

NPA

New Product Announcement No. 2024-11



RHINO TURN

DNGX-ST Insert for Deep Depth of Cut Machining



KEY POINT

TaeguTec's RHINO-TURN line now includes the DNGX-ST insert for deep depth of cut machining.

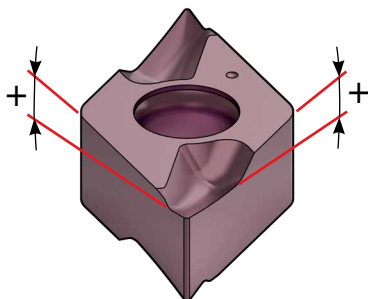
Compatible with RHINO turning holders, the 4-corner negative DNGX-ST insert with a high rake angle designed new chip breaker provides excellent machining performance and stable tool life due to the low cutting force generated during machining. The new chip breaker enables deep depth of cut machining up to 5.0 mm so that the number of required machining paths is reduced, resulting in higher productivity.

For further details, please contact the relevant product manager.

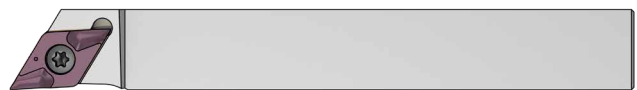
Features

- 4-corner double-sided insert
- 5.0 mm maximum depth of cut
 - Reduced number of machining paths for higher productivity
- **Continuous chip ensures low cutting force and a precise machining dimensions**
- Recommended for use with the servo oscillation function in Swiss type machines
- Higher rake angle design for low cutting force
- Compatible with RHINO turning holders

DNGX-ST insert's hand type



DNGX 130502M-ST-R
Right hand insert

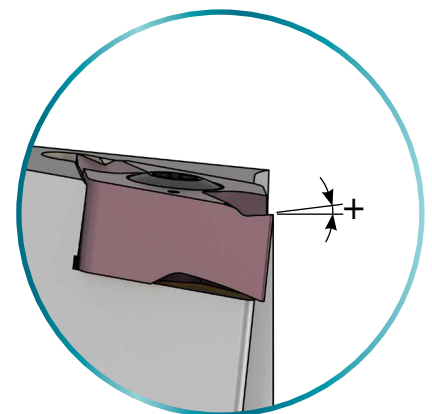
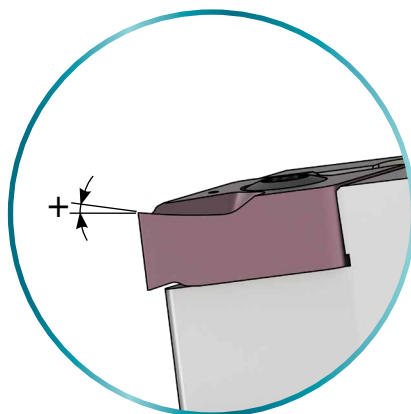
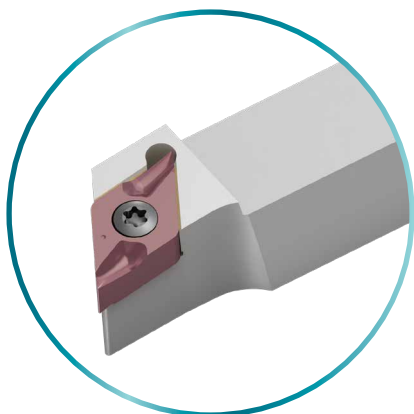


P/S/T/HDJNR...1305(-TB)
Right hand holder

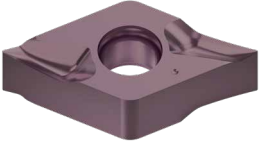
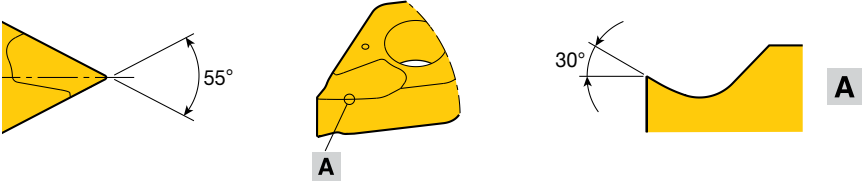


A-T/HDUNL...1305
Left hand boring bar

DNGX-ST cutting edge on the holder

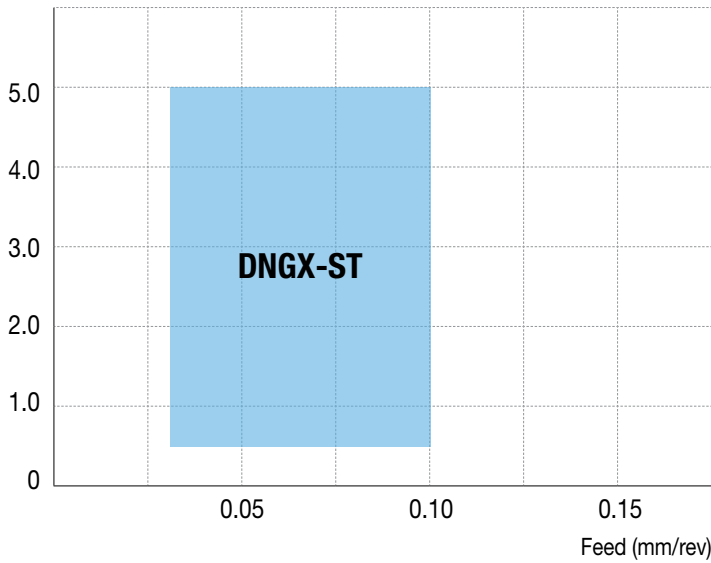


DNGX-ST insert geometry

Chip breaker	Geometry
 <p data-bbox="225 651 400 685">ST: for roughing</p>	

Chip breaker range

















Depth of cut (mm)



