



Welcome to IWS

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Welcome to IWS

IWS manufacture the finest hydroponics systems on the market to date. Our systems have quickly become the choice for the connoisseur grower.

We pride ourselves on quality rather quantity and only supply the best. We are proud to announce that we have designed more products to complement our existing range.

We have succeeded in filling the gap in today's hydroponics market by introducing easy to operate quality hydroponics grow systems at affordable prices.

The IWS range of products is suitable for all gardeners from the hobbyist to the commercial grower and our systems enable the novice gardener to become an expert overnight.

The IWS Dripper System

IWS are proud to announce the launch of their professional dripper system, which comes complete as a kit. The Dripper System utilises the already successful technology of the IWS Flood & Drain system but uses drippers as its main delivery of nutrients to the plant. The minute timer supplied with this system has been specially designed to run the large pumps used in dripper technology and special stands are supplied for the dripper assemblies. All the pots can be connected to the main controller, which will pump away all your waste nutrients to a desired location out of your growing area. The dripper system uses the leading dripper technology from DIG drippers which allow 12 flood drippers to run from one location instead of having drippers running all over your grow area.

The IWS Flood & Drain System

The IWS Flood and Drain System is a highly developed hybrid ebb and flow system, which works by flooding from the bottom of each individual 10.3 litre pot. The system uses gravity to send water to the pots and only uses pumps to fill and drain the main 25 litre control bucket. This has two quality magnetic float valves mounted inside to control the power to the pumps in both the tank and the controller bucket. These floats control the flood level in the growing medium precisely to stop any over watering or flooding. As the water is forced through the growing medium, it expels all the stale air in the medium surrounding the root ball and replaces it with fresh oxygen as it drains away.

Why choose IWS Systems?

IWS Systems only use the best quality products and follow a strict build procedure complying with the CE build Standards and using CE conforming products. Up to date we are the only manufacturer of this style of system to follow this procedure. We have spent years developing these systems and only release them to the general public when we are satisfied they meet our stringent quality controls.

Benefits of choosing an IWS System:

1. Micro chipped processor timing controls allow precise minute feed times for quicker floods of your growing medium.
2. Top industry low voltage float valve.
3. Remote timer control can be wall mounted away from your water supply for safer operation.
4. Timed drainage eliminates non-return valves and slow drain away.
5. Kits complete with IWS stands for expert set up and quicker draining of pots, allowing free drainage of root zone.
6. Expert after sales for problem solving and set up help.
7. All IWS products carry a one year guarantee (terms and conditions apply), excluding tampering.



IWS Flood & Drain System Specifications & Accessories



System Specifications & Configurations

6 pot system

- 100 litre tank with pumps
- Brain pot with timer
- 6 stands and pots
- 6 elbows
- 10 metres of pipe

12 pot system

- 220 litre tank with pumps
- Brain pot with timer
- 12 stands and pots
- 6 elbows & 6 tees
- 15 metres of pipe

24 pot system

- 220 litre tank with pumps
- Brain pot with timer
- 24 stands and pots
- 6 elbows & 18 tees
- 30 metres of pipe

36 pot system

- 350 litre tank with pumps
- Brain pot with timer
- 36 stands and pots
- 6 elbows & 30 tees
- 45 metres of pipe

48 pot system

- 350 litre tank with pumps
- Brain pot with timer
- 48 stands and pots
- 6 elbows & 42 tees
- 60 metres of pipe

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Universal Pots

Consisting of an outer and inner. The outer pot is machined to allow fixing of the leak proof sealing gland. The inner pot is drilled for maximum drainage.



Universal Pot Stands

Set with a 10° slope for maximum drainage and set 45mm from the floor to allow run back to the main tank which prevents waterlogging of roots.



Universal Pipe

The 16mm supply pipe is 100% food grade plastic and comes in 30m rolls. Easy to cut and flexible in awkward locations.



Universal Sealing Gland

Designed to totally seal around the pvc pipe. Allows easy maintenance.



Universal Tees

Pre-fitted with 16mm pvc pipe which gives a 100% seal. Angle cut for easy insertion.



Universal Elbows

Pre-fitted with 16mm pvc pipe which gives a 100% seal. Angle cut for easy insertion.



Universal Humidity Dome

Specially designed to fit the 11 litre pot to provide young plants with the controlled humidity they require for the first few weeks of growth.



