

MFH

MEC

P M K₁ K₂



WINTER PROMOTION

PR18+MFH/MEC

MEGACOAT NANO EX COATING TECHNOLOGY

Next-generation PVD coating for a wide range of wellknown Kyocera milling cutters. 3 new grades for even longer tool life to various milling series.



Purchase 10 inserts* per pocket and get 1 corresponding MFH or MEC toolholder free of charge!

ORDER NOW

* In case of 1 or 2 pockets: Buy 30 inserts.

General conditions

- The promotion is valid from October 2nd 2024 until March 27th 2025.
- Different chipbreakers can be mixed to reach the required insert quantity.
- Orders on schedule, combination with other special offer, cancellation, exchange and return cannot be accepted.
- Errors excepted, with reservation subject to change.

PR18 Series



Longer tool life with next-generation coating for milling

MEGACOAT NANO EX coating technology

Exceptional tool life



PR1825 for steel (Wear resistance oriented)

PR1835 for steel (Stability oriented)

for stainless steel

PR1810 for cast iron



Next-generation PVD coating for milling

PR18 Series

Double lamination technology with special nano layer

MEGACOAT NANO EX provides longer tool life

PR18 Series grades are applicable for various machining environments.



Double lamination technology

Special Nano Layer x Multilayer Lamination

AlTi-based
special nano layer

AlCr-based
special nano layer

CG image

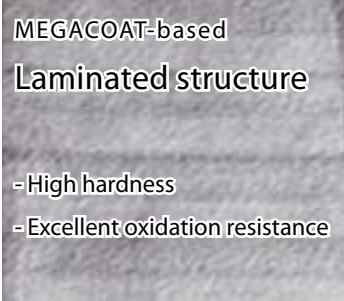
1

New PVD coating MEGACOAT NANO EX provides long tool life

Kyocera's nano layer coating technology

MEGACOAT NANO

Special nano-laminated coating with excellent abrasion and oxidation resistance



MEGACOAT NANO EX

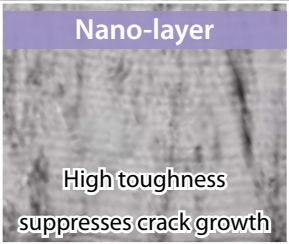
New coating property improvements



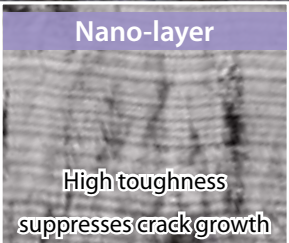
Double lamination technology maintains longer tool life

Multi-layer structure with two unique nano layers
Superior abrasion resistance and fracture resistance

Special nano layer x Multilayer lamination



AlCr-based coating
with excellent abrasion resistance

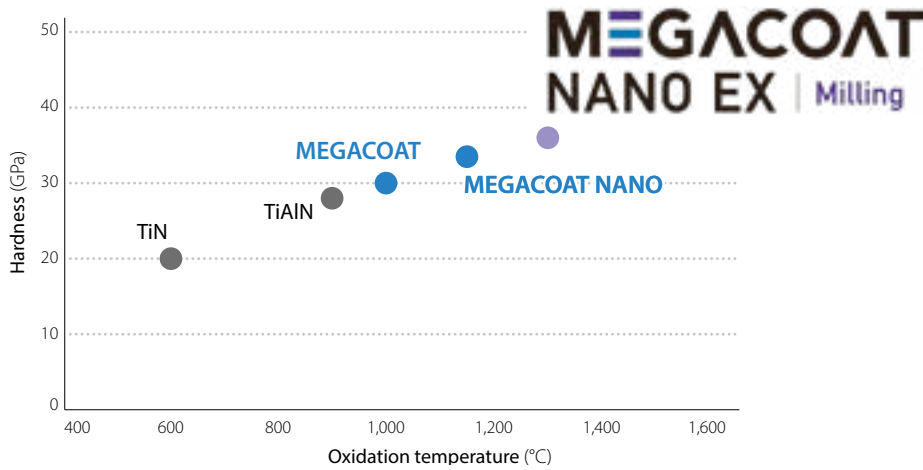


AlTi-based coating
with excellent heat resistance

Multi-layering of high-performance nano layers
Increases toughness with the suppression of crack growth and optimization of internal stress

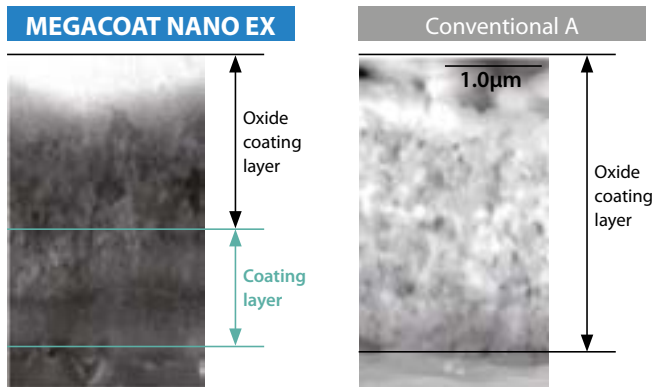
CG image

Coating characteristics (Internal evaluation)



Excellent oxidation resistance

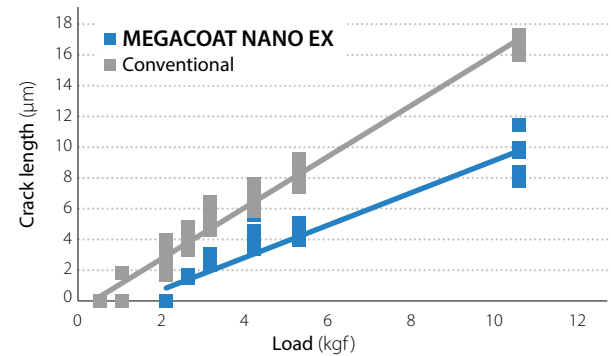
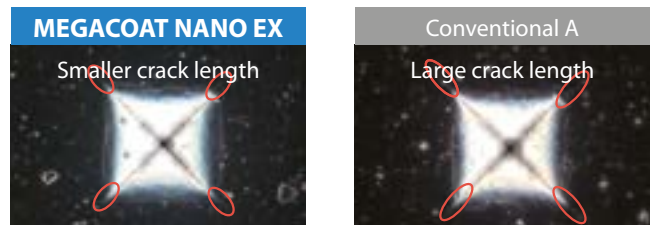
Oxidation progression comparison (Internal evaluation)
 Suppresses oxidation progression with excellent oxidation resistance



