



Empowering Healthy Habits through Technology

# Product Manual

**Self-Cleaning Smoothie Blender**  
Generation: Banana

Version 1.5 (April 2023)

*We are constantly updating this document.  
Please get in touch with us for the latest version.*



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\* Internal use only, in the future also shared with 3<sup>rd</sup> party service partners

# 1. Safety

# 1. a) Disclaimer

Please use the smoodi blender in accordance with this product manual and user guide. DO NOT attempt to run the equipment unless you have been properly trained to do so.

Any servicing of the smoodi machine beyond regular maintenance as listed under 5. should be done by smoodi trained and authorized service technicians only.

For any additional questions please contact the technical support of smoodi or your regional manager.

*Note: smoodi is striving to continuously improve and therefore, information in this manual is subject to change without notice.*

*Note: Only instructions originating from smoodi are considered to be the original set of instructions.*

# 1. b) Safety notes regarding equipment

DO NOT operate this unit unless all service panels and access doors are restrained with screws and lock, respectively. Failure to do so can result in severe personal injury!

DO NOT attempt any repairs unless the main power supply to the unit has been disconnected.

DO NOT remove any internal operating parts unless machine is disconnected. Failure to follow these instructions may result in severe personal injury from hazardous moving parts.

DO NOT operate the unit with larger fuses than specified on the product label.

Use GFCI (either as a plug or in the wall connections). If the power supply cord is damaged, it must be replaced by smoodi, Inc. or an authorized smoodi technician in order to avoid a hazard. Failure to follow these instructions may result in electrocution or damage to the unit. The smoodi servicing plan does not cover gross negligence.

Use gloves when working inside machine. It HAS SHARP EDGES on the inside THAT CAN CAUSE SEVERE INJURIES.

DO NOT place hand(s) inside of the machine (without turning it off beforehand). It is a PINCHING or CUTTING / CRUSHING HAZARD.

This unit MUST be installed on a level surface to avoid the hazard of tipping. Extreme care should be taken in moving this equipment for any reason.

Two or more people are required to safely move this unit. Failure to comply may result in personal injury equipment damage.

This unit MUST NOT be installed in an area where a water jet or hose can be used. NEVER use a water jet or hose to rinse or clean this unit. Using a water jet or hose on or around this equipment may result in the electrocution of the user or damage to the equipment.

DO NOT operate the smoodi system if sanitization procedure has not been completed at least once daily. Further, cleaning and sanitizing schedules are governed by your state or local regulatory agencies and must be followed accordingly. Please refer to the cleaning section of this manual.

# 1. c) Safety notes regarding food product

To ensure the quality and sanitization of our products it is important to consider the following aspects:

## **Maintaining the frozen supply chain**

Since our products are IQF (Individual Quick Frozen) it is crucial that we never break the frozen chain. The temperature of our smoodi medleys should never be above 0° F before delivery to the final location. When loaded into freezer for consumption, make sure temperature of freezer does not exceed 8°F. (Temperatures will necessarily raise as the door is opened frequently)

## **Integrity of the frozen consumables**

DO NOT ACCEPT CUPS THAT APPEAR THAWED OR FROZEN IN A BLOCK! It is a health risk, can damage the machine, and will create a bad customer experience (both in terms of blend time and taste). Reject, and report to smoodi. Same goes for damaged packaging.

## **Washing Hands**

Before the handling of our products all employees, staff or contractors need to wash their hands with enough soap for at least 20 seconds

## **Allergens**

Some of our products may contain allergens. Review labels of our medleys for more information.

# 1. d) Certifications



The **National Sanitation Foundation (NSF)**, is a non-profit organization founded in 1944, whose goal was to create standards for food safety and sanitation to promote public health.

The smoodi blender has been certified by NSF in Dec 2021, that means it uses only FDA approved raw materials and the cleaning and sanitization procedures are validated as effective by NSF standards.

For further information: <https://www.nsf.org/>



**Underwriters' Laboratories (UL)**, LLC is a global safety certification company headquartered in Northbrook, Illinois. The UL Mark means a product has been certified to meet scientific safety, quality or security standards.

The smoodi blender has been certified by UL in Nov 2021, under the standard E523837, that means it can be deployed commercially.

For further information: <https://www.ul.com/>

# 1. e) Required sanitizer and suggested water filter



## **SANITIZER:**

Glissen Chemical - 300048 Nu-Foamicide EPA Registered 1-Gal All Purpose Cleaner Concentrate, Industrial Commercial Grade

[Purchase link](#)



## **WATER FILTER:**

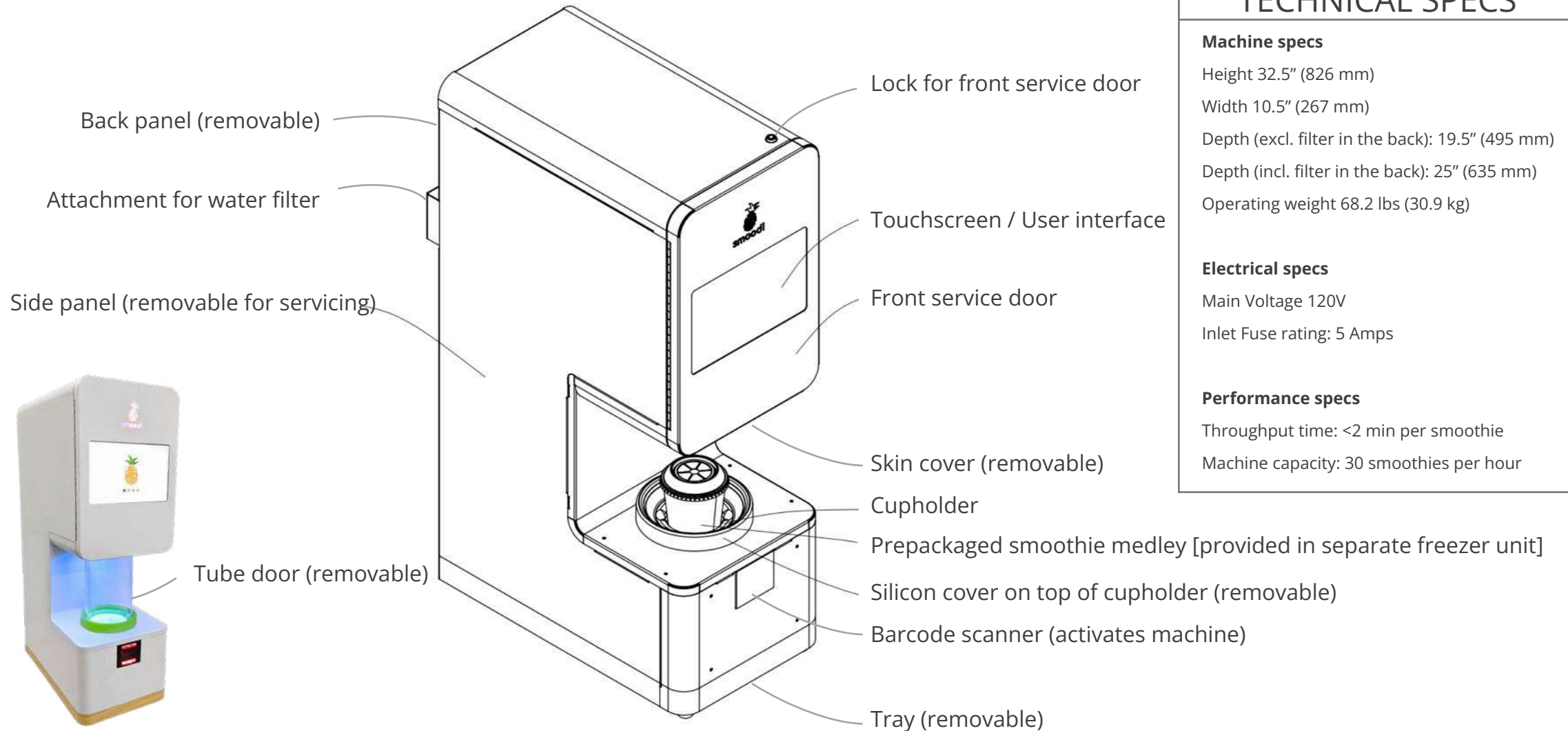
3M Water Filtration Products HF95-CL High Flow Series Replacement Water Filter Cartridge - 5 Micron Rating and 2.5 GPM

[Purchase link](#)

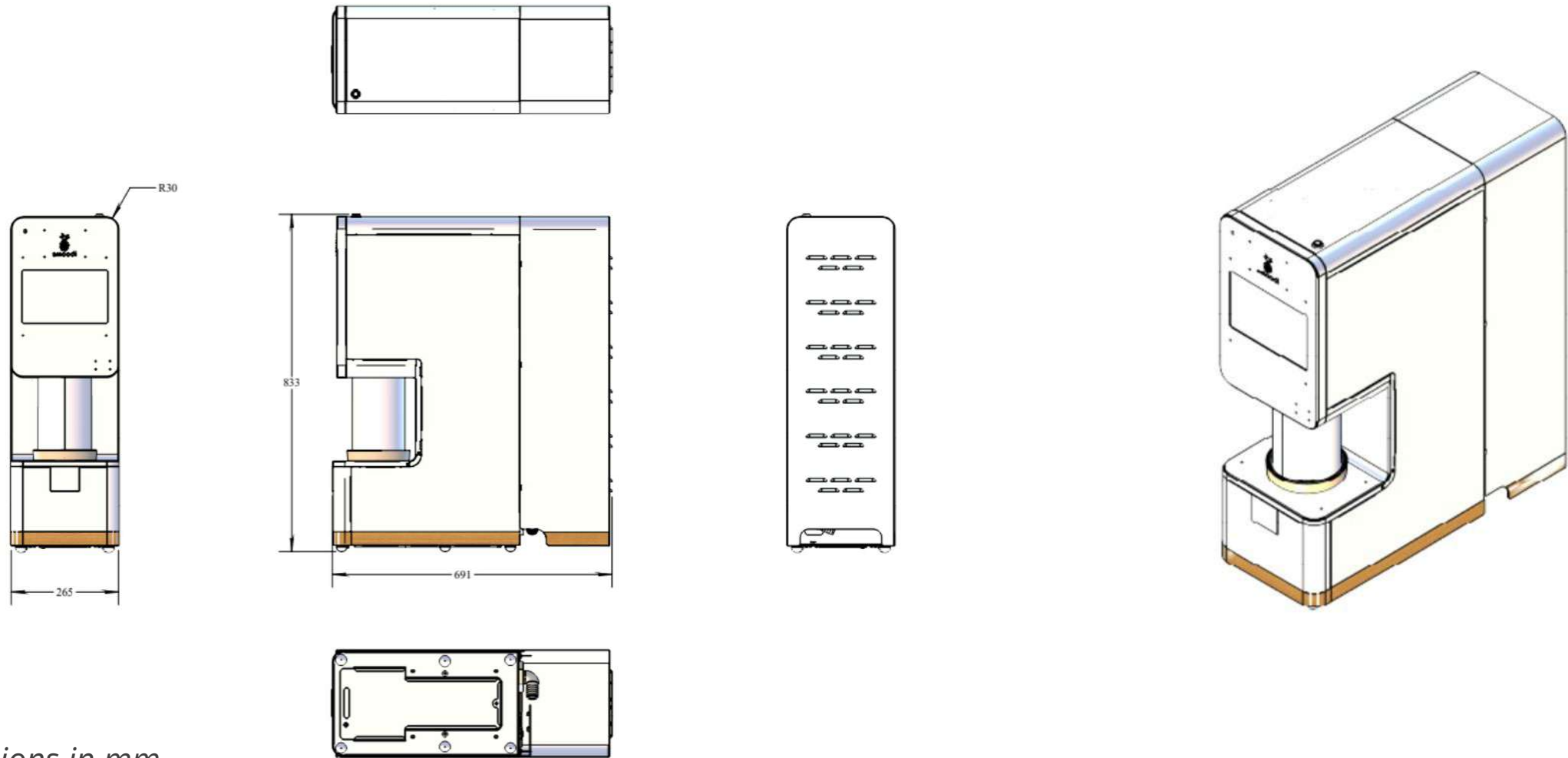


# 2. Introducing the smoodi System

## 2. a) Machine overview and technical specs



# 2. b) smoodi Machine with Back Cover



All dimensions in mm

## 2. c) How it works

- [▶ See machine in action](#)
- [▶ Click for a short video](#)



- 1 Pick smoodi cup from freezer**  
*Pods with favorite fruits and greens*
- 2 Peel the seal & scan**  
*Machine automatically opens, no touch*
- 3 Customize**  
*Select thickness & add any desired boosters*
- 4 Blend**  
*Safely within a minute*
- 5 Enjoy!**  
*Meanwhile our machine cleans itself*

## 2. d) Technical requirements

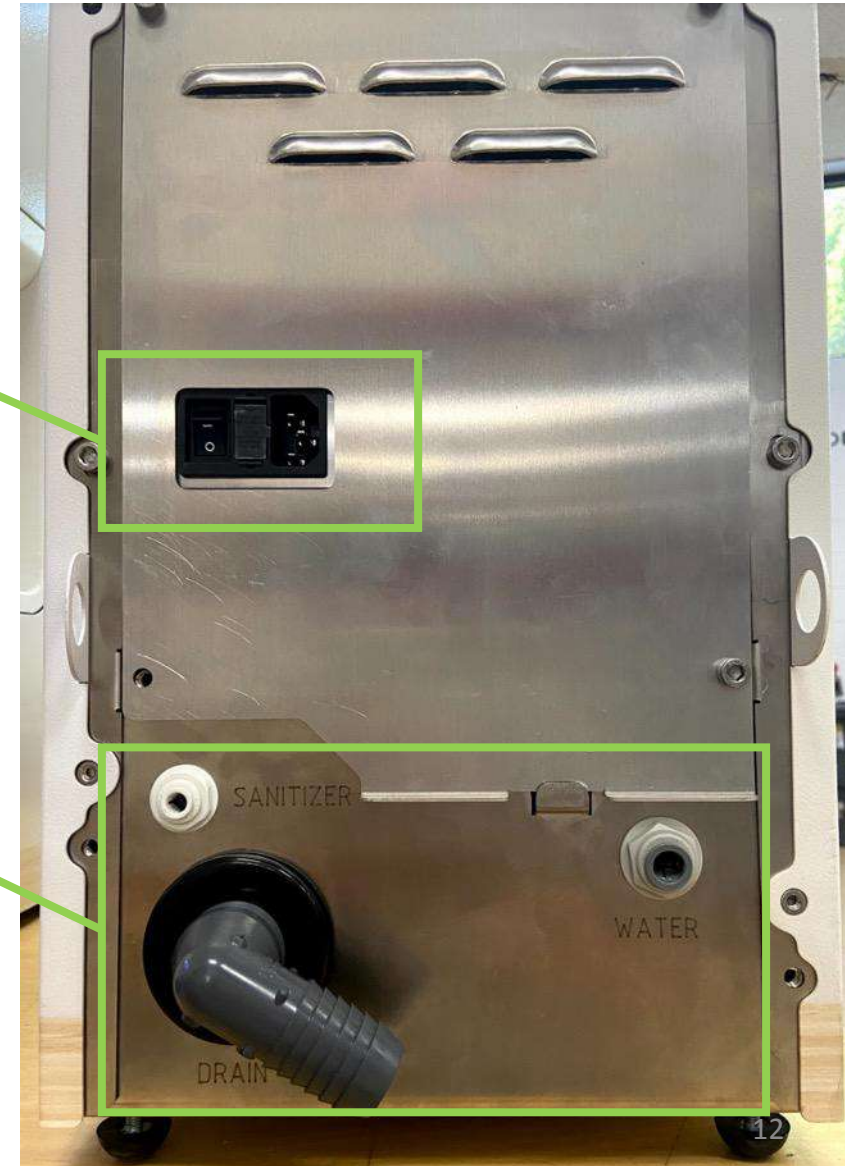
- **Space:** 11" wide, 20" deep, 32.5" high – ideally on a counter
- **Electricity:** 120V electrical plug, 3A for smoodi machine [freezer needs an additional 3A] - Inlet switch is Labelled "1 or 0" for "On or Off" respectively
- **WIFI connection:** Allows to log blends and sensor data for remote monitoring and smart servicing
- **Plumbing (see next page for more details)**
  - Fresh Water Supply (3/8" PTC)
  - Drain to be connected to standard dishwasher hose (1" ID) – needs to be close to machine location to guarantee a steady downward slope



All threaded plumbing parts must be installed with plumbing tape on the threads



Any parts used for the fresh water supply must be NSF certified to uphold proper food safety standards



## 2. d) Technical requirements (Continued)

### Plumbing connections

- Water and waste piping and fittings attached to the equipment shall comply with the material requirements for the applicable zones.
- Water and waste piping and connections shall comply with the International Plumbing Code,10 International Code Council (ICC), or with the Uniform Plumbing Code,9 International Association of Plumbing and Mechanical Officials (IAPMO).

### Backflow prevention

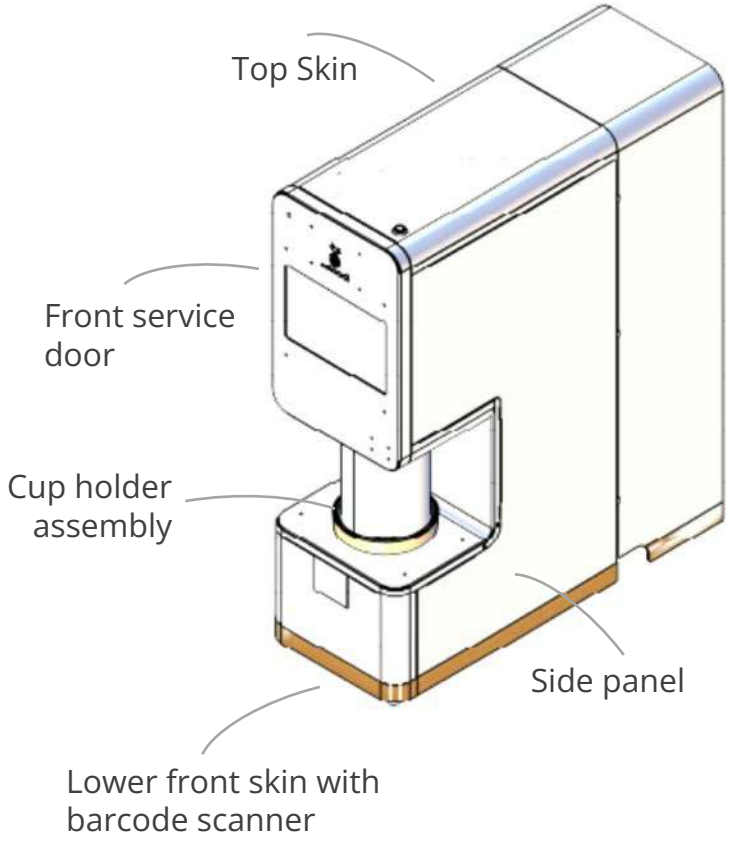
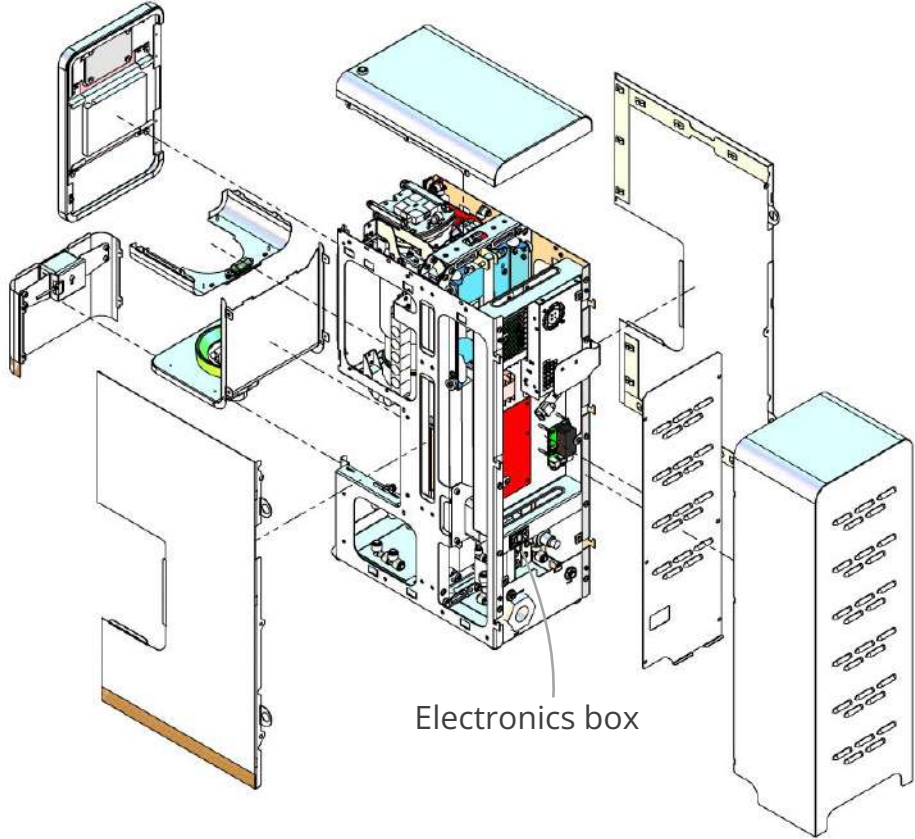
Units intended to be connected to a water supply system under pressure shall have one of the following:

- an air gap at least twice the diameter of the water supply inlet but not less than 1.0 in (25 mm); or
- a vacuum breaker that conforms to ANSI/ASSE 1001,5 Atmospheric Type Vacuum Breakers (for intermittent pressure conditions); or
- a vacuum breaker that conforms to ANSI/ASSE 1020,5 Pressure Vacuum Breaker Assembly (for continuous pressure conditions); or
- a backflow prevention device that conforms to ANSI/ASSE 1022,5 Backflow Preventer for Beverage Dispensing Equipment; or
- a backflow prevention device that conforms to ANSI/ASSE 1024,5 Dual Check Backflow Preventers; AND
- equipment is to be installed with adequate backflow protection to comply with applicable federal, state, and local codes.

For more information on recommended backflow pre-center, please contact Watts (<https://www.watts.com>, smoodi's recommended supplier of backflow preventers), or smoodi (info@getsmoodi.com).

