



DEMA-CRAFT 60L BREWING SYSTEM



INSTRUCTION MANUAL



Hello & Welcome. Thank you for purchasing Dematech's Dema-Craft 60l. Please follow the instructions and safety precautions carefully in this manual to get the best use from our brewing system. We highly suggest that you use this process for your first few batches before adjusting your brewing style.

Safety Instructions

- | | | | |
|----|--|----|---|
| 01 | Read all the instructions carefully & keep this manual for future reference. | 05 | Never submerge the brewing vessel. To clean the exterior, use a damp cloth. Always protect the electric power cable from water. |
| 02 | Check the product's rating label & make sure the brewing vessel voltage is fit for your outlet voltage before use. This appliance requires a 13amp-16amp plug. | 06 | Do not switch on the machine if the vessel is empty. The machine does have a dry-boil cut-off switch to turn the element off if it overheats (when there is no water) but the element & electronics may still be damaged. The warranty does not cover damage due to dry-boil. |
| 03 | Do not use this device if the cord or plug is damaged. | 07 | Switch off the brewing vessel correctly before removing the plug. |
| 04 | Do not turn the pump on for more than 5 minutes at a time during wort boiling (bubbles will cause the pump to idle & wear out under high temperature). It is not recommended to use the pump for pumping out the wort after cooling (rather use the tap on the front of the unit). Hops & trub may enter the pump, potentially blocking & damaging the system. | 08 | Only move the brewing vessel when the power is shut off & it is empty (no water inside the unit). |



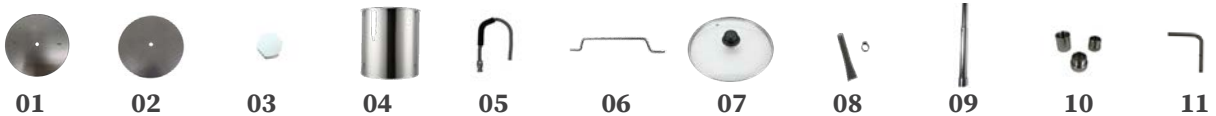


What's in the box?



PARTS

- | | | | |
|-----------|---------------------------------------|-----------|---|
| 01 | Top sparge plate for grain basket | 07 | Glass lid cover with hole for circulation |
| 02 | Bottom sparge plate for grain basket | 08 | Filter tube |
| 03 | White screw cap cover | 09 | Telescopic overflow tube for half batches |
| 04 | Grain basket | 10 | Screw nut |
| 05 | Circulation pipe (Cam-lock connector) | 11 | Bottom small tube |
| 06 | Grain basket handle | | |



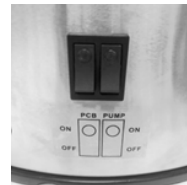
ADDITIONAL ACCESSORIES

- | | |
|-----------|------------------|
| 01 | 13m Chiller coil |
| 02 | Whirlpool arm |
| 03 | Hop spider |
| 04 | Grain paddle |
| 05 | Thermowell |

Operating Instructions

Switch Operation:

The switch “PCB” is the ON/OFF switch for the power to the digital controller that controls the heating elements. The switch “PUMP” is the ON/OFF switch for the pump. The red light is visible when switched on.



SWITCH ON



SWITCH OFF



CLOSED



OPENING



OPEN

Tap Operation:

To OPEN, pull the safety latch upwards and turn the lever 90° counterclockwise. To CLOSE, pull the safety latch up and turn the lever clockwise by 90°.

Valve Operation:

This valve is to open and close the wort circulation from the pump. It is also used to adjust the wort flow during mashing.



Circulation tube assembly:

Adjust the flow rate using the blue valve. If the flow is too fast, the grain basket will overflow down the central pipe, and the bottom of the boiler may run dry. Adjust the flow until the flow from the pump matches the speed at which the wort flows through the grain. This may need to be adjusted during the mash.



