

CLS-ENGINEERING OY

Professional solutions for different needs



Turn Key To Progress



CLS – ENGINEERING OY IN BRIEF

CLS – Engineering Oy operates in both Finnish and international markets as a service provider of demanding automation solutions. Our business facilities are located in Espoo, Rauma, Turku and Vaasa. Our determined and successful cooperation with customers started already in 1990.

Our portfolio covers high-quality services for increased productivity through consulting, design, manufacture and project management, and even total system deliveries.

Our ability to provide efficient and personal service to every individual customer is based on professional and motivated personnel that always put the customer's needs first. The starting point in all our deliveries is cost-effectiveness, adherence to delivery schedules and compliance with quality requirements, always selecting the mode of delivery best suited to the customer.

Our objective is to be the forerunner in the development of new design, manufacture and automation methods. The achievement of this objective is based on the knowhow we have accumulated over the years. Our services cover all the customer's needs regarding automation solutions or systems, starting with the determination of the investment need and product development, and ranging through the entire life cycle of the investment.

Total supplier of demanding automation solutions for Finnish and international markets



A cost-efficient project team consisting of our skilled designers and project management professionals is set up for each project paying attention to the special features of each project. This team is responsible for specifying the project requirements for implementation, scheduling and quality, naturally with the support of our entire vast experience and resources.

In addition to basic services, our versatile service portfolio includes many special areas of expertise as well as services transformed into products.

Our extensive cooperation network makes the wide-scale expertise of also our collaboration partners and component suppliers available to our customers.

We are ready to embrace the most demanding challenges. When about to launch a new project, contact us!



Satisfied customer is our best reference.

CLS – Engineering Oy services

Project management service

Our project management services cover the following subareas:

- Setting and verification of targets for project
- Verification of preliminary planning
- Preparation of tender invitation documents
- Implementation control
- Control and verification of commissioning and trial operation
- Verification of training
- Verification and inspection of documentation
- Verification of project acceptance
- Summary reports for project

Design services

We provide the following design services either incorporated into total deliveries or as part deliveries:

- Preliminary studies and plans for tender invitation documents
- Electrical and automation designs for industrial processes
- Building electrical design
- Layout plans
- Component specifications and parts lists
- Mechanical design services and modelling

Our design tools include e.g. Auto-Cad, EPlan and CADS.

Application programming

Our software expertise covers commonly acknowledged logic and automation systems, robot controls and control room software.

Examples of products and brands include ABB, Allen Bradley, Beckhoff, Citect, iFix, InTouch, Mitsubishi, Modicon, Omron, Phoenix, Siemens, WinCC, Wonderware.

We act as System or Solution Partners to the following international operators: Beijer Electronic, Klinkmann, Omron Electronics, Phoenix Contact, Schneider Electric, Siemens, Wonderware.

Application development

We can produce expert programs and interfaces for all types of systems, developed in programming languages supported in Windows platforms, such as .NET, Visual Studio C and Visual Basic. Special components for the customer's specific needs are designed flexibly and in collaboration with the customer's own experts. Our services also include database design and interfaces for upper level MES production control and reporting systems.



Our high-quality total deliveries can further increase the productivity of your processes.

Switchgear and control panel fabrication

We deliver automation, control switchgear and panels of different type. We also fabricate motor control centres and starters to both land and marine applications.

We only use globally established components of high quality.

Factory acceptance tests and operating trials are completed prior to delivery on all the switchgears and control panels fabricated by us.

Installation service and installation control

Our installation service and installation control service cover electrical and automation installations in all fields of industry. Electrical installations in marine applications are also part of the service portfolio. We also master the installation of building electrical systems, telephone, data, fire alarm and intrusion alarm systems. CLS – Engineering Oy has been granted an unlimited Group S1 Electrical Contractor Licence.

We provide also mechanical installation services.

Commissioning and training services

Our services encompass commissioning and operating trials of automation and robot systems both in Finland and abroad.

