



# **/// TANK PROTECTION AT THE HIGHEST LEVEL – ONE SOLUTION, TWO METHODS.**

**REVOLUTIONARY**  
TANK PROTECTION

**DIBT-CERTIFIED**  
SAFETY

**NATIONWIDE**  
INNOVATION



### **CLASSIC INTERNAL TANK COATING**

Our coating systems provide lasting protection for tank facilities against corrosion, deposits, and leaks – ensuring enhanced safety and an extended service life.



### **DOUBLE-WALLED LEAK PROTECTION LINING | DOPA® 6**

DOPA® 6 offers a WHG-compliant (Water Resources Act) retrofit for tank facilities, featuring a double-walled system and continuous active leak monitoring, entirely without the need for complex dismantling works.



### **DOMESHAFT REFURBISHMENT WITH TANK PROTECTION SHIELD®**

Using our DIBt-approved, patented TPS system, we refurbish dome shafts to provide durable, corrosion-resistant protection in strict accordance with the highest quality standards.



### **PROTECTION & PAINTING SERVICES FOR INDUSTRIAL PLANTS**

Bespoke surface solutions: Corrosion protection, functional coatings, and surface finishing – precisely tailored to your technical and aesthetic requirements.



### **PETROL STATION REFURBISHMENT THE COMPLETE SOLUTION**

Turnkey solutions for your petrol station – safe, efficient, and rigorously on schedule. Implementable even during active operations – a comprehensive end-to-end service from a single provider.



### **EXPERT CONSULTANTS & BESPOKE SOLUTIONS**

Targeted engineering expertise: Our technical experts produce WHG compliance reports, develop technical specifications, and guide you seamlessly through complex operational processes.

# KH TANK- & KORROSIONSSCHUTZ – TECHNOLOGICAL LEADERS BY CONVICTION.

## Where others stop, we are just getting started.

KH stands for durable, standards-compliant solutions in tank and **corrosion protection** – meticulously designed, proven in practice, and technically rigorous.

We guide tank facility operators through complex challenges, offering one thing above all else: absolute **certainty**. This applies not just to operational safety, but also to peace of mind in your investment decisions. Because those who partner with us choose long-term engineering substance over stopgap measures.

Our clients expect absolute reliability – and that is exactly what we deliver. Whether it involves the refurbishment of existing infrastructure, retrofitting, or preventative **protection**: we engineer the right solutions. Technically sound, economically viable, and fully legally compliant.

**Tank Protection Shield® (TPS)** – the definitive system for dome shaft refurbishment, offering reliable and permanent protection.

**DOPA® 6** – the double-walled leak protection lining for metallic tanks, distributed by us as the exclusive German partner of the Wolf tank Group.

**20+**

**FAMILY-RUN  
BUSINESS**  
SINCE 1995

**55+**

**HIGHLY QUALIFIED  
STAFF**

**20+**

**TRUSTED  
PARTNERS**





## SAFE. RELIABLE. COMPREHENSIVELY SUPPORTED.

We offer bespoke solutions spanning from initial consultation through to final implementation. Following a thorough structural analysis, we develop a tailored concept and professionally execute all necessary measures – from leak remediation to ongoing maintenance. Regular inspections guarantee the longevity and optimal functional integrity of your facility.

## DIBT-CERTIFIED SAFETY.

At the core of our portfolio are two patented, DIBt-approved systems that set the benchmark across the industry.

## IN-HOUSE INNOVATION – SOLUTIONS THAT DELIVER.

As part of the Heine Group of Companies, M2 Entwicklungs-, Produktions- & Vertriebs-GmbH develops and manufactures high-performance coating and sealing systems for demanding industrial applications. Their products, such as the Liquid Power Plate and hybrid nano-coatings, are an integral component of our system solutions. Precisely formulated, proven in the field, and engineered for the future.

