



AIC

AMERICAN INTERNATIONAL CONTAINER



MÜLLER®

PROCESSING



Systematic Handling and Product Transfer.

Drums, containers and special vessels in stainless steel.
Mobile and stationary handling systems.
Butterfly valves for powder transfer.

Your Capable Partner for all Product Handling Duties

At its factory in Rheinfelden, Germany, Müller Processing designs and manufactures stainless steel vessels, system components, mobile and stationary handling devices, and product containment solutions that can be fitted together in a variety of ways. Standardized assemblies are thus combined with each other to produce customized systems. Solution-oriented design and automated series manufacture go hand in hand with the traditional skills of the artisan in working stainless steel to ensure the highest levels of precision.

Our company offers customized interfaces with a precision fit for the critical transfer of product between handling systems and individual containers, which include lidded or bung drums, bottles and jars, double-walled vessels, and round or rectangular containers (IBCs) with capacities of up to 3000 liters. CE-compliant lift/swivel/invert columns made for efficient handling. Various user-friendly solutions are available for the crucial transfer point between containers and machines to meet the stipulated containment specifications.

Müller Processing is a member of the Müller Group.

The five companies in the Group

- develop, manufacture and sell industrial packaging in mild steel, fiber, plastic and stainless steel,
- design, develop and construct mechanical handling equipment, cleaning systems and intralogistics solutions, for applications in the pharmaceuticals, chemicals, hygiene products, cosmetics, fragrances and flavors, food, mineral oil, inks and paints, semiconductors, storage and distribution industries.

This internationally oriented family business with over 120 years of experience has 450 employees at production sites in Switzerland and Germany. The Group's worldwide presence is underpinned by a network of more than 50 representatives.

YOUR BENEFITS AT A GLANCE

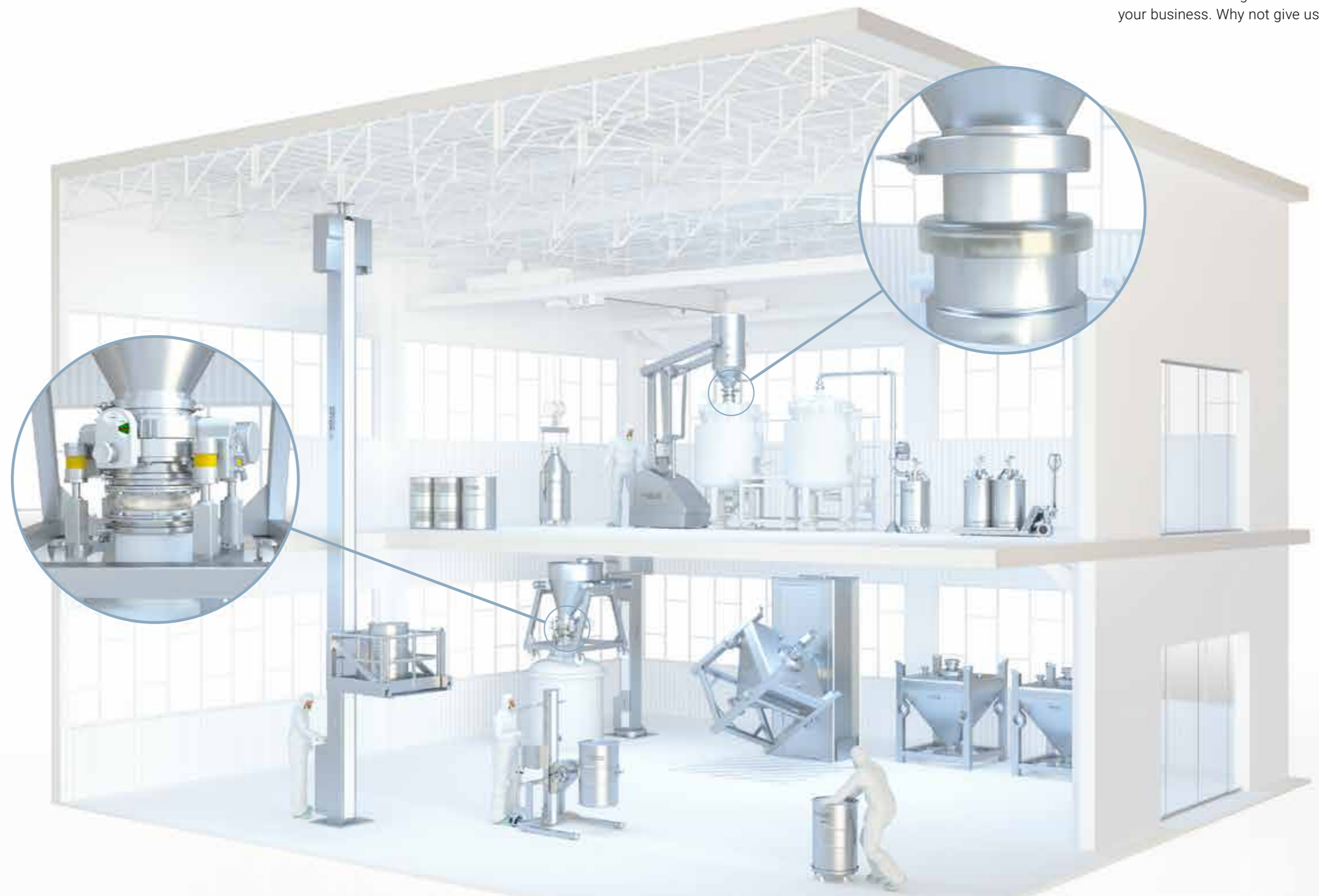
- **multifunctional equipment for your production process**
- **our global sales organization offers you sound advice and service at your doorstep**
- **everything from a single source in the field of process technology**

