



By S3nergy inc.

Product Catalog

2026

V1-EN_2026

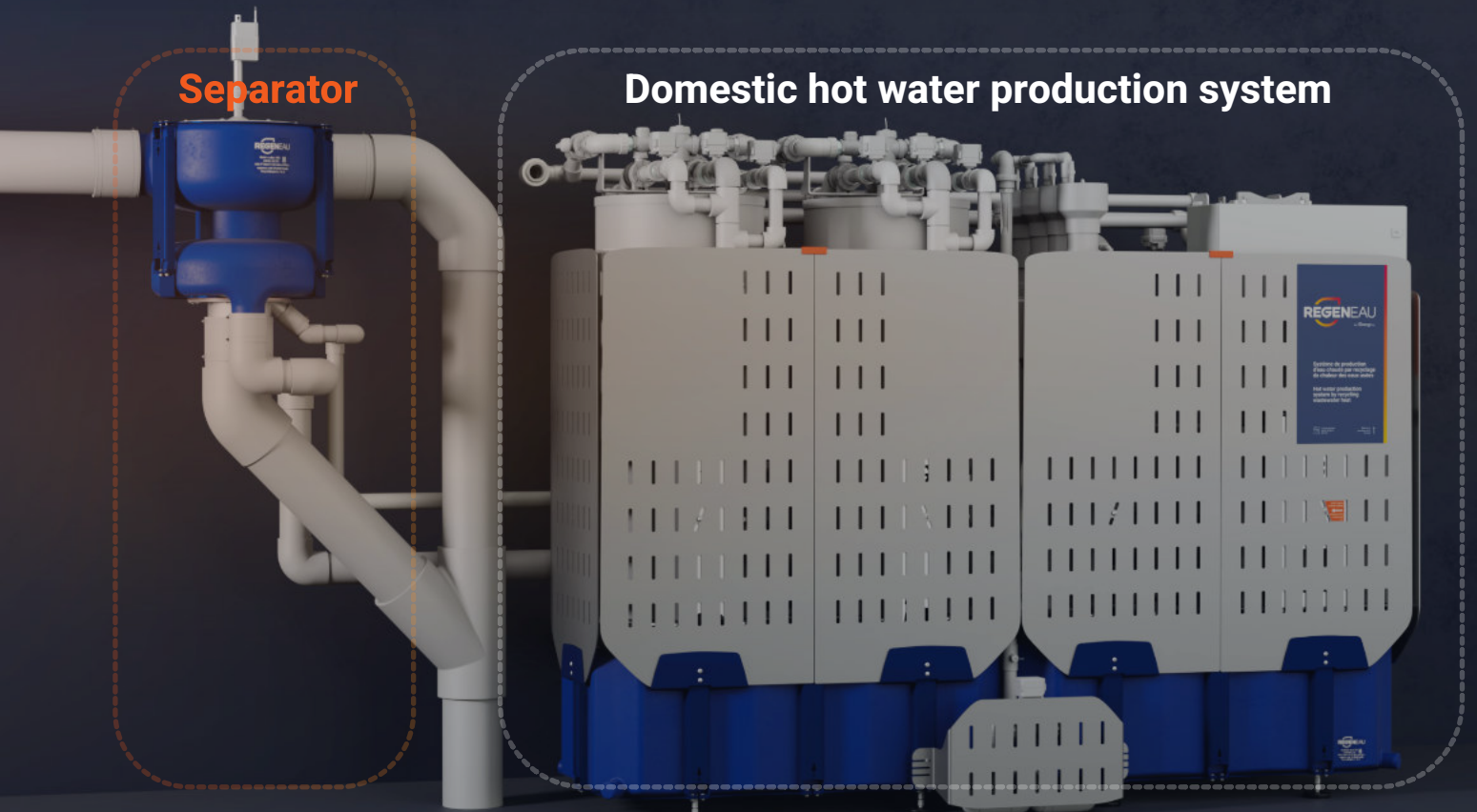
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REGENEAU Technology

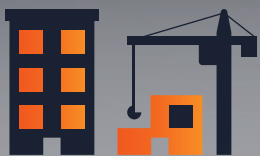
By S3energy inc.

