



# Supply Chain Solutions Guide

Global Services

# Table of Contents

## Material Solutions – Consumables/Expendables/Components

Product Categories.....	3
Used Serviceable Material.....	5
AOG Services.....	6
Kitting Solutions.....	7
Chemical Services.....	8
Drop Ship Programs.....	9
Inventory Management.....	11
Inventory Management (Continued).....	13
Bin Management Solutions.....	14
Engineering and Technical Services.....	15
Logistics Services.....	16
Delegated Inspection Authority.....	17

## Repairs – Components/Rotables/Line Replacement Units

Rotables Exchange.....	18
Repair Management Services.....	19
Battery Repair Services.....	20
Wheel & Brake Repair Services.....	21
Paint Mixing Services.....	22
Hose Fabrication Services.....	23
Engine Lease Pool.....	24

## Agreements & Integration

Long-Term Agreements.....	25
e-Commerce.....	26
e-Commerce (continued).....	27
Integration Services.....	28
Value Added Services.....	29

# About Us

## Boeing Global Services

Boeing Global Services, headquartered in the Dallas, Texas area, was formed by integrating the services capabilities of the government, space, and commercial sectors into a single customer-focused business. Operating as a third business unit of Boeing, Global Services provides agile, cost-competitive services to commercial, government, business and general aviation customers worldwide. Visit us at [boeingservices.com](http://boeingservices.com) to learn more.

## Parts & Supply Chain Solutions

**Boeing Distribution (formerly Aviall)** is a leading provider of aircraft parts, supplies, chemicals, tools and materials. For more than 85 Years, Boeing has supplied global aerospace and defense industries with trustworthy product lines.

Boeing distribution offers extensive lines of parts and provides diverse maintenance, repair, rotables, logistics and supply chain solutions.

Visit us at [shop.boeing.com](http://shop.boeing.com) to learn more.

## Contact Information

P.O. Box 619048 | 2750 Regent Blvd. | Dallas, TX 75261-9048

North America and AOG: 1-800-284-2551 | International Sales: 1-972-586-1564

For online ordering, visit [shop.boeing.com](http://shop.boeing.com)

**Boeing Distribution Services** is the world's premier provider of fasteners, chemicals, tools, lighting, metal products, composites, and integrated supply chain services. We provide innovative, platform agnostic solutions for the commercial, helicopter, business aviation and military sectors that reduce cost, complexity and risk; to help our customers build and maintain aircraft. Visit us at [BoeingDistribution.com](http://BoeingDistribution.com) to learn more.

## Contact Information

3760 W. 108th St | Miami, FL 33018

Phone: 1-305-925-2600

Email: [BDSICustomerSupport@Boeing.com](mailto:BDSICustomerSupport@Boeing.com)

For online ordering, visit [BoeingDistribution.com](http://BoeingDistribution.com)



## Product Categories

### Boeing Distribution (Formerly Aviall)

Boeing offers an extensive market basket of aftermarket parts and products to support the aerospace industry. You'll have peace of mind knowing that you can find the materials and support needed for your operation.

#### Products

- Airframe/Hardware/Fasteners
- Chemicals/Environmental Health & Safety
- Electrical & Hydraulic Systems
- Engine Accessories & Filtration
- Landing Systems/Undercarriage
- Propulsion (Engine Programs)
- Specialty Products

#### Quick Facts

- Over 270 OEMs with agreements
- Nearly 2 million catalog part numbers
- More than 6,000 shipments daily
- Over 15,000 customers
- More than 107,000 unique part numbers sold annually



## Boeing Distribution Services

No matter what your aircraft hardware needs are, be it within the production or aftermarket arena, we are ready to ship what you need, where and when you need it. Our products are factory-new, fully traceable to the original manufacturer and delivered through a global network to provide seamless service wherever you may be.

### Products

- Hardware and Fasteners
- Bearings
- Seals
- Honeywell™ Licensed Parts
- Chemicals and Specialty Materials
- Engineered Products
- Electrical
- Tooling
- Lighting
- Industrial and Safety Supplies

### Quick Facts

- Supported by 3,000+ suppliers
- More than \$1.7 billion of inventory on hand
- 17,300+ lines shipped per day to 2,300+ locations in 150 countries
- Full-service inventory solutions for aerospace and defense OEMs and aftermarket



## Used Serviceable Material

Used Serviceable Material (USM) supports your operation by providing economical solutions for components enabling extended fleet effectiveness through diverse product offerings.

