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New CVD turning grade

DTC2000P series

ISO P

Push the Limits of Steel Machining.

2 Grades DTC2015P & DTC2025P 1 Goal High Productivity



Smart Wear Indicator

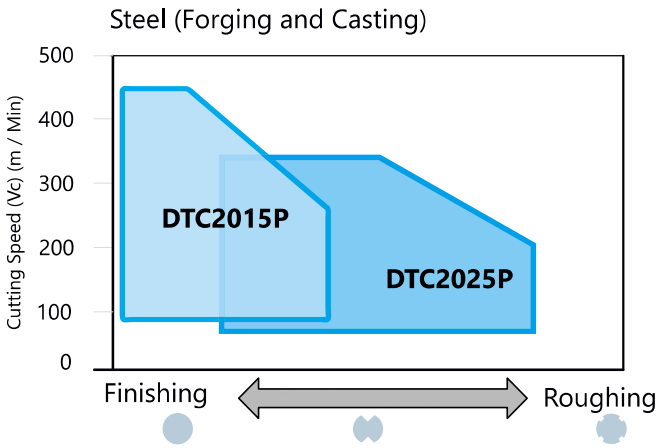
Additional **yellow TiN coating** on the flank allows quick visual identification of tool wear

Brochure/MDC/2025/005/26E1

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Application area



DTC2015 is the first choice grade for high speed finishing of low to medium carbon steels under stable conditions.
Applicable to: P10 - P20

DTC2025P is the first choice grade for General Machining steel forgings under medium cutting parameters. Can handle uneven forgings, steel casting surfaces and interrupted cuts.
Applicable to: P20 - P30

Grade description

- **DTC2015P :** Engineered for high strength and thermal stability and ideal for high-speed machining.
- **DTC2025P :** Designed for an optimal balance of strength and toughness, making it ideal for medium machining across a wide application range.
- **Multilayer CVD Coating:** TiCN–Al_2O_3 coating on the rake face delivers excellent wear resistance and thermal protection.
- **Smart Wear Indicator:** Additional **yellow TiN coating** on the flank allows quick visual identification of tool wear for improved process control.

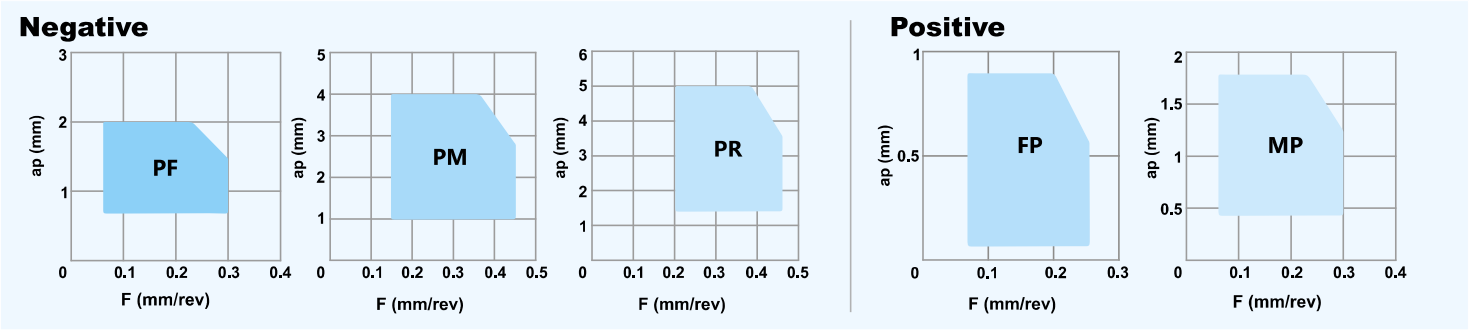
RECOMMENDED Cutting parameters

Grade	Chip Breaker	Application	Parameters	Low Carbon / Mild Steel	Medium Carbon/Alloy Steel
DTC2015P	PF FP	Fine Finishing	Speed (m/min)	350 **250** (Ideal) 125	350 **250** (Ideal) 125
			Feed (mm/tooth)	0.08 **0.15** (Ideal) 0.2	0.08 **0.15** (Ideal) 0.2
			Ap (mm)	0.4 **0.6** 1.0	0.4 **0.6** 1.0
	PF FP	Continuous Cut	Speed (m/min)	400 **300** (Ideal) 200	400 **300** (Ideal) 200
			Feed (mm/tooth)	0.1 **0.2** (Ideal) 0.3	0.1 **0.2** (Ideal) 0.3
			Ap (mm)	1.0 **1.5** 2.5	1.0 **1.5** 2.5
DTC2025P	PM	General Machining	Speed (m/min)	300 **250** (Ideal) 180	300 **250** (Ideal) 180
			Feed (mm/tooth)	0.2 **0.3** (Ideal) 0.4	0.2 **0.3** (Ideal) 0.4
			Ap (mm)	1.0 **2.5** 4.0	1.0 **2.5** 4.0
	PR	Roughing	Speed (m/min)	200 **150** (Ideal) 125	200 **150** (Ideal) 125
			Feed (mm/tooth)	0.25 **0.35** (Ideal) 0.45	0.25 **0.35** (Ideal) 0.45
			Ap (mm)	2.0 **3.5** 5.0	2.0 **3.5** 5.0

