AUTOMATED LIFT TRUCKS

RAYMOND





BUILT TO PERFORM. DESIGNED TO WORK TOGETHER.

For 90+ years, The Raymond Corporation has built a reputation based on top-notch quality, reliability and exceptional customer service.

We design and build the best lift trucks in the business. We provide technologies, systems and solutions that bring day-to-day warehouse and distribution operations to a new level of performance. And we support customers with a network of skilled service centers and technicians unmatched in the industry.

From our eco-efficient trucks and telematics to our warehouse optimization and flexible financing, Raymond's big-picture approach and precisely targeted solutions are designed to adapt and grow with your business.

Our innovations in energy savings, space utilization, ergonomics, manufacturing quality and fleet optimization—combined with our best-in-class products and services—work together to increase efficiency and lower costs throughout your material handling operations.

Raymond stands ready to help you run better and manage smarter—end to end.

THE NEXT GENERATION OF AUTOMATION

In the majority of material handling applications, trucks and their operators work hand-in-hand. One person, one truck. Inseparable. But what if there were a better way?

Imagine the impact on productivity if operators could focus on higher value-added tasks while their trucks took care of all the routine, repetitive jobs—independently and automatically. That's the advantage of Raymond® Automated Lift Trucks (ALTs).

With a single operator able to control multiple vehicles, you can multiply the impact of your workforce—and your trucks—without adding to your labor costs.

Raymond ALTs require none of the costly upfront infrastructure of traditional Automated Guided Vehicles (AGVs), making them easier to integrate into your operation, and simple to re-program as your needs change. So you have a flexible, scalable automation solution capable of adapting to the realities of ever-increasing SKU numbers, smaller, more frequent orders, and ever-evolving markets.

If you want a long-term investment that can optimize resources and maximize productivity, the easy choice just became the automatic choice: Raymond Automated Lift Trucks.

THE SUPPLY CHAIN OF THE FUTURE



+ mass personalization



+ the growth of e-commerce



+ big data & predictive analytics



+ robotics & automation

As space gets more confined and labor costs continue to rise, Raymond is committed to providing the automated solutions you need to optimize warehousing operations in the years ahead.



+ relentless competition



+ sensors & the internet of things



+ the changing workforce





+ mobile & wearable computing



+ sustainability

RAYMOND COURIER AUTOMATED LIFT TRUCKS

With easy implementation, simple operation, and remote management capabilities, the Raymond Courier™ offers the perfect entry point into automation for an array of warehouse, distribution, and manufacturing facilities.

Raymond has taken its industry-leading pallet truck and tow tractor designs and engineered them for manual or automated operation. This hybrid design gives operators the flexibility to program the truck to run on its own, or operate it manually as a traditional lift truck. It's like getting the best of both worlds in a world-class vehicle that can work the way you want for maximum productivity.

So if you have loads of up to 10,000 lbs to move horizontally, point-to-point, around your warehouse, do it effortlessly and automatically. Call a courier—a Raymond Courier.

PALLET TRUCK

Durably constructed with a heavy-duty undercarriage featuring ductile iron components and a capacity up to 8,000 lbs. Ideal for putaways, long hauls, cross-docking, and staging loads.



Raymond Courier 3010 Center Rider Pallet Truck

TOW TRACTOR

A sturdy workhorse engineered to tow carts with a capacity of up to 10,000 lbs. Simplifies batch-picking, parts-to-line, and cart applications.



Raymond Courier 3020 Tow Tractor

- + exceptional control and performance with five sets of onboard cameras and a navigation system that monitors everything from speed to steering angle
- + real-time fleet management capabilities with the web-based Supervisor software that offers greater enterprise-wide control
- + easy implementation and adaptation with none of the costly, inflexible infrastructure requirements of traditional automated systems
 - + superior flexibility and efficiency with the ability to operate autonomously or manually—and routes that can be modified as needed
 - + less maintenance with a durable design engineered with best-in-class components that are easy to access



+ simple to use

with an intuitive operator interface that allows for quick and easy route teaching and truck dispatching

+ unparalleled operator comfort and confidence

with a roomy compartment that includes intuitive, easy-to-use ergonomic controls

+ greater productivity

with one operator able to control multiple trucks

+ easily scalable

with up to 15 miles of programmable routes that can be quickly transferred between trucks

IS AUTOMATION RIGHT FOR YOU?

