

Technical features of the machine

- Capacity of Motor: 1 hp
- Power supply required: 220V
- Disinfectant tank capacity: 150 litres
- Tray washing capacity: 100-125 trays/hour
- Brushes for removal of dirt and other materials from trays
- Spray pump discharge: 300 litres/hr
- Swirling wheels for easy transportation of the machine.

Advantages of the Machine

- The machine is dual purpose as it does the disinfection of chawki centre and also cleans the chawki rearing trays. It's a dedicated machine for CRCs.
- There is enormous saving of the water by the machine as the disinfection solution is re-circulated and very little water is required for cleaning of a tray.
- The machine reduces drudgery involved in washing and disinfection of the trays.
- The machine is easy to operate and maintain.
- No skilled workers are required to operate the machine.



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TRAY WASHING CUM DISINFECTION MACHINE



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A Commercial Chawki Rearing Centre, known commonly as CRC, is one of the most important technology developed by Central Sericultural Research and Training Institute, Mysore. It has brought a sea change in Indian sericulture industry by the way of providing healthy and young age silkworms. Today, the farmers need not to do incubation of silkworm eggs and create and maintain highly hygienic conditions along with specific environmental conditions for young silkworms at their farm, instead they can get 7 days old silkworms from a CRC and go directly for late-age rearing.



Inside view of model commercial chawki (CRC) at CSRTI Mysore

In a CRC, the young silkworms are reared scientifically under specific temperature and humidity, hygienic conditions, tender mulberry leaves, good rearing facilities and technical skills. The chawki worms from a CRC are healthy and robust which assure production of good quality cocoons with more silk content. Today, a large number of CRCs have come into existence all over southern India and many more are likely to come in future.

Why a special machine for tray washing and disinfection in a Chawki Centre?

A CRC should be thoroughly cleaned and disinfected for making it pathogen free before brushing of the silkworm egg layings. Presently, electric and engine operated power sprayers are used for disinfection of the CRC. In a CRC, the chawki worms are reared in plastic trays, normally measuring 60cm x 90 cm (2'x3'). For 100 dfls layings chawki worms, 12 nos. of 2'x3' trays are required. For a 5,000 dfls/batch, 600 trays are required. Today, a good number of CRCs have come all over southern India, many of which more than brush more than 50,000 dfls per month, hence more than 1,000-1,500 trays are required for each batch. The timely cleaning and disinfection of the CRC and plastic trays requires lot of time and expenditure. The cleaning and disinfection are not the preferred works for the workers as they not only involve drudgery but also health hazardous due to use of the chemicals. CSRTI Mysore has developed a Tray washing cum disinfection machine for chawki centres.

Salient features of the machine

As its name, the machine can be used both for disinfection of a CRC and also for washing the trays used for rearing young worms. The machine is fixed with 1 hp high capacity discharge pump set. The machine is provided with a heavy duty brass spray gun with variable spray pattern for disinfection works in a CRC. The tray cleaning unit of the machine consists of a specially designed spray system which discharges disinfection solution in form

of high pressure jets on the trays. The brushes in the tray washing unit rub and clean the trays.



1 hp high pressure & high discharge pump set



150 litres disinfectant solution tank



Brushes for rubbing of the trays for dirt removal



High pressure water jets in the tray cleaning unit



Nylon rollers for easy movement of the trays



Dirt collection tray



High pressure spraying gun for disinfection



Swirling wheels for easy transportation of machine