

A.P.S Industries

**FACTORY Address: 30, Abhinav Arcade, Between Manmohan Cross road
to ring road
Odhav Ahmadabad- 382415**

Contact no: Mo .09409150555, +91-8238550555

Our Websites: www.apindustries.co.in E-mail:- apindustriesinquiry@gmail.com

MANUFACTURES AND SUPPLIER OF ALL TYPE FOOD PROCESSING PROJECTS & SPECIAL MACHINERY

ALMOND PROSESSING PLANT PROJECT

1. INTRODUCTION

Almonds are edible tree nuts, grown principally in California. The nuts are harvested from orchards and transported to almond processing facilities, where the almonds are hulled and shelled. The function of an almond huller/Sheller is to remove the hull and shell of the almond from the nut, or meat. Orchard debris, soil, and pebbles represent 10 to 25 percent of the field weight of material brought to the almond processing facility. Clean almond meats are obtained as about 20 percent of the field weight. Processes for removing the debris and almond hulls and shells are potential sources of air emissions.

2. Process Description

After almonds are collected from the field, they undergo two processing phases, post-harvest processing and finish processing. These phases are typically conducted at two different facilities. There are two basic types of almond post-harvest processing facilities: those that produce hulled, inshell almonds as a final product (known as hullers), and those that produce hulled, shelled, almond meats as a final product (known as huller/shellers). Almond precleaning, hulling, and separating operations are common to both types of facilities. The huller/Sheller includes additional steps to remove the almond meats from their shells. A typical almond hulling operation is shown in Figure 9.10.2.1-1. A typical almond huller/Sheller is depicted in Figure 9.10.2.1-2. The hulled, shelled almond meats are shipped to large production facilities where the almonds may undergo further processing into various end products. Almond harvesting, along with precleaning, hulling, shelling, separating, and final processing operations, is discussed in more detail below. Almond harvesting and processing are a seasonal industry, typically beginning in August and running from two to four months. However, the beginning and duration of the season vary with the weather and with the size of the crop. The almonds are harvested either manually, by knocking the nuts from the tree limbs with a long pole, or mechanically, by shaking them from the tree. Typically the almonds remain on the ground for 7 to 10 days to dry. The fallen almonds are then swept into rows. Mechanical pickers gather the rows for transport to the almond huller or huller/Sheller. Some portion of the material in the gathered rows includes orchard debris, such as leaves, grass, twigs, pebbles, and soil. The fraction of debris is a function of farming practices (tilled versus untilled), field soil characteristics, and age of the orchard, and it can range from less than 5 to 60 percent of the material collected. On average, field

weight yields 13 percent debris, 50 percent hulls, 14 percent shells, and 23 percent clean almond meats and pieces, but these ratios can vary substantially from farm to farm. The almonds are delivered to the processing facility and are dumped into a receiving pit. The almonds are transported by screw conveyors and bucket elevators to a series of vibrating screens. The screens selectively remove orchard debris, including leaves, soil, and pebbles. A destoner removes stones, dirt clods, and other larger debris. A retrigger removes twigs and small sticks. The air streams from the various screens, destoner, and retrigger are ducted to cyclones or fabric filters for particulate matter removal. The recovered soil and fine debris, such as leaves and grass, are disposed of by spreading on surrounding farmland. The recovered twigs may be chipped and used as fuel for co-generation plants. The precleaned almonds are transferred from the precleaned area by another series of conveyors and elevators to storage bins to wait further processing.

PRODUCTION CAPACITY PER MONTH

Capacity 3000 Kgs
 Selling Price Rs. 700/Kg.

5. PROJECT COST/CAPITAL INVESTMENT

S.No	Description	Amount Rs.
1	Preliminary & Preoperative Expanse	250000
2	Fixed Capital with store row material	1388400
3	Working Capital for 1 month(s)	89000
	Total Project Cost	1727400

6. PROJECT MACHINE DETAIL

ALMOND SHELLING MACHINE-250000

6. MEANS OF FINANCE

S.No	Description	%age	Amount Rs.
1	Promoter Contribution	15%	259110
2	Subsidy	20%	345480
3	Term Loan	65%	1036440
	Total		1727400

Total Working Capital (per month)

S.No	Description	Amount Rs.
1	Rent	17000
2	Salaries and Wages	20000
3	Raw Material	1388400
4	Utilities	2000
5	Other Expenses with labor cost of sorting	35000
6	Power cost/month	15000
	Total	1477400

COST OF PRODUCTION (PER MONTH)

S.No	Description	Amount Rs.
1	Total Working Capital	1477400
2	Depreciation @ 10%	147740
3	Interest @ 12%	177288
	Total	1802428

TURNOVER (PER MONTH)

S.No	Description	Unit	Qty.	Rate Rs.	Amount Rs.
1	Fresh Almonds Sale	Kgs	3000	700	2100000
	Total				2100000

FIXED COST (PER MONTH)

S.No	Description	Amount Rs.
1	Depreciation	147740
2	Interest	177288
3	Rent	17000
4	Salaries & Wages	20000
5	Other Expenses incl. Utilities	2000
6	Row material	1388400
	Power cost/month	15000
	Total	1802428

11. PROFIT ANALYSIS & RATIOS

1	Net Profit	Rs.	297572
2	Percentage of Profit on Sales		29557
3	Return on Investment@35%		104150
4	Break Even Analysis@55%		163664