

NPN

New Product News



POSSTURN
DOUBLE SIDED POSITIVE TURNING

70-degree Corner Angle XNMV 1105 Insert for Multidirectional and High Feed Turning Applications



KEY POINT

TaeguTec has expanded the POS-S-TURN line by adding the 70-degree corner angle XNMV 1105 insert for multidirectional and high feed turning applications.

The POS-S-TURN line dramatically improves productivity due to its all-directional and high feed turning capabilities. The XNMV 1105 is a double-sided 4-corner insert with a 70-degree angle. It combines the advantages of the ISO CNMG and DNMG inserts for various machining applications such as external turning, face turning and external profiling.

Highly efficient machining with a maximum 3.5 mm depth of cut in both external forward turning and face turning as well as good chip control.

An additional advantage of the XNMV 1105 insert is its unique high feed backward turning capability. This technologically advanced capability is made possible due to the insert's helical cutting edge that works to reduce cutting forces as well as the insert's lower entering angle – both features greatly contribute towards higher productivity.

In addition, the insert's rigidity is strengthened by its increased thickness while its stability is improved by the insert's wide support surface.

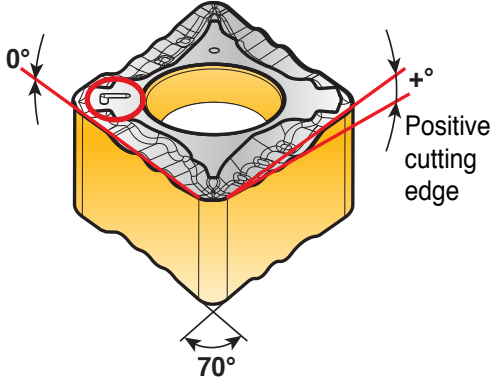
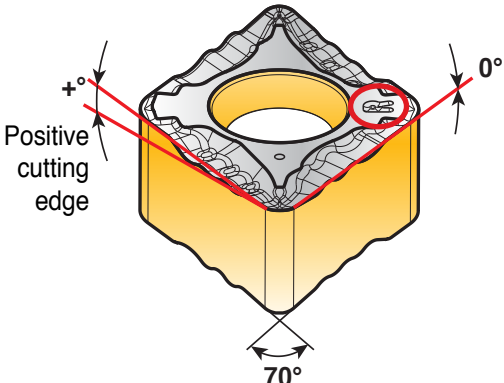
The T-holder's strong clamping mechanism enhances stability, which offers excellence in the mass production of automotive parts. By using the existing TXJNR/L-TB high-pressure coolant holder, customers can expect improved productivity, good tool life and chip control.

Features

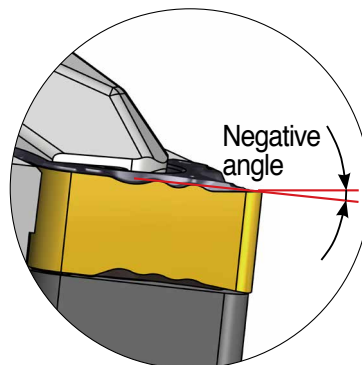
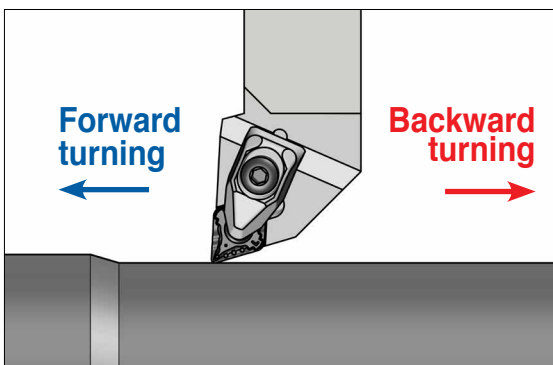
- 4-corner double-sided insert with a 70-degree corner angle
- Unique waved cutting edge provides good chip control even at variable depths of cut
- Reduced set-up and machining time by multidirectional turning with one holder
 - Forward turning and facing: up to 3.5 mm depth of cut
 - Backward turning: high feed machining up to 0.8 mm/rev (high productivity)
 - Capable of profile machining
 - Reduced downtime
- Both forward and backward turning enables the use of the insert's entire cutting edge, resulting in longer tool life.
- Compatible with the existing TXJNR/L... 1105(-TB) holder (-TB: high-pressure coolant type)



