



High-performance & Low-carbon Forming Tap

GREEN TAP



GRT

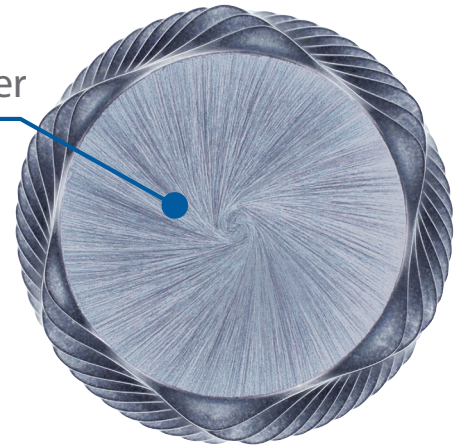
High-performance &
Low-carbon Forming Tap

GRT: High-performance & Low-carbon Forming Tap



Large web diameter

High rigidity



Special thread configuration

Achieves both thread rigidity and lubrication effect

Original New Geometry

Improved durability

Special thread configuration

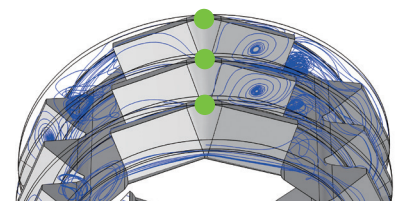
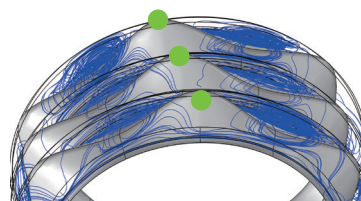
By supplying more coolant near the cutting edge where the most heat is generated, cooling effect is increased and durability is improved.

V Coating

High wear resistance

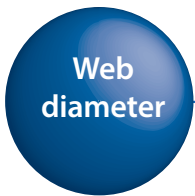
Powder Metallurgy HSS (CPM)

High wear resistance



● Cutting edge — Coolant flow

Size: M6x1 Cutting speed: 30m/min Computational fluid dynamics analysis result



High rigidity



Large web diameter improves breakage resistance. Achieves high durability without variation.

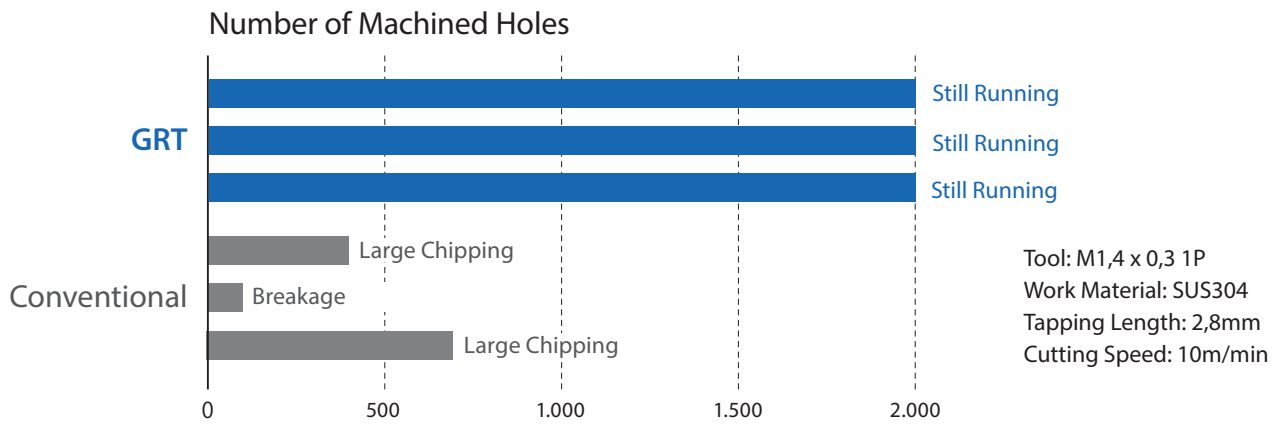
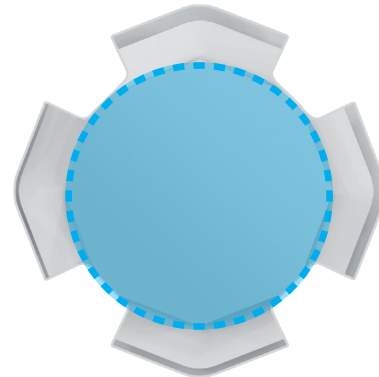
GRT

Size: M6x1



Conventional

Size: M6x1



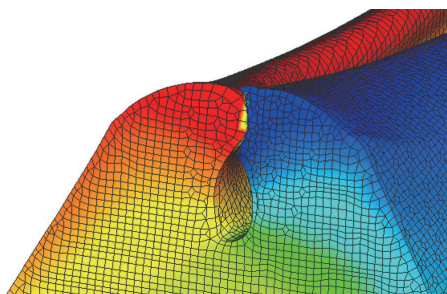
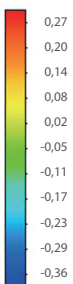
Threading | Forming taps



