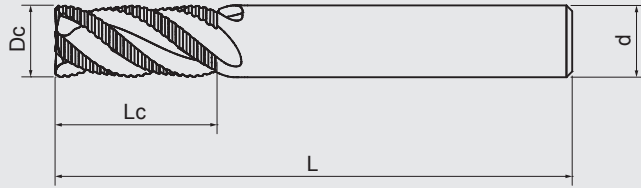


F638TX / F649TX 極超微粒鎢鋼塗層粗加工立銑刀

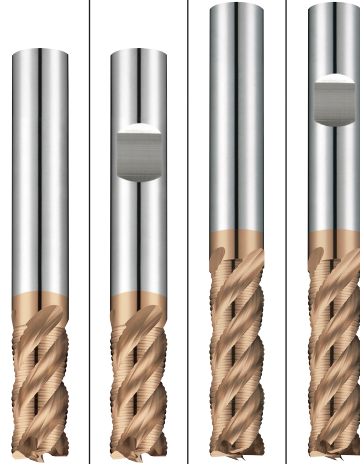
Roughing End Mills

Fine tooth staggered chip breaker design on cutting flutes are good for chip breaking.
Good wear resistance and lubricating effect with Nano multilayer coating.

細波浪齒形設計，齒形交錯利於斷屑。
採用奈米多層膜塗層具有優異的潤滑及耐磨性。



Suitable for cutting different steel below 56HRC as well as cast iron. Application for roughing cutting process. 適用切削於56HRC以下的各種鋼材及鑄鐵。適用於粗加工重切削工法應用。



P
H
M

P
H
M

P
H
M

P
H
M

DIN 6527 Standard Length

Dc h10	Lc mm	L mm	d h5	Z T	45° mm	F638TX HA	F638TX HB				
3	8	57	6	3	0.3	●	●				
4	11	57	6	3	0.3	●	●				
5	13	57	6	3	0.4	●	●				
6	13	57	6	4	0.4	●	●				
8	19	63	8	4	0.4	●	●				
10	22	72	10	4	0.5	●	●				
12	26	83	12	4	0.5	●	●				
14	26	83	14	4	0.5	●	●				
16	32	92	16	4	0.5	●	●				
18	32	92	18	4	0.5	●	●				
20	38	104	20	4	0.5	●	●				

Long Length

Dc h10	Lc mm	L mm	d h5	Z T	45° mm			F649TX HA	F649TX HB		
6	19	63	6	4	0.4			●	●		
8	28	72	8	4	0.4			●	●		
10	34	84	10	4	0.5			●	●		
12	40	97	12	4	0.5			●	●		
16	48	108	16	4	0.5			●	●		
20	56	122	20	4	0.5			●	●		

切削條件

Cutting Conditions

F638TX F649TX							
		cutting speed Vc (m/min)	feed per tooth fz(mm)	cutting speed Vc (m/min)	feed per tooth fz(mm)	cutting speed Vc (m/min)	feed per tooth fz(mm)
Carbon Steel Materials							
P	GR1 Carbon Steel	60	0.006xDc	70	0.006xDc	80	0.006xDc
	GR2 <24HRC Low-alloyed Steel	60	0.005xDc	70	0.005xDc	80	0.005xDc
	GR3 <30HRC Hi-alloyed Steel	50	0.005xDc	60	0.005xDc	70	0.005xDc
Hardened Steel Materials							
H	GR4 30-38HRC Hardened Steel	45	0.003xDc	65	0.003xDc	70	0.003xDc
	GR5 38-48HRC Hardened Steel	40	0.003xDc	60	0.003xDc	65	0.003xDc
Stainless Steel Materials							
M	GR8-1 Ferritic、Martensitic	60	0.002xDc	70	0.004xDc	80	0.003xDc
	GR8-2 Austenitic	50	0.002xDc	60	0.003xDc	70	0.003xDc
	GR8-3 Austenitic-ferritic	40	0.002xDc	50	0.003xDc	60	0.002xDc
	GR8-4 Austenitic-ferritic Heat-resistant	30	0.002xDc	40	0.003xDc	50	0.002xDc

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。