Insert circulation pipe into the cam-lock connector



To lock, push the Cam-lock levers down



Now it's locked & ready to use



Direct the hose through the glass lid



Grain basket overflow assembly:

Secure the overflow pipe into the bottom sparge plate by inserting the larger, threaded end of the overflow pipe through the hole in the bottom plate and securing the nut from the bottom. Make sure that the nut is only finger tight. Then attach the smaller nut on the top of the overflow pipe.

The white grain stopper cap is only used while mashing in so that the milled grain cannot fall into the overflow pipe. Remove this cap when all grains have been added.



Components prepared



Use the screw to connect the bottom sparge plate with telescopic overflow tube



Install the top sparge plate; white screw cap cover at the top

Valve Operation:



Use the handle to lower the grain basket into the Demacraft. Make sure that the supports on the basket are hooked onto the support ring



When adding the mash water and grains, remove the top sparge plate and add the grain stopper



When the mashing is completed, use the handle to lift the grain basket up and hook its bottom



Bazooka mesh filter assembly on tap

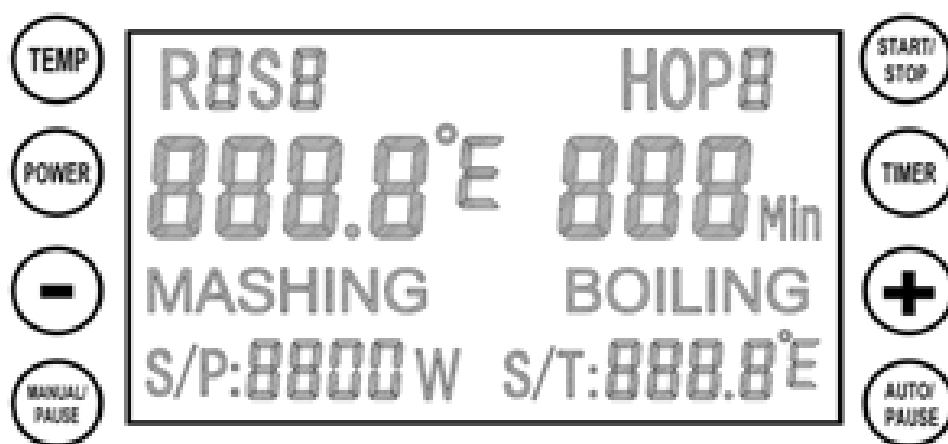


Bottom little tube assembly

Note: Please insert this tube into the pump before using the machine to prevent the malt from clogging the pump inlet.

How to use the controller?

Control Panel and Key Functions



Temp button

Press to set target temperature for each step

Power button

Press to set power for each step

Timer button

Press to set timer for each step

- button

Press to reduce the value

+ button

Press to increase the value

Start/Stop

Press to start or stop the program

Manual/Pause

Press to enter manual mode

Press to pause the program on manual mode

Auto/Pause

Press to enter auto mode

Press to pause the program on Auto mode

S/P: W

Set the power

S/T:

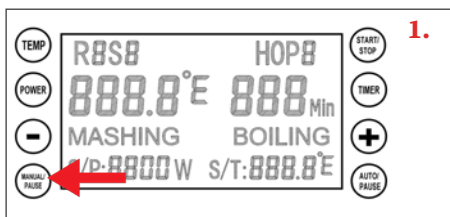
Set the temperature

-H

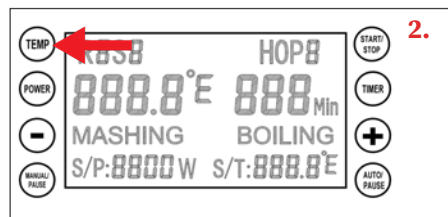
When flashing, the brewing vessel is heating up to the target temperature

