

MaccionOEE

Real-time efficiency monitoring

Maccion Lean Solutions, S.L.

TECHNICAL DEFINITION

DT002-2024/2

17/09/2024

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1. THE OPPORTUNITY

Our customers can control and improve the processes WO their production system:

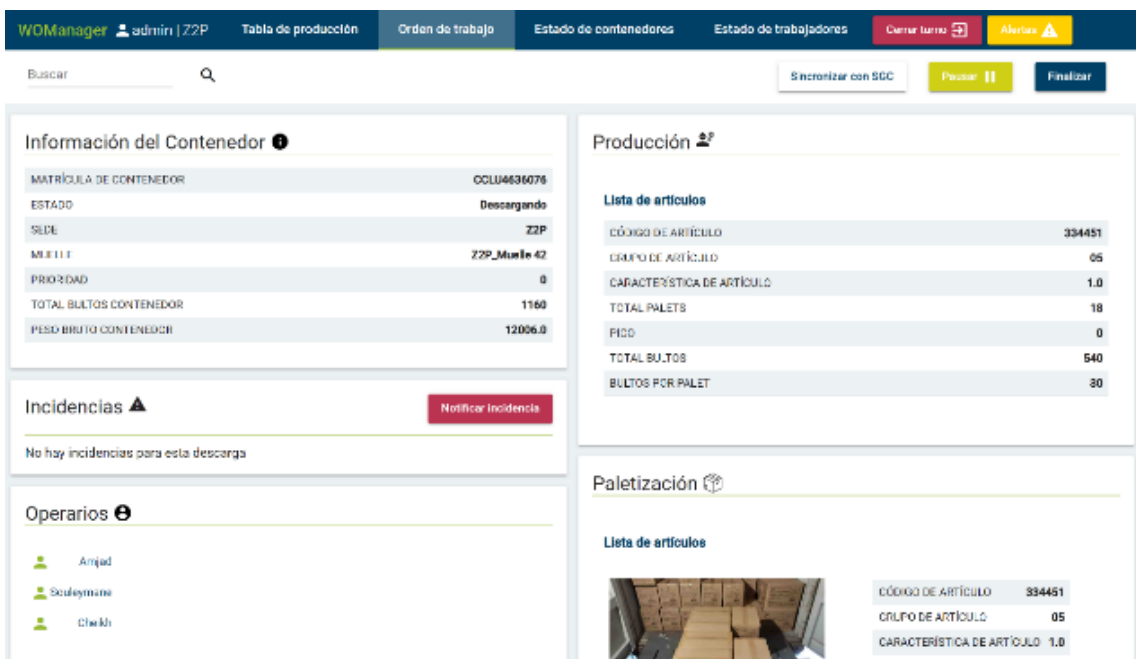
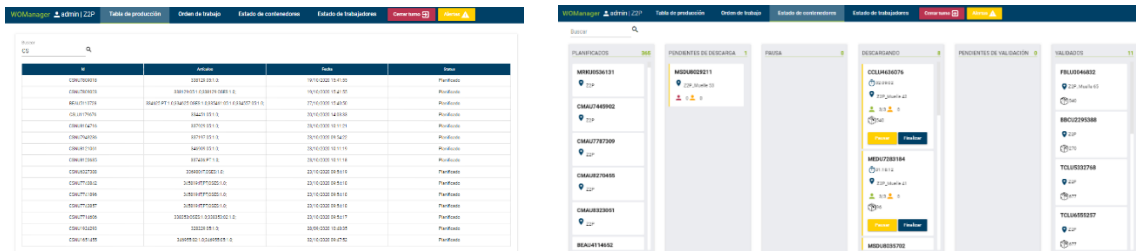
- ✓ Monitor **the status WO each production order** in real time
- ✓ Facilitate day-to-day planning WO the production plant
- ✓ Monitor **and control** the execution through devices in the plant (tablets or smartphones)
- ✓ Have the **tools to analyze** the KPIs WO interest. OEE, reasons for stopping, not qualities, etc.