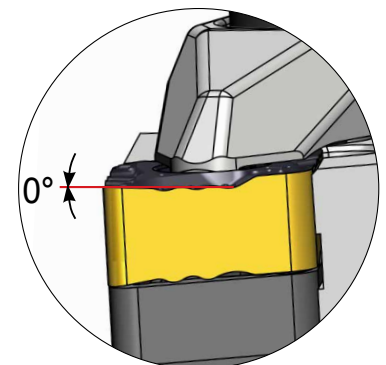
Hand type inserts (70-degree corner angle)

 <p>XNMV 110508L-BM</p>	<p>TXJNL...1105 (-TB) Left hand holder</p> <p>A- T/S/HXUNR...1105 Right hand boring bar</p>
 <p>XNMV 110508R-BM</p>	<p>TXJNR...1105 (-TB) Right hand holder</p> <p>A- T/S/HXUNL...1105 Left hand boring bar</p>

Cutting edge angle on the holder (left hand)

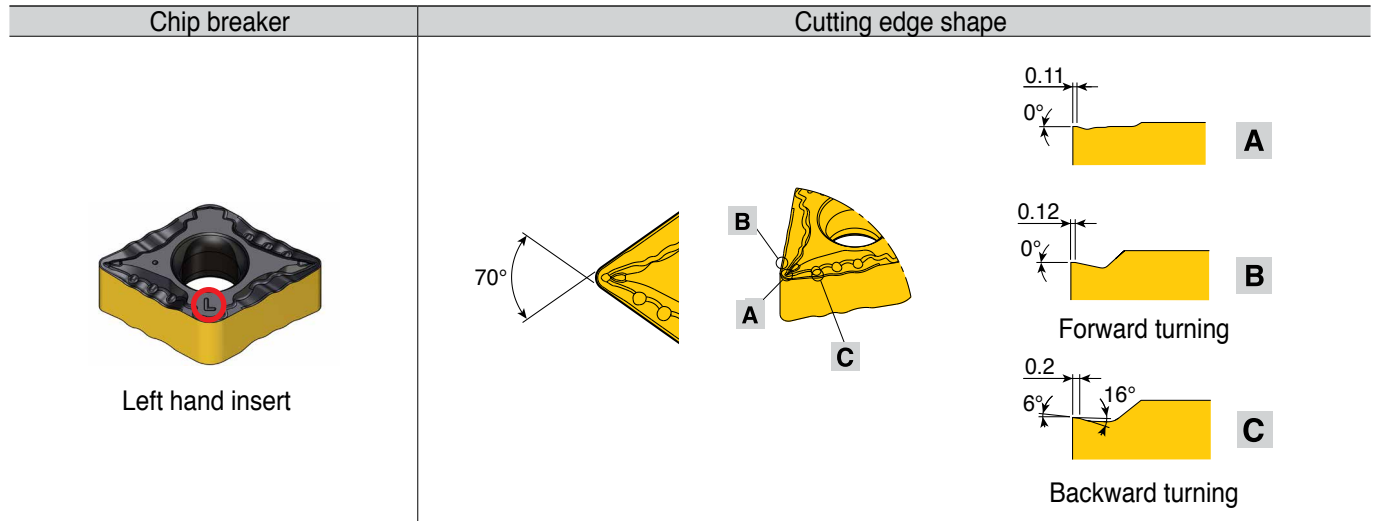


Cutting edge angle for forward turning

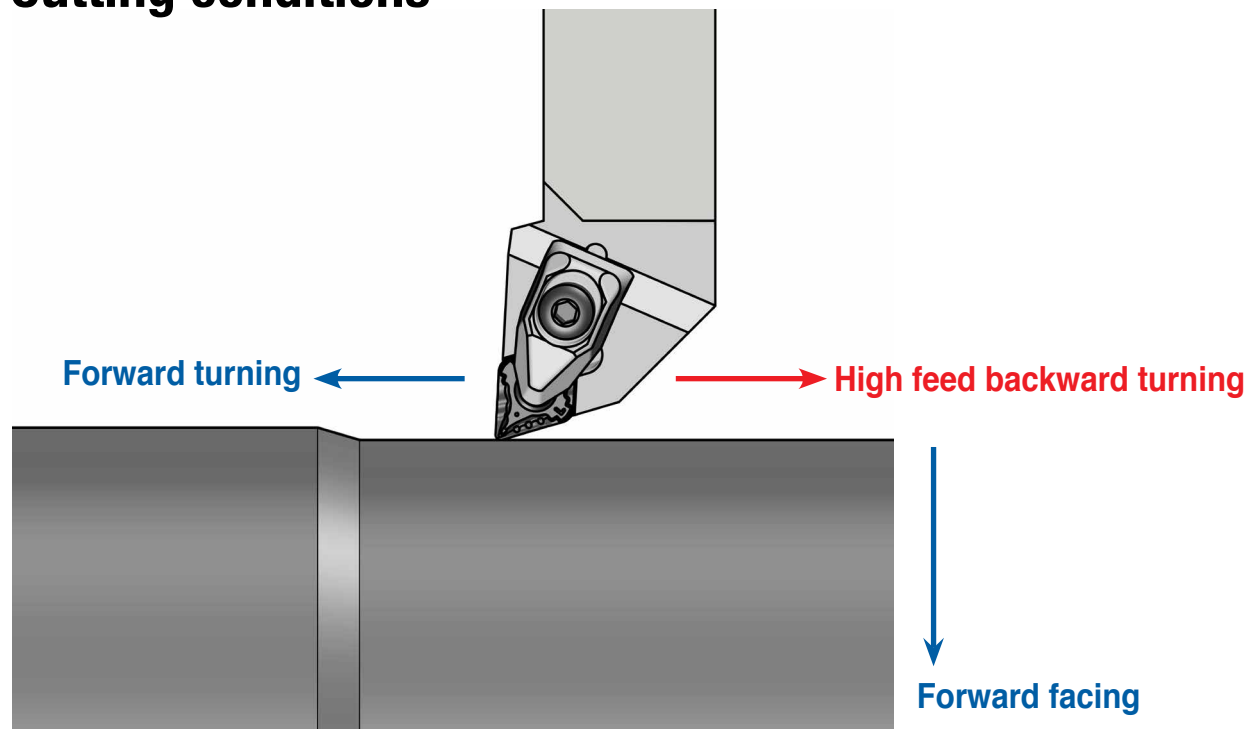


Cutting edge angle for backward turning and forward facing

XNMV chip breaker geometry

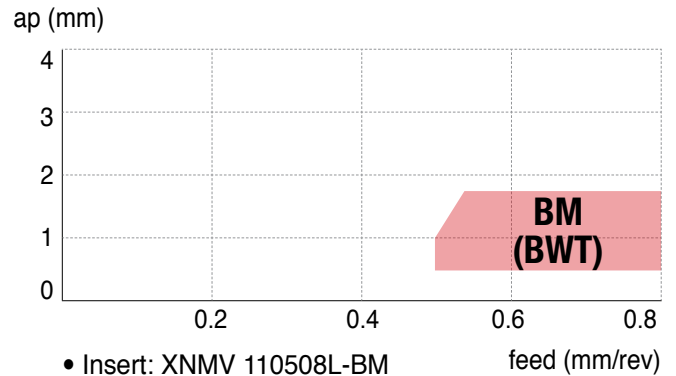
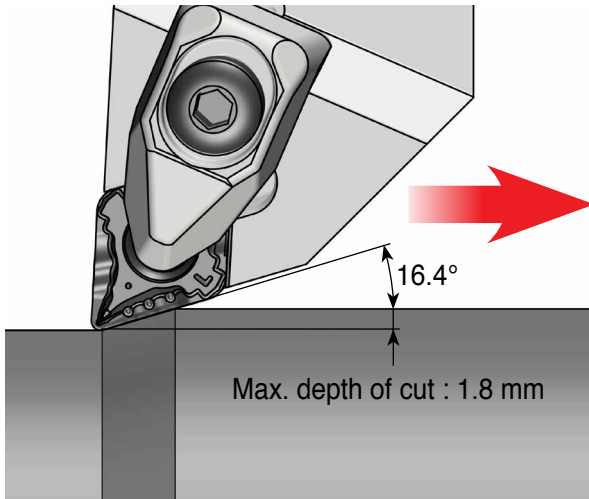


