

The intelligent way –
low pollution disposal of process gases





Features

Flares for the exhaust air combustion up to a temperature of 850°C, alternatively manufactured as open or concealed combustion.

- ☒ Suitable for all types of sewage gas and biogas.
- ☒ Package units incl. control cabinets and gas train with DVGW approved fittings.
- ☒ State-of-the-art burner control with UV sensors; flame monitoring according to EN-746.
- ☒ Simple operation by plug-and-play principle.
- ☒ Completely concealed flame.
- ☒ ATEX certified Flame Arrestor integrated into Flare.
- ☒ Suitable for the installation on concrete foundation as well as on a container's roof.
- ☒ Standard combustion capacities between 50kW – 10MW (other capacities on request).
- ☒ Certified to European Standards.
- ☒ Execution according to industrial standards.
- ☒ Short delivery and installation times



/// PRODUCTS

Whether low- or high-temperature flares, gas booster stations, gas cooling and gas drying plants, gas filter units for desulphurization of biogas or demisters to segregate condensate of gas fluids, C-nox understands the interrelationships and can coordinate, develop and execute the whole portfolio for its customers. In short, either as engineering, assembly and manufacturing company, C-nox is able to comprehensively overlook complex and integral systems. C-nox offers its customers solutions even beyond the own interfaces, solutions which can be integrated in the overall system of a plant.

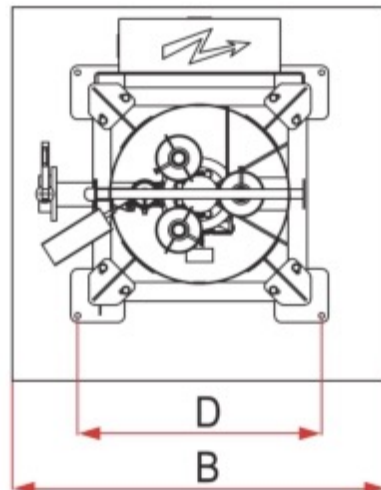
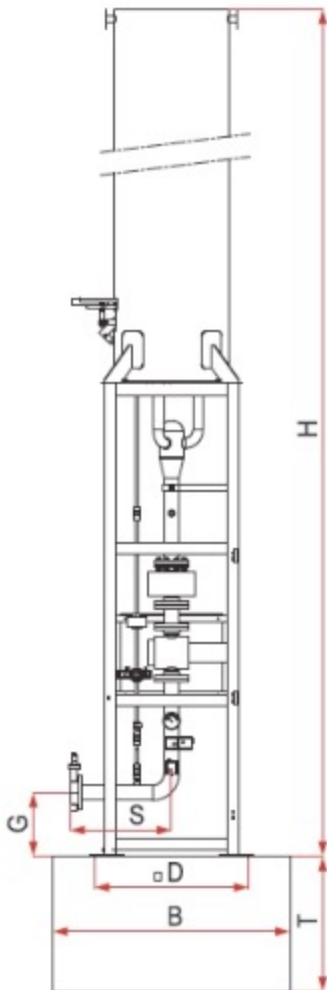
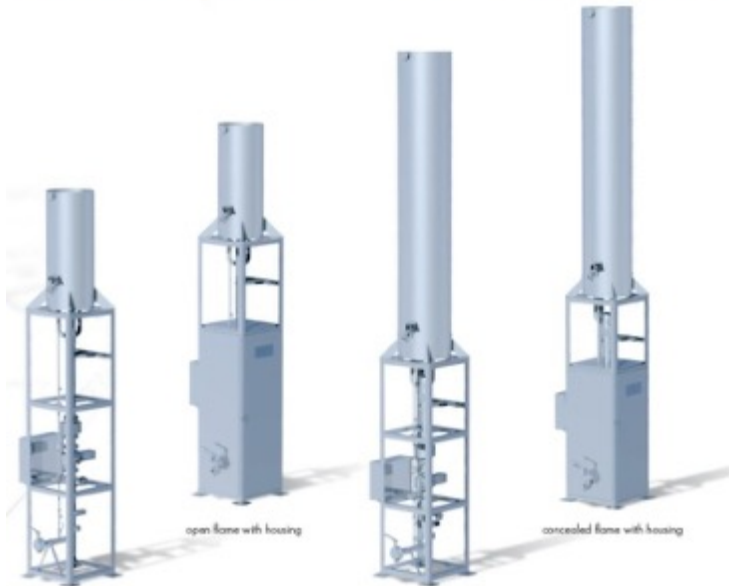
Our Capabilities



