motherson

DELTACARB
HARDMETAL Switzerland

New
Most versatile Universal PVD turning grade

DTP4025U

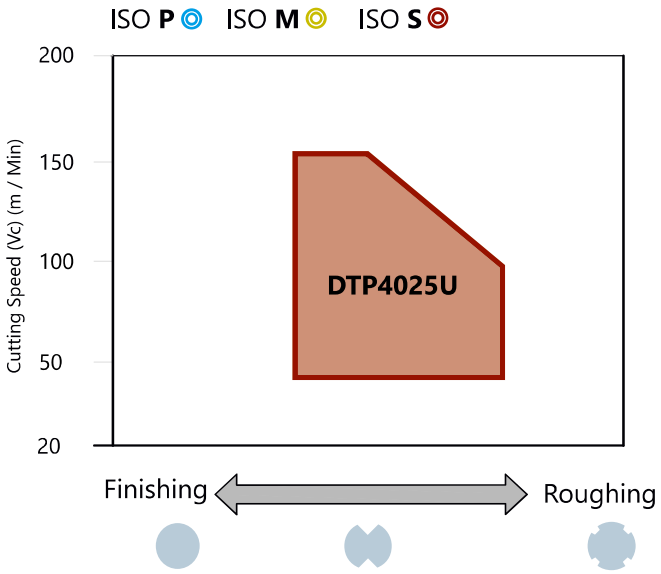
One Grade. **Many** Materials. **Consistent** Results.



motherson

DELTACARB
HARDMETAL Switzerland

Application area



Machining with a universal grade is often challenging due to peculiar properties of different types of workpiece materials, especially under interrupted cutting conditions. This challenge is effectively met with the help of a specially engineered grade **DTP4025U**.

Application Area : S20-S30, P20-P30, M20-M30

DTP4025U is the **first choice grade** for general purpose machining of a **large variety of engineering materials** such as carbon steels, alloy steels, common stainless steels and extending up to exotic materials. Finishing to semi finishing operations are recommended, especially for difficult to machine materials.

Grade description

A Universal PVD Grade for a consistent, reliable and stable performance during turning of Steels, Stainless Steels and Superalloys.

- Multilayer PVD coating provides **excellent adhesion resistance**.
- Coating also delivers **high wear resistance** during machining.
- Tough substrate **improves durability and reliability**.
- Combination of coating and substrate makes it **a universal-application grade**.

RECOMMENDED Cutting parameters

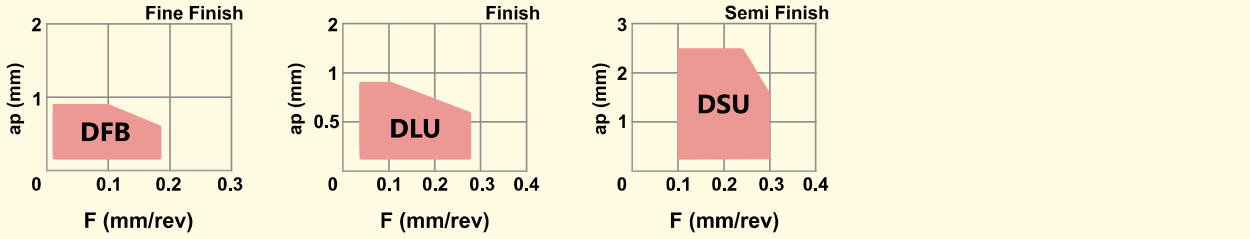
Materials	Parameters	for DTP4025U
Carbon and Alloy Steels	Speed (m/min)	120 – **160** (Ideal) – 225
	Feed (mm/rev)	0.15 – **0.25** (Ideal) – 0.40
	Ap (mm)	0.5 – **2.0** – 4.0
Austenitic Stainless Steels	Speed (m/min)	60 – **80** (Ideal) – 150
	Feed (mm/rev)	0.15 – **0.25** (Ideal) – 0.40
	Ap (mm)	0.5 – **2.0** – 4.0
HRSA and Nickel/Cobalt based Superalloys	Speed (m/min)	40 – **50** (Ideal) – 90
	Feed (mm/rev)	0.15 – **0.20** (Ideal) – 0.25
	Ap (mm)	0.5 – **1.5** – 2.5

