

# Protective Services

Your business, our expertise –  
a performance partnership



## Why use Hempel Services?

### Increase return on investment

- Reduce asset downtime
- Reduce maintenance costs and frequency
- Extend asset lifetime

### Ensure excellent coating application

- Reduce application time and costs
- Avoid delays and penalty payments
- Increase coating lifetime

### Save time and resources

- Ensure projects stay on time and within budget
- Increase application speed and efficiency
- Free up resources to focus on your core business

## Protecting your assets has never mattered more

In an increasingly competitive world, it's more important than ever to maximise the effectiveness and durability of every protective coating – while also reducing the costs associated with coating processes.

From wind turbines and oil rigs to bridges and civil structures, our coatings protect your assets from corrosion, damage and wear. To ensure maximum performance, coatings need to be applied correctly. That's what you get with Hempel Services.

From initial planning and specification through to application and final curing, our expert coating advisors work with all trades to ensure coatings are applied according to specification. This ensures you enjoy extended asset uptime and optimised maintenance intervals – allowing your business operations to continue with minimum interruption.

We understand that downtime and costs during repair work impact your profits. That's why we work to ensure coating projects are done right – every time – with minimum costs, waste and downtime.

Whether you're working with newbuild or with maintenance projects, we use our knowledge and field expertise to diagnose problems and optimise process flows, to reduce your operational costs and increase your production speed.

# Efficiency, powered by Hempel Services

## Five reasons to choose Hempel Services

Our expert coating advisors ensure your maintenance and newbuild projects run efficiently and that your coatings are applied correctly – so you can realise the full benefits of our coating systems.



### An optimised application process

Whether you're working on a production line or maintaining an asset, we work with you to optimise every part of the application process. From advice and troubleshooting to continuous support, we help identify cost savings and efficiency gains to maximise speed and productivity, reduce waste and eliminate rework.

- Costs control preparation, application and curing processes
- Fewer bottlenecks
- Less waste and rework



### Reduce asset downtime

Whatever assets you operate, downtime can have a negative impact on revenues. We can help streamline your maintenance work to ensure your assets remain in operation for as long as possible. We carefully plan coating tasks and work with applicators to improve quality and efficiency – so you benefit from higher asset uptime.

- Reduced surface preparation time
- More efficient application
- No unexpected delays



### Lower operational costs

From labour and handling to potential rework and penalties for late delivery, coating

application can significantly increase your operational costs. By assessing all costs associated with coating application – from materials and equipment through to supply and storage – we help identify cost-saving opportunities to give you greater control over your working capital and keep your operational costs down.

- Increased efficiency and effectiveness
- Control working capital during fabrication
- Lower handling, application, curing, labour and equipment costs



### Increase your revenue

Productivity has a direct impact on profitability. We support

you throughout your coatings project to increase efficiency, eliminate bottlenecks and boost application speed. As a result, you benefit from additional in-service days – and can focus on running your business with minimum disruption.

- Increased productivity
- Fewer bottlenecks
- Greater production speed



### Reduce long-term maintenance costs

For industrial assets, the cost of through-life maintenance

often exceeds the purchase price. By ensuring correct coating application during newbuild and subsequent maintenance work, we help to reduce the risk of mechanical damage or premature coating failure – to minimise long-term maintenance requirements and improve your total cost of ownership.

- Longer coating lifetime
- Longer maintenance intervals
- Longer asset lifetime

# Hempel Protective Services

### Standard Coating Advisory

We support with coating processes when onsite (subject to availability).

### Premium Coating Advisory

We are present during all the critical phases of your project to help achieve quality results according to specification.

### Coating Management

We assign dedicated coating advisors and assume full project control to ensure desired outcomes.

### Production Line Survey

We assess the application side of your production line to increase production speeds and reduce costs and waste.





### Condition Survey

We evaluate your asset's structure and coating system and help plan future maintenance work to extend asset lifetime and reduce maintenance requirements.






### Technical Training Services

We provide a number of training courses for applicators, supervisors, technical staff and quality assurance personnel to ensure improved efficiency and quality.

Service value chart for Coating Advisory Services

 Lower operational costs			
 Reduce asset downtime			
 Optimise the application process			
 Reduce long term maintenance costs			
	<b>Standard Coating Advisory</b>	<b>Premium Coating Advisory</b>	<b>Coating Management</b>

Service value chart for Specialised Services

 Increase revenue			
 Lower operational costs			
 Reduce asset downtime			
 Optimise the application process			
 Reduce long term maintenance costs			
	<b>Production Line Survey</b>	<b>Condition Survey</b>	<b>Technical Training Services</b>



# Standard Coating Advisory

Monitoring and support for long-term coating performance

“Practical solution to our coatings problems.”

