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Dry Footwear Sanitation in Food Processing

What is key to an effective dry footwear sanitation program?

To truly be effective, a shoe sanitation solution must be 4 things:

1. Have an efficacy that can be validated regularly
2. Is a method that is consistent across individuals, shifts, and facilities
3. Be in a good location that stops pathogens from entering production and other key areas (e.g. raw to RTE)
4. Is simple to use for the employees

Popular Methods of Dry Footwear Sanitation:

- Dry quat powder/pellets
- UV sanitation
- Tacky mats
- Shoe covers/booties
- CleanTech® EVO with Sole Clean Dry Footwear Sanitation Enhancement

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Are you removing pathogens…or just covering them up?

Shoe covers / booties

- Easy to use with any footwear types
- Only cover, rather than remove pathogens
- Slippery and can lead to falls
- Tear easily and lead to contamination touch points when adjusted
- Costly and lots of plastic waste
- Time consuming to put on and reapply

Tacky mats

- Can be used with all footwear types
- Only remove small particles and debris
- Need to be replaced often, which is costly

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What efficacy testing has been done in the field?

UV Sanitation Systems

- Takes a long time to sanitize the footwear
- Not a ton of testing with real-life scenarios
- Debris/soils on the shoes inhibit sanitizing

Dry Quat – Powders/Pellets

- Minimal testing done outside of a lab
- Needs moisture for full efficacy, making it a poo option for dry facilities
- Travels EVERYWHERE and can end up in RTE areas, never should be used in a vertical plant

Scan the QR code for full dry quat study

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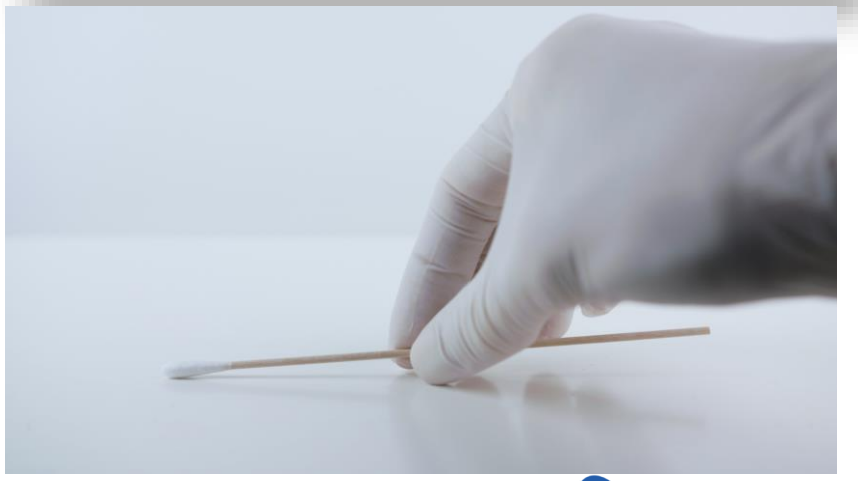
CleanTech® EVO with Sole Clean

- Effective with any footwear type
- Easy to train employees to use the station
- No touch points – no points of potential contamination
- Guaranteed 12 seconds of contact time
- Plumbing and electricity required for operation of the station
- Stationary – not designed to move around the facility
- Not 100% dry, minimal moisture is created during the handwashing cycle

CleanTech® EVO with Sole Clean in Action!

Replicate the ‘Real World’ when Testing and Validating

- Test with different types of footwear, especially if there is no captive footwear program and staff is wearing street shoes
- Test the effectiveness at your facility using quat strips / ATP testing etc.
- When testing try to create a ‘real world’ scenario. Use the types of footwear that the staff is wearing, use the same amount of sanitizing materials as is used in the facility, replicate the contact time etc.



3rd Party Testing of CleanTech Sole Clean Enhancements

- Meritech has worked with a third-party GLP laboratory, to test the efficacy of CleanTech Handwashing Stations with the Sole Clean Enhancement
- Tested against Listeria Monocytogenes and Salmonella Enterica
- Subjects with two types of contaminated footwear (street shoes and rubber boots) stepped both feet into a CleanTech footwear enhancement pan of the Sanifect D2 solution for 12 seconds

Results of 3rd Party Testing of CleanTech with Sole Clean

Sole Clean with Sanifect D2

Listeria Monocytogenes vs. Sanifect D2

Side	Baseline Log_{10} Microbial Recoveries	Rep 1 Log_{10} Microbial Recoveries	Rep 1 Log_{10} Microbial Reduction	Rep 2 Log_{10} Microbial Recoveries	Rep 2 Log_{10} Microbial Reduction	Rep 3 Log_{10} Microbial Recoveries	Rep 3 Log_{10} Microbial Reduction	Mean Avg. Log_{10} Microbial Reduction	Mean Avg. Percentage Reduction
Left	7.57	3.00	4.57	3.00	4.57	3.00	4.57	4.57	100.00%
Right	7.08	3.00	4.08	3.00	4.08	3.54	3.54	3.90	99.99%
								4.24	**99.994%**

