



SOLAR MULTI MUGA REELING CUM SPINNING MACHINE

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INNOVATOR

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PROBLEM ADDRESSED

In Imphal, mostly women are involved in silk reeling. Manihar realized how difficult it was for the women to judiciously balance the available time between household activities and silk reeling. His desire was to reduce the drudgery involved in the work and developed an automated silk reeling system, which did not require constant monitoring. This would help the women to simultaneously carry out their household work and silk reeling task with optimum output. Since all places in Manipur do not have access to electricity, he powered the device with solar panel. His machine is so simple that an untrained person can also operate it.



PRODUCT

This is a portable user friendly machine, which can simultaneously carry out the reeling as well as spinning for different varieties of silk like Mulberry, Muga, Eri and Tasar without any arduous human effort. The machine has five reeling heads with an electric switch each. This enables one or more reeling heads to operate even if the switch of remaining head(s) is off. The reeling is automated once the fine silk threads from the cocoons are fed to the reeling end. The machine speed can also be regulated with the help of feeding pipes attached along the thread lines. The reeling speed adjustment mechanism ensures silk production of desired quality.

TECHNICAL DETAILS

- The normal size of the machine in the dimension of 28 inches x 20 inches x 12 inches and it has five reeling heads.
- There is one electric switch at each reeling heads. Thus, when the switch of one reeling head is off, the remaining reeling heads can still operate.
- The speed of the machine can also be regulated with the help of feeding pipes attached along the thread lines.

SALIENT FEATURES

- The salient features of these machines are its compactness, easy portability and strong durability.
- The machine can use both solar energy and electricity. It performs effectively even in cloudy weather and at night through a DC battery. The machine can be operated twenty four hours thereby increasing productivity.
- Compared to the existing local or traditional methods of reeling this machine produces superior quality of threads in less time and with reduced labor.
- The machine is ideal for women who strive to manage household activities along with silk reeling process.

AWARDS AND RECOGNITION

Innovator has won National award in NIF's Eighth National Biennial Grassroots Innovation Awards, 2015.

