



Table of contents

1. Rain Spray Hose

- Gwansu**
- Goseol**
- Jeoseol**
- Double Wing Spray Hose**
- Sumark**
- For Specialty Crops**

2. Tray

3. Mulching, General plastic sheet & Weed Mat

4. Fertilizer (Bed Soil, Nutrients)

5. Accessories

- Valve**
- Others**
- Sprayer & Hose reel**
- Filter**
- Timer**

6. Order

GWANSU

Our irrigation rain spray hose(GWANSU) is 2 types.

1)  2) 

1) Installed mulching : It is laid under the mulching plastic sheet (the water upwards).

2) Not installed mulching : It is laid on the ground without mulching plastic sheet (the stream is bottom).

The watering can be supplied close to the roots of the of plants. As the spray hose has the hole on its sides only, the water slides over the inside the mulching plastic sheet and is spread over the furrow to fully soak the area, thus reducing the time and labor and also helping the plants grow uniformly.

In addition, as its hole has no risk of getting clogged, the fertilizer can be sprayed with water.

The number of holes can be adjusted depending on the demand of customers.



① General type A-1 (circular hole)

The hole is in round shape and made in the diagonal way.



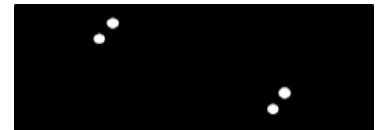
② General type A-2 (circular hole)

The hole is in round shape with each hole facing each other.



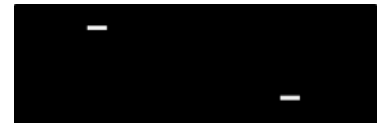
③ General type A-5 (circular hole)

The holes are in round shape and made in the diagonal way in pairs.



④ Straight line hole type

The hole is in straight line shape and made in the diagonal way.



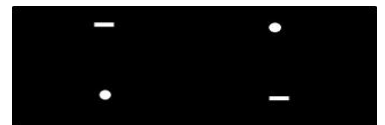
⑤ Straight line hole type

The hole is in straight line shape with each hole facing each other.



⑥ Mixed type (straight line hole + circular hole)

This spray watering hose has the circular holes and straight line hole in a way that each faces the other alternatively.



⑦ One-side hole (straight line, circular and mixed)



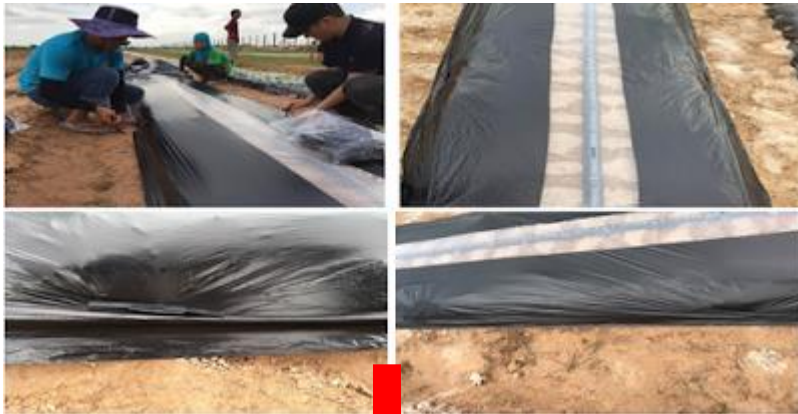
How to install the GWANSU?

- ① First, make the field flat.
- ② Make the furrow over the field.
- ③ Sprinkle fertilizer on the field before installing.
- ④ After set up a posts at the starting point, fixing the spray hose to the posts and proceeds.
※ Be careful not to scratch the hose and proceed install with 2 persons together.
- ⑤ Fix end of hose and connect the other end with the connection valve.
※ Due to the diurnal range so the hose is stretched or be reduced, do not cut the hose too close
- ⑥ After install the spray hose, try the spraying test.
※ Through the spraying test, can visually check the water comes out well.



How to install the GWANSU?

- ⑦ Install the mulching sheet over the irrigation spray hose.
 - ※ If use color combination mulching sheet, it can be check of the sprinkler directly with visually. Fix the mulching sheet with peg.
- ⑧ After install the spray hose and mulching sheet, use a piercing tool to the position planting crops and drill a hole.
 - ※ After planning the size, location and spacing of the hole and then start.
- ⑨ Plant crops ready to move.
- ⑩ After moving planted crops and irrigate to the crops.
 - ※ Please check if the water comes out well.



