

PRODUCT NEWS

PN-U-011

TYPE PNS



P10 FACE MILL

High-Performance Milling with Double-sided 10-edge insert

- Coarse Pitch: \varnothing 3.0"~ \varnothing 10.0" (\varnothing 50mm~ \varnothing 250mm)
- Fine Pitch: \varnothing 2.0"~ \varnothing 10.0" (\varnothing 50mm~ \varnothing 250mm)

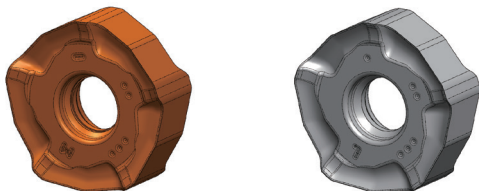
Economical Double-Sided Inserts with 10 Cutting Edges
Equipped with Two Different Entry Angles
Suitable for Both Deep Cutting and High-Feed Machining



P10 Cutter

Feature 1

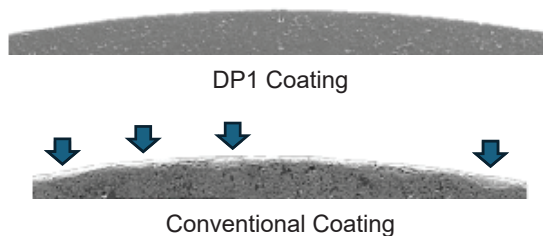
Economical double-sided 10-edge insert



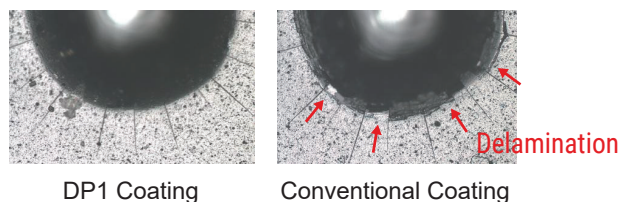
Feature 2

New PVD Coating Grades - DP117 / DP150

1. Improved coating toughness enhances edge stability and reduces micro-chipping.



2. Stronger coating-substrate adhesion improves delamination resistance by approx. 20%, ensuring stable & reliable cutting.



Feature 3

Equipped with two different entry angles

45°

Large Depth of Cut

Enables large depth of cut and efficient machining on high-rigidity machines.



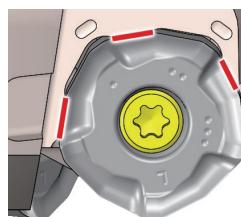
27°

High-Feed Machining

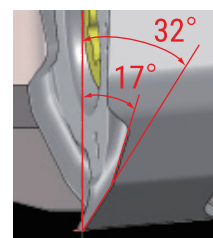
Enables high-feed machining at depths of cut below .100\"/>



Feature 4



Rigid Insert Clamping
Three-face constraint provides rigidity and stability in heavy cutting.



Helical cutting edge
The large axial rake angle allows for smooth machining.

Feature 5

■ Application

ISO	P				M					K				H				
	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	K01	K10	K20	K30	H01	H10	H20	H30
Application Range			JC8118										JC8118			JC8118		
		NEW	DP117										DH103		NEW	DP117		
			NEW	DP150				NEW	DP150			NEW	DP117					
				DS250					DS250									



