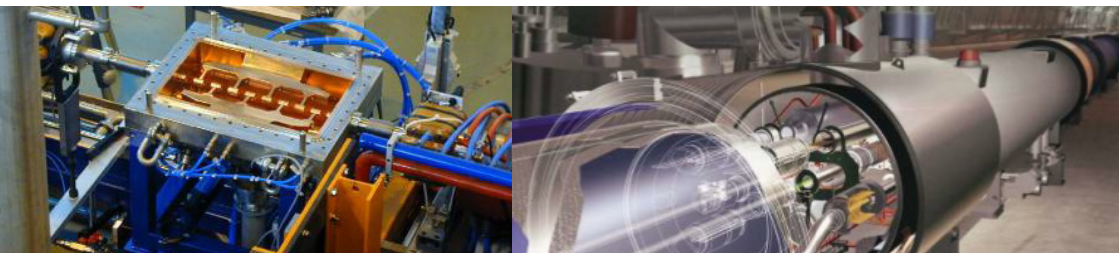




CLUSTER FOR ACCELERATOR TECHNOLOGY

Competences



for competitive power



Looking for new partners?

In this booklet you will find about fifty companies eager to deliver products to research facilities all over the world. They are all located in Scandinavia. Many of them have experience in construction and production of highly technological products and many have been involved in advanced projects. Combined they have a wide experience in fields like materials processing, measurement technology, construction, control systems, engineering services, automation, cryogenics and RF technology.

The companies presented have participated in the project Cluster for Accelerator Technology, CATE, financed by the European Regional Development Fund, Interreg IV. CATE is a co-operation between universities, regional councils and other organisations in the Öresund-Kattegat-Skagerrak region. It ran from January 2011 to December 2013.

The aim of the project was to enhance the competence of the companies on themes related to modern accelerator technology through specific courses and through practical construction of high-tech components to an accelerator project at CERN in Switzerland.

So, if you are looking for highly skilled companies in the field of accelerator technology or in other similar fields we hope this booklet will help you!

The CATE board



INDEX

CATE

CATE - about the project	p. 6-7
Organisational chart	p. 60

Accelerator technology

Blunico Rustfrit Stål A/S	p. 12
Crosslinking AB	p. 15
Danfysik A/S	p. 16
European House of Quality A/S	p. 21
Homatic Engineering A/S	p. 27
Scanditronix Magnet AB	p. 46
Thales	p. 51

Automation

3P Technology	p. 8
BINAR Elektronik AB	p. 11
Bürkert-Contromatic AB	p. 13
Eltech Automation	p. 19
Etteplan Industry AB	p. 20
Examec Group AB	p. 23
Graniten	p. 25
Homatic Engineering A/S	p. 27
HydX AB	p. 28
Idé-Pro Engineering and Software A/S	p. 29
KISAB	p. 32
Lundinova	p. 36
NNE Pharmaplan AB	p. 39
Semcon	p. 47
SpecialTeknik	p. 48
Trier Christensen MaskinFabrik A/S	p. 55
Univertron AB	p. 56
Westcontrol AS	p. 57

Control systems/Testing

3P Technology	p. 8
BINAR Elektronik AB	p. 11
Bürkert-Contromatic AB	p. 13
Calmon Stegmortorteknik AB	p. 14
Danish Aerotech A/S	p. 17
Eltech Automation	p. 18
Etteplan Industry AB	p. 20
European House of Quality A/S	p. 21
Homatic Engineering A/S	p. 27

Low2High Vacuum AB	p. 34
Luma Metall AB	p. 35
Lundinova	p. 36
NNE Pharmaplan AB	p. 39
RUAG Space AB	p. 45
Svep Design Center	p. 49
Thales	p. 51
Triacon Scientific AB	p. 54
Univertron AB	p. 56
Westcontrol AS	p. 57

Engineering services

3P Technology	p. 8
Areva NP Uddcomb AB	p. 10
Calmon Stegmortorteknik AB	p. 14
Ekström & Son	p. 18
Eltech Automation	p. 19
Etteplan Industry AB	p. 20
European House of Quality A/S	p. 21
Examec Group AB	p. 23
Fagerström Industrikonsult AB	p. 24
Graniten	p. 25
Homatic Engineering A/S	p. 27
Idé-Pro Engineering and Software A/S	p. 28
Kirkholm Maskiningeniører A/S	p. 30
Kockums AB	p. 33
Lundinova	p. 36
Mobergs Mekaniska AB	p. 37
NITATOR Stainless Steel AB	p. 38
NNE Pharmaplan AB	p. 39
PKAB Projekt Konstruktioner AB	p. 40
Qamcom	p. 43
RFR Solutions	p. 44
RUAG Space AB	p. 45
Semcon	p. 47
SpecialTeknik	p. 48
Svep Design Center	p. 49
T Knutsson AB	p. 50
Thales	p. 51
TICRA	p. 52
Triacon Scientific AB	p. 54
Trier Christensen MaskinFabrik A/S	p. 55
Univertron AB	p. 56
Westcontrol AS	p. 59

Materials processing

BINAR Elektronik AB	p. 11
Danish Aerotech A/S	p. 17
Ekström & Son	p. 18
European House of Quality A/S	p. 21
Ewcon	p. 22
Examec Group AB	p. 23
HJ Edwards & Co AB	p. 26
KISAB	p. 32
NITATOR Stainless Steel AB	p. 38
Nordholm Industri-Installationer AB	p. 40
Produktionsteknik i Lund AB	p. 42
RFR Solutions	p. 44
SpecialTeknik	p. 48
T Knutsson AB	p. 50
Trier Christensen MaskinFabrik A/S	p. 55

Measurement technology

Bürkert-Contromatic AB	p. 13
Calmon Stegmotorteknik AB	p. 14
Danfysik A/S	p. 16
Danish Aerotech A/S	p. 18
Etteplan Industry AB	p. 20
European House of Quality AS	p. 21
Homatic Engineering A/S	p. 27
Luma Metall AB	p. 35
Lundinova	p. 36
Svep Design Center	p. 49
Time Critical Networks AB	p. 53
Univertron AB	p. 56

RF technology

Homatic Engineering A/S	p. 27
Lundinova	p. 36
Qamcom	p. 43
RUAG Space AB	p. 45
Svep Design Center	p. 49
Thales	p. 51
TICRA	p. 52
Triacon Scientific AB	p. 54

Software

3P Technology	p. 8
BINAR Elektronik AB	p. 11
Calmon Stegmotorteknik AB	p. 14
Eltech Automation	p. 18
Etteplan Industry AB	p. 20
European House of Quality A/S	p. 21
Homatic Engineering A/S	p. 27
Idé-Pro Engineering and Software A/S	p. 29
Lundinova	p. 36
RUAG Space AB	p. 45
Semcon	p. 47
Svep Design Center	p. 49
TICRA	p. 52
Time Critical Networks AB	p. 53
Triacon Scientific AB	p. 54
Univertron AB	p. 56
Westcontrol AS	p. 57

Vacuum/cryogenics

Blunico Rustfrit Stål A/S	p. 12
Danfysik A/S	p. 16
Ekström & Son	p. 18
Ewcon	p. 22
Kirkholm Maskiningeniører A/S	p. 31
KISAB	p. 32
Low2High Vacuum AB	p. 34
PKAB Projekt Konstruktioner AB	p. 41
RUAG Space AB	p. 45
T Knutsson AB	p. 50
Thales	p. 51

Other

ADD Film och Media	p. 9
--------------------	------

CATE – Cluster for Accelerator Technology

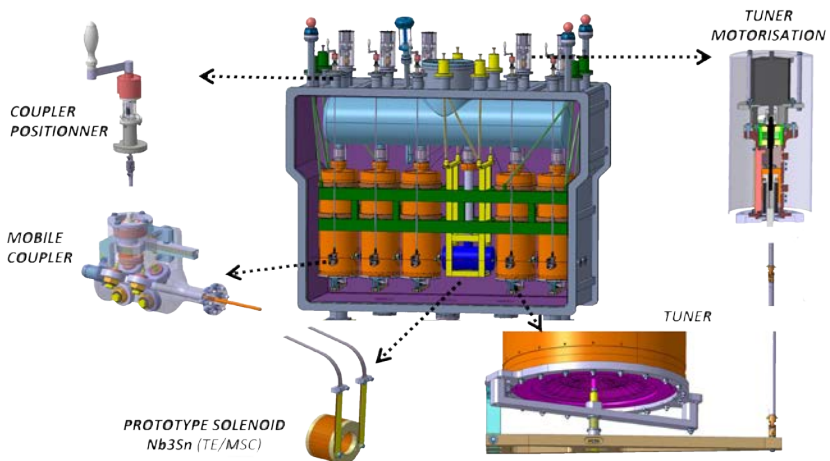
CATE - Cluster for Accelerator Technology - is an Interreg IV project initiated by researchers from universities in the Öresund-Kattegat-Skagerrak region in collaboration with regional councils and business organizations as well as with ESS. The purpose is to strengthen the skills of local companies in the region in the field of accelerator technology such that they can take advantage of the potential of large research facilities that are built worldwide.

Two accelerator facilities will be built in the region; ESS & MAX IV. They will primarily be used for studies in materials science, life sciences and medicine. The aim of CATE is to teach regional companies, in cooperation with each other and with the academics, how to



build an accelerator module based on modern design and technology. The competence development will be performed in two steps. First by customized courses and second by “learning-by-doing” in a pilot project in which the regional firms will be given the opportunity to actually build such an accelerator module.

ACCELERATOR COMPONENTS

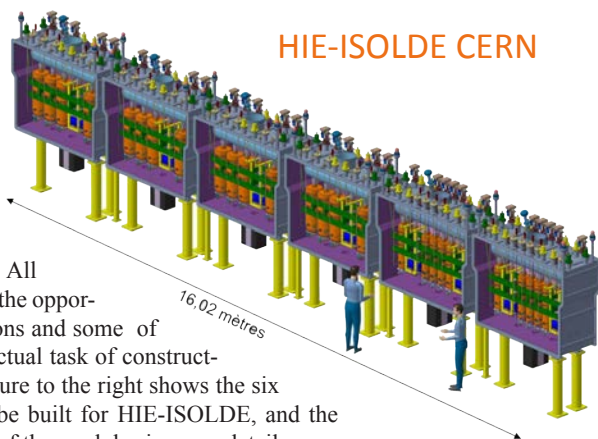


The project is based on the knowledge and experience of the participating research groups of the universities involved. The purpose with this type of technology transfer is to give companies better opportunities to eventually get contracts for design, construction and maintenance of research facilities that require advanced equipment in accelerator technology. The project offers companies five customized courses in accelerator technology. They are based on the technical requirements and the design challenges that exist in the area and aims to create an awareness and an understanding of what it takes to deliver high-tech components in this area. The interest in the courses were overwhelming and many of the companies in this book took part in them.