2. TECHNICAL DEFINITION

We base the system architecture on the following layers and functionalities:

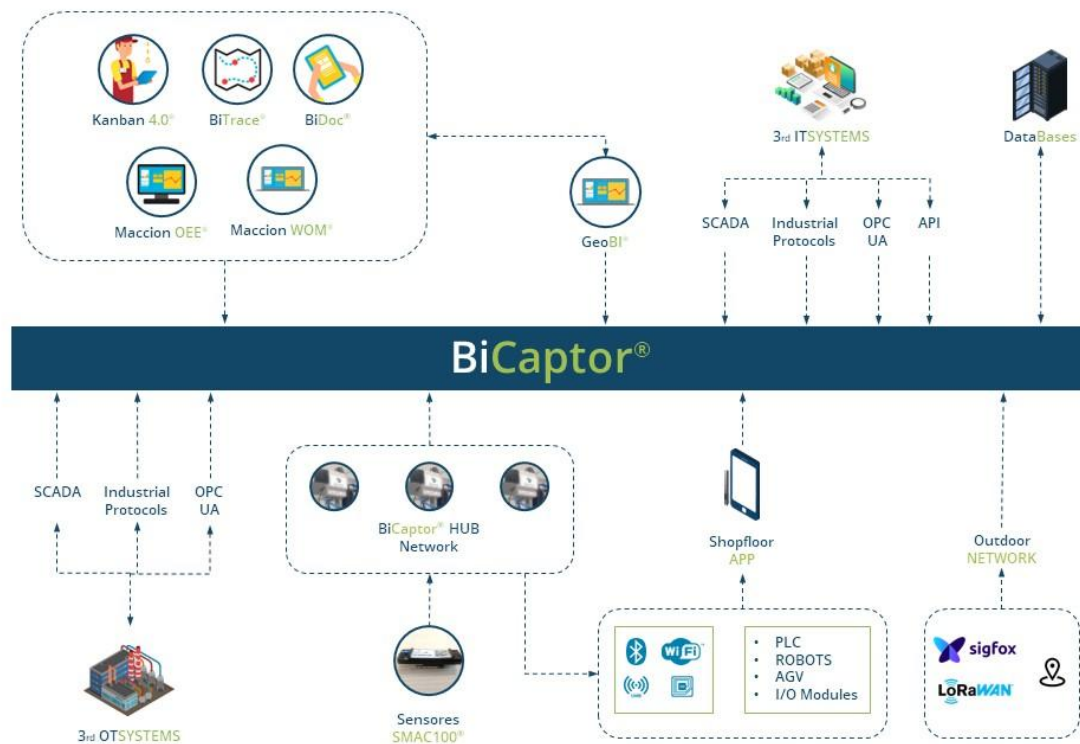
- **Bicaptor** – Acquisition and management WO plant data
- (APP) **WOM** 'Work Order Manager'
 - o Production Planner
 - o Control WO execution by plant managers and/or operators
- (APP) **OEE**
 - o Capture and monitor machine status in real time
 - o KPI calculation engine
 - o Standard KPI analysis tools (charts, databases, and CSVs)
- The tailor-made application
 - o **ERP Integration**
 - o **Tailor-made views** for KPI analysis



