

Diameters (All with Inch Shanks)
Inch: 1.032" - 1.781" (every 1/32")
Metric: 26.0mm - 45.0mm (every 1mm)

Bodies
Inch Weldon Shanks
Metric Shanks Available Upon Request

Length/Diameter Ratio
5xD

Tip Geometry
TPC...-C for Steel & General Purpose

Grade
IN2505

Insert Geometry
SPGX



New Large Diameter Drilling Solution with a Quick-Change Tip and Indexable Inserts

Ingersoll Cutting Tools is pleased to introduce the GoldTwin for machining large diameter holes - a product that guarantees excellent performance and improved productivity.

Ingersoll combines the revolutionary and highly popular GoldTwist tip, with its precision, self-centering tip, achieving excellent hole concentricity, and a newly designed, wiper-style, 4-cornered SPGX insert, achieving improved surface finish. When compared to the conventional indexable drill, the SPGX insert offers double the productivity with its two-effective design.

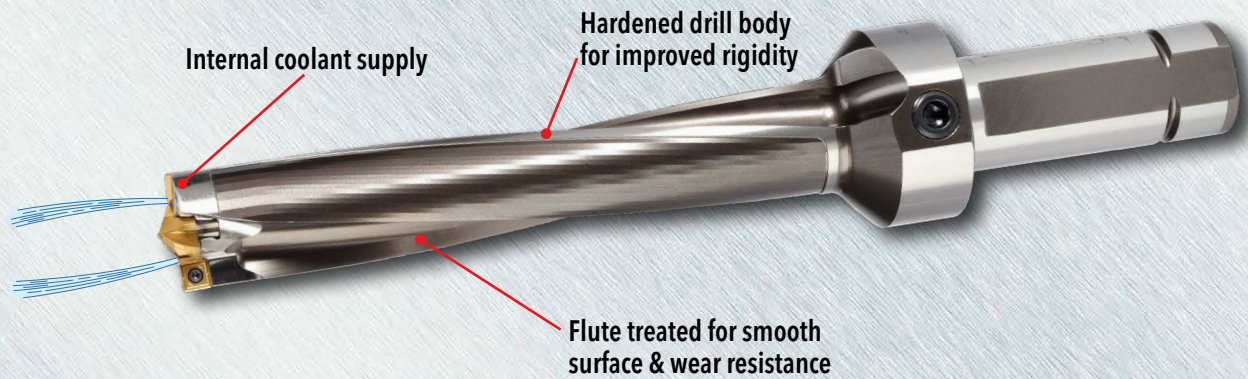
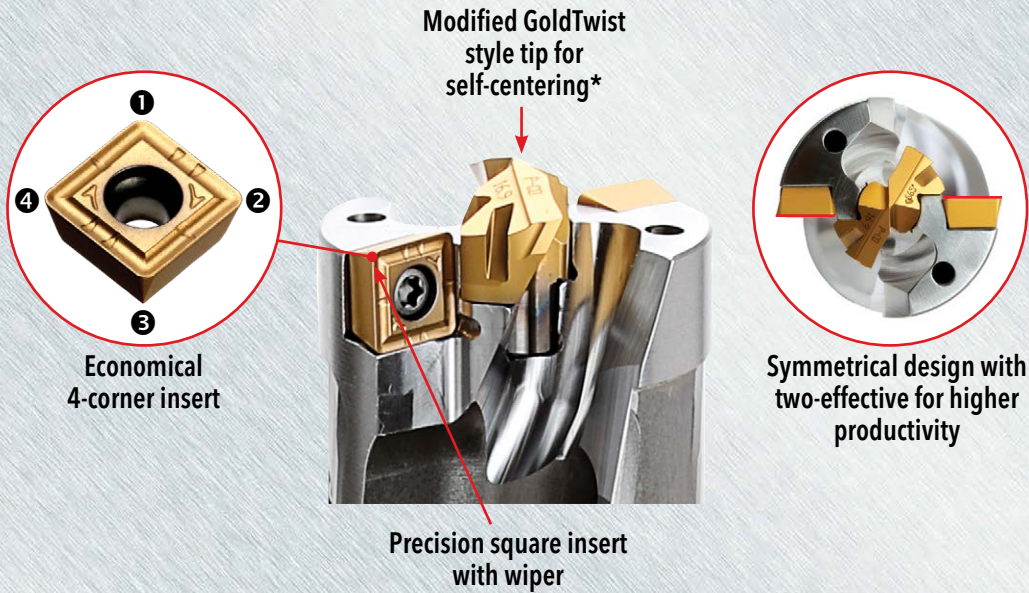
Additional benefits include a hardened body for excellent rigidity, polished flutes for ease of chip evacuation, through the tool coolant, and excellent wear resistance.

