

THE NEW VALUE FRONTIER



PVD coating for  
small parts machining

**PR1725**

# PR1725



**Excellent surface finish and long tool life**

**Newly developed PVD coating MEGACOAT NANO PLUS**

**Great for machining steel and other materials**

**Wide range of machining applications with various chipbreakers available**



PVD coating for small parts machining

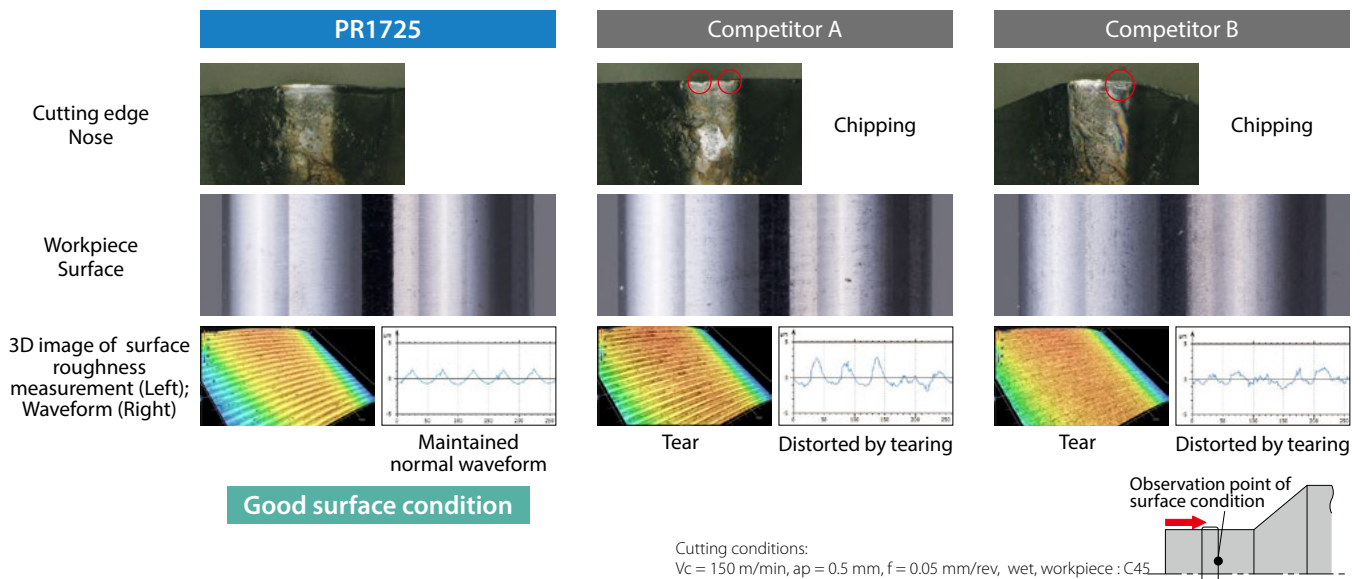
# PR1725

1st recommendation for steel machining. Excellent surface finish and long tool life. Great performance in small parts machining applications.

## 1 MEGACOAT NANO PLUS maintains long tool life and excellent surface finish

Long tool life leads to improved capacity utilization rate. Excellent surface finish with no tearing lowers quality control costs.

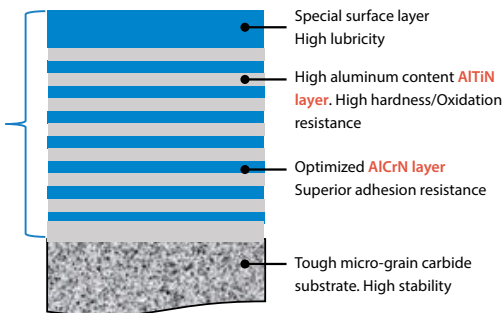
Insert cutting edge wear and quality of surface finish comparison - C45 \* After 20 min of machining (Internal evaluation)



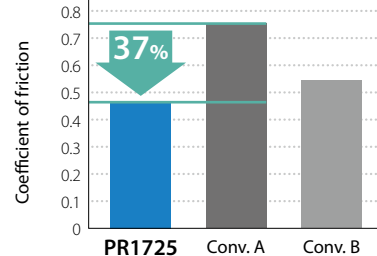
## MEGACOAT NANO PLUS

AlTiN/AlCrN Nano laminated film with superior wear resistance and adhesion resistance. Excellent surface finish and long tool life

Stops the growth of cracks  
Reduces abnormal damages such as chipping because of increased lamination layer with a thinner gap than conventional coatings



### Coefficient of friction comparison (Internal evaluation)



#### Superior wear and chipping resistance

High hardness with nano laminated film layer properties  
Internal stress optimization reduces chipping.

#### Excellent surface finish

Special surface layer with great lubricity reduces adhesion.

#### Applicable to various workpiece materials

Excellent oxidation resistance. Superior high temperature properties maintains good performance in steel, stainless steel and free-cutting steel.

