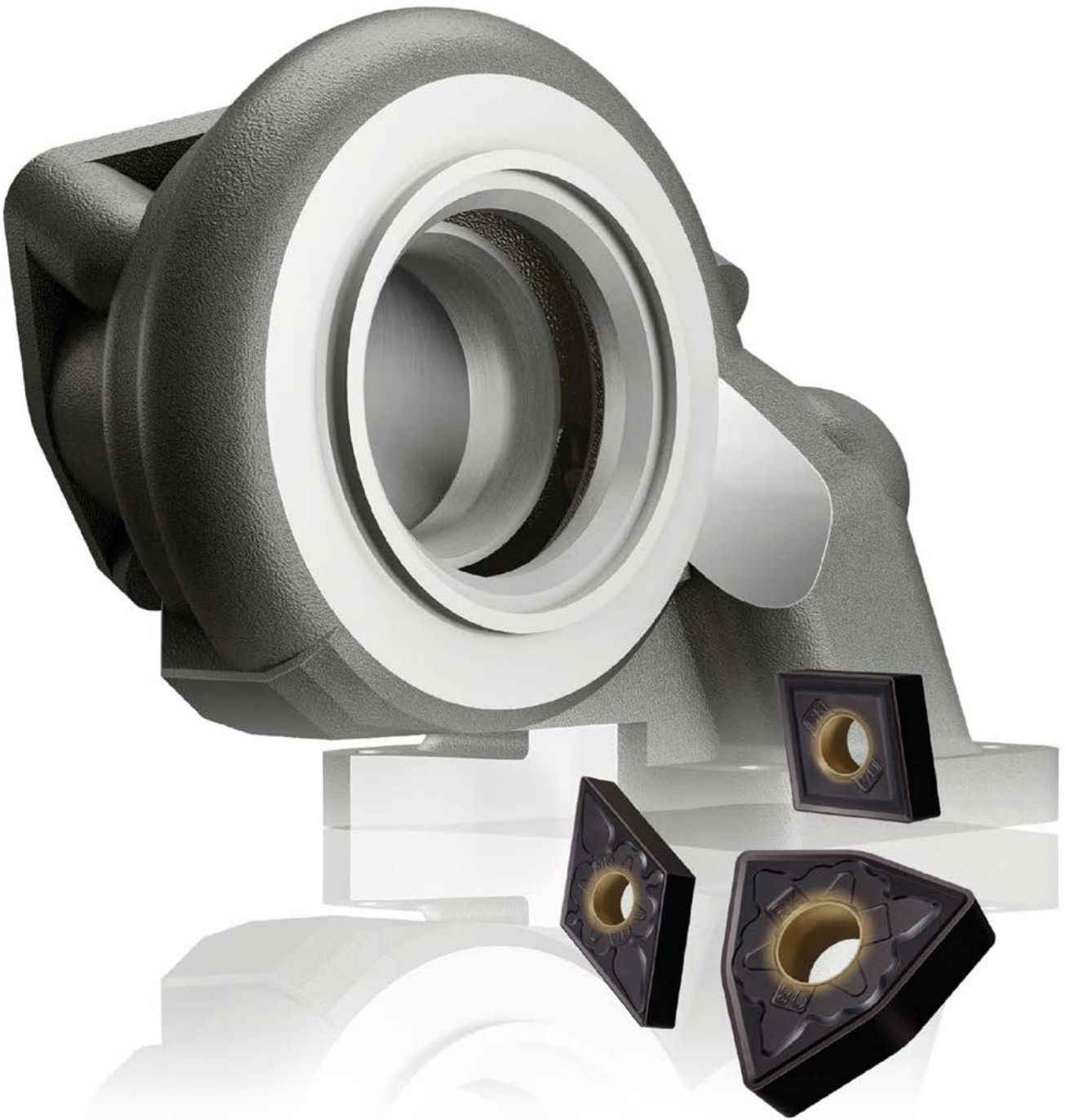

MH515

SPECIALLY DESIGNED FOR MACHINING CAST
AUSTENITIC STAINLESS STEEL AND DUCTILE CAST IRON
COMPONENTS SUCH AS TURBOCHARGER HOUSINGS

