



**EPC 943 HT**


	Material Group ISO 513	P1 P2 P7 K1	P3 P4 M1 K2 K3	P5 M2 M3 K4 S1 S4	S2 S3 S5
	Hardness/Rm	≤700 N/mm <sup>2</sup>	600÷1000 N/mm <sup>2</sup>	≤35 HRC	≤40 HRC
	ap x ae	<b>1.5D x 0.3D</b>	<b>1.5D x 0.3D</b>	<b>1.2D x 0.2D</b>	<b>1.2D x 0.2D</b>
	Vc (m/min)	<b>110÷130</b>	<b>70÷90</b>	<b>50÷70</b>	<b>30÷50</b>
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
	<b>4</b>	0.016	0.015	0.013	0.018
	<b>5</b>	0.021	0.019	0.017	0.023
	<b>6</b>	0.026	0.023	0.021	0.029
	<b>8</b>	0.031	0.028	0.025	0.034
	<b>10</b>	0.036	0.033	0.029	0.040
<b>12</b>	0.041	0.037	0.033	0.045	
<b>16</b>	0.047	0.042	0.038	0.052	
<b>20</b>	0.063	0.057	0.051	0.070	
ap x ae	≤ D5	1.5D x 0.1D	1.5D x 0.1D	1.2D x 0.1D	1.2D x 0.1D


	Material Group ISO 513	P1 P2 P7 K1	P3 P4 M1 K2 K3	P5 M2 M3 K4 S1 S4	S2 S3 S5
	Hardness/Rm	≤700 N/mm <sup>2</sup>	600÷1000 N/mm <sup>2</sup>	≤35 HRC	≤40 HRC
	α° x ae	<b>4° x 0.4D</b>	<b>3° x 0.4D</b>	<b>3° x 0.4D</b>	<b>2° x 0.4D</b>
	Vc (m/min)	<b>90÷110</b>	<b>60÷80</b>	<b>40÷60</b>	<b>20÷40</b>
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
	<b>4</b>	0.010	0.010	0.008	0.009
	<b>5</b>	0.013	0.013	0.011	0.011
	<b>6</b>	0.016	0.016	0.013	0.014
	<b>8</b>	0.019	0.018	0.015	0.016
	<b>10</b>	0.023	0.022	0.018	0.019
<b>12</b>	0.026	0.025	0.021	0.022	
<b>16</b>	0.030	0.028	0.024	0.025	
<b>20</b>	0.040	0.038	0.032	0.033	
α° x ae	≤ D5	2° x 0.4D	2° x 0.4D	1° x 0.4D	1° x 0.4D

[www.enpro-gmbh.de](http://www.enpro-gmbh.de)

PARAMETERS SUGGESTED WITH HIGH PRECISION WELDON CHUCK AND STABLE MACHINING CONDITION.  
FOR APPLICATION ON HIGH POWER MILLING CHUCK, PLEASE REFER TO HF942 PARAMETERS.


**EPC 943 HT**

	Material Group ISO 513	<b>P1 P2 P7 K1</b>	<b>P3 P4 M1 K2 K3</b>	<b>P5 M2 M3 K4 S1 S4</b>	<b>S2 S3 S5</b>
	Hardness/Rm	≤700 N/mm <sup>2</sup>	600+1000 N/mm <sup>2</sup>	≤35 HRC	≤40 HRC
	α° x ae	<b>5° x D</b>	<b>5° x D</b>	<b>3° x D</b>	<b>3° x D</b>
	Vc (m/min)	<b>80+100</b>	<b>50+70</b>	<b>35+55</b>	<b>20+30</b>
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
	<b>4</b>	0.012	0.011	0.010	0.014
	<b>5</b>	0.015	0.014	0.014	0.019
	<b>6</b>	0.019	0.017	0.017	0.023
	<b>8</b>	0.022	0.020	0.020	0.027
	<b>10</b>	0.027	0.024	0.023	0.032
	<b>12</b>	0.030	0.027	0.026	0.036
	<b>16</b>	0.034	0.031	0.030	0.041
<b>20</b>	0.046	0.042	0.041	0.056	

