

# CARBON CAPTURE


## Emerging Technology




### Introducing the CARBON CAPTURE

Up to 20% of global carbon dioxide is emitted when we provide heat and hot water for buildings. Carbon is a byproduct of combustion taking place within your mechanical room. Our carbon capture device addresses this challenge at the source, with an appliance that fits in the mechanical room, attaching directly to natural gas heating appliances. Our carbon capture unit does the job of not only reducing carbon output, but also by reclaiming waste heat, economizing your entire heating system.


### BENEFITS

 **Equivalent to 300 trees**


Each Carbon Capture unit can reduce carbon dioxide in the atmosphere by 6 to 8 tons each year

 **No harmful by-products**

The carbon-capture process produces only potassium carbonate and water from the reaction







 **Permanently sequestered**

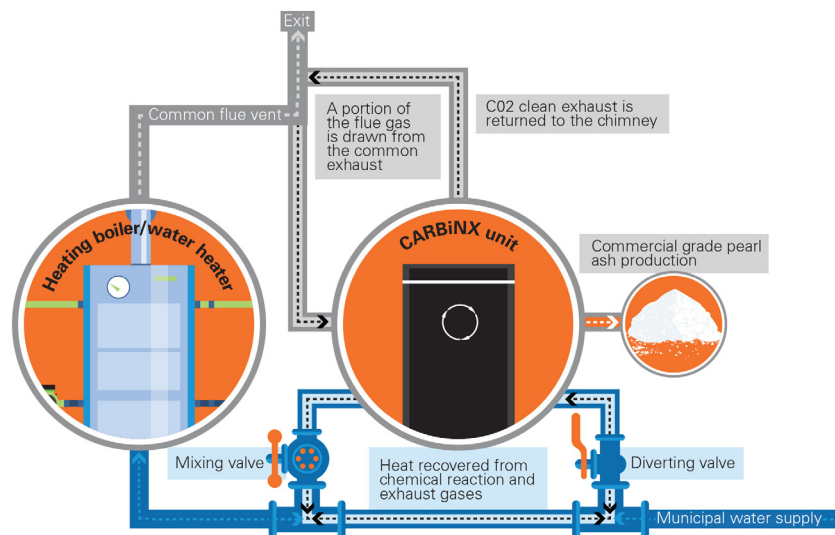
Carbonate is not converted back to a greenhouse gas, even after our carbon capture products are used

 **Energy savings**

The Carbon Capture unit reclaims more energy (from waste heat) than is required to run the unit

### FEATURES

-  Up to 20% reduction in natural gas costs through a UL STD 462 certified economizer
-  CSA/UL Listed
-  Designed to pair with existing gas fired heating systems
-  The unit can increase temperatures to 20 to 30 degrees F.
-  Direct air capture technology to remove carbon from the atmosphere
-  Certified technician service and maintenance for the life of the equipment



# CARBON CAPTURE

CARBON CAPTURE SPECS	CarbinX
<b>POWER</b>	208 VAC 3 phase 8 Amp (15 Amp service) 120 VAC single phase 5 Amp (15 Amp service)
<b>WATER LINE SIZING</b>	0.75 " inlet/outlet copper (Type L)
<b>VENTING SIZING</b>	4" inlet/outlet
<b>VENTING MATERIAL</b>	316 Stainless
<b>MAX TEMP (INLET)</b>	200F
<b>CO2 CONCENTRATION</b>	400 ppm to 50,000 ppm
<b>HEATING APPLIANCE INPUT RATING</b>	250,000 BTU to 1.5M BTU
<b>OPERATING ENVIRONMENT</b>	Must be installed where the unit will not freeze or be exposed to moisture
<b>INTERNET OF THINGS (IoT)</b>	Internal mobile cellular 2.4Ghz to WLAN
<b>AGITATION PARAMETERS</b>	1.5HP to 100:1 gear ratio. 250 ft/lb torque

