



MANUFACTURING

Precision Machines for Threads & Gears

DRAKE GS:TEM

External Thread Grinder



The MINI external
thread grinder
that delivers BIG
performance!

Designed for M10 and smaller taps and gages, Drake's GS:TEM 3-Axis Mini External Thread Grinder is aimed at higher volume, precision threaded parts manufacturers in the cutting tool, automotive, aerospace and small electronics industries.

If you are grinding small forming or cutting taps, thread rolls, thread gages, worms, ball screws or aerospace fasteners, this is the machine for you.

Drake's customers are producing forming taps as small as M0.5x0.25 on the GS:TEM.

Packed with Drake's advanced grinding features:

- PartSmart™ programming and process development. Like all Drake grinders, the GS:TEM is fully programmed to run your parts before it leaves our shop floor. Just enter specific part variables and process information prompted by the menus to run your parts.
- High mass, mineral filled, cast polymer base damps vibration and is thermally stable, allowing you to run superabrasives with confidence.
- Fanuc linear servo motors with high resolution encoders and Heidenhain linear scales on positioning axes assure precision now and after many years of multi-shift operation.
- Diamond roll contour dressing – dress complex topping and non-topping wheel forms with root radii to as small as 20 microns at production rates.
- Reliable CNC diagnostics and simplified mechanical systems keep maintenance to a minimum. But if something goes wrong, Drake's service is unparalleled. In short, **"You crash, we dash!"**



GS:TEM



*Typical parts produced
on the GS:TEM*

Precision. Innovation. Service.

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Robot Load System

The Drake robot load system is programmed into the machine control by Drake. With three pallets, the system provides consistent handling and maximum throughput for increased productivity and long, unattended runs. The loader will place parts in an inspection portal for periodic verification.

Motorized Spindles and Internal Balancers

Integral-motor grind spindle for the GS:TEM is now available with automatic wheel balancers and in-the-spindle-nose allowing the machine to be configured with both a motorized spindle (no belt drive) and an automatic balancer.

PartSmart™ Menu Driven Screens

The operator just fills in the values for each part. No programming knowledge needed!

Dressing software is available for contour dressing of ISO, 60°, Whitworth, Acme, Buttress and other thread forms. No cams, templates, or crushers are required to dress your thread form. For long-run production, use diamond form rolls for a fast plunge dress.

Cell-friendly footprint

With a cell-friendly footprint, the GS:TEM is easily integrated into cutting and forming tool manufacturing cells.



Robot Load Pallet Systems for Taps and Thread Gages



Robot gripper picks up completed part and loads the next one in a single operation.

GS:TEM Specifications	Standard	Speed
Maximum Swing Over Table	100 mm (4")	
Maximum Grind Diameter (Recommended)	10 mm	10 m/min
Grind Length (Z-Axis)	100 mm (4")	10 m/min
Maximum Part Length (Z-Axis)	100 mm (4")	10 m/min
Wheel Helix (A-Axis)	± 10°	Manual
Work Rotation (C-Axis)	10:1	300 rpm
Wheel Spindle Power	5.5 kW (7.5 hp)	10,000 RPM
Wheel Size	200 mm OD x 76.2 mm ID	
Overall Machine	1.2 m W x 1.8 m D	
Part Loading Height	1.0 m above floor	
Approximate Shipping Weight	3,000 kg	



Drake PartSmart™ Menu-Driven Screens



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