

Pneumatic conveying systems



Conveying systems for all applications.

Dust-free – sanitary – flexible.

Buhler solutions ensure efficient handling of high-grade bulk materials:

Conveying know-how center – A global leader in the design and construction of bulk handling and storage installations and of aspiration systems.

Conveying system components for powdered or granular materials. Including line diverters (switches), airlocks (air seals), dust collection filters, and separators. Buhler offers the suitable **conveying system** for every application:

Pressure or suction conveyors for conventional/simple or low-velocity/gentle materials handling, using rotary airlocks or pressure vessels as material feeders. Correct sizing ensures high operating reliability and economy.

Application

- For conveying bulk materials with a wide variety of material characteristics
- For in-plant and off-plant conveying
- Through steel pipes or flexible hose lines
- In horizontal and vertical directions across short or long distances
- Using air or nitrogen – Drying or cooling of the material is possible during conveying

Dilute-phase conveying

General dilute-phase conveying – Fluidlift – Fluid-Flex

- Pressure and suction systems
- Low capital investment
- Constant material stream at the end of the conveying line
- In the event of interrupted conveying, the conveying line will be completely discharged by blowing air through it

Dense-phase conveying

Takt-Schub

- Gentle conveying of friable and abrasion-sensitive materials
- Minimum system wear when handling abrasive materials
- Trouble-free starting after power failures
- Conveying with reduced air volume, but with higher pressure



Conveying system equipped with high-grade components for materials discharge and feed, weighing and pneumatic conveying with airlock feeder.

The suitable solution for every material. Efficient – reliable – gentle.

Dilute-phase conveying

- The most straightforward pneumatic conveying method
- The material particles move air-borne through the conveying line
- For handling coarse-grained, free-flowing bulk materials
- Thermal material treatment such as drying, heating, cooling is possible



Fluidlift

- The optimized dilute-phase conveying method
- With reduced air velocity; most of the material conveyed is gently moved through the conveying pipe in the form of dunes
- For powdered, free-flowing bulk materials that can be fluidized



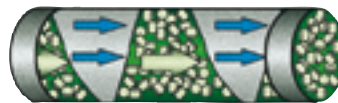
Fluid-Flex

- Conveying through a flexible rubber hose, same operating principle as Fluidlift
- For adhesive and powdered materials tending to build up
- The elastic conveying line causes sticky material build-ups to be detached from the hose wall. This ensures non-choking, gentle conveying action.



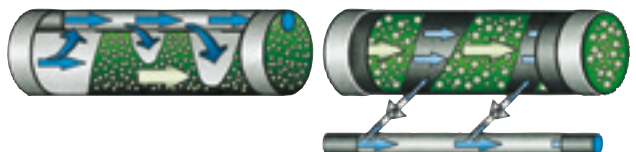
Takt-Schub slug-type conveying

- Low conveying velocity
- The pulsating incoming conveying air forms uniform slugs of material
- Suitable for free-flowing, coarse, and fine bulk materials with a uniform particle size distribution
- Gentle handling of abrasion-sensitive bulk materials with a tendency to segregate
- Flavor-maintaining conveying action thanks to low air volume

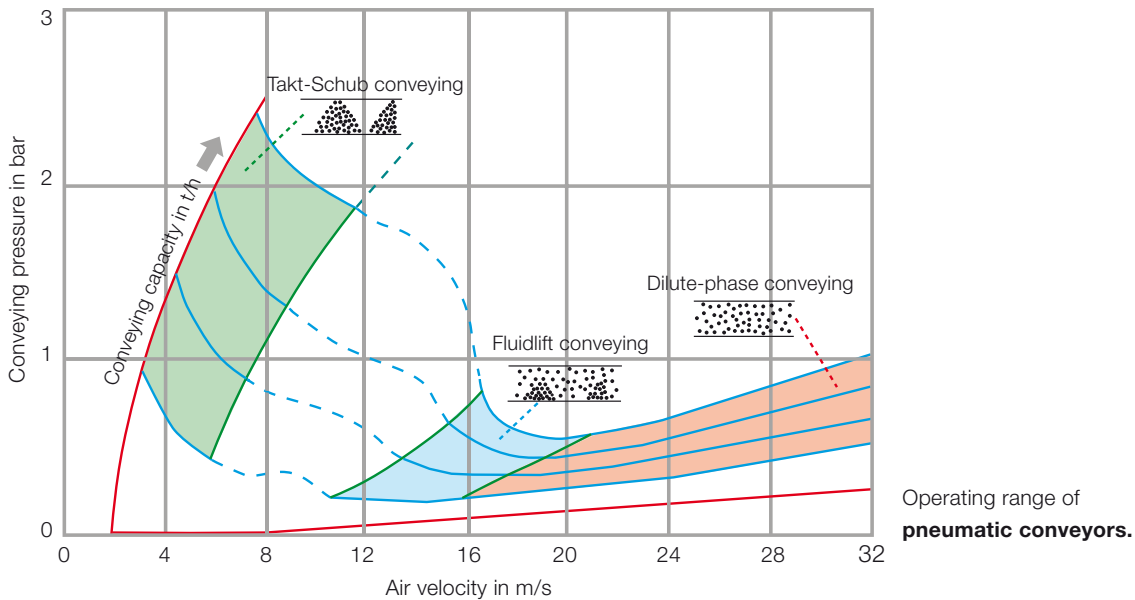


Fluidstat, Fluidschub-Flex

- The dense-phase Fluidstat and Fluidschub-Flex conveyors (with limitations).



Individual and customized. Economic – reliable – varied.



Typical applications of the Buhler conveying systems

- Dilute-phase conveyors: Grain, ship unloading, various milling products
- Fluidlift: Finished mill products, feed formulations, etc.
- Fluid-Flex: High-fat milk powder, paint and ink pigments, etc.
- Takt-Schub: PET pellets, malt, roasted hazelnuts, coffee beans, ground coffee
- Fluidstat, Fluidschub-Flex: Cement, pearled carbon black, etc.

Material feed by **blow-through airlocks.**

Buhler – your partner.
Competent – experienced – reliable.



Pneumatic unloading of a tanker.



Cyclone separators of a pneumatic mill stock conveying system.

