

COOLANT THRU INDEXABLE DRILLS



TRIDEX™ TRIDEX™ INDEXABLE DRILLS
KOMET™ “Kub-It HD” COMPATIBLE
 Coolant Thru Indexable Drills



LATHE CHUCKS
LIVE CENTERS

WISE JAWS
WISE ACCESSORIES

STRAIGHT SHANK
COLLET HOLDERS

TAP HOLDERS
DRILL CHUCKS

CARBIDE INSERTS
THREADING/GROOVING

CUTTING TOOLS
MACHINERY

PRECISION TOOLS
DEBURRING

COOLANT/FLUIDS
TOOL STORAGE

ALL SBM TRIDEX™ COOLANT THROUGH INDEXABLE DRILLS ARE :

- **100% Compatible** with inserts for KOMET KUB-IT drills & Kennametal DFT-__ 84° Trigon drill inserts.
- **Black oxide surface** to prevent against rust and corrosion.
- **Length to diameter ratios are kept optimal** tool overhang is minimized and tool rigidity, accuracy and deflection are minimized even in deeper holes.
- **Spiral flutes to improve chip evacuation** while keeping tool strength intact.
- **Insert pockets are precisely positioned** to keep cutting forces low and evenly distributed thus -lower axial pressures are realized. The net result of this is minimal tool deflection which in turn produces straighter holes regardless of whether the surface being drilled is concave, convex or is a low angle surface.
- **Trigon Inserts** - our unique 84° nose angle Trigon inserts provide the strength of a square insert with the versatility of a triangular insert. The 8° positive relief angle provides for easier cutting by using positive cutting action. The 156° angle between cutting edges - provides twofold benefits - eliminates the need for spotfacing or pre-centering before drilling and can be indexed 3 times.
- **100% Guaranteed** against defects and backed by our Industry Famous guarantee.
- **Manufactured from H13 steel for superior tool toughness and strength.**
- **3 Methods Of Coolant Entry:** Rear Entry, coolant supply through the back of the shank. Side entry, coolant supply through the side of the tool. Through the holder, for Mori-Seiki and other machines, coolant supply through the slot on the shank.



DRILLING TIPS

Indexable drills are designed strictly for roughing and as not meant to be used for finishing. Tolerances of +/- .005" and finishes of 250 rms are normal.

FIXTURE RIGIDITY is extremely important when using indexable drills. Workpieces should be of adequate strength – flimsy workpieces will cause drills to be rendered almost ineffective due to high horsepower requirements.

RUNOUT must be checked with the drill in the toolholder. Position the drill such that the inboard station is positioned below center radially. This allows the inboard insert to cut past the center. Using a dial indicator check the drill for location – if the location varies more than .002" at the holder and/or .006" at the cutting edge of the drill then the drill and/holder must be repositioned or the TIR of the holder must be checked/adjusted.

ADEQUATE COOLANT is essential when using indexable drills. Maximum heat is produced in a small area at the bottom of the hole being drilled. In general 10-20gpm at 45psi of coolant is required during drilling. When drilling deeper than 1X drill diameter, coolant through the drill is essential - flood coolant cannot perform satisfactorily at depths beyond 1X drill diameter.

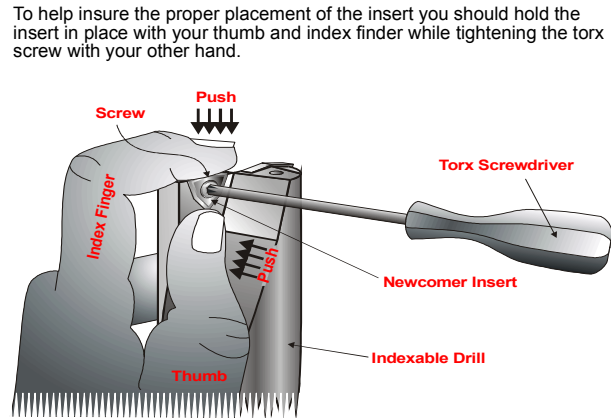
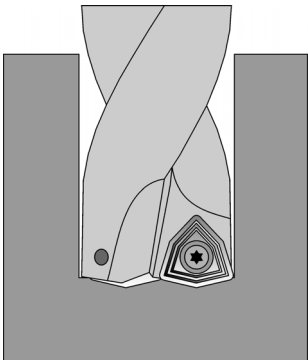
PROPER CHIP CONTROL is absolutely necessary to remove chips, this improves hole tolerance and finish and also improves tool life. Adjust speed and feed to produce "figure 9" chips for optimal chip removal – longer chips will lead to chip buildup in the drill flutes and chip recutting and eventual drill failure. Increase speed (within limits) if chips are too short. If chips are still unsatisfactory, reduce feed. Decrease speed or increase feed if chips are too long.

