
BrewSculpture™

Digital Tippy Dump XL



Part Number 2050DV4NG





Congratulations on your purchase of a MoreBeer! Tippy Dump Brew Sculpture. MoreBeer! Brew Sculptures represent the very best brewhouses available to the home brewer. The following pages will outline the process of unpacking and assembling your Brew Sculpture, setting it up for each phase of the brew day, and testing it's systems prior to the first brew. **Please read this document completely before assembling or testing your Brew Sculpture.**

Inspection

First, verify that your system has arrived complete and that you have all the parts listed below. If anything is missing, or appears to be damaged, please contact our Customer Service Team at 800-600-0033 so that we can correct the issue.

- A) Brew Sculpture frame with Tri-Clamp mount for Control Panel
- B) Touchscreen Control Panel
- C) Control Panel Mounting Hardware
 - 1) 1.5" Tri-Clamp Tee, x2
 - 2) 1.5" Tri-Clamp Elbow, x1
 - 3) 1.5" Tri-Clamp Gasket, x4
 - 4) 1.5" Tri-Clamp, x4
- D) Copper Heat Exchanger
- E) Sparge Arm assembly with Float Switch
- F) Pump Assembly with attached manifold
- G) Hose Set, consisting of
 - 1) 90" Hose, x1
 - 2) 40" Hose, x2
 - 3) 32" Hose, x1 *The 32" Hose will only have a Quick Disconnect Fitting on one end, the other is open
- H) Boil Kettle Package, consisting of
 - 1) Boil Kettle w/ Custom Whirlpool Fitting & pre-installed Whirlpool Maximizer
 - 2) ½" Stainless Ball Valve w/ male Quick Disconnect, x2
 - 3) Dial Thermometer w/ 2" Probe
 - 4) Boil Kettle Digital Temperature Sensor
- I) Mash Tun Package, consisting of
 - 1) Kettle w/ Custom Tippy Supports & pre-installed False Bottom Assembly
 - 2) ½" Stainless Ball Valve w/ male Quick Disconnect
 - 3) Dial Thermometer w/ 6" Probe
 - 4) Mash Tun Thermowell
 - 5) Mash Tun Temperature Probe
- J) Hot Liquor Tank Package, consisting of
 - 1) Hot Liquor Kettle w/ pre-installed Maximizer
 - 2) ½" Stainless Ball Valve w/ male Quick Disconnect
 - 3) Dial Thermometer w/ 2" Probe
 - 4) Hot Liquor Tank Float Switch/Temperature Probe Assembly

Assembly

Assembling the system requires only a single crescent wrench. All threaded parts should be pre-taped with Plumber's Tape for your convenience. Parts should be tightened until snug, but not with excessive force applied.

First, assemble the Boil Kettle

1. Install the two ball valves onto the male-threaded fittings that are welded into the kettle's exterior.
2. Install the Thermometer into the female-threaded fitting on the kettle's exterior.
3. The Boil Kettle will install into the left side burner on the brewing stand.
4. Place the temperature sensor in the boil kettle by hanging it over the kettle's rim. Remove the silicone plug from the kettle lid's notch to accommodate the sensor's bracket.



Second, assemble the Mash Tun

1. Install the ball valve onto the male-threaded fitting on the bottom front of the kettle.
2. Install the Thermometer into the female-threaded port on the exterior of the kettle, directly above the ball valve.
3. Install the shielded thermowell into the port to the right of the analog thermometer in the Mash Tun.
4. Install the Sparge Arm on the upper lip of the kettle and tighten it in place.
5. The Mash Tun installs above the upper burner. Place the Tippy Supports into their cradles on the stand with the valve facing left, towards the Boil Kettle. You may want to ask a friend to help by pulling out the set pin while you set the kettle in place.
6. Once the Mash Tun is in place on the Sculpture Frame, insert the Mash Tun Temperature Probe into the thermowell.

