

TPE hoses – so that shape and performance are correct

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In order to relieve kitchen staff of the job, the newest generation of fully automatic cooking devices manufactured by Rational AG clean themselves. Precisely shaped hoses play an important role in the fully automated cleansing process. Shaped hoses from Angst+Pfister meet the high requirements for use in restaurant and catering operations because they are optimally adapted to tight space conditions and comply with hygiene and thermal specifications.

Rational AG, headquartered in the Bavarian town of Landsberg, has been focusing on developing technologies for thermal food preparation for approximately 30 years. Its systematic research and pathbreaking inventions have made the globally active company one of the market leaders in its field, with the highest name recognition in the sector. Moreover, 100 of Rational AG's roughly 880 employees are chefs who understand users' needs and competently assist them in solving their food preparation problems.

Keep it simple

With the invention and successful launch of the SelfCooking Center®, Rational AG's technology has established itself as a world standard. The SelfCooking Center® relieves the cook from overseeing the cooking process and thus frees him from many routine tasks that were once unavoidable. This enables him to concentrate on the essentials, namely quality and creativity. The technology developed by Rational AG replaces approximately 40 to 50 percent of all traditional cooking devices in a professional kitchen.

Cleaning without risk

The cleaning process is as simple and secure as the cooking process. At the touch of a button, the cooking devices clean themselves fully automatically overnight, ensuring sparkling and flawless hygiene. The user can choose between three self-cleaning processes with different temperature sequences. Specially developed detergents and rinse agents are employed, and they guarantee economical consumption of resources by means of an innovative wash liquor circulation principle.



The entire range of SelfCooking Center® equipment for stress-free food preparation

Dual-layer shaped hoses made of TPE

Shaped hoses made to measure

Each device is equipped with three different hose types manufactured to drawing. Their shape has been adapted to fit tight spaces. They compensate potential assembly tolerances and thermal expansion of rigid components, and prevent transmission of vibrations from moving components to the cooking device. Flexible connections enable easy assembling and dismantling of components in tight installation spaces. The three different types of hoses perform the following tasks:

- suction hose: suction and circulation of wash liquor consisting of detergent, rinse agent and water;
- pressure hose: feeding and circulation of the wash liquor;
- steam hose: conveys the steam created by the steam generator at temperatures up to +95 °C, as well as the condensate.

Compliant material

The TPE (thermoplastic elastomer) quality specifically defined for this application, coupled with the customized fabrication, optimally fulfills the requirements:

- internationally suitable for use in the food industry;
- heat resistant for use with steam;
- universal chemical resistance;
- elastically distensible and bendable.



Joint development

The development of a total of 15 shaped hoses for the different types of cooking devices took place in close cooperation between Rational AG and Angst+Pfister. From working out the basic geometry to manufacturing the finished dual-layer formed hoses in their complex shapes, partly also with diameter extensions, several steps with interludes of practical testing needed to be undertaken.

The specialists at Angst+Pfister paid particular attention to streamlining production while taking into account the number of units to be manufactured. Angst+Pfister delivers the components directly to the production line and stands in direct contact with the assembly foremen in the manufacturing cells.



Final assembly

We invite you to contact our specialists for further information and queries.

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