

# ECO II+ AMALGAM SEPARATOR



EQUIPMENT LOGBOOK  
ASSEMBLY, OPERATION  
AND MAINTENANCE

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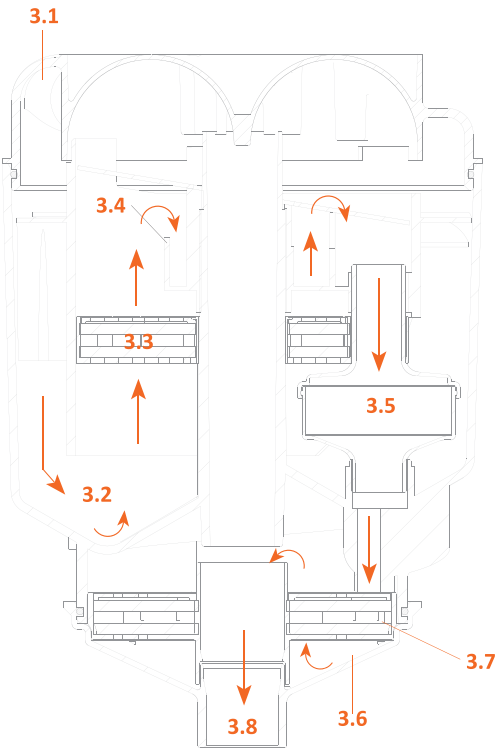
# ECO II+ AMALGAM SEPARATOR



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# ECO II+ Application and Explanation of Components



## Explanation of how the system works

The amalgam separator ECO II+ works on the principle of sedimentation, divided into several sections.

For use with a dry vacuum system or a wet ring system, the ECO II+ will be installed so that the waste water from dental chairs flows into the ECO II+ starting at inlet nozzle **3.1**.

From there the waste water is led through the first large sedimentation chamber **3.2**. Afterwards it is led through the first sedimentation cartridge **3.3**, through cascades **3.4** and the second sedimentation cartridge **3.5** into the second sedimentation chamber **3.6**. Through the third sedimentation cartridge **3.7** the cleaned water is led directly into the sewage pipe **3.8**.

There are several installation options for dry vacuum and wet ring systems, please see Installation options for ECO II+ in this manual.

## Technical Data

Low pressure range	50mbar - 300mbar
Separation rate	> 99% in accordance with ISO 11143
Collection container volume	0.4 gal (1.5 liters), 4.5 lb (ca. 2 kg), > 0.18 gal (700 ml) amalgam waste
Max. ambient temperature	104° F
Possible vacuum systems	wet or dry
Max. airflow rate	400 gal/min, 1,514 l/min
Max. water flow rate	0.264 gal/min, 1 l/min
Dimensions (HxWxD)	12.2 x 7.7 x 8.4 in (309 x196 x 213 mm)
Exchange interval	approx 12 months

## Application

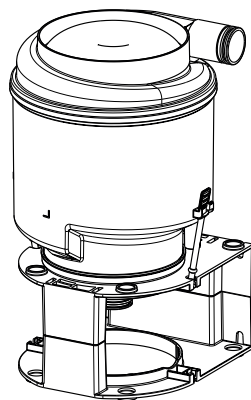
The **Economy System Type II+** (ECO II+) is a sedimentation amalgam separator.

When used in a wet ring system, the ECO II+ can be installed in the vacuum line before the wet ring pump.

