

Super FF Coated Inserts for Steel Turning

AC805P / AC810P / AC820P / AC830P



AC805P – High Speed Turning >300m/min



AC810P – High Speed Turning



AC820P – General Purpose Turning



AC830P – Interrupted Turning

- Excellent solution for machining of steel
- High-speed and efficient cutting
- Increased wear and breakage resistance
- First choice for long tool life and high feed rates
- Perfect combination of chipbreaker and grade

ACE COAT

AC805P/AC810P/AC820P/AC830P

■ Features

AC800P Series covers a wide range of machining applications from high speed to interrupted cutting.

All grades feature **Super FF Coat**, which has excellent wear and chipping resistance.
Versatile NGE Type chipbreaker suited to high-feed applications. High efficiency, long tool life.

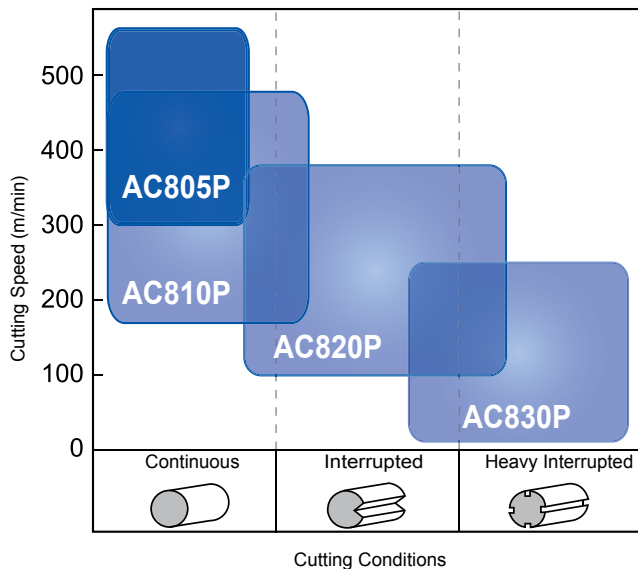
AC805P: The ultra-thick Al_2O_3 coating achieves excellent wear resistance at high speed cutting above 300 m/min under dry cutting conditions.

AC810P: In addition to FF-TiCN coat, this grade features a tough, thick Al_2O_3 coating enhanced by newly developed grain growth control technology, excellent wear resistance and long tool life in high-speed, high-feed cutting.

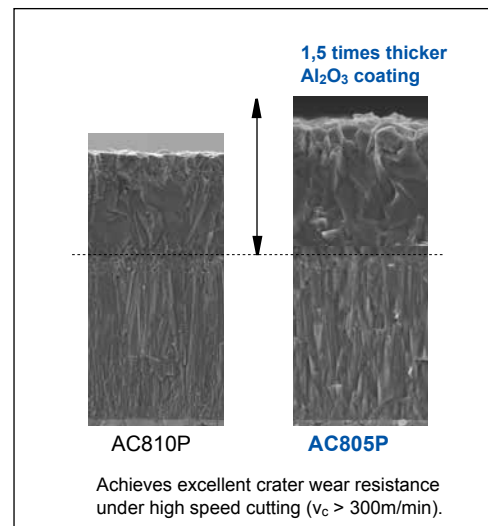
AC820P: In addition to FF-TiCN coat, this grade features a high-density structured FF- Al_2O_3 layer using new smooth surface treatment technology, and also employs coating thickness control technology to achieve excellent versatility, stability and long tool life.

AC830P: In addition to FF-TiCN coat, this grade features a strengthened FF- Al_2O_3 layer using new stress control technology and moreover provides excellent reliability and wear-resistance in heavy interrupted cutting to achieve long tool life.

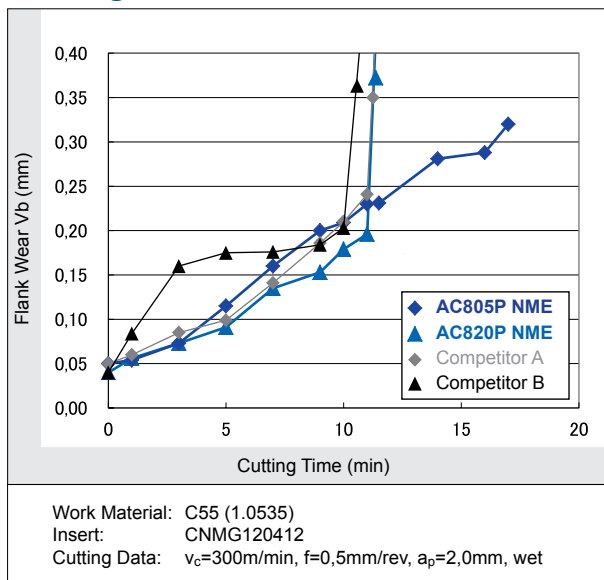
■ Application Range



■ Coating Structure



■ Cutting Performance



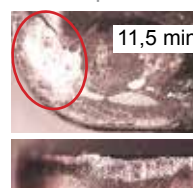
AC805P NME



AC810P NME



Competitor A



Competitor B

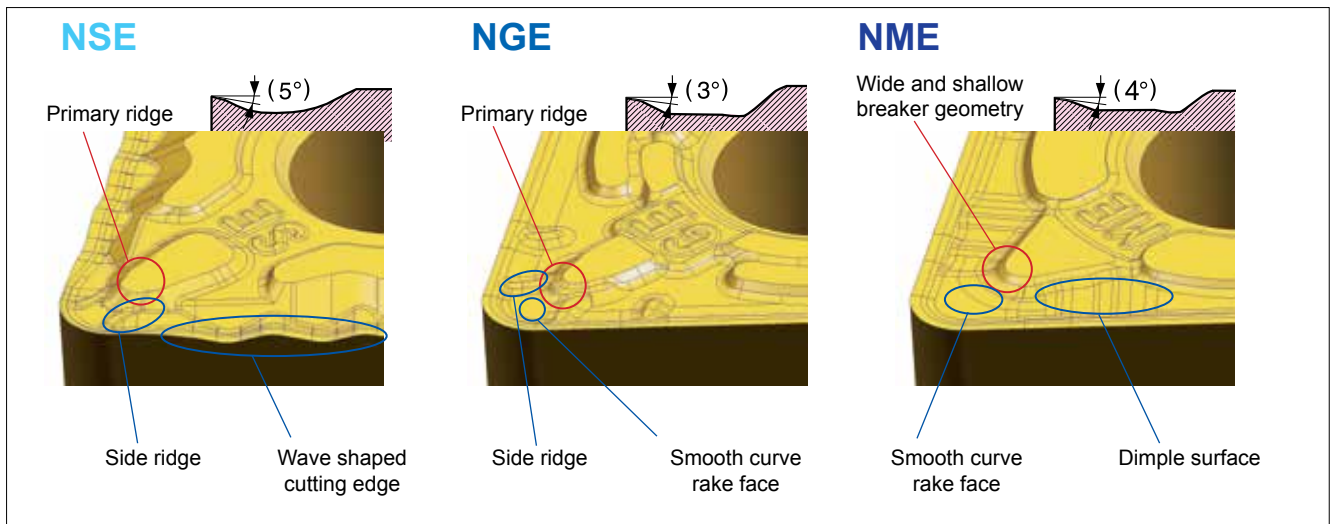


Grade AC805P NME shows excellent crater wear resistance.

■ Chipbreakers – Features

The ability to control chip size and chip direction is vital for efficient production, unmanned machining and protection of the tool / workpiece.

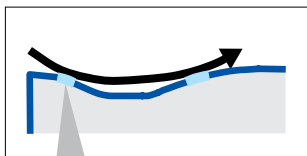
The unique design of three new chipbreakers **NSE** for finishing applications, **NGE** for general purpose turning and **NME** for roughing enables smooth chip flow across a wide range of feed rates even at elevated cutting speeds and increased depths of cut.



■ Chip Control

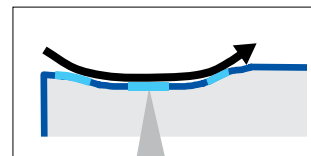
Rake face profile relieves stress concentration with smooth chip evacuation.