INDUSTRY & FACILITY TYPES

- Distribution Including:
 - -Dry storage wholesale
 - -Retail distribution
- Grocery & foodservice distribution
- 3PLs
- Clean room manufacturing/production facilities
- 50,000+ square foot facilities with high repetition
- Facility expansion or reconfiguration

BUSINESS ENVIRONMENTS/APPLICATIONS

- Large truck population (20+)
- 25+ employees
- High-cost labor
- Repetitive routes, high throughput
- Large volume pallet jack movements
- Large number of existing tow tractors and pallet trucks
- Multiple shifts (2+)

OPTIMAL OPERATING CONDITIONS

- Bright, well-lit, clean and dry environments with smooth floors
- >32°F (to avoid condensation on camera lenses)
- Consistently good pallet quality and payloads >500 lbs.
- Minimum aisle widths of 7'8" (one-way traffic) or 13'3" (two-way)

PRODUCT HIGHLIGHTS

RAYMOND COURIER

3010 CENTER RIDER PALLET TRUCK



CAPACITY (lbs.)	6,000 lbs 8,0	6,000 lbs 8,000 lbs.	
POWER UNIT	24V, Single-Drive A	C Drive Motor	
OPERATOR'S PIATFORM Height (in.)	5.2* *with forks lowered		
TRAVEL SPEED – Manual unloaded/loaded (mph)	6,000 lbs. 9.0/6.5	<u>8,000 lbs.</u> 9.0/6.2	
TRAVEL SPEED – Automatic unloaded/loaded (mph)	6,000 lbs. 3.7/2.7	<u>8,000 lbs.</u> 3.7/2.7	
LIFT TIME	4/5	4/4	

APPLICATION

Automate repeatable horizontal transport tasks including:

- Completing long hauls in distribution centers
- Cross-docking put-away operations
- Transporting materials from the end of a production line to the warehouse

KEY FEATURES

- Heavy-Duty Undercarriage
 - Ductile Iron Design 25% more durable than steel
 - Composite Bushings Teflon-coated bushings never require greasing, minimizing maintenance downtime
- Universal Tapered Forks
 - Streamline pallet entry and exit

RAYMOND COURIER

3020 TOW TRACTOR



CAPACITY (lbs.)	10,000	
POWER UNIT	24V, Single-Drive AC Drive Motor	
OPERATOR'S PLATFORM Height (in.)	8.3	
TRAVEL SPEED – Manual unloaded/loaded (mph)	9.0/Variable* *Dependent upon cart and load.	
TRAVEL SPEED – Automatic unloaded/loaded (mph)	2.6/2.6	
LIFT TIME unloaded/loaded (sec.)	n/a	

APPLICATION

Automate repeatable horizontal transport tasks including:

- Parts to production line
- Batch picking
- Cart applications

KEY FEATURES

• Heavy Duty Design

5-ton capacity withstands heavy-duty, high-throughput applications

• Automatic Coupler (optional)

Spring-loaded jaw hitch that automatically closes when ring on trailer is pulled into the hitch, saving time connecting or disconnecting carts/trailers

