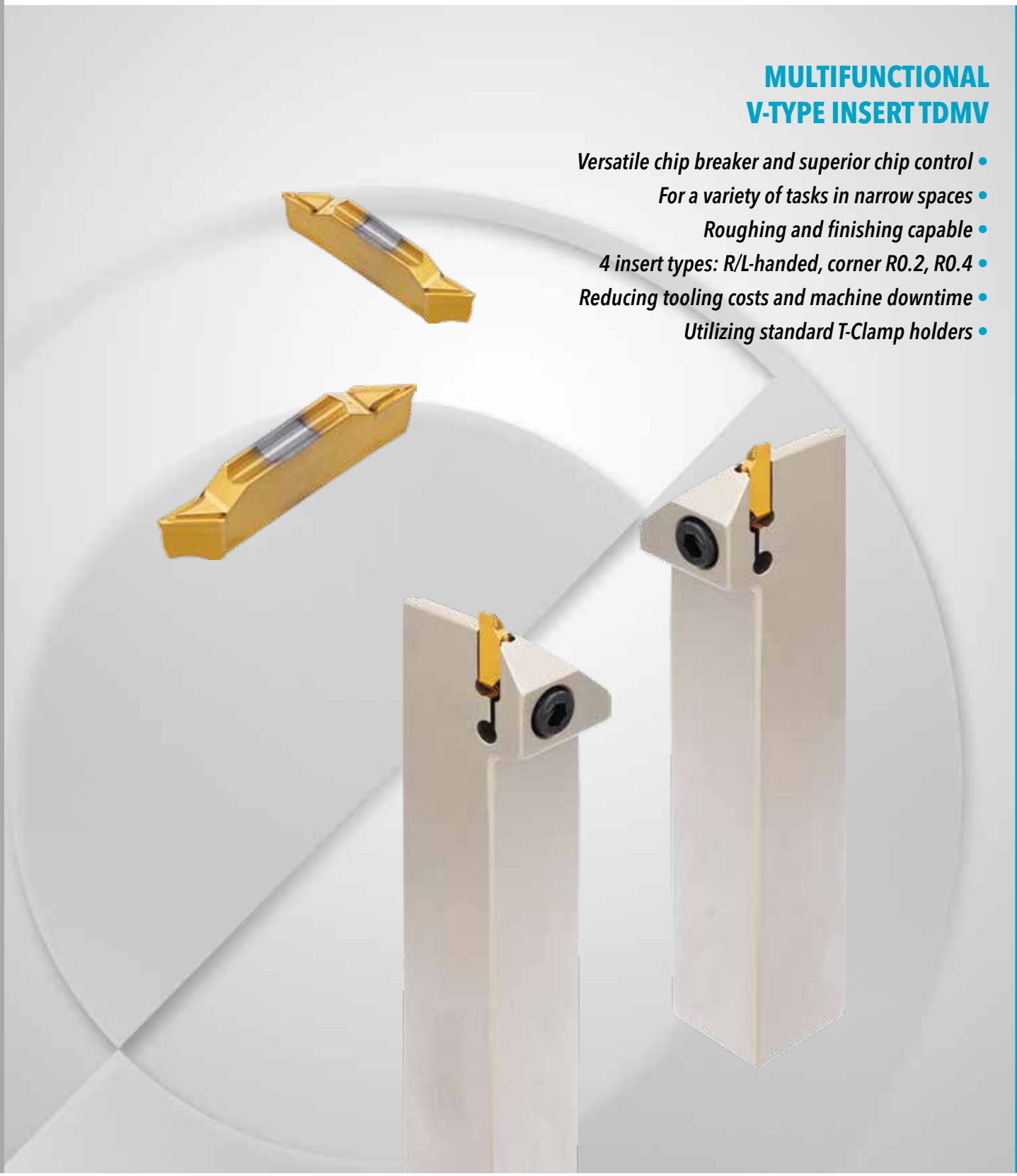
NEW

Member IMC Group
Ingersoll
Cutting Tools

WINSFEED

TCLAMP VT
MULTIFUNCTIONAL
V-TYPE INSERT TDMV



MULTIFUNCTIONAL V-TYPE INSERT TDMV

- *Versatile chip breaker and superior chip control*
- *For a variety of tasks in narrow spaces*
- *Roughing and finishing capable*
- *4 insert types: R/L-handed, corner R0.2, R0.4*
- *Reducing tooling costs and machine downtime*
- *Utilizing standard T-Clamp holders*

