FEDERATION EUROPEENNE DE LA MANUTENTION
SECTION II
CONTINUOUS HANDLING

FEM
2.275

Description of unit loads
STEEL AND PLASTIC DRUMS

1st edition E
1985

PRELIMINARY REMARK

For each installation of continuous handling equipment for unit loads, the characteristics of the goods to be conveyed are important for its functioning, being part of the system. It is therefore important to provide a precise description of the product to be conveyed as early as the planning phase. The necessary indications and properties to be mentioned are contained in the International Standard ISO 3569.

Section II "Continuous Handling Equipment" of FEM (Fédération Européenne de la Manutention) presents hereunder one of a series of documents giving complementary information concerning a group of products to be conveyed and helping the user of continuous handling equipment to understand why it is necessary to supply such detailed information and what consequences can be expected in using the equipment for a unit load not well defined, especially since he may be encountering this problem for the first time.

1 - GENERAL

Usually, steel and plastic drums are easy to convey on simple conveyors. The advantage of these conveyors lies in their low price, their disadvantage in their lack of versatility in handling unit loads which deviate from the "ideal". In this respect, the surface directly in contact with the conveyor is of particular importance (see paragraph 6). Solutions where considerable variations from the ideal product do not cause any problems are very costly. The best compromise in a particular case takes into account :

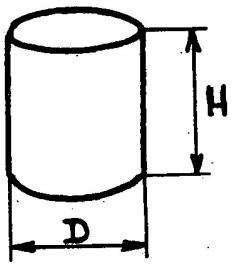
- the nature of the variations expected,
- their frequency,
- the resulting problems,
- the consequences of a malfunction,
- the expenses necessary to correct the malfunction,
- the capital cost of the installation,
- the running costs,

and can only be obtained by a complete exchange of necessary information between the manufacturer and user.

The properties are discussed in the sequence indicated in the ISO 3569 Standard.

.../

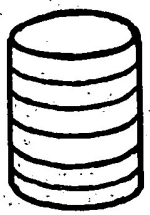
2 - SHAPE



Drums are usually cylindrical or roughly cylindrical and are defined by their height (H) and (maximum) diameter (D).

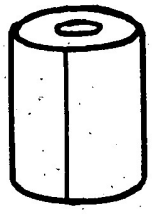
Two draft CEN standards (EN 209 and 210) are intended to define the shape and dimensional characteristics of steel drums with a capacity of 213 litres and 216.5 litres.

In addition to these CEN standards, the following features or variations must be taken into account with regard to behaviour on continuous conveyors :

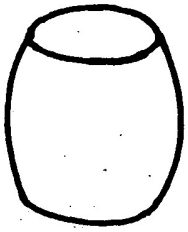


- containers can have ribs on their circumference

- containers with a lid and clamping ring have their largest diameter in the region of the clamping ring



- injection-moulded or blow-moulded plastic drums have a recessed end and flash along the axis



- thin-walled containers can bulge under the influence of the filling and therefore require more space

- containers can become hooked to each other or to parts of the conveyor system as a result of projecting clamping rings.

.../