PART# 12 (012)

John Deere Backhoe HVAC Under Floor Duct

COMPETITION WINNER OF: 4th Annual Blow Molding Division Parts Competition
Industrial Division 1st Place
Industrial Auto/Trans Category 1st Place

SUBMITTED BY: John Deere

PROCESSOR: Gemini Group (Regency Plastics)

DESIGNER: 3 One Design / John Deere

MOLDMAKER: H&H Mold

OVERVIEW:

The part is manufactured in two pieces utilizing the JD VBM process with a foam additive. The two parts are IR welded to complete a one piece air distribution system located below the cab of the John Deere Backhoe cab. The foam additive is utilized to create a large bubble structure, creating an insulation barrier from the cooled air.

Features:
Cost Reduction:
- The part lowered the cost of the current Rotational Molded part
- Part count reduced to one piece from 5 molded parts and 38 components
- The part increased performance in air flow increasing the CFM.
- Two part construction reduces the cooling time for the cab versus the current parts.
- Controlled Large Bubble structure to improve the thermal protection of the part with the JD VBM.
- Reduced assembly and maintenance

Business Impact:
- Part count: 43 to 1
- Inventory control
- Cost savings $$$ per part

Technology:
- Structural composite for other applications