Next assemble the Hot Liquor Tank

1. Install the ball valve onto the male-threaded fitting on the bottom front of the kettle.
2. Install the Thermometer into the female-threaded port on the exterior of the kettle.
3. Insert the copper Heat Exchanger into the Hot Liquor Tank, taking care to avoid damaging the Thermometer's probe.
4. The Hot Liquor Tank installs on the remaining, lowest burner on the stand.
5. Install the Float Switch/Temperature Sensor in the Hot Liquor Tank by hanging it over the kettle's rim. Remove the silicone plug from the kettle lid's notch to accommodate the sensor's bracket.

Mount the Control Panel to the frame

Tri-Clamp connections are a type of pipe fitting used in most commercial breweries in the US. The Tri-Camp system consists of two flanged fittings that both have a grooved face, which are pressed together with a ridged gasket between them such that the gasket's ridge fills the fittings' grooves. A clamp is then secured around the outside of the connected fittings to hold them in place.

1. Connect one of the 1.5" Tri-Clamp Tees to the Sculpture Frame, with the "long" side connected to the frame and the "tee" portion pointing to the right, parallel with the ground.
2. Connect the 1.5" Tri-Clamp Elbow on the end of the Tee opposite the Sculpture Frame so that it points upward.
3. Connect the second 1.5" Tri-Clamp Tee to the other side of the elbow via the "long" side of the tee, and with the "tee" portion facing outwards, away from the Sculpture Frame.
4. Finally, connect the Control Panel to the end of the Tee that is facing upwards.

Connect the Wiring

Connect the wires coming from the Temperature Sensors, Sparge Arm and the Digital Hot Liquor Burner to their respective leads on the Control Panel. The connections are color coded as follows:

1. Green: Mash Tun Temperature Sensor
2. Red: Mash Tun Float (Sparge Arm)
3. White: Boil Kettle Temperature Sensor
4. Blue: Hot Liquor Tank Temperature Sensor/Float Switch Combo
5. Yellow: Digital Hot Liquor Burner
6. Plug the Pump's power cord into the 110V outlet lead labeled PUMP 2.

**Note: You can wrap the connecting wires around the open ends of the 1.5" Tri-Clamp Tees that form the support for the Control Panel. This will keep the cables tidy and out of the way of the system's flames*

Install the Pump Assembly by sliding the pump's base into the bracket on the lower left front of the sculpture frame, with the pump head (the part with the fittings attached) facing RIGHT.

Connect an extension cord to the control panel and plug it in to the wall, and, finally, connect to your fuel source. Always ensure that the main valve and the valves for the individual burners are in the Off position when the system is not in use.

 MoreFlavor, Inc. **very strongly** recommends that you have a professional plumber run the lines and provide the connection to your household natural gas system, and that a master shut-off valve be installed between the home gas system and your Brew Sculpture.



The Digital Brewhouse Control System

Now that you've confirmed that all of the parts are present and your Brew Sculpture is assembled, let's take a few moments to understand how the Digital Brewhouse Control system works to provide you with professional levels of control and automation.



How it Works

MoreBeer's industry-leading Digital Brewhouse Control system allows you to easily, accurately and automatically control Mash Step & Sparge temperatures as well as the Sparge process. Let's go over the key parts of the system and how they work together to provide this amazing degree of control and convenience.

Touchscreen Control Panel

The Touchscreen Control Panel is the centerpiece of our digital control system. The centralized controller is where the brewer programs in the desired Mash & Hot Liquor temperatures, as well as up to 5 Mash steps and 5 Boil additions. The controller receives information from the system's temperature probes and float switches, and is responsible for activating the Digital Hot Liquor Tank Burner as appropriate.

Digital Hot Liquor Tank Burner

The Digital Hot Liquor Tank Burner is responsible for turning on and off as directed by the Control Panel in order to maintain the correct temperature in the Hot Liquor Tank. The Digital Burner is comprised of an electric solenoid valve which is activated by the control panel, and a pilot light which lights the burner when the solenoid is opened. As a safety feature, the solenoid valve has a thermocouple which detects the presence of the pilot light; if the pilot is not lit then the valve cannot open and supply gas to the burner.

Temperature Probes

The system incorporates temperature probes in both the Mash Tun and the Hot Liquor Tank for temperature monitoring and system control. The probe in the Hot Liquor Tank is responsible for activating the kettle's burner to maintain the HLT temperature at the brewer's desired set point. The Mash Tun's probe monitors the Mash temperature and activates the recirculation pump as necessary to pass the sweet wort through a heat exchanger submerged in the Hot Liquor Tank.

