

**CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE
MYSROE – 570 020**

CONTINUOUS VIBRO FLUIDIZED BED ROASTER FOR FOOD PROCESSING

The unit consists of a fluidization deck with material fed through a vibratory feeder at constant rate. Hot air is mixed with combustion products from LPG and is passed through the vibrating deck of the fluidized bed and the air temperature is kept between 300-350°C. Retention time is controlled by varying the frequency and amplitude of vibration of the vibrating deck. The roasted material discharge out through the discharge chute.

On comparison with conventionally roasted products, the one obtained from vibro unit are more uniform, less over roasted material and have superior flavour. Vibro units are less labour intensive; lower capital cost and operation parameters a wide range of products can be handled.

The cost of a pilot unit capable of handling 100 kgs/hr of wheat is estimated at Rs.1.5 lakhs and for such a unit the operating cost will be about Rs.1.20/Kg. This can be reduced considerably for large-scale operation by adopting recalculation of air and operating at optimum air temperatures. Fluid bed roaster, designed and developed by CFTRI will have large prospects in continuous roasting of cereals and pulses, spices, oil seeds puffing of grains and similar applications in fast food industries.

Presently, there are about 25000-30000 small and medium scale roasting units in the country, which are using traditional sand roasters. Using the continuous vibro fluidized bed roaster, clean and hygienic product can be produced. Using the same machine various types of oil seeds, spices and snack foods can be roasted. Besides this every year, about 100-200 new roasting units are coming up in the country and there is a vast untapped market.

Plant and Machinery required: Sheet bending unit, SS Welding unit, Lathe machine, Grinder, Hand tools etc,

Project cost estimate: Rs. 6.60 lakhs initial investment

FORSBERG AGRITECH (INDIA) PVT. LTD.

123, GIDC Estate, Makarpura, Vadodara - 390 010
Ph: 0265-645752 (O) 340597, 336847(R); Fax-0265-641683;
E-mail-forsagri@satyam.net.in

A.M.I. ENGINEERING

Station Road, Opp. Veena Cinema, Patna-800 001
Fax: 0612-2224274
Mobile: 9973437800; 9431016895
E-mail: ashwani@amienggfarmer.com

NALANDA AGRO WORKS

Nalanda Nagar, Kurji, Patna - 800 010
Phone No. 0612-263886 [O]; 267706 [R]; Fact: 0612 - 262847