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New

Cermet grades

ISO P

4 ways to boost productivity



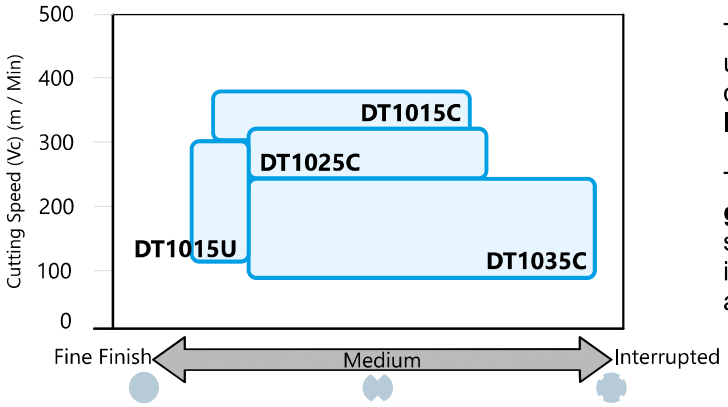
DT1015U : Uncoated Grade.
DT1015C : First Choice Grade.
DT1025C : Ideal for interrupted cutting condition.
DT1035C : Best for stability and safety.

Brochure/MDC/2026/005

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Application area



The **finish machining operations** are carried out under a variety of cutting conditions, including wet or dry machining, continuous or mildly interrupted cuts, low to medium high cutting speeds etc.

To cater to these needs **a complete series of Cermet grades** which are able to handle such a wide spectrum of cutting conditions is required. The grades included in the series covers **P15, P25** and **P35** application areas.

Grade description

- **DT1015U : Uncoated Cermet Grade**

  Application Area: P10-P20

  Application Description: Ideal for fine finishing operations of engineering steels, especially bearing steels. Suitable for both dry and wet machining conditions.

  Grade Details: Excellent balance of wear resistance and the toughness required for the finish turning applications. Equipped with the sharpest possible cutting edge.

- **DT1015C : First Choice Coated Cermet Grade**

  Application Area: P10-P20

  Application Description: First choice cermet grade for finishing to fine finishing of all types of steels. Suitable for both dry and wet machining conditions.

  Grade Details: Good balance of wear resistance and the toughness required for general purpose finish turning applications. Achieved through a fine grain size and higher binder content, specially engineered for Cermet grades. Specially designed multilayer PVD coating provides extra long tool life during finish machining.

- **DT1025C : Coated Cermet Grade for interrupted cutting condition**

  Application Area: P20-P30

  Application Description: Tough cermet grade for finishing operations of all types of steels.

  Grade Details: Excellent thermal cracking resistance and overall toughness required during machining under interrupted cutting. This is achieved through a fine and uniform grain structure. Specially designed PVD coating provides wear resistance, while maintaining the toughness.

- **DT1035C : Coated Cermet Grade for high process stability and safety**

  Application Area: P30-P40

  Application Description: Ideal for finishing operations of all types of steels.

  Grade Details: Excellent toughness required during machining under interrupted cutting. DT1035C grade derives its higher toughness through higher impact resistance as well as the higher thermal cracking resistance of the substrate. A specially designed PVD coating balances the wear resistance, while still maintaining the toughness.

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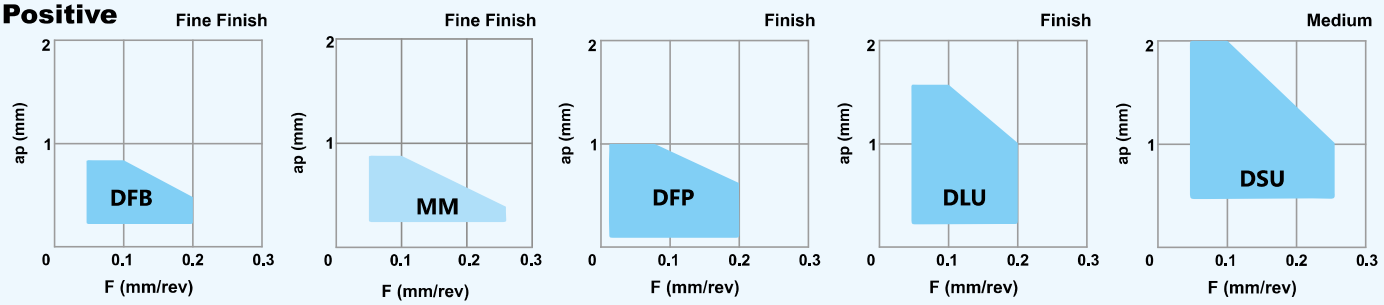
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RECOMMENDED Cutting parameters