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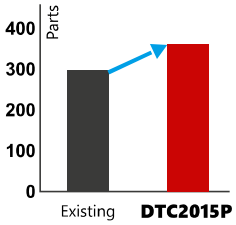
Chipbreaker application range

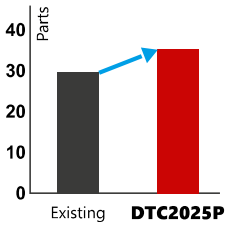


Success Cases

106% times tool life

ID Turning of Rolling forged steel
Component: AR-6311-A-OR-Ring
Continuous Cut
Insert: TNMG160408-PF-DTC2015P
Vc=330m/min, f=0.3mm/rev, ap=0.7mm, Wet



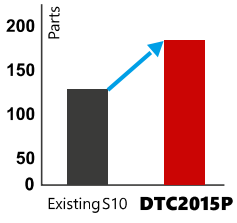


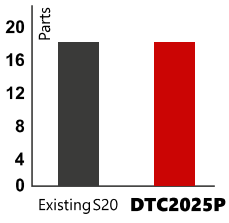
Facing of 20MnCr5 (ISO P) - 28-32 HRC
Component: PNH-Cover
Heavy Interrupted cut
Insert: WNMG080412-PM-DTC2025P
Vc=350m/min, f=0.35mm/rev, ap=1mm, Wet

117% times tool life

137% times tool life

External turning of 41Cr4 (ISO P) - 29-33 HRC
Component: Ball Pin
Continuous cut
Insert: VNMG160408-PF-DTC2015P
Vc=317m/min, f=0.30mm/rev, ap=0.80mm, Wet



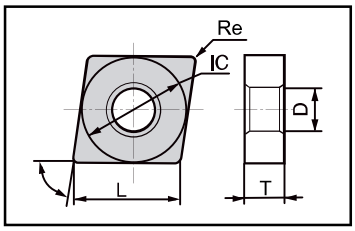


Internal Turning of Low carbon steel (ISO P) - 15HRC
Using One insert for Roughing + Finish
Component: Yoke
Continuous cut
Insert: CNMG120408-PM-DTC2025P
Vc=260m/min, f=0.26mm/rev, ap=1.50mm, Wet

144% times tool life and Rs.1Lakh annual savings.

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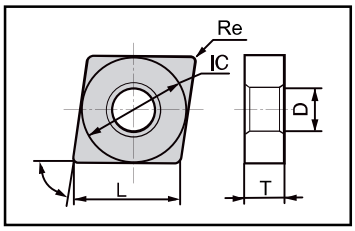
In Stock - ● Make to Order - ○ **(All dimensions are in mm)**

Shape	Catalogue No.	Re Nose Radius	Grade DTC2015P	Grade DTC2025P	IC Inscribed circle	T Thickness	D Hole Dia.
Positive with Chip Breaker Geometry							
C 80°	CCMT060204-FP	0.4	●	●	6.35	2.38	2.8
	CCMT060208-FP	0.8	●	●	6.35	2.38	2.8
	CCMT060208-MP	0.8	●	○	6.35	2.38	2.8
	CCMT09T304-FP	0.4	●	●	9.525	3.97	4.4
	CCMT09T304-MP	0.4	●	●	9.525	3.97	4.4
	CCMT09T308-FP	0.8	●	●	9.525	3.97	4.4
	CCMT09T308-MP	0.8	●	●	9.525	3.97	4.4
	CCMT120404-FP	0.4	○	●	12.7	4.76	5.5
	CCMT120408-MP	0.8	●	○	12.7	4.76	5.5
D 55°	DCMT11T304-FP	0.4	○	●	9.525	3.97	4.4
S 90°	SCMT09T308-FP	0.8	●	○	9.525	3.97	4.4
T 60°	TCMT110204-FP	0.4	●	●	6.35	2.38	2.8
	TCMT110208-FP	0.8	●	●	6.35	2.38	2.8
	TCMT16T304-FP	0.4	●	●	9.525	3.97	4.4
	TCMT16T304-MP	0.4	●	○	9.525	3.97	4.4
	TCMT16T308-FP	0.8	●	●	9.525	3.97	4.4
	TCMT16T308-MP	0.8	●	○	9.525	3.97	4.4
V 35°	VBMT160404-FP	0.4	●	○	9.525	3.97	4.4
	VBMT160404-MP	0.4	●	○	9.525	3.97	4.4
	VBMT160408-FP	0.8	●	○	9.525	3.97	4.4
	VBMT160408-MP	0.8	●	○	9.525	3.97	4.4