BiCaptor Architecture: <https://www.maccion.com/captacion-de-datos>



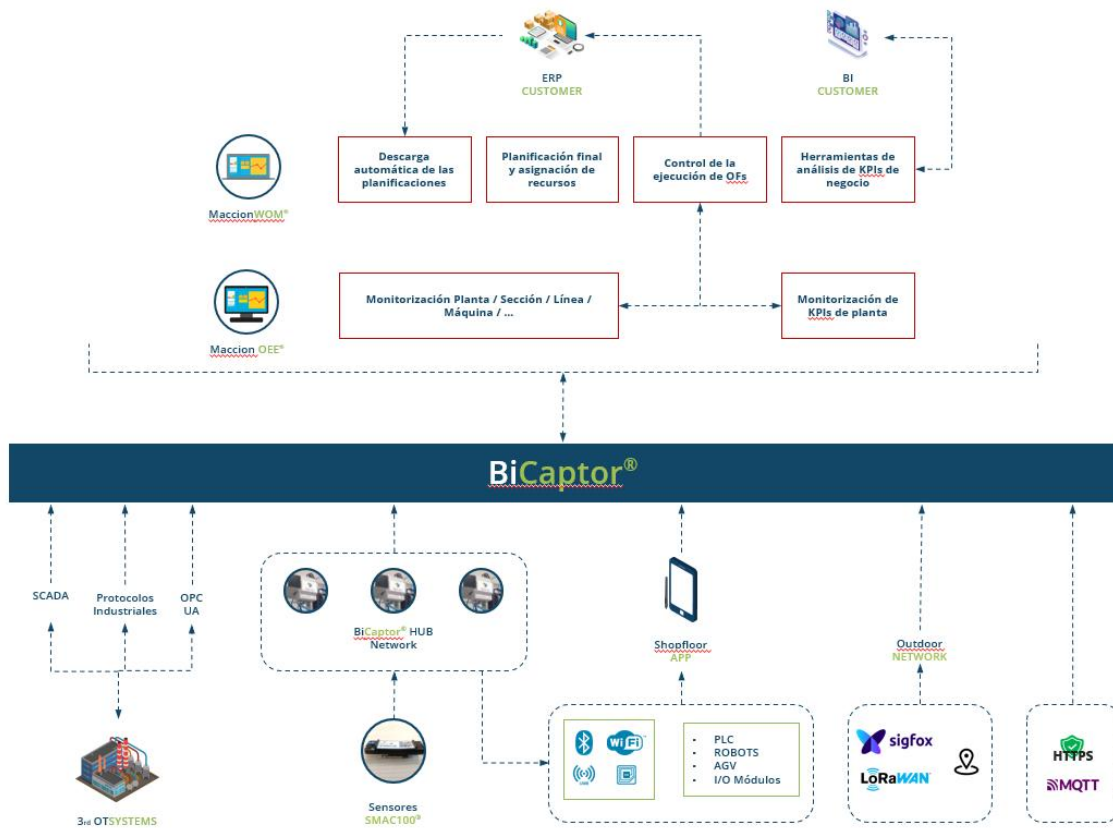
- More reliable, flexible and scalable data capture
- Consolidation WO all sensor and actuator information
- Real-time WO things
- Analytics tools for continuous improvement
- Ability to integrate with new systems and the most advanced technologies
- Possibility WO developing tailor-made value management systems



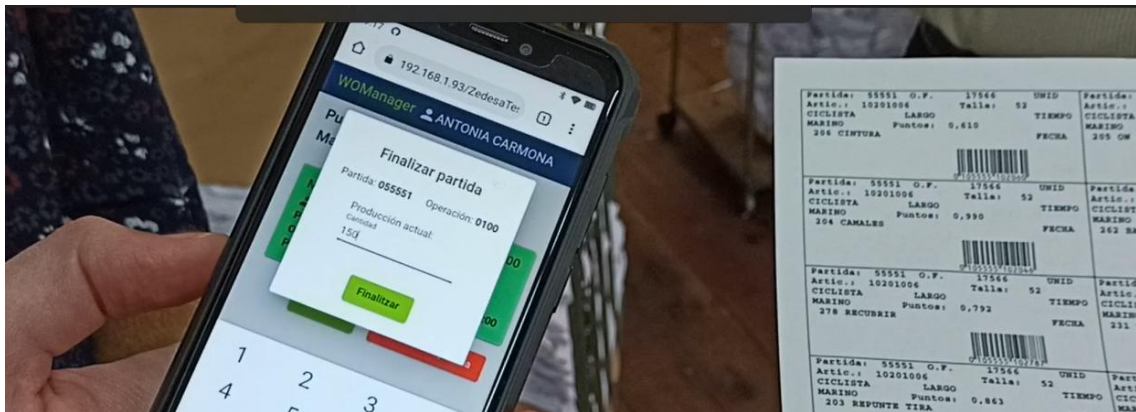
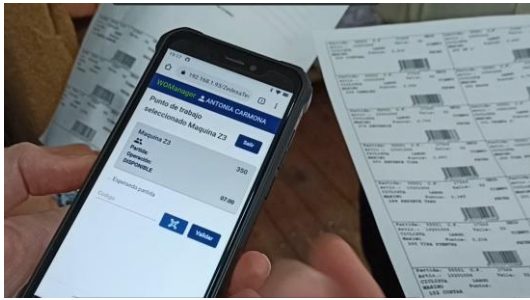
<https://www.maccion.com/captacion-de-datos/>

