MARKOLASER®
Solutions

TURNKEY SOLUTIONS

TRACEABILITY
(RFID & DPM)

GUI (CUSTOM)

IOT READY

LASER

ALL SOLUTIONS
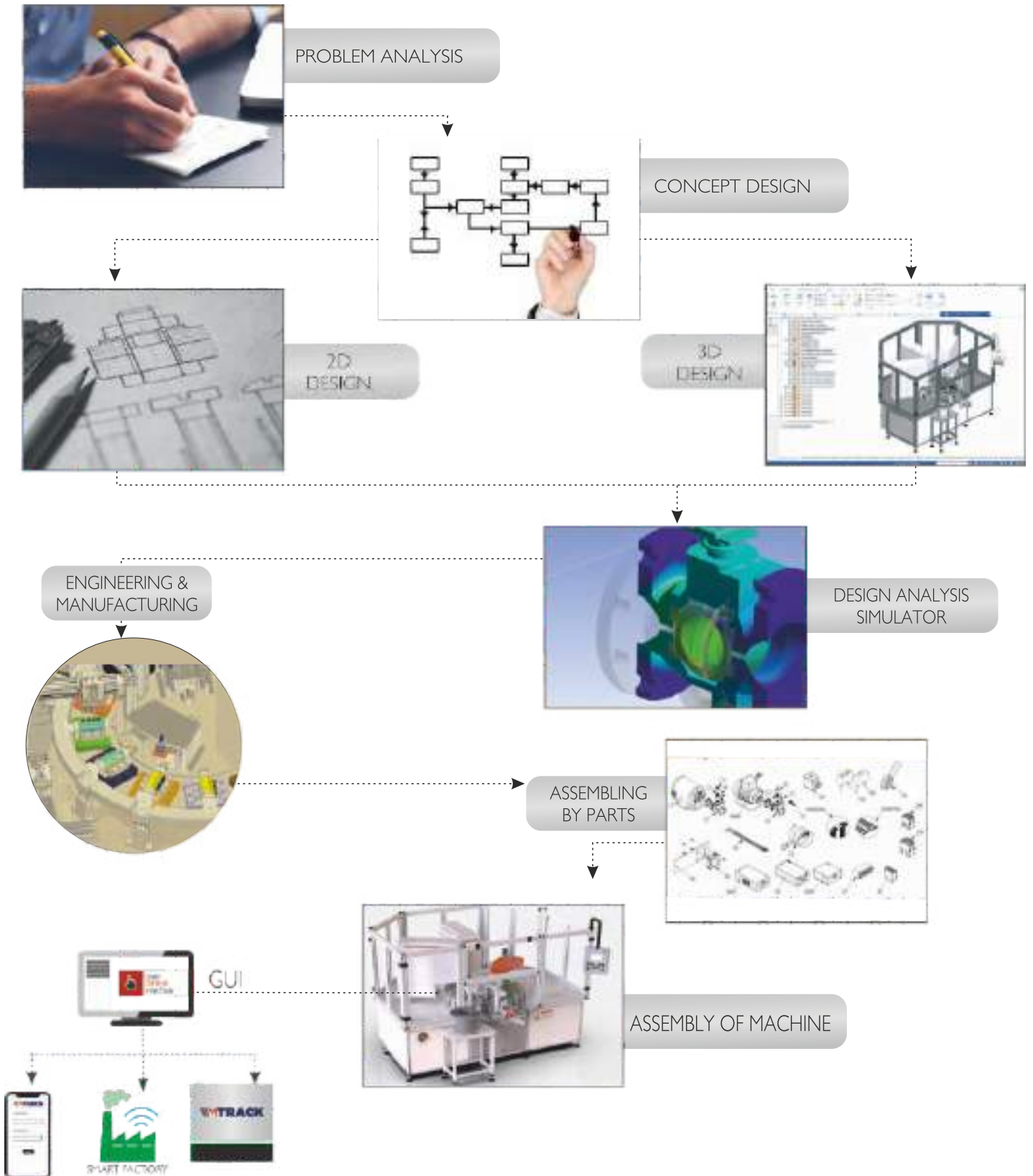## UNDER ONE ROOF

SAP
ORACLE
SQL Server

SMART FACTORY SOLUTIONS
Moving towards intelligent industrialization

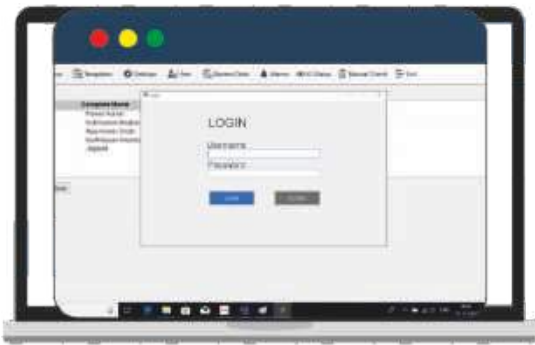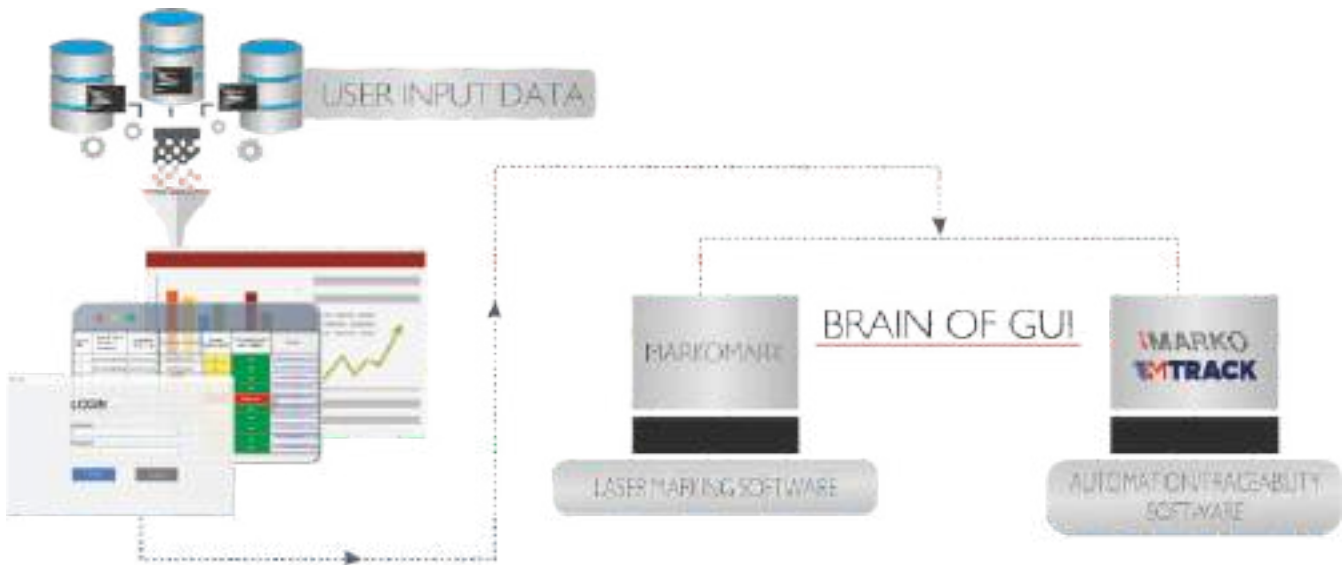# CUSTOM MADE AUTOMATIONS-FROM DESIGN TO MANUFACTURING

for Marking, Printing, Traceability, Vision, Quality Inspection & Special Applications including development of special user control & intelligent interface, ready for IIOT & this helps in saving downtime, increasing efficiency, controlling rejects, reducing energy, improving machine health & preventive maintenance. Lastly and most importantly networking with other machines in agile environment.

