BROCHURE



# CEREXIO PRODUCTION YIELD OPTIMISER SYSTEM

The Cerexio Production Yield Optimiser System enters the manufacturing domain as an innovative and strategic method for optimising the quantity and quality of production while simultaneously reducing waste and inefficiencies in its process using Industry 4.0 digitalised capabilities.

Presenting this Al-driven end-to-end solution maximises the utilisation of extruders, chemicals, raw materials, and processes to achieve the highest possible yield with available resources.



# **KEY HIGHLIGHTS**

# Quality and Quantity-Centric Magnified Resource Utilisation with Cerexio

Our system is a comprehensive digital luminosity to assist in sidestepping the risks, waste, and inefficiencies extensively under one dashboard. It integrates all aspects into a cohesive interface, providing a comprehensive visualisation of the production landscape while enhancing the production framework and maintaining an environmentally friendly footprint on the industrial map.



# AI-POWERED END-TO-END VISIBILITY

Cerexio Production Yield Optimiser System flawlessly couples with AI to consolidate every facet of the production line into a unified dashboard, serving as a digital tool for informed decision-making, risk management, and efficient utilisation of manufacturing components.



# MAGNIFIED QUALITY AND QUANTITY

Cerexio solution analyses various production parameters in real-time, identifying potential deviations and optimising the manufacturing process to guarantee the consistent and efficient utilisation of raw materials to meet specified quality standards while maximising yield.



# SMART TRACKING FOR UNDER PERFORMANCES

Cerexio Production Yield Optimiser System, equipped with advanced sensors and a laser-embedded tracking system to enhance the manufacturing domain by promptly identifying underperforming elements via Laser tools, RFID tags, barcode scanners, and IoT, ultimately encouraging proactive measures.



# INDUSTRY 4.0 SUSTAINABILITY PROMISE

Our sophisticated solution is integrated with a diverse range of Industry 4.0 technologies, such as IoT, Digital Twin, AI, Hadoop Ecosystem, and GIS, to ensure that manufacturing businesses are adhering to the manufacturing environmental promises.



# SMART ENGINEERING FRAMEWORK

Our solution excels in innovation by seamlessly integrating with cutting-edge technologies such as PLC, ML, process simulation, DRL, IoT, and Edge computing to enhance design and engineering frameworks via sophisticated real-time analysis, predictive modelling, and adaptive decision-making.



# VIRTUAL SNEAK PEEK WITH DIGITAL TWIN

Cerexio system offers an end-to-end perspective extracting the capabilities of Digital Twin. This comprehensive visibility supports virtual prototyping, collaborative design, real-time process optimisation, and performance monitoring, providing a dynamic platform with heightened transparency and traceability.

#### CEREXIO PRODUCTION YIELD OPTIMISER SYSTEM MODULES

# The Production-Centric Paramount Output, Extraction of Underlying Values, and Powerful Insights: Cerexio Production Yield Optimiser System

The Cerexio Production Yield Optimiser System paves the path for superior production quality and quantity with a collaborative accessibility platform in the manufacturing realm to unmatched competitive heights through the pinnacle of Industry 4.0 technology. The Cerexio Solution empowers unparalleled control over yield investigation, planning, and design enhancement, utilising this comprehensive optimisation grandstand.

#### **Accurate and Reliable Insights**



Utilising cutting-edge ML algorithms and advanced analytics driven by Industry 4.0 digital capabilities, our Cerexio solution delivers precise insights into manufacturing processes by analysing production performance data and pinpointing weaknesses and areas for enhancement to achieve peak levels of yield.

#### Adherence to the Sustainability Promise



This solution aids manufacturers in putting more weight on their sustainability goals through the robust capabilities of Industry 4.0. Cerexio encourages optimising resource efficiency, controlling waste, and managing energy consumption to build a more eco-conscious manufacturing ecosystem.

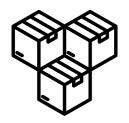
#### **Al-Driven Diverse Manufacturing**



Cerexio lays a path based on AI models to collect data on diverse production elements such as raw materials, chemicals, extruders, machinery, and systems while gathering them into a unified screen in order to achieve maximum yield levels under the single screen.

#### **CEREXIO PRODUCTION YIELD OPTIMISER SYSTEM MODULES**





Cerexio Production Yield Optimiser System utilises Industry 4.0-backed sophisticated algorithms, integrated sensors, and laser tracking devices, such as RFID scanners and IoT-enabled devices, to continuously provide detailed, uninterrupted reports on batch-wise production, ensuring an effective batch process framework.

