

# Vapor recovery system e-Recovery

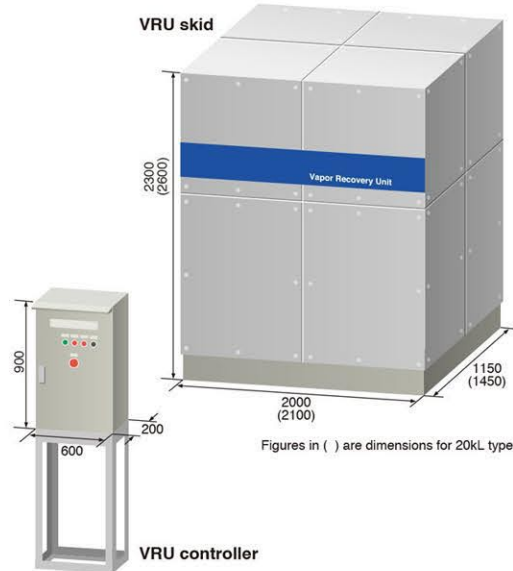
Automatically collects gasoline vapor from underground tank



## Specifications

VRU skid	
Type	Adsorption type
Target Vapor	Gasoline
Collection Efficiency (Vapor)	98%
Collection Efficiency (Inventory)	0.2% and more
Air Supply	Compressor in petrol station Note: Reducing valve is necessary if air pressure exceeds 1.0MPa
Air Consumption	6 valves, Operating pressure 0.39MPa Cylinder capacity 0.2L×6 = 1.2L
Installation Location	Outside, near vent pipes
Vapor Take-out Position	Diverged from vent pipes
Max. Unloading Amount	10kL, 20kL
Max. Unloading Speed	600L/min. ~ 1000L/min.
Min. Unloading Interval	10kL type: 7 hours, 20kL type: 11 hours
Dimensions	VRU skid 10kL type: 2000(W)×2300(H)×1150(D) 20kL type: 2100(W)×2600(H)×1450(D)
Weight	10kL type: Approx. 1800kg 20kL type: Approx. 2000kg
Ambient Temperature	-20°C ~ 40°C
VRU controller	
Power Supply	100V 1 φ, 50/60Hz: 500W 200V 3 φ, 50/60Hz: 400W Grounding: D type Resistance value: 100Ω and below
Installation Location	On the wall outside, or stand-alone
Dimensions	VRU controller body 600(W)×900(H)×200(D)

## Dimensions



**Precautions** For your safety, read the precautions section in the instruction manual attached to the product.

## Contact information

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This product is manufactured in ISO (ISO9001: 2000 Quality Management System,  
ISO 14001 Environmental Management System) registered factory.

\*Specifications are subject to change without prior notice.  
\*Color of the products in this catalog may differ from actual products.

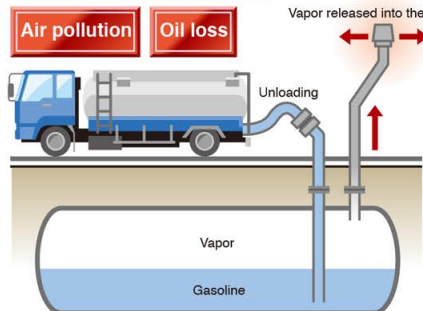




Vapor in the underground tank may cause **air pollution** or **oil loss** as vapor is released into the air through the vent pipe.

### Unloading

20 ~ 30L of vapor is released into the air per 10kL unloading



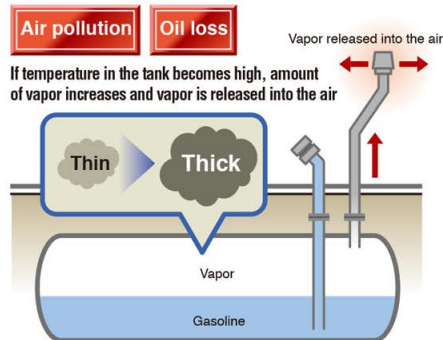
If the unloading volume is 300kL per month...  
**600~900L oil loss per month**

(Equivalent to 0.2 % ~ 0.3% of the whole unloading volume) \*1  
\*1 Oil loss volume may vary by climate

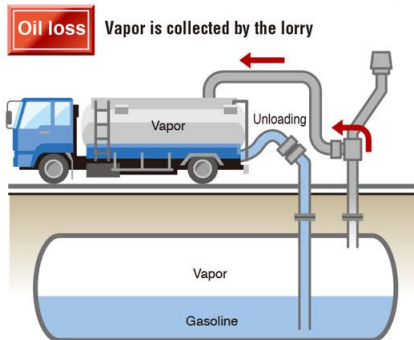
If oil unit price is \$1.5/L...

**\$900 ~ \$1350 loss per year**

### Normal condition



### Unloading (With vapor return line)



To reduce air pollution and oil loss...

