# Palletizing of Diesel Engines for Trucks

## Case Study: Indianapolis Casting Corporation-IRB 7600

<table>
<thead>
<tr>
<th><strong>PART</strong></th>
<th>Engine Blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CUSTOMER</strong></td>
<td>Indianapolis Casting Corporation (USA)</td>
</tr>
</tbody>
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### PRODUCT/PALLET DATA
- V8-blocks and 6-cylinder blocks
- Weight 485 pounds each
- 2 Pallet Patterns
- Plywood Divider Boards
- 3-shift

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<tr>
<th><strong>CAPACITY</strong></th>
<th>4 blocks/minute</th>
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<tr>
<td><strong>INSTALLED</strong></td>
<td>2002</td>
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### STATED PURCHASING REASONS
- Flexible
- Easy to program
- Little training needed to operate
- Reduce the risk for injuries
- Accurate
- Automation increases productivity
- Compatibility with previous robots
- Trim costs

### SCOPE OF SUPPLY
- 1 IRB 7600-400/2.55m Foundry Plus
- Conveyor system
- Gripper
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Process Description

1. The engine blocks arrive at the loading area on a conveyor directly from the foundry production. The engine blocks are still warm.

2. The robot picks up the engine blocks and places them on the pallet. This is repeated until the layer is full, each layer consists of four engine blocks.

3. The robot places divider boards between each layer. There are three layers to each pallet.

4. When the pallet is full the robot wraps it in wire bands.

5. The pallet is then moved to the out feed conveyor that transports it to the shipping area.

6. A new pallet arrives automatically to the correct palletizing position through the conveyors.

7. Marked engine blocks are removed by the robot and placed on an inspection pallet.

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