CATE courses

- Accelerators and Their Components – Their Use in the Natural Sciences, Medicine and Industry
- Low Temperature Technology
- Basic Knowledge of Exotic Advanced Materials in Accelerator Technology
- Machining of Exotic and Advanced Materials in Accelerator Technology
- Welding and Inspection of Helium Leak Tight Cryogenic Structures

In the second part of the training program, “learning-by-doing”, the companies were given the opportunity to actually build components for an accelerator module, namely for the HIE-ISOLDE accelerator project at CERN. All companies were offered the opportunity to submit quotations and some of them were offered the actual task of constructing components. The figure to the right shows the six accelerator modules to be built for HIE-ISOLDE, and the figure above shows one of the modules in more detail.



www.cateproject.org

3P Technology



Country: Denmark
Org. Reg. No: 26 28 21 79
Employees: 3-5
Turnover: MDKK 2,5

www.3ptechnology.com



Competences

3P Technology designs software packages for DSC systems, PLC systems and SCADA systems ensuring that our customers get the optimal solution. 3P Technology has the most modern technology software at our disposal within automation of process plants as well as machinery plants. We offer turnkey solutions, but also solutions of subtasks in certain areas. With a very high automation degree our customers will be competitive and at the same time have a high quality performance level. Through many years of experience 3P Technology has developed a high level of knowledge as well as several specialty skills. With great technical qualities, flexibility and a highly innovative mindset 3P Technology can deliver quality products and service on time, both for the home markets and abroad. With a high automation degree we ensure our customers an advantage

over their competitors. At the same time we guarantee that all products are future-proof and thereby totally up to date.

Products and Services

Electrical design and documentation:

- Plant Engineering
- Design and construction

Automation. PLC – SCADA – DCS:

- Project management of technical character
- System design of PLC – SCADA – DCS
- Design, implementation and commissioning of new processes

System development and total integration:

- Concept development for automations projects
- Implementing strategies

Reporting and back-up systems:

- KPI's, (OEE) numbers

ADD Film & Media

Country: Sweden
Org. Reg. No: 556639-5504
Employees: 2
Turnover: MSEK 3

www.addmedia.se



Competences

Visualisation in 3D and – many years experience!

Products and Services

Add Film & Media AB is a video production company, located in Lund in Sweden. Our competence stretches back to the middle of 1980. One of our core competencies, which we offer to industries within many different areas, is high quality visualisation using 3D-animations, showing the functionality of technical products/machines/ideas.

The end product from us will be a high quality video, which can be used for marketing and/or information purposes. When working with our company you will be assigned an experienced project leader who will follow you and your project, all the way from start to finish.

Machine equipment

We work in the "3D studio Max" animation software, which can import many different types of construction file formats, used by industries all over the world. Such formats can be ProE, AutoCad, Inventor, IGES, STEP etc. We also shoot with high end HD video cameras.

References

Tetra Pak, Zimmer, Alfa Laval, Volvo Construction Equipment, Hydrotech, Gripen International, IBM, Svt (the Swedish National Television broadcast company).

AREVA NP Uddcomb AB



Country: Sweden
Org. Reg. No: 556173-3030
Employees: 175
Turnover: MSEK 480

www.areva.se



Competences

AREVA NP Uddcomb, a leader in high-tech engineering and welding technology, offers technical solutions for increased performance, availability and safety at our customers' facilities. Our assignments vary from individual repair or production assignment to complete package assignments with functional and documentation responsibility.

Products and Services

As a fully integrated subsidiary to AREVA, we are constantly backed by the international expertise and competence of the AREVA Group.

Thanks to this global coverage with local networks all over the world, we are in the position to act as total supplier. As such, we have a full overview and take the responsibility from start of a project till completed delivery.

Our extensive network of partners and suppliers enables us to provide the necessary resources on time. We have also an in-house "Swedac" accredited laboratory, capable to perform all needed destructive testing and other examinations, e.g. Corrosion testing, failure analysis, chemical analysis, etc.

References

Uddcomb Sweden AB supplied vital components for CERN, European laboratory for particle physics.

Binar Elektronik AB

Country: Sweden
Org. Reg. No: 556716-4677
Employees: 30
Turnover: MSEK 45

www.binar.se

BINAR

Improving your productivity



Competences

Binar Elektronik is part of the industrial group Binar AB. With more than 25 years of experience and cutting edge expertise in electronics, software and industrial IT, the company is specialized in the design of industrial control- and motion control systems, from simple to advanced PC-technology.

With a portfolio of Binar-developed products we also design customized electronics and software. We develop, install and maintain software solutions to control, visualize, collect data and optimize industrial processes. Within the Binar group we also provide service of advanced cutting, welding and assembly operations with high quality and accurate demands.

Products and Services

A broad range of industrial- and motion control systems, design of electronics, application software, from PLC, to high level database. Industrial microwave heating technology.

Machine equipment

The Binar Group offers a wide range of subcontracting, qualified according to numerous quality standards such as ISO 9001 and IRIS.

References

The Binar Group is a sub supplier to the global manufacturing industry.

Blunico Rustfrit Stål A/S



Country: Denmark
Org. Reg. No: 75119828
Employees: 50
Turnover: n/a

www.blunico.dk

Blunico 
Your trusted partner

Competences

Blunico A/S is a high quality supplier within contract manufacturing assignments as well as more demanding custom made special products and services in the industry of stainless steel and other materials. We possess the skills and capacity to perform the entire development and production process, from concept to finished product.

Our leading competencies are within:

- Vacuum technology
- Prototyping
- Sheet metal working
- Laser welding

Quality Certifications:

- ISO 9001:2008

Products and Services

We have expertise in designing and manufacturing superconducting magnets, cryostats and vacuum

vessels. As a partner in a High Technology Foundation project we have developed a special chamber for Siemens Healthcare of 1 mm. plate with a shelf life of up to 1½ bar external pressure.

Machine equipment

- 2D and 3D laser cutting machines
- YAG laser welding plant
- Certified welding
- Press braking and punching
- 5-axis CNC machining center
- Surface treatment
- A complete in-house production set up of 6,000 m²

References

We have supplied vacuum vessels to:

- Electrostatic Analyzer units
- Synchrotron Booster Power plants
- Particle accelerators

Please contact us for more information about our references.

Bürkert-Contromatic AB

Country: Sweden
Org. Reg. No: 556116-6439
Employees: 20
Turnover: MSEK 95

www.burkert.se

bürkert
FLUID CONTROL SYSTEMS



Competences

Bürkert is one of the world's leading companies within industrial flow control. Our segments are; water treatment, gas handling, cooling, steam, microfluidics and hygienic processes.

We have our own factories, System houses and Research centers and are represented in 35 countries all around the world. We are well known for our high quality and have all certificates and approvals needed to fulfill the standards requested by our customers.

Products and Services

Traditionally we are most known for our valves but our wide range of products also includes sensors, mass flow controllers, pneumatics, transmitters and much more. We offer you single components as well as complete sub assembled systems and application solutions according to

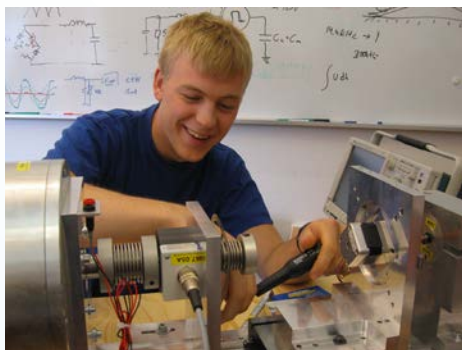
your specific needs. We have several opportunities to customize our administrative and logistic services to fit our customer's processes in the most optimum way.

After delivery our Service department can supply a variety of services like commissioning, maintenance, function optimization, troubleshooting and on site trainings.

References

Please contact us for more information about our references.

Calmon Stegmotorteknik AB



Country: Sweden
Org. Reg. No: 556363-1596
Employees: 5
Turnover: MSEK 5

www.calmon.se



Competences

With more than 25 years experience in design of motion control systems for industrial, automotive, medical, information and telecom industry we have the right background to solve motion control related issues for all types of motors and applications.

Our systematic design flow and special instruments for motion control design is the key to achieve optimum performance in your application.

For stepper motor systems we use our unique motion analyzer to solve issues concerning resonances, noise, lost steps and dynamic performance remarkably fast and easy.

We have extensive experience in design of electronics for digital video conversion and processing based on FPGAs as well as other FPGA based signal processing. We have designed

laser and other precision optical measurement systems.

Products and Services

- Motion system design and specification
- Optimization of dynamic performance and accuracy in motion systems
- Motor measurements and characterization
- Design of analog and digital electronics
- Microcontroller electronics and software design
- Sensor and feedback system design
- Design of power electronics

Our mission can be all from consultations to turnkey solutions.

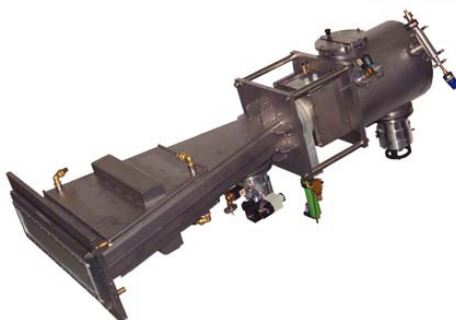
References

On request.

Crosslinking AB

Country: Sweden
Org. Reg. No: 556251-5303
Employees: 8
Turnover: MSEK 15

www.crosslinking.com



Competences

Our core business is developing, manufacturing and implementation of turn key electron-beam accelerators into customer's industrial or laboratory lines, along with a service organisation to serve all installation all over Europe. The electron beam technology is an environmental and economical solution for curing, lacquering, gluing, sterilization, crosslinking etc.