### Benefits

- Economical solutions for components during a maintenance event
- Available for aircraft and helicopter platforms
- Contractual and transactional solutions available
- Approved supplier base of over 500 MRO providers

### Supporting the following platforms

#### Aircraft

- Boeing 737
- Boeing 747
- Boeing 767
- Boeing 777
- Boeing 787

#### Helicopter

- Bell 204
- Bell 205
- Bell 206
- Bell 206L
- Bell 212
- Bell 407
- Bell 412
- Airbus AS350B2

#### Engines

- GE CF6
- GE CF34
- GE GE90
- GE Passport 20
- CFMi CFM56
- Pratt & Whitney PW901
- Pratt & Whitney PW610
- Rolls-Royce M250
- Rolls-Royce RR300
- Safran Arriel 1D1



## AOG Services

Boeing Global Services provides 24/7/365 AOG support to decrease down times, enabling you to keep your operations running smoothly.

### Benefits

- Available worldwide 24/7/365
- Multilingual AOG Services team members
- Orders monitored 24/7/365 until delivery
- Access to inventory through Boeing Global Services' distribution network
- Must have an active account and a line of credit

### Boeing Distribution Services

- AOG support on **BoeingDistribution.com** for select products and locations
- Tail number and location of aircraft needed to place order
- Parts delivered within 24 hours with tail number specified
- Same Day Support is available for urgent non-AOG situations
- Receive contract prices on contract parts
- To meet customers' urgent needs, orders can be placed online or by phone



# Kitting Solutions

Our kits are built to your specifications, resulting in greater levels of productivity by providing the parts your technicians need, exactly where they are needed.

## Benefits

- Unlimited parts, unlimited configurations
- Kits can be supplier specified, customer specified or components from multiple suppliers
- Single part number
- Customizable Bill of Materials (BOM)
- Fully traceable components
- Convenience kits can be made on-demand for frequent repair scenarios and component change
- Customized configurations to support customer fleets

## Boeing Distribution Services

- Kit assembly at customer or Boeing facility
- Boeing interactive web-based configuration management (Kitting Portal)
- 50% reduction of inventory on hand, POs and supplier management
- Guaranteed component stocking levels





## Chemical Services

Boeing's Chemical Services enable you to simplify and streamline your process, reduce cost, lower risk, and improve the performance and operating income of your operation. With extensive lines of products and innovative programs and management solutions, we help your business reduce total chemical lifecycle costs.

### Benefits

- Services include: Chemical logistics services, integrated material services, consolidated invoicing and program management
- Chemical Management Solutions available including a customer web portal by Boeing
- Hazmat Storage Solutions that reduce inventory cost and provide right sizing solutions
- Minimization of scrap rates and waste
- Robust and customizable reporting including chemical compliance assistance
- Full traceability of chemicals
- Packages arrive meeting 49CFR, IATA, IMDG/IMO and many other regulatory requirements
- Single source of contact



## Drop Ship Programs

### Symphony™ Direct Ship

By partnering with suppliers, Boeing has created a proprietary inventory management system which provides a single point of contact for a variety of parts. When you place an order through Symphony, it is automatically routed to the appropriate supplier and shipped directly to your location for a seamless experience.

#### Benefits

- Single point of contact at Boeing for all part needs
- “Direct Ship” eliminates process queue; parts are delivered directly to customers from Boeing’s Symphony partner
- Products stocked based on historical and forward-looking forecast
- Single point of contact for multiple approved suppliers to reduce supply base
- Efficiency through automation
- Full traceability of parts with seamless order and billing process



## Supplier Connect

Supplier Connect is a drop ship program in which orders are placed with Boeing and then shipped directly to you from a supplier's inventory. By providing access to inventory at supplier locations, Boeing enables you to optimize your buying experience.

### Benefits

- Expanded scope of parts availability
- Customers can order from one source instead of multiple sources
- Boeing facilitates customer order processing, questions and returns
- Shipments are sent directly from the supplier's warehouse

*Supplier Connect orders are currently available for all **North America** customer locations.*



# Inventory Management

## On-Site Warehouse

On-Site Warehouse (OSW) is a customized consignment program that places inventory at your location, improving material availability while reducing the overall cost per transaction. Inventory availability is supported with automatic shipments from our central warehouse, triggered by calculated Min/Max stock levels and shipped to your site.

### Benefits

- On-site material availability
- Customizable to customer
- Automated replenishment process
- Reduced inventory holding costs
- Boeing manages stocking levels
- Reduced freight costs
- Customer maintains their systems
- Dedicated program team provides customer service for OSW products

*The OSW program is available to customers who qualify.*



## Inventory Management & Demand Planning

Boeing's inventory-planning tool is based on your consumption and standard industry lead times, factoring in supplier delivery performance. Our system has the ability to interface electronically with your forecasting tools, resulting in more accurate data and lower costs.

