

CASE STUDY

“GO DOWN MECHANIZATION”



CLIENT : GOKUL REFOILS - GANDHIDHAM
 SYSTEM : WAREHOUSE/GO DOWN MECHANIZATION

CURRENT METHOD OF HANDLING

At one of the transshipment godowns of Gokul Refoils, the company handled large volume of DOC (De-oiled Cake). The godown size was @50 mt x @200 mt with a height of @11 mt, signifying the volume handled. The DOC was fed into the godown at one point through a overhead conveyor coming from the plant and was distributed inside the godown through 4 to 5 front end loaders.

The material was stored till arrival of ship for further export. The handling was sub optimized and the system suffered from several drawbacks such as:

DRAWBACKS OF EXISTING SYSTEM OF HANDLING

- Extensive use of front-end loaders
- High Handling Cost per Ton
- Dusty Atmosphere
- Existence of labor gang and the associated problems
- Due to mode of handling/distribution, the volume of godown effectively occupied was hardly 10 to 15% of available volume

SOLUTION PROVIDED BY AEGIS

AEGIS was called upon to study the existing system of handling the DOC and suggest for any improvements. AEGIS after thoroughly studying the existing modalities of handling the DOC material found considerable scope in optimizing the entire operation of handling and distribution within the go down.

AEGIS suggested mechanization of existing modality of handling and distribution by conceptualizing system with a network of overhead longitudinal conveyor along with travelling tripper and cross conveyors. This system enables handling and loading of material up to height of 8 mt at any given point in go down, mechanically, without the use of costly earth moving machinery and employing labor gang.



ADVANTAGES ACCRUED BY MECHANIZED SCHEME IMPLEMENTED

- Substantial increase in effective storage capacity of the godown
- Drastically reducing per ton handling cost leading to faster payback
- Increased convenience and hassle free operations
- Elimination of manual labor work and hence no dependence on labor gang
- Team of only 3 to 4 people could man the whole system
- The operation of loading and distribution is streamlined since the material is distributed by system at the same rate as it is received from the in-plant conveyor, due to elimination of intermediate heaping operation
- Due to elimination of multiple handling / earth moving machinery; dusting inside the godown reduced drastically

Execution of mechanized system was even awarded to AEGIS and it was successfully commissioned. The system performed as per the preconceived financial and operational advantages.