PROBLEM ANALYSIS

CONCEPT DESIGN

2D DESIGN

3D DESIGN

ENGINEERING & MANUFACTURING

DESIGN ANALYSIS SIMULATOR

ASSEMBLING BY PARTS

GUI

ASSEMBLY OF MACHINE

SMART FACTORY

We do not " Reinvent the Wheel ", we use the best technologies from

SATO SIEMENS   Schneider Electric   SICK Sensor Intelligence.   BANNER   SCHMERSAL   ZEBRA   ORIGINAL TAMPOPRINT Germany

MARKOLASER Solutions   ABB ROBOTS   mhp   WEISS   iMARKO   MTRACK   SCANLAB   ■ and many others

FLEXIBLE USER CONTROL INTERFACE & IIOT READY CUSTOMIZED SOFTWARE

USER INPUT DATA

BRAIN OF GUI

MARKOMARK
LASER MARKING SOFTWARE

MARKO EMTRACK
AUTOMATION/TRACEABILITY SOFTWARE

LOGIN

Administration level & Authenticity

Various access levels can be set for operators, plant heads, retailers, vendors, etc. Unique login can be created for added security for different levels of data to be accessed.

Traceability

Generating code and serializing the products, components, processes, materials & sub parts across the hierarchical flow.
Marking with laser (DPM) or RFID according to situation and condition helps in data collection and updation to the server database/cloud for all levels like lot no., unit id, date, time. etc.
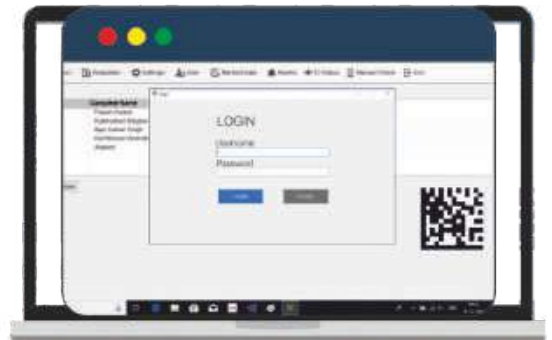
Quality Inspection

The quality of unique code marked can be scanned and the grade can be updated to the server if laser marking is done. Managing and tracking the equipment and tools for inspection and the collected data can be integrated to the cloud.

Sensor Control Interface

Sensor Control Portal gives us a facility to monitor the parameters that we need to activate so that we can get an alarm if there is any emergency.

Analysis

Intelligent sensors in combination with marko-controller and **MTRACK** makes it possible to collect and monitor the data of components and machines or system in real time. For example, temperature, power and vibration.

With the analysed data we will be able to correct the error and help in reducing the consumption of energy due to fault occurred in the system.

COGNEX

Vision System Integration

Vision Inspection Portal helps in integration of vision system for vision measurement and color etc. To identify any type of flaw for right inspection and segregation, the integrated vision system helps in easy analysis of production performance.

Automation Operation

Automation portal provide us a clear visualization for automation. For better automation the value of x,y,z axis can be set manually. The integrated sensor help in adjusting x,y,z values of moving parts.

Flexible Customizable Portal

We provide our clients the flexibility and an open platform where any amount of data can be updated against the unique code and can be managed. The data can be later updated to the server/database/cloud.
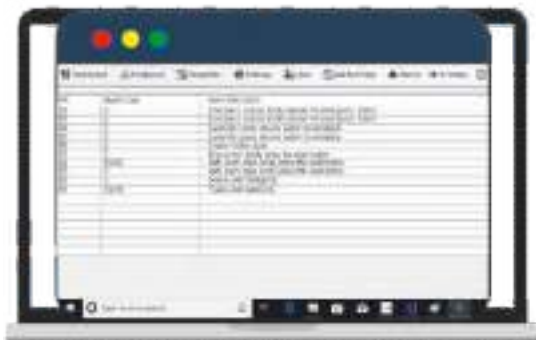
Alarm/Event Management

The custom command can be set according to the requirements related to production. For example, threshold can be set according to the quality of marking, production outputs & alerts can be auto sent via email & sms.

Reports Generation

The system provides us the ability to generate reports which contain all the critical data. The data is further used for analysis of all the different processes and the conditions.