Products and Services

Even though we have a standard product line, the end product is customer driven and it is a specified production due to customer's specifications when it comes to the beam width and the penetration of the goods being irradiated. In the product folio we have equipment with working widths from 50 – 3 000 mm with integrated shielding for 24 hours in line production. We are working in

the field of 70 – 300 KeV with Beam current of 0 – 2000 mA.

Machine equipment

The product line can be categorised in to two main categories:

- Scanner equipment
- Linear equipment

The product portfolio consists of:

- EC Scan
- EC Beam
- EC Print
- EC Tube

References

We have since 1984 supplied equipment to various applications, the largest with a production capacity of 500 meter per minute down to testing environments. In our installations there are high demands on operation with a high return for customers with no downtime. For further information, please contact us.

Danfysik A/S



Country: Denmark
Org. Reg. No: 31934826
Employees: 100
Turnover: n/a

www.danfysik.dk



Competences

The name 'Danfysik' is synonymous with charged particle beams. Since 1964 we are a renowned supplier of high quality equipment for particle accelerator laboratories with a mission to provide high performance particle accelerators and related equipment for research, healthcare and industry. Our experienced and competent teams of experts are able to master even the most demanding customer requirements, from the physical concept over detailed and manufacturing design to assembly, testing and measurement. Danfysik provides world-wide after sales service.

Certification:

- ISO 2008:9001

Products and Services

- Accelerator magnets
- Normal, super conducting and permanent magnet technology

- Spectrometer magnets
- Precision magnet power supplies
- Insertion devices for synchrotrons
- Beam diagnostic instrumentation
- Field measurement equipment
- Turn-key accelerator systems

Machine equipment

- Coil winding factory
- Manufacturing and assembly
- High precision magnet measurement
- Power supply test
- Clean room magnetic test and measurement facility

References

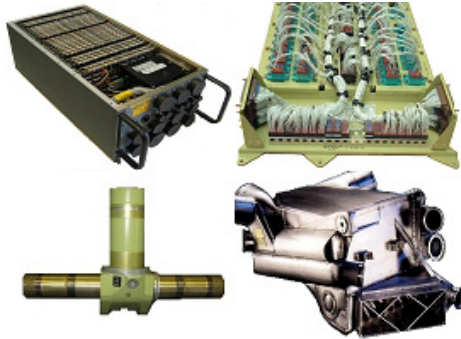
Most of the large, medium and small scale accelerator facilities in the world belong to our customers, as well as accelerator technology applying industry and healthcare providers. Danfysik is a subsidiary of Danish Technological Institute.

Danish Aerotech A/S

Country: Denmark
Org. Reg. No: DK-1336 2718
Employees: 80
Turnover: MDKK 66

www.aerotech.dk

DANISH AEROTECH



Competences

Aerospace & Defense company Danish Aerotech (DA) manufactures machined parts, assembles wire harnesses and CCA's and performs system integration of units for aircraft and helicopters such as JSF, F-16 and AW101, and provides support for aircraft, helicopters and missiles.

DA is certified according to ISO 9001:2008 and AS/EN9100C etc. DA's headquarter is located at Karup Air Base, with a further assembly facility in Ballerup. DA has received Raytheon SAS' Supplier Excellence Award 4 times and NATO/NAMSA's Outstanding Component Source of Repair Award 3 times.

Products and Services

Design in Catia and ProEngineer. Mfg, assy, insp., test and maintenance of mechanical, electrical and electronic product. Configuration

and Quality control and programme management.

Machine equipment

- Machining capability, heat treatment, vacuum brazing, plasma spray.
- Welding, MIG, TIG, MAG
- 3D mechanical measurements (0,1µm)
- NDT test
- Vibration tables, thermal chambers 5 to 30°C/min.
- Flying probe test & continuity and isolations testers.

References

Please contact us for more information on references.

Ekström & Son



Country: Sweden
Org. Reg. No: 556448-5406
Employees: 70
Turnover: MSEK 130

www.ekstrom-son.se

Ekström & Son
since 1896

Competences

Ekström & Son is one of northern Europe's leading designer and manufacturer of tailor made pressure vessels, shell & tube heat exchangers, columns, reactors etc., in all kinds of metallic materials, such as carbon steels, stainless steels, duplex steels, nickel alloys, titanium, zirconium etc.

We are qualified for:

- ISO 9001-2008
- ASME U-stamp
- SQL-China
- SS-EN ISO3834-2
- HP0-Germany

Products and Services

Apart from our normal products which normally involves mechanical design in accordance with codes, like EN 13445, ASME VIII Div.1, AD2000 PD5500 etc., we always do in-house advanced machining and welding for the assembly of those vessels and

finally executes quality assurance and quality control (NDT as for example RT, PT, UT) on all those vessels. We also offer contract manufacturing for welding, water jet cutting and machining.

Machine equipment

Some of our machining capabilities comprises of Plate bender, Roundo, type PS 340; CNC Drilling/Machining Hartford KB-3260AG, Water Jet Cutting Machine, WJS type NC 3060 D bevejet. Total workshop space: ~4000m². Handleable weight: 125 ton.

References

- Pulp and Paper Industries
 - Process and Chemical Industries
 - Petrochemical Industries
 - Oil, Gas and Offshore industries
 - Food and Pharmacy Industries
- Etc.

Eltech Automation

Country: Sweden
Org. Reg. No: 556548-4044
Employees: 20
Turnover: MSEK 20

www.eltechautomation.se

Eltech
Automation



Competences

Eltech Automation is a supplier of automation solutions. Our delivery can include every part, or selected parts, from pilot study to startup of a complete equipment.

Products and Services

We offer hardware and software services within automation. Typical hardware services are design, manufacturing, installation, test, and documentation of customized automation solutions.

The hardware services are done according to applicable national and international standards and regulations. Typical software services are application development of PLC, motion, data acquisition and HMI/Scada.

References

We have good knowledge and experience of delivering customized equipment with high requirement of precision and accuracy.

Please contact us for more information about our references.

Etteplan Industry AB



Country: Sweden/Finland

Org. Reg. No: 556502-4832

Employees: 1659

Turnover: MEUR 119,4

www.etteplan.com



Competences

Etteplan is a specialist in industrial equipment engineering and technical product information solutions. Our customers are global equipment manufacturers and industrial companies operating in industries such as forestry, mining, energy, aviation and defence equipment as well as medical technology. Etteplan's services cover all phases of the product life cycle.

Products and Services

Start-ups and large companies are realizing the benefits of outsourcing their development programs to contract engineering companies like Etteplan. From idea to production, customers throughout Scandinavia have successfully outsourced their design and development to us. Customers assign Etteplan's engineering teams to take advantage of our knowledge and skills resulting

in quick product solutions. Almost 30 years of experience in industrial products and processes has made engineering methods and practices the basis of Etteplan's success.

Our competitive edge in the field of engineering is based on multi levelled and versatile expertise that we have successfully turned into innovative service products.

References

Please contact us for more information about references in your industry.

European House of Quality A/S

Country: Denmark
Org. Reg. No: 21477273
Employees: 2
Turnover: MDKK 2

www.sherlockcanada.com

European House of Quality



Competences

The European House of Quality A/S was established in 1999. Our software named “Sherlock” is designed for Quality Management Systems, Environmental Management Systems and Occupational Health and Safety Management Systems and the Sherlock software is now being sold worldwide through a number of agents.

The European House of Quality A/S offers consultancy by IRCA registered QMS Lead Auditors within the areas of ISO 9001, ISO 14001, EMAS, OHSAS 18001, 1090 and 3834 standard series, ISO 13485, ISO 17025, ISO 15189, ISO 22000, ISO/TS 16949, EN 1090, HACCP and FMEA.

If you sign up for e-learning, you are ready for certification after 35 tasks.

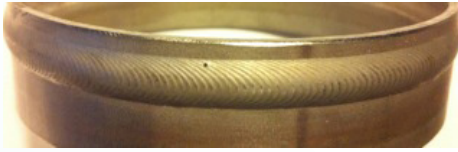
Products and Services

Sherlock Web - a complete solution for management of quality, health, safety and environment (QHSE Management)

Applicability of Sherlock:

- Documentation and workflow execution of processes which are critical to remain compliant.
- Visibility of changes to documents, notifications, audits and competencies available.
- Early visibility of non-conformance and easy and uniform registration of non-conformance.
- Easy access to documentation and guidance. Trends are easily spotted, e.g. which equipment fails, which process needs to be modified.
- You may switch between 5 languages in the Sherlock modules.
- Removes or minimizes the need for manuals and for copying / manual distribution of documents.

Ewcon



Country: Sweden
Org. Reg. No: 6002143557
Employees: n/a
Turnover: n/a

www.ewcon.se

EWCON
EURO WELD CONSULTING
QUALIFIED PEOPLE FOR QUALIFIED WORK

Competences

Certified in following Quality systems:

- ISO 9001:2008
- ISO 3834-2:2008
Part 2: Comprehensive quality requirements.
- ISO 1090-1:2009+A1 2011
Mandatory CE Mark for Structural Metallic Components. EXC 1-3

EWCON hold our own WPQR's, which are containing WPQR in stainless steel that is tested at -60 degrees Celsius.

Products and Services

- QC and welding coordination
- Project coordination
- Machining, Welding, Piping
- Prefabrication, Module building

For long time projects EWCON offer "in house" office spaces with broadband, meeting room up to 50 persons, 4 rooms with service space

for overnight stay.

Machine equipment

With our subcontractors, objects can be done with a single file up to 4D machining. Objects can be done from a single hairpin to objects within dimensions 2500mm x 600mm x 1000mm in the bedmill.

Welding is done manually, half semi automated or by orbital process. Workshop 800m², 125 is designated as controlled area to ISO Class 9.

