

process systems

WALDNER
Firmengruppe



vessels, skids and units
right from the start



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English

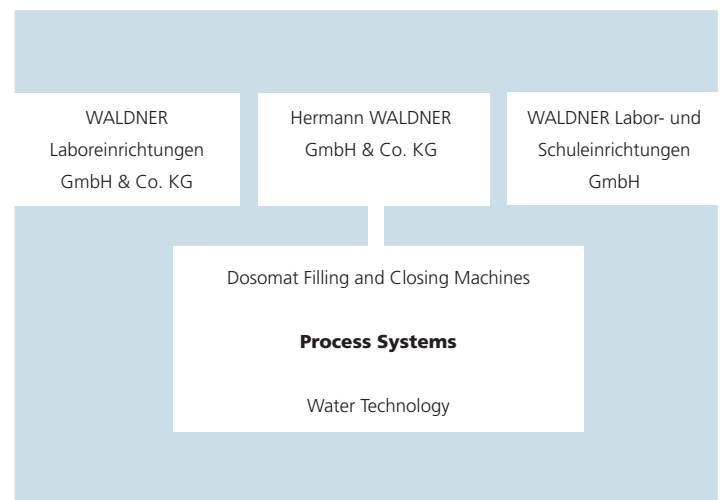


The WALDNER Group - a strong trio

The WALDNER Corporate Group consists of three companies:

- Hermann WALDNER GmbH & Co. KG
- WALDNER Laboreinrichtungen GmbH & Co. KG
- WALDNER Labor- und Schuleinrichtungen GmbH

For nearly one century WALDNER has been setting standards. For the benefit of our customers our business divisions take advantage of our cross-border capabilities. With their size and their involvement in the Corporate Group the three Waldner companies represent stability, expertise and continuity.



Waldner Process Systems

Belonging to Herman Waldner GmbH & Co. KG the business unit Process Systems offers customized procedural solutions for the pharmaceutical, chemical and food industry.

- **Isolators and containments**

Full containment systems for the contamination-free handling of highly active and toxic substances (API) and isolators for sterile applications.

- **Drying technology**

Mobile vacuum contact dryers for dust-free powder handling, vacuum tray dryers conform to GMP standards, intermittent and circulating air tray dryers.

- **Vessels, skids and units**

Vessel technology, ranging from single preparation, pressure and reaction vessels to complete units, container systems, single-layer pressure filters.

- **Cooking systems**

Batch cooking lines for the food industry, for the production of aseptic fruit preparations, jam and many more.

Including the process measuring and control equipment, our products can be combined on the basis of the modular design principle. From competent advisory service on the process development and planning to the realisation of turn-key projects, we provide you with an individual service package that is consequently based on your needs. In short - you obtain what we expect from ourselves everyday: First-class solutions.





vessels, skids and units **right from the start**

Safety you can rely on

More than 20,000 realized projects in the world market give evidence of Waldner Process Systems' well-founded know-how in the production of preparation and pressure vessels, pressure filters, specialized equipment and containers. Our solutions are applied in the pharmaceutical, chemical, biotechnology, cosmetics and food industries. High cGMP and

FDA standards are dominating the pharmaceutical industry and make very high demands on the process technology. Safety, reduction of interfaces, optimized process times are the key factors. Waldner Process Systems' innovative vessel technology deals with all these aspects.





Smart combinations

For the optimization of process steps the combination of different systems and components provides new perspectives. Contamination-free operation with a pressure filter? We say yes. Installed in an isolator manufactured by us, the safe and gentle filtration of highly toxic substances can be realized and this is only one example amongst many others. Based on the modular design principle, Waldner Process Systems components can be either combined with each other or can be integrated in already existing systems, such as combinations with isolators, laboratory fume cupboards or centrifuges. An impressive concept.



