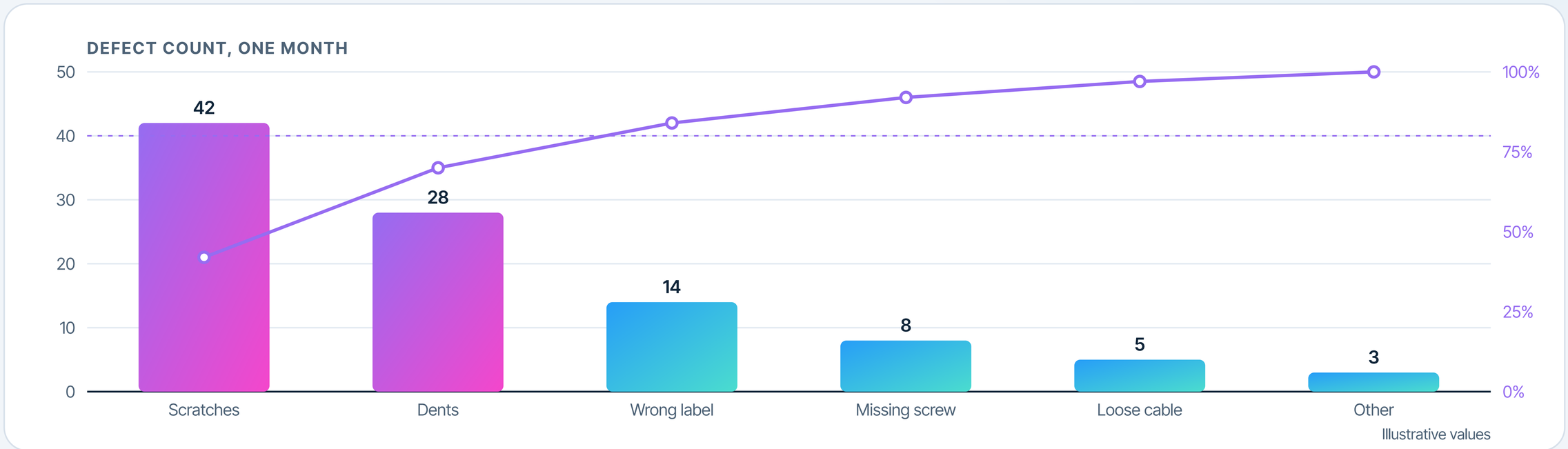
PROCESS IMPROVEMENT

Pareto Analysis: The Vital Few

Pareto analysis ranks problem categories by frequency or impact, showing that a few categories usually account for most of the total, so effort goes where it counts.

01 THE CORE MODEL

RANKED BARS · CUMULATIVE CURVE



Ranking

Categories sorted from the largest to the smallest count or cost.

Cumulative line

Running total in percent; shows how few categories make up most of it.

Vital few

The small number of categories worth attacking first.

02 COUNT OR COST

Rank by impact: a rare defect can cost more than a frequent one.

BY COUNT — BY IMPACT

PARETO BY COUNT

- Easy to collect from check sheets
- Shows where defects occur most
- − Can ignore severity and cost

PARETO BY COST OR SEVERITY

- Weights each category by its impact
- Aligns priorities with money and risk
- − Needs cost data per defect type

03 WORKED EXAMPLE

THE CHART ABOVE · FINISHING LINE, ONE MONTH

TOP TWO
Scratches, dents
70 of 100 defects

→

DRILL DOWN
Scratches by station
second-level Pareto

→

CAUSE
Unprotected rack
at station 4

→

ACTION
Padded racks
then re-run the Pareto

04 MANAGEMENT TAKEAWAYS

01
Drill down in layers
A second Pareto inside the top bar often finds the real target.

02
Use a fixed time window
Compare like with like, for example month by month.

03
Re-run after each fix
The ranking changes, and the next vital few emerge.

05 COMMON MISTAKE

LIMITATION
Expecting exactly 80/20
The principle is about concentration, not a fixed ratio. Flat distributions need other methods.