

eBrochure	<i>machine:</i> MULTI FUNCTION STEAM COOKER 300L
	<i>model:</i> KSE-MFSC380M



What is a Multi Function Steam Cooker?

The Multi Function Steam Cooker machine is a multi purpose, multi function cooker that utilizes 2 steam heating methods to process your products. The MFSC has features like cutting, blending, mixing, cooling, and vacuum.

Allowing it to replicate or enhance traditional cooking processes.

DESCRIPTION

The Multi Function Steam Cooker is an industrial cooker with advanced processing capabilities.

Utilizing jacket steam heating and direct steam heating, the MFSC is capable of replicating or enhancing traditional cooking methods like sautéing and more. 100 liters of water is able to be heated to boiling point in just 10 minutes by using direct steam heating. This greatly reduces the time taken to cook, increasing output and productivity.

As the name suggests, the MFSC is equipped with multiple functions like cutting, blending, mixing, water or oil dosing, cooling, and vacuum capabilities. All the function parameters can be adjusted and stored into the system memory for repeated use. Management is able to lockout operators from editing the parameters with the password feature.

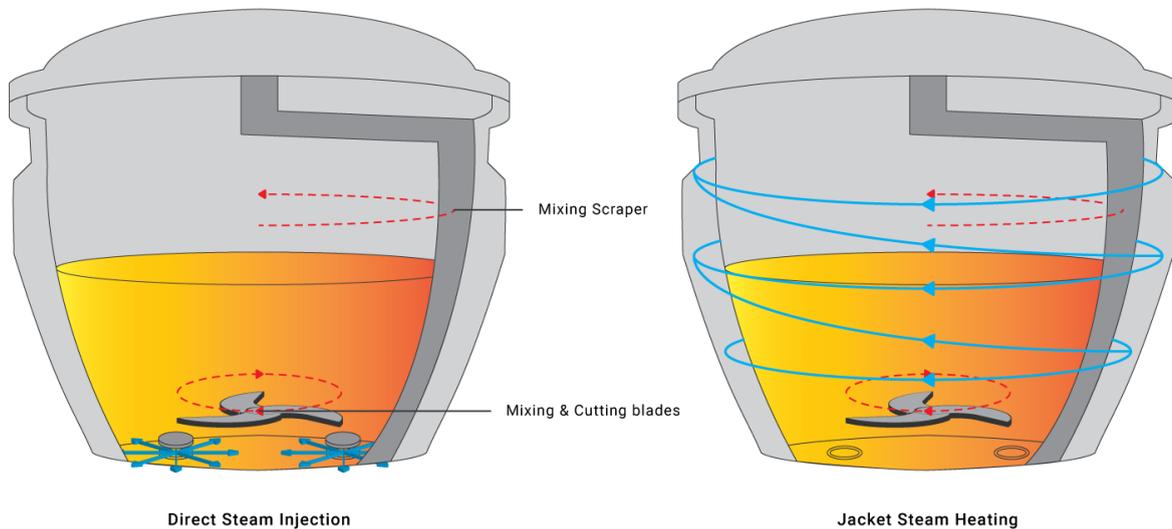
Vacuum is what makes the Multi Function Steam Cooker shine. During the cooking process, the bowl is covered and sealed, allowing for either vacuum cooking. The enclosed cooking or processing environment means that moisture loss to the atmosphere is greatly reduced. It is also more sanitary as the products are not exposed, so there is no chance of foreign objects entering the product while cooking.

Cooking under vacuum:

"A liquid in a partial vacuum has a lower boiling point than when that liquid is at atmospheric pressure. A liquid at high pressure has a higher boiling point than when that liquid is at atmospheric pressure. ... For a given pressure, different liquids will boil at different temperatures."

An excerpt from [Wikipedia](https://en.wikipedia.org/wiki/Vacuum_cooking).

Hence water boils faster when vacuum is applied in the MFSC, allowing users to cook their products faster. Shortening the cooking duration translates to preservation of the nutrients and flavors of the ingredients while also allowing more batches to be done within the same amount of production hours.



Using the "Direct Steam Injection" method, the steam is directly introduced into the product within the bowl. The product absorbs heat from the steam directly and thus heating is a lot faster. But this method will result in extra moisture from condensation, which can be resolved by doing a condensate testing to balance the required moisture.

"Jacketed Steam Heating" works using thermal heat transfer principle. Steam circulates round the jacketed walls of the bowl, heating the bowl surface up. The heat is transferred to the products within the bowl. It is similar to cooking with a pot or pan.

The scraper and mixing & cutting blades will allow your product to be mixed homogeneously. Heat will be distributed evenly and thoroughly.

This method is slower as it is indirect heating. But this method allows you to stir fry or fry your ingredients within the bowl as there is zero moisture from the steam. We all know oil and water don't go well together. You can sauté your ingredients before processing them further into a paste-like form.

Pro - Very fast and efficient heating.
Con - Steam must be filtered and regulated to ensure consistent, clean and dry steam.

Pro - Able to stir fry or fry your ingredients, will not add extra moisture into your product.
Con - Slower heating time.

FEATURES



Advance processing capabilities

Equipped with dual steam heating function, mixing, cutting, blending, cooling, and vacuum features, the Multi Function Steam Cookers are able to cook or process a wide variety of food products.

Absolute control

The operation of the Multi Function Steam Cooker is split into 2 sets of control. One controlling the software or processing, the one for mechanical movements of the machine.

The HMI is a touch screen with memory features, allowing users to use, update and save changes to the various cooking recipes available. It also displays ongoing parameters like temperature, cooking duration and more.

The mechanical control side controls the MFSC bowl tilting, bowl cover open and



close and more.



Safe operation

Equipped with various sensors, valves and failsafe devices, the Multi Function Steam Cookers are safe to use.

Errors or complications will be displayed on the HMI with an alarm sounding to notify users.

Suitable for a variety of food

Multi Function Steam Cooker primarily be used for sauce, soup, paste, gel, jam, processed cheese like mozzarella, cheddar, spreadable cream cheese and more. So long heating and mixing is required, this cooker is the best we have to offer.



TECHNICAL SPECIFICATIONS

Batch capacity	300 liters
Working pressure range	Vacuum (-0.4 bar) to Atmospheric
Working temperature	Up to 115°C depending on the medium
Heating method	Direct steam injection and Jacket steam heating
Cutting blade speed	300 to 1,500rpm
Bowl side scraper speed	12 to 18 rpm
Bowl tilting operation	Mechanical movement



Bowl cover operation	Mechanical movement
Operating power	3 phase, 415V, 50Hz
Power consumption	65kW, 113 amps, requires 125 amps MCB
Compressed air	6 bar (min), constant
Steam	350-400 kg/hr, 4-6 bars
Material for machine	Stainless Steel 304 and 316
Weight	2850 kg
Dimension (L x W x H)	2750 mm x 1400 mm x 2290 mm (cover close) 2750 mm x 1400 mm x 3290 mm (cover open)