## OUR EXCLUSIVE PARTNERSHIP.

KH Tank- & Korrosionsschutz is proud to serve as the exclusive German partner of the internationally renowned Wolf tank Group. Together, we provide first-class solutions for the refurbishment and protection of tank infrastructure.



TANK  
PROTECTION  
SHIELD



**/// TANK  
PROTECTION  
SHIELD®**

IGNITES  
THE NEXT STAGE  
OF EVOLUTION.

# **/// TANK PROTECTION SHIELD®**

## THE SECURE METHOD.

A turtle's shell provides a level of protection unmatched in the natural world. Composed of solid bone plates, it safeguards all vital organs. Equipped with this formidable defence, turtles have mastered a highly successful evolutionary survival strategy. However, just as a turtle cannot survive for long with a compromised shell, neither can a corroded, merely patched-up dome shaft.



# TANK PROTECTION SHIELD® PERMANENT CORROSION PROTECTION.

**Developing innovative technologies for our clients is what drives us. As a forward-looking enterprise, we deploy pioneering and sustainable technologies to decisively safeguard your tank facilities.**

Benefit from our extensive experience, our specialist technical expertise, and our collaborative partnerships within the industry. Drawing on this foundation, we have developed the revolutionary **"Liquid Power Plate" (LPP)** for dome shaft refurbishment and tank protection, in close collaboration with M2 Entwicklungs-, Produktions- & Vertriebs-GmbH, a member of the Heine Group.

In combination with our patented **"Tank Protection Shield" (TPS)**, this forms the next-generation leak remediation solution for double-walled tanks.

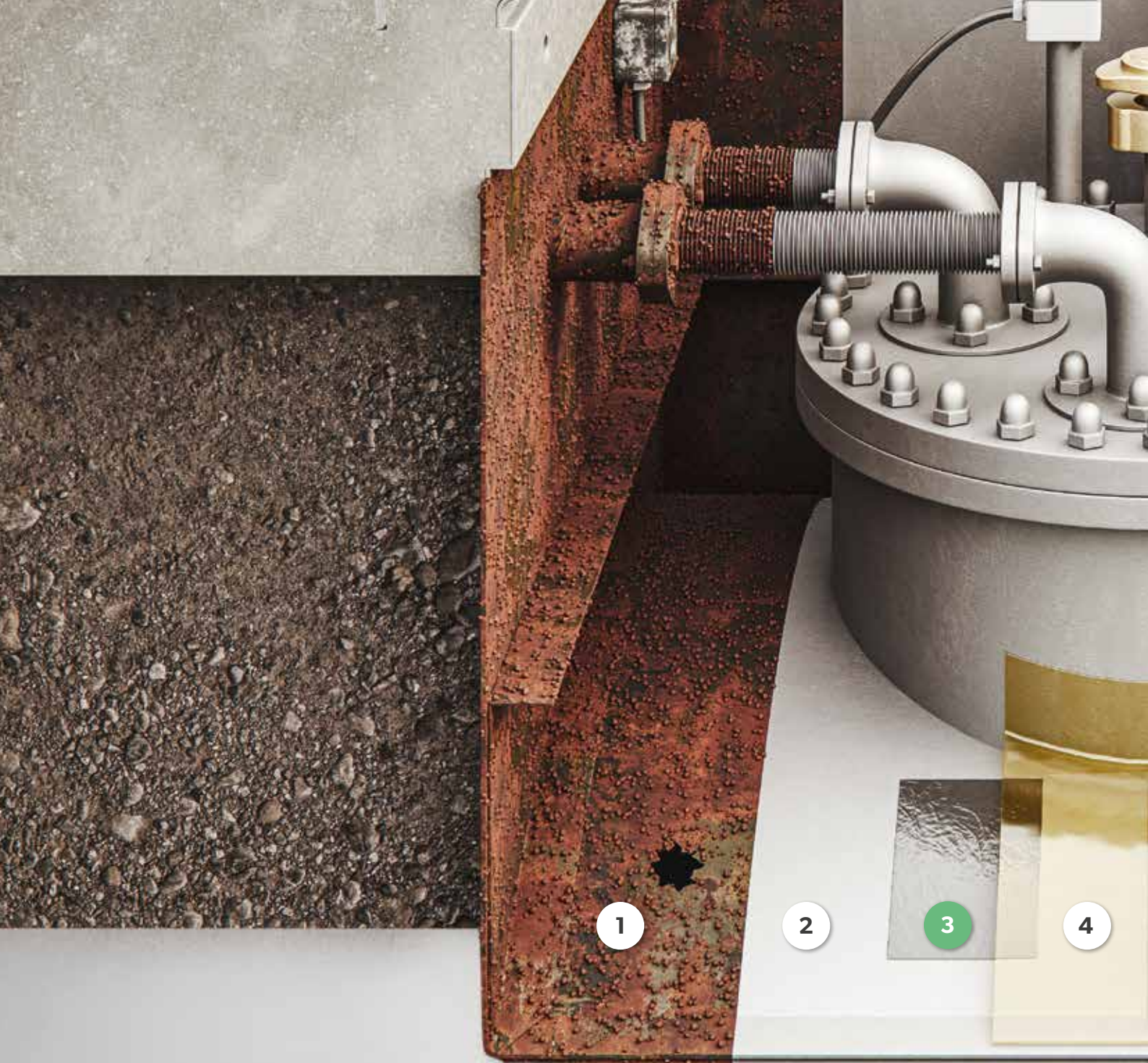
Using the LPP and TPS hybrid solution, your problematic tank benefits from a high-strength, force-locked structural seal, whilst simultaneously receiving durable, long-term protection against corrosion.