Float Switches

Our system also incorporates a pair of float switches to serve as safeguards. The Hot Liquor Tank's float switch is used as a cutout switch for the Hot Liquor Tank's digital burner. By deactivating the burner when the HLT's water level is low, our system prevents rising steam from causing inaccurate temperature readings, as well as keeps the HLT burner from superheating the empty kettle or wasting fuel. The Mash Tun's float switch controls the system pump during sparging. By placing the float at the brewer's desired height above the grain bed during mashing, the system prevents both channeling of the grain bed and kettle overflow.

Setting up for Brewing & Programming the Control Panel

In this section we'll go over how to set up your Brew Sculpture for each phase of the brewing process, including how to program your Digital Brewhouse Control system. After that we'll go over an abbreviated "mock brew" process to make sure everything is working correctly before you actually dough-in for the first time! We have short videos and larger photos of these steps available on our website at www.morebeer.com/content/digi_control_panel

Light the Pilot on Digital Hot Liquor Burner

Once you have everything set up and plugged in, it's time to light the Pilot Light for the Digital Hot Liquor Burner. Please read through all of these steps before starting the process.

1. Locate the Combination Valve to the left of the actual burner
2. Turn the valve to the "Pilot" position. Press the knob inward and hold it in place to allow the gas to flow. With the knob pressed, light the pilot, and keep the knob pressed for a count of 30 seconds to heat up the thermocouple.
3. Release the knob and ensure that the pilot stays lit when the knob is released. If not, repeat the previous step until the pilot light stays lit when the knob is released.
4. Turn the Combination Valve's knob to the "On" position.

**Note that the Digital Burner will not light unless both A) the pilot light is lit and keeping the burner's thermocouple hot; and B) the float in the Hot Liquor Tank is connected to the Control Panel and in the "up" position, indicating that there is sufficient water in the kettle.*

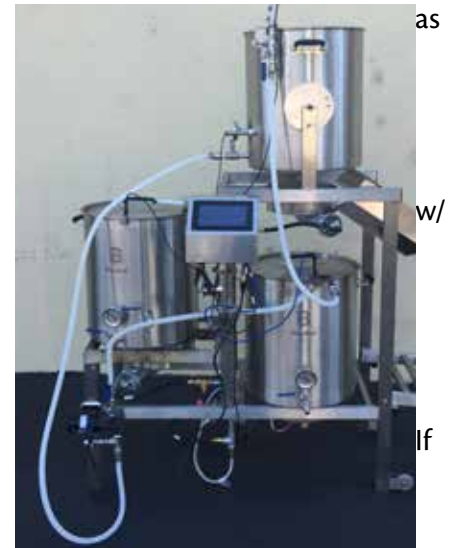
Setting the Hot Liquor Temp

1. From the main Control Panel screen, press "Edit HLT"
2. On the next screen, use the on-screen keypad to input your desired temperature and press the green "ENT" button to store the new value and return to the main screen.
3. Use your finger to move the HLT slider to the "HLT On" position to activate the burner.

As long as you have sufficient water in the kettle and the pilot is lit, you should see the on-screen indicator for the burner, as well as see and hear the flames.

Set up For Mashing

1. To set up the system for mash recirculation, you'll need to connect the hoses follows:
2. Install the longest hose to run from the Mash Tun ball valve to the inlet side (bottom) of the pump.
3. Install one of the medium length hoses running from the outlet side (top) of the pump into the inlet side of the heat exchanger (right side, Female Quick Disconnect).
4. Install the other medium length hose running from the outlet side of the heat exchanger (left side, w/ Male Quick Disconnect) into the Sparge-Arm inlet.
5. To begin recirculating, start by making sure that the Sparge Arm ball valve and the Pump Outlet (upper) ball valve are open all the way, and that the Pump Bleed (lower) ball valve is closed. Open the Mash Tun valve, and switch the pump on. the wort isn't flowing out of the pump and up to the sparge arm, burp the pump head with the lower valve to remove any trapped air.