Manual mode settings

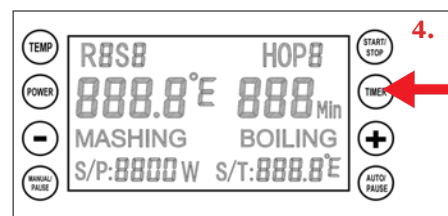
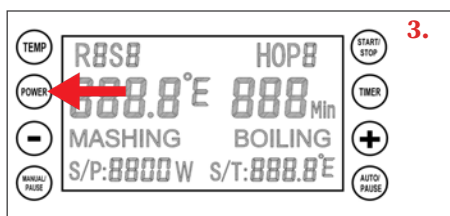
1. Switch on the PCB switch, then press the MANUAL/PAUSE button to enter manual mode.



2. Press the TEMP button. The temperature set-point (S/T: XX.X°C) at the bottom right of the screen will flash and you can use the - and + buttons to set your temperature.



3. Press the POWER button. The power set-point (S/P: XXXXW) at the bottom left of the screen will flash and you can use the - and + buttons to set your wattage. We recommend 3000W for raising temperature up between steps. 1500W during your mashing phase to maintain mash temperature. And once boiling, drop to 2500W to maintain a rolling boil.



4. Press the TIMER button. The time (XX min) at the top right of the screen will be flashing and you can use the - and + buttons to set your countdown timer. Once the TEMP, POWER and TIMER have been set, press the START/STOP button to start the machine. The H - symbol at the top left of the screen will flash to show that the machine is heating. The machine will then heat the liquid up to your temperature set-point. Once it reaches the set-point, the machine will chime and start the countdown timer while maintaining the set-point temperature. The time will flash while the timer is counting down.

NOTE:

The H - symbol will continue flashing even when the elements are off. Once the timer reaches zero, the machine will chime and the word END will flash on the screen. Press the START/STOP button to stop the chime. To edit any of the TEMP, POWER or TIMER settings, press the MANUAL/PAUSE button again. To return to your program after adjusting any of the settings, press the MANUAL/PAUSE button again.





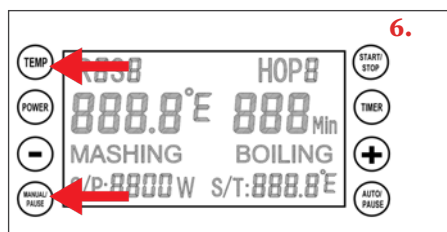
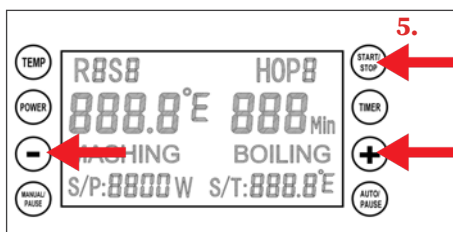
DEMA-CRAFT

5. The default boiling temperature is 100 °C. The timer will not be triggered if temperature does not indicate 100°C .

If the machine starts to boil, but shows a lower temp on the display (i.e. if you are brewing at a higher altitude than sea level), make the following adjustment to set the temp at 100 °C and trigger the timer.

Press START/STOP until only the temperature is displayed on the screen. Press “-” and “+” button together for 5 seconds and then release, the display will show the C1 (temperature offset for celsius) or F2 (temperature offset for fahrenheit).

Press the MANUAL/PAUSE button until the display shows C2 (boil temperature offset for celsius) or F2 (boil temperature offset for fahrenheit). Temperature correction range is from 0 to +10 or 0 to +50. If you set C2 to 6 then the unit will begin the boiling stage of the program at 94 °C.

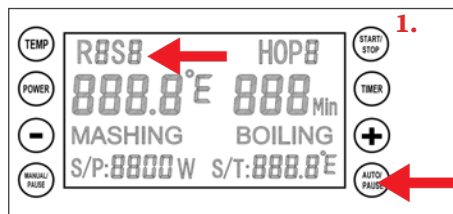


6. Press MANUAL/PAUSE button during heating to go back to the edit page. You can edit Temp/Power/Timer, then press the MANUAL/PAUSE button again to resume.