**The result: Your problem is professionally eradicated, ensuring permanent protection.**

By utilising LPP, we compensate for severe material loss caused by corrosion, effectively sealing any leaks. And the overriding benefit for your occupational health and safety as well as ongoing operations: the entire process is executed completely free of hazardous hot work!

## WHAT SETS OUR SOLUTION APART:

- ✓ **No high-risk operations – welding works are completely eliminated.**
- ✓ **No interruption to active petrol station operations.**
- ✓ **Rapid, reliable, and disruption-free implementation.**
- ✓ **Sustainable corrosion protection via a robust, high-strength structural seal.**
- ✓ **Significantly more cost-effective than conventional solutions.**
- ✓ **Certified quality with full DIBt approval (Tank Protection Shield®).**



## **// THE SAFE SEVEN** THE SECURE TPS PROCESS.

Liquid Power Plate and Tank Protection Shield® operate in tandem to form a highly effective hybrid solution for leak repair and sustainable corrosion protection. Two technologies, one objective: absolute maximum safety for your facilities.

**State-of-the-art tank sealing: LPP**

**Unrivalled corrosion protection: TPS**



TPS  
CARBON POWER

LIQUID  
POWER PLATE

### 1. CLEANING

Removal of water, antifreeze agents, and corrosion by-products using non-abrasive dry ice blasting.

### 2. LEAK DETECTION

Exposing and preparing the damaged sections on the internal tank wall.

### 3. LIQUID POWER PLATE

Application of a force-locked structural seal using a specialised metal-polymer compound to securely bridge corrosion gaps and stress cracks.

### 4. + 6. SEALING RESIN

Application of vinyl ester resin to the prepared area.

### 5. CARBON FIBRE FLEECE

Embedding and saturating a carbon fibre fabric mesh to structurally reinforce and bond seamlessly with the substrate.

### 7. FINAL COATING

Following the curing phase, a strictly chemical-resistant topcoat (e.g., EPOFLEX DOM®) is applied.