RegenEAU is a high-efficiency, low-carbon domestic hot water (DHW) preheating system. This centralized solution operates in conjunction with a conventional water heater, supplying a significant portion of the required energy by recovering heat from wastewater (greywater and blackwater). Its patented separator works in synergy with the system to optimize thermal performance.



Customer Benefits

In multi-residential buildings, up to 30% of total energy consumption is used for domestic hot water. RegenEAU turns this expense into an opportunity.



Compatible with both new and existing buildings. Works in conjunction with the auxiliary water heating system to deliver improved efficiency and cost savings



Reduces domestic hot water energy costs while supporting the transition to low-carbon energy systems.



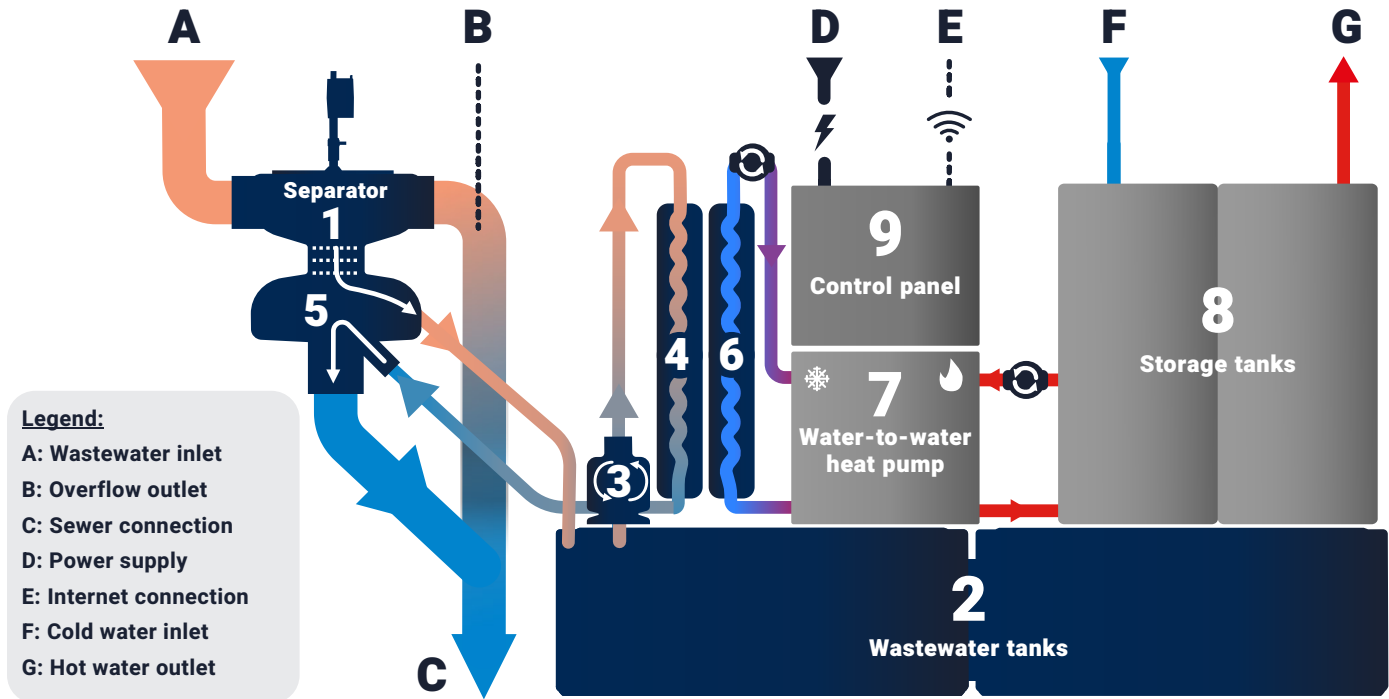
Patented **solid-liquid separation technology** that simplifies heat transfer



A high-performance, durable, and **self-cleaning preheating solution**

System Operation

A modular, preassembled solution designed to recover heat from wastewater generated within the building. No dedicated piping is required, as all domestic wastewater (greywater and blackwater) is collected and utilized. The system can be adapted to a wide range of configurations to meet the requirements and constraints of both new and existing buildings.