Hoses set up for Mash Recirculation

Mash Mode

In Mash Mode, the Mash Recirculation pump is governed by the Mash Tun Temperature Probe. When the mash temperature drops below the set point for a given mash step, the pump is activated to pass wort through the heat exchanger in the Hot Liquor Tank. The Control Panel allows you to program up to 5 Mash Steps for your brew.

1. From the main screen, find and press the "Mash Mode" button to enter the Mash Editing screen.

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2. On the Mash Mode screen, find and press the “Edit Mash Steps” button. You will see 5 mash steps displayed in two columns, one each for time and temperature. All the values will be zeroed out.
 3. From here any of the steps’ times and temperatures can be edited by tapping that value on the screen and editing it with the on-screen keypad.
 4. You can reset all time and temperature values back to zero with the “CLEAR ALL” button.
 5. When you have set the rest temperatures and times that you want for your brew, press “DONE” to return to the Mash Mode screen, and press START MASH.

When your mash is completed, the system will prompt you to continue on to Sparge Mode.

**Note: There are 3 handy “quick-start” buttons below the steps in the screen where you set up your Mash steps, which allow you to quickly jump into common values for a Single Infusion, Single Infusion w/ Mash Out, or Multi-Step mash.*

**Tip: On a Tippy Dump Sculpture, the system does not use the Control Panel’s Pump 1 option. You can plug any accessory you want into the “Pump 1” plug and manually actuate it at any time.*

Set up for Sparging

1. With the pump turned off, close the Pump Outlet & Mash Tun ball valves and disconnect the hose from the Mash Tun. Do your best to pinch the hose closed or fold it over to keep it as full as possible, to keep from losing wort and letting air into the hose.
2. Install the hose on the Hot Liquor Tank ball valve.
3. Install the remaining hose on the Mash Tun ball valve and let it hang into the Boil Kettle.
4. Open the Hot Liquor Tank ball valve, wait a moment and then the Pump Outlet valve.
5. Turn the pump on, and adjust your sparge rate using the Sparge Arm valve and the Mash Tun valve.



Hoses set up for Sparging

Sparge Mode

In Sparge Mode the pump which was recirculating your wort during mashing, will now be delivering sparge water from your Hot Liquor Tank. It is no longer controlled by the Mash Tun Temperature Probe, and is instead controlled by the Float Switch on the Sparge arm. As wort is transferred out of the Mash Tun and into the Boil Kettle, the float will drop down and activate the pump. Ordinarily, you will be transitioned into Sparge Mode organically by the system once your mash is finished. You can also access the Sparge Mode from the main screen at any time.

1. Once in the Sparge Mode screen, find and press the “Pause/Start” button to activate the main pump and begin the timer. Pressing this button again will pause both the timer and the pump.

While the sparge is running, you can press the “Boil Mode” button and program in your Boil Addition Alerts ahead of time.

Boiling, Whirlpooling, Chilling & Transferring

1. We recommend that you fire up the Boil Kettle burner once your sweet wort reaches the level of the thermometer in the Boil Kettle to save time—you can be heating your wort while the sparge finishes.
2. With 15-20 minutes remaining in the boil, connect the two medium-length hoses so that they are running out of the Boil Kettle ball valve to the Pump Inlet and from the Pump Outlet to the Boil Kettle Whirlpool Valve. We recommend recirculating through the Whirlpool Circuit for the last 10 minutes of the boil to



*Hoses set up for Whirlpool
Shown on a Low Rider System



ensure that the hoses are sanitized by the boiling wort.

3. If you are using a Counterflow Chiller with your system, we recommend that the Whirlpool Circuit be set up as Boil Kettle to Pump to Chiller to Whirlpool Valve. That way your boiling wort will sanitize the interior of your chiller, and when the whirlpool is finished you can simply disconnect the hose from the Whirlpool Valve and direct it to your fermenter.

How to Program Boil Additions

Boil Mode allows you to enter a custom boil time and then set alerts for up to 5 events with any amount of time remaining in the boil, most often used for hop and clarifier additions.