#### High machining stability

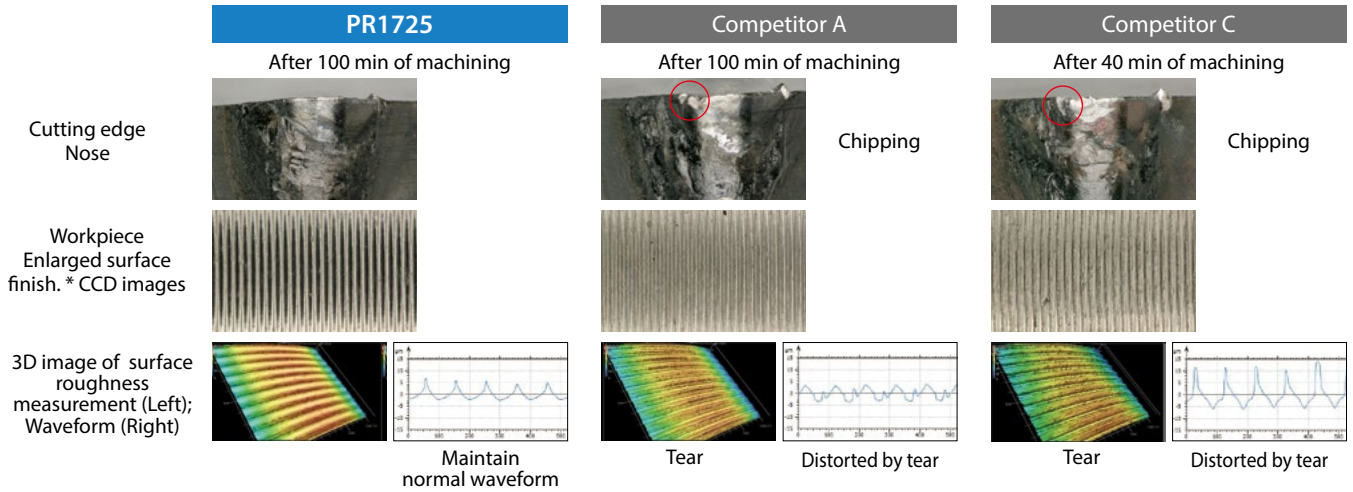
Tough micro-grain carbide substrate provides stable machining.

## 2 One solution can be used in various workpiece materials

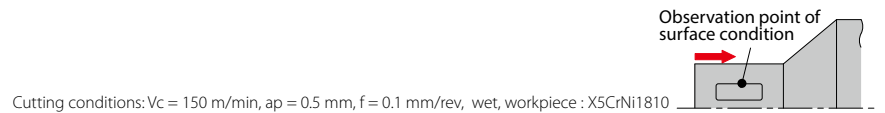
Long tool life for steel, stainless steel and free-cutting steel. Improved management of tools cut the cost.

Wear on the cutting edge of insert and quality of the surface finish comparison - Stainless steel: X5CrNi1810

\* After 20 min of machining (Internal evaluation)

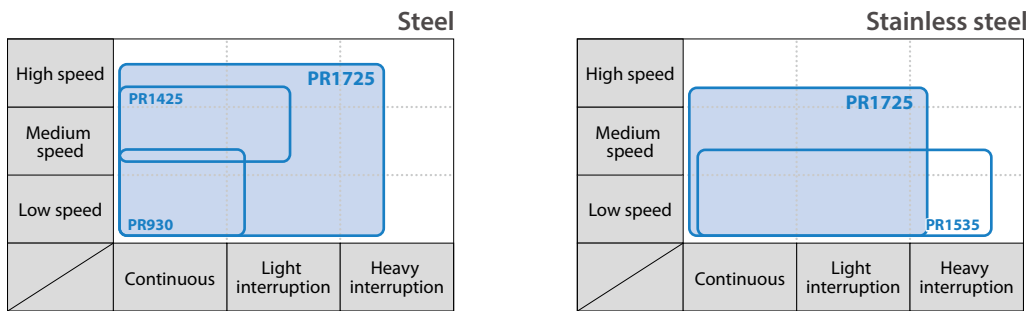


PR1725 shows less damage on the cutting edge and maintains stable tool mark on the workpiece surface



## 3 Applicable to a wide range of machining applications

Good performance in both steel and stainless steel from low to high speed machining



PR1725: 1st recommendation for steel machining

PR1725: For general purpose high-speed machining

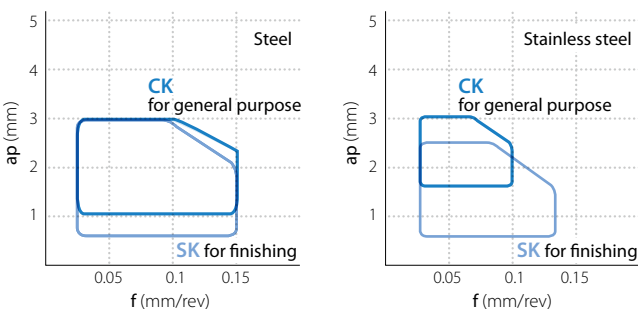
PR1535: 1st recommendation for stainless steel machining

