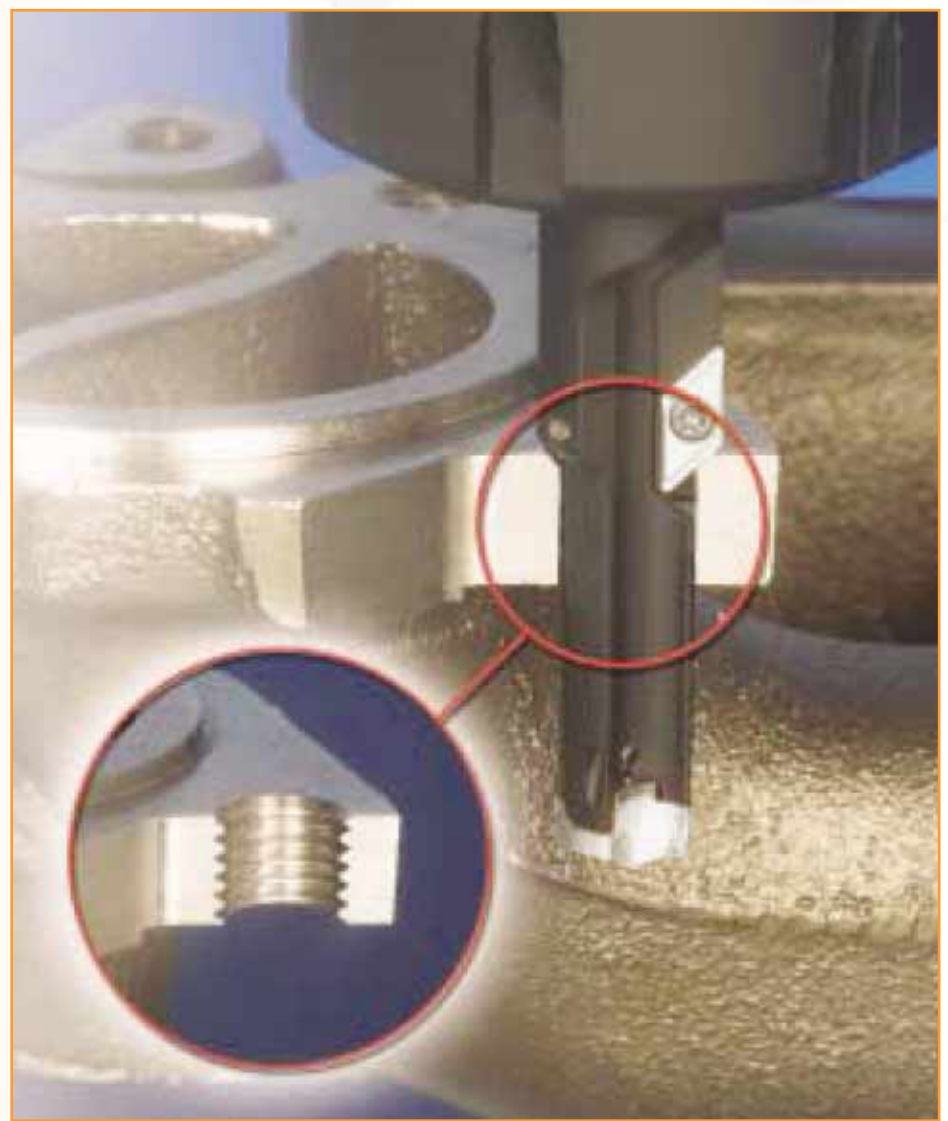


QWIK•TWIST™ TAP DRILL/CHAMFER COMBO

In addition to standard applications, the revolutionary self-clamping Qwik•Twist provides an excellent opportunity to solve special drilling requirements.

In order to better serve our customers performing these applications, we are now offering tap drills with “built-in” chamfer stations designed for 3/8” UNC to 7/8” UNF and M8 to M24 standard threaded holes.

These new products will enable us to increase our drilling market share.

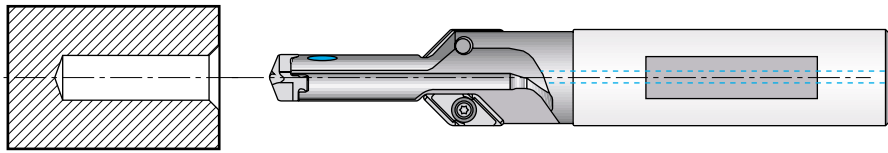




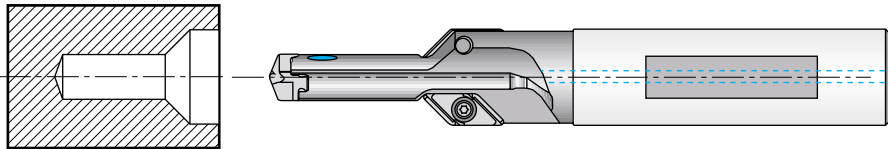
There are two main applications for Tap hole drilling:

1. Drilling blind holes:

DRILLING WITH A 45° CHAMFER

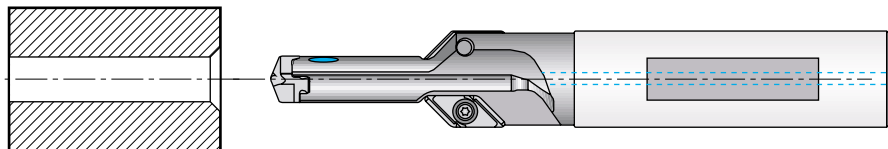


DRILLING AND COUNTERBORING

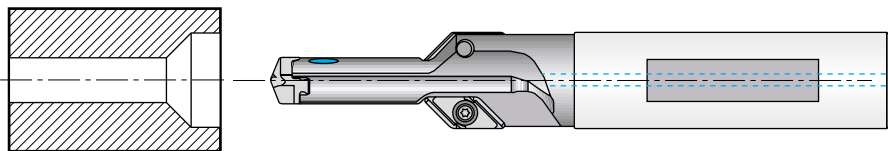


1. Drilling through holes:

DRILLING WITH A 45° CHAMFER



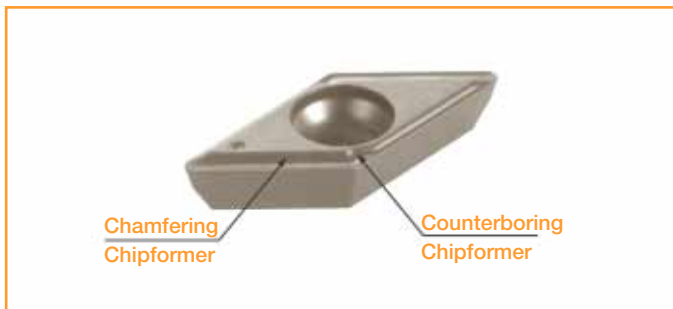
DRILLING AND COUNTERBORING





The new Qwik•Twist Tap Drill/Combo Tools carry two standard chamfering inserts designated KOMT050104R Grade IN2005, symmetrically mounted, the cutting forces are balanced for optimal performance. This feature is essential in through hole application.

Counterboring may be performed within the limits of the chamfering inserts, .23" deep.



UNIQUE CHAMFERING INSERTS:

The KOMT050104R Grade IN2005 chamfering inserts were designed for chamfering and counterboring on a wide range of materials with optimal chip formation. The insert has a sub-micron carbide substrate and is TiAlN coated, an excellent wear and heat resistant combination.



NEW QWIK•TWIST POCKET SIZE:

In order to tap drill the popular Metric ISO M8 thread size, a new .268" pocket was designed. This pocket can carry a range of drill points from .268" to .291".

STANDARD QWIK•TWIST REPLACEABLE DRILL POINTS:

Standard Qwik•Twist replaceable drill points, general purpose geometry (YAB) or cast iron geometry (YBB) within the drill body ranges are used. See chart on page 5.



ADVANTAGES:

- Can be used on a wide range of workpiece materials.
- Can be used for blind, as well as through hole, applications.
- No vibrations during chamfering due to a balanced drill construction.
- Standard .06" x 45° hole chamfer
- Provides diametric versatility - Qwik•Twist Tap drills are capable of using a range of replaceable points on each drill body. This provides a substantial advantage for users who change drills for the same tap operations. The user may use the same Qwik•Twist Tap drill for variable percent of thread requirements.

MACHINING RECOMMENDATIONS:

- Machining recommendations used for the standard Qwik•Twist drills apply also for the Qwik•Twist Tap drill/chamfer combo drills for both drilling and chamfering - note that the same parameters may be used for chamfering.
- For counterboring applications - reduce cutting parameters by 10%.
- Before clamping a new drill point, apply oil to the Qwik•Twist pocket. This will reduce pocket wear and increase the number of point indexes.

APPLICATIONS AND MARKETING:

- Automotive industry tier suppliers are a very substantial potential target.
- Shallow (up to .23") counterbore screw head applications.
- Can be used for rotating and stationary applications.
- An excellent choice for applications requiring a 45° chamfer.
- Replaces our special drills that were designed for tap drilling/chamfering applications, reducing cost and handling.



QWIKOTWIST™

TAP DRILL/CHAMFER COMBO

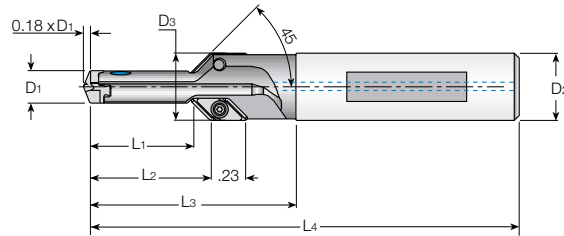
TAP DRILLS

Tap drill for thread range

M8-M24 (mm)

Tap drill for thread range

UNC/UNF 3/8 - 7/8 (inch)



