Data is the basis for all future technologies, especially mechanical engineering and its aftersales business will benefit from it in the future. The lack of standards currently tend to lead to uncertainty on the market and make it difficult for industry to make rapid progress. However, the opportunities are just as great, if a simple system succeeds in convincing the customer and above all the internal departments of the advantages. And here, of course, data security must be guaranteed, not all of the product-critical and process-relevant data of a production the customer wants to "get out of hand". The fear of industrial espionage is a topic here as well as the competitive thinking of the companies among themselves. Industry 4.0 data evaluation for used machines using retrofit and "black box" technology for retrofitting machines and systems simply and effectively. With our technology you are fit for Industry 4.0 applications in your production.

The I.4.0 box is simply installed and the sensors, control and machine data lines are “connected”. The I.4.0 Box contains all components and an evaluation unit that is easy and simple to set up. The decentralized controller not only controls the processes, but also monitors the system at the same time. The previous experience: The data flow runs smoothly and securely for your data. Security concept:

• SSL encryption of the URL (https)
• VPN connection of the stations to the server
• Each user has their own access data with individual authorization levels The simplicity of the link system I.4.0 is so perfectly configured that All systems can be connected without having to intervene in the existing control system:
  • Telecontrol station also as a fully-fledged PLC - perfect-fit complete solution
  • IEC 61131-3 object-oriented PLC programming
  • Recognition in plant construction
  • Implementation of pump controls
  • Extension by WAGO I / O system
  • Fieldbus connection CANopen, PROFIBUS DP, Modbus-TCP / -UDP / -RTU
  • ETHERNET interfaces DHCP, DNS, NTP, FTP, SNMP and HTTP
  • IT security via SSH, HTTPS and FTPS, as well as encryption optionally via IPsec and VPN (SSL and SSH)
• Connection to DSL, GPRS, UMTS, LTE and much more

4.0 Box Link Control meets the requirements for cyber security in KRITIS applications. IoT communication is ensured via MQTT and an integrated IPsec encryption. Remote diagnostics are ensured by activating the programming software and have already proven themselves in the critical infrastructure. Using a SIM card, the data are then sent to a cloud and are immediately available ready for use there. This creates your "control center" for production without having to intervene in the control of the existing systems. Data security is guaranteed and has already been successfully tested in the infrastructure of waterworks. Switching frequency, interruptions and running times of machines

• Measured values of temperatures, pressures, speeds, current consumption, volume flow, immission values, etc., immediate reaction to deviations from the setpoint prevents machine damage

Quality Products, parameters of the process, setting data, production data such as times, numbers, weights, quantities, work progress, order status, feedback on job-related work performance with reference to individual work processes are eliminated immediately. Targeted evaluation of the malfunctions leads to the permanent elimination of weaknesses. All data are available in the "control center" or at any other location

• The rate of production downtimes is massively reduced.//The resources in the systems and processes can be used in a targeted manner.//More quality means higher yield, a lower complaint rate and happier customers.//The system actively supports the company policy to reduce costs. Methods accelerate the implementation and support a low-administration operation

Process flows must be clearly described and require a process plan, otherwise it is any process that is out of the question in modern production plants. Applications usually support the process of production, e.g. B. Software such as SAP or PLC programs. Resources are essential things like material, tools, knowledge, finances and last but not least the employees. Infrastructures are the production buildings, media supply and of course the machines and systems. Management of all processes and necessary work processes on the part of the management form a further focus. Operational maintenance is therefore the responsibility of I, the infrastructure. It provides the production with a functioning, cleaned, serviced and technically available machine / system. However, the restriction applies to the extent that maintenance can only guarantee the availability of the system required by management if a machine is suitable for loading and unloading. As a rule, maintenance has no
influence on the purchase of the right machines and systems, this decision is all too often made without the maintenance engineers having a say. Therefore, availability is always dependent on the technology provided, the efficiency of the manufacturing processes and the resources made available. The responsibility therefore does not lie solely with maintenance, but includes various parameters. Technical availability must be correlated with production availability

become. Maintenance can have a positive impact on availability by organizing your processes well and reacting quickly in the event of faults