Harmonizing your Production Processes

In the manufacture of pharmaceuticals, safety and quality are the prime consideration. Here the crucial factor is the process equipment that handles the numerous interfaces between the unit operations. For over 50 years, Müller Processing has repeatedly introduced new concepts and expanded upon existing ones to optimize the various product transfer points in our customers' production lines. Where is the secret in this? Quite often not in some outstanding product innovation, but in our ongoing development work and the painstaking evaluation of

the well-known and frequently occurring problems at customers' interfaces. From these findings and the expertise of individual customers, we create new combinations and variations of our modular assemblies—systems comprising vessels, handling devices and butterfly valves—which are controlled manually or fully automatically and integrated into the process operation. Whether solutions are presented in a compact summary or in great detail, you rapidly gain an overview of what we—as a single-source provider of process equipment—can offer you.

Our solutions deliver sustainable long-term benefits for your business. Why not give us a call?



More than just a Vessel

Our portfolio of stainless steel vessels comprises lidded and bung drums, bottles, double-walled vessels, silos and round or rectangular containers (IBCs), which by adding components such as drying inserts, discharge aids or sieves can be transformed into multifunctional process equipment. These versatile containers are suitable for the storage of liquid and solid media, and for the transportation of dangerous goods such as hazardous substances or even highly potent pharmaceutical ingredients.



All system components are to a modular design so that they fit together and are interchangeable. The flexibility of the modular systems allows the filling or storage capacities to be selected for individual production conditions. Our modular-system vessels are suitable for processing applications in a wide variety of industries.

