

AERTES™



FLUIDIZATION FABRICS

GAS AND LIQUID FILTRATION

 **testori**®
TESTORI GROUP

Introduction

Transport and discharge of many bulk powders is frequently accomplished by a fluidization process commonly known as “air slide systems”. Dust is subjected to a finely distributed air flow which reduces the drift angle and let the powder flow like a liquid. Air is forced through a densely woven fabric which breaks up the pressurized air into tiny and uniform flow points and pass through the media under the powder. The fluidized material flows at low angles inside the air slide and is easily conveyed or discharged.

Testori offers **AERTES™ - multilayer fabrics** with the following properties:

- flexibility
- abrasion resistance
- smooth surface
- uniform porosity (essential for a good fluidization process)

The fluidization process is used **in many industrial processes**. The products generally fluidized are: **cement, alumina, limestone, fly ash, flour, minerals and other grinded powders**.

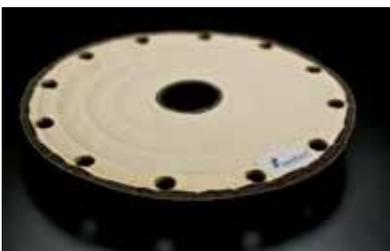
AERTES™ is a Testori Group Trademark



Waggons - transport



Truck tanks



Fluidization disc



Air slide

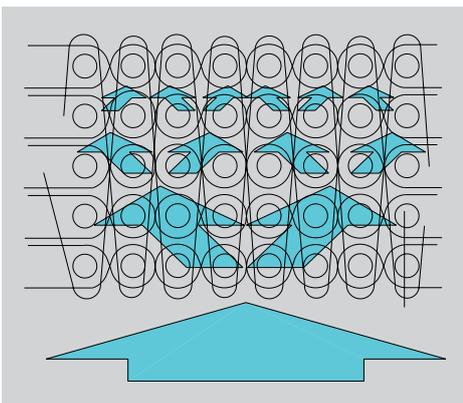
AERTES™: FEATURES & BENEFITS

- **Fibers:** AERTES™ are both polyester and aramid air slide fabrics for low to medium and high temperature applications. The main types are shown in the following table:

Testori code AERTES™	Fibre	Weight g/m ²	Thickness mm	Air permeability @ 3000 Pa l/dm ² min.	Temperature max °C
T5	Polyester	3450	5,0	35	150
T10	Polyester	5600	9,1	100	150
X5	Metaramide	2900	4,1	60	220 (250 for short periods)



Air slide



AERTES™ structure scheme



AERTES™ fluidization fabric

- **Yarns:** spun yarns made of staple fiber provide the proper permeability and uniform air flow
- **Fabric design:** multiple layer media. AERTES™ can be supplied with a different number of layers (from 3 to 5) with corresponding thicknesses. This feature is essential in assuring uniform flow and effective air distribution
- **Strength:** Aertes™ high weight and density provides optimal abrasion resistance and easy installation
- **Product options:**
 - rolls: maximum length 50 mt; maximum width 1600 mm
 - finished panels: discs, cones... according to the customers design
- **Energy savings:** Aertes™ air slide fabrics and panels are engineered to provide optimal air distribution and flow rates with the minimum pressure drop. The final result assures energy savings for the fan



AERTES™ roll



Fluidization cone



Silos bottom



Cargo ship

APPLICATIONS

Transport - air slide belts

- A straight rectangular duct forms the slide and is installed with a slight downward slope
- The inside of the rectangular duct is divided into two parts: the underside is called the “fluidizing air chamber” and the upper part is called the “powder chamber”
- Process: the fluidizing air is pumped into the underside and it is forced through the dense, tightly woven, multi-layer media which allow air flow at a very uniform rate

Outlet - different fluidizing panels

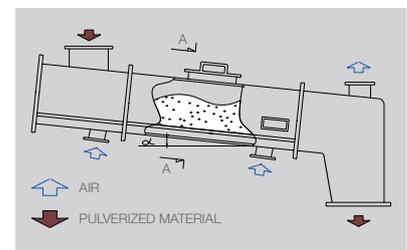
The fluidization process is used during the conveying and discharge of dusts from: **silos, hoppers, bulk container ships and trucks for cement transport...**

Testori provides its **AERTES™ fluidizing panels** for the bottom or the side of these tanks.

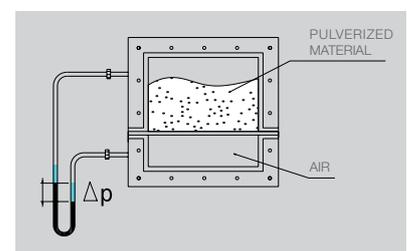
The multilayer fabric is often cut into **shaped panels** in order to cover non-flat surfaces. We offer different shapes: **circular, trapezoid, conical or rectangular, all of which are sized based on the customer's equipment design. Our laser technologies can realize very accurate and complex designs.**



Silos



Air slide scheme



Air slide scheme - cross section



Air slide system



ITALY

FRANCE

U.A.E.

U.S.A.

Testori S.p.A.
Group Headquarters
Largo A. Testori, 5
20026 Novate Milanese (MI)
Italy
Tel. +39 02 3523 1
Fax +39 02 3523 230
info@testori.it

www.testori.it