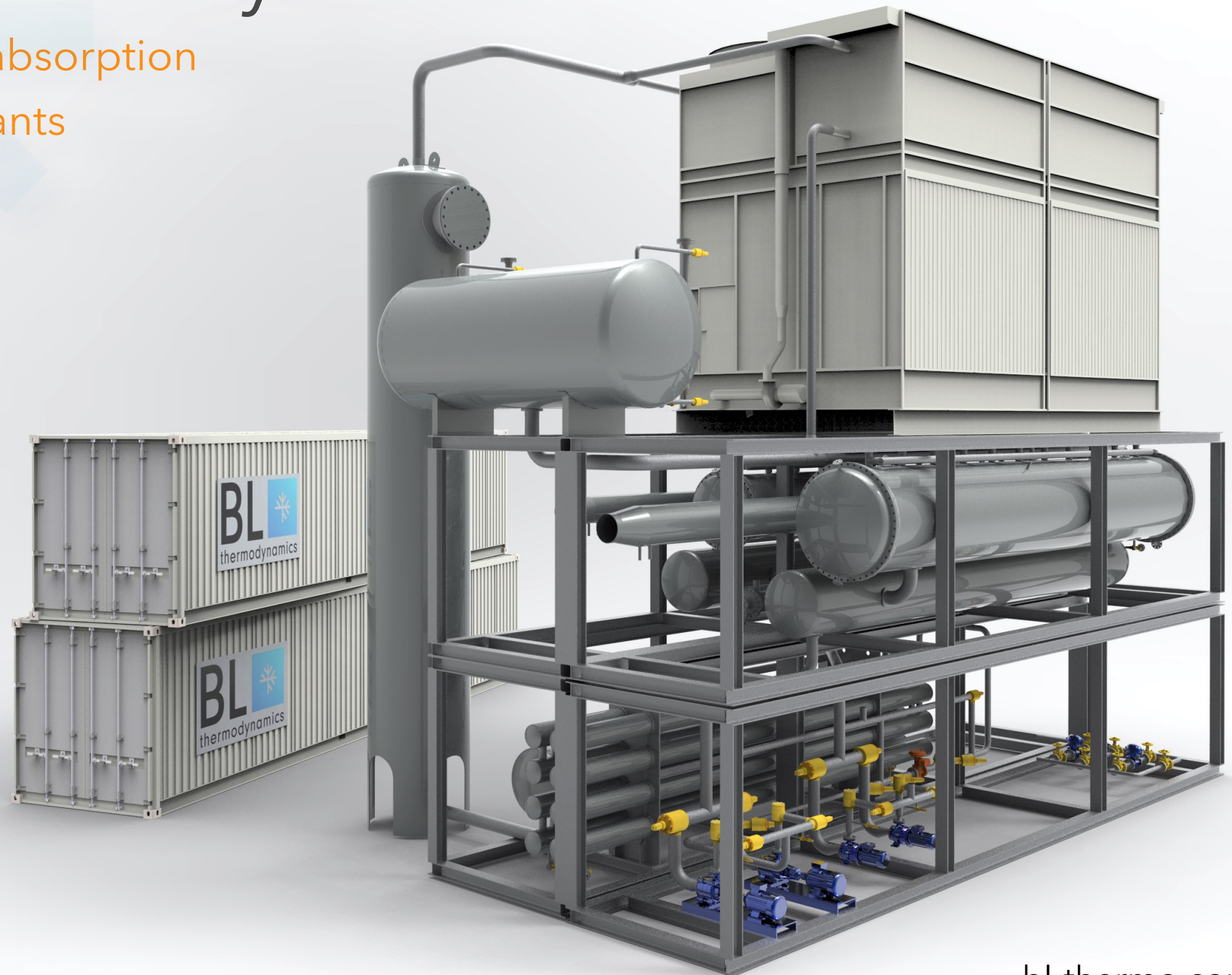


BL thermodynamics

ammonia absorption
cooling plants



a *module* based plant design

