

 DrillLine



**DEEPT<sup>RI</sup>DRILL**

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Tungaloy Report No. 430S1-US

**Unparalleled performance**  
in deep hole drilling!

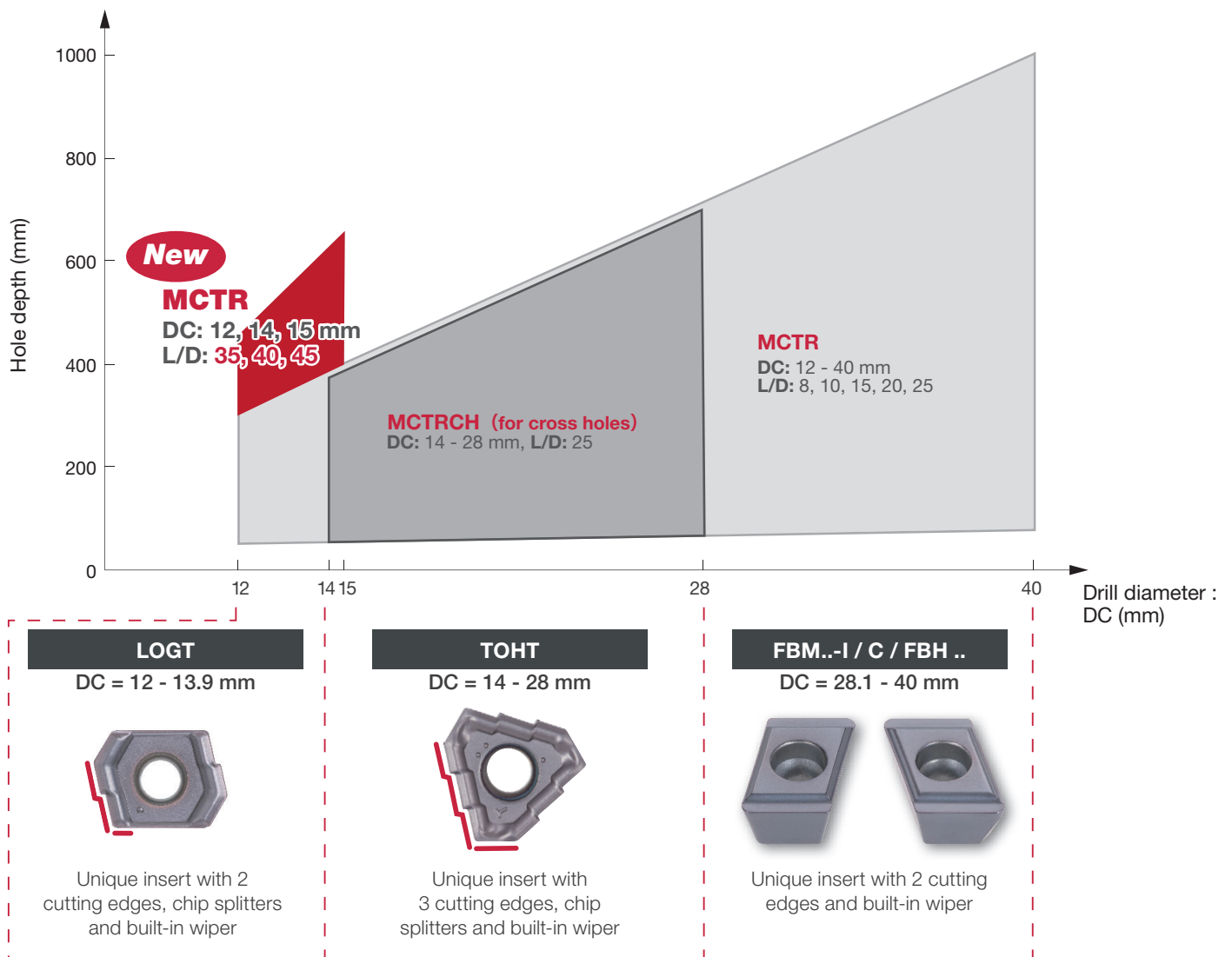


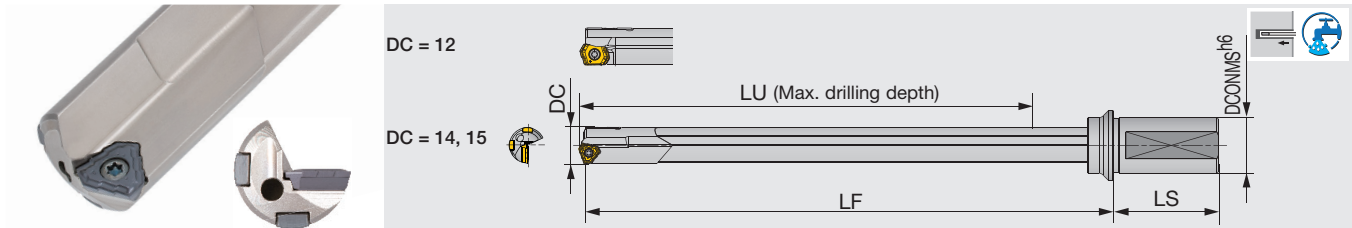
**INDUSTRY 4.0**  
*FEED the SPEED!*



# Longer indexable gun drills for small-diameter DeepTri-Drill applications on CNC machining centers

New MCTR is applied in range  $\varnothing 12 - \varnothing 15$  with  $L/D = 35, 40, 45$



**New****MCTR L/D=35, 40, 45**Drill body for machining centers, L/D = 35, 40, 45, Tool diameter  $\varnothing 12, 14, 15$  mm

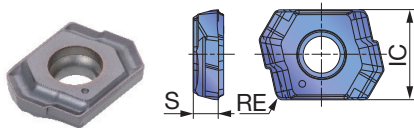
Metric	DC	L/D	DCONMS	LU	LS	LF	Insert	Guide pad
MCTR12.00XM20-35	12	35	20	456.8	50	485	LOGT06...	GP04-055, GP04-16-055-DC
MCTR12.00XM20-40	12	40	20	521.8	50	550	LOGT06...	GP04-055, GP04-16-055-DC
MCTR12.00XM20-45	12	45	20	586.8	50	615	LOGT06...	GP04-055, GP04-16-055-DC