Long tool life and high quality machining

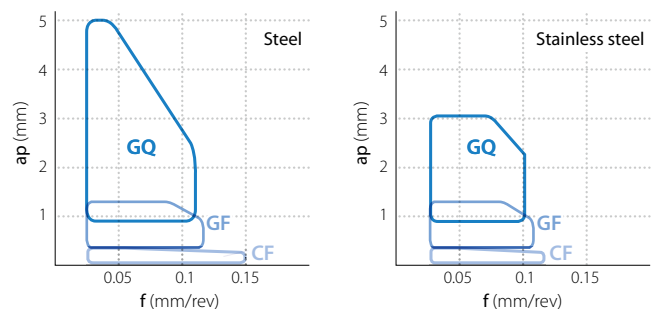
### Molded sharp edge chipbreaker series

A wide variety of chipbreakers provides great chip control

Cutting force and surface finish oriented (low cutting force)



Chip control oriented



# Inserts (Positive)

Shape Handed insert shows left-hand	Description	Dimensions (mm)					PR1725
		I.C.	Thick-ness	Hole	Corner-R (RE)	Relief angle	
	CCGT 030101MP-CF	3.5	1.4	1.9	<0.1	7°	●
	030102MP-CF				<0.2		
	CCGT 040101MP-CF	4.3	1.8	2.3	<0.1	7°	●
	040102MP-CF				<0.2		
	CCGT 030101MFP-PF	3.5	1.4	1.9	<0.1	7°	●
	030102MFP-PF				<0.2		
	CCGT 040101MFP-PF	4.3	1.8	2.3	<0.1	7°	●
	040102MFP-PF				<0.2		
	CCGT 060201MFP-PF	6.35	2.38	2.8	<0.1	7°	●
	060202MFP-PF				<0.2		
060204MFP-PF	<0.4						
060208MFP-PF	<0.8						
	CCGT 060201MFP-GF	6.35	2.38	2.8	<0.1	7°	●
	060202MFP-GF				<0.2		
	CCGT 09T301MFP-GF	9.525	3.97	4.4	<0.1	7°	●
	09T302MFP-GF				<0.2		
	CCGT 060201MFP-SK	6.35	2.38	2.8	<0.1	7°	●
	060202MFP-SK				<0.2		
	CCGT 09T301MFP-SK	9.525	3.97	4.4	<0.1	7°	●
	09T302MFP-SK				<0.2		
	CCGT 060201MP-CK	6.35	2.38	2.8	<0.1	7°	●
	060202MP-CK				<0.2		
	CCGT 09T302MP-CK	9.525	3.97	4.4	<0.2	7°	●
	CCGT 060201MFP-GQ	6.35	2.38	2.8	<0.1	7°	●
	060202MFP-GQ				<0.2		
	CCGT 09T301MFP-GQ	9.525	3.97	4.4	<0.1	7°	●
	09T302MFP-GQ				<0.2		
	CCMT 060202WP	6.35	2.38	2.8	0.2	7°	●
	060204WP				0.4		
	CCMT 09T302WP	9.525	3.97	4.4	0.2	7°	●
	09T304WP				0.4		
	CCMT 060202PP	6.35	2.38	2.8	0.2	7°	●
	060204PP				0.4		
	CCMT 09T302PP	9.525	3.97	4.4	0.2	7°	●
09T304PP	0.4						
	CCMT 060202GK	6.35	2.38	2.8	0.2	7°	●
	060204GK				0.4		
	CCMT 09T302GK	9.525	3.97	4.4	0.2	7°	●
09T304GK	0.4						
	CCMT 060202HQ	6.35	2.38	2.8	0.2	7°	●
	060204HQ				0.4		
	CCMT 09T302HQ	9.525	3.97	4.4	0.2	7°	●
	09T304HQ				0.4		
CCMT 09T308HQ	9.525	3.97	4.4	0.8	7°	●	
	CCGT 0602005MF	6.35	2.38	2.8	<0.05	7°	●
	060201MF				<0.1		
	060202MF				<0.2		
	060204MF				<0.4		
	CCGT 09T3005MF	9.525	3.97	4.4	<0.05	7°	●
	09T301MF				<0.1		
	09T302MF				<0.2		
	09T304MF				<0.4		
	CCET 0301005M <sup>R/L</sup> -F	3.5	1.4	1.9	<0.05	7°	●
	030101M <sup>R/L</sup> -F				<0.1		
	030102M <sup>R/L</sup> -F				<0.2		
	030104M <sup>R/L</sup> -F				<0.4		
	CCET 040101M <sup>R/L</sup> -F	4.3	1.8	2.3	<0.1	7°	●
	040102M <sup>R/L</sup> -F				<0.2		
CCET 040104M <sup>R/L</sup> -F	4.3	1.8	2.3	<0.4	7°	●	

