

# **GLAUNACH**

## **Company Profile**



## THE GLAUNACH COMPANY...

... was founded in 1950 by Herbert Glaunach. At the beginning the company produced equipment for noise control in buildings and industrial plants. With the growing demand for equipment for noise control in industrial plants, the company reduced its activity to industrial noise control only. The vent-silencer, or also called blow-off silencer, had been improved and the diffuser-silencer was developed. With the international success in sales, the market for diffuser-silencers went up and in 1990 the Glaunach GmbH was founded.

Glaunach is now solely engaged in the design and production of vent-silencers. Sophisticated equipment had been developed to permit a quick production of prime quality.



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*our factory is located in Klagenfurt, AUSTRIA*

## VENT SILENCERS

During the expansion of gas, steam or air, one of the largest possible noise pollution develops. The noise originates at the exit of the expansion opening as a result of sonic gas stream. Today world-wide silencers are mounted after relief valves to reduce the enormous noise pollution to a bearable value. Such equipment is needed in power stations, chemical, petrochemical or similar plants. Early absorptive silencers are still used in order to reduce the noise. Such absorptive silencers uses plate- or ring- shaped baffles to reduce the noise of valves. Glaunach provides a new diffuser system with compact construction in a small and light weight design and above all with an optimum noise reduction.

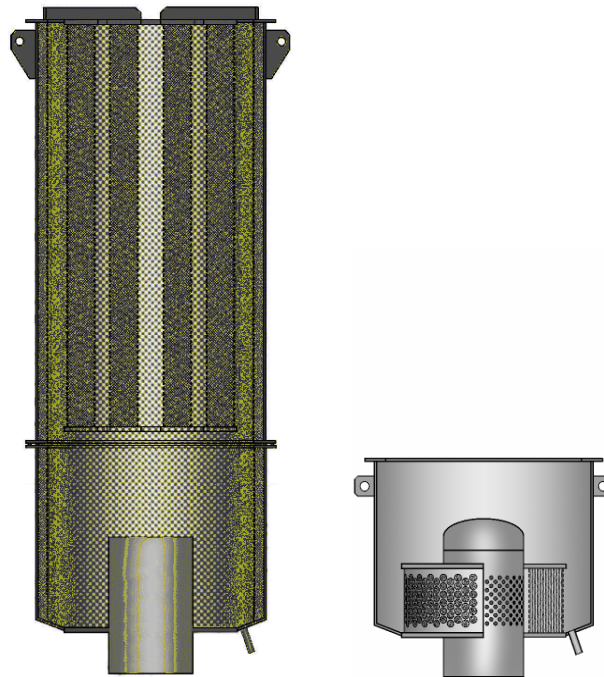


*vent-silencer or also called blow-off-silencer  
in connection with a safety-valve*

# THE ADVANTAGE OF GLAUNACH DIFFUSERS

It was around 1970 when Glaunach changed from the absorptive silencer design to the diffuser design, which show certain advantages compared to the earlier absorptive designs. In 1980, we started with the new diffuser design. The pressure gradient is partly reduced inside the silencer, thus creating less noise.

Furthermore Glaunach silencers are designed to allow uninhibited expansion when the temperature in the silencer rises, without putting uncontrolled stress on its rigidity. The compact and round design suppresses possible vibration which would cause damage to the silencer after certain time. Since 1980, more than six thousand silencers featuring the Glaunach design have been produced and shipped across the globe.

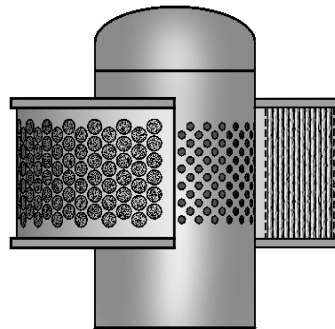


*the left picture shows the early absorptive design,  
the right picture shows the new Glaunach diffuser design*



## THE GLAUNACH DIFFUSER

Over many years the Glaunach diffuser was developed and is now already manufactured for more than 20 years with certain adjustments. This design helps to reduce the noise level by about 50 decibels! A fine wire mesh of stainless steel is applied behind the holes, preventing the noise from reaching the outside as well as the creation of gas swirls.



The following picture shows two steam boilers in Duernrohr, Austria. The left boiler was equipped with 4 silencers according to the early diffuser absorptive design. (Ø3.5 m - 5 tons). The right boiler was equipped with 4 silencers according to the new Glaunach diffuser design, with better noise reduction but without any absorbing materials. (Ø3 m - 3 tons)



*the differences in dimensions, weights, costs and sound reduction of the new Glaunach Diffuser Silencers are substantial!*

## COLLECTING PIPES

It is also possible to lead several blow-off pipes into one silencer. In such a case a collecting pipe is arranged in front of the silencer. The silencer is constructed to withstand the maximum admissible load, e.g. with drum safety valve plus super-heater valve or start-up valve.