Brain Pot with Timer

A 25 litre pot with two 12 volt float switches, six sealing glands and six feed lane extensions for easy fitting and maintenance. Fitted with a Maxi Jet 1000 pump and anti-siphon valve.

Universal Accessories

Most products from the Flood & Drain and the Dripper System are universal which makes ordering a lot easier. As with all IWS Products they are made from the best quality plastics and have the IWS Quality Warranty.

IWS Dripper System Specifications & Accessories



System Specifications & Configurations

100 Litre Tank Kit

- 100 litre tank
- 7000 litre per hr pump
- High pressure filter
- IWS minute timer
- Control brain
- 10 metres of pipe
- Fittings

220 Litre Tank Kit

- 220 litre tank
- 7000 litre per hr pump
- High pressure filter
- IWS minute timer
- Control brain
- 10 metres of pipe
- Fittings

350 Litre Tank Kit

- 350 litre tank
- 7000 litre per hr pump
- High pressure filter
- IWS minute timer
- Control brain
- 10 metres of pipe
- Fittings

Dripper Extension Kit

- 6 inner and outer pots with glands
- 6 stands
- 6 elbows
- 6 tees
- 12 pot dripper assembly
- Pipe
- Dripper stand and fittings

The IWS dripper system is very flexible as it is easy to add or decrease the number of pots used. Simply pick a tank to suit your requirements and growing area. Then add pots in multiples of 6 (1 dripper extension kit provides you with 6 pots) E.g. if you want an 18 pot dripper kit with a 220 ltr tank:

1. Purchase a 220 ltr tank kit.
2. Add 3 x six pot dripper extension kits.
3. You now have an 18 pot dripper kit.



100ltr Dripper Tank



220ltr Dripper Tank



350ltr Dripper Tank



Dripper Extension Kit



12 Outlet DIG Dripper

A professional 12 pot dripper head from DIG.



BSP Rigid Riser

5cm rigid riser with 1/2 inch bsp threads.



Flood Dripper

Flood dripper ensures a constant delivery of nutrient to your plants. Best used in clay pebbles.



Dripper Stand

IWS dripper stands for bsp rigid riser to secure into.



Dripper Pipe

Special micro dripper pipe for use with the DIG dripper head.



Micro Filter

High pressure dripper filter with easy filter access to micro filter.



Anti Siphon Valve

Anti-siphon valve eliminates water siphoning from tank with out blockages.



Sealing Dripper Caps

Sealing caps for DIG dripper head to block off dripper lines.



BSP Rubber Washers

1/2 inch sealing washers for bsp rigid risers and DIG dripper head.



High Pressure Pump

7000 litre/hr high pressure pump.



Run to Waste Brain

Run to waste bucket controller can be bought separately and used on any system where you need to pump your waste nutrients.



12 Part Dripper Assembly

Fully assembled and ready for use with any high pressure dripper system.

Setting the Flood & Drain Remote Control Timer

The remote control timer unit consists of a mechanical timer, a second/minute selector switch and a feed time dial. The **mechanical timer** has segments that are in 15 minute intervals, and these are set to trigger a feed cycle. Once triggered, the feed cycle is then determined by the time set on the **second/minute selector switch** on the right of the timer unit. As the feed pump is running, the **feed pump LED** will light up green. Once triggered this cannot be changed until the next feed cycle. You can cancel a feed cycle when it is running by switching the second/minute selector switch from minutes to seconds and back to minutes. This will start the drain sequence. It will also cancel any times set on both timers and will not start again until the next fifteen minute segment is reached. You can also manually override the system by switching the **constant switch** on the fifteen minute timer to the top. This will override the feed timer but will only work once. The switch must be put back to the middle setting once the feed has finished.

When the system is running, the top limit float switch in the brain pot will stop the feed pump running and re-start when the water level drops as the growing medium absorbs the nutrient. When the feed cycle is complete, the drain pump will then set running (indicated by the **drain pump green LED**). This will continue to drain the brain pot and allow all the water from the plant pots to drain back until the bottom limit float switch is reached. Each limit float switch has an added feature of dampening (prevents any false triggering caused by ripples in the feed water).

