

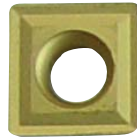
SPG Continued

Insert Standard		Size			Grade
ANSI Standard	ISO Standard	I.C.	T.	R.	
SPG-322	SPG-090308	3/8"	1/8"	1/32"	C2
SPG-322	SPG-090308	3/8"	1/8"	1/32"	C5 C6
SPG-322	SPG-090308	3/8"	1/8"	1/32"	TIN COATED
SPG-323	SPG-120304	3/8"	1/8"	3/64"	C2
SPG-323	SPG-120304	3/8"	1/8"	3/64"	C5 C6
SPG-323	SPG-120304	3/8"	1/8"	3/64"	TIN COATED
SPG-422	SPG-120308	1/2"	1/8"	1/32"	C2
SPG-422	SPG-120308	1/2"	1/8"	1/32"	C5 C6
SPG-422	SPG-120308	1/2"	1/8"	1/32"	TIN COATED
SPG-423	SPG-120312	1/2"	1/8"	3/64"	C2
SPG-423	SPG-120312	1/2"	1/8"	3/64"	C5 C6
SPG-423	SPG-120312	1/2"	1/8"	3/64"	TIN COATED
SPG-424	SPG-120316	1/2"	1/8"	1/16"	C2
SPG-424	SPG-120316	1/2"	1/8"	1/16"	C5 C6
SPG-424	SPG-120316	1/2"	1/8"	1/16"	TIN COATED
SPG-432	SPG-120408	1/2"	3/16"	3/64"	C2
SPG-432	SPG-120408	1/2"	3/16"	3/64"	C5 C6
SPG-432	SPG-120408	1/2"	3/16"	3/64"	TIN COATED

SPGH

Square-positive Rake With Hole & Chip Control

- Use for difficult to machine material, long or thin walled parts.
- Single-sided with chip control.
- Feed range:.005 to .015" IPR.
- 11° relief angle.



Insert Standard		Size			Grade
ANSI Standard	ISO Standard	I.C.	T.	R.	
SPGH-433	SPGH-120412	1/2"	3/16"	3/64"	C2
SPGH-433	SPGH-120412	1/2"	3/16"	3/64"	C5 C6
SPGH-433	SPGH-120412	1/2"	3/16"	3/64"	TIN COATED

SPMR

Square-positive Rake Insert With Chip Control

- Use for difficult to machine material, long or thin walled parts.
- Single-sided with molded chip control.
- Feed range:.003 to .012" IPR.
- 11° relief angle.



Insert Standard		Size			Grade
ANSI Standard	ISO Standard	I.C.	T.	R.	
SPMR-321	SPMR-090304	3/8"	1/8"	1/64"	C2
SPMR-321	SPMR-090304	3/8"	1/8"	1/64"	C5 C6
SPMR-321	SPMR-090304	3/8"	1/8"	1/64"	TIN COATED
SPMR-322	SPMR-090308	3/8"	1/8"	1/32"	C2
SPMR-322	SPMR-090308	3/8"	1/8"	1/32"	C5 C6
SPMR-322	SPMR-090308	3/8"	1/8"	1/32"	TIN COATED
SPMR-421	SPMR-120304	1/2"	1/8"	1/64"	C2
SPMR-421	SPMR-120304	1/2"	1/8"	1/64"	C5 C6
SPMR-421	SPMR-120304	1/2"	1/8"	1/64"	TIN COATED
SPMR-422	SPMR-120308	1/2"	1/8"	1/32"	C2
SPMR-422	SPMR-120308	1/2"	1/8"	1/32"	C5 C6
SPMR-422	SPMR-120308	1/2"	1/8"	1/32"	TIN COATED

SPU

Square-positive Rake Insert(Utility)

- Use mechanical chipbreakers-Style CBS.
- Feed range:.003 to .020" Per revolution.
- 11° relief angle.



Insert Standard		Size			Grade
ANSI Standard	ISO Standard	I.C.	T.	R.	
SPU-322	SPUN-090308	3/8"	1/8"	1/32"	C2
SPU-322	SPUN-090308	3/8"	1/8"	1/32"	C5 C6
SPU-322	SPUN-090308	3/8"	1/8"	1/32"	TIN COATED