- Improvement WO production and logistics processes.
- Permanent connection to Management Systems.
- Data storage in a secure and flexible architecture.
- Integration WO Business Intelligence tools to analyze business value information.
- Control with machines/SCADA and APPs for operators and managers.
- Integration WO SMAC100 smart sensors and/or other advanced technologies.

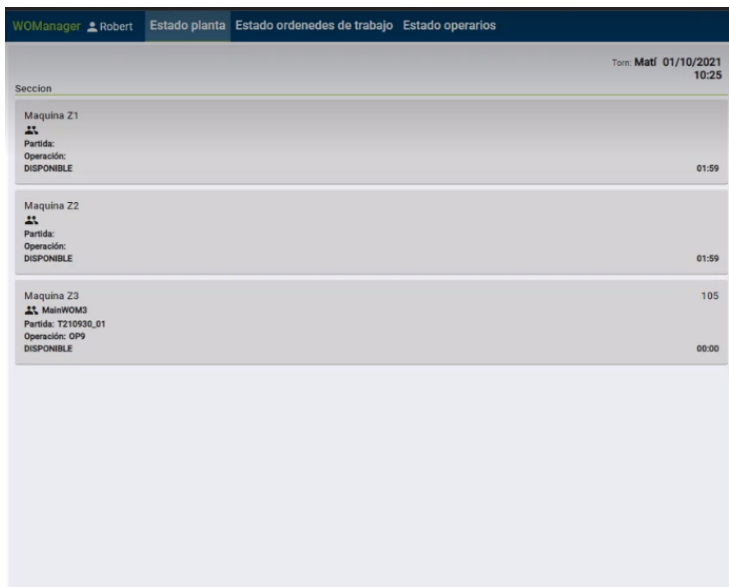
2.1. SOLUTION ARCHITECTURE



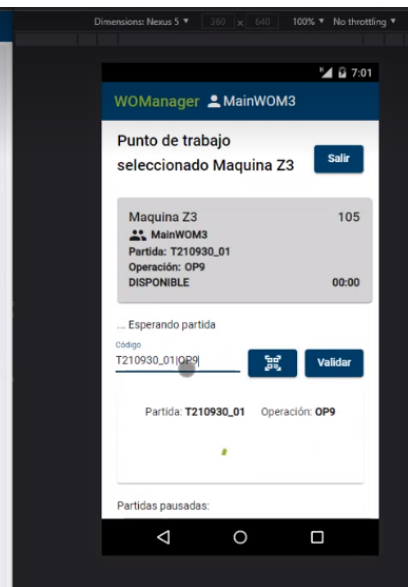
2.2. FEATURES AND MAIN VIEWS



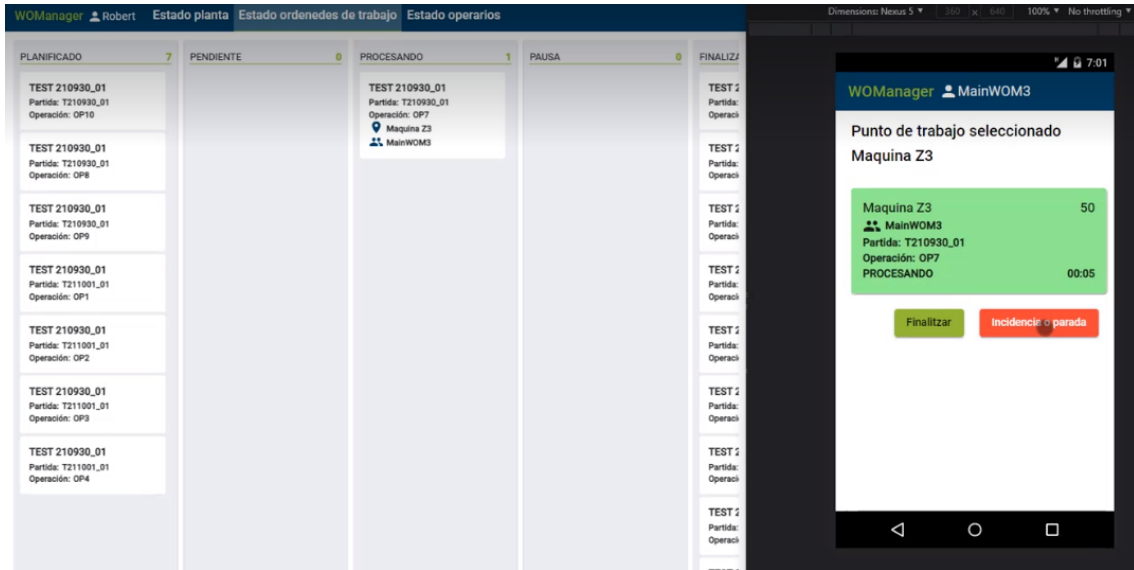
WOM. 2D Code, Datamatrix or OCR reading. Presence control and detection WO WOs



