

shut-off, crushing, conveying, dosing

## Products for bulky solids technologies

Crusher

Double pendulum flaps

Flat slide valves

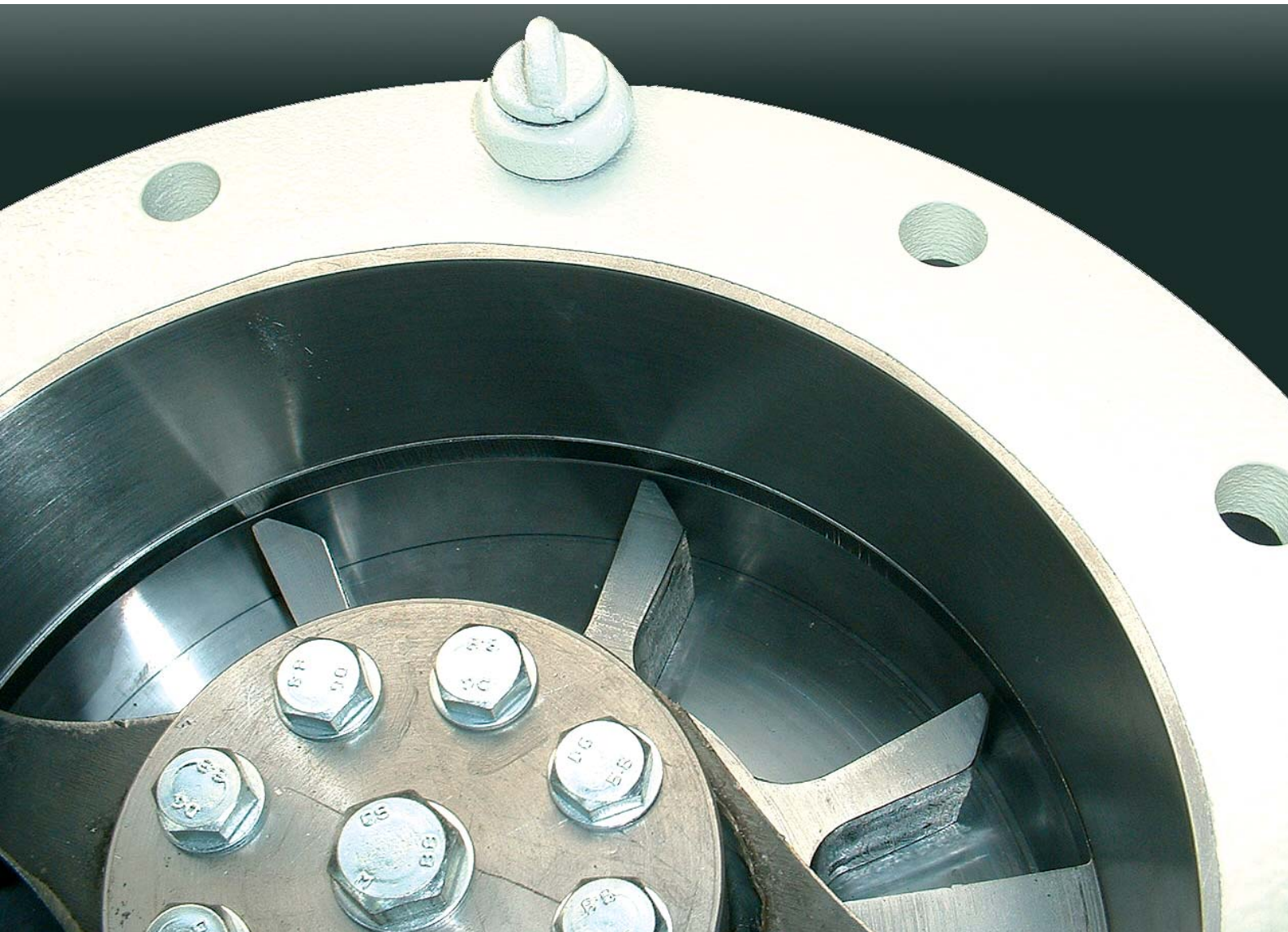
Two- or three-way distributors

Screw conveyors

Trough chain conveyors

Vertical rotary airlock valves

Rotary airlock valves



## Shut-off

### Flat slide valves

Flat slide valves cut-off the flow of bulky solids and prevent powder formed, fine or coarse bulky solids from flowing in behind. Shut-off valves from Redelfs are applied as emergency shut-off or process valves and are distinguished through their sturdy and long-lived construction with a minimum installation height.

#### Versions:

- round, rectangular, quadratic
- manual, electromotive, pneumatic or hydraulic operation
- gas-tight to the outside, waterproof to the outside, pressure tight to the outside, dustproof
- pressure surge protected up to 10 bar (for systems that are vulnerable to dust or explosions)
- also available in special materials
- for temperatures up to 600 °C



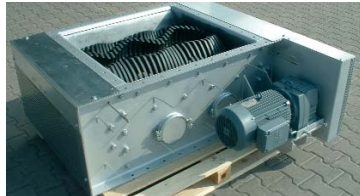
## Crushing

### Crusher

Our crusher breaks-up clumps and Agglomerates to a defined grain size. These are applied when larger clumps that are unwanted are generated in a process procedure through storage, sedimentation or through pressing that must be crushed to a required size. Volume flow, agglutination proportion and maximum grain size determine the size of the crusher.