1. Boil Mode can be entered from the main screen or directly from the Sparge Mode screen.
2. From the Boil Mode screen, find and press the "Edit Boil Timers" button.
3. The Total Boil Time and each Boil Addition can be set by pressing the "000" to the right of the listing to select it, then changing the value with the on-screen keypad. Store the new value by pressing the green "Enter" button.
4. When you have set all of the alerts that you want, press the DONE button to return to the Boil Mode screen.
5. Once the kettle reaches a boil and you are ready, start the timer by pressing the "Pause/Start" button to begin the countdown timer.
6. When the alert times you set are reached you'll see a visual alert and hear an audible alarm. You can turn off the alarm with the "Silence Alarm" button.
7. When you are ready to begin your whirlpool, press the "Pump 2" button



*Hoses set up for transfer to fermenter
Shown on a Low Rider System



Testing a Digital System

Your Brew Sculpture's Digital Control Panel features a built in pre-brew diagnostic program that you can use to ensure that all of the electronic systems are functioning correctly prior to each brew. It is highly recommended that you take the few short minutes to go through the diagnostic program before you start each brew day.

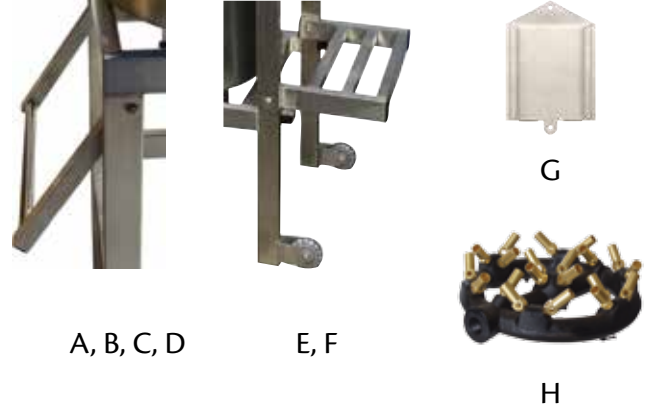
While the diagnostic mode is a very powerful feature, we also strongly recommend that you go through a short "mock brew" before starting out on your first brew. This will ensure that you're familiar with and practiced at the correct way to hook up all the hoses, as well as that all the hoses, welds & threaded fittings are tight and leak-free.

1. Connect your fuel source and light the pilot light on the Hot Liquor Burner.
2. With the kettles in place on the Sculpture Frame, fill the Hot Liquor Tank with enough water to raise the float in the kettle, and the Mash Tun with enough water to cover the thermowell. Check the outside of the kettle to make sure that the threaded fittings are not leaking.
3. Set your Hot Liquor Tank temperature to 10F over your current ambient temperature. Ensure that burner activates.
4. Switch the Hot Liquor Tank temperature setting to be below the current temperature in the kettle. Ensure that Burner turns off.
5. Reset the Hot Liquor Tank temperature to 20F above the current ambient temperature. The Burner will activate.
6. Connect the hoses for Mash Recirculation per the instructions on page 5, including the steps leading up to turning on the Pump
7. From the Control Panel's main screen, manually activate Pump 2 for a moment to ensure it is working. Check the hoses for leaks, especially at the ends where the quick disconnects are held in place with hose clamps. Check the pump head and valves for leaks as well.
8. Program in two 1 minute mash steps at 10F & 15F above the current water temperature in the Mash Tun and begin the mash. Ensure that the Pump activates and stays on as necessary until the Mash Tun temperature rises to set point. Conclude the Mash and enter Sparge Mode
9. Referring to page 6, connect the hoses for Sparging.
10. Set the Sparge Arm in the Mash Tun so that the float is at the lowest possible setting.
11. Open the Mash Tun Ball Valve all the way to drain water until float drops.
12. Start the sparge timer & pump. Make sure that Pump 2 activates and sends water from the Hot Liquor Tank to the Mash Tun. Close the Mash Tun Ball Valve and allow Pump 2 to continue running. Ensure that when water level in the Hot Liquor Tank drops below the level of the Hot Liquor Tank float, that the Digital Burner turns off.
13. Stop Sparge timer and enter Boil Mode.
14. Enter a Boil time of 2 minutes, set Addition 1 to 1 minute, start Boil Timer. Ensure that Alarm functions on screen and audibly.
15. Connect the hoses for Whirlpooling as described on pages 6-7. If your set up includes a counter-flow chiller now is a great opportunity to make sure you have the connections all down as well as flow control for chilling. If possible, practice running the water all the way out to your fermenter just to make sure your hoses are all long enough and there are no connection surprises come Brew Day.
16. If everything works, nothing leaks, and you feel ready to brew, Congratulations! Go grab a beer, you've worked hard!