Wastewater Network

- 1** Wastewater enters the separator, where the solids are separated from the liquids.
- 2** This filtered water is stored in the wastewater tank
- 3** A self-priming wastewater pump draws the filtered water from the tanks and supplies the heat exchanger
- 4** The water flows through the heat exchanger, where heat is recovered
- 5** The cooled, filtered water is discharged to the sewer

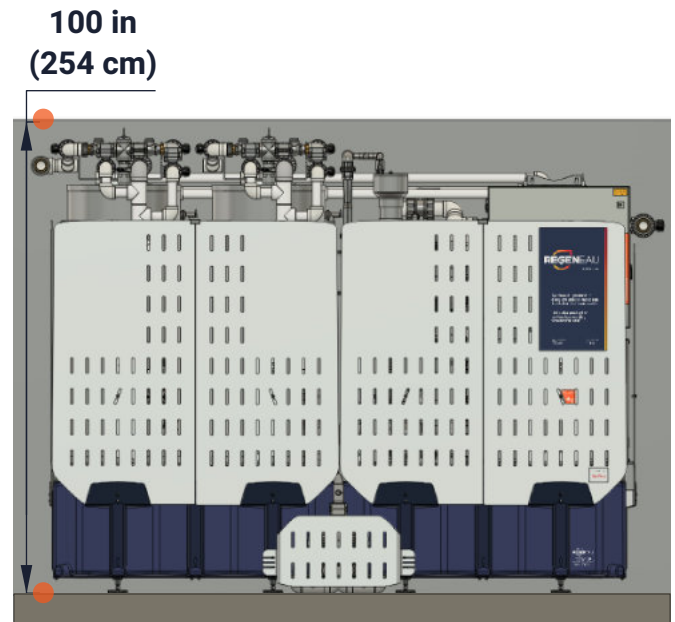
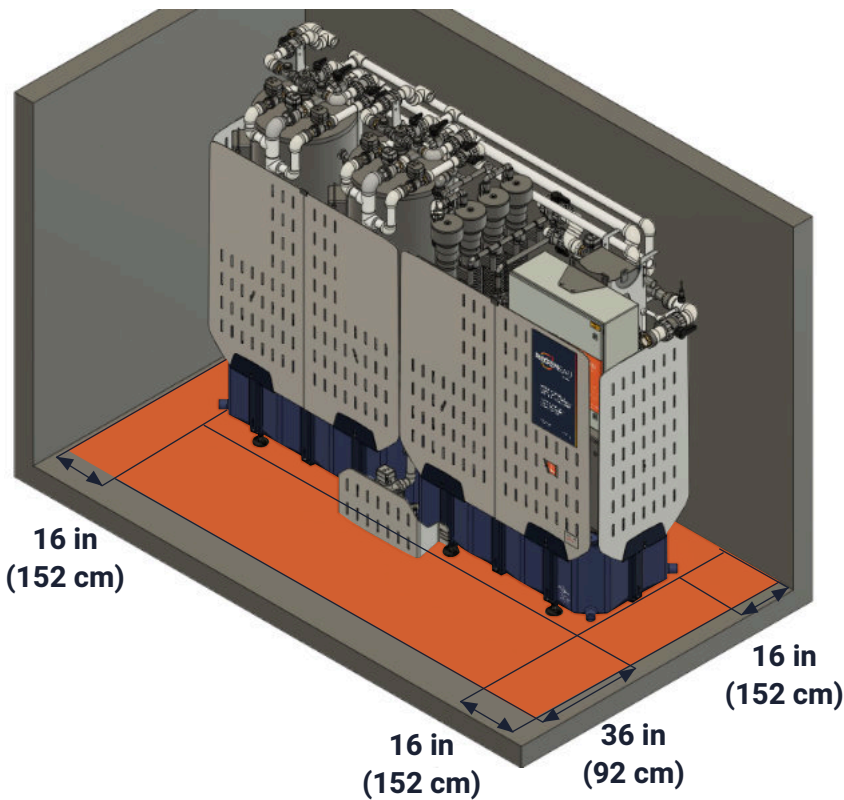
Domestic Water System

