

GROWING DEMAND FOR PACKAGED MANGO DRINKS PROPELS GROWTH FOR FOOD PROCESSING SYSTEMS

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Mango, the undisputed king of fruits retains its popularity and demand beyond the mango season and packaged mango drinks meet this demand. Particularly, when it comes to flavors, Mango is the first choice among all, though Orange and Lime are the other popular variants. All the packaged fruit drinks are derived from fruit pulp. Over the years it has been observed that, Indian life style has a fondness for fresh fruits and vegetables or those processed at home. Specially, now-a-days preferences are shifting towards healthier lifestyles, so is the demand for fruit drinks and juices. Earlier fruit drinks were considered something which gives refreshment but now due to the health conscious consumers, it has evolved as part of a Nutritional diet.

The total **size of non-carbonated, packaged fruit drinks in India is estimated around Rs 2, 500 crore**, which includes fruit drinks (below 20 per cent fruit pulp), nectars (between 25-85 per cent fruit pulp) and juices (above 85 per cent fruit pulp). **Mango flavored drinks possess the highest share within the packaged fruit drinks category¹.**

The overall beverage market is largely segmented into real fruit drinks and carbonated / synthetic drinks. Former is based on natural fruit pulp / juice, while latter is based on artificial flavours. Among the fruit based beverages now in the market, are fruit drinks like Frooti, Maaza, Slice and Jumpin; fruit juices like Pepsi's Tropicana and nectars like Dabur's Real. The

major beverage brands like Parle Agro, PepsiCo, Coco-cola, Dabur and Godrej have been leading the market for packaged fruit drinks and beverages.

India is the largest cultivator of the most widely recognized variety of mango, Totapuri, used in pulp manufacturing. The country also dominates the world market for mango pulp and possesses 67% share of world exports².

Given the fact that the shelf life of fresh mangoes is just about 5 days, the importance of 'fail-proof' food processing technology is critical to ensure that adequate stocks of pulp are processed and delivered to companies for beverage processing to sustain the demand through the year till the next mango season. Further, today's advanced technology, like evaporator, ensures that the mango pulp is reduced in volume by reducing the water content. This in turn means that the fruit processing companies are able to cut down significantly on packaging, transportation & storage costs as more quantity of pulp can be filled in same size of containers.

The manifold growth in the packaged mango drinks segment has propelled fast paced growth in the proverbial mango-processing basin of India - the common borders of three states, Andhra Pradesh, Tamil Nadu and Karnataka - primarily the Krishnagiri-Chitoor belt. Fruit beverage companies like Parle, Pepsi, Coca Cola and the likes, rely

on pulp processed from this mango belt of India.

This mango processing belt of India is lined with numerous mango processing units, which work during the mango season. If the food processing systems used to process this mango fruit to pulp fails, it can lead to huge losses for these units, most of them SMEs. This means that the stock of mangoes waiting to be processed get spoilt if not processed the soonest it ripens.

This is where companies like HRS Process Systems Limited step in. This UK based company offers food processing systems and also service support to units like these to ensure that mango processing can be optimized with higher productivity and minimum or 'nil' downtime for these units.

Rasaa Foods Pvt. Ltd., founded in 2005 and promoted by Mr. Venkataramana Reddy makes mango pulp primarily for Parle and few more major players in the market. Rasaa Foods has an installed capacity of 18,000 tonnes per annum as of now and plans to set up a bottling unit (for manufacturing ready-to-drink items). Over 80% of their processed mango pulp is shipped to Parle, primarily for Frooti.

HRS have installed a new Evaporation Plant for Mango pulp processing at Rasaa Foods this summer. An Evaporation Plant essentially reduces the volume (water content) of the processed

mango pulp which in turn decreases the packaging, transportation and storage costs by over 50%

The plant **operated non-stop for the full season of over 60 days.** Moreover, **Rasaa Foods was able to achieve 15-20% more production than what was committed due to technology and design incorporated by HRS.**

This Evaporator Plant produces 3000 kg per hour for 28° brix and 4000 kg per hour for 21° brix of mango pulp.

Given below are the few USPs of the Evaporation Plant, installed by **HRS:**

- Reduction in packing, storage and transportation costs due to reduction in pulp volume by

efficient evaporation.

- Fully automated PLC based operating systems with touch screen control panel for high quality and volume production.

- Innovative evaporator design requires CIP (Cleaning In Place) only after 6-7 days, which otherwise needs 3-4 days, thus improving production time and reducing costs.

- Surface condenser for evaporation to prevent contamination in cooling water circuit. There is no mixing of vapours from product and cooling tower water.

- Comparative low power consumption and lower

production costs.

- Efficient plant engineering to ensure Non-stop production for full season without any loss of day due to equipment breakdown / malfunction.

Innovative technology backed by professional service support is enabling the mango processing basin of India to gear up to meet the growing demand for mango pulp used in packaged fruit drinks and other products in India. **In India, 10 per cent of the juice consumption is in the packaged segment and 90 per cent are still consumed out of home through the unorganized sector.** This provides a huge growth opportunity for the juice industry in the packaged ready-to-drink segment.

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