GOSEOL

The high rain spray hose is installed hanging about 50~100cm from the ground with a hook. It is usually used for the leaf vegetable to harvest the leaves of the plants. It makes the spraying of water like fog over the plants and it does not get obstructed by the growth of plants. Recently, the use of high rain spray hose gets increased.

Type1.



1.5m 1.5m
Spraying width : from 1m to 3m

<Punching Shape>

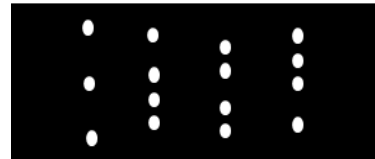


TH1365GA 5holes

Type2.

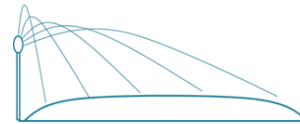


3m 3m
Spraying width : from 1m to 6m



TH13615GA 15holes

Type3.

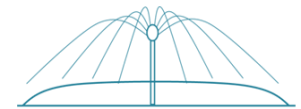


3m
Spraying width : from 1m to 3m
One side spraying

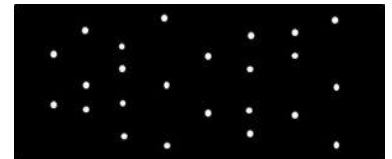


TH1365GA-1 5holes

Type4.



3m
Spraying width : from 1m to 3m



TH13624GA 24holes



How to install the GOSEOL?

- ① First, make the field flat.
- ② Make the furrow over the field which the steel wire can be fixed.
- ③ Put the middle posts between main posts in the spacing of 5m.
- ④ Connect the steel wire to the end of the furrow in the form of straight line.
 - ※ *Connect the wires pulled tightly.*
- ⑤ If the posts and wires are installed, fix the ring on the spray hose for connection.
(based on the direction of printed letter)
- ⑥ Connect the valve at the starting section of the hose which the water is put into.
 - ※ *After connect the valve, fix to the main posts.*
- ⑦ When the installation is completed, try the test spraying.
(Please check if the water comes out well, there is no twisting of hose or if the water is smoothly sprayed out to the end of the hose.)
 - ※ *Fully understand the related precautions before the installation is made.*



JEOSEOL

As the product for laying on the ground, it is most widely used.

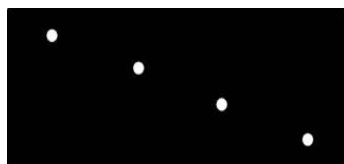


It may be used between furrows. There are various products available with the spraying width reaching from 3 to 8m. Based on the sufficient sales experience and knowledge, we continue to produce the products which can meet the demand of customers.

Now, it is the most widely used in South East Asia, Europe, Eurasia and Central Asia and many products are exported to South East Asia, South America and Russia.

The products having various width from 2.5 to 7cm are available.

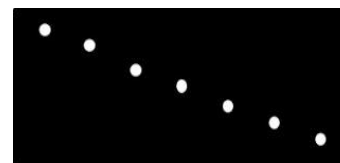
<Punching Shape>



3cm(3004)
TH1234JA



4cm(4005)
TH1245JA
5cm(5005)
TH1255JA



6cm(6007)
TH1267JA
TH1267JD



How to install the JEOSEOL?

- ① First, make the field flat.
- ② Make the furrow over the field.
- ③ Before installing the spray watering hose, set up the posts and then fixing the hose.
- ④ As the hose is to be installed between furrows, lay the hose over the furrows with its printed surface facing upward.
- ⑤ Plug one end of the hose and fix it and connect the valve at the starting section of the hose which the water is put into.
- ⑥ When the installation is completed, try the test spraying.
 - ※ Please check if the water pressure is proper, the water is smoothly sprayed out to the end of the hose.
 - ※ Make sure to read how to use and precautions before installing the rain spray hose.



Double Wing Spray Hose

In response to consumer needs, we introduce new and innovative double-sided adhesive spray hose that complement the disadvantages of existing spray hose.

