

NPN

New Product News



POSSTURN
DOUBLE SIDED POSITIVE TURNING

6-Cutting Edge TNMV-BM Inserts and Holders for All-Directional Turning Including High Feed Backward Turning



KEY POINT

TaeguTec has added the 6-corner TNMV inserts with holders to the all-directional turning POS-S-TURN line.

The new POS-S-TURN's 6-corner negative TNMV inserts and holders provide high productivity multidirectional turning without replacing the holder.

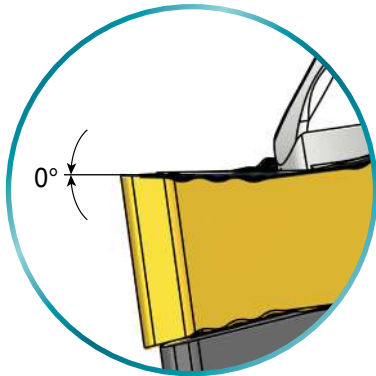
The outstanding high feed feature is due to the small entering angle which enables higher productivity for both longitudinal turning and facing in the backward direction with one tool.

Using the same T-HOLDER design, this user-friendly holder has strong clamping force. The insert is available in the BM chip breaker type for general purpose machining of steels. The type is compatible with the TTQNR/L(-TB) holders. For more information, please contact the product manager.

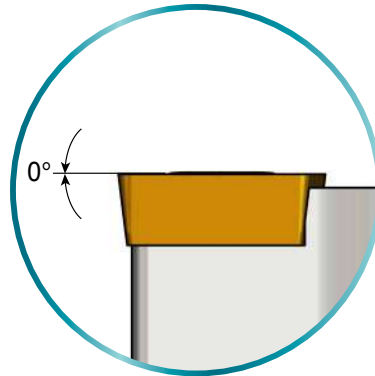
Features

- Optimally designed double-sided 6-corner negative inserts
- The same axial and radial rake angle as the low cutting force standard positive insert when mounted to the holders
- Serrated cutting edge enables excellent chip control in variable depth of cut operations
- Multidirectional turning and multiple applications including backward and forward longitudinal turning and facing without exchanging the tool holder
 - Higher productivity due to reduced down time and reduced holder inventory
- High feed, backward longitudinal and facing solution that maximizes productivity
(Maximum feed rate = 1.2 mm/rev)
- When forward machining with TNMV inserts, the maximum depth of cut is 3.5 mm
(similar to the CNMG type)
- The same T-HOLDER's simple clamping operation and strong clamping force
- High-pressure coolant supplying COOL-BURST holders are available as standard holders

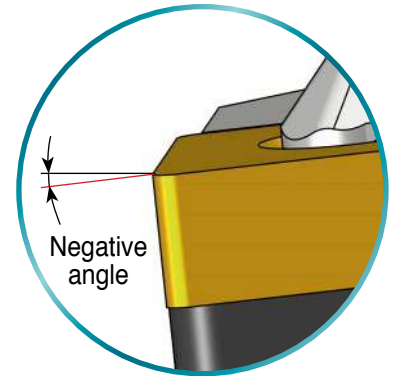
Same standard positive insert's cutting edge angle when mounted to the holder



TNMV insert's cutting edge angle

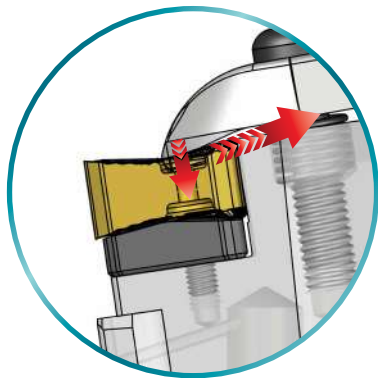


Standard positive insert's cutting edge angle

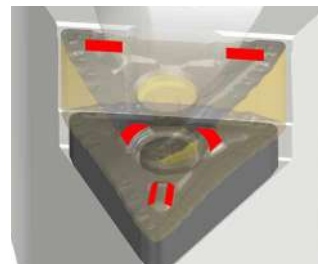
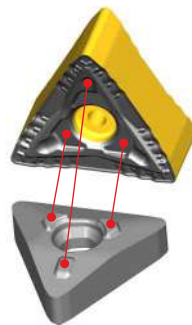
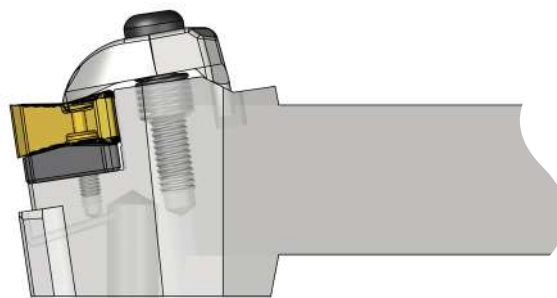


