

PEDA PROCESSING



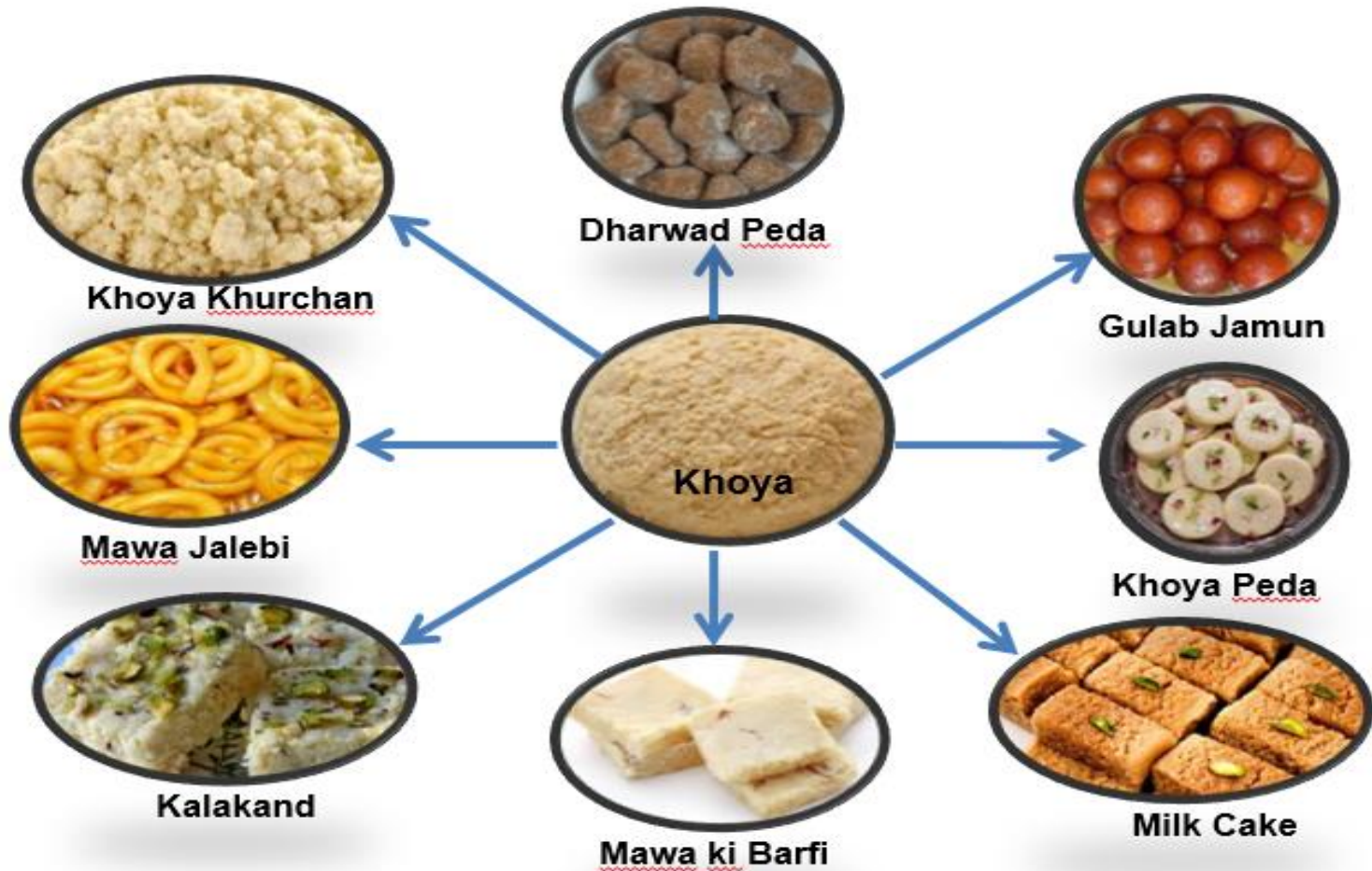
AATMANIRBHAR BHARAT

**PM Formalisation of Micro Food Processing
Enterprises Scheme (PM FME Scheme)**

INTRODUCTION

- ✓ Indian traditional sweetmeats (sweets / mithai) are very popular in our country and worldwide.
- ✓ Around 50% milk produced in India is converted to traditional Indian dairy products.
- ✓ Several types of sweets are prepared in different parts of country and categorized by different name and taste.
- ✓ Khoa based sweets are peda, burfi, kalakand, milk cake etc.