No. T361 E / 2-2023 / 2

Product Overview

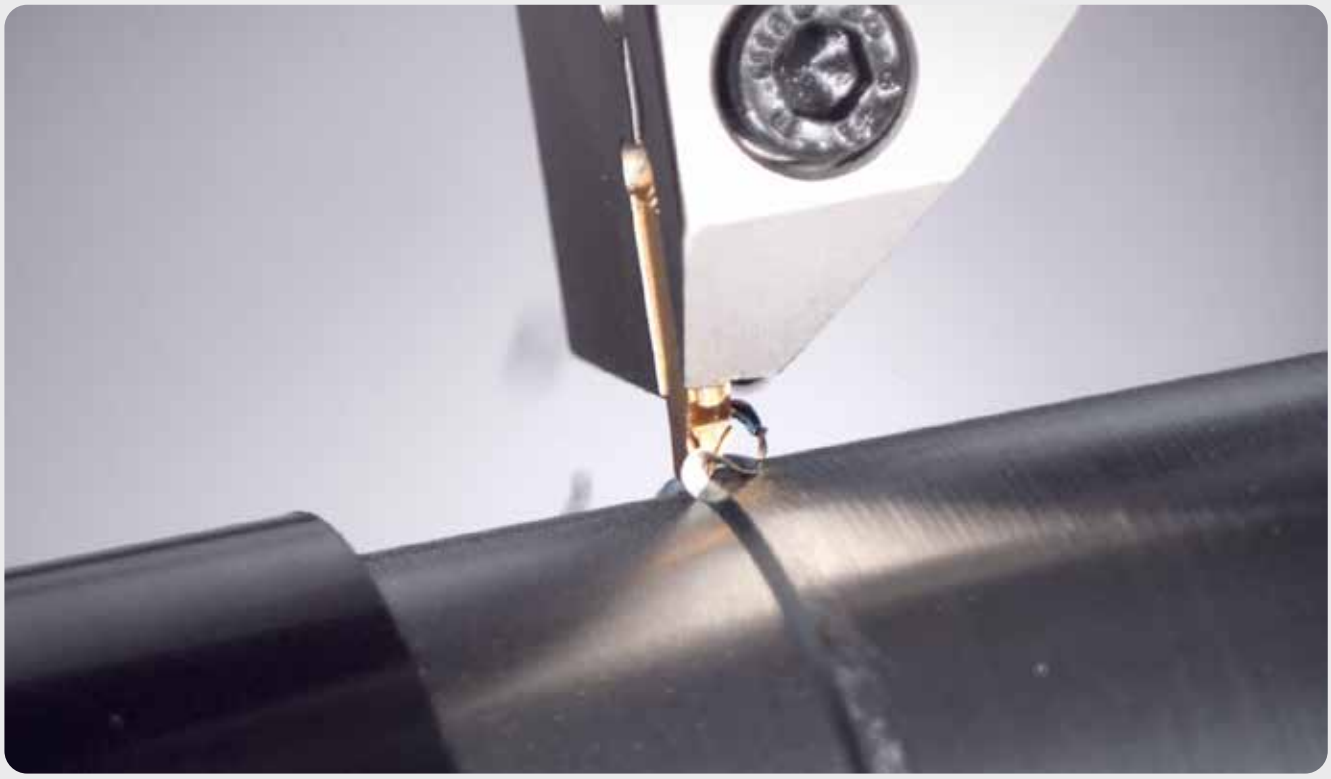
New V-type T-CLAMP insert that maximizes productivity by minimizing tool change through multifunctional machining.

In addition to operating on narrow grooving on typical CNC lathes, the new V-shaped TDMV inserts are suitable with a wide range of applications on Swiss automatic lathes, with a concentration on miniature product machining.

The V-shaped TDMV insert line is a multipurpose option and the optimal tool for innovation in the groove machining segment in order to meet various customers' needs.