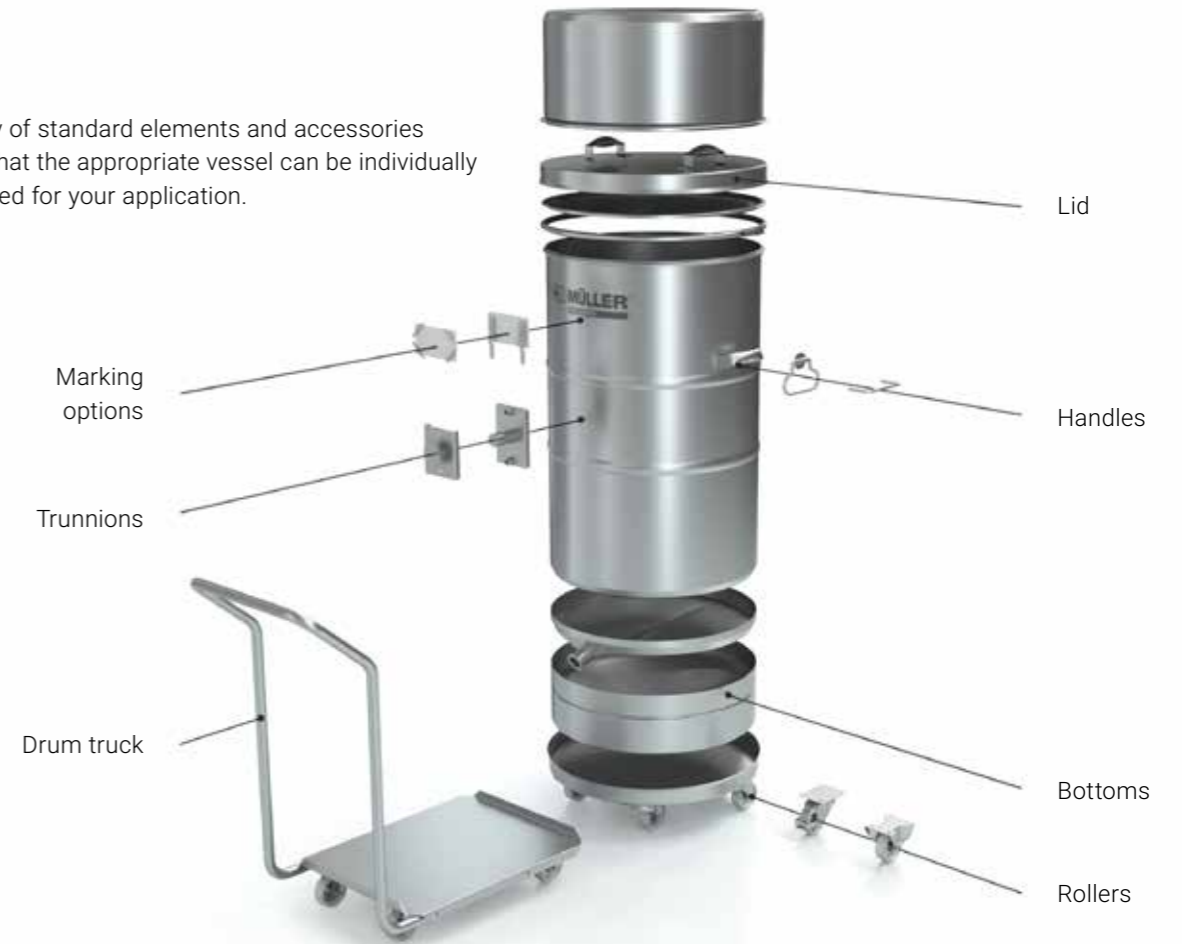


YOUR BENEFITS AT A GLANCE

- Vessel volumes from 0.1 to 3000 liters
- high degree of vertical integration with over 50 years of manufacturing expertise
- Ultra-Clean design for residue-free cleaning
- UN certification for solids and liquids
- polished surfaces for maximum hygiene

Flexibility for every Application

A variety of standard elements and accessories means that the appropriate vessel can be individually configured for your application.



Drum-Emptying System

Better Efficiency and Gentle Product Discharge

Intelligent design avoids high losses of product when drums are emptied. The product is discharged gently from the storage drum through an emptying lid into the filling line. There is thus a closed cycle for the reusable drum, and all phases of the process (filling, transportation, storage and emptying) are efficient and hygienic with hardly any loss of product.

YOUR BENEFITS AT A GLANCE

- virtually complete discharge of liquid or highly viscous media
- gentle product discharge
- simple cleaning



Safe Handling Procedures in your Production Facility

Our lift columns are designed for the specific application concerned. The modular construction offers flexibility for duties such as lifting, swiveling and inverting.