PRODUCTS MADE FROM KHOA



- As per Food Safety and Standards Regulations (FSSR), 2011 Khoa by whatever name it is sold such as Khoa or Mawa or any other region-specific popular name means the product obtained by partial removal of water from any variant of milk with or without added milk solids by heating under controlled conditions.
- ✓ Khoa is a heat desiccated products and is the base material for most of the sweets prepared by halwais.



TYPES OF KHOA



Dhap

- Suitable for burfi, peda
- Total solid varies from 56 to 63%



Pindi

- Suitable for Gulabjamun, pantua
- Total solid varies from 67 to 69%



Danedar

- Suitable for Kalakand, milk cake
- Total solid varies from 60 to 65%

BUREAU OF INDIAN STANDARDS (BIS) REQUIREMENTS FOR KHOA

Characteristic	Requirement		
	Pindi	Danedar	Dhap
Total solids percent by mass, Minimum	65	60	55
Fat, percent by mass (on dry basis), Minimum	37	37	37
Total ash, percent by mass (on dry basis), Maximum	6.0	6.0	6.0
Titrateable acidity, (as lactic acid) per cent by mass basis, Maximum	0.8	0.9	0.6
Coliform count per gram, Maximum	90	90	90
Yeast and Mould count per gram, Maximum	50	50	50

THE MITHAI MAP OF INDIA

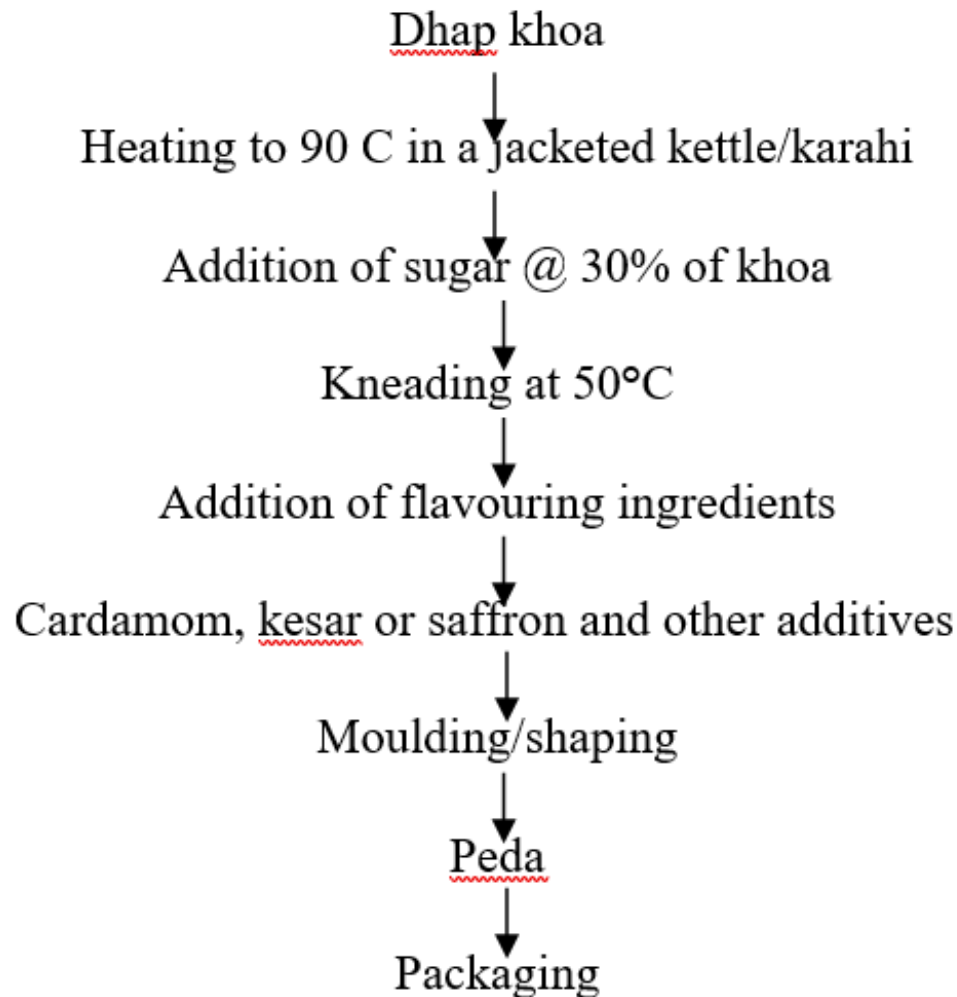
We list out our favourite trademark sweets from each state

