

WMU Gas non-return valves in systems for thermal processes

WMU, a company for heat treatment systems for industry and environmental technology in Bönen, Germany, has successfully used non-return valves from WITT for years. Their design manager Gerhard Vieting is impressed by their quality.

„We use WITT non-return valves, because we are impressed by the many advantages of this product: The low opening pressures, the simple connections and lower pressure loss are major considerations.“

WMU (www.wmu-gmbh.de) manufactures thermal process equipment. This includes continuous furnaces with integrated conveyer belts, roller hearth furnaces, vertical kilns and other thermal process equipment. For this equipment WMU has used non-return valves which can be installed independently of position for many years.



WMU Design manager
Gerhard Vieting

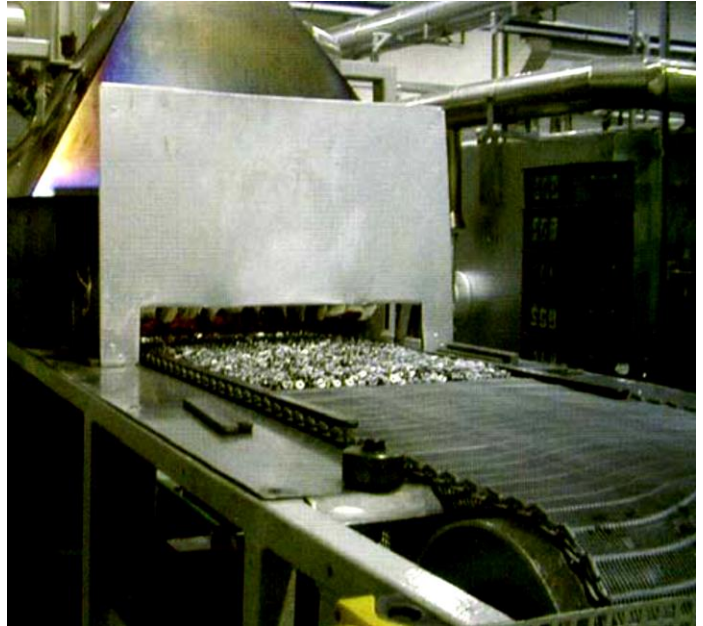


Various applications in furnace construction

As a rule, equipment for thermal processes is operated with a number of different gases simultaneously. These frequently include natural gas, hydrogen, nitrogen and various mixtures of these. Gas mixing and metering equipment is connected in series with the furnaces. WITT uses various non-return valves from WITT's wide range of products to prevent uncontrolled formation of explosive mixtures in the lines.



The heat treatment process in the furnace begins as soon as the product to be treated enters the furnace on the conveyer belt. Usually the gas control devices are located in the rear section of the system near the gas feed.

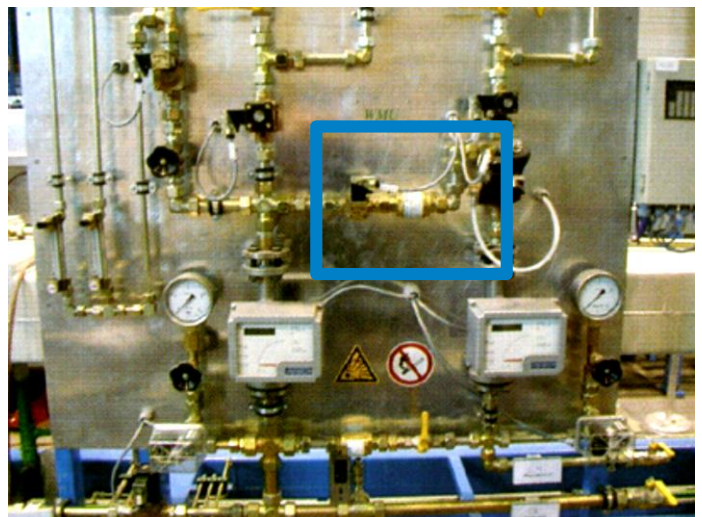


The lower figure shows a non-return valve model NV 200 installed in a gas supply panel for continuous furnaces with nitrogen as purging gas and hydrogen as the process gas. Here it prevents formation of gas mixtures which could endanger the process, for example from the purging gas mixing with the hydrogen.

The great advantage of the NV 200 is its compact design and its capability for combining with all conventional threaded fitting systems.

Naturally the non-return valve is also available directly with WITT threaded fittings. The Wittfix pipe fittings are one example.

Moreover this demanding valve system ensures extremely high tightness for minimum leakage in all non-return valves systems.



Model NV 200 on gas feed panel for nitrogen purging line.

Various applications in furnace construction



Here the Model NV 200 is shown on a gas feed panel for process and auxiliary gases (natural gas, ammonia).

The gas feed panel supplies a furnace used for carbonizing and carbonitrating, i.e. hardening steel.

Model NV 200 prevents undesired gas mixtures, which could endanger the process.

WMU also uses gas non-return valves from WITT in the gas supply to a roller hearth furnace. Each of the gases: endothermic gas, methanol and nitrogen, supplied to the gas inlet, passes through a non-return valve to ensure the process quality and safety.



Various applications in furnace construction



The Model NV 200 is also used by WMU on the gas mixer for supply of a hydrogen shaft kiln. It can be switched between two feed lines to provide a safe mixture.

The Model NV 200 gas non-return valve is available in brass or stainless steel (600-ES).

In addition to this model WITT also offers a wide selection of various gas non-return valves and safety valves for special applications.

Please give us a ring; we are looking forward to your special requirements.

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Non-return valves NV 200 and 600-ES - for the prevention of unintended gas mixtures, for flow rates up to 1900 m³/h (air), up to 16 bar

- every non-return valve 100% tested
- ultra-low opening pressures (approx. 4 mbar), ultra-low pressure drop
- ideal also for biogas desulphurisation systems