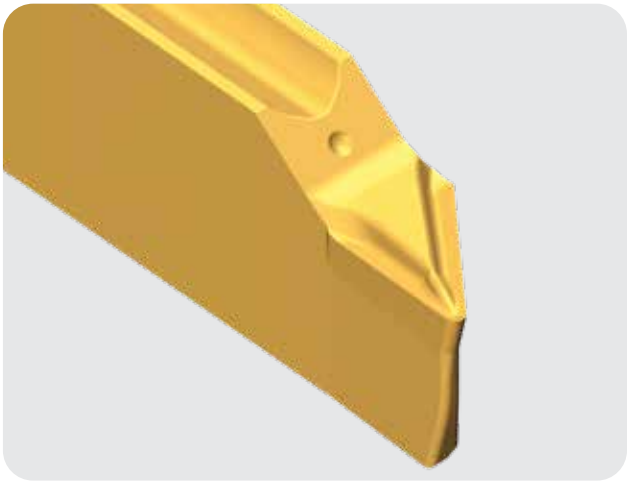
Technical Features & Advantages

- Versatile chip breaker: forward/backward turning, profiling, end facing and parting
- Optimized chip breaker design for bi-directional turning enables superior chip control
- Insert's 2.8 mm edge width allows for a variety of tasks in narrow spaces
- Roughing and finishing capable with a cutting depth of up to 2.5 mm
- Available in 4 insert types: R/L-handed, corner R0.2, R0.4
- Multi-application machining reduces tool cost and equipment downtime while maximizing productivity gains
- Compatible with standard holders, maximizing performance when using internal high-pressure feed-type holders

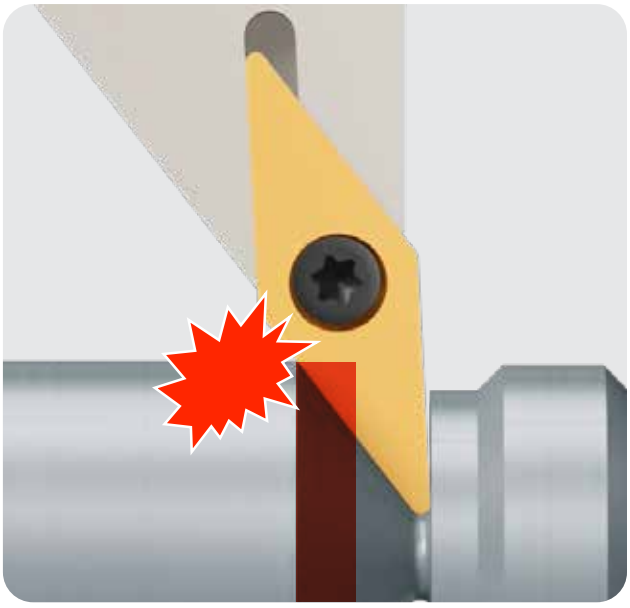


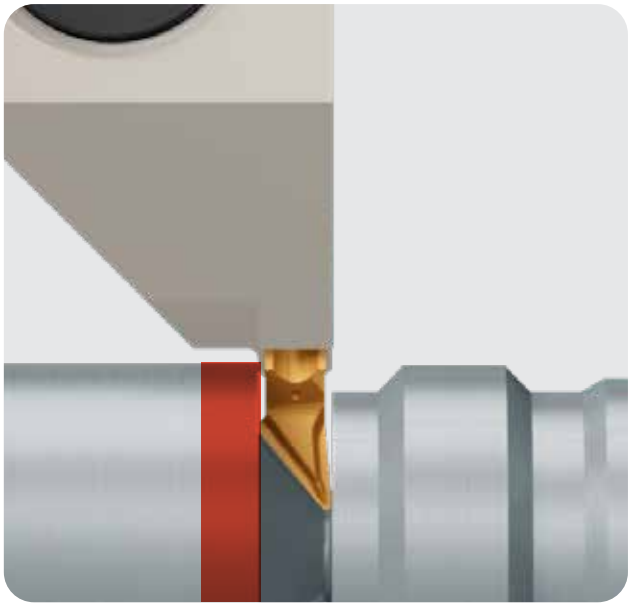
Technical Features

V-shape geometry and optimized chip breaker for excellent chip control in bi-directional turning