※ 25mm, 30mm, 40mm, 50mm, 55mm, 65mm

JEOSEOL, GWANSU, SELF AND COMBINATION TYPE

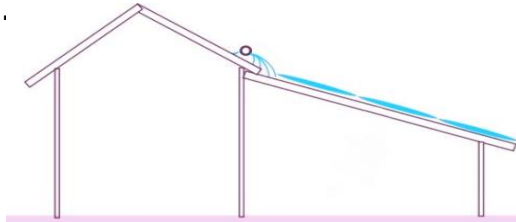
(for fruit, leaf vegetables, fruit tree and root crops)



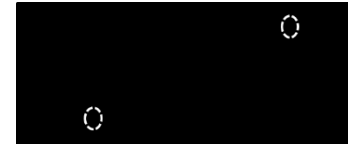
- 1) Our double wing spray hose is not twisted or inverted by strong water pressure or wind. When the hose is installed, it is landed on the ground stably and it is not twisted or turned upside down.
- 2) There is almost no burst in both folded sides.
- 3) It is easy to discharge the remaining water in the hose after the watering.
- 4) The length and thickness of the hose can be adjusted according to the customer's demand.



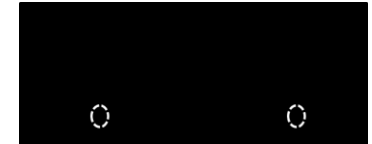
SUMARK



<Punching Shape>



E-1
TH1462E-1



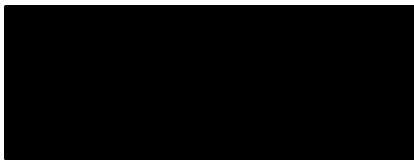
E-2
TH1462E-2

- It is installed between layers in dual layered, Low roof house, Cow barn and Restaurant.
- It prevents the temperature down and also prevents the temperature up in summer.
- The one side punching that the holes are punched in one side only, it is easy to install (E – 2).

※ *Note: when install the spray hose, should printed surface facing downward.*

SELF SPRAY WATERING HOSE

- It can be punched directly to the required position. Enclosed pin of two types(O, —).



TH1640FS
TH1650FS

<How to use>

First install the hose, stand to the side and punching in the appropriate position. (when you drill a hole, holding as much as the pin to enter, poke in to the hose quickly.)

※ *Using our sharp tool (pin or needle) for drilling hole the hose.*

※ *The tool is specially made by us.*

For Pepper, Sachainchi, Coffee and Fruit Tree (Grape, Berry, Mango...)

- For Black Pepper, Sachainchi, Coffee and Fruit Tree (Grape, Berry, Mango, Orange etc.)
- A lot of water may be discharged in a short period of time.
- Difficult to be clogged due to big holes.
- Uniform spraying of water.
- The filtering device is used.
- Our irrigation spray hose(For Black pepper, Sachainch, Coffee and Fruit Tree) is 3 types.



Both side punching 1 TH1756BC-1 One side punching TH1753BC-2 Both side punching 2 TH1756BC

- It is designed to be irrigated close the roots, so can reduce the water. (one side)
- It is designed to be irrigated so that one side is close to the crop and the other side is far away. (both side1)
- It can be laid with weed mat to prevent weed.
- It is easy to work and almost no weeds. (one side)
- Can control the water spraying width by adjusting the water pressure. (both side1, 2)
- Can be adjusted the punching shape, and size depending on user's needs.



For Sugarcane and Corn

- Ridge Type : It is designed to be laid down on ridge.
- Furrow Type : It is designed to be laid down on furrow, and the water does not fall on the furrow.
 - For Sugarcane and Corn.
 - Uniform spraying of water.
 - The filtering device is used.
 - A lot of water may be discharged in a short period of time.
 - Difficult to be clogged due to big holes.

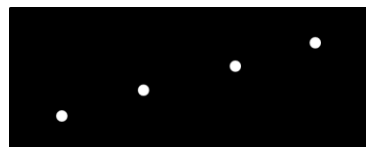
<Punching Shape>



Ridge Type



Furrow Type



TH1744SCR



TH1744SCR-1



TH1744SCF-1



TH1744SCF

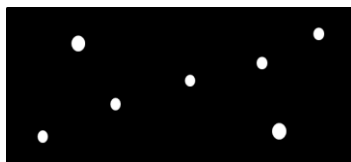


For Strawberry

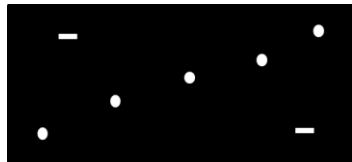
- It is designed with holes proper for growing strawberry.
- The filtering device is used.



