

FROM MACHINE TO ACTION IN 8 WEEKS

Drastically Reduce the Change-Format Elapsed Time in Ball Bearings Production

► THE CHALLENGE:

SKF ball bearings are available in various cross sections and satisfy a wide variety of operating conditions and performance requirements.

SKF's Cassino, Italy plant required more flexibility in implementing the change format activities (averaging 150 variants per day) during ball bearings production.

► THE SOLUTION:

DAC enabled line 5 in Cassino to create an end-to-end IIoT solution to collect the data, configure the change-format requirements from a mobile device and change the status of each machine's resetting (grease, seal, radial clearance, marking, etc.) without human intervention. DAC also correlated this activity with available Gantt and paperless production plans.

*"In 8 weeks we had developed connectivity for **PLCs of any age**, enabling us to develop the Change-Format application on line 5 and to start **automated data gathering**. It is now possible to manage the ball bearings **manufacturing process remotely**..."*

SKF Plant Manager, Cassino (IT)



8 Change-Formats per Day

55 Machines to Digitize

18 Machine Types

200 Input Variables

110 Output Actuations



The application will be hosted and deployed using AWS services available in SKF's VPN. The application leverages different AWS for the solution and DB hosting, and for IoT data ingestion management.

The solution architecture uses the following services: Lambda, RDS, AWS IoT, SQS and ECS.

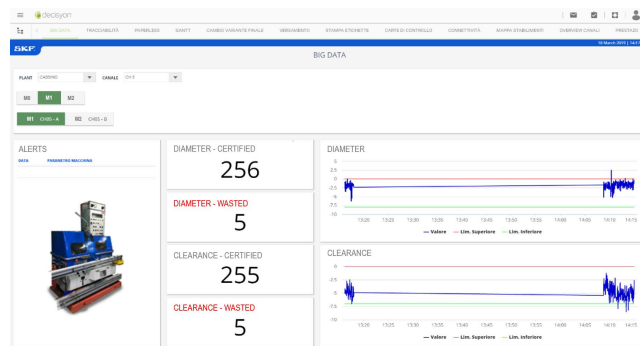
AN END-TO-END IIoT SOLUTION

"...The responsive UI/UX interface as well as the strong actionable capabilities to set up the machine have been a plus for the success of this project... Now we can control the Change-Format process from production planning to machine setting on a mobile device..."

IT Manager-Manufacturing, Cassino Plant

OVERALL BENEFITS

**Less Than 2 Months
To Start Measuring
Operational Results**



- SAFETY** ----- *Almost zero manual intervention*
- QUALITY** ----- *Less risk of human error*
- DELIVERY** ----- *Higher accuracy in planning follow-up*
- COMPETITIVENESS** ----- *Higher process stability & monitoring*

SAVINGS DRIVERS

- ▶ OEE increase
- ▶ Elapsed time reduction
- ▶ FTEs re-allocation
- ▶ Energy reduction
- ▶ Waste reduction

NEXT STEPS: Run the application in **12 channels in Cassino**; ramp up **Plants WW**; and use Decisyon App Composer to **create other manufacturing apps**.

Learn more about Decisyon App Composer™ for AWS:

<https://www.decisyon.com/decisyon-app-composer-for-aws/>