

Garlic Peeling Machine

Nagarajan (45) lives at Usilampatti, a small village 40 km away from Madurai in Tamil Nadu. He has studied up to the ninth standard. Nagarajan's close interaction with the pickle manufacturers exposed him to the practices prevailing in the industry. Nagarajan successfully designed and developed a garlic-peeling machine in 2002 after two years of hard work. M. Nagarajan has modified a garlic-peeling machine significantly and this improved machine addresses the two-fold problem of the pickle industry, namely, inefficiency due to low degree of automation, and short supply of labour during peak seasons, which limits capacity. The garlic peeling machine has the capacity to peel 200 kg of garlic/hr. The garlic peeling machine consists of a 2 HP electric motor, blowers, a peeling chamber, inlet, outlet, exhaust pipe and drives. The peeling chamber has a provision for garlic inlet and a shaft on which the blades are arranged in such a manner that there are six rows and each row consists of four blades placed at an equiangular distance of 90 degrees. These blades are made of the same material that is used for power transmission. The garlic cloves thus obtained are of a uniform size and can be neatly and conveniently collected and recovered. Another feature of this machine is that it is easy to construct, operate, and maintain. The blower removes excess moisture in the garlic and the separation of husk is innovative. This machine helps to achieve greater productivity, is energy efficient and labour saving, and reduces the drudgery in the slow laborious process of peeling garlic. The manufacturing cost of a single prototype is Rs.52, 000/- This machine can also be used in other food processing industries apart from the pickle industry.