SPU Continued

Insert Standard		Size			Grade
ANSI Standard	ISO Standard	I.C.	T.	R.	
SPU-422	SPUN-120308	1/2"	1/8"	1/32"	C2
SPU-422	SPUN-120308	1/2"	1/8"	1/32"	C5 C6
SPU-422	SPUN-120308	1/2"	1/8"	1/32"	TIN COATED
SPU-423	SPUN-120312	1/2"	1/8"	3/64"	C2
SPU-423	SPUN-120312	1/2"	1/8"	3/64"	C5 C6
SPU-423	SPUN-120312	1/2"	1/8"	3/64"	TIN COATED
SPU-533	SPUN-160412	3/4"	3/16"	3/64"	C2
SPU-533	SPUN-160412	3/4"	3/16"	3/64"	C5 C6
SPU-533	SPUN-160412	3/4"	3/16"	3/64"	TIN COATED
SPU-634	SPUN-190416	3/4"	3/16"	1/16"	C2
SPU-634	SPUN-190416	3/4"	3/16"	1/16"	C5 C6
SPU-634	SPUN-190416	3/4"	3/16"	1/16"	TIN COATED

TCMT

Triangle-positive Rake With Hole & Chipbreaker

- Single-sided chipbreaker.
- 7° relief angle.
- Use for turning .
- Use for medium cuts .



Insert Standard		Size			Grade
ANSI Standard	ISO Standard	I.C.	T.	R.	
TCMT-21.51	TCMT-110204	1/4"	3/32"	1/64"	C2
TCMT-21.51	TCMT-110204	1/4"	3/32"	1/64"	C5 C6
TCMT-21.51	TCMT-110204	1/4"	3/32"	1/64"	TIN COATED
TCMT-21.52	TCMT-110208	1/4"	3/32"	1/32"	C2
TCMT-21.52	TCMT-110208	1/4"	3/32"	1/32"	C5 C6
TCMT-21.52	TCMT-110208	1/4"	3/32"	1/32"	TIN COATED
TCMT-32.51	TCMT-16T304	3/8"	5/32"	1/64"	C2
TCMT-32.51	TCMT-16T304	3/8"	5/32"	1/64"	C5 C6
TCMT-32.51	TCMT-16T304	3/8"	5/32"	1/64"	TIN COATED
TCMT-32.52	TCMT-16T308	3/8"	5/32"	1/32"	C2
TCMT-32.52	TCMT-16T308	3/8"	5/32"	1/32"	C5 C6
TCMT-32.52	TCMT-16T308	3/8"	5/32"	1/32"	TIN COATED

TNMA

Triangle-negative Rake Insert

- Flat top insert.
- 0° relief angle.
- Feed range .003 to .030" per revolution .



Insert Standard		Size			Grade
ANSI Standard	ISO Standard	I.C.	T.	R.	
TNMA-322	TNMA-160308	3/8"	1/8"	1/32"	C2
TNMA-322	TNMA-160308	3/8"	1/8"	1/32"	C5 C6
TNMA-322	TNMA-160308	3/8"	1/8"	1/32"	TIN COATED
TNMA-432	TNMA-220408	1/2"	3/16"	1/32"	C2
TNMA-432	TNMA-220408	1/2"	3/16"	1/32"	C5 C6
TNMA-432	TNMA-220408	1/2"	3/16"	1/32"	TIN COATED
TNMA-433	TNMA-220412	1/2"	3/16"	3/64"	C2
TNMA-433	TNMA-220412	1/2"	3/16"	3/65"	C5 C6
TNMA-433	TNMA-220412	1/2"	3/16"	3/66"	TIN COATED
TNMA-434	TNMA-220416	1/2"	3/16"	1/16"	C2
TNMA-434	TNMA-220416	1/2"	3/16"	1/16"	C5 C6
TNMA-434	TNMA-220416	1/2"	3/16"	1/16"	TIN COATED
TNMA-542	TNMA-270608	5/8"	1/4"	1/32"	C2
TNMA-542	TNMA-270608	5/8"	1/4"	1/32"	C5 C6
TNMA-542	TNMA-270608	5/8"	1/4"	1/32"	TIN COATED
TNMA-544	TNMA-270616	5/8"	1/4"	1/16"	C2
TNMA-544	TNMA-270616	5/8"	1/4"	1/16"	C5 C6
TNMA-544	TNMA-270616	5/8"	1/4"	1/16"	TIN COATED

TNMG

Triangle-negative Rake Insert With Chip Control

- Molded chip control on both sides.
- Feed range .010 to .028" per revolution.
- 0° relief angle.