YOUR BENEFITS AT A GLANCE

- project-specific configuration
- from manual operation to fully automated with PLC
- precise repeatability in lift, swivel, invert and pickup positioning
- high process safety levels thanks to integrated safety systems

Homogeneous Process with Documented Quality

Our blenders offer you flexible product configuration. They make the reliable blending of solids, such as granular material or powders, possible. All system components are accessible from the exterior, thus simplifying operation, cleaning and maintenance. Our blending systems meet the highest quality requirements.



YOUR BENEFITS AT A GLANCE

- gentle product blending
- individual configuration of blending parameters
- Process validation by data report
- GMP-compliant design

Flexible Handling in Tight Spaces

The slim lines and low headroom design of MOBILO lifters gives you flexibility for free maneuvering through cramped processing rooms. Complete transport and feeding operations can be controlled comfortably by one person using the operating levers. The special design of the lifting arms guarantees the operator a clear view of things for all positioning actions up to heights of 3.40 meters.



YOUR BENEFITS AT A GLANCE

- stable lifting and lowering in vertical axis position
- Operator's clear view enables precise positioning at desired location
- various designs, drive and pickup options to meet individual requirements

Designed for Optimum Dynamics

Our AGILO small-scale handling devices in various sizes enable all manner of containers to be moved easily and flexibly. Optimized ergonomics and flexible functionality mean that this equipment ensures quick and uncomplicated transfer of containers in every type of room.

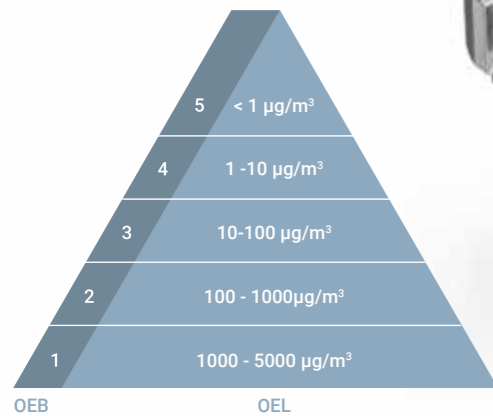


YOUR BENEFITS AT A GLANCE

- good ergonomics and maneuverability
- safe and flexible operation
- the perfect complement to stationary equipment for all small-scale handling duties

Contamination-Free Transfer of Highly Potent and Toxic Media

When transferring product from the transportation container to the processing machine, there is a risk of dust or product escaping. Depending on the hazard rating of the substance being processed, the emission of product fines must either be limited or totally excluded by the user.



YOUR BENEFITS AT A GLANCE

- Design compliant with the Pressure Equipment Directive (2014/68/EU) – up to 6 bar operating pressure possible
- Design compliant with the ATEX Directive
- Seals with FDA certification
- OEL < 1µg/m³ (OEB 5 as per SMEPAC)
- Explosion pressure shock resistant for group IIB gases up to +10 bar
- no product inclusions in the sealing area
- GMP-compliant thanks to easy-to-wipe flat surfaces
- optimized foolproof design
- Nominal diameters DN65, 100, 150, 200 and 250

The use of personal protective equipment by the operator can be minimized or in some cases even made unnecessary if a suitable containment system, such as the MCV high containment split butterfly valve, is employed. The MCV split butterfly valve, with its active and passive disks, safeguards the health of your employees as well as protecting the environment and maintaining the purity of your product. Whether manually operated or by a pneumatic actuator, the high containment split butterfly valve ensures the safe transfer of your product—up to OEB Level 5.

Dust-Free Filling for Powders

Our GMP-compliant MC butterfly valve was developed specially in response to the pharmaceutical industry's requirement for efficient powder transfer. It is appreciated for its cost-effectiveness, as it offers short installation times, can be disassembled without tools and is particularly easy to clean. Operation is simple, reliable and safe.



In critical pharmaceutical and chemical processes, Müller products, such as our stainless steel drums, make the difference for the safe and hygienic handling of powders. During these procedures, users are repeatedly confronted with the challenge of filling powders without generating dust. The Müller Processing dust-free system offers a simple solution for this and relieves your extraction unit.



