STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

METHODS OF TESTING CONVEYOR AND ELEVATOR BELTING

AS 1334.4
DETERMINATION OF TROUGHABILITY OF CONVEYOR BELTING*

1 SCOPE. This standard sets out a method for determining the troughability of conveyor belting.

2 APPLICATION. This method is applicable only to belting having a minimum width of 500 mm.

3 PRINCIPLE. A test piece is supported at the edges in such a way as to minimize all friction and end forces. The troughability is determined by measuring the deflection of the belting at the centre of the test piece and is expressed as the ratio of the deflection to the flat width of the belting.

4 APPARATUS. The test apparatus shall consist of the following equipment (see Fig. 1):

(a) Two rigid horizontal bars conveniently supported over a base. The unsupported length of the bars shall be greater than the width of the belting being tested.

(b) Two clamps 150 mm long for attaching to the ends of the test piece, provided with suspension lugs for attachment to the suspending wires. The clamps shall be sufficiently rigid to maintain the width of the test piece free from curvature, and shall exert no bending moment which might influence the deflection of the test piece.†

(c) Four relatively inextensible suspension wires, fitted with adjustable stirrups on each end for attaching to horizontal bars and clamps.

NOTE: It is important that the suspension length of each wire is the same, although the actual length is not so important. Also it is essential that the attachments to the horizontal bars and clamps reduce friction forces to a minimum when maintaining the suspension wires vertical during the test.

(d) Means of measuring the deflection of the test piece.

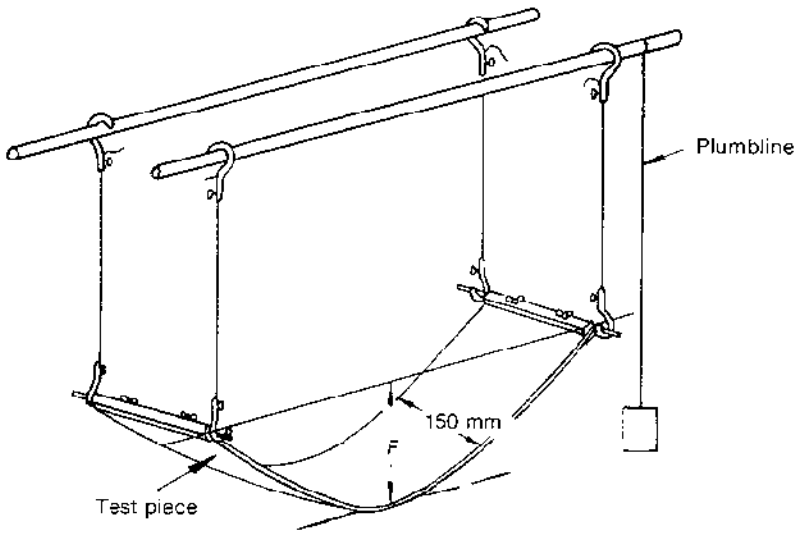

Fig. 1. APPARATUS FOR MEASURING TROUGHABILITY

* Derived from ISO 703, Troughability of Conveyor Belts.

† The importance of this feature is stressed as it can have a significant effect on the results obtained.