

THE NEW VALUE FRONTIER



Micro Boring | **PF** Chipbreaker

Micro Boring

PF Chipbreaker

NEW



Excellent Chip Control and Low Cutting Force for Micro Boring

Superior Chip Control in a Wide Range of Cutting Conditions

Minimum Cutting Diameter $\phi 5\text{mm}$ ~

Anti-welding Properties with Improved Mirror Surface Finish

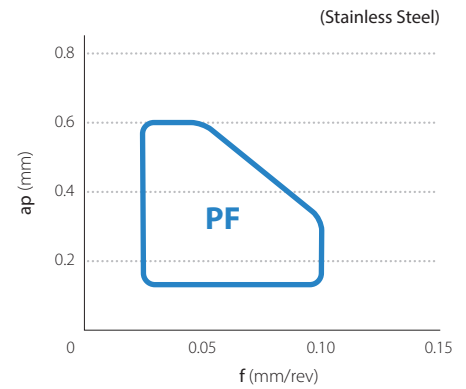


Micro Boring

PF Chipbreaker

Excellent Chip Control and Low Cutting Force for Micro Boring

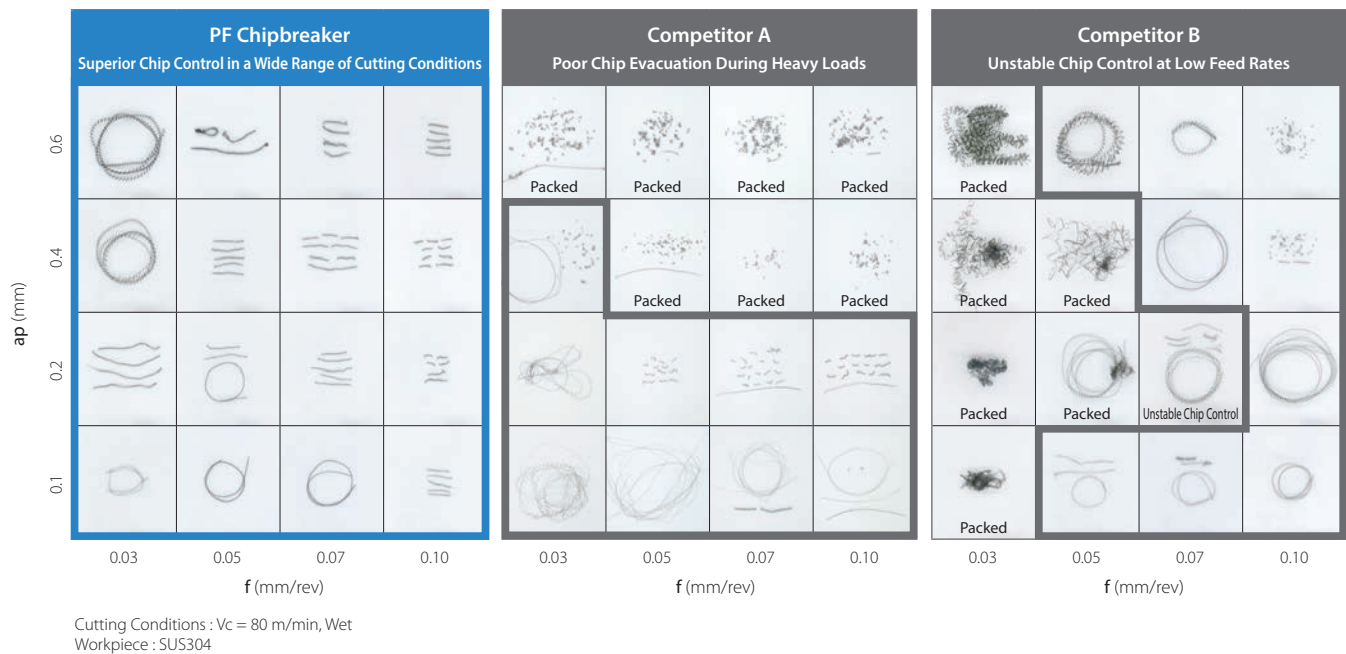
Applicable Chipbreaker Range



1 Excellent Chip Control

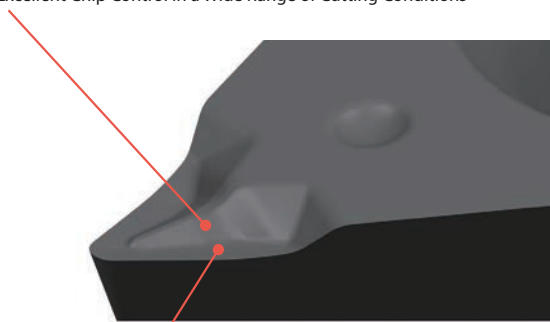
Superior chip control for micro boring (Minimum cutting diameter $\phi 5$ mm~)

Chip Control Comparison (Internal Evaluation)



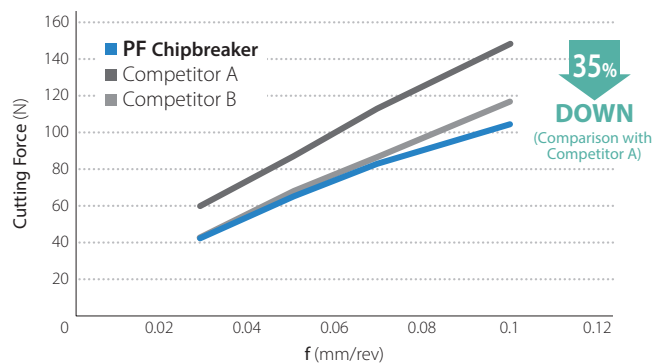
2 Improved Cutting Edge with a Low Cutting Force Design

Optimized Edge Design
Excellent Chip Control in a Wide Range of Cutting Conditions



