



The FTS 5000 is an oscillating tool attachment designed for Optoform and Nanoform ultra-precision lathes.

It's used for the production of high quality non-rotationally symmetrical (freeform) optical surfaces, such as toric, prism ballasted, slab-offs, wafer-shaped, and numerous others.

## Specifications

### Type

Non-influencing enhanced Servo-controlled Tool Positioning Device (STPD)

### Travel

5.0 mm | 0.2 in.

### Typical Operational Sinusoidal Acceleration

2000  $\mu\text{m}$  | 0.078 in. @ 100 Hz

1000  $\mu\text{m}$  | 0.039 in. @ 140 Hz

250  $\mu\text{m}$  | 0.010 in. @ 280 Hz

100  $\mu\text{m}$  | 0.004 in. @ 440 Hz

### Tractor Dimensions and Weight<sup>1</sup>

(LxWxH)

244 x 67 x 112 mm

9.61 x 2.63 x 4.42 in.

6.45 kg | 14.2 lbs.

### Power Distribution Module and Electronics Module Dimensions

(LxWxH)

432 x 178 x 305 mm

17 x 7 x 12 in.

### Pressurized Air Supply

Air Pressure: 5.4-6.8 bar | 80-100 psi

Air Consumption: 38 l/min | 1-2 SCFM

Air Quality: ISO 8573.1 Class 4

15  $\mu\text{m}$  particle size filtration

Pressure dew point:

2.8°C | 37.4°F @ 6.8 bar | 100 psig

### Electrical Supply

230 VAC, 47-63 Hz, 390 W

Power can be drawn from the lathe or directly from the AC outlet<sup>2</sup>

### Stiffness

53 N/ $\mu\text{m}$  @ 6.8 bar

500,000 lb./in. @ 100 psi

### Tool Holder

6.35 mm | 0.25 in. square shank tools

### Tool Height Adjustment<sup>3</sup>

Coarse:  $\pm$  2.92 mm | 0.115 in.

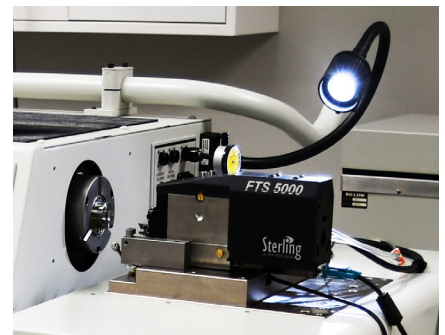
Fine:  $\pm$  0.38 mm | 0.015 in.

### Fault Protection

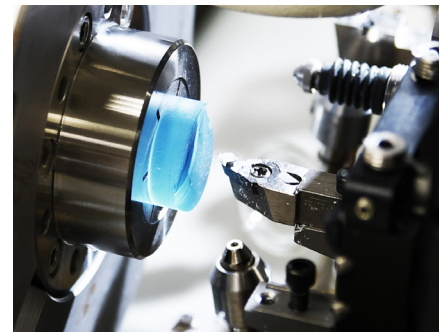
Current limit fault

Travel limit fault

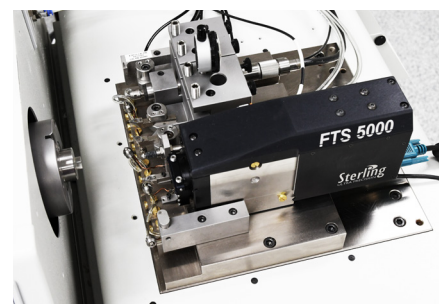
Low air pressure fault



FTS 5000 on an Optoform 80 lathe



Example of a toric lens cut with FTS 5000



FTS 5000 footprint in relation to full toolpost

<sup>1</sup> Without tool

<sup>2</sup> If plugging directly into the AC outlet, use of surge protection is recommended

<sup>3</sup> Integral to tool nose