Features:

- Hole accuracy IT10-11
- Two effective design means higher productivity
- Precision 4-corner insert with wiper
- Excellent hole straightness and surface finish
- Excellent chip control
- Improved body rigidity
- Self-centering, no need for a pilot hole



GOLDTWIN™

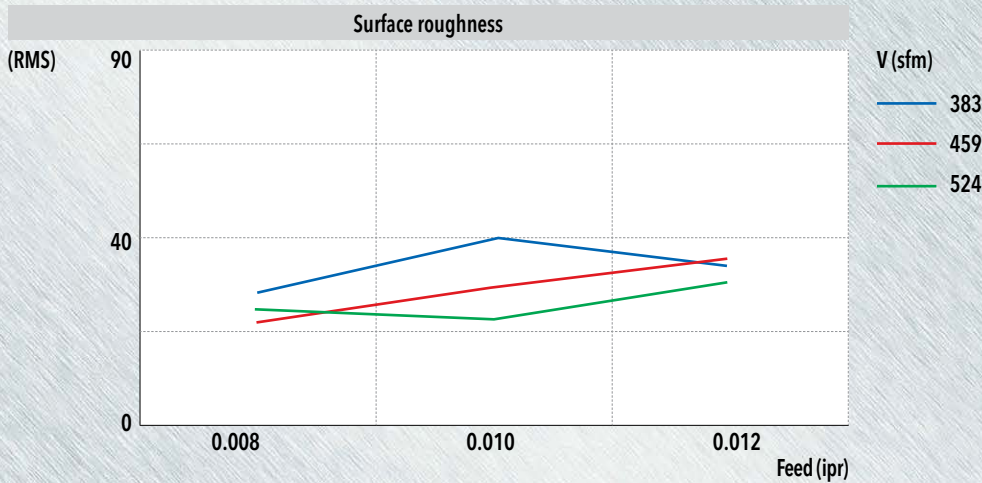
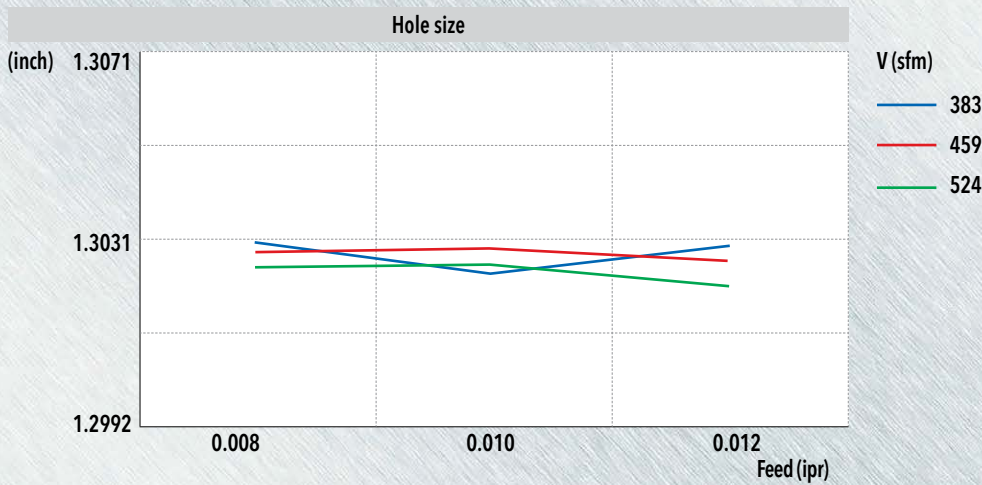
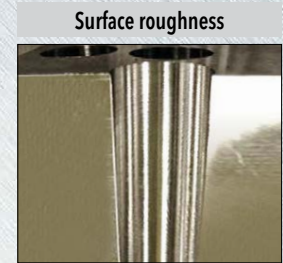


* NOTE: The standard GoldTwist tips are not compatible with GoldTwin bodies.