Shape Handed insert shows left-hand	Description	Dimensions (mm)					PR1725
		I.C.	Thick-ness	Hole	Corner-R (RE)	Relief angle	
	CCET 09T301M <sup>R/L</sup> -P	9.525	3.97	4.4	<0.1	7°	●
	09T302M <sup>R/L</sup> -P				<0.2		
	09T304M <sup>R/L</sup> -P				<0.4		
	CCET 0602005MF <sup>R/L</sup> -U	6.35	2.38	2.8	<0.05	7°	●
	060201MF <sup>R/L</sup> -U				<0.1		
	060202MF <sup>R/L</sup> -U				<0.2		
	CCET 09T3005MF <sup>R/L</sup> -U	9.525	3.97	4.4	<0.05	7°	●
	09T301MF <sup>R/L</sup> -U				<0.1		
	09T302MF <sup>R/L</sup> -U				<0.2		
CCET 09T304MF <sup>R/L</sup> -U	9.525	3.97	4.4	<0.4	7°	●	
	CCET 0602005MFR-J	6.35	2.38	2.8	<0.05	7°	R
	060201MF <sup>R/L</sup> -J				<0.1		
	060202MF <sup>R/L</sup> -J				<0.2		
	CCET 09T301MF <sup>R/L</sup> -J	9.525	3.97	4.4	<0.1	7°	●
	09T302MF <sup>R/L</sup> -J				<0.2		
	09T304MF <sup>R/L</sup> -J				<0.4		
	CPMT 080202PP	7.94	2.38	3.3	0.2	11°	●
	080204PP				0.4		
	CPMT 090302PP	9.525	3.18	4.4	0.2	11°	●
090304PP	0.4						
	CPMT 080204GP	7.94	2.38	3.3	0.4	11°	●
	090304GP				0.4		
	CPMT 090308GP	9.525	3.18	4.4	0.8	11°	●
	CPMH 080204HQ	7.94	2.38	3.5	0.4	11°	●
	080208HQ				0.8		
	CPMH 090304HQ	9.525	3.18	4.5	0.4	11°	●
090308HQ	0.8						
	CPMH 080204	7.94	2.38	3.5	0.4	11°	●
	080208				0.8		
	CPMH 090304	9.525	3.18	4.5	0.4	11°	●
090308	0.8						
	CPMT 080204XP	7.94	2.38	3.3	0.4	11°	●
	090304XP				0.4		
	CPMT 090308XP	9.525	3.18	4.4	0.8	11°	●
	DCGT 070201MP-CF	6.35	2.38	2.8	<0.1	7°	●
	070202MP-CF				<0.2		
	DCGT 11T301MP-CF	9.525	3.97	4.4	<0.1	7°	●
11T302MP-CF	<0.2						
	DCGT 070201MFP-GF	6.35	2.38	2.8	<0.1	7°	●
	070202MFP-GF				<0.2		
	070204MFP-GF				<0.4		
	DCGT 11T301MFP-GF	9.525	3.97	4.4	<0.1	7°	●
11T302MFP-GF	<0.2						
11T304MFP-GF	<0.4						
	DCGT 070201MFP-SK	6.35	2.38	2.8	<0.1	7°	●
	070202MFP-SK				<0.2		
	070204MFP-SK				<0.4		
	DCGT 11T301MFP-SK	9.525	3.97	4.4	<0.1	7°	●
	11T302MFP-SK				<0.2		
	11T304MFP-SK				<0.4		
	DCGT 070201MP-CK	6.35	2.38	2.8	<0.1	7°	●
	070202MP-CK				<0.2		
	DCGT 11T301MP-CK	9.525	3.97	4.4	<0.1	7°	●
11T302MP-CK	<0.2						
	DCGT 070201MFP-GQ	6.35	2.38	2.8	<0.1	7°	●
	070202MFP-GQ				<0.2		
	070204MFP-GQ				<0.4		
	DCGT 11T301MFP-GQ	9.525	3.97	4.4	<0.1	7°	●
	11T302MFP-GQ				<0.2		
	11T304MFP-GQ				<0.4		

