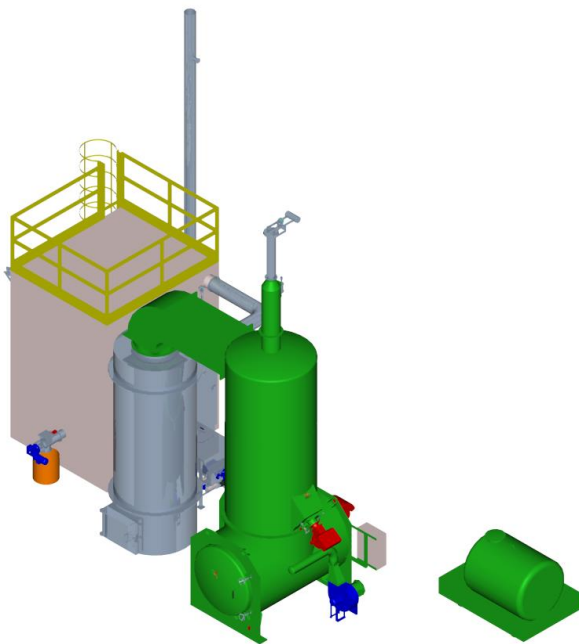




## HOSPITAL WASTE

## COMBUSTION SYSTEM FOR SPECIAL OR HAZARDOUS HOSPITAL WASTE

# SP-H



| MODEL                       | # SP-H  |
|-----------------------------|---|
| TREATED WASTE               | SPECIAL OR HAZARDOUS HOSPITAL WASTE                             |
| INCINERATION CAPACITY       | 50 – 100 – 150 - 250 Kg/h                                       |
| COMBUSTION CHAMBER          | HORIZONTAL - STATIC - PYROLYTIC                                 |
| OPERATION                   | DISCONTINUOUS   |
| FEEDING                     | MANUAL OR AUTOMATIC   |
| OPERATION HOURS PER DAY     | 8 – 12 h.   |
| HEATING VALUE               | 13,6 – 15,9 MJ/Kg   |
| HEAT RECOVERY               | HOT WATER AT 90°C   |
| RECOVERED HEAT POTENTIALITY | 0,2 – 0,36 – 0,55 – 0,88 MWt                                    |
| FLUE GAS CLEANING           | DRY SCRUBBING WITH BAGS FILTER (Bicarbonate + activated carbon) |

The proposed combustion system is designed to meet the emission limits required and enforced by the EU Standard [# 2000/76/EU Guide line](#)

The proposed combustion system for hospital waste is based on a static horizontal “pyrolytic” combustion chamber. The plant is available in different capacity per hour sizes with the following features:

- Automatic feeding system with hydraulic piston for discontinuous loading operation
- Combustion chamber at controlled temperature, complete with burner and control board. Manual unloading of ashes to take place only when plant is cold.
- Post-combustion chamber designed to grant:
  - Temperature 850/1.050 °C
  - Combustion gas residence time > 2 secondi
  - Swirl chamber to improve combustion’s efficiency
  - Oxygen content > 6%
- Complete with burner, control board and emergency chimney
- Heat exchanger (smoke tube type) for the production of hot water at T = 90°C
- Flue gas cleaning system for the abatement of pollutants – acid fumes, dioxins and heavy metals – dry scrubbing type using bicarbonate and activated carbons. The system is supplied complete with reactor, reagent’s dosing and bags filter.
- PLC control unit complete with dedicated operating system and net connection for online assisted technical support