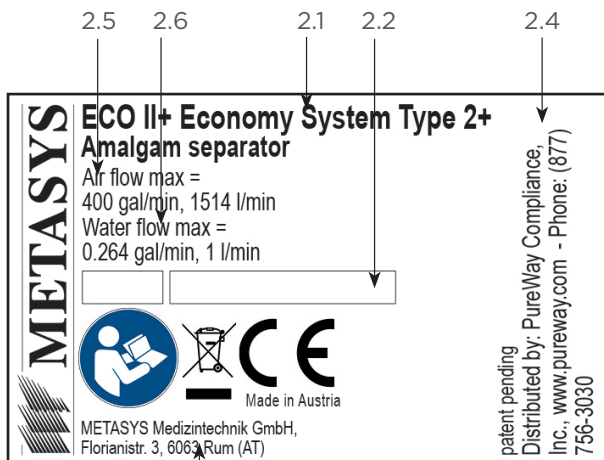
When used in a dry vacuum system, the ECO II+ can be installed in the vacuum line before the air/water separation tank or on the water line after the air/water separation tank.

## Possible Vacuum Systems

- dry vacuum system with air/water separation
- wet ring systems



## Type Plate



**The type plate is located directly on the front side of the amalgam separator.**

The type plate is located directly on the front side of the amalgam separator.

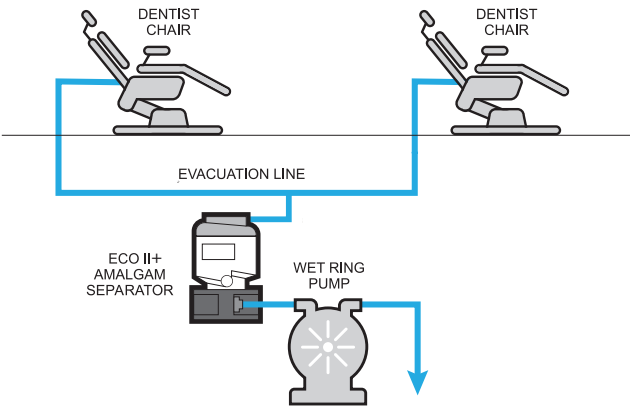
- 2.1 Equipment type
- 2.2 Serial number
- 2.3 Manufacturer's address
- 2.4 Distributor's address
- 2.5 Max. suction volume
- 2.6 Max. water flow rate

# Installation Options of ECO II+

The ECO II+ allows a variety of different installation options. Please check if there is a wet ring / water ring vacuum system, or a dry vacuum system.

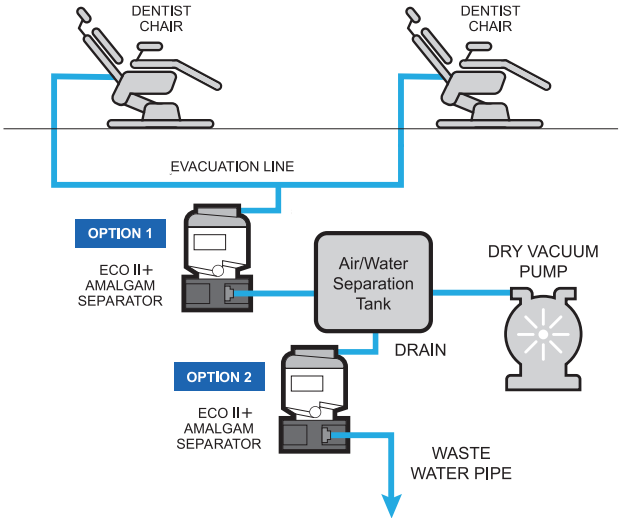
## Installation in the suction line before a wet ring pump

In wet ring systems, the ECO II+ and the ECO II+ Tandem are installed in the vacuum line before the wet ring pump.



## Installation with a dry vacuum system

The ECO II+ / ECO II+ Tandem can be installed before (option 1) or after (option 2) the air/water separation tank (waste water outlet).

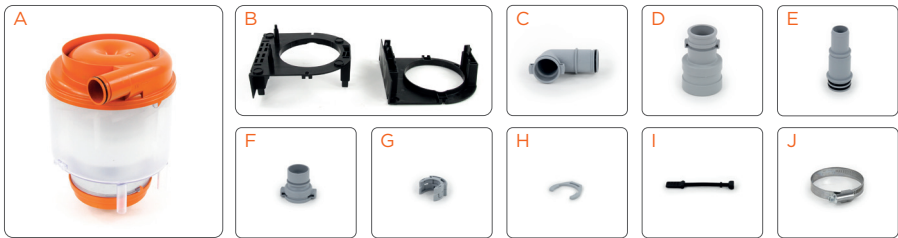


# ECO II+ Assembly and Installation Instructions

The ECO II+ Amalgam Separator requires minor assembly before being ready to install to a dental vacuum system. Follow the instructions below to assemble and install your ECO II+.