WOM. Plant status by section and machine

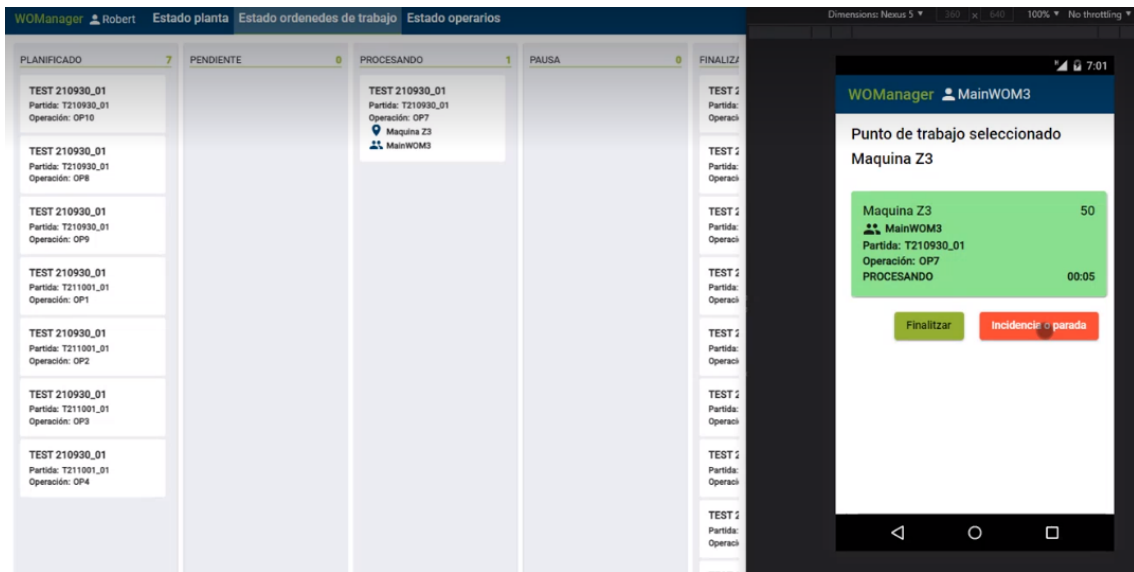


WOM. Smartphone Operator View



WOM. Plant status according to the status WO the WOs

WOM. Operator view to manage WOs



OEE. Custom floor plans

Sub línia: T65A

T65A Detall

Filtres per data 10/04/2021 09:29 – 10/05/2021 09:29 ↕

Rang de dates: 4/10/2021 9:29 – 5/10/2021 9:29 Planificat

Estats: Producció Planificació OEE

Planificacions per torn

Dia	Torn	Material	Ordre de producció	Operari	Des de	Fins	Total(h)
05/10/2021	Mañana	358850071	99612	Viki	05/10/2021 06:01:16	05/10/2021 07:01:00	1.00
04/10/2021	Noche	358850071	99612	Viki	04/10/2021 22:01:25	05/10/2021 06:01:16	8.00
04/10/2021	Tarde	358850071	99612	Viki	04/10/2021 22:01:22	04/10/2021 22:01:25	0.00
04/10/2021	Tarde	358850071	99612	Lourdes N	04/10/2021 14:00:53	04/10/2021 22:01:22	8.01
04/10/2021	Mañana	358850071	99612	Lourdes N	04/10/2021 07:00:56	04/10/2021 14:00:53	7.00
04/10/2021	Mañana	358850071	99612	Viki	04/10/2021 06:00:42	04/10/2021 07:00:55	1.00