MCTR14.00XM25-35	14	35	25	527	56	561	TOHT07...	GP05-060, GP05-18-060-DC
MCTR14.00XM25-40	14	40	25	602	56	636	TOHT07...	GP05-060, GP05-18-060-DC
MCTR15.00XM25-35	15	35	25	562	56	598	TOHT07...	GP05-060, GP05-18-060-DC
MCTR15.00XM25-40	15	40	25	642	56	678	TOHT07...	GP05-060, GP05-18-060-DC

DC	Tool diameter tolerance	Applicable tolerance range of hole diameter
12, 14, 15	0 / - 0.07	+ 0.05 / - 0.1

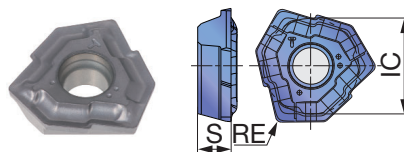
**SPARE PARTS**

Designation	Insert		Guide pad	
	Screw	Wrench	Screw	Wrench
MCTR12...	SR10503833L040	T-7F	CSPB-2L043	IP-6F
MCTR14...-MCTR15...	SR14-560/S	T-8F	SR34-508	T-7F

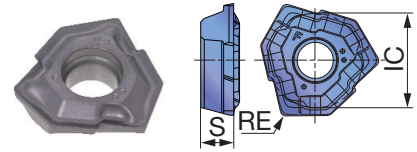
Recommended torque (N·m) for clamping: CSPB-2L043=0.7, SR34-508=0.9, SR14-560/S=1.2, SR10503833L040=1.3

**INSERTS****LOGT-NDJ**

Designation	DCN-DCX	AH725	IC	S	RE
LOGT060204R-NDJ	12	●	7.08	2	0.4

**TOHT-NDJ**

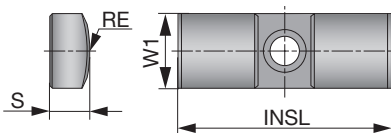
Designation	DCN-DCX	AH725	IC	S	RE
TOHT070304R-NDJ	14, 15	●	7.69	2.3	0.4