## STEP 1

Remove all contents from the ECO II+. Each system comes with the following components:



- A 1x ECO II+ Canister filtration system (orange top, clear cylinder)
- B 2x black foundation brackets
- C 1 x outlet elbow 90° with o-ring
- D 2x connector 1 1/2"
- E 2x connector 20/25 with o-rings
- F 2x adaptor ECO II+
- G 2x secure clamp
- H 3x clip ECO II+
- I 2x tension part
- J 2x hose clamp (40-60mm)
- K 2x black o-rings 28x2

## STEP 2

Secure B, black foundation brackets by placing bracket 1 on top of bracket two as shown below ensuring the brackets fit securely into the alignment grooves.



## STEP 3 - optional Wall Installation

Put the foundation bracket (**B** put together) onto the wall and make sure it is horizontal with a water spirit level. Then mark the four holes at the corners of the brackets on the wall.

Secure the foundation bracket carefully on the wall by using screws (not provided) that are suitable for your wall.



## STEP 4

Fit the O-rings, **K** onto the ECO II+ (**A**) "INLET" and "OUTLET" openings as shown below.



## STEP 5

Choose the version fitting for you, depending on your piping size:

### Version 1 - 1 1/4" + 1 1/2"



Connect the two fitting elements **C** and **D** and secure them with **H**, the clip.

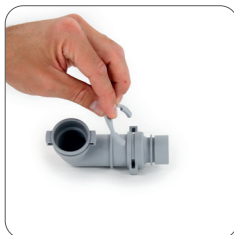
The fitting elements fit both inches: 1 1/4" and 1 1/2". You secure the piping by using the hose clamp **J** (see **STEP 10**).



## STEP 5

Choose the version fitting for you, depending on your piping size:

### Version 2 - 3/4" + 1"

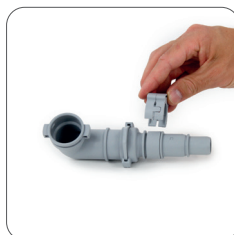


Connect the two fitting elements **C** and **F** and secure them with **H**, the clip.

This results in the fitting element **C+F**.

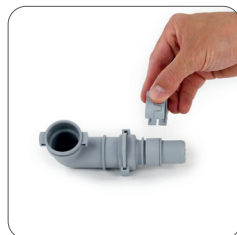
**3/4"**

Now connect the fitting element **C+F** with the fitting element **E** and secure it with the secure clamp **G**.



**1"**

Cut off fitting element **E** with a saw (see mark). Then connect the two fitting elements **C+F** and **E (cut off)** and secure them with the secure clamp **G**.



# STEP 6

Put the fitting element, depending on your piping size, onto the ECO II+ Canister and secure them with H, the clip.

## INLET



## OUTLET



# STEP 7

Place the ECO II+ Canister onto the foundation brackets. Make sure that the ECO II+ Canister is placed on top of the base support cylinders of the foundation brackets.



## STEP 8

Secure the ECO II+ Canister with the two tension parts, I on both sides.



## STEP 9

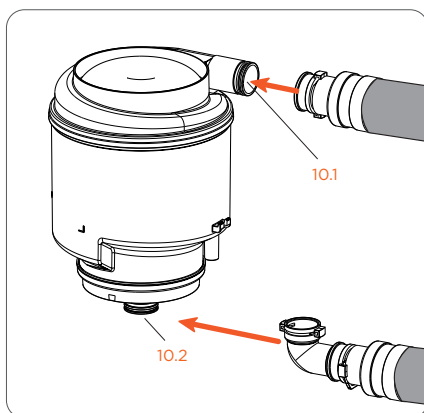
To guarantee a trouble-free connection of different sizes of hoses, hose adapters supplied along with the device (see STEP 5) must be inserted in the inlet and outlet openings.

