

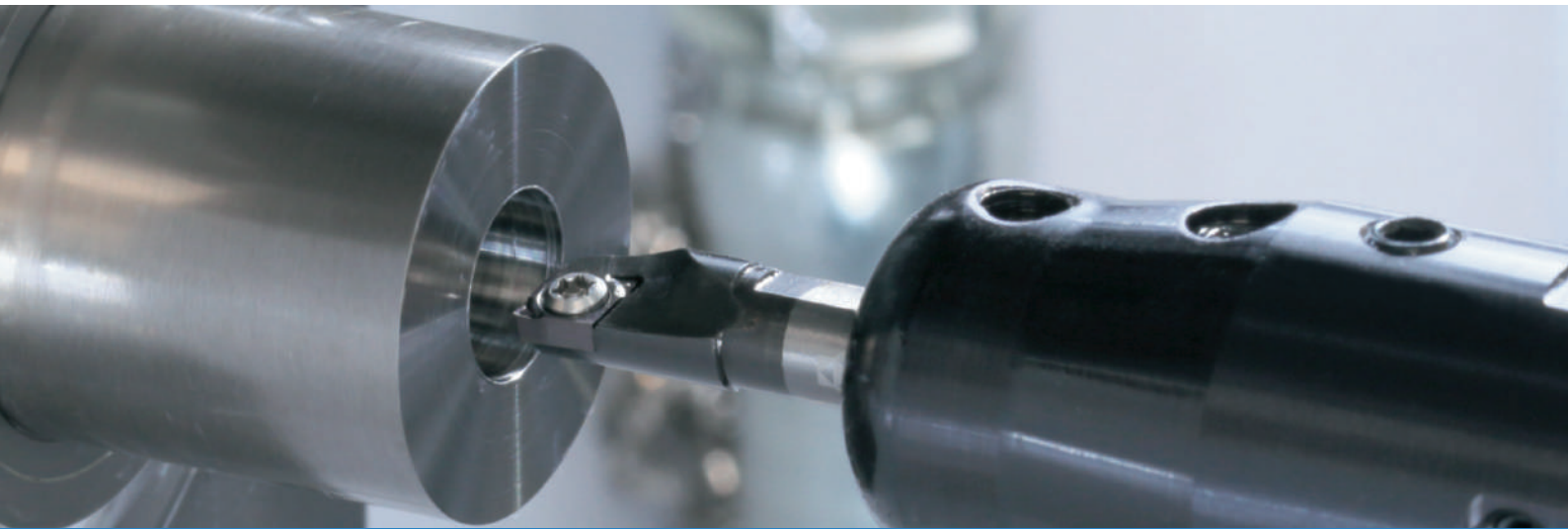
THE NEW VALUE FRONTIER



Micro Boring | **PF** Chipbreaker

Micro Boring

# PF Chipbreaker



**Excellent Chip Control and Low Cutting Force for Micro Boring**

**Superior Chip Control in a Wide Range of Cutting Conditions**

**Minimum Cutting Diameter  $\phi$ 5mm~**

**Anti-welding Properties with Improved Mirror Surface Finish**

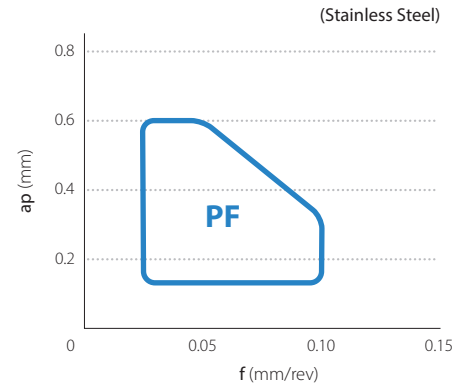


