

Palletizing of Diesel Engines for Trucks

Case Study: Indianapolis Casting Corporation-IRB 7600

PART Engine Blocks
CUSTOMER Indianapolis Casting Corporation (USA)

PRODUCT/PALLET DATA

V8-blocks and 6-cylinder blocks
Weight 485 pounds each
2 Pallet Patterns
Plywood Divider Boards
3-shift

CAPACITY 4 blocks/minute

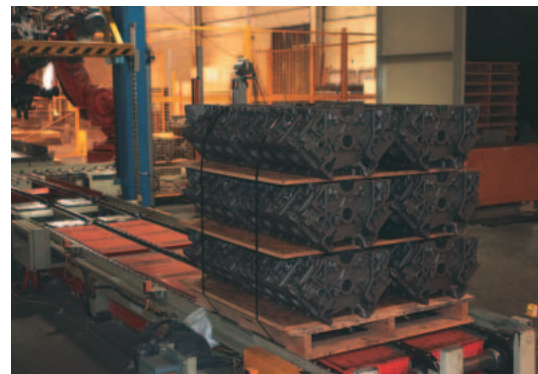
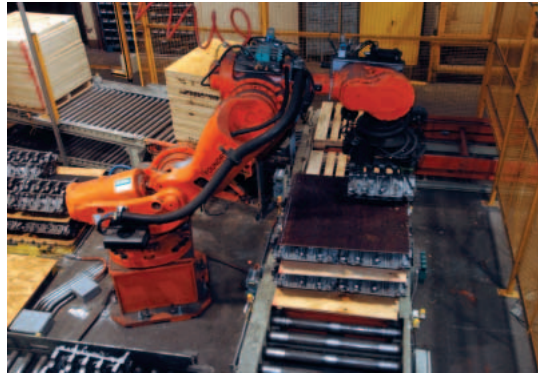
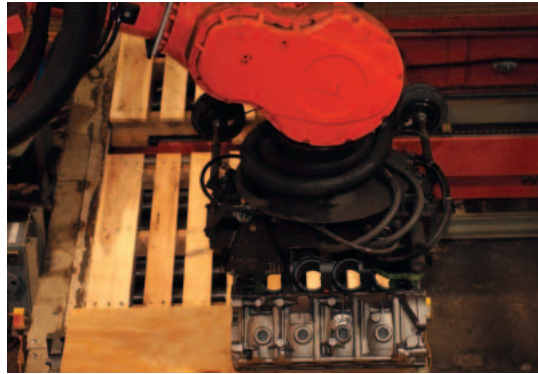
INSTALLED 2002

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

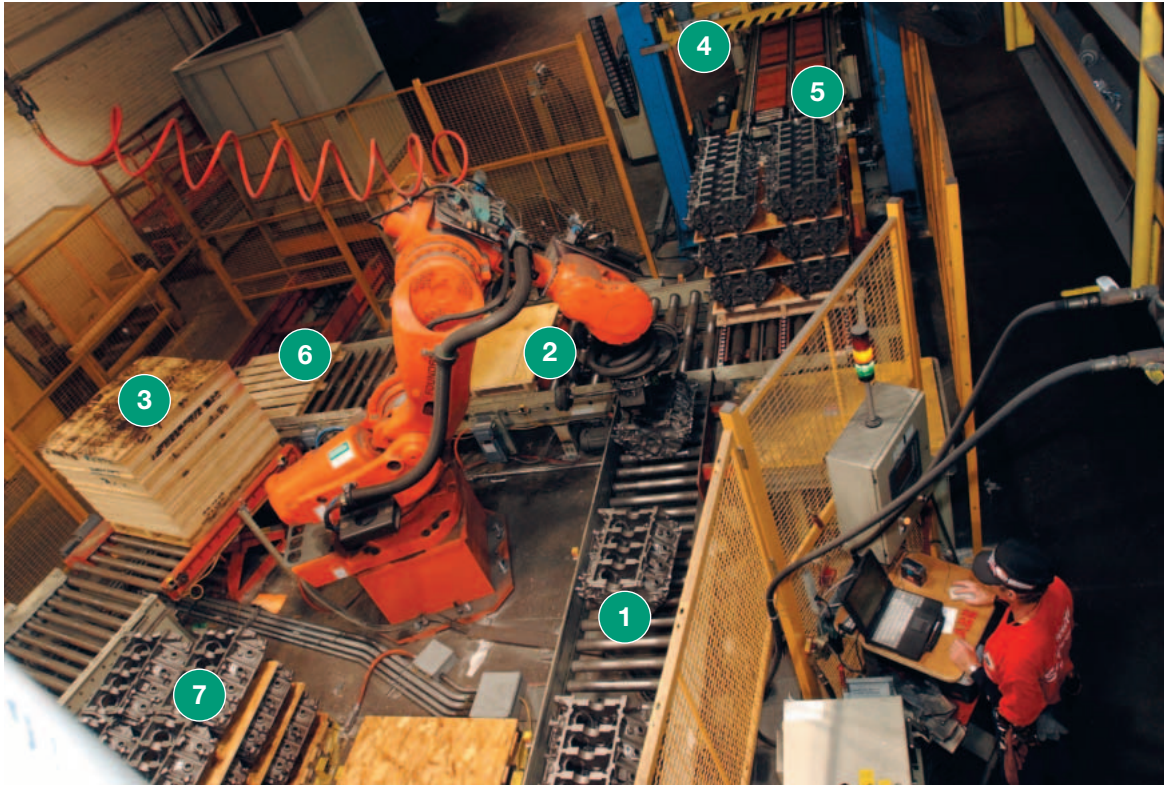
SCOPE OF SUPPLY

- 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.