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RUSH

RDWC

Instructions

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RUSH RDWC instructions

Introduction:
The RUSH system is a high-performance hydroponic growing system that uses the RDWC (recirculating deep water culture) method of growing. Using high quality, large bore flexible pipe, the RUSH system circulates vast amounts of nutrient around the system. The RUSH system also benefits from having air stone locators moulded in to the reservoir tanks to ensure the air stones remain in the under current and within the root mass. The Control Pot used in the RUSH system has an adjustable float level to allow the water levels to be altered by up to 50mm during the growing period.

The RUSH system does not include control taps; this is to ensure the flow rate does not drop at any point, see the maintenance instructions for how to clean the filter and to isolate specific pots.

Finally, rest assured that the vast amounts of water used in the RUSH system will remain exactly where it belongs due to the custom made non-porous gaskets, spanners and nuts.

The RUSH system is available with 2 sizes of reservoir and 3 'plant centre' distances. The table below shows the available configurations:

	62cm Pot Centres	82cm Pot Centres	100cm Pot Centres
40L (60cm x 50cm)	✓		
60L (80cm x 50cm)		✓	✓

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Hints and Tips

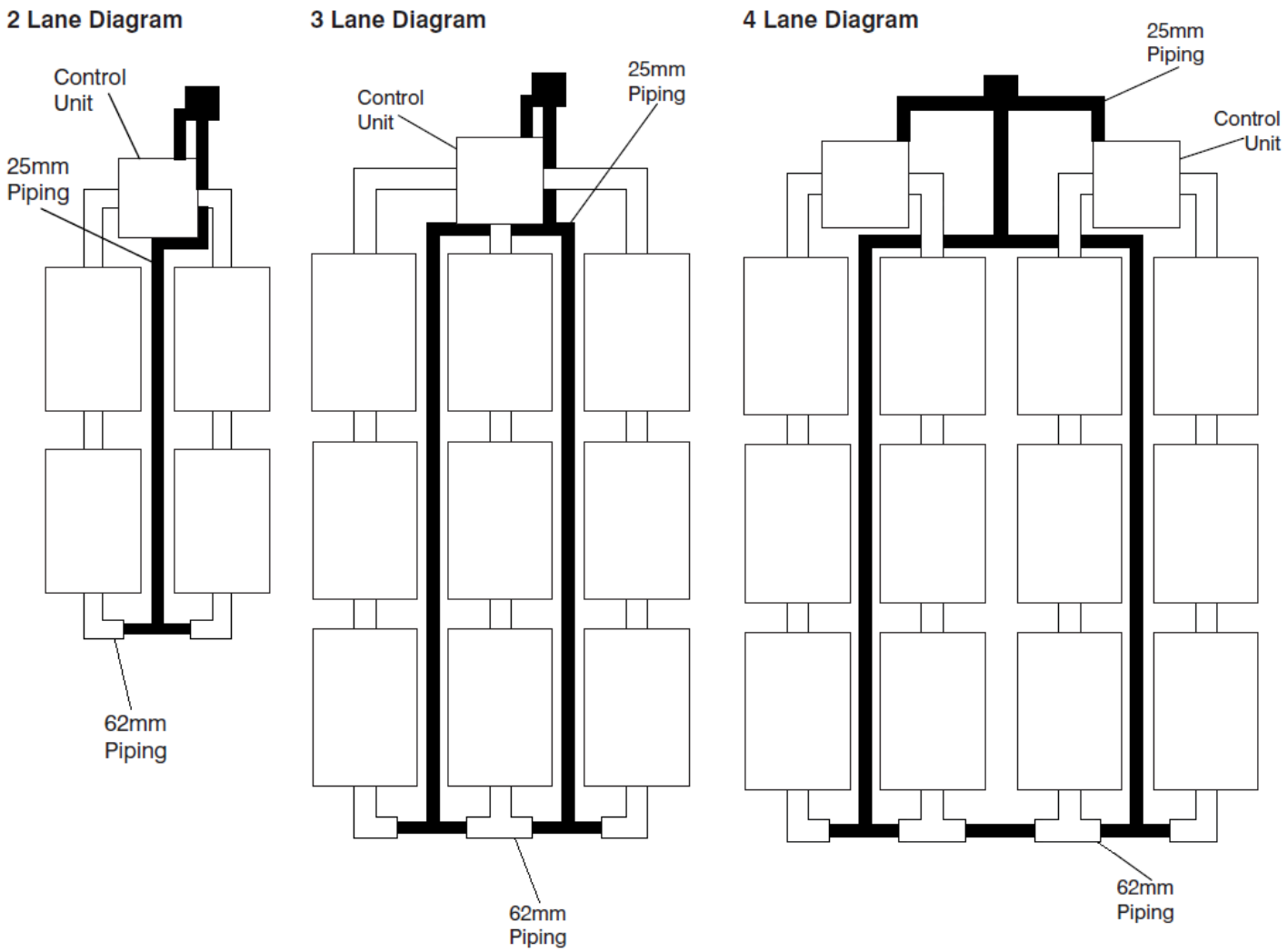
Maintain a consistent water temperature - Between 18°C and 22°C is optimal. Connect RUSH to a chiller to help maintain the temperature of your nutrient solution. This can be done by detaching the pipe at the control pot from the pump and connecting to a chiller instead, the chiller outlet then needs to connect to the Control Pot. It is important to remember that the recirculation rate would be governed by the chiller pump and not the water pump included in the RUSH system.

