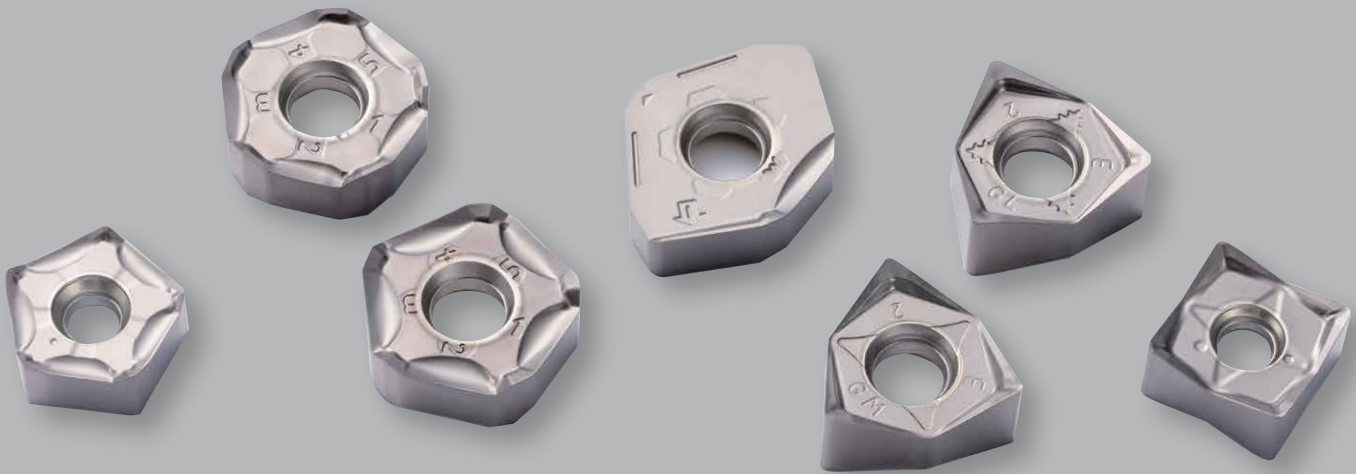




TN620M

Cermet for Milling



High Quality Surface Finish Milling

New milling insert cermet grade for finishing
Excellent wear resistance and surface smearing resistance



MFPN45



MFWN90



MFPN66



MFSN88

TN620

Cermet for Milling

NEW Milling Grade for Finishing

Excellent Wear Resistance and Surface Smearing Resistance Provides High Quality Surface Finish

1 High Quality Surface Finish

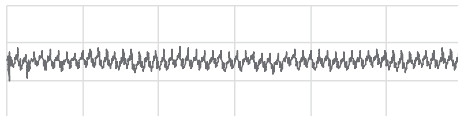
Excellent surface finish and smearing resistance

Surface Finish Comparison (Internal Evaluation)

*Close-up picture of surface by CCD

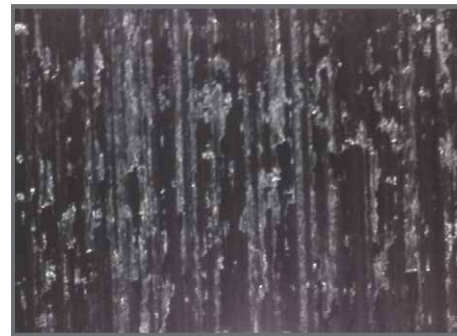
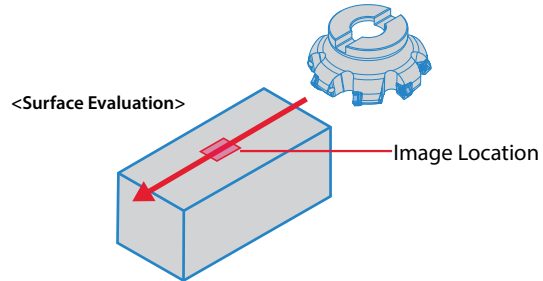