In any case ensure that all connections are properly secured!

The waste water must be able to drain freely into the sewage pipe!

**10.1** Waste water inlet: waste water from the dental unit or from air water separator

**10.2** Waste water outlet: cleaned waste water directly to the sewage pipe or wet ring pump



## STEP 10

Depending on your piping size you have to secure your piping:



Connect the ECO II+ fitting elements from waste water inlet and waste water outlet with the piping.

Secure the piping by using the hose clamp **J**.

## ECO II+ Tandem Installation Instructions

In order to connect the ECO II+ in tandem configuration, take two ECO II+ systems and connect them using a Y-Connector as shown in the illustrations (Kit separately available).

### STEP 1



### STEP 2



### STEP 3



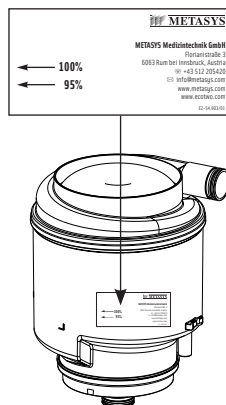
## STEP 4



## Replacement Intervals

### Filling level

As soon as the solid content of the collection container has reached the maximum filling level, the ECO II+ must be replaced. However, it has to be replaced at least once a year even if the maximum filling level has not yet been reached.



# Maintenance and Replacing the Collection Container

The ECO II+ collection container must be exchanged according to the replacement intervals as defined in the replacement interval table (cf. page 13).

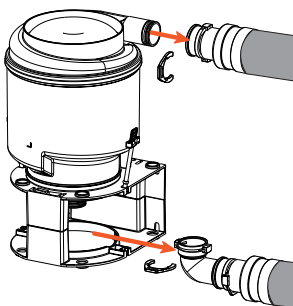


**Wear protective gloves and face mask! Avoid contact with the contents of the amalgam separator!**

**It is not possible to open the ECO II+ and reuse it! Every attempt to open the amalgam separator results in the malfunction of the device. Moreover, the required separation rate will no longer be achieved!**

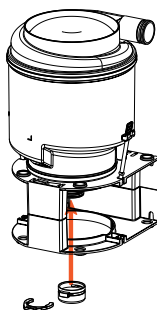
## STEP 1

Remove the adapter with the tube at the waste water inlet and waste water outlet.



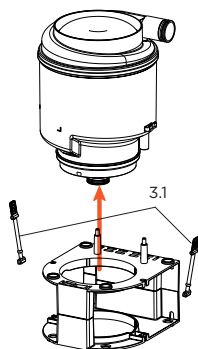
## STEP 2

Tightly close the outlet of the full ECO II+ with the sealing plug (supplied with the amalgam separator).



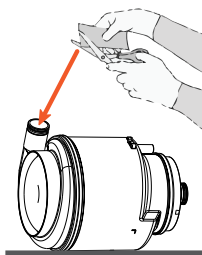
## STEP 3

Detach the tension parts 3.1 from the ECO II+ canister and take out the full amalgam separator by lifting it off upwards.



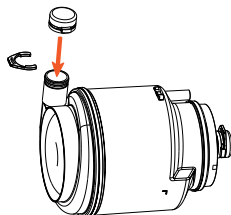
## STEP 4

Position the full amalgam separator horizontally onto an even surface, make sure that the inlet opening is pointing upwards!



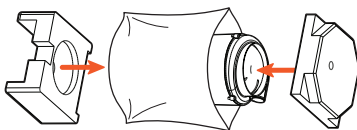
Cut open the sanitizing pouch (supplied with new amalgam separator) at one corner and pour its content into the inlet opening of the full amalgam separator.