INCH

P10 Cutter

PNS
TYPE

Face Mill

G-Body

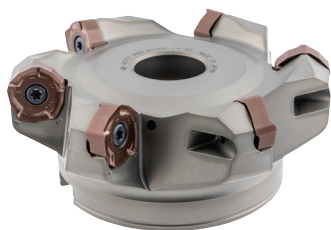
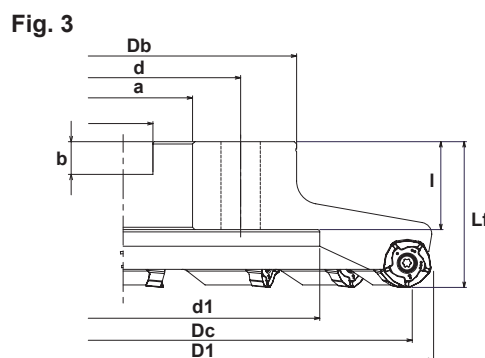
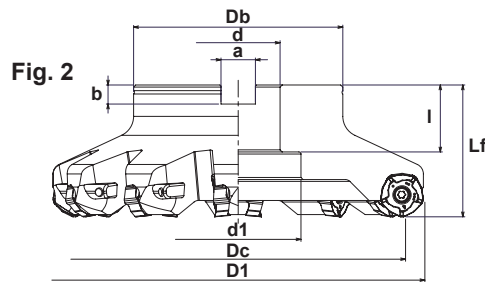
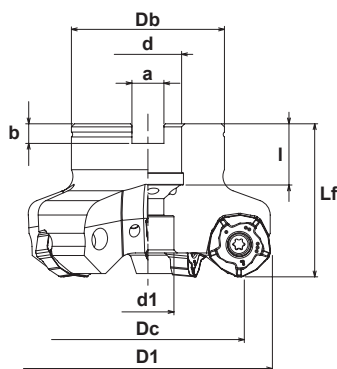


Fig. 1 $\phi Dc \leq 5.0''$
Thru Coolant Hole



Specifications

	CATALOG NUMBER	STK	DIMENSIONS									FIG.	INSERT	Q	PARTS
			Dc	D1	Lf	Db	d	d1	a	b	l				
COARSE PITCH	PNS-5300R-19-100	•	3.00	3.72	2.0	2.20	1.00	.787	.374	.236	.750	1	PNMU190720ZER-**	5	CSW-513H A-20
	PNS-5300R-19-125	•	3.00	3.72	2.0	2.56	1.25	1.02	.500	.315	.866	1		5	
	PNS-6400R-19-150	•	4.00	4.72	2.5	3.78	1.50	1.26	.626	.393	1.00	1		6	
	PNS-7500R-19-150	•	5.00	5.72	2.5	3.94	1.50	1.26	.626	.393	1.00	1		7	
	PNS-8600R-19-150*	•	6.00	6.72	2.5	3.94	1.50	2.36	.626	.393	1.38	2		8	
	PNS-8600R-19-200*	•	6.00	6.72	2.5	4.92	2.00	2.75	.748	.433	1.38	2		8	
	PNS-10800R-19-250*	•	8.00	8.72	2.5	5.91	2.50	5.51	1.00	.563	1.38	3		10	
	PNS-121000R-19-250*	•	10.00	10.72	2.5	5.91	2.50	6.69	1.00	.563	1.38	3		12	
FINE PITCH	PNS-4200R-19-075	•	2.00	2.72	2.0	1.85	.750	.610	.319	.197	.750	1		4	
	PNS-5250R-19-075	•	2.50	3.22	2.0	1.97	.750	.610	.319	.197	.750	1		5	
	PNS-5250R-19-100	•	2.50	3.22	2.0	2.20	1.00	.787	.374	.236	.750	1		5	
	PNS-7300R-19-100	•	3.00	3.72	2.0	2.20	1.00	.787	.374	.236	.750	1		7	
	PNS-7300R-19-125	•	3.00	3.72	2.0	2.56	1.25	1.02	.500	.315	.866	1		7	
	PNS-9400R-19-150	•	4.00	4.72	2.5	3.78	1.50	1.26	.626	.393	1.00	1		9	
	PNS-11500R-19-150	•	5.00	5.72	2.5	3.94	1.50	1.26	.626	.393	1.00	1		11	
	PNS-12600R-19-150*	•	6.00	6.72	2.5	3.94	1.50	2.36	.626	.393	1.38	2		12	
	PNS-12600R-19-200*	•	6.00	6.72	2.5	4.92	2.00	2.75	.748	.433	1.38	2	12		
	PNS-14800R-19-250*	•	8.00	8.72	2.5	5.91	2.50	5.51	1.00	.563	1.38	3	14		
	PNS-161000R-19-250*	•	10.00	10.72	2.5	5.91	2.50	6.69	1.00	.563	1.38	3	16		

*Not G-Body

Note: All cutters supplied without inserts, wrench, & moly.

