

NEW PRODUCT NEWS

DRILL-RUSH

expansion

An Economical Pre-thread Drilling Solution



DRILL•RUSH

An economical pre-thread drilling solution

FEATURES

Drill Body Features

- **Cost effective solution** that replaces the high cost of special solid carbide step drills
- A twisted through coolant channel for **smooth chip evacuation** & **high penetration** rates
- **Two symmetrically designed standard chamfering inserts** firmly seated for optimal performance via balanced cutting
- Eliminates the need for solid carbide drill regrinding

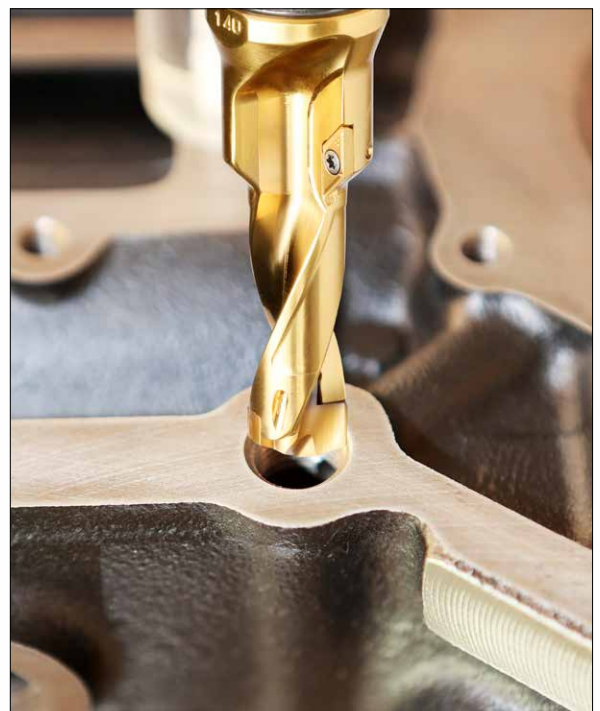
Insert Features

- Widely capable AOMT insert is designed for both **chamfering and counter boring**
- Indexable inserts include two cutting edges for optimum chip control
- Capable of machining a wide range of workpiece materials
- Inserts specifically designed for both **blind** and **through-hole** applications
- Indexable inserts mean economy and flexibility over a wide range of applications

TaeguTec's DRILLRUSH—the versatile new indexable drill—has been expanded as an optimal solution for pre-thread hole drilling in chamfering and counter-boring of blind and through-hole applications.

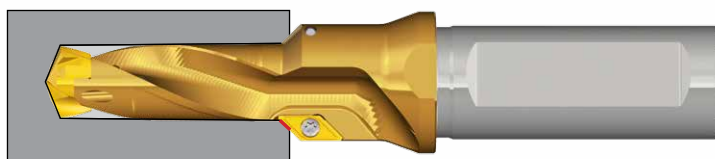
Pre-thread drilling is a complex operation across a wide range of applications, the DRILLRUSH enables end-users to perform pre-thread holes reliably and economically on ISO M standard pre-thread holes (M10—M24). The line's versatility now eliminates the need for step drills reducing excess inventory and down-time.

Already known for outstanding performance meeting customers' demands, the DRILLRUSH's flexibility makes it the ideal solution meeting the machining market's growing demand for simplified, cost-effective solutions.