Conventional chip flow



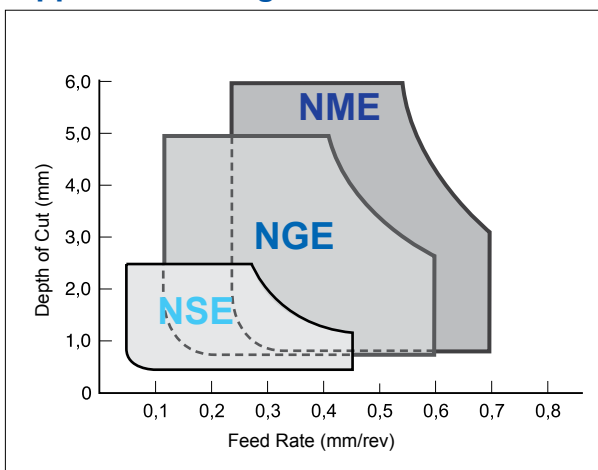
Limited chip contact area increases stress and causes insert damage.

New chip control by NSE / NGE / NME



Smooth flow improves chip direction and shape.

■ Application Range



ACE COAT

AC805P/AC810P/AC820P/AC830P

■ Negative Type Inserts

◇ 80° Diamond Type

Shape	Ordering number	Stock			Dimensions (mm)			
		AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	CNMG 090308 NFL	●	○	○	9,525	3,18	3,81	0,8
	120404 NFL	●	○	○	12,70	4,76	5,16	0,4
	120408 NFL	●	○	○	12,70	4,76	5,16	0,8
	CNMG 090304 NLU	●	●	○	9,525	3,18	3,81	0,4
	090308 NLU	○	●	●	9,525	3,18	3,81	0,8
	120404 NLU	●	●	●	12,70	4,76	5,16	0,4
	120408 NLU	●	●	●	12,70	4,76	5,16	0,8
	120412 NLU	●	●	●	12,70	4,76	5,16	1,2
	120412 NLUW	●	●	●	12,70	4,76	5,16	1,2
	CNMG 120404 NSU	●	●	○	9,525	3,18	3,81	0,4
	090308 NSU	●	●	○	9,525	3,18	3,81	0,8
	120404 NSU	●	●	○	12,70	4,76	5,16	0,4
	120408 NSU	●	●	○	12,70	4,76	5,16	0,8
	120412 NSU	●	●	○	12,70	4,76	5,16	1,2
	120412 NSUW	●	●	○	12,70	4,76	5,16	1,2
	CNMG 120404 NSE	●	●	○	9,525	3,18	3,81	0,4
	120408 NSE	●	●	○	9,525	3,18	3,81	0,8
	120412 NSE	●	●	○	12,70	4,76	5,16	1,2
	CNMG 120404 NSEW	●	●	○	9,525	3,18	3,81	0,4
	120408 NSEW	●	●	○	9,525	3,18	3,81	0,8
	120412 NSEW	●	●	○	12,70	4,76	5,16	1,2
	CNMG 090304 NGU	●	●	○	9,525	3,18	3,81	0,4
	090308 NGU	○	●	○	9,525	3,18	3,81	0,8
	120404 NGU	●	●	●	12,70	4,76	5,16	0,4
	120408 NGU	●	●	●	12,70	4,76	5,16	0,8
	120412 NGU	●	●	●	12,70	4,76	5,16	1,2
	120416 NGU	●	●	●	12,70	4,76	5,16	1,6
	160608 NGU	●	●	●	15,875	6,35	6,35	0,8
	160612 NGU	●	●	●	15,875	6,35	6,35	1,2
	160616 NGU	●	●	●	15,875	6,35	6,35	1,6
	CNMG 120408 NGUW	●	●	○	12,70	4,76	5,16	0,8
	120412 NGUW	●	●	○	12,70	4,76	5,16	1,2
	120412 NGUW	●	●	○	12,70	4,76	5,16	1,2
	CNMG 120404 NGE	●	●	●	12,70	4,76	5,16	0,4
	120408 NGE	●	●	●	12,70	4,76	5,16	0,8
	120412 NGE	●	●	●	12,70	4,76	5,16	1,2
	120416 NGE	●	●	●	12,70	4,76	5,16	1,6
	160612 NGE	●	●	●	15,875	6,35	6,35	1,2
	160616 NGE	●	●	●	15,875	6,35	6,35	1,6
	190612 NGE	●	●	●	19,05	6,35	7,94	1,2
	190616 NGE	●	●	●	19,05	6,35	7,94	1,6
	190616 NGE	●	●	●	19,05	6,35	7,94	1,6
	CNMG 120404 NUP	●	●	○	9,525	3,18	3,81	0,4
	120408 NUP	●	●	○	9,525	3,18	3,81	0,8
	120412 NUP	●	●	○	12,70	4,76	5,16	1,2
	160612 NUP	●	●	○	15,875	6,35	6,35	1,2
	190612 NUP	●	●	○	19,05	6,35	7,94	1,2
	190612 NUP	●	●	○	19,05	6,35	7,94	1,2
	CNMG 120408 NMU	●	●	○	9,525	3,18	3,81	0,8
	120412 NMU	●	●	○	9,525	3,18	3,81	1,2
	120416 NMU	●	●	○	12,70	4,76	5,16	1,6
	160608 NMU	●	●	○	15,875	6,35	6,35	0,8
	160612 NMU	●	●	○	15,875	6,35	6,35	1,2
	160616 NMU	●	●	○	15,875	6,35	6,35	1,6
	190608 NMU	●	●	○	19,05	6,35	7,94	0,8
	190612 NMU	○	●	○	19,05	6,35	7,94	1,2
	190616 NMU	○	●	○	19,05	6,35	7,94	1,6

● Euro stock
○ Japan stock

◇ 80° Diamond Type

Shape	Ordering number	Stock			Dimensions (mm)			
		AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	CNMG 120408 NME	●	●	○	12,70	4,76	5,16	0,8
	120412 NME	●	●	○	12,70	4,76	5,16	1,2
	120416 NME	●	○	○	12,70	4,76	5,16	1,6
	160612 NME	●	●	○	15,875	6,35	6,35	1,2
	160616 NME	●	●	○	15,875	6,35	6,35	1,6
	190616 NME	●	●	○	19,05	6,35	7,94	1,6
	CNMG 120404 NUX	●	●	○	9,525	3,18	3,81	0,4
	120408 NUX	●	●	○	9,525	3,18	3,81	0,8
	120412 NUX	●	●	○	12,70	4,76	5,16	1,2
	120416 NUX	●	●	○	12,70	4,76	5,16	1,6
	160608 NUX	●	●	○	15,875	6,35	6,35	0,8
	160612 NUX	●	●	○	15,875	6,35	6,35	1,2
	160616 NUX	●	●	○	15,875	6,35	6,35	1,6
	190608 NUX	●	●	○	19,05	6,35	7,94	0,8
	190612 NUX	●	●	○	19,05	6,35	7,94	1,2
	190616 NUX	●	●	○	19,05	6,35	7,94	1,6
	190616 NUX	●	●	○	19,05	6,35	7,94	1,6
	190616 NUX	●	●	○	19,05	6,35	7,94	1,6
	CNMG 120408 NMX	●	●	○	9,525	3,18	3,81	0,8
	120412 NMX	●	●	○	9,525	3,18	3,81	1,2
	120416 NMX	●	●	○	12,70	4,76	5,16	1,6
	160608 NMX	●	●	○	15,875	6,35	6,35	0,8
	160612 NMX	●	●	○	15,875	6,35	6,35	1,2
	160616 NMX	●	●	○	15,875	6,35	6,35	1,6
	190612 NMX	●	●	○	19,05	6,35	7,94	1,2
	190616 NMX	●	●	○	19,05	6,35	7,94	1,6
	190616 NMX	●	●	○	19,05	6,35	7,94	1,6
	CNMM 120408 NMP	●	●	○	9,525	3,18	3,81	0,8
	120412 NMP	●	●	○	9,525	3,18	3,81	1,2
	120416 NMP	○	●	○	12,70	4,76	5,16	1,6
	160608 NMP	●	●	○	15,875	6,35	6,35	0,8
	160612 NMP	●	●	○	15,875	6,35	6,35	1,2
	160616 NMP	●	●	○	15,875	6,35	6,35	1,6
	160624 NMP	●	●	○	19,05	6,35	7,94	2,4
	190608 NMP	●	●	○	19,05	6,35	7,94	0,8
	190612 NMP	○	●	○	19,05	6,35	7,94	1,2
	190616 NMP	○	●	○	19,05	6,35	7,94	1,6
	190624 NMP	○	●	○	19,05	6,35	7,94	2,4
	250724 NMP	○	●	○	25,40	7,94	9,2	2,4
	250924 NMP	○	●	○	25,40	9,52	9,2	2,4
	250924 NMP	○	●	○	25,40	9,52	9,2	2,4
	250924 NMP	○	●	○	25,40	9,52	9,2	2,4
	CNMM 120408 NHG	●	●	○	9,525	3,18	3,81	0,8
	120412 NHG	●	●	○	9,525	3,18	3,81	1,2
	160608 NHG	●	●	○	15,875	6,35	6,35	0,8
	160612 NHG	●	●	○	15,875	6,35	6,35	1,2
	160616 NHG	●	●	○	15,875	6,35	6,35	1,6
	190612 NHG	●	●	○	19,05	6,35	7,94	1,2
	190616 NHG	●	●	○	19,05	6,35	7,94	1,6
	190624 NHG	○	●	○	19,05	6,35	7,94	2,4
	190624 NHG	○	●	○	19,05	6,35	7,94	2,4
	CNMM 120408 NHP	●	●	○	9,525	3,18	3,81	0,8
	120412 NHP	●	●	○	9,525	3,18	3,81	1,2
	160608 NHP	●	●	○	15,875	6,35	6,35	0,8
	160612 NHP	●	●	○	15,875	6,35	6,35	1,2
	160616 NHP	●	●	○	15,875	6,35	6,35	1,6
	190608 NHP	●	●	○	19,05	6,35	7,94	0,8
	190612 NHP	●	●	○	19,05	6,35	7,94	1,2
	190616 NHP	●	●	○	19,05	6,35	7,94	1,6
	190624 NHP	●	●	○	19,05	6,35	7,94	2,4
	CNMM 190616 NHU	●	●	○	19,05	6,35	7,94	1,6
	250924 NHU	●	●	○	25,4	9,52	9,2	2,4
	250924 NHU	●	●	○	25,4	9,52	9,2	2,4
	CNMX 120408 L	●	●	○	12,70	4,76	5,16	0,8
	120408 R	●	●	○	12,70	4,76	5,16	0,8
	120408 R	●	●	○	12,70	4,76	5,16	0,8