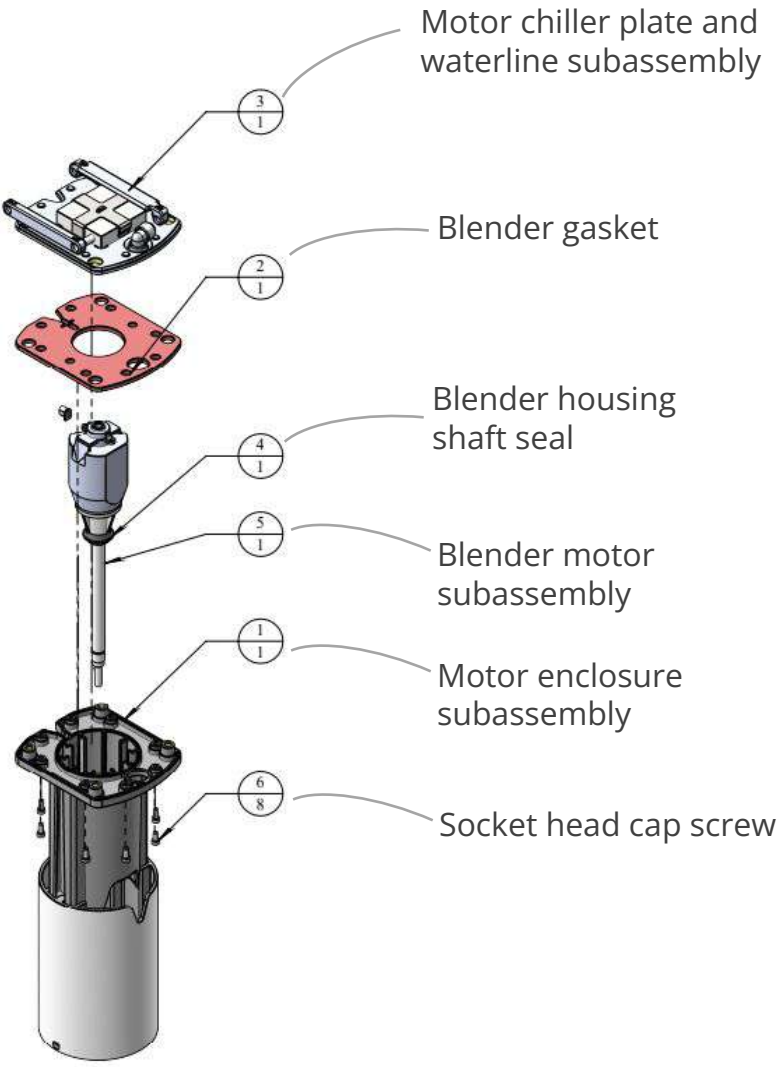
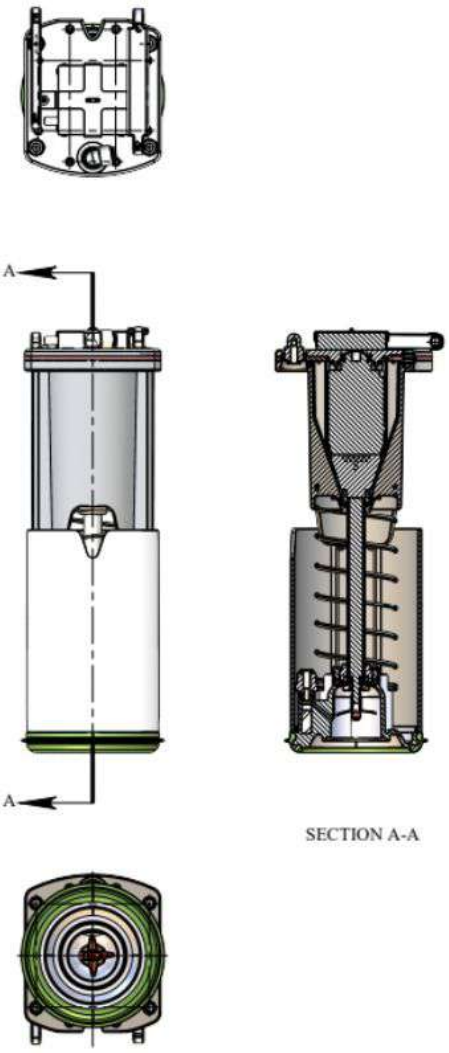


# 2. e) Core sub-assemblies



# 2. e) Core sub-assemblies

## Blender assembly




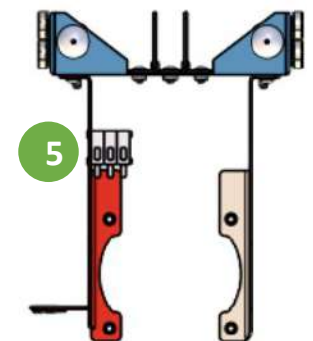
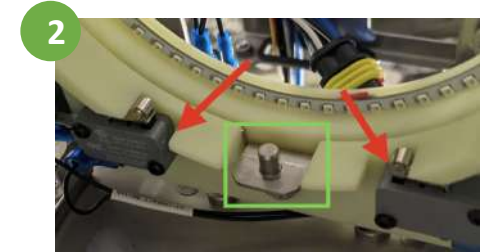
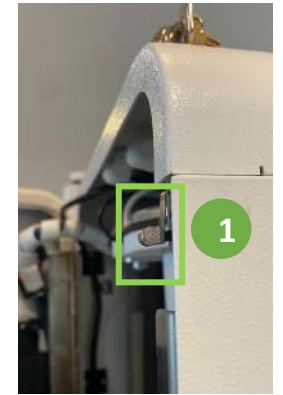


## 2. f) Core safety systems

### Limit switches

Multiple limit switches are in place to ensure safety of the smoodi blending during operation:

- 1 Front service door limit switch:** one limit switch on the top right, just behind the front service validates that front service door has properly been closed. Smoodi machine will not operate unless service door is fully closed.
- 2 Tube door installed limit switch:** two limit switches in the back of the cylindrical, tube door validate that the tube door has been properly installed. If not, the smoodi machine will not operate.
- 3 Tube door closed limit switch:** two limit switches at the bottom of the core mechanical structure are engaged by the tube door carriage in its bottom position. The smoodi blender will never turn on when one of those switches is not engaged.
- For the **latter two limit switches**, the hardware will override the software, for instance, the smoodi blender won't turn on if tube door is removed or not closed fully.
- Finally, three additional **mechanical limit switches prevent blender and food carriages from colliding**. If collision happens (through improper manual movements through the service menu), it can easily be solved by tapping on the Reset MC  button and then moving either the tube door down or the blender assembly up (depending on the actual position of both components during the collision). Refer to Service Menu section of this manual 4.a)



## 2. f) Core safety systems

### Sensors

Several **sensors guarantee additional safety in the smoodi system:**

- 1 Barcode scanner** in the lower front of the machine. The barcode scanner recognizes smoodi SKUs and allows smoodi to get 100% accurate real time consumption data from each machine (that is shared with you on a monthly basis, included in the monthly smoodi servicing plan). In addition, it ensures that only quality controlled, pre-packaged smoodi cups can be used with the smoodi blender. This is extremely important from a food-safety and product quality perspective but also to protect the smoodi blender from serious damage as the proprietary smoodi cups and lids have a unique interface with the blender that allows it to function properly.
- 2 IR optical distance sensor for seal detection.** The proprietary smoodi lids contain a seal on top for tamper-proof. In the user experience (see 2.b), this seal is removed before blending. If a user forgets to remove this seal, the smoodi system, once properly calibrated is able to detect the seal via the IR optical sensor and display an animation and call to action to the user. The blender will not proceed until the seal has been peeled from the lid. The Service Menu allows to set / re-calibrate the IR optical sensor value. Any value below the set value will be interpreted by the smoodi system as: "Seal in place", any value above the set threshold will be considered as: "Seal is properly peeled".
- 3 Camera, next to the IR optical distance sensor** allows for remote maintenance. Important remark: The camera only captures the cupholder area including tube door and does not record any personal footage about each user.



## 2. f) Core safety systems

### Sensors

Several **sensors guarantee additional safety in the smoodi system:**

- 4 **IR optical cup sensor:** Inside the cupholder, you can see two lenses that hold the emitter and receiver, respectively. It allows the smoodi blender to sense if a cup has been inserted. Similarly to the IR optical sensor, the IR cup optical cup sensor can be set / re-calibrated through the Service Menu. Any value below the set value will be interpreted by the smoodi system as: "Cup in place", any value above the set threshold will be considered as: "No Cup inserted".
- 5 **Current sensor for blender** allows for smoodi's proprietary adaptive blending technology: If the resistance of the ingredients inside a cup is high, the blending will adjust accordingly. It allows to blend each smoodi to perfection based on the individual properties of each smoothie medley while also protecting the equipment and ensuring maximum durability of the blender
- 6 **Current sensor tube door system:** Similarly, the smoodi system senses the current when the tube door is lowered to detect any foreign object or a user's hand and prevent them from crushing during door close operation. Tube door will just retract as soon as a specific current threshold is hit.

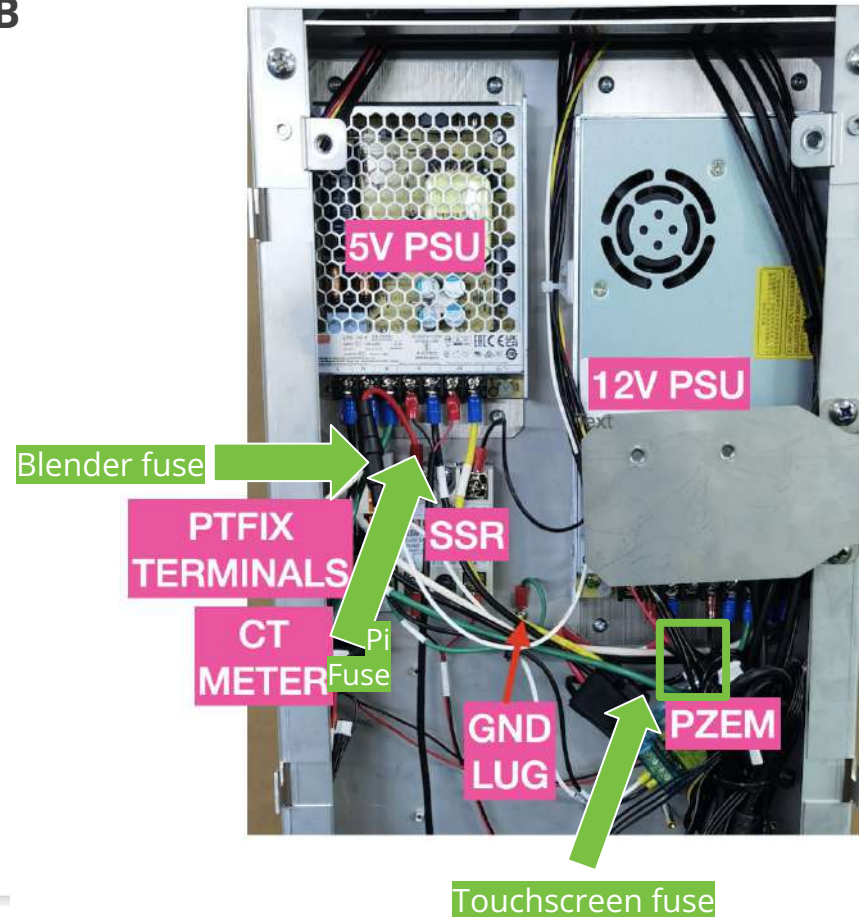
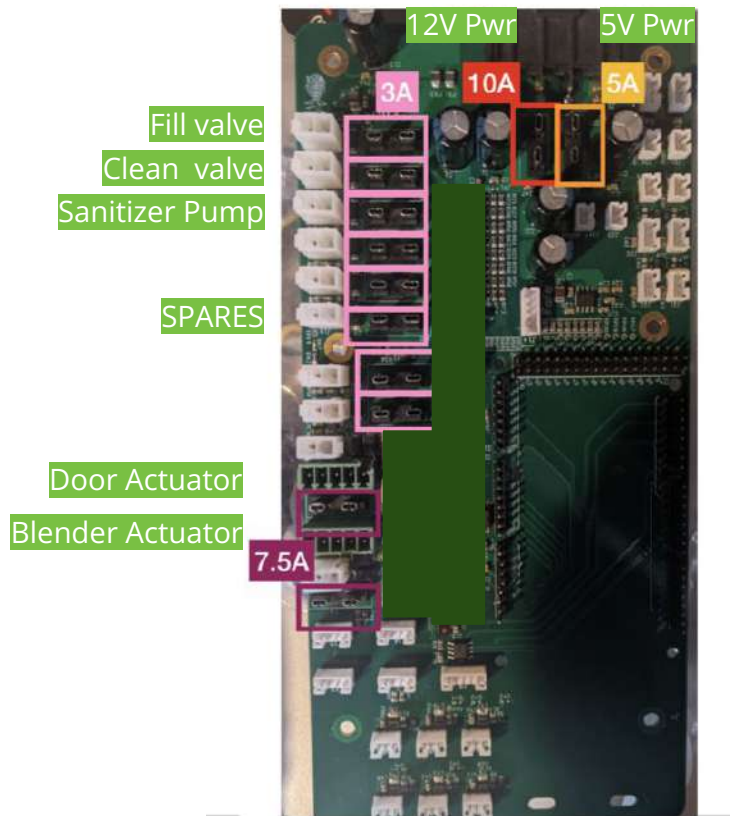


# 2. f) Core safety systems

## Fuses



Fuse and Jumper layout on PCB



### Fuse List

Ceramic Fuses:

AC Mains – 5A ceramic quick blow  
in power inlet at back of machine (see image above for location)

AC Blender – 3A ceramic quick blow on red blender power wire - (see right image for location)

DC Touchscreen - 5A ceramic quick blow on red screen power wire - (see right image for location)

Raspberry Pi - Rated 5A on red Raspberry Pi wire

**Blade fuses on main PCB** ( see left image for location - with associated component in orange)

- smoodiBoard 12V – 10A blade
- smoodiBoard 5V – 7.5A blade
- (2x) linear actuator – 7.5A blade
- (8x) 12V solenoids – 3A blade

\*All blade fuses shall be provided by Littlefuse or equivalent (part numbers below)

- 0297003.H
- 0297010.WXNV
- 0297005.WXNV
- 029707.5WXT

## 2. f) Core safety systems




### Fuses

- Most fuses on the PCB have indicator LEDs to help in identifying if the fuse is intact (when LEDs turn on).
- Check fuse in question to see if metal is continuous - if not, please see if there was a reason it burned such as a short and then replace if no issue found.

 Please only add remove fuses when the machine is powered down and unplugged.



## 2. g) Product Label

	<b>Self-cleaning smoothie blender</b> <b>Generation: Banana</b>
<b>Power:</b> 120VAC, 60 Hz 3A <b>Water Inlet:</b> 40-80 PSI <b>Drain:</b> 1" ID tube. <b>Minimum slope</b> - 1/2" per foot <i>Drain must have an air gap within 12' of machine's outlet</i>	<b>AC Fuses:</b> <b>Input:</b> 250V 5A <b>Blender:</b> 250V 3A <i>Please refer to service manual for DC blade fuse values on smoodiBoard main PCB</i>
<ol style="list-style-type: none"><li>1. Power off system before placing hands within machine. Warning Shock and pinch hazards when energized.</li><li>2. Wear gloves when servicing any parts within machine - risk of sharp edges.</li><li>3. Install system with GFCI plug or outlet</li><li>4. Install system with a filtered water inlet along with shutoff valve, water hammer arrestor, and backflow preventer.</li><li>5. Connect sanitiser recommended by smoodi per installation requirements and make sure to refill as necessary</li><li>6. Touchscreen is a 10.1 inch monitor. Model: MKU-TSC101FZ rated at 12VDC 3.6A. <b>Do not open the back cover of the screen</b> - there are no serviceable parts inside (<b>DANGER - high voltage inside screen</b>)</li></ol>	
Serial Number: <b>012106000101</b>	
	E523837 
This machine is patent protected under smoothie, Inc. by: US11207646B2, US20210274974A1	

## 2. h) smoodi Consumables



- 16 oz, pre-packaged smoothie cups
- 100% natural whole fruits and greens
- No added sugar
- Come in proprietary packaging that is required for smoodi system to function properly
- Need to be stored in a freezer at below 0F at all time



Do NOT use smoodi machine with any other cups, it will most likely destroy the smoodi system. Warranty does not apply if used with other cups.

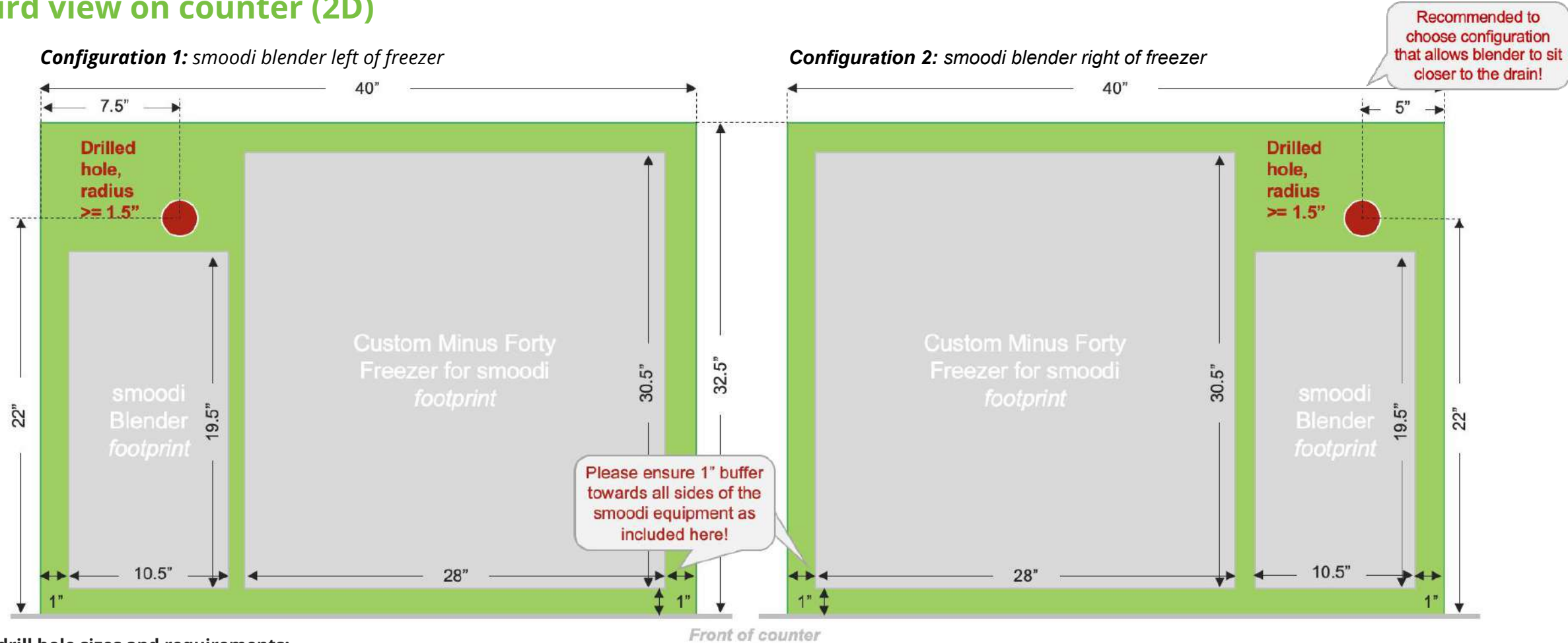


# 3. Machine Installation and Startup



# 3. a) Preparation of counter for smoodi equipment installation

## Bird view on counter (2D)



### Plumbing drill hole sizes and requirements:

**Drain:** use a 1.5" radius (or bigger) drill hole to accommodate the drain tube. Provide ample slack (minimum 24") to be able to service the machine. Recommended to use smoodi provided elbow adapter and hose clamp to connect drain tube to outlet of machine. Ensure minimum slope of 1/2" down per every 12" of run is maintained in the drain. Drain outlet tube shall be open to the environment (i.e. not a closed system) or vented within 10' of the machine outlet to avoid any pressure / vacuum related issues. An example of this would be a drain tube running into an open drain basin.

**Water inlet and sanitizer inlet** require 1/2" radius hole to run hose through furniture/cabinetry. The position of the holes are not critical but take into consideration whether the water filter will be mounted to the back of the machine or underneath the counter. Ensure pressure at the inlet of the machine is 40-80 PSI. Sanitizer line shall be no longer than 6'. If sanitizer is placed below the machine, make sure to install the 1/4" tube with a check valve provided by smoodi placed inside at the tube inlet at the bottom of the sanitizer bottle to make sure fluid remains inline without draining out as a result of gravity.

# 3. b) Site Inspection Checklist

**GENERAL**

Location name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contact Name: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Desired smoodi Launch Date: \_\_\_\_\_  
Traffic per day in the location: \_\_\_\_\_ customers per day

---


smoodi setup is visible to a consumer entering the location. If no, explain why? \_\_\_\_\_  
What is it placed next to (products/infrastructure) : \_\_\_\_\_

**PLEASE SEND A FEW PICTURES OF YOUR STORE (counter you have in mind, view from entrance, etc.)**

**SPACE**

Sufficient counter space available for:

- smoodi Blender: 11" wide, 20" deep, 32.5" high
- Freezer: 28" wide, 30.5" deep, 32.5" high
  - Lift gate required for freezer delivery (arrives on a pallet!)
- Header: Additional 18" height on top of blender and freezer [optional]
  - I wish to add the custom smoodi header.



---

**POWER**

- 3 x 120V** electrical plug available with at least **5 Amps** for each component
  - 1 plug per blender
  - 1 plug per freezer
  - 1 plug per header

Distance between electrical plug and desired smoodi blender position: \_\_\_\_\_ ft

**PLUMBING**

- Fresh water supply available
- 3/8" PTC interface for water supply available
- Water pressure of supply is at least 40 PSI, measured water pressure: \_\_\_\_\_ PSI
- Fresh water is filtered  
Type of filter: \_\_\_\_\_
- Drain / sink available for universal dishwasher drain hose (5/8", 3/4" or 1" inner diameter)
- Drain is within 6 ft of machine to guarantee a steady downward slope of at least 1/2" per feet of drain tube  
Distance between drain and machine placement: \_\_\_\_\_ ft
- Hole of at least 1.5" is present and available in counter for drain tube in the back of the smoodi blender

**PLEASE SEND CLEAR PICTURES OF FRESH WATER AND DRAIN CONNECTIONS**

---

**FREEZER**

Back-up freezer available for additional smoodi cases? (Y/N) \_\_\_\_\_

If yes, is the freezer temperature below 0°F? Specify if other: \_\_\_\_\_

If back-up freezer is available, available space for # \_\_\_\_\_ cases

---

**WIFI**

- WIFI connection available

Name: \_\_\_\_\_  
Password: \_\_\_\_\_

Additional comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Click [here](#) for document link/download.

# 3. c) Machine Installation

## Required parts and tools

### Required parts:

**FRESH WATER SUPPLY** (order of list from existing water supply to smoodi machine, see next slides):

- 3/8" OD LLDPE tube (or equivalent NSF-approved tube)
- 3/8" manual shutoff valve
- 3/8" T-connector for water hammer arrestor
- Water hammer arrestor with 3/8" PTC adapter
- Water filter (Part no. 5627302) with 3/8" adapter piece



### **DRAIN:**

- 1" standard dishwasher hose, at least 6ft
- 1" Elbow connector



### **SANITIZER SUPPLY:**

- 1/4" tube
- 1/4" Check valve (if sanitizer bottle is placed below machine level)



### **POWER:**

- 120V power cord (ideally GFCI)



### Required tools:

The tools required to assemble the plumbing parts may vary based on the location of the existing drain.

Suggested tools:

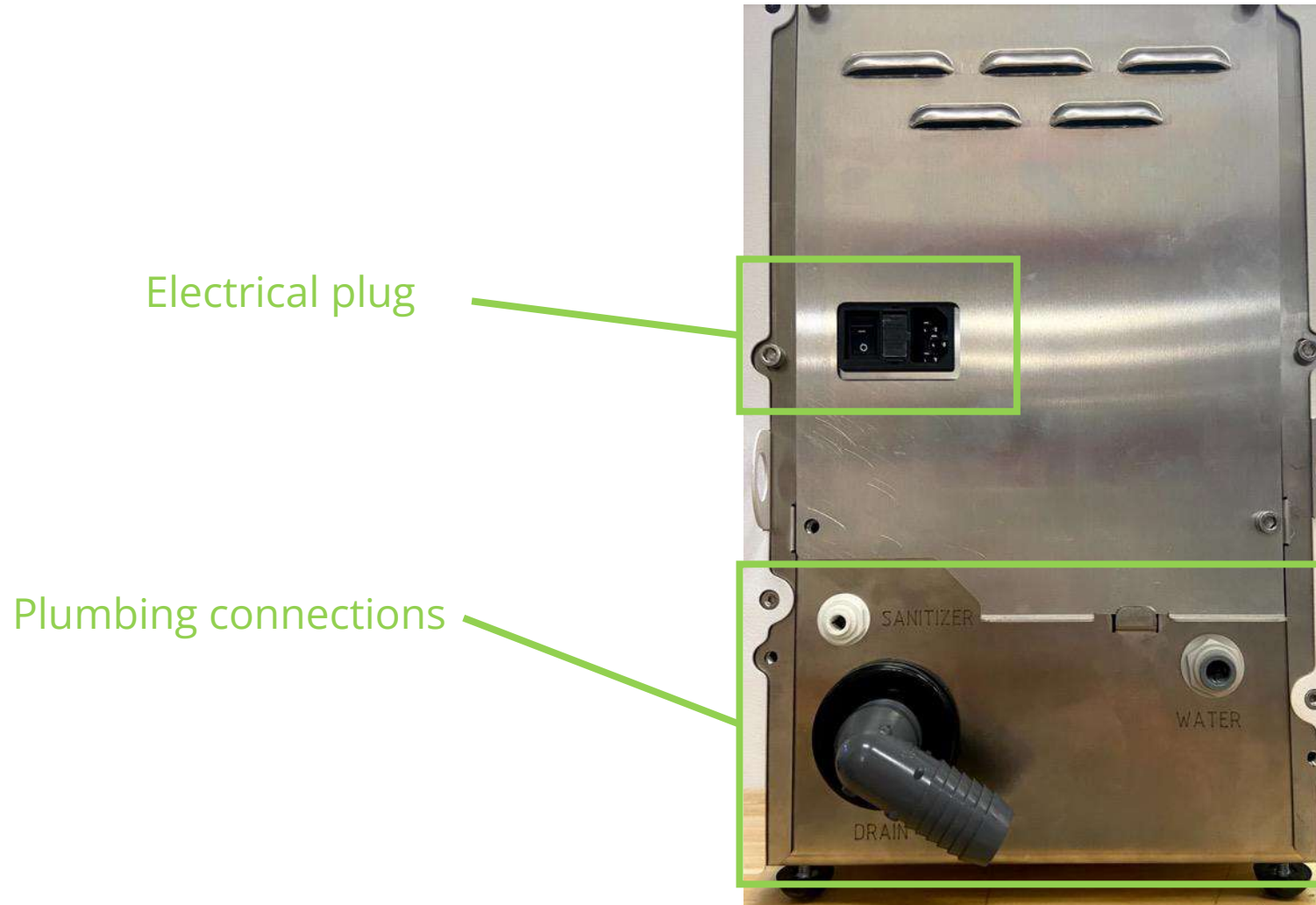
- Channel locks/pliers
- Adjustable wrench
- Teflon tape (1/2")
- Tubing cutters



Use a certified plumber if anything beyond quick connect parts are used.

