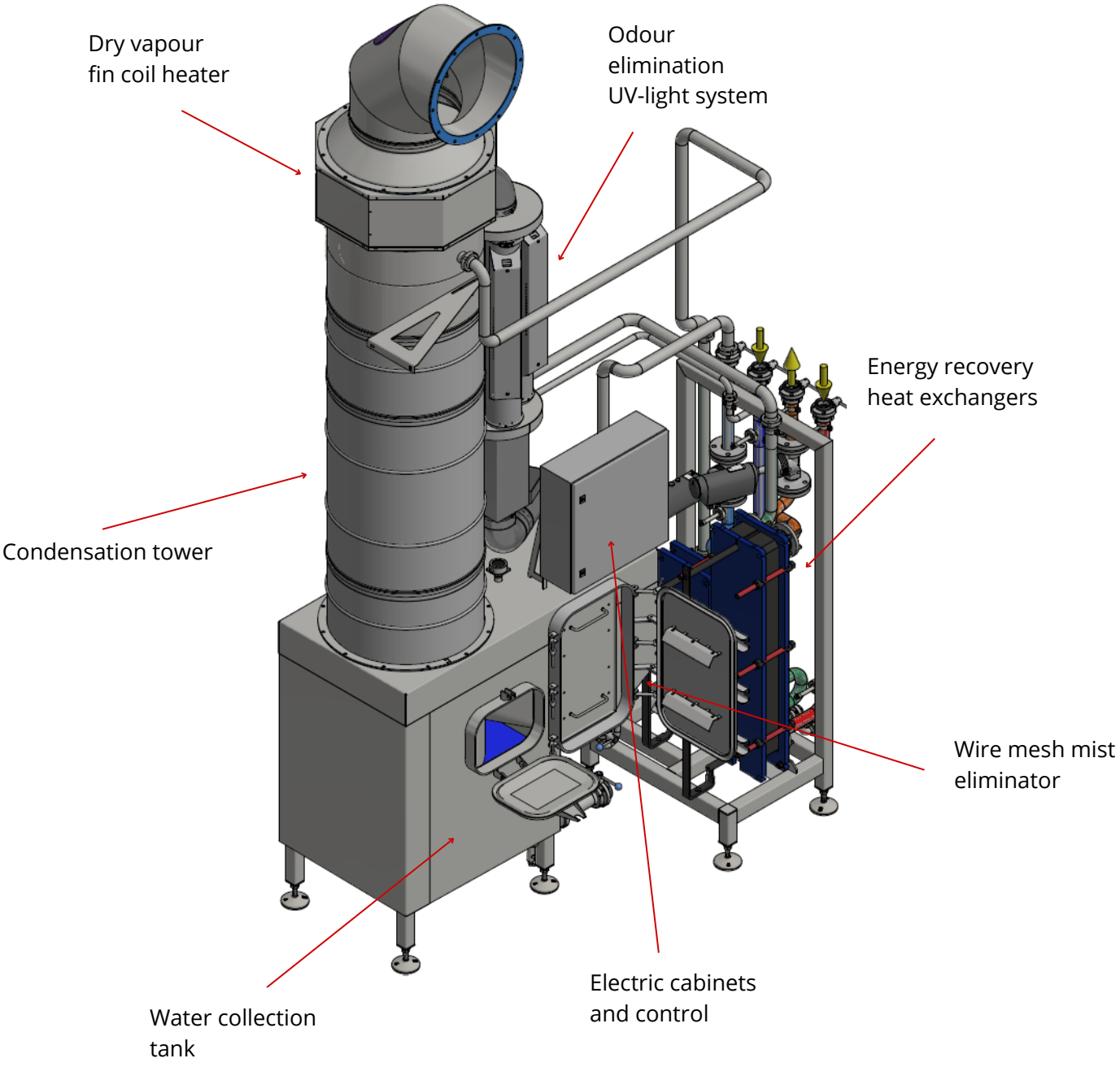
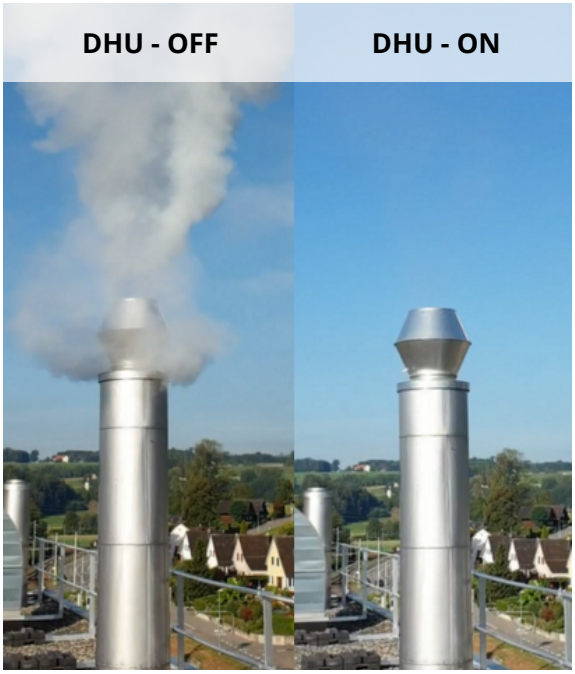
HEAT RECOVERY AND ODOUR ELIMINATION UNIT



KUIPERS
FOOD PROCESSING MACHINERY

MODE OF OPERATION

The multi-phase vapour stream (air + evaporated moisture + oil fumes) leaves the fryer through its chimney and enters the condensation unit at the bottom. This multi-phase stream first passes through a wire mess demister where the incoming mist droplets are separated through mechanical impingement and inertial impaction.
The vapour stream at around 105 – 120°C temperature containing a large amount of evaporated moisture travels in an upward direction and passes through the condensate tower internals. This hot vapour stream is cooled down with the help of the cooling water that is sprayed from the top of the tower.
Excess moisture from the vapour stream is removed during this process. This excess moisture in form of water is collected in the water collection tank at bottom of the condensate tower. The temperature of this collected water can be around 60-80°C depending on the inlet process conditions. The heat is recovered from this collected water with the help of the heat exchangers.
The dry vapours containing less moisture travel upward and exit the condensate tower from the top outlet nozzle. Since most of the excess moisture and oil fumes are being removed from this vapor stream, a large amount of odour is eliminated also. After the condensate tower, the dry vapour stream proceeds further to the Odourtubes where the remainder of the odour is eliminated via the ozone treatment process.



BEST APPLICATIONS

It is important to note that the efficiency of our system will vary according to the composition of the incoming vapour stream. Potato chips, French fries, hash browns, röstis or large peanut plants are only a few examples of great applications.

MAIN ADVANTAGES

- Extremely compact
- Multiple functions in one system
- Stand-alone with its own controls and HMI panel
- Very high recovery rates