Case study 1 - Performance test

Machine	Vertical machining center (Spindle : BT50)	
Coolant	Internal (145 psi)	
Material	SAE 4340	
Drill	CD3300165N6R01 (1.299")	
Head	TPC1690R01-C IN2505 SPGX090408WG IN2505	
Cutting speed	V (sfm)	383/459/524
Feed rate	f (ipr)	.008/.010/.012
Hole depth (inch)	6.00" (Through hole)	



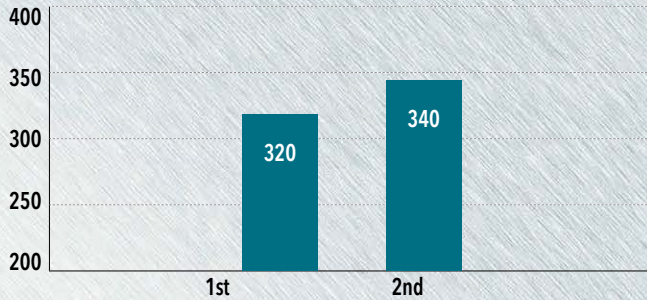
• Results may vary according to machine and cutting conditions



Case study 2 - Tool life on alloy steel

Machine	Vertical machining center (Spindle : BT50)	
Coolant	Internal (145 psi)	
Material	Alloy steel (AISI 4140)	
Drill	CD3300165N6R01 (1.299")	
Head	TPC1690R01-C IN2505 SPGX090408WG IN2505	
Cutting speed	V (sfm)	459
Feed rate	f (ipr)	0.010
Hole depth (inch)	6.00" (Through hole)	

Tool life
(holes/insert)

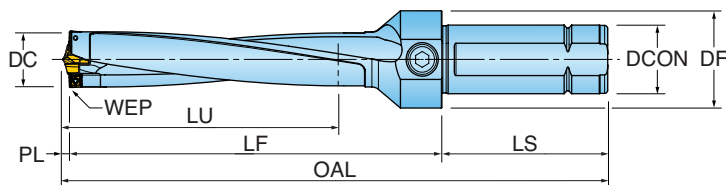


• Results may vary according to machine and cutting conditions

GOLDTWIN™ CD... TIP & INDEXABLE INSERT/DRILL HOLDER (INCH)