*Section after holding at 1,200 degrees for 30 minutes in air

High coating toughness

Coating layer toughness evaluation (Internal evaluation)
 Excellent coating toughness with small crack length

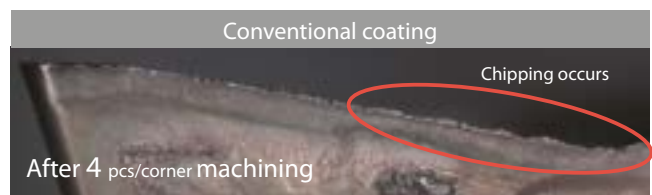
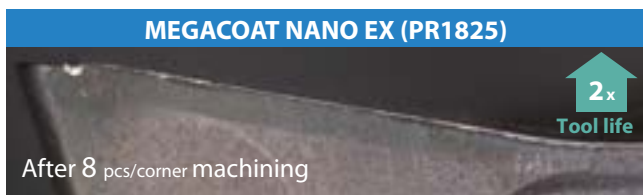


*Micro-Vickers measurement



2x longer tool life. Cutting edge remains in good condition.

Guides S50C
 Edge condition



MEGACOAT NANO EX has 2x longer tool life than conventional coating. The cutting edge remains in good condition.
 Quiet cutting noise

Cutting conditions: Vc = 200 m/min, ap = 2.0 mm, fz = 0.13 mm/t, Dry BDMT170408ER-JT (PR1825) MEC ø25 (2 Inserts)

(User evaluation)

Case Studies

Mechanical parts S45C

Vc = 160 m/min
ap = 1.0 mm
fz = 0.15 mm/t
Wet
MA90-25S20-09T3C
LOGU090408ER-GM



Number of parts

PR1825

15 pcs/corner

2.5x
Tool life

Conventional C 6 pcs/corner

Proprietary insert shape suppresses wear progression of main cutting edge and wiper edge
Provides superior surface finish and 2.5x longer tool life

(User evaluation)

Housing SUS316

Vc = 90 m/min
ap = 2.0 mm
fz = 0.18 mm/t
Dry
MB45-063R-14T5C-M
SNMU1406ANER-GM



Number of parts

PR1825

30 pcs/corner

1.6x
Tool life

Conventional D 18 pcs/corner

Unique low cutting force wiper edge design reduces chattering
Shows 1.6x longer tool life

(User evaluation)

General machine parts FCD450

Vc = 120 m/min
ap = 1.0 mm
fz = 0.19 mm/t
Dry
MFWN90080R-S32-5T
WNMU080608EN-GM



Number of parts

PR1825

65 pcs/corner

1.6x
Tool life

Conventional E 40 pcs/corner

Shows stable machining without insert fracture
Shows 1.6x longer tool life

(User evaluation)

Mechanical parts SCM420

Vc = 130 m/min
ap = 13.0 mm
fz = 0.07 mm/t
Wet
MECH025-S25-11-4-2T
BDMT11T308ER-N2/N3



Number of parts

PR1825

6 pcs/corner

(Cutting distance : 38.1 m)

1.5x
Tool life

Conventional F 4 pcs/corner

(Cutting distance : 25.4 m)

Good cutting edge condition in heavy machining with large D.O.C.
1.5x longer tool life

(User evaluation)

Mold parts Plastic mold steel

Vc = 120 m/min
ap = 0.3 mm
fz = 1.3 mm/t
Wet
MFH25-S25-03-5T
LOGU030310ER-GM



Number of parts

PR1835

150 pcs/corner

2.5x
Tool life

Conventional G 60 pcs/corner

Stable machining without chatter even in high-feed machining
Maintains good cutting edge condition and achieves 2.5x longer tool life

(User evaluation)

Body parts FC250

Vc = 360 m/min
ap = 0.35 mm
fz = 0.08 mm/t
Wet
MFPN45100R-8T
PNMU1205ANER-GH



Number of parts

PR1810

200 pcs/corner

2x
Tool life

Conventional H 100 pcs/corner

Improved tool life and 10 corners on both sides for significant cost savings

(User evaluation)

2

Compatible with various machining environments. Substantial lineup

PR1825

P

for steel (Wear resistance oriented)

PR1835

M

for steel (Stability oriented)
for stainless steel (1st recommendation)

PR1810

K

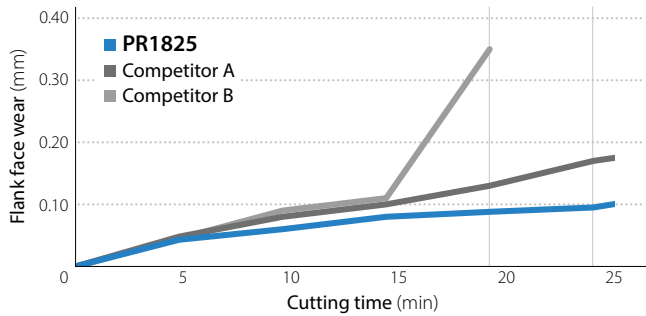
for cast iron

Workpiece material	P Steel					M Stainless steel					K Cast iron				
	ISO	01	10	20	30	40	01	10	20	30	40	01	10	20	30
Lineup	Wear resistance oriented					1st recommendation					1st recommendation				
	PR1825					PR1835					PR1810				
	Stability oriented														
	PR1835														

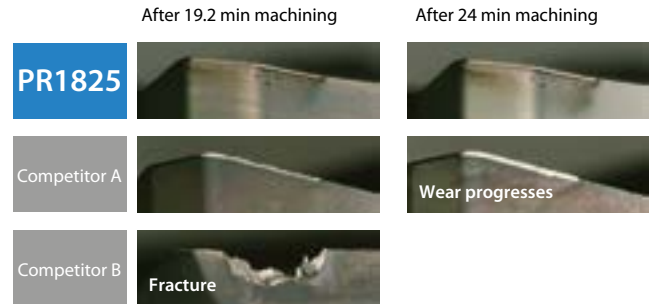
PR1825

Carbide base material with an excellent balance of hardness, toughness and versatility

Wear resistance comparison (Internal evaluation)