P10 Cutter

METRIC

PNS
TYPE

Face Mill

G-Body

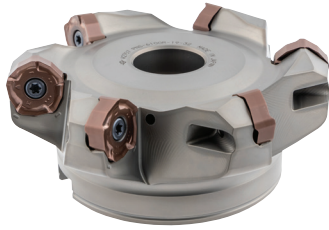
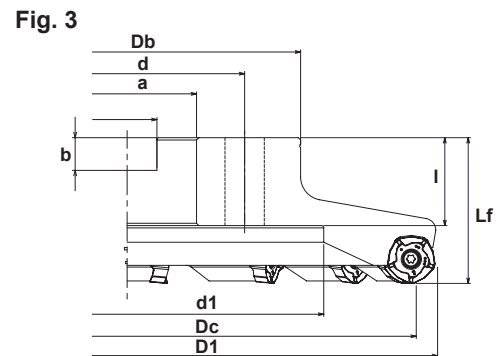
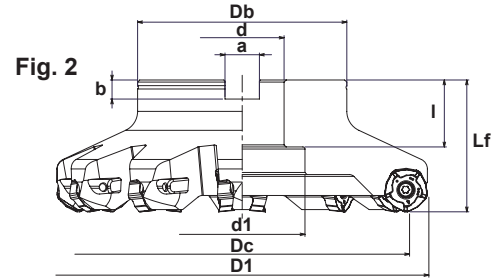
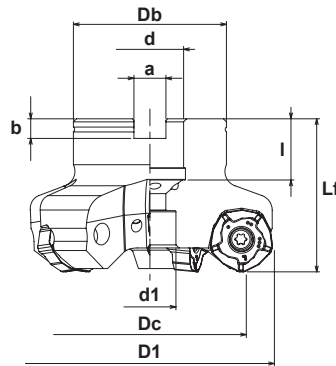


Fig. 1 $\phi Dc \leq 125mm$
Thru Coolant Hole



Specifications

	CATALOG NUMBER	STK	DIMENSIONS									Fig.	INSERT	Q	PARTS	ARBOR SET BOLT
			Dc	D1	Lf	Db	d	d1	a	b	l					
COARSE PITCH	PNS-3050R-19-22	•	50	68.4	50	47	22	17	10.4	6.3	20	1	PNMU190720AER-**	3	CSW-513H A-20	M10
	PNS-4063R-19-22	•	63	81.4	50	50	22	17	10.4	6.3	20	1		4		M10
	PNS-5080R-19-27	•	80	98.3	50	56	27	20	12.4	7	22	1		5		M12X1.75X30*
	PNS-6100R-19-32	•	100	118.3	50	85	32	26	14.4	8	25	1		6		M16X2X30*
	PNS-7125R-19-40	•	125	143.3	63	100	40	32	16.4	9	32	1		7		M20X2.5X40*
	PNS-8160R-19-40*	•	160	178.4	63	100	40	60	16.4	9	32	2		8		M20
	PNS-10200R-19-60*	•	200	218.4	63	150	60	140	25.7	14	38	3		10		M16
	PNS-12250R-19-60*	•	250	268.4	63	150	60	170	25.7	14	38	3		12		M16
FINE PITCH	PNS-4050R-19-22	•	50	68.4	50	47	22	17	10.4	6.3	20	1		4		M10
	PNS-5063R-19-22	•	63	81.4	50	50	22	17	10.4	6.3	20	1		5		M10
	PNS-7080R-19-27	•	80	98.3	50	56	27	20	12.4	7	22	1		7		M12X1.75X30*
	PNS-9100R-19-32	•	100	118.3	50	85	32	26	14.4	8	25	1		9		M16X2X30*
	PNS-11125R-19-40	•	125	143.3	63	100	40	32	16.4	9	32	1		11		M20X2.5X40*
	PNS-12160R-19-40*	•	160	178.4	63	100	40	60	16.4	9	32	2		12		M20
	PNS-14200R-19-60*	•	200	218.4	63	150	60	140	25.7	14	38	3		14		M16
	PNS-16250R-19-60*	•	250	268.4	63	150	60	170	25.7	14	38	3		16		M16

Note: All cutters supplied without inserts, wrench, & moly.

*Not G-Body

Arbor set bolt marked with * are supplied with cutter.

