IFMA Airport Facilities Council
Spring Conference

JBT AeroTech
Baggage Handling System Technologies
Baggage Handling System Technologies

• Anatomy of a BHS
  • Complex system of conveyors and devices that transport your customers checked baggage from Ticket Counter, to the airplane, then back to them at the Claim Unit
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- **Anatomy of a BHS**
  - Includes many specialized devices such as bag tag readers (ATR) & bag dimensioning devices (BDD) for tracking precise location and status of checked bags
  - Explosive Detection Screening devices capture 3-D X-ray images of your bag and alert the TSA of any potential threats
  - All controlled by highly sophisticated logic based LLC controls devices and ULC software programs
• Anatomy of a BHS - Checked Bag Inspection System (CBIS)
  • Governed by TSA - Planning Guidelines and Design Standards (PGDS) for checked baggage
  • 100% of checked bags must be screened
  • 3 Level In Line system
    • L-1 EDS Machine – 3-D X-Ray image of bag by Explosive Detection Device
    • L-2 TSO OSR – Suspect bag image reviewed by TSO agent
    • L-3 CBRA – Suspect after OSR sent to Checked Bag Resolution Area for TSA physical inspection and trace detection
  • All clear bags after CBRA go to plane, non-clear bags destroyed and/or reconciled with owner
  • TSA “Partially” Funded: Re-Cap, Optimization. Smaller airports will have difficulty getting TSA funding
• **Anatomy of a BHS - Current Trends** – **Individual Carrier System (ICS)**

  - **Pros**
    - 100% tracking capability utilizing RFID technology
    - Lower long term cost of ownership
    - Energy efficient
  - **Cons**
    - Higher initial cost
    - Requires large space for return lines, stacker/de-stacker, etc.
    - Future modifications can be more challenging that with traditional belt system
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  - **Pros**
    - Allows for early check-in without fear of losing bags – can store thousands of bags
    - Integrates with ICS
    - Energy efficient
    - Allows HOT bag retrieval
  - **Cons**
    - Higher initial cost
    - Requires large space
    - Future modifications can be more challenging
    - Only works well with ICS
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• Anatomy of a BHS - Current Trends – Automatic Guided Vehicles (AGV)
  • Pros
    • Reduced down time
    • Ergonomics
    • Scalable
    • Lower Maintenance Costs
  • Cons
    • Must be on dry, level surface
    • Cannot change elevations
    • Can’t run overhead
    • Not capable of handling high volumes a high throughput
• Anatomy of a BHS – Traditional Belt System with Energy Efficiencies and Enhanced Tracking Capabilities
  • Pros
    • Lower cap-ex than ICS
    • More easily modified than ICS
    • Easier to design for space restraints
  • Cons
    • Still can’t track as accurately as ICS
    • Does not integrate easily with AS/RS EBS
    • Higher long term cost of ownership
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- **What does the traveling public want?**
  - Clean restroom facilities
  - On time flights
  - Ease of movement through airport
    - Through Bag Check and Security Lines
    - Gate-to-Gate Mobility - Trams/Trains/Walkways…
  - Amenities
    - Restaurants
    - Restrooms
    - Plentiful/Comfortable Seating
    - Charging Stations
    - Elite Flyer Clubs
  - Checked Bags to Arrive On Time and Undamaged
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• Why your BHS is an integral component of the customer experience
  • Lost and damaged baggage can instantly change your customers airport experience from positive to negative
• Why your BHS is an integral component of the customer experience
  • Even when proper maintenance is performed by O&M - critical BHS equipment fails
    • BHS shuts down
    • Planes leave without bags
    • Huge cost to airlines
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• Who is JBT BHS Technologies?
  • Team of Baggage Handling System Professionals with expertise in all technical and commercial aspects of design, installation & integration of new or improved BHS
    • Project Management
    • System Design
    • Consulting
    • Controls Engineering
    • Mechanical Engineering
    • Construction Site Management
    • O&M Site Management
    • BHS IT Systems
  • Over 170 YRS Combined BHS Experience

John Blakemore
Director BHS Technologies
20 YRS

Ryan Pulis
Director Controls & Automation
25 YRS

Mark Bentley
Sr. Program Manager
25 YRS

Rich Fevang
Sr. Program Manager
32 YRS

Gregg Jones
Senior Controls Engineer
22 YRS

Jim Higdon
Business Development Specialist
26 YRS

Scott Annis
Lead Field Service Engineer
20 YRS

Andrew Lane
Field Service Engineer
5 YRS
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• JBT BHS Technologies Provides Exceptional Service
  • Support our airport and airline customers as they face the challenges in increased PAX and bag volumes
  • Annual Airline PAX to Double by 2037
  • Larger Airports PAX increasing 7% to 18% annually
  • Many of the existing BHS systems are not capable of handling current bag volumes, let alone the projected growth
  • TSA continually updating BHS security screening and bag tracking standards for checked bags
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• **JBT BHS Technologies Provides Exceptional Service**
  • High level engineering support services to our BHS O&M Sites for issues that require greater degree of technical expertise to correct
  • BHS Design-Build Capabilities through
    • Design & Engineering
    • Project Management
    • Site Management
    • **Full Turnkey BHS Provider**
  • We have the capability to extend the life of equipment such as bag carousels for an additional 10+ years by rebuilding them.
  • This can result in a savings of up to 50% over replacing the units with brand new equipment.
JBT BHS Technologies Provides Exceptional Service

- US Airports and Airlines Struggle to find responsible BHS contractors to perform the “smaller” BHS projects that are critical to daily operations
- We fill the gap in the BHS Industry with our ability to react quickly and offer the life support desperately needed for their BHS!
- Projects range in value from <$1M to $10’sM
QUESTIONS