Large Rake Angle and Low Cutting Forces
Sharpened Cutting Edge Reduces Cutting Forces

Cutting Force Comparison (Internal Evaluation)



Lower Cutting Force Compared with Competitor A and B

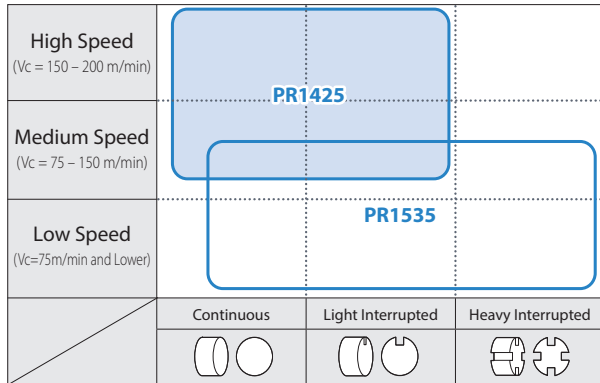
Cutting Conditions : $V_c = 80$ m/min, $a_p = 0.4$ mm, Wet
Workpiece : SUS304

3 High Precision with Periphery Grinding and Sharp Edge Specification

4 Anti-welding Properties with Improved Mirror Surface Finish

Application Maps

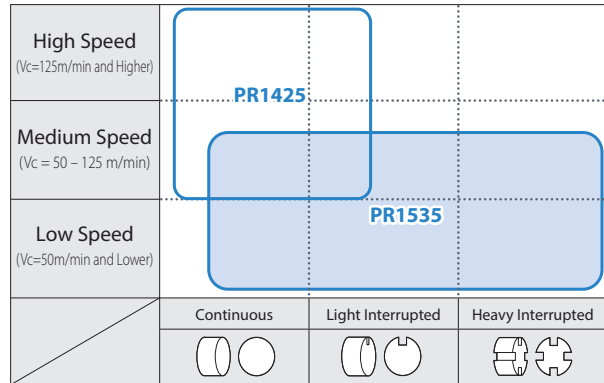
Steel



1st Recommendation : PR1425

High Reliability in Light Interrupted Cuts : PR1535

Stainless Steel



1st Recommendation : PR1535

Longer Tool Life at High Speeds : PR1425

High Precision Machining Combining with EZ Bar PLUS

Indexable EZ Bar for
Small Diameter Boring

EZ Bar PLUS

High Precision Solid Bar with Convenience of Indexable Inserts
Reduces Machining Costs

