

A well known publishing Company needed to improve productivity and find a quicker and safer way to lift cases full of books from the pallet and move them unto the conveyor. Each case weighs about 60 kg. And the operation is repeated several times a day; the manual handling was too slow and unsafe; a traditional electric hoist wouldn't have made it faster enough. Moreover the handling operation needed to be very smooth and user friendly, as well as ergonomic and safe for the operator. An hoist compels the operator to keep the up - down button constantly pressed , with possible hazard to his health (Carpal Tunnel Syndrome), and it may discourage him to keep using the hoist and induce him and carry out the handling operation manually again.

**The only ideal solution to this demand has been two industrial manipulators INDEVA for handling three cases at a time.**



## Handling Cycle

Picking the cases from the pallet, short side of the case facing the operator (the cases are tangent to each other).

## Self Balancing End Effectors For Handling 3 Plastic Cases weighing about 60 kg each for a total weight of 180 kg

The grip is carried out by means of two pairs of jaws that grip the cases laterally along the longer side

The jaws position is adjustable according to the number of cases to pick t together (from 1 to 3).The end effector is equipped with a couple of ergonomically designed front handles, of which one is a **fingertip in line force sensing handle**.