

## Our Designlines

### solids Basic Design

The application of the solids basic design is for dry processes with non corrosive bulk solids and low up to middle hardness for a small up to middle liability and low up to middle temperatures in non aggressive industry atmosphere under considering the machine directive without appendix 1 chapter 2.1. food machines.

- Execution generally in carbon steels, casted parts in grey iron, some machine parts partially optional in stainless steel
- Dimensioning and design according relevant norms and directives
- Wall thicknesses and weldings according strength requirements
- Interrupted weldings are allowed
- Pressure proof or pressure shock resistant construction parts with the required confirmations
- Bracket constructions with static calculations as far as necessary
- Surfaces with chemical descaling, grounded and painted

**More specifications in the datasheets.**

### solids Clean Design

The application of the solids clean design is for processes with aggressive products and such, which must be free of ironoxide or free of ferritic particles. Furthermore for food and cosmetic products in dry processes and dry cleaning, if a risk analysis results in a microbiological non sensible product, which was processed in the plant and the appendix 1 chapter 2.1. of the machine directive must be applied only limited concerning cleaning and hygiene.

Parts in contact with foodstuffs or cosmetics or pharmaceutical products satisfy the relevant directives.

In areas, that cannot be cleaned, no organic substances or living creatures, in particular insects, can enter or accumulate.

Ancillary substances hazardous to health, including the lubricants used, do not come into contact with foodstuffs, cosmetics or pharmaceutical products

- Execution in stainless steel with suitable alloy, respectively equal casted materials
- Dimensioning and design according relevant norms and directives
- Wall thicknesses and weldings according strength requirements
- Interrupted weldings are allowed
- Pressure proof or pressure shock resistant construction parts with the required confirmations
- Sealings for food FDA-conform
- Surfaces: Metal plates up to 4mm wall thickness with surface quality 2D according EN 10088, over 4mm 1D
- Weldings brushed or pickled and passivated
- Optional weldings continuous free of gap
- Optional elektropolished
- Optional the construction is easy to dismantle for cleaning purpose
- Optional with pull out device

**More specifications in the datasheets.**

## Our Designlines



### solids Hygienic Design

The application of the solids hygienic design is for wet processes and dry processes with wet cleaning for food, cosmetic products and pharma, if a HACCP-analysis results in the requirement of a maximum product hygiene and / or in a microbiological sensible product. In other industry applications with high requirements to avoid crosscontamination and easy to clean. Fullfills EU-regulation 93/43/EC, directive of food hygiene and 2006/42/EC, machine directive with appendix 1 chapter 2.1. food machines, EHEDG-Guidelines, as well as GMP-requirements and DIN EN 1672-2.

- Execution in stainless steel with suitable alloy, respectively equal casted materials
- Dimensioning and design according relevant norms and directives
- Wall thicknesses and weldings according strength requirements
- Pressure proof or pressure shock resistant construction parts with the required confirmations
- Sealings for food FDA-conform
- Surface quality inside according EN 10088 2B with roughness value  $Ra \leq 0,8 \mu\text{m}$ , casted parts external glass pearl blasted, metal plates external over 6mm wall thickness with surface quality 1D according EN 10088 brushed
- Free of dead spots, easy to dismantle, wet cleaning possible
- Weldings continuous free of gap with roughness value  $Ra \leq 3 \mu\text{m}$ .
- Optional weldings grinded  $Ra \leq 0,8 \mu\text{m}$
- Optional elektropolished

**More specifications in the datasheets.**

### solids Heavy Design

The application of the solids heavy design is for abrasive bulk solids, also corrosive and / or at higher temperatures. For high liabilities and rough operating conditions when indicated.

- Execution in carbon steels or stainless steels, respectively equal casted materials
- Abrasive resistant and / or temperature durable
- Very stable and robust constructions
- Dimensioning and design according relevant norms and directives
- Wall thicknesses and weldings according strength requirements
- Interrupted weldings are allowed
- Pressure proof or pressure shock resistant construction parts with the required confirmations
- Surfaces of carbon steels with chemical descaling, grounded and painted
- When stainless steels: Weldings pickled and passivated

**More specifications in the datasheets.**