## COMBUSTION SYSTEM FOR SPECIAL OR HAZARDOUS HOSPITAL WASTE

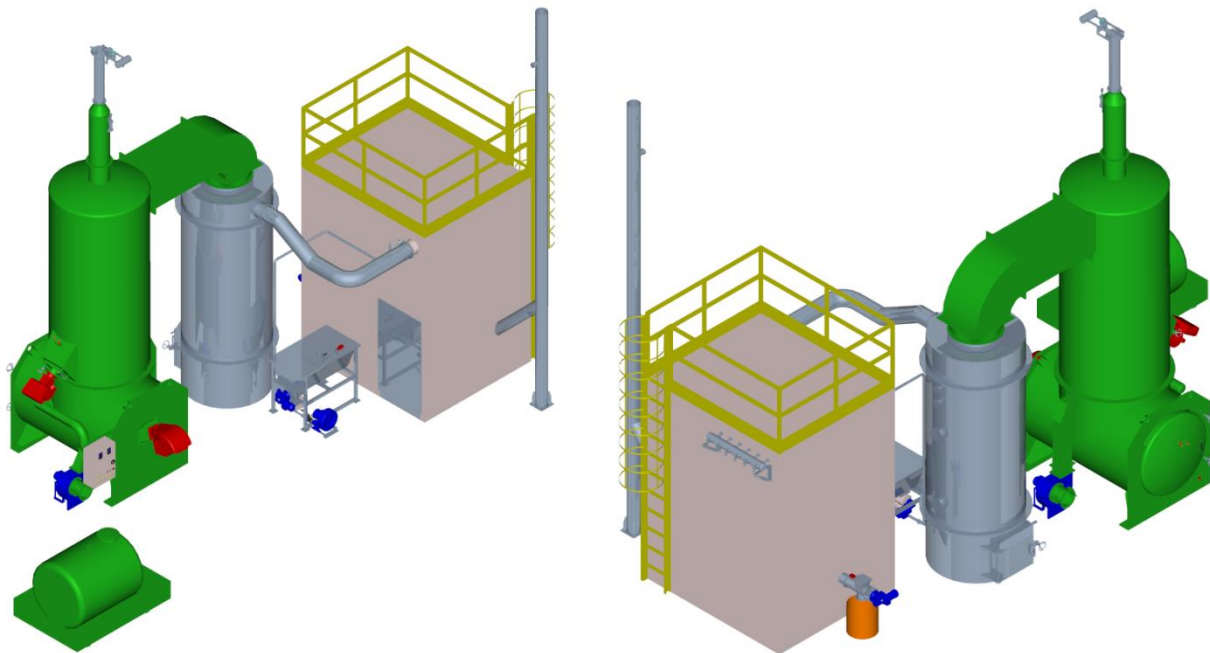
| TYPE   | QUANTITY           | ½ HOUR VALUE        | DAILY AVERAGE VALUE |
|--|--------------------|---------------------|---------------------|
| DUSTS  | mg/Nm <sup>3</sup> | 30                  | 10                  |
| HCl  | mg/Nm <sup>3</sup> | 60                  | 10                  |
| SO <sub>2</sub> + SO <sub>3</sub> as SO <sub>2</sub> | mg/Nm <sup>3</sup> | 200                 | 50                  |
| HF   | mg/Nm <sup>3</sup> | 4                   | 1                   |
| NO <sub>x</sub> as NO <sub>2</sub>                   | mg/Nm <sup>3</sup> | 400                 | 250                 |
| CO   | mg/Nm <sup>3</sup> | 100                 | 50                  |
| T.O.C.   | mg/Nm <sup>3</sup> | 20                  | 10                  |
| TYPE   | QUANTITY           | PROBE AVERAGE VALUE |                     |
| Hg   | mg/Nm <sup>3</sup> | 0.5                 |                     |
| Cd + Tl  | mg/Nm <sup>3</sup> | 0.05                |                     |
| Pb + Cr + Cu + Sn + Mn + Sb + As + Ni + V            | mg/Nm <sup>3</sup> | 0.5                 |                     |
| DIOXINS + DI-BENZOFURANS (2,3,7,8 TCDD)              | mg/Nm <sup>3</sup> | 0,1                 |                     |
| <i>Average value over a sampling period of 8 h</i>   |                    |                     |                     |

The results of the measurements made to verify compliance with the emission limits are standardized at the following conditions:

- TEMPERATURE 273,15 K
- PRESSURE 101.3 kPa
- STATE OF GAS – MEASURED DRY
- CONTENT OF OXYGEN IN THE FLOWING GAS EQUAL TO 11% IN VOLUME

Sound pressure level 1 meter away from the logic perimeter of the source (i.e. the entire combustion system including its bases):

- 85 dB +/- 2 dB MAX



Note: The technical data are only indicative and need to be checked in the design phase.