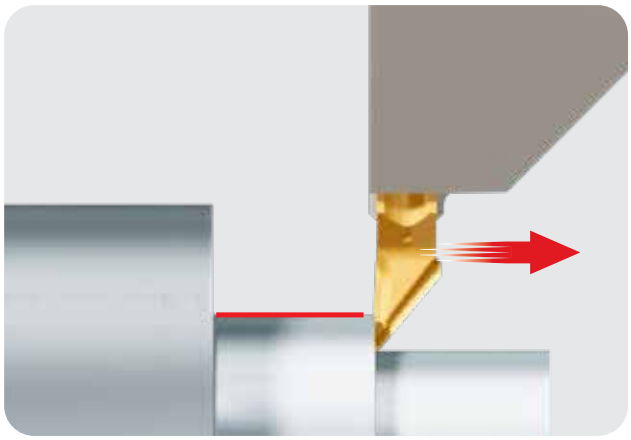


2.8 mm width of cut inserts for interference-free machining in confined areas when compared to conventional ISO V-type inserts

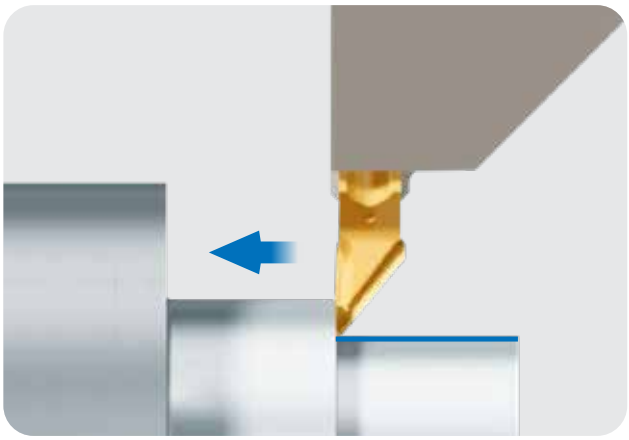




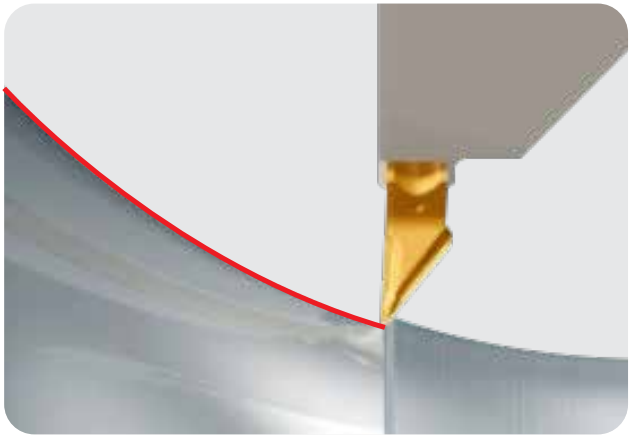
Various Applications



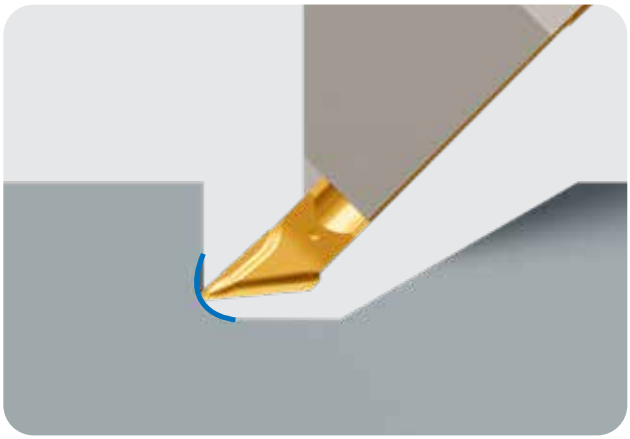
Backward turning



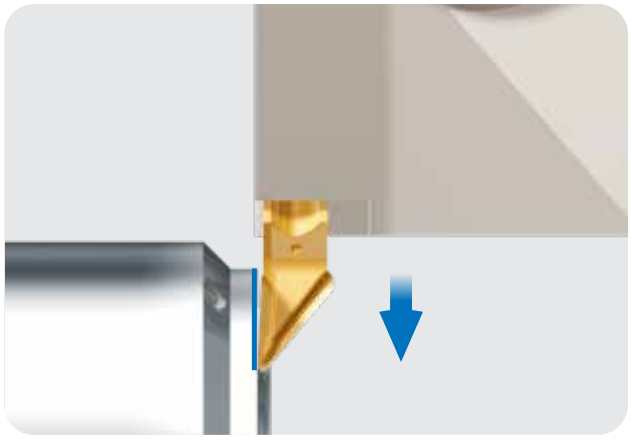
Forward turning



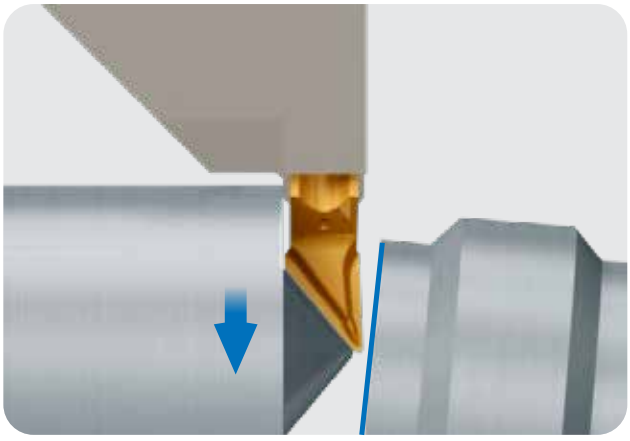
Profiling



Undercutting



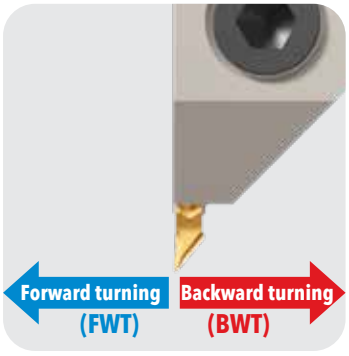
Facing

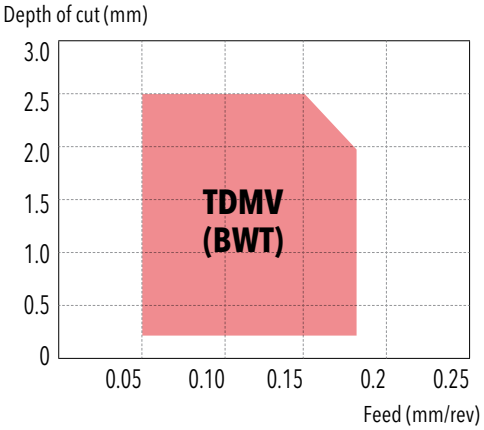


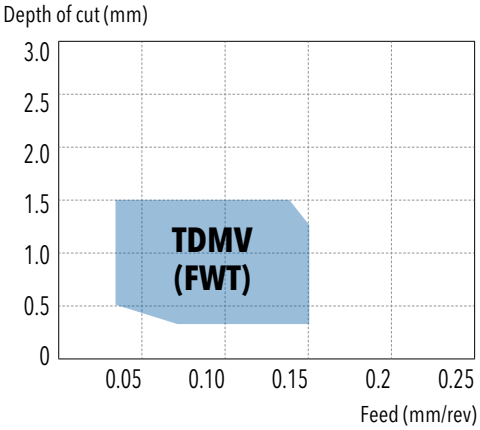
Parting

Recommended Application Range

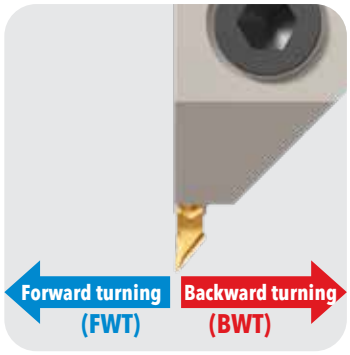
TDMV 2.8E-0.2-R/L

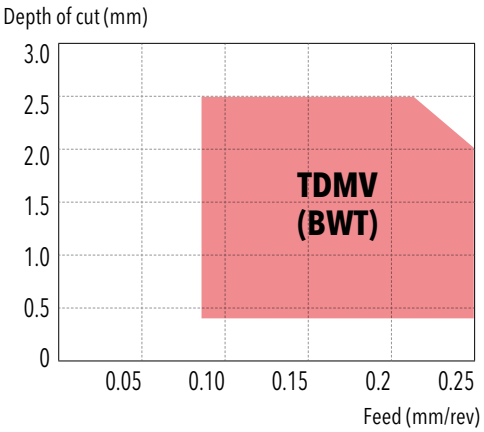


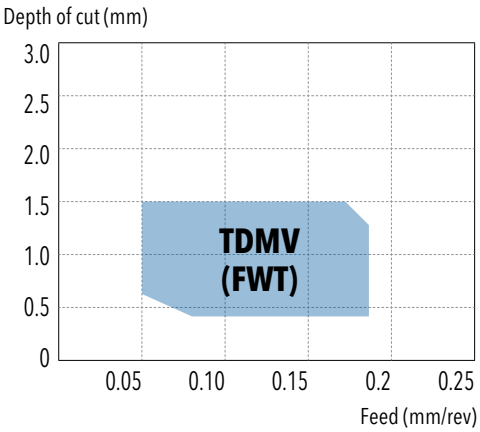




TDMV 2.8E-0.4-R/L





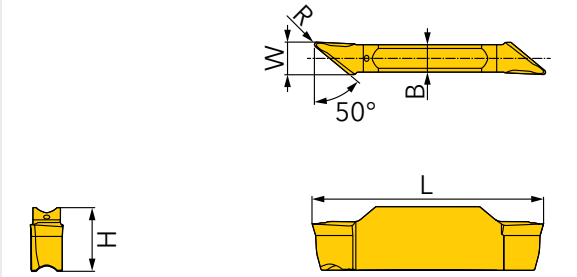


Recommended Cutting Data - Grooving & Turning

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Material No.	Cutting speed Vc (m/min)
							TT9080
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	100 - 200