# 3. c) Machine Installation

Back of machine with all required connections



# 3. c) Machine Installation

## Instructions (1/3)

1. Place smoodi machine on a counter next to a drain outlet, make sure the counter is even
2. Installation of the smoodi machine is simple. If required connections are in place (see site inspection checklist), the smoodi machine is plug and play:



### a) DRAIN:

- Connect drain tube to external drain and respective connector on back of machine
- Attach drain tube to counter, if necessary, to ensure it does not move around during operations



### b) FRESH WATER:

- Turn off fresh water inlet
- Assemble back of machine plumbing kit (water hammer and water filter) *see visuals on next page*
- Attach it to the back of the machine
- Connect fresh water line to shut-off valve of assembled back of machine plumbing kit
- Add blue retention clips to all push-to-connect fittings to secure the tubes in place.
- Turn on fresh water inlet and ensure that there is no leakage.



### c) SANITIZER

- Place sanitizer bottle behind the machine (or in a cabinet underneath)
- Connect ¼" sanitizer tube to machine
- Make sure the other end of the sanitizer tube goes all the way to the bottom of the sanitizer canister to ensure proper sanitization
- Use check valve in sanitizer bottle if placed below machine level.
- Ensure proper orientation of check valve.



- **d) POWER:** Connect power cord to 120V outlet and smoodi machine



Make sure there is no kink or U shape in the drain tube that would either block the drain flow (kink) or allow for accumulation of water (U shape).



Make sure drain has a steady downward slope of at least ½" per ft



Ensure end of drain tube is not submerged in water – needs to be open for water and air to evacuate properly



Install fresh water connection with adequate back-flow protection to comply with national, state & local codes



Use Teflon tape for all threaded plumbing connections



If leakage, make sure the PTC connections are completely inserted

# 3. c) Machine Installation

Instructions (2/3) – Key elements of external plumbing kit



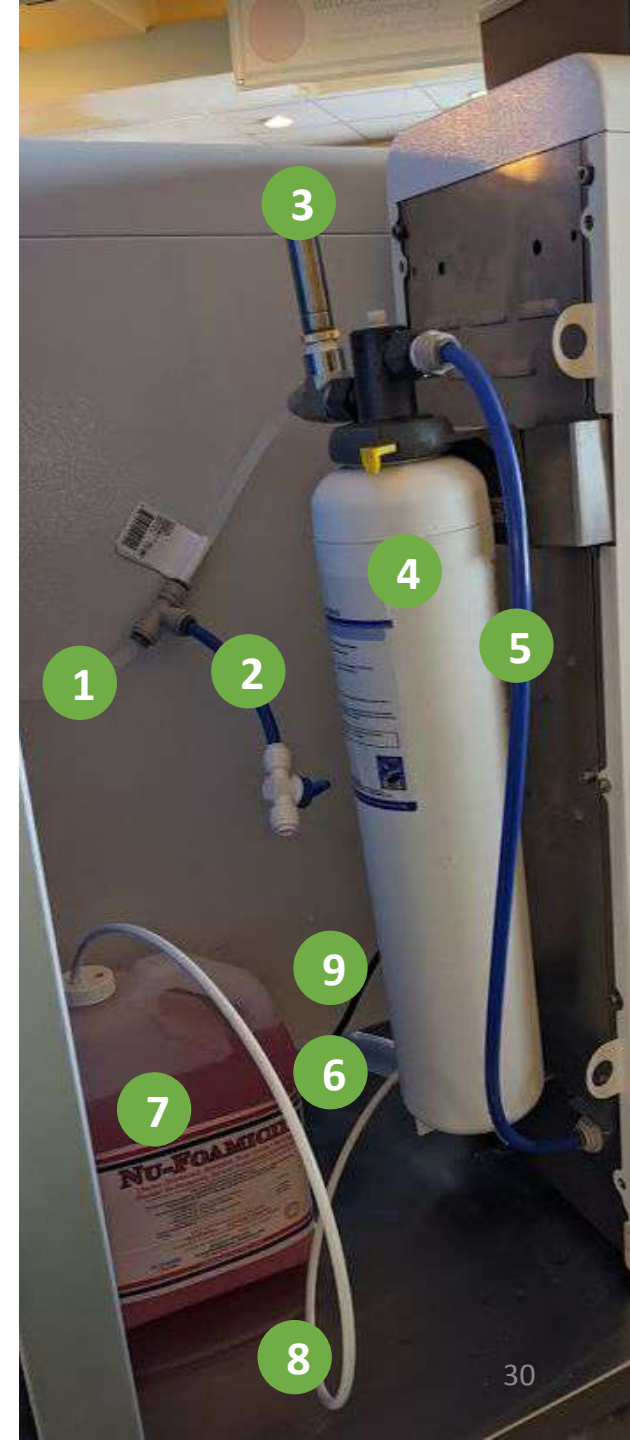


# 3. c) Machine Installation

## Instructions (3/3) – External setup example

On the right, how the connected set up might look like:

- 1 Fresh water inlet with 3/8" tube
- 2 *Optional: T-connector with purge valve [not required]*
- 3 Water hammer arrestor with 3/8" PTC adapter
- 4 3M filter with two 3/8" push to connect adapters
- 5 3/8" hose for water inlet to system
- 6 1" standard drain hose
- 7 Sanitizer bottle
- 8 Sanitizer tube
- 9 Power cord



# 3. d) Machine Start-up Checklist

## 1. Verify machine is set up correctly with all connections in place:

- smoodi blender is set-up on even counter
- Drain tube is attached and has steady downward slope (no risk of pooling of water in the tube!)
- Sanitizer bottle is in place and connected to smoodi blender via tube

## 2. Turn on fresh water connection



Make sure all external fresh water valves are open

- No leaks in external plumbing installation

## 3. Turn on machine (see picture on the right) and verify that:

- smoodi blender boots in less than 2 min, you should see the following screen after booting:
- You see lights turn on around the smoodi logo on the front service door as well as on the cylindrical tube door
- Screen turned on
- NO** yellow thunderbolt sign on screen (that would signal low voltage issue)
- Barcode scanner lights up in red after machine is turned on



## 3. Run Calibration via service menu (wait until finished) – see step *Calibration* (section 4.b)



Make sure there is no leakage anywhere under or behind the machine around external plumbing connections

## 4. Run Cleaning, Prime Pump and Sanitization subsequently via service menu – see *Access Service Menu* (section 4.a)



Only after confirming with smoodi support team: **5. Connect Wi-Fi and run Software update via service menu – see step *Update Latest Software and Connect to Wi-Fi* (section 4.c and 4.f)**





# 4. Service Menu

# 4. a) Service Menu Access

1 The service menu can be accessed during the idle state of the machine, that's one of the following screens



2 To access the service menu – you'll need to sequentially tap and release three areas of the screen as follows:



3 Once the passcode page appears, enter the secret access code: 2 3 1



# 4. b) Calibration of Machine

## PART I: OPEN SERVICE MENU

- 1 Open the hidden **SERVICE MENU** by tapping and releasing on each of the three corners of the screen in the order highlighted below on the idle / home screens.

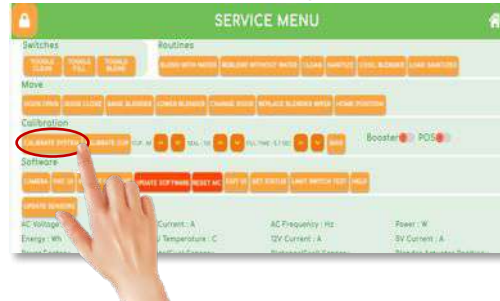



- 2 Passcode page will appear - enter access code: 2 3 1



## PART II: RUN CALIBRATION


- 3 Press **Calibrate System** button: calibration of the mechanical drive system will start automatically.



 **IMPORTANT:** Please do not obstruct process by standing back. Do not touch the tube door or insert a cup or any other foreign object. The calibration of the mechanical drive side will take 2 min.

- 4 Press **Calibrate Cup** button: calibration of the cup and seal sensors will start automatically - please follow instructions on the screen.



 You will be asked to insert a cup with seal on, please make sure you have one at hand.

- 5 Once calibration cycle is completed you can press the home button to return to the idle / home machine screen.



# 4. c) Update Latest Software

## PART I: OPEN SERVICE MENU

- 1 Open the hidden **SERVICE MENU** by tapping and releasing on each of the three corners of the screen in the order highlighted below on the idle / home screens.



- 2 Passcode page will appear - enter access code: 2 3 1



## PART II: UPDATE SOFTWARE

- 3 Make sure stable internet connection is established. Press **Exit UI** button and review internet connectivity on top right corner of home screen. If not connected check instructions under connect Wi-Fi. You will have to reboot the machine to return to the service menu via the instructions on the right.

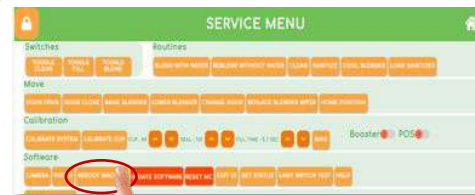


- 4 Press **Update Software** button: software update will start automatically.



**IMPORTANT:** Please only run update software after consulting with smoodi support team

- 5 Press **Reboot Machine** after the software update is completed.



# 4. d) Run System Diagnosis

## PART I: OPEN SERVICE MENU

- 1 Open the hidden **SERVICE MENU** by tapping and releasing on each of the three corners of the screen in the order highlighted below on the idle / home screens.

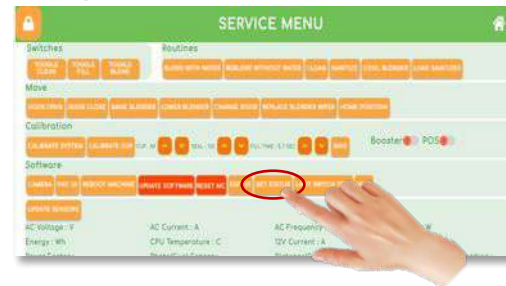


- 2 Passcode page will appear – enter access code: 2 3 1



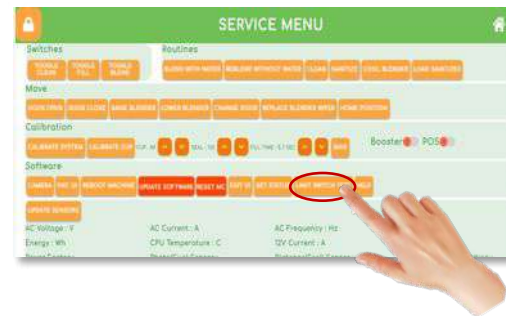
## PART II: UPDATE SOFTWARE

- 3 Press **Get Status** button and then **Run Get Status** until it completes the diagnosis.



- 4 Make sure all values in Get Status summary are passes (in green). If any red values appear, please email a screenshot to your smoothie support team.

- 5 You can run a similar test for the limit switches by tapping **Limit Switch test**.





# 4. e) Additional Service Menu Functions

## PART I: OPEN SERVICE MENU

1 Open the hidden **SERVICE MENU** by tapping and releasing on each of the three corners of the screen in the order highlighted below on the idle / home screens

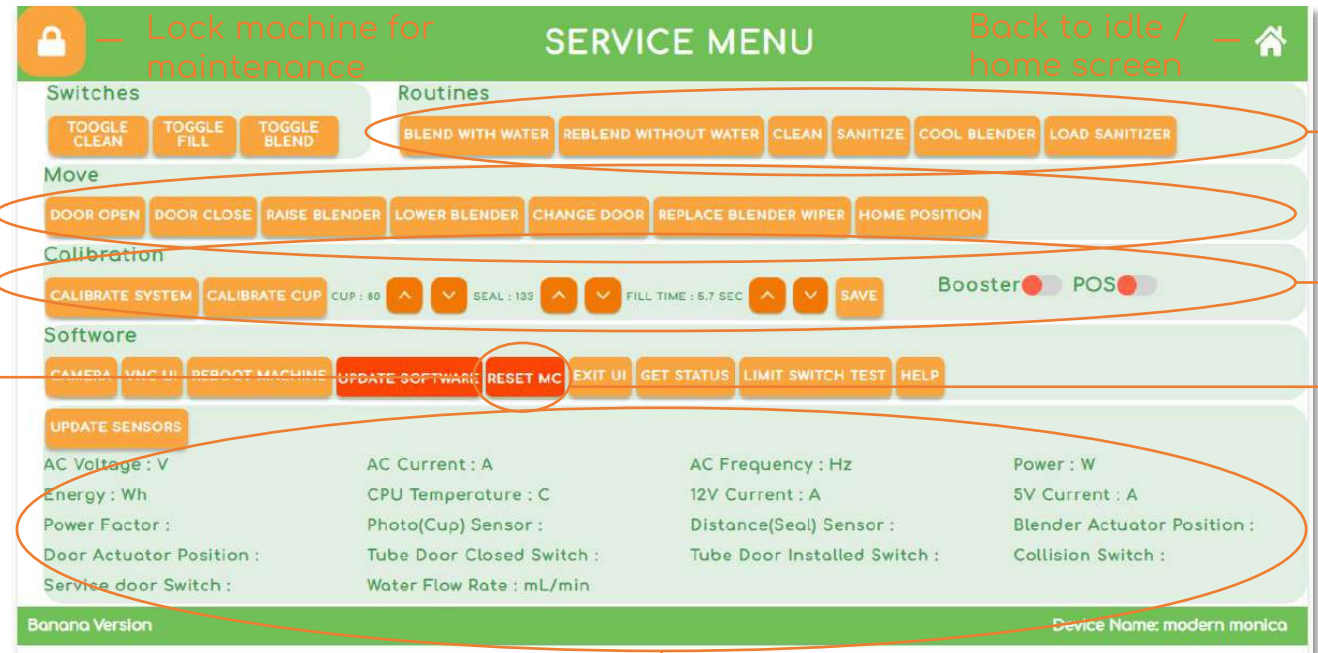


2 Passcode page will appear – enter access code: 2 3 1



Cleaning nozzles, fresh water fill line, blender blades can be turned on quickly by pressing the respective button

Every core function / routine of the machine can be executed, e.g. blending without adding water (“Reblend”)



Displaying all sensor values of machine for rapid diagnosis

Use Reset MC when you need to stop any action immediately

Precise position control of tube door & blender, it also allows to move the machine into convenient positions e.g. to “replace blender bell wiper”, one of the silicon parts under the blender

Calibration of system (usually only required during machine set-up)

# 4. f) Connect to Wifi

## PART I: OPEN SERVICE MENU

- 1 Open the hidden **SERVICE MENU** by tapping and releasing on each of the three corners of the screen in the order highlighted below on the idle / home screens.

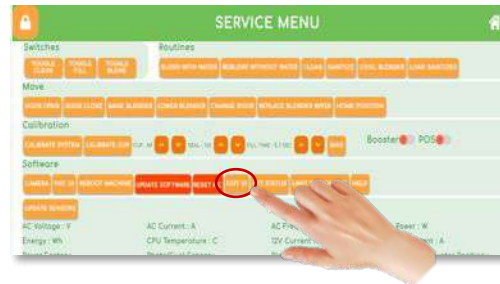



- 2 Passcode page will appear – enter access code: 2 3 1



## PART II: CONNECT WI-FI

- 3 Press **Exit UI** button in Service Menu. Service Menu screen will disappear.





- 4 Press  button on the top task bar and select the correct Wi-Fi name from the list of Wi-Fi.

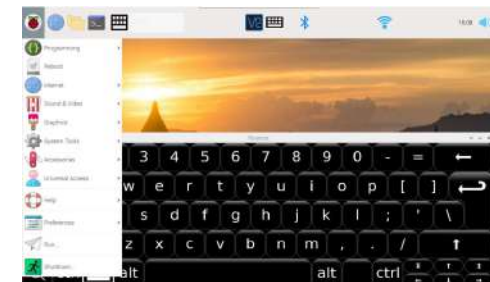


- 5 Enter the password using the on-screen keyboard.



You can hide characters by deselecting hide character option. Press "OK". Make sure  button turns to . If not, repeat this step.

- 6 Press the Start Menu icon  in top left corner and select "Reboot".



# 5. Regular Maintenance



# 5. a) Daily Routine

- ❑ Sanitize all surface with spray bottle & wipe them down with soft, non-scratching cleaning cloth



- ❑ Restock freezer with smoothie medleys and check remaining stock, if low, reorder!



- ❑ Refill straws – ideally custom smoodi bamboo straws.



## 5. b) Monthly Maintenance

- Run weekly maintenance routine
- Remove and clean the blender bell wiper (see instructions in section 7.b)
- Remove, clean, and sanitize the cup basin cover (see instructions in section 7.d)
- Unscrew, remove and clean & sanitize the tube door (see instructions in section 7.f)
- Sanitize the area of the cupholder underneath that silicon cup basin cover when removed.
- Ensure sanitization cycle was run daily (runs by default automatically every 24h but can be adjusted) – *logging of daily sanitizations will be added as a new feature to Service Menu soon.*
- Ensure the freezer temperature is between **0°F to 8°F** (it should be set to 0°F but can temporarily increase due to opening of the door, e.g. during restocking). Ideally make sure to test the temperature before restocking the freezer with cups.



# 5. d) Water Filter Replacement

1. Slowly turn 3M Filter cartridge to the left




2. Remove cartridge and insert new cartridge



Full video instructions from 3M: <https://www.youtube.com/watch?v=sQ55MsbbVH4>

# 5. e) Sanitizer Replacement

To be done when sanitizer canister is almost empty, generally after ~5 months (if smoodi system is set to automatically sanitize in 24 hr intervals).

1. Remove sanitizer tube (optionally with check valve) from (almost) empty sanitizer canister. Ideally keep cap in place so it can be reused with new sanitizer bottle.
2. Open new sanitizer and fill with remaining liquid of previous one.
3. Replace tap of new canister with the one from the empty canister that already has the required holes in it (one for the sanitizer, one for air to pass)
4. Position new sanitizer tank in same position as previous one
5. Make sure sanitizer tube goes all the way to the bottom on the inside of the sanitizer tank
6. Go into service menu and press Load Sanitizer  button followed by a sanitization sequence. Make sure there are bubbles during the final sanitization. If no bubbles visible repeat the same process.



# 6. Cleaning and Sanitization

## 6. a) Automatic cleaning and sanitization

smoodi system is performing a 25 seconds **rinse / clean cycle** after each blend by a user. In addition, it will run the cleaning procedure whenever a started blend is abandoned, e.g. If no cup is inserted after scanning a barcode or in case the user removes the cup again before the door fully closes for blending. This is to prevent any health and safety risk that might be introduced from the outside when the tube door is opened.

In addition, the smoodi system is by default set to **automatically sanitize** every 24 hours. It takes ~3min to complete and is crucial for the proper operation of the smoodi machine.



Please ensure sanitization frequency of your system is in line with national, state & local codes. You can contact the smoodi support team any time to adjust the sanitization frequency on your smoodi blender.



# 6. b) Run Manual Cleaning

## PART I: OPEN SERVICE MENU

**1** Open the hidden **SERVICE MENU** by tapping and releasing on each of the three corners of the screen in the order highlighted below on the idle / home screens



**2** Passcode page will appear - enter access code: 2 3 1

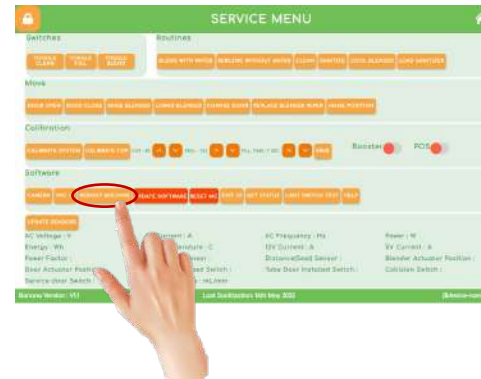


## PART II: RUN CLEANING

**3** Press **Clean** button: cleaning cycle will start automatically



**4** Once cleaning cycle is completed, press **Reboot Machine** button.



# 6. c) Run Manual Sanitization

## PART I: OPEN SERVICE MENU

**1** Open the hidden **SERVICE MENU** by tapping and releasing on each of the three corners of the screen in the order highlighted below on the idle / home screens



**2** Passcode page will appear – enter access code: 2 3 1



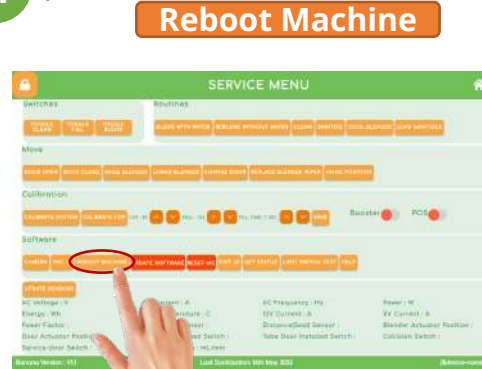
## PART II: RUN SANITIZATION

**3** Press **Sanitize** button: sanitization cycle will start automatically



*takes 5 minutes to initially spray the entire cavity with sanitizer, wait for 90 seconds for it to work and then finally rinse it off completely*

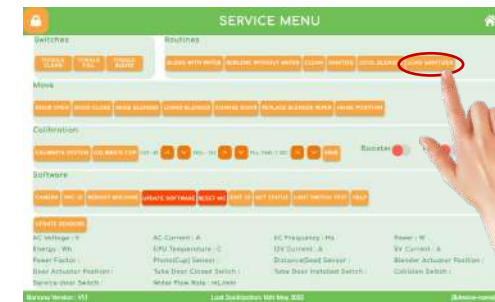
**4** Once sanitization cycle is completed, press **Reboot Machine** button.



**! IMPORTANT:** If you just set up the machine or replaced the sanitizer bottle, you will need to prime the pump and water tubes first, to do so, within the service menu, press

**Load Sanitizer**


button: it will make sure sanitizer is in the sanitizer line, you should see foam in the cup holder, takes roughly 1 min.

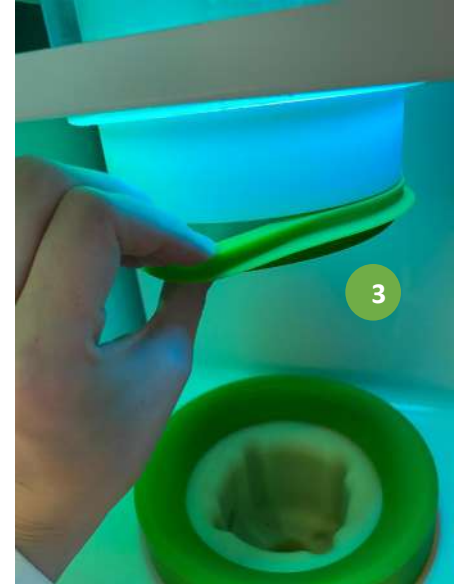


# 7. Core Servicing Procedures

# 7. Servicing Procedures


## a) Install Blender Bell Wiper

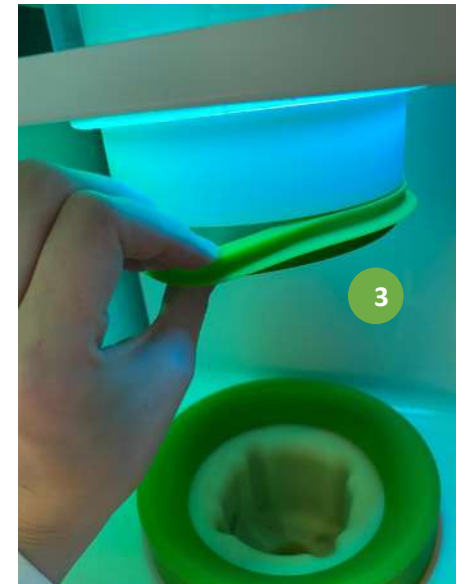
- 1 Access Service Menu (Section 4.a).
- 2 Press and Release Replace Blender Wiper  button. Tube door will raise, and blender will stick out slightly so that you have full access to the blender bell wiper.
- 3 Place blender bell wiper gently into mating slots at the bottom of blender assembly. Ideally start from one side and bend it over. The flexible silicon material will allow you to nicely install the blender bell wiper without force.
- 4 Make sure to press the blender bell wiper all the way in with your fingers, there should not be any bump when moving your finger between blender sheath and the blender bell wiper.
- 5 Return to Home Scree on top left of Service Menu. System will automatically move into home position.



