Innovations for a better world.

TUBO – Revolution in conveying systems

Grain Conveying
TUBO – Revolution in conveying systems
Why a new conveyor?
Focus on 4 key conveyor concerns

- Fully enclosed system
- No dead zones / no material accumulations
- Tube emptied after transport -> no cross-contamination
- Drive mechanics outside product stream
- Cleaning TUBIT for best sanitation

- Reduced friction, no pulling cord inside conveyor and transport in product chambers
- Lower energy consumption than pneumatic transport
- Reduced conveying height with multidimensional layout

- Reduced installation dimension, less floor space and/or lower building height
- One TUBO replacing several conveyors (1-3 conveyors / approx. 4-6 90-degree bends possible with TUBO)
- Easy and fast installation, tubing system only

- Low conveying speed
- Transport in product chambers reduces internal friction
- No stress on product from drive mechanics
- Less product hand-overs with multidimensional layout

→ TUBO addresses all 4 concerns – like no other solution in the market
Unique machine concept

TUBO
made by
Bühler
(patent granted*)
TUBO – Revolution in conveying systems

TUBO details
- Vertical and horizontal conveying
- A-B, collection and distribution function
- Up to 100 ft distance / up to 750 bu/h (wheat)
- Fully 3D capable

Products released to sales
- Wheat, wheat grist, flour, semolina
- Barley, malt and malt-grist
- White and brown rice
- Coffee, green beans, roasted beans and ground coffee
Examples of tested products

Grains
• Paddy, rice, wheat, maize, barley, rape-seeds, soy beans, feed pellets

Extruded product
• Corn flakes, honey rings, chocolate flakes

Nuts
• Peanuts, cashew nuts, walnuts, almonds

Coffee beans
• Green beans, roasted beans

Pasta
• Several short goods

Powders
• Flour, semolina, break-stock, ground coffee, milk powder
Layout flexibility
Feed mill Burgholz

1. TUBO installation
Flexible – Easy and Cost Efficient Plant modifications

- Modification of an existing plant
- Normally done with elevators
  - 2 times penetration of shop floor for elevator
  - Penetration of shop floor for piping
- Implementation with TUBO on one floor
Multi-Options!
Multi-Options!
Multi-Options!

- Flexible layout
- Several inlets and outlets
New plant concepts for mills
Known System.
TUBO – New plant concepts

No Top Floor.
No Bucket Elevator pit.
Little Aspiration compared.
No Ex. Protection.

One conveyor – TUBO
3D conveying without basement
TUBO decoupling
New concepts

- By-pass of one rice mill in Vietnam
- Lower heights than elevators
- Additional possible savings at the bottom (depending on height)
Silo Example Realised in Switzerland
Brewery Locher Switzerland – 1st Plant with total TUBO equipment

- Complete malt silo with only one size TUBO

- Distribution and collection of material

- Number of TUBOs: 7 units.

- Number of conventional conveyors if this solution had been chosen: 12 units

- Additional TUBO benefit in brewing ➔ no risk of explosion!
Prevention of active/passive explosion protection