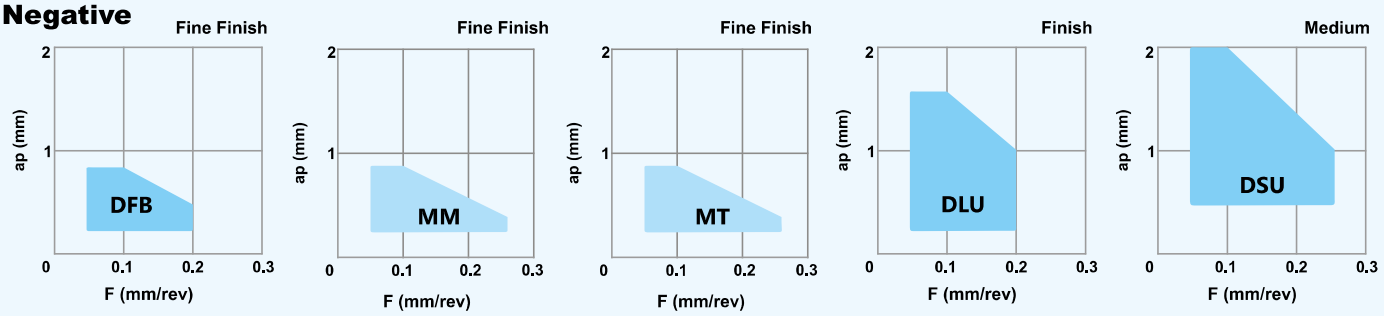
Grade	Chip Breaker	Application	Type of cut	Parameters	for Engineering Steels
DT1015U	DLU	Finishing	Continuous	Speed (m/min)	100 **200** (Ideal) 300
	DFP			Feed (mm/rev)	0.08 **0.15** (Ideal) 0.25
	DSU	Medium		Ap (mm)	0.5 **1.0** 1.5
DT1015C	MM / MT	Fine Finishing	Continuous	Speed (m/min)	100 **225** (Ideal) 350
				Feed (mm/rev)	0.08 **0.15** (Ideal) 0.25
				Ap (mm)	0.5 **1.0** 1.5
DT1025C	DSU	Medium	Continuous / Mild Interruption	Speed (m/min)	80 **160** (Ideal) 250
				Feed (mm/rev)	0.10 **0.20** (Ideal) 0.30
				Ap (mm)	0.5 **1.0** 2.0
DT1035C	DFB	Fine Finishing	Interruption	Speed (m/min)	70 **150** (Ideal) 200
	DSU	Medium		Feed (mm/rev)	0.10 **0.25** (Ideal) 0.35
	DLU / DFP	Finishing		Ap (mm)	1.0 **1.25** 2.0

Chipbreaker application range

Positive



Negative



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Success Cases

Rs. 3.7Lakh annual savings 67% ↑ tool life

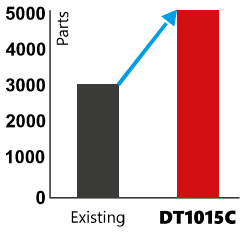
Internal Turning of C706 (ISO P) - 25~32 HRC

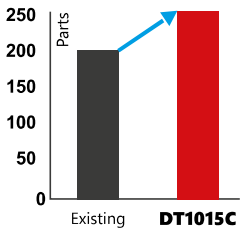
Component: Connecting rod

Continuous Cut

Insert: CCMT060204-MM-**DT1015C**

Vc=185m/min, f=0.16mm/rev, ap=0.50mm, Wet





Internal Turning of 41CR4 (ISO P) - 24~31 HRC

Component: Rotor Hub

Continuous Cut

Insert: CCMT09T304-MM-**DT1015C**

Vc=72m/min, f=0.20mm/rev, ap=0.10mm, Wet

25% ↑ tool life

10% ↑ productivity 35% ↑ tool life

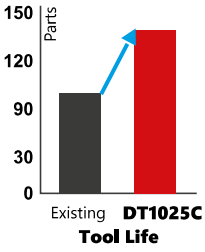
External Turning of Cold Forging (ISO P) - 27 HRC

