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**INTERNATIONAL STANDARD**



**5037**

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**Continuous mechanical handling equipment for unit loads –  
Fixed slat conveyors (metal or wood) with horizontal  
shafts – Safety code**

*Engins de manutention continue pour charges isolées – Transporteurs fixes à lattes (métalliques, bois)  
à arbres horizontaux – Code de sécurité*

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**Descriptors** : handling equipment, continuous handling, unit loads, apron conveyors, fixed equipment, safety requirements.

## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 5037 was developed by Technical Committee ISO/TC 101, *Continuous mechanical handling equipment*, and was circulated to the member bodies in February 1976.

It has been approved by the member bodies of the following countries :

Australia	Germany	Spain
Austria	India	Sweden
Belgium	Japan	Turkey
Bulgaria	Mexico	United Kingdom
Chile	Netherlands	U.S.S.R.
Czechoslovakia	Poland	Yugoslavia
Finland	Romania	
France	South Africa, Rep. of	

No member body expressed disapproval of the document.

# Continuous mechanical handling equipment for unit loads — Fixed slat conveyors (metal or wood) with horizontal shafts — Safety code

## 1 SCOPE

This International Standard specifies, in addition to the general safety rules set out in ISO 1819, the special safety rules for the following continuous mechanical handling equipment for unit loads : fixed slat conveyors (metal or wood) with horizontal shafts.<sup>1)</sup>

## 2 FIELD OF APPLICATION

The safety rules laid down in this International Standard apply regardless of the use for which the equipment is intended. These safety rules limit the supplier's responsibility to continuous mechanical handling equipment properly so called, excluding the structures to which such equipment is fixed.

## 3 REFERENCES

ISO 1819, *Continuous mechanical handling equipment — Safety code — General rules.*<sup>2)</sup>

ISO 2148, *Continuous handling equipment — Nomenclature.*

## 4 SPECIAL SAFETY RULES

The design, construction and operation of fixed slat conveyors (metal or wood) with horizontal shafts for unit loads shall meet

- the legal and local requirements relating to safety in general (see appendix Z of ISO 1819);
- the principles laid down in clause 1 of ISO 1819;
- the general rules laid down in clause 2 of ISO 1819;
- the following special rules.

### 4.1 In the construction stage (design and manufacture)

4.1.1 In addition to rule 2.1.7 of ISO 1819, pinch points created as the slats leave a sprocket or change direction

shall be guarded; also the chain tracks shall be guarded in areas which are normally accessible to personnel.

4.1.2 In addition to rules 2.1.2 and 2.1.3 of ISO 1819, relating to inclined or horizontal conveyors, a safety device shall be provided (rods, or upper guides) if occasional slipping of the units can normally be foreseen (slipping caused, for instance, by a stoppage under load).

4.1.3 In addition to rule 2.1.4 of ISO 1819, no safety device is compulsory when simultaneously the mass of each unit load does not exceed 50 kg and the total mass of the load on the sloping part of the appliance corresponding to the normal average does not exceed 500 kg.

### 4.2 During the installation stage (layout, erection and entry into service)

4.2.1 The conveyors shall be erected and aligned with care. This applies not only to the structure but also to the mechanical parts and the chains carrying the slats.

4.2.2 If the slack side is accessible to personnel, guards must be installed wherever there is a possibility of shearing or pinching by the moving parts, or between the moving parts and the fixed structure.

### 4.3 During the utilization stage (operation and maintenance)

4.3.1 Clear operating instructions legible from the loading point shall be provided indicating the permissible unit load, its stable placement on the conveyor and its maximum dimensions, in order to prevent any accidental collision or tipping.

4.3.2 In conformity with rule 2.3.5 of ISO 1819, the manual cleaning of wheels, chains and other components shall be forbidden unless the conveyor is at rest, and the starting devices have been rendered inoperative.

1) See 2.21.041 of ISO 2148.

2) At present at the stage of draft. (Revision of ISO/R 1819-1970.)

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