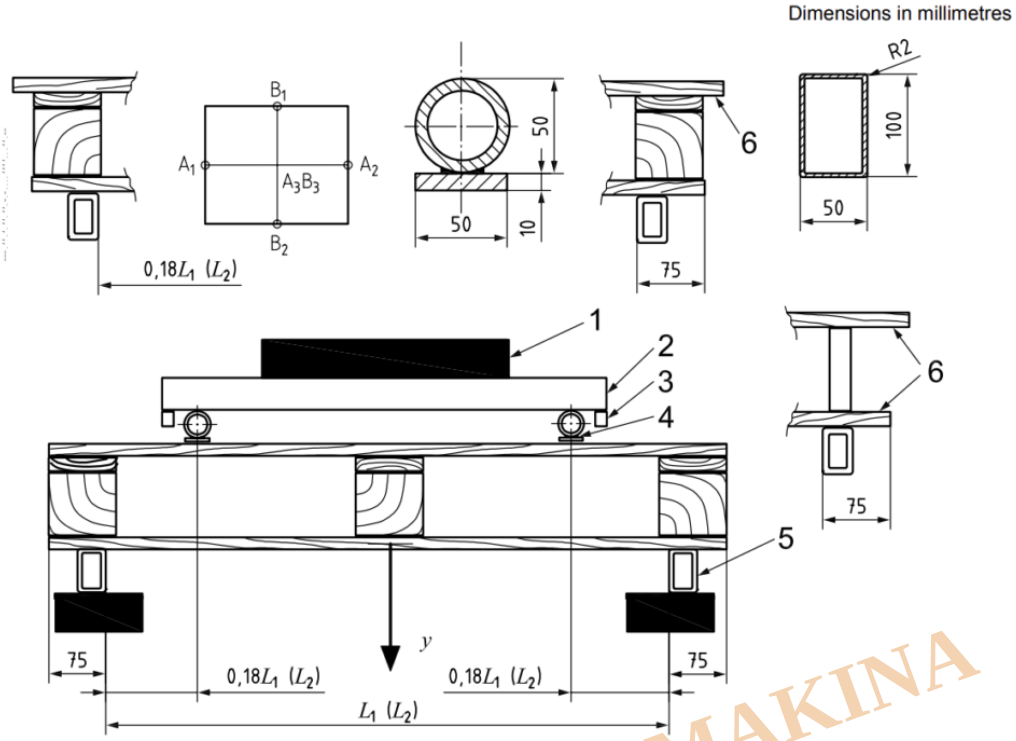
ISO 8611 Pallets for Materials Handling – Flat Pallets – Part 1: Test Methods – Bending Test/ Testing Equipment

Description

8.1 Test 1 — Bending tests
8.1.1 Purpose
The purpose of these tests is to determine the bending strength (test 1a) and bending stiffness (test 1b) of the pallet in racking situations.

8.1.2 Procedure
8.1.2.1 In order to establish the weakest pallet support dimension, test one pallet across the length of the
pallet and then a second pallet across the width of the pallet. There is no requirement for further tests on the stronger dimension unless the result is within 15 % of the weaker.
8.1.2.2 This having been established, place a fresh pallet across its weakest side, top deck uppermost, on pallet supports positioned with their inside edges 75 mm from the outer edges of the pallet. The load applicators shall be positioned at 0,18 L1 or 0,18 L2, where measured as shown, where L1 or L2 is the distance between the pallet supports (see Figure 1).



Key

1	test load
2	load board
3	safety stop
4	load applicator
5	support
6	wing
y	deflection

Figure 1 — Bending test

8.1.2.3 Load applicators and supports shall be flush with or project beyond the edges of the pallet. Edges
shall be relieved with (2 ± 1) mm radii. Where load applicators coincide with gaps between deckboards, in-fill pieces of equal thickness to deckboards with 3 mm to 6 mm overall clearance on each shall be used. Place on the pallet deck, the load applicators and the load board, then apply the rest of the test load.

8.1.3 Measurements

8.1.3.1 Test 1a — Determination of bending strength
Place a load on the load board until breakage of one of the components of the pallet or until reaching an
excessive deflection or deformation. Record the ultimate load.
8.1.3.2 Test 1b — Determination of bending stiffness
Apply a datum load of (1,5 ± 0,5) % of the ultimate load determined in test 1a. Depending on the support
location, the deflection, y, shall be measured at points A [maximum of y at A1 (B1), A2 (B2)A3 B3]:
a) after positioning of datum load;

b) immediately after full test load is applied;
c) at end of the full test load period;
d) after the relaxation period.

Pallet Tester According to ISO 8611 (4 Column Test Stand)

- It includes two types of 2 column and 4 column compression machine
- Computer controlled
- Windows based software
- Full test cycle of pallets at the touch of a button
- Displacement measurement in 5 points (Basic model includes 2 displacement sensor)
- Report in MS EXCEL
- Portable displacement measurement device
- In different capacities of 50KN-10KN-15KN
- Hard chrome guide shafts
- USB data out
- Servomotor controlled
- Pressure plates according to customer request
- Computer is up to the customer (Will be quoted separately)

Category

1. Equipment for Standards
2. Standards