Edge condition

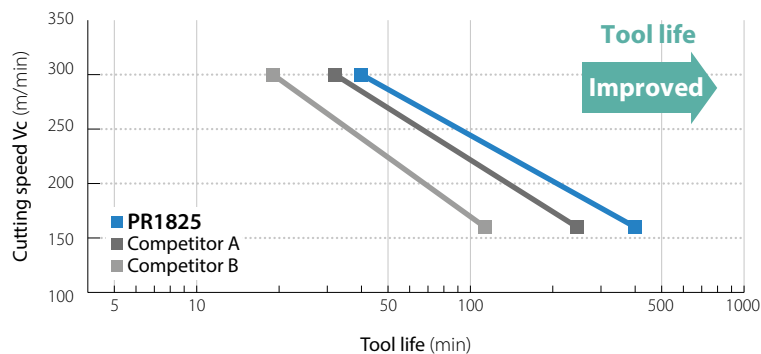


Cutting Conditions : $V_c = 150$ m/min, $a_p \times a_e = 2$ mm x 65 mm, $f_z = 0.12$ mm/t, SKD11, Dry PNMU1205ANER-GM (MFPN45)

V-T graph (Internal evaluation)

Life criteria :
Flank face wear = 0.10 mm

Cutting Conditions :
 $V_c = 160 / 300$ m/min
 $a_p \times a_e = 2$ x 110 mm, $f_z = 0.12$ mm/t
SCM440 Dry
PNMU1205ANER-GM (MFPN45)





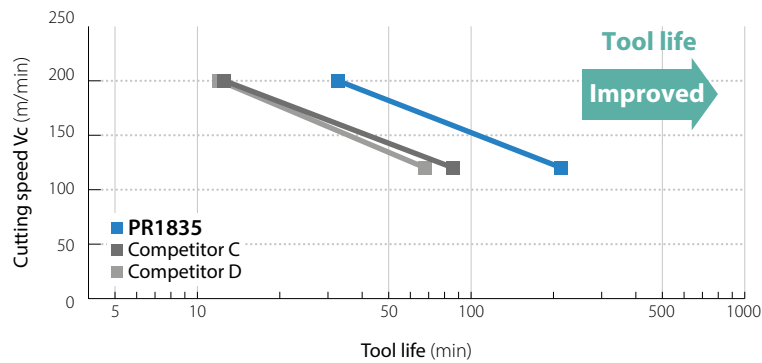
PR1835

Carbide base material with superior impact resistance and stability oriented
Improves the toughness of the base material by optimizing the particle shape and homogenizing the structure.

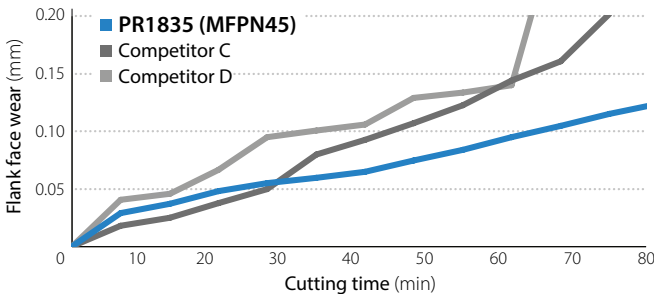
V-T graph (Internal evaluation)

Life criteria :
Flank face wear = 0.10 mm

Cutting Conditions :
Vc = 120 / 200 m/min
ap x ae = 2 x 110 mm, fz = 0.12 mm/t
SUS304 Dry
PNMU1205ANER-SM (MFPN45)

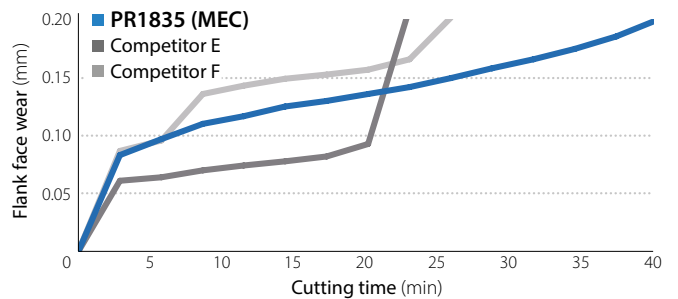


Wear resistance comparison (Internal evaluation)



Cutting Conditions : Vc = 150 m/min, ap x ae = 2 x 80 mm, fz = 0.1 mm/t
SUS304, Dry PNMU1205ANER-SM

Wear resistance comparison (Internal evaluation)

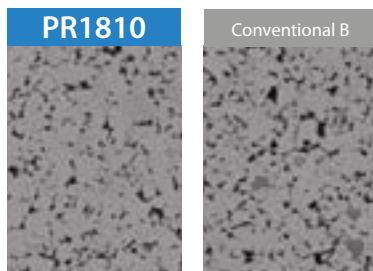


Cutting Conditions : Vc = 120 m/min, ap x ae = 2 x 15 mm, fz = 0.1 mm/t
SUS304, Dry BDMT11T308ER-JS

PR1810

Uses a proprietary base material with excellent thermal conductivity.
Achieving stable processing of cast iron

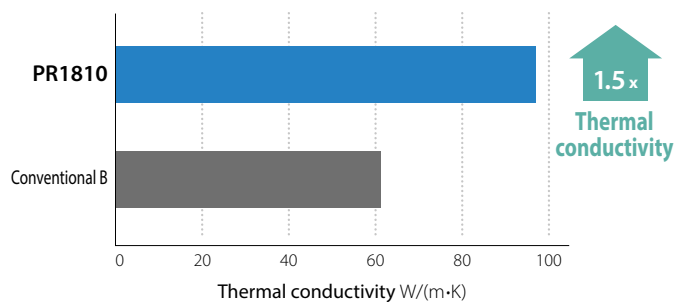
Carbide Substrate



Coarse fine granules

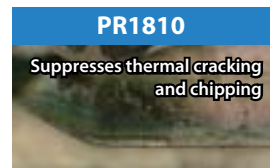
Fine grain

Thermal conductivity comparison (Internal evaluation)



Cutting edge condition (Internal evaluation)

After about 60 min machining



Cutting Conditions :
Vc = 200 m/min
ap x ae = 2 x 85 mm
fz = 0.2 mm/t
FCD450, Wet
PNMU1205ANER-GM (MFPN45)

PR1810 uses a mixture of coarse and fine grains. Improved thermal conductivity and reduced thermal cracking and chipping

