

ISO

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 1535

CONTINUOUS MECHANICAL HANDLING EQUIPMENT
FOR LOOSE BULK MATERIALS

TROUGHED BELT CONVEYORS (OTHER THAN PORTABLE CONVEYORS)
BELTS

1st EDITION

June 1970

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BRIEF HISTORY

The ISO Recommendation R 1535, *Continuous mechanical handling equipment for loose bulk materials – Troughed belt conveyors (other than portable conveyors) – Belts*, was drawn up by Technical Committee ISO/TC 101, *Continuous mechanical handling equipment*, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this question led to the adoption of Draft ISO Recommendation No. 1535, which was circulated to all the ISO Member Bodies for enquiry in October 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Belgium	Israel	Switzerland
Canada	Italy	Thailand
Colombia	Japan	Turkey
Czechoslovakia	New Zealand	U.A.R.
Finland	Norway	United Kingdom
France	Poland	U.S.A.
Germany	South Africa, Rep. of	U.S.S.R.
Greece	Spain	
India	Sweden	

No Member Body opposed the approval of the Draft.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as an ISO RECOMMENDATION.

FOREWORD

Troughed belt conveyors (other than portable conveyors) for loose bulk materials form the subject of the three following ISO Recommendations :

ISO/R 1535, *Troughed belt conveyors (other than portable conveyors) – Belts* (this ISO Recommendation)

ISO/R 1536, *Troughed belt conveyors (other than portable conveyors) – Belt pulleys*

ISO/R 1537, *Troughed belt conveyors (other than portable conveyors) – Idlers*

Light duty belt conveyors for loose bulk materials will be covered by another ISO Recommendation.*

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* At present at the stage of draft proposal.

CONTINUOUS MECHANICAL HANDLING EQUIPMENT
FOR LOOSE BULK MATERIALS

TROUGHED BELT CONVEYORS (OTHER THAN PORTABLE CONVEYORS)
BELTS

1. SCOPE

This ISO Recommendation specifies the belt widths and belt edge clearances for troughed belt conveyors (other than portable conveyors).

2. SPECIFICATIONS

2.1 Dimensions

The belt widths and the relevant tolerances are in accordance with ISO Recommendation R 251, *Widths and lengths of conveyors belts*.

They are reproduced in the Appendix.

2.2 Edge clearance of belts

2.2.1 *Definition.* The edge clearance c of belts is the gap between each edge of the return and carrying belts in their correct positions and the nearest obstacle liable to be approached by the edge of the belt.

2.2.2 *Minimum clearances* (on each side)

2.2.2.1 The minimum values for edge clearances, on each side, are given in the following Table :

TABLE - Minimum edge clearances (on each side) of belts

Belt width b		Minimum clearances c		
		Individual obstacle		Continuous or recurring obstacle
millimetres	(inches)	millimetres	(inches)	
400 to 650	(16) to (26)	50	(2)	0.075 b^*
800 to 1400	(32) to (56)	75	(3)	
1600 to 2000	(64) to (80)	100	(4)	

* subject to specifications mentioned in clause 2.2.2.2.

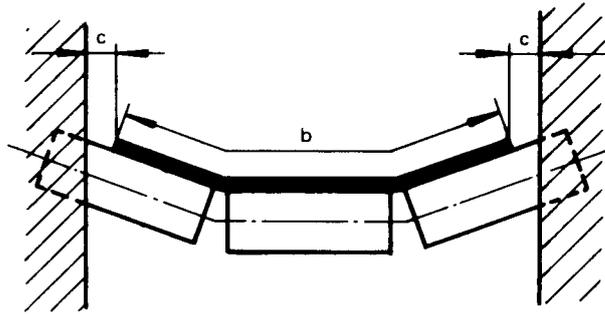


FIG. 1 - Carrying idlers

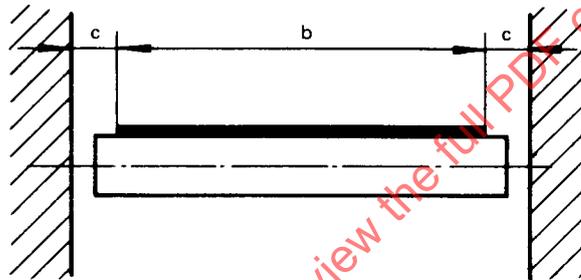


FIG. 2 - Return idler

- 2.2.2.2 The minimum clearance c , in the presence of continued or repeated obstacles, should be at least equal to those allowed for individual obstacles.
- 2.2.2.3 No obstacle should be placed within the lines projected vertically from the outer ends of the upper surfaces of the inclined idlers.
- 2.2.2.4 If the carrying system of the conveyor has a concave curve, the manufacturer should take into account the possibility of the belt lifting and flattening out.
- 2.2.2.5 The clearances given above apply to conveyor belt speeds not greater than 3 m/s. For higher speeds, the manufacturer should take into account any additional clearance which may be required.