We advise that when you have completely set up your IWS System (including adding your choice of growing medium), and before powering the system up, make sure the second/minute selector switch is in the minute position and no segments on the mechanical timer are pushed out. Then push **one fifteen minute segment** out, turn the **feed time dial** to 60 minutes, then turn the mechanical timer round by hand to the segment you have pushed out on the timer. This will then turn the fill pump on. Time the flood cycle with a watch. When the system has flooded and all the growing medium is saturated, cancel the flood by toggling the second/minute selector

switch to seconds and back to minutes, checking the time it has taken. Set the feed time dial to the time recorded. This is so your plants are never sitting in water for too long, which can cause root disease problems. (Note different mediums have different flood times.)



Mechanical Timer

15 minute segments are set round the outer edge of the timer. The blue circle shows one segment. Push this out to the edge to trigger the timer. The slider switch (constant switch) set to the right on this timer has 3 positions. The top position is on, the middle position is timer operation and the bottom position is off.



Second/Minute Selector Switch

Switch right for minutes and left for seconds. This switch can also be used as a cancel feed feature by switching to the opposite position, and back again. For example if the switch is at minutes and you want to cancel a feed cycle, switch to seconds, and then immediately back to minutes.



Feed Time Dial

Turn dial for desired feed time. If the second/minute selector switch is set to minutes, then the feed time will be in minutes. Similarly, if the second/minute selector switch is set to seconds, then the feed time will be in seconds.



LED Indicator Lights

If the top red Power LED is lit, this indicates that the system has power.

When the green Feed Pump LED is lit, this indicates that the feed pump is on.

When the green Drain Pump LED is lit, this indicates that the drain pump is on.



IWS Minute Timer

The IWS minute/second timer is an easy to operate precision timer which can be switched from seconds to minutes. It has been designed with the grower in mind and gives you a greater degree of control over electronic products without the hassle of digital timers. The minute/second timer has many uses including:

CO₂ equipment, air and water pumps, dripper systems and fan control.

Safety Advice

- Keep away from children, pets and water
- Never run HID lighting from this timer unit
- Do not plug unit into extensions or adaptor sockets
- Never tamper with unit as there are no user serviceable parts inside
- Maximum working load 800W



Set up of IWS minute / second timer

The minute timer must first be plugged into a 15 minute sectional timer which in turn should be plugged into a 240 volt power supply. This will control the mains power to the unit. If you want to run the unit over fifteen minutes then you must push out more than one fifteen minute segment. Follow the examples below:

- Under fifteen minutes 1 fifteen minute segment
- Fifteen minutes - thirty minutes 2 fifteen minute segments
- Thirty minutes - forty five minutes 3 fifteen minute segments
- Forty five minutes - sixty minutes 4 fifteen minute segments

IWS System Growing Advice

Flood & Drain System

Your choice of growing medium should be based on your personal preference as all IWS systems will grow great plants in almost every growing medium on the market today. Your chosen growing medium should have a good air to moisture ratio and be as ph stable as possible.

We have recently run tests of the best growing medium to use and found expanded clay pebbles the best with the benefit of many feeds through out the light cycle. 60% clay / 40% coco was a close runner up with less feeds but using the benefits of coco fibre as a buffer against root diseases.

When using only expanded clay pebbles, always wash pebbles and, where possible, leave to soak in ph balanced water. When feeding use a hydro based feed and feed every 3 hours on 18 hours and every 2 hours on 12 hours. Never let the root zone dry out as this could damage it.

When using coco/pebble mix, add a good layer of straight pebbles to the bottom of each inner pot (the ones with loads of holes in the bottom) and then top up the pots with your mixed growing medium. When feeding, saturate your growing medium and allow to almost dry out until feeding again. When feeding, use a coco based nutrient and as a rule feed once or twice a day on 18 hours and up to 4 times a day on 12 hours. Never let your growing medium dry out as this could cause damage to the root zone. Check with your local retail outlet for instructions on your chosen growing medium

Remember you don't need to feed in the dark period.

Dripper System

Your choice of growing medium should be based on your personal preference as all IWS systems will grow great plants in almost every growing medium on the market today. Your chosen growing medium should have a good air to moisture ratio and be as ph stable as possible. We have recently run tests of the best growing medium to use and found coco fibre a very good medium.

As with all dripper systems a 10 to 20 percent run off is advised, depending on the growing medium being used. Always let your growing medium dry out slightly before delivering your next feed. Never let your growing medium dry out too much as this could cause damage to the root zone. Check with your local retail outlet for instructions on your chosen growing medium.

Remember you don't need to feed in the dark period.