Cutting edge angle of a standard negative insert

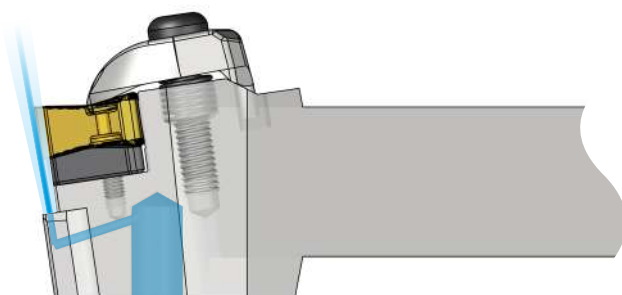
T-HOLDER clamping and unique assembly design



Strong 2 directional clamping force


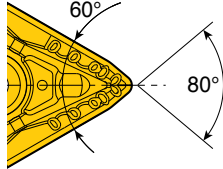
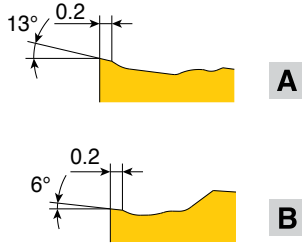


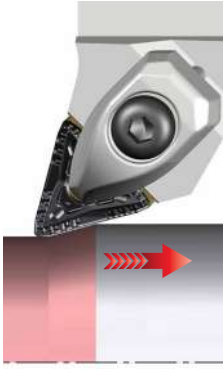
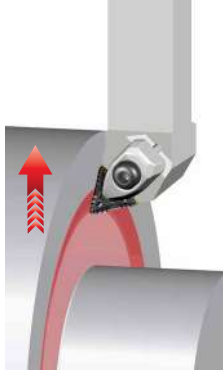
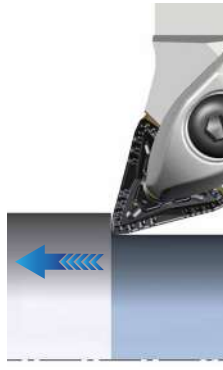

COOL-BURST high pressure coolant supply holder



Stable and long tool life

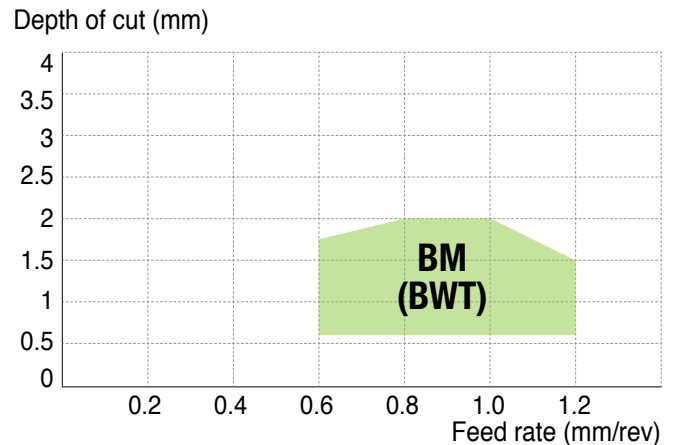
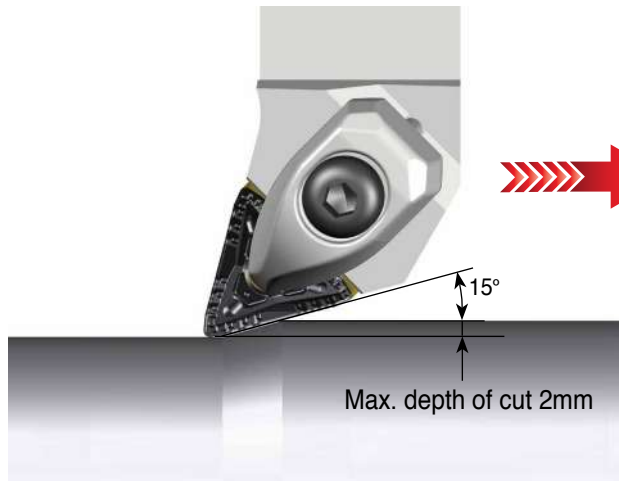
TNMV-BM insert geometry

Chip breaker	Cutting edge geometry	
 <p>For general purpose steel machining</p>		

Applications					
		Backward turning (BWT)	Backward facing (BWF)	Forward turning (FWT)	Forward facing (FWF)
Feed rate f (mm/rev)	Minimum	0.6	0.6	0.2	0.2
	Recommended	1.0	1.0	0.3	0.3
	Maximum	1.2	1.2	0.6	0.6
Depth of cut a_p (mm)	Minimum	0.7	0.7	0.5	0.5
	Recommended	1.5	1.5	2.0	2.0
	Maximum	2.0	2.0	3.5	3.5
Kea (Entering angle)		15°	15°	95°	95°
Rpa (Ramping angle)		12°	12°	12°	12°