OEE. Planning records. Detail or exportable to CSV

Sub línia: T65A

T65A Detall

Filtres per data 10/04/2021 09:29 – 10/05/2021 09:29 ↕

Rang de dates: 4/10/2021 9:29 – 5/10/2021 9:29 Planificat

Estats: Producció Planificació OEE

Producció per torn

Dia	Torn	Material	Ordre de producció	Operari	Metros	Reversos(Metros)	Scraps(Metros)	Des de	Fins	Total(h)
05/10/2021	Mañana	358850071	99612	Viki	19.76	0	0	05/10/2021 06:01:17	05/10/2021 07:01:00	1.00
04/10/2021	Noche	358850071	99612	Viki	154.66	0	0	04/10/2021 22:01:25	05/10/2021 06:01:16	8.00

Production records. Detail or exportable to CSV

OEE admin Inici Registres Planificació Detall sub línia Dashboards

Sub línia T65A

Filtres per data 10/04/2021 09:29 – 10/05/2021 09:29

Filtres per torn

Estats Producció Planificació OEE

Estats Manuels No hi ha registres Generar estat manual

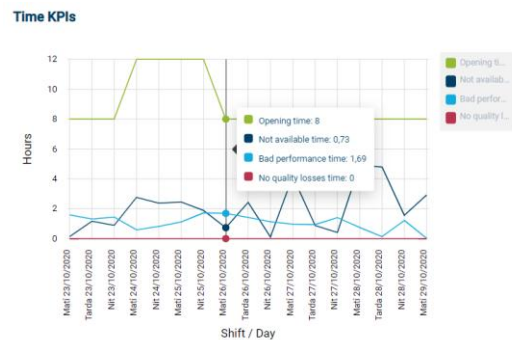
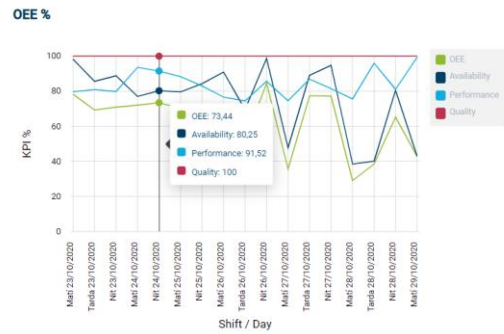
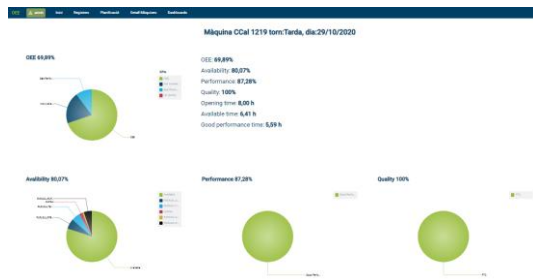
Estats Automàtics