We recommend installing **e-Recovery**

"e-Recovery" is a system for returning vapor to underground tanks

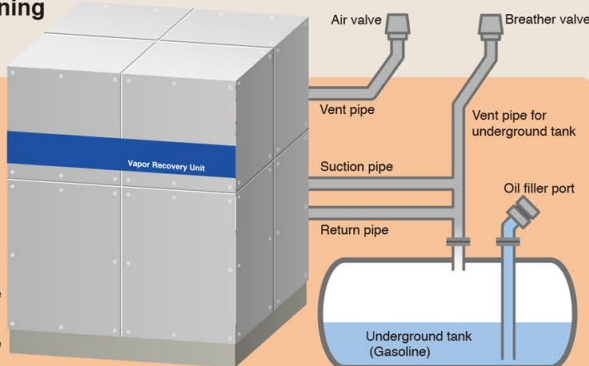
### Configuration

#### Control board

Non-explosion-proof area

#### Main unit

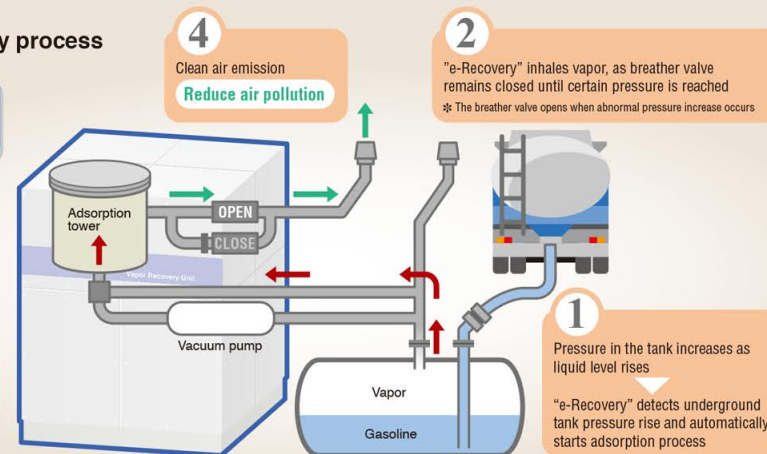
- 20kL-unloading type
- 10kL-unloading type



### Vapor recovery process

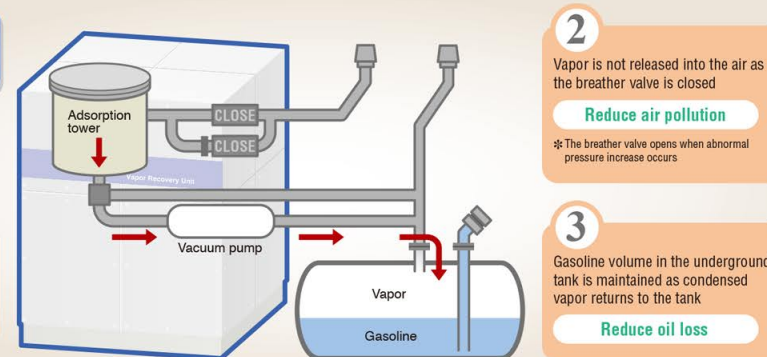
#### Adsorption process

- Vapor is adsorbed by silica gel in the adsorption tower



#### Desorption process (Vacuum desorption)

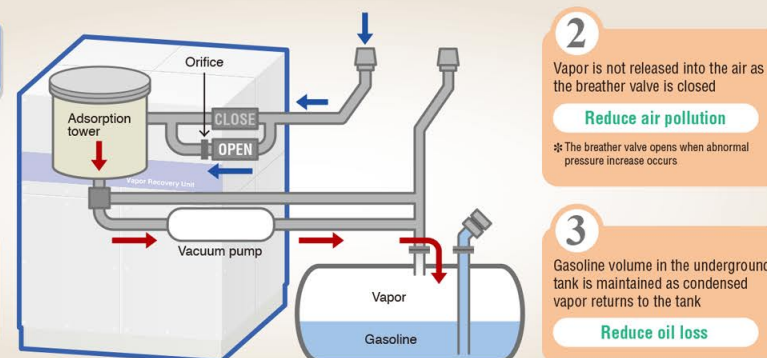
- The vacuum pump operates and vapor in the adsorption tower is collected by silica gel inside the tower.



#### Desorption process (Purge desorption)

Vapor that was not collected by vacuum desorption is collected by inhaling small volume of air

- Vacuum pump operates and vapor in the adsorption tower is collected by silica gel inside the tower.



### Advantages

- Collects more than **98%** of vapor occurring from unloading \*2
  - Air pollution and toxic VOC emission is prevented.
  - 0.2 ~ 0.3% of unloaded volume is collected by e-Recovery
- Vapor recovery process is done **automatically** \*3

\*2 Percentage may differ by unloading volume and interval time

\*3 When unloading needs to be done while adsorption is still in process, reset button needs to be pressed