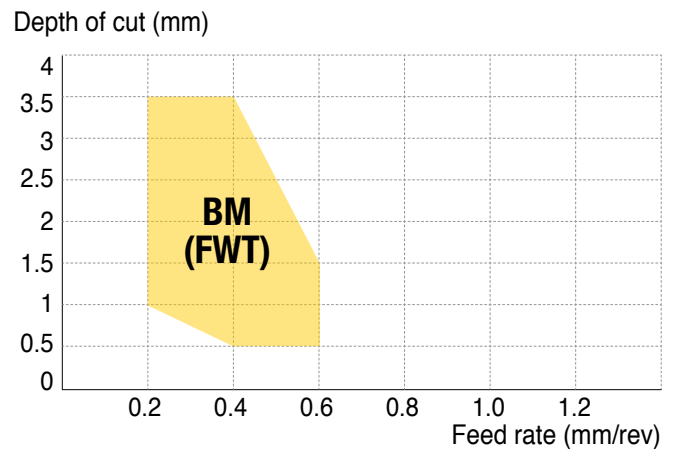
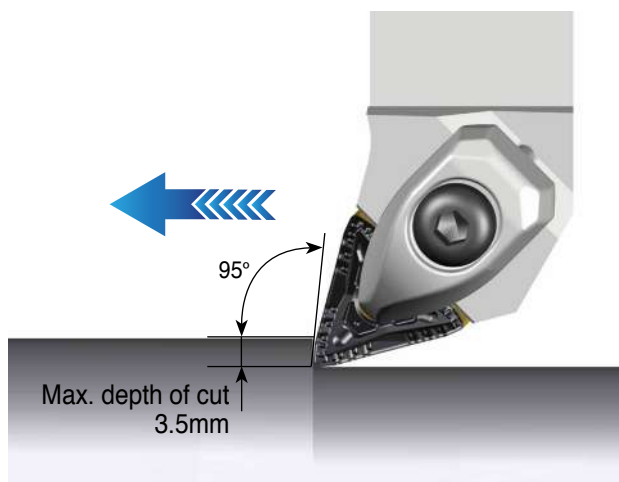
- Capable of high feed turning in BWT and BWF

TTQNL holder's **high feed backward** turning (BWT) and TNMV-BM's chip control range



- Insert: TNMV 210908(3.95.62)-BM
- Cutting speed (V): 200m/min
- Material: SCM 440 (HB230~260)

TTQNL holder's **forward** turning (FWT) and TNMV-BM's chip control range (similar depth of cut to the CNMG type)

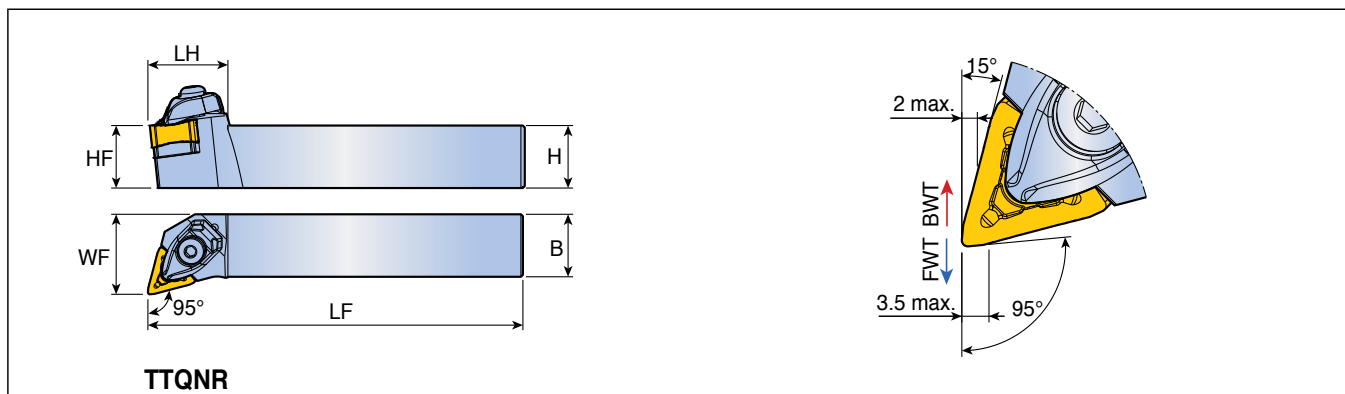


- Insert: TNMV 210908(3.95.62)-BM
- Cutting speed (V): 200m/min
- Material: SCM 440 (HB230~260)

