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Prismatic difference test equipment

Description



Equipment for testing prismatic difference/imbalance as described in various standards.

The basic equipment comprises a helium-neon laser light source, an eye protector mounting system & optical system and a target, all fitted to a rail system.

We offer the equipment as packs, including various mounting and optical system choices depending upon the standard(s) of interest.

Each pack includes at least a headform, an aperture plate and a 1000mm nominal focal length lens. Depending upon the standard requirement, we offer the optical system built into the headform or external to it.

In use, the laser beam is expanded and projected on to the eye protector which is mounted approximately 2m away. The supplied target is mounted a further 2m away from the 1000mm focal length lens and the laser dots passing through each eye are focused on it. The displacement of the dots can be measured and the prismatic difference/imbalance calculated.

As standard, the equipment is designed to be installed on a bench, but we also offer optional wall or floor fixing kits.

Packs

EN pack (product code 3451)

Includes medium EN headform, with internal aperture plate/lens

ANSI pack (product code 3453)

Includes medium EN headform, with externally mounted aperture plate and lenses.

ISO pack (product code 3454)

Includes ISO 18526-4 size 1-M headform, with internal aperture plate/lens.

EN & ANSI combination pack (product code 3452)

Includes items from EN and ANSI packs..

If you require other sizes or shapes of headform, contact us for a quotation.

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Prismatic difference test equipment (continued)

Optional fixing kits

Wall fixing kit (product code 3455)

Floor fixing kit (product code 3456)

Services required

Bench, wall or floor mounted – 4.7m long space required.

110/230 volts AC, 50/60Hz, mains electricity.

The rig is designed to operate in the conditions specified by the relevant standards listed below.

Storage conditions should be restricted to 5 to 35°C and <85%RH.

Consumables

None.

Approximate dimensions and weight

110 x 60 x 40 cm : 120 kg = bench and wall fixed versions

265 x 40 x 40 cm : 120 kg = floor fixed version

Relevant standards (depending upon pack chosen)

EN 167:2001, clause 3.2.2 and figure 2, or other standards that use this method.

ANSI Z87.1:2020, clause 9.5.2 and figure E6

AS/NZS 1337-1:2010, appendix G and figure G1

ISO 12311:2013

ISO 12312-1:2013, Part 1

ISO 16321-1:2021 clause 5.2.4

ISO 18526-1:2020 clause 6.2, or other standards that use this method.