<Punching Shape>



TH1747SR/1757SR



TH1747SR-1/1757SR-1

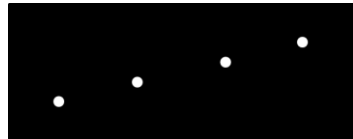


For Potato, Sweet potato, Carrot & Radish

- It is designed with holes proper for Root crops.
- It can be irrigated efficiently depending on the location and range of root crops.
- The filtering device is used.
- There are 3 types.

<Punching Shape>

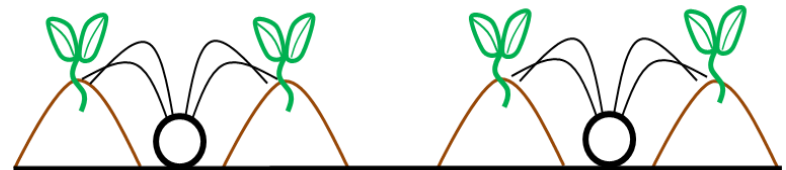
Type 1



TH1744JR/1745JR

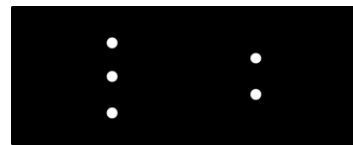


TH1744JR-1/1745JR-1

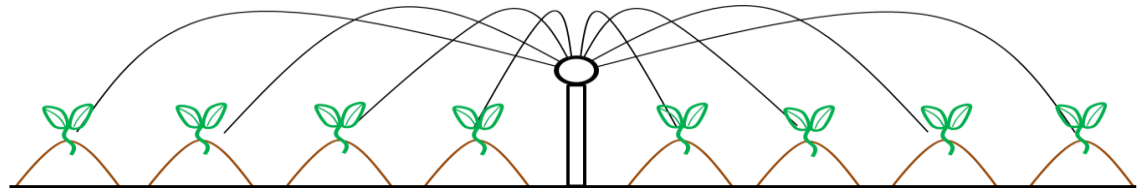


- It can be laid on the ground like JEOSEOL, so can be sprayed near the crop without being sprayed away.

Type 2



TH1765GA

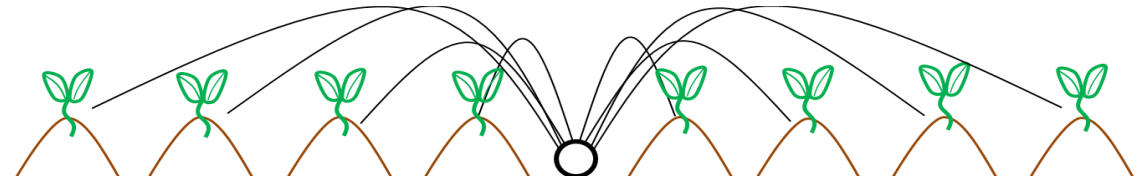


- It hangs up to about 50cm from the ground like GOSEOL, so can be irrigated wider range.

Type 3



TH1765JA

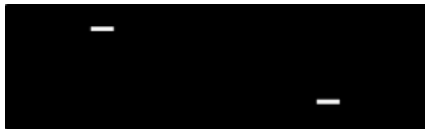


- It can be laid on the ground like JEOSEOL, so can be irrigated wider range.

For Flower

- It is designed with holes proper for Flower.
- The filtering device is used.
- There are 2 types.

Type 1 : • It is installed on the ground and can be sprayed close to the roots for young crops.
• The water is reached to the end of the hose, it begins to sprinkle, so the amount of water in the front and back of the hose is the same.



TH1742WO

Type 2 : • Sprinkle water can be sprayed like fog to grow crops without damaging the flowers.
• The range of watering is wide, so the crops grow uniformly.

TH17624GO



(DA-5) 24holes



TH17620GO

(one-side hole) 20holes



※ Install two types of hose together and can be irrigated the crop from the seed to the flower of the harvesting plant.

How to use the spray hose and precautions?

- ① The spray hose is equipped with a UV blocker, so it is safe to be exposed to sunlight. However, please note that if you do not use it once after installation, and it is exposed to sunlight for a long time, it may deteriorate. After installing the hose, first test it for water spraying and periodically use it. If not, remove it and store in the shade.
- ② Prior to the start of use, conduct the test spraying (with 1m of spraying height and 3m of spraying width).
- ③ In case that the width of hose is 3cm or 2.5cm, slowly put the water into the hose to get the proper pressure.
- ④ In a large farm, it is efficient to divide the area before irrigation. In that case, install the valve for each irrigation hose and designate the zone to where the water is supplied. If the water has a lot of foreign matters, use the filter.
- ⑤ How to clean the inside of the hose ? Put the sponge into the hose and pushed by the pressure of water. If so the debris in the hose will be removed.