European steel construction company

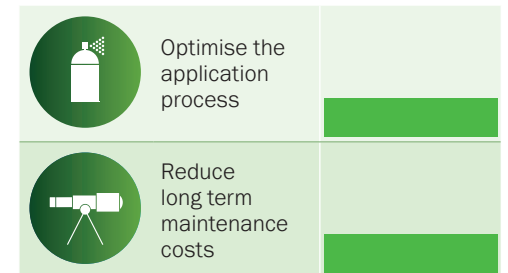
Controlling project costs is a constant challenge for asset owners.

With our Standard Coating Advisory services we conduct basic checks and provide support for core coating activities. We monitor surface preparation and coating application when onsite, making sure quality standards are followed and any potential issues are corrected before project completion. As a result, you can expect lower repair costs and longer maintenance intervals.

**What you get:**

- A coating advisor to support with your coating project (onsite visits depend on availability)
- A coating advisor to plan an initial briefing
- A final quality check
- A brief report after all on-site visits

**Service value chart**





# Premium Coating Advisory

Advice and support to lower application costs and reduce asset downtime

“Knowledge, experience and prompt response.”

Leading European rail freight operator

With our Premium Coating Advisory service, a Hempel coating advisor is onsite during all the critical phases of your project. We provide complete application oversight and expert advice so that coatings perform correctly for their entire lifetime.

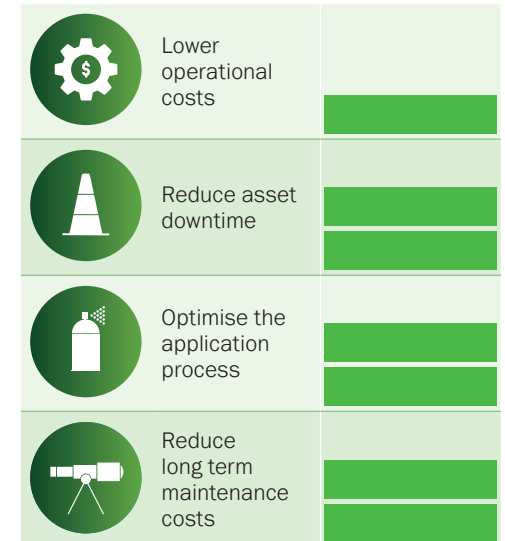
We support with all coating processes to deliver a high-quality result, and work with all trades to ensure all processes runs smoothly – to reduce your costs and get your asset in operation as quickly as possible.

We are onsite throughout the project to oversee surface preparation and coating application, and quickly solve any problems that may arise. This way we help you complete all aspects of your coating project efficiently and effectively.

### What you get:

- A coating advisor onsite to advise on surface preparation and coating application during all critical project phases
- A coating advisor to plan an initial briefing
- Advice on how to optimise time and resources during the project
- Quality checks during all critical project phases
- Progress reports
- A full report at the end of the project

### Service value chart





# Coating Management

Full management of the coating process – to minimise downtime and maximise coating performance

With our Coating Management service, we manage the entire coating application process of your project, including scope check, surface preparation, coordination with sub-contractors and coating application.

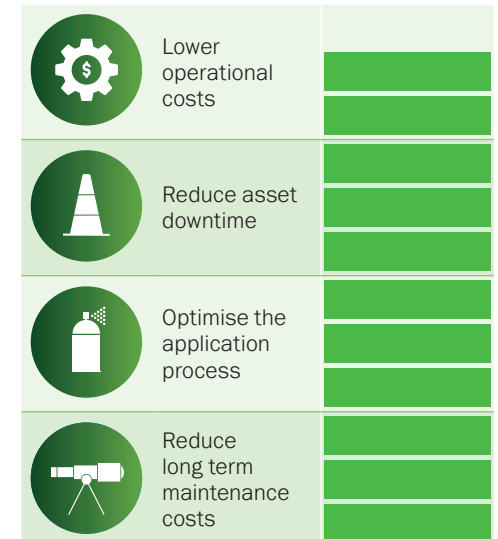
We assign a dedicated full-time Hempel project manager to your project to plan, optimise and streamline all coating related tasks. Together, our team ensures you benefit from a rapid return to service for your assets, lower project costs and reduced long-term maintenance requirements.

This service entails a management solution for your entire coatings project and thus it is customised accordingly to fit your needs and specific industry standards.

### What you get:

- Full management and coordination throughout the entire project to ensure excellent surface preparation and application, minimum resource use and faster project completion
- A pre-project inspection, including specification verification, staff training and equipment/coating preparation
- Ongoing quality checks
- Daily progress reports
- A full report at the end of the project

### Service value chart





# Production Line Survey

Increased application efficiency for lower costs and higher throughput

“Expert knowledge of coating material and application equipment. Effective troubleshooting.”