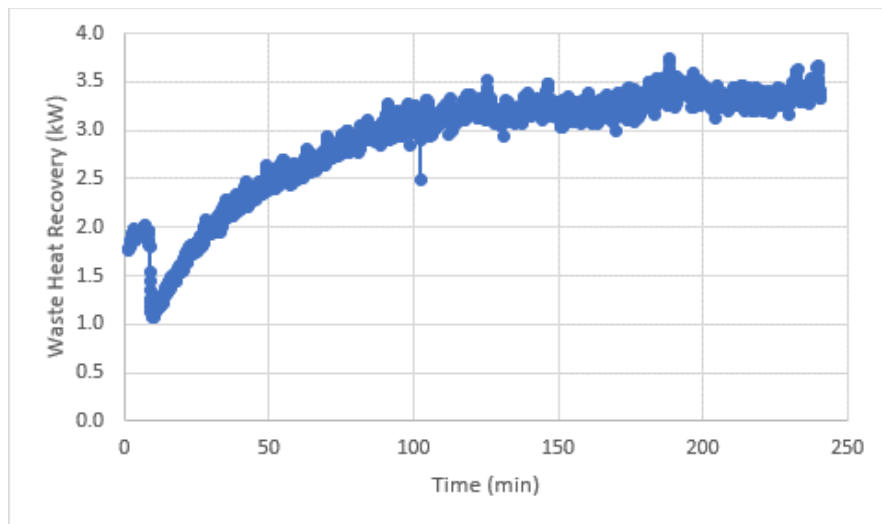
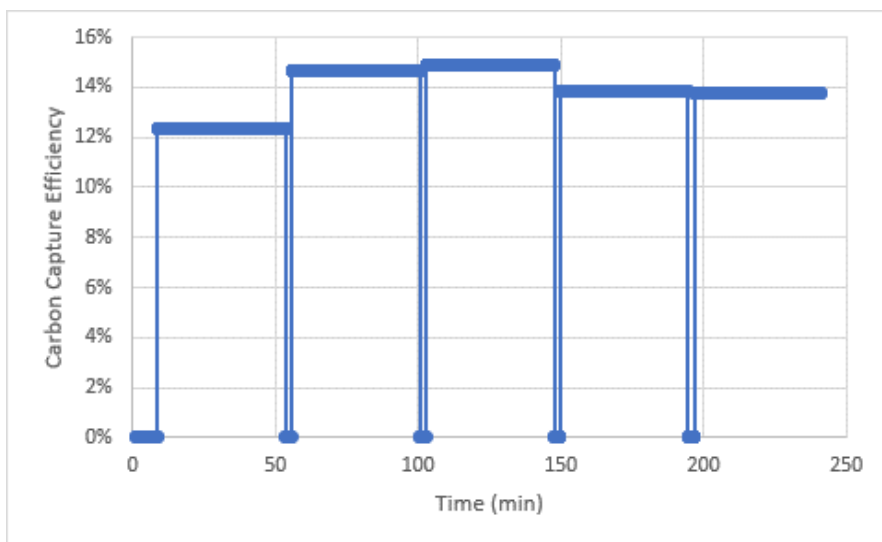
<b>DEPTH (IN / MM)</b>	78 / 1981.2
<b>WIDTH (IN / MM)</b>	33 / 838.2
<b>HEIGHT (IN / MM)</b>	74 / 1879.6
<b>WEIGHT (NOT IN SERVICE)</b>	480 kg

## RAW DATA

Seen through third-party field-tested data, greenhouse gas emissions can be avoided up to 31%. This is done through carbon capture as well as heat recovery. The below example shows carbon capture and recoery results over a 4-hour period. Efficiencies range based on the operation of the appliance it is paired with.

### GHG Emissions

Total CO2 Generated (Boiler + CarbinX Electricity): 21.4 kg  
 Captured + Avoided CO2: 6.7 kg  
 CO2 Avoided: 31.1%



## A SIMPLE SOLUTION

By capturing the waste heat and combining it with the heat that is generated from the carbon capture process (exothermic), we can reduce the amount of gas needed to meet your building energy needs up to 20%.

In partnership with CleanO2, we are capturing the carbon from greenhouse gas and turning it into an ingredient used in everyday products. From dish soap to fertilizer, the captured carbon makes an environmentally friendly household product that helps us fight climate change.