A dedicated team analyzes global consumption and trends, and compares data for more precise demand-planning.

### Integrated Planning Solutions

- **Demand Planning:** Analysis based on global consumption, lead times and industry trends, which allows for interfacing with your forecasting tools
- **Min/Max Daily Replenishment:** Automatically triggered replenishment based on a pre-determined Min point (not to exceed the pre-determined Max point); triggered via manual PO or EDI
- **Reporting:** Detailed usage reports including On Time Delivery, Pipeline Health, Scan Activity and Historic Consumption reports for the entire Boeing product portfolio



## Inventory Management (Continued)

### Forecasting & Planning

Service Parts Management software is used for inventory planning to optimize and integrate tactical and execution decisions while aligning and scaling these decisions across the organizations.

#### **Benefits**

- Increased parts availability
- Diverse forecasting strategies
- Time phased supply/demand matching
- Purchase order administration
- Distribution requirements planning
- Weekly, automatic replenishment to customer service centers
- Smoothed demand enables refinement of planning and procurement processes



## Bin Management Solutions

We know how difficult it can be to strike the right balance between cost and availability. Boeing can help relieve that pressure. With more than 30 years of experience and over 875,000 bins in programs around the world, we offer proven Just-In-Time (JIT), Vendor Managed Inventory (VMI), Point-of-Use (POU) and Direct Line Feed (DLF) services globally.

### Benefits

- Customer inventory burn-down solutions
- Dedicated inventory
- Customer web portal capabilities including quality certifications and bin map review
- Forecasting and planning tools
- Customer controlled inventory levels and replenishment cycles
- Multi-configured custom solutions
  - JIT/DLF/POU support
  - Kitting solutions
  - 3PL programs
  - Kanban support
  - Vending



## Engineering and Technical Services

If you are searching for an alternate, replacement or hard-to-find part, there is no need to look any further than Boeing. A team of fastener and consumables experts is ready to assist in identifying parts to suit your specific needs. By utilizing a proprietary inventory-management database, Boeing can find your current part within minutes, or analyze part specifications and match alternatives with ease.

### Benefits

- Alternate/replacement parts and part standardization
- Avoid stock outs
- Mitigate obsolete parts
- Recommendations when only part type and parameters are known
- Actively plan new products
- Define new products and locate supplier (engineered parts and chemical products)
- Increase cost savings and operational and logistics readiness





## Logistics Services

By combining kitting expertise and the ability to manage multiple suppliers, Boeing streamlines the ordering and delivery process for customers' complex programs. Quality Delegated Inspection Authority allows Boeing to inspect incoming products from all suppliers, bypassing quality inspection and shipping the parts directly where they're needed.

### **THIRD-PARTY LOGISTICS (3PL)** **"You Own the Parts"**

- Integrated operation warehousing and transportation services
- Management of both incoming and outbound inventory from multiple suppliers
- Streamline ordering and delivery process
- Bypass quality inspection by granting Boeing Delegated Inspection Authority

### **FOURTH-PARTY LOGISTICS (4PL)** **"Boeing Owns the Parts"**

- Complete Supply Chain solution
- Planning
- Forecasting
- Procurement
- Inventory management
- Quality inspection
- Logistics services
- 3rd-party contracting
- Single point invoicing for multiple suppliers



## Delegated Inspection Authority

Boeing has been granted Quality Assurance Inspection Authority by our customers and authorized by the FAA.

This allows Boeing to inspect incoming products from all suppliers and ship them directly where they're needed for efficiency and accuracy every time.

### **Benefits:**

- Eliminate receiving inspection
- Cost reduction
- Record retention expenses
- Inspection expenses (inbound and outbound)
- Peer-to-peer engineering support
- Supplier oversight
- Increase in throughput
- Better alignment of configuration



# Rotables Exchange

Boeing offers a diverse capabilities list and core rotables exchange pool supporting aircraft fleets.

## Benefits

- Reduce maintenance down time and inventory investment
- Comprehensive rotatable exchange pool
  - Wheels and brakes
  - Engine spares and accessories
  - Airframe components
  - Helicopter rotatables
- Access to worldwide inventory of spares
- One time incident repairs or regular repairs
- Available to manage customer property overhaul
- Brokering/sourcing of serviceable, repaired, overhauled and exchange units
- Over 500 MRO providers
- FAA Certified Repair Centers



## Repair Management Services

Repair Management Services (RMS) is a program in which Boeing serves as your single source with access to a global network of third party, Part-145 repair stations approved under the Boeing Distribution (formerly Aviall) Supplier Quality System. You receive FAA approved repairs supporting a variety of Boeing and other OEM aircraft including the following segments: Commercial, regional, business and rotorcraft.

