T-FORCE

40MM HELICAL CUTTING EDGE

FOR LARGER PART MACHINING IN THE WIND POWER, SHIPBUILDING AND POWER PLANT INDUSTRTIES

Insert Styles:
LNMM

Holder:
2PLLNR/L - 1-1/4" and 2" Shanks

Feed Rates:
.028~.059

Grades:
TT8125
TT7100

Ingersoll has now introduced its helix-type 40mm T-Force turning insert for smooth cutting and enhanced productivity when large part machining on medium-powered machines.
The helix-type HX chipbreaker with 40mm cutting edges enables smooth cutting at depths of up to 32mm. Moreover, the innovative insert can demonstrate stable chip breaking to enhance productivity without increasing the load on the machine tool. With an 80 degree corner angle, the insert enables simultaneous facing and external turning with no residual marks at the end of the part.
This new T-Force system not only achieves simple and strong clamping with its double lever geometry, it also demonstrates longer tool life and stabilized operation. This is attained with minimized chatter and improved chip removal.

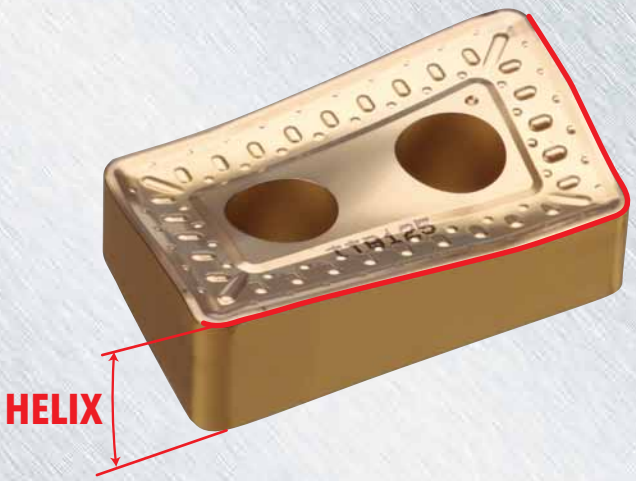
Member IMC Group
Ingersoll Cutting Tools

T-FORCE

Features

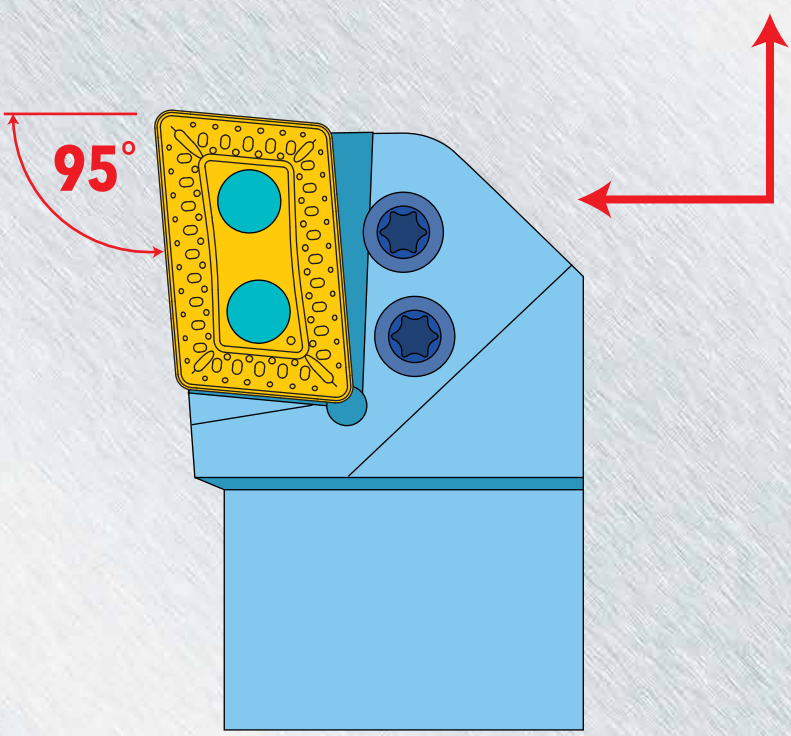
- **High helix cutting edge**

√ Double lever clamping for maximum stability
√ Unique geometry provides low cutting forces
√ 40mm cutting edge allows cutting depths up to 1.25"
√ Suitable for low to medium powered machines
√ Facing and external turning
√ Available in left hand and right hand