Drilling with **chamfer (45°)**

- Blind hole

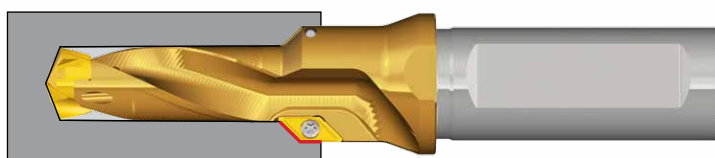


- Through hole

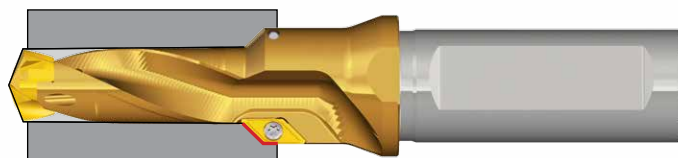


Drilling with **counter boring**

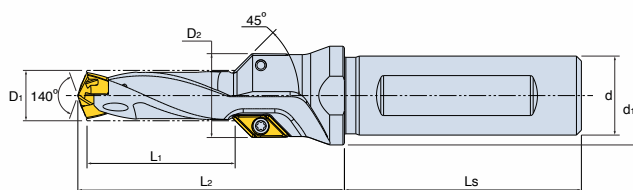
- Blind hole



- Through hole



Drill body

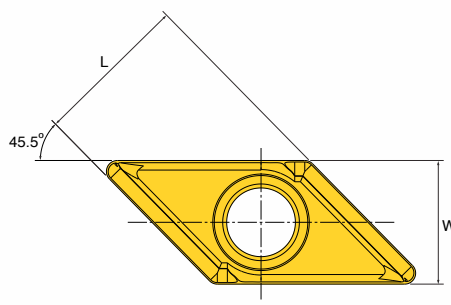


ISO thread	Drill dia. (D1)	Description	L1	L2	Ls	D1	d	d1	Drill dia. range	Clamping key
M10	8.5	TCD 085X26X12T3-M10	26	50	45	15.5	12	16	8.5-8.9	K TCD D060-D099
M12	10.2	TCD 102X30X16T3-M12	30	54	48	17	16	20	10.0-10.4	K TCD D100-D199
M14	12.0	TCD 120X35X16T3-M14	35	61	48	19	16	20	12.0-12.4	K TCD D100-D199
M16	14.0	TCD 140X39X20T3-M16	39	69	50	21	20	25	14.0-14.4	K TCD D100-D199
M20	17.5	TCD 175X42X20T3-M20	42	72	50	24.5	20	27	17.0-17.9	K TCD D100-D199
M24	21.0	TCD 210X48X25T2-M24	48	80	56	28	25	32	21.0-21.9	K TCD D200-D269

Chamfering insert


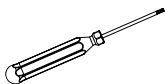


TT9080



Description	W	L	S	t
AOMT 060204-C45	4.5	5.66	2.16	1.96

Spare Part

Screw	Wrench
	
TS220461	TD7P

Recommended cutting conditions - According to DIN/ISO513 and VDI 3323

ISO	Material	Condition	Tensile strength Rm(N/mm ²)	Hardness (HB)	Mtl. No.	Cutting speed Vc(m/min)	DRILLRUSH					
							Feed vs. Drill diameter(mm/rev)					
							D<10	D= 10-11.9	D= 12-13.9	D= 14-15.9	D= 16-19.9	D= 20-25.9
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C Annealed	420	125	1	80-110-140	0.12	0.15	0.18	0.20	0.25	0.25
		>=0.25%C Annealed	650	190	2	80-105-130						
		<0.55%C Quenched and tempered	850	250	3	80-100-120						
		>=0.55%C Annealed	750	220	4	70-90-110						
		Quenched and tempered	1000	300	5	50-70-90						
	Low alloy steel and cast steel (less than 5% of alloying elements)	Annealed	600	200	6	70-95-120	0.12	0.14	0.16	0.18	0.23	0.25
			930	275	7	70-90-110						
		Quenched and tempered	1000	300	8	50-70-90						
			1200	350	9	40-55-70						
	High alloy steel, cast steel and tool steel.	Annealed	680	200	10	50-70-90	0.12	0.12	0.15	0.18	0.20	0.22
Quenched and tempered		1100	325	11	40-60-80	0.16	0.17	0.20	0.23	0.25	0.27	
M	Stainless steel and cast steel	Ferritic / martensitic	680	200	12	40-55-70	0.10	0.12	0.14	0.16	0.16	0.18
		Martensitic	820	240	13	40-55-70	0.12	0.15	0.17	0.20	0.21	0.24
		Austenitic	600	180	14	30-50-70	0.15	0.18	0.20	0.24	0.26	0.30
K	Gray cast iron (GG)	Ferritic		160	15	90-125-160	0.15	0.20	0.25	0.30	0.35	0.35
		Pearlitic		250	16	80-110-140						
	Cast iron nodular (GGG)	Ferritic		180	17	90-135-180						
		Pearlitic		260	18	80-110-140						
	Malleable cast iron	Ferritic		130	19	90-125-160						
Pearlitic			230	20	80-110-140							
N	Aluminum - wrought alloy	Not cureable		60	21	90-155-220	0.20	0.25	0.30	0.35	0.40	0.45
		Cured		100	22	90-155-220						
	Aluminum-cast, alloyed	<=12% Si Not cureable		75	23	90-155-220						
		Cured		90	24	90-155-220						
	>12% Si	High temp.		130	25	80-120-160						
		Free cutting		110	26	90-155-220						
	Copper alloys	Brass		90	27	90-155-220						
		Electrolitic copper		100	28	90-155-220						
	Non-metallic	Duroplastics, fiber plastics			29							
		Hard rubber			30							
S	High temp. alloys	Fe based Annealed		200	31	30-45-60	0.06	0.08	0.10	0.12	0.12	0.14
		Cured		280	32	20-35-50						
		Ni or Annealed		250	33	20-35-50						
		Co based Cured		350	34	20-35-50						
		Cast		320	35	20-35-50						
	Titanium, Ti alloys		RM400	36	20-35-50							
	Alpha+beta alloys cured	RM1050	37	20-35-50								
H	Hardened steel	Hardened		55HRC	38	20-35-50	0.06	0.08	0.10	0.12	0.14	0.16
		Hardened		60HRC	39	20-35-50	0.09	0.11	0.14	0.16	0.18	0.20
	Chilled cast iron	Cast		400	40		0.12	0.15	0.18	0.20	0.22	0.25
	Cast iron nodular	Hardened		55HRC	41							

* For over 8xD, please reduce the cutting condition.

* For more information of material groups, see the TaeguTec concise catalogue "Material conversion Table" section.

■ Steel
 ■ Stainless steel
 ■ Cast iron
 ■ Nonferrous
 ■ High temp. alloys
 ■ Hardened steel