We provide training to the customer's personnel in the operation of the systems delivered by us as well as in the programming of e.g. PLC equipment.

Maintenance services

Our maintenance service packages are available both for systems delivered by us and for the customer's existing processes and plants.

Our maintenance services cover e.g. the following:

- Maintenance and servicing of automation systems
- Maintenance and servicing of field equipment
- Maintenance and servicing of robot systems

Key areas of operation



The products and solutions we have developed in our key areas of operation bring savings to the processes of our customers. Our solutions make it possible to improve the performance of the process and to enhance the quality of the products.

Energy industry

We have several years of experience in different types of energy industry projects.

Nuclear energy industry is one of the most demanding areas of our operation. This ensures that matters related to safety and safety systems are of extreme importance to us.

The service concept provided by us has been delivered to e.g. nuclear power plants, coal plants, diesel plants and biofuel plants.

Our experience in biofuel plants covers electricity, heating and steam power plants. We have developed flexible automation solution concepts, which can be easily utilised in plants of all types and capacities.

Marine industry

We have delivered many different kinds of electrical and automation solutions to the marine industry for e.g. propulsion, control, ventilation, power distribution and power plant applications.

We have also developed completely new products of our own for the needs of the marine industry.

Paper and pulp industry

We have implemented several demanding total automation and electrical system deliveries to paper and pulp industries.

The different processes at pulp and paper mills, such as chip storage areas, debarking plants, cooking departments, paper machines, slitter-winders, supercalenders, paper reel conveyor systems and paper storages are familiar to us.

We have developed an updating package for the automation and electrical drives of paper mill wind-ers. This package can prolong the life cycle of the equipment with several years.

The solutions we have developed in our key areas of operation bring savings to the processes of our customers.



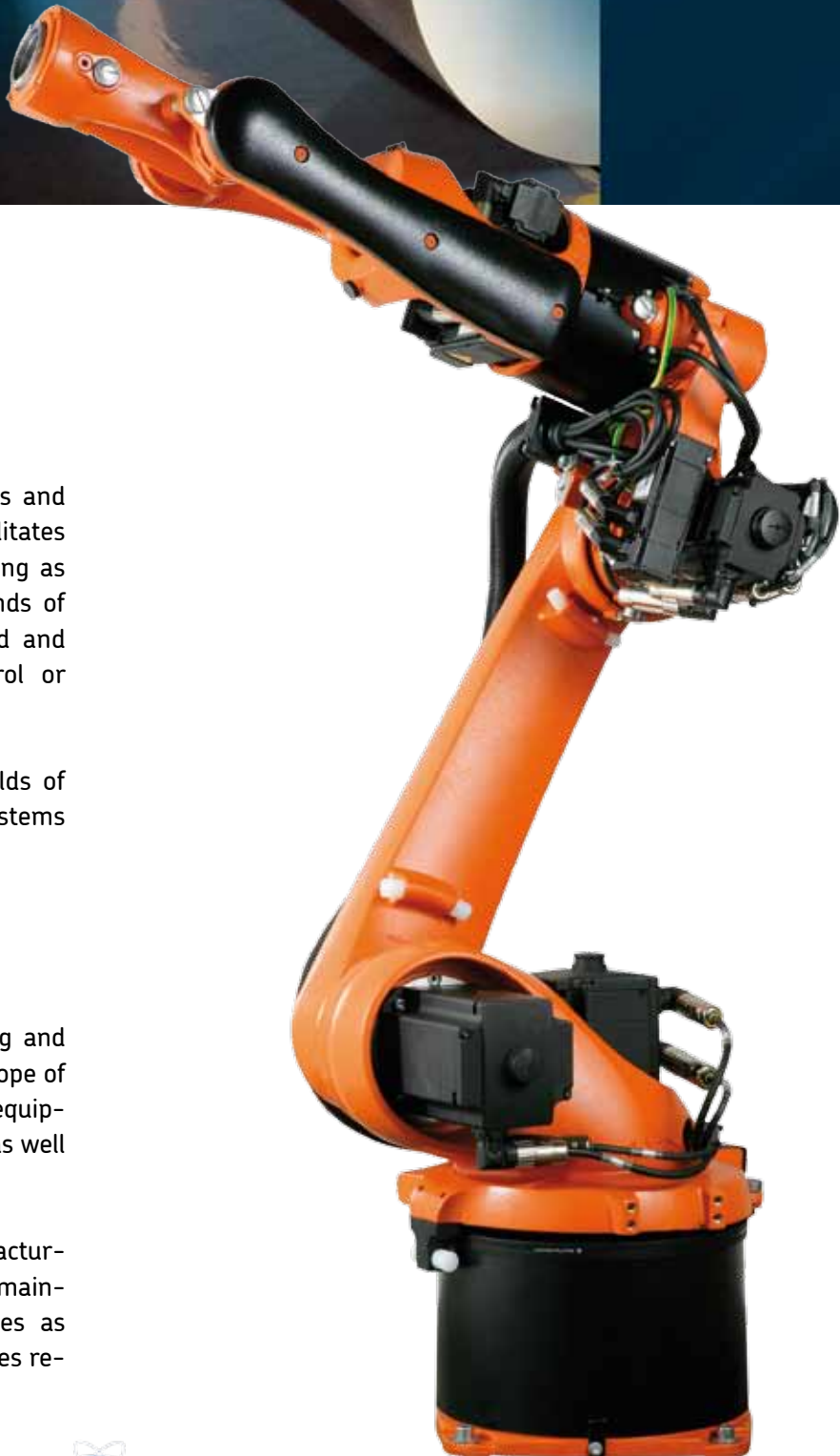
Our product improves the quality of the reels and the availability of the equipment. It also facilitates the operator's tasks and makes troubleshooting as well as repair activities more efficient. All kinds of production reports can also be easily viewed and transferred into the mill's production control or maintenance systems.

