

## TINY RICE MILL

There is an emergent, ever growing health conscious market for natural, optimally polished nutrition retained rice very similar to the hand pounded rice. Hand pounding however is highly manual and impractical. Nutrition retained optimally polished rice still therefore remains out of reach of the consumers. A tiny scale rice milling system developed has been found to work satisfactorily for both raw and parboiled paddy. This mill apart from serving this need could also be useful as a testing module to ascertain and assess the milling quality of paddy in laboratories and at procurement points because of its suitability for intermittent milling of even small quantity of paddy and therefore can find a larger niche market.

The system consists of a feed hopper with feed gate to control paddy input to the pair of rubber rolls. Gap between these rubber rolls are adjusted to obtain desired dehusking percentage. Husk will be aspirated and collected separately through a cyclone separator. Brown rice & paddy mixture falls into the inlet hopper of a polisher of matching capacity. The pressure in the milling chamber can be adjusted by shifting the weight on the lever arm, to get rice of desired degree of polish.

All the mill components are run by one single phase 0.5 HP motor (even on domestic installations). Mill can handle different varieties of paddy (raw/ parboiled) and the capacity of the unit is about 10-15 kg/ h. Occupying a floor area of 0.4 sq.m & weighing about 38 kg (inclusive of motor) the machine is 0.85 m tall.

**Suggested capacity of the fabrication unit:** 36 machines per annum

Average production cost/ unit: Rs.25,000/-

### **Project Economics- Fixed Cost – Working Capital (in Rs.'000) (Estimate for a model project)**

(a)	Land & Building (75M <sup>2</sup> )	103.00
(b)	Principal plant & equipment	524.00
(c)	Other fixed assets	50.00
	Preliminary/ preoperative expenses	117.00
	<b>Total Fixed Capital</b>	<b>794.00</b>
	Working capital (Margin)	66.00
	<b>Total project cost</b>	<b>860.00</b>

**Technology/Manufacturing Process – Availability:**

The design drawing for **Tiny Rice Mill** has been developed at CFTRI, Mysore, after taking up sufficient trials on the proto type machine. The CFTRI has the necessary expertise to provide technical assistance and guidance for setting up of fabrication unit of this machine (the facilities can also be used for fabrication of other food processing equipments also). The CFTRI can offer further technical assistance for development and problem solving under technical consultancy arrangements.