



Technical Article

The Filling, Closing and Handling of Sacks

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Following a reference to the types of sacks available the considerations affecting the choice of sack packaging equipment are examined. Descriptions of basic open mouth and valve sack packing installations are given. The principles of operation of the various types of packers and their applications are explained. Some comparisons are made between open mouth and valve sack systems. A brief reference is made to future developments.

Introduction

With the advent of multiwall paper sacks, a rapid development of filling, closing and handling techniques took place. This covered the introduction of purpose-built weighing and filling installations, heavy duty sewing machines and a range of valve packing machines.

When plastic film became available, particularly polyethylene, it was either incorporated to form an additional barrier among plies of paper or, in a much heavier gauge, it was made into sacks. More recently, woven plastic sacks, and multilayer films, have increased the variety of sacks which have to be accommodated by the packaging machinery industry.

Much of the equipment originally designed for paper sacks can equally well be used with woven and film sacks. The notable additional technique required has

been the heat sealing of film sacks and of the film ply or coating of composite sacks.

In the section which follows, it is assumed that the type of sack has been established before the packaging equipment is selected. In some cases the suitability of a particular type of packing machine will determine the type of sack to be used.

In general terms, fine powders impose more stringent requirements, not only in the sack construction, but also on the filling and closing techniques, than coarse products...