References

For further inquiries please contact Ronny Roth at:

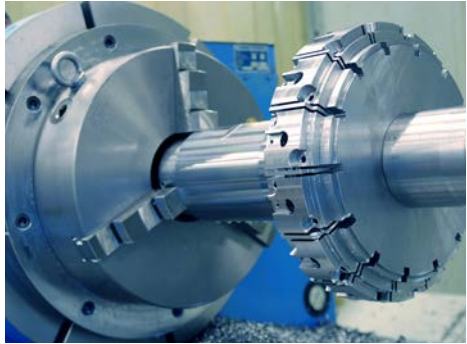
EWCON, Euro Weld Consulting
ronny.roth@ewcon.se or by phone
+46 (0) 70 577 5384

Examec Group AB

Country: Sweden
Org. Reg. No: 556639-4861
Employees: 35
Turnover: MSEK 75

www.examec.com

EXAMEC



Competences

Examec Group AB specialises in smaller series advanced machine and parts manufacturing. We are building machines with the highest requirements for reliability, where any problems could result in serious consequences. It could be loss of production, food safety or erroneous scientific data. Our strength lies in our turnkey responsibility, complex assembly and manufacturing of components with the highest standards of precision, particularly larger components. Our business process is developed around World Class Manufacturing including certification according to ISO 9001 and 14001.

Products and Services

We build complete modules for larger printing presses and keep world class in manufacturing of rollers with the highest precision. We also build

scanners for scientific research of drilling cores, high precision iron cores for scientific magnets etc. Our machine shop, which include modern machine tools up to 5 axes as well as EDM machines, has been complemented with a new department for welded parts including three different types of cutting machines. From design and project management to electrical applications, automation and final testing. We have most of it under one roof.

References

The most important success factor is the talented craftsmen and women in our company, possessing an inordinate amount of skills, ambitions of perfection as well as an outstanding team spirit. We are an approved mechanical supplier the Max Lab IV project in Lund Sweden. For a full list of references, please contact mats.ohlsson@examec.com

Fagerström Industrikonsult AB



Country: Sweden
Org. Reg. No: 556487-0441
Employees: 32
Turnover: MSEK 42

www.fagerstrom.se



Competences

"Designs and solutions that no one else thought of". We are not industry specific so we can offer technical improvements in most types of processes and within all sectors of the industry. We are frequently commissioned for developing unique specialized machines. For others, we realize long-term development projects, an example is the cooperation with the Swedish nuclear industry, where we interact with their organizations and conducts joint projects. Fagerström has since many years close cooperation with various subcontractors which meet the same high level of quality standards as our own. Naturally, we are quality and environmentally certified according to ISO 9001:2008 and ISO 14001:2004. As an evidence of our technical expertise, we also carry out extensive external training activities in areas such as advanced CAD systems and

software.

Products and Services

Technical Solutions

Technical consulting activities such as machine design, pipe and steel structures with associated calculations and project management

Deco Systems

Development, manufacturing and of decontamination system, to clean components in nuclear power plants from radioactive particles.

Production Systems

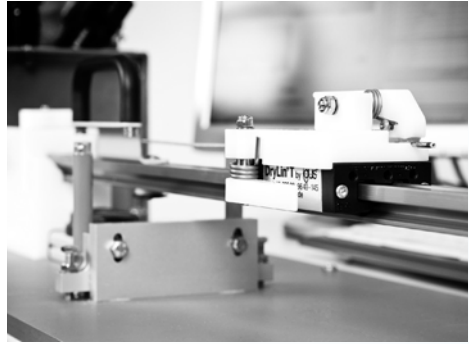
Project responsibilities, development, design, delivery and commissioning of complete production lines and plants.

Pharma Systems

Feasibility studies, development and validation with rigorous control and high standards of analysis and manufacturing.

Country: Sweden
Org. Reg. No: 556628-2298
Employees: 35
Turnover: MSEK 42

www.graniten.com



Competences

Smart solutions within machine development with a focus on function and performance. Our business concept means that we offer smart machine solutions based on customers' specific needs and wishes.

We always deliver the promised results, together with the required features – no more no less. This requires not only great responsibility and innovation, but also experience from a variety of industries and knowledge of the entire development process. From initial idea to production start.

Quality Certifications:

- ISO 9001:2008

Products and Services

At Graniten, we have a unique group of talented employees. With a single common denominator. All possess different areas of expertise. We have vast experience of advanced robotics and motion control, smart vision systems, stable gripping tools and various calculation requirements in accordance with the new Machinery Directive.

We also have excellent knowledge of systems integration, such as HMI, PLC and Servo. All that is required to provide complete solutions tailored to our customers' needs and wishes.

References

Please contact us for more information about our references.

Hj Edwards & Co AB



Country: Sweden
Org. Reg. No: 556469-0195
Employees: 7
Turnover: MSEK 99

www.edwards.se

EDWARDS

Competences

Edwards, founded 1915, has a long experience of trading and agency of products to the mechanical industry. With suppliers spread globally, we are active within automotive, railway, mining, steel and power generation businesses

Products and Services

Welded designs, black or stainless steel. Painted or galvanized upon customer specification. Thick sheet metal, rolled or forged steel bars, castings & forgings.

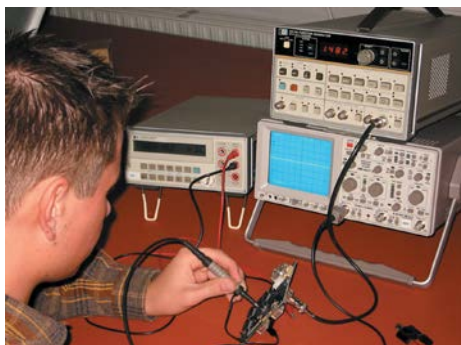
References

Ship component manufacturers. High Voltage components. Mining equipment producers. Automotive OEMs & Tier 1s. Railway service providers.

Homatic Engineering A/S

Country: Denmark
Org. Reg. No: 33 16 20 49
Employees: 10
Turnover: MDKK 8

www.homatic.dk



Competences

Homatic Engineering engages in Device Development, Product Management and Testing & Approval of electronic equipment. We perform costumer specific product development on the basis of contracts, where the rights of the product belong to the costumer.

Our objectives are continuously to excite our customers with unique solutions, which will place Your products as “state-of-the-art” at the market, by possessing a number of technological key competencies within the development of electronic products, in order for us to stay an attractive and qualified cooperative partner.

Quality Certifications:

- ISO 9001:2008

Products and Services

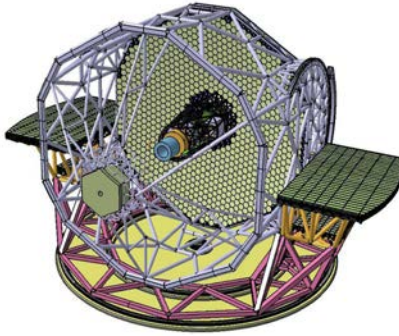
Development of device:

- Hardware and advanced electronics in connection with embedded solutions
- Embedded software solutions and technical related PC solutions
- Sensors, transducers and actuators plus constructing and housing devices

Testing & approval:

- CE-marking
- Marine-/offshore approvals
- Preparation for UL/CSA approvals
- EMC testing
- Electrical safety testing
- Climate and vibration testing
- Environmental test

HydX AB



Country: Sweden
Org. Reg. No: 556791-5326
Employees: 20
Turnover: MSEK 50

www.hydX.se



Competences

HydX offer our customers a significant expertise in hydraulic applications. In addition to traditional hydraulics we possess a unique know-how and experience in the oil lubrication systems for hydrostatic and hydro-dynamic shoe bearings for heavy duty applications such as large optical telescopes and rotating grinding mills. In this field we also provide cooling/filtration units for heavy industrial gear boxes as well as open gear closed loop oil lubrication systems.

We, as persons, have since 1985 worked in close co-operation with SKF involving hydrostatic shoe bearing systems for a several large optical telescopes all over the world such as KECK 1 and 2 in Hawaii, Grantecan in Canary Island and others.

Quality Certifications:

- SS-EN ISO 9001:2008
- SS-EN ISO 14001:2004

Products and Services

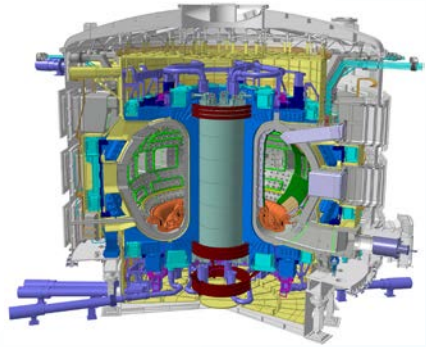
HydX designs, assembles and delivers functional solutions in the form of complete hydraulic power units, armed valve blocks and components in hydraulics and oil lubrication for a wide range of application areas.

We have a strategic partnership with the global manufacturers of hydraulic components, Parker Hannifin and Sauer-Danfoss.

Idé-Pro Engineering & Software A/S

Country: Denmark
Org. Reg. No: 21 82 25 90
Employees: 20
Turnover: n/a

www.ipes.dk



Competences

Idé-Pro Engineering & Software supplies state-of-art PLM software and Engineering Services to the Danish Industry. All Big Science projects like ESS, ITER and CERN use PLM software from Dassault Systèmes such as CATIA, ENOVIA and DELMIA as design and management tools. When participating in development of components to Big Science facilities the use of software products from Dassault Systèmes will be an advantage and in many cases even required. Along with software Idé-Pro also supplies education.

Products and Services

We supply the full product range from Dassault Systèmes incl.

- CATIA – 3D CAD
- ENOVIA – full PLM solution
- DELMIA - automation and production simulation.

We offer engineering within mechanical construction and digital manufacturing.

References

References for our software solutions from Dassault Systèmes include international organisations like ESS, ITER and CERN.

In Denmark, our references include:

- DTU RISØ
- Force Technology
- DTU Space
- Aarhus University
- Aalborg University

along with leading industrial companies.

Institute for Energy Technology



Country: Norway
Org. Reg. No: 959 432 538
Employees: 568
Turnover: MNOK 757

www.ife.no



Institute for Energy Technology

Competences

IFE has one of the largest Electron Beam Welding facilities in Scandinavia and over 40 years of experience. Today 80 % of the workload is taken up by product development and production welding for Norwegian and International companies.

Products and Services

The products are departed into two main groups. Group one contains equipment for jet engines, aerospace and military products in steel, titanium, and aluminum. The second group consists of equipment for the petroleum industry; measuring sensors, valves, etc. in stainless steels, nickel alloys, copper and titanium.