#### Versions:

- powder tight, gas tight, pressure tight, pressure surge protected
- one wave or multi wave
- also available in special materials
- wear resistant
- for temperatures up to 600 °C



## Conveying

### Screw conveyors

Screw conveyors are distinguished through a simple construction. The power transmission that is applied on the bulky solids is carried out through a revolving screw. Screw conveyors are especially long lived and low maintenance products that are used for dust free conveyance of fine to coarse grain, dry to semi-moist and non adhesive materials. Thanks to their sturdy construction, our screw conveyors are also able to cope with rigorous operational demands during continuous operation. These are available as tube or trough screw conveyors. Application for horizontal or vertical conveying distances without intermediate bearings up to a length of 12 meters.

#### Versions:

- powder tight, gas tight, pressure tight, waterproof, pressure surge protected
- also available in special materials; wear resistant



### Trough chain conveyors

Trough chain conveyors transport fine grain to coarse grain bulky solids. A continuous chain with cross webs (attachments) runs in a closed trough made of sheet steel elements that convey the bulky solids in a careful manner. Depending on the type of attachment, these can be conveyed horizontally, with an upward gradient or even vertically. The feed and the release of the material can be carried out at any position. The exposure of dust and odours are efficiently avoided through transporting the bulky solids in an enclosed trough. The conveyance can be carried out in the lower trough as well as in the upper trough or it is also possible to convey in both at the same time. Trough chain conveyors can also be applied as a circulating conveyor.

#### Versions:

- powder tight, gas tight, pressure tight, waterproof, pressure surge protected
- also available in special materials
- wear resistant; for temperatures up to 400 °C



## Dosing

### Rotary airlock valves

Rotary airlock valves are used to sluice or dose different bulky solids. However, the bulky solids must be dry and capable of flowing and must not tend to cake. Our main emphasis is a long lived construction and robust method of construction.

#### Versions:

- powder tight, pressure tight, gas tight, pressure surge protected (for systems that are vulnerable to dust or explosions)
- also available in special materials
- wear resistant
- for temperatures up to 300 °C



### Vertical rotary airlock valves

Fine grain bulky solids can almost be continually pulsation free dosed with a minimal volume flow using a vertical rotary airlock valve. These devices dose volumetrically. The accuracy of the dosage depends on the pourability of the bulky solids. A relative positive dosage result is achieved using a bulkage unit and pressure support, even with less flowing bulky solids

#### Versions:

- powder tight, gas tight, pressure tight, pressure surge protected
- also available in special materials
- wear resistant
- for temperatures up to 200 °C



### Double pendulum flaps

Double pendulum flaps serve as a continuous removal of dust and granulate shapes that are capable of flowing as well as larger pieces of bulky solids with pressure differences. As one of the two flaps are closed, as far as possible a pressure adjustment is avoided between the pre and post switching. The material that must be transported may show temperatures of up to 600 °C.

#### Versions:

- powder tight, gas tight, pressure surge protected
- pneumatic, electromotive or weight-loaded drive
- also available in special materials
- wear resistant
- for temperatures up to 600 °C



## Distribution

### two-way or three-way distributors

two-way or tree-way distributors are distribution systems for bulky solids that distribute powder formed and coarse grained production flows to two or three receiving centres. Our symmetric or asymmetrical load switch versions can also be used to separate bulky solids.

#### Versions:

- symmetrical, asymmetrical, 2 or 3 way versions
- with round, quadratic or right angled connections
- powder tight, pressure tight, gas tight, pressure surge protected to 10 bar (for systems that are vulnerable to dust or explosions)
- pneumatic drive, electromotive or manual operation
- also available in special materials
- wear resistant
- for temperatures up to 80 °C



## Products for bulky solids technologies: **sturdy, long-lived and inexpensive**

All of our products have a mutual advantage: They are very economical. Components are installed in these products that fulfil their function over many years through the sturdy and wear-resistant design and the selection of the materials that are necessary for the respective type of operation.

Our system components are found in all types of industries: Chemical industries, Food and feeding stuff industries, Wood and plastic industries, Construction and environmental engineering, Waste industries, Power station engineering, etc.



### Our organisation:

## Individual, personal and competent

Redelfs GmbH was founded in 1999. Components for the bulky solids technology are individually manufactured according to the customer's desires. Individual items or small series are manufactured manually and not through serial manufacturing. All devices undergo a test run before these are delivered.

We have continuously grown over the past years and dispose of qualified employees with fundamental experience in constructing special machines. At first the product originates in ones head and then on the screen. Our construction is carried out using 2-D and 3-D construction programmes. Our products are found on all 5 continents.



### We offer you:

- optimal solutions for your bulky solid technical problems
- specifically processed products with reliable functionality
- competent consultation
- and the best service - also after being purchased

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