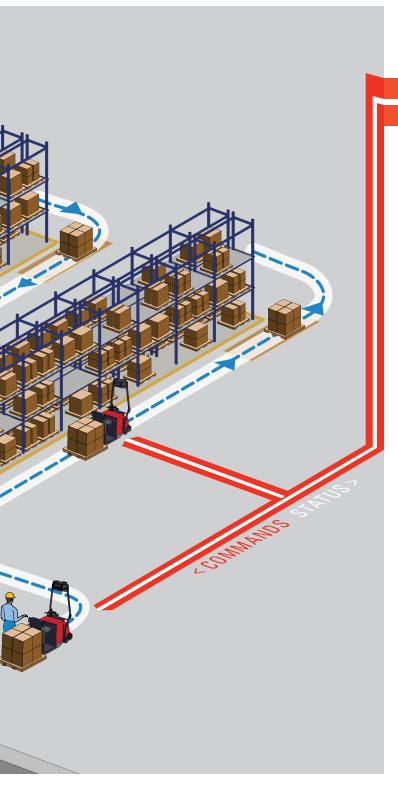


Unlike other automated guided vehicles that use laser reflectors, wires, and other permanently installed infrastructure, Raymond Courier trucks operate autonomously with five sets of onboard cameras with evidence grid technology for autonomous navigation.

Without having to rely on external hardware of any sort, the Raymond Courier can be quickly retrained for different routes, tasks, shifts, and locations for ultimate flexibility. And since there are no external components to move, you can make any of those adjustments in a fraction of the time—and at a fraction of the cost—of other AGVs.

An easy-to-use interface simplifies programming, so a single operator can control multiple trucks simultaneously for new levels of productivity.

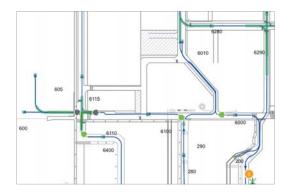




THE BRAINS BEHIND THE OPERATION

Raymond Courier ALTs are monitored and controlled by Supervisor, a comprehensive, web-based fleet management application. Accessible from any web-enabled computer or mobile device, the system provides the in-depth, real-time vehicle data you need to make more informed decisions, whether you're in the C-suite or on the facility floor.

FLEET STATUS—FACILITY MAP VIEW



FLEET STATUS—GRID VIEW

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Supervisor gives you complete control over your truck fleet with four core components:

FLEET STATUS

Provides real-time updates on truck locations and status for easy tracking and monitoring.

SWITCHBOARD

Allows easy programming with customizable commands, rules, and notifications to tailor the system to your needs.

INTERSECTION MANAGER

Controls traffic by granting or withholding access requests from individual trucks for optimum flow throughout your operation.

SUBWAY PLATFORM

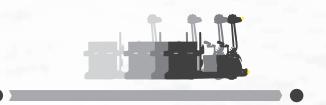
Displays an estimated time of arrival at pick-up and drop-off points for more timely and efficient operator/truck interactions.

FLEXIBILITY. SCALABILITY. PROFITABILITY.

During the course of a day, operators can be tasked with any number of different material handling responsibilities. And to do each—and all—of them as efficiently as possible, they need the tools to be able to adapt.

That's where the hybrid driver/driverless design of the Raymond Courier comes in. Set it to automatic mode to tirelessly run repetitive routes on its own. Or jump on board and operate it like a manual truck to take care of small orders, unexpected needs, or changing applications.

Since the truck is completely autonomous, its programmed routes can be easily modified at any time to accommodate unexpected production changeovers or different times of day, shifts or seasons. It can also integrate into almost any operation, working with existing truck fleets and warehouse personnel to optimize productivity and profitability.



TEACH YOUR TRUCKS IN NO TIME

Training the Raymond Courier is as easy as driving the truck from point A to point B, indicating locations along the way for functions ranging from stops to pallet drop-offs.



QUICKLY TRANSFER ROUTES BETWEEN TRUCKS

Adding to your fleet or adjusting truck assignments as your needs change can be done quickly and easily by transferring routes electronically between vehicles.



