

solids hygienic-wet design applies to **wet processes** and **dry processes with wet cleaning**. It is designed for food, cosmetic and pharma products, if a risk analysis according to HACCP had shown **that maximum hygienic product handling is required** and / or a **microbiologically sensible product will be handled, and the hygienic categories 2 or 3 acc. EN ISO 14159 are applicable**. Also for other industry branches with high requirements against cross contamination and / or requests for easy cleaning. Fulfils 2006/42/EC machine directive with appendix 1 chapter 2.1. Food machines, EHEDG-Guidelines, as well as GMP- requirements for intended use and DIN EN 1672-2. For pharma-products a case by case review is required.

- Execution in stainless steel with suitable alloy, respectively equal casted materials; Requirements of corrosion resistance must be fulfilled for selecting suitable alloy
- Dimensioning and design according to relevant standards and directives
- Wall thicknesses and weldings according to strength requirements
- Pressure proof or pressure shock resistant construction parts with the required confirmations
- Support structures with static calculations as far as necessary
- Sealings FDA-conform
- Surface quality inside according EN 10088 2B with roughness value $Ra \leq 0,8 \mu\text{m}$, metal plates external over 6 mm wall thickness with surface quality 1D according EN 10088 and fine glass bead blasted (satin gloss), casted parts external glass bead blasted, $Ra = \sim 6,3 \mu\text{m}$, permitted casting defects according quality class VC2 acc. DIN EN 1370
- Electropolished as far as technically possible and expedient
- Easy to clean, free of dead spots, free of gaps, **suitable for wet cleaning in assembled condition (CIP)** with following inspection and secondary cleaning, if necessary
- Weldings in general acc. EN ISO 5817 quality class B as well as continuous free of gap, **inside with roughness value $Ra \leq 0,8 \mu\text{m}$ smoothed**, outside $Ra \leq 3 \mu\text{m}$, but inner pores will not be inspected, that means no x-ray inspection. Surface pores and undercuts are not permitted.
Pipelines: High-quality orbital-weldings achieve with good inertisation $Ra \sim 3 \mu\text{m}$ and will not be grinded.
- Support constructions in stainless steel with open profiles, closed profiles only if statically requested, fine glass bead blasted (satin gloss)
- Equipment shipping in hygienically perfect condition – clean, with closed hollows