		≥0.25%C	Annealed	650	190	2	100 - 180
		<0.55%C	Quenched and tempered	850	250	3	80 - 160
		≥0.55%C	Annealed	750	220	4	80 - 160
			Quenched and tempered	1000	300	5	70 - 130
	Low alloy steel and cast steel (less than 5% of alloying elements)		Annealed	600	200	6	100 - 160
			Quenched and tempered	930	275	7	80 - 160
				1000	300	8	80 - 150
				1200	350	9	80 - 130
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	90 - 130
			Quenched and tempered	1100	325	11	50 - 80
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12	80 - 170
			Martensitic	820	240	13	80 - 150
			Austenitic	600	180	14	80 - 170
K	Gray cast iron (GG)		Ferritic	-	160	15	100 - 230
			Pearlitic	-	250	16	90 - 180
	Cast iron nodular (GGG)		Ferritic	-	180	17	150 - 250
			Pearlitic	-	260	18	100 - 230
	Malleable cast iron		Ferritic	-	130	19	90 - 180
			Pearlitic	-	230	20	90 - 180
N	Aluminum - wrought alloy		Not cureable	-	60	21	-
			Cured	-	100	22	-
	Aluminum-cast, alloyed	≤12% Si	Not cureable	-	75	23	-
			Cured	-	90	24	-
		>12% Si	High temp.	-	130	25	-
	Copper alloys	>1% Pb	Free cutting	-	110	26	-
			Brass	-	90	27	-
