

F520HX / F521HX 超微粒鎢鋼塗層圓頭立銑刀

Ball Nose End Mills

Designed with S-style ball nose geometry.

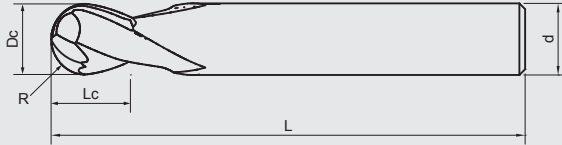
Reduce surface cutting resistance.

Good wear resistance and lubricating effect with Nano multilayer coating.

S型球頭幾何設計。

可降低曲面切削阻力。

採用奈米多層膜塗層具有優異的潤滑及耐磨性。

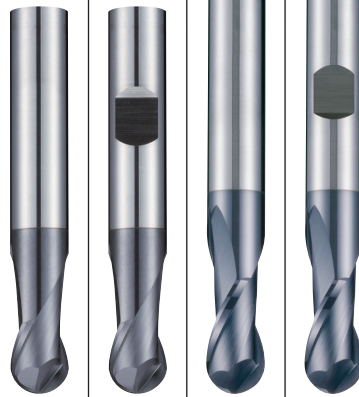


VHM
Carbide

AlTiCrN
HX



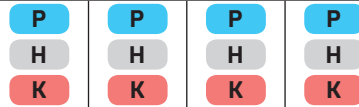
Steel
<48HRC



Suitable for cutting different steels below 48HRC as well as cast iron.

Application for finishing profile cutting.

適用切削於48HRC以下的各種鋼材及鑄鐵。
適用於曲面輪廓精切加工應用。



DIN 6527 Stub Length

Dc 0 -0.02	R ±0.01	Lc mm	L mm	d h5	F520HX HA	F520HX HB				
2	1R	3	50	6	●	●				
3	1.5R	4	50	6	●	●				
4	2R	5	54	6	●	●				
5	2.5R	6	54	6	●	●				
6	3R	7	54	6	●	●				
8	4R	9	58	8	●	●				
10	5R	11	66	10	●	●				
12	6R	12	73	12	●	●				
14	7R	14	75	14	●	●				
16	8R	16	82	16	●	●				
18	9R	18	84	18	●	●				
20	10R	20	92	20	●	●				

DIN 6527 Standard Length

Dc 0 -0.02	R ±0.01	Lc mm	L mm	d h5			F521HX HA	F521HX HB		
3	1.5R	7	57	6			●	●		
4	2R	8	57	6			●	●		
5	2.5R	10	57	6			●	●		
6	3R	10	57	6			●	●		
8	4R	16	63	8			●	●		
10	5R	19	72	10			●	●		
12	6R	22	83	12			●	●		
14	7R	22	83	14			●	●		
16	8R	26	92	16			●	●		
18	9R	26	92	18			●	●		
20	10R	32	104	20			●	●		

切削條件

Cutting Conditions

F520HX F521HX		F520HX				F520HX				F521HX				F521HX			
		cutting speed Vc (m/min)	feed per tooth fz(mm)	ae	ap	cutting speed Vc (m/min)	feed per tooth fz(mm)	ae	ap	cutting speed Vc (m/min)	feed per tooth fz(mm)	ae	ap	cutting speed Vc (m/min)	feed per tooth fz(mm)	ae	ap
Carbon Steel Materials																	
P	GR1 Carbon Steel	120	0.02xDc	0.2xDc	0.1xDc	120	0.023xDc	0.2xDc	0.1xDc	120	0.02xDc	0.2xDc	0.1xDc	120	0.023xDc	0.2xDc	0.1xDc
	GR2 <24HRC Low-alloyed Steel	110	0.02xDc	0.2xDc	0.1xDc	110	0.022xDc	0.2xDc	0.1xDc	110	0.02xDc	0.2xDc	0.1xDc	110	0.022xDc	0.2xDc	0.1xDc
	GR3 <30HRC Hi-alloyed Steel	100	0.018xDc	0.2xDc	0.1xDc	100	0.021xDc	0.2xDc	0.1xDc	100	0.018xDc	0.2xDc	0.1xDc	100	0.021xDc	0.2xDc	0.1xDc
Hardened Steel Materials																	
H	GR4 30-38HRC Hardened Steel	60	0.015xDc	0.02xDc	0.02xDc	60	0.015xDc	0.02xDc	0.02xDc	60	0.015xDc	0.02xDc	0.02xDc	60	0.015xDc	0.02xDc	0.02xDc
	GR5 38-48HRC Hardened Steel	55	0.012xDc	0.02xDc	0.02xDc	55	0.012xDc	0.02xDc	0.02xDc	55	0.012xDc	0.02xDc	0.02xDc	55	0.012xDc	0.02xDc	0.02xDc
Cast Iron Materials																	
K	GR9-1 Grey cast iron	120	0.02xDc	0.2xDc	0.1xDc	120	0.023xDc	0.2xDc	0.1xDc	120	0.02xDc	0.2xDc	0.1xDc	120	0.023xDc	0.2xDc	0.1xDc
	GR9-2 Nodular cast iron	120	0.02xDc	0.2xDc	0.1xDc	120	0.023xDc	0.2xDc	0.1xDc	120	0.02xDc	0.2xDc	0.1xDc	120	0.023xDc	0.2xDc	0.1xDc

All cutting data serve for orientation only and should be adapted individually to the technical conditions on location

1. Please work with good rigidity / high precision facilities and collet chuck.
 2. Please choose proper cutting fluid.
 3. The cutting data is reference value only. Please adjust it according to your real working conditions.
 4. If RPM is lower the reference value, the Feed rate [fz] and RPM should be reduced by the same proportion.
 5. If vibration occurs during cutting, please reduce cutting parameter.
1. 請使用剛性好、精度高的設備和夾具。
 2. 請選擇適用於工件材料的切削液。
 3. 此切削條件表中的數值為切削條件的基準值，實際加工時，請考慮加工形狀、目的、使用機台等因素，對切削條件進行調整。
 4. 如果機台轉速低於表中所列數值，則進給速度應與轉速按同一比例降低。
 5. 切削加工時如果發生振顫，請降低切削條件。