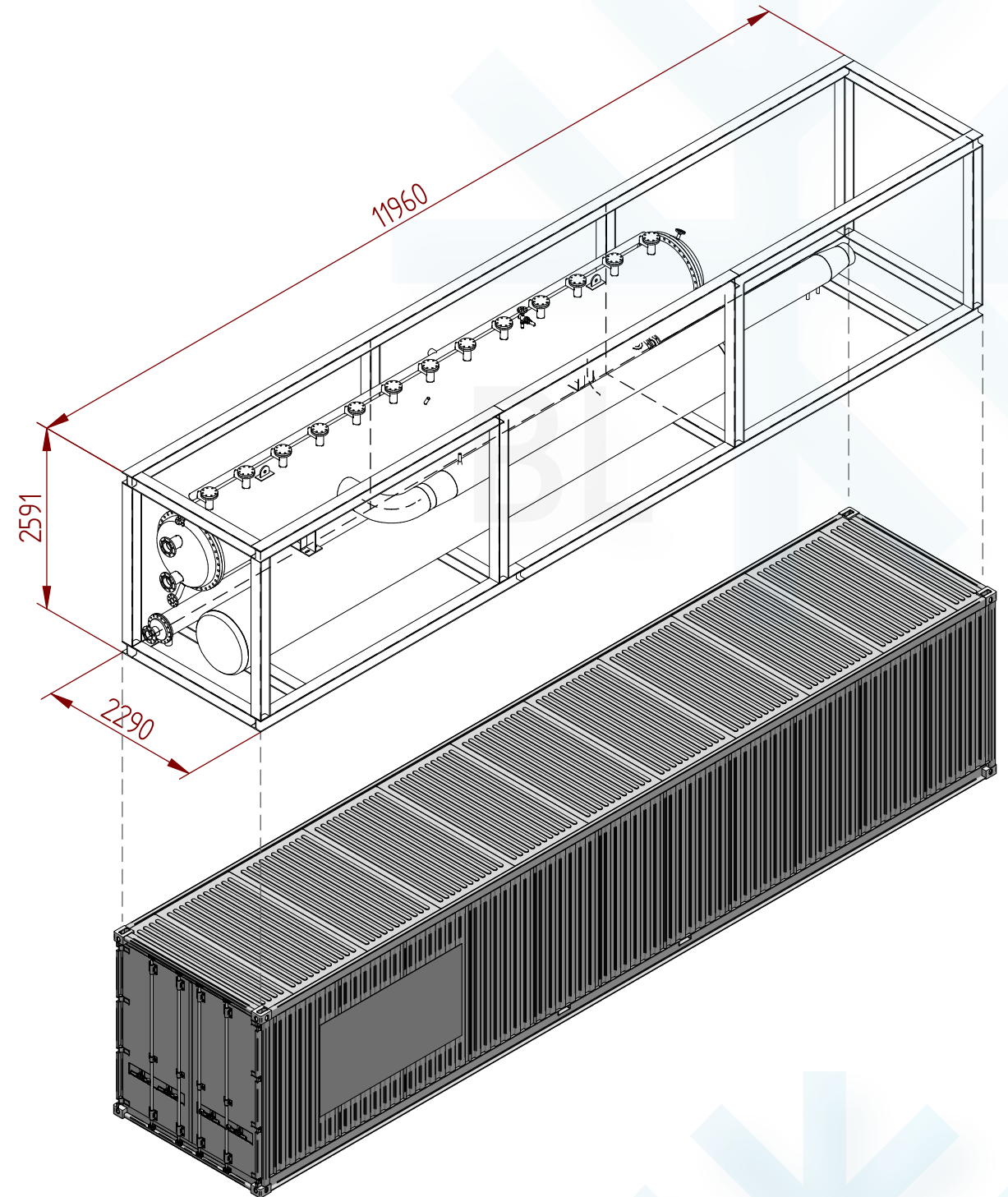
Pre-assembled modules reduce the installation time on-site and enable easy transportation.

