

Infrastructure and mining services in Greenland



AARSLEFF

www.aarsleff.com



PER AARSLEFF A/S

The Aarsleff Group operates at an international level and has a leading position in Denmark. Our annual revenue is DKK 10.4 billion – of which 27% comes from abroad. The Group is organised in independent, competitive companies each with their own specialist expertise. We focus on the integration of our specialist expertise into turnkey solutions with a high degree of own production. We refer to this as One Company, meaning that we seek and exploit synergies. Our high-level expertise makes us specialists in planning and implementing large, complex projects within infrastructure, climate change adaptation, the environment, energy and building construction. We build long-term partnerships with our customers and add essential value to projects by means of early involvement. We specialise e.g. in harbour and marine construction, railway work and execution of technical contracts with subsequent operation and service. We undertake building and renovation projects and enter into contracts for the operation and maintenance of buildings. We are market leaders with a strong international profile in pile foundation and trenchless pipe renewal, and we seek and exploit the advantages of industrialisation. The Aarsleff Group has 5,900 employees.

KEY COMPETENCIES

Civil engineering work:

- Mining service
- Geotechnical investigations
- Airports
- Harbours
- Cofferdams
- Site developments
- Roads
- Tunnels
- Reservoirs
- Pipelines
- Installation and renewal of sewer pipes and systems.



QUALITY, SAFETY AND ENVIRONMENTAL MANAGEMENT

The purpose of Per Aarsleff A/S's management systems within quality, environment and occupational health and safety is to ensure that these are a natural part of all processes in the company, including sales and order acquisition, production and project management as well as installation, service, operation and maintenance.

The management systems support us in the process of knowing and complying with our stakeholders' needs, requirements and reasonable expectations by having a good attitude within quality, environment and occupational health and safety in our daily work.

By following the management systems, we are aware of our significant quality, environmental and occupational health and safety conditions and based on these, we set up goals and work with continuous improvements. These conditions are also taken into account in decisions to implement new processes and technologies.

Our policies have stakeholder focus and improvement culture as a top priority and the executive management ensures that the stakeholder requirements are determined and met.

The management systems, including certifications, provide a basis for our efforts to continuously improve and meet customer requirements and regulatory requirements.

Fields of certification and requirements

The management system's joint scope is:

Contracting services; production and development within new establishment, maintenance, renovation, operation and servicing of infrastructure and construction.

The certification basis and regulatory requirements of the management systems are:

- OHSAS 18001:2008 Occupational health and safety management systems and executive order no. 1191
- ISO 9001:2015 Quality management and executive order no. 545 on quality management systems for authorised companies within the plumbing and sewage industries
- ISO 14001:2015 Environmental management and executive order no. 1212 on energy audit
- ISO 10006:2003 Quality management of projects.

We work closely with our clients; the idea is to form a team sharing the goal of bringing the prospected resources to running a mine through experienced consulting and construction

*In Greenland, v
stages or from
of successful*



EXPLORATION

From the first day of planning, we can support with permitting and planning. When heading to the site, we are experts in logistics, camp and catering services as well as management of the site.

Nothing is standard solution due to the remoteness of the Greenlandic sites. We are able to come up with tailored solutions for each site, focusing on both cost and practical issues. In addition, we also support with resource core drilling and labour works.

FEASIBILITY STUDIES

Through our experience in the field, we can contribute in the feasibility studies taking care of all infrastructure work, logistics, site services and different power solutions. We understand that good planning is crucial for an EPCM project and over the last 50 years, we have been successful through good planning and scheduling of construction work.

We can manage the work in cooperation with other consultants and bring together the needed team for a complete feasibility study together with our partners in Greenland, Canada, Denmark or Iceland.

We have inhouse knowledge of geotechnical engineering work and land surveying. For environmental or social impact studies, we find the best consultant for each project through our network of partners.

PERMITTING AND DETAILED DESIGN

Building up a good relationship with local authorities might be the key for future success of the mine.

We understand that time schedules are important to you and have to be focused on during the permitting stage.

Through our experience and our partners' consultancy, we can handle legal and administrative statutory requirements and all detailed design to keep the project on schedule.

*We can support you in all
in exploration through end
mine life.*

*Short shipping window, remote site; sometimes you
need to think out of the box to get there in time
- we are able to do so.*



CONSTRUCTION ON SITE

As heavy constructions are our core business, we are able to handle your project through the construction phase with engineering, procurement and construction management. We understand the importance of a sound project which comes with focus on planning, health and safety, quality and environmental management and of course keeping financial limits together with agreed time schedules.

