



WINSFEED

WIN/GROOVE

SMALL HOLE INTERNAL GROOVING
INSERT & HOLDERS

SMALL HOLE INTERNAL GROOVING INSERT LINE

- Improved economy compared to solid carbide tools •*
- Unique inclined clamping system •*
- Small bore internal grooving and internal bottom grooving •*
- Excellent machining performance •*
- Smooth chip evacuation •*
- Increased tool life •*



Product Overview

WinGroove for the small hole internal grooving line.

Ingersoll has responded to the growing demand in the miniature market for miniature inserts and dedicated holders with grooving capability in the 6-8 mm smaller diameter range.

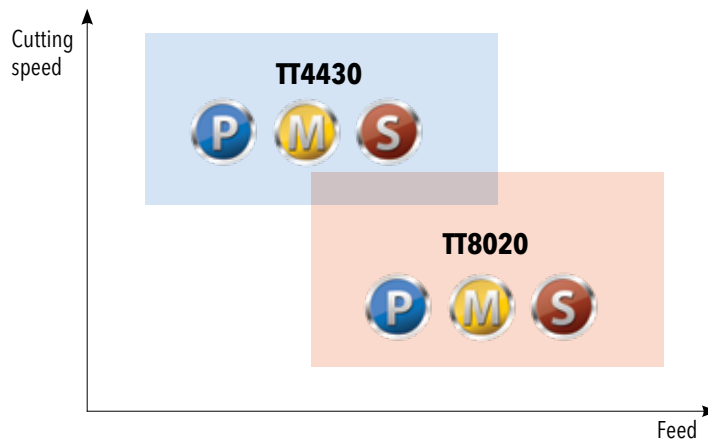
Excellent machining performance is the result of the stronger clamping stemming from the inclined, wide contact surface design of the **TMIR/L** inserts and **TMIHR/L** holders. Additionally, the inclined clamping structure offers one further advantage, sufficient space for smooth chip evacuation.

Along with steel holders capable of 2xD depths machining, we also offer carbide brazed holders capable of deep internal grooving up to 4xD. Tool holders include internal coolant for improved tool life and facilitates optimal chip evacuation.



Application Range

- Available in two grades: **TT4430** and **TT8020**



Technical Features

- Carbide brazed holders available for deep hole grooving

- Steel holders



- Carbide brazed holders

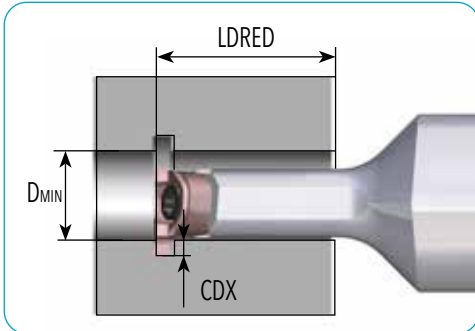


- Increased tool life due to the pinpointed coolant flow to the cutting edge



Technical Features

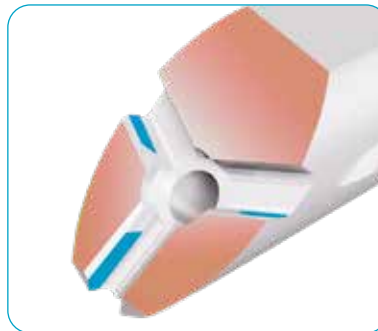
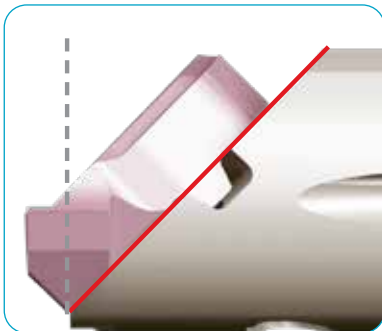
- Improved economy compared to solid carbide tools with no setup needed
- Capable of small bore internal grooving and internal bottom grooving