motherson

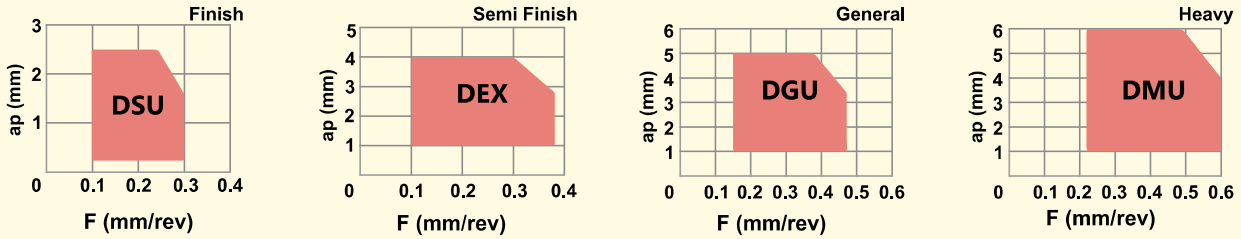
DELTACARB
HARDMETAL Switzerland

Chipbreaker application range

Positive



Negative



Success Case

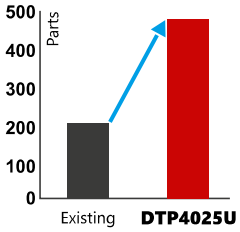
Achieves 240% Tool Life vs Existing Tool

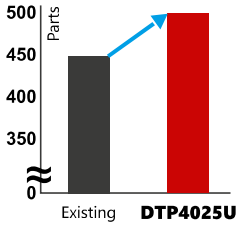
Internal Turning of Sintered Steel - ISO P

Continuous Cut

Insert: CCMT060208-DSU-DTP4025U

Vc=79m/min, f=0.08mm/rev, ap=0.20mm, Wet





Internal Turning of SS304 - ISO M

Continuous Cut

Insert: CCMT060204-DSU-DTP4025U

Vc=80m/min, f=0.10mm/rev, ap=0.5mm, Wet

Achieves 106% Tool Life vs Existing Tool

Achieves 123% Tool Life vs Existing Tool

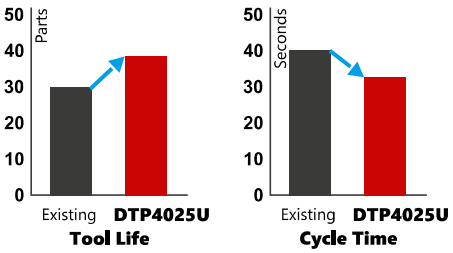
External Turning of Inconel - ISO S

Continuous Cut

Insert: TNMG160412-DEX-DTP4025U

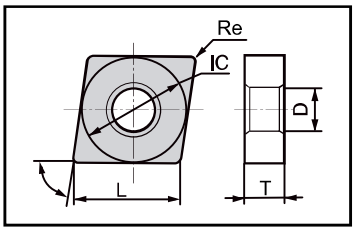
Vc=50m/min, f=0.28mm/rev, ap=1.50mm, Wet

