DektakXT

Stylus Profiler

Facility Specification

Innovation with Integrity

Stylus and Optical Metrology

BRUKER DEKTAKXT
STYLUS PROFILER
FACILITY SPECIFICATION

MANUFACTURER INFORMATION

Printed in the United States of America
November 4, 2011

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Note: Configurations and specifications may be subject to change without notice.

Bruker DektakXT

Facility Specification

As a a high-precision measuring instrument capable of measuring minute physical surface variations, the Bruker DektakXT™ stylus surface profiler is extremely sensitive to the environment in which it operates. The system requires one of the following operating environments:

- **Normal Operating Conditions**: The area that houses the DektakXT system must be free from excessive dust. Vibration and acoustic levels must be minimal. The scan head must be protected from drafts. The door to the environmental enclosure should be closed when making measurements.
- **Reference Operating Conditions**: For very critical measurements, you can purchase a set of optional vibration isolation feet or a vibration isolation table. Because the system's scanning mechanism is sensitive to transient convective flow, allow the system to stabilize for at least 15 minutes before taking measurements. Always run the system within the environmental enclosure.

Table 1 lists the facility requirements of the DektakXT system. Table 2 lists its dimensions, weight, and heat load.

Table 1: DektakXT Facility Requirements

Facility	Requirement
Temperature	Operating Range, 20°-25°C (68°-77°F)
Clean Room	Not required. (Class 1000 or better recommended.)
Relative Humidity	Less than 80% (non-condensing)
Input Voltage	100 - 240 VAC, 50 - 60 Hz
Power Demand	1000 VA maximum
Power Connection	Standard outlet
Warm-up Time	15 minutes for maximum stability
Vibration	Not to exceed 70 µg from 1 to 100 Hz on a floor with a flat noise spectrum.
Vacuum (for optional vacuum chuck)	457 - 635 mm Hg (18 - 25") 0.61 - .85 BAR minimum constant vacuum for the system with one fitting for 4 mm (5/32") OD tubing.
Clean, Dry Air (for optional vibration isolation pads)	Max 275kPa (40psi) clean air with 6.35mm (1/4") OD tubing. Regulator adjustable to 70 - 140 kPa (10-20 psi).
Clean, Dry Air (for optional floor-model vibration isolation table)	345 kPa (50psi) clean air with 6.35mm (1/4") OD tubing
Acoustics	Not to exceed 60 dB(A) across the frequency spectrum.

Table 2: DektakXT Dimensions, Weight, and Heat Load

Profiler Dimensions	548.6 mm W x 454.6 mm D x 372 mm H (21.6” W x 17.9” D x 14.6” H)
Enclosure Dimensions	594 mm W x 546 mm D x 445 mm H (23” W x 21.5” D x 17.5” H)
Profiler Weight	34 kg (75 lbs.); 52.9 kg (116 lbs.) shipping weight
Enclosure Weight	5 kg (11 lbs.) enclosure weight; 12 kg (26 lbs.) shipping weight
Shipping Box Dimensions	Box 1 (computer): 558 mm x 558 mm x 355 mm (22” x 22” x 14”) Box 2 (profiler system): 609 mm x 609 mm x 508 mm (24” x 24” x 20”) Box 3 (enclosure): 889 mm x 635 mm x 812 mm (35” x 25” x 31”) Box 4 (monitor): 457 mm x 381 mm x 177 mm (18” x 15” x 7”) Box 5 (optional vibration isolation table): 1066 mm x 914 mm x 1066 mm (42” x 36” x 42”)
Profiler Heat Load	260 W (887 BTU/h)

Vibration Interference

The DektakXT system should not be positioned near sources of vibration (such as fans or motors) or in excessive air flow (such as from a cleanroom air duct). For optimum performance, the tool should be placed in an area with minimal foot traffic and low acoustical noise. To minimize vibration interference, place the system on the optional vibration isolation feet or vibration isolation table.

Floor

The floor must be level, rigid, and capable of supporting the DektakXT system on a sturdy workbench or on the optional vibration isolation table.