## Micro Boring

# PF Chipbreaker

Excellent Chip Control and Low Cutting Force for Micro Boring

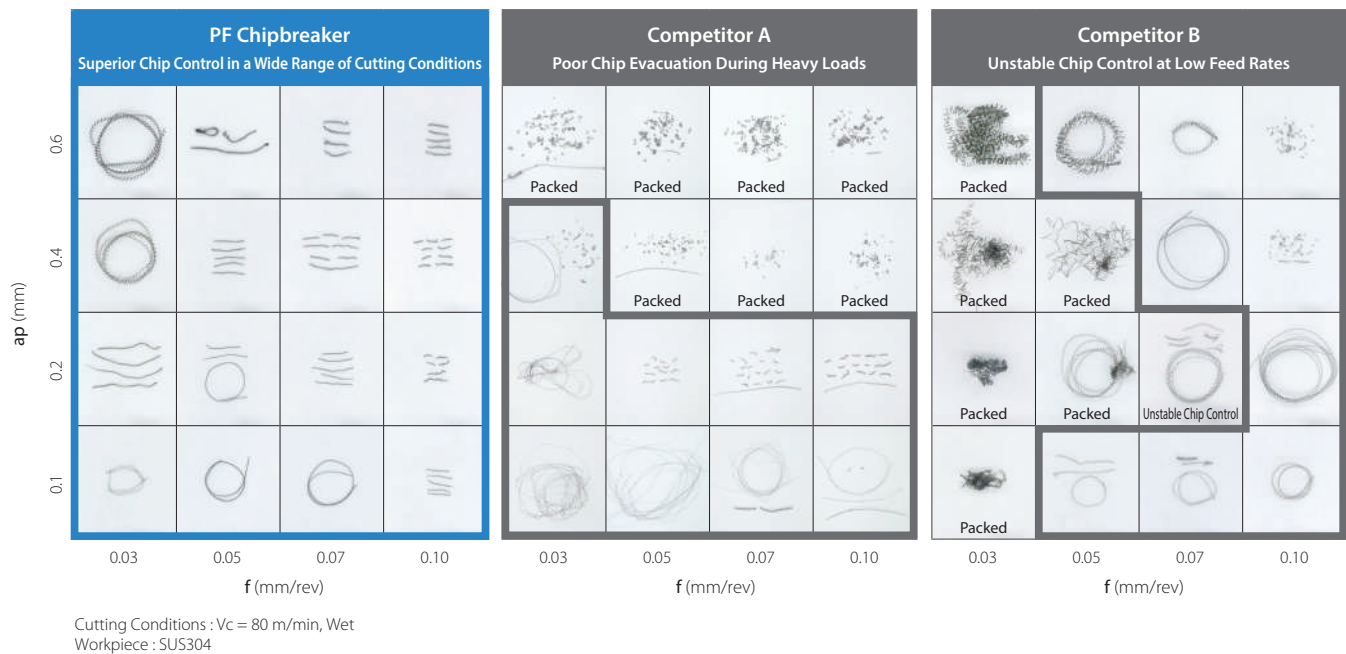
## Applicable Chipbreaker Range



## 1 Excellent Chip Control

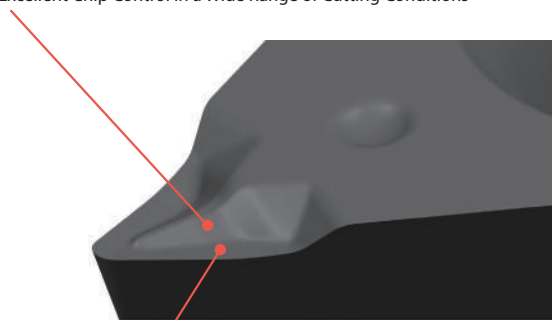
Superior chip control for micro boring (Minimum cutting diameter  $\phi 5$  mm~)

Chip Control Comparison (Internal Evaluation)



