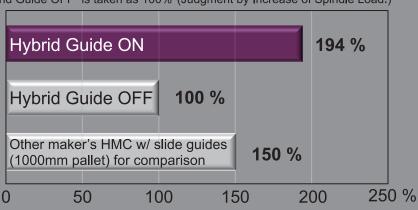


Tune of quideo	HYBRID GUIDES	Rolling type		
Type of guides		Roller guide	Ball guide	Sliding type
Shape of guides	Roller guide blocks Slide block	[cross section]	[cross section]	[cross section] Sliding part
Rigidity		0	Δ	©
Vibration damping during cutting	0	0	Δ	0

Hybrid Guides prolong Tool Life.

Tool Life Test Tool Life with "Hybrid Guide OFF" is taken as 100% (Judgment by Increase of Spindle Load.)

φ32 mm End mill	
(3-tipped)	
180 mm	
1200 min ⁻¹	
900 mm/min.	
10 x 10 mm	
without Coolant	
with Air blow	
90 cc/min.	
Mild steel S53C	



Vibration Test

Tool	φ126 mm Face mill	
1001	(6-tipped)	
Tool length	90 mm	
Spindle speed	600 min ⁻¹	
Feed rate	1000 mm/min.	
Cutting width x Depth	100 x 5 mm	
Cutting	without Coolant	
Metal removal rate	500 cc/min.	
Material	Mild steel S53C	