Sponge-free supply

How to use the spray hose and precautions?

⑥ The proper water pressure is 0.4 bar. If the water is more pressurized than the proper water pressure, the hose may burst.

◆ How to check the pressure

- Install the pressure meter and then adjust the pressure.
- If there is no pressure meter, make sure that the water is fully filled to the end of the spray hose, press it with one hand. If it is pressed about 1cm, the pressure is proper. If the 1cm is easily pressed, it means the water pressure is weak. The adjustment of the water pressure may be done by controlling either the valve of pump or valve of the spray hose.



TRAY

- The framework is used to grow Seedlings.
 - 20 and 24 holes – For Flower
 - 32 and 40 holes – For Pumpkin, Watermelon, Cucumber, Paprika.
 - 50 and 72 holes – Pepper, Corn, Cabbage, Lettuce.
 - 105, 128 and 162 holes – Pepper, Cabbage, Lettuce.
 - 200, 288 and 406 holes – Lettuce, Green Onion, Onion.

Tray size : 54cm*28cm



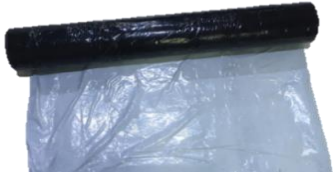
Variety	24 holes	32 holes	40 holes	50 holes	72 holes
code No.	TY4002	TY4003 / 4004 (square type, circle type)	TY4005	TY4006	TY4007
Size of 1hole(mm)	60*60*65	Circle / Square 58*58*65 / 59*59*66	48*48*49	45*45*50	32*32*45
Volume of 1hole	0.188L	0.125L / 0.145L	0.070L	0.068L	0.045L



105 holes	128 holes	162 holes	200 holes	288 holes	406 holes
TY4008	TY4009	TY4010	TY4011	TY4012	TY4013
35*36*50	27*27*50	21*21*45	2*23*45	18*18*31	17*17*26
0.030L	0.020L	0.017L	0.012L	0.008L	0.005L

Mulching, General plastic sheet & Weed mat

- Mulching sheet is used to prevent the evaporation of water, erosion and grasses on soil.
- General plastic is used for various purposes, mainly used for construction and fish farm.



LD Mulching Black and white

Thickness of range: 0.03~0.05mm
Width of maximum: 480cm
Length maximum of 1roll : 500m



LD Mulching Black

Thickness of range: 0.02~0.05mm
Width of maximum: 480cm
Length maximum of 1roll : 500m



HD Mulching Black

Thickness of range : 0.01~0.015mm
Width of maximum : 300cm
Length maximum of 1roll : 1,000m



LD Black, White(roll)

Thickness of range : 0.01~0.015mm
Width of maximum : 360cm
Length maximum of 1roll : 100m



Perforated mulching plastic sheet

Thickness of range : 0.02~0.05mm
Width of maximum : 480cm
Length maximum of 1roll : 500m
Hole size : diameter 5cm
Hole interval : Adjustable in 5cm increments



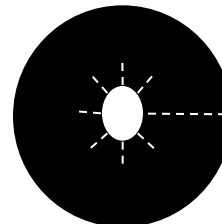
HD LD combination one line / two line

Thickness of range : 0.01 ~ 0.015mm
Width of maximum : 120cm~480cm
Length maximum of 1roll : 500~1,000m



Weed mat(1,2)

Width of range : 60cm~320cm
Weight : 60g, 80g
Length maximum of 1roll : 200m



Weed mat(for tree)

• It is laid on the surface of the tree to help prevent weeds, maintain moisture and reduce costs.



Fertilizer (Bed Soil)

It is the cultivation soil on which the nutrients and water are supplied to cultivate the plant. Its main components include the cocopeat, zeolite, vermiculite, perlite and wetting agent.



For Organic farming and Gardening



For Flower

- With the use of only strictly selected raw materials and top class technology, it is manufactured in the manner ensuring safe use of it by securing safety against blight during the nursery of seedlings.
- Thanks to its excellent physicochemical properties, it can cultivate healthy seedling and provides nutrients continuously until the last moment of growing seedling due to its high nutrients holding capacity
- Water distribution during irrigation is good and, by equipping excellent breathability and drainage, it becomes to have excellent uniformity. And, through the prescription of various physiologically active antimicrobial substances, anti-aging and environmental adaptability has been enhanced, consequently the adaptability to the soil is made to be good after formal planting as well as.
- Relieving physiological stress during the nursery of seedlings.