- 6** The water-to-water heat pump recovers heat through the heat exchanger
- 7** The heat pump upgrades this heat to a higher temperature for domestic hot water needs
- 8** Heat is stored in storage tanks (domestic hot water tanks) until it is distributed
- 9** A control panel enables remote monitoring and operation of the system

Installation Requirements

The installation of RegenEAU domestic hot water systems requires:

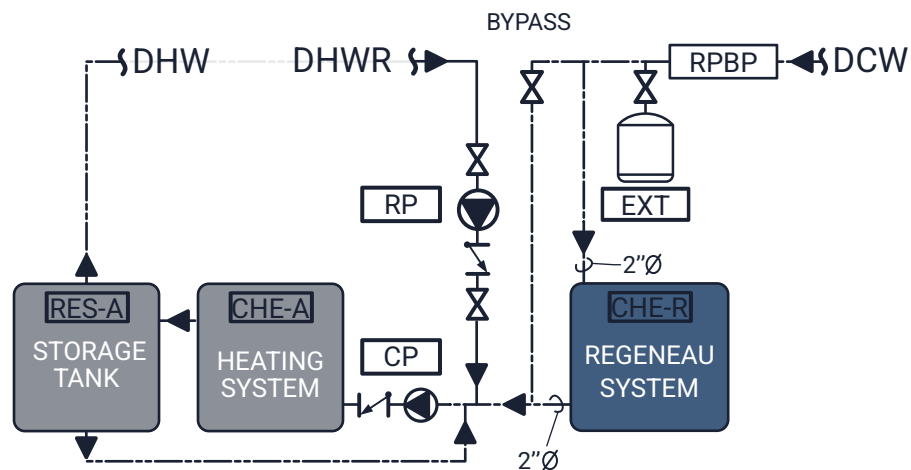
- Minimum overhead clearance: **100" (254 cm) (no piping or obstructions)**
- Minimum clearance around the system: **Front 36" (92 cm) , Sides : 16" (41cm) , Rear : 16" (41cm)**
- Concrete slab with floor drain
- Funnel drain for safety discharge
- Wired internet connection required (for telemetry monitoring)



Product Exclusions

RegenEAU systems do not include the following **required** components:

- Auxiliary system
- Expansion tank
- Recirculation pump
- Dedicated RP backflow preventer (Reduced Pressure Device)



General Information

The patented solid-liquid wastewater separator is designed to remove solids and direct liquids to the system. It is installed on the main sanitary drainage line, handling both greywater and blackwater. Solid-liquid separation occurs passively by gravity, without mechanical action (no motor) and without filtration.

The WS8 separator (Wastewater Solid-Liquid Separator, 8-inch) is compatible with 6-inch or 8-inch piping (DN150 or DN200).