■ Negative Type Inserts

◇ 55° Diamond Type

Shape	Ordering number	Stock			Dimensions (mm)			
		AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	DNMG 150404 NFL			○	12,70	4,76	5,16	0,4
	150408 NFL			○				0,8
	150604 NFL			○	12,70	6,35	5,16	0,4
	150608 NFL			○				0,8
	DNMG 110404 NLU	●	●		9,525	4,76	3,81	0,4
	110408 NLU	●	●					0,8
	150404 NLU	○	○					0,4
	150408 NLU	○	○		12,70	4,76	5,16	0,8
	150412 NLU	○	○					1,2
	150604 NLU	●	●					0,4
	150608 NLU	●	●		12,70	6,35	5,16	0,8
	150612 NLU	●	●					1,2
	DNMG 110404 NSU	●	●		9,525	4,76	3,81	0,4
	110408 NSU	●	●					0,8
	150404 NSU	○	○	○				0,4
	150408 NSU	○	○	○	12,70	4,76	5,16	0,8
	150412 NSU	○	○					1,2
	150604 NSU	●	●	○				0,4
	150608 NSU	●	●	○	12,70	6,35	5,16	0,8
	150612 NSU	●	●	○				1,2
	DNMG 110408 NSE	●			9,525	4,76	3,81	0,8
	150404 NSE		○	○				0,4
	150408 NSE		○	○	12,70	4,76	5,16	0,8
	150412 NSE		○	○				1,2
	150604 NSE	●	●	●				0,4
	150608 NSE	●	●	●	12,70	6,35	5,16	0,8
	DNMG 110404 NGU	●	●	○				0,4
	110408 NGU	●	●	○	9,525	4,76	3,81	0,8
	110412 NGU	●	●					1,2
	150404 NGU	○	○	○				0,4
	150408 NGU	○	○	○	12,70	4,76	5,16	0,8
	150412 NGU	○	○	○				1,2
	150604 NGU	●	●	●				0,4
	150608 NGU	●	●	●	12,70	6,35	5,16	0,8
	DNMG 150404 NGE		○	○				0,4
	150408 NGE		○	○	12,70	4,76	5,16	0,8
	150412 NGE		○	○				1,2
	150604 NGE	●	●	●				0,4
	150608 NGE	●	●	●	12,70	6,35	5,16	0,8
	150612 NGE	●	●	○				1,6
	DNMG 150404 NUP			○				0,4
	150408 NUP			○	12,70	4,76	5,16	0,8
	150412 NUP			○				1,2
	150604 NUP			●				0,4
	150608 NUP			●	12,70	6,35	5,16	0,8
	DNMG 150408 NMU		○	○				0,8
	150412 NMU		○	○	12,70	4,76	5,16	1,2
	150416 NMU		○	○				1,6
	150608 NMU	●	●	●				0,8
	150612 NMU	●	●	●	12,70	6,35	5,16	1,2
	150616 NMU	●	●					1,6

● Euro stock
○ Japan stock

◇ 55° Diamond Type

Shape	Ordering number	Stock			Dimensions (mm)			
		AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	DNMG 150608 NME	●	●	●				0,8
	150612 NME	●	●	●	12,70	6,35	5,16	1,2
	150616 NME	●	●	●				1,6
	DNMG 110408 NUX			○	9,525	4,76	3,81	0,8
	150404 NUX		○	○				0,4
	150408 NUX		○	○	12,70	4,76	5,16	0,8
	150412 NUX		○	○				1,2
	150604 NUX			●				0,4
	150608 NUX			●	12,70	6,35	5,16	0,8
	150612 NUX			○				1,2
	150616 NUX			●				1,6
	DNMG 150408 NMX		○	○	12,70	4,76	5,16	0,8
	150412 NMX		○	○				1,2
	150608 NMX			●	12,70	6,35	5,16	0,8
	150612 NMX			●				1,2
	DNMM 150404 NMP		○	○				0,4
	150408 NMP		○	○	12,70	4,76	5,16	0,8
	150412 NMP		○	○				1,2
	150604 NMP			●				0,4
	150608 NMP			●	12,70	6,35	5,16	0,8
	150612 NMP			○				1,2
	DNMM 150604 NHG		●	●				0,4
	150608 NHG		●	●	12,70	6,35	5,16	0,8
	150612 NHG		●	●				1,2
	150616 NHG		●	●				1,6
	DNMM 150404 NHP			○				0,4
	150408 NHP			○	12,70	4,76	5,16	0,8
	150412 NHP			○				1,2
	150608 NHP			●	12,70	6,35	5,16	0,8
	150612 NHP			●				1,2
	DNMX 150604 NSEW		●	●				0,4
	150608 NSEW	●	●	●	12,70	6,35	5,16	0,8
	150612 NSEW		●	●				1,2
	DNMX 150608 R			●	12,70	6,35	5,16	0,8
	150608 L			●				0,8

○ Square Type

	SNMG 120408 NLU		○	●				0,8
	120412 NLU		○	●	12,70	4,76	5,16	1,2
	SNMG 120408 NSU		●	●	12,70	4,76	5,16	0,8
	SNMG 120408 NSE		●	●	12,70	4,76	5,16	0,8
	120412 NSE		●	●				1,2
	SNMG 090304 NGU		○	○	9,525	3,18	3,81	0,4
	090308 NGU		○	○				0,8
	120404 NGU		●	●				0,4
	120408 NGU		●	●	12,70	4,76	5,16	0,8
	120412 NGU		●	●				1,2
	120416 NGU		●	●				1,6
	150612 NGU		○	○	15,875	6,35	6,35	1,2
	SNMG 120408 NGE		●	●				0,8
	120412 NGE		●	●	12,70	4,76	5,16	1,2
	120416 NGE		●	●				1,6
	SNMG 120404 NUP			●				0,4
	120408 NUP			●	12,70	4,76	5,16	0,8
	120412 NUP			●				1,2

