

# Introducing ...

## DRAKE GS:TE-LM (Linear Motor)



With full 180° Power Helix

### Thread Grinder

Grind a wide range of threads, splines, key slots, rings and other forms on one machine!

**The best of Drake grinding technologies in one advanced grinder!** What happens when you couple intelligent machine tool design with a scientific approach to grinding? A machine so advanced, so versatile, so simple to use – you can employ machine *operators* rather than skilled machinists – and still ship good parts out the door from day one!

With the GS:TE-LM, Drake offers you a high value-added grinding machine to remain globally competitive for years to come.



GS:TE-LM 150

#### Drake advanced design and grinding technologies

- Linear motors on linear ways for maximum acceleration and contouring with fewer mechanical parts for low maintenance.
- High static and dynamic stiffness – use the latest superabrasives with confidence.
- Full 180° Power Helix.
- 0.05 micron scale feedback for world class accuracy.
- Drake Smart Spindle™ technology available – provides automatic balancing, touch dressing, and part feature locating.

Typical parts produced on the GS:TE-LM



- Built-in Part Smart™ programming – run parts and changeover jobs with menu-driven ease. *No programming knowledge required.*
- Drake Smart Form™ technology available – automatically generates wheel forms for correcting helical path interference and off-helix grinding or upload your designer form from .dxf files.
- Mineral-filled, cast polymer base with excellent thermal stability and vibration dampening.
- State of the art Fanuc CNC system.
- A lean, clean, ergonomic design and compact footprint for operation in a cell environment.

**Drake**  
MANUFACTURING

# GS:TE-LM ...

advanced machine technology in a compact, versatile package.

Drake's new GS:TE-LM is a highly productive grinder for taps, gages, multi-start worms, electronic steering components, fast lead ball screws, feed and bone screws.

## 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 60°, Whitworth, ISO, Acme, Buttress, worm (ZK, ZN, ZA, ZI), full radius, Gothic arch, 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.



Also available in Internal Thread Grinder configuration. GS:TE/I-LM 350 shown.



## GS:TE-LM Dimensions – Standard Configuration

	LM 150	LM 350
Overall machine	1.7 m W x 2.1 m D	3 m W x 2.6 m D
Coolant discharge height	.5 m above bottom of base	
Part loading height	1.1 m above bottom of base	
Approximate shipping weight	7,000 kg	12,000 kg

## GS:TE-LM Specifications

Axis	Description	LM 150	LM 350	Optional	Speed
X	Max Part Diameter	150 mm	350 mm		30 m/min
Z	Max Length HS to TS <sup>1</sup>	400 mm	800 mm	2.1 m	30 m/min
	Max Part Between Centers <sup>2</sup>	330 mm	750 mm	2.1 m	30 m/min
	Max Thread Length <sup>3</sup>	330 mm	650 mm	2 m	30 m/min
A	Wheel Helix	+/- 90° <sup>4</sup>	+/- 90°		30 rpm
C	Work Rotation <sup>5</sup>	10:1	10:1		300 rpm
	Spindle	7.5 kW	18 kW		60 m/sec

Other machine capacities available.

<sup>1</sup> Distance between face of A6 spindle nose and tailstock face with the headstock (HS) at outermost position.

<sup>2</sup> Distance between standard centers with HS at outermost position.

<sup>3</sup> Maximum length of grind from tailstock (TS) end of part.

<sup>4</sup> At lead angles greater than ±35°, machine specifications become dependent on tooling, part and wheel diameter, coolant delivery, and other fixturing interference issues.

<sup>5</sup> High accuracy workhead with <6 arc second index error available.

ISO 9001:2000 Certified Quality System



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**Better Parts Faster.™**

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