



SELMERS

PIPE BLASTING AND COATING SYSTEMS
PIPE HANDLING EQUIPMENT



Concrete weight coating systems

www.selmers.com



Pipe end cleaning area before curing

The company

Selmers is a leading manufacturer of plants and equipment for internal and external pipe cleaning, pipe coating and pipe handling. Established in 1966, the company has become a renowned supplier of comprehensive yet flexible pipe cleaning, coating and handling solutions with a high reliability and operational efficiency.

Selmers represents a highly educated, compact team of engineers, perfectly skilled to provide innovative and reliable tailor-made solutions, dedicated to make projects a success for all who are involved.

With 50 years of experience in pipe coating equipment supply, Selmers is the leading solution provider in this industry and dedicated to make your project successful.

Selmers anticipates the challenges involved with working in remote locations at virtually any place in the world and emphasizes to have the necessary knowledge, experience, company strength and commitment to supply plant solutions, spares, after sales services, quality assurance and technology transfer packages that are crucial to the success in running a pipe coating venture in your country.

Concrete Weight Coating

The concrete weight coating of pipes is executed when a pipeline needs to be laid sub-sea or when it crosses a lake or river.

The major goal is to give the pipe additional weight (negative buoyancy) in order to prevent floating or displacement of the pipeline. As a side effect, it also provides mechanical protection to the pipeline.

Two main types of concrete application processes can be distinguished:

- Compression coating, in which the concrete is wrapped around the pipe in a continuous process.
- Impingement coating, in which the concrete is blast-sprayed on the pipe, usually in a semi- or discontinuous process.

The concrete consists of a mixture of iron-ore, sand, cement and water with reinforcement. It can be composed to a specific weight varying roughly from 2200 up to 3500 kg/m³.

Reinforcement

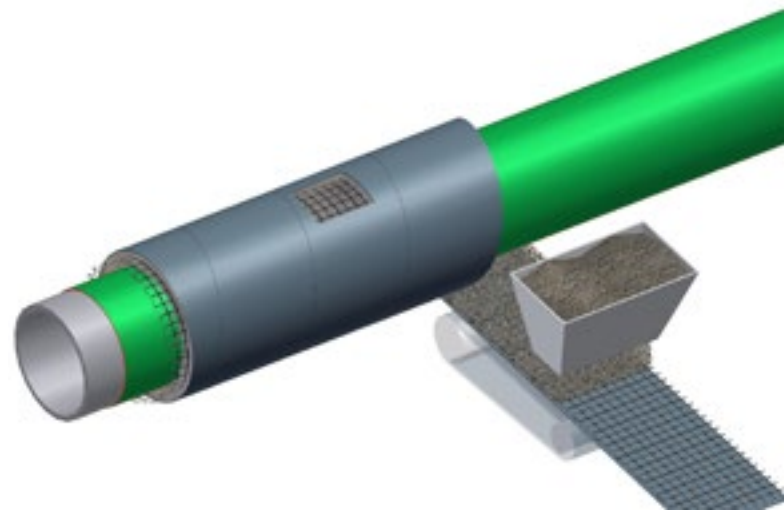
For reinforcement of the concrete layer, either steel cages or a special woven wire mesh can be used.

Cages are usually welded on the spot with a special machine. Prior to the spray application of the concrete, the cage is shifted over the pipe and fixed in position by means of spacers.

Wire mesh is usually bought on prefabricated spools and wrapped around the pipe in one or multiple layers, during the spray- or wrap application of the concrete.



Impingement coating method



Compression coating method



Cage reinforcement



Anode on pipe



Supervising of process



Inspection coated pipe

Process selection

Selmers provides concrete weight coating plants in various configuration possibilities that are eventually determined by production- and client requirements, as well as the pipe diameter range.

Possible plant configurations are for instance:

- coating single pipes where each pipe is put on buggies that travel along the concrete applicator
- coating single pipes where the concrete applicator passes along the pipe
- continuous coating, where pipes pass the concrete applicator in one endless string (high occupation possibilities)

Plant set-up

Besides the actual concrete application machine and the concrete batch- or continuous mixing plant, a plant set-up generally includes the following typical equipment that all can be engineered, supplied and/or advised by Selmers:

- incoming pipe inspection (& cleaning)
- pre & post weighing scales
- sacrificial anode fitting equipment
- pipe handling buggies and handling cranes
- wire mesh cutting
- curing management systems such as foil wraps, compound sprays, steam tunnels etc.
- pipe end finishing & touch-up equipment
- curing acceleration rooms by steam injection
- colour & number marking
- process automation, visualization and data registration
- compressors, power distribution, water preparation equipment
- quality control equipment

Curing

Forced curing of the concrete significantly can reduce pipe storage space as it usually allows stacking of pipe within one day. Selmers supplies both steam-, moist- and hot air cure systems for accelerated curing as well as ambient curing systems by using wrap foils or curing compounds.