Few names are listed below:

1. Dharwad peda
2. Mathura ke peda
3. Thirattupal
4. Babadham peda
5. Parwal ki Mithai
6. Lal peda from UP



PEDA Manufacturing (Traditional Method)



Traditional method for Peda





Ministry of Food Processing Industries
Government of India

Limitation (traditional process)

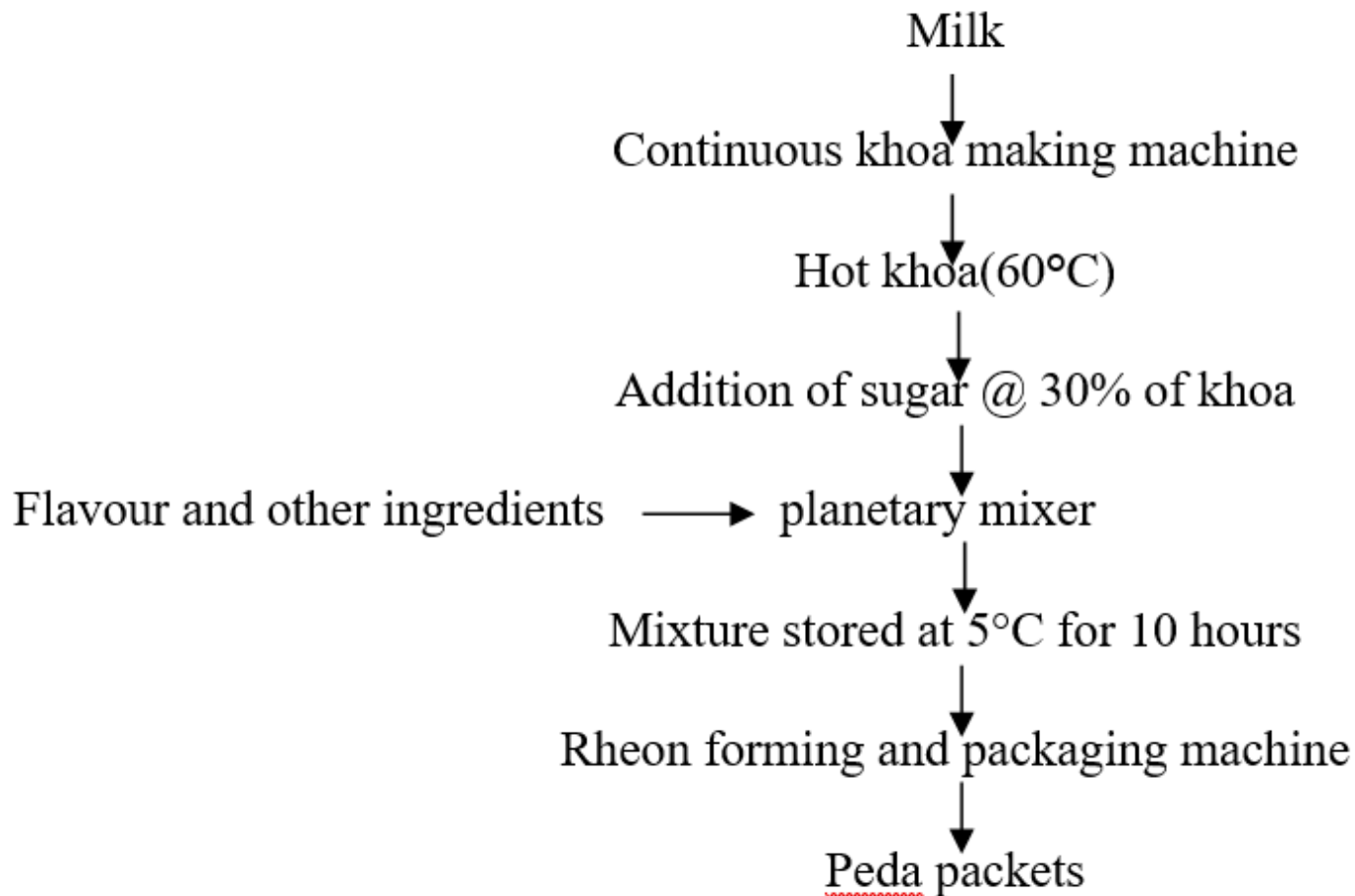


Several limitations of this method such as:

- 1) Time and labor consuming
- 2) Large variation in quality
- 3) Poor keeping quality
- 4) Small scale production
- 5) Smoky smell

- ✓ Inclined Scraped Surface Heat Exchanger (ISSHE) for continuous manufacture of khoa by National Dairy Development Board (NDDB). Concentrated milk of 42 to 45% total solids