Salmonella Enterica vs. Sanifect D2

Side	Baseline Log_{10} Microbial Recoveries	Rep 1 Log_{10} Microbial Recoveries	Rep 1 Log_{10} Microbial Reduction	Rep 2 Log_{10} Microbial Recoveries	Rep 2 Log_{10} Microbial Reduction	Rep 3 Log_{10} Microbial Recoveries	Rep 3 Log_{10} Microbial Reduction	Mean Avg. Log_{10} Microbial Reduction	Mean Avg. Percentage Reduction
Left	7.19	3.00	4.19	3.18	4.01	3.00	4.19	4.13	99.99%
Right	7.53	3.00	4.53	3.00	4.53	3.54	3.99	4.35	100.00%
								4.24	**99.994%**

- The results of the graph to the left show a mean average percentage reduction of **99.994% for both Listeria and Salmonella**
- These results come from lab testing of a real-world scenario utilizing actual footwear and hygiene solution in a process that mimicked using the CleanTech station in a hygiene zone

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Location starts with the 3P's

It's essential to have a footwear hygiene method that's located at all key cross contamination touch points and takes into account the 3 P's

How do employees move across the facility?

- Larger hygiene zones / method that can be quick between shifts / breaks / etc.

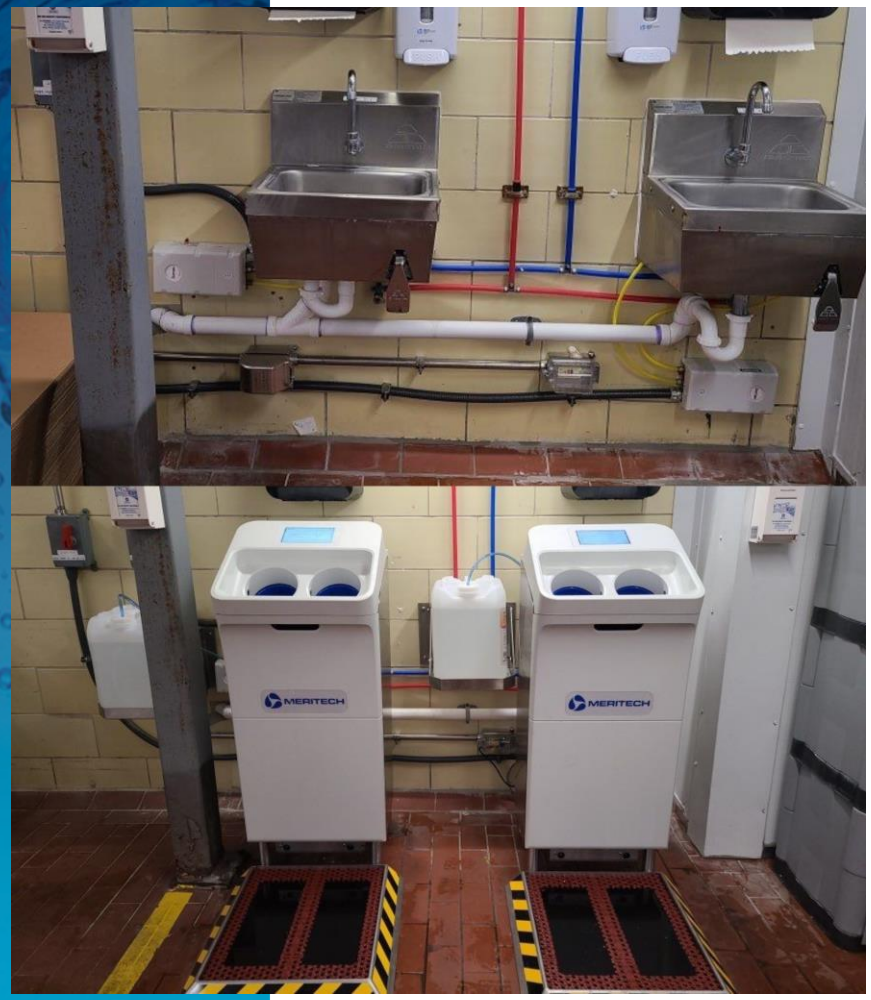
How do visitors, contractors, maintenance, sanitation move around the facility?

- Are there people moving from Raw or Outside areas into RTE areas?

Where are there transition areas and what type of product is being made?

- What happens when you have a transition area inside of a production area that needs limited moisture?

Installation Examples



What is key to an effective dry footwear sanitation program?

It is always important to consider these questions when choosing a method:

- Does it improve your company's food safety culture?
- Is it easy to train your team members on this method?
- Can this method be conducted consistently in your facility?
- Is it sustainable for your team to conduct this method over time?
- What is the impact of the chosen method on your product / employee safety?
- Does this support your company's sustainability/cost savings initiatives?
- Can it easily be validated by your team and auditors?

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Visit Meritech at Booth 109 to Learn More about Dry Footwear Sanitation!

Remove more than 99.9% of pathogens in 12 seconds from both hands and footwear using CleanTech with Sole Clean!

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