5XD Weldon Style Shank



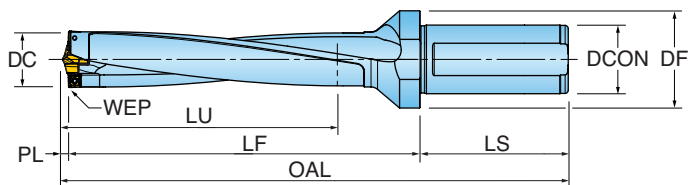
Designation	DC Cutting Dia. (mm) (inch)	PL Point Length	LU Max DOC	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Shank Dia	DF Flange Dia	NPTF	Center Tip	Locking Key	Outer Insert
CD2600130N6R01	26 1.024	.153	5.118	7.232	3.15	10.382	1.25	1.772	1/4	TPC1590R01-C	KTD15.0-15.9-C	SPGX060204WG
CD2620131N6R01	26.2 1.031	.153	5.157	7.232	3.15	10.382	1.25	1.772	1/4	TPC1590R01-C	KTD15.0-15.9-C	
CD2700135N6R01	27 1.063	.160	5.315	7.472	3.15	10.622	1.25	1.772	1/4	TPC1690R01-C	KTD16.0-16.9-C	
CD2780139N6R01	27.8 1.094	.160	5.472	7.472	3.15	10.622	1.25	1.772	1/4	TPC1690R01-C	KTD16.0-16.9-C	
CD2800140N6R01	28 1.102	.167	5.512	7.713	3.15	10.863	1.25	1.772	1/4	TPC1790R01-C	KTD17.0-17.9-C	
CD2860143N6R01	28.6 1.125	.167	5.630	7.713	3.15	10.863	1.25	1.772	1/4	TPC1790R01-C	KTD17.0-17.9-C	
CD2900145N6R01	29 1.142	.154	5.709	7.882	3.15	11.032	1.25	2.165	1/4	TPC1590R01-C	KTD15.0-15.9-C	SPGX07T308WG
CD2940147N6R01	29.4 1.156	.154	5.787	7.882	3.15	11.032	1.25	2.165	1/4	TPC1590R01-C	KTD15.0-15.9-C	
CD3000150N6R01	30 1.181	.160	5.906	8.122	3.15	11.272	1.25	2.165	1/4	TPC1690R01-C	KTD16.0-16.9-C	
CD3020151N6R01	30.2 1.189	.160	5.945	8.122	3.15	11.272	1.25	2.165	1/4	TPC1690R01-C	KTD16.0-16.9-C	
CD3100155N6R01	31 1.220	.167	6.102	8.362	3.15	11.512	1.25	2.165	1/4	TPC1790R01-C	KTD17.0-17.9-C	
CD3180159N6R01	31.8 1.250	.167	6.260	8.362	3.15	11.512	1.25	2.165	1/4	TPC1790R01-C	KTD17.0-17.9-C	
CD3200160N6R01	32 1.260	.173	6.299	8.602	3.15	11.752	1.25	2.165	1/4	TPC1890R01-C	KTD18.0-18.9-C	SPGX090408WG
CD3250163N6R01	32.5 1.280	.173	6.417	8.602	3.15	11.752	1.25	2.165	1/4	TPC1890R01-C	KTD18.0-18.9-C	
CD3300165N6R01	33 1.299	.153	6.496	8.866	3.15	12.016	1.25	2.165	1/4	TPC1590R01-C	KTD15.0-15.9-C	
CD3330167N6R01	33.3 1.312	.154	6.575	8.866	3.15	12.016	1.25	2.165	1/4	TPC1590R01-C	KTD15.0-15.9-C	
CD3400170N6R01	34 1.339	.161	6.693	9.106	3.15	12.256	1.25	2.165	1/4	TPC1690R01-C	KTD16.0-16.9-C	
CD3410171N6R01	34.1 1.343	.161	6.732	9.106	3.15	12.256	1.25	2.165	1/4	TPC1690R01-C	KTD16.0-16.9-C	
CD3490175N6R01	34.9 1.375	.161	6.890	9.106	3.15	12.256	1.25	2.165	1/4	TPC1690R01-C	KTD16.0-16.9-C	SPGX110408WG
CD3500175N6R01	35 1.378	.167	6.890	9.346	3.15	12.496	1.25	2.165	1/4	TPC1790R01-C	KTD17.0-17.9-C	