is used as feed in this machine and its inclination permits the formation of a pool of boiling milk critical to formation of khoa.
- ✓ Thin Film Scraped Surface Heat Exchanger (TSSHE) system has developed at NDRI for the continuous manufacture of khoa and it consists of two Scraped Surface Heat Exchangers (SSHE) which are arranged in a cascade fashion. In this machine milk is concentrated in first SSHE to about 40-45% Total Solids and finally to khoa in the second SSHE.

PEDA Manufacturing (Modern Method)



Khoa Production (Machineries)

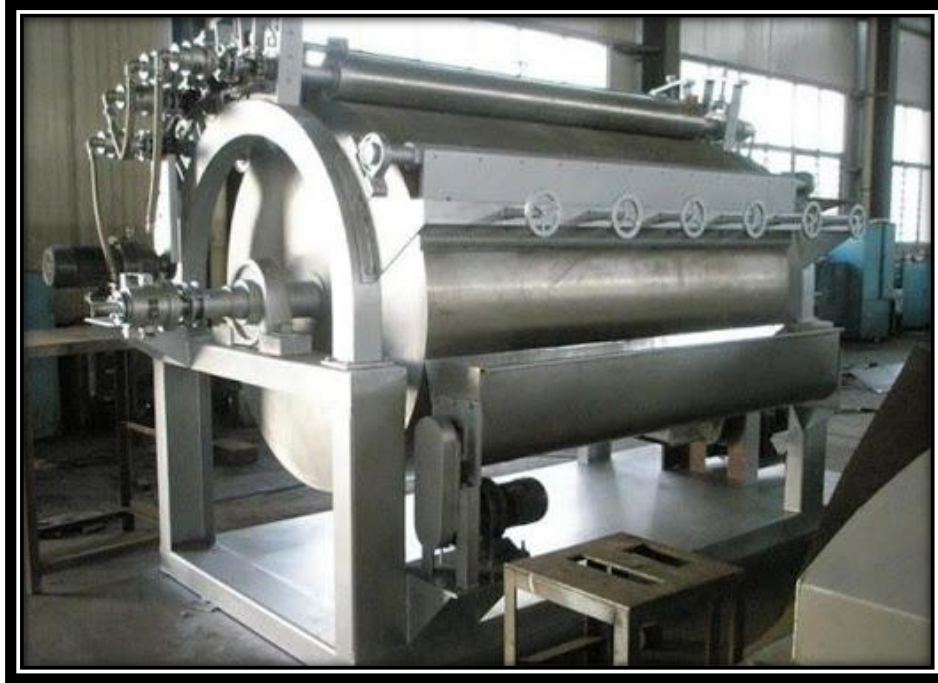


Steam jacketed kettle



**Multipurpose VAT
(Rotating type / rotary scrapper)**

Khoa Production (Advanced Machineries)

