

WHY MANUAL PARCEL HANDLING BREAKS AT SCALE

(AND WHY DELIVERY SYSTEMS
COLLAPSE UNDER VOLUME)



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Smart Infrastructure.
Real Impact.

Your
delivery
is here

Scan code
to collect

DELIVERY
SOLUTIONS
BUILT FOR
VOLUME



OVERWHELMED WORKFLOWS

Manual sorting and
handling can't keep
up with volume.



RIISING COSTS & LABOUR STRAIN

More staff, more hours,
more errors, higher
operational cost.



DELAYS & FAILED DELIVERIES

Backlogs, missed SLAs
and unhappy customers
become unavoidable.



SYSTEMS COLLAPSE UNDER PRESSURE

Infrastructure and
processes fail when
volume spikes.



BUILT TO SCALE

Handles more volume
without adding
complexity.



IMPROVED ACCURACY

Automated systems
reduce errors and
exceptions.



FASTER THROUGHPUT

Continuous flow drives
efficiency and on-time
performance.



CUSTOMER SATISFACTION

Reliable, predictable
delivery experiences
at any scale.

WHY MANUAL PARCEL HANDLING BREAKS AT SCALE

Parcel volumes have exploded. More deliveries. More frequency. More pressure on buildings and teams.



AT SMALL SCALE,
MANUAL HANDLING
WORKS.



AT LARGE SCALE,
IT FAILS
COMPLETELY.



BECAUSE MANUAL
PARCEL HANDLING
IS **NOT DESIGNED
FOR VOLUME** —
IT IS DESIGNED
FOR OCCASIONAL
DELIVERY.

AND WHEN VOLUME INCREASES:



STAFF ARE OVERWHELMED

More parcels mean more time, more errors and burnt-out teams.



STORAGE FILLS

Limited space becomes chaotic, unsafe and unmanageable.



TRACKING BREAKS

Spreadsheets and manual logs can't keep up with volume or accuracy.



COSTS RISE

More overtime, more mistakes, more lost parcels, more complaints.



MANUAL SYSTEMS DON'T SCALE — THEY OVERLOAD.

What works today becomes a liability tomorrow.



MANUAL PARCEL HANDLING WAS NEVER BUILT FOR TODAY'S PARCEL VOLUME.
THE HIGHER THE VOLUME, THE GREATER THE BREAKDOWN.

WHAT IS MANUAL PARCEL HANDLING?

Manual parcel handling refers to processes where staff:

1



RECEIVE DELIVERIES

Staff accept parcels from couriers and delivery providers.

2



LOG PARCELS

Parcels are recorded manually using spreadsheets or logbooks.

3



STORE ITEMS

Parcels are stored in limited spaces with no optimisation.

4



NOTIFY RECIPIENTS

Staff contact recipients via email, phone or building systems.

5



MANAGE COLLECTION

Recipients collect parcels during limited hours or via reception.

THIS TYPICALLY HAPPENS IN:



OFFICE RECEPTION AREAS

High volumes with limited space and staff.



RESIDENTIAL BUILDINGS

Multiple residents. Constant deliveries. No structure.



MAILROOMS

Centralised but often understaffed and overcrowded.



UNIVERSITIES AND CAMPUSES

Large, dispersed communities with peaks and complexity.



HEALTHCARE FACILITIES

Critical environments where delays and misplaced items have real impact.

WHY MANUAL PARCEL HANDLING FAILS AT SCALE

Manual processes weren't built for today's parcel volumes.

At scale, every step becomes a point of failure.

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1 VOLUME OUTPACES PROCESSING CAPACITY

Each parcel requires:

- Acceptance
- Logging
- Sorting
- Storage

As volume increases:

- Processing slows
- Backlogs form
- Delays increase

More parcels = more work = slower system



2 RECEPTION BECOMES THE BOTTLENECK

Most buildings rely on:

- A single reception desk
- A small facilities team

This creates:

- A central processing point
- Limited throughput
- Immediate congestion

One desk. Many parcels. Everyone waits.



3 DELIVERIES ARRIVE IN WAVES

Couriers deliver in batches:

- Morning drop-offs
- Afternoon peaks

This creates:

- Sudden surges in volume
- Immediate system overload

Waves of deliveries overwhelm manual processes.



4 STORAGE BECOMES UNMANAGEABLE

Manual systems rely on:

- Backrooms
- Shelving
- Shared storage areas

At scale:

- Space fills quickly
- Organisation breaks down
- Retrieval becomes difficult

No structure. No visibility. Just piles of parcels.



5 COLLECTION ADDS A SECOND BOTTLENECK

When recipients collect parcels:

- Staff must retrieve items
- Verify ownership
- Manage queues

This creates:

- Additional workload
- Interruptions to workflow
- Congestion

Collections create more queues, more work, more delays.



6 TRACKING BREAKS DOWN

Manual systems rely on:

- Spreadsheets
- Paper logs
- Manual updates

At scale:

- Records are incomplete
- Data is outdated
- Parcels are "lost"

If tracking is manual, it cannot keep up with volume.



MANUAL SYSTEMS DON'T SCALE —
THEY OVERLOAD.



Higher costs



Slower operations



Unhappy staff



Poor resident /
customer experience



Lost parcels,
lost trust

THE CORE PROBLEM: CENTRALISED, MANUAL SYSTEMS

Manual parcel handling fails because:
All activity is routed through a **single, staff-dependent** system.

AT SCALE:

- ⚠ Volume increases
- ⚠ Processing slows
- ⚠ Bottlenecks form



Staff Overwhelmed
Too many parcels.
Not enough people.



Processing Slows
Every parcel requires
manual time.



Storage Fills Up
Limited space leads to
chaos and misplacement.



