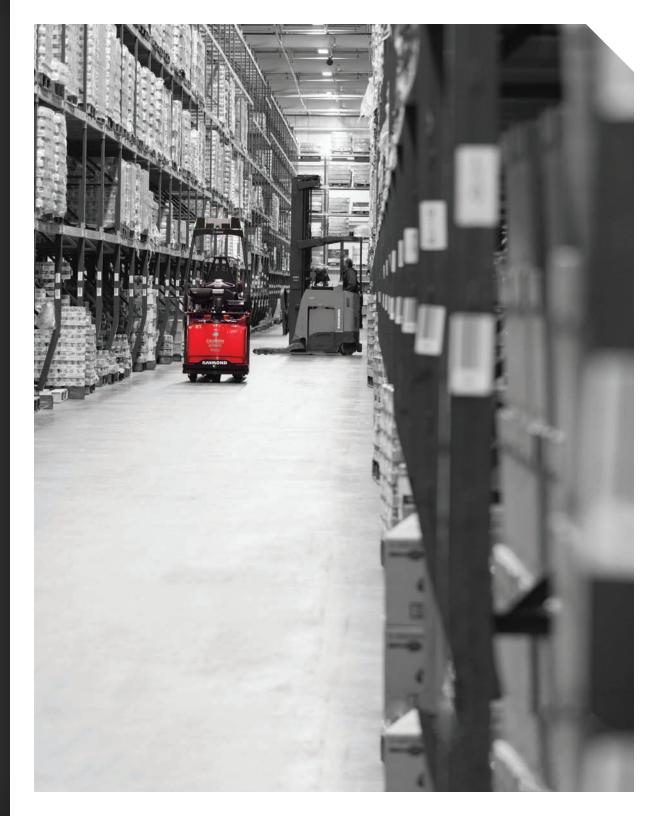
AUTOMATED GUIDED VEHICLES

RAYMOND COURIER™

RAYMOND





BUILT TO PERFORM. DESIGNED TO WORK TOGETHER.

For 95+ 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.

AUTOMATING A SOLUTION FOR TODAY'S LABOR CHALLENGES

From skilled to reliable, permanent or seasonal, labor is becoming increasingly hard to find and difficult to afford. Automation is becoming an inevitable and invaluable option for warehousing, manufacturing, and distribution operations. Machine power is augmenting manpower in an effort to keep goods moving, keep workers happy, and keep costs down.

Automated Guided Vehicles (AGVs) like the Raymond Courier truck offer a cost-effective solution for today's labor challenges by efficiently and reliably performing a variety of repetitive transportation and pallet handling tasks.



RAYMOND AUTOMATED GUIDED VEHICLES

Optimize your allocation of resources with a series of Raymond Courier™ trucks that offer a range of automated capabilities and efficiencies.









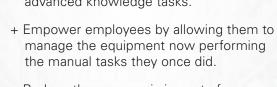
COURIER 3020
AUTOMATED
TOW TRACTOR
with optional
Low Clearance Arch



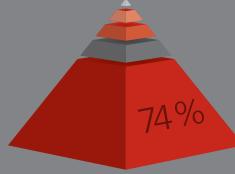
COURIER 3220 AUTOMATED TOWTRACTOR



COURIER 3030
AUTOMATED
STACKER



+ Reduce the ergonomic impact of repetitive, physically demanding tasks.



With labor accounting for 74% of a lift truck's operating costs, automated solutions like the Raymond Courier trucks offer dramatic cost savings opportunities, fast payback, and a low total cost of ownership.

COLLABORATIVE AUTOMATION

FOR MORE ENGAGED & PRODUCTIVE EMPLOYEES

By freeing operators from repetitive, lowvalue tasks, Raymond Courier trucks can create a more rewarding work environment raising engagement and lowering turnover.

- + Share responsibilities between man and machine to enhance productivity and overcome specific business challenges.
- + Transform skill sets by focusing on advanced knowledge tasks.