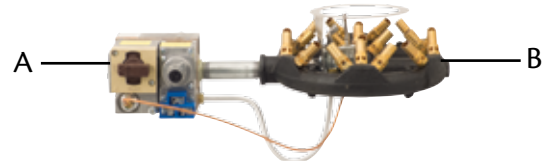
Spare Parts List:

While it's unlikely that your Brew Sculpture's components will fail, occasionally a part becomes damaged or is defective from our supplier. To ensure the best long-term functionality of your Brew Sculpture, please contact our Customer Service team in the event that any part of your system is not working correctly, even if you do not believe that you are eligible for warranty repair or replacement. Please use the following tables and photos to help determine the correct name and part number for your damaged item when communicating with our Customer Service Team.

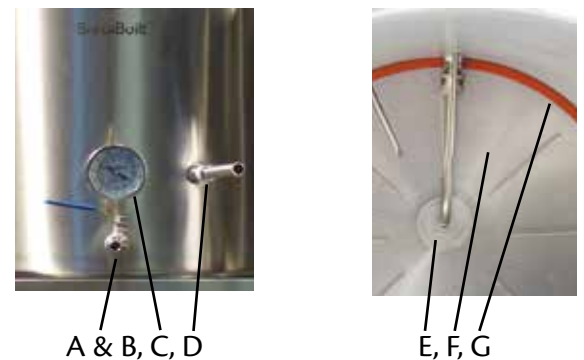
Frame Parts		
Pos	Part Number	Description
A	SCUP608	Handle
B	HRD020	Handle Mounting Bolt
C	HRD021	Handle Washers
D	HRD022	Handle & Caster Axle Lock Nut
E	HRD075	Caster
F	SCUP885	Folding Frame Step
G	H357	Pump Mounting Bracket
H	H210	Low Pressure Natural Gas Burner



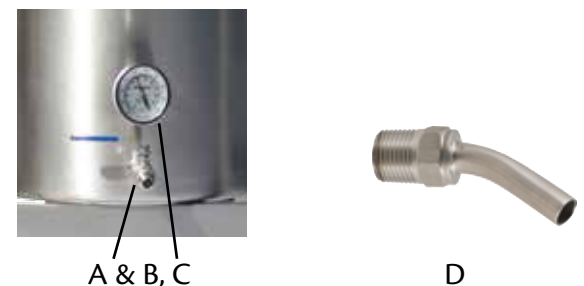
Digital Hot Liquor Burner Parts		
Pos	Part Number	Description
A	GSS042	Combination Valve
B	H210	Low Pressure Natural Gas Burner



Mash Tun Assembly		
Pos	Part Number	Description
A	H602	Stainless Ball Valve - 1/2 in Full Port
B	H503B	Male Stainless Steel Quick Disconnect w/ MPT
C	MT500	Thermometer (3 in. Face x 6 in. Probe)
D	FE616	5" Shielded Coupler Thermowell
E	AG525	31 gal Mash Tun Maximizer
F	H136	31 gal False Bottom
G	BE758G	31 gal False Bottom Gasket



Hot Liquor Tank Assembly		
Pos	Part Number	Description
A	H602	Stainless Ball Valve - 1/2 in Full Port
B	H503B	Male Stainless Steel Quick Disconnect w/ MPT
C	MT502	Thermometer (3 in. Face x 2 in. Probe)
D	AG519	Maximizer for Boil and Hot liquor Kettle



Boil Kettle Assembly		
Pos	Part Number	Description
A	H503B	Male Stainless Steel Quick Disconnect w/ MPT
B	H602	Stainless Ball Valve - 1/2 in Full Port
C	MT502	Thermometer (3 in. Face x 2 in. Probe)
D	AG521	Whirlpool Maximizer