Pipe handling

Concrete weight coating plants typically involve many single pipe handling actions, making pipe logistics an important focus in these plants. Selmers is specialist in providing lay-out solutions that address efficient logistics in combination with flexibility and consideration of investment costs.

Selmers has developed innovative pipe handling systems for concrete coating plants such as multiple pipe indexers, push systems (hampel), pipe indexers, pipe carousel systems, transverse buggies and chain conveyors which reduce workforce and increase production efficiency.

Process automation & visualization

The full plant or particular sections of the plant can all be equipped with semi-intelligent or highly intelligent process control systems.

These systems are all engineered by our in-house electrical & process automation department and comprises innovative data exchange systems



Curing steam tunnel



Transfer platform

based on IP cabled or wireless data transmission, fail safe PLC operations (omitting the need for hard wired E-stop circuits), touch screen based process operation & visualization, pipe data tracking with input terminals as well as other processes which provide the key to bringing the plant to a high level of performance and information output possibilities.

Quality

Due to the fact that all activities take place in house, Selmers is able to maintain a very high quality level. For all projects the internal QA/QC system is in place, which is in line with the ISO quality assurance requirements. However, specific customer required QA procedures can also be adapted to.

The products are manufactured and assembled in modern workshops during which the quality is constantly monitored.

All direct purchase components are carefully selected to meet Selmers' quality level.

The combination of all disciplines in the Selmers organization, together with the many years of experience gained in a very large number of completed projects all over the world, allows Selmers to handle a wide variety of projects with well proven, reliable and superior quality equipment.



Concrete coated pipes

Services

Through our after sales and support organization, Selmers provides a full range of engineering and operational services for both existing and new clients. The services can be provided on a contract or ad-hoc basis and include:

- Supply of spare parts
- Plant erection supervision & commissioning
- Technical assistance for maintenance
- Training of personnel
- Technical consultancy
- QC / QA programmes
- Project management
- Repair services

Selmers equipment programme

Besides concrete weight coating plants, Selmers also supplies plants and equipment suitable for:

- Internal and external abrasive blasting (mechanical or pneumatic)
- Multi-layer coatings based on powder fusion and side- or cross head die extrusion
- Single or double layer FBE coatings or other powder fusion coatings (PE-sinter, Nylon etc.)
- Internal and external epoxies (powder & liquid) and polyurethane coatings
- Cement lining
- Offshore pipe handling equipment
- Double & multi-joint fabrication racks (S- and J-lay) and spool bases
- Field joint coating
- Pipeline rehabilitation
- Tape wrapping, reinforcement cement wrapping
- Foam insulation of pipe
- Threading plant
- Rebar blasting and coating
- Coating of fittings, tees, valves and bends (custom coating)
- (modified) Bitumen enamel and coal-tar enamel coating



Transport



Shipment



Laying



SELMERS

PIPE BLASTING AND COATING SYSTEMS
PIPE HANDLING EQUIPMENT



External blasting



External coating



Internal blasting & lining



Concrete weight coating



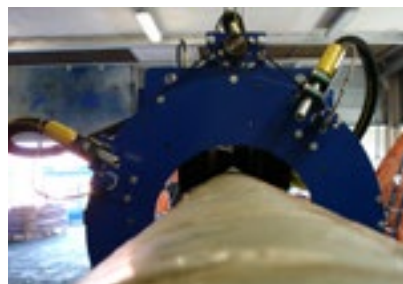
Spool base equipment



Offshore pipe handling



Pipeline rehabilitation



Field joint blast & coat



Installation services

Copyright © SELMERS B.V. and all of its affiliated companies. All rights reserved. No part of this publication may be reproduced.

SELMERS

Biesland 3 · 1948 RJ Beverwijk · The Netherlands
telephone +31 251 211 999 · www.selmers.com · sales@selmers.com