.003''$	<b>tol: d</b> $+0.000''/-0.0005''$								
<b>Micro Grain K10/K30</b>	<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 <sub>1</sub> ins	Part Nr
1/16	1/8	1 1/2	3/16	11306250T
3/32	1/8	1 1/2	9/32	11309370T
1/8	1/8	1 1/2	7/16	11312500T
5/32	3/16	2	1/2	11315620T
3/16	3/16	2	9/16	11318750T
7/32	1/4	2 1/2	5/8	11321870T
1/4	1/4	2 1/2	3/4	11325000T
9/32	5/16	2 1/2	3/4	11328120T
5/16	5/16	2 1/2	13/16	11331250T
3/8	3/8	2 1/2	7/8	11337500T
7/16	7/16	2 3/4	1	11343750T
1/2	1/2	3	1	11350000T
9/16	9/16	3 1/2	1 1/8	11356250T
5/8	5/8	3 1/2	1 1/4	11362500T
3/4	3/4	4	1 1/2	11375000T

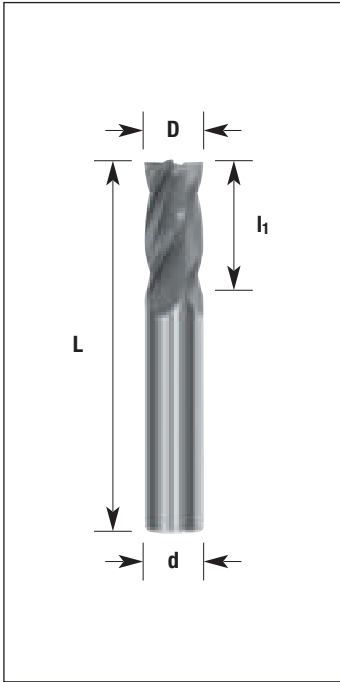
# end mills - standard length

Schafffräser - normale länge

fraise en bout - longueur normale

fresas frontales - longitud estándar

frese - lunghezza standard



**114**

**Z = 4**

		<b>tol: D</b> 1 - 7mm +0.000/-0.051mm > 7 - 25mm +0.000/-0.076mm	<b>tol: d</b>  <b>h6</b>								
<b>Micro Grain K10/K30</b>	<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 <sub>1</sub> mm	Part Nr
2	3	38	6	11407870T
2.5	3	38	7	11409840T
3	3	38	12	11411810T
3.5	4	50	12	11413780T
4	4	50	14	11415750T
4.5	5	50	14	11417720T
5	5	50	16	11419680T
6	6	63	19	11423620T
7	8	63	19	11427560T
8	8	63	19	11431500T
9	10	70	22	11435430T
10	10	70	22	11439370T
11	11	70	25	11443310T
12	12	75	25	11447240T
14	14	88	30	11455120T
16	16	88	32	11462990T
18	18	100	36	11470870T
20	20	100	38	11478740T

# end mills - standard length

Schafffräser - normale länge



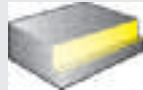
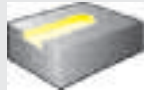
fraise en bout - longueur normale

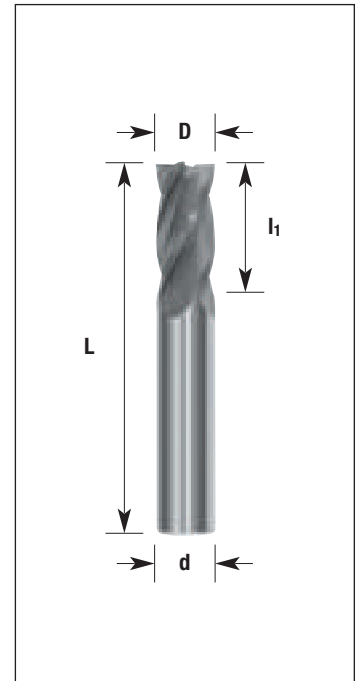
fresas frontales - longitud estándar

frese - lunghezza standard

114

Z = 4

		<b>tol: D</b> $1/16'' - 1/4''$ +0.000"/-0.002" $> 1/4'' - 1''$ +0.000"/-0.003"	<b>tol: d</b> +0.000"/-0.0005"								
<b>Micro Grain K10/K30</b>	<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										
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2.1 - 2.3	9.1										
3.1 - 3.4											



D ins	d ins	L ins	l <sub>1</sub> ins	Part Nr
1/16	1/8	1 1/2	3/16	11406250T
3/32	1/8	1 1/2	9/32	11409370T
1/8	1/8	1 1/2	7/16	11412500T
5/32	3/16	2	1/2	11415620T
3/16	3/16	2	9/16	11418750T
7/32	1/4	2 1/2	5/8	11421870T
1/4	1/4	2 1/2	3/4	11425000T
9/32	5/16	2 1/2	3/4	11428120T
5/16	5/16	2 1/2	13/16	11431250T
3/8	3/8	2 1/2	7/8	11437500T
7/16	7/16	2 3/4	1	11443750T
1/2	1/2	3	1	11450000T
9/16	9/16	3 1/2	1 1/8	11456250T
5/8	5/8	3 1/2	1 1/4	11462500T
3/4	3/4	4	1 1/2	11475000T