CUSTOM MADE TRACEABILITY SOLUTIONS

In recent times, many industries have implemented traceability in their factories for optimizing their supply chain.
We at MARKOLASER provide complete solutions, including tracing & tracking of component from start to end in the supply chain (Part Genealogy).
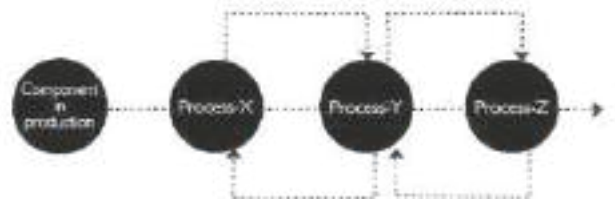

TYPES OF TRACEABILITY

Traceability means the ability to trace. There are many ways to understand the concept of traceability, so we can classify them as field traceability and indoor traceability. Field traceability means examining and monitoring the flow of components among all the companies and then to customer. Whereas indoor traceability means monitoring the manufacturing process within a company. The marking of 2D code helps in adding very important data in very less space.

FIELD TRACEABILITY

It is a type of traceability in which customer can monitor the complete process from source to where it is shipped.

INDOOR TRACEABILITY

It is a type of traceability in which all the manufacturing processes can be monitored within the manufacturing unit.

N.B. Markolaser reserves the right to change the design to upgrade the technology from time to time.
*Optional Items: Custom Made

Logos & Artworks Shown are Property of Respective Companies

TRACEABILITY SOLUTIONS

▶▶◀ AERONAUTICAL

▶▶◀ AUTOMOTIVE

▶▶◀ ELECTRONIC/ ELECTRICAL

▶▶◀ FMCG

▶▶◀ MEDICAL

LASER
+
AUTOMATION
+
SOFTWARE
=
MARKOLASER
Solutions

CUSTOM USER INTERFACE

XYZ123

Custom App

+ IIOT Sensors

DPM

COGNEX
Read & Grade

We Follow DPM & Label Code Quality Standards							
ISO/IEC	ISO/IEC	ISO/IEC	ISO/IEC	DOD	SAE	FDA	FDA
TR 29158	TR 24720	16022	15415	UID	AS9132	GS1	CFR21

3 AXIS TRACEABILITY LASER MACHINE

3x MARKO laser marking head is well equipped with a Cognex 2D code reader inside the head. The 3 axis marking and reading processes both are possible with the same device. A lot of space and processing time will be saved as a result, it will reduce the production cost and increase the efficiency

3 Axis Laser Marker

Smart Vision Light

Vision Camera
(Reader & Scanner)

