



FUEL GAS PERFORMANCE HEATER

TYPE VEV-LS

for all gases acc. to 'DVGW Arbeitsblatt' G260
and for special gases

FUEL GAS PERFORMANCE HEATER TYPE VEV-LS

CHARACTERISTICS

- » optimum thermal efficiency
- » optimum efficiency of the turbine
- » optimum load-case design
- » flow optimized design
- » vibration-optimized design

OPTIONS

- » custom specific design on international design codes (ASME, EN 13445, SVTI, AS1210, PD5500 etc.)
- » design acc. to TEMA
- » custom specific TPIs (Inspections / Third Party Inspections)
- » custom specific testings
- » sour gas application (NACE)
- » temperature range -50 °C till + 350°C
- » custom specific nozzle orientation

ACCESSORIES:

- » Water: SSV - safety shut-off valve (water side - back-pressure resistant)
- » Water: SRV safety relief valve (water side - non-back-pressure resistant)
- » Orifice Plates, water side (water side non-back-pressure resistant)

GENERAL

Performance Heater, Typ VEV-LS sind seriell angeordnete Wärmeübertrager (Wärmetauscher), die Gas für eine nachfolgende Systemanforderung erwärmen. Performance Heater können auch in umgekehrter Funktionsweise als Kühler bestimmt werden.

Die Ausführung erfolgt als Stahl-schweißkonstruktion in horizontaler Bauweise.

QUALITY MANAGEMENT

- » DIN EN ISO 9001 certified
- » Our vessels are tested according to AD 2000 regulations and CE-certified according to EC / PED 2014/68 / EU. The examination is carried out by authorized inspectors (TÜV, Lloyd's Register, etc.).
- » Test and material certificates are prepared by the inspectors in acc. to the design specification.

CALCULATIONS

Our heat exchanger calculations are based on the theoretical foundations of VDI Wärmeatlas and the HEDH (Heat Exchangers Design Book). The calculation bases are always further developed by current research reports.

FUNCTION

Fuel Gas Performance Heater Type VEV-LS is used in high efficient combined-cycle gas and steam power plants (CCPP).

The gas is heated up to 185°C – 220°C (365°F -428°F) in order to achieve the best efficiency of the gas turbine and the entire system. The pre-heating of the gas achieves a reduction of amounts of gas for the operation of the turbine.

The feed medium of the performance heater is pressurized, condensed hot steam or hot water used from heat recovery systems. Performance heaters operate in the standard design for gaseous media as countercurrent tube bundle heat exchangers and are arranged in series or one above the other. The gas flowing through the pipes is heated by the bypass flow of hot water or hot steam. The bypass flow around the pipes is optimized by baffle plates (guide plates).

The application of the heat exchanger and the heating medium determine whether the jacket side is back-pressure-resistant. The tube bundle can be fixedly welded or dismantled. For each application it is checked whether the thermal expansion requires the use of expansion joints.

DESIGN DATA (STANDARD)

Design & Manufacturing	AD 2000 + CE
Design Pressure	Custom specific
Design Temperature	-10 / +100°C
Material	Carbon Steel
Preliminary Approval	Authorized Inspector
Material Certificates	EN 10204/3.1

Radiographic Test	Acc. code
Dye Penetrant Testing	acc. code
US-Test	On demand
Hydraulic Test	p x 1,43
Leak Test	Workshop Test 6 bar g
EG/PED 2014/68/EU	Certified
Corrosion Allowance	1 mm

TYPE INDEX, EXAMPLE



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