Machine equipment

Electron Beam Welding is a high energy density process. A powerful beam of electrons is focused on to

the metal. The density can reach 107 W/cm², higher than any other known welding process, including laser welding. IFE has the equipment to weld any material with thickness ranging from 0,05mm to 100mm.

Hawker Siddeley Dynamics	Hawker Siddeley Dynamics	Hamilton Standard
1m x 1m x 1m	1,7m x 1,4m x 3,4m	1m x 1m x 1m
6 kW	6 kW	25 kW
500 max kg	2000 max kg	500 max kg

References

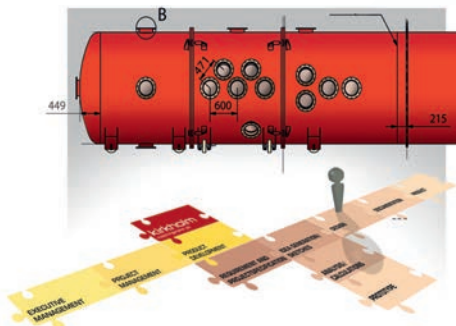
Please contact us for more information about our references.

Kirkholm Maskiningeniører A/S

Country: Denmark
Org. Reg. No: 25985443
Employees: 23
Turnover: n/a

www.kirkholm.dk

kirkholm
maskiningeniører a/s



Competences

- Detailed mechanical design
- Design of mechanism
- Structural analyses
- Thermal analyses
- Thermal design
- Documentation of mechanical structures
- Generation and analysis of conceptual designs prior to tendering process
- Create basis for decisions that is independent of suppliers
- Flexible and dynamic resource able to support on an hourly basis
- All sorts of CAD assistance

Products and Services

Kirkholm Maskiningeniører A/S has no products of its own, and all our projects are based on the principle that you as a customer own all the rights to the results of the project. Through our work sensitive information is frequently shared with us.

We are very particular about making sure that such information is not spread through us.

Among other precautions we shred all paper containing customer information, maintain a high level of security in our internal networks and never mention customer information to third parties.

References

- ESO – European Southern Observatory
- ESA – European Space Agency
- Grundfos
- Vestas
- SPX Flow Technology

KISAB



Country: Sweden
Org. Reg. No: 556558-1674
Employees: 21
Turnover: MSEK 33

www.kisab.eu

KISAB

Competences

KISAB today is a system supplier to mainly the process and food industry in which we take full responsibility through our cooperation partners. We have our own resources in welding, turning, milling and assemblage. Operate mainly in stainless, acid-proof and aluminum. Since 2004, we are working according to Lean production, primarily with 5S and improvement teams. We have good knowledge and ability to deliver one-parts and mini-series, which correspond with the equipment we saw while visiting CERN.

Products and Services

We produce, install and deliver servicing of pressure vessels, vacuum chambers, heat exchangers and associated piping, stainless automation equipment and other contract manufacturing. We also produce stainless fire and smoke-proof doors.

Machine equipment

Max. dimensions CNC lathe Ø820/530x3000mm, Long Row Ø1000/510x5000mm, Bed milling 3000x1200x1000mm, Multioperation 1020x510x625mm. Welding with method 111, 141 and 136.

References

Our major customers today are:

- Stora Enso
- Södra Cell
- Perstorp AB
- AAK AB
- Ifö Sanitary
- Areva
- Öresund Bridge Consortium

Kockums AB

Country: Sweden
Org. Reg. No: 556205-5623
Employees: 960
Turnover: MSEK 1400

www.kockums.se

KOCKUMS



Competences

Kockums AB is a naval shipyard, developing, manufacturing and servicing both surface ships and submarines, and acts as main contractor for advanced naval platforms and complex system integration.

Products and Services

Submarines

Kockums received the first order for submarines in 1912, and has since then developed many submarine generations. In the 80's, Kockums developed the Stirling engine for submarine use, providing the world with the first and still superior technique for letting non-nuclear submarines be propelled for weeks submerged. A new generation of submarines is under development.

Surface ships

Our material of choice is composite, and our Visby Class corvettes are

the largest ships to have been manufactured solely in carbon fibre composite. The Visby class represents the most advanced stealth naval surface ship in the world, reducing signatures to a minimum and with a unique multi-mission capability.

Service

Kockums service our own products, and others. We provide the clients with solutions that give the maximum operational capacity to their ships, and upgrades to new levels of sophistication.

Low2High Vacuum AB



Country: Sweden
Org. Reg. No: 556084-6338
Employees: 11
Turnover: MSEK 30

www.low2high.se

Low2High
vacuum

Competences

Our core business consists of vacuum pumps and vacuum systems from Oerlikon Leybold Vacuum, mainly for the manufacturing industry. We perform leak detection on large systems at customers' sites, and we have instruments to measure leakage down to 1×10^{-12} mbarl/s. Our portfolio also contains freeze dryers and equipment needed within the area of electron microscopy.

Products and Services

Low2High Vacuum is the only vacuum supplier you will need. We offer a broad range of advanced vacuum solutions for use in manufacturing and analytical processes, as well as for research purposes.

The core capabilities of our main supplier center on the development of application- and customer-specific

systems for the creation of vacuum and extraction of processing gases. With our extensive knowledge we can solve all your needs within the area of vacuum. We also offer maintenance and service on all Leybold-products as well as on products from other manufacturers.

References

Low2High Vacuum has assisted nearly all universities in Sweden and Norway with service and maintenance of vacuum systems for many years. This includes vacuum pumps, instruments and gauges and leak detection of systems.

Examples of customers:

- Chalmers Tekniska Högskola
- Kungliga Tekniska Högskolan i Stockholm
- Lunds universitet
- Norges teknisk-naturvitenskapelige universitet i Trondheim.

Luma Metall AB

Country: Sweden
Org. Reg. No: 5564664109
Employees: 22
Turnover: MSEK 44

www.luma-metall.se



Competences

Luma Metalls core competences are;

- Fine wire drawing (tungsten and molybdenum)
- Surface treatment (polishing and plating)
- Spooling

Quality Certifications:

- ISO 9001:2008
- ISO 14001:2004

Products and Services

Luma Metall specializes in fine and super fine round Tungsten, Tungsten-Rhenium and Molybdenum wires down to 4 microns.

We also focus on plated wires of various materials and dimensions. Plating is made with gold, silver and/or nickel. Through our technical service team we help our customers to solve their problems. We also participate in customer development

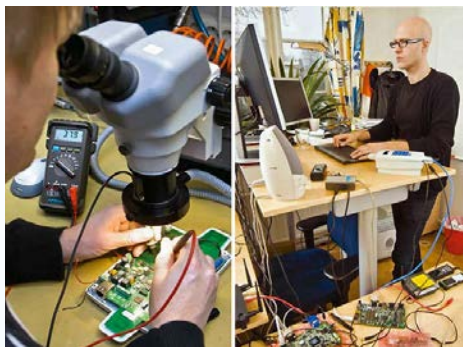
projects. Applications for our wire (in particular as gold plated) are for instance as sense wire in drift chambers, corona wire in digital printers, mesh wire in space communication antennas and guide wire in medical catheters.

References

For research purposes Luma Metall has for many years been supplier to:

- CERN
- Fermilab
- Argonne Nat Lab
- Max Planck Inst
- GSI

Lundinova



Country: Sweden
Org. Reg. No: 556599-5791
Employees: 24
Turnover: MSEK 26

www.lundinova.se



Competences

Lundinova is a development house for IT, telecom, science, and industry. We offer the entire chain in the processes of design and manufacturing from concept study to testing and production. We take the full responsibility for your entire project, or handle parts of it.

Products and Services

Hardware design: Circuitboards, wireless, sensors, measurement systems, power, control systems, magnetic systems,

Software design:

Embedded systems, server, linux, android, app:s

Standard products:

X86 boards, ARM boards, display, network products, power supply

Project management, Verification, Test, Certification

Machine equipment

Lots of equipment for electronic development:

- Spectrum analyzers
- Oscilloscopes
- Logic analyzer
- IR camera
- Microscopes
- EMC/ESD equipment
- Climate chamber
- Multiuser CAD system
- Emulators / Compilers
- Prototype workshop

References

MAXLab, Sony Mobile, Gambro, Genovis, Tetra Pac, Electrolux, Texas Instruments, Höganäs, Primozone, FMC technologies, ZF, ST Ericsson, Anoto, Axis, IKEA, DORO

Mobergs Mekaniska AB

Country: Sweden
Org. Reg. No: 556308-0323
Employees: 18
Turnover: MSEK 19

www.mobergs.se



Competences

Moberg's mission is to be a complete engineering and innovation partner in mechanical product development and production of specialized machinery, mechanical components and prototypes.

The high quality of products is guaranteed thanks to our experience and the use of modern devices and CAD-CAM design. We offer a full production cycle – from technical documentation to finished products.

Products and Services

With design and manufacturing under one roof we are time and cost effective. Moberg is a modern communicative company with fifty years experience and a large network which provides security for customers and staff.

Machine equipment

With a complete workshop with milling, turning, welding, sheet metal and assembly we can produce a unique component or machine. We are known for our flexibility which allows us to launch production quickly.

References

- Alfa Laval
- BorgWarner
- Gambro
- Tetra Pak
and others...

Nitator Stainless Steel AB



Country: Sweden
Org. Reg. No: 556534-6730
Employees: 70
Turnover: MSEK 100

www.nitator.se

Nitator 
Stainless Steel

Competences

We are one of Sweden's leading manufacturers of high quality refined stainless steel products. Our clients come predominantly from the food, nuclear and pharmaceutical industries, operating on a global basis.

The business approach employed by Nitator Stainless Steel is based on extensive experience from these industries with the very high level of security and quality that exemplifies them. Our engineering team is high educated and often they take a part in our customer's development team.

Quality Certifications:

- ISO 9001:2008
- ISO 3834-2:2005

Products and Services

Our business is to design and manufacture complex turn-key systems, tailored to the client and their needs.

- Designing in 3D Inventor.
- Manufacturing
- Assemble
- Fabrication Application Test

Machine equipment

Only the latest state of the art machinery is employed in our manufacturing process of turn-key stainless steel equipment, appliances and apparatuses. A complete in house production.

