

COMPOSITE PROCESS CONTROL DIAGNOSTIC

HOW WELL DO YOU REALLY UNDERSTAND & CONTROL YOUR MANUFACTURING PROCESS?

Follow the pathway to identify where greater process understanding, visibility or control could strengthen your manufacturing capability.



UNDERSTAND



SEE



INTERPRET



CONTROL



TRANSFER



OPTIMISE

1



UNDERSTAND

Do you have a clear, evidence-based understanding of the variables that have the greatest influence on your manufacturing process?

YES

NOT CONSISTENTLY

2



SEE

Can you see what is happening at critical points within the process during manufacture?

YES

NOT CONSISTENTLY

3



INTERPRET

Can you use the data you collect to understand process behaviour and support engineering decisions?

YES

NOT CONSISTENTLY

4



CONTROL

When a critical process condition moves away from what is expected, can you actively manage it during manufacture?

YES

NOT CONSISTENTLY

5



TRANSFER

Could your process be transferred to another operator, production line or facility without significant reliance on individual expertise?

YES

NOT CONSISTENTLY

6



OPTIMISE

Is your process knowledge actively used to inform optimisation, automation and future manufacturing decisions?

YES

NOT CONSISTENTLY



ADVANCED PROCESS CONTROL CAPABILITY

Your process-control foundations are well established. Use that capability to support continued optimisation, industrialisation, automation and innovation.



PROCESS UNDERSTANDING

Build a stronger understanding of what drives your process.

Consider whether critical variables, their interactions and acceptable processing conditions have been established through evidence rather than experience alone.

Explore:

Critical variables
Process characterisation
Processing windows
Development trials



PROCESS VISIBILITY

See how the process is actually behaving, not simply what the equipment is doing. Greater in-process visibility can help you understand how the manufacturing process itself is responding.

Explore:

In-mould sensing
Pressure
Flow
Temperature



DATA & PROCESS KNOWLEDGE

Turn manufacturing data into useful engineering knowledge. Capturing more data isn't the objective. The opportunity is identifying meaningful information, understanding relationships and establishing what expected process behaviour looks like.

Explore:

Process signatures
Cycle comparison
Trends
Root-cause analysis



PROCESS CONTROL

Move from seeing what's happening, to managing what happens next. Monitoring tells you what's happening. Control determines what happens next. The opportunity is to apply the appropriate level of control to the conditions that matter.

Explore:

Process limits
Control strategies
Feedback control
Automated response



MANUFACTURING RESILIENCE

Make process knowledge repeatable and transferable. A controlled process should not depend entirely on who is running it or where it is being manufactured.

Explore:

Standardisation
Knowledge transfer
Process replication
Operator dependency



FUTURE CAPABILITY

Use process knowledge to make better decisions about what comes next. Established process understanding can provide the evidence needed to make informed decisions about optimisation, automation, capacity and future manufacturing technology.

Explore:

Automation
Scale-up
Technology investment
Manufacturing strategy

IDENTIFIED AN AREA WORTH EXPLORING?

Greater process control doesn't necessarily mean more sensors, more data or more automation. It starts with understanding what matters, making it visible, and applying the appropriate level of control.

TALK TO OUR
ENGINEERING TEAM