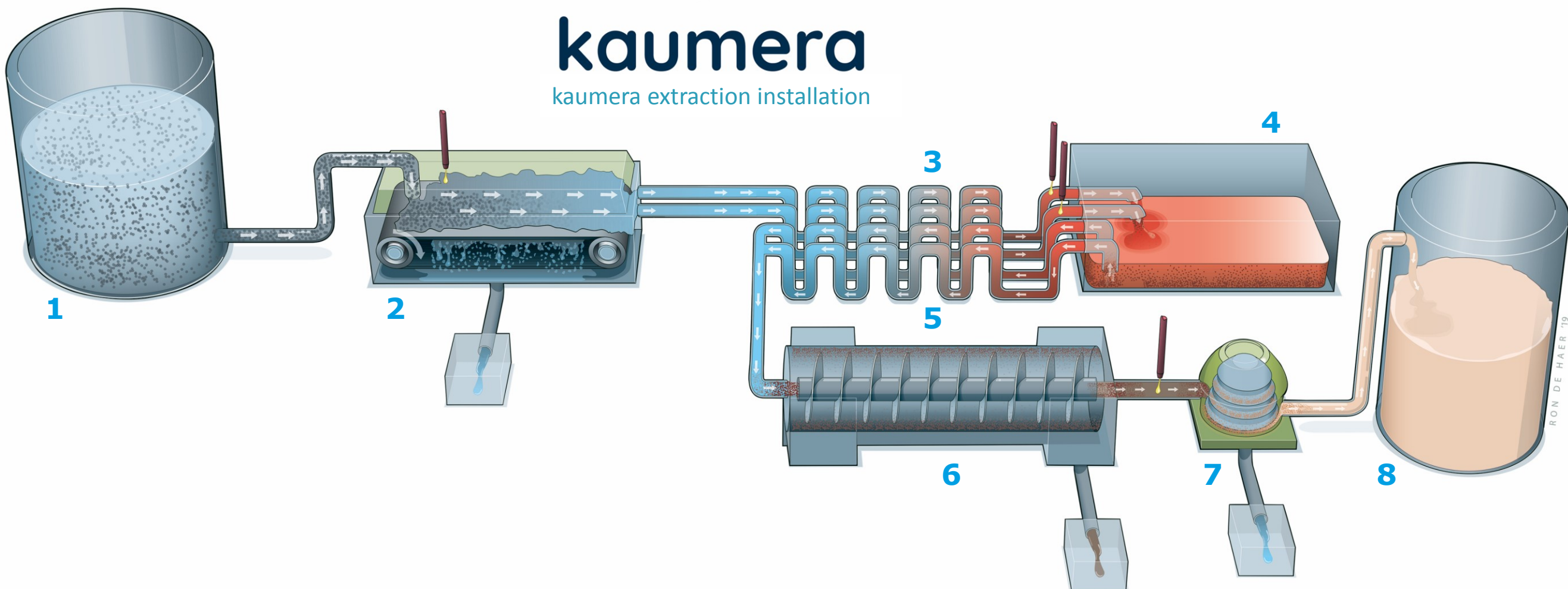




# kaamera

kaamera extraction installation



## 1. Buffer

From the buffer there is a constant flow of Nereda® granular sludge to the Kaamera extraction installation.

## 2. Belt thickener

The sludge is deposited on a rotating belt. Part of the water falls through the belt. A polymer is added to ensure that the sludge clumps together and the belt does not clog.

## 3. Heat exchangers

The sludge passes through heat exchangers. The sludge temperature is increased to 80 degrees Celsius.

## 4. Extraction reactor

When the sludge is at 80 degrees Celsius, it enters the reactor. A base is added to increase the pH value. The sludge remains in the reactor for a few hours. Here, the Kaamera is extracted from the sludge and dissolves in the water phase.

## 5. Heat exchangers

The sludge passes through the heat exchangers again, but is now cooled down.

Unique in this process is the heat cycle. A heat pump extracts the heat from the sludge and this heat is reused at the beginning of the process to heat up the sludge (step 3).

## 6. Decanter centrifuge

In the decanter, the sludge is separated from the water. The water phase contains the dissolved Kaamera. The residue sludge will be removed and processed externally.

## 7. Disc centrifuge

The water travels through a pipe where an acid is added that lowers the pH value. The Kaamera precipitates as a gel like material. In the disc centrifuge, the Kaamera gel is separated from the water phase for the last time. The centrate goes to the Nereda® wastewater treatment plant, where we use it again.

## 8. Storage silo

The gelatinous Kaamera is stored in a silo.