

Technical Explain

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Introduction:

[MBtech](#) is a French manufacturer of cleaning machines founded in 1993, specialized in applications in the electronics assembly industry.

The portfolio consists of machines for:

1. Cleaning Stencils, Squeegees and Misprinted boards
2. Removing flux residue after soldering, such as on PCBAs, Wafers, Lead Frames and Power modules
3. Cleaning Solder Pallets, Reflow oven Filters, Heat Exchangers, Coating Frames and other mechanical parts.

These applications require different cleaning fluids and other cleaning methods, which means they cannot be properly combined in one machine.

That is why MBTech carries the three groups mentioned.

This document only contains additional information about the product group "Maintenance cleaners". Please let us know if you would like to receive more information about one of the other product groups.

MBtech Maintenance Cleaners

The group consist of 2 different models:

- MC200, The standard version machine is equipped with an rotating heavy duty basket with a diameter of 760mm (round) that can hold products up to 600mm height and 300kg weight.
- MC200XL, The extended version of the MC200 comes with the same 760mm basket, but offers an extended hood, for larger products up to 1200mm height. This machine is perfectly suitable to clean larger reflow oven heat exchangers and flux-traps.

3D High Flow-Low Pressure Spray in Air technique with Rotating basket. MBtech offers a unique 3D Spray-in-Air cleaning method that proves to be very effective in removing contamination from solder- and coating frames, flux traps, filters, heat exchangers and other mechanical parts.

Items are placed in a slowly rotating basket that is sprayed from the top, bottom and from the side simultaneously with a high volume of cleaning agent at low pressure, to avoid damage to the products but still

offer a powerful cleaning. This 3D technique avoids “shadowing effects” from overlapping items and assures the same mechanical impact from the cleaning agent on all positions in the basket.

The cleaning agent is mechanically filtered through a 800 micron mesh filter or optional through and additional 200 micron high volume filtration filter.

For those applications or cleaning agents that do require a rinsing step after cleaning, optionally the machine can be equipped with an open loop tap water- or demi-water rinsing process.

To reduce contamination of the drain water and cleaning agent consumption , the machine can be equipped with an air-knife option that can blow off excessive fluid prior to starting the rinsing proces.

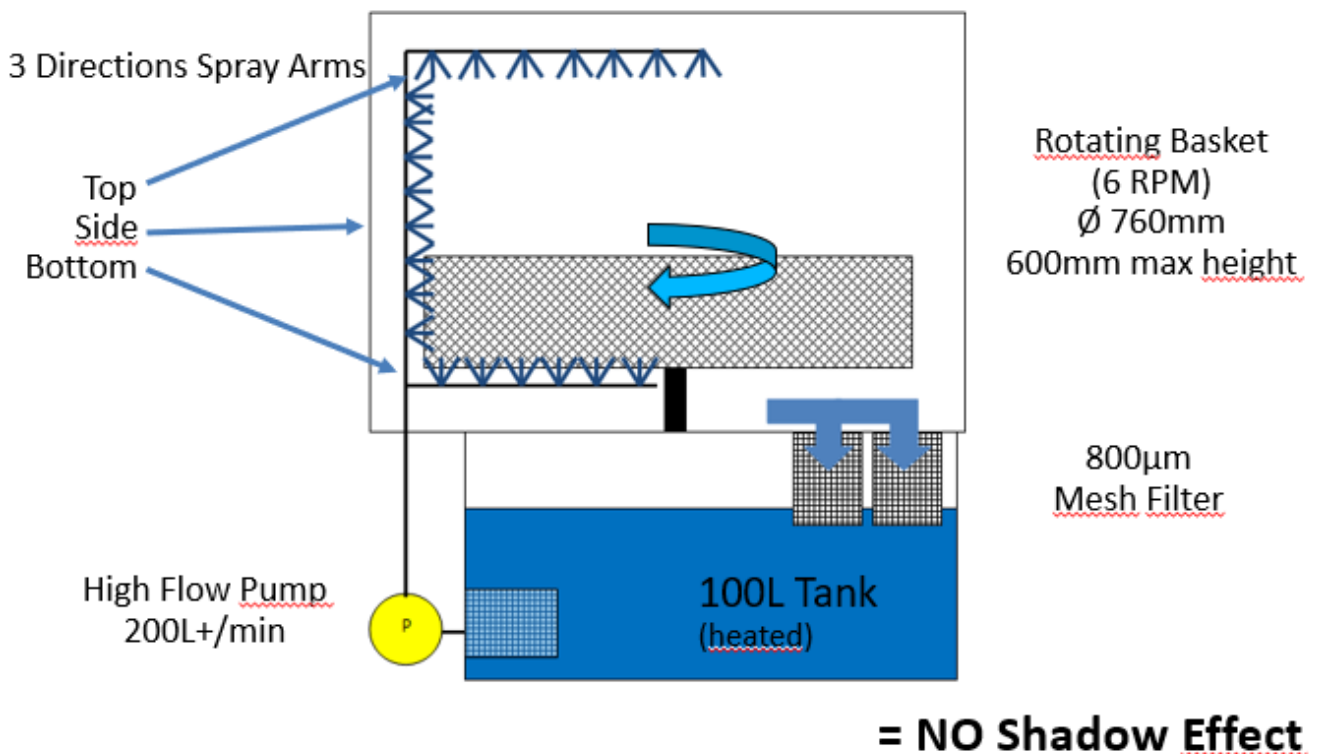
At the end of the process, products are dried with an integrated high capacity hot air drying unit. The optional airknife can also reduce the drying time.

The diagram below clarifies how it works.

SPECIFIC SPRAY IN AIR TECHNOLOGY



Combining 3D Spraying and Rotating Basket



A typical cleaning cycle take about 10 minutes. A complete cycle including Rinsing and Drying can be completed within 30 minutes, depending on the application and contamination



Cleaning agent:

The cleaning method has been developed and tested with cleaning agents from the specialist Zestron. To guarantee good results and prevent any damage to the machines, Partnertec only offers the machines in combination with Zestron liquids.

Various cleaning agents are available, depending on the contamination that must be removed. Most are water based and some do not require rinsing,.

We also offers easy to use manual test kits to measure the cleaning agent concentration and to determine the required refill mix to keep the cleaning bath in perfect condition.

Together with Zestron we can recommend the right cleaning agent for your application and offer a Free of Charge cleaning trail at MBtech or Zestron, prior to buying the equipment.