References

You will find equipment built by us in almost any corner of the globe. Please contact us for more information and for references.

NNE Pharmaplan AB

Country: Sweden
Org. Reg. No: 13 24 60 09
Employees: 1700 globally
Turnover: MSEK 1840

www.nnepharmaplan.com

nne pharmaplan®
Engineering for a healthier world



Competences

We are born and raised with the process and production understanding of a pharma-biotech company. This is the foundation of our cross-technical teams of engineers, architects, chemists and pharmacists when they design, construct, validate and start up facilities. But it also enables us to support manufacturing operations with services within optimisation, product and process development, pilot plants and laboratories.

Products and Services

NNE Pharmaplan is the world's leading engineering and consulting company in the complex field of pharma and biotech.

We cover all segments from biopharmaceuticals and vaccines to medical devices and help our customers develop, establish and improve their product manufacturing.

We have put together an offering catalogue to show the range our services. You can download the offering catalogue "What we do" from our website.

References

Visit our website for more information on our project references.

Nordholms Industri-Installationer AB



Country: Sweden
Org. Reg. No: 556195-6003
Employees: 55
Turnover: MSEK 68

www.nordholms.se

NORDHOLMS
INDUSTRI-INSTALLATIONER AB

Competences

Our core business is welding and erection in demanding environments both in our workshop and at customer site. The processes within pharmaceutical, - food and dairy and the nuclear industries can be a challenge for both manufacturing as well as for the material. Most of the systems are carried out in stainless steel but we also deliver systems in hast alloy, titanium and other materials. At our sister plant, OMEK, we manufacture machine processed details.

Qualifications:

- SS-EN ISO 3834-2
- Welding acc. to ASME/EN
- Pressurizing with gas, ISO/IEC 17020(C)
- Sellihca

We are now in the process of developing new systems for quality,

ISO 9001:2008 and environment, ISO 14001:2004.

Products and Services

- Sourcing
- Welding, manual and orbital
- Pipe bending
- Assembly
- Fiber optic control
- Pressurizing with gas
- Welding consultation – problem solutions
- Electrical and pneumatic installations
- Surface treatment

Machine equipment

- Remote mechanized welding eq.
- Orbital & manual welding eq.
- Bending eq.
- Machining such as milling and lathing (OMEK)

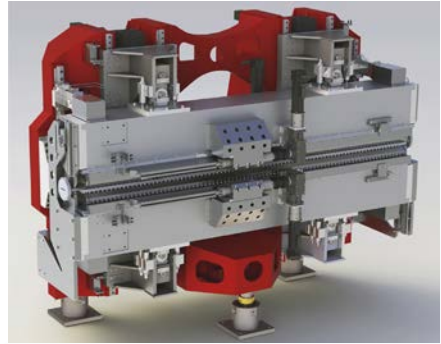
References

Please contact us for further info.

PKAB Projekt Konstruktioner AB

Country: Sweden
Org. Reg. No: 556475-6822
Employees: 8
Turnover: MSEK 8

www.pkab.se



Competences

PKAB is a well established engineering firm and has been active since 1993. We develop, design, and draw your new machine.

We can offer you:

- Engineering services
- Vacuum/cryogenics
- Technical calculations
- Project management

Machine equipment

We use and are licensed in the following cad system: SolidWorks, Inventor and Pro-Engineer. For our FEM analysis and calculations we use: SolidWorks Simulation Professional.

References

We have worked with MAX IV laboratory since 2005.

To mention some of our projects:

Right now we are busy building a new undulator (EPU 61) for the MAX IV which is a laboratory research facility for synchrotron light at the Lund University auspices. For more information visit: www.maxlab.lu.se

PKAB won a few months ago the MAX IV laboratory procurement of Mechanical Design, Mechanical Calculation-deformation, heat, etc.. and Technical Project Management Assistance.

At the moment we are busy fulfilling our commitment to be part of building Max IV Laboratory's new synchrotron light facility.

Produktionsteknik i Lund AB



Country: Sweden
Org. Reg. No: 556647-1636
Employees: 10
Turnover: MSEK 18

www.prodtek.se



Competences

Produktionsteknik i Lund AB tries to be a high end workshop in order to meet the challenges of today and tomorrow and requirements from vehicle, packaging and processing industries etc.

Certifications:

- ISO9001:2008
- ISO14001:2004

Products and Services

Produktionsteknik i Lund AB is a subcontractor of components, from prototyping to large series production and special machines. We work with many different materials such as aluminium, titanium, ceramics, copper etc.

Machine equipment

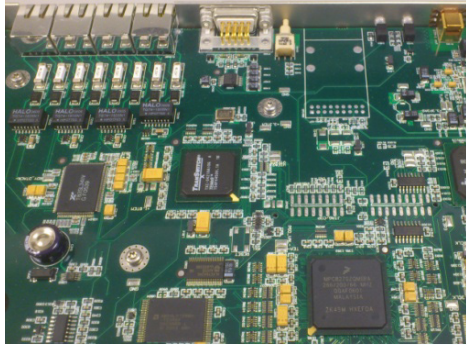
Produktionsteknik i Lund AB is specialised in 5-axis milling. We currently have six high speed and conventional high accuracy Swiss milling machines. We also have EDM wire and EDM sinking. We have a well-equipped measuring lab with optical scanner and CMM. Pro/Engineer is our main design system.

References

Produktionsteknik i Lund AB is approved mechanical supplier for MaxLab IV and also manufacturer of Diod Stacks for the LHC accelerator at CERN.

Country: Sweden
Org. Reg. No: 556585-9484
Employees: 30
Turnover: MSEK 37

www.qamcom.se



Competences

Qamcom was founded in 2001 by researchers at Chalmers University of Technology in Gothenburg, Sweden, with an ambition to be an agile catalyzer for advanced technology transfer between academia and industry. Our core competence is in analog and digital signal processing packaged complete with customized communication solutions. Starting from your signal processing needs, we can realize state-of-the-art electronics boards built to telecom carrier-grade reliability for gigabit processing needs and picosecond accuracy.

Products and Services

We provide engineering services for turnkey embedded design solutions, our analog and digital designers are backed by an experienced verification and test department. We have a fully equipped in-house development

lab and environmental testing capabilities. Product certification is carried out at renowned testing laboratories fit for our telecom and automotive/automation industry customers. We provide full software development product support enhancing our embedded solutions with the necessary client software that fits the customer needs for simple and reliable handling.

References

We have delivered complete embedded switching and routing solutions for Ericsson, including volume production test systems and long-term product support for repair and design upgrades. Our engineering specialist services are driving innovation in discrete and integrated electronics at Volvo Car Corporation, Volvo AB and Ericsson among others. We also have a successful history of supporting research at Chalmers.

RFR Solutions



Country: Sweden
Org. Reg. No: 556212-5848
Employees: 60
Turnover: MSEK 80

www.rfrsolutions.se

RFR SOLUTIONS
Stainless Steel Excellence

Competences

The processes within the science industry can be a real challenge for both manufacturing and materials. Durability, reliability and resistance to tough conditions in precise environments are factors that must be taken into serious consideration when it comes to this type of equipment. We have the right know-how and experience to meet your complex requirements and demands for stainless steel applications and other materials. We supply quality solutions from small components to large process equipment.

Quality Certifications:

- ISO 9001:2008
- SS-EN 473:2008
- ISO 3834-2:2005

Products and Services

- Design and development in 3D CAD Inventor

- Manufacturing, sourcing and assembly
- Test & Quality control

Machine equipment

- Piping including orbital welding and automatic bending
- Laser cutting, bending, rolling and welding of sheet metal
- Machining such as milling, bed milling, turning, floor type borer
- Surface treatment including grinding, blasting, pickling and tumbling
- A complete in-house production set-up of 16,000 m²

References

We deliver components, equipment and projects to a vast number of companies e.g. to the nuclear and life science industry including science related projects. Please contact us for more information about our references.

RUAG Space AB

Country: Sweden
Org. Reg. No: 556134-2204
Employees: 380 (2011)
Turnover: MSEK 679 (2011)

www.ruag.com/space

**Together
ahead. RUAG**



Competences

RUAG is an innovation driven international technology group located in Europe with 7700 employees. The Space Division within RUAG is the largest independent supplier of space technology in Europe and develops, manufactures and tests subsystems and equipment for satellites and launch vehicles.

From our locations in Europe RUAG's Space Division offers a comprehensive portfolio of products and services. Heritage and flexibility as well as outstanding reliability have made RUAG Space a long lasting partner of choice for satellite and launcher primes worldwide.

Based on the competences and facilities needed to be a successful supplier of custom made digital and high frequency electronics, antennas,

mechanical systems etc for space missions, RUAG Space offers relevant services also to the markets outside the space segment.

Products and Services

Services regarding design, assembly, electrical and environmental test of electronics (digital and microwave), antennas and mechanics to operate at e.g. extreme temperatures and in vacuum are offered.

Due to excellent process competence and control RUAG Space is highly appreciated as a prototype partner, also for Multi-Chip-Module assemblies. We also offer material and failure analysis services.

Scanditronix Magnet AB



Country: Sweden
Org. Reg. No: 556224-6107
Employees: 30
Turnover: MSEK 50

www.scanditronix-magnet.se

SCANDITRONIX
Magnet

Competences

Scanditronix Magnet has over the last decades become an established supplier of magnets and coils for medical, industrial and research purposes. Our products are used in accelerator systems at research laboratories and in equipment used for the treatment of cancer.

Scanditronix Magnet is a combination of an experienced engineering team, a long tradition of coil manufacturing and dedicated assembly and quality assurance teams making us the natural choice for handling every step of the production chain – from field calculations to field mapping of the finished product.

Products and Services

Magnets and coils for medical, industrial and research purposes:

- Magnetic design
- Mechanical design
- Manufacturing
- Assembly
- Quality Assurance
- Magnet field measurements

References

Scanditronix Magnet has more than 20 years experience of manufacturing magnets and coils for particle accelerators for laboratories in Europe, Asia and North America. Please contact us for more reference information.