System Location and Service Access

The system must be positioned with the work area in front to allow adequate working space for the operator. The rear of the system must have a minimum service access clearance of 610 mm (24”).

DektakXT Dimensions

The following drawings show the dimensions of the DektakXT system.

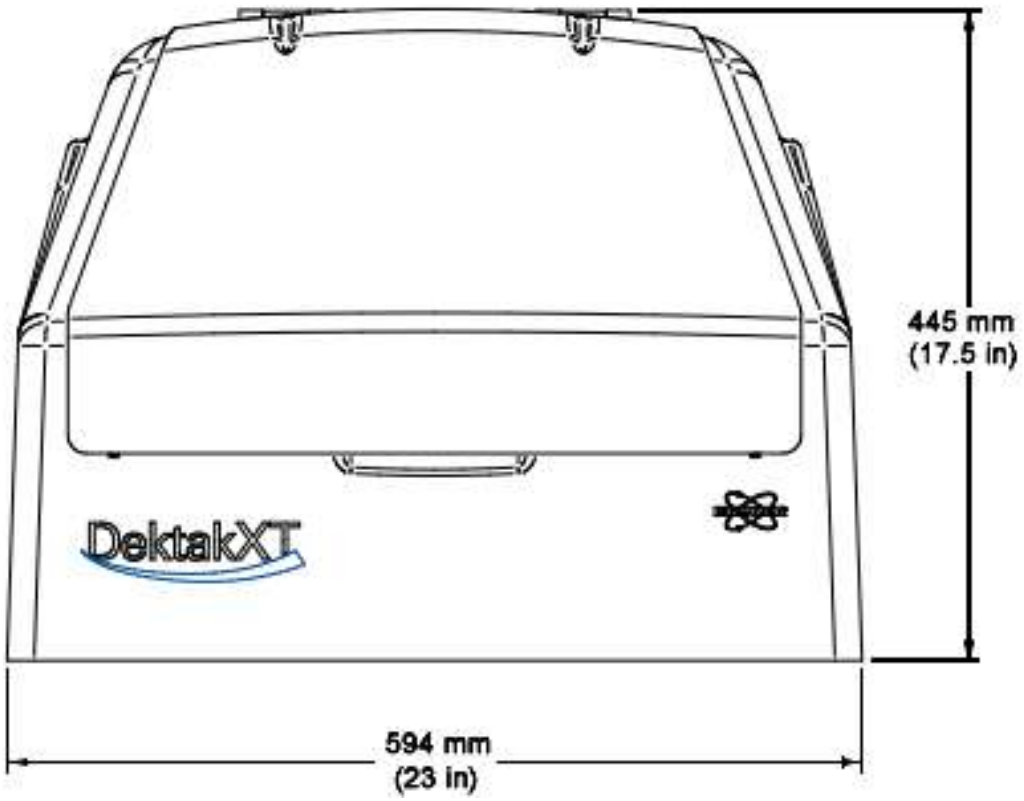

Figure 1: DektakXT Dimensions with Enclosure - Front View

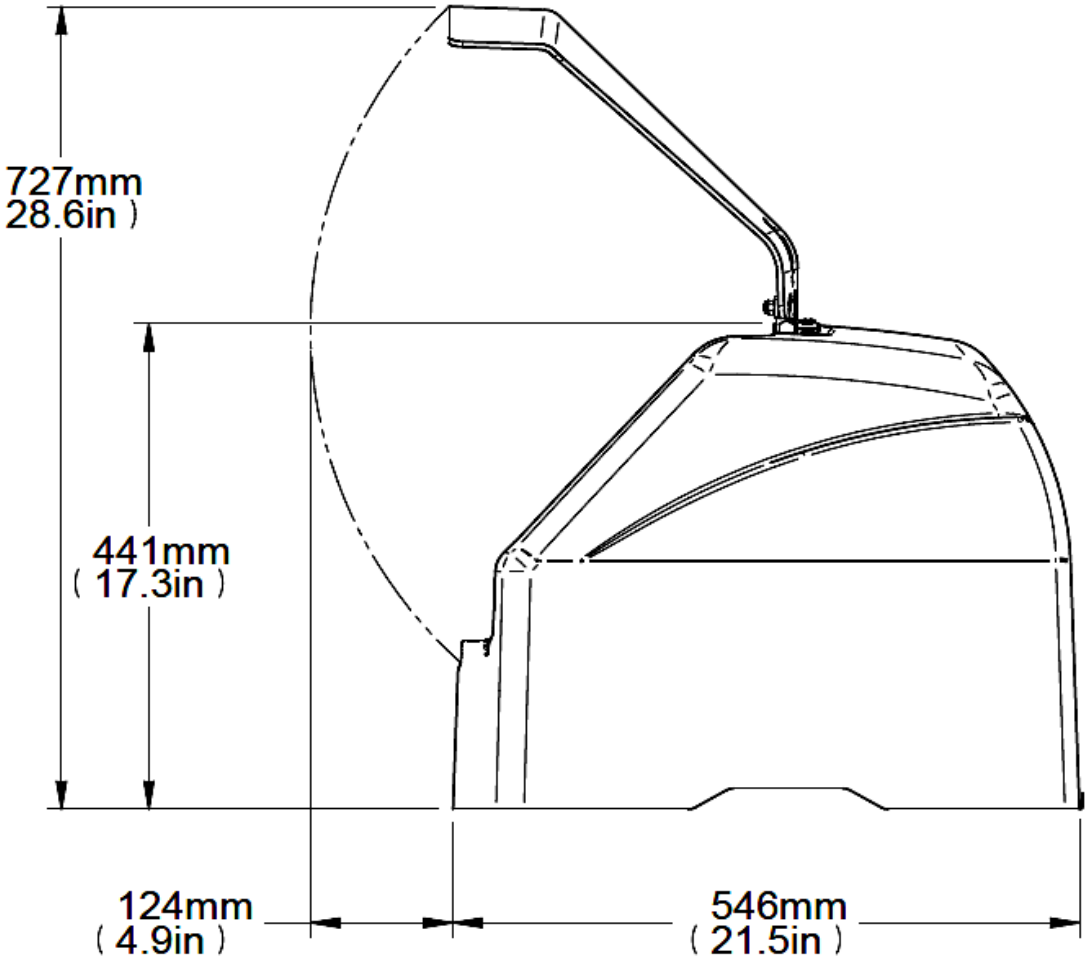

Figure 2: DektakXT Dimensions with Enclosure - Side View