**TOHT-NDL**

Designation	DCN-DCX	AH725	IC	S	RE
TOHT070304R-NDL	14, 15	●	7.69	2.3	0.4

## CARBIDE GUIDE PADS

### GP04, 05



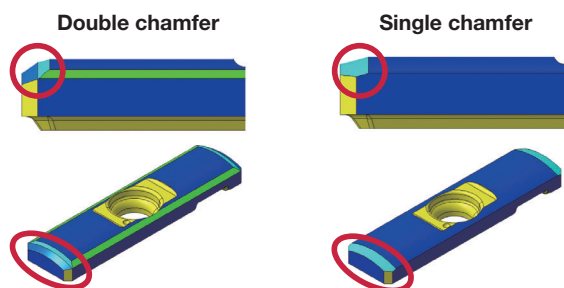
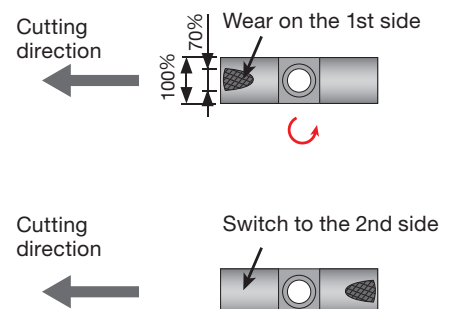
Metric	DC	F1122	F2122	FH3125	FH3135	W1	INSL	S	RE	Chamfer
GP04-055	12	●	▲			4	16	2	5.5	Single
GP04-16-055-DC	12			●	●	4	16	2	5.5	Double
GP05-060	14, 15	●	▲			5	18	2.5	6	Single
GP05-18-060-DC	14, 15			●	●	5	18	2.5	6	Double

●: Line-up  
▲: To be discontinued  
Package quantity = 5 pcs.

### Guide pad grade and the timing for replacement

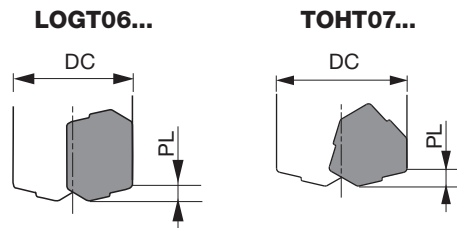
Guide pads are subject to wear, like inserts.

- The guide pad has two sides.
- Each guide pad can be used on two sides. When the first corner wears out to 70% of the width, reverse the guide pad to use the second side.
- Replace with a new guide pad when the second side wears out.



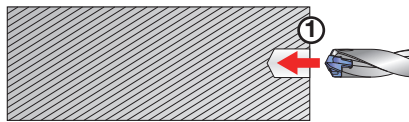
## BLIND HOLE SHAPES OF THE HOLE BOTTOM

DC	Insert	Maximum difference PL
12 - 13.99	LOGT06	1.8
14 - 15.99	TOHT07	2

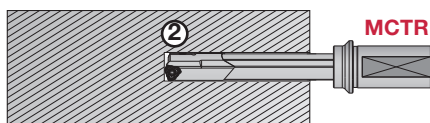


## HOW TO USE A MCTR (&gt; 25xD) DRILL ON A MACHINING CENTER OR HORIZONTAL BORING MACHINE

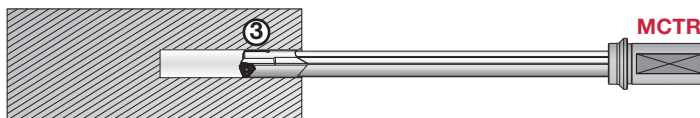
MCTR drill of over 25xD on a conventional machining center or horizontal boring machine with no drill guide or anti-whip bushings that support the tool along its entire length, observe the following instructions to prevent the drill from "whipping" during machining.



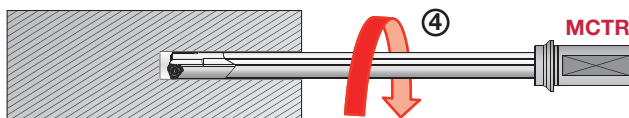
① Drill a pilot hole



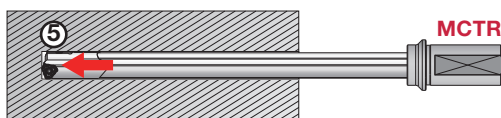
② Use an MCTR drill of  $\leq 25xD$  to make the pilot hole deeper as possible.



③ Start with a low drill revolution and low penetration rate as the MCTR (> 25xD) drill enters the pilot hole.  
No. of revolution:  $n = 50 - 100 \text{ min}^{-1}$   
Feed speed:  $V_f = 100 - 300 \text{ mm/min}$



④ When drill reaches all the way to the end of the pilot hole, increase drill rotation at full machining speed.



⑤ Start feeding to complete the drilling

**(Caution)**

**Do NOT skip Step ②. The gun drill will whip during machining, which may lead to drill breakage and a possible personal injury.**

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To see this product in action visit:

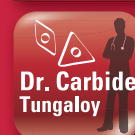
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