ACE COAT

AC805P/AC810P/AC820P/AC830P

■ Negative Type Inserts

○ Square Type

Shape	Ordering number	Stock			Dimensions (mm)			
		AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	SNMG 120408 NMU	●	●	●	12,70	4,76	5,16	0,8
	120412 NMU	●	●	●	12,70	4,76	5,16	1,2
	120416 NMU	●	●	●	12,70	4,76	5,16	1,6
	150612 NMU	○	●	●	15,875	6,35	6,35	1,2
	150616 NMU	○	●	●	15,875	6,35	6,35	1,6
	190612 NMU	●	●	●	19,05	6,35	7,94	1,2
	190616 NMU	●	●	●	19,05	6,35	7,94	1,6
	SNMG 120408 NME	●	●	●	12,70	4,76	5,16	0,8
	120412 NME	●	●	●	12,70	4,76	5,16	1,2
	190616 NME	●	●	●	19,05	6,35	7,94	1,6
	SNMG 120408 NUX	●	●	●	12,70	4,76	5,16	0,8
	120412 NUX	●	●	●	12,70	4,76	5,16	1,2
	120416 NUX	●	●	●	12,70	4,76	5,16	1,6
	190612 NUX	○	●	●	19,05	6,35	7,94	1,2
	190616 NUX	○	●	●	19,05	6,35	7,94	1,6
	SNMG 120408 NMX	●	●	●	12,70	4,76	5,16	0,8
	120412 NMX	●	●	●	12,70	4,76	5,16	1,2
	120416 NMX	●	●	●	12,70	4,76	5,16	1,6
	150612 NMX	●	●	●	15,875	6,35	6,35	1,2
	150616 NMX	●	●	●	15,875	6,35	6,35	1,6
	190612 NMX	●	●	●	19,05	6,35	7,94	1,2
	190616 NMX	●	●	●	19,05	6,35	7,94	1,6
	SNMM 120408 NMP	●	●	●	12,70	4,76	5,16	0,8
	120412 NMP	○	●	●	12,70	4,76	5,16	1,2
	120416 NMP	○	●	●	12,70	4,76	5,16	1,6
	120420 NMP	○	●	●	12,70	4,76	5,16	2,0
	150612 NMP	●	●	●	15,875	6,35	6,35	1,2
	150616 NMP	●	●	●	15,875	6,35	6,35	1,6
	190612 NMP	●	●	●	19,05	6,35	7,94	1,2
	190616 NMP	●	●	●	19,05	6,35	7,94	1,6
	190624 NMP	●	●	●	19,05	6,35	7,94	2,4
	250724 NMP	○	○	●	25,40	7,94	9,2	2,4
	250924 NMP	○	○	●	25,40	9,52	9,2	2,4
	310924 NMP	○	○	●	31,75	9,52	8,8	2,4
	SNMM 120408 NHG	●	●	●	12,70	4,76	5,16	0,8
	120412 NHG	●	●	●	12,70	4,76	5,16	1,2
	120416 NHG	●	●	●	12,70	4,76	5,16	1,6
	150612 NHG	●	○	●	15,875	6,35	6,35	1,2
	150616 NHG	●	○	●	15,875	6,35	6,35	1,6
	190612 NHG	○	●	●	19,05	6,35	7,94	1,2
	190616 NHG	○	●	●	19,05	6,35	7,94	1,6
	190624 NHG	○	●	●	19,05	6,35	7,94	2,4
	SNMM 120408 NHP	●	●	●	12,70	4,76	5,16	0,8
	120412 NHP	●	●	●	12,70	4,76	5,16	1,2
	120416 NHP	●	●	●	12,70	4,76	5,16	1,6
	150612 NHP	●	●	●	15,875	6,35	6,35	0,8
	190612 NHP	●	●	●	19,05	6,35	7,94	1,2
	190616 NHP	●	●	●	19,05	6,35	7,94	1,6
	190624 NHP	●	●	●	19,05	6,35	7,94	2,4
	250724 NHP	○	○	●	25,4	7,94	9,2	2,4
	250924 NHP	○	○	●	25,4	9,52	9,2	2,4
	310924 NHP	○	○	●	31,75	9,52	8,8	2,4
	SNMM 250724 NHW	●	○	●	25,4	7,94	9,2	2,4
	250924 NHW	●	○	●	25,4	9,52	9,2	2,4
	310924 NHW	●	○	●	31,75	9,52	8,8	2,4
	SNMM 250724 NHU	●	○	●	25,4	7,94	9,2	2,4
	250924 NHU	●	○	●	25,4	9,52	9,2	2,4
	310924 NHU	●	○	●	31,75	9,52	8,8	2,4

● Euro stock
○ Japan stock

▽ Triangle Type

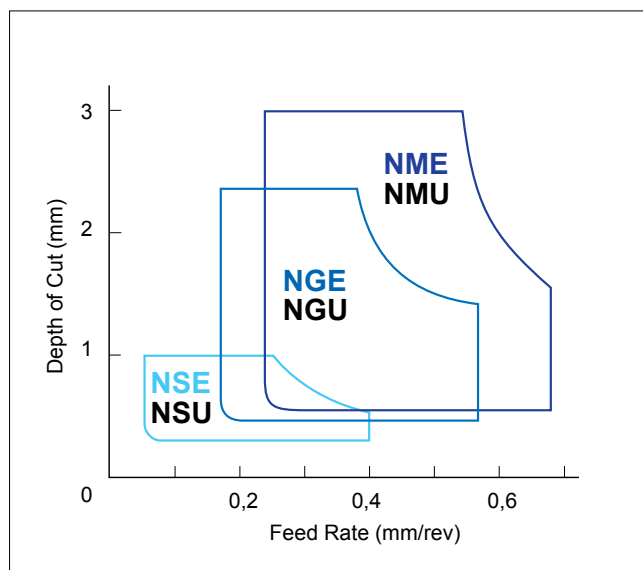
Shape	Ordering number	Stock			Dimensions (mm)			
		AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	TNMG 160404 NFL	●	○	○	9,525	4,76	3,81	0,4
	160408 NFL	●	○	○	9,525	4,76	3,81	0,8
	TNMG 160404 NLU	●	●	●	9,525	4,76	3,81	0,4
	160408 NLU	●	●	●	9,525	4,76	3,81	0,8
	160412 NLU	●	●	●	9,525	4,76	3,81	1,2
	TNMG 160404 NSU	●	●	○	9,525	4,76	3,81	0,4
	160408 NSU	●	●	○	9,525	4,76	3,81	0,8
	160412 NSU	●	●	○	9,525	4,76	3,81	1,2
	TNMG 160404 NSE	●	●	○	9,525	4,76	3,81	0,4
	160408 NSE	●	●	○	9,525	4,76	3,81	0,8
	160412 NSE	●	●	○	9,525	4,76	3,81	1,2
	220404 NSE	●	●	○	12,70	4,76	5,16	0,4
	220408 NSE	●	●	○	12,70	4,76	5,16	0,8
	TNMG 160404 NGU	●	●	●	9,525	4,76	3,18	0,4
	160408 NGU	●	●	●	9,525	4,76	3,18	0,8
	160412 NGU	●	●	●	9,525	4,76	3,18	1,2
	160416 NGU	●	●	●	9,525	4,76	3,18	1,6
	220404 NGU	●	○	○	12,70	4,76	5,16	0,4
	220408 NGU	●	○	○	12,70	4,76	5,16	0,8
	220412 NGU	●	○	○	12,70	4,76	5,16	1,2
	TNMG 160404 NGE	●	●	○	9,525	4,76	3,18	0,4
	160408 NGE	●	●	○	9,525	4,76	3,18	0,8
	160412 NGE	●	●	○	9,525	4,76	3,18	1,2
	220408 NGE	●	●	○	12,70	4,76	5,16	0,8
	TNMG 160404 NUP	●	●	●	9,525	4,76	3,18	0,4
	160408 NUP	●	●	●	9,525	4,76	3,18	0,8
	160412 NUP	●	●	●	9,525	4,76	3,18	1,2
	220408 NUP	●	○	○	12,70	4,76	5,16	0,8
	220412 NUP	●	○	○	12,70	4,76	5,16	1,2
	TNMG 160408 NMU	●	●	●	9,525	4,76	3,18	0,8
	160412 NMU	●	●	●	9,525	4,76	3,18	1,2
	220408 NMU	○	●	●	12,70	4,76	5,16	0,8
	220412 NMU	○	●	●	12,70	4,76	5,16	1,2
	220416 NMU	○	●	●	12,70	4,76	5,16	1,6
	270612 NMU	○	○	○	15,875	6,35	6,35	1,2
	270616 NMU	○	○	○	15,875	6,35	6,35	1,6
	TNMG 160408 NME	●	●	●	9,525	4,76	3,18	0,8
	160412 NME	●	●	●	9,525	4,76	3,18	1,2
	TNMG 160404 NUX	○	●	●	9,525	4,76	3,18	0,4
	160408 NUX	○	●	●	9,525	4,76	3,18	0,8
	160412 NUX	○	●	●	9,525	4,76	3,18	1,2
	220408 NUX	○	●	○	12,70	4,76	5,16	0,8
	220412 NUX	○	●	○	12,70	4,76	5,16	1,2
	TNMG 160408 NMX	●	●	●	9,525	4,76	3,18	0,8
	160412 NMX	●	●	●	9,525	4,76	3,18	1,2
	220408 NMX	○	○	○	12,70	4,76	5,16	0,8
	220412 NMX	○	○	○	12,70	4,76	5,16	1,2
	TNMM 160408 NMP	●	●	●	9,525	4,76	3,18	0,8
	160412 NMP	○	●	●	9,525	4,76	3,18	1,2
	160416 NMP	○	●	●	9,525	4,76	3,18	1,6
	220408 NMP	○	●	●	12,70	4,76	5,16	0,8
	220412 NMP	○	●	●	12,70	4,76	5,16	1,2
	220416 NMP	○	●	●	12,70	4,76	5,16	1,6
	TNMM 160408 NHG	●	●	●	9,525	4,76	3,18	0,8
	160412 NHG	●	●	●	9,525	4,76	3,18	1,2
	160416 NHG	●	●	●	9,525	4,76	3,18	1,6
	220408 NHG	○	●	●	12,70	4,76	5,16	0,8
	220412 NHG	○	●	●	12,70	4,76	5,16	1,2
	220416 NHG	○	●	●	12,70	4,76	5,16	1,6
	TNMM 160408 NHP	●	○	○	9,525	4,76	3,18	0,8
	160412 NHP	●	○	○	9,525	4,76	3,18	1,2
	220412 NHP	●	○	○	12,70	4,76	5,16	1,2
	220416 NHP	●	○	○	12,70	4,76	5,16	1,6

