

Seed Pasteurizing Systems



Daisey Machinery Co Ltd

Japan



Seed Pasteurizing System by Daisey Machinery Co Ltd

Seed used for sprouting is sanitized by immersing it briefly in hot water prior sprouting. This process prevents that human and plant pathogens are carried over to the growing process where they can spread easily in the warm and humid environment.

Characteristics of the method

- In order to use heat as a disinfectant successfully, the temperature and the contact time of the seed with the hot water need to be controlled very accurately. In addition each seed need to be treated exactly the same, otherwise the germination ability is reduced or pathogens might escape the treatment. Using the latest available technology, all of our models are assuring a constant contact temperature & time.
- Treatment Temperatures used are above 80° C (176 F). This is above the heat resistance of Human Pathogens, such as E-coli and Salmonella.
- The seed is sanitized without the use of chemicals harmful to the operators of the sprouting plant and the environment.
- Heat is a natural and very effective disinfectant – making the process suitable for organic producers.
- Automatic or semi-automatic models making the labor-intensive process of seed treatment much simpler.
- Besides operating cost for the steam boiler and the machine, there are no additional expenses (such as for expensive chemicals).
- The method is in use in sprouting operations of any size in Japan since 8 years
- Tests in our Lab as well as in sprouting operations in Japan and in the USA have shown that “Seed Pasteurizing” is - compared with other methods - the most effective method to sanitize sprouting seed successfully under the operating conditions of a sprouting plant.

Daisey Machinery Co Ltd has been pioneering the research in Seed Pasteurizing and participated in the research to find effective solutions to disinfect seeds used for sprouting together with the National Center for Food Safety and Technology and others. We have shared our results and information with the USDA and the FDA and other organizations involved.

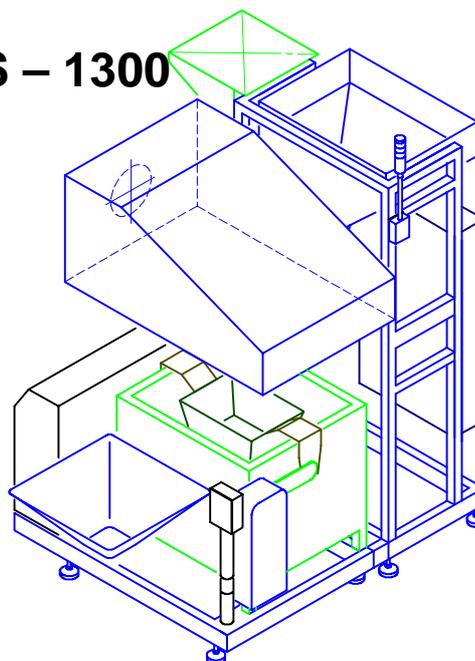
Several models are available depending on the sprout produced and the daily capacity. Our range includes fully automatic systems with a capacity of over 13'000lb of seed per hour (for mung beans) as well as semi-automatic systems for smaller operations with a capacity starting from 200 lb of seed per hour.

The “Seed Pasteurizing Method” can be used to sanitize Mung Beans and other seed used for sprouting such as Alfalfa.



Seed Pasteurizing System SPS – 1300

(Semi automatic version for smaller capacities)



SPECIFICATION (Mung Bean Version)			
NAME	SEED PASTEURIZING SYSTEM		
OUTPUT	from	300 [kg/hour]	from 661 [lb/hour]
AIR REQUIREMENT	min	50 [l/min]	13 [gal/min]
		6.5 ~ 8 [kg/cm ²]	93 ~ 114 [PSI]
WATER REQUIREMENT	max	130 [l/min]	34 [gal/min]
	total	3,200 [l/hour]	845 [gal/hour]
		2 [kg/cm ²]	28 [PSI]
STEAM BOILER REQUIREMENT		200 [kg/hour]	794 [BTU]
POWER REQUIREMENT	AC 200V 3Phases / Approx. 3.5[kw] / [50/60Hz]		

Characteristics:

- Simplified, patented model
- Most effective method to sanitize seeds before sprouting.
- Fully automatic control of temperatures and contact time each seed is treated exactly the same way – absolutely essential to use the most effective treatment without damaging the germination.
- Using latest electronic technologies allows a simple, semiautomatic operation
- Flexible – seed is pasteurized in small batches
- Easy to clean
- Simple maintenance – purpose designed. All parts are carefully selected to suit the environment of a sprouting factory
- Compact (space requirement about 12 x 8 FT)

All information presented may vary depending on the requirements, the item processed and is subject to change without notice

Beside the SPS 1300, there are several different models (according to capacity for treatment) and options available. Please contact us for specific information



In addition our product range includes equipment for:

- Growing (without using chemicals)
- Sprouts washing and cleaning
- Root Cutting,
- Dry dehusking
- Drying
- Measuring and Packaging
- Date Printing
- Quality Monitoring

All our innovative products are purpose designed.

Please consult us for detailed information:

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