For example the design of the silencers can support two kinds of load:

- 1) the acoustic design for the start-up valve with a higher noise reduction
- 2) the strength design for the drum safety valve and the super-heater valve blowing at the same time

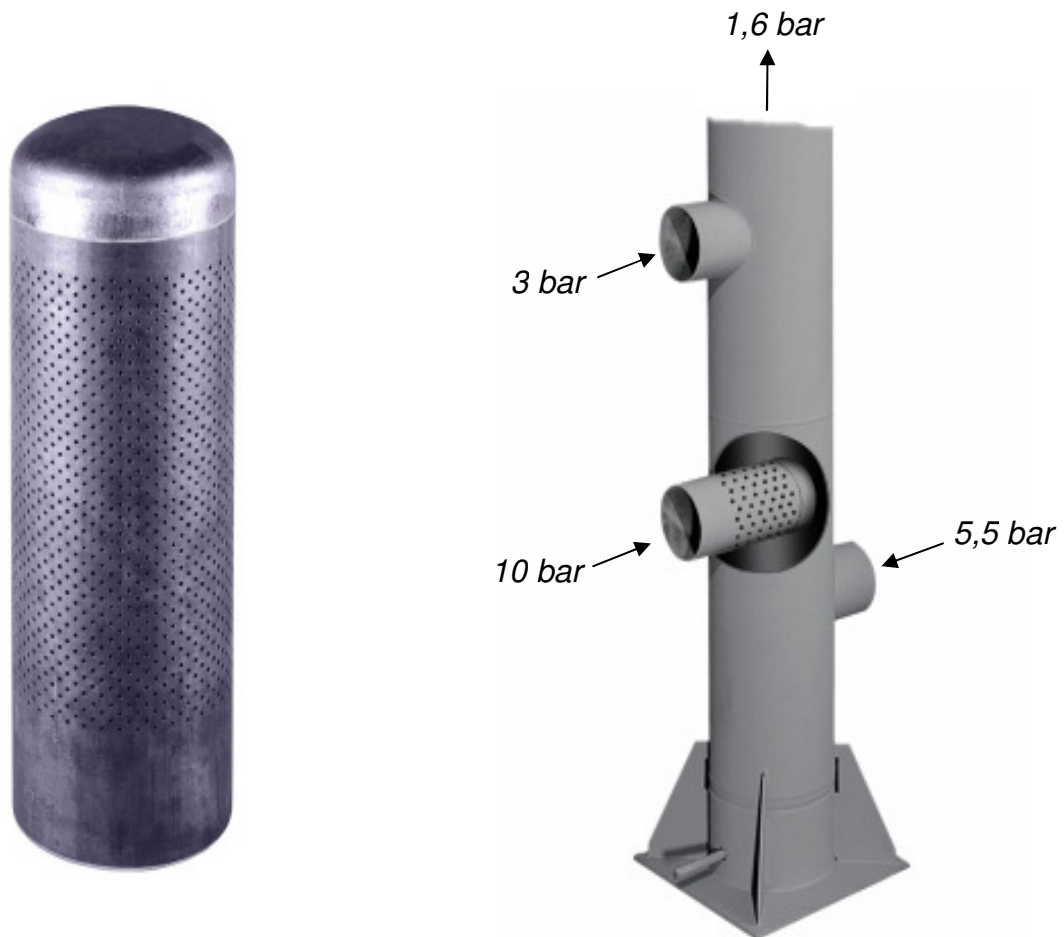


acoustic design for flow of start-up valve  
strength design for flow of drum and super-heater-safety-valve

## DIFFUSER PIPES

If several valves with different set pressures are connected to a single system, the valve with the highest back pressure may affect all other valves. Therefore the downstream pressure of all valves needs to be equated. This is possible by arranging diffuser pipes into a collecting pipe.

Glaunach manufactures each diffuser pipe according to customer's request. The pipes get exactly the required number of diffuser holes. The diffuser holes are 3mm or 6mm (0.12" or 0.24") in diameter. Diffuser pipes on stock are available in DN 25 (1") up to DN 800 (32").



*different inlet pressures are supported during simultaneous flow*

## ABSORBERS

By the arrangement of absorption linings or baffles after the diffuser, each desired noise reduction can be reached. Plant operators sometimes will not authorize pressure reduction taking place downstream of safety valves. Glaunach can support such “pressure free” silencers. However, you should consider that a certain back pressure between valve and silencer allows a smaller diameter of the blow-off pipe and therefore a smaller construction of the silencer.



*vent-silencer with removable absorber*



## INLINE SILENCERS

Control and conditioning valves reduce high pressure, at the same time noise levels develop, which become unpleasantly apparent in the environment. For the reduction of this noise generation we manufacture the inline diffuser silencer. This type is similar to the blow-off or vent silencer. Diffuser holes expand the medium into a fine stainless steel wire mesh, which prevents the development of turbulences and absorbs noise.



*inline silencers are available with PED or ASME certificates*

## MATERIAL & QUALITY CONTROL

Glaunach produces silencers according to the requirements of the customer from carbon steel or stainless steel, according to the European or American standards. The used materials consider the often high temperatures and corrosion loads. Continuously striving to improve the design and assure highest standards of quality, Glaunach introduced a Quality Assurance System according to ISO 9001-2000 standards, certified by Llyod's Register.



*we provide ASTM and DIN materials*