Metric

Thread Size	D ₁		Body Number	General Purpose Drill Point	D ₁ Point Range		L ₁	L ₂	L ₃	L ₄	D ₂		D ₃	Pocket Size	Clamping Key
	Nom. Pt. size mm	Nom. Point size			Full Dia. to chamfer	Full Dia. to Top of chamfer	Ext.	OAL	Shank Dia. mm	Shank Dia.	Chamfer Dia.				
M8	6.8	.268	YC0680021SKR00	YAB0680R01	.268	.291	.827	.972	1.650	3.42	14	.551	.547	6.8	KDCM-8
M10	8.5	.335	YC0830026SKR00	YAB0850R01	.327	.350	1.024	1.138	1.831	3.60	14	.551	.551	8	KDCM-8
M12	10.2	.402	YC1000030SKR00	YAB1020R01	.394	.429	1.181	1.264	2.047	3.82	14	.551	.551	10	KDCM-10
M14	12	.472	YC1200035SMR00	YAB1200R01	.472	.508	1.378	1.465	2.283	4.17	16	.630	.630	12	KDCM-12
M16	14	.551	YC1400039SPR00	YAB1400R01	.551	.587	1.535	1.622	2.362	4.25	18	.709	.709	14	KDCM-14
M20	17.5	.689	YC1730042SRR00	YAB1750R01	.681	.705	1.654	1.728	2.480	4.45	20	.787	.827	17	KDCM-17
*M24	21	.827	YC2100048SSR00	YAB2100R01	.827	.862	1.890	1.984	2.677	4.88	25	.984	1.004	21	KDCM-21

Reduce recommended feed for M8 drill by 10%.

Inch

Thread Size	D ₁		Body Number	General Purpose Drill Point	D ₁ Point Range		L ₁	L ₂	L ₃	L ₄	D ₂		D ₃	Pocket Size	Clamping Key
	Nom. Pt. size mm	Nom. Point size			Full Dia. to chamfer	Full Dia. to Top of chamfer	Ext.	OAL	Shank Dia. MM	Shank Dia.	Chamfer Dia.				
3/8 UNC	7.9	.311	YC0770025RHR01	YAB0790R01	.303	.311	1.00	1.15	1.80	3.69	.625	15.88	.59	8	KDCM-8
*3/8 UNF	8.5	.335	YC0820025RHR01	YAB0850R01	.323	.350	1.00	1.15	1.80	3.69	.625	15.88	.61	8	KDCM-8
7/16 UNC	9.4	.370	YC0910026RHR01	YAB0940R01	.358	.390	1.06	1.20	1.83	3.72	.625	15.88	.63	9	KDCM-9
7/16 UNF	9.9	.390	YC0910026RHR01	YAB0990R01	.358	.390	1.06	1.18	1.82	3.71	.625	15.88	.63	9	KDCM-9
1/2 UNC	10.8	.425	YC1050026RHR01	YAB1080R01	.413	.429	1.06	1.17	1.89	3.78	.625	15.88	.63	10	KDCM-10
1/2 UNF	11.5	.453	YC1130026RHR01	YAB1150R01	.445	.469	1.06	1.15	1.89	3.78	.625	15.88	.63	11	KDCM-11
9/16 UNC	12.3	.484	YC1210026RHR01	YAB1230R01	.476	.508	1.06	1.14	1.89	3.78	.625	15.88	.63	12	KDCM-12
*9/16 UNF	13.0	.512	YC1300026RHR01	YAB1300R01	.512	.547	1.06	1.12	1.89	3.78	.625	15.88	.63	13	KDCM-13
5/8 UNC	13.7	.539	YC1330030RJR01	YAB1370R01	.524	.547	1.20	1.32	2.01	3.98	.750	19.05	.75	13	KDCM-13
*5/8 UNF	14.6	.575	YC1450030RJR01	YAB1460R01	.571	.587	1.20	1.29	2.03	4.00	.750	19.05	.75	14	KDCM-14
3/4 UNC	16.7	.657	YC1650035RJR01	YAB1670R01	.650	.665	1.40	1.47	2.20	4.17	.750	19.05	.78	16	KDCM-16
*3/4 UNF	17.5	.689	YC1730035RLR01	YAB1750R01	.681	.705	1.40	1.50	2.20	4.40	1.000	25.40	.88	17	KDCM-17
7/8 UNC	19.5	.768	YC1920041RLR01	YAB1950R01	.756	.783	1.65	1.78	2.48	4.68	1.000	25.40	1.00	19	KDCM-19
*7/8 UNF	20.5	.807	YC2040041RLR01	YAB2050R01	.803	.823	1.65	1.75	2.48	4.68	1.000	25.40	1.00	20	KDCM-20

Chamfering Insert: KOMT050104R Grade IN2005 • Chamfering Insert Screw: SM22-046-00 • Chamfering Insert Screw Key: DS-T07F

*NON-STOCK STANDARD • All dimensions in inches unless otherwise noted



marketing & technology center

845 S. Lyford Road • Rockford, Illinois 61108-2749 • Fax: 815.387.6968

e-mail: info@ingersoll-imc.com • www.ingersoll-imc.com