Dia	Torn	Material	Ordre de producció	Operari	Estat	Causa	Des de	Fins	Total(h)	vuites	Minuts	
04/10/2021	Noche	358850071	99612	Viki	MARCHA		04/10/2021 22:01:25	05/10/2021 04:02:28	6,02	309	117,42	
04/10/2021	Tarde	358850071	99612	Viki	MARCHA		04/10/2021 22:01:22	04/10/2021 22:01:25	0,00	0	0	
04/10/2021	Tarde	358850071	99612	Lourdes N	MARCHA		04/10/2021 14:00:53	04/10/2021 22:01:22	8,01	440	167,2	
04/10/2021	Mañana	358850071	99612	Lourdes N	MARCHA		04/10/2021 12:57:26	04/10/2021 14:00:53	1,06	56	21,28	
04/10/2021	Mañana	358850071	99612	Lourdes N	MARCHA		04/10/2021 12:48:15	04/10/2021 12:57:26	0,15	2	0,76	
04/10/2021	Mañana	358850071	99612	Lourdes N	PARO		04/10/2021 12:38:14	04/10/2021 12:48:15	0,17	0	0	

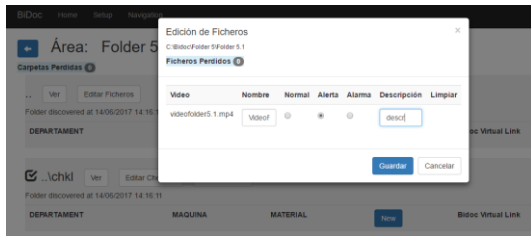
Resultat

Dia	Torn	Material	Ordre de producció	Operari	Estat	Causa	Des de	Fins	Total(h)	vuites	Minuts	
04/10/2021	Noche	358850071	99612	Viki	PARO		04/10/2021 04:02:28	04/10/2021 04:02:28	0,00	0	0	

Records WO stoppages and not qualities. Calculations WO OEE and other KPIs. Detail or exportable to CSV



Graphical tools for visualizing the most common KPIs

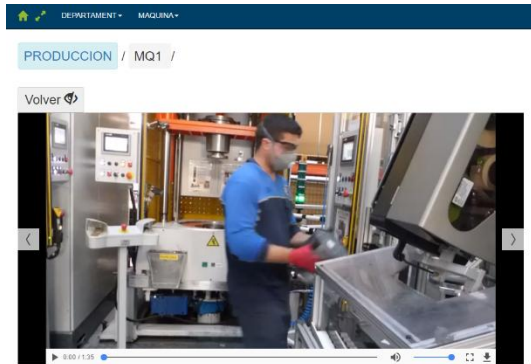


ESTACIÓN DE TRABAJO 1

Orden de Fabricación actual: OF501212320

Departamento: PRODUCCIÓN

Método inicio de producción	25/10/2016 Versión 1 de documento Autor: Ingeniería		VER
Método cambio de referencia	25/10/2016 Secuencia de imágenes Autor: Ingeniería		VER
Instrucción de producción	25/10/2016 Video de instrucción Autor: Métodos		VER



Linking with intelligent documentation to the workplace.
Insertion WO PDF, 3D, Images, Videos...

