



Insert Styles & Widths

- **TDT**
 - 3mm
 - 4mm
- **TDXT**
 - 3mm
 - 4mm
 - 5mm
 - 6mm
- **TDXU**
 - 2mm
 - 3mm
 - 4mm
 - 5mm
 - 6mm
 - 8mm
- **TDT-RU (full radius)**
 - 2mm
 - 3mm
 - 4mm
 - 5mm
 - 6mm
 - 8mm



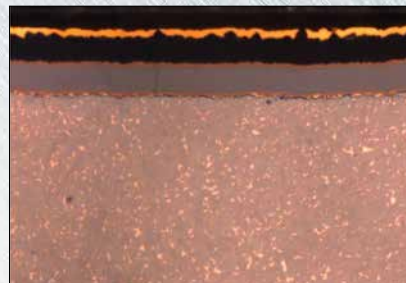
TT7505

NEW WEAR RESISTANT TURN/GROOVE GRADE FOR CAST IRON

Recent trends in complex shaped component machining and high-speed cutting conditions have proven to be a challenge on lathe applications. To adapt to these trends, new carbide grade TT7505 has been introduced to meet both the high hardness and strong toughness demands in grooving and turn/groove applications.

TT7505 features a special CVD coating technology and a newly developed substrate for maximum wear resistance and improved toughness. The result is better overall performance, guaranteed stability and longer tool life.

This new grade, with these above mentioned features, can be applied to a wide application range for customers machining cast iron. As a result of this overall improved performance, TT7505 will replace existing grade TT6300 as stock is depleted.

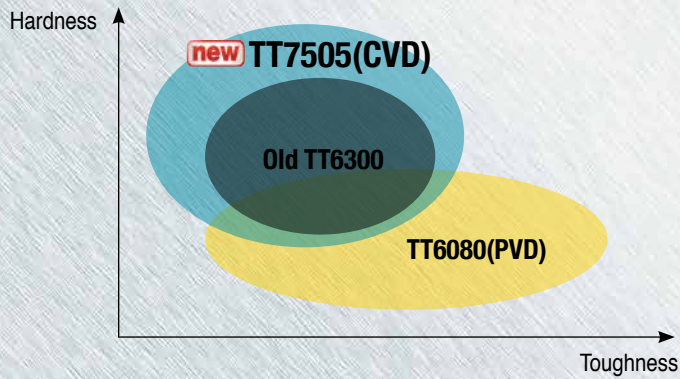


Features

- Optimized grade for high-speed grooving and/or turn-grooving of gray cast iron in continuous cuts
- The highest wear resistant carbide grade for cast iron applications
- Newly developed substrate also provides more toughness compared to TT6300
- Special CVD coating technology guarantees stability and longer tool life
- Available in four, unique turn/groove series of inserts, including full radius

NEW
PRODUCT
ANNOUNCEMENT
2018

APPLICATION RANGE



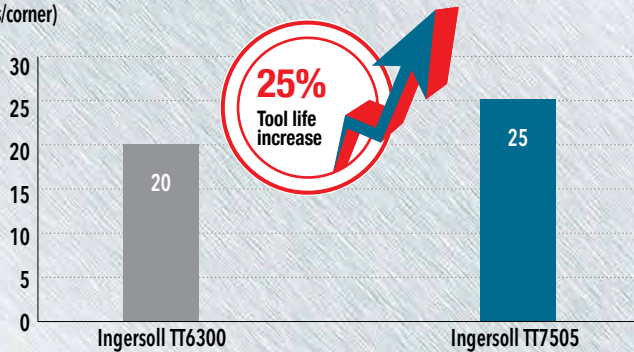
TT7505 INSERTS

Drawing	Part Number	SS Insert Seat Size	CW Cutting Width (+/- .002")	RE Corner Radius	BW Body Width	INSL Insert Length	S1 Insert Thickness
	TDT3E-0.4	3	0.118	0.016	0.087	0.79	0.185
	TDT4E-0.4	4	0.157	0.016	0.118	0.79	0.185
	TDT2E-1.0-RU	2	0.079	0.039	0.067	0.79	0.185
	TDT3E-1.5-RU	3	0.118	0.059	0.087	0.79	0.185
	TDT4E-2.0-RU	4	0.157	0.079	0.118	0.79	0.185
	TDT5E-2.5-RU	5	0.197	0.098	0.157	0.98	0.205
	TDT6E-3.0-RU	6	0.236	0.118	0.197	0.98	0.205
	TDT8E-4.0-RU	8	0.315	0.157	0.236	1.18	0.252
	TDXT3E-0.4	3	0.118	0.016	0.087	0.79	0.185
	TDXT4E-0.4	4	0.157	0.016	0.118	0.79	0.185
	TDXT5E-0.4	5	0.197	0.016	0.157	0.98	0.205
	TDXT6E-0.8	6	0.236	0.031	0.197	0.98	0.205
	TDXT8E-0.8	8	0.315	0.031	0.236	1.18	0.252
	TDXT8E-0.8	8	0.315	0.031	0.236	1.18	0.252
	TDXU2E-0.3	2	0.079	0.012	0.067	0.79	0.185
	TDXU3E-0.3	3	0.118	0.012	0.087	0.79	0.185
	TDXU4E-0.4	4	0.157	0.016	0.118	0.79	0.185
	TDXU4E-0.8	4	0.157	0.031	0.118	0.79	0.185
	TDXU5E-0.4	5	0.197	0.016	0.087	0.98	0.205
	TDXU5E-0.8	5	0.197	0.031	0.118	0.98	0.205
	TDXU6E-0.4	6	0.236	0.016	0.157	0.98	0.205
	TDXU6E-0.8	6	0.236	0.031	0.197	0.98	0.205
	TDXU6E-0.8	6	0.236	0.031	0.197	0.98	0.205
	TDXU8E-0.8	8	0.315	0.031	0.236	1.18	0.252

CASE STUDY 1

		Ingersoll	Ingersoll
Workpiece material		GGG 40.3 (FCD 450)	
Insert		TDXU 5E-0.8 TT6300	TDXU 5E-0.8 TT7505
Cutting speed	V (sfm)	600	600
Feed rate	f (ipr)	.008	.008
Depth of cut	ap (inch)	.433	.433
Coolant		Wet	Wet
Tool life (pcs/corner)		20	25

Tool life
(pcs/corner)



CASE STUDY 2

		Ingersoll	Ingersoll
Workpiece material		GG 35 (FC 350)	
Insert		TDXT 4E-0.4 TT6300	TDXT 4E-0.4 TT7505
Cutting speed	V (sfm)	920	920
Feed rate	f (ipr)	.006	.006
Depth of cut	ap (inch)	.125	.125
Coolant		Wet	Wet
Tool life (pcs/corner)		160	180

Tool life
(pcs/corner)