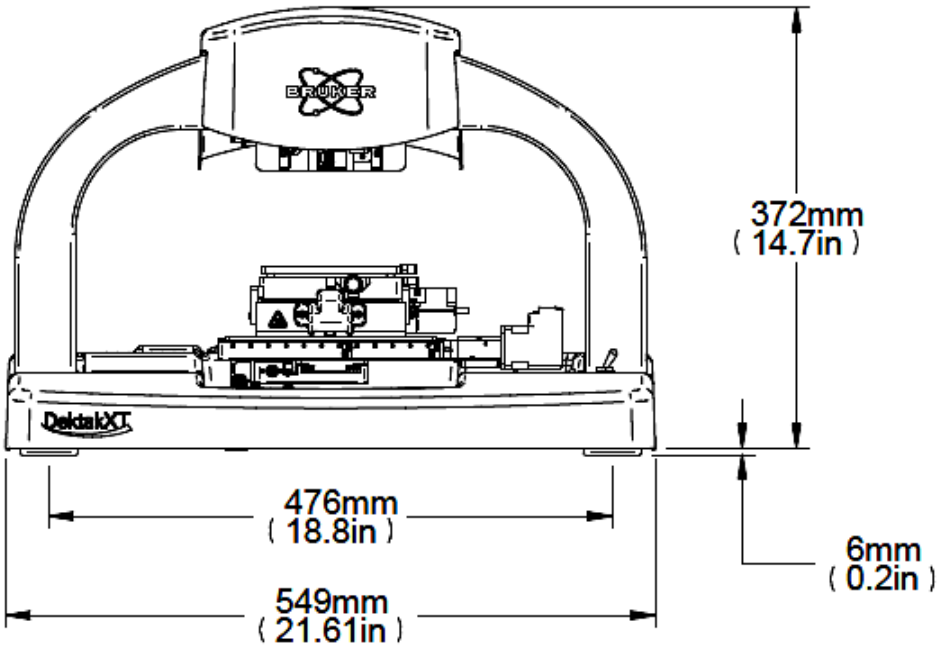

Figure 3: DektakXT Dimensions without Enclosure - Front View

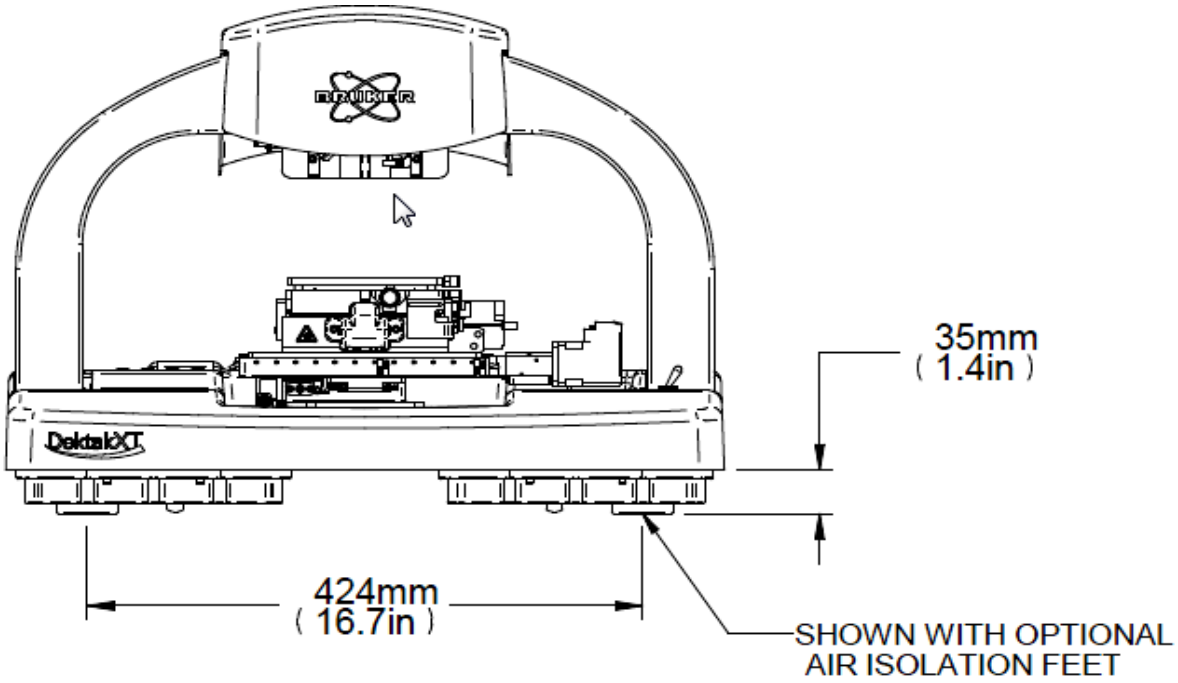

Figure 4: DektakXT Dimensions without Enclosure - Front View with Optional Air Isolation Feet

