



सीएसआईआर-केंद्रीय खाद्य प्रौद्योगिक अनुसंधान संस्थान
CSIR- CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE
मैसूरु / MYSURU-570 020, भारत / INDIA

(Constituent Laboratory of CSIR, New Delhi (Ministry of Science & Technology)
An ISO 9001:2008, ISO 14001:2004 & ISO 17025:2005, NABL Accredited Laboratory

Corrigendum: Tender for Extruder Line

Corrigendum Title: Revised Technical Specification

Tender Ref: A3/74180/19 Date: 13-01- 2020

Tender ID: 2020_CSIR_40229_1

The revised final specification based on the discussion in Pre Bid Conference enabling equal opportunity to all OEMs has been given below as revision to the original tender specification. All bidders are requested to peruse the same and submit their bids accordingly on or before 02.00 p.m. by 27/FEB/2020.

The Firms who has already submitted their offer may resubmit their offer as per our revised final technical specification if required.

. All other tender terms and conditions remain unaltered

Revised Technical Specifications for Extruder Line

Brief Specification of Machinery

1. Hammer Mill (Fixed Hammer)

- Capacity : 100-200 kg/h
- Electric Motor : 10-12 kW / 3 Ph, 440 VAC / 50 Hz
- Material : SS-304 / 308
- Hammer Speed : 2880~3000 rpm
- To have interchangeable sieves of size ranging from **100µm - 500µm**
- The supply to have necessary electrical control panel with necessary electrical safety devices.

2. Screw conveyor

- Capacity of discharge : 75-100 kg/h
- Diameter : 100 mm
- Length : 3.05 Meter (10 feet)
- Type : Inclined
- Material of contact : SS / 304 or 308 grade
- Power : 1 kW / 3 Ph, 440 VAC, 50 Hz
- Approx. Dimension (L*W*H): 2050*1050*1250 mm
- Quantity : One No.
- The Machine to be fit with variable speed drive for varying the speed of the Seasoning Drum (for varying the feed rate).
- The supply to have necessary electrical control panel with necessary electrical safety devices.

3. Single Screw Snack Extruder

- Product Capacity : 75-100 kg/h (Corn Curls)
- **Type of product : 1. Puffed product 2. Gelatinous (Vermicelli or Noodles)**
- Main Geared Motor : 20-30 HP, with AC drive for varying the speed (Approx.)
- Feeder Hopper : Capacity 50 Kg
- Feeder Motor: 1 HP, 440 VAC, 3-Phase, 50Hz with AC drive for varying the extruder speed
- Cutter Motor: 1 HP, 440 VAC, 3-Phase, 50Hz with AC drive for varying the cutter speed
- Temperature Controller: To indicate the barrel temperature **(60-225°C)** of the Extruder / Product
- **Die: Noodles, Corn curls, Hollow. etc.,**
- Material in contact with Food: Stainless Steel of SS-316 or SS-318 Quality
- The machine to have a pneumatic conveying system for transfer of corn curls
- Quantity : One No.

- The supply to have necessary electrical control panel with necessary electrical safety devices.

4. Spice Flavoring / Seasoning Drum

- Capacity : 75-100 kg/h
- Main motor : 1 HP / 3 Ph, 440 VA / 50Hz
- Drum size : 3.2 Meter (10.5Feet)
- Material : SS-304 / 308
- **Drum with Heating** : **Hot air blower (50-100 °C)**
- **Sprayer Gun** : **Powder and liquid with compressor for air**
- The Machine to be fit with variable speed drive for varying the speed of the Seasoning Drum.
- The supply to have necessary electrical control panel with necessary electrical safety devices.