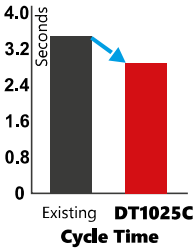
Component: Hub

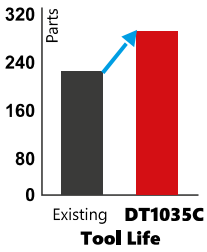
Medium Interrupted cut

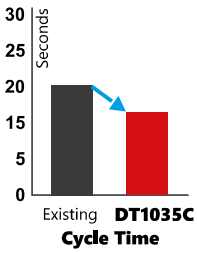
Insert: CCMT060204-DSU-**DT1025C**

Vc=364m/min, f=0.10mm/rev, ap=0.50mm, Wet









External Turning of EN-8 (ISO P) - 15 HRC

Component: Main Shaft

Continuous Cut

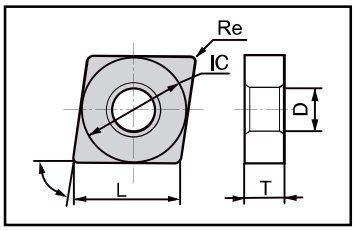
Insert: TNMG160404-DSU-**DT1035C**

Vc=165m/min, f=0.12mm/rev, ap=0.40mm, Wet

20% ↑ productivity 32% ↑ tool life

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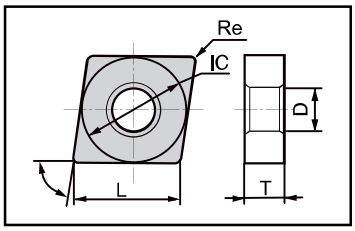


In Stock - ● Make to Order - ○ **(All dimensions are in mm)**

Shape	Description	Re	DT1015 U	DT1015 C	DT1025 C	DT1035 C	IC	T	D
Positive with Chip Breaker Geometry									
C 80°	CCMT060202-DSU	0.2				●	6.35	2.38	2.8
	CCMT060202N-DLU	0.2				●	6.35	2.38	2.8
	CCMT060204-DLU	0.2	●				6.35	2.38	2.8
	CCMT060204-DSU	0.2			●		6.35	2.38	2.8
	CCMT060204-DSU	0.2				●	6.35	2.38	2.8
	CCMT060204-MM	0.2	●				6.35	2.38	2.8
	CCMT060204N-DFB	0.2				●	6.35	2.38	2.8
	CCMT060208-DSU	0.8			●		6.35	2.38	2.8
	CCMT060208-MM	0.8		●			6.35	2.38	2.8
	CCMT09T304-DSU	0.4	●				6.35	3.97	4.4
	CCMT09T304-DSU	0.4			●		6.35	3.97	4.4
	CCMT09T304-MM	0.4		●			6.35	3.97	4.4
	CCMT09T308-DFB	0.8				●	6.35	3.97	4.4
	CCMT09T308-DSU	0.8			●		6.35	3.97	4.4
	CCMT09T308-MM	0.8		●			6.35	3.97	4.4
	CCMT09T308N-DSU	0.8	●				6.35	3.97	4.4
D 55°	DCMT070204-DSU	0.4	●				6.35	2.38	2.8
	DCMT070204-MM	0.4		●			6.35	2.38	2.8
	DCMT11T304-DLU	0.4				●	9.525	3.97	4.4
	DCMT11T308-MM	0.8		●			9.525	3.97	4.4
T 60°	TCMT090204N-DFP	0.4			●		5.56	2.38	2.5
	TCMT110204-DFB	0.4				●	6.35	2.38	2.8
	TCMT110204-MM	0.4		●			6.35	2.38	2.8
	TCMT110204N-DFP-(01645)	0.4	●				6.35	2.38	2.8
	TCMT110204N-DFP	0.4	●				6.35	2.38	2.8
V 35°	VBMT110302-DFB	0.2				●	6.35	3.18	2.8
	VBMT160404-MM	0.4		●			9.525	4.76	4.4
	VCMT160404N-DLU	0.4				●	9.525	4.76	4.4

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

Shape	Description	Re	DT1015 U	DT1015 C	DT1025 C	DT1035 C	IC	T	D
Negative with Chip Breaker Geometry									
C 80°	CNMG120404-MM	0.4		●			12.7	4.76	5.16
	CNMG120408-MM	0.8		●			12.7	4.76	5.16
D 55°	DNMG110404-DLU	0.4	●				9.525	4.76	3.81
T 60°	TNMG160402-DSU	0.2				●	9.525	4.76	3.81
	TNMG160402N-DFB	0.2	●				9.525	4.76	3.81
	TNMG160404-DLU	0.4				●	9.525	4.76	3.81
	TNMG160404-DSU	0.4			●		9.525	4.76	3.81
	TNMG160404-DSU	0.4				●	9.525	4.76	3.81
	TNMG160404-MM	0.4		●			9.525	4.76	3.81
	TNMG160408N-DSU	0.8		●			9.525	4.76	3.81
V 35°	VNMG160402N-DLU	0.2				●	9.525	4.76	3.81
	VNMG160404-DSU	0.4				●	9.525	4.76	3.81
	VNMG160404-MT	0.4		●			9.525	4.76	3.81
	VNMG160404N-DSU	0.8	●				9.525	4.76	3.81
	VNMG160408N-DSU	0.8		●			9.525	4.76	3.81
	VNMG160408N-DSU	0.8	●				9.525	4.76	3.81
W 80°	WNMG080404-MM	0.4		●			12.7	4.76	5.16
	WNMG080408-MM	0.8		●			12.7	4.76	5.16

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