North American railcar provider

Our Production Line Survey service is designed specifically for facilities that operate a production line.

It helps keep operational costs down and increase production speeds. An expert Hempel coating advisor will visit your site to conduct interviews, review procedures, documentation, specifications, quality control and process flow. After the visit, we issue a full report with recommendations on how to reduce coating application costs, increase production line speed and improve coating quality.

### What you get:

- A full site visit and application line inspection
- Tailor-made recommendations for your production facility
- A full report with suggestions on how to solve problems, reduce costs, improve quality and increase efficiency

### Service value chart

	Increase revenue	
	Lower operational costs	
	Optimise the application process	
	Reduce long term maintenance costs	





# Condition Survey

Reduced long-term maintenance costs and increased asset uptime

A well-planned maintenance schedule keeps long-term costs down by ensuring issues are repaired before they become a problem.

In our Condition Survey, an expert coating advisor evaluates the condition of your asset and existing coating system. We identify causes of possible coating failure, provide advice on urgent coating-related challenges and help plan future maintenance work - to reduce your long-term maintenance requirements and ensure your asset remains in good condition for longer.

**What you get:**

- A full inspection of your surfaces to assess their existing condition
- Advice on future maintenance requirements and planning
- A full evaluation report, including recommendations

**Service value chart**



## Technical training services

Develop the in-house skills you need for future success



The continued long-term performance of your coating application team depends on the level of their skills.

Our technical training services are specially developed to give your staff the technical skills and insight they need to consistently produce high-quality work, whether they're applying the coatings themselves or overseeing final quality. All our courses are delivered face-to-face using a combination of theory and practice with real life examples. They can be tailored to your team and delivered at Hempel's facilities or your site.

### Training courses:

- Training for applicators to ensure excellent surface preparation and coating application
- Coating fundamentals training for supervisors, managers and technical staff, covering everything from corrosion theory to ISO guidelines and quality control
- Training for quality assurance and control for supervisors, managers and technical staff, delivered at the start of a project and covering everything required to ensure good quality assurance processes

### Service value chart

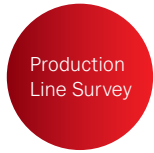
	Optimise the application process	
	Reduce long term maintenance costs	

# Service comparison

See how each Hempel service compares

Deliverables	
<b>Coating advisor (CA) availability</b>	
Coating advisor presence	Intermittent presence (subject to availability)
Coating advisor has the authority to stop project	
Coating advisor experience	✓
<b>Pre-project inspection</b>	
Pre-project briefing and introduction	✓
Project meetings and "tool-box talks" onsite	
Organisation and planning of the entire project related to coatings	
Survey of existing substrate and coating system	
Verification of paint order and specification	✓
Distribution of specification and relevant Product Data Sheet	
<b>Surface preparation inspection</b>	
Pre-cleaning inspection	
Equipment inspection (including blast pressure)	
Surface preparation inspection	
Microclimate	Intermittent presence (subject to availability)
Surface roughness and cleaning	
Chloride tests (if specified)	
<b>Application inspection</b>	
Paint consumption control	
Inspection of equipment and tools (including nozzles, tips and pump checks)	
Spray technique and wet film thickness checks	
Paint storage facility audit (handling, rotation, storage condition and shelf life)	
Microclimate	Intermittent presence (subject to availability)
Application	
Overcoating intervals	
Dry Film Thickness (DFT)	
<b>Final inspection</b>	
Check and report overall appearance of coating work	✓
Check and report total DFT	
Check cure time before taking asset into use	
<b>Reporting</b>	
Progress or visit reports	When on site
Final report	✓
Report type	Basic

Deliverables	
<b>Coating Management</b>	
Assured CA presence during critical phases	Dedicated CA full time for entire project
✓	✓✓
✓	✓✓
✓	✓✓
✓	✓✓
✓	✓✓
✓	✓✓
✓	✓✓
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<b>Coating Management</b>	
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✓	✓✓
✓	✓✓
✓	✓✓
✓	✓✓
✓	✓✓
✓	✓✓
When on site	Daily
✓	✓✓
Detailed	Detailed



