

PARTICULARS	SPECIFICATIONS
Capacity	1 kg
Power	DC motor with 12 V transformer
Speed	20 - 40 rpm
Dimensions of drum (mm)	190 x 225 (Diameter x Length)
Length of Nylon bristles (mm)	6
Types of fish	Sardine, Tilapia, Threadfin bream, Glassy Perchlet, Pearl spot etc.
Approximate Cost	Rs.3000/- + GST

TABLETOP MINI FISH DESCALING MACHINE



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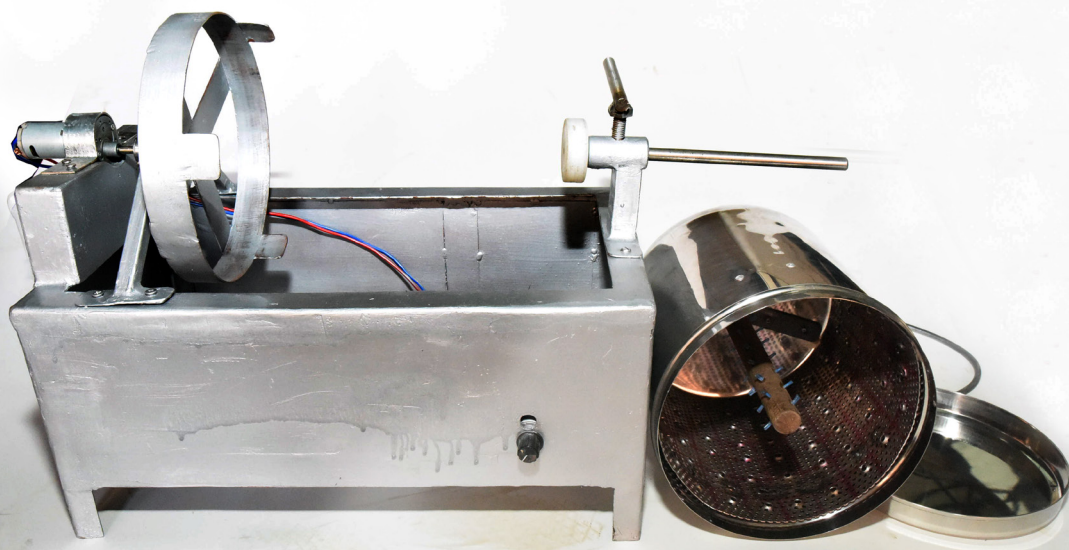
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TABLE TOP MINI FISH DESCALING MACHINE

Fisheries in India have emerged as an important economic sector with varied resources and potentials. Apart from engaging about 14 million people in different activities, the sector plays a significant role in meeting the nutritional security of the country. Despite the bountiful fishery resources, quality demands of the consumers are seldom met in terms of availability of fresh fish. A major factor contributing to this scenario is the post-harvest loss, which in fisheries is around 18-22%.

To alleviate these losses, improvement in processing measures involving cold storage lines during storage and transportation, drying and value addition should be enhanced. Of the various problems faced by fish processing sector, removal of scales from fishes is a major one. Generally scales of fish are removed manually by knives, which is laborious and time consuming.

Mechanization of descaling process could significantly reduce the handling time thereby shortening the pre-processing period. Moreover, it reduces the drudgery of labour involved in manual descaling of fish. Use of descaling machine reduces the overhead costs and enhances the quality of the final product.



To cater the household needs related to fish descaling, a motorized version of 1 kg capacity fish descaling machine was developed at ICAR-CIFT. It can be used in home kitchens and hotels for easy removal of fish scales. The equipment consists of a rotating drum, nylon brush, motor and frame to support the assembly.

The diameter and length of the drum are 190 mm and 225 mm respectively. Inside of the drum is riveted with perforated stainless steel mesh. The fish can be fed to the drum and motor switched on for descaling action. The machine can be loaded with 1 kg of fish in single batch for effective removal of scales. Cleaning of the machine can be done easily by detaching the drum with perforations inside. The system is ergonomically designed in such a way that even women can work on it without any drudgery.

The drum speed of descaling machine is optimized with respect to the efficiency level and it was found that maximum efficiency can be attained at 22 rpm drum speed at the loading capacity of 1 kg of fish. Descaling of Sardine and Tilapia required 5 minutes to attain efficiencies of 84.60% and 79.59% respectively.