In focus: Your product

You define the production process - this is the starting point for the development of our technology. A process vessel or bioreactor barely comes close to another in all its details. The optimal design of process vessels, skids and units always is an individual solution, perfectly adapted to our customers' production activities. But whatever your requirement, it is always the product that defines the technology - not vice versa - and the goal is a process of constant quality that remains transparent at any time.

Components or comprehensive solutions?

The modular concept of our systems enables solutions ranging from single components to complete production lines, specifically designed to your needs. On the basis of a realistic cost analysis, the Waldner Process Systems Engineers prepare a detailed construction design for your project. Many years of experience in stainless steel treatment results in the first-class production and assembly of plant components and modules. In addition to the vessels, Waldner Process Systems also provides the peripheral equipment including piping, controls, assembly and start up of complex turn-key units and lines. This wide scope allows creative project solutions. The engineering is clever and sometimes surprisingly straightforward – but always made-to-measure.

Now and in the future: We are there for you

A Waldner Process Systems unit has an average service life of several decades. A successful collaboration with our customers is our principal goal. Only after perfect integration in your production process do we consider a project a success. Experienced engineers and technicians are at your disposal for the qualification of the lines (DQ, IQ, OQ) and provide support with validation. The training of your staff, support and advisory service, as well as reliable supply of spare parts is a matter of course to us. Your process optimization takes center stage and our team is at your disposal for all issues concerning your production process.









Preparation, pressure and reaction vessels

For the fabrication of our vessels and skids we apply stainless and special alloy steels. The surface roughness and electropolishing is executed according to our customers' requirements. Our vessels are available in capacities between 5 and 50,000 litres and skids range from 5 to 10,000 litres. The size of the platforms is not subject to limitation. Particularly in the pharmaceutical or biotechnology industries, the surface finish is important, and an average surface roughness is our standard.

We offer modern CNC grinding technology, plasma arc welding equipment and pickling and passivating at our workshop.

High safety standards take center stage. Prior to delivery, our equipment is subject to extensive quality control procedures like non-destructive material tests, X-ray fluorescence and riboflavin tests for CIP cleaning. Waldner is certified according to all current regulations as „ASME U-stamp“ and „Manufacture License of Special Equipment People's Republic of China“ etc., qualify Waldner Process Systems for projects on international markets.





Single-layer pressure filter / nutsche filters

When handling expensive or toxic products in a pressure filter, the prevention of leakages is the principal goal. We have the solution: Waldner Process Systems' well-proven automated central locking-system provides quick, pressure resistant sealing of the filter bottom and vessel shell without any leakage. First, the filter bottom is raised and set into the vessel bottom with electro-pneumatic actuator. Second, it is locked onto the shell flange via a bayonet

closure. Apart from the central locking system our filters can also be equipped with standard locking systems.

The capacities of our filters range from 50 to 300 litres, with filter surfaces from 0.12 to 0.50 m². Both the filter bottom and head can be lowered or lifted and are laterally slewable. These filters may be equipped with manually operated lifting spindle, pneumatic, hydraulic or with hinged opening-aid; application dependent. We offer a variety of surface finishes, from pickled and passivated to glass bead blasted and mechanical polishing or electropolishing.





Returnable stainless steel container systems

For various applications we offer standard and special containers. For aseptic filling operations Waldner Process Systems can provide pressure-resistant aseptic containers in round and special versions in sizes from 150 to 1,000 litres. Furthermore, we supply cubic containers for liquids, viscose media and bulk material in sizes between 200 and 2,500 litres, suitable for various applications. The surface and weld seam processing of our containers comply with the highest pharmaceutical, biotechnology and food standards.

Materials of construction offered are stainless alloys to specialty alloy steels like Hastelloy. Waldner Process Systems modular containers depend on our customers' requirements. Frames and undercarriages consisting of stainless steel, aluminium or galvanised steel, are available in standard versions or hermetically welded. And lastly, Waldner Process Systems containers can be equipped with various heating systems and individual mixing systems.





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