OFFSETTING DRILLS with 2.5:1 length to diameter ratios, in a positive direction, has proven to be beneficial when using indexable drills on machines with inadequate coolant supply. Offsetting will reduce chatter and improve surface finish. Offsetting is also useful when drilling a slightly oversized hole. This allows for drilling a larger range of hole diameters with a minimum of drill diameter.

HORSEPOWER A machine with at least seven horsepower is required to run an indexable drill.

SBM Indexable drills are not designed to be used with stacked materials or laminates – severe tool damage and loss will occur if used with such materials.

On some CNC machines, the rapid rate of tool positioning does not allow enough time for coolant flow to begin prior to drill contact with the workpiece. If the drill begins cutting without coolant, even for a second or two, insert life can be greatly reduced. Adding a short dwell in the program, to assure coolant flow BEFORE workpiece contact, will considerably increase insert life and drill performance. The slug produced by drilling through a workpiece can sometimes become jammed between the drill and workholding device. To minimize the likelihood of this happening, provide ample clearance in this area.



*KOMET, Kub-It and Kennametal are trademarks of their respective companies.

Call Us Or Visit Our Website For Our Complete Selection!

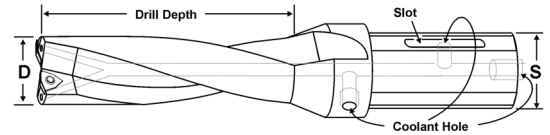
COOLANT THRU INDEXABLE DRILLS

TRIDEX™ INDEXABLE DRILLS KOMET™ “KUB-It™” COMPATIBLE Coolant Thru Indexable Drills

- Premium drills, manufactured from H-13 steel (hardened to Rc 46/50) for greater tool strength, reduced wear and longer tool life
- Compatible with inserts for Komet Kub-It™ and Kennametal DFT_ 84° trigon drill inserts
- Spiral flutes to improve chip evacuation
- Insert pockets are precisely positioned to keep cutting forces low and evenly distributed
- 100% Guaranteed against defects
- Black oxide finish for long life
- Additional sizes may be available-please call for more information
- Made in the USA!
- See following page for 84° trigon inserts



Shank Dia: 1.000" to 1.500"
Drill Dia: 1.000" to 3.250"
Drill Depths: 2" to 6"