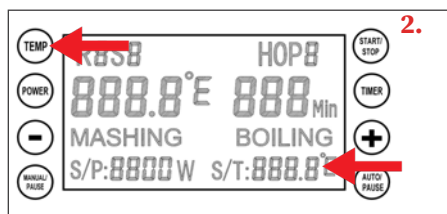
NOTE: Long press TEMP for 5 seconds, to switch between degrees Centigrade and Fahrenheit. This operation only can be preceded when you switch on the machine before any setting.

Auto mode settings

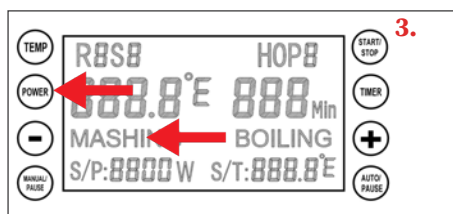
1. Switch on the PCB switch, then press the AUTO/PAUSE button to enter auto mode. S1 (Stage 1) will be displayed in the top left corner of the screen.



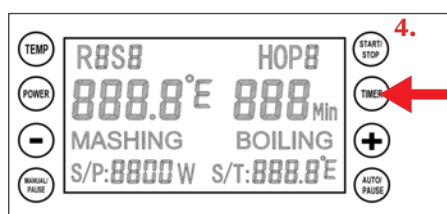
2. Press the TEMP button. The temperature set-point (S/T: XX.X°C) at the bottom right of the screen will flash and you can use the - and + buttons to set your temperature.



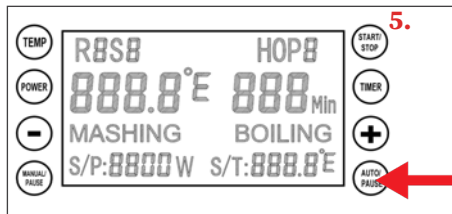
3. Press the POWER button. The power set-point (S/P: XXXXW) at the bottom left of the screen will flash and you can use the - and + buttons to set your wattage. We recommend 3000W for raising temperature up between steps. 1500W during your mashing phase to maintain mash temperature. And once boiling, drop to 2500W to maintain a rolling boil.



4. Press the TIMER button. The time (XX min) at the top right of the screen will flashing and you can use the - and + buttons to set your countdown timer.



5. After you have set the parameters for S1, press AUTO/PAUSE button again. S2 (Stage 2) will be displayed in the top left corner of the screen. Set the TEMP, POWER and TIMER parameters as above.



7. The step where you set the temperature to “boiling” will always be the last step in the program and all subsequent steps will be ignored.

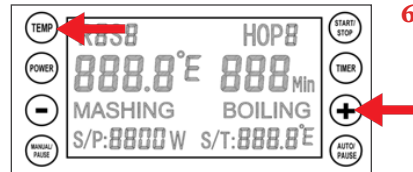
9. When you have entered all of your steps, press the START/STOP button to confirm the above step mashing settings.

10. At the end of each step, the machine will chime and will not proceed to the next step until AUTO/PAUSE is pressed.

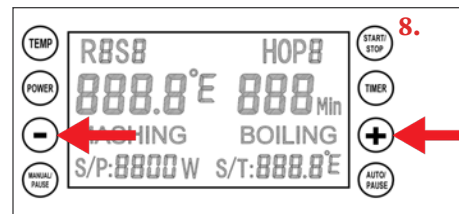
11. Pressing the AUTO/PAUSE button will stop the element and timer working temporarily and pause the current step, while paused you can edit the settings for the step. Press AUTO/PAUSE to continue.

6. Repeat this process for S1 through S9.

When you have programmed all of the mashing steps for your recipe, press the temp button and then the + button. When the temperature reaches 100C °C (or lower if you changed the C2 value) the program will go into the boiling step.