● Available R : R-hand only

# Inserts (Positive)













Shape Handed Insert shows left-hand	Description	Dimensions (mm)					PR1725
		I.C.	Thick-ness	Hole	Corner-R (RE)	Relief angle	
	DCMX 070202WP	6.35	2.38	2.8	0.2	7°	●
	070204WP				0.4		
	070208WP				0.8		
	DCMX 11T302WP	9.525	3.97	4.4	0.2	7°	●
	11T304WP				0.4		
	11T308WP				0.8		
	DCMX 070204 R/L-WP	6.35	2.38	2.8	0.4	7°	●
	DCMX 11T304 R/L-WP	9.525	3.97	4.4	0.4	7°	●
	DCMT 070202PP	6.35	2.38	2.8	0.2	7°	●
	070204PP				0.4		
	11T304PP				0.4		
	DCMT 11T308PP	9.525	3.97	4.4	0.4	7°	●
	11T304PP				0.4		
	11T308PP				0.8		
	DCMT 070202GP	6.35	2.38	2.8	0.2	7°	●
	070204GP				0.4		
	DCMT 11T304GP	9.525	3.97	4.4	0.4	7°	●
	11T308GP				0.8		
	DCMT 070202GK	6.35	2.38	2.8	0.2	7°	●
	070204GK				0.4		
	070208GK				0.8		
	DCMT 11T302GK	9.525	3.97	4.4	0.2	7°	●
	11T304GK				0.4		
	11T308GK				0.8		
	DCMT 070202HQ	6.35	2.38	2.8	0.2	7°	●
	070204HQ				0.4		
	070208HQ				0.8		
	DCMT 11T302HQ	9.525	3.97	4.4	0.2	7°	●
	11T304HQ				0.4		
	11T308HQ				0.8		
	DCGT 0702005MF	6.35	2.38	2.8	<0.05	7°	●
	070201MF				<0.1		
	070202MF				<0.2		
	070204MF				<0.4		
	DCGT 11T3005MF	9.525	3.97	4.4	<0.05	7°	●
	11T301MF				<0.1		
	11T302MF				<0.2		
	11T304MF				<0.4		
	DCMT 070204XP	6.35	2.38	2.8	0.4	7°	●
	11T302XP				0.2		
	11T308XP				0.8		
	DCET 0702005MR-F	6.35	2.38	2.8	<0.05	7°	R
	070201M R/L-F				<0.1		
	070202M R/L-F				<0.2		
	070204M R/L-F				<0.4		
	DCET 11T3005MR-F	9.525	3.97	4.4	<0.05	7°	R
	11T301M R/L-F				<0.1		
	11T302M R/L-F				<0.2		
	11T304M R/L-F				<0.4		
	DCET 0702005MFR-U	6.35	2.38	2.8	<0.05	7°	R
	070201MF R/L-U				<0.1		
	070202MF R/L-U				<0.2		
	DCET 11T3005MFR-U	9.525	3.97	4.4	<0.05	7°	R
	11T301MF R/L-U				<0.1		
	11T302MF R/L-U				<0.2		
	DCET 0702005MFR-J	6.35	2.38	2.8	<0.05	7°	R
	070201MF R/L-J				<0.1		
	070202MF R/L-J				<0.2		
	11T304MFR-J				<0.4		
	DCET 11T3005MFR-J	9.525	3.97	4.4	<0.05	7°	R
	11T301MF R/L-J				<0.1		
	11T302MF R/L-J				<0.2		
	11T304MFR-J				<0.4		
	JCET 030102M R/L-F	3.5	1.4	1.9	<0.2	7°	●
	030104M R/L-F				<0.4		








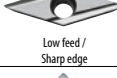


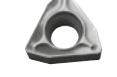
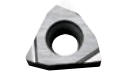

Shape Handed Insert shows left-hand	Description	Dimensions (mm)					PR1725
		I.C.	Thick-ness	Hole	Corner-R (RE)	Relief angle	
	TBGT 060101MP-CF	3.97	1.59	2.3	<0.1	5°	●
	060102MP-CF				<0.2		
	TBGT 060101MFP-PF	3.97	1.59	2.3	<0.1	5°	●
	060102MFP-PF				<0.2		
	060104MFP-PF				<0.4		
	TBET 0601005M R/L	3.97	1.59	2.3	<0.05	5°	●
	060101M R/L				<0.1		
	060102M R/L				<0.2		
	060104M R/L				<0.4		
	TCMX 090204WP	5.56	2.38	2.5	0.4	7°	●
	TCMX 110204WP	6.35	2.38	2.8	0.4	7°	●
	TPGT 080201MP-CF	4.76	2.38	2.3	<0.1	11°	●
	080202MP-CF				<0.2		
	TPGT 090201MP-CF	5.56	2.38	3.0	<0.1	11°	●
	090202MP-CF				<0.2		
	TPGT 090201MFP-PF	5.56	2.38	3.0	<0.1	11°	●
	090202MFP-PF				<0.2		
	090204MFP-PF				<0.4		
	TPMX 090202WP	5.56	2.38	2.8	0.2	11°	●
	090204WP				0.4		
	090208WP				0.8		
	TPMX 110302WP	6.35	3.18	3.3	0.2	11°	●
	110304WP				0.4		
	110308WP				0.8		
	TPMX 110304 R/L-WP	6.35	3.18	3.3	0.4	11°	●
	TPMT 090202PP	5.56	2.38	2.8	0.2	11°	●
090204PP	0.4						
	TPMT 110302PP	6.35	3.18	3.3	0.2	11°	●
	110304PP				0.4		
	110308PP				0.8		
	TPMT 090202GP	5.56	2.38	2.8	0.2	11°	●
	090204GP				0.4		
	TPMT 110304GP	6.35	3.18	3.3	0.4	11°	●
	110308GP				0.8		
	TPMT 160304GP	9.525	3.18	4.4	0.4	11°	●
	TPMT 090202HQ				5.56		
090204HQ	<0.4						
	TPMT 110302HQ	6.35	3.18	3.3	0.2	11°	●
	110304HQ				0.4		
	110308HQ				0.8		
	TPMT 160302HQ	9.525	3.18	4.4	0.2	11°	●
	160304HQ				0.4		
	160308HQ				0.8		
	TPMT 090204XP	5.56	2.38	2.8	0.4	11°	●
	TPMT 110304XP				6.35		
110308XP	0.8						
	TPMT 160304XP	9.525	3.18	4.4	0.4	11°	●
	160308XP				0.8		
	TPGH 080201 R/L	4.76	2.38	2.3	0.1	11°	●
	080202 R/L				0.2		
	080204 R/L				0.4		
	TPGH 090201 R/L	5.56	2.38	3.0	0.1	11°	●
	090202 R/L				0.2		
	090204 R/L				0.4		
	TPGH 110202 R/L	6.35	2.38	3.5	0.2	11°	●
	110204 R/L				0.4		
	TPGH 110302 R/L				6.35		
110304 R/L	0.4						
110308 R/L	0.8						
	TPGH 160302 R/L	9.525	3.18	4.5	0.2	11°	●
	160304 R/L				0.4		
	160308 R/L				0.8		

Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.1, <0.2 etc.) indicates models with minus tolerance for corner R (RE)

● : Available R : R-hand only

# Inserts (Positive)











Shape Handed insert shows left-hand	Description	Dimensions (mm)					PR1725
		I.C.	Thick-ness	Hole	Corn-er-R (RE)	Relief angle	
 Medium	TPGH 090201L-H	5.56	2.38	3.0	0.1	11°	L
	090202L-H				0.2		L
	090204L-H				0.4		L
	TPGH 110302 R/L-H	6.35	3.18	3.3	0.2	11°	●
	110304 R/L-H				0.4		●
	110308 R/L-H				0.8		●
TPGH 160304 R/L-H	9.525	3.18	4.5	0.4	11°	●	
160308 R/L-H				0.8		●	
 Finishing / Sharp edge	TPEH 080201M R/L-P	4.76	2.38	2.3	0.1	11°	●
	080202M R/L-P				< 0.2		●
	080204M R/L-P				< 0.4		●
	TPEH 090201M R/L-P	5.56	2.38	3.0	< 0.1	11°	●
	090202M R/L-P				< 0.2		●
	090204M R/L-P				< 0.4		●
	TPEH 110301M R/L-P	6.35	3.18	3.3	< 0.1	11°	●
	110302M R/L-P				< 0.2		●
	110304M R/L-P				< 0.4		●
 Finishing	VBMT 110302PP	6.35	3.18	2.8	0.2	5°	●
	110304PP				0.4		●
	110308PP				0.8		●
	VBMT 160404PP	9.525	4.76	4.4	0.4	5°	●
160408PP	0.8				●		
160412PP	1.2				●		
 Finishing	VBMT 110304GP	6.35	3.18	2.8	0.4	5°	●
	VBMT 110302VF	6.35	3.18	2.8	0.2	5°	●
110304VF	0.4				●		
110308VF	0.8				●		
 Finishing-Medium	VBMT 110304HQ	6.35	3.18	2.8	0.4	5°	●
	110308HQ				0.8		●
 Finishing / Sharp edge	VBET 1103005M R/L-F	6.35	3.18	2.8	< 0.05	5°	●
	110301M R/L-F				< 0.1		●
	110302M R/L-F				< 0.2		●
 Finishing-Medium / Sharp edge	VBET 1103005M R/L-Y	6.35	3.18	2.8	< 0.05	5°	●
	110301M R/L-Y				< 0.1		●
	110302M R/L-Y				< 0.2		●
	110304M R/L-Y				< 0.4		●
 Minute DOC / Sharp edge / Polished	VCGT 110301MP-CF	6.35	3.18	2.8	< 0.1	7°	●
	110302MP-CF				< 0.2		●
 Finishing / Sharp edge / Polished	VCGT 110301MFP-GF	6.35	3.18	2.8	< 0.1	7°	●
	110302MFP-GF				< 0.2		●
 Finishing	VCMT 080202PP	4.76	2.38	2.3	0.2	7°	●
	080204PP				0.4		●
	VCMT 160404PP	9.525	4.76	4.4	0.4	7°	●
	160408PP				0.8		●
 Finishing	VCMT 080202VF	4.76	2.38	2.3	0.2	7°	●
	080204VF				0.4		●
 Finishing-Medium	VCMT 080202HQ	4.76	2.38	2.3	0.2	7°	●
	080204HQ				0.4		●

