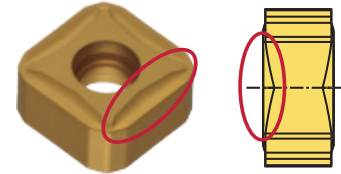




### Features & Benefits

- For iron and steel applications
- Combination of cutter body type and insert design allows for a wider application range
- Low cutting forces and V-shaped insert edge together provide stable machining and less vibration
- Significant cost savings due to 8 cutting edges; able to achieve 1.5 times higher efficiency than the leading competitor



V-shaped cutting edge

### Insert Characteristics

Indexable Milling

Shoulder Milling

Face Milling

High Feed Milling

Multi-purpose

Modular Tooling

UFO & SumiMill

Discontinued

Breaker type	Cross section	Application
<p>G-Type: for general purpose milling</p>		<p>low rigidity</p>
<p>H-Type: for heavy milling</p>		<p>plane</p>
		<p>heavy milling</p>

<p>SH-type with straight cutting edge</p> <p>straight</p>	<p>SH-Type</p>	<p>G-Type</p>
<p>comparison of combined force</p> <p>11% Decrease</p> <p>combined force (N)</p> <p>Cutting conditions:                      vc=600SFM fz=0.008 IPT                      Width=3.300" D.O.C.=0.118-0.236" dry                      Work material: Gray Cast Iron                      Tool: DNX12100R+G,SH</p>		



Rake Angle	Radial	-6°
	Axial	-5°

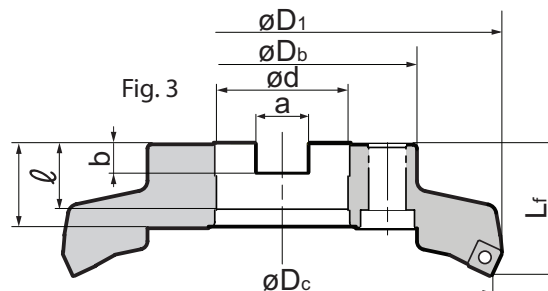
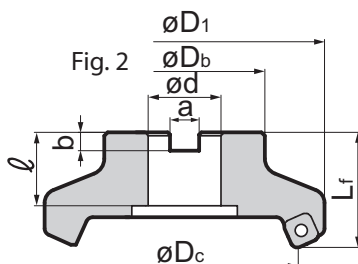
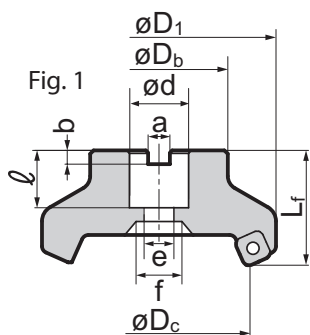
Max. Depth of Cut  

 8mm 25°

<b>P</b>	<b>M</b>	<b>K</b>	<b>N</b>	<b>S</b>	<b>H</b>
Steel	Cast Iron	Cast Iron	Aluminum	Aluminum	Exotic Alloy
○	●	●	●	●	●

# SumiMill DNX Series

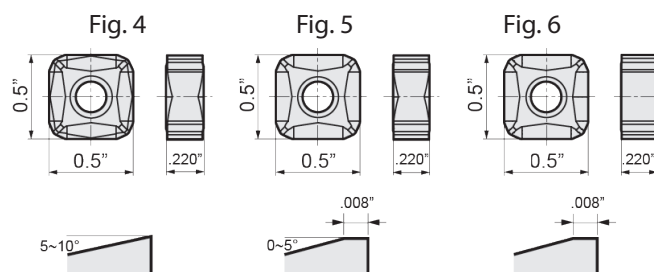
Applicable Insert: SNMT



SumiMill DNX Bodies - Coarse Pitch														
Sumitomo Cat. Number	Dimensions (in)										# of Teeth	Pitch	Max D.O.C.	Fig.
	$\phi D_c$	$\phi D_1$	$\phi D_b$	$L_f$	$\phi d$	$a$	$b$	$\ell$	$e$	$f$				
<b>DNX43000R</b>	3.000	3.303	2.250	1.750	1.000	0.375	0.220	1.020	0.531	0.797	6	Coarse	0.314"	1
<b>DNX44000R</b>	4.000	4.315	2.870	2.000	1.250	0.500	0.280	1.020	0.656	1.000	7			1
<b>DNX44000R-1.50</b>	4.000	4.303	3.750	2.500	1.500	0.625	0.380	1.000	0.780	1.180	7			4
<b>DNX45000R</b>	5.000	5.303	3.750	2.500	1.500	0.625	0.380	1.060	-	-	8			2
<b>DNX46000R</b>	6.000	6.303	4.380	2.500	1.500	0.625	0.380	1.060	-	-	10			2
<b>DNX48000R</b>	8.000	8.303	5.120	2.500	2.500	1.000	0.560	1.595	-	-	12			3

SumiMill DNX Bodies - Fine Pitch														
Sumitomo Cat. Number	Dimensions (in)										# of Teeth	Pitch	Max D.O.C.	Fig.
	$\phi D_c$	$\phi D_1$	$\phi D_b$	$L_f$	$\phi d$	$a$	$b$	$\ell$	$e$	$f$				
<b>DNXF43000R</b>	3.000	3.303	2.250	1.750	1.000	0.375	0.220	1.020	0.531	0.797	8	Fine	0.314"	1
<b>DNXF44000R</b>	4.000	4.315	2.870	2.000	1.250	0.500	0.280	1.020	0.656	1.000	10			1
<b>DNXF44000R-1.50</b>	4.000	4.303	3.750	2.500	1.500	0.625	0.380	1.000	0.780	1.180	10			4
<b>DNXF45000R</b>	5.000	5.303	3.750	2.500	1.500	0.625	0.380	1.060	-	-	11			2
<b>DNXF46000R</b>	6.000	6.303	4.380	2.500	1.500	0.625	0.380	1.060	-	-	12			2
<b>DNXF48000R</b>	8.000	8.303	5.120	2.500	2.500	1.000	0.560	1.595	-	-	14			3

Inserts for DNX Series						
Sumitomo Cat. Number	ACK100	ACK200	ACK300	ACP200	Edge Type	Fig.
<b>SNMT1205ZZEN-G</b>	●	●	●	●	V shaped	4
<b>SNMT1205ZZEN-H</b>	●	●	●	●		5
<b>SNMT1205ZZEN-SH</b>	★	★	★	★	Straight edge	6



## Recommended Running Conditions

Grade	Cast Iron				Steel	
	Gray Cast Iron		Ductile Cast Iron		Carbon Steel	Alloy Steel
	<b>ACK200</b>	<b>ACK300</b>	<b>ACK100</b>	<b>ACK200</b>	<b>ACP200</b>	<b>ACP200</b>
<b>SFM</b>	400 ~ 1100	400 ~ 950	350 ~ 950	350 ~ 850	350 ~ 875	350 ~ 950
<b>IPT</b>	.004 ~ .014	.004 ~ .014	.004 ~ .012	.004 ~ .012	.004 ~ .010	.004 ~ .010
<b>Max. D.O.C.</b>	~ 0.314	~ 0.314	~ 0.314	~ 0.314	~ 0.314	~ 0.314