Insert Standard		Size			Grade
ANSI Standard	ISO Standard	I.C.	T.	R.	
TNMG-221	TNMG-110304	1/4"	1/8"	1/64"	C2
TNMG-221	TNMG-110304	1/4"	1/8"	1/64"	C5 C6
TNMG-221	TNMG-110304	1/4"	1/8"	1/64"	TIN COATED
TNMG-222	TNMG-110308	1/4"	1/8"	1/32"	C2
TNMG-222	TNMG-110308	1/4"	1/8"	1/32"	C5 C6
TNMG-222	TNMG-110308	1/4"	1/8"	1/32"	TIN COATED
TNMG-321	TNMG-160304	3/8"	1/8"	1/64"	C2
TNMG-321	TNMG-160304	3/8"	1/8"	1/64"	C5 C6
TNMG-321	TNMG-160304	3/8"	1/8"	1/64"	TIN COATED
TNMG-322	TNMG-160308	3/8"	1/8"	1/32"	C2
TNMG-322	TNMG-160308	3/8"	1/8"	1/32"	C5 C6
TNMG-322	TNMG-160308	3/8"	1/8"	1/32"	TIN COATED
TNMG-323	TNMG-160312	3/8"	1/8"	3/64"	C2
TNMG-323	TNMG-160312	3/8"	1/8"	3/64"	C5 C6
TNMG-323	TNMG-160312	3/8"	1/8"	3/64"	TIN COATED
TNMG-331	TNMG-160403	3/8"	3/16"	1/64"	C2
TNMG-331	TNMG-160403	3/8"	3/16"	1/64"	C5 C6
TNMG-331	TNMG-160403	3/8"	3/16"	1/64"	TIN COATED
TNMG-332	TNMG-160408	3/8"	3/16"	1/32"	C2
TNMG-332	TNMG-160408	3/8"	3/16"	1/32"	C5 C6
TNMG-332	TNMG-160408	3/8"	3/16"	1/32"	TIN COATED
TNMG-431	TNMG-220404	1/2"	3/16"	1/64"	C2
TNMG-431	TNMG-220404	1/2"	3/16"	1/64"	C5 C6
TNMG-431	TNMG-220404	1/2"	3/16"	1/64"	TIN COATED
TNMG-432	TNMG-220408	1/2"	3/16"	1/32"	C2
TNMG-432	TNMG-220408	1/2"	3/16"	1/32"	C5 C6
TNMG-432	TNMG-220408	1/2"	3/16"	1/32"	TIN COATED
TNMG-433	TNMG-220412	1/2"	3/16"	3/64"	C2
TNMG-433	TNMG-220412	1/2"	3/16"	3/64"	C5 C6
TNMG-433	TNMG-220412	1/2"	3/16"	3/64"	TIN COATED
TNMG-434	TNMG-220416	1/2"	3/16"	1/16"	C2
TNMG-434	TNMG-220416	1/2"	3/16"	1/16"	C5 C6
TNMG-434	TNMG-220416	1/2"	3/16"	1/16"	TIN COATED
TNMG-542	TNMG-270608	5/8"	1/4"	1/32"	C2
TNMG-542	TNMG-270608	5/8"	1/4"	1/32"	C5 C6
TNMG-542	TNMG-270608	5/8"	1/4"	1/32"	TIN COATED
TNMG-543	TNMG-270612	5/8"	1/4"	3/64"	C2
TNMG-543	TNMG-270612	5/8"	1/4"	3/64"	C5 C6
TNMG-543	TNMG-270612	5/8"	1/4"	3/64"	TIN COATED
TNMG-544	TNMG-270616	5/8"	1/4"	1/16"	C2
TNMG-544	TNMG-270616	5/8"	1/4"	1/16"	C5 C6
TNMG-544	TNMG-270616	5/8"	1/4"	1/16"	TIN COATED

TNMP

Triangle-negative Rake Insert With Chip Control

- Molded chip control on both sides.
- Feed range .010 to .020" per revolution.
- 0° relief angle.



Insert Standard		Size			Grade
ANSI Standard	ISO Standard	I.C.	T.	R.	
TNMP-322	TNMP-160308	3/8"	1/8"	1/32"	C2
TNMP-322	TNMP-160308	3/8"	1/8"	1/32"	C5 C6
TNMP-322	TNMP-160308	3/8"	1/8"	1/32"	TIN COATED

TPG

Triangle-positive Rake Insert

- Use mechanical chip breakers-Style CBT.
- 11° relief angle.
- Feed range .003 to .030" per revolution.



Tpg Continued

Insert Standard		Size			Grade
ANSI Standard	ISO Standard	I.C.	T.	R.	
TPG-220	TPGN-110300	1/4"	1/8"	.005"	C2
TPG-220	TPGN-110300	1/4"	1/8"	.005"	C5 C6
TPG-220	TPGN-110300	1/4"	1/8"	.005"	TIN COATED
TPG-221	TPGN-110404	1/4"	1/8"	1/64"	C2
TPG-221	TPGN-110404	1/4"	1/8"	1/64"	C5 C6
TPG-221	TPGN-110404	1/4"	1/8"	1/64"	TIN COATED