

A blue-tinted photograph of an industrial workshop. In the foreground, there are large, curved metal components, possibly parts of a ship's hull or a large machine. In the background, several workers wearing hard hats and safety gear are visible, engaged in various tasks. The scene is filled with scaffolding, pipes, and other industrial equipment. The overall atmosphere is one of a busy, large-scale manufacturing or construction environment.

Service

TELATEK

Telatek Service is specialised in service and maintenance technology, and in machine and equipment installations. Telatek Service is part of the Telatek Group.



TELATEK

Telatek was founded in 1977 with the launch of a servicing and maintenance business in Raahel. These operations have subsequently grown and diversified to incorporate a wide range of expertise in various fields. From the very outset the guiding lights of Telatek have been innovation and the development and adaptation of new technologies. This is why Telatek is now a leading operator in such fields as servicing and maintenance technology services. We employ more than 200 people, sharing the values of openness, working for results and keeping our promises. Our goal is to grow so that we can serve our clientele in various ways both in Finland and abroad.

Service

Telatek Service is a professional in the fields of machine installation and coating, and in industry maintenance. Our services consist of coating, machining and installation work carried out on the client's premises. We also have a versatile workshop for carrying out demanding coating and engineering job, and we develop and manufacture various spraying and welding coatings and brush electroplating for the process industry. These coatings effectively prevent damage caused by wear and corrosion. Our services also encompass supervision of installations and technical measuring assignments, and we perform machine installations, and associated steel structure and engineering work and purchasing.

Our wide-ranging clientele comprises operators in the energy, marine, oil refining, steel, mining, timber, paper and process industries. We are specialised in the coating and maintenance of turbines, power boilers and various rolls and cylinders, machine installations and industrial maintenance work. Our flexible approach is well suited to the needs of large-scale industry and of our clients around the world. We can react rapidly in various situations to minimise downtime caused by repair and maintenance work. Telatek Service staff are renowned for their proficiency and co-operation skills.

Services And Technologies

- Thermal spraying
- Weld surfacing and cladding
- On-site machining
- Machine installations and engineering work

Telatek Service

- Locations: Raahe, Nokia
- Founded in 1977
- Employees: approximately 100

Clients

- Metso Oyj
- M-real Corporation
- Alstom
- Neste Oil
- Fortum Oyj
- ABB
- GE Energy
- Rautaruukki Oyj
- Energoatom (Russia)

Thermal spraying is a general term for spraying methods in which a solid filler is melted and sprayed at high speed as fine mist onto a pre-treated surface to form a durable coating. The fillers may be metals, alloys, oxides, carbides, plastics or combinations of these materials.



Mika "Jälli" Jatkola has plenty of experience in thermal spraying. Over the past 15 years he has sprayed dozens of applications at hundreds of locations. His work includes a great deal of travelling, as most thermal spraying is done on site.



Thermal Spraying

Telatek Service is specialised in thermal spraying, which is used in various industries to extend the life of machinery and equipment. Thanks to our extensive range of coatings, our methods can be applied to many applications and to machinery and equipment of varying size.

Our clients have been positively surprised by the many advantages of thermal spraying, as demonstrated through such factors as lower spare part investment and maintenance costs, improved serviceability of equipment, and higher quality output. In power plants, for example, coatings help to achieve significantly higher efficiency and lengthen the useful life of equipment and machinery. Typical applications for thermal spraying include power plant boilers, turbines, offshore and onshore structures, and paper machine rolls and cylinders.

Our staff are accustomed to reacting quickly to our sudden client requirements and working in challenging conditions. Our clients appreciate our reputation as reliable and professional operators who are easy and comfortable to work with.

Telatek offers the following thermal spraying methods:

- Powder flame spraying
- Wire flame spraying
- Spray-fuse method
- Arc spraying
- Plasma spraying
- Supersonic spraying, HVOF

Uses:

- Turbine housings
- Turbine parting planes
- Sealing faces of housings and inlet vane brackets
- Steam guide plates
- Turbine pipes and other pipes
- Valves
- Pumps
- Axles, spindles and screws
- Bearing and sealing faces



Ari Haapala's work as a welder demands skill and precision. This picture shows how the life of a new product can be extended by hard surface welding. Telatek has developed leading methods for hard surfacing, with work done by top professionals

Weld Surfacing And Cladding

Weld surfacing is used when an item is badly worn or requires a new, wear-resistant surface. Many types of industrial equipment require protective materials to shield them from intense wear and corrosion. Telatek Service has developed various fillers for many applications to prevent wear from abrasion, erosion and corrosion. Our extensive range of welding materials and available coating techniques enable the optimal selection of coatings for each application. Typical coating items include valves, pumps, axles, spindles and screws, and bearing and sealing faces.