Product lineup

PR18 series for various applications

90° cutting edge angle type

Shouldering

Slotting

Facing

Double-sided inserts

Tangential 90° end mill
with 4-edge Inserts

MA90

NEW

→P9



Original tangential 90° end mill
with economical 4-edge inserts



90° end mill with double sided 4-edge inserts

MEW

→P9



90° helical end mill with double sided 4-edge inserts

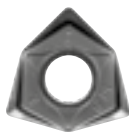
MEWH

→P9

Double-sided 6-edge inserts, low cutting force cutter

MFWN

→P13



Double-sided 6-edge inserts, low cutting force cutter

MFWN Mini

→P13



4-edge face mill with vertical inserts for heavy milling

MFLN90

→P15



Highly efficient cutter with a 88° cutting edge angle

MFSN88 88° cutting edge angle →P15



90° cutting edge angle type

Shouldering

Slotting

Facing

Single-sided inserts

High-efficiency end mill

MEC

→P11



High-efficiency helical end mill

MECH

→P11



High-efficiency and low-cutting-force end mill

MECX

→P11



High-efficiency face mill for heavy milling

MSRS90

→P17



High-efficiency face mill for heavy milling

MSR

→P17



45° cutting edge angle type

Facing

New 45° general purpose cutter

MB45



→P19



Delivers the "low cutting force" benefits of positive inserts and the "fracture resistance" benefits of negative inserts. Excellent surface finish



45° face mill with double sided 10-edge inserts

MFPN45

→P19



High precision and high efficiency high rake cutter

MFSE45

→P21



Highly efficient cutter with a 66° cutting edge angle

MFPN66 66° cutting edge angle

→P21



45°/70°/75° cutting edge angle type

Facing

4-edge face mill with vertical inserts for heavy milling

MFLN45/MFLN70

→P23



High-efficiency face mill for heavy milling

MSRS15 75° cutting edge angle

→P23



High efficiency multi-edge cutter for cast iron

MFK

70° cutting edge angle

→P23



High feed cutter

Shouldering

Slotting

Pocketing

Facing

High efficiency and high feed cutter

MFH Series

→P25-28

High feed and large depth of cut milling

MFH Boost



Micro dia. cutter for high feed machining

MFH Micro



Small dia. cutter for high feed machining

MFH Mini



Highly efficiency and high feed cutter

MFH Harrier



Radius cutter

Shouldering

Pocketing

Facing

High-efficiency radius cutter with multiple edges

MRW

→P29



Low-cutting-force and high-efficiency radius cutter

MRX

→P29



Others

Multi-function end mill

MEY

→P31



Chamfering end mill

MCSE

→P31



Bolt countersink end mill

MEF

→P31



T-slot mill

METS

→P31



A lineup of milling insert supporting ISO standard is available.

90° cutting edge angle type

Shouldering

Slotting

Facing

Tangential 90° end mill with 4-edge inserts

MA90

NEW

Original tangential 90° end mill with economical 4-edge inserts









90° end mill with double sided 4-edge inserts

MEW/MEWH



Reduces cutting force equivalent to positive inserts
Excellent surface finish



Shape	Description	MEGACOAT NANO EX			
		PR1825	PR1835	PR1810	
 General purpose (G-Class)	LOGU	090404ER-GM	●	●	●
		090408ER-GM	●	●	●
		090412ER-GM	●	●	●
		090416ER-GM	●	●	●
 Low cutting force (G-Class)	LOGU	090404ER-SM	●	●	-
		090408ER-SM	●	●	-
		090412ER-SM	●	●	-
		090416ER-SM	●	●	-
 Tough edge (G-class)	LOGU	090408ER-GH	●	●	●
 General purpose (G-Class)	LOGU	120604ER-GM	●	●	●
		120608ER-GM	●	●	●
		120612ER-GM	●	●	●
		120616ER-GM	●	●	●
		120620ER-GM	●	●	●
		120624ER-GM	●	●	●
		120630ER-GM	●	●	●
 Low cutting force (G-Class)	LOGU	120604ER-SM	●	●	-
		120608ER-SM	●	●	-
		120612ER-SM	●	●	-
		120616ER-SM	●	●	-
		120620ER-SM	●	●	-
		120624ER-SM	●	●	-
 Tough edge (G-class)	LOGU	120630ER-SM	●	●	-
		120608ER-GH	●	●	●

Right-handed insert shown

● : Available

Shape	Description	MEGACOAT NANO EX			
		PR1825	PR1835	PR1810	
 General purpose	LOMU	100404ER-GM	●	●	●
		100408ER-GM	●	●	●
		100412ER-GM	●	●	●
		100416ER-GM	●	●	●
		100420ER-GM	●	●	●
	LOMU	150504ER-GM	●	●	●
		150508ER-GM	●	●	●
		150510ER-GM	●	-	-
		150512ER-GM	●	●	●
		150516ER-GM	●	●	●
 Low cutting force	LOMU	100408ER-SM	●	●	●
		150508ER-SM	●	●	●
	LOMU	100408ER-GH	●	●	●
		150508ER-GH	●	●	●

Right-handed insert shown

● : Available

MA90

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Austenitic stainless steel	★ 100 – 160 – 200	☆ 100 – 160 – 200	–
Martensitic stainless steel	–	☆ 150 – 200 – 250 ^{*1}	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	★ 20 – 30 – 50	–
Titanium alloy (Ti-6Al-4V)	–	☆ 20 – 50 – 70 ^{*2}	–

*1 CA6535: 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)

*2 PR1835 (Low Cutting Force) : 1st Recommendation for Titanium alloy (Ti-6Al-4V)

MEW/MEWH

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Austenitic stainless steel	★ 100 – 160 – 200	☆ 100 – 160 – 200	–
Martensitic stainless steel	–	☆ 150 – 200 – 250 ^{*1}	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	☆ 20 – 30 – 50 ^{*2}	–
Titanium alloy (Ti-6Al-4V)	–	☆ 30 – 50 – 70 ^{*3}	30 – 50 – 70

*1 CA6535: 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)

*2 PR1535 : 1st Recommendation for Ni-based heat resistant alloys

*3 PR1535 : 1st Recommendation for Titanium alloy (Ti-6Al-4V)

90° cutting edge angle type

Shouldering

Slotting


Facing

High-efficiency end mill

MEC

Excellent surface finish with low cutting forces
Large lineup for various applications