RAYMOND COURIER— FLEXIBILITY, SIMPLICITY, AND A FAST RETURN ON INVESTMENT

No matter where you are in the process of adopting automation, Raymond Courier trucks offer an easy-to-implement, vision guided solution requiring no changes to your facility or interruption to your workflow.

Operational from day one and easily programmed and reprogrammed internally for exceptional flexibility and scalability, Raymond Courier trucks deliver fast payback and low total cost of ownership.

LOWER TOTAL COST OF OWNERSHIP—HOW IT ALL ADDS UP

REDUCE LABOR COSTS AND EMPLOYEE TURNOVER

by automating repetitive applications and freeing up workers to focus on more value-added tasks.

MAXIMIZE RESOURCES AND PRODUCTIVITY

with one operator simultaneously manage multiple trucks.

ENJOY COMPLETE FLEXIBILITY AND SCALABILITY

with users able to easily change routes and redeploy trucks to meet your changing needs.

MINIMIZE MAINTENANCE AND MAXIMIZE TIME ON THE FLOOR

with the most durable and reliable truck platform on the market.

+ easy implementation

with no infrastructure changes or business interruptions

+ quick commissioning time

with ease of setup, the truck can be operational from day 1

+ superior flexibility and productivity with manual or automated operation, and one employee able to manage multiple trucks



+ ongoing scalability

with routes that can be quickly transferred between trucks for quick redeployment to different facilities, locations, shifts or applications

LEARN THE ROPES. REAP THE REWARDS

CAUTION

Automatic

Vehicle

RAYMOND

Raymond makes it easy to integrate Raymond Courier trucks into your operation, offering you the long-term tools to work efficiently, productively, and collaboratively with labor.

Raymond:

- + delivers your trucks & provides ongoing service and support
- + programs your routes
- + trains operators how to program and reprogram your trucks

A CASE FOR THE RAYMOND COURIER

PURCHASING, THE COST PRODUCTIVITY OF DOING AND PAYBACK NOTHING

Sample Application²: Finished goods moving from manufacturing into short- and long-term storage.

By enhancing efficiency and reliability, and allowing you to redeploy personnel to optimize productivity, Raymond Courier trucks offer an immediate impact on your bottom line and a fast payback—in this case, under 18 months.



²Figures shown are representative of one customer's particular application. Actual numbers, savings, and payback time for your specific location and application may be more or less.

RAYMOND COURIER				
	Courier	3		
	Total Estimated Cost Installed ¹	\$534,000		
LABOF	?			
	Fully Burdened Annual Wage	\$53,591 per Full-Time Employee (FTE)		
	FTEs per Shift	3		
	Number of Shifts	2		
VARIABLES	Absentee Replacement Operator (ARO) %	5% per year		
	New Employee Startup Cost	8% per year		
	Annual MH Employee Turnover %	30%		

FINANCIALS			
	3 year	4 year	5 year
IRR	47%	58%	63%
NPV	\$347,973	\$590,554	\$817,477
ROI	108%	181%	256%
NET CUMULATIVE SAVINGS ▶	\$573,834	\$964,513	\$1,366,523

PAYBACK	
Payback Period	17.5 months
FTEs Redeployed	6
Cost of not automating this project	-\$5,256 per month

¹LOW TOTAL COST OF OWNERSHIP

Pricing shown for the Raymond Courier is all-inclusive. There are no additional fees charged by other manufacturers for services such as:

- + Application/installation engineering + Post-sale support

+ Product retraining/new routes

- + Product implementation
- + Product training

+ Product demonstrations



ENGINEERED TO TAKE A LOAD OFF YOUR MIND

Raymond Courier trucks work collaboratively and in tandem with each other, side by side with your operators, and hand in hand with your conveyors, forklifts, and other equipment.

From horizontal load transport to vertical pallet handling, simple cross-docking to more involved workflows, Raymond Courier trucks offer the capabilities to seamlessly and reliably automate a variety of tasks in warehousing, distribution, and manufacturing operations.