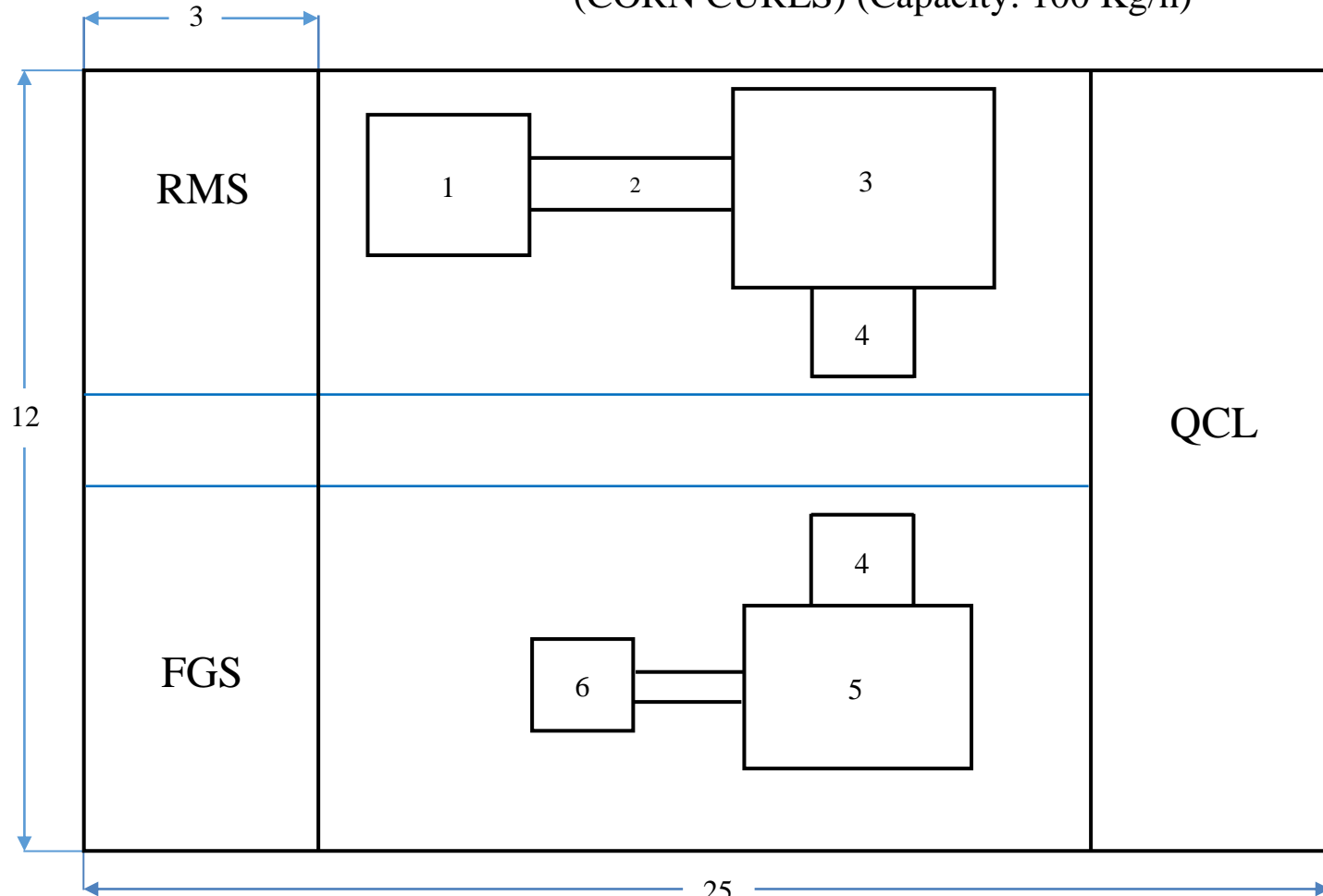
5. FF Seal Machine

- Range of capacity : **50-200** gm / Pouch
- Bag Size : 150 mm (W), 170 mm (L)
- Production Applications : Powder, Granules
- Sealing Type : 3 Sides sealing
- Roll Width : 200 mm
- Feeding System : Volumetric Cup Filler
- Machine Motor : 0.5 ~ 1 HP
- Electrical Supply : 220 VAC, Single Phase, 50 Hz
- Packing Film : Any heat sealable laminated roll
- Machine control Through : PLC (Programmable Logic control)
- Contact Part : SS-304
- Heater Load : 450 W (Approx.)
- Packing film pulling : Through electromagnetic clutch and brake
- Temperature Controller : PID Based
- Machine Speed : 40-60 Pouches per Min.
- Power Consumption : 2 ~ 3 Kw

- Machine Motion : Intermittent.
- Quantity : One No.
- The supply to have necessary electrical control panel with necessary electrical safety devices.

PLANT-LAYOUT FOR EXTRUSION LINE FOR SNACK FOOD

(CORN CURLS) (Capacity: 100 Kg/h)



List of Machinery	
1.	Grinder
2.	Screw Elevator
3.	Single Screw Extruder
4.	Pneumatic Conveyor
5.	Coating Equipment
6.	Form Fill Seal machine

Abbreviations:	
RMS	– Raw Material Storage
FGS	– Food Goods Storage
QCS	– Quality Control Laboratory

Name	Extrusion Line for Snack Food (Corn Curls)
Layout Dimension	Length*Width = 25*12

All Dimensions are in METERS.