Shape Handed insert shows left-hand	Description	Dimensions (mm)					PR1725				
		I.C.	Thick-ness	Hole	Corn-er-R (RE)	Relief angle					
 Finishing / Sharp edge	VCET 110301M R/L-F	6.35	3.18	2.8	< 0.1	7°	●				
	110302M R/L-F				< 0.2		●				
	110304M R/L-F				< 0.4		●				
 Finishing-Medium / Sharp edge	VCET 1103005M R/L-Y	6.35	3.18	2.8	< 0.05	7°	●				
	110301M R/L-Y				< 0.1		●				
	110302M R/L-Y				< 0.2		●				
	110304M R/L-Y				< 0.4		●				
 Minute DOC / Sharp edge / Polished	VPGT 110301MP-CF	6.35	3.18	2.8	< 0.1	11°	●				
	110302MP-CF				< 0.2		●				
 Finishing / Sharp edge / Polished	VPGT 110301MFP-GF	6.35	3.18	2.8	< 0.1	11°	●				
	110302MFP-GF				< 0.2		●				
 Finishing / Sharp edge / Polished	VPGT 080201MP-CK	4.76	2.38	2.3	< 0.1	11°	●				
	080202MP-CK				< 0.2		●				
	VPGT 110301MP-CK	6.35	3.18	2.8	< 0.1	11°	●				
	110302MP-CK				< 0.2		●				
 Finishing / Sharp edge	VPET 080201M R/L-F	4.76	2.38	2.3	< 0.1	11°	●				
	080202M R/L-F				< 0.2		●				
	VPET 1103005MR-F	6.35	3.18	2.8	< 0.05	11°	R				
	110301MR-F				< 0.1		R				
 Low feed / Sharp edge	VPET 110302MR-F	4.76	2.38	2.3	< 0.1	11°	●				
	080202MF R/L-U				< 0.2		●				
	VPET 1103005MF R/L-U				6.35		3.18	2.8	< 0.05	11°	●
	110301MF R/L-U								< 0.1		●
 Low feed / Sharp edge	VPET 110302MF R/L-U	6.35	3.18	2.8	< 0.2	11°	●				
	VPET 1103005MFR-J				6.35		3.18	2.8	< 0.05	11°	R
	110301MF R/L-J								< 0.1		●
110302MF R/L-J	< 0.2	●									
 Minute DOC / Sharp edge / Polished	WBGT 060101MP R/L-CF	3.97	1.59	2.3	< 0.1	5°	●				
	060102MP R/L-CF				< 0.2		●				
 Finishing / Sharp edge / Polished	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	5°	●				
	080202MFP R/L-PF				< 0.2		●				
 Finishing	WBMT 060102 R/L-DP	3.97	1.59	2.3	0.2	5°	●				
	060104 R/L-DP				0.4		●				
	WBMT 080202 R/L-DP	4.76	2.38	2.3	0.2	5°	●				
	080204 R/L-DP				0.4		●				
 Finishing / Sharp edge	WBET 0601005ML-F	3.97	1.59	2.3	< 0.05	5°	L				
	060101M R/L-F				< 0.1		●				
	060102M R/L-F				< 0.2		●				
	060104M R/L-F				< 0.4		●				
	WBET 080201ML-F				4.76		2.38	2.3	< 0.1	5°	L
080202ML-F	< 0.2	L									
 Finishing / Sharp edge	WBET 080204M R/L-F	4.76	2.38	2.3	< 0.4	5°	●				
	WBET 080201M R/L-P				< 0.1		●				
	080202M R/L-P				< 0.2		●				
	WBET 080204M R/L-P	4.76	2.38	2.3	< 0.4	5°	●				
					< 0.4		●				

● : Available R : R-hand only L : L-hand only

Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.1, <0.2 etc.) indicates models with minus tolerance for corner R (RE)











## Inserts (Negative)

Shape Handed insert shows right-hand	Description	Dimensions (mm)				PR1725
		I.C.	Thick-ness	Hole	Corner-R (RE)	
 Finishing-Medium / Sharp edge / Polished	CNGG 120402MFP-SK	12.70	4.76	5.16	< 0.2	●
	120404MFP-SK				< 0.4	●
 Medium-Roughing / Sharp edge / Polished	CNGG 120404FP-TK	12.70	4.76	5.16	0.4	●
	120408FP-TK				0.8	●
 Finishing-Medium / Sharp edge / Polished	DNGG 150402MFP-SK	12.70	4.76	5.16	< 0.2	●
	150404MFP-SK				< 0.4	●
 Large DOC	DNMG 150402R-LD	12.70	4.76	5.16	0.2	R
	150404R-LD				0.4	R
 Medium-Roughing / Sharp edge / Polished	DNGG 150404FP-TK	12.70	4.76	5.16	0.4	●
	150408FP-TK				0.8	●
 Finishing-Medium / Sharp edge / Polished	TNGG 160401MFP-SK	9.525	4.76	3.81	< 0.1	●
	160402MFP-SK				< 0.2	●
	160404MFP-SK				< 0.4	●
 Large DOC	TNMG 160402R-LD	9.525	4.76	3.81	0.2	R
	160404R-LD				0.4	R
 Medium-Roughing / Sharp edge / Polished	TNGG 160404FP-TK	9.525	4.76	3.81	0.4	●
	160408FP-TK				0.8	●
 Finishing / Surface roughness oriented / Sharp edge	TNGG 160402 <sup>R/L</sup> -S	9.525	4.76	3.81	0.2	●
	160404 <sup>R/L</sup> -S				0.4	●
	160408 <sup>R/L</sup> -S				0.8	●
 Finishing-Medium / Sharp edge / Polished	VNGG 160402MFP-SK	9.525	4.76	3.81	< 0.2	●
	160404MFP-SK				< 0.4	●

● : Available R : R-hand only

Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.1, <0.2 etc.) indicates models with minus tolerance for corner R (RE).