Accessories



Main hose for water supply(General)

BH3001 ~ 3003



Main hose for water supply(Premium)

BH3004 ~ 3006



Connector
(for supply water hose)

BH3007 ~ 3008



End

BH3009 ~ 3010



Connect with valve

BH3029 ~ 3030



3-ways socket
(for supply water hose)

ETC0002 ~ 0003



valve(male screw)

BH3011 ~ 3023



Start valve
(for water supply hose)

SV0001 ~ 0003



Valve of T type

TV0001 ~ 0010



Connector
(for rain spray hose)

BH3024 ~ 3028



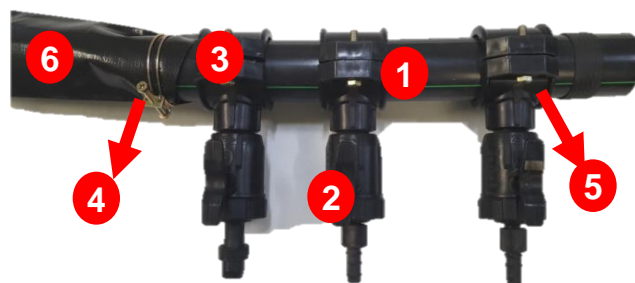
2-ways socket
(for supply water hose)

ETC0004 ~ 0005



Fast hook valves
(for black pipe)

FV0001 ~ 0003



4. Steel band

ETC0009

1. Black Pipe
(for agriculture)

ETC0007

2. valve
(male screw)

BH3011 ~ 3023

3. Saddle

ETC0008

5. Rubber band

ETC0010

b. Main hose for
water supply

BH3001 ~ 3003

Others



**Fix pin
(for rain spray hose)**

ETC0001



Mulching peg

ETC000b



Seedling transplanting tool

ETC0014



Seeder

ST0001



**End
(finisher for black PE pipe)**

ETC0011 ~ 0013



**Anti-twist pin for rain
spray hose or weed mat**

ETC0020 ~ 0024



Cushion chair(S, M, L, XL)

ETC0015 ~ 0018



LD flexible tube

LP7001 ~ 7003



Greenhouse band

HB 5004 ~ 500b



Greenhouse clip

HB5001 ~ 5003



Valve of PVC hose

PV0001 ~ 0002



LD Multi-use plastic sheet(BOX)

Thickness of range : 0.05~0.1mm

Width of maximum : 1,400cm

Length maximum of 1box : 100m

Sprayer



HP-401(20L)
HP8001



HP-0903(20L)
HP8002



HP-0611(12L)
HP8003



HS-310(17L)
HP8004



HS-320(17L)
HP8005



HP-3800(1.8L)
HP8006



HP-2800(1L)
HP8007



HP-0702(4L)
HP8009



HP-2010(20L)
HP8010

Hose reel



HH-020
HP8011



HH-030
HP8012



HH-050
HP8013



HH-080
HP8014

Filter

- After discharge the debris inside the filter by driving the engine and then operates the filter.
- So even if there are remaining debris in the filter, can be cleaned by decomposition.



**20m/m Filter
(Net type)**

HF0001



**40m/m Filter
(Disk type)**

HF0002



50m/m Filter

HF0003, 0004



75m/m Filter

HF0005, 0006



**Accessories of Filter
(Net Type)**

HF0005-1



**Accessories of Filter
(Disk Type)**

HF0005-2



Water Gauge



Pressure Gauge

Timer

By installing a timer on the motor, you can control the watering time by setting the power supply time. So, even if you do not go to the farm, you can irrigate the crops with the desired amount of water at the desired time.



TM0001

Digital type

- Lightning Voltage: AC220V ~ / 16A (3)
- Operating frequency: 60Hz
- Motor load: 3A
- Use time: 24 hours setting (can be set in 1 minute increments)
- When using more than 1000W, be sure to use magnet switch.



TM0002

Analog type

- Built-in case (for outdoor)
- Compensation time: 48 hours
- Lightning Voltage: 16A MAX 250V ~
- Operating frequency: 60Hz
- Motor load: 3A
- 40W (30 or less based on fluorescent lamp)
- When using more than 1000W, be sure to use a magnet switch.
- When using more than 1000W, be sure to use magnet switch.