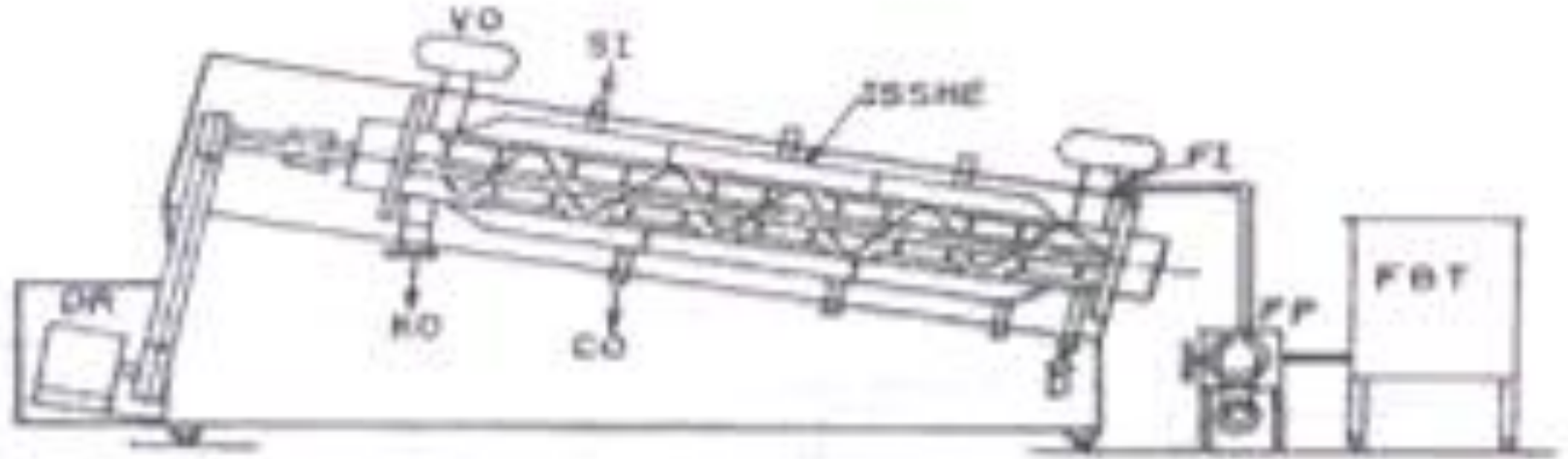


Roller dryer machine



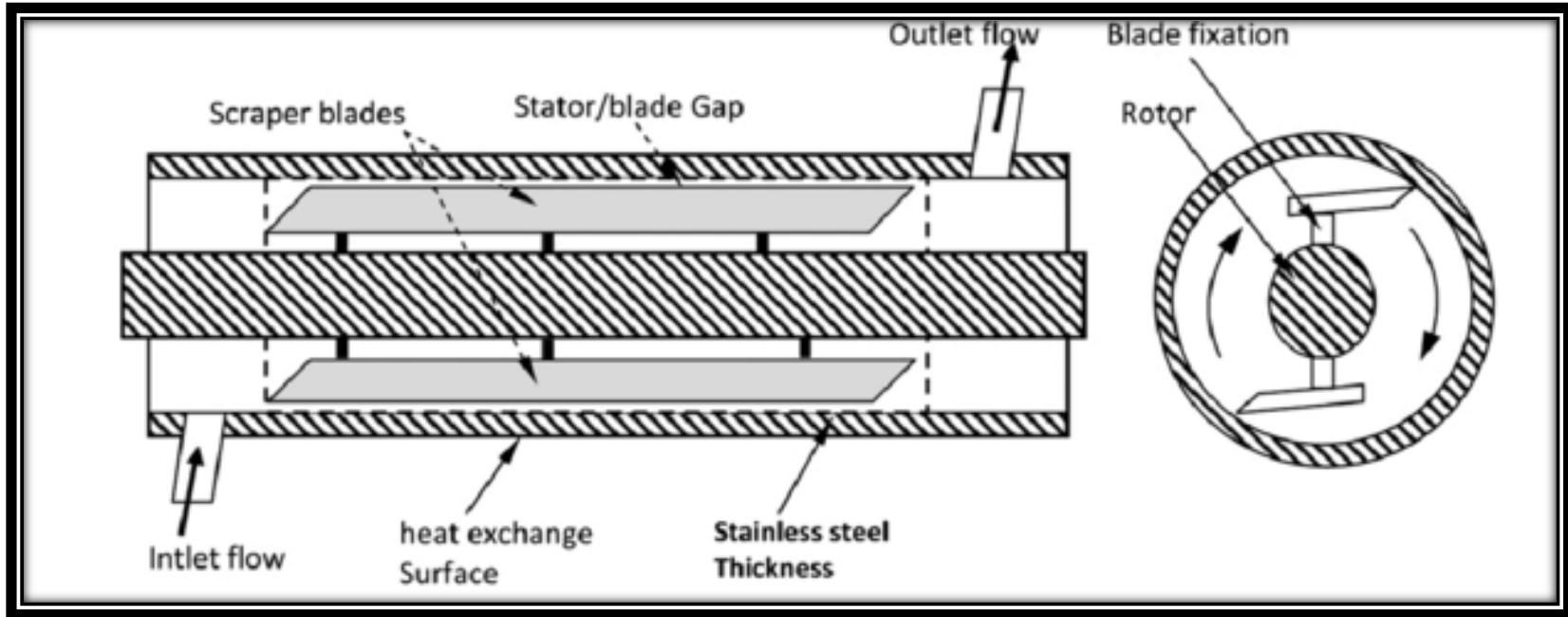
Scraped surface conical vat

Khoa Production (Advanced Machineries)



**Inclined scraped surface heat exchanger (ISSHE)
Developed by NDDDB**

Khoa Production (Advanced Machineries)



Thin film scraped surface heat exchanger (TSSHE)

1. Milk Reception and evaporation:

- ✓ High fat percentage of milk should be taken in a open pan for evaporation
- ✓ Continuous scrapping mechanism must be attach with the pan.
- ✓ It may be steam jacketed or gas fired.



2. Addition of Sugar and grinded cardamom

- ✓ Evaporate the milk till the volume get reduced by one third
- ✓ Addition of sugar and grinded cardamom as per final product taste.
- ✓ Continuous scrapping.



3. Unloading and shaping of peda mass

Unloading the khoa mass in a tray for cooling and shaping manually. Manual method of shaping and moulding of peda.



4. Addition of Sugar and grinded cardamom

- ✓ Evaporate the milk till the volume get reduced by one third
- ✓ Addition of sugar and grinded cardamom as per final product taste.
- ✓ Continuous scrapping.



5. Packaging :

- ✓ dried peda were packed manually in a laminated paperboard box
- ✓ weighing and vacuum sealing was done in 100 gms, 200gms packet
- ✓ Peda may also be packed through machine