#### **Concentrated Quality Control**



Cerexio empowers manufacturers to dynamically adjust control parameters using advanced algorithms to guarantee optimal production yield, maintain quality standards, and minimise waste. By swiftly detecting deviations, our system sends timely notifications to the concerned parties, facilitating accurate and flexible adjustments.

#### **Pinnacle of System Integration**



Coupling with robust Industry 4.0 capabilities, the Cerexio system is a technological pinnacle, seamlessly integrating with current and future manufacturing systems. Its advanced features make it flexible for effortlessly aligning with existing and prospective systems within the manufacturing domain.

#### **Remote Production Dominance**



Offering controlled access to authorised users, Cerexio's solution encourages remote monitoring and management of manufacturing processes from any location, consolidating control through a unified platform. Our system ensures seamless yield operations, allowing authorised users to stay connected in real-time.

#### **CEREXIO PRODUCTION ORDER MANAGEMENT SYSTEM MODULES**

#### **Uninterrupted Data Streaming via IoT**



Cerexio solution is integrated into manufacturing processes and embedded IoT sensors capture real-time data, providing unprecedented insights in real-time. Our system efficiently processes this information, eliminating challenges related to latency or inaccuracies through the power of 5G-backed-up IoT strength.

#### **Virtual Representations of Processes**



This Cerexio solution is fueled by Digital Twin technology, it can offer a proactive approach to yield optimisation. It extends support by allowing a virtual exploration of optimisation initiatives before implementation in the real world, saving time and money.



DID YOU KNOW THAT CEREXIO PRODUCTION
YIELD OPTIMISER SYSTEM ENCAPSULATES 10+
INDUSTRY 4.0 DIGITAL CAPABILITIES TO
FACILITATE 25+ INDUSTRIES AROUND THE
GLOBE VIA A SINGLE CONSOLIDATED
FRAMEWORK?

# BENEFITS

# Gain the Maximum Benefit of Each Element via the Best Yield Optimising Technology 4.0

Utilise the powerful integration with Industry 4.0 digital capabilities and the smart features of Cerexio Production Yield Optimiser System in order to acquire the best essence of each manufacturing element under a singular vision. Our solution is enriched with various strengths to offer a magnified outcome through this fusion of technologies. The following are some of this solution's primary characteristics:



#### **DESIGN TO EXECUTION**

Cerexio solution functions as a resilient yield management tool that oversees every facet of the manufacturing process, encompassing design, planning, and dynamic adjustments for optimal yield optimisation, offering end-to-end visibility across the entire production lifecycle.



# GUARANTEE PRODUCT QUALITY

Smartly embedded Digital Twin technology integration in the Cerexio solution ensures product quality by conducting thorough analysis and emulation. Creating virtual replicas of the manufacturing environment, Digital Twin meticulously compares them with the actual production processes efficiently.



# OFFERING CUSTOMISED PRODUCTION

incorporating IoT and intelligent technologies, the Cerexio solution customises production processes to align with individualised demands in the dynamic market. Ιt systematically evaluates customer requirements and dynamically adjusts parameters for personalised outputs.



#### **GLOBAL ACCESSIBILITY**

Our Cerexio system provides worldwide access through its versatile compatibility with web and mobile platforms. As the solution is enriched with 5G connections, Hadoop, Middleware, and IoT, it exhibits high adaptability, being compatible with Android, Windows, and Mac.



#### MARKING A GREEN DOT

This empowers optimal management of raw materials, reducing unnecessary consumption, and fostering ethical sourcing through the capabilities of Industry 4.0 while assisting manufacturing companies in responsibly steering towards a greener tomorrow.



# OPTIMAL RESOURCE ALLOCATION

Our solution walks down a methodical path to evaluate production variables to ensure the strategic allocation of resources, including raw materials, energy, and machinery, by optimising the utilisation of key resources and offering optimal production.

# **INDUSTRIES**

Cerexio Production Yield Optimiser System is a sophisticated digital arm that leverages the true essence of Industry 4.0 to gain the optimal value of raw materials, extruders, and systems focusing on the best quality and quantity in the manufacturing industry. With Cerexio's digital strengths and high levels of adaptability, we cater to over 50 industrial domains, attaining unmatched yield in their production framework. Here are the top-most industries that use this solution:

- Aerospace
- Automotive
- Chemical
- Consumer Goods
- Electronics

- Food and Beverage
- Healthcare
- Logistics and Distribution
- Pharmaceutical
- Textile

# **CONTACT US**

Don't Hesitate to Get in Touch With Us for Further Clarification or to Book a Demo This Week. The Contact Particulars of Our Company Are as Below:

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