

Optical Benches

DATA OPTICS, INC.

115 HOLMES ROAD • YPSILANTI MICHIGAN 48198-3020
(800)321-9026 (734)483-8228 Fax:(734)483-9879

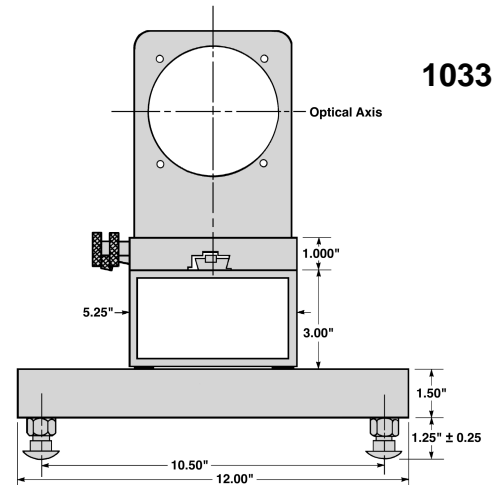
The 1033, 1076 and 1088 Optical Benches are constructed from hollow aluminum rectangular beams with heavy wall sections, providing outstanding rigidity for their weight. The surface of the bench, on which optical mounts are supported, is precision machined for flatness to a tolerance of ± 0.001 "/foot (± 0.025 mm/300 mm). The entire bench is hard anodized to provide an extremely hard and long wearing surface that will not corrode.

An anodized aluminum alignment bar placed in the center of the supporting surface provides lateral alignment and a versatile clamping surface for the optical mounts. In the center of the alignment bar is a movable stainless steel rack which is part of the rack and pinion system used for remote positioning of components. The alignment bar also holds a steel tape calibrated in both inches and millimeters. The alignment bar is straight to a tolerance of ± 0.001 "/foot (± 0.025 mm/300 mm) and ± 0.003 " (± 0.075 mm) over the entire length.

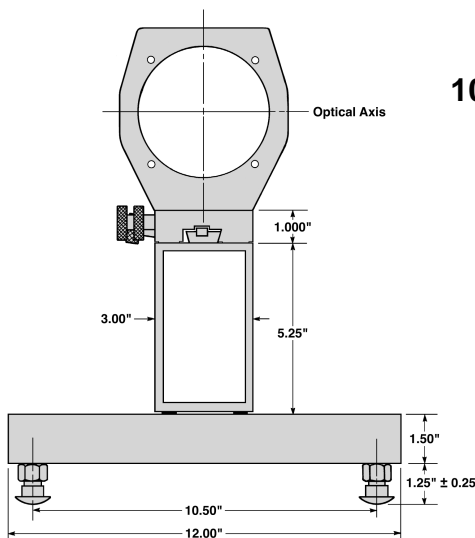
The 1033 and 1076 are for the Series 133 and Series 76 respectively, while the 1088 allows mounting of the Series 133 carriers on the top (horizontal) surface and the Series 76 carriers on the side (vertical) surface, simultaneously.

