



CAPABILITY BRIEF

Machine Tending

One cell loads, orients, and unloads CNCs, presses, and molding machines, reconfiguring in software for each part it runs.

Machine tending is dull, repetitive, and increasingly hard to staff. Operators stand at a spindle for a shift, loading blanks and clearing finished parts, while the machine waits on them more than they wait on it. Fixed automation and hard tooling can amortize one high-volume part, but it cannot absorb a high-mix schedule or the frequent changeovers that define most job shops and contract work.

Relling deploys one cell that tends several machines at once. Vision locates each blank and fixture, guides load and clamp, and confirms the finished part on unload. Switching parts is a software reconfigure, not a retool: the cell recalls the skill and references it needs from its library. Every part and cell is qualified at Relling HQ before it ships, then tuned on your floor.

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**

Vision-guided load

Cameras locate blanks, fixtures, and door state, so the cell loads and clamps without precise part presentation or dedicated bowl-feed tooling.
- B**

Software changeover

Switching to a new part recalls a stored skill and fixture reference instead of swapping grippers, jigs, or rewriting motion by hand.
- C**

Multi-machine tending

A single cell services two or more machines on staggered cycles, loading one while another runs to lift spindle utilization.
- D**

Contact-rich handling

Force-controlled insertion seats parts into chucks, collets, and fixtures, clearing chips and tolerating the variation that defeats blind position-only motion.
- E**

Hot, heavy parts

The cell handles molded, forged, and hot-formed parts that are unsafe or fatiguing for people to lift cycle after cycle, shift after shift.

02 Why now

THE CASE FOR MOVING NOW

- Dull jobs go unfilled**

Standing at a machine loading and unloading all shift is the work people leave first. Automating it redeploys scarce operators onto setup, inspection, and judgment work while the dull cycle keeps running.
- Utilization pays the cell**

A machine only earns while it cuts. A cell that tends it through breaks, between shifts, and into lights-out hours lifts spindle uptime and recovers capacity already bought and sitting idle.
- Reshoring needs flexibility**

Returning high-mix work onshore means short runs and constant changeover, not long fixed lines. A cell that reconfigures in software per part makes that volume tendable without a retool for every job.

OEMS WE WORK WITH



03 What the service covers

TASKS ON THE LINE

- | | |
|---|---|
| <p>A CNC load/unload
Load blanks into mill or lathe chucks and remove finished parts each cycle.</p> | <p>B Press tending
Feed blanks into stamping and forming presses and clear formed parts out.</p> |
| <p>C Molding removal
Extract molded parts and runners from injection-molding tools after each shot.</p> | <p>D Fixture clamp
Seat parts in fixtures and trigger clamps, vises, or collet actuation.</p> |
| <p>E Part reorientation
Flip or re-grip parts between operations to present the next machining face.</p> | <p>F In-process gauging
Present parts to a probe or gauge and sort on the measured result.</p> |
| <p>G Chip/scrap clearing
Clear chips and scrap from chucks and fixtures before the next load.</p> | <p>H Bar/pallet feed
Replenish bar stock and cycle pallets to keep machines fed between loads.</p> |

WHAT A CELL HOLDS

≤ 2 wk

Install to running on your floor, not months of integration

±0.05 mm

In-hand placement for fit- and safety-critical parts

100%

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.

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.

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.

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