METRIC

P10 Cutter

PNMU
TYPE

Insert



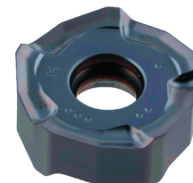
PNMU190720AER-MM



PNMU190720AER-PM



PNMU190720AER-PL



PNMU190720AER-KM

Fig. 1

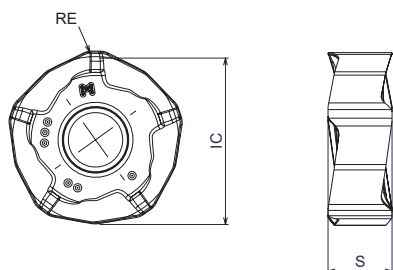
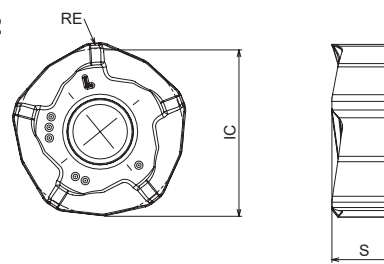
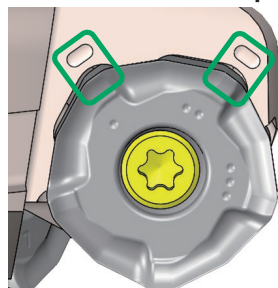


Fig. 2

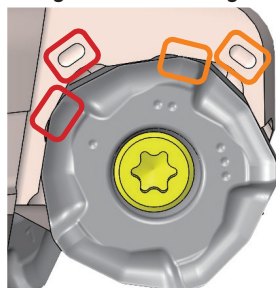


CATALOG NUMBER	Tolerance	DIMENSIONS (mm)			PVD COATING					Fig.	
		IC	S	RE	DS250	DP117	DP150	JC8118	DH103		
PNMU190720AER-MM	M	19.5	7.5	2	•					1	
PNMU190720AER-PM	M					•		•			1
PNMU190720AER-PL	M					•	•				2
PNMU190720AER-KM	M									•	

⚠ Ensure correct insert positioning before mounting



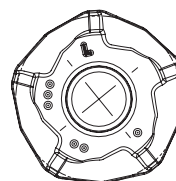
✓
Correct – Recommended



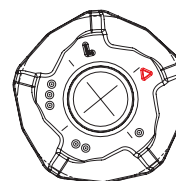
✗
Poor contact – Not acceptable

The indication mark on the cutter body and the corner of the insert must be in the same position when mounting the inserts.

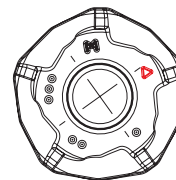
GRADE MARKINGS



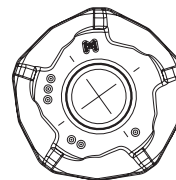
PNMU190720AER-PL DP117



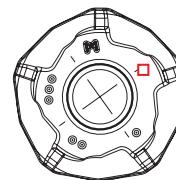
PNMU190720AER-PL DP150



PNMU190720AER-MM DS250



PNMU190720AER-PM JC8118
PNMU190720AER-PM DP117



PNMU190720AER-KM DH103

P10 Cutter

Recommended Cutting Data for P10 - 45° Entry Angle (DOC ≤ .200")

