

# Thermosyphon Line Heater

بدیل موثوق للسخانات ذات الحمام المائي — A trusted alternative to water bath heaters



PED (CE) / ASME Section VIII • ATEX/IECEX (Zone 1/2) • FAT/SAT • Full MDR & documentation

## Ops & OPEX Advantages

- $\pm 0.25$  °C ( $2\sigma$ ) control under load swings
- Fast starts (<60 s); low mass; natural circulation
- >10:1 turndown; up to 20% lower fuel\*
- No bath management; 40–50% smaller
- H<sub>2</sub>/biogas-ready burners
- O<sub>2</sub>-free loop—resists corrosion & scaling

\* Duty-dependent; quantified on your duty profile.



## Applications

- Gas distribution — RMS/PRS/city-gate
- Fuel-gas preheat — turbines/compressors
- LNG vaporisation; H<sub>2</sub>/NG blends

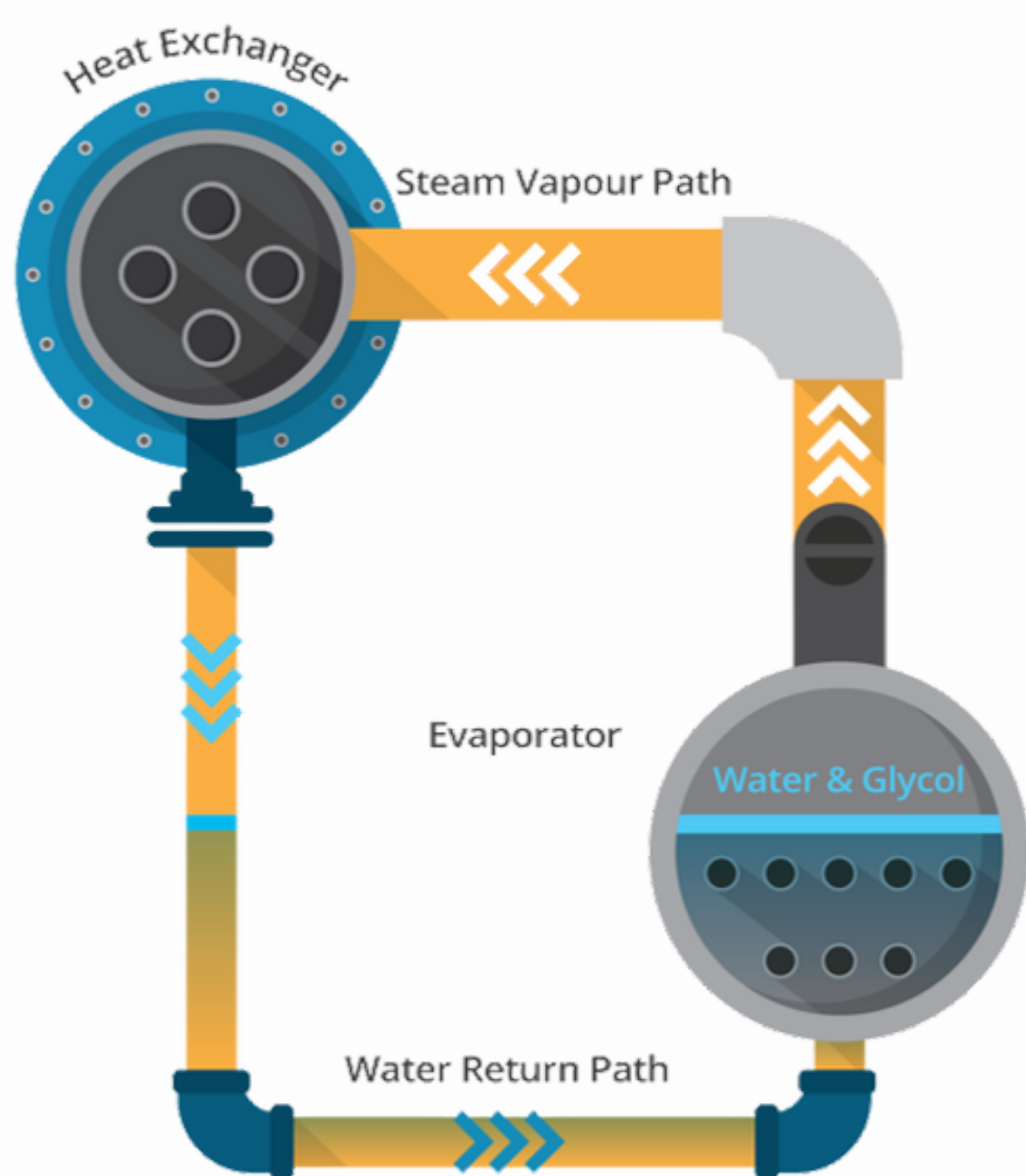
## Free energy-savings analysis

Tell us about your duty case and receive a complimentary, site-specific energy savings analysis.