- ▶ Insert: DNGX 130502M ST-R-E
- ▶ Cutting speed (V): 125 m/min
- ▶ Material: S45C (HB180-220)

Chip curl by cutting conditions

-Excellent chip control even in deep depths of cut up to 5.0 mm

Material	Carbon Steel (AISI 1045)	Application	Ø20 external turning	RPM	2,000 rpm
ap (mm)	Feed (mm/rev)				
	0.03	0.05	0.08	0.1	
5.0					
3.0					
2.0					
1.0					

Availability

In stock

Price

Available in the GAL system

Sincerely,
TaeguTec

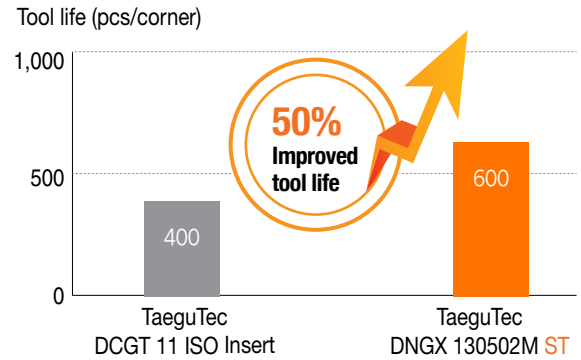


Ok Soo-jin

Turning
Product Manager

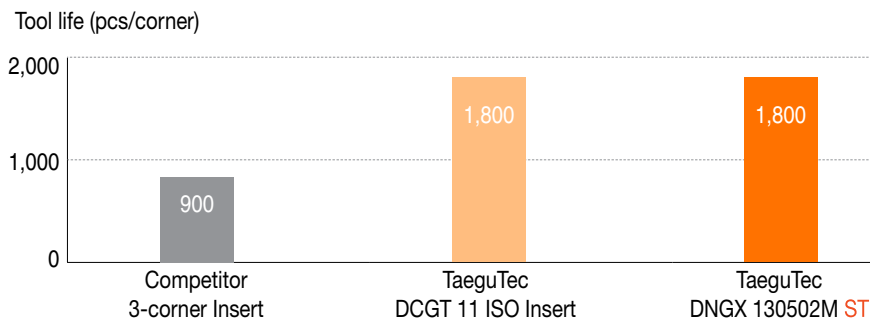
Case study 1

		TaeguTec	TaeguTec
Material		Alloy steel, AISI 4140 (HB235-255)	
Application		Turning	
Insert		DCGT 11 ISO Insert	DNGX 130502M ST
Holder		SDJCR 1616 K11-SH	SDJNR 1616 K1305-RS
Cutting speed	V (m/min)	125	
Feed	f (mm/rev)	0.05	
Depth of cut	ap (mm)	5.0	
Coolant		Wet	
Tool life (pcs/corner)		400	600



Case study 2

		Competitor	TaeguTec	TaeguTec
Material		Stainless steel, AISI 304 (HB160-180)		
Application		Turning		
Insert		3-corner Insert	DCGT 11 ISO Insert	DNGX 130502M ST
Holder		93° approach angle	SDJCR 1616 K11-SH	SDJNR 1616 K1305-RS
Cutting speed	V (m/min)	125		
Feed	f (mm/rev)	0.05		
Depth of cut	ap (mm)	5.0		
Coolant		Wet		
Tool life (pcs/corner)		900	1,800	1,800

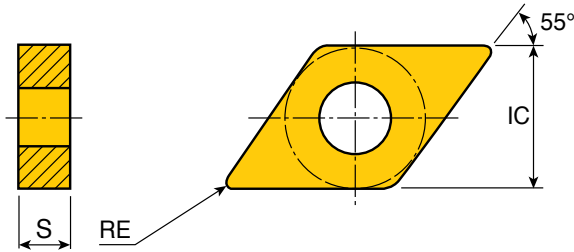


Competitor: 3-corner X 900 = 2,700 ea
 DCGT: 2-corner X 1,800 = 3,600 ea
 DNGX: 4-corner X 1,800 = 7,200 ea

DNGX-ST new



Negative 55° rhombic inserts



Size	Dimension (mm)		
	IC	S	RE
13	11.11	5.56	0.1-0.4

Insert	Designation	ap (mm)	Feed (mm/rev)	Cermet		CVD coated							PVD coated				K10								
				PV3010	CT3000	TT3005	TT7005	TT7015	TT7025	TT8105B	TT8115B	TT8125B	TT8135B	TT9215	TT9225	TT9235		TT5100	TT7100	TT5080	TT3010	TT3020	TT9020	TT4410	TT4430
Roughing For Swiss	DNGX 130501M ST-R-E	0.3-5.0	0.03-0.08																					●	
	130502M ST-R-E	0.5-5.0	0.03-0.10																						●
	130504M ST-R-E	0.7-5.0	0.05-0.12																						●
	130501M ST-R-F	0.3-5.0	0.03-0.08																				●	●	●
	130502M ST-R-F	0.5-5.0	0.03-0.10																				●	●	●
	130504M ST-R-F	0.7-5.0	0.05-0.12																				●	●	●

- ▶ M: Corner radius minus tolerance
- ▶ -R: Right hand insert
- ▶ -E: Micro honing edge
- ▶ -F: Sharp edge

●: Standard items