D	S	Drill Depth 2.00"		Drill Depth 3.00"		Drill Depth 4.00" and Over			
Drill Dia.	Shank Size	Part Number	Price Each	Part Number	Price Each	Flute Len.	Part Number	Price Each	
1.000 - 1.125 Drill Diameter- 0.315 Insert I.C.									
1"	1.000	1.00	DK1000-2010-315	\$285.55	DK1000-3010-315	\$320.83	4"	DK1000-4010-315	\$356.11
1-1/32	1.031	1.00	DK1031-2010-315	\$285.55	DK1031-3010-315	\$320.83	4"	DK1031-4010-315	\$356.11
	1.031	1.25	-	-	DK1031-3012-315	\$320.83	4"	DK1031-4012-315	\$356.11
1-1/8	1.125	1.00	DK1125-2010-315	\$285.55	DK1125-3010-315	\$320.83	4"	DK1125-4010-315	\$293.27
	1.125	1.25	DK1125-2012-315	\$285.55	DK1125-3012-315	\$320.83	4"	DK1125-4012-315	\$293.27
1.187 - 1.750 Drill Diameter- 0.394 Insert I.C.									
1-3/16	1.187	1.00	DK1187-2010-394	\$285.55	DK1187-3010-394	\$320.83	4"	DK1187-4010-394	\$356.11
	1.187	1.25	DK1187-2012-394	\$285.55	DK1187-3012-394	\$320.83	4"	DK1187-4012-394	\$356.11
1-1/4	1.250	1.00	DK1250-2010-394	\$293.27	DK1250-3010-394	\$335.16	4"	DK1250-4010-394	\$362.72
	1.250	1.25	DK1250-2012-394	\$293.27	DK1250-3012-394	\$335.16	4"	DK1250-4012-394	\$362.72
1-5/16	1.312	1.25	DK1312-2012-394	\$293.27	DK1312-3012-394	\$335.16	4"	DK1312-4012-394	\$362.72
	1-3/8	1.375	1.00	DK1375-2010-394	\$293.27	DK1375-3010-394	\$335.16	4"	DK1375-4010-394
1.375		1.25	DK1375-2012-394	\$293.27	DK1375-3012-394	\$335.16	4"	DK1375-4012-394	\$362.72
1-7/16	1.437	1.25	DK1437-2012-394	\$293.27	DK1437-3012-394	\$335.16	4"	DK1437-4012-394	\$362.72
1-1/2	1.500	1.00	DK1500-2010-394	\$299.88	DK1500-3010-394	\$341.78	4"	DK1500-4010-394	\$369.34
	1.500	1.25	DK1500-2012-394	\$299.88	DK1500-3012-394	\$341.78	4"	DK1500-4012-394	\$369.34
1-5/8	1.625	1.00	-	-	DK1625-3010-394	\$341.78	4"	DK1625-4010-394	\$307.60
	1.625	1.25	DK1625-2012-394	\$306.50	DK1625-3012-394	\$341.78	4"	DK1625-4012-394	\$369.34
1-11/16	1.687	1.00	DK1687-2010-394	\$249.17	-	-	4"	DK1687-4010-394	\$307.60
	1.687	1.25	DK1687-2012-394	\$306.50	DK1687-3012-394	\$341.78	4"	DK1687-4012-394	\$369.34
1-3/4"	1.750	1.00	DK1750-2010-394	\$306.50	DK1750-3010-394	\$285.55	4"	DK1750-4010-394	\$375.95
	1.750	1.25	DK1750-2012-394	\$306.50	DK1750-3012-394	\$348.39	4"	DK1750-4012-394	\$377.06
	1.750	1.25	-	-	-	-	5"	DK1750-5012-394	\$404.62
1.812 - 2.125 Drill Diameter- 0.472 Insert I.C.									
1-7/8	1.875	1.25	DK1875-2012-472	\$306.50	DK1875-3012-472	\$348.39	4"	DK1875-4012-472	\$377.06
1-15/16	1.937	1.25	DK1937-2012-472	\$306.50	DK1937-3012-472	\$348.39	4"	DK1937-4012-472	\$377.06
2"	2.000	1.25	DK2000-2012-472	\$404.62	DK2000-3012-472	\$446.51	4"	DK2000-4012-472	\$488.41
	2.000	1.25	-	-	-	-	5"	DK2000-5012-472	\$515.97
	2.000	1.25	-	-	-	-	6"	DK2000-6012-472	\$543.53
2-1/8	2.125	1.50	DK2125-2015-472	\$404.62	DK2125-3015-472	\$446.51	4"	DK2125-4015-472	\$488.41
2.250 - 2.500 Drill Diameter- 0.590 Insert I.C.									
2-1/4"	2.250	1.50	DK2250-2015-590	\$432.18	DK2250-3015-590	\$480.69	4"	DK2250-4015-590	\$522.59
	2.250	1.50	-	-	-	-	5"	DK2250-5015-590	\$551.25
	2.250	1.50	-	-	-	-	6"	DK2250-6015-590	\$578.81
2-3/8"	2.375	1.50	DK2375-2015-590	\$432.18	DK2375-3015-590	\$480.69	4"	DK2375-4015-590	\$522.59
2-1/2"	2.500	1.50	DK2500-2015-590	\$459.74	DK2500-3015-590	\$515.97	4"	DK2500-4015-590	\$557.87
	2.500	1.50	-	-	-	-	5"	DK2500-5015-590	\$585.43
	2.500	1.50	-	-	-	-	6"	DK2500-6015-590	\$614.09
2.750 - 3.250 Drill Diameter- 0.693 Insert I.C.									
2-3/4"	2.750	1.50	DK2750-2015-693	\$459.74	DK2750-3015-693	\$515.97	4"	DK2750-4015-693	\$557.87
	2.750	1.50	-	-	-	-	5"	DK2750-5015-693	\$585.43
	2.750	1.50	-	-	-	-	6"	DK2750-6015-693	\$614.09
3"	3.000	1.50	DK3000-2015-693	\$509.36	DK3000-3015-693	\$551.25	4"	DK3000-4015-693	\$578.81
	3.000	1.50	-	-	-	-	5"	DK3000-5015-693	\$606.38
	3.000	1.50	-	-	-	-	6"	DK3000-6015-693	\$635.04
3-1/4"	3.250	1.50	DK3250-2015-693	\$509.36	DK3250-3015-693	\$551.25	4"	DK3250-4015-693	\$578.81