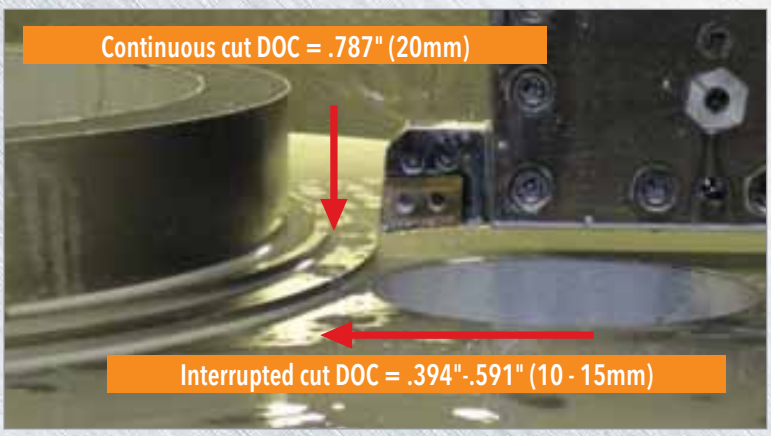
- **Versatile usage**

√ 80 degree corner angle allows it to be used in the same manner as CNMG/CNMM inserts
√ 95 degree entrance angle allows facing and external machining



Application 1

* Cutting condition : V=150sfm (45m/min), f = .020ipr (0.5mm/rev)
Test insert: LNMM 401224 R-HX / Material: Ductile Cast Iron



Current insert : CNMM 866 (2 passes)
Tested Insert : LNMM 401224 R-HX (1 pass at full depth of cut)

- The cutting forces of the HX insert are 15% lower than the ISO insert
- Cycle times reduced by 50% (2 passes → 1 pass)

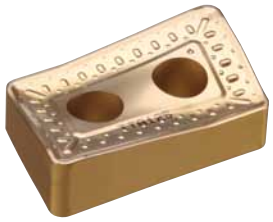
Application 2

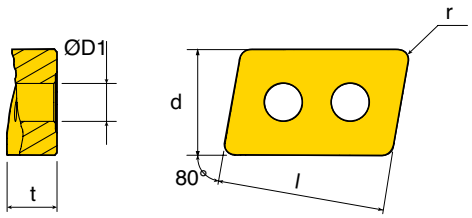
* Cutting condition : V=260sfm (80m/mim), f = 1.0 (mm/rev)
Test insert: LNMM 401224 R-HX / Material: Alloy Steel

Current insert : CNMM 866 – 4 passes (External)
Tested Insert : LNMM 401224 R-HX - 2 passes

- The HX helical insert has a cutting force 15% to 20% lower than the ISO insert
- Machining process reduced by 50% (4 passes → 2 passes)

LNMM HX

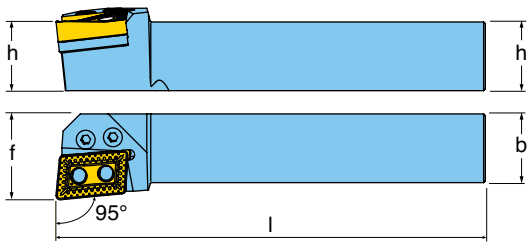




ANSI Number	ISO Number	feed (ipr)	DOC (inch)	Dimensions (inch)					Grade		
				d	l	t	r	D1		TT8125	TT7100
LNMM 401224R/L-HX	LNMM 401224R/L-HX	.028-.059	.236-1.260	1.00	1.574	.472	.094	.360		●	●

● = P ● = M ● = K ● = N ● = S ○ = H

2PLLNR/L



Designation	Dimension (inches) h	b	l	f	Insert	Lever	Screw	Shim	Shim Pin	Wrench
2PLLNR/L 24-4012-10	1.50	1.50	10.0	2.00	LNMM 401224R/L-HX	LCL 8	LCS 8-L39	LN 4025-T6.35 R/L	LSP 8	L-W 5
2PLLNR/L 32-4012-12	2.00	2.00	12.0	2.35	LNMM 401224R/L-HX	LCL 8	LCS 8-L39	LN 4025-T6.35 R/L	LSP 8	L-W 5

Availability
In stock

Price
Available in the GAL system