- ✓ Peda mass cutting, ball forming, peda shaping machines are available and in use.

COMPOSITION OF PEDDA

Constituents as %	Laboratory prepared samples (avg)	Market samples (range)
Moisture	10.20	4.2-18.2
Fat	20.10	3.5-25.0
Proteins	19.00	1.4-19.5
Lactose	18.30	4.0-18.6
Ash	2.40	1.4-3.40
Sucrose	30.00	31.8-61.8

The chemical quality of pedda depends on the following factors:

- a) The type of milk and its quality**
- b) Quality of khoa used**
- c) The amount of sugar that is added**
- d) The process and method of manufacture**
- e) The other ingredients and flavours if added**
- f) The Storage conditions of finished product**

Types of Package available in market

1. Paper board containers lined with parchment paper or grease proof paper

- Plastic trays, tubs
- Assorted pack





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Government of India

Few manufactures (Machineries)

listed on www.indiamart.com



- Tirth Engineering, Shivane, Pune, Maharashtra
- Sunshine Industries, Sector 10, Noida, Gautam Budh Nagar, Uttar Pradesh.
- Jackson Machine, Odhav Industrial Estate, Ahmedabad, Gujarat
- Ambica Engineering Works, Bengaluru, Karnataka
- Deokali Engineering Works, Ashok Nagar, New Delhi
- Nexgen (india) Food Machine Industries, Rajpura, Patiala, Punjab
- Indian Machine Mart, Patparganj, New Delhi



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