

DGE-Standard series DGE-TNV-H for a thermal combustion for the exhaust air decontamination

DGE-TNV-H are plants for the thermal exhaust air decontamination in horizontal construction. For the realisation of a thermal combustion of waste gases, a horizontal construction is always recommendable. As heating medium, oil or gas burners are used. Corresponding to the task, the TNV is equipped with a heat recovery for the pre-heating of the combustion air.

DGE-TNV-H-plants are suitable for the exhaust air contamination of process flows with a small concentration in the following fields of application:

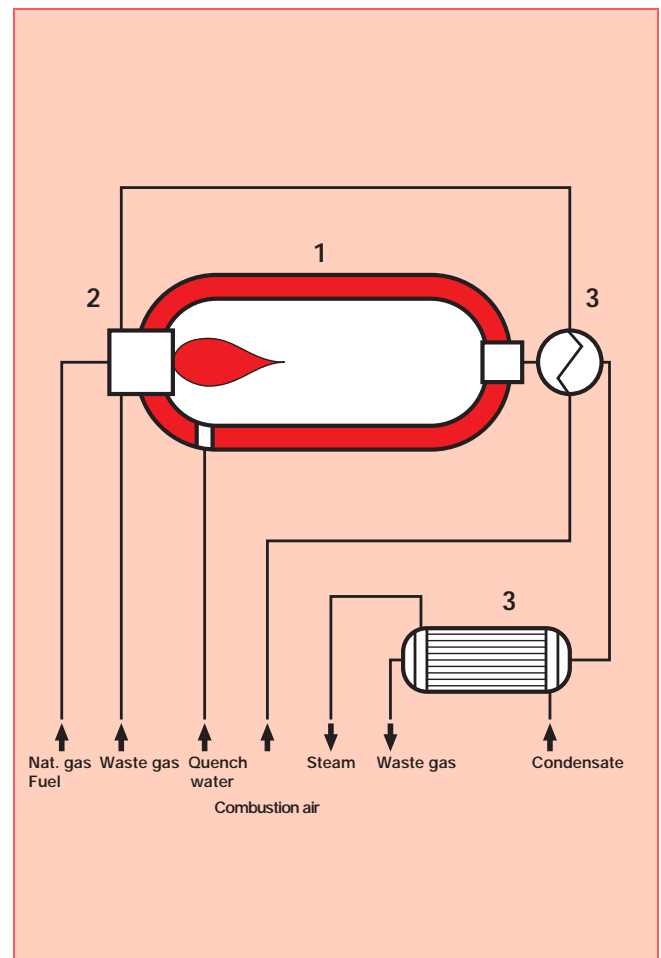
- Removal of odours
- Oxidation of organic components
- Combustion of inorganic components

At most of the thermal oxidations, huge quantities of energy are released and can lead to a great warming up. This heat has to be taken away from the process. This energy can be recovered as steam, warm water or thermal oil. The energy with the waste gas which is to be treated is often so high, that it is necessary to cool it with water. The demanded combustion chamber temperature is depended on the components which are to be cleaned.

DGE-TNV-H-plants are always equipped with the necessary safety technology as flame filters, check valves, flame ionisation, combustion chamber temperature control.

For the operation of every thermal plant it is necessary to prepare separate safety views, which take into consideration all disturbances.

DGE-TNV-H-plants are made of steel, high-quality-steel. The used steels correspond to the temperature demands. Apparatus and piping systems are isolated.

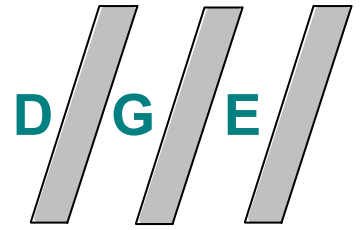


**DGE-thermal combustion
Model serie DGE-TNV-H**

- 1 – Combustion chamber**
- 2 – Burner**
- 3 – Heat recovery**



Environmental Protection Process Engineering Plant Engineering



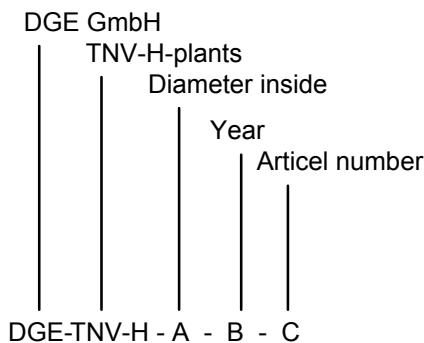
Dr.-Ing. Günther Engineering GmbH

There are the following standard subassemblies for using DGE-TNV-H-plants for exhaust air decontamination:

| Unit | Diameter inside mm | Lenght mm | Exhaust air quantity m ³ /h | | |
|-----------------|-----------------------|--------------|---|---|--------|
| DGE-TNV-H 300 | 300 | 2.000 | 50 | - | 150 |
| DGE-TNV-H 450 | 450 | 2.000 | 100 | - | 300 |
| DGE-TNV-H 600 | 600 | 2.000 | 200 | - | 500 |
| DGE-TNV-H 750 | 750 | 3.000 | 500 | - | 1.200 |
| DGE-TNV-H 1.000 | 1.000 | 3.000 | 800 | - | 2.100 |
| DGE-TNV-H 1.200 | 1.200 | 3.000 | 1.000 | - | 3.000 |
| DGE-TNV-H 1.500 | 1.500 | 4.000 | 2.000 | - | 6.500 |
| DGE-TNV-H 1.800 | 1.800 | 5.000 | 3.000 | - | 10.000 |
| DGE-TNV-H 2.000 | 2.000 | 6.000 | 4.000 | - | 12.000 |
| DGE-TNV-H 2.200 | 2.200 | 7.000 | 5.000 | - | 15.000 |
| DGE-TNV-H 2.500 | 2.500 | 7.500 | 6.000 | - | 17.500 |

The indicated dimensions correspond to the round standard design with a standing time of 1-3 seconds and a combustion chamber temperature of 800 °C. There will be a separate design for higher combustion chamber temperatures of about 1200 °C. Other designs can be made on enquiry.

Model designation for DGE-TNV-plants Type DGE-TNV-H:



DGE testing plants may be used for the piloting of complicated tasks. Our mobile testing plants allow you to get the information you need for laying out your process within the shortest period of time.

If required, we can supplement our testing plants with scrubbers and acclimatisation plants. Furthermore, we can integrate measuring and analysis equipment for ascertaining the decontamination performance. The readings are stored on evaluateable files.

DGE-TNV-H-plants are products made by our own. All filter accessories like:

- Burner
- Ventilators
- Safety systems
- Heat exchanger
- Heat recovery
- Exhaust air decontamination

can be delivered after enquiry.

For special applications in waste gas cleaning **DGE** has its own cleaning techniques, long year's expertise and a large number of references.

As a system solution provider we provide consultancy services and together with our customers we develop the most efficient concept for the job to be done. We optimise utility consumption and cut disposal costs. In doing so, we particularly investigate possibilities of running the processes as a closed material cycle.

We offer our customer a service for especially sensitive plant systems with our **mobility guarantee** and repair guarantee within 24 hours.