## STEP 5



Afterwards also tightly close the inlet opening with the sealing plug.

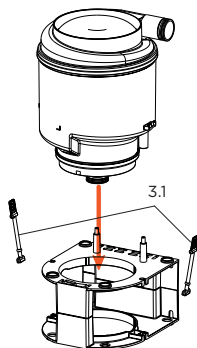
## STEP 6



Put the amalgam separator into the plastic liner (supplied with the new amalgam separator), place it into the Styrofoam shells and then into the cardboard box.

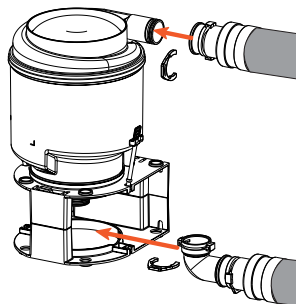
## STEP 7

Install the new amalgam separator and secure it with the tension parts.



## STEP 8

Reconnect the adapter with the tube to the "IN" and "OUT" openings.



**Check inlet and outlet of the ECO II+ for tightness!**

**Suck in a large quantity of water (at least 0.5 gal or 2 l) to check the system for leakages. If leakages are found, check the hose connections.**

# Disposal of the full collection container

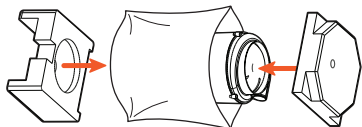
For technical and hygienic reasons the collection container is designed for single use. The reuse of a used container can lead to malfunction and violates the warranty regulations!



**Wear protective gloves and face mask!**

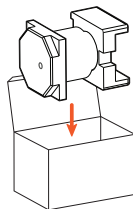
**Avoid contact with the contents of the container!**

## STEP 1



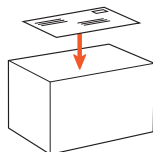
Place the properly sealed amalgam separator into the plastic liner and then into the two styrofoam shells.

## STEP 2



Put the amalgam separator and the styrofoam shells into the box and close it.

## STEP 3



Find the prepaid return UPS shipping label inside the box, and place the label on top of the box. You are now ready to return your system.

Please give the box to your regular UPS carrier or you can contact PureWay to schedule a free pickup by calling **877.765.3030** or e-mailing us at **support@pureway.com**

**The recycling of the full amalgam separator will be handled by a certified mercury recycling facility.**

The prepaid return label will ship your canister to our recycling facility and you will receive a certificate of recycling as soon as it is ready. To sign up for e-certificates please visit **[www.pureway.com](http://www.pureway.com)**

Certificates of recycling need to be stored according to national law.

For installation and replacement how to videos, please visit **[www.pureway.com/ecoii-amalgam-separator](http://www.pureway.com/ecoii-amalgam-separator)**

Need assistance installing your ECO II+? Call **877.765.3030** and PureWay can assist you in finding a qualified technician to install your system!

To access your e-certificates online and to sign up to receive your e-certificates via e-mail, please visit **[www.PureWay.com](http://www.PureWay.com)**





# Equipment Log Book

- To be filled in by the technician, or the person maintaining the separator
- Service and maintenance must be carried out as per the instructions for the installation, operation and maintenance

YEAR:

## MONTH 1

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 3

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 5

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 7

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 9

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 11

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 2

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 4

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 6

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 8

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 10

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 12

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

# Equipment Log Book

- To be filled in by the technician, or the person maintaining the separator
- Service and maintenance must be carried out as per the instructions for the installation, operation and maintenance

YEAR:

## MONTH 1

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 3

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 5

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 7

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 9

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 11

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 2

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 4

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 6

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 8

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 10

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No

## MONTH 12

Name of the person  
who inspected:

Date of Inspection: \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Was the system operating properly? ☐ Yes ☐ No

Was the system needing to be replaced? ☐ Yes ☐ No



# ECO II+ AMALGAM SEPARATOR

## Contact Us

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