

# VISIONS 3000 WATER ZONES

LINUX 2.52



## Water zones



You can configure Water Zones from the **setup dialog**.

To edit Water Zones, you must first be logged in as the supervisor

Supervisor

test.efi



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### Accessing the Zone Names Page

From the home screen or the main run-screen, in monitor-mode or run-mode, press the setup button, then the "General Settings" icon, then the "More" icon, then the "Zone Names" icon.



A VISIONS 3000 hot runner controller fitted with a WaterFlo interface & Smart Manifold can monitor the temperatures and flow rates of one or more coolant circuits in the tool.

- If your VISIONS 3000 hot runner controller is equipped with the ITC WaterFlo interface & Smart Manifold it will have the WaterFlo interface mounted on the side of the controller and the temperature and flow rate sensors connect directly to these.
- Alternatively, your tool may have been fitted with one or more Smart Manifold water manifolds, in which case the VISIONS 3000 controller connects to the WaterFlo MFIO unit using a single USB cable.

Monitoring the water circuits in the tool can help protect the mold, improve molding efficiency and produce higher quality parts.

Data collected from the water-zones is stored in the controller's history database, and can be graphed.



### Setup Zones:

You can select the number of Water Zones to be monitored.

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Water-zones have no setpoint, are colored blue and display a water-droplet next to the flow-rate box. You cannot select water-zones for editing.

- You can choose the flow-rate units in gallons per minute or liters per minute.
- If you have Smart Manifolds, you can select which type (1 or 2) are present. This sets the minimum and maximum flow-rates of the sensors.



## Configure Zones

You can configure and calibrate individual water zones by selecting this icon. You will be asked which zone you want to configure, or if you want to configure all the zones at the same time.

Choose a Water-Zone to configure.  
Enter '0' to configure ALL water zones.

Maximum : 8

Escape Del Clear

7	8	9
4	5	6
1	2	3
0		Enter

Currently there are 8 zones fitted.

Some of the configuration options are specific to each zone, so if you select '0' to configure all zones, some options will not be visible. Some options are specific to the WaterFlo or VISIONS 3000 zones and will not be visible.

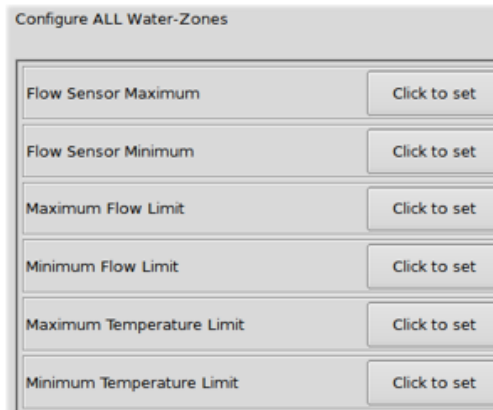
Configure Water-Zone < 1 >

Zone Type	Temperature and Flow
Flow Sensor Maximum	300 LPM
Flow Sensor Minimum	0.00 LPM
Flow Sensor Offset	20.00 %
Flow Calibration Factor	98.01 %
Maximum Flow Limit	100 LPM
Minimum Flow Limit	5 LPM
Maximum Temperature Limit	80°C
Minimum Temperature Limit	2°C



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Configure ALL Water-Zones	
Flow Sensor Maximum	Click to set
Flow Sensor Minimum	Click to set
Maximum Flow Limit	Click to set
Minimum Flow Limit	Click to set
Maximum Temperature Limit	Click to set
Minimum Temperature Limit	Click to set

When configuring a single zone, you can easily change the current zone using the forwards and backwards buttons.

- **Zone Type.** You may only be interested in the temperature, just the flow, or both. This option allows you to change the appearance of the display in run-mode or monitor-mode.
- **Flow Sensor Maximum and Minimum.** These settings should match the full-scale values for the sensor(s) in use. You can have different values for each zone, though it is more likely that you have the same sensors installed for every zone. You can find these values in the datasheet for the sensors.
- **Flow Sensor Offset and Calibration Factor.** These settings allow an ITC engineer to calibrate each zone, and should not be changed except when directed by ITC. If you think there is a problem with the calibration of your ITC water-zone module, contact us.
- **Maximum and Minimum Flow Limit.** These are alarm levels. If the flow-rate exceeds the maximum or falls below the minimum, an alarm condition is triggered. You can configure the controller to take action when these alarms are triggered. A good use of the minimum level is to ensure that the tool is not heated without the water turned on.
- **Maximum and Minimum Temperature Limit.** These alarm levels refer to the zone's water temperature.



## Alarm Actions:

Just as with the temperature-controlled zones, you can configure the controller to take action when one of the water-zone limits is exceeded.

The controller is able to detect the following water-zone alarms:

- **Open Thermocouple.** The controller cannot read a water-zone's temperature.
- **Reversed Thermocouple.** The temperature readings from the water-zone are incorrect.
- **Temperature Over-Limit and Under-Limit.** The water-zone's temperature is out of limit.
- **Open Flow-Sensor.** There is a problem with the sensor, or the cable connecting it to the controller.

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- **Flow Rate Over-Limit and Under-Limit:** The water zones flow-rate is out of limit.

The VISIONS 3000 controller can take various actions when the alarm conditions are out of limit.

- **Ignore:** Take no action.
- **Alarm:** The controller triggers the **Alarm Relay**, which is connected will sound the external machine alarm, start the alarm indicator lamp and stop the machine. The controller will continue to maintain temperature and the Alarm Warning Dialog will be placed on the screen.
- **Standby:** All zones are placed in Stand-by Mode, the Alarm Relay is toggled and the Alarm Warning Dialog is placed on the screen.
- **Shutdown:** The VISIONS 3000 controller turns all zones off, the Alarm Relay is Toggled and the Alarm Warning Dialog is placed on the screen.

You can tell when an alarm is active in the normal way, just as if a temperature control alarm has been triggered.

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