

INSIGHTS

# How to stabilize process quality before defects scale

In manufacturing, variation rarely announces itself all at once. It shows up first as small shifts in measurements, inconsistent outputs, rework, scrap, and growing pressure on inspectors and engineers. But when measurement data is collected manually or reviewed too late, teams lose the chance to respond before defects spread. Minitab helps manufacturers move from reactive quality management to live process control by connecting shop floor data, tracking stability in real time, and giving teams earlier warning when performance begins to drift.

[Learn more](#) 

[See our impact in manufacturing](#) 

## COMMON PAIN POINTS

- 1 Variation is detected too late
- 2 Data trapped in disconnected systems or spreadsheets
- 3 Capability and quality reporting takes too much manual effort
- 4 Teams rely on pass/fail checks instead of understanding process behavior

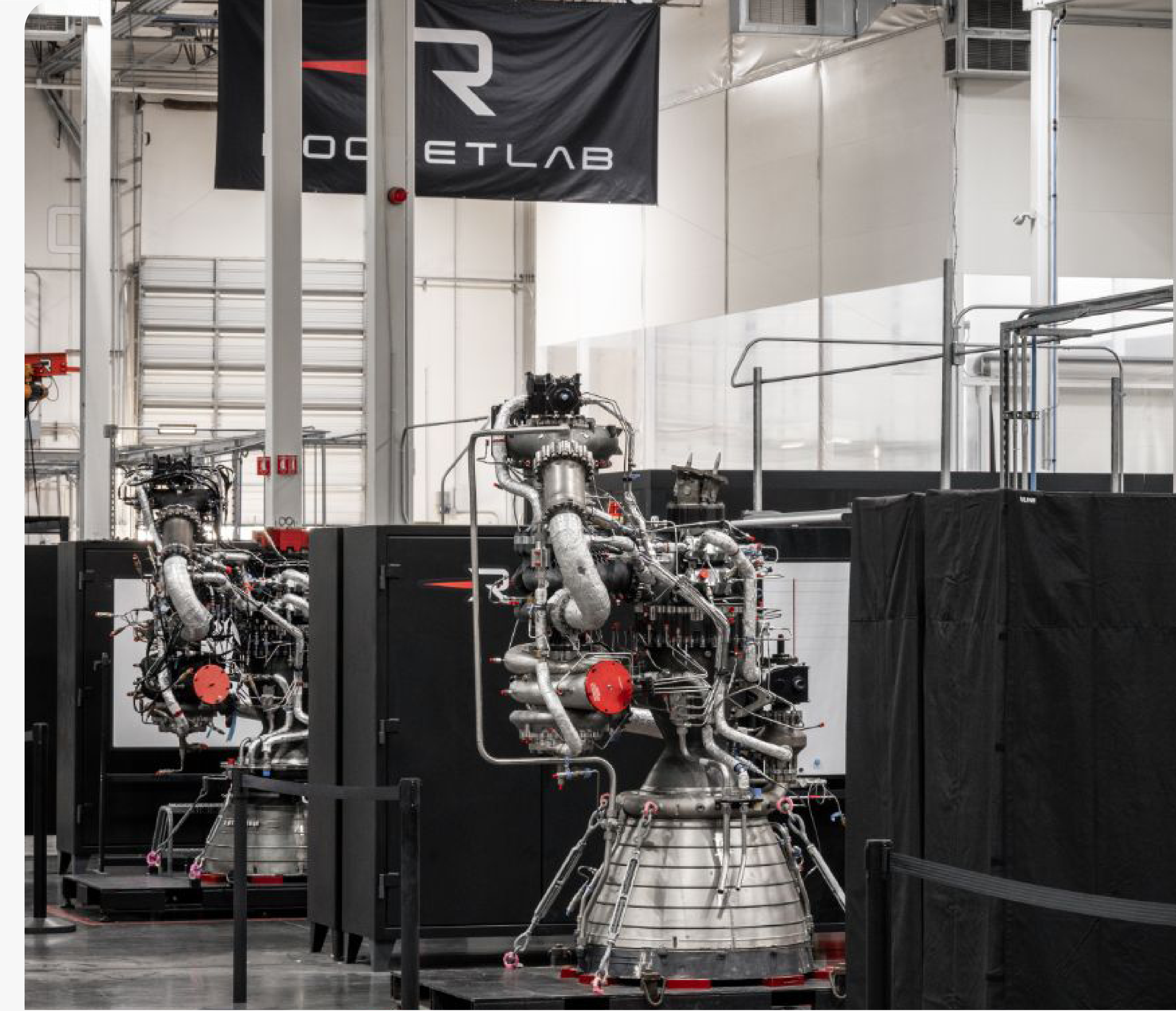


# How Tech Manufacturing boosted machine utilization by 15% with DataXchange

Tech Manufacturing runs a demanding aerospace operation. They're creating low volume, high mix aerospace parts—and some of them take over 100 hours to make. Their target was 65% in-cycle time, but without real floor visibility, that number was hard to chase. They came to DataXchange for simple, affordable machine monitoring. What they got was a platform they've grown with for over a decade, using real-time data to cut non-value-added time, lower cost per part, and win new business.

