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Containerized Mango Juice Production line

- Capacity: 500 kg mango's / hour
- Product: Juice, 3 I bag in box, for long shelf life without refrigerator.
- System is plug and play, build in 40 ft. high cube container. Complete with storage, office and power supply in containers.
- clean environment for high quality juice.
- All processing equipment is made of stainless steel, CE certified, and manufactured to the highest standards.

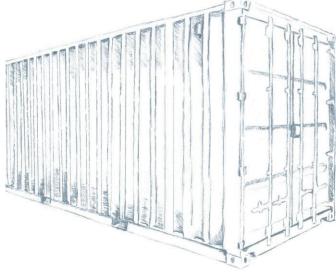
With the inability to process mango's and other fruit on a local bases, a lot of the yearly production is lost. This lost can go up to 30 or 40 %. With a leak of possibilities to store mango's local, the local and small farmer has to sell his harvest on the moment that the market is flooded and the prices are on its lowest.

Producing mango juice that's storable for almost a year without cooling can bring production lost down dramatically and income for the local farmer up. By installing the right system, local farmers will be supported and the product is a nutritious fruit juice that's affordable for the local market.

The hart of the system is based in a 40 ft. high cube container. The rigged structure of the container protects the juice production machines. The container is insulated, air conditioned and over pressured, so there is a controlled environment to produce high quality juice. The inside is easy to clean and surfaces are made of food grade materials. In the container a complete line of efficient, easy to maintain, easy to clean machines is installed to process the mango.

Together with the main container, the complete system has his own power supply, a 8 ft. container with generator (sound proof), an office container and a storage container.





From Mango to juice.

To get a tasteful, nutritious juice with a long storage life, the mango will be peeled manual at a stainless steel countertop. Afterwards the fruit is going twice in a de-stoning machine. The pit will be separated from the pulp. Mango pulp is too thick to drink, so it will be pumped in a stainless steel tank to dilute with water. If the right juice is blended, it will follows its path to a pasteurizer. This part of the project makes it possible to store the juice for approximately a year outside a conditioned environ- ment. After pasteurization the juice is ready to be filled In a bag in box packaging. This is done in a semi-automatic filling unit.

Peeling

The skin of the mango contains curtain substances, that, if the mango skin is toughed to firmly, will give the juice a bitter taste. To avoid this the mango's will be peeled manual. For this the first room has a large stainless steel work table. Also a sink for washing up, to maintain the right hygienic.

From this room the peeled mango's go through a hatch to the second room with the juice production machinery.

De-stoning / mashing

De mango will be worked to pulp by a de-stoning / mashing unit with a screen of 8 mm. Here the pit will be separated from the fruit flesh. The pulp will go to a second de-stoning / mashing unit with a screen of 2 mm to get an even, fine pulp that's suitable to be worked to juice. The pulp will be pumped between the machines by a eccentric screw pump.

Blending mango juice

The mango pulp is pumped from the second de-stoning machine into a stainless steel tank. In the tank the pulp is diluted with water to get a drinkable juice. A stiring device will blend the pulp and water. **Pasteurizing**

The blended juice will be pasteurized. Due to automatic temperature control, the juice will have the right temperature for con-servation without the risk of overheating. No chemical endorsements are necessary to give the juice a shelf life of almost a year without a refrigerator or freezer.

Bag in box filler

The whole line of machinery is composed to have a good, nutritious end product with a long shelf life. Very important is the way the juice will be packed. By using a bag in box system, it is not necessary to use very expensive and delicate equipment. Also there is no risk of contamination of the package. The bag is only used once.









Housing the Line

The machinery to process the mango's into juice, is housed in a 40 ft. high cube double doors shipping container. This container is fully modified to do the job. The walls and ceiling are insulated and on the inside finished with a syntactic coating with out seams. The coating is not only water resistant but is also resistant to the acids in the fruits. The floor has the same coating but is also anti slip. All together you a very durable inside that's very easy the clean. The container is equipped with air conditioning to lower temperature and over pressure is created to keep out dust. The whole container has enough low energy lights to in- sure safe working. In the container is a small water treatment system, to insure the water for diluting the pulp, but also for cleaning is proper and free of contamination.

On the inside three rooms are created. The first room accommodates the space to peel the mango's. a sink is installed for washing hand and work hygienically. The floor is equipped with a drain for easy cleaning. Through a door the second room is entered. Here the machines are installed (besides the filling machine). In this clean environment the juice is produced and pas- teurized. In the third room the filling machine has his place and the full bag in boxes will leave the container.

Together with the main container, there also is an office container and a storage container for spare parts, empty and full p ack- aging, cleaning material. To complete the whole system, there is a power supply (generator) in a 8 ft. container. All container have a sunroof of a syntactic fiber that blocks 80 % of the sun but the wind can go through freely.