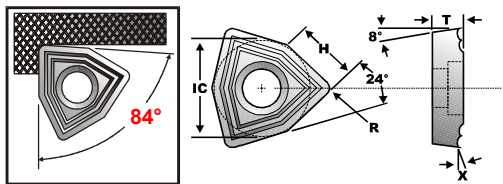
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Call Us Today For All Of Your Machine Tool Needs!

INDEXABLE DRILL INSERTS

TRIDEX™ PREMIUM 84° TRIGON COATED INSERTS

- 84° nose angle which combines the strength of a square with the versatility of a triangular insert
- Made in Germany
- KOMET™ brand inserts also available



Made In Germany

Drill Dia	IC	T	H	X	R	Coated Inserts		Uncoated Inserts	Screw	Torx Driver
						Grade SZP40 Coated C2	Grade SBP35 Coated C5	-		
0.562 - 0.781	0.197	0.091	0.126	8°	0.016	TRX-197-SZP40-A \$9.25	TRX-197-SBP35-A \$9.25	NOT NECESSARY	SC-197-06-DK \$1.25	TX-206 \$5.00
0.812 - 0.937	0.250	0.125	0.161	8°	0.016	TRX-250-SZP40-A \$9.25	TRX-250-SBP35-A \$9.25	NOT NECESSARY	SC-250-06-DK \$1.25	TX-206 \$5.00
1.000 - 1.125	0.315	0.146	0.209	12°	0.016	TRX-315-SZP40-A \$9.50	TRX-315-SBP35-A \$9.50	NOT NECESSARY	SC-315-08-DK \$1.25	TX-208 \$5.00
1.187 - 1.750	0.394	0.146	0.260	12°	0.016	TRX-394-SZP40-A \$11.00	TRX-394-SBP35-A \$11.00	NOT NECESSARY	SC-394-10-DK \$1.25	TX-210 \$5.00
1.812 - 2.125	0.472	0.185	0.311	12°	0.016	TRX-472-SZP40-A \$13.25	TRX-472-SBP35-A \$13.25	NOT NECESSARY	SC-472-15-DK \$1.25	TX-215 \$5.00
2.250 - 2.500	0.591	0.205	0.390	12°	0.016	TRX-591-SZP40-A \$18.00	TRX-591-SBP35-A \$18.00	NOT NECESSARY	SC-472-15-DK \$1.25	TX-215 \$5.00
2.750 - 3.250	0.693	0.232	0.457	12°	0.031	TRX-693-SZP40-A \$22.95	TRX-693-SBP35-A \$22.95	NOT NECESSARY	SC-693-20-DK \$1.25	TX-220 \$5.00