Insert	D _{MIN}	CDX	LDRED
TMIR/L 6	6.0	max. 1.0	max. 24
TMIR/L 8	8.0	max. 1.5	max. 32

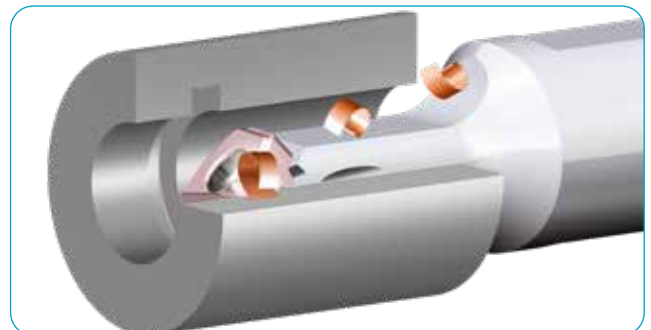
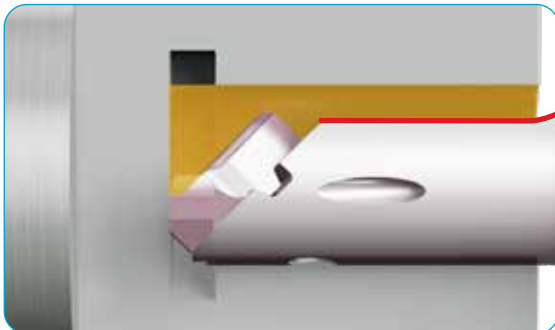
Unique inclined clamping system

- Insert's wider contact area design enables excellent machining performance



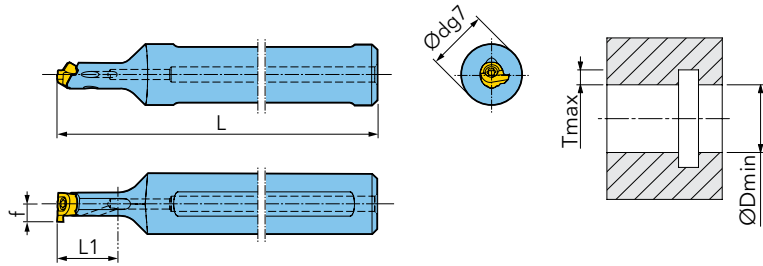
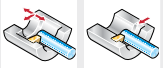
- 3-point contact**
 - Insert movement during operation eliminated
- Wider contact face**
 - Stable machining in both grooving and turning

- Tool's efficient design allows for excellent chip evacuation



WINGROOVE TMIHL/R

INTERNAL HOLDERS FOR FLAT GROOVING WITH COOLANT SUPPLY AND SMALL DIAMETERS

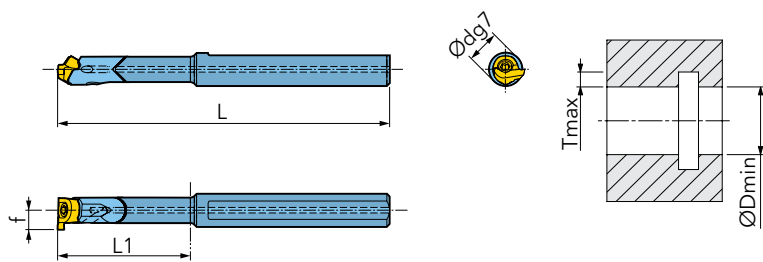
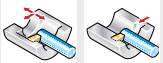


Designation	D min.	d	L	L1	f	insert-S	kg	IK	①	②
TMIHL 12-12-6	6	12	80	12	3,5	6	0,07	✓	TS 18049/HG-P	T 6P
TMIHL 12-16-8	8	12	80	16	4,7	8	0,07	✓	TS 20055I	T 6
TMIHR 12-12-6	6	12	80	12	3,5	6	0,07	✓	TS 18049/HG-P	T 6P
TMIHR 12-16-8	8	12	80	16	4,7	8	0,07	✓	TS 20055I	T 6