CD3570179N6R01	35.7 1.406	.168	7.047	9.346	3.15	12.496	1.25	2.165	1/4	TPC1790R01-C	KTD17.0-17.9-C	
CD3600180N6R01	36 1.417	.173	7.087	9.587	3.15	12.737	1.25	2.165	1/4	TPC1890R01-C	KTD18.0-18.9-C	
CD3650182N6R01	36.5 1.437	.173	7.165	9.587	3.15	12.737	1.25	2.165	1/4	TPC1890R01-C	KTD18.0-18.9-C	
CD3700185N6R01	37 1.457	.161	7.283	9.756	3.15	12.906	1.25	2.165	1/4	TPC1690R01-C	KTD16.0-16.9-C	
CD3730186N6R01	37.3 1.468	.161	7.323	9.756	3.15	12.906	1.25	2.165	1/4	TPC1690R01-C	KTD16.0-16.9-C	SPGX110408WG
CD3800190N6R01	38 1.496	.168	7.480	9.996	3.15	13.146	1.25	2.165	1/4	TPC1790R01-C	KTD17.0-17.9-C	
CD3810191N6R01	38.1 1.500	.168	7.519	9.996	3.15	13.146	1.25	2.165	1/4	TPC1790R01-C	KTD17.0-17.9-C	
CD3890194N6R01	38.9 1.531	.168	7.638	9.996	3.15	13.146	1.25	2.165	1/4	TPC1790R01-C	KTD17.0-17.9-C	
CD3900195N6R01	39 1.535	.174	7.677	10.236	3.15	13.386	1.25	2.165	1/4	TPC1890R01-C	KTD18.0-18.9-C	
CD3970198N6R01	39.7 1.562	.173	7.795	10.236	3.15	13.386	1.25	2.165	1/4	TPC1890R01-C	KTD18.0-18.9-C	
CD4000200N6R01	40 1.575	.173	7.874	10.472	3.15	13.622	1.25	2.165	1/4	TPC1990R01-C	KTD19.0-19.9-C	SPGX110408WG
CD4050202N6R01	40.5 1.594	.179	7.953	10.472	3.15	13.622	1.25	2.165	1/4	TPC1990R01-C	KTD19.0-19.9-C	
CD4100205N6R01	41 1.614	.185	8.071	10.713	3.15	13.863	1.25	2.165	1/4	TPC2090R01-C	KTD20.0-20.9-C	
CD4130206N6R01	41.3 1.625	.184	8.110	10.713	3.15	13.863	1.25	2.165	1/4	TPC2090R01-C	KTD20.0-20.9-C	
CD4200210N6R01	42 1.654	.191	8.268	10.953	3.15	14.103	1.25	2.165	1/4	TPC2190R01-C	KTD21.0-21.9-C	
CD4280214N6R01	42.8 1.687	.191	8.425	10.953	3.15	14.103	1.25	2.165	1/4	TPC2190R01-C	KTD21.0-21.9-C	
CD4300215N7R01	43 1.693	.195	8.465	11.193	3.15	14.343	1.50	2.362	1/4	TPC2290R01-C	KTD22.0-22.9-C	SPGX110408WG
CD4370218N7R01	43.7 1.719	.195	8.583	11.193	3.15	14.343	1.50	2.362	1/4	TPC2290R01-C	KTD22.0-22.9-C	
CD4400220N7R01	44 1.732	.202	8.661	11.429	3.15	14.579	1.50	2.362	1/4	TPC2390R01-C	KTD23.0-23.9-C	
CD4450222N7R01	44.5 1.750	.202	8.740	11.429	3.15	14.579	1.50	2.362	1/4	TPC2390R01-C	KTD23.0-23.9-C	
CD4500225N7R01	45 1.772	.208	8.858	11.669	3.15	14.819	1.50	2.362	1/4	TPC2490R01-C	KTD24.0-24.9-C	
CD4520226N7R01	45.2 1.781	.208	8.897	11.669	3.15	14.819	1.50	2.362	1/4	TPC2490R01-C	KTD24.0-24.9-C	