- Design
- Manufacture
- Test
- Install
- Commission

LT Flares with open flame

LT Flares with concealed flame



Application

Zeekoegat WWTW Gas Flare

- | | |
|--|--|
| a) Gas quantity (max and min) [Nm ³ /h] | 245 & 165 m ³ /hr |
| b) Gas pressure (max and min) [mbar] | 22mbar |
| c) Gas comp. (CH ₄ , CO ₂ , NO _x ,) [% Vol. Biogas] | CH ₄ =65%, CO ₂ =30%,
Others=5% |
| d) Gas temperature [°C] | 14-35 ⁰ C |
| e) Combustion temp. (low T appr. 850 °C / high T>1000°C) | Not sure |
| f) H ₂ S concentration [ppm] | 150-2000ppm |
| g) Gas humidity [%] | 100% |

Recommended Gas Flare for Application

Flow rate:	max. 245 m ³ /h	min. 165 m ³ /h
At gas flow pressure:	max. 22 mbar _G	safety cut off <5 mbar _G
Heating value:	min. 3,0 kWh/m ³	max. 6,5 kWh/m ³
Firing capacity:	min. 495 kW	max. 1600 kW

Combustion conditions: approx. 850°C exhaust gas temperature, semi-concealed combustion with visible flame, with flame wind protection pipe

Burner type: Coanda-Injection burner with several, back fire protected nozzles

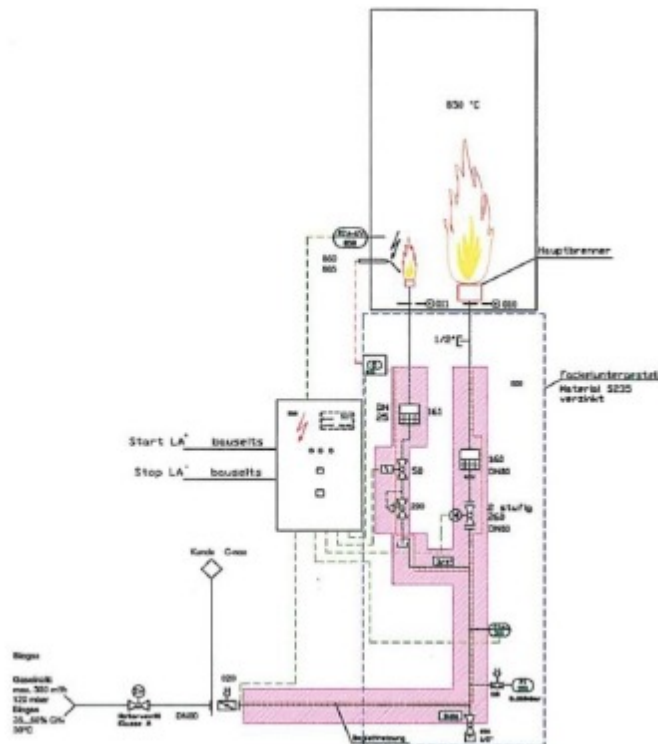
Safety engineering: in dependence of EN, DIN, TR, ATEX, UVV and DVGW regulations

Dimension:

Number of burner circles:	1
Gas connection to gas fitting line:	DN 100
Total height ex foundation:	~ 5500 mm
Combustion chamber height:	~ 3000 mm
Combustion chamber diameter outside:	~ 955 mm

Materials:

Chamber:	<input checked="" type="checkbox"/> 1.4571	<input type="checkbox"/> 1.4301	<input type="checkbox"/> St. galv.
Console:	<input type="checkbox"/> 1.4571	<input type="checkbox"/> 1.4301	<input checked="" type="checkbox"/> St. galv.
Burner:	<input checked="" type="checkbox"/> 1.4571	<input type="checkbox"/> 1.4301	<input type="checkbox"/> 1.4828
Piping:	<input checked="" type="checkbox"/> 1.4571	<input type="checkbox"/> 1.4301	<input type="checkbox"/> St. galv.
Gas fittings:	EN, DVGW, IBEXU legislated		



References

- ☒ 30 MW High Temperature Flare for so far largest bio fermentation plant in Sweden!



- ☒ C-nox was awarded the contract for the supply, installation and commissioning of a 21MW flare as a low-temperature system for emission-friendly combustion of the excess sewage gas of the waste water plant Ambarli in Turkey.