YOUR BENEFITS AT A GLANCE

- FDA and USP VI -compliant seals
- available at short notice in DN 100 to DN 300 diameters
- optional dragée disk for tablets or capsules
- simple cleaning
- short axial length to reduce headroom needed
- ATEX-compliant version

Standards Give Rise to New Ideas

Every innovative technology begins with an idea. Especially with complex projects, competent engineering creates a good conceptual environment right from the start, ensuring that the work of installing the system and integrating it into the production line proceeds smoothly and that the start-up goes quickly.

Our portfolio encompasses a wide range of specific and global solutions to cover all the interfaces in your production process. Individual engineering services, such as

- visual integration of the handling equipment into your working area (3D room layout)
- taking into account handling constraints such as swiveling radiuses and potential collisions
- adapting the technical design features to comply with company standards, URS or country-specific standards are therefore at the core of equipment design in every phase of a project.

Our goal is to develop the optimum interface management system for your manufacturing process, so that the production lines are user friendly and operate safely and efficiently.

Documented quality

Our manufacturing and development processes are sustainable and correctly documented. Customer- and industry-specific documentation such as

- Material certificates,
- Qualification documents,
- Functional and system descriptions,
- Welding documentation and
- Acceptance inspection documentation are your guarantee for our quality standards.

Müller Processing Engineering



Occupational Safety in Practice

Our service portfolio offers comprehensive protection: precautionary measures, correct operation and ongoing care of the equipment play a crucial role in a manufacturing facility. Regular inspections, maintenance and training sessions for the operating personnel also form part of the important preventive measures to ensure that safe plant operation will continue.

System modernization and retrofitting

When the key components approach the end of their technical service lives, Müller Processing develops the best strategy for replacing them to sustain system operability. Our After Sales team with their wide-ranging skills and wealth of experience are promptly at your side during the entire procedure of system modernization and component retrofitting.

YOUR BENEFITS AT A GLANCE

- Mounting and installation in your building
- experienced technicians for service and start-up, worldwide
- individual briefing and training sessions for your plant operators
- Maintenance contracts offering certainty in production planning
- Conversion and upgrading of existing systems

Müller Processing After Sales Service



Responsible Management for the Good of All

CUSTOMER FOCUS

- Positioning as focused, reliable solutions provider
- sustainable success and added value for our customers through our products and services
- Cultivating long-term business relationships
- high flexibility in meeting customer requirements without delay

QUALITY CERTIFICATION

- Quality management to ISO 9001:2015
- occupational safety to OHSAS 18001:2007
- Environmental management to ISO 14001:2015
- Quality assurance program compliant with the German BAM-GGR 001 regulations on the manufacture of UN packaging for dangerous goods
- approved manufacturer to AD 2000 Code HP 0 for pressure equipment in compliance with the Pressure Equipment Directive 2014/68/EU

QUALITY MANAGEMENT

- nondestructive materials testing as per EN ISO 9712 (VT and PT)
- Inspection certificates issued
- Materials inspection by X-ray fluorescence analysis
- Helium integrity and leakage testing
- Delta ferrite testing

ENVIRONMENTAL MANAGEMENT

- State-of-the-art dust extraction systems for grinding dust together with highly effective filters provide clean air for a healthy workplace
- green roofs on the new extensions store water, filter out dust and offer an alternative habitat for fauna and flora
- sustainable energy supplied by our own combined heat and power plant
- all other electrical power is purely hydroelectric

Müller Processing - A well-rounded performance



American International Container Experience the Difference

American International Container (AIC) provides superior quality material handling and packaging equipment for highly critical applications. Our experienced, degreed engineers offer technical expertise. We offer immediate delivery, for most products, from our warehouse facility in New Jersey. Our responsiveness can not be duplicated—24 hours 7 days per week, we're available to take your call.

Experience. Quality. Competitive Pricing. Immediate Delivery. Responsiveness. That's the AIC difference.



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A Company of the Müller-Group