Cutting conditions



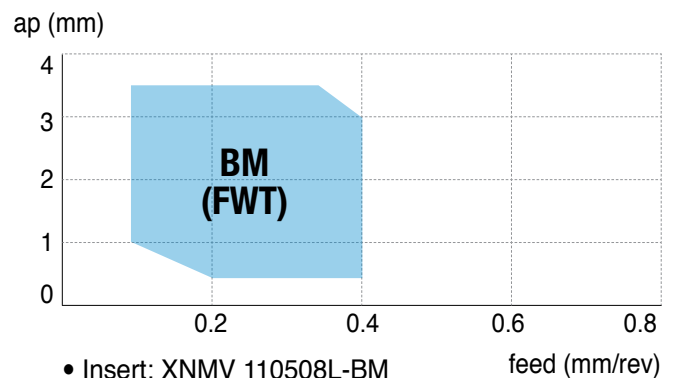
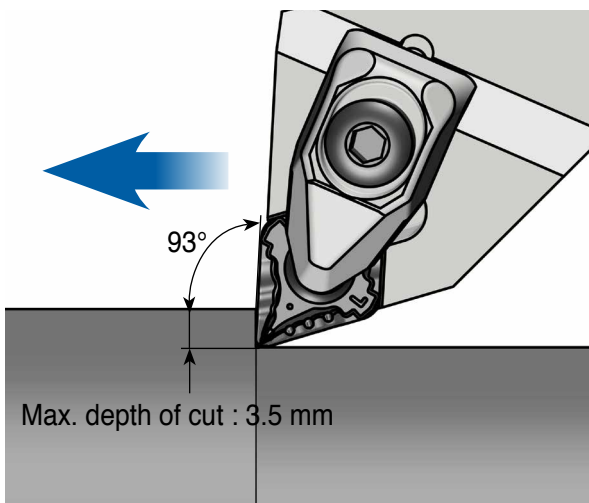
	Backward turning	Forward turning	Forward facing
feed (mm/rev)	0.7 (0.5 - 0.8)	0.25 (0.1 - 0.4)	0.25 (0.1 - 0.4)
ap (mm)	1.2 (0.5 - 1.8)	2.0 (0.5 - 3.5)	2.0 (0.5 - 3.5)

XNMV BM's **Backward turning** chip control range



- Insert: XNMV 110508L-BM
- Cutting speed (V): 200 m/min
- Workpiece: SCM440 (HB230~260)

XNMV BM's **Forward turning** chip control range

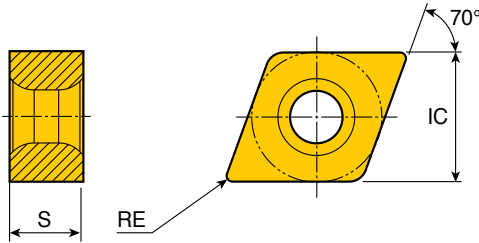


- Insert: XNMV 110508L-BM
- Cutting speed (V): 200 m/min
- Workpiece: SCM440 (HB230~260)

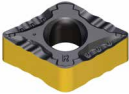
XNMV 1105 BM



Negative 70° rhombic inserts



Size	Dimension (mm)		
	IC	S	RE
11	11.11	5.56	0.8

Insert	Designation	Backward turning		Forward turning		CVD coated	
		ap (mm)	Feed (mm/rev)	ap (mm)	Feed (mm/rev)	TT8115B	TT8125B
	XNMV 110508L-BM	0.5-1.8	0.5-0.8	0.5-3.5	0.1-0.4	●	●
	110508R-BM	0.5-1.8	0.5-0.8	0.5-3.5	0.1-0.4	●	●
Right hand							

- Apply L insert to L holder and R boring bar
- Apply R insert to R holder and L boring bar

●: Standard items