# 7. Servicing Procedures

## b) Remove Blender Bell Wiper

- 1 Access Service Menu (Section 4.a).
- 2 Press and release Replace Blender Wiper  button. Tube door will raise and blender will be stick out slightly so that you have full access to the blender bell wiper.
- 3 Remove the blender bell wiper gently by slightly pulling it downwards starting from one side. The flexible silicon material will allow you to remove the blender bell wiper without force.
- 4 Rinse, clean with dish soap and sanitize the blender bell wiper before installing it back on the machine. Make sure to dry it before installing it back.
- 5 Review the blender bell wiper mounting slots, if necessary clean with towel or brush.
- 6 Use sanitizer spray bottle to sanitize the blender bell wiper mounting interface from all sides and let it rest for at least 90 seconds, then dry it before installing the blender bell wiper again.





# 7. Servicing Procedures

## c) Install Cup Basin Cover



Press both green silicon parts (blender wiper and cup basin cover) on both sides in all 360 degrees in a needling motion to make sure they are fully installed and sealed



- 1 Access Service Menu (Section 4.a)
- 2 Make sure blender is raised, otherwise press and release Raise Blender  button.
- 3 Press and Release Door Open  button. Tube door will open so that you have full access to the cup basin cover.
- 4 Place silicon cover gently on cupholder by starting from one side. The flexible silicon material will allow you to install the cup basin cover without strong force.
- 5 Make sure the basin cover snaps in place from all sides.
- 6 Press onto the inner part of the cover and make sure it engages with its mating feature on the cupholder. You will feel how it nicely snaps in place. This last steps is crucial to ensure a nice seal between cupholder and basin cover to avoid liquids entering the interface between the two.





# 7. Servicing Procedures

## d) Remove Cup Basin Cover

- 1 Access Service Menu (Section 4.a).
- 2 Make sure blender is raised, otherwise press and release Raise Blender  button.
- 3 Press and Release Door Open  button. Tube door will open so that you have full access to the cup basin cover.
- 4 Remove silicon cup cover gently by slightly pulling it upwards starting from one side. The flexible silicon material will allow you to remove the cover without strong force.
- 5 Rinse, clean with soap and sanitize the cup basin cover before installing it back on the machine
- 6 Review cupholder interface and slots, if necessary clean with towel or brush
- 7 Use sanitizer spray bottle to sanitize the cup basin cover mounting interface from all sides and let it rest for at least 90 seconds, then dry it before installing the cover again.



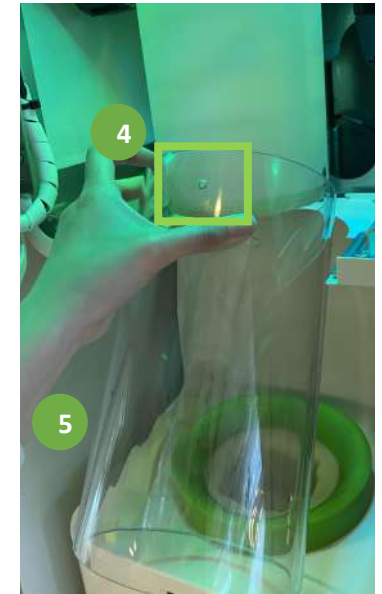
# 7. Servicing Procedures

## e) Install Tube Door




Make sure pins line up, and screw thumb screws tightly, otherwise door might fall out when either of those previous conditions are not fully met.

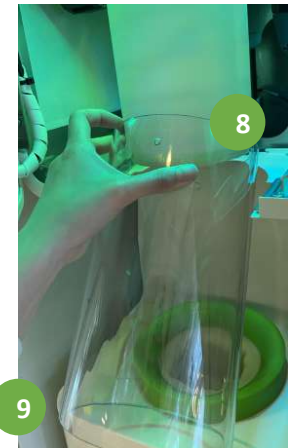
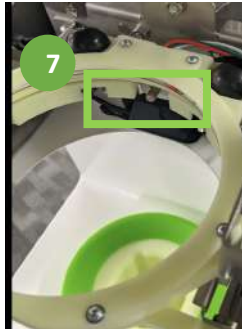
- 1 Ensure blender bell wiper is removed (see instructions on section 12.e), as well as the removable skin cover.
- 2 Open Front Service Door by unlocking it via the key on the top right of the machine
- 3 Make sure blender assembly is in top position. Otherwise access Service Menu (Section 4.a), press and release Change Door button. Tube door will open and blender will raise to top position, if not there already
- 4 Place tube door diagonally to pass blender and then gently raise vertically. Make sure small hole is in front and L-locking feature is in the back.
- 5 Push tube door gently upwards until it sits nicely in the tube door holder. You will not need to apply strong force, be careful with the two limit switches that monitor if tube door has been properly installed; Tip: In order to engage the L-locking feature (safety pin) in the back you want to make sure that the small hole in the front is not in the exact middle position, but slightly oriented to the left when looking at the tube door frontally. Once you got the pin into the L-locking feature, push the tube door all the way up and then rotate slightly counter-clock-wise when looking at it from the top until locked in place with safety pin. The hole in front of the tube door will be exactly in the middle position.
- 6 Once door sits tight, add the tube door holder bracket. You will need to place the small pin into the matching hole in the front service door.
- 7 Screw both black thumbscrews in to fix the tube door bracket
- 8 Slide removable skin cover into slots in front of tube door to fully cover the inside of the machine
- 9 Exit Service Menu. Door will close automatically, and system will return into home position.



# 7. Servicing Procedures

## f) Remove Tube Door


- 1 Access Service Menu (Section 4.a).
- 2 Press and Release Change Door  button to ensure blender and door are at the top travel positions.
- 3 Open Front Service Door by unlocking the door with the key that was provided.  
The lock is located on the top right corner. After unlocking just slightly push and gently open the service door.
- 4 Remove skin part in front of tube door to allow free access to the tube door.
- 5 Unscrew both black thumbscrews from blender strap/bracket and remove from tube door.
- 6 Remove blender bell wiper for better access.
- 7 Gently rotate tube door clockwise if you were to look on it from above. This will allow the hook feature in the back of the tube door to disengage from the pin that locks it in place.
- 8 Pull tube door down until it rests on the cup holder- should happen easily, do not apply strong force. If trouble removing it check again previous step to ensure tube door can travel in vertical direction.
- 9 In order to remove the door fully, please gently tilt the door forward to let it pass the blender. The blender contains a spring at the bottom and will be pushed up as the door is tilted forwards and pulled out of its position.
- 10 Rinse, clean with dish soap and/or sanitize, and dry the tube door to place back in the machine.



 Don't use a brush with the tube door during cleaning as it will scratch it. Use a soft cloth instead!

# 7. Servicing Procedures


## g) Install Blade

- 1 Access the Service Menu (Section 4.a)
- 2 Select replace blender wiper option 
- 3 Push bottom part of the blender up to reveal the blade holder (with little force)
- 4 A pin in the blender shaft secures the blade in place. Make sure it is facing you when positioning the blade.
- 5 Push the blade up the blender shaft and position it where the pin is aligned with the left side of the top opening of the blade. (Tip: pin needs to be as close as possible to the left side of the opening to ensure it does not come out of the blender)



# 7. Servicing Procedures

## h) Remove Blade

- 1 Access the Service Menu (Section 4.a)
- 2 Select replace blender wiper option 
- 3 Push up vertically the bottom part of the blender to reveal the blade (with little force)
- 4 A pin in the blender shaft secures the blade in place. To release blade, pull slightly downwards and counterclockwise during that downward motion. It will allow the blade to get around the pin in the blender shaft.





# 7. Servicing Procedures

## i) Open Side Panel

- 1 There is a middle screw on the back of each side panel. To slide open each side, unscrew first.
- 2 On each end of the side panels, there are two circular holes placed. Insert thumbs in each hole and push/slide to the side to release the panel.
- 3 Once the side panel is released from its locks, move slightly down to finish releasing the door.





# 7. Servicing Procedures

## j) Close/Install Side Panel

- 1 Each side panel has lock features that fit in with holes in the machine. Make sure they are aligned before placing cover.
- 2 Start sliding backwards, ensuring the side panel is locking with the lock features.
- 3 Once they are all locked into place, push up vertically to finishing locking the side panel in place.





# 7. Servicing Procedures

## k) Sanitizing Cycle




Once the sanitizer has been sprayed all over the blender bell, tube door and cup holder, the system will not move for 90 seconds before rinsing it off. Please wait until the full sanitization is finished.

- 1 When touching any internal part of the smoodi machine (inside the Tube Door), a sanitizing cycle must be performed:
  1. When cleaning the Tube Door
  2. When replacing the Blade
  3. When cleaning the Silicon Cover on Cup Holder
  4. When cleaning the Blender Bell Wiper
- 2 Access Service Menu (Section 4.a).
- 3 **MAKE SURE TUBE DOOR IS CLOSED BEFORE STARTING CLEANING CYCLE.**
- 4 Select Sanitize  button.
- 5 Process takes around 1:30 min. When finished, click Reboot Machine  button.

# 7. Servicing Procedures

## I) Disconnecting the smoodi Machine - Option 1



- 1 Purge blender
  1. Close shutoff valve in external plumbing
  2. Access Service Menu (section 4.a)
  3. Select Toggle Fill  button
- 2 Turn off machine via soft shutdown. If it doesn't work, use hard shutdown via switch in the back of machine.



Make sure to open the shut off valve again after the servicing procedures if system is working again.

# 7. Servicing Procedures

## I) Disconnecting the smoodi Machine - Option 2

- 1 Purge blender
  1. Close shutoff valve in external plumbing
  2. Access Service Menu (section 4.a)
  3. Select Toggle Fill  button
- 2 Turn off machine via soft shutdown. The soft shutdown is used to shutdown the machine before turning off power from the machine. Press  button two times.




# 7. Servicing Procedures

## 1) Disconnecting the smoodi Machine - Option 2

- 3 Press the  button to minimize the keyboard. Press the start menu  icon as shown in the image below. Click shutdown option.



- 4 Press the shutdown button as shown in image below.  Please wait for 30 seconds before turning off power from machine.









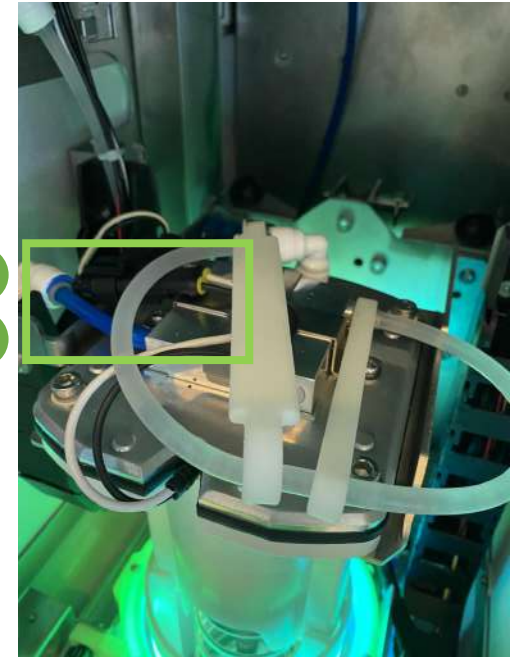
# 7. Servicing Procedures

## m) Install Blender



Make sure water line connection is closed for this step. Blender will need to be connected to the water line.





- 1 Access the Service Menu (Section 4.a)
- 2 For placing the blender back on the machine, make sure the tube door is in Home Position (completely closed) and ensure the blender support is not all the way to top touching the top cover. You can control the blender support position by selecting "Lower Blender" or "Raise Blender" from the Service Menu.
- 3 Once the blender support is in the desired position (3-5 inches below the top position), grab the blender with the water and electrical wires facing you.
- 4 Place the blender back into the blender support and gently rotate clockwise 90 degrees for water and electrical wires to face left when facing the machine. **Water tube of the blender assembly needs to be in the back once placed in the blender holder brackets.**
- 5 From the Service Menu, select Lower Blender  button to position the blender at a position that is accessible to connect back the water and electrical wire, plus the 4 blender screws.
- 6 Connect water wire and add blue retention clip (Tip: You'll feel when the wire has reached the end)
- 7 Connect electrical wire (Tip: It needs to click with the security pin from the other end)
- 8 Tightly screw in the 4 screws on top of the blender to firmly attach it to the blender brackets.
- 9 From the Service Menu, select Replace blender Wiper  button to place back blender bell wiper and silicon cup basin cover.
- 10 Select Home Position  button
- 11 Select Toggle Blend  button to make sure blender electrical wire was correctly installed
- 12 Select Toggle Fill  button to make sure there's no water leaking
- 13 Once everything is verified, select Sanitize  button
- 14 When sanitization process is completed, reboot the machine.





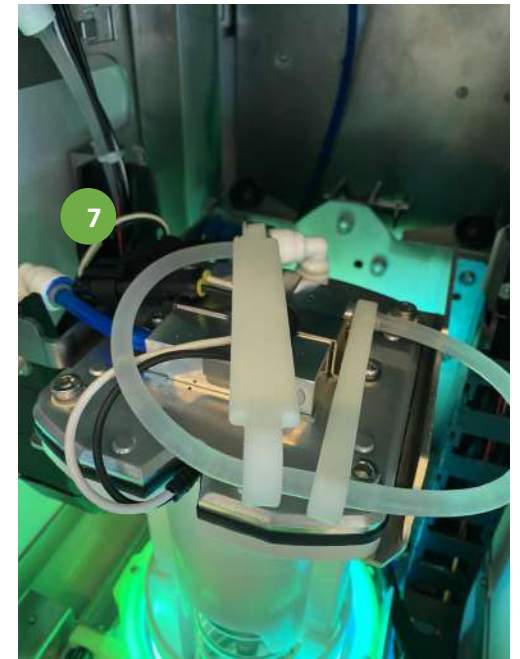
# 7. Servicing Procedures

## n) Remove Blender

- 1 Close manually the water valve
- 2 Access the Service Menu (Section 4.a)
- 3 Select toggle fill  to release all water pressure inside the machine
- 4 Once you see no water coming out, select replace blender wiper 
- 5 Remove blender bell wiper for easier control
- 6 Select Door Close  button and make sure tube door is placed in Home Position (closed)
- 7 Select Lower Blender  button and drive down blender to make sure the position is accessible to take off screws from the top (3-5 inches below the top position).
- 8 Unscrew 4 blender screws from the top
- 9 Once all screws have been removed, shut down the machine and unplug the electrical wire.
- 10 Disconnect the water and electrical wire from the top of the blender.
- 11 Rotate the blender counterclockwise 90 degrees and gently tilt to the front to get the blender out of the blender brackets.



Make sure that the water valve is fully closed and that all water pressure has been released before disconnecting the water line from the blender.



# 7. Servicing Procedures

## o) Access Electronics Box by removing Back Panel



Make sure smoodi machine is turned off before accessing the electronics box. For shutting off the machine, please refer to section 7.I.

### Preparation:

- 1 Remove the cosmetic case in the back of the machine
- 2 Shut off machine and unplug the power cord
- 3 Remove the water filter from the back of the machine

### Opening the back panel:

- 4 Unscrew the 6 M6 screws that attach the back panel to the machine
- 5 Slightly slide the back panel upwards; Tip: use the two bends at the bottom of the back panel
- 6 Once you released the back panel from the retaining hook on the bottom you can pull it slightly towards you and then pull downwards. The back panel will come out right away



# 7. Servicing Procedures

## p) Installing the Back Panel

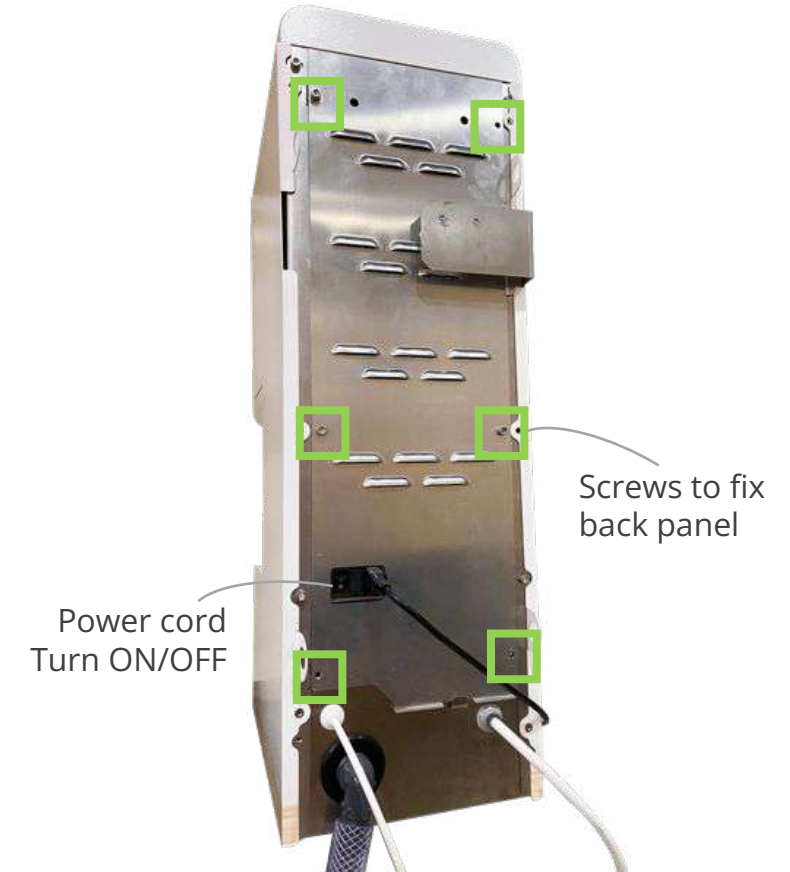


Make sure smoodi machine is turned off before accessing the electronics box. For shutting off the machine, please refer to section 7.I.

- 1 Slide top of the back panel upwards under the top skin cover
- 2 Orient the back panel vertically
- 3 Push downwards so that it connects with the hocking feature in the base plate
- 4 Orient the back panel so that all screw holes align
- 5 Screw in all 6 screws to fix the back panel

### Reconnecting the machine


- 6 Connect power cord
- 7 Attach water filter
- 8 Turn machine on
- 9 Install cosmetic cover over the back



# 7. Servicing Procedures

## q) Removing a PTC Water Tube

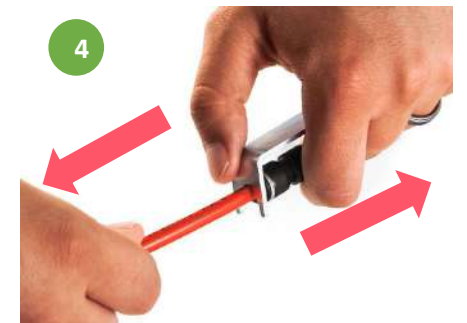
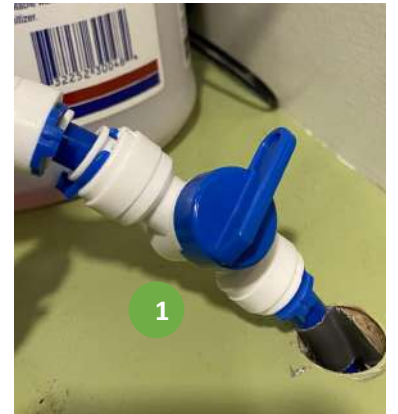
Required when removing a machine completely.

- 1 Close shutoff valve upstream of blender inlet
- 2 Purge to release pressure from respective water line.
  1. Access Service Menu (section 4.a)
  2. Select Toggle Fill  button until no water comes out
- 3 Push in plastic ring
- 4 Pull out tube while still pushing in the plastic ring

*If you can't execute all the above steps and remove the tube for any reason, you can always cut the tube.*



Removing PTC connections generally does not require a lot of force. If you feel you are applying force, please revisit the above instructions.



# 8. Troubleshooting

# 8. a) Troubleshooting Symptoms

Symptom	Possible Cause	Corrective Action
smoodi Machine is not turning on	Power cord unplugged?	Yes - Plug in power cord. No - Verify power by plugging in a different item and validating if it turns ON.
	Main power switch off?	Yes - Turn on main power switch. No - Verify power by plugging in a different item and validating if it turns ON.
Display screen is off	Screen displays a green light on the back of the Service Door?	Yes - Hard reboot the machine. No - Click the gray button on the bottom of the screen (inside the Service Door) until green light is back on.
	HDMI cable unplugged?	Yes - Plug HDMI cable. No - Check that the screen is on (green light on the bottom of the screen)
smoodi Machine is not initiating blending process ("Discard cup")	Tube door is correctly positioned?	Yes - Continue troubleshooting. No - Place back the tube door and fix with screws and tube door bracket (see section 7.b)
smoodi Machine is not blending	Water connection open?	Yes - Continue troubleshooting. No - Open water connection and ensure everything is correctly plugged into the machine.
	Blade is turning?	Yes - Continue troubleshooting. No - Revise that blender shaft is still attached to blender.
	Blender plugged to the electrical wire?	Yes - Revise that blender shaft is still attached to blender. No - Plug in correctly electrical wire (Make sure machine is turned off before plugging any electrical wires!)
smoodi Machine is stuck in a process	Stuck on "Place Cup" step	Soft reboot.
	Stuck on "Cleaning" process	Soft reboot.
	Stuck on "Sanitizing" process	Soft reboot.
smoodi Machine sensors	Not detecting seal?	Make sure machine is calibrated.
	Not detecting cup inside the machine?	Make sure machine is calibrated. Check the cup sensors.

See [debugging tree](#) for more detail.

If a part doesn't turn on, check fuses (section 2e) and limit switches (2e)



# 8. b) Troubleshooting Tips

## Soft Reboot

Soft rebooting allows to reset the system and can be used if the system should get stuck in a certain screen or task.

- 1 Tap and release on each of the locations indicated in the picture below (generally in the middle of each lateral). Please follow the indicated order.



# 8. b) Troubleshooting Tips

## Soft Shut Down - Option 1

Soft shut down allows to turn off the system without having to access the back of the machine for the turn on/off switch.

- 1 Tap and release on each of the locations indicated in the picture below (generally in the middle of each lateral). Please follow the indicated order.





# 8. b) Troubleshooting Tips

## Soft Shut Down - Option 2

Soft shut down allows to turn off the system without having to access the back of the machine for the turn on/off switch.

1 Press **EXIT UI** button two times.



2 Press the  button to minimize the keyboard. Press the start menu  icon as shown in the image below. Click shutdown option.



# 8. b) Troubleshooting Tips

## Soft Shut Down - Option 2

- 3 Press the shutdown button as shown in image below. **⚠ Please wait for 30 seconds before turning off power from machine.**



# 8. b) Troubleshooting Tips

## Hard Reboot



Avoid doing a hard reboot on the smoodi machine since it damages the SD card.

Hard rebooting turns off completely the smoodi Machine.

- 1 The on/off switch is located at the back of the machine (see image).
- 2 To do a hard reboot, turn off the machine with the back switch.
- 3 Wait 20 seconds before turning the machine back on with the same back switch.
- 4 Machine will turn back on.