WS8: 8" (DN200) Wastewater Solid-Liquid Separator

Openings

- A** Wastewater inlet or outlet (depending on installation orientation)
- B** Solid-liquid separation zone
- C** Outlet for separated wastewater (filtered liquid directed to the system)
- D** Return of cooled wastewater
- F** Discharge to sewer

Operation

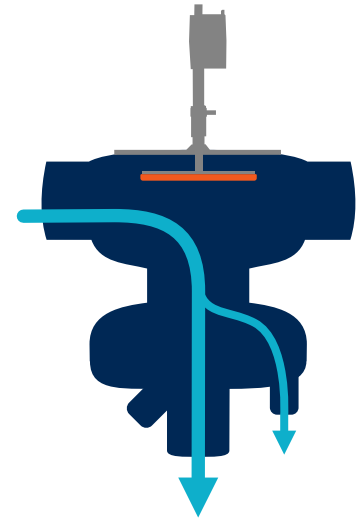
The RegenEAU WS8 separator operates in two distinct modes:

Open mode: Wastewater flows into the central zone of the WS8, where solids are separated from the liquid.

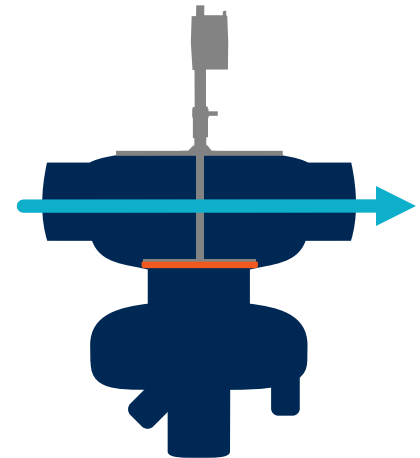
Solids are directed to the sewer

- The liquid is conveyed to the RegenEAU systems, then returned to the separator before being discharged to the main sewer
- **Bypass mode:** Activated during maintenance or specific conditions, the integrated valve allows wastewater to bypass the separator and flow directly to the sewer

