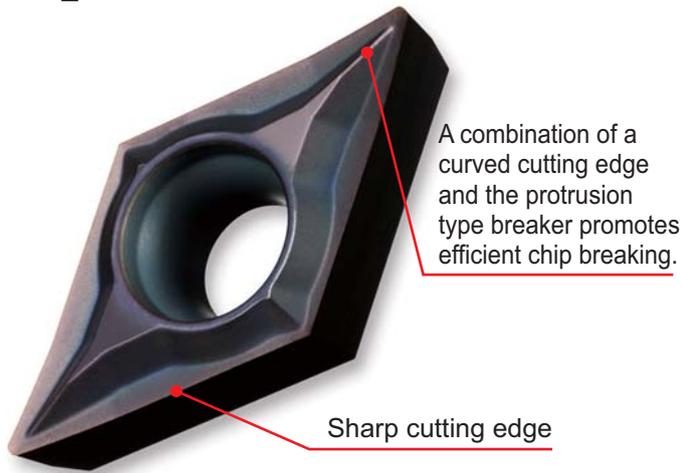


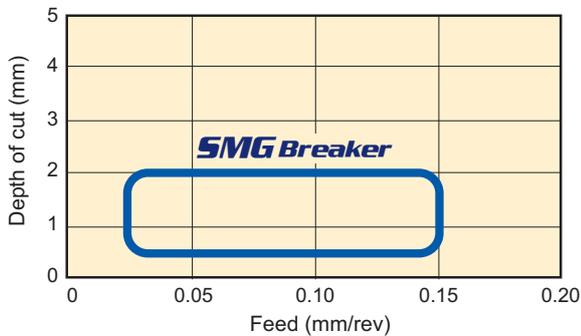
Moulded Breaker for Small Tools

SMG Breaker

Excellent chip breaking. Ideal for continuous un-manned operations on automatic lathes.

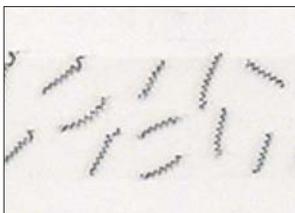


Effective chip disposal range



Good chip breaking with small depths of cut and low feeds

- The breaker design is optimized to suit to the cutting conditions for precision parts.
- SMG type breaks chips into fine pieces and reduces tangling.



SMG Breaker



Competitor's ground type breaker

<Cutting conditions>
Workpiece : JIS S20C (Turning)
Cutting speed : 80m/min
Depth of cut : 0.5mm

Feed : 0.03mm/rev
Non-water soluble coolant

G class inserts

- Peripheral ground (G class) inserts enable accurate cutting edge positioning, making it ideal for high precision machining.

Nose radii designed with minus tolerance

- Suitable for precision parts applications that often require minus tolerance dimensions.
- The order number is shown with the letter "M" that indicates minus tolerance.

Order number) DCGT11T302 **M** -SMG

- 02M ⊕ R0.18mm (R0.15 – R0.20mm)
- 04M ⊕ R0.38mm (R0.35 – R0.40mm)

- The radius value is printed on the side of the insert label for easy recognition.

Printing example



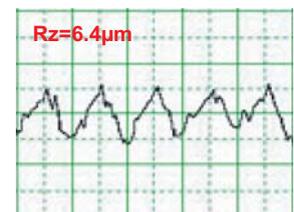
Nose Radius

High quality surface finishes

- Unique curved cutting edges offer sharp cutting action.
- The entire periphery of the inserts are finish ground (G class accuracy) to produce sharp cutting edges.



SMG Breaker

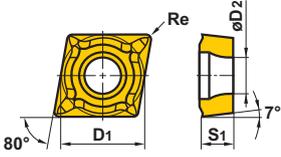
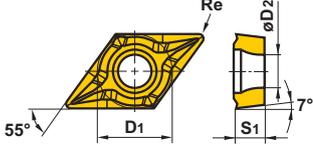


Competitor's ground type breaker

<Cutting conditions>
Workpiece : JIS SUM22 (Turning)
Cutting speed : 80m/min
Depth of cut : 0.1mm

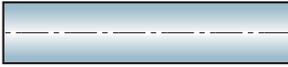
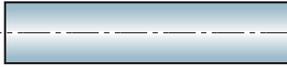
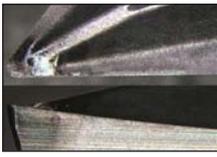
Feed : 0.1mm/rev
Non-water soluble coolant

Inserts

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		VP15TF	D1	S1	Re	D2	
	CCGT060202M-SMG	●	6.35	2.38	0.18	2.8	
	060204M-SMG	●	6.35	2.38	0.38	2.8	
	DCGT070202M-SMG	●	6.35	2.38	0.18	2.8	
	070204M-SMG	●	6.35	2.38	0.38	2.8	
	11T302M-SMG	●	9.525	3.97	0.18	4.4	
	11T304M-SMG	●	9.525	3.97	0.38	4.4	

● : Inventory maintained.

Application Examples

Insert	DCGT11T302M-SMG (VP15TF)	DCGT11T302M-SMG (VP15TF)	
Workpiece	JIS SUS304 	JIS SS400 	
Cutting Conditions	Cutting Speed (m/min)	85	60
	Feed (mm/rev)	0.35	0.07
	Depth of cut (mm)	2.4	1.4
Coolant	Oil	Oil	
Results	  SMG Breaker No. of machined parts 600 Competitors No. of machined parts 450 The SMG breaker delivered good chip control and 1.5 times longer tool life.	  SMG Breaker Competitors The SMG breaker finely broke the chips that conventionally wrapped around the workpiece.	

For Your Safety

● Don't handle inserts and chips without gloves. ● Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage. ● Please use safety covers and wear safety glasses. ● When using compounded cutting oils, please take fire precautions. ● When attaching inserts or spare parts, please use only the correct wrench or spanner.

MITSUBISHI MATERIALS CORPORATION



The Scope of the Registration:
Design, Development and
Production of Cemented
Carbide Tools and Carbide
Blanks



The Scope of the Registration:
Design, Development and
Production of Cutting Tools,
Wear-resistant Tools, Stock
Drilling Tools, Cemented
Carbide Blanks and Coated
Products



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(Tools specifications subject to change without notice.)