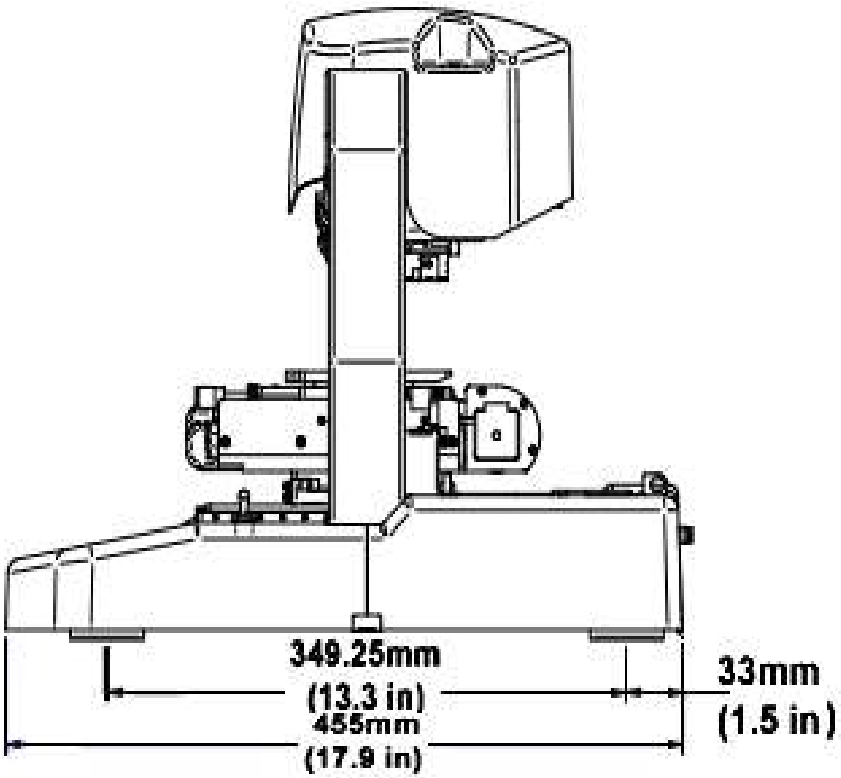

Figure 5: DektakXT Dimensions without Enclosure - Side View

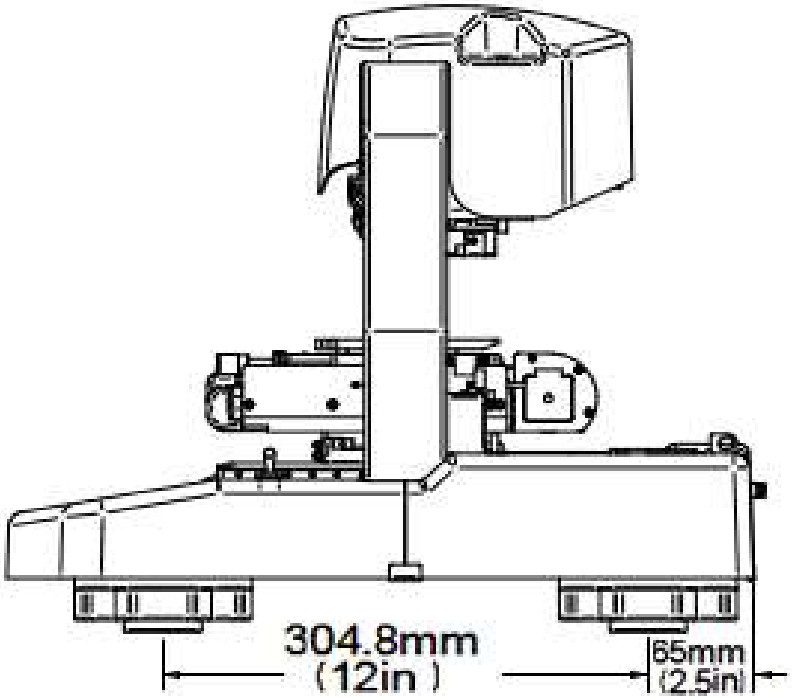

Figure 6: DektakXT Dimensions without Enclosure - Side View with Optional Air Isolation Feet

Dimensions of the Optional Vibration Isolation Table

The drawing below shows the dimensions of the optional vibration isolation table, which is highly recommended for the achievement of optimal performance of the DektakXT surface profiler.