① = insert screw ② = wrench

WINGROOVE TMIHL/R -C

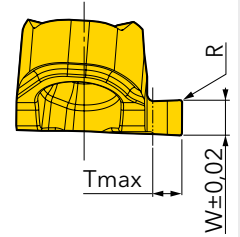
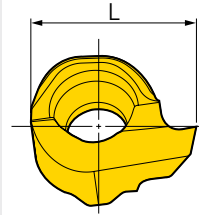
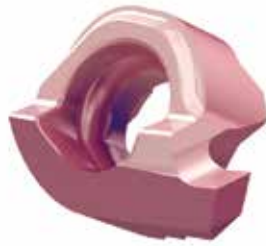
SOLID CARBIDE HOLDERS FOR FLAT GROOVING WITH COOLANT SUPPLY AND SMALL DIAMETERS



Designation	D min.	d	L	L1	f	insert-S	kg	IK	①	②
TMIHL 06C-18-6	6	6	54	18	3,5	6	0,13	✓	TS 18049/HG-P	T 6P
TMIHL 06C-24-6	6	6	60	24	3,5	6	0,13	✓	TS 18049/HG-P	T 6P
TMIHL 12C-24-8	8	12	92	24	4,7	8	0,13	✓	TS 20055I	T 6
TMIHL 12C-32-8	8	12	100	32	4,7	8	0,13	✓	TS 20055I	T 6
TMIHR 06C-18-6	6	6	54	18	3,5	6	0,13	✓	TS 18049/HG-P	T 6P
TMIHR 06C-24-6	6	6	60	24	3,5	6	0,13	✓	TS 18049/HG-P	T 6P
TMIHR 12C-24-8	8	12	92	24	4,7	8	0,13	✓	TS 20055I	T 6
TMIHR 12C-32-8	8	12	100	32	4,7	8	0,13	✓	TS 20055I	T 6

① = insert screw ② = wrench

PRECISE GROOVING INSERTS FOR FLAT INTERNAL GROOVING AND SMALL DIAMETERS



Designation	Z	R	L	W ± 0,02	Tmax	insert-S	Grade	
							TT4430	TT8020
TMIL 6-0.50-0.00	1	0,00	5,7	0,50	0,5	6		
TMIL 6-1.00-0.00	1	0,00	5,7	1,00	1,0	6		
TMIL 6-1.20-0.05	1	0,05	5,7	1,20	1,0	6		
TMIL 8-0.50-0.00	1	0,00	7,4	0,50	0,7	8		
TMIL 8-1.00-0.00	1	0,00	7,4	1,00	1,5	8		
TMIL 8-1.50-0.05	1	0,05	7,4	1,50	1,5	8		
TMIL 8-2.00-0.10	1	0,10	7,4	2,00	1,5	8		
TMIR 6-0.50-0.00	1	0,00	5,7	0,50	0,5	6		
TMIR 6-1.00-0.00	1	0,00	5,7	1,00	1,0	6		
TMIR 6-1.20-0.05	1	0,05	5,7	1,20	1,0	6		
TMIR 8-0.50-0.00	1	0,00	7,4	0,50	0,7	8		
TMIR 8-1.00-0.00	1	0,00	7,4	1,00	1,5	8		
TMIR 8-1.50-0.05	1	0,05	7,4	1,50	1,5	8		
TMIR 8-2.00-0.10	1	0,10	7,4	2,00	1,5	8		

● = P ● = M ● = K ● = N ● = S ○ = H

Ingersoll Cutting Tools

Marketing & Technology

Germany

Ingersoll Werkzeuge GmbH

Kalteiche-Ring 21-25

35708 Haiger, Germany

Phone: +49 2773 742-0

Email: info@ingersoll-imc.de

Internet: www.ingersoll-imc.de

France

Ingersoll France

22, rue Albert Einstein

F-77420 CHAMPS-sur-MARNE

Téléphone: +33 164684536

E-Mail: info@ingersoll-imc.fr

Site web: www.ingersoll-imc.fr



www.ingersoll-imc.de

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