Shape	Description	MEGACOAT NANO EX			
		PR1825	PR1835	PR1810	
	BDMT	110302ER-JT	●	●	●
		110304ER-JT	●	●	●
		110308ER-JT	●	●	●
	BDMT	11T302ER-JT	●	●	●
		11T304ER-JT	●	●	●
		11T308ER-JT	●	●	●
		11T312ER-JT	●	●	●
		11T316ER-JT	●	●	●
		11T320ER-JT	●	●	●
		11T324ER-JT	●	●	●
		11T331ER-JT	●	●	●
	BDMT	170404ER-JT	●	●	●
		170408ER-JT	●	●	●
		170412ER-JT	●	●	●
		170416ER-JT	●	●	●
170420ER-JT		●	●	●	
170424ER-JT		●	●	●	
170431ER-JT		●	●	●	
170440ER-JT	●	●	●		
BDMT	110302ER-JS	●	●	-	
	110304ER-JS	●	●	-	
	110308ER-JS	●	●	-	
	BDMT	11T302ER-JS	●	●	-
		11T304ER-JS	●	●	-
		11T308ER-JS	●	●	-
	BDMT	170404ER-JS	●	●	-
		170408ER-JS	●	●	-

Low cutting force/
for stainless steel

Right-handed insert shown





● : Available

High-efficiency end mill

MECH

Notched inserts reduce chattering
High efficiency heavy machining with large D.O.C.



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 2-Notched	BDMT 11T308ER-N2	●	●	●
 3-Notched	BDMT 11T308ER-N3	●	●	●
 3-Notched	BDMT 170408ER-N3	●	●	●
 4-Notched	BDMT 170408ER-N4	●	●	●



Right-handed insert shown

● : Available

High-efficiency end mill

MECX

High-efficiency machining with fine pitch styles
Compatible with low-rigidity facilities

Shape	Description	MEGACOAT NANO EX			
		PR1825	PR1835	PR1810	
	BDMT	070302ER-JT	●	●	●
		070304ER-JT	●	●	●
		070308ER-JT	●	●	●
 Low cutting force/ for stainless steel	BDMT	070302ER-JS	●	●	-
		070304ER-JS	●	●	-
		070308ER-JS	●	●	-

Right-handed insert shown

● : Available

MEC

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Austenitic stainless steel	★ 100 – 160 – 200	☆ 100 – 160 – 200	–
Martensitic stainless steel	–	150 – 200 – 250 ^{*1}	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	20 – 30 – 50 ^{*2}	–
Titanium alloy (Ti -6Al -4 V)	–	40 – 60 – 80	30 – 50 – 70

*1 CA6535: 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)

*2 PR1535 : 1st Recommendation fo Ni-based heat resistant alloys

MECH

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Titanium alloy (Ti -6Al -4 V)	–	40 – 60 – 80	30 – 50 – 70




*1 PR1535 : 1st Recommendation for Titanium alloy (Ti-6Al-4V)

Double-sided 6-edge insert, low cutting force cutter

MFWN Mini

MFWN's superior performance remains intact
Economical small diameter milling cutter



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	WNMU 050408EN-GM	●	●	●
 Low cutting force	WNMU 050408EN-SM	●	●	●
 Tough edge (for heavy cutting)	WNMU 050408EN-GH	●	●	●





● : Available

Double-sided 6-edge Insert, Low Cutting Force Cutter

MFWN

Economical double-sided 6-edge insert
Superior fracture resistance due to thick edge design



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 Surface finish oriented (Precision class)	WNEU 080608EN-GL	●	●	●
 Tough edge (for heavy cutting)	WNMU 080608EN-GH	●	●	●
 General purpose	WNMU 080604EN-GM	●	●	●
	080608EN-GM	●	●	●
 Low cutting force	WNMU 080608EN-SM	●	●	●

● : Available

MFWN Mini

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Austenitic stainless steel	★ 100 – 160 – 200	☆ 100 – 160 – 200	–
Martensitic stainless steel	–	☆ 150 – 200 – 250	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	20 – 30 – 50 ^{*1}	–

*1 PR1535(Low Cutting Force) : 1st Recommendation for Ni-based heat resistant alloys

MFWN

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Austenitic stainless steel	★ 100 – 160 – 200	☆ 100 – 160 – 200	–
Martensitic stainless steel	–	☆ 150 – 200 – 250 ^{*1}	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	20 – 30 – 50 ^{*2}	–

*1 CA6535(Low Cutting Force): 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)

*2 PR1535 : 1st Recommendation for Ni-based heat resistant alloys

90° cutting edge angle type

Shouldering

Slotting

Facing




Highly efficient cutter with a 88° cutting edge angle

MFSN88

88° cutting edge angle

Economical inserts with 8 cutting edges. Reduces chattering with low cutting force design. Suitable for shoulder roughing



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	SNMU 130508EN-GM	●	●	●
 Low cutting force	SNMU 130508EN-SM	●	●	●
 Tough edge (for heavy cutting)	SNMU 130508EN-GH	●	●	●



●: Available

4-edge face mill with vertical inserts for heavy milling

MFLN90

Tough and reliable 4-edge vertical inserts for large D.O.C. and high feed machining. Stable heavy milling



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 Corner-R	LOGU 221616ER-GM	●	●	–
 Corner chamfer	LOGU 2216PAER-GM	●	●	–

●: Available

MFSN88

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon Steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy Steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Austenitic stainless steel	100 – 150 – 200	100 – 160 – 200 ^{*1}	–
Martensitic stainless steel	–	150 – 200 – 250 ^{*2}	–
Precipitation hardening stainless steel	–	★ 90 – 120 – 150	–
Gray cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	20 – 30 – 50 ^{*3}	–

*1 PR1535(Low Cutting Force): 1st Recommendation for Austenitic stainless steel(SUS 304, etc.)

*2 PR1535(Low Cutting Force): 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)

*3 PR1535(Low Cutting Force) : 1st Recommendation for Ni-based heat resistant alloys

MFLN90

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon Steel	★ 120 – 150 – 180	☆ 80 – 120 – 150	–
Alloy Steel	★ 100 – 150 – 180	☆ 80 – 120 – 150	–
Mold steel	★ 80 – 120 – 150	☆ 70 – 100 – 120	–
Gray cast iron	★ 100 – 150 – 180	☆ 80 – 120 – 150	–
Ductile cast iron	★ 100 – 150 – 180	☆ 80 – 120 – 150	–

High-efficiency face mill for heavy milling

MSRS90

Face mill for heavy milling. Notched insert reduced cutting force when entering the workpiece








High-efficiency face mill for heavy milling





MSR

High-efficiency notched inserts provide low cutting force and suppress chattering. Improves machining efficiency in heavy milling with larger depth of cut.