Reduced Smearing of Finished Surface

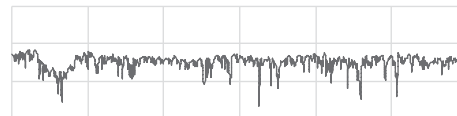


TN620M
(Tested with MFPN Cutter)

Cutting Conditions : Vc = 820 sfm, D.O.C. = 0.039", ae = 4.331", fz = 0.004 ipt, Dry
MFPN4512SR-7T-M, PNEU1205ANER-GL (Negative) Workpiece : 1049



Smearing Occurred of the Finished Surface

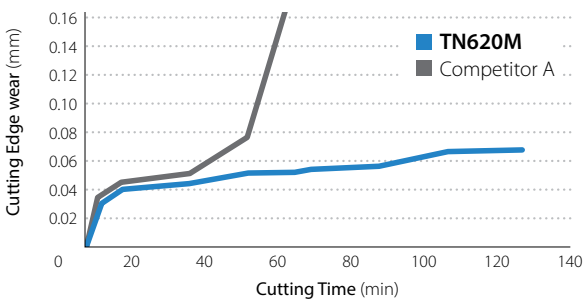


Competitor A
(Cermet, Negative)

2 Excellent Wear Resistance

TN620M decreases damage to the cutting edge and provides long tool life

Wear Resistance Comparison (Internal Evaluation)



Cutting Conditions : Vc = 760 sfm, D.O.C. = 0.039", ae = 4.331", fz = 0.004 ipt, Dry
MFPN4512SR-7T-M, PNEU1205ANER-GL (Negative) Workpiece : 4140

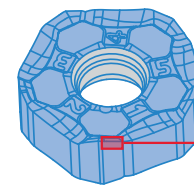


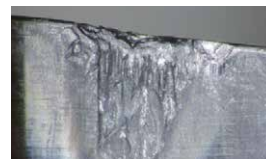
Image Location

Machining Time: Approx. 67 min



TN620M (Tested with MFPN Cutter)

TN620M Maintains Good Cutting Edge Condition


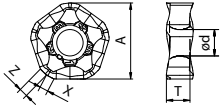
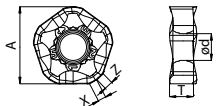

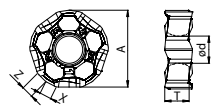
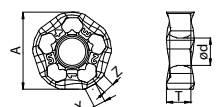

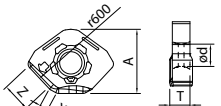


Competitor A (Cermet, Negative)

Competitor A Shows Severe Defects


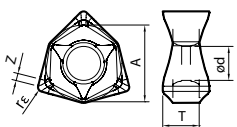

Inserts

MFPN45 Inserts

Shape		Part Number	Dimensions (in)					Cermet
			A	T	Ød	X	Z	TN620M
		PNMU 1205ANER-GM	0.704			0.079	0.079	○
Left-handed		PNMU 1205ANEL-GM						○
		PNEU 1205ANER-GL	0.689	0.219	0.244	0.106	0.106	○
Left-handed		PNEU 1205ANEL-GL						○
		PNEU 1205ANER-W	0.703			0.091	0.319	○


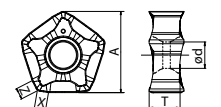
○ : World Express (Shipping: 7-10 Business Days)

MFWN90 Inserts

Shape		Part Number	Dimensions (in)					Cermet
			A	T	Ød	Z	rε	TN620M
		WNMU 080604EN-GM	0.552	0.262	0.244	0.067	0.016	○
		080608EN-GM				0.051	0.031	○
		WNEU 080608EN-GL	0.552	0.262	0.244	0.059	0.031	○


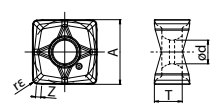
○ : World Express (Shipping: 7-10 Business Days)

MFPN66 Inserts

Shape		Part Number	Dimensions (in)					Cermet
			A	T	Ød	X	Z	TN620M
		PNMU 0905XNER-GM	0.575	0.219	0.185	0.079	0.079	○