	Material Group ISO 513	<b>P1 P2 P7 K1</b>	<b>P3 P4 M1 K2 K3</b>	<b>P5 M2 M3 K4 S1 S4</b>	<b>S2 S3 S5</b>
	Hardness/Rm	≤700 N/mm <sup>2</sup>	600+1000 N/mm <sup>2</sup>	≤35 HRC	≤40 HRC
	ap x ae	<b>D x 0.4D</b>	<b>D x 0.4D</b>	<b>D x 0.25D</b>	<b>D x 0.25D</b>
	Vc (m/min)	<b>80+100</b>	<b>50+70</b>	<b>35+55</b>	<b>20+30</b>
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
	<b>4</b>	0.014	0.012	0.010	0.010
	<b>5</b>	0.018	0.016	0.013	0.012
	<b>6</b>	0.022	0.019	0.016	0.015
	<b>8</b>	0.026	0.023	0.019	0.018
	<b>10</b>	0.030	0.027	0.023	0.021
	<b>12</b>	0.034	0.031	0.026	0.024
	<b>16</b>	0.039	0.035	0.029	0.027
<b>20</b>	0.053	0.048	0.040	0.037	

	Material Group ISO 513	<b>P1 P2 P7 K1</b>	<b>P3 P4 M1 K2 K3</b>	<b>P5 M2 M3 K4 S1 S4</b>	<b>S2 S3 S5</b>
	Hardness/Rm	≤700 N/mm <sup>2</sup>	600+1000 N/mm <sup>2</sup>	≤35 HRC	≤40 HRC
	ap x ae	<b>D x D</b>	<b>D x D</b>	<b>D x 0.5D</b>	<b>D x 0.5D</b>
	Vc (m/min)	<b>70+90</b>	<b>50+60</b>	<b>35+45</b>	<b>20+30</b>
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
	<b>4</b>	0.007	0.006	0.005	0.007
	<b>5</b>	0.009	0.008	0.007	0.010
	<b>6</b>	0.011	0.010	0.009	0.012
	<b>8</b>	0.013	0.012	0.010	0.014
	<b>10</b>	0.015	0.014	0.012	0.017
	<b>12</b>	0.017	0.015	0.014	0.019
	<b>16</b>	0.020	0.018	0.016	0.022
<b>20</b>	0.026	0.024	0.021	0.029	
ap x ae	<b>≤ D5</b>	0.5D x D	0.5D x D	0.25D x D	0.25D x D

## EPC 943 HT

	Material Group ISO 513	P1 P2 P7 K1	P3 P4 M1 K2 K3	P5 M2 M3 K4 S1 S4	S2 S3 S5
	Hardness/Rm	≤700 N/mm <sup>2</sup>	600÷1000 N/mm <sup>2</sup>	≤35 HRC	≤40 HRC
	ap x ae	<b>2D x 0.1D</b>	<b>2D x 0.1D</b>	<b>1.5D x 0.1D</b>	<b>1.5D x 0.1D</b>
	Vc (m/min)	<b>140÷160</b>	<b>100÷120</b>	<b>70÷90</b>	<b>40÷60</b>
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
	<b>4</b>	0.034	0.031	0.027	0.037
	<b>5</b>	0.044	0.040	0.035	0.048
	<b>6</b>	0.054	0.049	0.043	0.059
	<b>8</b>	0.064	0.058	0.051	0.070
	<b>10</b>	0.076	0.068	0.061	0.084
<b>12</b>	0.086	0.077	0.069	0.095	
<b>16</b>	0.098	0.088	0.078	0.108	
<b>20</b>	0.132	0.119	0.106	0.145	
ap x ae	≤ D5	1.5D x 0.1D	1.5D x 0.1D	1.2D x 0.05D	1.2D x 0.05D

**NOTES:**

Down milling CNC programming is required.

"ae" value max 0.2xD - "T" value max 0.1xD.

The use of end mill with diameter 30-40% smaller than the width of the slot is recommended.

The cutting conditions are based on CNC programming with medium dynamic speed.

With lower CNC dynamic speed, use the same cutting conditions or reduce the cutting speed Vc.

With higher CNC dynamic speed, reduce the "T" value by approximately -30 -50% and apply the maximum available cutting speed Vc.