Checklist AM STF COMAS

Tareas de mantenimiento STF COMAS
Frecuencia: Diario

Empezar Salir

Pasos:

Paso	Necesario	Nombre	Temporalidad	Última realización	Último resultado	Operario
1	<input checked="" type="checkbox"/>	Limpieza Zona	Daily	2017/06/19 14:30:24	✓	Jose
2	<input checked="" type="checkbox"/>	Limpieza Calibradora	Daily	2017/06/19 14:30:27	✓	Jose
3	<input checked="" type="checkbox"/>	Inspección Gomas	Daily	2017/06/19 14:32:32	✗	Manuel
4	<input checked="" type="checkbox"/>	Inspección Presión	Always	2017/06/19 14:32:37	✓	Manuel

Últimos Registros:

Operario	Inicio	Final	✓	✗
Manuel	2017/06/19 14:32:26	2017/06/19 14:32:46	1	1
Jose	2017/06/19 14:30:18	2017/06/19 14:32:13	3	0

Checklist AM STF COMAS

Tareas de mantenimiento STF COMAS
Frecuencia: Diario

1: Limpieza Zona 6s ✓

2: Limpieza Calibradora 9s ✓

3: Inspección Gomas ?
Inspeccionar el estado de las gomas de las pinzas

↶ ⊘
↷ ⊘

4: Inspección Presión ?

Resultados de la Checklist numero 3 Hecha por Pau

Guardar resultados

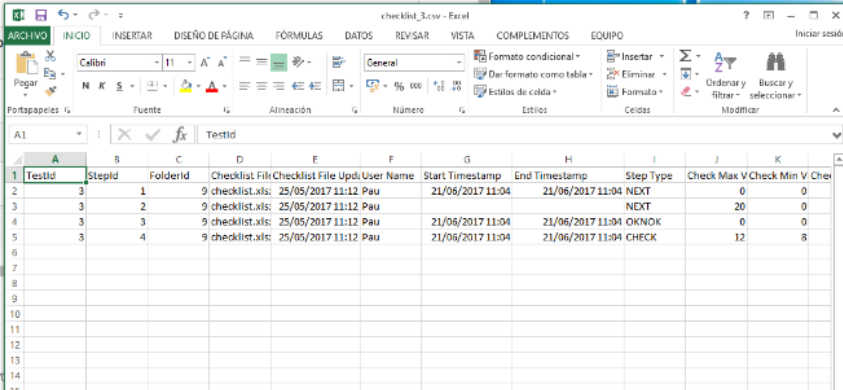
Estado: 3 / 4

Pasados: 2 ✓ Fallados: 1 ✗ Rechazados: 1 ● Forzados: 0 ⌚

Resultados de los pasos:

Paso	Completado	Pasado	Resultado
1	True	True	
2	False	False	
3	True	False	
4	True	True	10

Comentario:
Comentario de Pau
hecho desde 21/06/2017 11:04



Checklists before and after executing phases in a WO or before entering and exiting a shift.

3. ABOUT US

Maccion is an engineering company that implements **4.0 solutions** to improve your processes. We implement the most advanced technologies and have the vision and expertise in industrial organization techniques. Since our inception, we have accompanied companies in the different phases WO implementation WO digital transformation projects to **"feel and manage the business in real time"** with a good **roadmap** for the short and long term from **transparency** and **proximity**.

4. LINKS WO INTEREST

- <https://www.maccion.com/eficiencia/>
- <https://www.maccion.com/docs/Proximitat.pdf>

5. EDIT AND EDIT CONTROL

EDITION	DATE	AUTHOR	MODIFICATIONS
02	02/02/2023	Pere Rovira	New template application
03	17/09/2024	E.O	Rev.

6. CONTACT

Pau Feliu
 Technology Manager
p.feliu@maccion.com
 (+34) 648 69 36 40

Robert Figueroa
 Technical Manager
r.figueroa@maccion.com
 (+34) 621 215 831

C/ Josep Uró, 1, 08253 Sant Salvador de Guardiola (Barcelona)
www.maccion.com

MACCION LEAN SOLUTIONS

Josep Uró Street, Pol. Ind. Salelles II

08253 Sant Salvador de Guardiola (Barcelona)

T. +34 93 874 48 40 - F. +34 93 877 01 05

info@maccion.com

www.maccion.com