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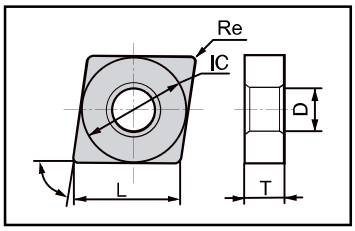
In Stock - ● Make to Order - ○

NEW In Stock - ● Make to Order - ○ (All dimensions are in mm)

Shape	Catalogue No.	Re Nose Radius	Grade DTC2015P	Grade DTC2025P	IC Inscribed circle	T Thickness	D Hole Dia.
Negative with Chip Breaker Geometry							
C 80°	CNMG120404-PF	0.4	●	●	12.7	4.76	5.16
	CNMG120404-PM	0.4	○	●	12.7	4.76	5.16
	CNMG120408-PF	0.8	●	○	12.7	4.76	5.16
	CNMG120408-PM	0.8	●	●	12.7	4.76	5.16
	CNMG120408-PR	0.8	○	●	12.7	4.76	5.16
	CNMG120412-PF	1.2	●	●	12.7	4.76	5.16
	CNMG120412-PM	1.2	●	●	12.7	4.76	5.16
	CNMG120412-PR	1.2	○	●	12.7	4.76	5.16
	CNMG160612-PM	1.2	○	●	15.875	6.35	6.35
	CNMG160612-PR	1.2	○	●	15.875	6.35	6.35
	CNMG160616-PM	1.2	○	●	15.875	6.35	6.35
	CNMG160616-PR	1.2	○	●	15.875	6.35	6.35
D 55°	DNMG150404-PF	0.4	●	○	12.7	4.76	5.16
	DNMG150408-PF	0.8	●	○	12.7	4.76	5.16
	DNMG150412-PF	1.2	●	○	12.7	4.76	5.16
	DNMG150408-PF	0.8	○	●	12.7	4.76	5.16
	DNMG150408-PM	0.8	○	●	12.7	4.76	5.16
	DNMG150412-PF	1.2	○	●	12.7	4.76	5.16
	DNMG150604-PF	0.4	●	○	12.7	6.35	5.16
	DNMG150604-PM	0.4	○	●	12.7	6.35	5.16
	DNMG150608-PF	0.8	●	○	12.7	6.35	5.16
	DNMG150608-PM	0.8	●	●	12.7	6.35	5.16
	DNMG150608-PR	0.8	○	●	12.7	6.35	5.16
	DNMG150612-PM	1.2	●	●	12.7	6.35	5.16
	DNMG150612-PR	1.2	○	●	12.7	6.35	5.16

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Shape	Catalogue No.	Re Nose Radius	Grade DTC2015P	Grade DTC2025P	IC Inscribed circle	T Thickness	D Hole Dia.
Negative with Chip Breaker Geometry							
S 90°	SNMG120408-PM	0.8	○	●	12.7	4.76	5.16
	SNMG120412-PM	1.2	○	●	12.7	4.76	5.16
T 60°	TNMG160404-PF	0.4	○	●	9.525	4.76	3.81
	TNMG160404-PM	0.4	○	●	9.525	4.76	3.81
	TNMG160408-PF	0.8	●	○	9.525	4.76	3.81
	TNMG160408-PM	0.8	○	●	9.525	4.76	3.81
	TNMG160408-PR	0.8	●	○	9.525	4.76	3.81
	TNMG160412-PF	1.2	●	●	9.525	4.76	3.81
	TNMG160412-PM	1.2	○	●	9.525	4.76	3.81
	TNMG160412-PR	1.2	●	●	9.525	4.76	3.81
	TNMG220412-PM	1.2	○	●	12.7	4.76	5.16
V 35°	VNMG160404-PF	0.4	●	●	9.525	3.97	3.81
	VNMG160404-PM	0.4	●	○	9.525	3.97	3.81
	VNMG160408-PF	0.8	●	●	9.525	3.97	3.81
	VNMG160408-PM	0.8	●	●	9.525	3.97	3.81
W 80°	WNMG060408-PF	0.8	●	●	9.525	4.76	3.81
	WNMG060408-PM	0.8	●	●	9.525	4.76	3.81
	WNMG060412-PM	1.2	○	●	9.525	4.76	3.81
	WNMG080404-PF	0.4	●	○	12.7	4.76	5.16
	WNMG080404-PM	0.4	●	●	12.7	4.76	5.16
	WNMG080408-PF	0.8	○	●	12.7	4.76	5.16
	WNMG080408-PM	0.8	○	●	12.7	4.76	5.16
	WNMG080412-PF	1.2	●	●	12.7	4.76	5.16
	WNMG080412-PM	1.2	●	●	12.7	4.76	5.16
	WNMG080412-PR	1.2	○	●	12.7	4.76	5.16

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