# 8. c) Servicing Kit












IMAGE	ITEM NO.	ITEM	WHERE TO BUY
	1	Toolbox	Amazon - <a href="#">Click Here</a>
	2	Multi-Tool	Amazon - <a href="#">Click Here</a>
	3	Multi-head screw driver	Amazon - <a href="#">Click Here</a>
	4	Hex key set	Amazon - <a href="#">Click Here</a>
	5	Multimeter	Amazon - <a href="#">Click Here</a>
	6	Keyboard	Amazon - <a href="#">Click Here</a>

IMAGE	ITEM NO.	ITEM	WHERE TO BUY
	7	Tube cutter	Amazon - <a href="#">Click Here</a>
	8	Wire strippers	Amazon - <a href="#">Click Here</a>
	9	Monkey Wrench	Amazon - <a href="#">Click Here</a>
	10	Cleaning brush	Amazon - <a href="#">Click Here</a>
	11	Measuring tape	Amazon - <a href="#">Click Here</a>
	12	Spare Machine Key	Will be provided by smoodi



# 9. smoodi Servicing Plan

## 9. a) Scope of Servicing

The smoodi servicing plan includes parts and labor as long as the damage was not due to gross negligent behavior of a user, operator or owner of the equipment.

smoodi further provides water filter and sanitizer replacements to ensure continued operation of the system without any downtime and hassle.

For additional questions regarding your servicing plan, please reach out to your regional service contact at smoodi (see next page). We are happy to assist!

## 9. b) Service Contact

**smoodi service contacts are organized by region:**

□ Northeast: +1 857 498 0221  
[monica@getsmoodi.com](mailto:monica@getsmoodi.com)

□ Central US, Mid Atlantic and Southeast: +1 603 252 9109  
[morgan@getsmoodi.com](mailto:morgan@getsmoodi.com)

□ West Coast (incl Hawaii): +1 617 795 6445  
[pascal@getsmoodi.com](mailto:pascal@getsmoodi.com)

□ Outside of the US: +1 704 819 9248  
[bhavin@getsmoodi.com](mailto:bhavin@getsmoodi.com)

## 9. c) Additional Resources and Supply Links



### **SANITIZER:**

Glissen Chemical - 300048 Nu-Foamicide EPA Registered 1-Gal All Purpose Cleaner Concentrate, Industrial Commercial Grade

[Purchase link](#)



### **WATER FILTER:**

3M Water Filtration Products HF95-CL High Flow Series Replacement Water Filter Cartridge - 5 Micron Rating and 2.5 GPM

[Purchase link](#)

# 10. Machine Spare Parts List

# 10. Spare Parts List

- Wear Strips
- Linear Actuator
- Blender Assembly
- Blender blades
- Tube Door
- Tube Strap
- Cup basin cover
- Blender bell wiper
- Service Door Lances (Male and Female)
- Barcode Scanner
- Cup Sensors
- Camera
- TOF10120 Distance Sensors
- Raspberry Pi
- Flashed SD Card
- Flashed Arduino
- Fuses →Detail fuses
- Service Door Key
- Screen
- Limit switches
- [Fuses](#)

*Please contact your local service team if you need any spare parts.*



# 10. Spare Parts List

*Please contact your local service team if you need any spare parts.*

IMAGE	ITEM NO.	FILE NAME	DESCRIPTION
	1.1.2.4	Limit_Switch	
	1.1.3	Linear Actuator	Linear Actuator - LA-J-POT 12V, 305mm stroke, 58 mm/sec with custom 284506-5 connector
	1.1.4.3	Service Door Lance (Female)	NOT SPECIFIED
	1.1.0.5	Service Door Lance (Male)	NOT SPECIFIED
	1.1.8.3	Wear Strip	
	1.1.9.6.11	TUBE DOOR	NOT SPECIFIED
	1.1.9.6.12	TUBE STRAP	

IMAGE	ITEM NO.	FILE NAME	DESCRIPTION
	1.2.2	Barcode_Scanner	SELECT 80cm USB CABLE LENGTH
	1.4.6	Cup Holder Silicone Cover	
	1.4.7.1	Cup Sensor Receiver	
	1.4.8.1	Cup Sensor Emitter	
	1.5.2.1	Camera	
	1.5.2.2	TOF1020 Distance Sernsor	
	1.10.3	SD10 - Touchscreen-00	SCREEN

# 10. Spare Parts List

*Please contact your local service team if you need any spare parts.*







IMAGE	ITEM NO.	FILE NAME	DESCRIPTION
	2.2.1	Pressure Regulator P60-M1	
	2.3	Sanitizer Pump	Peristaltic Pump - HPP-12-100-ZA-4-SW, Santoprene 271-73 peristaltic tube, Barbed fitting for 1/4"(ID) external tube, 480mm(L) power wire with 2 pins connector TE 1586019-2 or equivalent
	2.4.2	Solenoid_Valve	Solenoid Valve - Custom electrical lead orientation
	3	BL - Blender	
	3.2.4.1	BLENDER WIPER	NOT SPECIFIED
	3.3.1	SHAFT & BLADE	BLADE

IMAGE	ITEM NO.	FILE NAME	DESCRIPTION
	4.1	PCB, RPi4 Model B	
	4.2	Flashed SD card	32 GB microSD UHS-I
	4.3	R-PI FAN	RASPBERRY PI COOLING FAN
	5.2	PROGRAMMED ARDUINO	
	5.4	FUSE 10A	10A BLADE FUSE
	5.5	FUSE 5A	5A BLADE FUSE
	5.6	FUSE 7.5A	7.5A BLADE FUSE

# 10. Spare Parts List

*Please contact your local service team if you need any spare parts.*

IMAGE	ITEM NO.	FILE NAME	DESCRIPTION
	5.7	FUSE 3A	3A BLADE FUSE
	5.8	C9	CABLE C9 - FILL VALVE
	5.9	C10	CABLE C10 - CLEAN VALVE
	5.1	C36	CABLE C36 (ARDUINO USB)
	6	CERAMIC FUSE 2.5A	2.5A CERAMIC FUSE
	7	CERAMIC FUSE 5A	5A CERAMIC FUSE

# 11. Appendix

# 11. a) smoodi Consumables Specs



**BRAIN BOOST**  
Strawberry, Blackberry,  
Raspberry, Banana



**TROPICAL VIBES**  
Pineapple, Mango, Coconut



**GREEN ENERGIZER**  
Spinach, Matcha, Mango,  
Banana

# 11. a) smoodi Consumables Specs

CUPS



CASES



## BRAIN BOOST

Strawberry, Blackberry,  
Raspberry, Banana

## TROPICAL VIBES

Pineapple, Mango, Coconut

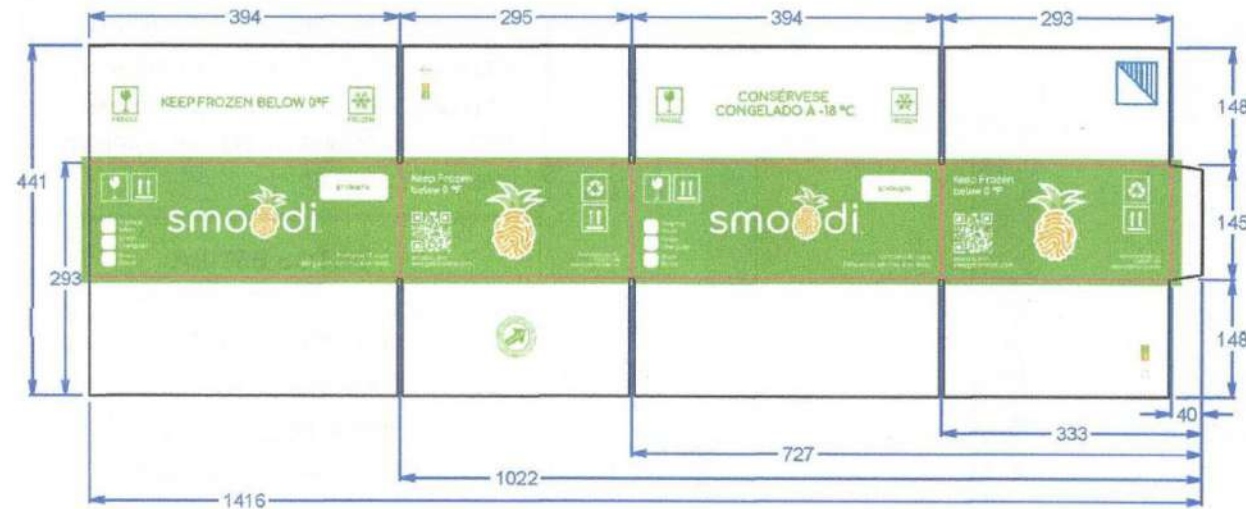
## GREEN ENERGIZER

Spinach, Matcha, Mango,  
Banana



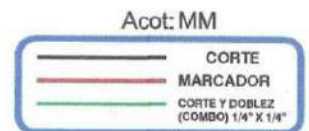
# 11. a) smoodi Consumables Specs

Layout (L x W x H):  
40 cm x 30 cm x 15 cm  
(considering folding on corners)



PC (V.07) HOJA 1 DE 3  
ID:20398

*all dimensions in mm*

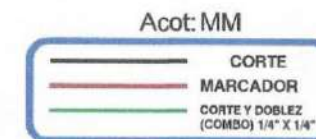
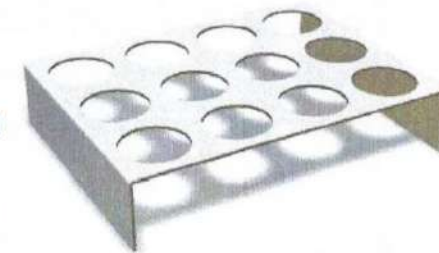
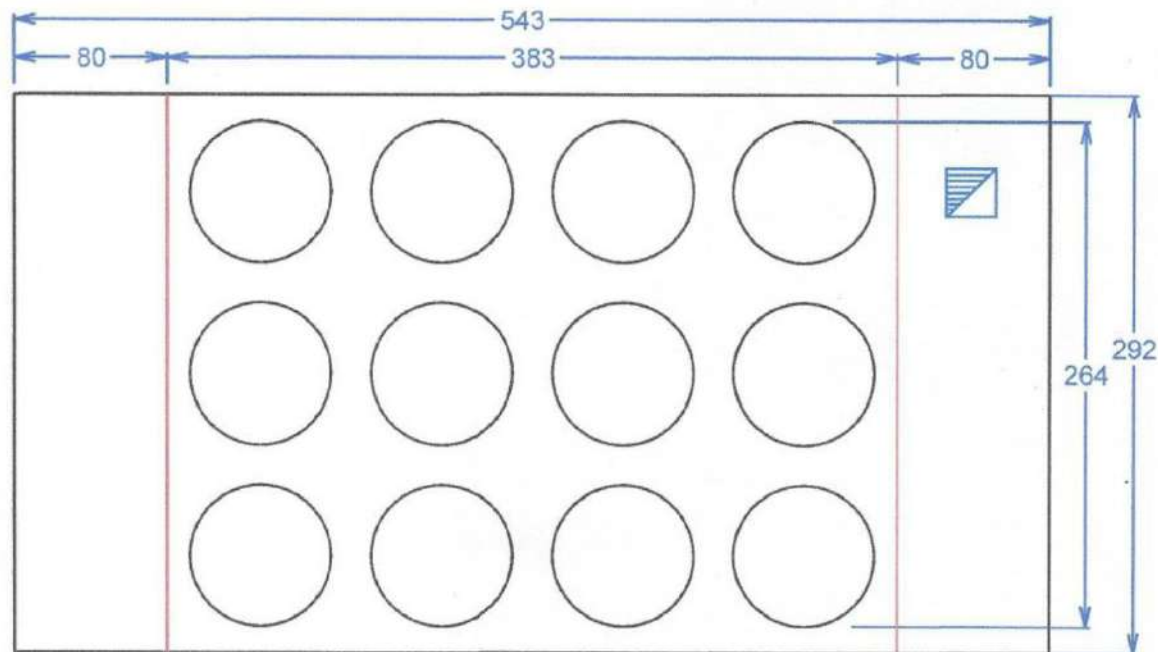


# 11. a) smoodi Consumables Specs

Content:

12 cups (16oz) per case

Weight per case: ~2.5kg



# 11. b) smoodi Accessories

## Freezer



	Smoodi Machine	Freezer
(W x L x H):	10.5" x 19.5" x 32.5"	27.9" x 30.5" x 32.5"
Weight:	60 lbs	136 lbs
Color:	White	White
Capacity:	30 smoodis / hour	198L / 84 smoodi cups

# 11. b) smoodi Accessories

## Header & Footer





# 11. b) smoodi Accessories

## Bamboo Straws

**100% natural, organic, biodegradable and reusable Bamboo straws**

12mm diameter, individually paper wrapped, smoodi logo engraved

60 straws in one box,

12 boxes in one cardboard case (720 straws)

MOQ: 10 cases

Landed cost per box (60 straws): \$15.67

Lead time: 40 days (ocean freight)



# 11. b) smoodi Accessories

## Bamboo Straws



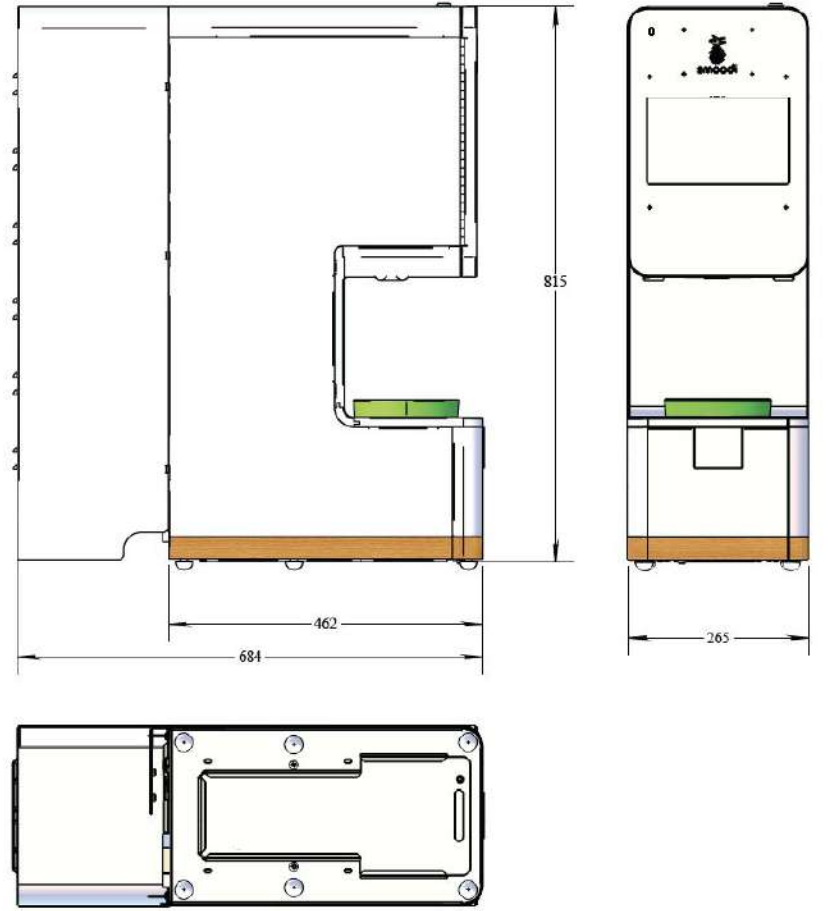
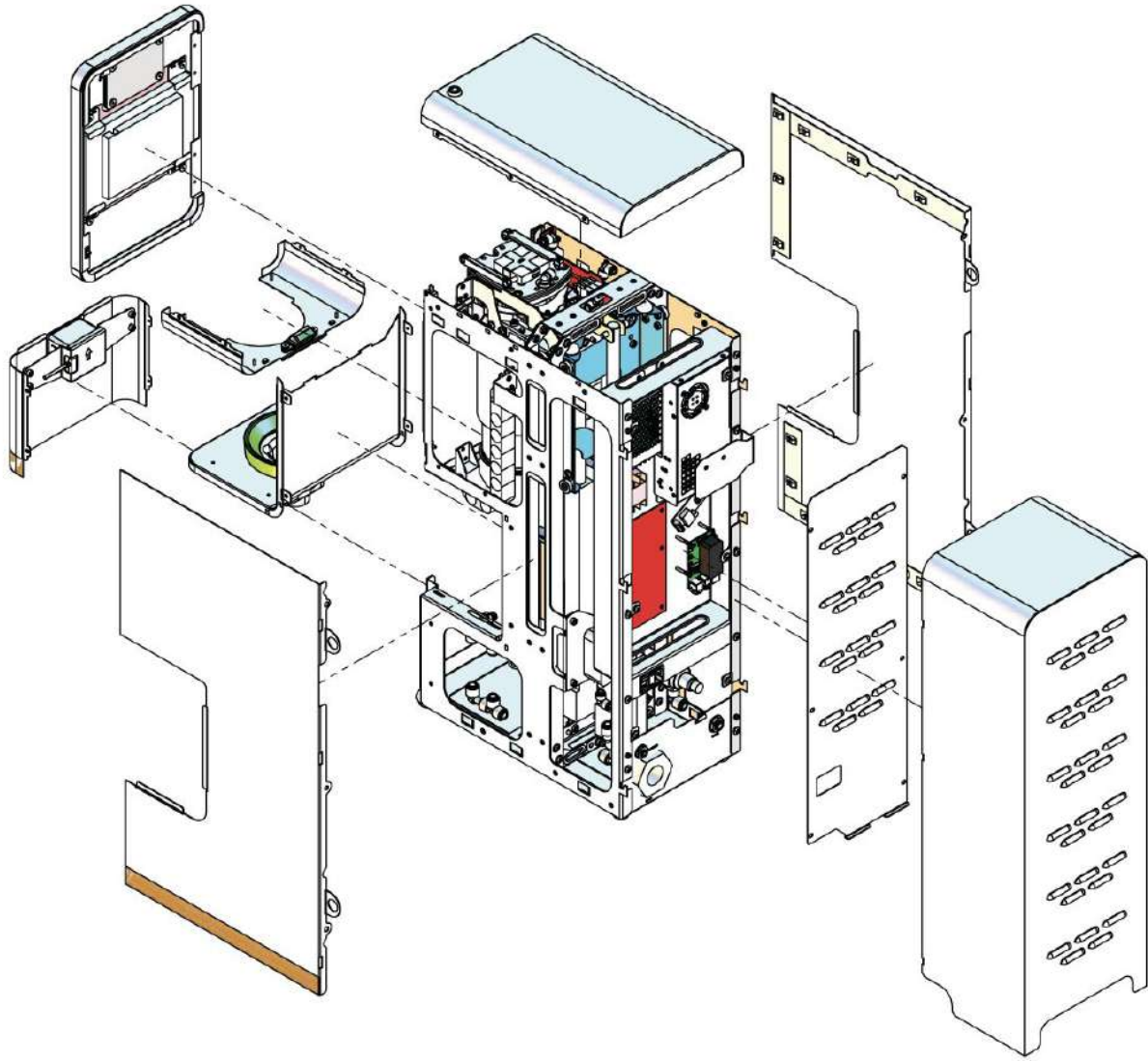
PRODUCT NAME : Bamboo Straw  
QTY: 720 STRAWS (12 BOXES / CTN,  
60 STRAWS / BOX)  
N.W: 6.6KG/CTN  
G.W: 7.2KG  
CARTON SIZE: 46.5x36x27 CM





# 11. c) smoodi Machine Assembly

smoodi Assembly



PROJECT	UNLESS OTHERWISE SPECIFIED	TITLE: SA - Smoodi Assembly	
MATL	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm	SIZE B	CM PART NO. 94
GAUGE		SCALE: 1:8	PROJECTION:  SHEET 1 OF 2
REF. THICKNESS			

# 11. c) smoodi Machine Assembly

Blender

Confidential

# 11. c) smoodi Machine Assembly

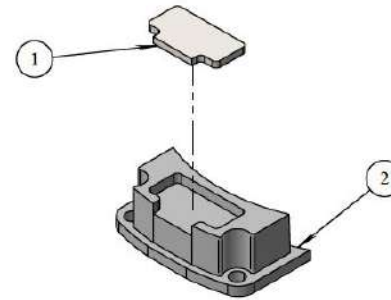
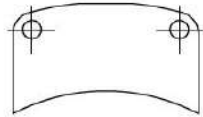
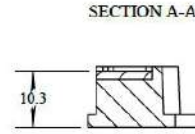
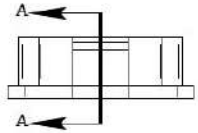
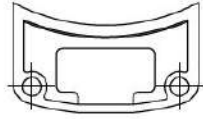
Blender Top Subassembly

Confidential

# 11. c) smoodi Machine Assembly

## Blender Stopper with Gasket

ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	Blender stopper gasket (1,5mm)		Silicon	-	-	1
2	Blender Stopper		3D printed nylon	A	16-6413	1



**NOTES:**

1. COMBINE PARTS USING ADHESIVE.

REV	DESCRIPTION	DATE
A		21.09.2021
LAST SAVED BY: P. JANUSZKIEWICZ		

PROJECT	UNLESS OTHERWISE SPECIFIED
MATL	-
GAUGE	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.02mm
REF. THICKNESS	

TITLE: <b>Blender Stopper with Gasket</b>		
SIZE	CM PART NO.	REV
<b>B</b>	16-6413	97 <b>A</b>
SCALE: 1:1	PROJECTION:	SHEET 1 OF 1

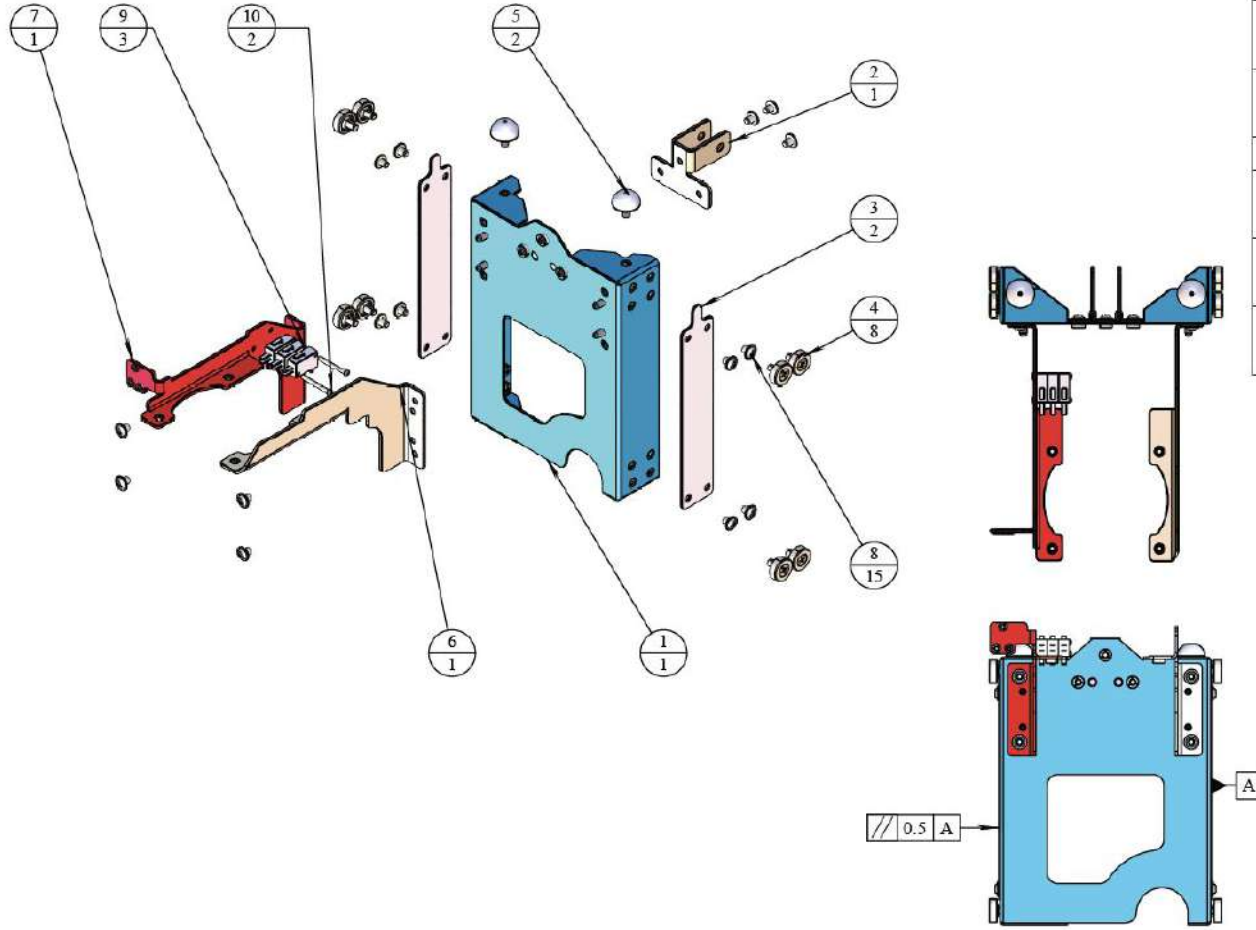
# 11. c) smoodi Machine Assembly

Blender Bottom Subassembly

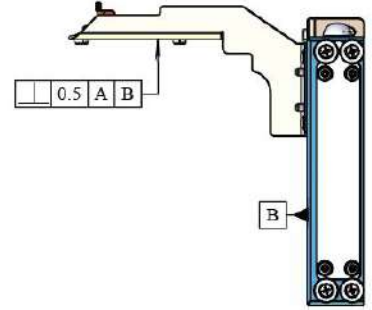
Confidential

# 11. c) smoodi Machine Assembly

## Blender Carriage Assembly



ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	FR02.05.1 - Blender Carriage	3000-013	AISI 304	I	-	1
2	Blender Carriage Upper Actuator Mount	3000-018	AISI 304	A	15-6952	1
3	Wear Strip	4000-050	Nylon 101	C	16-6438	2
4	TOK_Bearing	7000-029	Nylon 101	A	61-6037	8
5	7000-011-Rubber-Fee-01	7000-011	Material <not specified>	A	17-7328	2
6	FR05 -Right Blender Mount			E	15-6983	1
7	FR06 - Left Blender Mount			G	15-6961	1
8	M6 x 8 - FLANGED BUTION HEAD SCREW	90909A418	Material <not specified>	-	-	15
9	Limit_Switch	8000-049	Material <not specified>	A	'10-4116	3
10	M3 x 35 - Button Head Hex Drive Screw - 92095A201	92095A201	18-8 Stainless Steel	-	TH-20-30-35	2