Country: Sweden
Org. Reg. No: 556539-9549
Employees: 3000 (globally)
Turnover: BSEK 2.5 (globally)

www.semcon.com

SEMCON



Competences

Semcon is a global company active in the areas of engineering services and product information. The Group has nearly 3,000 dedicated and highly skilled employees, who develop the future with our customers and challenge ourselves to be at the forefront every day.

Semcon has more than 30 years of experience in its chosen industries – automotive, life science, telecommunications, energy and other development intensive industries.

Products and Services

We develop technologies, products, plants and information solutions along the entire development chain and also provide many services including quality control, training and methodology development.

Semcon boosts customers' sales and competitive strength by providing them with innovative solutions, design and solid engineering solutions.

The Group has sales of SEK 2.5 billion and activities at more than 45 sites in Sweden, Germany, the UK, Brazil, Hungary, India, China, Spain and Russia.

References

For more information about our references, please visit the website and read our case studies.

SpecialTeknik



Subcontracting



Automation



Service



Construction forging

Country: Sweden
Org. Reg. No: 556083-4755
Employees: 170
Turnover: MEUR 23

www.specialtec.se



Competences

Over 100 of our employees are associated with the business area of subcontracting metal components/constructions. In addition we have a department that solely focuses on the development of state of the art technology solutions to optimize workflows and satisfy unique needs. We work in a variety of industries, mainly in manufacturing where there are high demands on functional, automatic technical solutions.

Products and Services

Our building blocks are subcontracting, automation, service & support and industrial- & construction forging. A good service and strong customer relation is a first. No challenge is too small, or too big.

Machine equipment

- Laser- & water cutting
- Bed mill, MAS CNC 70
- Dörries CNC 2400mm/1500mm
- Tos WHQ 13
etc.

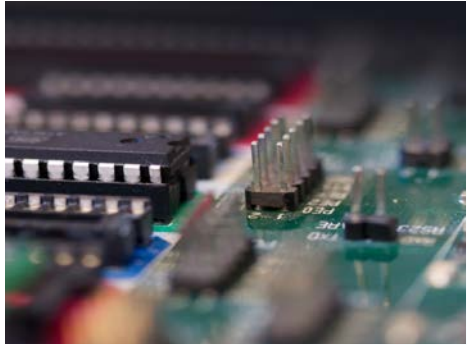
References

Partnership with Envac, a market leader in development and sales of automated waste disposal systems. This involves managing the assembly of their systems requiring both accuracy and professionalism. For example it's of great importance that all welds are completely sealed for the installation to function properly since it's based on vacuum technology.

Svep Design Center

Country: Sweden
Org. Reg. No: 556366-7640
Employees: 41
Turnover: MSEK 36

www.svep.se



Competences

Svep Design Center are experts in problem solving! We supply development services for software, electronics and mechanics and specialize in man-machine solutions, RF design, Ultrasonics and design for EMC. We solve your problems!

Products and Services

Our services include design of electronics and software by experienced engineers and project managers. We have access to all equipment and instruments required, including scopes, milling, RF instruments etc. as well as advanced tool chains for software and electronics development.

Through our extensive network of partners that includes PCB-manufacturers, manufacturing specialists, 3D design, prototype suppliers, we provide turn-key

solutions for any type of problem! We take care of your problems!

References

We supply our services to Swedish and International customers, among them Lund University, Sony Mobile, ST-Ericsson and a large range of medium sized companies in the region and worldwide.

T Knutsson AB



Country: Sweden
Org. Reg. No: 556474-5775
Employees: 8
Turnover: MSEK 30

www.tknutsson.com



Competences

We are a trading house located in Malmö Sweden and our principals, Flohe GmbH and TAV has delivered products to the CERN facility. Flohe is manufacturing high current cables for different applications and TAV is manufacturing Vacuum furnaces for heat treatment, brazing and sintering purposes.

Products and Services

- Tailor made high current cables ready for use to different applications.
- Engineering and manufacturing of Vacuum furnaces for industrial purposes.

References

Flohe GmbH www.flohe.com has delivered copper cables and TAV www.tav-alto-vuoto.it has delivered vacuum furnaces to the CERN facility.

Country: Sweden
Org. Reg. No: 556546-8963
Employees: 350 (Scandinavia)
Turnover: n/a

www.thalesgroup.com

THALES



Competences

Thales has been for decades a world leading manufacturer of high-power tubes and transmitters. Multi-disciplinary expertise also allows Thales to provide a global offering to scientific infrastructures, ranging from the design to the production and integration of systems or sub-systems.

Products and Services

Thales supplies RF sources up to very high power for particle accelerators, fusion reactors, etc...

Thales also provides design, production and integration of complex system or sub-systems such as experiment chamber hall, energy benches, vacuum and fluid networks or opto-mechanical components: monochromators, collimators or spectrometers.

Machine equipment

Thales offers powerful R&D, production, and testing facilities (100 000 m2 industrial surface including more than 10 000 m2 clean rooms) to fully meet the needs of the scientific market. Our industrial sites comply with ISO 9001:2008 and ISO 14001 certifications.

References

Thales RF sources are part of the world's most prestigious facilities, whether for particle physics, nuclear physics, light sources or nuclear fusion: SSRF, BEPCII, TPS, CERN, XFEL, INFN, EPFL, CEA, FZK, ALBA, Los Alamos, Oakridge, Brookhaven,...

Design and production of complex systems and sub-systems include programs such as Megajoule Laser (CEA DAM), AIRIX, etc.

TICRA



Country: Denmark
Org. Reg. No: 1055 8697
Employees: 19
Turnover: n/a

www.ticra.com



Competences

TICRA's state of the art modelling software is used worldwide by the most prominent companies in the antenna industry, from huge enterprises through universities and space organizations, to one-man consultancies. This widespread usage is supported by numerous references in the open scientific literature.

TICRA provides consultancy services within the areas of electromagnetic analysis and design. Our team of highly educated engineers with substantial experience ranging from electromagnetic field theory, through numerical methods to development of advanced graphical user interfaces, is in place to assist. Some examples, mostly from projects with the European Space Agency, are shown in our website.

Products and Services

- Scattering analysis of RF EM fields, accounting for surface curvature and surface materials, e.g. polarization grids, frequency-dependency, loss, and more
- Development of computational and optimization algorithms for advanced EM analysis
- Developer and supplier of commercial design and analysis software for reflector antenna, and for antenna diagnostics based on RF measurements

Time Critical Networks AB

Country: Sweden
Org. Reg. No: 556761-4366
Employees: 5
Turnover: newly started

www.timecriticalnetworks.com



Competences

Time Critical Networks (TCN) develops software tools for design and analysis of Ethernet networks with promised response times, determined level of jitter and no packet drops. Through TCNs patent pending technology you can design and analyze any type of Ethernet network and automatically configure normal Ethernet COTS (Commercial Off-The-Shelf) switches.

Products and Services

TCN Real-time Modelling & Verification Suite is the only model-based design and analysis software tool based on determinism

- TCN TimeAnalyzerTM - Model based network design and analysis
- TCN StreamAnalyzerTM - Test and verification of real network performance

TCN Real-time Modeling &

Verification Suite allows fast and cost-effective implementations of standard Ethernet networks. It improves your ability to create robust and stable Ethernet networks. TCN Real-time Modeling & Verification Suite is an enabler for standard and switched Ethernet networks for all kind of time-critical or time-dependent applications.

References

Time Critical Networks signed an agreement in May 2011 with a pan-European automotive consortium of in total 17 companies and organizations. The TIMMO-2-USE project objective is on time-critical in-vehicle communication systems, such as brake-by-wire, steer-by-wire, etc. The TIMMO-2-USE project aims at increasing the efficiency and accuracy in handling timing-related issues in the complex development of real-time embedded systems.

Triacon Scientific AB



Country: Sweden
Org. Reg. No: 556475-1351
Employees: 10
Turnover: MSEK 12

www.triacon.se



Competences

At Triacon we provide help for your embedded project and can assist you with development tools as well as consultancy services. We have a very experienced team of engineers ready to help you in your project. Our proficiency covers as well analogue as digital electronics design.

Typical applications are e.g. control systems, interface and measuring systems. We are working in several business areas such as medtech, science and industry.

Products and Services

Products (Development tools):

- ECAD – Altium Designer
- Emulators and analyzers – iSystem, Spectrum Digital
- Boundary Scan test tools – XJTAG
- Software test and diagnose – LDRA
- RTOS - CMX

Services:

- Electronics R & D
- Schematic and PCB CAD
- Programming
- Prototype build
- Manufacturing of production

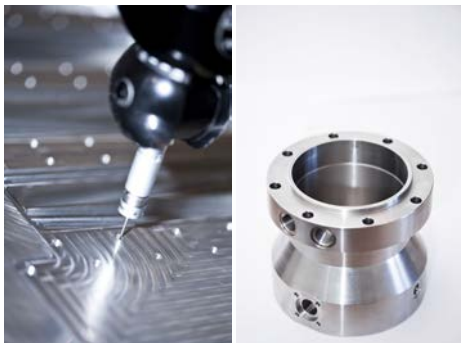
References

Triacon has been in the business since 1993 and have during that period of time developed a large amount of different products and systems. Please contact us for references.

Trier Christensen MaskinFabrik A/S

Country: Denmark
Org. Reg. No:
Employees: 40
Turnover: MDK 38

www.trierchristensen.dk



Competences

Is the processing of Steel, cast iron, stainless steel, Aluminum, high-tensile steel, and other metals. We are ISO 9001 certified, and have existed since 1929. We know what we're talking about.

Products and Services

Trier Christensen Maskinfabrik A/S has a broad range of service offers covering everything from advanced CNC machining series, as well as single applications to complete automation solutions for modern companies.

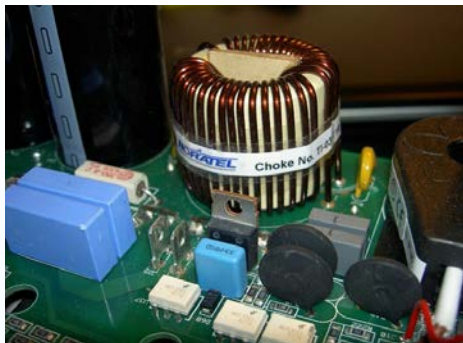
Machine equipment

We have probably one of the most modern machine parks in Denmark. We keep ourselves constantly informed of the new machines and technologies that are on market. In 2011 we bought three new machining centers.