Notes: Intermediate sizes are available upon request. Hole tolerance, +.006/-.000, under stable conditions.

GOLDTWIN™ CD... TIP & INDEXABLE INSERT/DRILL HOLDER (METRIC)

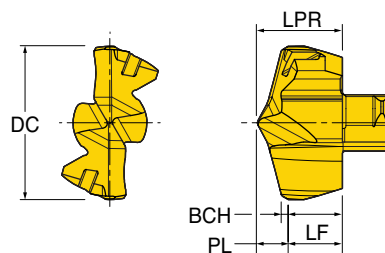


5XD Weldon Style Shank



Designation	DC Cutting Dia. (mm)	PL Point Length	LU Max DOC	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Shank Dia	DF Flange Dia	Center Tip	Locking Key	Outer Insert
CD2600130JGR00	26.00 mm	3.89 mm	130.0 mm	167.70 mm	60.0 mm	227.7 mm	32.0 mm	40.0 mm	TPC1590R01-C	KTD15.0-15.9-C	
CD2800140JGR00	28.00 mm	4.23 mm	144.0 mm	179.90 mm	60.0 mm	239.9 mm	32.0 mm	40.0 mm	TPC1790R01-C	KTD17.0-17.9-C	SPGX060204WG
CD2900145JGR00	29.00 mm	3.93 mm	149.0 mm	145.00 mm	60.0 mm	244.2 mm	32.0 mm	40.0 mm	TPC1590R01-C	KTD15.0-15.9-C	
CD3000150JGR00	30.00 mm	4.08 mm	154.0 mm	190.30 mm	60.0 mm	250.3 mm	32.0 mm	40.0 mm	TPC1690R01-C	KTD16.0-16.9-C	SPGX07T308WG
CD3100155JGR00	31.00 mm	4.25 mm	159.0 mm	196.40 mm	60.0 mm	256.4 mm	32.0 mm	40.0 mm	TPC1790R01-C	KTD17.0-17.9-C	
CD3300165JHR00	33.00 mm	3.89 mm	169.0 mm	210.20 mm	70.0 mm	278.2 mm	40.0 mm	50.0 mm	TPC1590R01-C	KTD15.0-15.9-C	
CD3400170JHR00	34.00 mm	4.08 mm	174.0 mm	216.30 mm	70.0 mm	284.3 mm	40.0 mm	50.0 mm	TPC1690R01-C	KTD16.0-16.9-C	SPGX090408WG
CD3500175JHR00	35.00 mm	4.25 mm	179.0 mm	222.40 mm	70.0 mm	290.4 mm	40.0 mm	50.0 mm	TPC1790R01-C	KTD17.0-17.9-C	
CD3600180JHR00	36.00 mm	4.39 mm	184.0 mm	228.50 mm	70.0 mm	296.5 mm	40.0 mm	50.0 mm	TPC1890R01-C	KTD18.0-18.9-C	
CD3700185JHR00	37.00 mm	4.08 mm	189.0 mm	232.80 mm	70.0 mm	300.8 mm	40.0 mm	50.0 mm	TPC1690R01-C	KTD16.0-16.9-C	
CD3800190JHR00	38.00 mm	4.28 mm	194.0 mm	238.90 mm	70.0 mm	306.9 mm	40.0 mm	50.0 mm	TPC1790R01-C	KTD17.0-17.9-C	
CD3900195JHR00	39.00 mm	4.39 mm	199.0 mm	245.00 mm	70.0 mm	313.0 mm	40.0 mm	50.0 mm	TPC1890R01-C	KTD18.0-18.9-C	
CD4000200JHR00	40.00 mm	4.54 mm	205.0 mm	251.00 mm	70.0 mm	319.0 mm	40.0 mm	50.0 mm	TPC1990R01-C	KTD19.0-19.9-C	
CD4100205JHR00	41.00 mm	4.68 mm	210.0 mm	257.10 mm	70.0 mm	325.1 mm	40.0 mm	50.0 mm	TPC2090R01-C	KTD20.0-20.9-C	SPGX110408WG
CD4200210JHR00	42.00 mm	4.84 mm	215.0 mm	263.10 mm	70.0 mm	331.1 mm	40.0 mm	50.0 mm	TPC2190R01-C	KTD21.0-21.9-C	
CD4300215JHR00	43.00 mm	4.96 mm	220.0 mm	269.20 mm	70.0 mm	337.2 mm	40.0 mm	50.0 mm	TPC2290R01-C	KTD22.0-22.9-C	
CD4400220JHR00	44.00 mm	5.12 mm	225.0 mm	275.30 mm	70.0 mm	343.3 mm	40.0 mm	50.0 mm	TPC2390R01-C	KTD23.0-23.9-C	
CD4500225JHR00	45.00 mm	5.28 mm	230.0 mm	281.20 mm	70.0 mm	349.2 mm	40.0 mm	50.0 mm	TPC2490R01-C	KTD24.0-24.9-C	

GOLDTWIN™ DRILL HEAD: TPC... -C

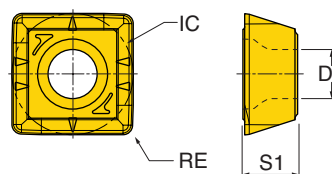


Designation	DC Cutting Dia. (inch)	DC Cutting Dia. (mm)	PL Point Length	LPR Projection Length	LF Functional Length	BCH Corner Chamfer Length	SSC Pocket Size	Grade IN2505
*TPC1590R01-C	.626"	15.9	.125	.343"	.220	.028	15	•
*TPC1690R01-C	.665"	16.9	.132	.366"	.236	.032	16	•
*TPC1790R01-C	.705"	17.9	.108	.390"	.281	.032	17	•
*TPC1890R01-C	.744"	18.9	.144	.413"	.268	.032	18	•
*TPC1990R01-C	.783"	19.9	.150	.433"	.283	.032	19	•
*TPC2090R01-C	.823"	20.9	.157	.457"	.299	.032	20	•
*TPC2190R01-C	.862"	21.9	.163	.476"	.315	.032	21	•
*TPC2290R01-C	.902"	22.9	.170	.500"	.335	.032	22	•
*TPC2390R01-C	.941"	23.9	.176	.524"	.350	.032	23	•
*TPA2490R01-C	.980"	24.9	.183	.539"	.366	.032	24	•