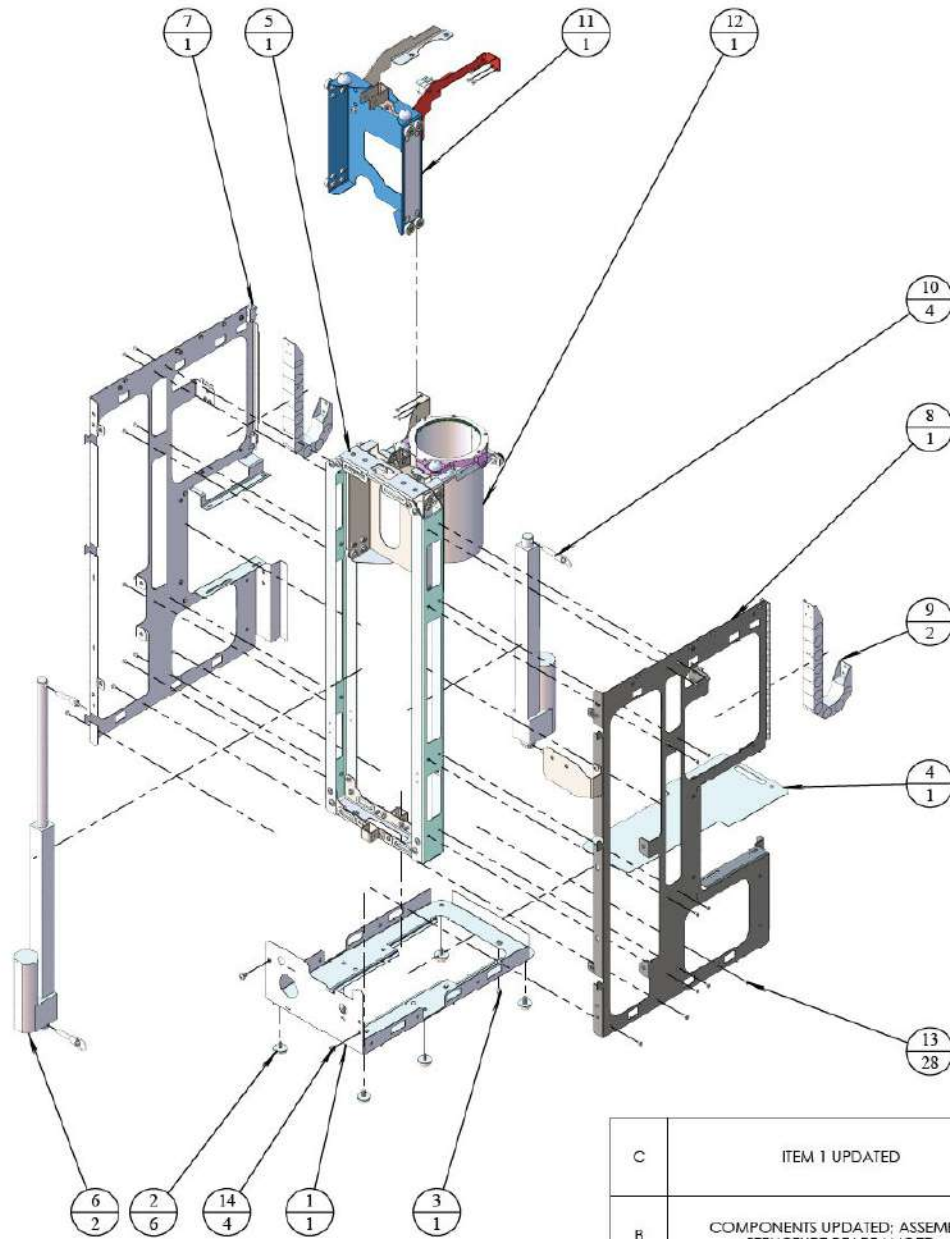
NOTES:  
 1. BEFORE ASSEMBLY ENSURE THAT ALL INSERTS ARE FIXED PROPERLY.  
 2. USE LOCTITE BLUE FOR THREADED CONNECTIONS.

C	COMPONENT UPDATE	13.01.2022
B	COMPONENT UPDATE	06.12.2021
A		03.09.2021
REV	DESCRIPTION	DATE
LAST SAVED BY: P. JANUSZKIEWICZ		

PROJECT	UNLESS OTHERWISE SPECIFIED	TITLE:	Blender Carriage Assembly		
MATL	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm	SIZE	CM PART NO.	REV	
GUAGE		B	BLENDER CARRIAGE ASSEMBLY	99C	
REF. THICKNESS		SCALE:	1:5	PROJECTION:	☉ SHEET 1 OF 1



# 11. c) smoodi Machine Assembly Frame

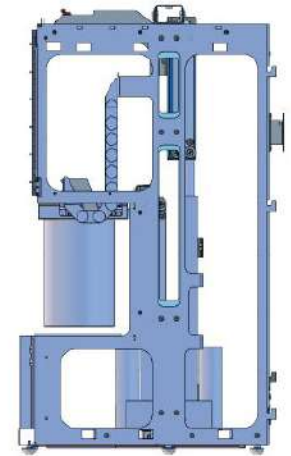
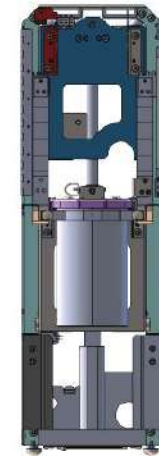


**NOTES:**

- BEFORE ASSEMBLY ENSURE THAT ALL INSERTS ARE FIXED PROPERLY.
- USE LOCTITE BLUE FOR THREADED CONNECTIONS.

C	ITEM 1 UPDATED	29.03.2022
B	COMPONENTS UPDATED; ASSEMBLY STRUCTURE REARRANGED	31.12.2021
A		03.09.2021
REV	DESCRIPTION	DATE
LAST SAVED BY: P. JANUSKIEWICZ		

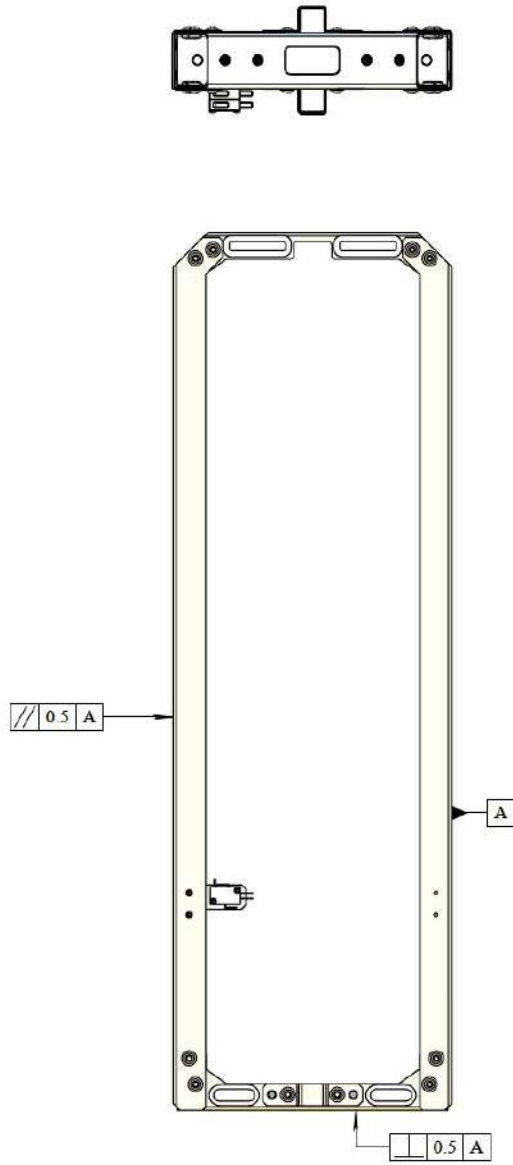
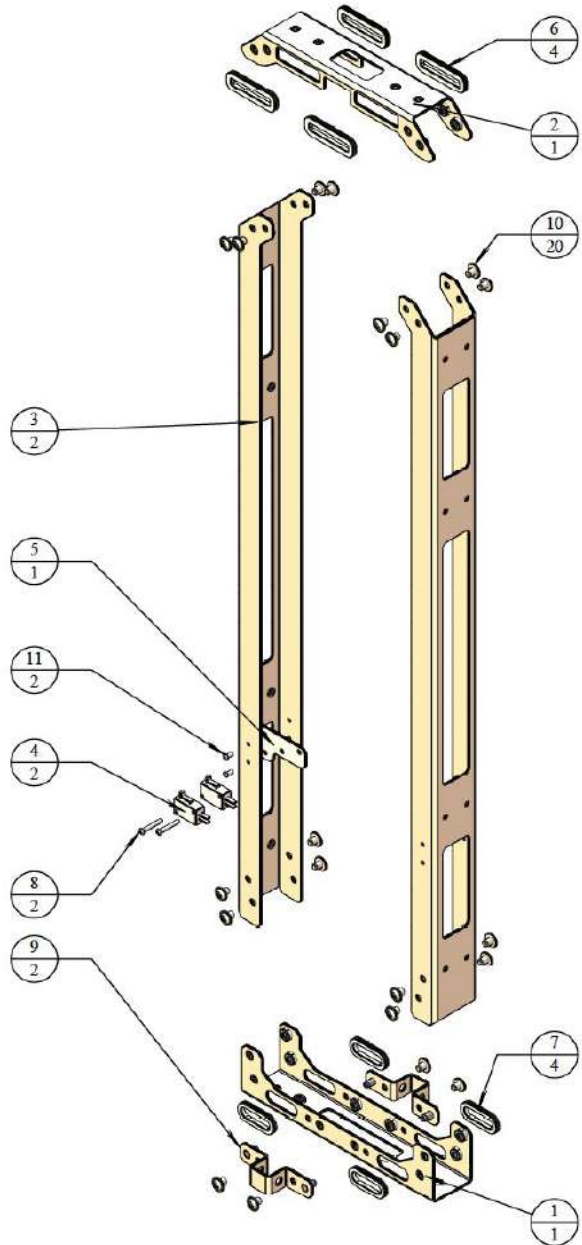
ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	FR01 - Base			D	-	1
2	7000-011-Rubber-Foot-01	7000-011	Material <nieokreślony>	A	17-7328	6
3	M6 x 10 - Socket Head Cap Screw	91292A441	Alloy Steel	-	TH-20-60-10	1
4	Base Tray	3000-038	AISI 304	B	15-6962	1
5	FR02 - Lift Tower			A	FR02 - LIFT TOWER	1
6	Linear Actuator	1000-016			33-1942	2
7	FR03 - Right Side Frame				-	1
8	FR04 - Left Side Frame			C	-	1
9	Energy Chain	5000-030	Nylon 101	A	61-6036	2
10	Actuator Pin		Material <nieokreślony>	-	19-1185	4
11	Blender Carriage Assembly			C	BLENDER CARRIAGE ASSEMBLY	1
12	Tube Carriage Assembly			C	TUBE CARRIAGE ASSEMBLY	1
13	M4 x 8 - Flat Head Screw Hex Drive		18-8 Stainless Steel		-	28
14	M6 x 10 - PAN HEAD PHILLIPS MACHINE SCREW 316 SS - 90116A305			-	-	4



PROJECT		UNLESS OTHERWISE SPECIFIED		TITLE: FR - Frame	
MATL		ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm		SIZE	CM PART NO.
GAUGE				B	FR - FRAME
REF. THICKNESS				SCALE: 1:10	PROJECTION:
				REV	100C
				SHEET 1 OF 1	

# 11. c) smoodi Machine Assembly

## Lift Tower



**NOTES:**

- BEFORE ASSEMBLY ENSURE THAT ALL INSERTS ARE FIXED PROPERLY.
- USE JIG TO ENSURE MECHANICAL STRUCTURE IS SQUARE.
- USE LOCTITE BLUE FOR THREADED CONNECTIONS.

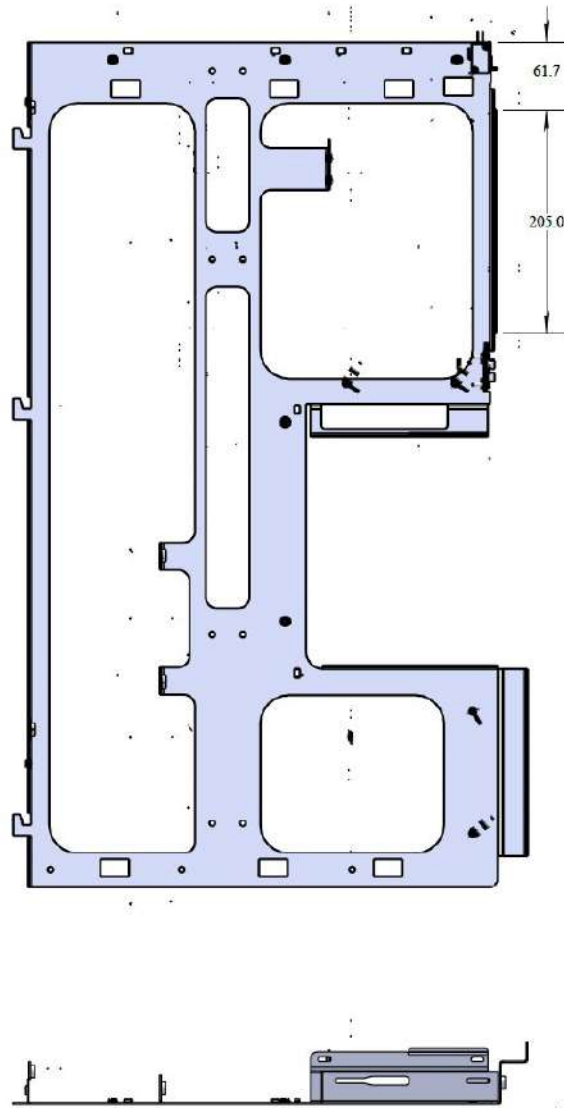
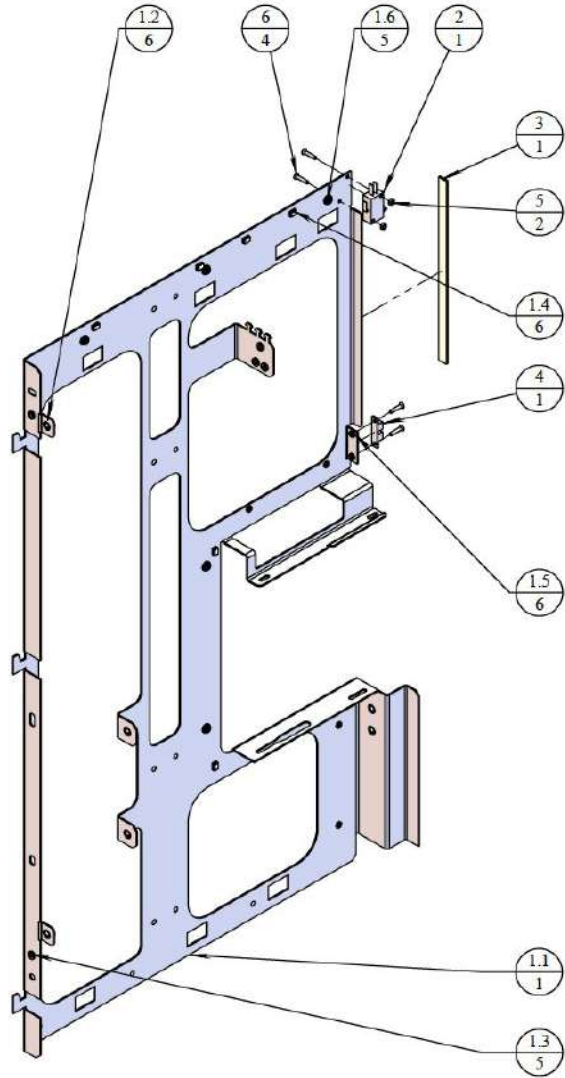
A		31.12.2021
REV	DESCRIPTION	DATE
LAST SAVED BY: P. JANUSZKIEWICZ		

PROJECT	UNLESS OTHERWISE SPECIFIED	TITLE:	FR02 - Lift Tower
MATL	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm	SIZE	CM PART NO.
GUAGE		B	FR02 - LIFT TOWER
REF. THICKNESS		SCALE: 1:5	PROJECTION:  SHEET 1 OF 1
			REV 101A

ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	FR02.01 - Track Connector (Bottom)			F	-	1
2	FR02.02 - Track Connector (Top)	3000-015	AISI 304	F	-	1
3	FR02.03 - Vertical Track	3000-010	AISI 304	G	-	2
4	Limit_Switch	8000-049	Material <not specified>	A	'10-4116	2
5	3000-031_limit_switch_bracket_p_asm(1)				-	1
6	Top Frame Gasket		ZY860A + 0.4% black color masterbatch	A	16-6435	4
7	Bottom frame gasket		ZY860A + 0.4% black color masterbatch	A	16-6434	4
8	M3 x 25 - Button Head Hex Drive Screw - 92095A186	92095A186	18-8 Stainless Steel		-	2
9	Bottom Actuator Mount Bracket As-built			A	-	2
10	M6 x 8 - FLANGED BUTTON HEAD SCREW	90909A418	Material <not specified>	-	-	20
11	M3 x 8 - Button Head Hex Drive Screw - 92095A181	92095A181	18-8 Stainless Steel		-	2

# 11. c) smoodi Machine Assembly

## Right Side Frame



ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	Right Side Frame As-built			B		1
1.1	right side structure	3000-020	AISI 304	F	15-6975	1
1.2	CLA-M6-1-PENNENGINEERING		Aluminum	-	-	6
1.3	CLS-M4-1-PENNENGINEERING		-	-	-	5
1.4	TD-60-6ZI-PENNENGINEERING		Zinc Plated Sintered Steel	-	-	6
1.5	S-M3-1ZI-PennEngineering		Zinc Plated Heat-Treated Carbon Steel	-	-	6
1.6	A4-M3-1-PennEngineering			-	-	5
2	Limit_Switch	8000-049	Material <not specified>	A	'10-4116	1
3	Service door Gasket 1		Brass	-	16-6443	1
4	Service Door Lance (Female)		Brass	B	-	1
5	M3 Hex Nut	91828A211	18-8 Stainless Steel	-	-	2
6	M3 x 15 - Flat Head Screw Hex Drive	92125A103	18-8 Stainless Steel	-	-	4

**NOTES:**

- USE PEM INSERTS BY PENN ENGINEERING OR EQUIVALENT.
- USE LOCTITE BLUE FOR THREADED CONNECTIONS.

REV	DESCRIPTION	DATE
		02.08.2021
LAST SAVED BY: P. JANUSKIEWICZ		

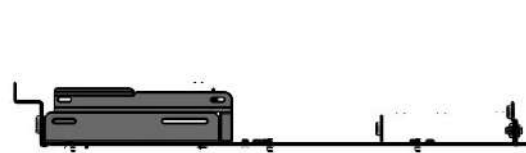
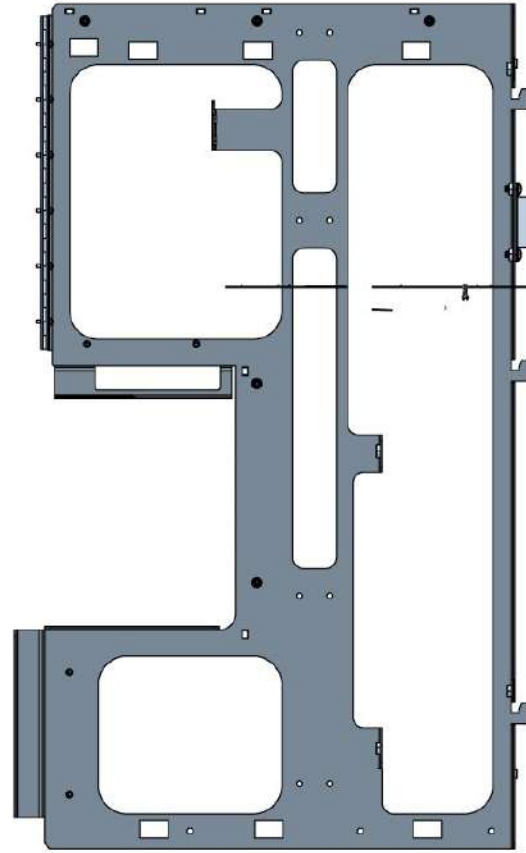
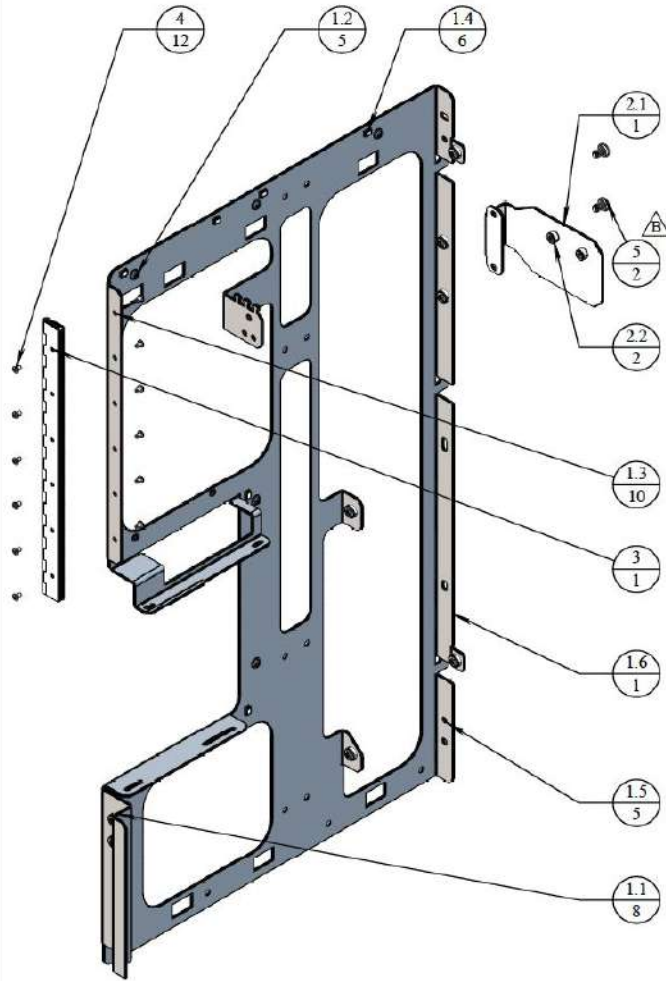
PROJECT	UNLESS OTHERWISE SPECIFIED
MATL	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm
GAUGE	
REF. THICKNESS	