IDEAL ENVIRONMENTS & APPLICATIONS

WAREHOUSING/DISTRIBUTION/3PL

Inbound Receiving to Storage
Picking to Outbound/Packaging
Long Haul Transfers to Other
Storage Locations

Types of Warehouses:

Consolidation Warehouses / Cross-Dock Distribution
Centers / Break-Bulk Warehouses /
Mixing/Order-Assembly / Distribution Facilities

MANUFACTURING

Kitting Transfers
Parts-to-Line
End-of-Line to Stock or Dock
Finished Goods
Inbound Putaway

IDEAL MARKETS

Distribution
Food + Beverage
Aerospace
Consumer
Automotive



COURIER 3010 AUTOMATED PALLET TRUCK

Horizontal transport; ideal for transporting pallets over long hauls, for put-aways, cross-docking and load staging applications

- + Reverse motion and obstruction sensor (optional)
- + Auto pallet engagement and drop-off
- + Universal tapered forks
- + Single and double fork lengths available



COURIER 3020 AUTOMATED TOW TRACTOR

Horizontal transport; ideal for pulling cart or trailer loads in batch picking, parts-toline and end-of-line (automated conveyor cart) applications

- + Automatic hitch and unhitch with dual slots for hitch height adjustment (optional)
- + Low Clearance Arch available for restricted-height areas down to 63" (optional)



COURIER 3220 AUTOMATED TOW TRACTOR

Horizontal transport; ideal for pulling carts or trailers with heavy loads on flat ground or ramps in batch picking, parts-to-line and end-of-line (automated conveyor cart) applications

- + Dual slots for hitch height adjustment (optional)
- + Low Clearance Arch as standard design; can operate under low hanging structures

3220



COURIER 3030 AUTOMATED STACKER

Horizontal transport and vertical pallet handling capability; versatile option ideal for pick-up and drop-off, end-of-aisle, endof-line and conveyor picking applications

+ Reverse motion and obstruction sensor (optional)



CHOOSING THE PERFECT PLATFORM

Designed to operate on their own and handle a variety of functions, Raymond Courier trucks enhance reliability, consistency, and efficiency at all phases of your operation. From inbound to outbound, each model can automate specific applications to address the unique needs of your business.

	3010	3020	3220	3030	
TYPE	Pallet Truck	Tow Tractor	Tow Tractor	Stacker	
RAMP CAPACITY	N/A	500 lb @ max 5%	7,500 lb @ max. 11 %	8% at max. load	
OVERALL LENGTH	160.3"	66.1"	75.7"	121.5" with 42" forks	
TURNING RADIUS	123.4"	60.1"	69.8"	74.5"	

All Models: 24V Battery

Floor to Top of Vision Guidance Unit: 90.2" (models 3010, 3020, 3030)

Floor to Top of Operator Interface Unit: 63" (models 3220 and 3020 Low Clearance Arch option)

			3030	3220 3020	3010
		Staging to Putaway (floor to rack storage up to 72")	X	3220 3020	3010
	INBOUND	Staging to Pick & Drop Location	×	X	×
	INB(Crossdock (staging to staging)	×	X	×
ŋ		3.			
EHOUSINO	MATERIAL MOVEMENT	Pallets from Pick & Drop to Outbound Staging	×	X	х
	MATE	Trash/Dunnage Transport	Х	Х	
A					
>		Pallet Picking (floor to rack storage up to 72")	X		
	DNNC	Layer Picking to Outbound Staging	Х		
	OUTBOUND	Order Pallets/Carts to Pack-Out	Х	Х	х
	0	Pallets to Wrapper/Wrapper to Outbound Staging	Х	X	
	UND	Staging to Putaway (floor to rack storage up to 72")	х		
	INBOUND	Staging to Pick & Drop Location	Х	Х	х
	MATERIAL MOVEMENT	Kitted Parts-to-Line		X	
9 Z –		Bulk Parts-to-Line	х	×	х
MANUFACTUR		Small Parts-to-Line		Х	
		Sub-Assembly to Assembly Line		×	
		Empty Container Management	Х	×	х
		Trash/Dunnage Transport	Х	×	х
	DNNC	Finished Goods to Warehouse	Х	×	Х
	OUTBOUND	Finished Goods to Outbound	Х	х	х

OPTIMIZATION BEFORE AUTOMATION

The era of automation is here, ready to keep your business productive and competitive. But organizations need to rethink before they retool. Automation takes preparation.