■ Negative Type Inserts

35° Diamond Type

Shape	Ordering number	Stock			Dimensions (mm)			
		AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	VNMG 160404 NFL		○		9,525	4,76	3,81	0,4
	160408 NFL		○					0,8
	VNMG 160404 NLU	●	●		9,525	4,76	3,81	0,4
	160408 NLU	●	●					0,8
	VNMG 160404 NSU	●	●	○	9,525	4,76	3,81	0,4
	160408 NSU	●	●	○				0,8
	VNMG 160404 NSE	●	●	○	9,525	4,76	3,81	0,4
	160408 NSE	●	●	○				0,8
	VNMG 160404 NGU	●	●	○	9,525	4,76	3,81	0,4
	160408 NGU	●	●	○				0,8
	VNMG 160404 NGU	●	●	○	9,525	4,76	3,81	0,4
	160412 NGU	●	●	○				1,2
	VNMG 160408 NGE	●	●	●	9,525	4,76	3,81	0,8
	VNMG 160404 NUP		●	●	9,525	4,76	3,81	0,4
	160408 NUP		●	●				0,8
	VNMG 160404 NUX	○	●	●	9,525	4,76	3,81	0,4
	160408 NUX	○	●	●				0,8
	VNMG 160412 NUX	○	●	●				1,2

● Main Chipbreakers (Neg. Type)



Trigon Type

Shape	Ordering number	Stock			Dimensions (mm)			
		AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	WNMG 080404 NFL		○		12,70	4,76	5,16	0,4
	080408 NFL		○					0,8
	WNMG 080404 NLU	●	●		12,70	4,76	5,16	0,4
	080408 NLU	●	●					0,8
	WNMG 080412 NLU	●	●					1,2
	WNMG 060404 NLUW	●	●		9,525	4,76	3,81	0,4
	060408 NLUW	●	●					0,8
	WNMG 080404 NLUW	●	●		12,70	4,76	5,16	0,4
	080408 NLUW	●	●					0,8
	WNMG 080412 NLUW	●	●					1,2
	WNMG 060404 NSU	●	●	○	9,525	4,76	3,18	0,4
	060408 NSU	●	●	○				0,8
	WNMG 080404 NSU	●	●	○	12,70	4,76	5,16	0,4
	080408 NSU	●	●	○				0,8
	WNMG 080412 NSU	●	●	○				1,2
	WNMG 080404 NSE	●	●	○	12,70	4,76	5,16	0,4
	080408 NSE	●	●	○				0,8
	WNMG 080412 NSE	●	●	○				1,2
	WNMG 080404 NSEW	●	●		12,70	4,76	5,16	0,4
	080408 NSEW	●	●					0,8
	WNMG 080412 NSEW	●	●					1,2
	WNMG 060404 NGU	●	●		9,525	4,76	3,81	0,4
	060408 NGU	●	●					0,8
	WNMG 080404 NGU	●	●		12,70	4,76	5,16	0,4
	080408 NGU	●	●					0,8
	WNMG 080412 NGU	●	●					1,2
	WNMG 080408 NUGW	●	●		12,70	4,76	5,16	0,8
	080412 NUGW	●	●					1,2
	WNMG 060408 NGE	●	●	●	9,525	4,76	3,81	0,8
	060412 NGE	●	●	●				1,2
	WNMG 080408 NGE	●	●	●	12,70	4,76	5,16	0,8
	080412 NGE	●	●	●				1,2
	WNMG 080416 NGE	●	●	●				1,6
	WNMG 080408 NUP	●	●		12,70	4,76	5,16	0,8
	080412 NUP	●	●					1,2
	WNMG 080404 NUX	○	●	●	12,70	4,76	5,16	0,4
	080408 NUX	○	●	●				0,8
	WNMG 080412 NUX	○	●	●				1,2
	WNMG 060408 NMU	●	●	●	9,525	4,76	3,81	0,8
	060412 NMU	●	●	●				1,2
	WNMG 080408 NMU	●	●	●	12,70	4,76	5,16	0,8
	080412 NMU	●	●	●				1,2
	WNMG 080416 NMU	●	●	●				1,6
	WNMG 060408 NME	●	●	●	9,525	4,76	3,81	0,8
	060412 NME	●	●	●				1,2
	WNMG 080408 NME	●	●	●	12,70	4,76	5,16	0,8
	080412 NME	●	●	●				1,2
	WNMG 080416 NME	●	●	●				1,6
	WNMG 080408 NMX	●	●	●	12,70	4,76	5,16	0,8
	080412 NMX	●	●	●				1,2
	WNMM 080408 NHG	●	●	●	12,70	4,76	5,16	0,8
	080412 NHG	●	●	●				1,2
	WNMM 080408 NMP	●	●	●	12,70	4,76	5,16	0,8
	080412 NMP	●	●	●				1,2

● Euro stock
○ Japan stock

ACE COAT

AC805P/AC810P/AC820P/AC830P

Positive Type Inserts

80° Diamond Type

Shape	Relief Angle	Ordering number	Stock			Dimensions (mm)			
			AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	7°	CCMT 060202 NLU	●	○		6,35	2,38	2,8	0,2
		060204 NLU	●	○					0,4
		09T304 NLU	●	●		9,525	3,97	4,4	0,4
		09T308 NLU	●	●					0,8
	7°	CCMT 09T304 NLUW		●		9,525	3,97	4,4	0,4
		09T308 NLUW		●					0,8
	7°	CCMT 060202 NSU	●	●	○	6,35	2,38	2,8	0,2
		060204 NSU	●	●	○				0,4
		060208 NSU	●	●	○				0,8
		09T302 NSU		●	○				0,2
		09T304 NSU	●	●	○	9,525	3,97	4,4	0,4
		09T308 NSU	●	●	○				0,8
		120404 NSU	●	●	○	12,70	4,76	5,5	0,4
		120408 NSU	●	●	○				0,8
	7°	CCMT 060204 NSK		●	○	6,35	2,38	2,8	0,4
		060208 NSK		●	○				0,8
		09T304 NSK		●	○	9,525	3,97	4,4	0,4
		09T308 NSK		●	○				0,8
		120404 NSK		●	○	12,70	4,76	5,5	0,4
	7°	CCMT 09T304 NMU	●	●	○	9,525	3,97	4,4	0,4
		09T308 NMU	●	●	○				0,8
	11°	CPMT 080204 NSU	○	○	○	7,94	2,38	3,4	0,4
		080208 NSU	○	○	○				0,8
		090304 NSU	○	○	○				0,4
		090308 NSU	○	○	○	9,525	3,18	4,4	0,8