TITLE: FR03 - Right Side Frame		
SIZE	CM PART NO.	REV
B	-	102
SCALE: 1:5	PROJECTION:	SHEET 1 OF 2



# 11. c) smoodi Machine Assembly

## Left Side Frame



ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	Left Side Frame As-built			B	-	1
1.1	CLA-M6-1-PENNENGINEERING		Aluminum	-	-	8
1.2	A4-M3-1-PennEngineering			-	-	5
1.3	S-M3-17I-PennEngineering		Zinc Plated Heat-Treated Carbon Steel	-	-	10
1.4	TD-60-6ZI-PENNENGINEERING		Zinc Plated Sintered Steel	-	-	6
1.5	CLS-M4-1-PENNENGINEERING		-	-	-	5
1.6	Left Side Structure	3000-021	AISI 304	F	15-6974	1
2	Left Side Structure Bracket As-built			A	-	1
2.1	Left Side Structure Bracket		AISI 304	-	-	1
2.2	N10-M5-17L_PEM		Zinc Plated Heat-Treated Carbon Steel	-	-	2
3	service door hinge	7000-099			15-6987	1
4	M3 x 6 - Flat Head Screw Hex Drive	92125A126	18-8 Stainless Steel		-	12
5	M6 x 10 - PAN HEAD PHILLIPS MACHINE SCREW 316 SS - 90116A305			-	-	2
6	Silicone Hinge Gasket	-	-	-	-	1

**NOTES:**

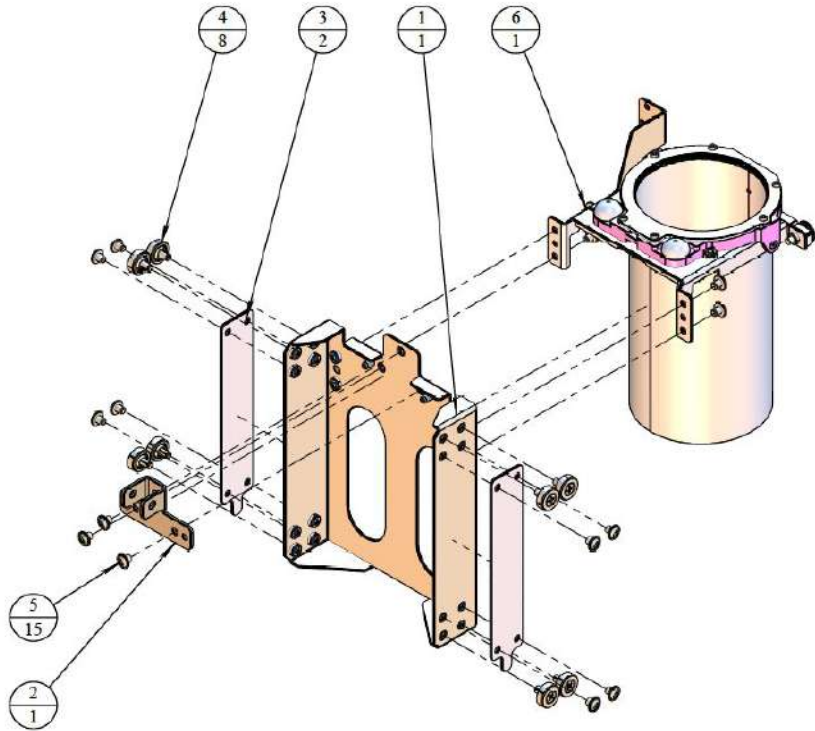
- USE PEM INSERTS BY PENN ENGINEERING OR EQUIVALENT.
- USE LOCTITE BLUE FOR THREADED CONNECTIONS.

REV	DESCRIPTION	DATE
C	ASSEMBLY STRUCTURE REARRANGED	03.01.2022
B	SCREW TYPE CHANGED	14.09.2021
-		02.09.2021

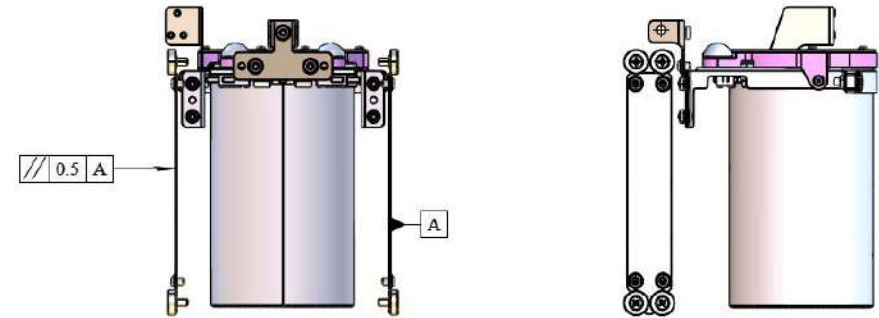
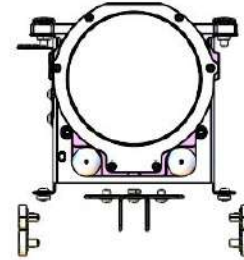
LAST SAVED BY: P. JANUSZKIEWICZ

PROJECT	UNLESS OTHERWISE SPECIFIED	TITLE:	
		FR04 - Left Side Frame	
MAT'L	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm	SIZE	REV
GAUGE		B	103C
REF. THICKNESS		CM PART NO.	
		-	
		SCALE: 1:5	PROJECTION:
		SHEET 1 OF 2	

# 11. c) smoodi Machine Assembly Tube Carriage Assembly



ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
△ B 1	FR02.04.1 - Carriage	3000-012	AISI 304	G	-	1
2	TD 06- Tube Carriage Upper Actuator Mount	3000-017	AISI 304	B	15-6957	1
△ C 3	Wear Strip	4000-050	Nylon 101	C	16-6438	2
4	TOK_Bearing	7000-029	Nylon 101	A	61-6037	8
5	M6 x 8 - FLANGED BUTTON HEAD SCREW	90909A418	Material <not specified>	-	-	15
△ B 6	Tube Holder			A	TUBE HOLDER	1



- NOTES:
- BEFORE ASSEMBLY ENSURE THAT ALL INSERTS ARE FIXED PROPERLY.
  - USE LOCTITE BLUE FOR THREADED CONNECTIONS.

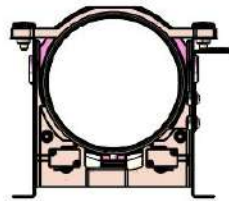
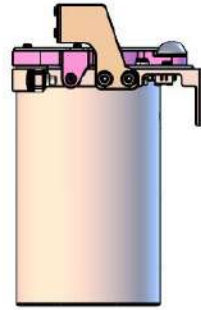
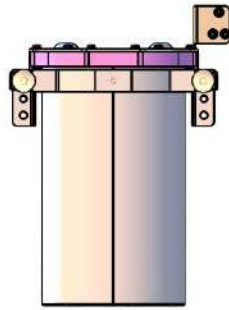
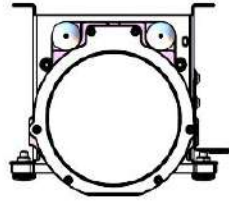
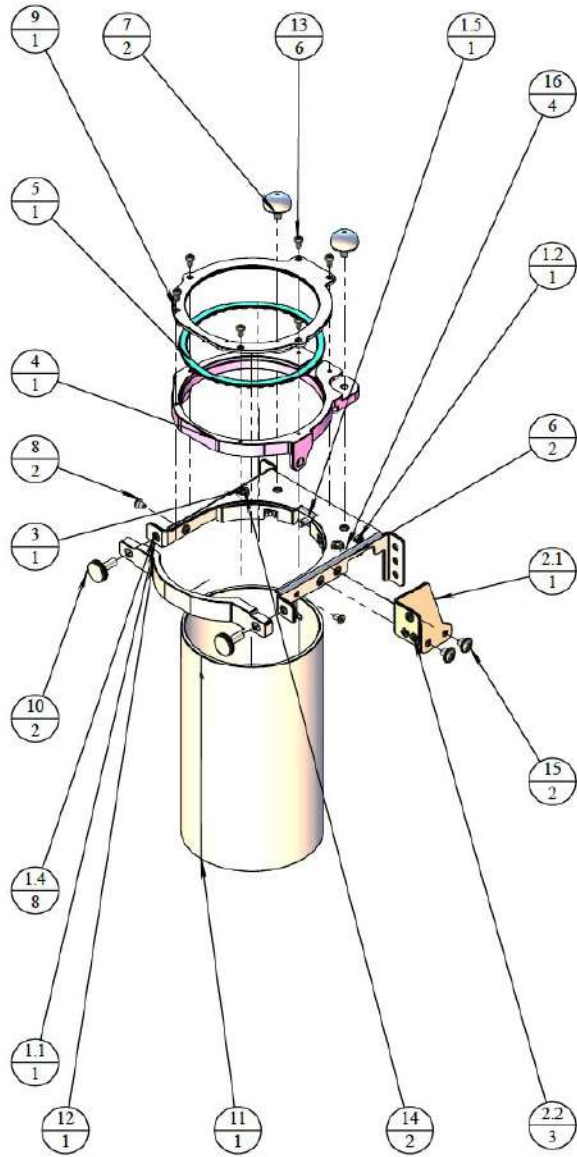
C	COMPONENT UPDATE	13.01.2022
B	COMPONENT UPDATE	06.12.2021
A		03.09.2021
REV	DESCRIPTION	DATE
LAST SAVED BY: P. JANUSZKIEWICZ		

PROJECT	UNLESS OTHERWISE SPECIFIED
MATL	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm
GAUGE	
REF. THICKNESS	

TITLE:			
Tube Carriage Assembly			
SIZE	CM PART NO.	REV	
B	TUBE CARRIAGE ASSEMBLY	104	C
SCALE: 1:5	PROJECTION:	SHEET 1 OF 1	

# 11. c) smoodi Machine Assembly

## Tube Holder



**NOTES:**

- USE LOCTITE BLUE FOR THREADED CONNECTIONS.

A		04.01.2022
REV	DESCRIPTION	DATE
LAST SAVED BY: P. JANUSZKIEWICZ		

ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	FR07.01 - Tube Mount Bracket	3000-029	AISI 304	E	-	1
1.1	Tube Mount Bracket	3000-029	AISI 304	C	15-6953	1
1.2	TD-60-6ZI-PENNENGINEERING		Zinc Plated Sintered Steel	-	-	1
1.3	CLS-M4-1-PENNENGINEERING		-	-	-	2
1.4	CLA-M6-1-PENNENGINEERING		Aluminum	-	-	8
1.5	Dowel Pin 6 x 14 - 91585A624		18-8 Stainless Steel	-	-	1
2	FR07.02 - Tube Chain Bracket			G	-	1
2.1	Tube Chain Bracket	3000-037	AISI 304	E	15-6958	1
2.2	CLS-M4-1-PENNENGINEERING		-	-	-	3
3	Tube holder As-built	4000-053	3D printed Nylon	C	16-6429	1
4	LED Ring Mount As-built	4000-026	3D Printed Nylon	A	16-6418	1
5	LED Ring	8000-046	Material <not specified>	C	26-4676	1
6	Limit_Switch	8000-049	Material <not specified>	A	'10-4116	2
7	7000-011-Rubber-Feet-01	7000-011	Material <not specified>	A	17-7328	2
8	M4 x 8 - Flat Head Screw Hex Drive		18-8 Stainless Steel		-	2
9	LED Ring Cap		3D Printed Nylon		16-6417	1
10	plastic knurled screws with small head a gb (1)		-	-	17-7334	2
11	Tube Door		Polycarbonate	B	16-6422	1
12	Tube Strap		3D printed Nylon - Godart 8118	B	16-6427	1
13	M4 x 8 - Phillips Rounded Head Thread-Forming Screw - 99461A964	99461A964	18-8 Stainless Steel		-	6
14	M6 x 10 - Socket Head Cap Screw	91292A441	Alloy Steel	-	TH-20-60-10	2
15	M6 x 8 - FLANGED BUTTON HEAD SCREW	90909A418	Material <not specified>	-	-	2
16	M3 x 14 - Button Head Screw	92095A168	18-8 Stainless Steel		TH-21-30-14	4

**TITLE:**

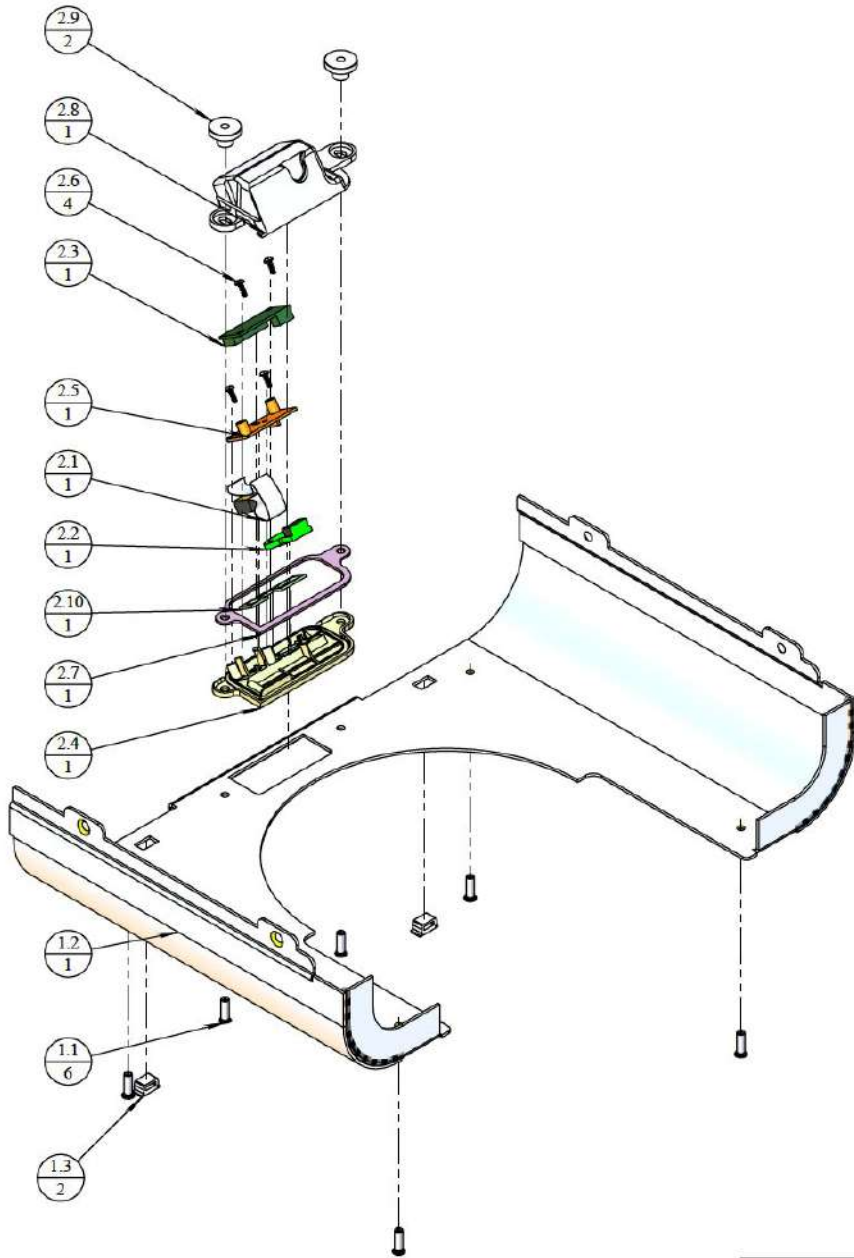
Tube holder

PROJECT	UNLESS OTHERWISE SPECIFIED	TITLE: Tube holder	
MATL	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm	SIZE	CM PART NO.
GAUGE		B	TUBE HOLDER
REF. THICKNESS		105A	REV
		SCALE: 1:5	PROJECTION:  SHEET 1 OF 1



# 11. c) smoodi Machine Assembly

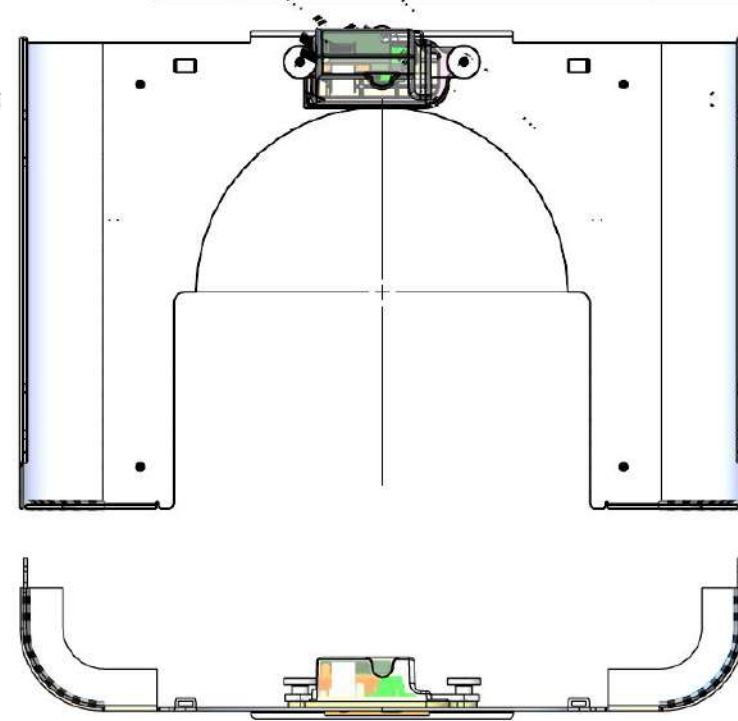
## Tube Door Cover



**NOTES:**

1. USE PEM INSERTS BY PENN ENGINEERING OR EQUIVALENT.
2. AFTER PRESSING INSERTS 1 AND 3 INTO ITEM 2 APPLY POWDER COAT, ACCORDING TO PART DRAWING 15-6969.
3. POWDER COATING ON OTHER ITEMS NOT PERMITTED.

ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	1000-059-Tube_Door_Skin_Welded_Assy-00		-	B	-	1
1.1	FH4-M3-10-PennEngineering		-	-	-	6
1.2	TUBE_DOOR_SKIN	3000-048	SUS304	F	15-6969	1
1.3	TD-60-6ZI-PENNENGINEERING		Zinc Plated Sintered Steel	-	-	2
2	4000 - Camera and Sensor Enclosure		-	A	-	1
2.1	Camera	8000-053	-		26-4675	1
2.2	TOF1020 Distance Sernsor	8000-054	-		26-4674	1
2.3	Camera PCB		-		26-4675	1
2.4	Camera_Enclosure_Base	4000-059	-	B	16-6411	1
2.5	Camera_PCB_Base	4000-062	-	B	16-6415	1
2.6	M2 x 5 - Phillips Rounded Head Thread-Forming Screw	90380A325	Steel		17-7333	4
2.7	Enclosure_Gasket	4000-063	-	A	16-6425	1
2.8	Camera_Enclosure_Cover	4000-064	-	A	16-6414	1
2.9	M3 - KNURLED NUT WITH COLLAR		-		15-6967	2
2.10	Camera_and_Sensor_Gasket	4000-064	-	B	16-6414	1



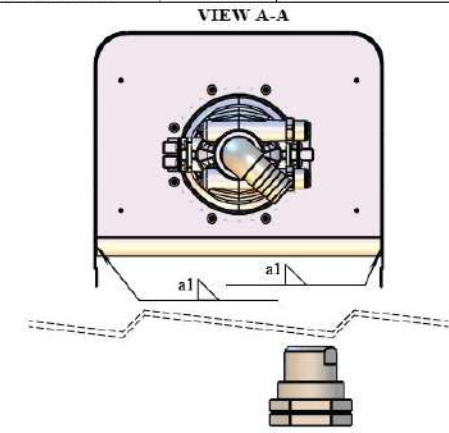
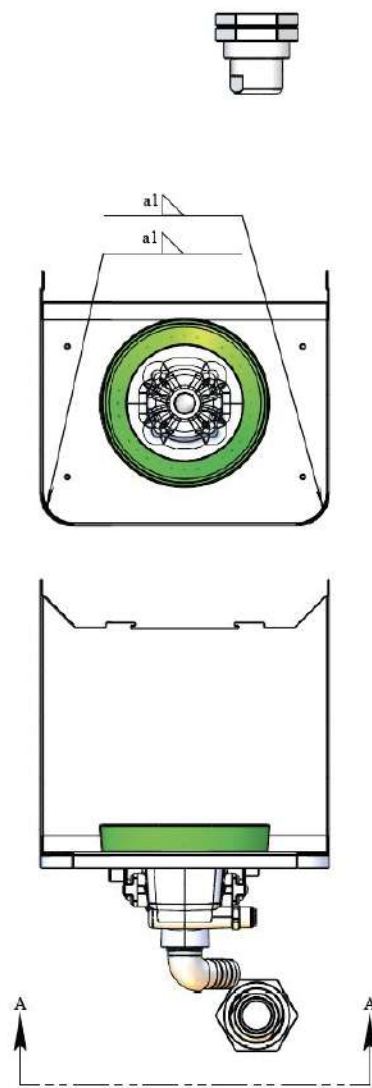
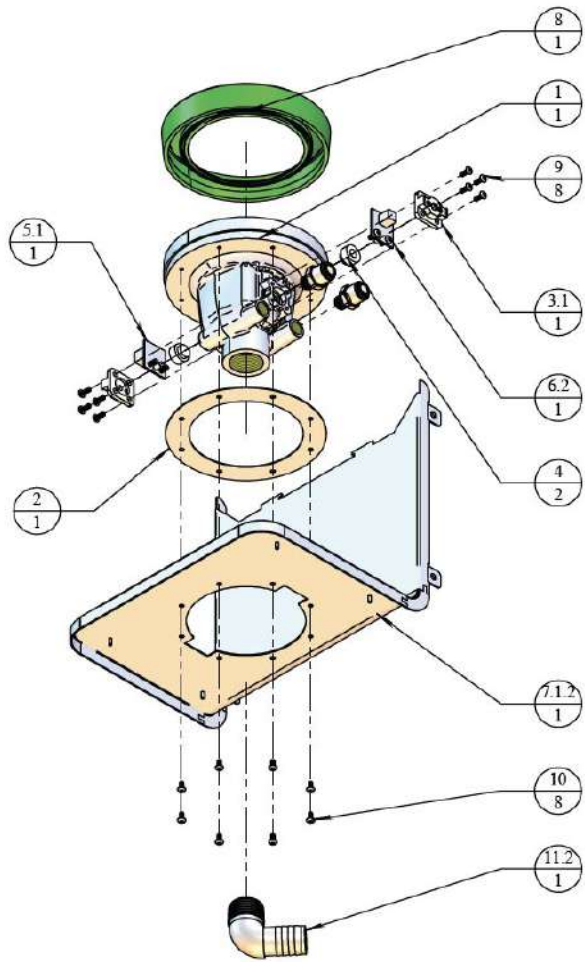
F		01.09.2021
REV	DESCRIPTION	DATE
LAST SAVED BY: P. JANUSZKIEWICZ		

PROJECT	UNLESS OTHERWISE SPECIFIED
MAT'L	ALL DIMENSIONS ARE IN mm
GAUGE	ONE PLACE DECIMAL: +/- 0.5mm
REF. THICKNESS	TWO PLACE DECIMAL: +/- 0.15mm
	THREE PLACE DECIMAL: +/- 0.03mm

TITLE: TDC - Tube Door Cover		
SIZE	CM PART NO.	REV
B	TDC - TUBE DOOR COVER	06F
SCALE: 1:2	PROJECTION:	SHEET 1 OF 1

# 11. c) smoodi Machine Assembly

## Cup Holder Assembly



**NOTES:**

- BEFORE ASSEMBLY ENSURE THAT ALL INSERTS ARE FIXED PROPERLY.
- USE LOCTITE BLUE FOR THREADED CONNECTIONS.