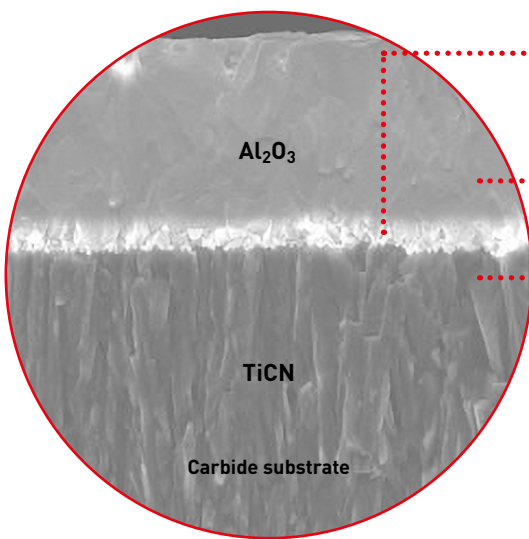


MH515

IMPROVED PEELING RESISTANCE WHEN MACHINING CAST AUSTENITIC STAINLESS STEEL AND DUCTILE CAST IRON

COATING FEATURES

Technologically specialised coating greatly improves adhesion to the carbide substrate, thereby preventing plastic deformation of the cutting edge and increasing tool life.



TOUGH-GRIP TECHNOLOGY

The degree of adhesion between the coating layers was maximised, enabling a toughening effect that is highly resistant to peeling.

NANO-TEXTURE COATING TECHNOLOGY

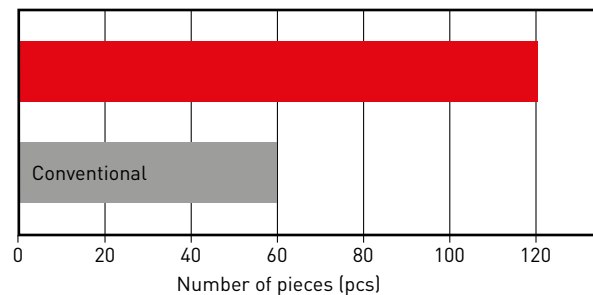
The optimised crystal growth, Nano-texture coating technology gives outstanding wear and chipping resistance.

CUTTING PERFORMANCE

EXTERNAL MACHINING OF TURBINE HOUSING FLANGE (HEAT RESISTANT CAST STEEL)

Superior coating provides double tool life.

Material	Heat resistant cast steel
Inserts	WNMG080412-00
Vc (m/min)	130
f (mm/rev.)	0.25
ap (mm)	1.5
Coolant	Wet cutting

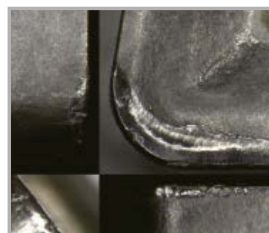


MH515+GK



120 Pieces

Conventional



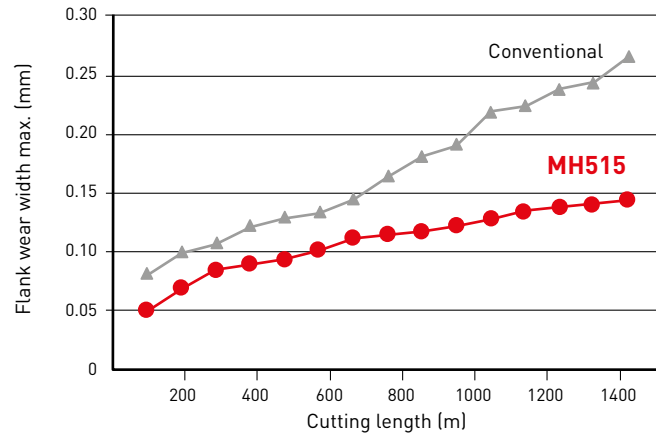
60 Pieces

CUTTING PERFORMANCE

CONTINUOUS TURNING TEST OF CAST AUSTENITIC STAINLESS STEEL

Peeling of the coating layer due to plastic deformation was greatly reduced.

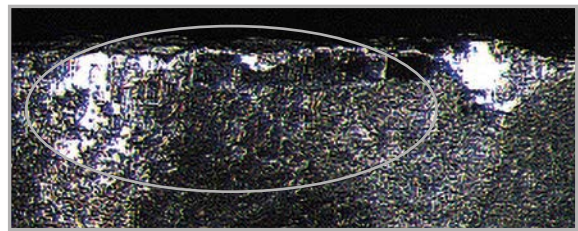
Material	Cast austenitic stainless steel
Inserts	WNMG080412-00
Machining method	Continuous facing
Vc (m/min)	120
f (mm/rev.)	0.2
ap (mm)	2.0
Coolant	Wet cutting



CUTTING EDGE AFTER 1425 M



MH515



Conventional

Damage due to peeling of the coating



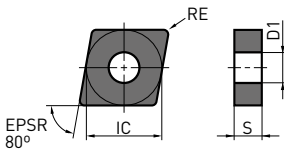
NEGATIVE INSERTS

(WITH HOLE)