MTRACK
Custom Traceability Software

Compatible Laser Types

UV	GREEN
FIBER	IR

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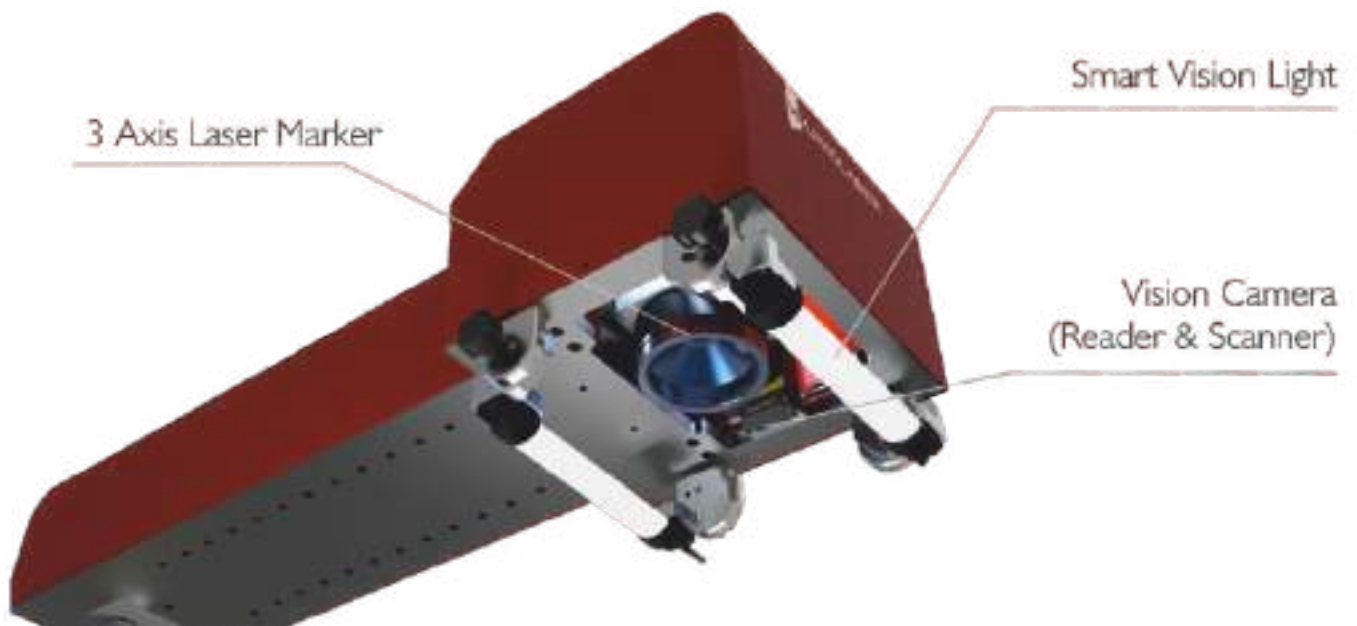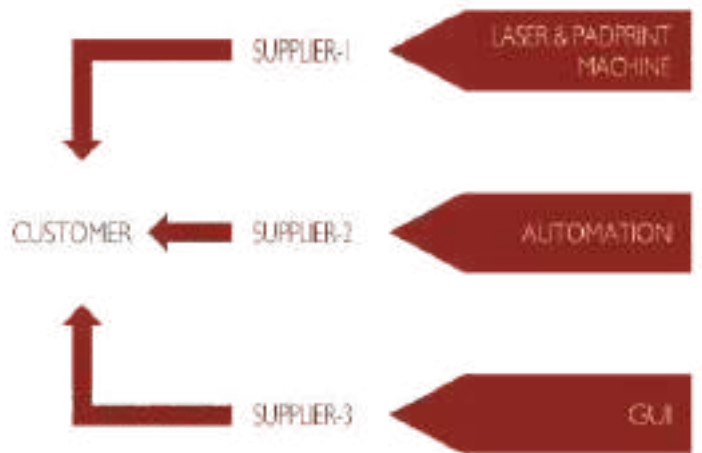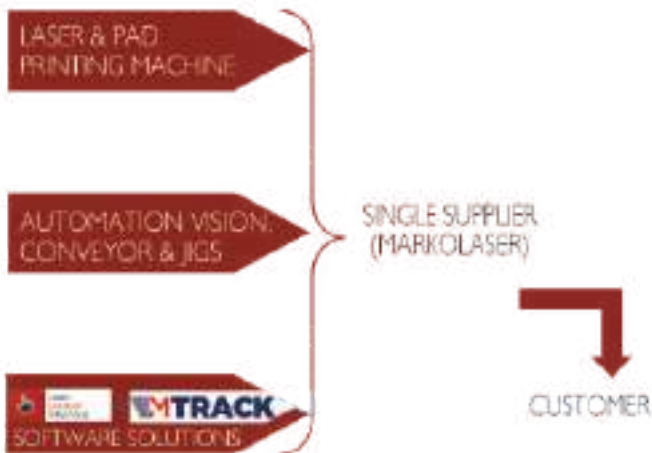
EXAMPLES OF TRACEABILITY

Decrease in product recalls	Improved brand reputation	Optimizes supply chain	Eliminates theft & counterfeiting	Reduce warranty claim costs & saves money

Medical instrument

UDI Marking on medical part

Medical implants

Gear assembly

DPM on tools

Electrical Contactor

All solutions at one place

MARKOLASER Solutions

OTHERS

LASER & PAD PRINTING MACHINE

AUTOMATION VISION, CONVEYOR & JIGS

TRACK SOFTWARE SOLUTIONS

SINGLE SUPPLIER (MARKOLASER)

CUSTOMER

SUPPLIER-1 — LASER & PADPRINT MACHINE

CUSTOMER — SUPPLIER-2 — AUTOMATION

SUPPLIER-3 — GUI

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LASER KLASSE 4
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Gem./According to
DIN EN 60825-1:2008-05

ISO 9001 : 2008

FDA COMPLIANT

FQC

ISO 14001:2018
COMPLIANT

ISO 9001

CE COMPLIANT