## Inserts (Small double-sided tooling)

Shape Handed insert shows right-hand	Description	Dimensions (mm)				PR1725
		I.C.	Thick-ness	Hole	Corner-R (RE)	
 Finishing-Medium / Sharp edge / Polished	CNGU 070301MFP-SK	7.5	3.18	3.6	< 0.1	●
	070302MFP-SK				< 0.2	●
 Medium-Roughing / Honed edge	CNMU 070302E-GK	7.5	3.18	3.6	0.2	●
	070204E-GK				0.4	●
 Finishing / Sharp edge	CNGU 070301MFR-F	7.5	3.18	3.6	< 0.1	R
	070302MFR-F				< 0.2	R
	070304MFR-F				< 0.4	R
 Low feed / Sharp edge	CNGU 070301MFR-U	7.5	3.18	3.6	< 0.1	R
	070302MFR-U				< 0.2	R
	070304MFR-U				< 0.4	R
 Finishing-Medium / Sharp edge / Polished	DNGU 080301MFP-SK	7.0	3.18	3.6	< 0.1	●
	080302MFP-SK				< 0.2	●
	080304MFP-SK				< 0.4	●
 Medium-Roughing / Honed edge	DNMU 080302E-GK	7.0	3.18	3.6	0.2	●
	080304E-GK				0.4	●
 Finishing / Sharp edge	DNGU 080301MFR-F	7.0	3.18	3.6	< 0.1	R
	080302MFR-F				< 0.2	R
	080304MFR-F				< 0.4	R
 Low feed / Sharp edge	DNGU 080301MFR-U	7.0	3.18	3.6	< 0.1	R
	080302MFR-U				< 0.2	R
	080304MFR-U				< 0.4	R
 Finishing / Sharp edge	TNGU 090301MFR-F	5.56	3.18	3.0	< 0.1	R
	090302MFR-F				< 0.2	R
	090304MFR-F				< 0.4	R
 Low feed / Sharp edge	TNGU 090301MFR-U	5.56	3.18	3.0	< 0.1	R
	090302MFR-U				< 0.2	R
	090304MFR-U				< 0.4	R

● : Available R : R-hand only

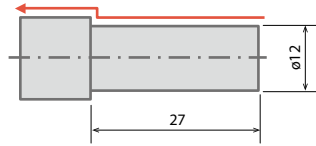
Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.1, <0.2 etc.) indicates models with minus tolerance for corner R (RE).

For applicable toolholders that use small double-sided inserts, please see the KYOCERA general product catalog.

## Case studies

### Shaft 34CrMo4

Vc = 110 m/min  
 ap = ~1.5 mm  
 f = 0.06 mm/rev  
 Wet  
 DCGT11T302MFP-SK PR1725



#### Tool life

PR1725  
 SK chipbreaker

**3,000 pcs/edge**



Competitor D  
 Molded chipbreaker

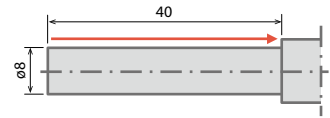
**1,500 pcs/edge**

PR1725 SK chipbreaker shows 2 times longer tool life when compared to competitor D

(User evaluation)

### Shaft 42CrMo4

Vc = 70 m/min  
 ap = 1.0 mm  
 f = 0.05 mm/rev  
 Wet  
 DCGT11T302MFP-SK PR1725



#### Tool life

PR1725  
 SK chipbreaker

**250 pcs/edge**



Competitor E  
 Molded chipbreaker

**150 pcs/edge**

PR1725 SK chipbreaker shows 1.6 times longer tool life when compared to competitor E

(User evaluation)

### Shaft C35

Vc = 90 m/min  
 ap = 0.3mm  
 f = 0.1 mm/rev  
 Wet  
 DCGT11T302MFP-SK PR1725



#### Tool life

PR1725  
 SK chipbreaker

**300 pcs/edge**



Competitor F  
 Molded chipbreaker

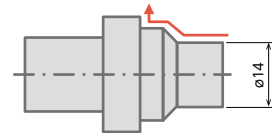
**200 pcs/edge**

PR1725 SK chipbreaker shows 1.5 times longer tool life when compared to competitor F

(User evaluation)

### Pin 20CrMo5

Vc = 110 m/min  
 ap = 0.2~0.7 mm  
 f = 0.07 mm/rev  
 Wet  
 DCGT11T302MFP-GQ PR1725



#### Tool life

PR1725  
 GQ chipbreaker

**200 pcs/edge**



Competitor G  
 Molded chipbreaker

**150 pcs/edge**

PR1725 GQ chipbreaker shows 1.3 times longer tool life when compared to competitor G

(User evaluation)