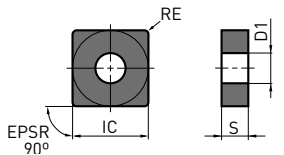


M Class

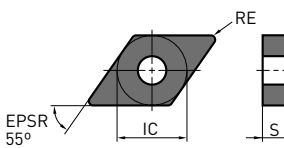
CNMG, CNMA



SNMG



DNMG



CHIPBREAKER IDENTIFICATION


APPLICATION



LK

MA, GK,
Standard

RK
Flat top

Order number			MH515	IC	S	RE	D1
CNMG120408-LK	L	★		12.7	4.76	0.8	5.16
CNMG120412-LK	L	★		12.7	4.76	1.2	5.16
CNMG120408-MA	M	★		12.7	4.76	0.8	5.16
CNMG120412-MA	M	★		12.7	4.76	1.2	5.16
CNMG120408-GK	M	★		12.7	4.76	0.8	5.16
CNMG120412-GK	M	★		12.7	4.76	1.2	5.16
CNMG120408-RK	R	★		12.7	4.76	0.8	5.16
CNMG120412-RK	R	★		12.7	4.76	1.2	5.16
CNMA120408	R	★		12.7	4.76	0.8	5.16
CNMA120412	R	★		12.7	4.76	1.2	5.16
DNMG150404-LK	L	★		12.7	4.76	0.4	5.16
DNMG150404-GK	M	★		12.7	4.76	0.4	5.16
DNMG110408	M	★		9.525	4.76	0.8	3.81
SNMG120404-GK	M	★		12.7	4.76	0.4	5.16
SNMG120412-GK	M	★		12.7	4.76	1.2	5.16



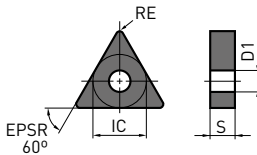
NEGATIVE INSERTS

(WITH HOLE)

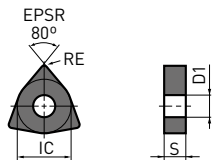
M **K**

M Class

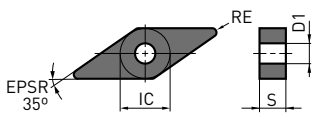
TNMG



WNMG



VNMG



CHIPBREAKER IDENTIFICATION




APPLICATION



LK

GK, MK

RK

Order number	  	MH515	IC	S	RE	D1
TNMG160412-GK	M	★	9.525	4.76	1.2	3.81
VNMG160408-MK	M	★	9.525	4.76	0.8	3.81
WNMG080408-LK	L	★	12.7	4.76	0.8	5.16
WNMG080412-LK	L	★	12.7	4.76	1.2	5.16
WNMG080408-GK	M	★	12.7	4.76	0.8	5.16
WNMG080412-GK	M	★	12.7	4.76	1.2	5.16
WNMG080412-RK	R	★	12.7	4.76	1.2	5.16
WNMG080416-RK	R	★	12.7	4.76	1.6	5.16



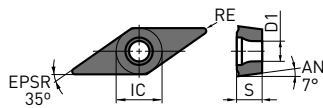
7° POSITIVE INSERTS

(WITH HOLE)

M **K**

M Class

VCMT, VCMW





CHIPBREAKER IDENTIFICATION

APPLICATION



MK

Flat top


Order number	 	MH515	IC	S	RE	D1
VCMT160404-MK	M	★	9.525	4.76	0.4	4.4
VCMW160408	R	★	9.525	4.76	0.8	4.4

MH515

RECOMMENDED CUTTING CONDITIONS

NEGATIVE INSERTS

Cutting conditions : ●: Stable cutting ●: General cutting ✘: Unstable cutting

Material	Properties	Conditions			Vc	f	ap
M Cast austenitic stainless steel JIS SCH12, DIN 1.4826, DIN 1.4837	Ni ≤ 18 %	●	M	GK, MK	60-130	0.10-0.30	1.5-2.5
			R	RK *	60-130	0.10-0.30	1.5-2.5
S Ductile cast iron	Tensile strength < 500MPa	●	L	LK, MA	150-250	0.10-0.30	0.3-1.0
			M	MK, GK	150-250	0.10-0.35	0.3-2.5
	Tensile strength ≥ 500MPa	●	R	RK	150-250	0.15-0.35	1.0-2.5
			L	LK, MA	130-230	0.10-0.20	0.3-1.0
		✘	M	MK, GK	130-230	0.10-0.30	0.3-2.5
			R	RK	130-230	0.20-0.30	1.0-2.5

* Flat Top

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