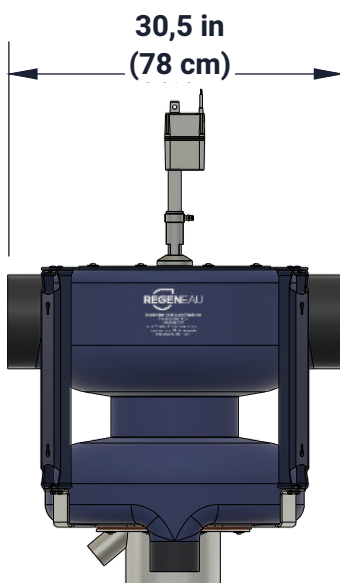
Open mode



Bypass mode

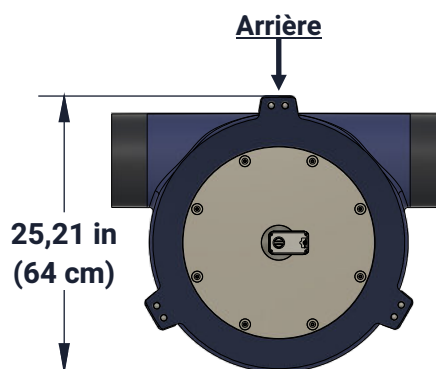


Dimensions

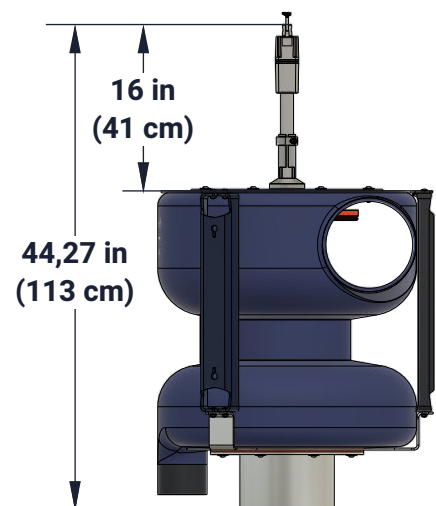


Front of the separator

**Weight of
120 lbs (54,4 kg)**



Top of the separator

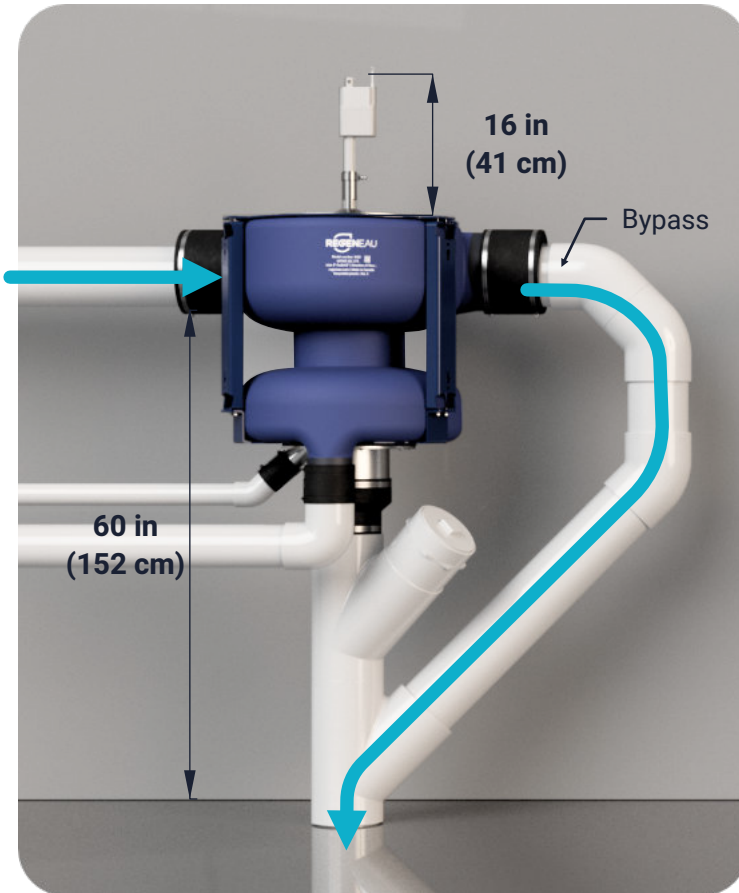


Side of the separator

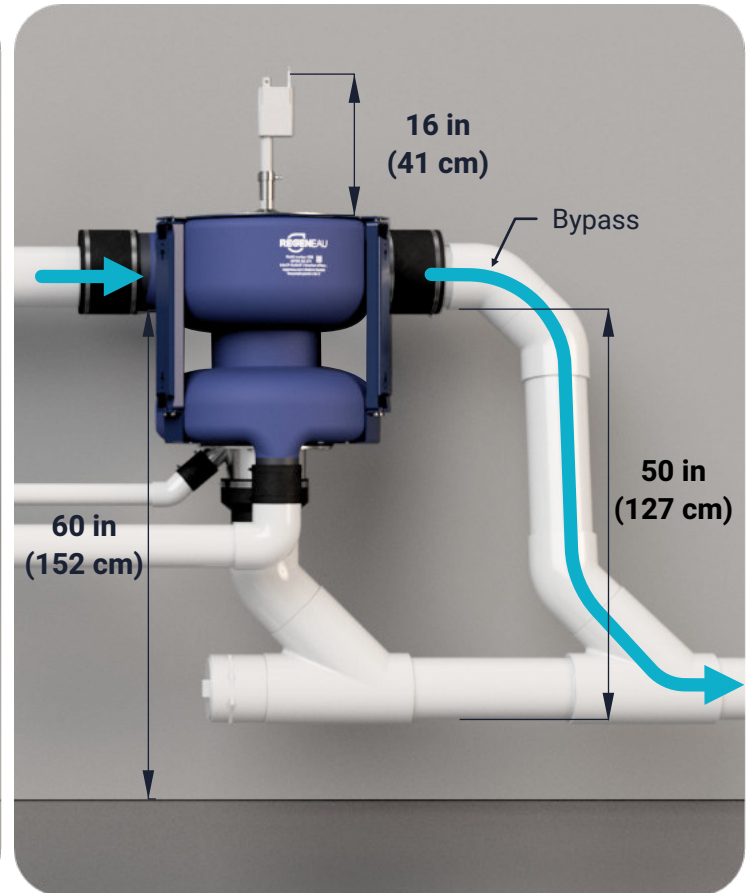
Installation Requirements

Each WS8 separator installation must comply with specific requirements. The following **minimum clearances** must be respected to ensure proper installation:

Installation – Under-slab sanitary



Installation – Wall-mounted sanitary



- It must be installed at a height that allows gravity flow to the system
- The rear face of the separator must be oriented toward a wall, unless otherwise specified for the project
- The separator is directional and must be installed according to the specific project layout. Orientation is indicated on the product to facilitate installation. (Gauche=Left / Droit = Right)



Installation

RegenEAU recommends suspending the WS8 wastewater solid-liquid separator near the ceiling using cantilever brackets (e.g., "Cantruss" or equivalent), secured with 1/4"-20 carriage bolts through the two holes on each lateral support of the external frame.

Once securely installed, flexible connectors can be installed, with all piping adjusted to best align with the separator. A minimum clearance of 2 inches (50 mm) is required between the top of the valve and the ceiling to allow access.



It is recommended to secure the separator through the lower openings of each lateral support

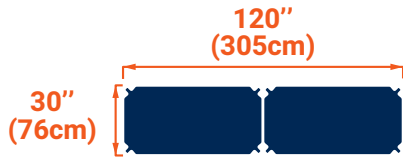
Installation example



Available Models (PreHeat)

PH2

≈ 50
Units



PH3

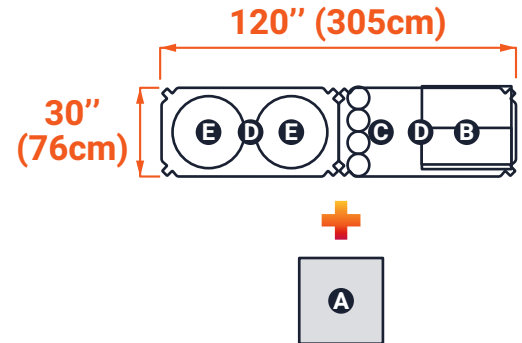
≈ 75
Units



For buildings with a higher number of units, two or more systems can be installed in parallel.

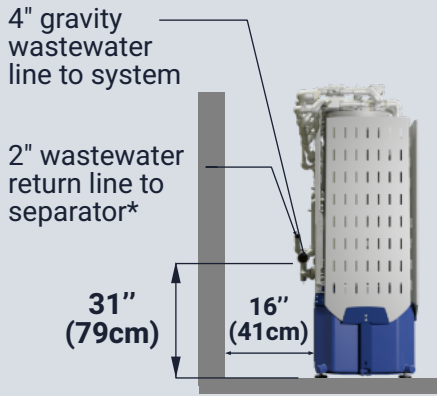
PH2 Domestic hot water preheating system

≈ **50**
Units

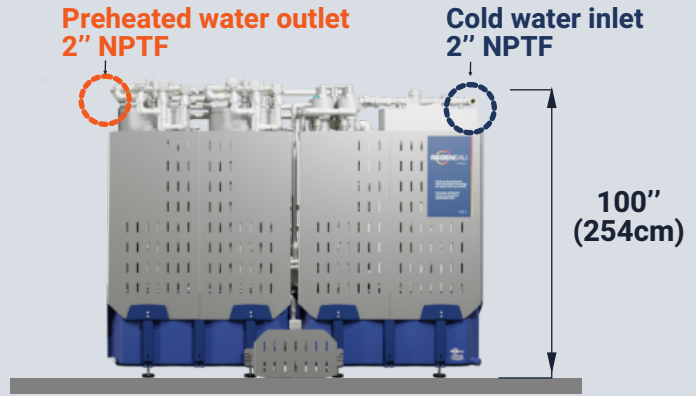


Equipment Legend:
 A - Auxiliary system (not included)
 B - Heat pump and control panel
 C - Wastewater heat exchanger
 D - Wastewater tank
 E - Preheated water storage tank