Errors & Loss Increase
No visibility. No accountability.
Parcels go missing.



Costs Rise
More staff, more time,
more problems.

THE RESULT:



- Unhappy recipients ✗
- Overloaded staff ✗
- Poor efficiency ✗
- High operational cost ✗
- No scalability ✗

THE SCALABLE SOLUTION: AUTOMATED, DISTRIBUTED DELIVERY SYSTEMS

To eliminate inefficiency, parcel handling
must become:

- ✓ Automated
- ✓ Decentralised
- ✓ Self-service



SMART LOCKER DELIVERY SYSTEMS

Smart lockers transform parcel handling into a high-efficiency system.



DIRECT COURIER-TO-LOCKER DELIVERY

- No reception handling
- No staff involvement



SELF-SERVICE COLLECTION

- No queues
- No staff interaction



PARALLEL PROCESSING

- Multiple deliveries and collections simultaneously
- No bottlenecks



REAL-TIME TRACKING

- Full visibility of parcels
- Reduced loss and confusion



SECURE, CONTROLLED ACCESS

- Only recipients can access items
- Full accountability



RESULT:



Lower operational cost
Less staff. Less time.
Lower overhead.



Higher efficiency
Faster processing.
Better productivity.



Better experience
Convenient, reliable,
and contactless.



Stronger security
Controlled access.
Full audit trail.



Scalable for growth
Handles more volume
without breaking down.



Smart Infrastructure.
Real Impact.

THE HIDDEN IMPACT OF MANUAL PARCEL HANDLING

Manual processes may seem manageable—until volume grows.
The real impact is hidden in your costs, your teams, and your users.



Manual parcel handling
creates hidden problems
that grow with every
delivery.

1



RISING OPERATIONAL COSTS

Manual handling requires:

- More staff
- More time per parcel
- More management overhead



2



OPERATIONAL INEFFICIENCY

Teams spend time:

- Logging parcels
- Searching for items
- Managing issues



3



POOR USER EXPERIENCE

Recipients experience:

- Delays
- Confusion
- Waiting to collect parcels



4



SECURITY AND COMPLIANCE RISK

Without control:

- Parcels can be accessed incorrectly
- No clear audit trail
- Increased risk of loss or theft



5



REDUCED SCALABILITY

As delivery volume increases:

- Systems slow down
- Costs rise
- Performance declines



WHY **TRADITIONAL FIXES** DON'T WORK

Throwing more people, space or band-aid solutions at the problem only creates temporary relief—not real improvement.



ADD MORE STAFF

- Increases cost
- Does not improve system efficiency



EXPAND MAILROOM SPACE

- Limited by building constraints
- Does not improve processing speed



IMPROVE LOGGING SYSTEMS

- Still manual
- Still error-prone



RESTRICT DELIVERIES

- Difficult to enforce
- Reduces convenience



The real solution isn't doing more of the same—**it's building systems that are designed to scale.**

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REAL OPERATIONAL IMPACT

With **automated parcel systems**:



MANUAL HANDLING IS ELIMINATED

No reception handling.
No staff involvement.

MANUAL



100%
staff-dependent



AUTOMATED



0%
staff handling



PROCESSING SPEED INCREASES

Parcels move faster from
delivery to collection.

MANUAL



Slow
processing



AUTOMATED



2-5x
faster



STAFFING COSTS DECREASE

Less reliance on staff
means lower costs.

MANUAL



High
labour cost



AUTOMATED



30-60%
cost reduction



STORAGE BECOMES STRUCTURED

No more piles of parcels
and chaotic stockrooms.

MANUAL



Cluttered &
disorganised



AUTOMATED



Organised &
optimised



USER EXPERIENCE IMPROVES

Convenience, transparency
and satisfaction increase.

MANUAL



Delays &
frustration



AUTOMATED



Fast, easy &
reliable



HAPPIER USERS

Better experience
and satisfaction



LEANER OPERATIONS

Fewer processes,
less complexity



LOWER COSTS

Reduces labour, space
and inefficiencies



BETTER PERFORMANCE

Scale volumes without
adding headcount

THE BOTTOM LINE

Manual parcel handling is not inefficient by accident.
It is **inefficient by design**.

AT SCALE:



VOLUME
INCREASES



MANUAL PROCESSES
SLOW DOWN



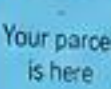
SYSTEMS
FAIL

THE SOLUTION IS NOT TO
IMPROVE MANUAL HANDLING.

IT'S TO **REMOVE**
IT **ENTIRELY.**

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Your parcel
is here



Scan code
to collect



HIGHER THROUGHPUT

Handle more parcels
without more staff



GREATER RELIABILITY

Consistent, accurate
and secure



BUILT TO SCALE

Grow without adding
complexity

PARCEL DELIVERY IN 4 SIMPLE STEPS

SMART LOCKERS. SMARTER DELIVERIES.



Smart Infrastructure.
Real Impact.

1 COURIER DELIVERS



The courier delivers the parcel directly to the smart locker and opens an available locker.



2 PARCEL IS SECURED



The locker is securely closed and the recipient is notified instantly.



3 RECIPIENT COLLECTS



The recipient authenticates at the locker and collects their parcel.



4 LOCKER IS READY AGAIN



Once the parcel is collected, the locker is automatically released for the next delivery.



DIRECT DELIVERY

No reception.
No queues.



INSTANT NOTIFICATION

Real-time alerts with
PIN or QR code.



SELF-SERVICE COLLECTION

Quick, easy and
available 24/7.



AUTOMATIC RESET

Continuous flow.
No downtime.

THE SMART LOCKER ADVANTAGE



Eliminates manual
handling



Increases efficiency
and throughput



Improves security
and accountability



Scales with your
delivery volume



Better experience for
everyone