### Benefits

- Save time and money spent managing your own repair process (vendor auditing, quoting, tracking, accounting, etc.)
- Streamline processes by using one comprehensive source for your repair needs
- Rest assured knowing the repair network conforms to OEM standards and requirements, including warranty administration
- Benefit from higher levels of service by leveraging Boeing's vendor relationships
- Maintain product history by keeping your original component's serial number



## Battery Repair Services

Boeing's repair stations offer the most comprehensive suite of aircraft battery services today. Boeing supports customers across virtually every market segment, including: airlines, business jets, FBOs, government, military and helicopter operators worldwide.

### Battery Repair

#### Aircraft Batteries Serviced

- Ni-Cad
- Lead-acid
- Lithium-ion
- Emergency battery packs, avionics power supplies

#### Manufactured Products

- Battery service tools
- Temp sensors
- Battery packs
- Ground support/battery carts

#### Services

- Battery charger calibration and repair
- Authorized repair and warranty repair distributor for JFM Engineering and Marathon Norco/Christie battery equipment
- Battery school - Saft and Marathon approved Ni-Cad 40 hour battery training course



## Wheel & Brake Repair Services

Boeing has been in the wheel and brake MRO business for more than 30 years and repairs and overhauls more than 36,000 wheels and brakes annually. Boeing is a one-stop-shop – from repairs and overhauls to tire changes and exchange brakes. Operating six wheel and brake repair stations in North America, Boeing is dedicated to providing you with the highest quality wheel and brake services available.

- EASA dual release
- Onsite NDT (non-destructive testing) capabilities
- Machining capabilities
- Diversified overhauled exchange brake pool
- Carbon stack exchange program
- Wheel overhaul with maintenance tracking
- Tire pool management
- Vast inventory of new assemblies and replacement parts



## Paint Mixing Services

Boeing's paint program offers some of the best products and services available. The suppliers represented are all leading aerospace paint manufacturers with proven industry experience. Additionally, Boeing offers a variety of paint related products such as primers, strippers, tapes, sealants, spray guns and safety gear.

- Paint mixed according to manufacturer formulas
- Custom color matching
- Technical support available
- Right sizing and custom kits available



## Hose Fabrication Services

Boeing is a tier-one, master distributor for Eaton's Aeroquip® product line of hoses, fittings and assemblies. Boeing's craftsmen specialize in hose shop services and assemblies fabricated using new Aeroquip® hoses and fittings. Hose assemblies are certified for hydraulic, pneumatic, coolant, oil, fuel, and other high-pressure aircraft applications on fixed-wing and rotor-wing aircraft, both piston and turbine powered.

Boeing serves a wide variety of customers, including helicopter, business aviation, and general aviation operators, as well as FBOs, MROs and engine overhaul shops. Boeing also supplies hose assemblies to engine and aerospace OEMs for installation on new production aircraft.

- Specializing in hose assemblies fabricated using new Aeroquip® hoses and fittings
- Certified for hydraulic, pneumatic, coolant, AC lines, oil, fuel and other high pressure aircraft applications
- Hoses fabricated for fixed wing and rotor wing aircraft, both piston and turbine powered
- Supporting OEM production requirements
- Capabilities include standard and custom-fit hoses, hose kits, custom kits and duplication of existing hoses





## Engine Lease Pool

Boeing is a provider of lease engines powering commercial, business aviation and general aviation aircraft with the goal of minimizing aircraft downtime and increasing customer satisfaction.

### **Benefits**

- Decrease downtime and the impact of scheduled and unscheduled events
- Flexible lease terms to fit any customer's needs
- Increase overall fleet utilization
- World class AOG services and global logistics network
- Strategically expanding capabilities and lease pool through OEM collaboration, exchanges and sales

### **Supporting the following engine models**

- Arriel 1D1
- CF34-3
- PW610



## Long-Term Agreements

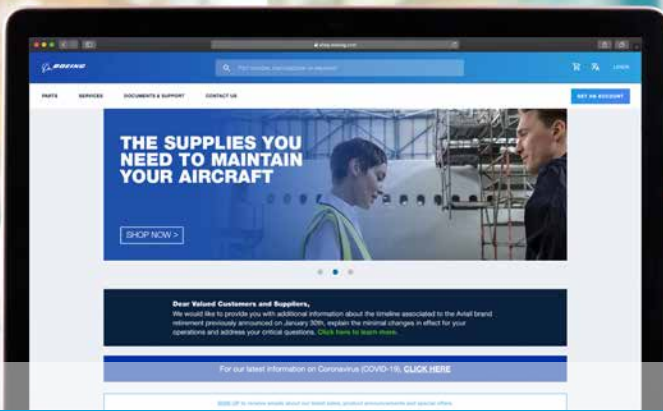
By entering into a long-term agreement with Boeing Global Services, you will always have access to the parts you need at a low, fixed price.