## MINITAB'S IMPACT

- 1 Monitored legacy and modern CNC equipment in one platform.
- 2 Real-time visibility into machine status and downtime for the entire org.
- 3 Tech Manufacturing offered transparent optional auditing as a customer add-on.



**15%** increase in machine utilization.

**65%** in-cycle target hit without adding new machinery.

**10+ years** of use on 14 machines at two license levels.

[Read the case study](#) 

INSIGHTS

# How to improve downtime and improve shop floor visibility

Manufacturers are under pressure to increase throughput, protect margins, and respond faster to disruptions, but too many production decisions are still made with incomplete or delayed data. Machine performance, downtime, measurement data, and process signals often live in separate systems, which makes it hard to see what is happening now, understand what is driving losses, or act before performance slips. That's where Minitab comes in. Our platform helps manufacturers connect real-time shop floor data to quality and operational decision-making so teams can monitor performance, catch issues earlier, and improve with greater confidence.

Learn more



See our impact in manufacturing



## COMMON PAIN POINTS

Downtime causes tracked inconsistently

1

Manual data collection slows response time

2

Quality issues are found after production has already drifted

3

Operations and quality teams lack a shared real-time view of what needs attention

4



# How Anheuser-Busch InBev reduced changeover downtime and improved efficiency

As product variety increased across its operations, Anheuser-Busch InBev faced rising planned downtime tied to production setup and brand changeovers. Using Minitab as part of a structured improvement effort, the team analyzed the drivers behind downtime, identified where losses were accumulating, and built an approach that not only reduced downtime and cost, but also created a model that could be replicated more broadly.

## MINITAB'S IMPACT

- 1 Exposed the true costs of unplanned downtime
- 2 Collected data automatically from shop floor systems
- 3 Detected process drift early with live SPC charts, alerts, and rules
- 4 Gave the team confidence to deploy a local fix into across 180+ facilities.



**34%** reduction in planned downtime.

**\$430k** saved through the improvement effort.

**180+** facilities worldwide now using this approach.

[Read the case study](#) 

INSIGHTS

# How to find bottlenecks before you buy more capacity

When manufacturers miss their throughput target, most will throw more labor, equipment, or line speed at the problem. In reality, that tends to just move the bottleneck—instead of actually fixing it. The trouble is: static reports and averages can't show you how a production system actually behaves minute to minute. Minitab combines real-time operating data with simulation so you can find the actual constraint, test fixes safely, and make smarter capacity calls before changing anything on the floor.

Learn more



See our impact in manufacturing



## COMMON PAIN POINTS

- 1 Bottlenecks hidden by averages and local metrics
- 2 Capacity decisions made without seeing downstream impact
- 3 Staffing and schedule changes create new constraints elsewhere
- 4 Capital requests are approved before existing capacity is fully understood



# How Fiat Chrysler increased revenue by \$1M per day with Simul8 by Minitab

When Fiat Chrysler's Brampton Assembly plant was tasked with ramping production up by 39 units a day ahead of a new model launch, the margin for error was thin. Instead of testing costly physical changes on the line, their simulation team built a digital twin of the plant in Simul8 and used real factory floor data to pinpoint exactly which two stations were creating bottlenecks. They ran trials until the path to target was clear, and after fixing the bottlenecks they had \$1M in daily revenue back on the table.

## MINITAB'S IMPACT

- 1** Built a digital twin of the Brampton plant with live data
- 2** Identified and ranked bottleneck lines so the team could prioritize fixes
- 3** Ran iterative trials to validate improvements before touching the physical line



**\$1M**

in additional daily revenue generated without increasing factory costs.

**39 extra units**

produced per day after simulation-driven optimization.

**4 process bottlenecks**

identified and removed using digital simulation in Minitab.

[Read the case study](#) 

# TALK TO US



## Build your next breakthrough

Whether you're an enterprise manufacturer or a one-location shop, we can help you monitor your factory and get full value from your data.

[Explore our services](#) 

**+300K**  
global Minitab users across  
all industries.

**+30K**  
companies powered by  
insights in Minitab.

**+50**  
years of trust in  
healthcare and beyond.