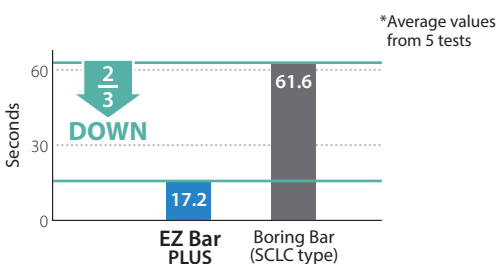
● Minimum Bore Diameter 5mm

Carbide or steel bars can be selected depending on the machining purpose

● Reduces Installing Times by 1/3

The EZ adjust structure features much lower mounting times compared to conventional boring bars

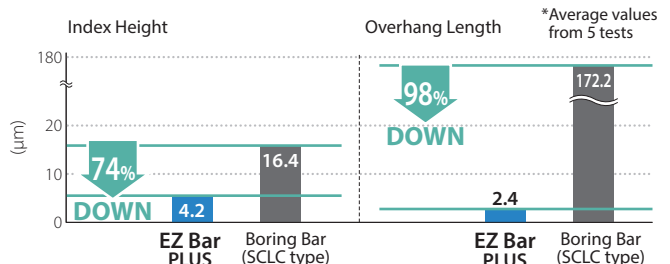
Mounting Time Comparison (Internal Evaluation)





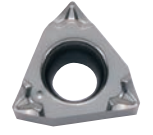
● Excellent and Accurate Repeatability

The EZ adjust structure features higher repeatability accuracy compared with conventional boring bars

Repeatability Comparison (Internal Evaluation)



Stock Items

Shape Left-hand shown for handed insert	Description	Dimensions (mm)				Relief Angle	Grade	
		I.C.	Thickness	Hole	Corner-R (RE)		MEGACOAT NANO	
							PR1425	PR1535
Finishing  Sharp Edge / Mirror Surface Finish	CCGT 030101MFP-PF	3.5	1.40	1.9	< 0.1	7°	●	●
	030102MFP-PF				< 0.2		●	●
	CCGT 040101MFP-PF	4.3	1.80	2.3	< 0.1		●	●
	040102MFP-PF				< 0.2		●	●
	CCGT 060201MFP-PF	6.35	2.38	2.8	< 0.1		●	●
	060202MFP-PF				< 0.2		●	●
060204MFP-PF	< 0.4				●	●		
Finishing  Sharp Edge / Mirror Surface Finish	TBGT 060101MFP-PF	3.97	1.59	2.3	< 0.1	5°	●	●
	060102MFP-PF				< 0.2		●	●
	060104MFP-PF				< 0.4		●	●
	TPGT 090201MFP-PF	5.56	2.38	3.0	< 0.1	11°	●	●
	090202MFP-PF				< 0.2		●	●
	090204MFP-PF				< 0.4		●	●
Finishing  Sharp Edge / Mirror Surface Finish	WBGT 060101MFP R/L-PF	3.97	1.59	2.3	< 0.1	5°	●	●
	060102MFP R/L-PF				< 0.2		●	●
	WBGT 080201MFP R/L-PF	4.76	2.38	2.3	< 0.1		●	●
	080202MFP R/L-PF				< 0.2		●	●

* An insert which corner R(RE) dimension is shown with inequality sign(EX: < 0.1, < 0.2, < 0.4) indicates minus tolerance of corner R(RE)

● : Standard Stock

Applicable Chipbreaker Range