### **Benefits**

- Firm and fixed pricing structure
- Preferred pricing available for select LTA agreements
- Procurement efficiencies; No supplier management or oversight required
- Healthy inventory pipeline; Reduction of shortages

### **Boeing Distribution Services**

- Dedicated inventory per LTA requirements
- No minimum purchase required for the parts Boeing regularly stocks
- No penalty for over- or underestimating yearly consumption of parts Boeing regularly stocks



## e-Commerce

Boeing Global Services allows you to seamlessly transact business through e-Commerce websites.

### [Shop.boeing.com/aviation-supply](https://shop.boeing.com/aviation-supply)

The [shop.boeing.com/aviation-supply](https://shop.boeing.com/aviation-supply) user interface offers enhanced self-service capabilities with a comprehensive search function. You can compare prices, check availability, process orders, track status and more.

### Benefits

- Easily and quickly browse Boeing's extensive product offerings
- Go from search to shop within the same platform
- Access standard reports to track order history, quote status, and invoices no matter the order channel
- Quickly see product availability and lead times
- Save time with saved lists or quickly see previously purchased products in search results
- Access support knowledge base to get answers fast
- Research solutions and services offered by Boeing



## e-Commerce (continued)

### **BoeingDistribution.com**

Boeing Distribution Services offers a comprehensive e-Commerce web portal where ease of use and feature rich functions enable you to keep your operations running smoothly.

#### **Benefits**

- 24-hour real-time access to more than \$1.3 billion of global inventory
- Quickly see product availability
- Upload up to 150 part numbers in a single search – or simply copy and paste a list
- Refine part search based on specific manufacturer, shelf life, DFAR, test report, mil-spec, or other certification requirement
- Quote and purchase within 5 clicks
- Split and schedule out lines within a single order
- Reorder directly from order history
- Check real-time order status and track shipments
- Save a quote for 30 days or choose same day shipping
- Schedule delivery to multiple locations via multiple carriers
- AOG Support available for select products and locations



## Integration Services

Boeing Global Services offers a selection of electronic data using various industry tools along with customized web-based products.

- **Aeroexchange:** Boeing Distribution (formerly Aviall) connects with both customers and suppliers through multiple product suites including AeroBuy, AeroRepair, AeroConsign and AeroAOG
- **Flightdocs:** Directly purchase parts from Boeing Distribution (formerly Aviall) through Flightdocs' integrated inventory and purchasing system
- **Direct EDI (X12/Spec2K):** Direct EDI integration enables customers to transact through multiple formats including X12
- **Web Services:** Web Services enables customer integration, particularly in support of the GOLD application used by Boeing Defense
- **API:** Application program interface enables customers to create a shopping cart punch out



## Value Added Services

Boeing Distribution Services offers a variety of value-added services to help reduce risk and optimize your supply chain. These services include:

### Quality Assurance Services

#### How it works:

- Thorough review of contract and supplier quality requirements
- Creation of customer-specific work instructions
- Establishment and management of key performance metrics
- Process Failure Mode Effects Analysis (PFMEA)
- Advanced Product Quality Planning (APQP)
- First article and detailed inspection plans
- OEM ODA program; FAA DAR program
- Lab testing services

#### Key Benefits:

- Prevent deviations and failures
- Reduce inspection costs

### Supplier Management

#### How it works:

- Place your order through Boeing Distribution Services
- Supplier Management system routes order automatically to appropriate supplier
- Parts are shipped directly by date requested
- All invoicing and communication provided through Boeing Distribution Services



### Key Benefits:

- Supply base reduction
- Full traceability
- Efficiency through automation

## Product Line Development

### How it works:

- Supplier Qualification
  - Detailed screening process for all suppliers
  - Management of non-disclosure agreements and payment
- Supplier Surveillance
  - Monitor KPIs and risk assessments
  - On-site representation through trained auditors
  - Pro-active order book management
- Sourcing/Purchasing
  - Global capabilities supported by experienced and focused teams

### Key Benefits:

- Access to over 3,500 suppliers
- Quality improvement plans and on-site audits
- Alternative sourcing and part qualification

