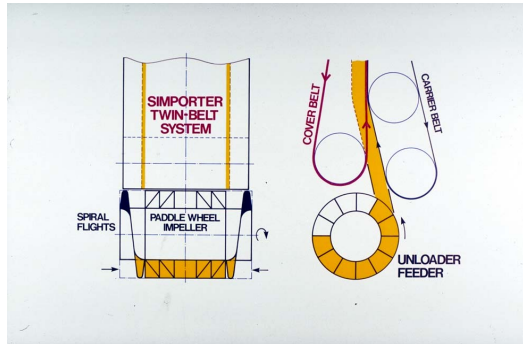


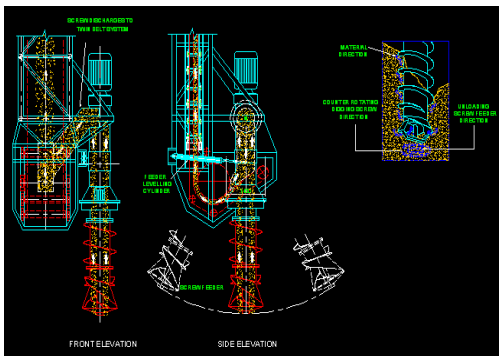
# The SIMPORTER System

The system is a method of conveying bulk materials in an essentially vertical direction by means of a pair of conveyor belts, which hold the material "sandwich fashion" between them. When being elevated and conveyed the material is in contact only with the belts, which are held together by a combination of edge seals and gentle air pressure. Material is picked up by the feeder and then passes into the elevator leg section of the **SIMPORTER**.

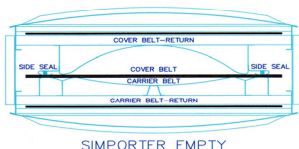
## Horizontal Feeder



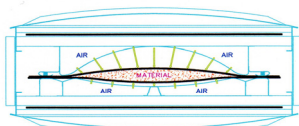
## Vertical Feeder



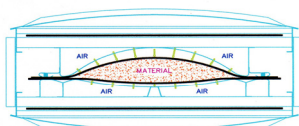
SIMPORTER TWIN-BELT SYSTEM  
SECTIONS THROUGH AIRBOXES IN ELEVATOR LEG



SIMPORTER EMPTY



SIMPORTER RUNNING AT INTERMEDIATE CAPACITY



SIMPORTER RUNNING AT FULL CAPACITY



## Feeder

There are now two types of feeder developed for the **SIMPORTER**. The latest development marries proven vertical screw feeder techniques with the twin belt system. This development increases the efficiency of the **SIMPORTER** when handling non-free flowing, difficult to handle materials such as Soy Bean meal.

The original horizontal feeder consists of a rotating shaft fitted with a multi-bladed paddle flanked by 2 screw sections, one with right hand and one with left hand flights. The arrangement enables material in the hold to be conveyed to the central section of the feeder from which it is projected between the two belts. The horizontal feeder has, dependant on the material being handled, two specific types. The first is the conventional "fixed speed" type, which is provided to suit particular products. The second is a variable speed feeder for use where the **SIMPORTER** will be required to unload a variety of products. The feeder outer screw sections can run at a different speed to the main paddles. This feature is particularly useful where it is required to vary the throughput of the unloader or where there is the occasional requirement to unload poorer flowing materials. It is used to adjust the unloading characteristics of the **SIMPORTER** to achieve the maximum capacity for each individual product and capacity required.

## Twin-Belt Systems

The carrier and cover belts together form a single elevating and conveying section in which the material is held gently but firmly throughout its travel up the elevator leg and along the boom.

Within the elevator leg section, the belts are contained within air boxes where they are held together by a combination of edge seals and gentle air pressure. The elastic central section of the cover belt stretches as required to accommodate the material being conveyed. A centrifugal fan supplies pressurised air to keep the belts together in the elevator leg section.

Since the material is stationary relative to the belts there is no degradation of the material as it is conveyed through the **SIMPORTER** from the hold of the vessel to the quayside.

All movements of the **SIMPORTER** may be carried out by a single operator only, seated in an enclosed air conditioned cabin located so as to provide a clear view of the ship's hold. A PLC and display unit in combination with local panels provide controls and information to the operator. These contain touch screen control for various motors and joystick levers, which control slewing in either direction, luffing of the boom and kick-in and kick-out movements of the elevator leg.