55° Diamond Type

	7°	DCMT 070202 NLU	●	●		6,35	2,38	2,8	0,2
		070204 NLU	●	●					0,4
		11T302 NLU	●	●					0,2
		11T304 NLU	●	●		9,525	3,97	4,4	0,4
	7°	DCMT 070202 NSU	●	●	○	6,35	2,38	2,8	0,2
		070204 NSU	●	●	○				0,4
		070208 NSU	●	●	○				0,8
		11T302 NSU	●	●	○				0,2
		11T304 NSU	●	●	○	9,525	3,97	4,4	0,4
		11T308 NSU	●	●	○				0,8
	7°	DCMT 070204 NSK		●	○	6,35	2,38	2,8	0,4
		070208 NSK		●	○				0,8
		11T304 NSK		●	○				0,4
		11T308 NSK		●	○	9,525	3,97	4,4	0,8
		11T312 NSK		●	○				1,2
	7°	DCMT 11T304 NMU	●	●	○	9,525	3,97	4,4	0,4
		11T308 NMU	●	●	○				0,8

Round Type

	7°	RCMT 1003M0 NRX	●	●	●	10	3,18	3,6	-
		10T3M0 NRX	●	●	●	10	3,97	3,6	-
		1204M0 NRX	●	●	●	12	4,76	4,2	-
		1606M0 NRX	●	●	●	16	6,35	5,2	-
		2006M0 NRX	●	●	●	20	6,35	6,5	-
		2507M0 NRX	●	●	●	25	7,94	7,2	-
	7°	RCMX 1003M0 NRP	○	○	○	10	3,18	3,6	-
		1204M0 NRP	○	○	○	12	4,76	4,2	-
		1606M0 NRP	○	○	○	16	6,35	5,2	-
		2006M0 NRP	○	○	○	20	6,35	6,5	-
		2507M0 NRP	○	○	○	25	7,94	7,2	-
		3209M0 NRP	○	○	○	32	9,52	9,5	-

Square Type

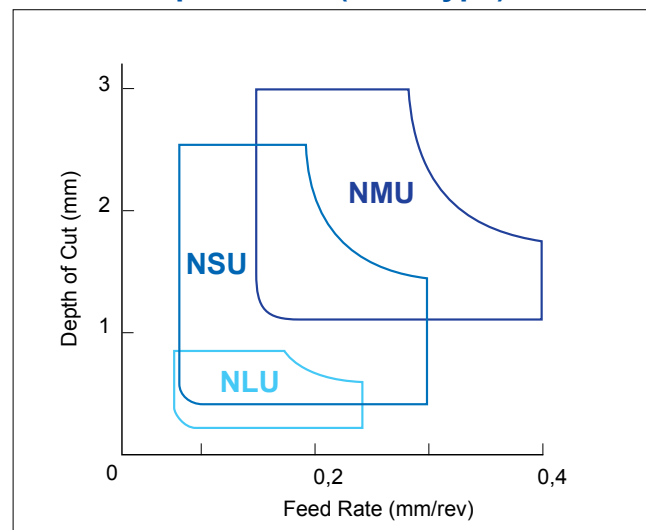
Shape	Relief Angle	Ordering number	Stock			Dimensions (mm)			
			AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	7°	SCMT 09T304 NLU	●	●		9,525	3,97	4,4	0,4
		09T308 NLU	●	●					0,8
	7°	SCMT 09T304 NSU	●	●	●	9,525	3,97	4,4	0,4
		09T308 NSU	●	●	●				0,8
		120404 NSU	●	●	○	12,70	4,76	5,5	0,4
		120408 NSU	●	●	○				0,8
	7°	SCMT 09T304 NSK		●	●	9,525	3,97	4,4	0,4
		09T308 NSK		●	●				0,8
		120404 NSK		●	○				0,4
		120408 NSK		●	○	12,70	4,76	5,5	0,8
		120412 NSK		●	○				1,2
	7°	SCMT 09T308 NMU	●	●	○	9,525	3,97	4,4	0,8
		120408 NMU	●	●	○	12,70	4,76	5,5	0,8
	11°	SPMT 090304 NSF		●	●	12,70	4,76	5,5	0,4
		090308 NSF		●	●				0,8

Square Type (without Hole)

	11°	SPMR 090304 NSF	○	○		9,525	3,18	-	0,4
		090308 NSF	●	●					0,8
		120304 NSF	●	●					0,4
		120308 NSF	●	●		12,70	3,18	-	0,8
	11°	120312 NSF	●	●					1,2

● Euro stock
○ Japan stock

Main Chipbreakers (Pos. Type)



Positive Type Inserts

Triangle Type

Shape	Relief Angle	Ordering number	Stock			Dimensions (mm)			
			AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	7°	TCMT 110204 NLU	○	●		6,35	2,38	2,8	0,4
		110208 NLU	○	●					0,8
	7°	TCMT 110204 NSU	●	●	○	6,35	2,38	2,8	0,4
		110208 NSU	●	●	○				0,8
		16T304 NSU	●	●	○	9,525	3,97	4,3	0,4
		16T308 NSU	●	●	○				0,8
	7°	TCMT 110204 NSK	●	●	○	6,35	2,38	2,8	0,4
		110208 NSK	●	●	○				0,8
		16T304 NSK	●	●	○				0,4
		16T308 NSK	●	●	○	9,525	3,97	4,3	0,8
		16T312 NSK	●	●	○				1,2
	7°	TPMT 080204 NLU	●			4,76	2,38	2,3	0,4
		110304 NLU	●			6,35	3,18	3,3	0,4
		110308 NLU	●						0,8
	11°	TPMT 110302 NSU	○	○					0,2
		110304 NSU	●	●	○	6,35	3,18	3,3	0,4
		110308 NSU	●	●	○				0,8
		160404 NSU	●	●	○	9,525	4,76	4,3	0,4
		160408 NSU	●	●	○				0,8
	11°	TPMT 110304 NMU	○			6,35	3,18	3,3	0,4
		110308 NMU	○						0,8
		160404 NMU	○			9,525	4,76	4,3	0,4
		160408 NMU	○						0,8
	11°	TPMH 110304 NSF	●	●		6,35	3,18	3,3	0,4
		110308 NSF	●	●					0,8
		TPMT 160404 NSF	●	●		9,525	4,76	4,3	0,4
		160408 NSF	●	●					0,8

Triangle Type (without Hole)

	11°	TPMR 110304 NSF	●	●		6,35	3,18	-	0,4
		110308 NSF	●	●					0,8
		160304 NSF	●	●					0,4
		160308 NSF	●	●		9,525	3,18	-	0,8
		160312 NSF	●						1,2

35° Diamond Type

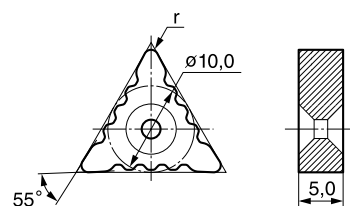
Shape	Relief Angle	Ordering number	Stock			Dimensions (mm)			
			AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	5°	VBMT 110304 NLU	○	○		6,35	3,18	2,8	0,4
		160604 NLU	●	●					0,4
		160408 NLU	●	●		9,525	4,76	4,4	0,8
	5°	VBMT 110204 NSU	●	●		6,35	2,38	2,8	0,4
		110208 NSU	●	●					0,8
		110304 NSU	●	●		6,35	3,18	2,8	0,4
		110308 NSU	●	●					0,8
		160404 NSU	●	○		9,525	4,76	4,4	0,4
	5°	VBMT 110204 NSK	●	●		6,35	2,38	2,8	0,4
		110208 NSK	●	●					0,8
		160404 NSK	●	●					0,4
		160406 NSK	●	●		9,525	4,76	4,4	0,6
		160408 NSK	●	●					0,8
	7°	VCMT 160404 NSU	●	○		9,525	4,76	4,4	0,4
		160408 NSU	●	○					0,8
	7°	VCMT 160404 NSK	●	●		9,525	4,76	4,4	0,4
		160408 NSK	●	●					0,8