Prior to the introduction of any sort of automated system, your warehouse and processes should first be analyzed and optimized by evaluating different aspects of your operation, including:

LABOR UTILIZATION AND OPERATOR PRODUCTIVITY:

Is your labor force not meeting escalating demands primarily due to limited capacity?

Or, is your labor force's capacity being diminished by performing non-value added or redundant tasks?

SIZE AND TYPE OF YOUR LIFT TRUCK FLEET:

Is the velocity of your warehouse being impacted by using the incorrect type of powered industrial equipment to move product?

Are your fleet maintenance costs inflated by prematurely servicing under-utilized "spare", "just-in-case" vehicles?

TRAFFIC PATTERNS AND BOTTLENECKS IN YOUR WORKFLOW:

Are your current work and traffic flows very dynamic or even random which can cause congestion or inefficient routes?





GET MORE OUT OF YOUR WORKSPACE, WORKFLOW, AND WORKFORCE

While automating may be intimidating, Raymond can simplify your adoption and implementation with an array of professional teams and tailored technologies, including:

- + Experienced consulting services, application engineers, and automation systems experts
- + Integrated system solutions including automated guided vehicles, storage and retrieval systems, and semi-automated operator navigation systems
- + The industry's most comprehensive telematics offering data and insights to measure where you stand



CONTROL YOUR TRUCKS— AND YOUR BUSINESS

Any automated system is only as good as the software behind it. And Raymond Courier trucks offer three platforms designed to do everything from controlling your trucks to helping you manage your operation and make more informed decisions:

VISION GUIDED TECHNOLOGY

SUPERVISOR SOFTWARE

iWAREHOUSE® TELEMATICS





VISION GUIDED TECHNOLOGY— FOR RELIABLE, PREDICTABLE NAVIGATION

Raymond Courier trucks can operate on their own in virtually any warehouse environment thanks to a powerful, flexible, reliable vision guided system.

Engineered by Seegrid, a pioneer and market leader in 3D vision navigation, and based on evidence grid technology, the system uses a series of truck-mounted cameras and sensors to provide a 360° view of your environment. Rich, contextual information allows the trucks to work by recognizing locations, identifying obstructions, and controlling behaviors.





VISION

LASER



SUPERVISOR SOFTWARE— FOR CONTROL OF YOUR TRUCKS

Supervisor Software lets you monitor your Raymond Courier trucks from any web-enabled computer or mobile device—anywhere, anytime—with real-time status updates.

FLEET STATUS

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

INTERSECTION MANAGER

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

SWITCHBOARD

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

SUBWAY PLATFORM

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



iWAREHOUSE FLEET

MANAGEMENT AND WAREHOUSE OPTIMIZATION SYSTEM (OPTIONAL)

The industry's most comprehensive and scalable telematics platform, iWAREHOUSE Evolution™ gives you deeper insights into your operation by working with all the trucks in your fleet—Raymond or non, automated or manual—to help you identify operator inefficiencies, determine opportunities, and optimize fleet and labor productivity.

Adding this option to the capabilities of Supervisor Software gives you a more complete and holistic view of your overall business.

Regularly updated and trusted by operations worldwide, iWAREHOUSE telematics offers the data, analysis, and reporting functions you need to make the most of the Raymond Courier, future automation investments, and a shrinking labor force.

FROM FLEET TO FINANCE, WE HAVE YOU COVERED

- + 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 Solutions and Support 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 Solutions and Support Center.



financing -

For an outstanding and flexible Raymond equipment solution, your Raymond Solutions and Support 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.



+ maintenand

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.

