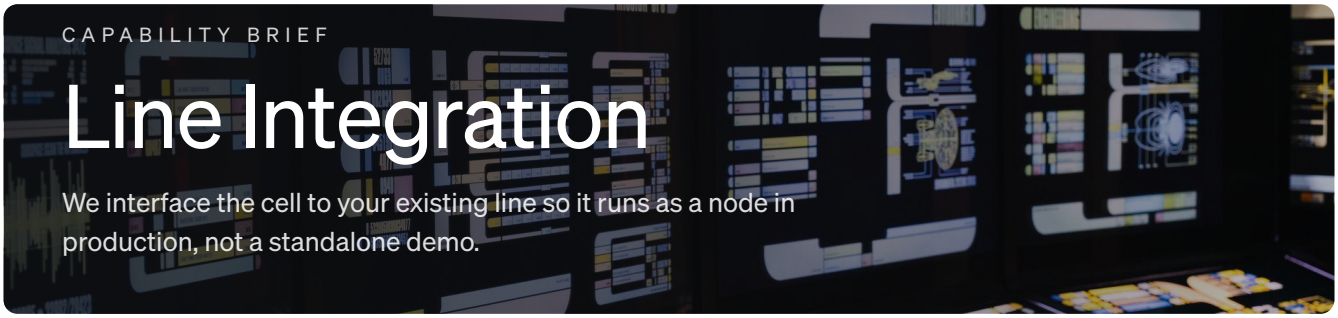

CAPABILITY BRIEF

Line Integration

We interface the cell to your existing line so it runs as a node in production, not a standalone demo.

A cell that can't talk to your line is an island. Integration is where most automation deployments stall for months: every plant runs different controllers, fieldbus protocols, safety circuits, and material handoffs, and none of it is documented the same way twice. The cell can pick the part flawlessly and still sit idle because it never gets a start signal or can't report a cycle back to the floor.

Relling cells ship with standard fieldbus and MES interfaces built in. We map your PLC tags, wire conveyor and AGV handoffs, tie into your safety interlocks and light curtains, and push traceability data where your systems expect it. Commissioning runs in parallel with mechanical install, inside the two-week window. The cell is qualified against your protocols before it ships.

AT A GLANCE

Footprint	~2 × 2 m
Payload	12.5 kg
Reach	1.3 m
Placement	±0.05 mm
Power	Single-phase
Install	≤ 2 weeks

01 The work we take on

THE TASK PROFILE

A

Protocol native

Speaks EtherNet/IP, PROFINET, Modbus TCP, and OPC UA out of the box, so the cell joins your controls network without custom gateways or translation layers.

B

Safety rated

Hard-wired and networked safety interlocks tie into your light curtains, e-stops, and area scanners under one assessed safety circuit, not a bolted-on afterthought.

C

Bidirectional data

Pulls recipes and job orders down from MES; pushes cycle counts, part genealogy, and fault codes back up. The floor sees the cell as it sees any station.

D

Pre-qualified

Interfaces are tested against your protocol specs and tag maps before the cell leaves our floor, so commissioning is verification, not discovery.

E

Handoff aware

Coordinates upstream and downstream material flow with conveyors and AGVs through part-present sensing and signaled handshakes, no manual staging between stations.

02 Why now

THE CASE FOR MOVING NOW

Deployments stall at integration

Mechanical install is rarely the bottleneck. Projects bleed weeks waiting on controls engineers to map tags, prove safety circuits, and validate handshakes. Pre-qualified interfaces collapse that phase into the two-week window.

The floor demands traceability

Quality and compliance now require per-part genealogy and live production data. A cell that can't push to MES creates a blind spot on the line and forces manual logging that erodes the labor savings automation was meant to deliver.

Downtime is measured in minutes

An islanded cell stops the line when it stalls, and nobody upstream knows why. Wired into your interlocks and SCADA, the cell signals state, faults, and recovery in real time, so the line responds instead of waiting.

OEMS WE WORK WITH

BECKHOFF · Rockwell Automation · SIEMENS · FANUC · KUKA · ABB · YASKAWA

03 What the service covers

TASKS ON THE LINE

A — PLC fieldbus
Connects over EtherNet/IP, PROFINET, or Modbus TCP to your line PLCs and I/O.

B — OPC UA server
Exposes cell state, telemetry, and alarms over OPC UA for SCADA and historians.

C — MES/ERP exchange
Receives job orders and recipes, returns production counts and status to MES or ERP.

D — Safety interlocks
Integrates light curtains, e-stops, and door switches into the line's assessed safety circuit.

E — Conveyor handoff
Synchronizes infeed and outfeed with conveyor signals and part-present detection.

F — AGV/AMR coupling
Coordinates load and unload with AGVs and AMRs through docking and ready handshakes.

G — Traceability push
Logs per-part genealogy, timestamps, and results to your traceability database.

H — Recipe download
Pulls part-specific recipes and job parameters on changeover, no operator data entry.

WHAT A CELL HOLDS

≤ 2 wk	±0.05 mm	100%
Install to running on your floor, not months of integration	In-hand placement for fit- and safety-critical parts	Inspection on every part — checked, not sampled

Representative configuration. Final specs are issued with the proposal.

04 Working with us

FROM YOUR PART TO A QUALIFIED CELL, IN ~TWO WEEKS ON-SITE

A · SCOPE & PO

We start with your part

We work from your part, volumes, takt, and the line you'd deploy on. A short scoping engagement confirms fit, defines acceptance criteria, and puts a fixed scope and price in writing — capital purchase and robotics-as-a-service, side by side.

B · PRE-BUILD AT RELLING HQ

We build & qualify it first

We build the cell on our own production floor and run it against your parts until it meets the acceptance criteria. The trial-and-error happens here, not on your line — so what ships is already proven.

C · ON-SITE CONFIGURATION

It arrives pre-built

The qualified cell shows up ready. On-site work is tuning, not assembly: under two weeks to integrate with your line, MES/ERP, and safety, followed by a supervised run on real product.

D · ACCEPTANCE & FIRST UNIT

Proven, then handed over

We run supervised until your safety engineer signs off and the cell hits its numbers. Your technicians operate it day to day; maintenance and software updates are covered.

05 Let's talk

We started Relling to help this country make more of what it needs. If you have a task that's hard to staff or hard to automate, send it over — we'll tell you straight whether a cell fits, and scope it if it does.

Talk to us: jai.relan@rellingsystems.com · rellingsystems.com

EXCEPTIONAL ENGINEERING, TEAM FROM

SPACEX · NASA · BOEING · TESLA · RIVIAN · ANYSIGNAL · coinbase