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# International Standard



# 5050

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

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## Continuous mechanical handling equipment — Vertical bucket elevators with calibrated round steel link chains — General characteristics

*Engins de manutention continue — Élévateurs verticaux à godets, à chaînes calibrées en acier rond — Caractéristiques générales*

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Descriptors : handling equipment, continuous handling, elevators (lifts), characteristics.

## 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 5050 was developed by Technical Committee ISO/TC 101, *Continuous mechanical handling equipment*, and was circulated to the member bodies in May 1980.

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

Australia	Egypt, Arab Rep. of	Norway
Austria	Finland	Poland
Belgium	France	Romania
Brazil	Germany, F. R.	Spain
Chile	India	Sweden
Czechoslovakia	Ireland	United Kingdom
Denmark	Netherlands	

The member body of the following country expressed disapproval of the document on technical grounds :

USSR

This International Standard is based on the work carried out by "Section II-Continuous handling" of the European Mechanical Handling Confederation (FEM).

# Continuous mechanical handling equipment — Vertical bucket elevators with calibrated round steel link chains — General characteristics

## 1 Scope and field of application

This International Standard specifies the general characteristics of vertical bucket elevators with calibrated round steel link chains as the traction element.

## 2 References

ISO 2148, *Continuous mechanical handling equipment — Nomenclature.*

ISO 5051, *Continuous mechanical handling equipment — Deep elevator bucket with flat rear wall — Main dimensions.*

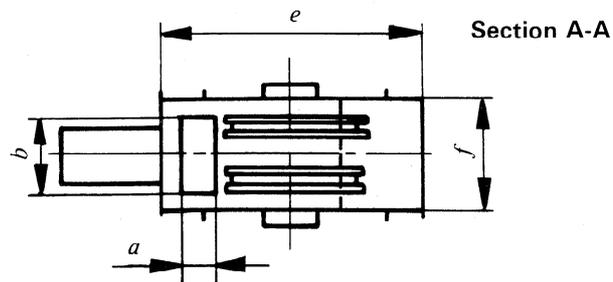
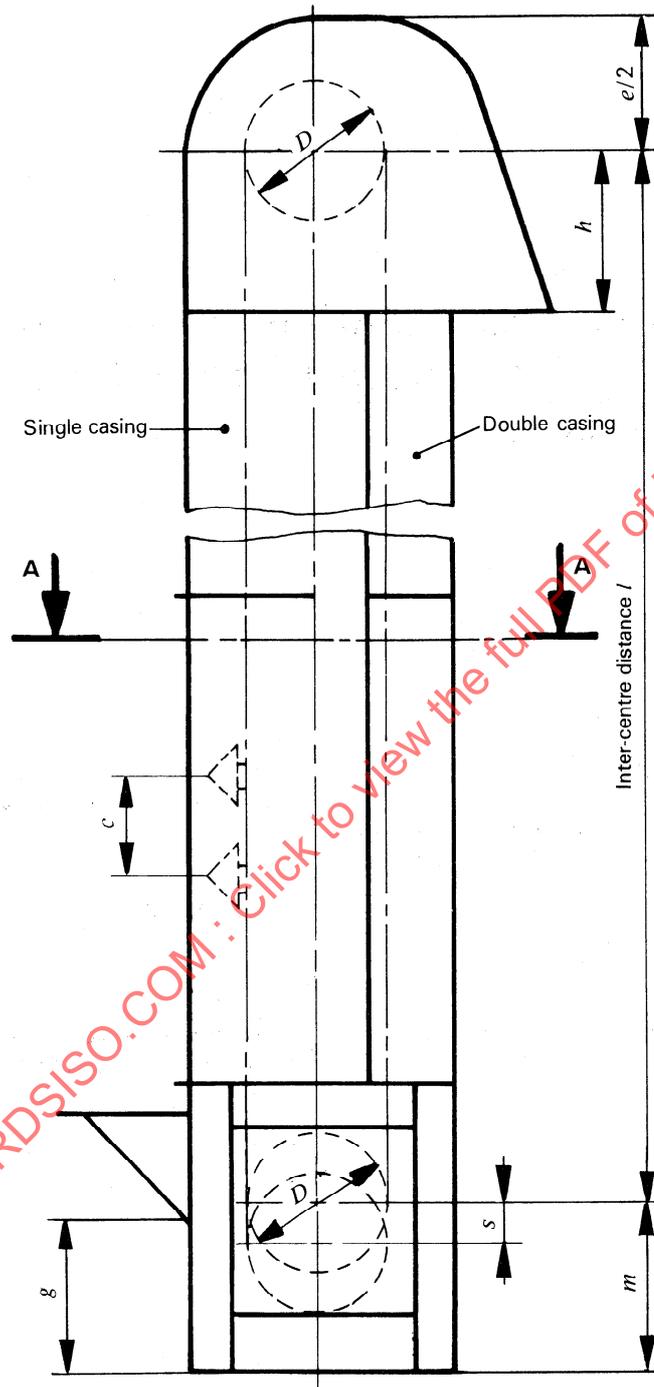
## 3 Characteristics

### 3.1 Speed

The bucket speed lies normally between 1 and 1,6 m/s depending on the type of discharge.

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3.2 Dimensions



<i>a</i> <sup>1)</sup>	<i>b</i> <sup>1)</sup>	<i>D</i> <sup>2)</sup>	<i>e</i> <sup>3)</sup>	<i>f</i> <sup>3)</sup>	<i>g</i> <sup>4)</sup>	<i>h</i> <sup>5)</sup>	<i>m</i>	<i>s</i>	<i>l</i>	
160	160	500	1 000	280	630	630	750	250	To be specified in the order	
	200			355						
200	250	630	1 250	400	750	750	900			
	315			475						
224	400	710	1 400	560	800	850	950			
250	500	800	1 600	670	900	1 000	1 060			
280	630	900	1 800	800	1 060	1 120	1 250			
315	800	1 000	2 000	1 000	1 120	1 250	1 320			315
355	1 000	1 250	2 360	1 250	1 320	1 400	1 500			
400	1 250	1 250	2 500	1 500	1 400	1 500	1 600			

- 1) Dimensions of deep buckets with flat rear wall according to ISO 5051.
- 2) The use of flat chain wheels or sprocket wheels depends on the operating conditions. Diameter *D* is only nominal for sprocket wheels, as the exact diameter depends on the pitch of the chain used.
- 3) In special cases when the operating conditions of the conveyed materials demand, deviations from the standardized dimensions are permitted.
- 4) Nominal dimension for scraping bucket elevators.
- 5) Mean experimental value.

When the conveyed material so demands, deviations from the standardized dimensions are permitted.

### 3.3 Bucket intervals

The interval *c* between buckets, and the conveying speed, are to be determined by the manufacturer, taking into account the conveyed material, the elevator capacity, the bucket shape, the chain pitch and the operating conditions.

### 3.4 Casing

Single or double casing at the choice of the manufacturer.

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