
INTERNATIONAL STANDARD



1049

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Continuous mechanical handling equipment for loose bulk materials — Vibrating conveyors and feeders with rectangular or trapezoidal trough

Engins de manutention continue pour produits en vrac — Distributeurs et transporteurs vibrants à auges rectangulaires ou trapézoïdales

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[ISO 1049:1975](https://standards.iteh.ai/catalog/standards/sist/a4bdf5a6-3653-4d3b-89ca-000ab123fecb/iso-1049-1975)

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UDC 621.867.5

Ref. No. ISO 1049-1975 (E)

Descriptors : handling equipment, continuous handling, conveyors, bulk products, oscillating conveyors, mechanical feeders, specifications, dimensions.

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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 101 has reviewed ISO Recommendation R 1049 and found it technically suitable for transformation. International Standard ISO 1049 therefore replaces ISO Recommendation R 1049-1969 to which it is technically identical.

ISO Recommendation R 1049 was approved by the Member Bodies of the following countries :

Belgium	Germany	Sweden
Brazil	Greece	Switzerland
Canada	India	Turkey
Chile	Israel	United Kingdom
Czechoslovakia	Italy	U.S.S.R.
Egypt, Arab Rep. of	Japan	Yugoslavia
Finland	Netherlands	
France	South Africa, Rep. of	

The Member Body of the following country expressed disapproval of the Recommendation on technical grounds :

U.S.A.

No Member Body disapproved the transformation of ISO/R 1049 into an International Standard.

Continuous mechanical handling equipment for loose bulk materials – Vibrating conveyors and feeders with rectangular or trapezoidal trough

1 SCOPE

This International Standard specifies the basic characteristics of vibrating conveyors and feeders with rectangular or trapezoidal trough.

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2 FIELD OF APPLICATION

This International Standard applies to vibrating conveyors and feeders, with

- rectangular (see figures 1 and 3) or trapezoidal (see figures 2 and 4) trough;
- flat-bottom (see figures 1 and 2) or dished-bottom (see figures 3 and 4) trough.

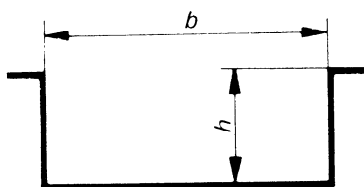


FIGURE 1 – Rectangular flat-bottom trough

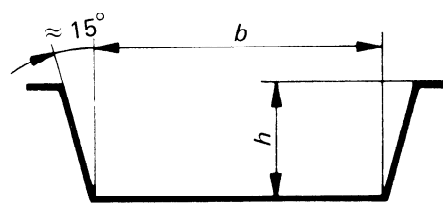


FIGURE 2 – Trapezoidal flat-bottom trough

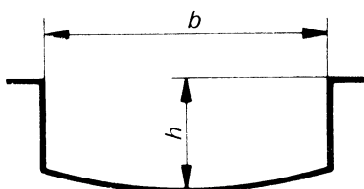


FIGURE 3 – Rectangular dished-bottom trough

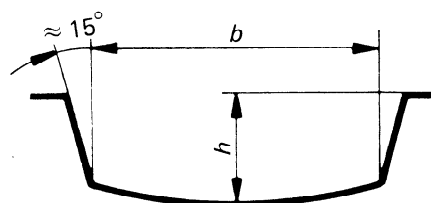


FIGURE 4 – Trapezoidal dished-bottom trough

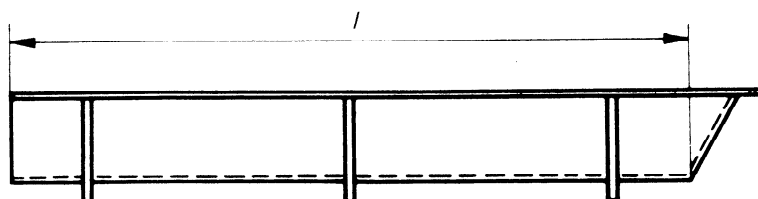


FIGURE 5 – Length of trough

3 SPECIFICATIONS

3.1 Geometrical specifications

The following dimensions are given in millimetres.

3.1.1 Width of trough

The width of the trough is the inside width *b* of the bottom.

<i>b</i>	125	160	200	250	315	400	500	630	800	1000	1250	1 600
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These numbers are taken from the R 10 series of preferred numbers¹⁾.

3.1.2 Height of trough

The height of the trough is the vertical distance *h* between the bottom and the upper part of the trough.

<i>h</i>	80	100	125	160	200	250	315	400
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These numbers are taken from the R 10 series of preferred numbers¹⁾. It is permissible to use the R 20 series of preferred numbers¹⁾ for intermediate values.

3.1.3 Length of trough

The length of the trough is the inside length *l* of the bottom.

<i>l</i>	500	750	1 000	1 250	1 500	1 750	2 000	2 500	3 000	3 500	4 000
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It is also permissible to use the R 5 series of preferred numbers¹⁾ and, for intermediate values, the R 10 or R 20 series of preferred numbers¹⁾.

3.2 Physical specifications

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3.2.1 Vibrations

The frequencies *f* to apply on the trough and the corresponding oscillation distances *a* determined with regard to the flow, the characteristics of the carried material, the length of the trough, and the type of appliance, shall be chosen from the values given in the following table.

TABLE – Frequencies and oscillation distances

Oscillations per minute	750	1 000	1 500	3 000	6 000
<i>f</i> Hz	12,5	16,7	25	50	100
<i>a</i> mm	5 to 32	2,5 to 17	1,2 to 8	0,3 to 3	0,07 to 1

NOTE – The specifications of vibrations given above are based on the frequency of electric current of 50 Hz.

3.3 Specification of construction

For vibrating conveyors, it is possible to allow for several inlet and discharge points.

1) See ISO 3, Preferred numbers – Series of preferred numbers.