References

We have contact too several univer-sities in Denmark, and in Sweden as well, we also have good contact to CERN in Switzerland. In Denmark we serve some of the largest wind turbine manufacturers like Vestas and Siemens. We also supply the pump Group Grundfos and many other industrial companies.

Univertron AB



Country: Sweden
Org. Reg. No: 556740-9015
Employees: 5
Turnover: MSEK 4.3

www.univertron.com



Competences

We are a small electronic engineering and manufacturing company. Our core business is development of electronics, but we also manufacture both the products that we have designed, and product for other companies.

We are very skilled in:

- Power electronics
- Switched mode powersupplies (mW- kW)
- Control systems
- Measurement systems
- Certified soldering (FSD5115)

When it comes to electronics, we can help you!

Products and Services

We help our customers with:

- Development
- Electronics design
- Schematic capture
- PCB layout

- Prototypes
- Programming for embedded systems
- Manufacturing optimizing
- Manufacturing

Machine equipment

- Manufacturing
- EMC precompliance
- HiPot testing
- Power analyzer
- Temperature measurement
- Multimeters, oscilloscopes, variacs, LCR e.t.c.

References

We have done many different projects, please contact us for an appropriate reference.

Westcontrol AS

Country: Norway
Org. Reg. No: 982378664
Employees: 130
Turnover: MNOK 200

www.westcontrol.com



Competences

WESTCONTROL is a turnkey supplier that can design, develop and manufacture products for the majority of industries and applications, covering the whole process from idea to finished product. Products that have been manufactured by us can be found in your own living room, helicopters, the bridge of a ship, or deep down in an oil well!

As a minimum standard, we deliver electronics produced and inspected in compliance with IPC A610, Class 2, but we are also glad to deliver Class 3 or customer specific requirements when requested, and we have also implemented the J-001 production standard.

The company is ISO 9001 certificated, and also member of Achilles Joint Qualification System.

Products and Services

WESTCONTROL's engineers have developed solutions that are used in demanding environments, in places where the products are exposed to the weather, wind, dampness, salt, vibration, pressure and high temperatures. Our mechanical engineers can produce robust machined solutions to protect the electronics, and our automation and installation engineers are experts at cabling, PLCs, and connections to existing systems, to give the customer a complete solution.

Our engineers can also make sure that the products are delivered with the required approval and documentation.

Machine equipment

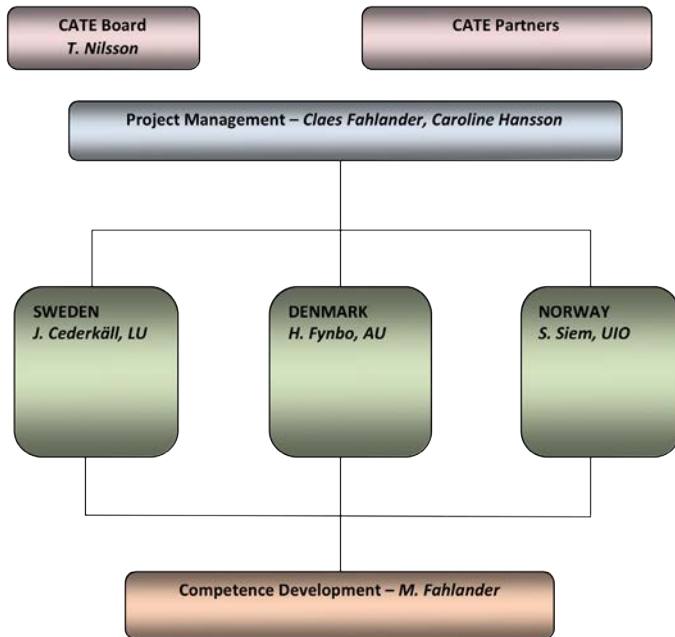
Pick & Place lines, Automatic Optic Inspection engines, varnishing robots, x-ray inspection and PCB washing system.

Company contacts

3P Technology Michael Smith mls@3ptechnology.com	p. 8	European House of Quality A/S Anette Svenningsen as@sherlock.dk	p. 21
ADD Film & Media Lars Persson-Tille tille@addmedia.se	p. 9	EWCON Ronny Roth ronny.roth@ewcon.se	p. 22
AREVA NP Uddcomb AB Andreas Medegård andreas.medegard@telia.com	p. 10	Examec Group AB Mats Ohlsson mats.ohlsson@examec.com	p. 23
Binar Elektronik AB Leif Gustavsson leif.gustavsson@binar.se	p. 11	Fagerström Industrikonsult AB Per Fagerström per.fagerstrom@fagerstrom.se	p. 24
Blunico Rustfrit Stål A/S Bo R. Ulsøe bru@blunico.dk	p. 12	Graniten Anders Johansson anders.johansson@graniten.com	p. 25
Bürkert-Contromatic AB Michael Bäärnhielm michael.baeaernhielm@burkert.com	p. 13	Hj Edwards & Co AB Anders Månsson anders.mansson@edwards.se	p. 26
Calmon Stegmotorteknik AB Magnus Larsson magnus.larsson@calmon.se	p. 14	Homatic Engineering A/S Thorvald Horup th@homatic.dk	p. 27
Crosslinking AB Bengt Laurell bengt.laurell@crosslinking.com	p. 15	HydX AB Stefan Holmberg stefan.holmberg@hydx.se	p. 28
Danfysik A/S Arnd Baurichter arba@danfysik.dk	p. 16	Idé-Pro Engineering & Software A/S Henrik Iversen hi@ipes.dk	p. 29
Danish Aerotech A/S Steen Vindt steen.vindt@aerotech.dk	p. 17	Institute for Energy Technology Kristin Wickstrøm Kristin.wickstrom@ife.no	p. 30
Ekström & Son Lars Gunnarsson lars.g@ekstrom-son.se	p. 18	Kirkholm Maskiningeniører A/S Jakob Elmose jel@kirkholm.dk	p. 31
Eltech Automation Mikael Carlsson mikael.carlsson@eltechautomation.se	p. 19	KISAB Heinz Abrahamsson heinz@kisab.eu	p. 32
Etteplan Industry AB Einar Zettergren einar.zettergren@etteplan.com	p. 20	Kockums AB Roger Berg roger.berg@kockums.se	p. 33

Low2High Vacuum AB Sofie Olovson sofie.olvson@low2high.se	p. 34	Semcon Magnus Pårup magnus.parpur@semcon.com	p. 47
Luma Metall AB Thomas Adolffsson thomas@luma-metall.se	p. 35	SpecialTeknik David Blixt david.blixt@specialteknik.nu	p. 48
Lundinova Anders Alvin and@lundinova.se	p. 36	Svep Design Center Mikael Hegardt mikael.hegardt@svep.se	p. 49
Mobergs Mekaniska AB Fredrik Moberg fredrik@mobergs.com	p. 37	T Knutsson AB Carsten Ahlcrona carsten@tknutsson.se	p. 50
NITATOR Stainless Steel AB Bengt Larsson bengt.larsson@nitatorstainless.se	p. 38	Thales Christophe Pialot christophe.pialot@thalesgroup.com	p. 51
NNE Pharmaplan AB Sandra Larsson SDLO@nnepharmaplan.com	p. 39	TICRA Per Nielsen phn@ticra.com	p. 52
Nordholm Industri-Installationer AB Sofia Hygrell sofia.hygrell@nordholms.se	p. 40	Time Critical Networks AB Jörgen Olsson jorgen.olsson@timecriticalnetworks.com	p. 53
PKAB Projekt Konstruktioner AB Stefan Lundahl stefan.lundahl@pkab.se	p. 41	Triacon Scientific AB Jan Lundgren jan.lundgren@triacon.se	p. 54
Produktionsteknik i Lund AB Jakob Fornander jakob@prodtek.se	p. 42	Trier Christensen MaskinFabrik A/S Per Villadsen pv@trierchristensen.dk	p. 55
Qamcom Fabian Wenger fabian.wenger@qamcom.se	p. 43	Univertron AB Mikael Hansson micke@univertron.com	p. 56
RFR Solutions Mats Orup Mats.Orup@rfrsolutions.se	p. 44	Westcontrol AS Ingar Bergeland ingar@westcontrol.com	p. 57
RUAG Space AB Jesper Schönbeck jesper.schonbeck@ruag.com	p. 45		
Scanditronix Magnet AB Mikael Vieweg mikael.vieweg@scxmagnet.se	p. 46		

CATE organisation



CATE team

SWEDEN

Joakim Cederkäll
Claes Fahlander
Mirka Fahlander
Caroline Hansson
Wolfgang Hees
David Lindén
Thomas Nilsson

joakim.cederkall@nuclear.lu.se
claes.fahlander@nuclear.lu.se
mirka.fahlander@education.lu.se
caroline.hansson@oresund.lu.se
wolfgang.hees@esss.se
david.linden@skane.se
thomas.nilsson@chalmers.se

DENMARK

Niels Bech Laursen
Juliette Forneris
Hans Fynbo
Michel Honoré
Søren Larsen
Torben Lorentzen

nbl@vhmidtjylland.dk
jufo@risoe.dtu.dk
fynbo@phys.au.dk
mih@force.dk
sla@outreach.au.dk
tbl@force.dk

NORWAY

Andreas Gørgen
Sunniva Siem
Gry Merete Tveten

andreas.gorgen@fys.uio.no
sunniva.siem@fys.uio.no
g.m.tveten@fys.uio.no



EUROPEISKA
UNIONEN
Europeiska
regionala
utvecklingsfonden



Interreg IVA

ÖRESUND – KATTEGAT – SKAGERRAK

CATE - Cluster for Accelerator Technology

www.cateproject.org



CHALMERS



LUND UNIVERSITY



UIO : Universitetet i Oslo



AARHUS UNIVERSITET



EUROPEAN
SPALLATION
SOURCE



Danmarks
Tekniske Universitet



SVENSKT NÄRINGSLIV
CONFEDERATION OF SWEDISH ENTERPRISE



Organisation for erhvervslivet



Handelskammaren
i sydsvenska företags intresse



VÄSTRA
GÖTALANDSREGIONEN



REGION
SJÆLLAND



Region
Hovedstaden