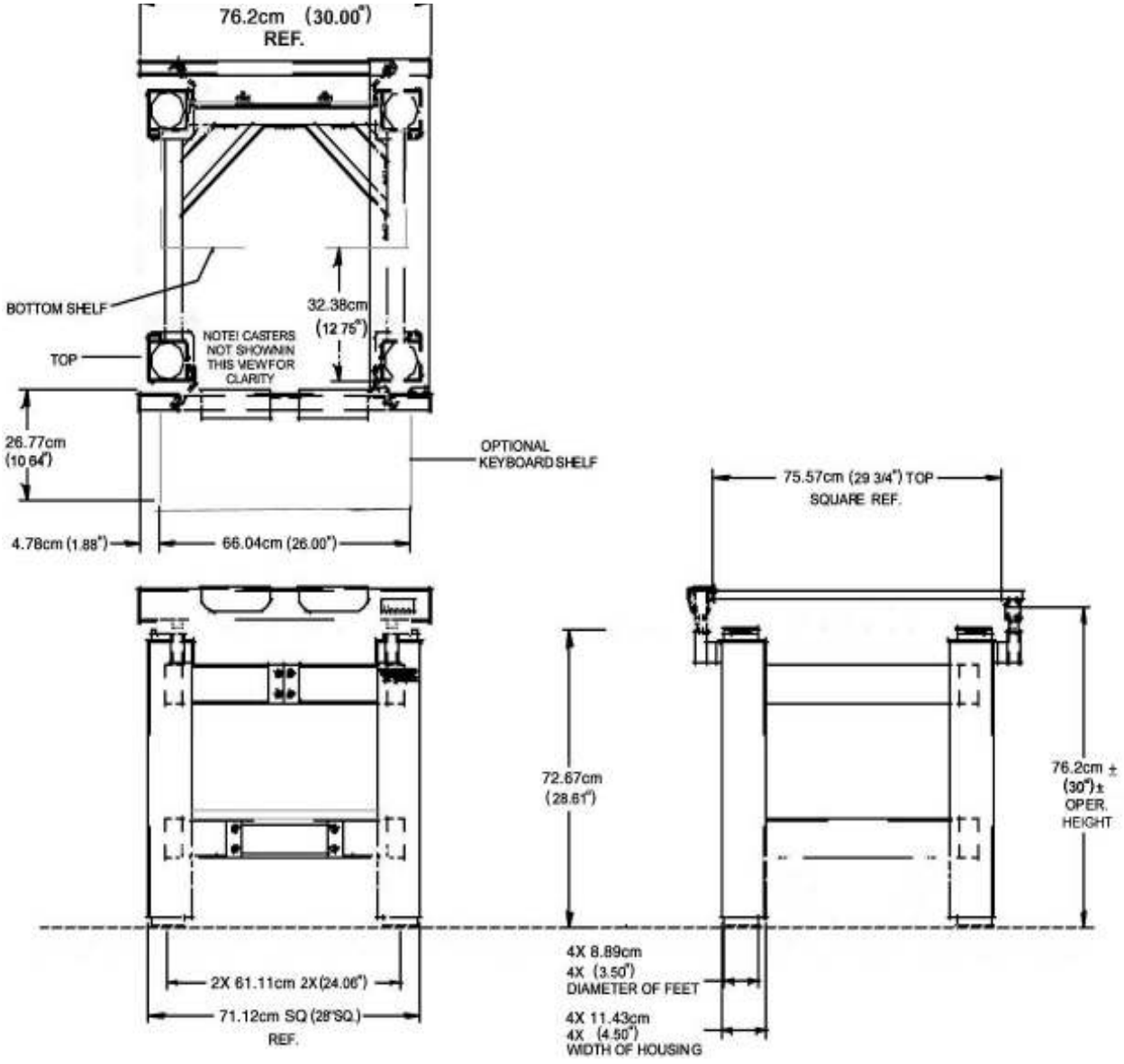

Figure 7: Dimensions of the Optional Vibration Isolation Table