
INTERNATIONAL STANDARD



2139

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

معدات النقل الميكانيكية المستمرة للمواد الحبيبية الخفيفة — ناقلات متذبذبة وناقلات متذبذبة أو ناقلات متذبذبة مع ناقلات أنبوبية

Continuous mechanical handling equipment for loose bulk materials — Oscillating conveyors and shaking or reciprocating feeders with tubular trough

Engins de manutention continue pour produits en vrac — Transporteurs par secousses ou par inertie et distributeurs à mouvement alternatif à auges tubulaires

First edition — 1975-11-01

UDC 621.867.5

Ref. No. ISO 2139-1975 (E)

Descriptors: handling equipment, continuous handling, bulk products, conveyors, 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 2139 and found it technically suitable for transformation. International Standard ISO 2139 therefore replaces ISO Recommendation R 2139-1971 to which it is technically identical.

ISO Recommendation R 2139 was approved by the Member Bodies of the following countries :

Austria	India	Sweden
Belgium	Ireland	Thailand
Czechoslovakia	Japan	Turkey
Egypt, Arab Rep. of	Netherlands	United Kingdom
France	South Africa, Rep. of	U.S.A.
Germany	Spain	U.S.S.R.

No Member Body expressed disapproval of the Recommendation.

No Member Body disapproved the transformation of ISO/R 2139 into an International Standard.

Continuous mechanical handling equipment for loose bulk materials – Oscillating conveyors and shaking or reciprocating feeders with tubular trough

1 SCOPE

This International Standard specifies the basic characteristics of oscillating conveyors and shaking or reciprocating feeders with tubular trough for loose bulk materials.

2 FIELD OF APPLICATION

This International Standard applies to the types of oscillating conveyors and shaking or reciprocating feeders illustrated in figures 1 and 2.

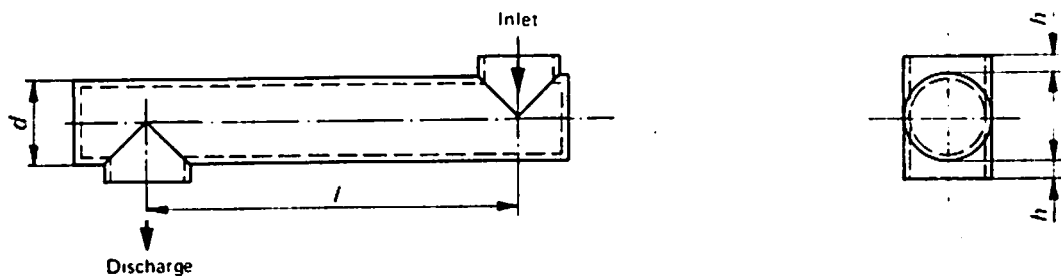


FIGURE 1 – Tubular trough with closed ends

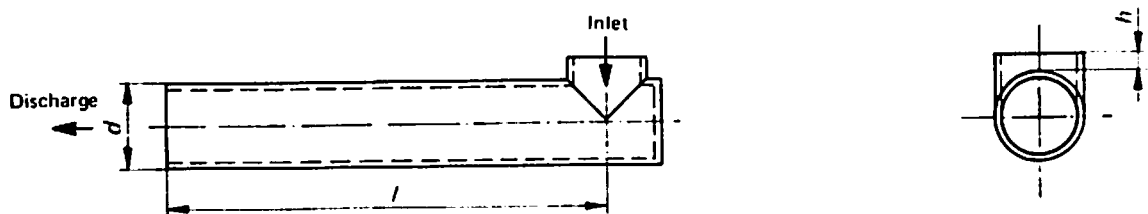


FIGURE 2 – Tubular trough with only one closed end

3 SPECIFICATIONS

3.1 Geometrical specifications

The following dimensions are given in millimetres.

3.1.1 Diameter d of tube

d	100	125	160	200	250	315	400	500	630	800
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

These numbers are taken from the R 10 series of preferred numbers¹⁾.

3.1.2 Height h of inlet and discharge

d	from 100 to 315	from 400 to 800
h	50	100

3.1.3 Length l of trough

l	500	750	1 000	1 250	1 500	1 750	2 000	2 500	3 000	3 500	4 000
-----	-----	-----	-------	-------	-------	-------	-------	-------	-------	-------	-------

It is also permissible to use the R 5 series of preferred numbers, and for intermediate values, the R 10 or R 20 series of preferred numbers.¹⁾

3.2 Physical specifications

Frequency and oscillation distance

The frequencies f of the shakes or reciprocating movement 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, are to be chosen from the values given in the following table :

TABLE - Frequencies and oscillation distances

Oscillations per minute	from 60 to 600
f Hz	from 1 to 10
a mm	R 20 series ¹⁾

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