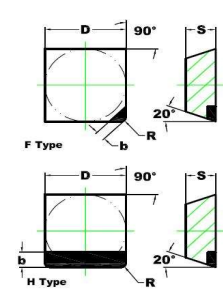
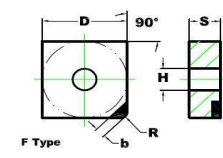
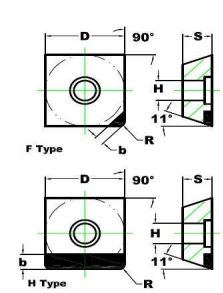
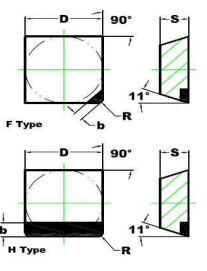
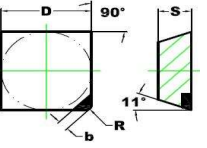


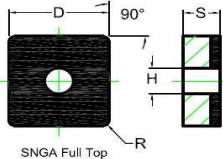
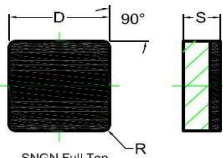
## Polycrystalline Diamond (PCD) & Cubic Boron Nitride (CBN) Tipped Inserts

S Series -- Square Inserts (Custom-Made inserts are available) (H: Full PCD Edge)

Pictures	Insert No#		Inscribed Circle D	S	R	H
	ANSI	ISO Code		Thickness	Radius	Hole Dia
	SEC322	SECN090308	0.375	0.125	0.031	*
	SEC322-H	SECN090308-H	0.375	0.125	0.031	*
	SEC421	SECN120304	0.500	0.125	0.016	*
	SEC422	SECN120308	0.500	0.125	0.031	*
	SEC422-H	SECN120308-H	0.500	0.125	0.031	*
	SEC423	SECN120312	0.500	0.125	0.047	*
	SEC424-H	SECN120316-H	0.500	0.125	0.062	*
	SEC432	SECN120408	0.500	0.188	0.031	*
	SEC433	SECN120412	0.500	0.188	0.047	*
	SEC434	SECN120416	0.500	0.188	0.062	*
	SEC533	SEC150412	0.625	0.188	0.047	*
	SEC632	SECN190408	0.750	0.188	0.031	*
SEC633	SECN190412	0.750	0.188	0.047	*	
	SNGA322	SNGA090308	0.375	0.125	0.031	0.150
	SNGA323	SNGA090312	0.375	0.125	0.047	0.150
	SNGA430.5	SNGA120402	0.500	0.188	0.008	0.203
	SNGA431	SNGA120404	0.500	0.188	0.016	0.203
	SNGA432	SNGA120408	0.500	0.188	0.031	0.203
	SNGA433	SNGA120412	0.500	0.188	0.047	0.203
	SNGA434	SNGA120416	0.500	0.188	0.062	0.203
	SNGN321	SNGN090304	0.375	0.125	0.016	*
SNGN322	SNGN090308	0.375	0.125	0.031	*	
SNGN323	SNGN090312	0.375	0.125	0.047	*	
SNGN324	SNGN090316	0.375	0.125	0.062	*	
SNGN422	SNGN120308	0.500	0.125	0.031	*	
SNGN423	SNGN120312	0.500	0.125	0.047	*	
SNGN424	SNGN120316	0.500	0.125	0.062	*	
SNGN430.5	SNGN120402	0.500	0.188	0.008	*	
SNGN431	SNGN120404	0.500	0.188	0.016	*	
SNGN432	SNGN120408	0.500	0.188	0.031	*	
SNGN433	SNGN120412	0.500	0.188	0.047	*	
SNGN434	SNGN120416	0.500	0.188	0.062	*	
SNGN444	SNGN120616	0.500	0.188	0.062	*	
SNGN633	SNGN190412	0.750	0.188	0.047	*	
SNGN644	SNGN190616	0.750	0.188	0.062	*	
	SPCE731	**	0.219	0.094	0.016	*
	SPCE732	**	0.219	0.094	0.031	*
	SPEW0921	SPEW090304	0.375	0.125	0.016	0.173
	SPEW0922	SPEW090308	0.375	0.125	0.031	0.173
	SPEW32.51	SPEW09T304	0.375	0.156	0.016	0.173
	SPEW32.52	SPEW09T308	0.375	0.156	0.031	0.173
	SPEW32.52-H	SPEW09T308-H	0.375	0.156	0.031	0.173
	SPEW421	SPEW120304	0.500	0.125	0.016	0.203
	SPEW422	SPEW120308	0.500	0.125	0.031	0.203
	SPEW431	SPEW120404	0.500	0.188	0.016	0.203
	SPEW432	SPEW120408	0.500	0.188	0.031	0.203
	SPEW433	SPEW120412	0.500	0.188	0.047	0.203