أخبرنا ببيانات التشغيل لتحصل على تحليل مجاني لتوفير الطاقة خاص بموقعك



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Evaporation & condensation drive heat transfer in a sealed loop



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# Thermosyphon vs. Water Bath

| Feature               | Water-bath                    | Thermosyphon (ProHeat)                                        |
|-----------------------|-------------------------------|---------------------------------------------------------------|
| Heating               | Hot glycol bath               | Sealed latent-heat loop                                       |
| Start/response        | Slow; long soak               | <60 s; low mass; natural circulation                          |
| Outlet control        | Overshoot & undershoot common | ±0.25 °C (2σ) under variable load                             |
| Turndown              | Limited by inertia            | >10:1; stable low-load control                                |
| Standby/overheat      | High soak & overshoot losses  | Sealed loop; 85% smaller bath reduces soak-fired standby loss |
| Maintenance/footprint | Bath mgmt; large & exposed    | Sealed bath; 40–50% smaller skid                              |

## Fuel Savings Performance

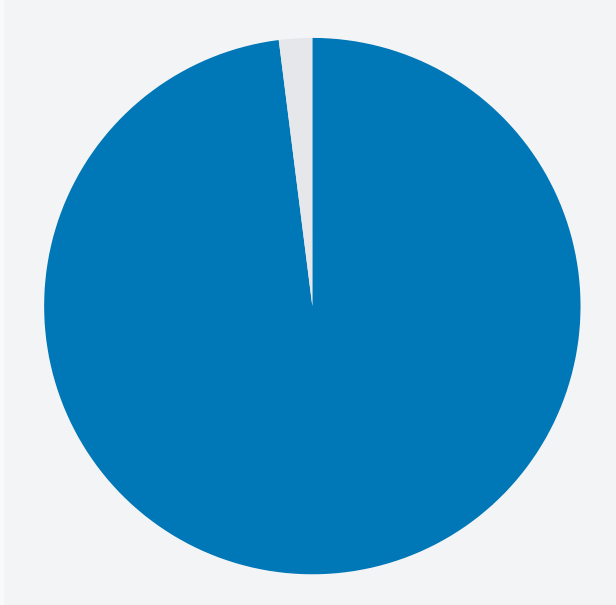
- 20%+ fuel savings vs. modern WBH\*
- Improved control with fewer standby losses
- Smaller footprint reduces heat loss
- ±0.25 °C outlet control proven on live gas sites

\* Duty-dependent; quantified on your site and control strategy

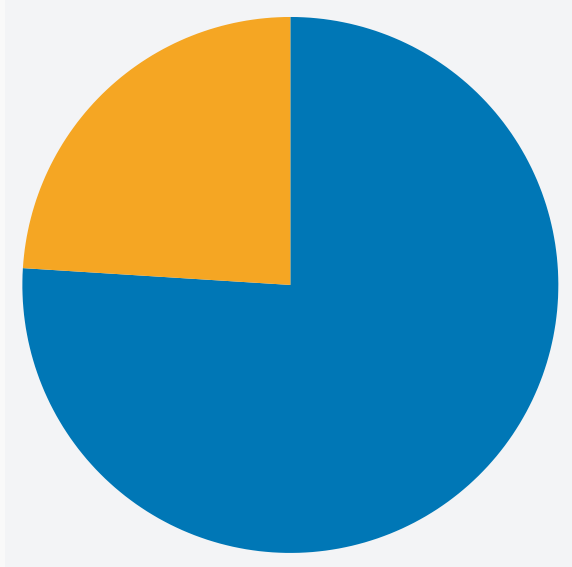
## Specifications & Compliance

- Duty Range: 70kW to 3.5MW
- Design codes: PED (CE), ASME Sec VIII
- Hazardous areas: ATEX/IECEX (Zone 2)
- Burners: NG, LPG, biogas; ultra-low NOx
- Full MDR, FAT/SAT, and ITP compliance

## Useful Heat vs Overheating



Thermosyphon Heater  
2% overheating losses



Water Bath Heater  
24% overheating losses

## Local Support (UAE)

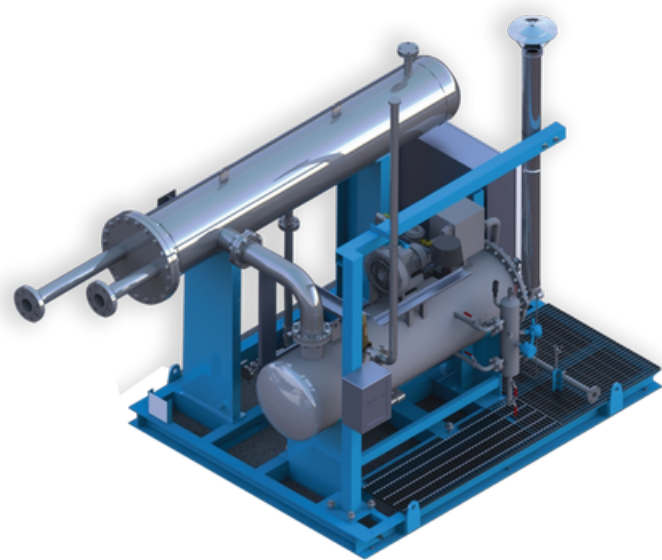
- Oil & Gas Systems (OGS Dubai)
- Jebel Ali Industrial Area 2, Dubai UAE
- Factory-trained technicians & spares hub
- Arabic / English commissioning support

Energy-saving projects may be eligible for internal innovation awards or public recognition

Ask us how other utilities have received internal recognition for reducing emissions and fuel use.



## Free consultation and proposal



Scan for free consultation  
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