

Firing for your processes

Sulphur

Burner Systems for H₂S-gas

CTP-DUMAG burners and CTP-DUMAG burner combinations for H₂S-gas

H₂S is injected via gas lances in the burner or via gas lances in the combustion chamber

Applicable to the whole power output range of CTP-DUMAG burners

Burner dimensioned as combined fuel burner with

- ▲ oil serving as support or start-up fuel
- ▲ fuel gas serving as support or start-up fuel
- ▲ sulphur burned together with H₂S-gas

or

- ▲ H₂S-gas combustion while spent sulphuric acid is injected into the combustion chamber
- ▲ combination with the combustion of sour gas, injection via the combustion chamber front plate and/or via the burner

Gas is injected via gas sleeve tubes or gas lances, liquid fuel or waste materials via lances equipped with the CTP-DUMAG® ultrasonic nozzle.

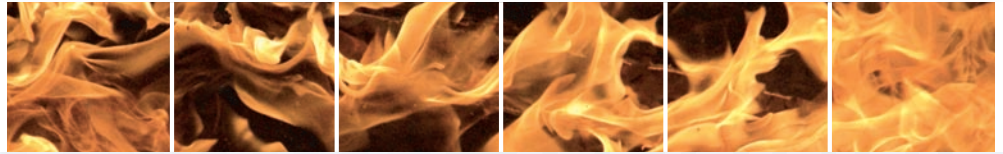
More than 30 years of experience in the combustion of H₂S-gas in various combinations

Advantages

- ▲ No flame holder plates at burner outlet, decreases contamination, maintenance rate, blackouts
- ▲ Stable and secure combustion even at low gas pressure
- ▲ Controllable flame length and temperature distribution via burner swirl for optimization of the system
- ▲ No rotating parts in the hot combustion chamber – no abrasion caused by rotating parts
- ▲ Low combustion air pressure loss above the burner reduces investment cost and operating expenses of blower
- ▲ Gas-proof burner for safe operation
- ▲ Burner available compression-proof according to ATEX

CTP-DUMAG Services

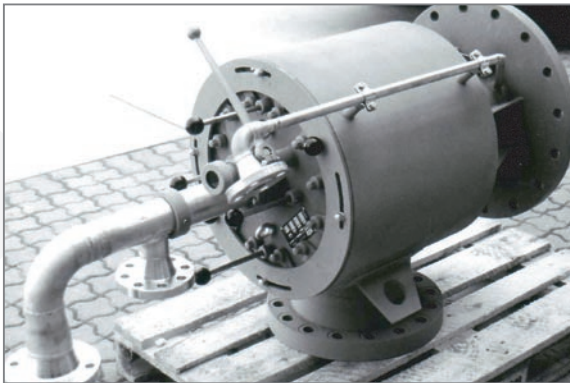
- | | |
|---|--|
| <ul style="list-style-type: none"> ▲ Layout of the plant ▲ Delivery of ready-for-use burner system including control and safety technology ▲ Delivery of valve rack including all necessary controls ▲ Delivery of ready-for-use combustion chamber ▲ Mechanical testing at the DUMAG workshop – also for big burners – increases safety | <ul style="list-style-type: none"> ▲ Documentation ▲ Supervision of erection ▲ Commissioning ▲ Service and remote maintenance of the burner plant ▲ CFD-simulation of the plant ▲ Revamp |
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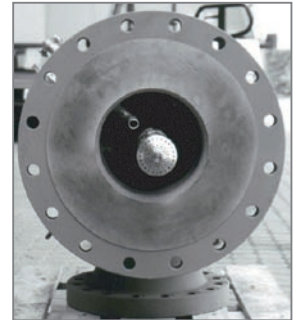
CTP-DUMAG Burner for H₂S-gas



Burner for firing two different streams of H₂S-gas in one steam boiler. The burner housing is designed for 5 bar(g) gas-tight atmosphere

No flame holder plates at burner outlet ...

... thus no contamination or burner blackouts due to contamination

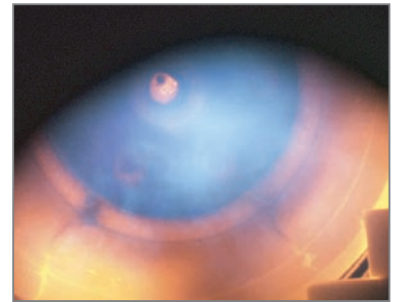


Combustion Chamber

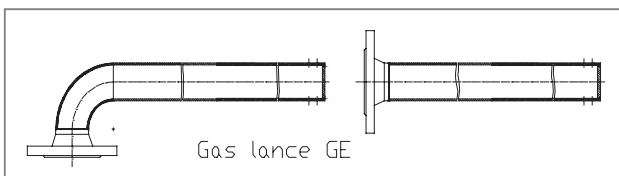


Incinerator for H₂S-gas

characteristic H₂S-flame

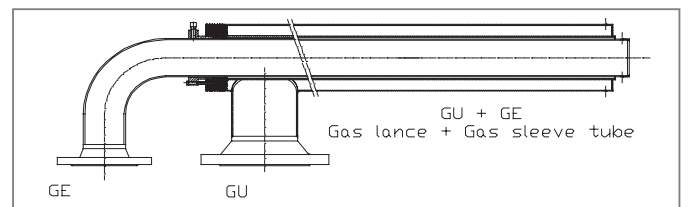


Possible Combinations of Gas Lances



Gas lance GE, mounted in the center of the burner or 3 – 6 lances around the center of the burner

Gas sleeve tube GU mounted in the center of the burner with gas lance GE in its center



Gas sleeve tube GU mounted in the center of the burner with an additional gas sleeve tube GU and a burner lance for liquid in the center