One special area of expertise of Telatek Service is repair welding of large workpieces. The repair welding process varies in individual cases. Our experienced professionals study the material to be repaired and perform a damage analysis, which then forms the basis for planning a repair procedure and applicable inspections for implementing the work.

Another important product group is wear plates. These have a hard surface that is welded or melted onto an S355 base plate selected according to the requirements of the application. Wear plates are used in such applications as crushers, screen plates, bunkers/silos, drums, fans, conveyors, cyclones, pipes, mixers, chutes, furnaces and mills.

Weld surfacing methods used by Telatek Service:

- Submerged arc welding: single wire, multi wire and strip-electrode
- MIG-, MAG- and open arc welding
- Shielded metal arc welding
- Gas tungsten arc welding (TIG)
- Powder plasma welding
- Gas welding

Application of methods

Weld surfacing is used when an item requires a wear-resistant surface. The correct coating creates a thin layer that protects the item from damage due to such factors as erosion and corrosion.

Cladding is used for items that require a thicker coating and filling of a damaged area. Welding is a good option for improving a surface if the item endures thermal stress and heat does not cause harmful metallurgical changes.

The hard surface is always selected according to the requirements of the intended use: carbide content, hardness, hot hardness, toughness, corrosion resistance, carbide type, and thickness of coating. The base material may also be austenitic or of hardox-type.



Telatek designs and builds machining equipment for various applications. The broaching drill shown in this picture was designed for machining the insides of turbines at the Sosnovy Bor nuclear power plant. All machines are purpose-built to suit their application. **Esko Holappa** has been involved in several projects, and has a reputation for reliability and proficiency.

On-Site Machining

Most Telatek Service services are performed on site at the client's location. This provides various benefits for the client: reduced downtimes and overall costs save time, money and trouble.

Flexibility and reliability are our watchwords. Our capable staff are accustomed to demanding and ever-changing situations, which means that we can react quickly when unexpected problems arise.

We are well equipped for on-site repair work. Mobile machining equipment and tools even enable large-scale repairs to be performed without disassembly. Besides machining, thermal spraying is often required to add material at the repair site. We can also design and build suitable tools for the site when required.

On-site machining offers clear benefits in:

- Reduced downtimes
- Repair and maintenance of large and heavy machines and their parts
- Repair and maintenance of equipment at irradiated locations
- Long transport distances
- Reduction in required disassembly work, allowing maintenance of large components that may be almost impossible to detach and send to the workshop

Our equipment

- Turning orbital lathes
- Milling machines with guide lengths of 1–10 m
- Cylinder grinders with extendable guide lengths
- Horizontal boring machines
- Mobile multi-axle boring machine
- Carrying ring lathes
- Front-loading lathes
- Chucking lathes
- Journal grinding machines
- Keyway milling machines
- Mechanical stages, turntables, extendable cables, magnetic drills, grinders



Vesa "Vesku" Rosqvist has been maintaining and servicing machines for the forest and metal industries at Teletek for several years. This picture shows one of his typical assignments: the forming part of a board machine during shutdown. The clients are located all over Europe, so Rosqvist is accustomed to travelling.

Machine Installations And Engineering Work

The operations of Telatek Service include machine installations and industrial maintenance. Our services also encompass supervision of installations and technical measuring jobs. Thanks to our extensive expertise, we are able to manage all aspects of large-scale projects. For example, we have completed various machine installation contracts including steel structure and engineering work, together with associated purchasings.

The versatile machinery at our workshop enables us to perform various engineering assignments, for example for power plants and other process industry. Our engineering operations serve all units in the Telatek Group, enabling performance of major diversified projects.

We are renowned as an experienced, swift and reliable partner. We continually and systematically train our mechanics and responsible staff to keep pace with rapid progress in the sector. We are keen to maintain our lead, so that we can serve our clients using the latest technologies in a versatile and proficient manner. All of our mechanics have the required occupational safety cards. Factory-specific safety training ensures the safety of work performed on the client's premises.

Our typical assignments include:

- Installations of industrial equipment and machinery
- Dismantling and moving machine lines
- Supervising installations
- Optical and laser measuring
- On-site assemblies
- General maintenance

Equipment at the workshop

- Lifting capacity 50 t
- Approximately 40 HVOF, plasma, arc, wire flame and powder flame spray units
- Heat treatment furnace: 7,000 x 3,500 x 3,500 mm, Tmax: 800 °C
- Carousel lathe: IM 557, d 3,200 x 1,600 mm, 20 t
- 2 mobile heat treatment devices
- Automated multi-wire welding system: table of 2,000 mm x 9,000 mm, 20 t rotating device, turntable
- Horizontal boring machine TOS, 4,800 x 1,500 x 2,300 mm, 30 t



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