

STAND ALONE NAIL WITHDRAWAL LOADING FRAME (AL)



Specimen	Width	Any size up to 8.0"
	Thickness	Any size up to 8.0"
	Length	Any size up to 8.0"
Fixture	Construction	Aluminum with clear anodize and high strength steel with protective black oxide
	Temperature	-20 to 120°F (-29 to 49°C)
	Mounting	Portable - Mounts to flat substrate with nail
	Capacity	1,000 lbs (4.5kN)
	Weight	30 lbs approximately
	Dimensions	Assembled - 8" x 8" x 18"
	Loading	Powered by Enerpac cylinder and pump
	Displacement	Twin LVDT displacement gages (readout sold separately)
	Standard	Manufactured in accordance with ASTM D143

Model No. ASTM.D0143.51 - Stand Alone Nail Withdrawal Loading Frame (AL)

The 1,000 lbs. capacity aluminum loading frame will include 1/2"-20 loading rod, split nut, any mounting plates or brackets need to center and mount the load cell and enerpac ram, (2) mountings and pull rod adapters for the LVDT's sensors, (2) nail withdrawal tension bells for 8D and 16D nails and all fasteners required to assemble unit. The load frame will have a 3" travel with height adjustments via movement of the split nut.

MODEL NO. ASTM.D0143.51

NAIL, WITHDRAWAL

ACCESSORIES

No Adapters Necessary

SPARE PARTS

SPA.D0143.5101- Twin LVDT displacement gages (readout sold separately)

SPA.D0143.5102- Enerpac cylinder and pump

REFERENCE DOCUMENT AND TEST METHOD SCOPE:

Reference

ASTM Test Method D143 - 14

Standard Test Methods for Small Clear Specimens of Timber

1. Scope

1.1 These test methods cover the determination of various strength and related properties of wood by testing small clear specimens.

1.1.1 These test methods represent procedures for evaluating the different mechanical and physical properties, controlling factors such as specimen size, moisture content, temperature, and rate of loading.

1.1.2 Sampling and collection of material is discussed in Practice D5536. Sample data, computation sheets, and cards have been incorporated, which were of assistance to the investigator in systematizing records.

1.1.3 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard. When a weight is prescribed, the basic inch-pound unit of weight (lbf) and the basic SI unit of mass (Kg) are cited.

1.2 The procedures for the various tests appear in the following order

Photographs of Specimens (5) Control of Moisture Content and Temperature (6) Record of Heartwood and Sapwood (7)

Static Bending (8) Compression Parallel to Grain (9) Impact Bending (10) Toughness (11) Compression Perpendicular to Grain (12)

Hardness (13) Shear Parallel to Grain (14) Cleavage (15) Tension Parallel to Grain (16) Tension Perpendicular to Grain (17) Nail Withdrawal (18) Specific Gravity and Shrinkage in Volume (19) Radial and Tangential Shrinkage (20) Moisture Determination (21) Permissible Variations (22) Calibration (23)

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

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