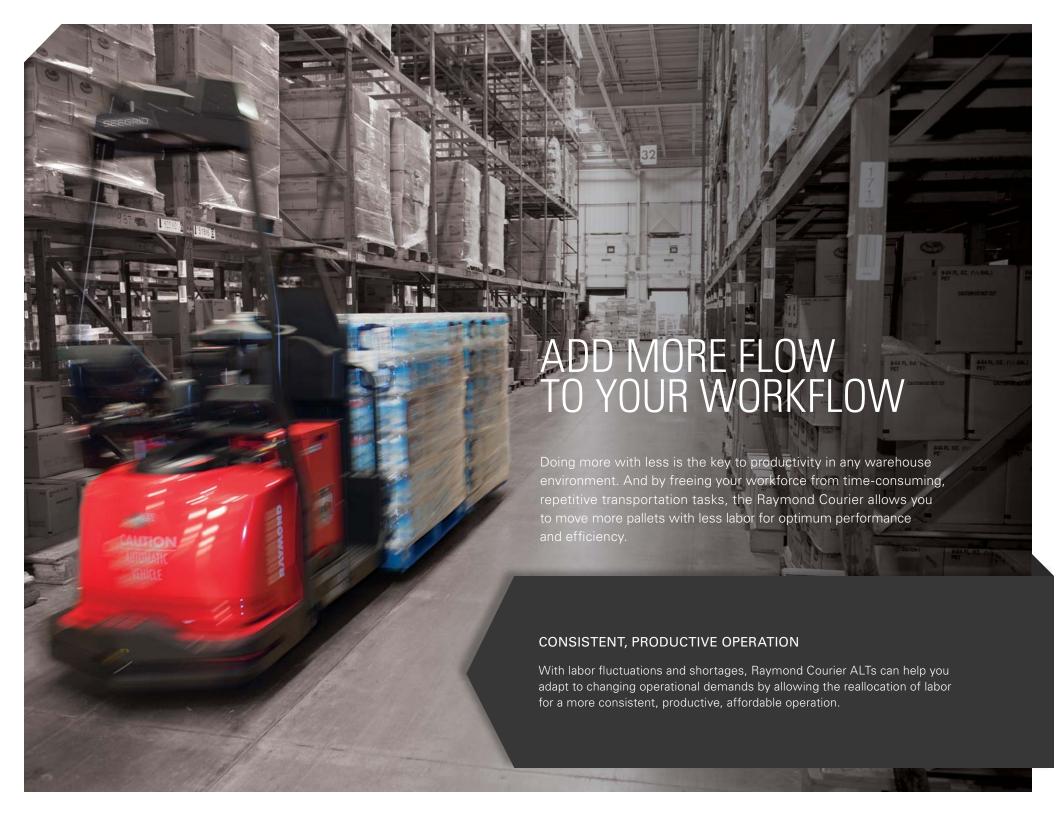
STORE MILES OF ROUTES IN MEMORY

Up to 15 miles of routes can be programmed and stored at a time to suit virtually any facility and application. Once trained, the truck can repeat the programmed routes as many times as needed.



A WHOLE NEW LEVEL OF CONTROL & CONVENIENCE

Summoning, tracking, and managing every truck in your fleet can be done on any web-enabled computer or mobile device through the Raymond Courier's Supervisor software.













MORE PRODUCT MOVED

Multiple Raymond Courier pallet trucks and tow tractors can be managed by a single operator at the same time for enhanced throughput and productivity. Trucks can also be quickly redeployed to other jobs for greater flexibility and optimum use of resources.

CONTROLLED OPERATION

Built-in sensors slow—and eventually stop—the truck if they detect an obstruction, waiting until the object is removed before allowing the truck to proceed.

LOWER COSTS, HIGHER PRODUCTIVITY

Only Raymond lift trucks offer the proven ACR System[™]—for greater energy efficiency and extended periods between battery changes for more uptime.

NO DEAD BATTERY INTERRUPTIONS

Trucks can be programmed to automatically return to charging areas whenever batteries fall below a certain charge level for worry-free operation.

MAKING THE BEST TRUCKS EVEN BETTER

Built upon the rugged, reliable, proven design of the Raymond pallet truck and tow tractor, Raymond Courier brings all the benefits of automation to the most trusted vehicles on the market.