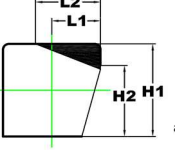
Pictures	Insert No#		Inscribed Circle D	S	R	H
	ANSI	ISO Code		Thickness	Radius	Hole Dia
	SPG320.5	SPGN090302	0.375	0.125	0.008	*
	SPG321	SPGN090304	0.375	0.125	0.016	*
	SPG322	SPGN090308	0.375	0.125	0.031	*
	SPG322-H	SPGN090308-H	0.375	0.125	0.031	*
	SPG323	SPGN090312	0.375	0.125	0.047	*
	SPG324	SPGN090316	0.375	0.125	0.062	
	SPG420.5	SPGN120302	0.500	0.125	0.008	*
	SPG421	SPGN120304	0.500	0.125	0.016	*
	SPG422	SPGN120308	0.500	0.125	0.031	*
	SPG422-H	SPGN120308-H	0.500	0.125	0.031	*
	SPG423	SPGN120312	0.500	0.125	0.047	*
	SPG424	SPGN120316	0.500	0.125	0.062	*
	SPG431	SPGN120404	0.500	0.188	0.016	*
	SPG432	SPGN120408	0.500	0.188	0.031	*
	SPG433	SPGN120412	0.500	0.188	0.047	*
	SPG434	SPGN120416	0.500	0.188	0.062	*
	SPG533	SPG150412	0.625	0.188	0.047	*
	SPG632	SPG190408	0.750	0.188	0.031	*
SPG633	SPG190412	0.750	0.188	0.047	*	
SPG634	SPG190416	0.750	0.188	0.062	*	
	SPC1.81.51	SPCN050204	0.219	0.094	0.016	*
	SPC1.81.52	SPCN050208	0.219	0.094	0.031	*
	SPC21.50.5	SPCN060202	0.250	0.094	0.008	*
	SPC21.51	SPCN060204	0.250	0.094	0.016	*
	SPC21.52	SPCN060208	0.250	0.094	0.031	*

**S Series Full PCD Face -- Square Inserts (FF: Full PCD Face)**

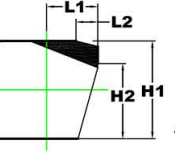
Pictures	Insert No#		Inscribed Circle D	S	R	H
	ANSI	ISO Code		Thickness	Radius	Hole Dia
	SNGA322-FF	SNGA090308	0.375	0.125	0.031	0.150
	SNGA430.5-FF	SNGA120402	0.500	0.188	0.008	0.203
	SNGA431-FF	SNGA120404	0.500	0.188	0.016	0.203
	SNGA432-FF	SNGA120408	0.500	0.188	0.031	0.203
	SNGA433-FF	SNGA120412	0.500	0.188	0.047	0.203
	SNGA434-FF	SNGA120416	0.500	0.188	0.062	0.203
	SNGA832-FF	SNGA250408	1.000	0.188	0.031	0.359
	SNGA833-FF	SNGA250412	1.000	0.188	0.047	0.359
SNGA834-FF	SNGA250416	1.000	0.188	0.062	0.359	
	SNGN321-FF	SNGN090304	0.375	0.125	0.016	*
	SNGN322-FF	SNGN090308	0.375	0.125	0.031	*
	SNGN323-FF	SNGN090312	0.375	0.125	0.047	*
	SNGN324-FF	SNGN090316	0.375	0.125	0.062	*
	SNGN422-FF	SNGN120308	0.500	0.125	0.031	*
	SNGN423-FF	SNGN120312	0.500	0.125	0.047	*
	SNGN424-FF	SNGN120316	0.500	0.125	0.062	*
	SNGN430.5-FF	SNGN120402	0.500	0.188	0.008	*
	SNGN431-FF	SNGN120404	0.500	0.188	0.016	*
	SNGN432-FF	SNGN120408	0.500	0.188	0.031	*
	SNGN433-FF	SNGN120412	0.500	0.188	0.047	*
	SNGN434-FF	SNGN120416	0.500	0.188	0.062	*

## Polycrystalline Diamond (PCD) & Cubic Boron Nitride (CBN) Tipped Inserts

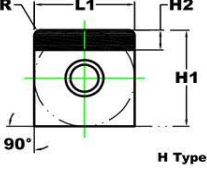
### S-Series 90° Lead Angle

Pictures	Insert No#		L1	L2	H1	H2
	ANSI	ISO		D.O.C.	I.C.	
	SPGN32.51RP	SPGN09T304	0.188	0.270	0.375	0.195
	SPGN32.52RP	SPGN09T308	0.188	0.270	0.375	0.195
	SPGN32.54RP	SPGN09T316	0.188	0.270	0.375	0.195
	SPGN32.56RP	SPGN09T324	0.188	0.270	0.375	0.195
	SPGN431RP	SPGN120404	0.250	0.270	0.500	0.320
	SPGN432RP	SPGN120408	0.250	0.270	0.500	0.320
	SPGN434RP	SPGN120416	0.250	0.270	0.500	0.320
	SPGN436RP	SPGN120424	0.250	0.270	0.500	0.320

### S-Series 75° Lead Angle

Pictures	Insert No#		L1	L2	H1	H2
	ANSI	ISO		D.O.C.	I.C.	
	SPGN32.50.5RE	SPGN09T302	0.188	0.130	0.340	0.190
	SPGN32.51RE	SPGN09T304	0.188	0.130	0.340	0.190
	SPGN32.52RE	SPGN09T308	0.188	0.130	0.340	0.190
	SPGN32.54RE	SPGN09T316	0.188	0.130	0.340	0.190
	SPGN32.56RE	SPGN09T324	0.188	0.130	0.340	0.190
	SPGN431RE	SPGN120404	0.250	0.130	0.465	0.320
	SPGN432RE	SPGN120408	0.250	0.130	0.465	0.320

### S-Series 90° Lead Angle with Full PCD Edge

Pictures	Insert No#		L1	L2	H1	H2
	ANSI	ISO		D.O.C.	I.C.	
	SPGN32.51-H	SPGN09T304	0.375	**	0.375	0.070
	SPGN32.52-H	SPGN09T308	0.375	**	0.375	0.070
	SPGN32.53-H	SPGN09T312	0.375	**	0.375	0.070
	SPGN32.54-H	SPGN09T316	0.375	**	0.375	0.070
	SPGN431-H	SPGN120404	0.500	**	0.500	0.110
	SPGN432-H	SPGN120408	0.500	**	0.500	0.110
	SPGN433-H	SPGN120412	0.500	**	0.500	0.110
	SPGN434-H	SPGN120416	0.500	**	0.500	0.110