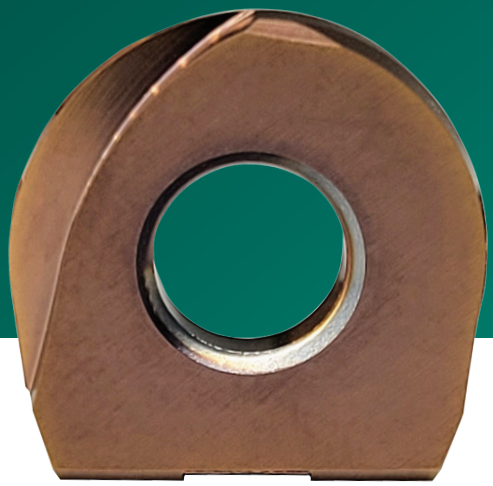
DAPRA

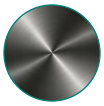
PRISMA

INDEXABLE BALL NOSE



A finishing insert that outshines them all.

WHY PRISMA WINS



Superior Surface Finishes

› 28-16 Ra (µin) typical

Advanced Grades

› Excellent thermal stability and best-in-class tool life

Improved Helical Geometries

› Reduced drag and tool pressure

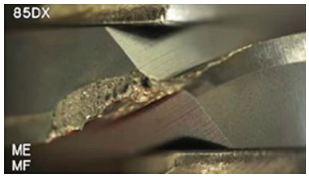
Plug & Play

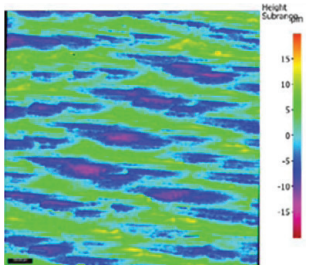
› Compatible with legacy DAPRA BNEM Ball Nose bodies

COMPETITIVE ANALYSIS

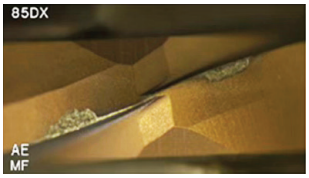
Material **P20 + Ni** // **48 HRc**

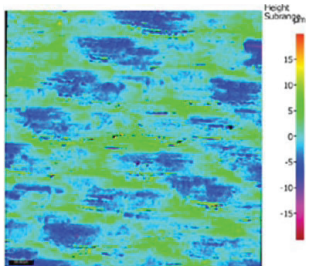
COMPETITOR
***8** hours in the cut*





DAPRA SH-DMF603
***12** hours in the cut*





Significant reduction of surface finish variation, reducing downstream processing

WHAT'S NEW

THE GEOMETRIES

SG

Enhanced "S" shape

› More neutral rake angle, adapted for general application finishing

SH

Improved helix

› Negative rake, creating a stronger edge

THE GRADES

DMF603 P M K H

First choice in mold & die finishing applications

› Recommended for finishing operations in steel and hardened steel

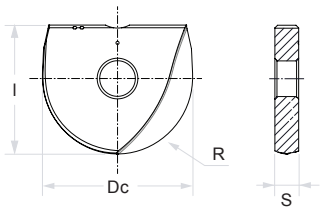
DMF910 P M K

For general finishing applications

› Tougher substrate for greater resistance to chipping and cracking

www.DAPRA.com // (800) 243-3344 // info@dapra.com

DAPRA PRISMA SERIES BALL NOSE



- STOCK, STANDARD (PREFERRED)
- STOCK, STANDARD (ALTERNATIVE)
- O NON-STOCK (ALTERNATIVE)

PRISMA SERIES INSERTS

Prisma Inserts					Dimensions (Inch)				Grade Selection			
EDP #	Catalog ID	Grade	Edge Geometry	Coating	Dc	I	R	S	P	M	K	H
110000177	BNR0500-SH-DMF603	DMF603	Helical	PVD	0.500	0.488	0.250	0.098	■	□	□	■
110000178	BNR0500-SH-DMF910	DMF910	Helical	PVD		0.488	0.250	0.098	□	■	■	
110000179	BNR0500-SG-DMF603	DMF603	Helical	PVD		0.488	0.250	0.098	■	□	□	■
110000180	BNR0500-SG-DMF910	DMF910	Helical	PVD		0.488	0.250	0.098	□	■	■	
110000181	BNR0750-SH-DMF603	DMF603	Helical	PVD	0.750	0.612	0.375	0.118	■	□	□	■
110000182	BNR0750-SH-DMF910	DMF910	Helical	PVD		0.612	0.375	0.118	□	■	■	
110000183	BNR0750-SG-DMF603	DMF603	Helical	PVD		0.612	0.375	0.118	■	□	□	■
110000184	BNR0750-SG-DMF910	DMF910	Helical	PVD		0.612	0.375	0.118	□	■	■	
110000185	BNR1000-SH-DMF603	DMF603	Helical	PVD	1.000	0.855	0.500	0.157	■	□	□	■
110000186	BNR1000-SH-DMF910	DMF910	Helical	PVD		0.855	0.500	0.157	□	■	■	
110000187	BNR1000-SG-DMF603	DMF603	Helical	PVD		0.855	0.500	0.157	■	□	□	■
110000188	BNR1000-SG-DMF910	DMF910	Helical	PVD		0.855	0.500	0.157	□	■	■	

