



# Waste Heat Recovery Unit after gas turbines

## Alfa Laval Waste Heat Recovery Unit

Alfa Laval's Waste Heat Recovery Unit (WHRU) optimized for recovering waste heat after gas turbines.

### Application

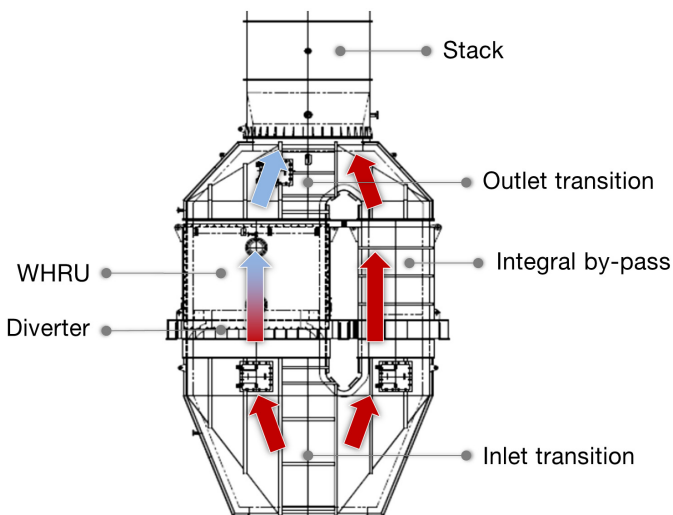
The waste heat recovery unit recovers thermal energy in the waste heat from the gas turbine exhaust gas, enabling generation of hot water, saturated steam or superheated steam. The WHRU is also capable of heating up thermal oil and TEG, and can be designed to fit individual customer needs and optimum performance.

### Customer benefits

- Customized design
- Global service network
- Large installed base
- Large manufacturing capabilities
- WHRU incl. extended scope

### Applications

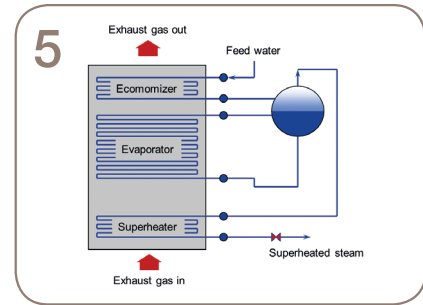
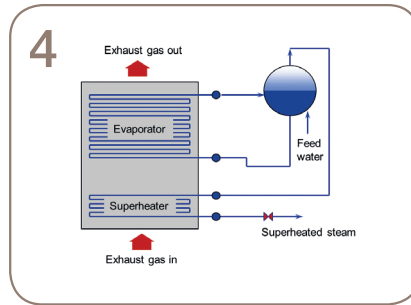
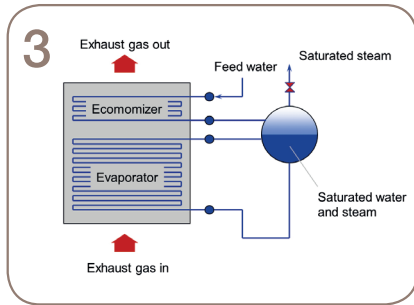
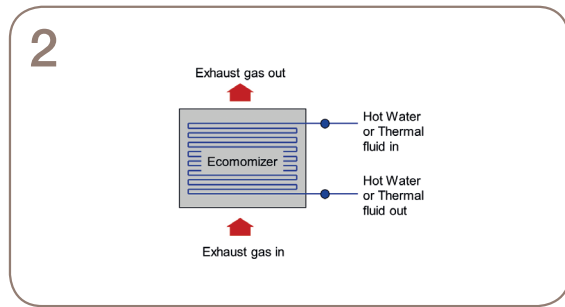
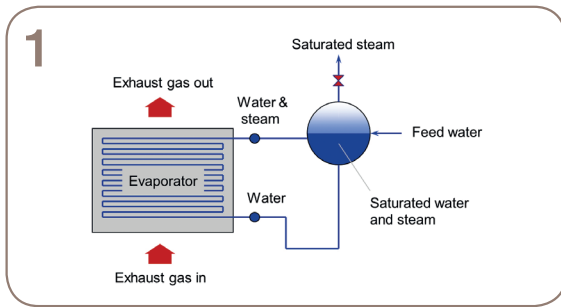
- FPSO
- Process industry
- District heating
- Power generation



### Standard scope of supply

- WHR-unit
- Insulation & cladding
- Ducts
- Stack
- Silencer
- Expansion joints
- Diverter
- Control system
- Instrumentation
- Deaerator/feed water tank
- Feed water treatment system (incl. chemical dosing unit)
- Bypass – external or internal bypass
- Documentation (relevant manuals, certificates etc.)

## 5 basic configurations



### Technical data

Gas Turbines fired with different fuels such as:

- Natural gas
- Diesel oil
- Crude oil
- Heavy fuel oil

Heating media:

- Hot water
- Saturated steam
- Superheated steam
- Thermal oil
- TEG or equal

Design options:

- Dry run or non-dry run
- With or without integral bypass and diverter damper
- External and Internal insulation
- Fixed or removable tube bundle
- Soot blowing

Materials:

- Tubes in carbon steel, alloy steel or stainless steel
- Casing and ducts in carbon or corten steel

### Technical data – typical values\*

Exhaust gas flow:	170 kg/s (375 lb/sec)
Exhaust gas temperature:	Typically < 560°C (1040 F)
Pinch point:	Typically 15-20 °C (59-68 F)
Design pressure:	≤ 50 bar (725 psi)

\*Values are project dependent

### Design codes

- PED
- ASME (incl. U-Stamp)

PEE00363EN 1403

### How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at [www.alfalaval.com](http://www.alfalaval.com)