Our core business is construction of all infrastructure works, such as harbours, airstrips, tailing dams, service and haul roads, tunnels and all site earthwork. We outsource or enter into joint ventures with the best possible building, electrical or mechanical contractors on a case to case basis to obtain the best group to construct your project.

OPERATION OF MINE

Running the mine is the heart of the whole phase from exploration to mine and should be operated in the best possible manner. Through our long-term experience in harsh climate conditions, we can handle all drilling and blasting work, hauling the ore to the process plant, all logistics to and from site and all site services including camp and catering.

CLOSURE OF MINE/ ENVIRONMENTAL ISSUES

Environmental issues regarding mines are quite important to mine owners and the authorities. After successful mining operation, we can support your project with estimating closure costs and handle all demolition and removal of equipment and materials to fulfil your obligations in the closure plan.

COLLABORATION

- Partnering
- Joint venture
- Turnkey solution

Consultancy based on technical and constructional know-how

Aarsleff offers design and consulting services, management and supervision and has special know-how of international standards. We provide consulting engineers for all kinds of civil works, and through our partners we can provide the same for buildings, industrial plants and environmental consultancy services.

Over a span of approx. 50 years, we have built up extensive international experience within construction. We have local knowledge and worldwide experience for a successful implementation of your project.

REFERENCES

- Renewal of POL fuel system at Daneborg Station, Greenland
- Thule Tracking Station, Greenland
- Harbour extension in Sisimiut, Greenland
- Handling and disposal of scrap metal, Thule, Greenland
- Dunda's environmental clean-up measures at Thule Air Base, Greenland
- Foundation of new dormitory at Thule Air Base, Greenland
- Renovation of POL system at Grønnedal, Greenland
- Repair of aprons Phase IV, Thule Air Base, Greenland
- Coastal protection, Thule Air Base, Greenland
- LNG Terminal, Breakwater Construction, Swinoujscie, Poland
- The Øresund Fixed Link, marine stone construction, Denmark
- Extension and rehabilitation of breakwater, Klaipeda State Seaport
- Køge Soil Deposit – new access road, cofferdam and outfalls, Denmark
- Foundations for the offshore wind farms Rødsand 1 & 2 and Horns Rev 2
- Mine clearance at Skallingen, Denmark
- Renewal of POL fuel system at the military and scientific station "Station Nord"
- Construction of workshop and storage facilities at Thule Air Base
- New container terminal in Nuuk



Innovative production methods and skilled personnel surged for an excellent result. A good and honest dialog through the Project contributed to make the project a success."

E.ON Vind Sverige AB, Offshore based foundations at Rødsand 2, Rødby, Denmark

SUBSIDIARIES

Dan Jord A/S

General construction company

Petri & Haugsted AS

Paving, cable works and civil engineering contractor

Wicotec Kirkebjerg A/S

Electrical & technical installations and related service works

Ístak hf.

Buildings, power plants, harbours, tunnels, roads and bridges

Hansson & Knudsen A/S

Building works, renovation and maintenance

Aarsleff Rail A/S

Rail infrastructure works

VG Entreprenør A/S

Coastal protection, harbour and general construction works

Østergaard A/S

Paving, earth works, roads, drilling and No-Dig construction works

Per Aarsleff Grønland ApS

Operations in Greenland



Performance assessment for this contract was exceptional."

Department of the Air Force, Coastal Landfill Face Stabilization and Protection Project, Thule Air Base, Greenland

POTENTIAL PARTNERS

KJ GREENLAND A/S

Greenlandic construction company

INUPLAN A/S

Greenlandic construction engineering consultant incl. EIA

Landsvirkjun Power ehf

Hydro-power solutions.

EFLA ehf

Multidisciplinary engineering consultant incl. EIA and SIA

For further details, contact

CHRISTIAN LUNDHUS

Project Director

Construction

E-mail chl@arsleff.com

Mobile +45 2153 0026



AARSLEFF

Per Aarsleff A/S

Main office

Hasselager Allé 5

DK-8260 Viby J

Denmark

Tel +45 8744 2222

Copenhagen office

Industriholmen 2

DK-2650 Hvidovre

Denmark

Tel +45 3679 3333