TRIDEX™ PREMIUM TRIGON COATED INSERTS

SPEED & FEED INFORMATION



TRIDEX PREMIUM INSERTS			Brinell Hardness- HB	Mach Group	DOC [in] Drill Dia.					SBP 35			SZP 40			
Mat. Group	Workpiece Material				.472- .547	.500 - .784	.787 - 0.980	.984 - 1.777	>1.778	f [in./rev.]			f [in/rev.]			
										.002	.003	.006	.002	.003	.006	
P	Unalloyed steel	approx. 0.15% C annealed	125	1	.002	.002	.003	.004	.005	720	660	590	460	430	390	
		approx. 0.45% C annealed	190	2	.002	.002	.003	.004	.005	720	660	590	460	430	390	
		approx. 0.45% C tempered	250	3	.002	.002	.003	.004	.005	720	660	590	460	430	390	
		approx. 0.75% C annealed	270	4	.002	.002	.003	.004	.005	720	660	590	460	430	390	
		approx. 0.75% C tempered	300	5	.002	.002	.003	.004	.005	720	660	590	460	430	390	
	Low-alloyed steel	annealed	180	6	.002	.003	.003	.004	.006	690	660	560	430	390	360	
		tempered	275	7	.002	.003	.003	.004	.006	690	660	560	430	390	360	
		tempered	300	8	.002	.003	.003	.004	.006	690	660	560	430	390	360	
		tempered	350	9	.002	.003	.003	.004	.006	690	660	560	430	390	360	
	High-alloyed steel and high-alloyed tool steel	annealed	200	10	.002	.002	.002	.003	.004	620	560	490	430	390	360	
hardened by tempering		325	11	.002	.002	.002	.003	.004	620	560	490	430	390	360		
Stainless steel	ferritic / martensitic, annealed	200	12	.002	.002	.003	.004	.005	520	460	390	430	390	360		
	martensitic, tempered	240	13	.002	.002	.003	.004	.005	520	460	390	430	390	360		
M	Stainless steel	austenitic2, retained	180	14	.002	.002	.003	.004	.005	660	590	520	520	490	460	
K	Grey cast iron	pearlitic/ferritic	180	15	.003	.004	.005	.006	.006	460	430	390	390	390	360	
		pearlitic (martensitic)	260	16	.003	.004	.005	.006	.006	460	430	390	390	390	360	
	Cast iron with spheroidal graphite	ferritic	160	17	.002	.003	.005	.006	.006	390	390	360	360	360	330	
		pearlitic	250	18	.002	.003	.005	.006	.006	390	390	360	360	360	330	
	Malleable cast iron	ferritic	130	19	.003	.004	.004	.005	.006	460	430	390	390	390	360	
		pearlitic	230	20	.003	.004	.004	.005	.006	460	430	390	390	390	360	
N	Aluminum malleable alloys	non-age-hardenable	60	21	-	-	-	-	-	-	-	-	-	-	-	
		age-hardenable, age-hardened	100	22	-	-	-	-	-	-	-	-	-	-	-	
	Aluminum cast alloys	< 12% Si, non-age-hardenable	75	23	-	-	-	-	-	-	-	-	-	-	-	
		< 12% Si, age-hardenable, -hardened	90	24	-	-	-	-	-	-	-	-	-	-	-	
		> 12% Si, non-age-hardenable	130	25	-	-	-	-	-	-	-	-	-	-	-	
	Copper and copper alloys (Bronze/brass)	Free cutting alloys, Pb > 1%	110	26	-	-	-	-	-	-	-	-	-	-	-	
Brass, red brass		90	27	-	-	-	-	-	-	-	-	-	-	-		
		Bronze unleaded & elect. copper	100	28	-	-	-	-	-	-	-	-	-	-		
S	Heat-resistant alloys	Fe basis	annealed	200	31	.002	.002	.002	.002	.003	260	230	230	200	200	200
			age-hardened	280	32	.002	.002	.002	.002	.003	260	230	230	200	200	200
		Ni or Co basis	annealed	250	33	-	-	.002	.002	.003	160	130	130	130	130	130
			age-hardened	350	34	-	-	.002	.002	.003	160	130	130	130	130	130
	Titanium alloys	cast		320	35	-	-	.002	.002	.003	160	130	130	130	130	130
			Pure titanium	4003	36	-	-	-	-	-	-	-	-	-	-	-
		Alpha + Beta alloys, age-hardened	10503	37	-	-	-	-	-	-	-	-	-	-	-	

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