● Euro stock
○ Japan stock

Special Type Inserts

Negative Insert for T-REX

Shape	Ordering number	Stock			Dimensions (mm)			
		AC805P	AC810P	AC820P	Inscribed Circle	Thickness	Hole	Corner Radius
	TRM 551704 LU	●	●		10,0	5,0	-	0,4
	551708 LU	●	●					0,8
	551712 LU	●	●					1,2
	TRM 551704 SU	○	○		10,0	5,0	-	0,4
	551708 SU	○	○					0,8
	551712 SU	○	○					1,2
	TRM 551704 GU	●	●	●	10,0	5,0	-	0,4
	551708 GU	●	●	●				0,8
	551712 GU	●	●	●				1,2



ACE COAT

AC805P/AC810P/AC820P/AC830P

Recommended Cutting Conditions

Low Carbon Steel (Below HB180)

Insert Specification and Chipbreaker		Recommended Cutting Conditions					
		AC805P	AC810P	AC820P	AC830P	f	a _p
		v _c (m/min)				(mm/rev)	(mm)
CC□□09.. CN□□12.. DC□□11.. DN□□11.. DN□□15.. SN□□12.. TN□□16.. WN□□06.. WN□□08..	NLU NSU	370 (250-500)	290 (170-430)	250 (150-350)	200 (120-300)	0,2 (0,1-0,4)	1,3 (0,5-2,0)
	NSE					0,3 (0,1-0,45)	
	NGU NUX	350 (250-450)	290 (170-430)	230 (150-300)	200 (120-300)	0,3 (0,1-0,45)	2,2 (0,8-5,0)
	NGE					0,4 (0,1-0,6)	
	NMU	310 (200-400)	260 (140-360)	200 (130-280)	180 (100-250)	0,35 (0,2-0,6)	3,0 (1,8-6,0)
	NME					0,45 (0,2-0,7)	3,0 (1,0-6,0)
	NMP NHG	—	220 (140-290)	180 (100-260)	150 (100-200)	0,4 (0,35-0,8)	4,5 (3,0-8,0)
	NGU NUX	—	260 (140-360)	200 (130-280)	180 (100-250)	0,3 (0,15-0,45)	3,5 (0,8-5,0)
	NGE					0,4 (0,1-0,6)	
	CN□□16.. SN□□15..	NMU	—	220 (140-290)	180 (100-260)	150 (100-200)	0,4 (0,2-0,6)
	NME					0,45 (0,2-0,7)	4,5 (1,5-7,0)
	NMP NHG	—	190 (120-260)	160 (80-240)	130 (80-180)	0,6 (0,35-0,8)	5,0 (3,0-8,0)
CN□□19.. DN□□19.. SN□□19.. TN□□22..	NMU	—	220 (140-290)	180 (100-260)	150 (100-200)	0,4 (0,2-0,6)	5,0 (1,8-6,0)
	NME					0,45 (0,2-0,7)	4,5 (2,0-8,0)
	NMP NHG	—	190 (120-260)	160 (80-240)	130 (80-180)	0,4 (0,35-0,8)	6,5 (3,0-9,0)

Carbon and Alloy Steel (Above HB180)

Insert Specification and Chipbreaker		Recommended Cutting Conditions					
		AC805P	AC810P	AC820P	AC830P	f	a _p
		v _c (m/min)				(mm/rev)	(mm)
CC□□09.. CN□□12.. DC□□11.. DN□□11.. DN□□15.. SN□□12.. TN□□16.. WN□□06.. WN□□08..	NLU NSU	350 (250-500)	260 (170-360)	210 (120-300)	180 (120-250)	0,2 (0,1-0,4)	1,3 (0,5-2,0)
	NSE					0,3 (0,1-0,45)	
	NGU NUX	320 (250-450)	250 (150-350)	180 (100-270)	150 (100-200)	0,3 (0,1-0,45)	2,2 (0,8-5,0)
	NGE					0,4 (0,1-0,6)	
	NMU	280 (150-400)	230 (130-330)	150 (80-230)	130 (80-180)	0,35 (0,2-0,6)	3,0 (1,8-6,0)
	NME					0,45 (0,2-0,7)	3,0 (1,0-6,0)
	NMP NHG	—	140 (100-230)	130 (60-200)	100 (70-160)	0,4 (0,35-0,8)	4,5 (3,0-8,0)
	CN□□16.. SN□□15..	NGU NUX	—	190 (130-250)	160 (100-230)	130 (90-170)	0,3 (0,15-0,45)
NGE						0,4 (0,1-0,6)	
NMU		—	160 (100-220)	140 (80-210)	110 (70-150)	0,4 (0,2-0,6)	4,5 (0,8-6,0)
NME						0,45 (0,2-0,7)	4,5 (1,5-7,0)
NMP NHG		—	140 (90-200)	120 (70-180)	100 (60-140)	0,6 (0,35-0,8)	5,0 (3,0-8,0)
CN□□19.. DN□□19.. SN□□19.. TN□□22..		NMU	—	160 (100-220)	140 (80-210)	110 (70-150)	0,4 (0,2-0,6)
	NME	0,45 (0,2-0,7)					4,5 (2,0-8,0)
	NMP NHG	—	140 (90-200)	120 (70-180)	100 (60-140)	0,4 (0,35-0,8)	6,5 (3,0-9,0)

Application Examples

AC805P

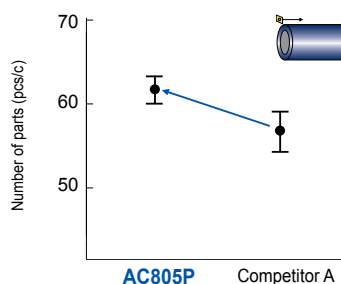
21NiCrMo2 (HB212), Sleeve, Roughing OD Turning



AC805P NGUW
61 pcs/c



Competitor A
51 pcs/c



High speed cutting and stable higher tool life.

Insert: CNMG120408
Cutting Data: v_c=457m/min
f=0,36mm/rev
a_p=1,5mm
wet

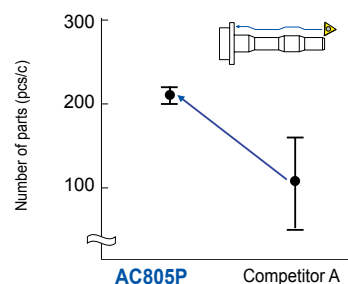
C45 (HB>235), Axle shaft, Roughing OG Turning



AC805P NME
200 pcs/c



Competitor A
195 pcs/c



Dry cutting with reliable tool life.

Insert: DNMG150612
Cutting Data: v_c=228-254m/min
f=0,45mm/rev
a_p=3,0mm
dry

AC805P NGUW shows excellent crater wear resistance against competitor P05 grade under high speed.

AC805P shows excellent crater wear resistance and achieves stable tool life under dry condition.

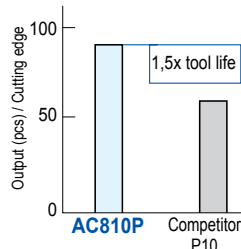
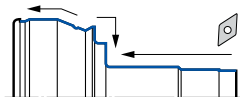
Application Examples

AC810P

Ck53, CVJ (constant velocity joints) Outer Race

Long tool life in dry cutting applications.

In dry machining, AC810P provides superior wear resistance compared to competitor's grade (P10 coating) and has achieved 1,5 times longer tool life.

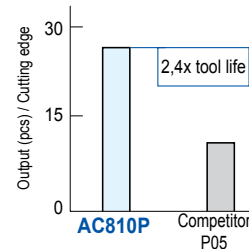
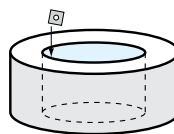


Insert: DNMG150612NGE
Cutting data: $v_c=270\text{m/min}$, $f=0,35 \sim 0,38\text{mm/rev}$, $a_p=1,5\text{mm}$, dry

C45, Coupling

On a par with P05 grade.

In high feed cutting, AC810P provides superior wear resistance compared to competitor's grade (P05 coating) and has achieved 2,4 longer tool life.