E	ASSEMBLY STRUCTURE REARRANGED	18.01.2022
D	SOME MATERIAL INFO UPDATED	12.01.2022
C	PLUMBING FITTING REMOVED FROM THIS SUBASSEMBLY	31.12.2021
B		02.09.2021
REV	DESCRIPTION	DATE
LAST SAVED BY: P. JANUSZKIEWICZ		

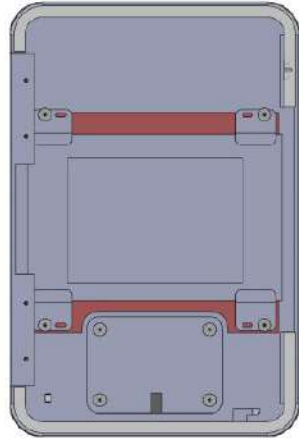
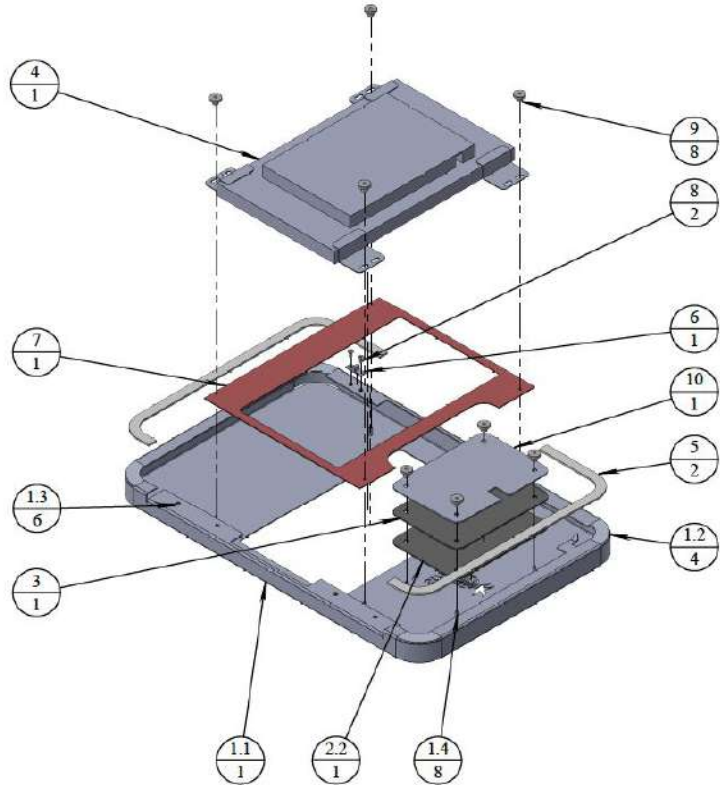
PROJECT	UNLESS OTHERWISE SPECIFIED	TITLE: Cup Holder Assembly		
MATL	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm	SIZE	CM PART NO.	REV
GAUGE		B	CUP HOLDER ASSEMBLY 10	E
REF. THICKNESS		SCALE: 1:5	PROJECTION	SHEET 1 OF 1

ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	Cup Holder Basin As-built	4000-030	3D printed Nylon - Godart 8118	B	16-6419	1
2	Cup Holder Gasket	4000-033	ZY860A+0.4% black color masterbatch	A	16-6424	1
3	Cup Holder Sensor Mount - with inserts					2
3.1	Cup Holder Sensor Mount As-built	4000-036	3D printed Nylon - Godart 8118	-	16-6416	1
4	Cup Sensor Window		GF2081ER	C		2
5	Cup Sensor Receiver subassy					1
5.1	Cup Sensor Receiver	8000-007	Material <not specified>	D	26-4678	1
5.2	M4 x 10 - Button Head Screw	92095A190	18-8 Stainless Steel		-	2
6	Cup Sensor Emitter subassy					1
6.1	M4 x 10 - Button Head Screw	92095A190	18-8 Stainless Steel		-	2
6.2	Cup Sensor Emitter	8000-007	Material <not specified>	B	26-4679	1
7	DK - Deck			A	15-6970	1
7.1	1000-057_-deck-cup-holder-skin_offset1mm_gap-added0605			F	-	1
7.1.1	CUP HOLDER DECK CORNER	3000-042	AL 5052	C	-	2
7.1.2	Cup Holder Deck Skin	3000-041	AL 5052	F	15-6970	1
7.1.3	FH4-M3-8-PennEngineering		400 Series Stainless Steel	-	-	4
8	Cup Holder Silicone Cover	4000-031	ZY860A+1% green color masterbatch	B	16-6428	1
9	M4 x 10 - Button Head Screw	92095A190	18-8 Stainless Steel		-	8
10	M4 x 8 - Button Head Screw	92095A189	18-8 Stainless Steel		-	8
11	Plumbing subassy_B				-	1
11.1	O - 1in Hayward Drain outlet - 9000-034-36895K 1&3 THICK-WALL THROUGH-WALL PIPE FITTING	9000-034	PVC	-	16-6442	1
11.2	N - CH-07 BARBED DARK GRAY PVC PIPE FITTING	9000-035	Material <not specified>	A	16-6441	1
11.3	Tube v		Nylon-braided vinyl	-	-	1
12	H(1) - 9087K130 PUSH-TO-CONNECT FITTING FOR FOOD AND BEVERAGE				53-4383	2



# 11. c) smoodi Machine Assembly

## Door



ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	Front Service Door As-built		-	A	-	1
1.1	Front Service Door	3000-068	AL 5052	B	15-6971	1
1.2	Corner Filler Plate	3000-070	5052-H32	D	-	4
1.3	S-M3-IZI-PennEngineering		Zinc Plated Heat-Treated Carbon Steel	-	-	6
1.4	FH4-M3-10-PennEngineering		-	-	-	8
1.5	TD-60-6ZI-PENNENGINEERING		Zinc Plated Sintered Steel	-	-	1
2	Logo Lens With Inserts	-	-	-	-	1
2.1	Logo_Letter_Insert	-	AL 5052	-	-	3
2.2	Logo Lens	-	ZY860A + 0.4% white color masterbatch	B	16-6452	1
3	Logo LED	-	-	A	26-4677	1
4	SD10 - Touchscreen-00	8000-048	<niekreślony>	A	55-5777	1
5	Service Door Gasket	-	-	-	16-6443	2
6	Service Door Lance (Male)		Brass	B	-	1
7	Door-LCD-Gasket	-	ZY860A + 0.4% black color masterbatch	C	16-6453	1
8	M3 x 6 - Flat Head Screw Hex Drive	92125A126	18-8 Stainless Steel		-	2
9	M3 - KNURLED NUT WITH COLLAR		-		15-6967	8
10	LED backing plate	-	AlSi 304	A	-	1

**NOTES:**

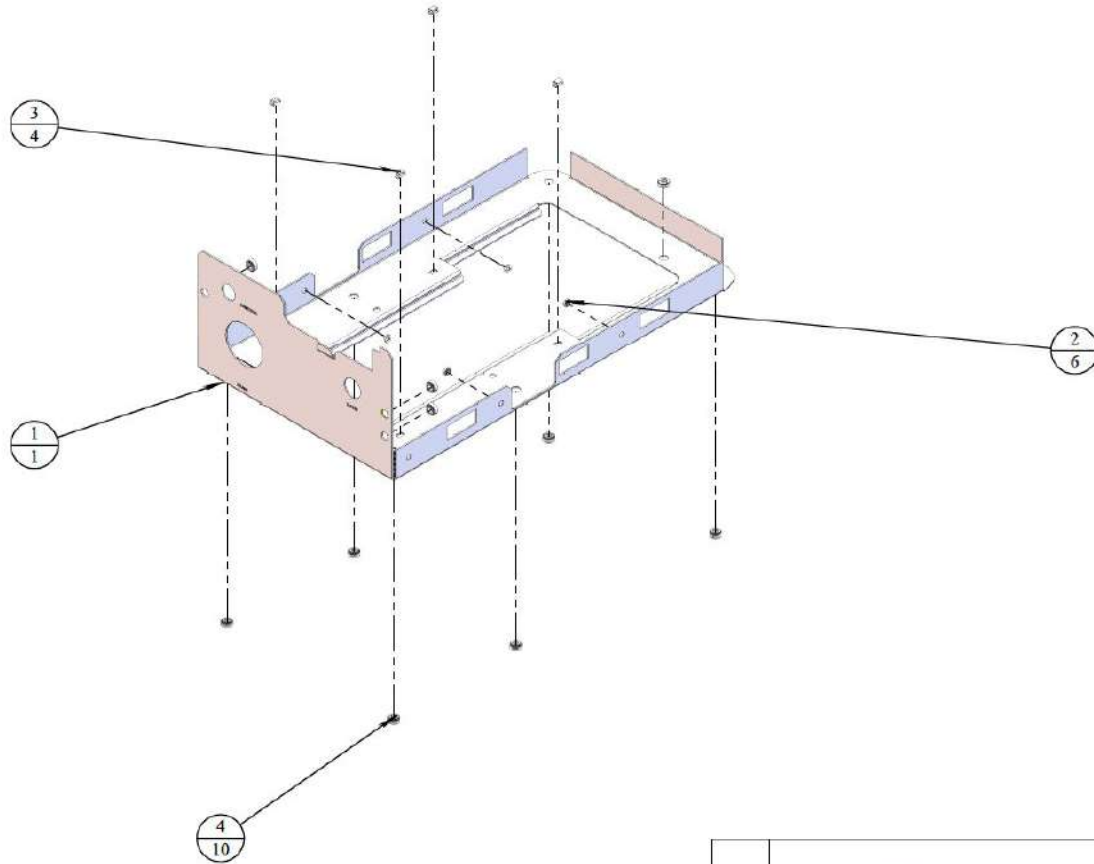
- USE PEM INSERTS BY PENN ENGINEERING OR EQUIVALENT.
- USE LOCTITE BLUE FOR THREADED CONNECTIONS.

J	ITEM 10 ("LED BACKING PLATE") ADDED	29.03.2022
I	SOME MATERIAL INFO UPDATED	12.01.2022
H	ASSEMBLY STRUCTURE REARRANGED	03.01.2022
G		02.09.2021
REV	DESCRIPTION	DATE
LAST SAVED BY: P. JANUSZKIEWICZ		

PROJECT	UNLESS OTHERWISE SPECIFIED	TITLE: DO - Door		
MATL	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm	SIZE	CM PART NO.	REV
GAUGE		B	DO - DOOR	108J
REF. THICKNESS		SCALE: 1:5	PROJECTION:	SHEET 1 OF 2

# 11. c) smoodi Machine Assembly

## Base

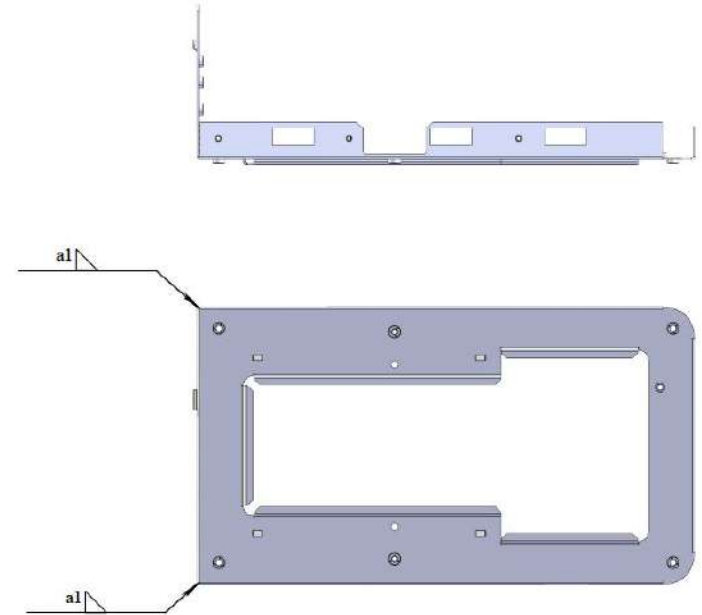


**NOTES:**

1. USE PEM INSERTS BY PENN ENGINEERING OR EQUIVALENT.
2. REMOVE ALL BURRS AND BREAK SHARP EDGES.

D	TAB ADDED TO ITEM 1	29.03.2022
C	ASSEMBLY REARRANGED AND ITEM 1 UPDATED	29.12.2021
B	SCREW TYPE CHANGED	14.09.2021
REV	DESCRIPTION	DATE
LAST SAVED BY: P. JANUSZKIEWICZ		

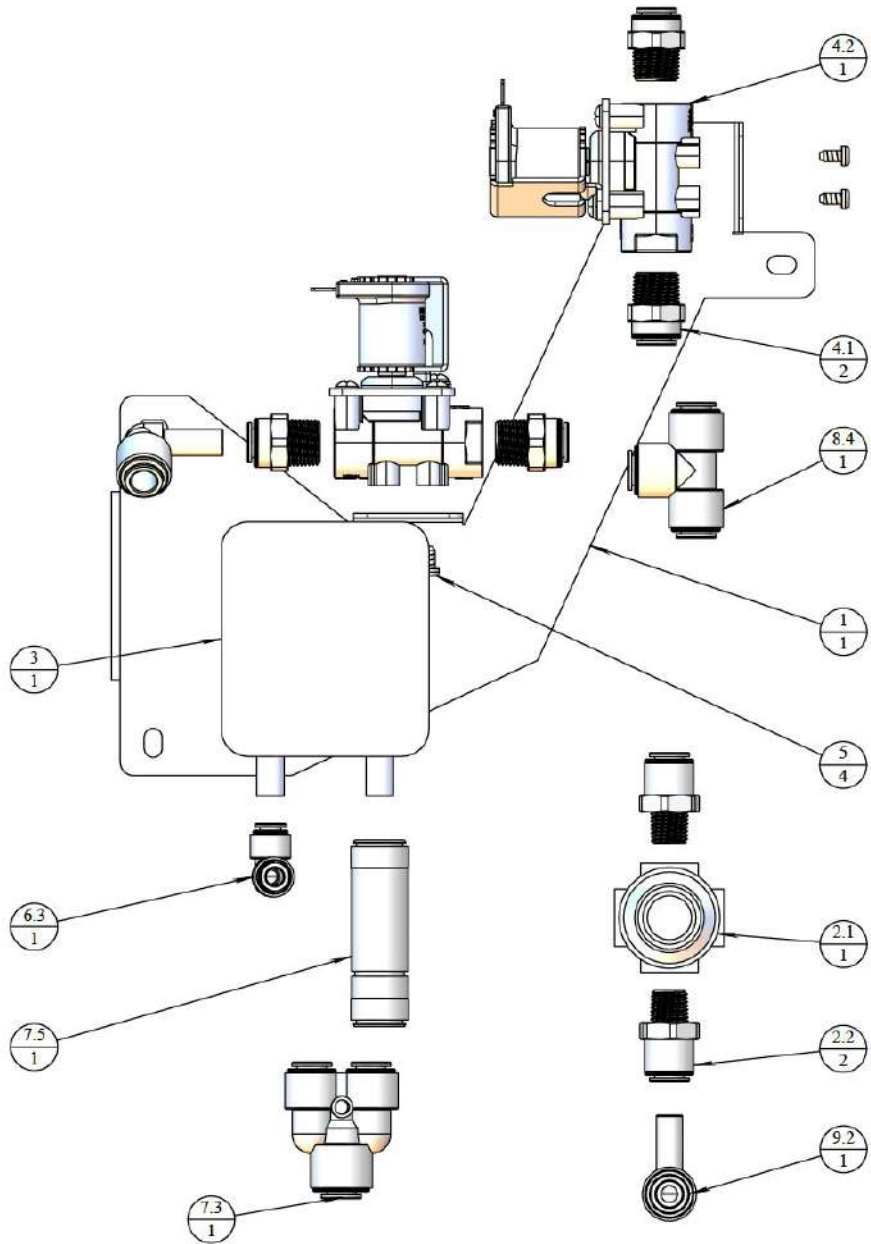
ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	Machine Base	3000-019	AISI 304	D	15-6945	1
2	CLS-M4-1-PENNENGINEERING		-	-	-	6
3	ID-60-6ZI-PENNENGINEERING		Zinc Plated Sintered Steel	-	-	4
4	CLA-M6-1-PENNENGINEERING		Aluminum	-	-	10



PROJECT	UNLESS OTHERWISE SPECIFIED	TITLE: FR01 - Base	
MATL	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm	SIZE B	CM PART NO. -
GAUGE		SCALE: 1:5	PROJECTION:
REF. THICKNESS			REV 109D SHEET 1 OF 2

# 11. c) smoodi Machine Assembly

## Fluid System



**NOTES:**

1. USE NSF APPROVED THREAD SEALANT ON ALL NPT FITTINGS.

A		29.12.2021
REV	DESCRIPTION	DATE
	LAST SAVED BY: P. JANUSKIEWICZ	

PROJECT	UNLESS OTHERWISE SPECIFIED
MATL	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm
GAUGE	
REF. THICKNESS	

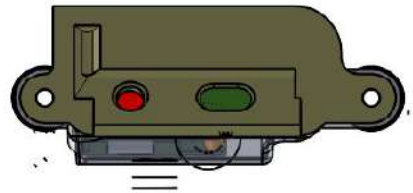
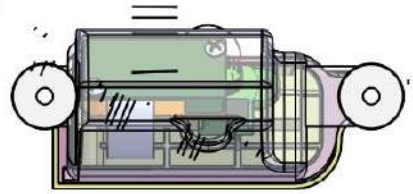
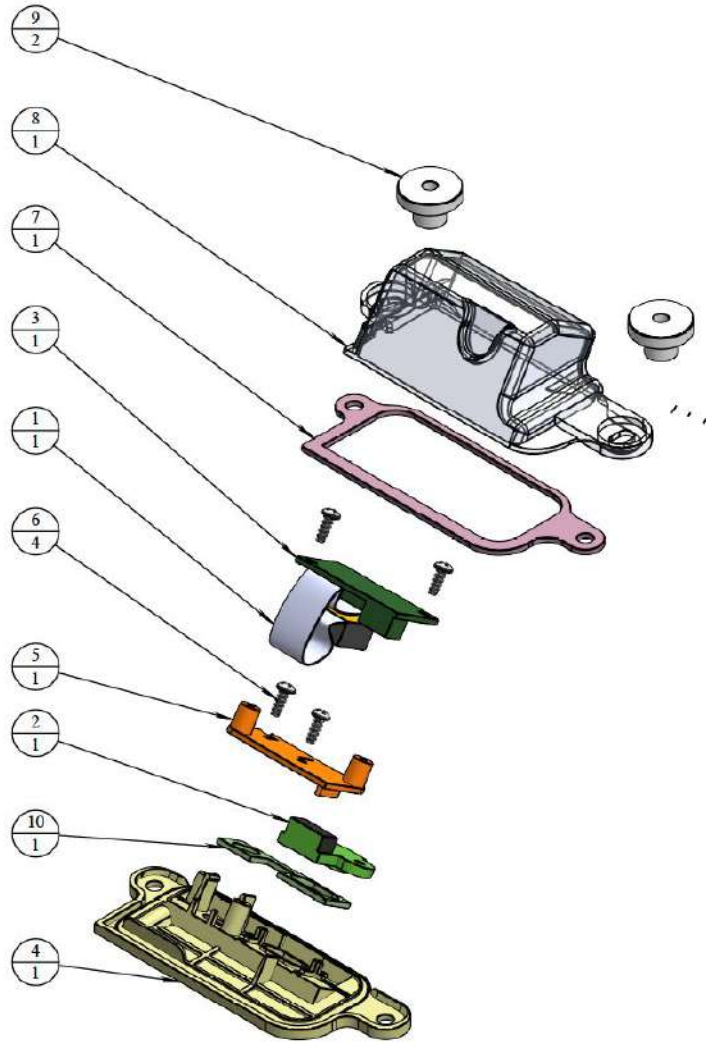
TITLE: FS - Fluid System		
SIZE	CM PART NO.	REV
B	FS - FLUID SYSTEM	10A
SCALE: 1:2	PROJECTION:	SHEET 1 OF 1

ITEM NO.	SW-File Name(File Name)	Description	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1		Plumbing Plate		AlSI 304	C	15-6948	1
2		1000-048-Regulator_Assembly			D	21-XXX3	1
2.1		Pressure Regulator P60-MI	9000-041	Material <not specified>	-	52-1678	1
2.2		H - 9087K130_PUSH-TO-CONNECT FITTING FOR FOOD AND BEVERAGE				53-4383	2
3		Sanitizer Pump					
		Peristaltic Pump	9000-056	Material <not specified>	-	52-1677	1
4		Solenoid_Valve_Subassembly					2
4.1		D - 9000-059-9087K140_PUSH-TO-CONNECT FITTING FOR FOOD AND BEVERAGE				53-4374	2
		3/8" FPTC - 3/8" MNPT	9000-059	Material <not specified>	-	52-1679	1
4.2		Solenoid_Valve					
		Phillips Rounded Head Thread-Forming Screws	99461A964	18-8 Stainless Steel		-	4
5		M4 x 8 - Phillips Rounded Head Thread-Forming Screw - 99461A964					
6		53-PL01				53-PL01	1
		plumbing tube sub-assembly					
6.1		Tube h		PEX		-	1
		3/8" OD PEX tubing L=70mm					
6.2		Tube r		PEX		-	1
		1/4" OD PEX tubing L=80mm					
6.3		J - 9000-039-51175K136_PUSH-TO-CONNECT FITTING FOR DRINKING WATER 3-8 inch				53-4371	1
		1/4" FPTC - 3/8" FPTC 90° elbow	9000-039	Material <not specified>	-		
7		53-PL02				53-PL02	1
		Plumbing Tube Sub Assembly					
7.1		Tube i		PEX		-	1
		3/8" OD PEX tubing L=60mm					
7.2		Tube j		PEX		-	1
		3/8" OD PEX tubing L=60mm					
7.3		G - 3-8in Y connector - 51055K148				53-4376	1
		3/8" FPTC Y-connector/junition 3 way					
7.4		A - 9087K39_Push-to-Connect Fitting for Food and Beverage				53-4373	1
		Push-to-Connect Fitting for Food and Beverage	9087K39				
7.5		I - 3_8in Check Valve Push-in				53-4382	1
		3/8" FPTC check valve					
7.6		Tube d		PEX		-	1
		3/8" OD PEX tubing L=230mm					
8		53-PL03				53-PL03	1
		plumbing tube sub-assembly					
8.1		Tube c		PEX		-	1
		3/8" OD PEX tubing L=60mm					
8.2		Tube l		PEX		-	1
		3/8" OD PEX tubing L=130mm					
8.3		Tube b		PEX		-	1
		3/8" OD PEX tubing L=75mm					
8.4		C - 9000-027-9087K820_PUSH-TO-CONNECT FITTING FOR FOOD AND BEVERAGE				53-4379	1
		3/8" FPTC T-connector 3 way	9000-027	Material <not specified>	-		
9		53-PL04				53-PL04	1
		plumbing tube sub-assembly					
9.1		Tube a		PEX		-	1
		3/8" OD PEX tubing L=65mm					
9.2		A - 9087K39_Push-to-Connect Fitting for Food and Beverage				53-4373	1
		Push-to-Connect Fitting for Food and Beverage	9087K39				



# 11. c) smoodi Machine Assembly

## Camera and Sensor Enclosure



ITEM NO.	SW-File Name(File Name)	PartNo	MATERIAL	REVISION	CM PART NUMBER	QTY.
1	Camera	8000-053	-		26-4675	1
2	TOF1020 Distance Semsor	8000-054	-		26-4674	1
3	Camera PCB		-		26-4675	1
4	Camera_Enclosure_Base	4000-059	-	B	16-6411	1
5	Camera_PCB_Base	4000-062	-	B	16-6415	1
6	M2 x 5 - Phillips Rounded Head Thread-Forming Screw	90380A325	Steel		17-7333	4
7	Enclosure_Gasket	4000-063	-	A	16-6425	1
8	Camera_Enclosure_Cover	4000-064	-	A	16-6414	1
9	M3 - KNURLED NUT WITH COLLAR		-		15-6967	2
10	Camera_and_Sensor_Gasket	4000-064	Material <not specified>	B	16-6414	1



A		03.01.2022
REV	DESCRIPTION	DATE
	LAST SAVED BY: P. JANUSZKIEWICZ	

PROJECT	UNLESS OTHERWISE SPECIFIED
MATL	-
GAUGE	ALL DIMENSIONS ARE IN mm ONE PLACE DECIMAL: +/- 0.5mm TWO PLACE DECIMAL: +/- 0.15mm THREE PLACE DECIMAL: +/- 0.03mm
REF. THICKNESS	

TITLE: 4000 - Camera and Sensor Enclosure		
SIZE	CM PART NO.	REV
B	-	111A
SCALE: 1:1	PROJECTION	SHEET 1 OF 1