A & B, C



D

Tubing Assemblies		
Pos	Part Number	Description
A	H507A	Male Stainless Steel Quick Disconnect w/ Barb
B	H507B	Female Stainless Steel Quick Disconnect w/ Barb
C	H960	Hose Clamp for 3/8" to 7/8" OD Tubing
D	H985	1/2" Silicone Tubing

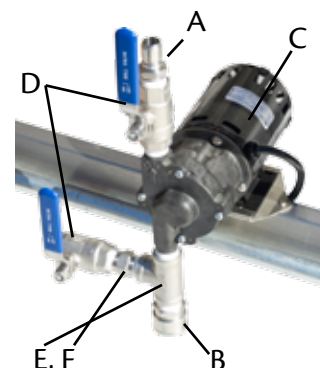


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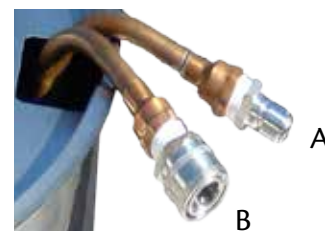
B

Pump Assembly Parts		
Pos	Part Number	Description
A	H503B	Male Stainless Steel Quick Disconnect w/ MPT
B	H503A	Female Stainless Steel Quick Disconnect w/ MPT
C	H315HF	March High Temperature Brewing Pump
D	H602	1/2" Full Port Stainless Ball Valve
E	H621	1/2" FPT Stainless Tee
F	H610A	Stainless Hex Nipple



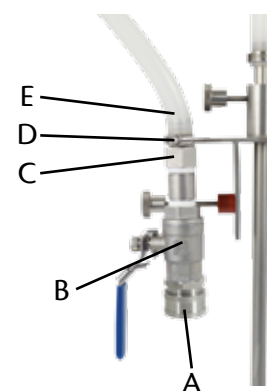
E, F

Heat Exchanger		
Pos	Part Number	Description
A	H503B	Male Stainless Steel Quick Disconnect w/ MPT
B	H503A	Female Stainless Steel Quick Disconnect w/ MPT



B

Sparge Arm Assembly		
Pos	Part Number	Description
A	H503A	Female Stainless Steel Quick Disconnect w/ MPT
B	H602	1/2" Full Port Stainless Ball Valve
C	H618B	Stainless - 1/2 in FPT x 1/2 in Barb
D	H960	Hose Clamp for 3/8" to 7/8" OD Tubing
E	H985	1/2" Silicone Tubing



E

D

C

B

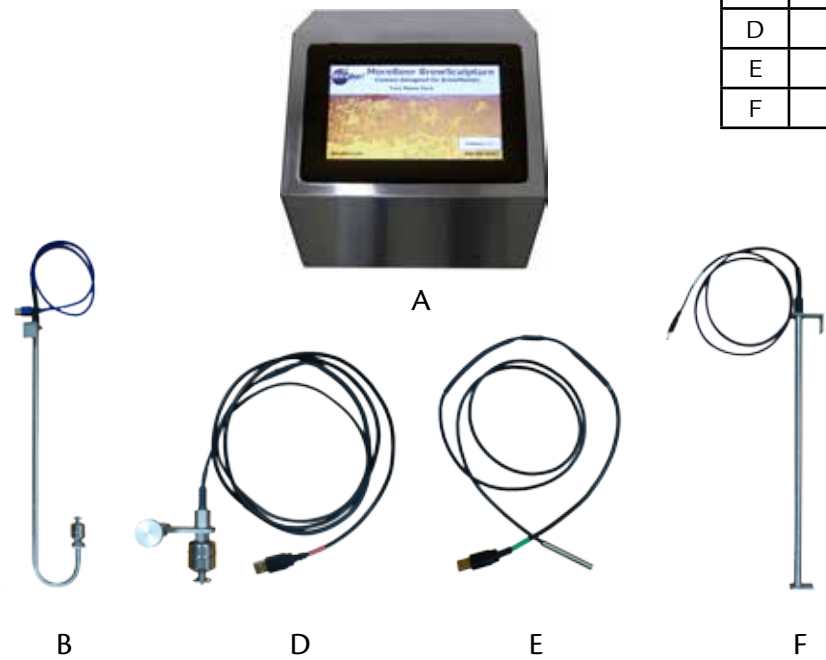
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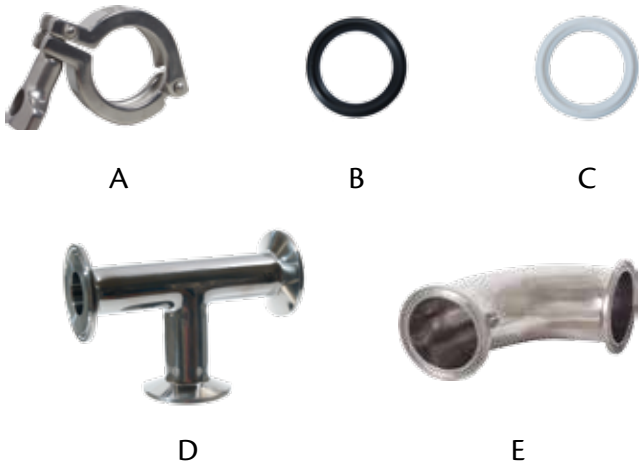
Digital Control Panel & Cables