			Electrolitic copper	-	100	28	-
	Non-metallic		Duroplastics, fiber plastics	-	-	29	-
			Hard rubber	-	-	30	-
S	High temp. alloys	Fe based	Annealed	-	200	31	30 - 50
			Cured	-	280	32	20 - 40
		Ni or Co based	Annealed	-	250	33	20 - 30
			Cured	-	350	34	15 - 20
			Cast	-	320	35	15 - 20
	Titanium, Ti alloys			Rm 400	-	36	130 - 170
			Alpha+beta alloys cured	Rm 1050	-	37	40 - 70
H	Hardened steel		Hardened	-	55HRC	38	-
			Hardened	-	60HRC	39	-
	Chilled cast iron		Cast	-	400	40	-
	Cast iron nodular		Hardened	-	55HRC	41	-

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

MULTI-FUNCTIONAL DOUBLE-SIDE V-TYPE INSERT



Designation	Z	R	B	L	W ± 0,05	Đ	H	insert-S	Grade	TT9080
TDMV 2.8E-0.2-L	2	0,2	2,4	20,0	2,8	50	4,7	3		
TDMV 2.8E-0.4-L	2	0,4	2,4	20,0	2,8	50	4,7	3		
TDMV 2.8E-0.2-R	2	0,2	2,4	20,0	2,8	50	4,7	3		
TDMV 2.8E-0.4-R	2	0,4	2,4	20,0	2,8	50	4,7	3		

- Recommended to use with TGFR/L type holder
- Lower supporter must be modified when using external grooving holders, for example TTER/L type

● = P ● = M ● = K ● = N ● = S ○ = H

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