Material	Insert	Grade	SFM	IPT	DOC	WOC
Gray Cast Iron (160-260HB)	PNMU190720AER-KM (PNMU190720AER-PL) (PNMU190720AER-PM)	DH103 (DP117) (JC8118)	550	.014" - .016"	.160" - .200"	70%
Nodular Cast Iron (170-300HB)	PNMU190720AER-KM (PNMU190720AER-PL) (PNMU190720AER-PM)	DH103 (DP117) (JC8118)	500	.012" - .014"	.120" - .200"	70%
Carbon Steel (below 250HB)	PNMU190720AER-PL PNMU190720AER-PM (PNMU190720AER-MM)	DP150 JC8118 (DS250)	550	.010" - .014"	.160" - .200"	70%
Low Alloy Steel (below 255HB)	PNMU190720AER-MM PNMU190720AER-PM (PNMU190720AER-PL)	DS250 JC8118 (DP150)	400	.008" - .010"	.120" - .200"	70%
Mold Steel (30-36HRC)	PNMU190720AER-PL PNMU190720AER-PM (PNMU190720AER-PM)	DP117 JC8118 (DP150)	400	.010" - .012"	.160" - .200"	60%
Mold Steel (38-43HRC)	PNMU190720AER-PL (PNMU190720AER-PM)	DP117 (JC8118)	350	.008" - .010"	.120" - .200"	60%
Stainless Steel (Austenitic)	PNMU190720AER-MM (PNMU190720AER-PL)	DS250 (DP150)	350	.008" - .010"	.120" - .200"	60%
Stainless Steel (Martensitic)	PNMU190720AER-MM (PNMU190720AER-PL)	DS250 (DP150)	400	.010" - .012"	.160" - .200"	60%

NOTE: 1. Please adjust cutting conditions according to machine rigidity or work rigidity.
 2. In case of chatter occurring, recommend to reduce DOC or RPM and keep IPT.
 3. DOC should be reduced when using on low rigidity machine.
 4. Use air blow.



P10 Cutter

Recommended Cutting Data for P10 - 27° Entry Angle (DOC ≤ .100")

Material	Insert	Grade	SFM	IPT	DOC	WOC
Gray Cast Iron (160-260HB)	PNMU190720AER-KM (PNMU190720AER-PL) (PNMU190720AER-PM)	DH103 (DP117) (JC8118)	600	.027" - .032"	.080" - .100"	70%
Nodular Cast Iron (170-300HB)	PNMU190720AER-KM (PNMU190720AER-PL) (PNMU190720AER-PM)	DH103 (DP117) (JC8118)	550	.020" - .024"	.040" - .080"	70%
Carbon Steel (below 250HB)	PNMU190720AER-PL PNMU190720AER-PM (PNMU190720AER-MM)	DP150 JC8118 (DS250)	600	.024" - .028"	.060" - .080"	70%
Low Alloy Steel (below 255HB)	PNMU190720AER-MM PNMU190720AER-PM (PNMU190720AER-PL)	DS250 JC8118 (DP150)	450	.016" - .020"	.040" - .080"	70%
Mold Steel (30-36HRC)	PNMU190720AER-PL PNMU190720AER-PM (PNMU190720AER-PM)	DP117 JC8118 (DP150)	450	.020" - .024"	.060" - .080"	60%
Mold Steel (38-43HRC)	PNMU190720AER-PL (PNMU190720AER-PM)	DP117 (JC8118)	400	.016" - .020"	.040" - .080"	60%
Tool & Die Steel (42-52HRC)	PNMU190720AER-PM (PNMU190720AER-PL)	DP117 (JC8118)	200	.006" - .008"	.020" - .032"	60%
Stainless Steel (Austenitic)	PNMU190720AER-MM (PNMU190720AER-PL)	DS250 (DP150)	500	.020" - .024"	.040" - .080"	60%
Stainless Steel (Martensitic)	PNMU190720AER-MM (PNMU190720AER-PL)	DS250 (DP150)	550	.016" - .020"	.040" - .080"	60%

NOTE: 1. Please adjust cutting conditions according to machine rigidity or work rigidity.
 2. In case of chatter occurring, recommend to reduce DOC or RPM and keep IPT.
 3. DOC should be reduced when using on low rigidity machine.
 4. Use air blow.

WORLDWIDE DISTRIBUTION



DIJET, INC.
 45807 Helm Street, Plymouth, MI 48170
 Phone: 1-800-743-4538 Fax: 1-734-454-9395
www.dijetusa.com



DIJET INDUSTRIAL CO., LTD.
 2-1-18, Kami-Higashi, Hirano-ku,
 Osaka 547-0002, Japan
 Phone: +81-6-6794-0167
 Fax: +81-6-6793-3930
www.dijet.co.jp

DIJET GmbH
 Immermannstr. 9
 40210 Düsseldorf, Germany
 Phone: +49 (0) 211-50088820
 Fax: +49 (0) 211-50088823
www.dijet.de



JQA-2089 JQA-EM1580