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 3-notched	SPMT 180616EN-NB3	-	●	●
 3-notched/ Low cutting force	SPMT 180616EN-NB3P	-	●	●
 4-notched	SPMT 180616EN-NB4	-	●	●
 4-notched/ Low cutting force	SPMT 180616EN-NB4P	-	●	●
 Without notch	SPMT 180616EN-V	-	●	●

●: Available

Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 3-Notched	APMT 250608ER-NB3	-	●	●
	250616ER-NB3	-	●	●
	250640ER-NB3	-	●	-
 4-Notched	APMT 250616EL-NB3	-	●	-
	APMT 250608ER-NB4	-	●	●
	250616ER-NB4	-	●	●
 4-Notched/ Low cutting force	250640ER-NB4	-	●	-
	APMT 250616EL-NB4	-	●	-
 3-Notched/ Low cutting force	APMT 250616ER-NB3P	-	●	●
	APMT 250616ER-NB4P	-	●	●

●: Available

MSRS90

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon Steel	–	★ 100 – 150 – 200	☆ 100 – 150 – 200
Alloy Steel	–	★ 100 – 150 – 200	☆ 100 – 150 – 200
Mold steel	–	★ 100 – 150 – 180	☆ 100 – 150 – 180
Gray cast iron	–	☆ 100 – 180 – 250	★ 100 – 150 – 250
Ductile cast iron	–	☆ 100 – 180 – 220	★ 100 – 150 – 250

MSR

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon Steel	–	★ 100 – 150 – 200	–
Alloy Steel	–	–	–
Mold steel	–	–	–
Gray cast iron	–	–	★ 100 – 150 – 200
Ductile cast iron	–	–	★ 100 – 150 – 200

45° cutting edge angle type

Facing





45° cutting edge angle - New general purpose cutter

MB45

NEW

Delivers the "low cutting force" benefits of positive inserts and the "fracture resistance" benefits of negative inserts. Excellent surface finish



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	SNMU 1406ANER-GM	●	●	●
 Tough edge	SNMU 1406ANER-GH	●	●	●
 General purpose	SNEU 1406ANER-GM	●	●	●
 Low cutting force	SNEU 1406ANER-SM	●	●	-

Right-handed insert shown








●: Available

45° face mill with double-sided 10-edge inserts

MFPN45

Reduced chattering with low cutting force design and excellent fracture resistance. Economical 10-edge insert



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	PNMU 1205ANER-GM	●	●	●
 General purpose	PNMU 1205ANER-GH	●	●	●
 Low cutting force	PNMU 1205ANER-SM	●	●	●
 Tough edge (for Heavy Cutting)	PNMU 1205ANER-GH	●	●	●
 Surface finish oriented (Precision class)	PNEU 1205ANER-GL	●	●	●
 Surface finish oriented (Precision class)	PNEU 1205ANER-GL	●	●	●
 Wiper insert (2-edge)	PNEU 1205ANER-W	●	●	●

●: Available

MB45

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Austenitic stainless steel	☆ 100 – 160 – 200	☆ 100 – 160 – 200 ^{*1}	–
Martensitic stainless steel	–	☆ 150 – 200 – 250 ^{*2}	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	☆ 20 – 30 – 50 ^{*3}	–

*1 PR1835(Low Cutting Force) : 1st Recommendation for Austenitic stainless steel(SUS 304, etc.)

*2 CA6535(Low Cutting Force) : 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)

*3 CA6535 : 1st Recommendation for Ni-based heat resistant alloys

MFPN45

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Austenitic stainless steel	☆ 100 – 160 – 200	☆ 100 – 160 – 200 ^{*1}	–
Martensitic stainless steel	–	☆ 150 – 200 – 250 ^{*2}	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	☆ 20 – 30 – 50 ^{*3}	–

*1 PR1535(Low Cutting Force) : 1st Recommendation for Austenitic stainless steel(SUS 304, etc.)

*2 CA6535(Low Cutting Force) : 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)

*3 PR1535 : 1st Recommendation for Ni-based heat resistant alloys




Highly efficient cutter with a 66° cutting edge angle

MFPN66

66° cutting edge angle

Economical 10-edge insert. Reduces cutting costs when machining auto parts and other general purpose machining applications



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	PNMU 0905XNER-GM	●	●	●
 Low cutting force	PNMU 0905XNER-SM	●	●	●
 Tough edge (for heavy cutting)	PNMU 0905XNER-GH	●	●	●

Right-handed insert shown



●: Available

High Precision and High Efficiency High Rake Cutter

MFSE45

Rough and finish in 1 pass with excellent surface finish



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	SEET 13T3AGSN-GL	●	●	—
 Stainless steel	SEET 13T3AGSN-SL	●	●	—

●: Available

MFPN66

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Austenitic stainless steel	☆ 100 – 150 – 200	☆ 100 – 150 – 200 ^{*1}	–
Martensitic stainless steel	–	☆ 100 – 150 – 200 ^{*2}	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	☆ 20 – 30 – 50 ^{*3}	–
Titanium alloy (Ti -6Al -4V)	–	–	–

*1 PR1535(Low Cutting Force) : 1st Recommendation for Austenitic stainless steel(SUS 304, etc.)

*2 PR1535(Low Cutting Force) : 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)

*3 PR1535(Low Cutting Force) : 1st Recommendation for Ni-based heat resistant alloys

MFSE45

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	☆ 150 – 200 – 300	★ 150 – 200 – 300	–
Alloy steel	☆ 150 – 200 – 300	★ 150 – 200 – 300	–
Mold steel	★ 100 – 150 – 250	☆ 100 – 150 – 250	–
Austenitic stainless steel	☆ 100 – 200 – 250	★ 100 – 200 – 250	–
Martensitic stainless steel	☆ 100 – 200 – 250	★ 100 – 200 – 250	–
Precipitation hardened stainless steel	–	–	–
Grey cast iron	100 – 200 – 250	100 – 200 – 250	–
Ductile cast iron	☆ 100 – 200 – 250	☆ 100 – 200 – 250	–
Ni-based heat resistant alloys	–	–	–
Titanium alloy (Ti -6Al -4V)	–	–	–

45°/70°/75° cutting edge angle type

Facing








High-efficiency face mill for heavy milling

MSRS15

75° cutting edge angle

Large depth of cut and high feed machining provide high efficiency machining. Max. D.O.C. is 12 mm




Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 2-notched	SPMT 1806EDER-NB2	●	●	●
 3-notched	SPMT 1806EDER-NB3	●	●	●
 4-notched/ Low cutting force	SPMT 1806EDER-NB2P	●	●	●
 5-notched/ Low cutting force	SPMT 1806EDER-NB3P	●	●	●
 2-notched/Tough edge	SPMT 1806EDSR-NB2T	-	●	●
 3-notched/Tough edge	SPMT 1806EDSR-NB3T	-	●	●
 Without notch	SPMT 1806EDER-V	●	●	●

●: Available

MFLN45/MFLN70

Tough and reliable 4-edge vertical inserts for large D.O.C. and high feed machining. Stable heavy milling



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 Corner-R	LOGU 221616ER-GM	●	●	-

●: Available





High efficiency multi-edge cutter for cast iron

MFK

70° cutting edge angle

Multi-edge cutter provides high efficiency in cast iron machining. Economical inserts with 10 cutting edges



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	PNMG 1106XNEN-GM	●	-	●
 Tough edge	PNMG 1106XNEN-GH	●	-	●
 Surface Finish Oriented	PNEG 1106XNEN-GL	●	-	●
 Wiper Insert (2-edge)	PNEG 1106XNER-W	●	-	●

●: Available

MSRS15

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	☆ 120 – 180 – 250	★ 120 – 180 – 220	–
Alloy steel	☆ 120 – 180 – 250	★ 120 – 180 – 220	–
Mold steel	☆ 100 – 160 – 220	★ 100 – 160 – 220	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 160 – 200

MFLN45/MFLN70

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 100 – 150 – 180	☆ 80 – 120 – 150	–
Alloy steel	★ 100 – 150 – 180	☆ 80 – 120 – 150	–
Mold steel	★ 80 – 120 – 150	☆ 70 – 100 – 120	–
Grey cast iron	★ 100 – 150 – 180	☆ 80 – 120 – 150	–
Ductile cast iron	★ 100 – 150 – 180	☆ 80 – 120 – 150	–

MFK

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation


Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Grey cast iron	☆ 120 – 180 – 250	–	★ 120 – 180 – 250
Ductile cast iron	☆ 100 – 150 – 200	–	★ 100 – 150 – 200

High feed and large depth of cut milling

MFH Boost

High feed milling with larger depths of cut. Excellent performance in a wide range of applications, including automotive parts, difficult-to-cut materials, and molds



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	LOMU 040410ER-GM	●	●	●

Right-handed insert shown


●: Available

Micro dia. cutter for high feed machining (Cutter dia. $\varnothing 8 - \varnothing 16$)

MFH Micro

Low resistance and durable against chatter for highly efficient machining. Maximum ap 0.5 mm. Stable high feed machining on a wide range of applications



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	LPGT 010210ER-GM	●	●	-

Right-handed insert shown

●: Available

MFH Boost

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 160 – 220	☆ 120 – 160 – 220	–
Alloy steel	★ 100 – 150 – 200	☆ 100 – 150 – 200	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Mold steel	★ 60 – 100 – 130	–	–
Mold steel	★ 50 – 70 – 100	–	–
Austenitic stainless steel	☆ 100 – 140 – 180	★ 100 – 140 – 180	–
Martensitic stainless steel	–	☆ 100 – 150 – 200 ^{*1}	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 160 – 220
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	☆ 20 – 30 – 50 ^{*2}	–
Titanium alloy (Ti-6Al-4V)	–	★ 40 – 60 – 80	–

*1 CA6535 : 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)

*2 CA6535 : 1st Recommendation fo Ni-based heat resistant alloys

MFH Micro

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel ^{*1}	80 – 140 – 180	80 – 140 – 180	–
Mold steel ^{*1}	60 – 100 – 130	–	–
Mold steel ^{*1}	50 – 70 – 100	–	–
Austenitic stainless steel	100 – 160 – 200	100 – 160 – 200 ^{*2}	–
Martensitic stainless steel	–	150 – 200 – 250 ^{*3}	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	–
Ductile cast iron	–	–	–
Ni-based heat resistant alloys	–	20 – 30 – 50 ^{*4}	–
Titanium alloy (Ti-6Al-4V)	–	★ 40 – 60 – 80	–

*1 PR1525 : 1st Recommendation for Mold steel

*2 PR1535 : 1st Recommendation for Austenitic stainless steel (SUS 304, etc.)

*3 CA6535 : 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)



*4 CA6535 : 1st Recommendation for Ni-based heat resistant alloys

Small dia. cutter for high feed machining (Cutter dia. $\phi 16 - \phi 50$)

MFH Mini

Economical inserts with 4 cutting edges. Small Dia. fine pitch type for high efficiency and high feed machining



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	LOGU 030310ER-GM	●	●	●
 Tough edge	LOGU 030310ER-GH	●	●	●

Right-handed insert shown

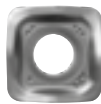


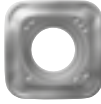
●: Available

Highly efficiency and high feed cutter (Cutter dia. $\phi 25 - \phi 160$)

MFH Harrier

Wide range of products for high feed machining
Large depths of cut and low cutting forces



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	SOMT 100420ER-GM	●	●	●
	140520ER-GM	●	●	●
 Large ap	SOMT 100420ER-LD	●	●	●
	140520ER-LD	●	●	●
 Wiper insert	SOMT 100420ER-FL	●	●	●
	140514ER-FL	●	●	●
 Tough edge	SOMT 100420ER-GH	●	●	●
	140520ER-GH	●	●	●

Right-handed insert shown

●: Available

MFH Mini

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel*1	80 – 140 – 180	80 – 140 – 180	–
Mold steel*1	60 – 100 – 130	–	–
Mold steel*1	50 – 70 – 100	–	–
Austenitic stainless steel	100 – 160 – 200	100 – 160 – 200*2	–
Martensitic stainless steel	–	150 – 200 – 250*3	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	20 – 30 – 50*4	–
Titanium alloy (Ti-6Al-4V)	–	★ 40 – 60 – 80	☆ 30 – 50 – 70

*1 PR0155 : 1st Recommendation for Mold steel

*2 PR1535 : 1st Recommendation fo Austenitic stainless steel (SUS 304, etc.)