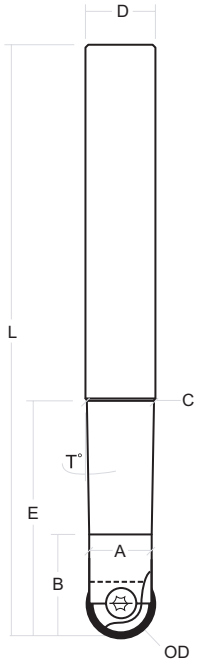
PRISMA SERIES MACHINING PARAMETERS

Grade	Size	Speed / Feed	P			M			K			H
			Non-Alloy Steel	*Low-Alloy Steel*	*High-Alloy / Tool Steel*	*Austenitic Stainless*	*Ferritic / Martensitic Stainless*	*Austenitic-Ferritic Stainless (Duplex)*	*Malleable Cast Iron*	*Gray Cast Iron*	*Nodular Cast Iron*	*Hardened Steel (> 55 HRc)*
DMF603	0.500”	SFM (feet/min.)	590-1310	590-1275	590-1210	520-950	555-980	490-885	655-1245	590-1180	520-1015	225-885
		FPR (in./rev.)	.008-.018	.006-.016	.006-.016	.006-.014	.006-.014	.004-.012	.008-.020	.008-.018	.008-.016	.004-.012
	0.750”	SFM (feet/min.)	590-1310	590-1275	590-1210	520-950	555-980	490-885	655-1245	590-1180	520-1015	225-885
		FPR (in./rev.)	.010-.020	.010-.018	.008-.018	.008-.016	.008-.016	.006-.014	.010-.024	.010-.020	.010-.020	.004-.014
	1.000”	SFM (feet/min.)	590-1310	590-1275	590-1210	520-950	555-980	490-885	655-1245	590-1180	520-1015	225-885
		FPR (in./rev.)	.010-.022	.010-.020	.008-.020	.008-.018	.008-.018	.006-.016	.010-.026	.010-.024	.010-.022	.004-.015
DMF910	0.500”	SFM (feet/min.)	455-1145	455-1115	455-980	425-850	390-820	360-750	590-1210	590-1145	520-950	225-850
		FPR (in./rev.)	.008-.018	.006-.016	.006-.016	.006-.014	.006-.014	.004-.012	.008-.020	.008-.018	.008-.016	.004-.012
	0.750”	SFM (feet/min.)	455-1145	455-1115	455-980	425-850	390-820	360-750	590-1210	590-1145	520-950	225-850
		FPR (in./rev.)	.010-.020	.010-.018	.008-.018	.008-.016	.008-.016	.006-.014	.010-.024	.010-.020	.010-.020	.004-.014
	1.000”	SFM (feet/min.)	455-1145	455-1115	455-980	425-850	390-820	360-750	590-1210	590-1145	520-950	225-850
		FPR (in./rev.)	.010-.022	.010-.020	.008-.020	.008-.018	.008-.018	.006-.018	.010-.026	.010-.024	.010-.022	.004-.015

PRISMA SERIES BALL NOSE

Steel Ball Nose End Mills

EDP	OD – Insert Size		Description	A Ø	B Straight Length	C Taper End Ø	D Shank Ø	E Effective Length	T Taper Angle	L Overall Length
	Inch	Metric								
40100	0.500”	12mm	BNEM-0500-3500-SS	0.413”	0.750”	0.490”	0.500”	1.250”	4.400°	3.500”
40110	0.500”	12mm	BNEM-0500-5250-SS	0.413”	0.750”	0.490”	0.500”	2.000”	1.775°	5.250”
40120	0.500”	12mm	BNEM-0500-6000-SS	0.413”	0.750”	0.490”	0.500”	2.500”	1.000°	6.000”
40150	0.750”	20mm	BNEM-0750-4500-SS	0.670”	1.000”	0.740”	0.750”	1.750”	2.690°	4.500”
40160	0.750”	20mm	BNEM-0750-7000-SS	0.670”	1.000”	0.740”	0.750”	3.000”	1.030°	7.000”
40170	0.750”	20mm	BNEM-0750-8250-SS	0.670”	1.000”	0.740”	0.750”	4.500”	0.573°	8.250”
40180	1.000”	25mm	BNEM-1000-6250-SS	0.860”	1.500”	0.990”	1.000”	2.000”	7.400°	6.250”
40190	1.000”	25mm	BNEM-1000-7500-SS	0.860”	1.500”	0.990”	1.000”	3.750”	1.660°	7.500”
40200	1.000”	25mm	BNEM-1000-9000-SS	0.860”	1.500”	0.990”	1.000”	5.000”	1.088°	9.000”



Ball Nose Modular Heads

EDP	OD – Insert Size		Description	M Thread	A Ø	E Effective Length	Flutes	Wrench
	Inch	Metric						
40835-6	0.500”	12mm	GWR12-MOD-C (M6)	M6	0.417”	1.05”	2	$^{3}/_{8}$”
40835	0.500”	12mm	GWR12-MOD-C (M8)	M8	0.417”	1.05”	2	$^{3}/_{8}$”
40855	0.750”	20mm	GWR20-MOD-C	M10	0.690”	1.28”	2	$^{9}/_{16}$”
40865	1.000”	25mm	GWR25-MOD-C	M12	0.820”	1.65”	2	$^{11}/_{16}$”