Formation of stable internal threads

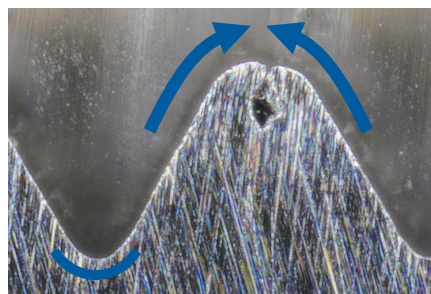
Special thread specification designed using computer simulation of plastic deformation to enable the formation of good internal threads that will not collapse easily.

Axial Displacement (mm)



Threading direction

Computer simulation of plastic deformation



Threading direction

Internal threads machined by GRT

Tool: M1,4 x 0,3 1P
Work Material: SUS304
Drill Hole Size: Ø1,28x4,5mm (Blind)
Tapping Length: 2,8mm
Cutting Speed: 10m/min
Coolant: Water-soluble Chlorine-free (5%)

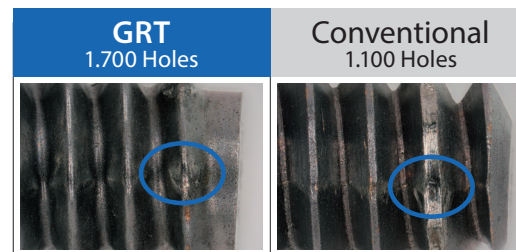
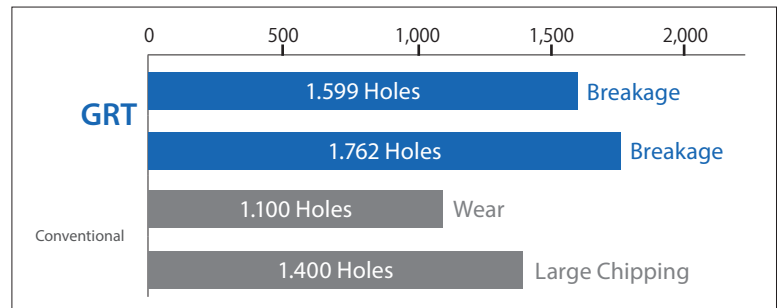
CUTTING DATA

Stable machining in difficult-to-machine stainless steel

M1×0,25

Tool	GRT M1×0,25 1P
Work Material	SUS304
Drill Hole Size	Ø0,91×3,5mm (Blind)
Tapping length	2mm
Cutting Speed	10m/min (3.183min ⁻¹)
Coolant	Water-soluble Chlorine-free (5%)
Machine	(BT30) Vertical Machining Center

Number of Machined Holes

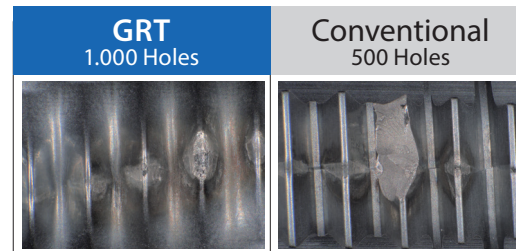
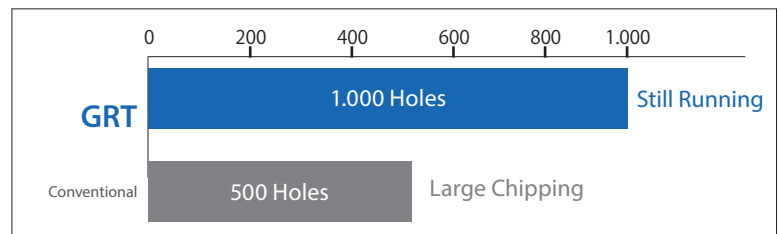


Threading | Forming taps

M6×1

Tool	GRT M6×1 2P
Work Material	SUS304
Drill Hole Size	Ø5,52×20mm (Through)
Tapping length	12mm
Cutting Speed	7m/min (371min ⁻¹)
Coolant	Water-soluble Chlorine-free (5%)
Machine	(BT30) Vertical Machining Center