Whether operated in manual or automated mode, Raymond Courier trucks give you high performance with low cost of ownership through an array of value-added features. Energy-efficient operation lets you lower your expenses. Ergonomic controls make your operators more comfortable and confident. And best-in-class components lead to longer vehicle life, superior uptime, and reduced maintenance costs.



CUSTOMIZED, PERSONALIZED CONTROL

Truck parameters
(such as maximum
travel speed) can be
programmed to suit
your environment for
more tailored operation
in manual mode.



SAVE ENERGY SAVE MONEY

Engineered to allow longer run times per battery for lower energy costs.



QUICK, EASY MAINTENANCE

All components are easily accessible for fast, cost-effective maintenance and enhanced uptime.





DURABILITY EQUALS RELIABILITY

Heavy-duty truck design protects internal components for longer, more dependable operation.



GREATER OPERATOR COMFORT AND CONVENIENCE

Roomy operator compartment offers walk-through access to either side of the aisle for more efficient access to carts and materials.



PRODUCTIVITY-ENHANCING PERFORMANCE

With smooth speed transitions and faster, more responsive acceleration, Raymond trucks allow optimum operation in manual mode.



MOVE MORE PRODUCT, FASTER

Raymond's unique PowerSteer technology reduces steer effort by up to 90% to enhance maneuverability in manual mode.

LOCAL SERVICE. DIRECT SUPPORT.

As the only lift truck manufacturer to stand behind its automated vehicles with direct service and support, Raymond gives you a committed, collaborative partner to help you get the most out of automation.

With a network of more than 100 Sales and Service Center locations across North America, Raymond is uniquely positioned to give you a more personalized and responsive level of support. Whether it's assessing your application to determine the number of trucks you may need, or providing ongoing service and training, our experts are never far away and are always willing to help.

From trucks to training to technical advice, come experience a "customer first" philosophy that can be found at every step of our end-to-end solutions. And take advantage of some of the most innovative technologies and support systems in the industry.

We don't just build trucks at Raymond. We build relationships.

THE INDUSTRY'S LEADING END-TO-END AUTOMATION SOLUTION











FLEXIBLE FINANCING WHEN YOU NEED IT

As with all Raymond products, we provide customized solutions to help you acquire the equipment you need to help your business grow. Flexible financing programs are available through Raymond Leasing.

OPERATE MORE RELIABLY AND CONFIDENTLY

Programs like Raymond's Safety on the Move® and Steps to Safety™ help you deploy best practices to protect your people, equipment, and materials as well as assist you in satisfying your duty to provide forklift training.

PERFORMANCE STARTS WITH YOUR PEOPLE

Technician forklift service training will prepare your in-house service technicians to effectively diagnose and maintain Raymond lift trucks to factory standards.

QUALITY YOU CAN COUNT ON

To ensure long-term operational excellence and the best product possible for customers, Raymond fully applies the principles and practices of the Toyota Production System (TPS)—a commitment to quality and a 'get it right the first time' philosophy.

THE BEST WARRANTIES IN THE BUSINESS

Choose from Standard or Standard Plus options to suit the demands of your fleet and the needs of your business so you can maximize performance while locking in affordable, predictable service costs.

HALF THE SCHEDULED MAINTENANCE OF OTHER TRUCKS

Raymond trucks can go up to twice as long between scheduled maintenance as competitor vehicles for higher utilization rates and lower cost of ownership. And our experienced, certified technicians ensure all work is done quickly, conveniently, and accurately.



FROM FLEET TO FINANCE, WE'VE GOT YOU COVERED

In warehouse management, the bottom line is the bottom line. And because efficiency works best when it works end to end, everything Raymond offers is built to work together.

- + Trucks and Training
- + Fleet Maintenance and Parts
- + Warehouse Optimization System
- + Certified, Pre-owned Lift Trucks and Rentals
- + Industry Leading Warranties
- + Flexible Financing Solutions

From initial consultation to custom-designed solutions to long-term product and operational support—and with a network of more than 100 Sales and Service Centers—Raymond provides unmatched, world-class support tailored to meet your needs, help you drive down costs and run your business better and smarter.