SERIES 76

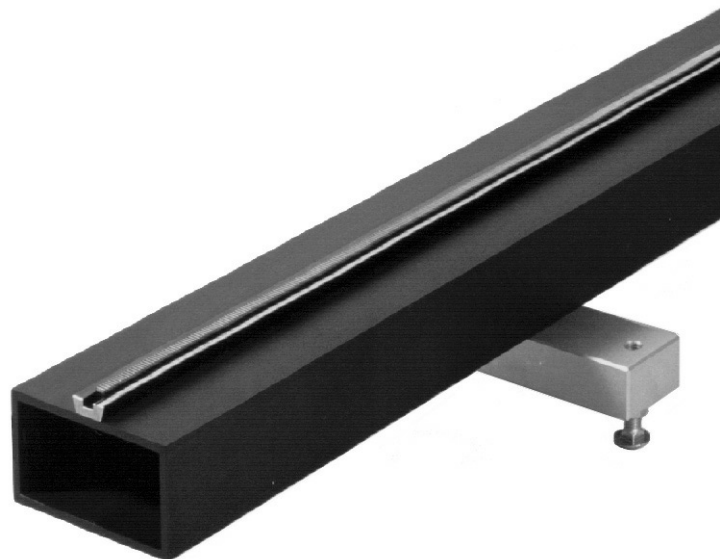
SERIES 133



1033 - L



1076 - L



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Optical Benches

Steel Box-Beam Optical Benches

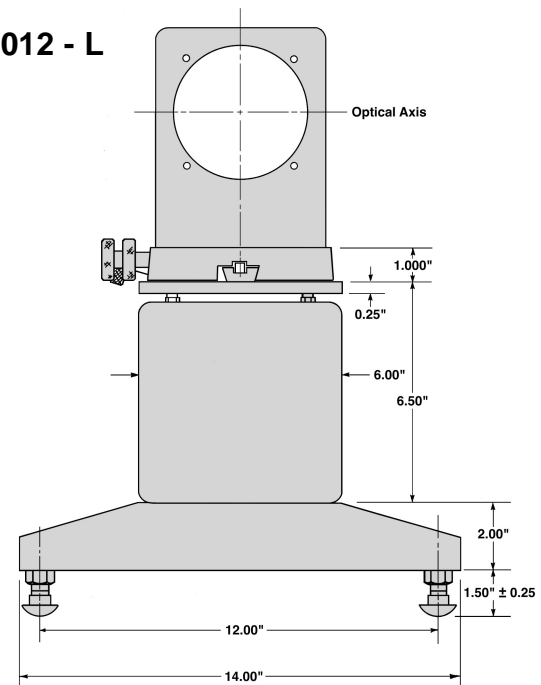
The 1012 Optical Bench has been developed by Data Optics to meet the requirements of modern optical research in such fields as optical data processing, lasers and holographic technology. The bench is standardly available in lengths up to 12 feet (3.65 meters) to accommodate the longer optical systems and lasers presently being encountered in the field. Though exceptionally long, the Data Optics 1012 optical bench is outstandingly accurate and rigid due to its unique steel box-beam construction. At 12 feet, it weighs only 260 lbs. (120 kg.), and is therefore relatively portable, and can be set on any suitable work surface. The three supporting legs with adjustable feet provide stability and leveling capability.

The surface which supports the optical mounts is a 0.375" thick steel plate which is precision ground for flatness and chrome plated to insure long wear and freedom from corrosion.

An anodized aluminum bar is placed in the center of the flat plate and provides longitudinal alignment and a clamping surface for the optical mounts. In the center of the alignment bar is a moveable steel rack which is part of the rack and pinion system used for remotely positioning the mounts. The alignment bar also holds a steel tape calibrated in both inches and millimeters.

Tolerances in straightness and flatness are ± 0.001 "/foot (± 0.025 mm/300 mm) and ± 0.003 " (± 0.075 mm) over the entire length of the bench. (Benches are aligned at the factory to tolerances better than these at a temperature of 72°F (22°C). Customers should expect to hold these tolerances under normal laboratory conditions. The 1012 Optical Bench is constructed so that it can be realigned at any time, both in flatness and straightness. This precision is assured by the rigidity of the steel box-section beam which supports the flat plate and alignment bar

1012 - L



Optical Breadboards

Optical Breadboards

Any size from 4"×4" to 24"×48". Made from 1/2" thick aluminum tooling plate (5/8", 3/4" and 1" thicknesses also available). With 1/4"-20 tapped holes on 1" or 2" centers, or metric M6 tapped holes on 25 mm or 50 mm centers.

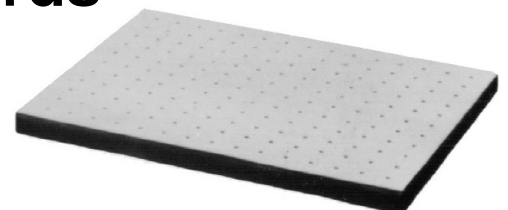
Specifications:

Material: Aluminum tooling plate

Flatness: ± 0.001 "/foot (± 0.025 mm/300 mm) and ± 0.003 " (± 0.075 mm) over the entire length and width

Thickness: 0.50" ± 0.003 " standard;
0.75" and 1.00" also available

80 ww - LL



Hole Size: 1/4"-20 UNC or metric M6

Hole Spacing: 1.000", 2.000", 25.0 mm or 50.0 mm

Size: Any size from 4" × 4" to 24" × 48", ± 0.125 "
100 mm x 100 mm to 600 mm x 1220 mm, ± 3 mm.

Surface Coating: Clear or black anodize standard;
a grey hard anodize coating also available