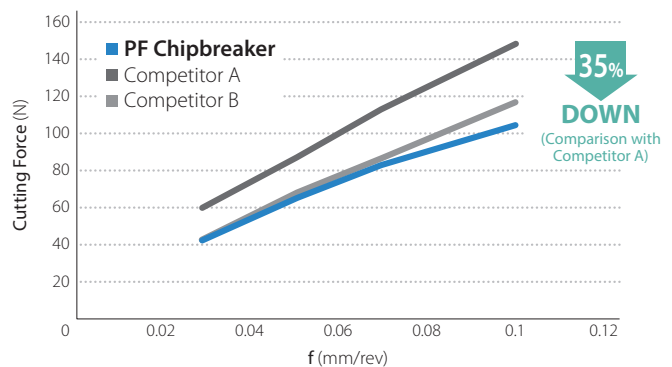
## 2 Improved Cutting Edge with a Low Cutting Force Design

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

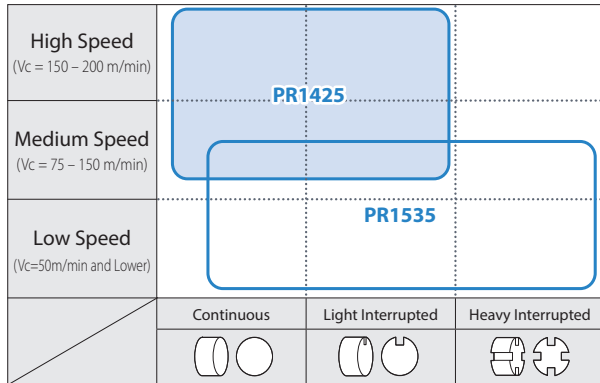
Cutting Conditions :  $V_c = 80$  m/min,  $a_p = 0.4$  mm, Wet  
Workpiece : SUS304

### 3 High Precision with Periphery Grinding and Sharp Edge Specification

### 4 Anti-welding Properties with Improved Mirror Surface Finish

## Application Maps

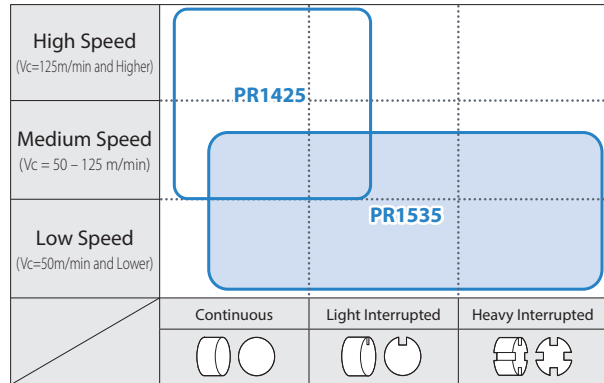
#### Steel



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

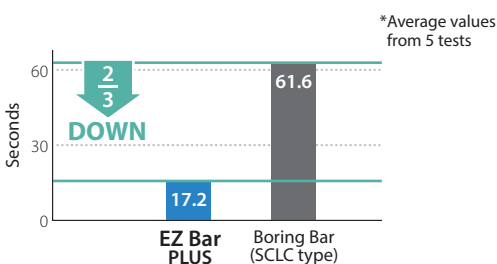
#### ● Minimum Bore Diameter 5mm

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

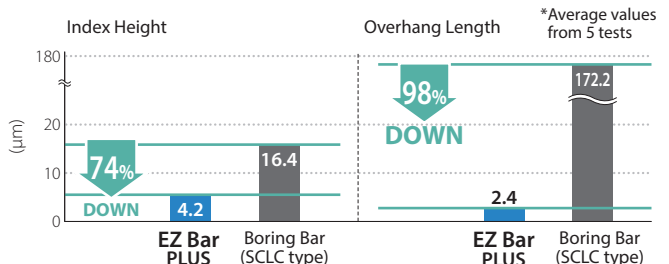
Mounting Time Comparison (Internal Evaluation)






#### ● 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