* Note: Standard GoldTwist tips are not compatible with GoldTwist bodies

• Standard Items

GOLDTWIN™ INSERT: SPGX...WG



Designation	SSC Pocket Size	Dimensions				Grade IN2505	Screw	Torque Spec (in-lbs)	Torx Driver
		D	S1	RE	D1				
SPGX060204WG	6	.239"	.094"	.016"	.103"	•	TS220521/HG (M2.2X5.2MM)	7-11	HZS.0004
SPGX07T308WG	7	.316"	.156"	.031"	.112"	•	TS250641 (M2.5X6.4MM)	10-15	TD 8
SPGX090408WG	9	.390"	.169"	.031"	.159"	•	SM35-088-60 (M3.5X8.75MM)	25-30	TD 10
SPGX110408WG	11	.457"	.190"	.031"	.175"	•	SE02-82 (M4X9.3MM)	30-35	TD 15

• Standard Items

RECOMMENDED CUTTING CONDITIONS

ISO	Material	Condition	Tensile Strength Rm (N/mm²)	Hardness (HB)	Matl No.	Cutting Speed Vc (SFM)	Feed vs Drill Diameter				
							D= 26-28.9mm 1.024-1.138" SPGX06	D= 29-32.9mm 1.142-1.295" SPGX07	D= 33-36.9mm 1.299-1.453" SPGX09	D= 37-43.9mm 1.457-1.728" SPGX11	D= 44-45.9mm 1.732-1.807" SPGX11
							IPR (inches/rev)				
P	Non-alloy steel <0.25% C & cast steel, >= 0.25% C free cutting steel >= 0.55% C	Annealed	420	125	1	390-650	.008-.011-.014	.010-.012-.014	.008-.012-.016	.010-.013-.016	.011-.015-.018
		Annealed	650	190	2	390-650					
		Quenched & Tempered	850	250	3	425-625					
		Annealed	750	220	4	425-625					
		Quenched & Tempered	1000	300	5	425-625					
	Low alloy steel & cast steel (less than 5% alloying elements)	Annealed	600	200	6	325-650	.008-.011-.013	.010-.011-.013	.010-.012-.014	.010-.012-.014	.010-.013-.016
		Quenched & Tempered	930	275	7	325-650					
			1000	300	8	325-650					
	High alloy steel, cast steel, & tool steel	Annealed	680	200	10	325-525	.008-.011-.013	.010-.011-.013	.010-.012-.014	.010-.012-.014	.010-.013-.016
		Quenched & Tempered	1100	325	11	325-525					
M	Stainless steel & cast stainless steel	Ferritic/martensitic	680	200	12	260-460	.005-.008-.010	.006-.008-.010	.006-.008-.010	.007-.009-.011	.007-.010-.012
		Martensitic	820	240	13	260-460					
		Austenitic	600	180	14	260-460					
K	GreyCast Iron (GG)	Ferritic		160	15	325-825	.010-.014-.018	.010-.014-.018	.012-.016-.020	.012-.016-.020	.014-.018-.022
		Pearlitic		250	16	325-825					
	Cast Iron Nodular (GGG)	Ferritic		180	17	325-825					
		Pearlitic		260	18	325-825					
	Malleable Cast Iron	Ferritic		130	19	325-825					
Pearlitic			230	20	325-825						
N	Aluminum - wrought alloy	Not cureable		60	21	525-850	.012-.016-.020	.012-.016-.020	.014-.018-.022	.014-.018-.022	.016-.020-.024
		Cured		100	22	525-850					
	Aluminum - cast, alloyed	Not cureable		75	23	525-850					
		Cured		90	24	525-850					
		High temperature		130	25	525-850					
	Copper alloys	Free cutting		110	26	525-850					
		Brass		90	27	525-850					
		Electrolytic copper		100	28	525-850					
	Non-metallic	Duro & fiber plastics			29	-					
		Hard rubber			30	-					
S	High temp alloys	Fe based		200	31	100-200	.004-.005-.006	.004-.006-.007	.006-.007-.008	.006-.007-.009	.006-.008-.009
		Cured		280	32	100-265					
		Ni or Co based		250	33	100-265					
		Cured		350	34	100-265					
	Titanium, Ti alloys	Cast		320	35	100-265					
			Rm 400		36	100-265					
		Alpha+beta alloys cured	Rm 1050		37	100-265					
H	Hardened steel	Hardened		55 HRC	38	65-165					
		Hardened		60 HRC	39	65-165					
	Chilled cast iron	Cast		400	40	-					
	Cast iron nodular	Hardened		55 HRC	41	-					

* Feed Rates are based on Two Effective - DO NOT DOUBLE.