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AI-Drafted Requisitions — Where Chat Tools Get Parts Wrong

cBallast Technical Sourcing · Spare-parts requisitions drafted with AI tools · issued 2026-11-04 · cballast.com/documents/ai-drafted-requisitions-part-number-errors

A growing share of spare-parts requisitions are drafted with chat tools, and the errors have a recognisable shape: confident supersessions no maker issued, plausible part numbers one character off, equivalents with no specification behind them. The failure modes catalogued, what catches each one, and the rule that keeps the benefit: AI for candidates, never for the final number.

The pattern

A growing share of the requisitions reaching industrial sourcing desks show signs of having been drafted with a chat tool. The fingerprints are consistent: a confident supersession the maker never issued; a part number with a plausible shape and one wrong character; "equivalent to" with no specification behind it. The drafts are faster than any purchasing desk has ever produced, and the tool that wrote them has no idea which mistakes are expensive.

The stakes are not symmetrical. One letter in a Siemens contactor suffix is the difference between a 220/240 V coil and a 400/440 V coil. A Danfoss VLT Micro Drive code with the wrong enclosure or RFI-filter option is a different drive. A bearing ordered without its clearance suffix runs tight when the motor warms up. The box that arrives looks right, fits the shelf and fails at commissioning, or later, which is worse.

Why it is happening now

The questions people type into chat tools are real, and lifecycle pressure across installed automation is the sharpest driver. SIMATIC S7-300 and ET 200M have been spare parts only since 1 October 2025. VLT Micro Drive FC 51 units reached their last-time-buy date on 30 June 2026. Plants that never planned a migration are now typing "what replaces..." into whatever window is open, and the answer comes back fast and sure. Fast and sure is not the same as right, and the tool does not say when it is guessing.

The same pattern shows up on the receiving side. Requisitions arrive quicker than they used to, and the clarification rounds that follow are longer, because a confidently wrong number takes more correspondence to unwind than an honest "please identify this from the nameplate".

The failure modes, catalogued

Failure mode | What it looks like | What catches it |

Invented supersession | A confident "replaced by" chain the maker never issued | The maker's own successor list and product change notifications |
One-character drift | A plausible number with one wrong letter or digit | The nameplate photo, and a catalogue check of every suffix |
Suffix amnesia | The base number right, the suffixes dropped | The full marking on the old part; suffixes are the function |
Spec-free equivalence | "Equivalent to X" with no parameters behind it | Demand the specification: dimensions, rating, materials, approvals |
Variant blur | 50/60 Hz, coil voltage, enclosure class or RFI option silently wrong | The installation's own data: supply, zone, panel listing |
Stale lifecycle | Recommends a successor that has itself been discontinued | The maker's lifecycle status page, or its authorised distributor |

Three positions, and what each gets right

A starting point, verified. Fine as a first pass, as long as every number is verified against the maker's successor list and the nameplate before the order. This is the position most maintenance engineers land on, and it works because the verification step is cheap next to a wrong drive.
Never for part numbers. The tool will make one up and nobody notices until the box arrives. This position is right about the failure mode and wrong about the remedy: the fix is verification, not abstinence, because the alternative is often a purchasing desk guessing from a twenty-year-old manual.
Already better than the average desk. Also true in places: the average requisition drafted from a description was never accurate either, just slower. What the tool changes is the confidence of the error, not its existence.

The rule that keeps the benefit

AI for candidates, never for the final number. Let the tool read the manual, shortlist the successor families and draft the enquiry; let the maker's successor list, the nameplate and the register fix the final identifier. The division of labour is the same one a good purchasing desk always used: research wide, order from evidence.

Three habits make the rule operational:

Verify against the maker, not against the tool. Every maker with a lifecycle programme publishes successor data and product change notifications. A supersession that cannot be found there does not exist.
Photograph the nameplate. The full marking, every suffix, resolves more than any description, and it is the input the tool should have been given in the first place.

Hold demand as a register. A register of installed equipment with full designations, lifecycle status and supported-until dates removes the occasion for most "what replaces..." questions, because the answer was recorded before the failure. The register practice is set out across the cballast reference series.

Cross-reference data is the other half of the defence. Every product page on cballast.com carries the maker's number together with the OEM, drawing, superseded and competitor cross-reference numbers held for it, so whichever number a requisition carries, including a slightly wrong one, lands near the right item, and a human desk confirms the final match before anything is quoted. We treat AI the way we advise buyers to: fine for finding candidates, never the authority for the number that goes on the purchase order.

Frequently asked questions

Can a chat tool reliably pick a replacement part number? It can shortlist candidates quickly, and it can be confidently wrong in ways a catalogue never is: invented supersessions, one character drifted, suffixes dropped. Use it for research, then verify the final number against the maker's successor list and the nameplate before ordering.

What replaced the Siemens S7-300? Siemens moved SIMATIC S7-300 and ET 200M to type discontinuation on 1 October 2025: spare parts only from that date, with spare-part availability planned until around 2033. The designated migration path is the S7-1500 family, but a migration is an engineering project, not a like-for-like part swap.

What is the last-time-buy date for the Danfoss VLT Micro Drive FC 51? Danfoss listed 30 June 2026 as the last-time-buy date for FC 51 units. Sites still running them should hold a counted spares list by order number and plan the drive migration from the register, not from the first failure.

How do I verify a part number an AI tool suggested? Three steps: check the number exists in the maker's current catalogue with every suffix accounted for; check any claimed supersession against the maker's own successor list or product change notification; and compare against the nameplate or the marking on the old part. If any of the three fails, send the nameplate photo to a desk that identifies parts for a living.

Why do wrong AI part numbers cost more than wrong human ones? Because they arrive with confidence and in volume. A hesitant requisition invites a check; a fluent one with a plausible number goes straight to order, and the error surfaces at goods-in or at commissioning, where it costs a return, a delay or a damaged machine.

Terms used in this guide

Supersession: a maker's formal replacement of one part number by another, published in successor lists and product change notifications.
Last-time buy: the final date on which a discontinued product can be ordered new from the maker.
Suffix: the trailing codes on a designation that fix seals, clearance, coil voltage, enclosure or options; dropping them changes the part.
Register: one row per installed item with full designations, lifecycle status and supported-until dates.
Identifier-first sourcing: choosing the supply route from the number you hold rather than from a description.

References and related guides

Standards and sources referenced: Siemens product change notification for SIMATIC S7-300 and ET 200M (type discontinuation 1 October 2025); Danfoss lifecycle notices for VLT Micro Drive FC 51 (last-time buy 30 June 2026); makers' successor lists and lifecycle status pages.
Danfoss VLT drive families and options
Variable frequency drive cross-reference by kW and voltage
Five quotes, one warehouse — the one-pass RFQ
The legal bill of materials — supported-until dates on OT hardware

Questions on a supersession, a suspect number or a lifecycle date are welcome at sales@cballast.com. We answer identification questions whether or not you buy from us.

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