8. After setting the boiling step, you can set the hop reminders. Press - or + to set the time at which the hop reminder will chime. Setting it at 60min means that the reminder will chime 60 minutes BEFORE the end of the boil. Press the TIMER button to set further hop reminders (up to 9 in total). The reminder for the first hop addition cannot be longer than the boil time (i.e. you cannot have a 60 min reminder if your boil time is 30 min).

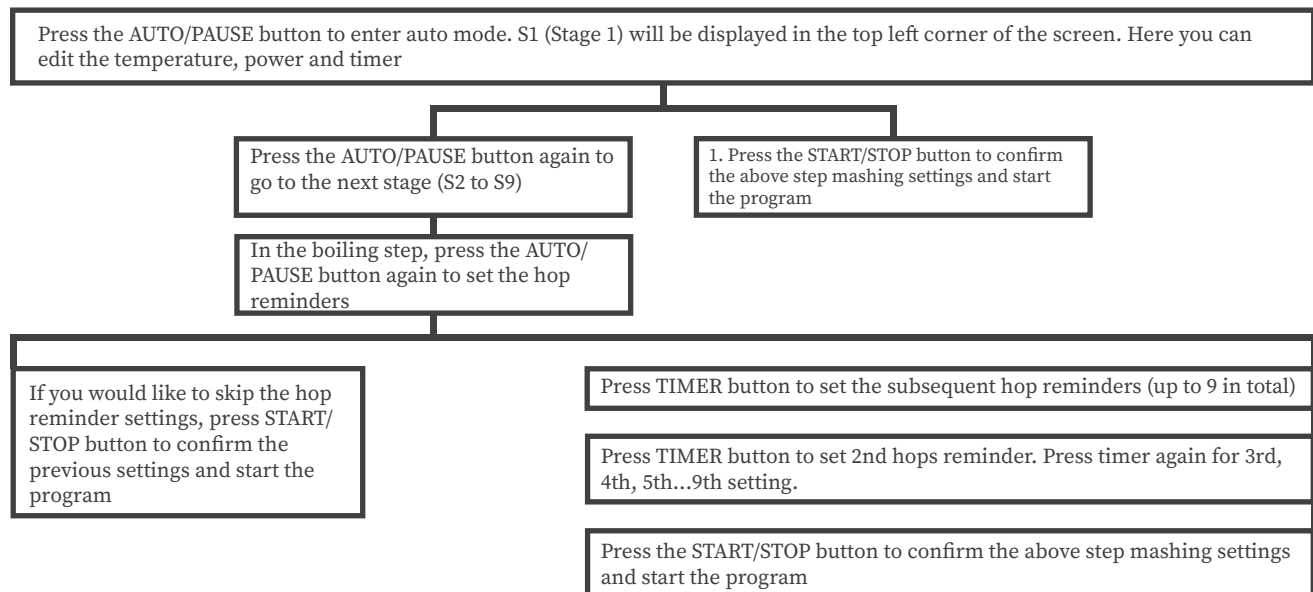


12. Press the START/STOP button when in auto mode to skip the current step.

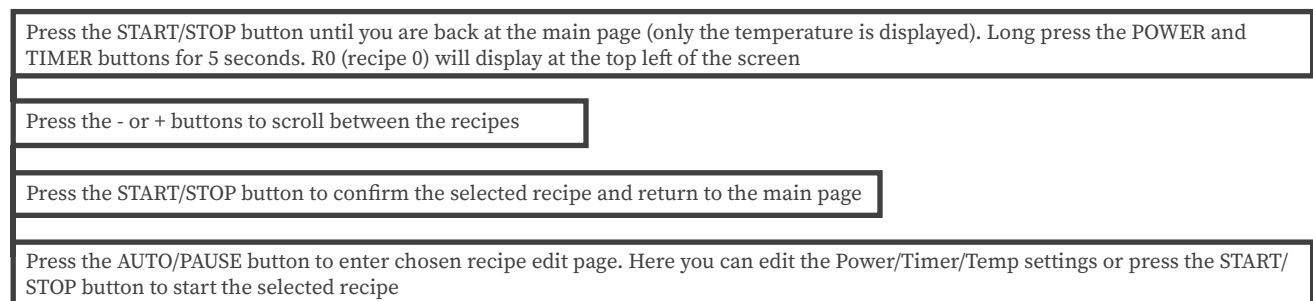


Saving brewing recipes

1. After setting your brewing recipe in auto mode, press STOP button until you are back at the main page (only the temperature is displayed).
2. Press MANUAL/PAUSE button to enter the manual mode edit page
3. To save the settings that you have just set in auto mode, long press the MANUAL/PAUSE button for 5 seconds then release it. The machine will chime to confirm that the settings have been saved.
4. To start a new brewing recipe, go to the main page (only the temperature is displayed) and long press the POWER and TIMER buttons for 5s. R0 (recipe 0) will display at the top left of the screen.
5. Press “-” or “+” to scroll between the recipes. Press the Start/Stop button to confirm the selected recipe and return to the main page.
6. Press the AUTO/PAUSE button to enter the chosen recipe edit page and then you can proceed as above.



Recipe selection in auto mode



LET'S GET BREWING!

Make sure that the brewing vessel is positioned on a stable and secure surface before brewing as a full vessel contains boiling hot liquids and can weigh up to 70kg