Monitor your water levels - Maintained a high water level during growth and bloom periods. In the later parts of bloom and as roots fill the reservoir, water levels can be slowly adjusted. Doing this in late bloom helps to speed up flower formation.

Nutrient Strength - It is recommended that you start your grow with nutrients that are between ¼ and ½ strength of the nutrient manufacturers standard recommendations. When starting with rooted cuttings transplant into the system at 0.3 EC increase 10-20% per week based on plant performance.

Room Considerations - Make sure that conditions in the grow room are optimised to give you the best chance of success. This includes maintaining a temperature and humidity that suit the plant. Also, make sure that enough light is present for the plant. Try to replicate day and night time lighting. Finally, remember to make sure that there are adequate levels of water.

Layout guide:



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	Number of Pot Set									
Components	**4**	**6**	**8**	**9**	**10**	**12**	**16**	**18**	**20**	**24**
Pot modules	4	6	8	9	10	12	16	18	20	24
Pot lids	4	6	8	9	10	12	16	18	20	24
Baskets	4	6	8	9	10	12	16	18	20	24
Control pot	1	1	1	1	1	2	2	1	2	2
Water butt and connectors	1	1	1	1	1	1	1	1	1	2
Starter elbows (63mm)	2	2	2	2	2	4	4	4	4	4
Pot straights (63mm)	2	4	6	7	8	8	12	15	16	20
End elbows (63mm - 25mm)	2	2	2	2	2	2	2	2	2	2
End tees (63mm - 25mm)	0	0	0	1	0	2	2	1	2	2
Kit bag (filter, caps connectors, 25mm tee, spanners)	1	1	1	1	1	1	1	1	1	1
Water pump	1	1	1	1	1	1	1	1	1	1
Air pump	1	1	1	1	1	1	1	1	1	1
Air kit	1	1	1	1	1	1	1	1	1	1

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SET UP INSTRUCTIONS

Place the Control Pot and the Tanks roughly in the position that they will be used.

For the 2 Lane and 4 Lane versions:

Remove the nuts and one washer from each end of the 63mm starter elbow.

Push one threaded end of the nut into the centre hole in the control pot and the other end into the tank nearest the control pot.

Place the washer back over the thread and fasten the nut using the spanner provided.

Go to Step 3

For the 3 Lane:

Remove the nuts and one washer from each end of the two 63mm starter elbows and 63mm Straight pipe (2.1).

Push one threaded end of the 63mm Straight pipe into the centre hole in the Control Pot and the other end in to the tank nearest the control pot (See diagram 2 on end page).

Then connect the two 63mm Starter Elbows to the Control Pot and then to the left and right lanes. Once all are connected, place the washers over each of the threaded ends and fasten the nuts using the large spanner provided.

Connect all additional Tanks in the lane together using the Straight Connectors following the same method with the washers and nuts.

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At the end of each row, fasten the End Elbow Connectors to the tanks.

If using the 3 lane…
The two outer lanes (63mm Elbows) need to be connected to the central lane (63mm Tee). Connect the 63mm End Elbows and the 63mm Tee to the two 25mm Tees using 25mm pipe, ensure that the 25mm Tee is central between the outer lanes.

If using 4 lane…
At the end of each row fasten the 63mm End Elbow and 63mm End Tee Connectors to the tanks. The outer lanes need to be connected with Elbows and the inner lanes need to be connected with the Tee. Using the 25mm Pro Pipe, connect the End Elbows to the 25mm Tee, the 25mm tee should be central between the two outer lanes.

Remove the Water pump (NJ) from the box and assemble the connectors and suction feet by following the instructions provided in the box.

Connect one end of the filter to the pump inlet and the opposite end to the 25mm Tee ensuring that the arrow on the filter is pointing towards the pump.

Connect the pump outlet to the external control pot elbow using the 25mm pipe. Maintain a smooth ark in the piping, with no kinks in the piping from the water pump to the control unit.

If using the 4 lane layout, the 25mm pipe needs to first be connected to a 25mm tee and then connected to both of the control pots external elbows

Fit the manifold to the air pump using the rubber elbow.

	Place an air stone in each tank in the moulded locator directly under where the basket will sit.
	Connect each of the air stones to the manifold using the airline tubing.
	Assemble the Water butt following the instruction within the box then connect the water butt to the float valve connector on the control pot using the connector provided.
	Place lids onto the reservoirs and the baskets into the locators.

Maintenance:

Cleaning the filter

- Turn off the water pump
- Insert the red blanking caps in to the reservoir outlet ports closest to the filter(s) (last in the row).
- Place a small tray under the filter to catch any water from the pipes.
- Unscrew the filter connection closest to the brain pot and place the pipe in to the nearest reservoir; this will prevent any back flow from the control pot
- Unscrew the filter connection closest to the 25mm Tee at the end of the row. A small amount of water will run out of the pipe in to the catchment tray.
- Unfasten the large nut which is part of the filter body and pull out the cylindrical filter mesh
- Clean the filter with warm water
- Fit the mesh back to the large nut and fasten securely
- Re-attach the two pipes
- Remove the caps from the reservoirs
- Turn on the water pump

Individual pots can also be isolated and emptied by fitting a blanking cap to both the inlet and outlet port and then pumping the water out with a separate water pump. The system does not need to be shut down to do this but the flow of water will only be through the other lanes until the caps are removed and the water flows back in to all of the pots.

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