The product can also be applied to other fields of industry where similar reeler or line drive systems are used.

Robot systems

Our services include tailored material handling and robot systems as total or part deliveries. The scope of the delivery covers robots, conveyors, welding equipment, material handling equipment, jigs, tools as well as safety systems and machine vision systems.

We cooperate with all established robot manufacturers and equipment suppliers. We also provide maintenance, simulation and programming services as well as conceptual design and consulting services related to robots and robot applications.



Products



We have developed CLS – COSMOS product family, which can be applied in many fields of industry. The family comprises the following products, for example.

Cosmos Seas

IAS (Integrated Automation System) and AMS (Alarm and Monitoring System) products have been developed for marine applications.

IAS products are based on advanced, globally acknowledged automation components to ensure a world-wide support network for the products. The design of the products is extremely modular to facilitate easy management of both small and large entities. This guarantees the cost-efficiency and performance of the solution in every application.

Redundant data communication is secured by the Ethernet-based ring network. The entire Ethernet network, servers, unit-level terminals, user interfaces and all power supplies can be duplicated in this system. Communication with other systems through e.g. Ethernet, Profibus and Modbus as well as serial communication buses is a standard feature of the product. Optional features include e.g. timestamping and remote communication.

AMS products also utilise globally acknowledged automation components and Ethernet-based data communication. The AMS products are based on the IAS concept, but designed for smaller vessels, such as government vessels and yachts. AMS products provide a cost-efficient, high-capability solution for smaller vessels.

COSMOS Collector

COSMOS Collector reporting system consists of two main components: computation and viewing. The reporting system computes the required reports for every defined measurement point and records the computation results in the database. The reports can be viewed from the user interface and printed on paper or to a file, if necessary.



Our products can improve process performance, produce cost savings and further enhance the quality of production.