*3 CA6535 : 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)

*4 CA6535 : 1st Recommendation fo Ni-based heat resistant alloys

MFH Harrier

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel*1	80 – 140 – 180	80 – 140 – 180	–
Mold steel*1	60 – 100 – 130	–	–
Mold steel*1	50 – 70 – 100	–	–
Austenitic stainless steel	100 – 160 – 200	100 – 160 – 200*2	–
Martensitic stainless steel	–	150 – 200 – 250*3	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	20 – 30 – 50*4	–
Titanium alloy (Ti-6Al-4V)	–	★ 40 – 60 – 80	☆ 30 – 50 – 70

*1 PR0155 : 1st Recommendation for Mold steel

*2 PR1535 (LD-Large ap) : 1st Recommendation fo Austenitic stainless steel (SUS 304, etc.)

*3 CA6535 : 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)

*4 CA6535 : 1st Recommendation fo Ni-based heat resistant alloys

High-efficiency radius cutter with multiple edges

MRW

Economical double-sided 8-edge Inserts. Excellent sharpness and cutting edge strength, suitable for a wide range of workpiece materials






Low-cutting-force and high-efficiency radius cutter

MRX





Excellent cutting performance due to low cutting force design
High-efficiency radius cutter



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	ROMU 1204MOER-GM	●	●	●
	1605MOER-GM	●	●	●
 Low cutting force	ROMU 1204MOER-SM	●	●	-
	1605MOER-SM	●	●	-
 Tough edge (for heavy milling)	ROMU 1204MOER-GH	●	●	●
	1605MOER-GH	●	●	●

Right-handed insert shown

● : Available

Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
 General purpose	RDGT 0803MOER-GM	●	●	●
	RPGT 10T3MOER-GM	●	●	●
	1204MOER-GM	●	●	●
	1605MOER-GM	●	●	●
 General purpose	RDMT 0803MOER-GM	●	●	●
	RPMT 10T3MOER-GM	●	●	●
	1204MOER-GM	●	●	●
	1605MOER-GM	●	●	●
 Low cutting force	RDGT 0803MOER-SM	●	●	-
	RPGT 10T3MOER-SM	●	●	-
	1204MOER-SM	●	●	-
	1605MOER-SM	●	●	-
 Tough edge (for heavy cutting)	RDMT 0803MOEN-GH	●	●	●
	RPMT 10T3MOEN-GH	●	●	●
	1204MOEN-GH	●	●	●
	1605MOEN-GH	●	●	●

Right-handed insert shown

● : Available

MRW

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Austenitic stainless steel	☆ 100 – 160 – 200	★ 100 – 160 – 200	–
Martensitic stainless steel	–	150 – 200 – 250 ^{*1}	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	20 – 30 – 50 ^{*2}	–
Titanium alloy (Ti -6Al -4 V)	–	☆ 40 – 60 – 80	☆ 30 – 50 – 70

*1 CA6535 : 1st Recommendation for Martensitic stainless steel (SUS 403, etc.)

*2 PR1535 : 1st Recommendation fo Ni-based heat resistant alloys

MRX

Recommended cutting conditions (GM – General purpose)

★1st recommendation ☆2nd recommendation

Workpiece material	Recommended insert grade (Vc: m/min)		
	PR1825	PR1835	PR1810
Carbon steel	★ 120 – 180 – 250	☆ 120 – 180 – 250	–
Alloy steel	★ 100 – 160 – 220	☆ 100 – 160 – 220	–
Mold steel	★ 80 – 140 – 180	☆ 80 – 140 – 180	–
Austenitic stainless steel	☆ 100 – 160 – 200	★ 100 – 160 – 200	–
Martensitic stainless steel	–	150 – 200 – 250 ^{*1}	–
Precipitation hardened stainless steel	–	★ 90 – 120 – 150	–
Grey cast iron	–	–	★ 120 – 180 – 250
Ductile cast iron	–	–	★ 100 – 150 – 200
Ni-based heat resistant alloys	–	20 – 30 – 50 ^{*2}	–
Titanium alloy (Ti -6Al -4 V)	–	★ 40 – 60 – 80 ^{*3}	☆ 30 – 50 – 70

*1 CA6535 : 1st Recommendation for Martensitic stainless steel(SUS 403, etc.)



*2 CA6535 : 1st Recommendation for Ni-based heat resistant alloys

Other inserts for milling

Multi-function end mill

MEY

Multi-function machining (Drilling/Ramping/Shouldering/
Grooving). Full 2-insert structure and high stability



Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
	GOMT 08T208ER-D	●	–	●
	100308ER-D	●	–	●
	13T308ER-D	●	–	●
	160408ER-D	●	–	●
	JOMT 08T208ER-D	●	–	●
	100308ER-D	●	–	●
	13T308ER-D	●	–	●
	160408ER-D	●	–	●

● : Available

Chamfering end mill

MCSE

For 30°, 45°, 60° chamfering.
Economical 4-edge insert

Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
	SDKW 09T204TN	●	–	–
	SEKW 120304TN	●	–	–
	120308TN	●	–	–
	SDMT 09T204C	●	–	–
	SEMT 120304C	●	–	–


Low cutting force

● : Available

Bolt countersink end mill

MEF

Countersink for hexagon socket bolt (M6 ~ M30).
Economical 4-edge insert


Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
	SPMT 060204E-Z	●	–	●
	060208E-Z	●	–	●
	090304E-Z	●	–	●
	090308E-Z	●	–	●

● : Available

T-Slot mill

METS

For T-slotting. Recommended for high feed machining
with 2 flute design. Economical 4-edge insert

Shape	Description	MEGACOAT NANO EX		
		PR1825	PR1835	PR1810
	SDMT 060304E-K	–	●	●
	080308E-K	–	●	●
	120408E-K	–	●	●

● : Available

ISO standard inserts for milling

Description	MEGACOAT NANO EX		
	PR1825	PR1835	PR1810
SDMR 1203AUER-H	●	–	–
SEMR 1203AFER-H	●	–	–
SPEN 1203EESR	–	–	●
SPMR 1203EDER-H	●	–	–
TEMR 1603PTER-H	●	–	–
TEMR 2204PTER-H	●	–	–
TPMR 1603PDER-H	●	–	–
TPMR 2204PDER-H	●	–	–
RDHX 0702MOT	–	●	–
RDHX 1003MOT	–	●	–
RDHX 12T3MOT	–	●	–
RDMT 08T2M0-H	–	●	●
RPMT 10T3M0	–	●	●
RPMT 1204M0	–	●	●
RPMT 1204M0-H	–	●	●
RPMT 1606M0-H	–	●	●
RPMT 2006M0-H	–	●	●
SDMT 1204AESR-H	●	–	–

● : Available