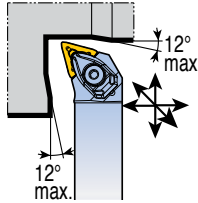
TTQNR/L



T-holders for TNMV inserts



Approach angle	Designation	Dimension (mm)						Insert	
		H	HF	B	LF	LH	WF		
TNMV 15°(BWT) 95°(FWT)	TTQNR/L 2525 M2109	25	25	25	150	32	32	TNMV 2109...	
	3232 P2109	32	32	32	170	32	40		



- BWT: Backward turning
- FWT: Forward turning

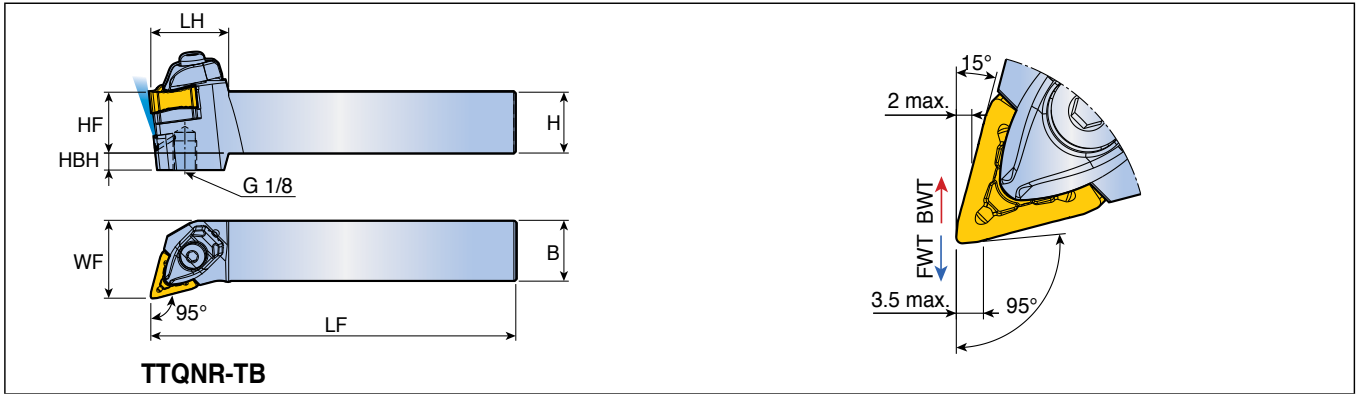
Spare parts

Designation	Clamp	Clamp screw	Spring	Shim	Shim screw	Wrench	
...2109	DLM 4.4T-NV	DLS 5	DSP 5	TSTV 210510	TS 35083I/HG	L-W 4	T 10

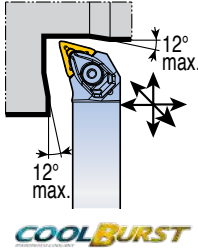
TTQNR/L-TB



T-holders for TNMV inserts with high-pressure coolant



Approach angle	Designation	Dimension (mm)								Insert
		H	HF	B	HBH	LF	LH	WF		
TNMV 15° (BWT) 95° (FWT)	TTQNR/L 2525 M2109-TB	25	25	25	7	150	32	32	TNMV 2109...	
	3232 P2109-TB	32	32	32	-	170	32	40		



- BWT: Backward turning
- FWT: Forward turning

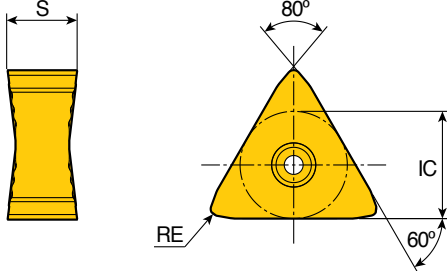
Spare parts

Designation	Clamp	Clamp screw	Spring	Shim	Shim screw	Wrench	
...2109-TB	DLM 4.4T-NV	DLS 5	DSP 5	TSTV 210510	TS 35083I/HG	L-W 4	T 10


TNMV



Negative triangular inserts with 80° corner angle



Size	Dimension (mm)		
	IC	S	RE
21	12.5	9	0.8

Insert	Designation	BWT ⁽¹⁾		FWT ⁽²⁾		CVD coated								PVD coated												
		ap (mm)	Feed (mm/rev)	ap (mm)	Feed (mm/rev)	TT3005	TT7005	TT7015	TT7025	TT8105B	TT8115B	TT8125B	TT8135	TT9215	TT9225	TT9235	TT15100	TT7100	TT5080	TT8020	TT9080	TT3010	TT3020	TT9020		
	TNMV 210908-BM	0.7-2.0	0.6-1.2	0.5-3.5	0.2-0.6						•	•														

• (1) BWT: Backward turning
• (2) FWT: Forward turning

• Standard items