11% higher Productivity



motherson

DELTACARB
HARDMETAL Switzerland

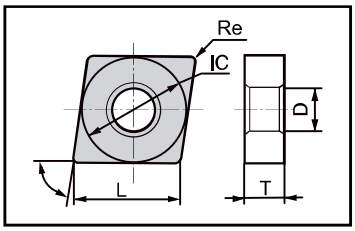


In Stock - ● Make to Order - ○ **(All dimensions are in mm)**

Shape	Catalogue No.	Re Nose Radius	Grade DTP4025U	IC Inscribed circle	T Thickness	D Hole Dia.
Positive with Chip Breaker Geometry						
C 80°	CCMT060202-DSU	0.2	●	6.35	2.38	2.8
	CCMT060204-DLU	0.4	●	6.35	2.38	2.8
	CCMT060204-DSU	0.4	●	6.35	2.38	2.8
	CCMT060208-DSU	0.8	●	6.35	2.38	2.8
	CCMT09T302-DSU	0.2	●	6.35	3.97	4.4
	CCMT09T304-DLU	0.4	●	6.35	3.97	4.4
	CCMT09T304-DSU	0.4	●	6.35	3.97	4.4
	CCMT09T308-DLU	0.8	●	6.35	3.97	4.4
	CCMT09T308-DSU	0.8	●	6.35	3.97	4.4
	CCMT120404-DSU	0.4	●	9.525	4.76	5.5
	CCMT120408-DSU	0.8	●	9.525	4.76	5.5
D 55°	DCMT070204-DLU	0.4	●	6.35	2.38	2.8
	DCMT070204-DSU	0.4	●	6.35	2.38	2.8
	DCMT11T302-DSU	0.2	●	9.525	3.97	4.4
	DCMT11T304-DSU	0.4	●	9.525	3.97	4.4
	DCMT11T308-DLU	0.8	●	9.525	3.97	4.4
	DCMT11T308-DSU	0.8	●	9.525	3.97	4.4
T 60°	TCMT110204-DSU	0.4	●	6.35	2.38	2.8
	TPMT080204-DLU-	0.4	●	4.76	2.38	2.4
	TPMT090204-DFB-	0.4	●	5.56	2.38	2.8
	TPMT110302-DLU	0.2	●	6.35	3.18	3.4
	TPMT110304-DSU	0.4	●	6.35	3.18	3.4
V 35°	VBMT110302-DSU	0.2	●	6.35	3.18	2.8
	VBMT160404-DLU	0.4	●	9.525	4.76	4.4
	VBMT160408-DLU	0.8	●	9.525	4.76	4.4
	VCMT160408-DSU	0.8	●	9.525	4.76	4.4

motherson

DELTACARB
HARDMETAL Switzerland



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

Shape	Catalogue No.	Re Nose Radius	Grade DTP4025U	IC Inscribed circle	T Thickness	D Hole Dia.
Negative with Chip Breaker Geometry						
C 80°	CNMG120404-DSU	0.4	●	12.7	4.76	5.16
	CNMG120408-DMU	0.8	●	12.7	4.76	5.16
T 60°	TNMG160408-DEX	0.8	●	9.525	4.76	3.81
	TNMG160408-DGU	0.8	●	9.525	4.76	3.81
	TNMG160408-DSU	0.8	●	9.525	4.76	3.81
	TNMG160412-DEX	1.2	●	9.525	4.76	3.81
V 35°	VNMG160402-DSU	0.2	●	9.525	4.76	3.81
	VNMG160404-DSU	0.4	●	9.525	4.76	3.81
	VNMG160408-DSU	0.8	●	9.525	4.76	3.81
W 80°	WNMG080408-DGU	0.8	●	12.7	4.76	5.16
	WNMG080412-DMU	1.2	●	12.7	4.76	5.16



motherson

DELTACARB

HARDMETAL Switzerland

Scan for ordering codes and technical details

Double Hexa

Steel & Cast Iron Milling

MGSM

General Shoulder Milling

MEH Hardmill

Endmills for Die & Mould

Turning Holders

Turning and Boring

DTC2000P

Steel Turning

DTC3000K

Cast Iron Turning

DTP5035M

Stainless Steel Turning

DTP4015S

Exotic Alloy Turning

Powered by

Motherson Techno Tools Limited

Communication address: A-2, Sector 84, Noida - 201301, Uttar Pradesh, India.
Reg. Office: 2nd floor, Block B1, Mohan Cooperative Industrial Estate, Mathura Road, New Delhi - 110044, India.
CIN No.: U74999DL1992PLC049607

Ph.: +91-120-6110000 | marketing.mttl@motherson.com

www.mothersontools.com

Motherson Deltacarb Advanced Metal Solutions SA

Via Al Molino 29,
CH-6915 Pambio Noranco-Lugano, Switzerland

info.deltacarb@motherson.com

www.deltacarb.ch | www.motherson.com

Innovations that drive future