○ : World Express (Shipping: 7-10 Business Days)

MFSN88 Inserts

Shape		Part Number	Dimensions (in)					Cermet
			A	T	Ød	Z	rε	TN620M
		SNMU 130508EN-GM	0.512	0.217	0.185	0.039	0.031	○

○ : World Express (Shipping: 7-10 Business Days)

Recommended Cutting Conditions

MFPN45 Inserts (PNEU/PUMU)

Chipbreaker	Workpiece	Feed Rate (fz : ipt)	Cutting Speed Vc : sfm	
			Cermet	
			TN620M	
GM	Carbon Steel	0.0024 ~ 0.0047 ~ 0.0079	660 ~ 820 ~ 980	
	Alloy Steel	0.0024 ~ 0.0047 ~ 0.0079	590 ~ 720 ~ 820	
	Mold Steel	0.0024 ~ 0.0031 ~ 0.0059	490 ~ 590 ~ 720	
GL	Carbon Steel	0.0024 ~ 0.0039 ~ 0.0059	660 ~ 820 ~ 980	
	Alloy Steel	0.0024 ~ 0.0039 ~ 0.0059	590 ~ 720 ~ 820	
	Mold Steel	0.0024 ~ 0.0031 ~ 0.0047	490 ~ 590 ~ 720	

MFWN90 Inserts (WNEU/WNMU)

Chipbreaker	Workpiece	Feed Rate (fz : ipt)	Cutting Speed Vc : sfm	
			Cermet	
			TN620M	
GM	Carbon Steel	0.0024 ~ 0.0039 ~ 0.0059	660 ~ 820 ~ 980	
	Alloy Steel	0.0024 ~ 0.0039 ~ 0.0059	590 ~ 720 ~ 820	
	Mold Steel	0.0024 ~ 0.0039 ~ 0.0051	490 ~ 590 ~ 720	
GL	Carbon Steel	0.0024 ~ 0.0031 ~ 0.0047	660 ~ 820 ~ 980	
	Alloy Steel	0.0024 ~ 0.0031 ~ 0.0047	590 ~ 720 ~ 820	
	Mold Steel	0.0024 ~ 0.0031 ~ 0.0039	490 ~ 590 ~ 720	

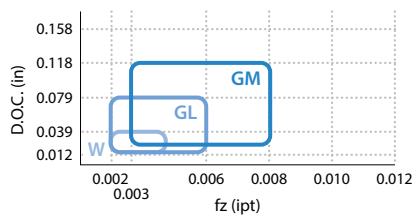
MFPN66 Inserts (PNMU) / MFSN88 Inserts (SNMU)

Chipbreaker	Workpiece	Feed Rate (fz : ipt)	Cutting Speed Vc : sfm	
			Cermet	
			TN620M	
GM	Carbon Steel	0.0024 ~ 0.0047 ~ 0.0059	660 ~ 820 ~ 980	
	Alloy Steel	0.0024 ~ 0.0047 ~ 0.0059	590 ~ 720 ~ 820	
	Mold Steel	0.0024 ~ 0.0039 ~ 0.0051	490 ~ 590 ~ 720	

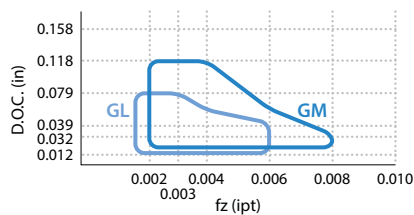
Applicable Chipbreaker Range

Cutting Conditions : Vc = 660 sfm, ae = 4.331", Dry Workpiece : 1049

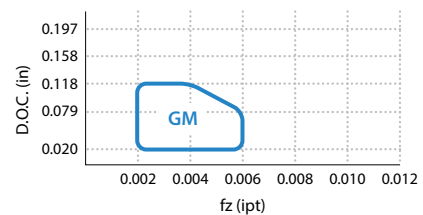
MFPN45 Inserts



MFWN90 Inserts



MFPN66 Inserts / MFSN88 Inserts



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