## CERTUSS Steam Generators

CERTUSS steam generators range from 6 Hp to 128 Hp and pressures up to 420 psi within a minimal footprint. Various fuel types from lpg, natural gas, \#2 oil or duel fuel. CVE unit offers all necessary water treatment in one compact body. Package container units come pre-piped, pre-wired and factory tested.

German engineering

Expert team

Global company

Energy efficiency

Cross-industry experience

Aftersales Support


By using the water tube boiler principle, the CERTUSS technology for generating steam offers maximum safety, reliability and instant availability of high quality steam.

## ADVANTAGES

- Virtually INSTANTANEOUS: Cold start to 100\% steam in 3-5 minutes!
- SPACE SAVINGS: Less than HALF the size of traditional steam boilers
- HIGHLY EFFICIENT: Up to $\mathbf{9 0 \%}$ thermal efficiency with the economizer option
- PARTS AVAILABILITY: Common wear parts for YOUR Certuss boiler stocked and sold through $J$ Lorber's 3 convenient locations. Parts availability guaranteed for 20 years!
- FULLY AUTOMATED! Unmanned operations capability
- Virtually NO WATER CONTENT!
- AIR-INSULATED! No insulation to break down. Mildly warm to the touch at $100 \%$ full fire
- NON-HAZARDOUS OPERATION: Place in work areas, warehouses, or outdoors in a containerized steam plant
- FACTORY SUPPORT \& SYSTEM MONITORING: 24/7/365 days a year
- REMOTELY OPERABLE by WiFi, Ethernet, or GSI (Cellular). I-Phone or I-Pad
- ENVIRONMENTALLY FRIENDLY: Less water usage, less blowdown, less pollution
- CVE UNIT: The entire boiler plant SKID-MOUNTED and CUSTOMIZED for YOUR application
- PROVEN STRESS-FREE RELIABILITY!
- J Lorber in business since 1918
- Certuss since 1957
- More than 13,000 Certuss boilers currently in operation in over 127 countries!



Universal TC


Supply Unit CVE


Container Unit

|  | Junior TC |  |  |  |  |  |  |  | Universal TC |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model number | 80 | 120 | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 600 | 700 | 850 | 1000 | 1300 | 1500 | 2000 |
| Steam output (lb/h) | 176 | 265 | 331 | 400 | 551 | 661 | 772 | 882 | 1102 | 1322 | 1543 | 1874 | 2204 | 2866 | 3307 | 4409 |
| Heating Capacity (BHP) | 6 | 8 | 10 | 13 | 16 | 20 | 23 | 26 | 32 | 39 | 45 | 55 | 64 | 83 | 96 | 128 |
| MBH at $212^{\circ} \mathrm{F}$ | 171.33 | 256.69 | 320.87 | 427.82 | 534.78 | 641.74 | 748.69 | 855.65 | 1,069.56 | 1,283.47 | 1,497.39 | 1,818.25 | 2,139.12 | 2,780.86 | 3,850.42 | 4,278.25 |
| Fuels | Natural Gas / LPG / \#2 Oil |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Time to Steam | 3 minutes |  |  |  |  |  |  |  | 5 minutes |  |  |  |  |  |  |  |
| Working Pressures (psi) | 10-421 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Height $\times$ Width $\times$ Depth (inch) | $59 \times 25 \times 48$ |  | $62 \times 28 \times 54$ |  | $73 \times 32 \times 59$ |  |  |  | $77.95 \times 36.6 \times 63$ |  | $90.16 \times 45.6 \times 73.6$ |  | $99.8 \times 49.6 \times 83.6$ |  | $105.3 \times 54.3 \times 90.9$ |  |
| Available containerized | yes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# CERTUSS <br> Steam Generators 



## P\&G

## CUSTOMER CASE STUDY

Procter \& Gamble, Seaton, UK

## REQUIREMENTS

Standard running load demand of $1650 \mathrm{lb} / \mathrm{h}$, peak load of $3300 \mathrm{lb} / \mathrm{h} .24 / 7$ operations.

## APPLICATION

Production of perfumes and aftershaves


## SOLUTION

2 x Universal TC 1000 with each 67 BHP Natural Gas Fired
(Duty/Duty stand-by)

## PROCTER \& GAMBLE (SEATON)

In May 2013 CERTUSS UK Ltd were invited to tender for a project by Proctor \& Gamble at their Seaton Delaval production facility.

Tender details were to supply and commission an N+1 Containerised Steam Generator facility, complete with condensate return pumping station.

The equipment required should be capable of meeting the standard running load demand of $1650 \mathrm{lb} / \mathrm{h}$, with an ability to cope on a duty basis with a peak load of $3300 \mathrm{lb} / \mathrm{h}$. The fuel supply would be Natural Gas.

Steam production would be required 24 hours a day, 7 days a week. After evaluation of the requirements, CERTUSS UK offered a tender for the following equipment:
$2 \times 1000 \mathrm{~kg} / \mathrm{hr}$ Natural Gas Fired CERTUSS TC Steam Generators (Duty/Duty stand-by)

- 2 x CERTUSS Package Plant Modules
- $2 \times$ CERTUSS condensate return pumping stations
- $1 \times$ CERTUSS Container Module $-472,5 \times 98,5 \times 130$ inch $(L \times W \times H)$
- Automatic Operation
- CERTUSS Interface facility
- Delivery to site
- Commissioning

With the CERTUSS Generator offering a fuel to steam efficiency of $>93 \%$ and an ability to raise full steam capacity in circa 3-5 minutes, along with reduced maintenance and inspection periods, $P \& G$ decided that this was the best option for them, when compared to a conventional boiler facility.

In June 2014 CERTUSS received an order for the supply of the equipment with full commissioning of the plant taking place April 2014.

CERTUSS have a full service contract agreement with the site.
P\&G was founded in the US in 1837 by two men who met by chance. William Procter and James Gamble were from England and Ireland respectively and were on separate journeys through the United States when the challenges of travel led both of them to Cincinnati. They might never have met had they not married sisters - Olivia and Elizabeth Norris - whose father convinced them to become business partners and In 1837, a humble but bold new enterprise called Procter \& Gamble was born. What began as a small, family-oriented soap and candle company grew and thrived, inspired by P\&G's Purpose of providing products and services of superior quality and value.

P\&G currently have 15 sites throughout the UK and Ireland with many more throughout the World.