Feel free to contact one of our experienced brewmasters for advice & suggestions as well as exciting brewing recipes in various beer styles. We also offer a wide range of ingredients that work perfectly for the Dema-Craft 60l. Visit our website at www.dematechsa.com or reach out at info@dematechsa.com. Follow the brewing process example on this page for your convenience.

- Always clean the brewing vessel before and after use.
- Attach the Bazooka filter to the inside tail of the tap using the included hose clamp.
- Add the required quantity of strike water before switching the brewing vessel on.
- Insert the bottom sparge plate into the malt pipe and then insert the malt pipe into the brewing vessel.
- Heat up the water to your strike temperature in either manual or auto mode.
- Add the milled grain into grain basket and stir it gently.
- Once your grain is well mixed and completely saturated, gently place the top sparge plate on top of your mash.
- Switch on the pump to circulate the wort through your grain bed. If the wort is over flowing through the central overflow pipe, reduce the pump flow by using the blue valve.
- After mashing, carefully lift the malt pipe with the included handle, and gently set the feet of the malt pipe down onto the support ring on the boiler.
- If you are sparging, you can gently pour your sparge water into the malt pipe and let it run through your grain. Leave the grain to drain into boiler for at least 10mins after sparging before removing.
- Heat up the wort to boiling temperature.
- Add the hops etc. at the correct times according to your recipe.
- Immerse your wort chiller into the boiling wort 10 minutes before the end of the boil to sanitise it.
- After the boil is finished, cool down the wort to the pitching temperature stated in your recipe before transferring to your fermenting vessel via the tap and bazooka filter on the front of the machine.



Follow this maintenance guide:

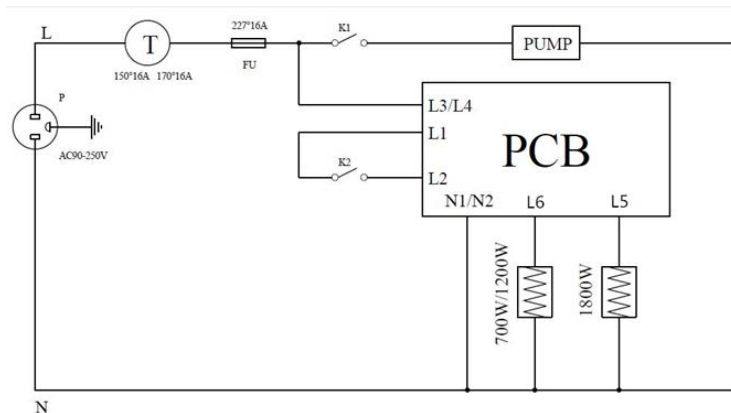
- Place 10-20L of water into the machine and heat to 60C. Dissolve a brewing cleaner such as Demaclean into the warm water and recirculate it through the pump for 15 minutes while you clean the inside of your Demacraft with a soft cloth.
- Do not use sharp metal implements to remove any residue. Use a soft cloth or soft scouring pad to clean the inside of the boiler.
- Any wort residue on the base of the boiler should be cleaned off before next use.
- After cleaning rinse the machine well, including flushing the pump by connecting a hose to the pump outlet.
- Do not get water on any electronic parts of the machine.
- Do not immerse the machine in water.
- To clean the outside of the brewing vessel, simply use a damp, soft cloth.



Troubleshooting tips

Ingredients stuck in the pump	Flush the pump by connecting a hose to the outlet of the pump. If that fails, dismantle the pump to remove the ingredients
Failing to reach 100	Put the lid on to see if it comes to a boil. If that fails, do a temperature correction as described below
C1-- temperature offset	Press “-” and “+” at the same time enter into the C1 temperature correction setting. Setting range is from -10 to +10. This is a temperature offset if the probe is reading the temperature incorrectly
C2-- boiling point offset	Press “-” and “+” at the same time enter into the C1 temperature corrected setting and then press the AUTO/PAUSE button to enter into the C2 temperature correction setting. This is a temperature offset for the boiling
ERR-1 shown on display	This error is displayed if the temperature reading is lower than -20 °C. This is most often due to a loose probe connection. To rectify, open the bottom of the machine and check if the sensor is loose
ERR-2 shown on display	This error is displayed if the temperature reading is higher than 120 °C, it is an overheat/boil-dry warning temperature only

Electric Circuit



What temperature should you boil at?

Check your location elevation here:

www.whatismyelevation.com

Next, check the below list to see which temperature you should boil at.:

Altitude in meters	Altitude in feet	Temperature in deg C	Temperature in deg. Fahrenheit
0 m.	0 ft.	100 °C	212 °F
152 m.	500 ft.	99.5 °C	211 °F
305 m.	1000 ft.	99 °C	210 °F
457 m.	1500 ft.	98.5 °C	209 °F
610 m.	2000 ft.	98 °C	208 °F
762 m.	2500 ft.	97.5 °C	207 °F
914 m.	3000 ft.	97 °C	206 °F
1067 m.	3500 ft.	96 °C	205.5 °F
1219 m.	4000 ft.	95.5 °C	204 °F
1372 m.	4500 ft.	95 °C	203.5 °F
1524 m.	5000 ft.	94.5 °C	202 °F
1676 m.	5500 ft.	94 °C	201.5 °F
1829 m.	6000 ft.	93.5 °C	200.5 °F
1981 m.	6500 ft.	93 °C	199.5 °F
2134 m.	7000 ft.	92.5 °C	198.5 °F
2286 m.	7500 ft.	92 °C	198 °F
2438 m.	8000 ft.	91.5 °C	197 °F
2591 m.	8500 ft.	91 °C	196 °F
2743 m.	9000 ft.	90.5 °C	195 °F
2895 m.	9500 ft.	90 °C	194 °F
3048 m.	10000 ft.	89.5 °C	193 °F



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DEMATECH IS A TURN-KEY SOLUTION PROVIDER TO THE CRAFT BEER AND SOFT DRINK INDUSTRY OFFERING EVERYTHING FROM BREWING EQUIPMENT TO BOTTLING LINES AND PROCUREMENT SERVICES



At Dematech we provide top quality solutions for the processing & packaging of beverages