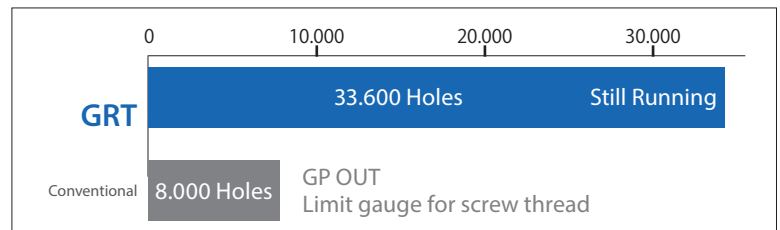
Number of Machined Holes



Improved durability due to lubrication effect

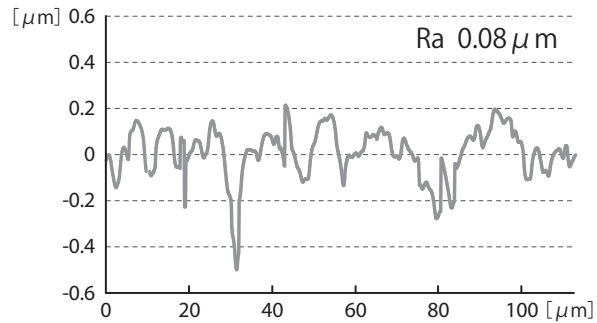
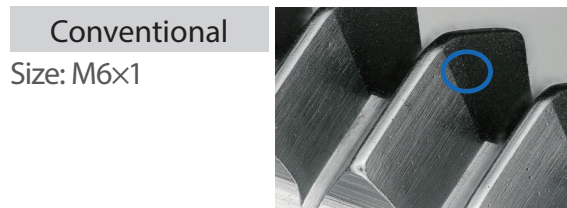
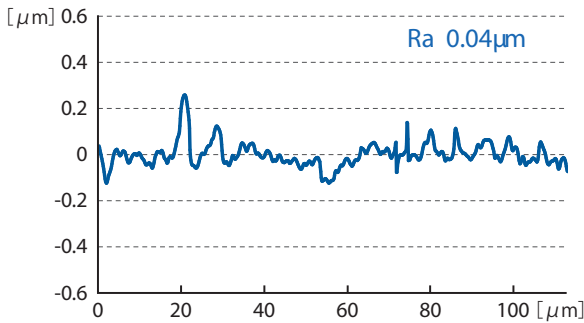
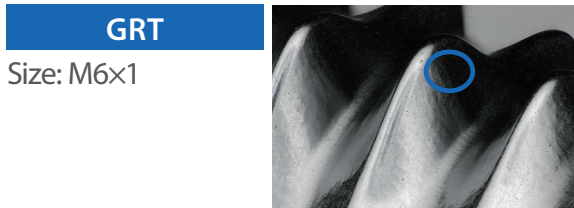
Tool	GRT M6×1 2P
Work Material	ADC12
Drill Hole Size	Ø5,54×13mm (Blind)
Tapping length	10mm
Cutting Speed	56,5m/min (3.000min ⁻¹)
Coolant	Water-soluble Chlorine-free (10%)
Machine	(BT40) Vertical Machining Center

Number of Machined Holes



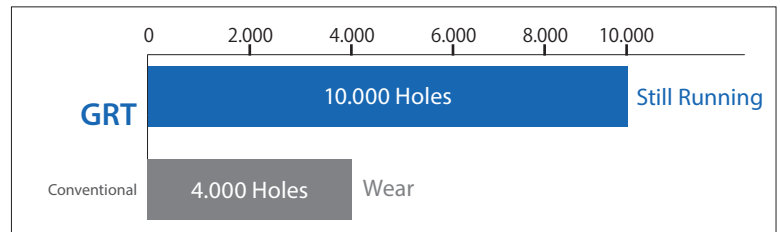
CUTTING DATA

Improved durability due to excellent surface roughness of the threads



Tool	GRT M6×1 2P
Work Material	S45C
Drill Hole Size	Ø5,52×20mm (Through)
Tapping length	12mm
Cutting Speed	15m/min (796min ⁻¹)
Coolant	Water-soluble Chlorine-free (5%)
Machine	(BT30) Vertical Machining Center

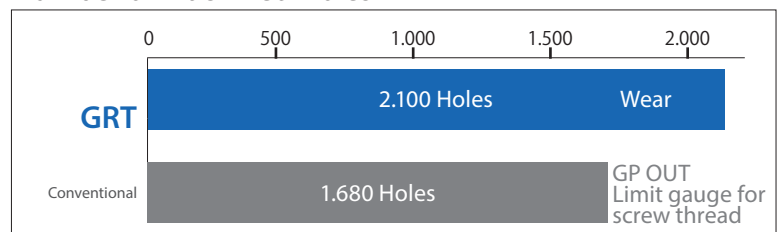
Number of Machined Holes



Threading in high carbon chromium bearing steel (SUJ3)

Tool	GRT M6×1 2P
Work Material	SUJ3
Drill Hole Size	Ø5,54×15mm (Blind)
Tapping length	11mm
Cutting Speed	9,4m/min (500min ⁻¹)
Coolant	Water-soluble Chlorine-free (10%)
Machine	(BT40) Vertical Machining Center

Number of Machined Holes





shaping your dreams

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