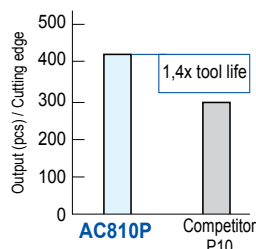
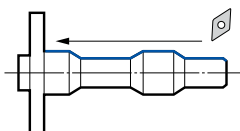


Insert: SNMG150616NMU
Cutting data: $v_c=175\text{m/min}$, $f=0,66\text{mm/rev}$, $a_p=2,6\text{mm}$, wet

15CrMo5, Hub

Long tool life in rough cutting of mill-scaled work.

In rough cutting of mill-scaled work, AC810P provides superior wear resistance and cutting edge stability compared to competitor's grade (P10 coating) and has achieved 1,4 times longer tool life.

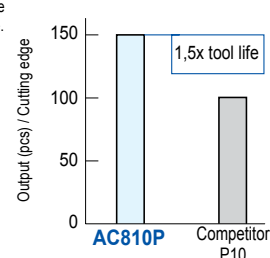
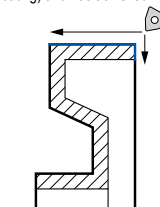


Insert: DNMG150612NGE
Cutting data: $v_c=204\text{m/min}$, $f=0,35 \sim 0,45\text{mm/rev}$, $a_p=1,5 \sim 3,0\text{mm}$, wet

C45, Hub

Long tool life in rough cutting of mill-scaled work.

In rough cutting of mill-scaled work, AC810P provides superior wear resistance compared to competitor's grade (P10 coating) and has achieved 1,5 times longer tool life.

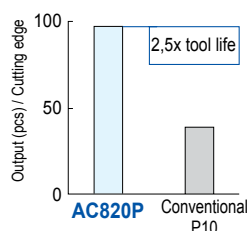
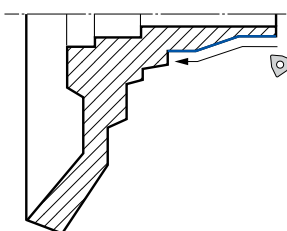


Insert: WNMG080412NGU
Cutting data: $v_c=250\text{m/min}$, $f=0,4\text{mm/rev}$, $a_p=1,5\text{mm}$, wet

AC820P

Ck45, Compact Knuckle

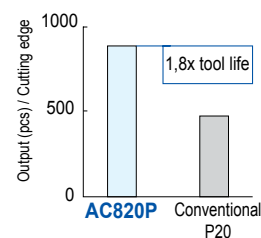
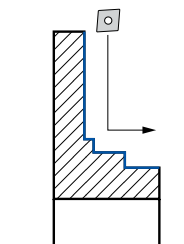
No sudden breakages and significantly improved stability with 2,5x tool life.



Insert: WNMG080412NLU
Cutting data: $v_c=192\text{m/min}$, $f=0,45\text{mm/rev}$, $a_p=1,0 \sim 2,0\text{mm}$, wet

15CrMo5, Turbine Hub

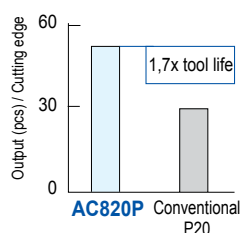
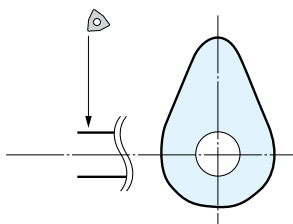
Low alloy steel and good finishing. Stable cutting with 1,8x tool life.



Insert: CNMG120408NGU
Cutting data: $v_c=200\text{m/min}$, $f=0,25\text{mm/rev}$, $a_p=2,0\text{mm}$, wet

34CrMo4, Balancer

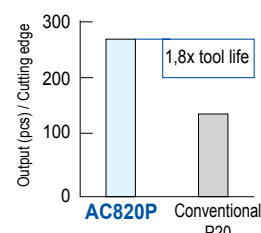
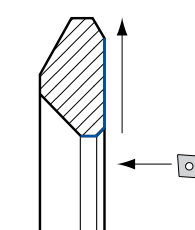
High reliability in interrupted cutting with 1,7x tool life.



Insert: WNMG080408NGU
Cutting data: $v_c=220\text{m/min}$, $f=0,18\text{mm/rev}$, $a_p=1,0\text{mm}$, wet

25CrMo4, Gear

Good wear resistance in high-feed conditions with 1,8x tool life.



Insert: CNMG120408NMU
Cutting data: $v_c=220\text{m/min}$, $f=0,5\text{mm/rev}$, $a_p=5\text{mm}$, wet

ACE COAT

AC805P/AC810P/AC820P/AC830P

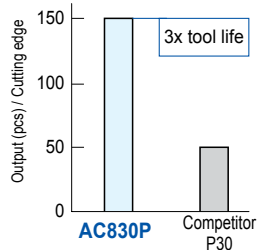
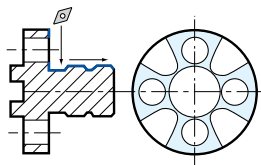
Application Examples

AC830P

C55, Hub Unit

Long tool life in interrupted and continuous cutting.

AC830P offers reduced chipping compared to competitor's grade (P30) in both continuous and interrupted cutting to give 3x tool life.

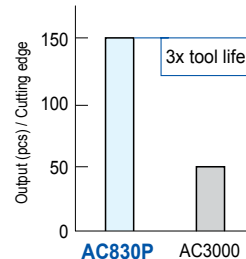
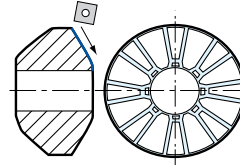


Insert: DNMG150612NUX
Cutting data: $v_c=150\text{m/min}$, $f=0,25\text{mm/rev}$, $a_p=1,0$, wet

20Cr4, Pinion Gear

Stable long tool life in heavy interrupted cutting.

In heavy interrupted cutting of gears, AC830P provides less abnormal damage compared to conventional grade (AC3000) and has achieved stable tool life that is 3 times longer.

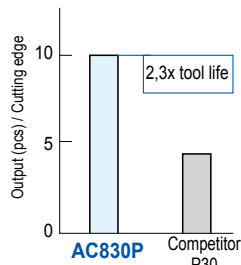
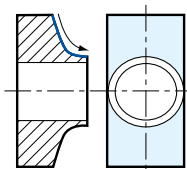


Insert: SNMG120412NUX
Cutting data: $v_c=170\text{m/min}$, $f=0,35\text{mm/rev}$, $a_p=1,5\text{mm}$, wet

C50, Machine Component

Improved efficiency and long tool life.

AC830P provides cutting speed that is 25% faster than competitor's grade (P30 coating) and achieves 2,3 times longer tool life.

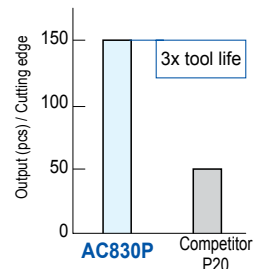
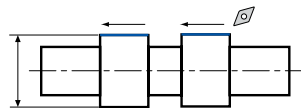


Insert: CNMG120412NMU
Cutting data: $v_c=120 \sim 150\text{m/min}$, $f=0,25\text{mm/rev}$, $a_p=1,5\text{mm}$, wet

15CrMo5, Cam Shaft

On par with P20 grade.

In comparison with competitor's grade (P20 coating) which suffered from sudden beakages leading to unstable tool life (30 to 70 workpieces), AC830P provides stable tool life that is 3 times longer (140 to 160 workpieces).



Insert: DNMG150608NGU
Cutting data: $v_c=220\text{m/min}$, $f=0,25\text{mm/rev}$, $a_p=1,0\text{mm}$, wet



CARBIDE - CBN - DIAMOND

(Germany)
SUMITOMO ELECTRIC Hartmetall GmbH
Siemensring 84, D - 47877 Willich

Tel. +49(0)2154 4992-0, Fax +49(0)2154 41072
e-Mail: Info@SumitomoTool.com
Internet: www.sumitomoTool.com



(UK and Ireland)
SUMITOMO ELECTRIC Hardmetal Ltd.
Summerleys Road, Princes Risborough
Buckinghamshire HP27 9PW, UK

Tel. +44(0)1844 342081, Fax: +44(0)1844 342415
e-Mail: enquiries@sumitomo-hardmetal.co.uk
Internet: www.sumitomo-hardmetal.co.uk



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