<b>Pre-project review</b>
Review and study of necessary documentation: <ul style="list-style-type: none"> <li>customer specifications, Product Data Sheets and Safety Data Sheets</li> <li>process documentation</li> <li>quality control procedure/plan for corrosion protection</li> <li>relevant policies</li> </ul>
Coordinate and obtain approval for relevant steps (interviews, study of documents like work place description, supply documents, etc)
Define the scope of the production line survey with customer and define customer expectations, if any
Check and report design considerations/substrates
All inspections and findings to be clearly documented with pictures
<b>Site visit</b>
Interview workforce onsite and document the findings
Map out the process flow including the process parameters
Pre-treatment and surface preparation
Application and drying – document observations and recommended possible areas for improvement(s) (AFIs): <ul style="list-style-type: none"> <li>paint kitchen</li> <li>paint booth</li> <li>oven</li> <li>process equipment</li> <li>materials</li> <li>Personnel Protective Equipment (PPE)/Health, Safety and Environment (HSE)</li> <li>logistics</li> <li>competencies and work processes</li> <li>quality control tools</li> </ul>
Post treatment and handling: <ul style="list-style-type: none"> <li>logistics</li> <li>storage</li> </ul>
Document the observations and recommended areas for improvement(s) (AFIs), if needed
<b>Reporting</b>
Distribute the Production Line Survey – feedback report containing: <ul style="list-style-type: none"> <li>executive summary identifying the major strengths</li> <li>detailed observations</li> <li>possibility for a face to face debrief</li> </ul>

<b>Uncoated structures</b>
Visual inspection on the actual surface condition
Check and report design considerations/substrates
All inspections and findings to be clearly documented with pictures
Document results and recommendations
<b>Coated structures</b>
Visual inspection on the actual condition of the existing coating system including colour shade of the coating
Evaluating the type and percentage of defect (example in accordance to ISO 4628-1/5) per main area on the structure and determine the possible cause(s) of failure, if applicable
Evaluate and investigate which environment(s) the coating may have been exposed to and the duration
Check and report Dry Film Thickness (DFT) measurements
Check the adhesion/cohesion of the system and report according to ASTM D3359 (cross-cut test), ISO 16276-2 or ASTM D6677 (x-cut test)
Discontinuity (pinhole) testing and report according to NACE SP 0188/ISO 29601, if required
If the generic paint type is unknown, determine the paint type using the 'thinner method'
All inspections and findings to be clearly documented with pictures. The report may include recommendations about the optimal timing for and the specific type of maintenance or repair work required
Document results and recommendations
<b>Reporting</b>
A final report will be distributed when the coating advisor's inspections are completed

<b>Training for applicators</b>
Basic paint concepts
Paint preparation and paint application
Climatic conditions
Defects and rectification
Health and safety
<b>Coating fundamentals</b>
Corrosion theory
Surface preparation and paint preparation
Coating types and comparisons
Check and report Dry Film Thickness (DFT) measurements
General paint compatibility
ISO 12944 (if relevant)
Datasheets and physical contacts
Specifications and calculations
Safety Data Sheets
Climatic conditions
Quality control and assurance
Coating defects and failures (causes and prevention)
<b>Onboard maintenance training</b>
Basics of corrosion and anti-corrosives
Surface preparation, paint preparation and paint application
Coating types and comparisons
General paint compatibility
Quality control and inspection equipment
Climatic conditions
Ventilation in confined spaces
Specifications and calculations
Datasheets and physical contacts
Health and safety
Coating defects and failures
<b>Training for quality assurance and quality control</b>
Surface preparation and paint application
Climatic conditions
Corrosion theory and protection methods
Generic coating types and comparisons
General paint compatibility
Datasheets and Safety Data Sheets
Specifications and calculations
ISO 19840
Quality inspection
Equipment
Coating defects and failures (cause and prevention)

More than  
600 highly qualified  
technicians at  
your service

● Hempel service locations    ● R&D centres



In a competitive environment, success requires more than just technology. You also need people with the right skills, knowledge, experience and attitude to turn that technology into a value-adding solution. This is where Hempel stands out.

Each day, our more than 600 highly qualified coating advisors and engineers work with customers around the globe to optimise their projects and ensure their coating systems meet or exceed expectations.

Hempel coating advisors are safety certified within:

- IRATA
- HUET
- BOSIET

More than 70 per cent of Hempel coating advisors are certified to the highest technical standard within:

- NACE
- FROSIO

More than 600 highly qualified coating advisors work within specialised areas such as:

- Marine
- Containers
- Wind
- Offshore
- Concrete Coatings
- Fire Protection

As a world-leading supplier of trusted coating solutions, Hempel is a global company with strong values, working with customers in the protective, marine, decorative, container and yacht industries. Hempel factories, R&D centres and stock points are established in every region.

Across the globe, Hempel's coatings protect surfaces, structures and equipment. They extend asset lifetimes, reduce maintenance costs and make homes and workplaces safer and more colourful. Hempel was founded in Copenhagen, Denmark in 1915. It is proudly owned by the Hempel Foundation, which ensures a solid economic base for the Hempel Group and supports cultural, social, humanitarian and scientific purposes around the world.

**Hempel A/S**

Lundtoftegaardsvej 91  
2800 Kgs. Lyngby  
Denmark

Tel: +45 4593 3800

Email: [hempel@hempel.com](mailto:hempel@hempel.com)