The basic reports available from COSMOS Collector system always include at least the following reports:

- Technical reports from the previous year, including both mean values and the minimum and maximum calculations. The desired recording period can be easily defined.
- Production reports on daily, weekly, monthly and annual levels. Production numbers and consumptions during different periods of time can be quickly obtained from the production report.
- The log book is a user-friendly journal, which the operators can use to share information about process events and maintenance activities.
- Momentary value reports provide a convenient solution for on-line process status reporting without any separate and expensive software.
- Excel Control transfers the collected data swiftly from the database to Excel and into the customer's other information management systems for further processing.
- The reporting system supports customer-specific software, which can be easily installed into the menu structures of the reporting system to improve the manageability of the different programs.
- WebAccess allows access to defined web sites in protected mode and also makes the publication of the customer's own web reports possible.

Availability reports are adjusted according to the needs of the customer and the process. Availability, reliability, OEEE and capacity reports are pre-installed in several different process areas.

Products



COSMOS Predict

Cosmos Predict system has been developed by CLS – Engineering Oy to complement control and reporting systems. Wherever sensors are used to measure a parameter, COSMOS Predict controls and predicts the status of the production process. The system supports preventive maintenance activities and ensures flexible and timely servicing and spare part management. With measurement data provided directly to those who need them, the system offers considerable technical benefits. Response times are shorter and problems can be tackled efficiently.

The complete COSMOS Predict system comprises several different elements. The system can be built to supplement an automation/reporting system delivered by us, or the customer's existing automation system can be utilised.

The elements of COSMOS Predict system:

- Process including sensors
- Control and protection system
- Control room system
- Reporting system
- Data transmission modules and remote access

At the customer's plant or in the facilities of CLS – Engineering Oy:

- Remote access Client software and databases
- Reporting and data distribution services
- Customer reports and problem solving

COSMOS Eyes

Cosmos Eyes camera surveillance system is an easy and economical solution for process status monitoring and control and other control room functions. We developed the IP-based COSMOS Eyes camera surveillance system to integrate image and sound into the automation system. Our camera surveillance system can be used both indoors and outdoors and it offers web-based surveillance with tens of real-time cameras. The layer-based construction of the system permits case-level view design. The history module incorporates an intelligent identification system, with which changes in the monitored area can be swiftly and conveniently updated on the history screen.

The operation of the COSMOS Eyes camera surveillance system is not linked to any specific main terminal, but the camera images can be viewed from any terminal with web access.



CLS – Engineering Oy has since the founding of the Company delivered solutions to almost all fields of industry.

Software components

CLS-Engineering Oy develops and standardises software components for different needs.

We market the following software products, for example:

- OPC DA Server for most acknowledged control room systems
- OPC Clients
- Several different Excel components
- Several different Net and ActiveX components
- Modbus and other bus drivers
- Data compression and transfer modules
- Various database applications.

We can also solve any compatibility problems with software and information systems in a jiffy.

CLS – Engineering Oy references

CLS – Engineering Oy has since the founding of the Company delivered solutions and products to almost all fields of industry, both in Finland and abroad. Many of our references are internationally established companies, such as:

Ahlstrom	Outokumpu
Boliden	Pilkington Automotive
Finavia	Rolls-Royce
Fortum	Saarioinen
Hartwall	Steerprop
HKScan	STX Europe
Leiras	Teollisuuden Voima
Metsä-Botnia	UPM-Kymmene
Metsä-Serla	Valio
Nestlé	Valmet Automotive
Nokia	Wärtsilä
Norilsk Nickel	YARA



CLS – Engineering Oy operates in both Finnish and international markets as a service provider of demanding automation solutions. Our determined and successful cooperation with customers started already in 1990.

Contact us when you need the professional solutions.

Vaasa FINLAND
Rauma
Turku Espoo



Hakunintie 21
26100 Rauma

Yrittäjänkatu 13
65380 Vaasa

Kutojantie 11
02630 Espoo

Iso-Heikkiläntie 8
20200 Turku

CLS-Engineering Oy
Tel.: +358 201 549 400
fax: +358 201 549 401
info@cls-engineering.fi
www.cls-engineering.fi