Connections



Side view



Front view

*For separator, see pages 6–8

Specifications

Heat pump capacity	20 kW / 5 t
Maximum setpoint temperature	60 C°
Domestic water storage	160 USG (2 x 80) / 606 L
Electrical / Amperage	600V / 3 ph / 30A
Wastewater storage	240 Gal / 909 L

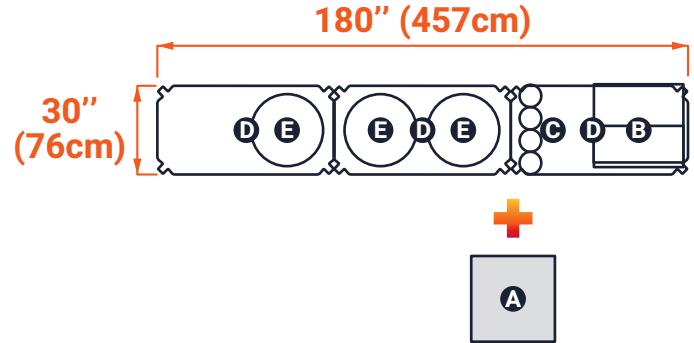
Not Included

RegenEAU systems do not include the following **required** components:

- Auxiliary system
- Expansion tank
- Recirculation pump
- Dedicated RPBP (Reduced Pressure Backflow Preventer)

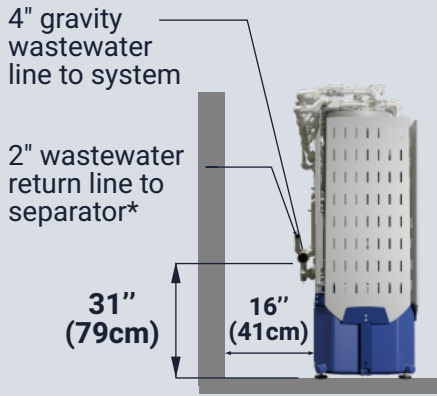
PH3 Domestic hot water preheating system

≈ 75 Units

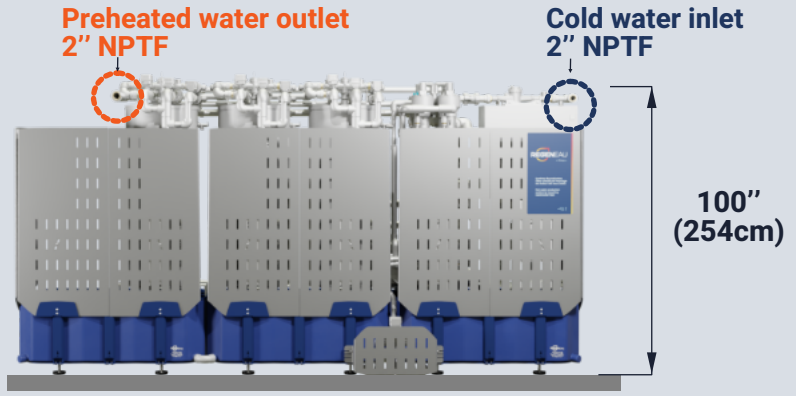


Equipment Legend:
 A - Auxiliary system (not included)
 B - Heat pump and control panel
 C - Wastewater heat exchanger
 D - Wastewater tank
 E - Preheated water storage tank

Connections



Side view



Front view

*For separator, see pages 6–8

Specifications

Heat pump capacity	20 kW / 5 t
Maximum setpoint temperature	60 C°
Domestic water storage	240 USG (3 x 80) / 909 L
Electrical / Amperage	600V / 3 ph / 30A
Wastewater storage	360 Gal / 1363 L

Not Included

RegenEAU systems do not include the following **required** components:

- Auxiliary system
- Expansion tank
- Recirculation pump
- Dedicated RBPB (Reduced Pressure Backflow Preventer)