



CONCRETE EVOLUTION

FROM FINLAND

FOR CUSTOMERS SUCCESS

MEC Inspections is developed according to customer needs. It combines decades of experience in manufacturing and maintenance of production lines and continuous communication with customers. The report of inspection gives important information and backup for production manager in planning maintenances and production as well as for the head of investments in foresight upcoming updates and equipment investments.

With Inspection, you will gain a comprehensive understanding of the current state of your production equipments, maintenance needs, critical components and production efficiency. Information about the condition and availability of spare parts and components is crucial to ensure continuous and uninterrupted production.

MEC Inspection is intended for all concrete product production lines, regardless of the manufacturer. We provide the report within two weeks of the inspection. The report is available in Finnish or English.



CONTENT

Automation & Electric Inspection

Mechanical Inspection

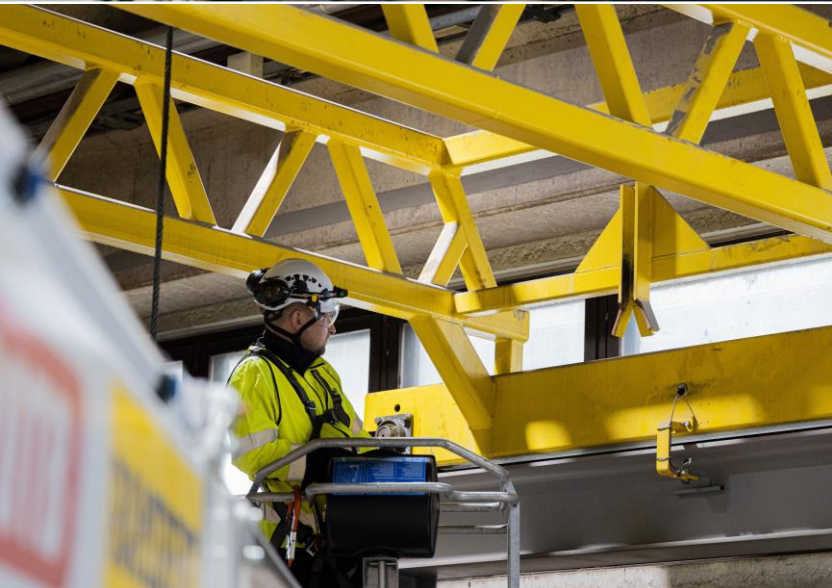
Mold Inspection

Inspection Report & Efficiency Comparison

Contact

AUTOMATION & ELECTRIC INSPECTION

- 🦋 Live or remote meeting before the inspection:
Gathering basic data of the production line, users, products, tools, etc.
- 🦋 On-site inspection of automation and electric parts
- 🦋 Contains over 100 checkpoints
- 🦋 Management & operator interviews during inspection
- 🦋 Safety observations
- 🦋 Evaluation of the current state of the control systems and the need for updating
- 🦋 A Follow-up meeting after report delivery



MECHANICAL INSPECTION

- Live or remote meeting before the inspection: Basic data of the production line, users, products, tools etc.
- On-site inspection of mechanical-, spare- and structural parts
- Contains over 300 checkpoints
- Management & operator interviews during inspection
- Safety observations
- Evaluation of needed updates and maintenance needs
- A Follow-up meeting after report delivery



MOLD INSPECTION

- Remote meeting before the inspection: Basic data of molds.
- On-site inspection of molds, measuring and collecting data
- A list of molds
- Report of spare and wear part situation, maintenance need and plan to keep correct mold availability continuous
- A Follow-up meeting after report delivery
- Available only with mechanical inspection

MEC 140 Evolution-20 tuotantolinjan tuotantomäärä määräytyy tuotantosykleistä. Tuotantosykli on laskettu 20 sekunnin kiertoaajasta, joka kerrottu 80 %, josta tulee 24 sekuntia. Tuotealuslevy koko 1400x700 mm, jossa tuotepinta-alaa noin 20 % enemmän ja tällöin tuotemäärä voidaan saada taulukon lukemien.

Kuivaamon kapasiteetti aluslevyllä 1200x650 mm on 4200 kpl. 1400x700 mm aluslevyllä kuivaamon kapasiteetti putoaisi 3990 kappaleeseen mutta aluslevyjen hyötöpinta-ala kasvaisi kuivaamossa 600 neliometriä. Kuivaamon ajaminen täyteen kahdessa vuorossa (16 tuntia) tarkoittaisi 249 aluslevyn ajamista tunnissa.

Alla kuvaaja kulutus- varaosakustannuksista vuosittain 6 vuoden ajalta. Kuluvana vuonna varaosiin mennyt noin 20 tuhatta euroa.



EFFICIENCY COMPARISON - TEHOKKUUS VERTAILU					
	Vanha MEC 120 tuotantolinja				Uusi MEC 140 Tuotantolinja
	2019	2020	2021	2022	MEC Evolution-20
SÄHKÖN KULUTUS MWh / VUOSI	165	165	165		149
SÄHKÖN KULUTUS kWh / VRK	700-800	700-800	700-800		675
KULUTUS- JA VARAOSA-KUSTANNUKSET € / VUOSI	65651,6	41193,15	43632	20742	10000
HUOLTOKUSTANNUKSET (€)	30000	30000	30000		10000
SEISONTA-AIKA TUNTIA	133	109	108		50
TUOTANTOAIKA KUUKAUTTA / VUOSI	10	10	10		10
TUOTANTOSYKLEJÄ / TUNTI	117	105	98		144
TUOTANTOMÄÄRÄ ISKUA / VUOSI	395380	357464	334621		499680
TUOTEMÄÄRÄ / VUOSI	3953800	3574640	3346210		5996160
KUSTANNUS € / kpl	0,030	0,027	0,029		0,007

Sähkönkulutus vuoteen laskettu käyttäen 10 kuukauden tuotantoaika.

Tuotantosykli vuoteen laskettu (iskua / vuosi) / ((22 vrk/kk) * 10 kk * (16 h/vrk)- Seisonta-aika h)

Kustannus €/kpl laskettu (sähkönkulutus/vuosi * 0,15 €/kWh + varaosakustannukset + huoltokustannukset) / tuotemäärällä. Tuotemääränä käytetty 10 tuotetta per aluslevy.

INSPECTION REPORT & EFFICIENCY COMPARISON

Content of the report:

- Spare part situation and availability
- Current state of inspected parts and pictures
- Safety evaluation
- Maintenance need evaluation
- Risk analysis

When choosing both, mechanical and electric inspection, we provide efficiency comparison free of charge, containing comparison between current production line in use and new MEC evolution-20 product machine

V0 Mec Inspections - Mechanical English - Product Machine

	Amount	Ok	Not ok	N.A.	Av. Score	
Total	122	97	89%	12	11%	13
Product machine, General	6	5	83%	1	17%	0
Product machine, Plate lift / Disk tray	9	8	89%	1	11%	0
Product machine, Vibration unit	21	19	90%	2	10%	0
Product machine, Pallet feeder	9	9	100%	0	0%	0
Product machine, Core pulling equipment	9	0	0%	0	0%	9
Product machine, Height adjustment unit	5	4	80%	1	20%	0
Product machine, Mold/Tamper	33	27	84%	5	16%	1
Product machine, Mass unit	12	10	83%	2	17%	0
Product machine, Filling car	18	15	100%	0	0%	3

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**TO KEEP YOU UPDATED
WITH MEC INSPECTIONS**