Please note that the Digital Touchscreen Control Panel is an integral unit and does not have any parts that are serviceable by the end user. In the event that your control panel becomes damaged or exhibits a malfunction, please contact our Customer Service team to arrange for your control panel to be either repaired at our facility, or else replaced.

Touchscreen & Connection Cables		
Pos	Part Number	Description
A	SCUP840	Touchscreen Control Panel
B	SCUP424	Hot Liquor Tank Temperature Sensor & Float Switch
C	SCUP424B	USB Connection Cable for Digital Hot liquor Burner
D	SCUP414	Sparge Arm Float Switch Assembly
E	SCUP424A	Mash Tun Temp Probe
F	SCUP427	Boil Kettle Temperature Sensor



Control Panel Mounting Hardware		
Pos	Part Number	Description
A	H652	Stainless - T.C. Clamp (1.5 in)
B	H656	T.C. Clamp Gasket (1.5 in)
C	H658	T.C. Clamp Gasket - Teflon (1.5 in)
D	H666	Stainless - T.C. Tee (1.5 in)
E	H667	Stainless - T.C. 90 Elbow (1.5 in.)





Safety Information:

Please read the following **IMPORTANT** safety information before use:

Danger:

- ⚠ **Do Not** operate your Brew Sculpture indoors. The MoreBeer! Brew Sculpture is designed for outdoor use only.
- ⚠ **Do Not** exceed the weight limit of 250 lbs per burner.
- ⚠ **Do Not** leave the system unattended during operation. User must stay in the immediate area and have a clear view of the system at all times.
- ⚠ **Do Not** heat cooking oil with your Brew Sculpture.
- ⚠ **Do Not** allow children near the Brew Sculpture when in-use.
- ⚠ **Do Not** use close to combustible materials.
- ⚠ **Do Not** use under any overhead construction.
- ⚠ **Do Not** operate on uneven surfaces.
- ⚠ **Do Not** attempt to light the system's burners without a kettle containing liquid placed on top of the burner.
- ⚠ **Do Not** move the Brew Sculpture while in use.
- ⚠ **Do Not** use this system with any gas regulator other than the model supplied.
- ⚠ **Do Not** modify this Brew Sculpture in any way.
- ⚠ **Do Not** use an low pressure propane tank that is visibly rusty, damaged, or out of date.
- ⚠ **Do Not** use this Brew Sculpture while under the influence of drugs or alcohol.
- ✅ **Always** keep the black gas hose away from the flame and heated surfaces of the burner at all times.
- ✅ **Always** check for gas leaks before each use by applying soapy water to all connections.
- ✅ **Always** have a fire extinguisher nearby at all times.
- ✅ **Always** use at least 10' away from construction.
- ✅ **Always** shut off the gas valve at the tank or main supply and extinguish any open flame if you smell gas. If odor continues stay away from the burner and propane tank and immediately call your fire department. Always call the fire department in the case of a fire.

Warning! – Combustion by-products produced when using this product contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