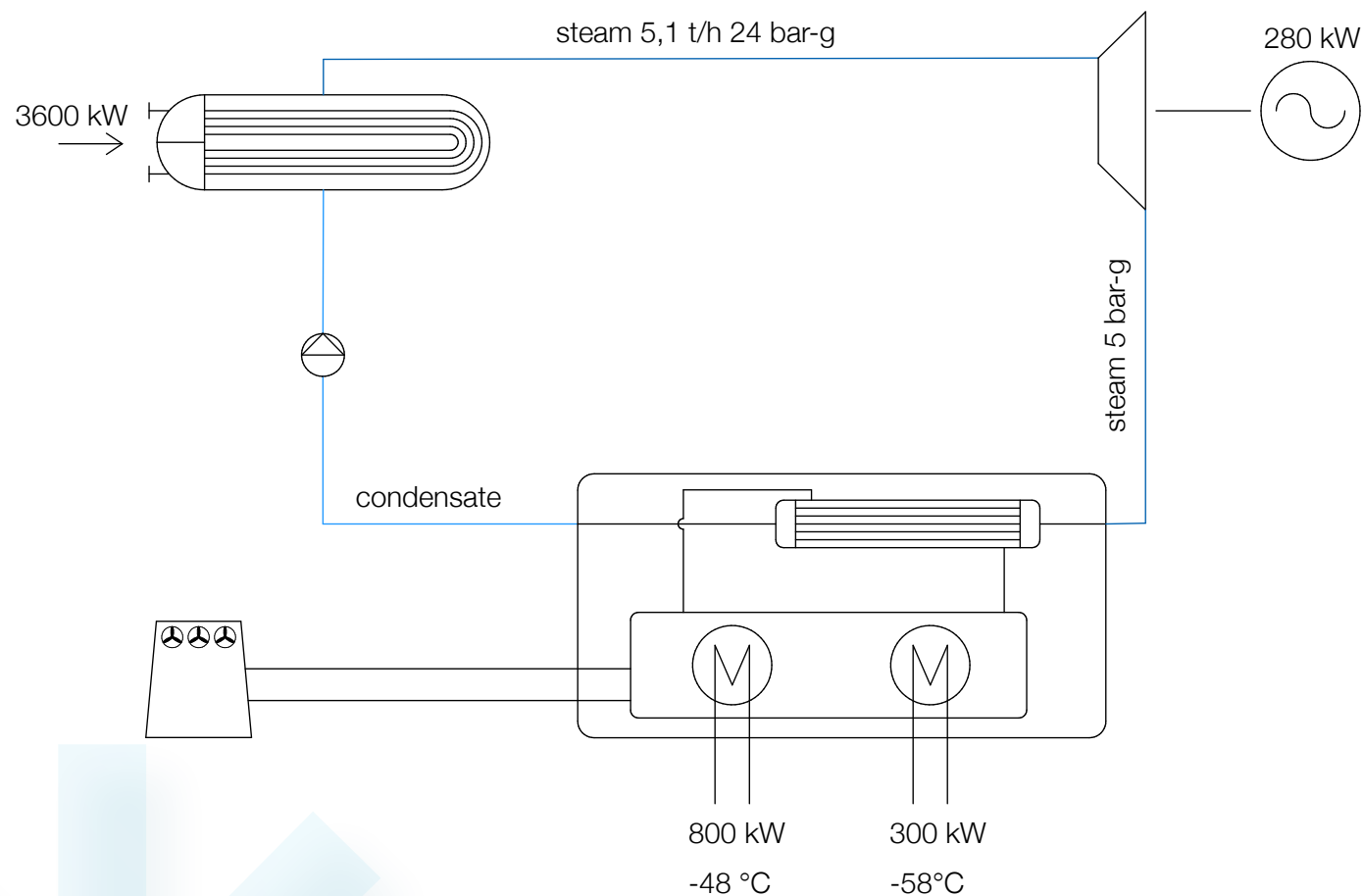
For example, we designed a pre-assembled absorption cooling plant to deliver the refrigeration of a **freeze drying** process in the coffee industry. All parts were delivered in **40' High Cube Open Top Container** and easily fitted together on-site.

If preferred we also have the capability to deliver the evaporative condenser, the cooling tower and the ammonia separator together with the ammonia pump stations to feed the ammonia consumers inside the factory.

With the pre-assembled design, the plant installation time is reduced to a few weeks in comparison to traditional time line of several months needed for an on-site plant assembly, therefore enabling us to deliver substantial cost savings.

The modules are manufactured and tested in Europe therefore ensuring highest standards of safety and quality during the installation. We apply these European standards to all our global projects.





saving *energy*

A steam turbine coupled to an absorption refrigeration plant opens the possibility to generate electricity without any extra energy consumption.

case study

The cold side AARP:

- 300kW at -58°C
- 800kW at -48°C

The hot side AARP:

- Steam 5,1 t/h at 5 bar-g*

Steam turbine:

- Steam 5,1 t/h from 24 bar-g to 5 bar-g
- Electricity production: 280 kW

The absorption refrigeration plant has been designed to be able to operate with low pressure steam and to maximize the efficiency of the steam turbine.

The boiler produces steam at 24 bar-g which is expanded in the turbine to 5 bar-g and generates electricity. The same steam drives the refrigeration system and the condensate is pumped back into the boiler.

* Consumption when the wet bulb temperature is equal or less than 16°C. This covers 8000 hours (91%) of the year in most of the regions of central Europe.