+ warranty coverage

Raymond Asset Protection™ is Raymond's industry-leading warranty that begins with a Standard Warranty-coverage that starts the moment the new truck arrives at your facility.* Additional coverage options are available; select the option that fits your fleet so you can maximize performance while locking in affordable, predictable service costs.

*For complete details, refer to the Raymond Standard Warranty.



+ expert technicians

For those customers who have lift truck technicians on-site, Raymond offers Customer Technician Courses. Training is available at Raymond headquarters, at your facility or your local Raymond authorized Sales and Service Center.



+ financing

For an outstanding and flexible Raymond equipment solution, your Raymond Sales and Service Center and Raymond Leasing Corporation deliver what your business needs—the equipment you need to grow, at fixed costs. Raymond offers low ownership interest rates and variety of affordable and flexible lease options.



- iTRACK®

The iTRACK Asset and Cost Management System helps to reduce your overall cost of ownership. It provides accurate, actionable maintenance data and reports—from individual assets, to a fleet at a single location, or across your entire enterprise. iTRACK is your anytime, anywhere web-based asset management system.



+ iWAREHOUSE®

iWAREHOUSE delivers the industry's most comprehensive and scalable fleet telematics solution. From battery monitoring and impact management to vehicle and operator utilization, electronic checklists, labor management and professional services – iWAREHOUSE gives you all the tools and insights you need to run more efficiently, reliably and profitably.



+ maintenance

Designed to fit your budget, Raymond offers three plans specific to your needs which you can tailor for individual trucks or entire fleets: contract maintenance, comprehensive fixed-price maintenance and scheduled maintenance audit.



+ parts

Raymond Parts[™] is the industry's most comprehensive one-stop shop for world-class lift truck parts. Raymond is committed to meet all your parts and supply needs, regardless of the make or model of the truck. We sell only the highest quality parts that meet or exceed OEM quality standards.



+ pre-owned lift trucks

Raymond RENEWED™ offers certified, pre-owned electric lift trucks that have undergone a rigorous quality inspection and reconditioned with genuine OEM parts from top to bottom. Every truck is delivered with full warranty coverage.



+ rentals

A Raymond rental is the smart and economical solution to meet your interim material handling needs—whether you are looking for seasonal rentals, unplanned peaks in activity, replacing trucks for scheduled repairs or waiting for delivery of new equipment. Or, if you just want to establish the value of the equipment before purchasing or leasing.



+ training

Studies have shown that effective operator training can help improve how your operation runs. Designed to help you protect your people, equipment and materials, Safety on the Move® can assist in satisfying the OSHA mandate to train your operators.

RUN BETTER. MANAGE SMARTER.

At Raymond, our aim is to deliver the utmost quality and to work for continuous improvement every day, in every aspect of our business. We are proud of what we build. We are proud of the level of service we provide to keep our customers' business up and running. We take pride in our commitment to our customers through our end-to-end approach in helping them find smarter, more efficient, and more effective solutions.

We value the trust that Raymond has earned through decades of proven performance and hands-on innovation. Since the patenting of the first hand-pallet truck to the invention of the reach truck to our pioneering work in narrow aisle operations and beyond, Raymond has led the way in providing customers with the tools and expertise to improve their business.

IF YOU'RE LOOKING FOR A PARTNER WITH THE TOOLS AND EXPERIENCE TO HELP YOU RUN BETTER AND MANAGE SMARTER, LET'S TALK.

PO Box 130 Greene, New York 13778-0130

Toll free 1-800-235-7200 Fax 1-607-656-9005

www.raymondcorp.com

Due to continuous product improvements, specifications are subject to change without notice. Some systems and features shown are optional at extra cost. ACR System, Raymond, Safety on the Move, Steps to Safety, Raymond Asset Protection, Raymond RENEWED, Raymond Parts, Raymond Courier, iTRACK and iWAREHOUSE are U.S. trademarks of The Raymond Corporation.