**/// CHANGE IS  
APPROACHING  
IN GIANT STRIDES.  
THE SOLUTION IS  
DOPA<sup>®</sup> 6.**

Future-proofing, operational efficiency, and environmental compatibility –  
DOPA<sup>®</sup> 6 delivers everything modern tank facilities demand.

**VERSATILE AREAS  
OF APPLICATION:**

**E5  
E10  
E85  
E98  
E-Fuels**

**HVO**

**100 % Ethanol**

**Diesel**

**AdBlue®**

**Other media available  
upon request.**

# DOPA® 6 – THE FUTURE OF YOUR TANK FACILITIES STARTS NOW.

**By choosing DOPA® 6, you are investing in a state-of-the-art, double-walled system that not only reliably refurbishes your tank infrastructure but ensures its long-term, sustainable protection.**

Driven by innovative engineering technology and the most stringent safety standards, DOPA® 6 is the definitive solution for future-proof facility operation – flexible, highly efficient, and environmentally friendly.

The demands placed on tank infrastructure are constantly evolving: alternative fuels necessitate advanced materials, and legislative bodies are enforcing increasingly strict environmental and safety regulations. For many older tanks, these requirements push them past their operational limits.

With DOPA® 6, you ensure comprehensive compliance with all current regulations – whilst remaining perfectly equipped for future industry developments.

## THE BENEFITS OF DOPA® 6 – AT A GLANCE.

- + Uncompromising Safety**  
Bespoke HSSE (Health, Safety, Security, and Environment) concept.
- + Active Leak Protection**  
Continuous monitoring featuring automated alarms in the event of a breach.
- + Compatible with Future Fuels**  
Fully suitable for HVO, e-fuels, bioethanol, biodiesel, and synthetic fuels.
- + A Proven System**  
20 years of successful, large-scale deployment across the petrochemical sector.
- + Low Maintenance and Highly Durable**  
Minimal upkeep, significantly extended service life – backed by an extended warranty.
- + Seamless Installation Without Complex Surveying**  
Installed directly during active petrol station operations – absolutely no commercial downtime.

## PREREQUISITES FOR IMPLEMENTATION.

- ✓ Electrical connection of the leak alarm system (LAZ) to the mains and, if necessary, to a control cabinet.
- ✓ Installation of a continuous, adequately dimensioned protective conduit with a draw-string routed to the dome shaft.
- ✓ Complete and secure sealing of all pipe penetrations within the utilised shafts.
- ✓ Provision of on-site power and water supply.
- ✓ Unrestricted access to the work site.
- ✓ Professional tank cleaning and gas freeing (degassing).
- ✓ Welding of a structural bend onto the filler pipe.
- ✓ Sealing or removal of the dipstick opening to facilitate the mandatory pressure test.



## **/// LEAK PROTECTION LINING WITH FULL DIBT APPROVAL.**

Precision at every step – the highly engineered stratified structure of DOPA® 6 ensures peerless reliability and longevity. Every single layer is designed to provide tanks with optimal, resilient protection against leaks and corrosion.

**With DOPA® 6, you are choosing a layered composite structure that delivers peak performance even under the most punishing operational conditions.**



### 1. TANK SHELL / TANK BOTTOM

Cleaned via abrasive blasting and optimally prepared for the primary coating application.

### 2. GLASS-FIBRE LAMINATE (GRP)

### 2. GLASS-FIBRE LAMINATE (GRP)

Glass-fibre reinforced plastic (GRP) applied to structurally stabilise the internal tank wall.

An engineered aluminium dimpled foil layer that creates the new interstitial monitoring space.

### 3. DIMPLED FOIL

A secondary epoxy resin layer acting as a robust shield against aggressive media.

### 4. LAMINATE

Glass-fibre fabric laminated with Epoflex resin to provide high tensile stability and enhanced structural protection.

### 5. TOPCOAT LAYER

An anti-static, highly conductive final layer.

### 6. CONDUCTIVE LAYER



**/// DOPA® 6 –**  
**THE TANK WITHIN**  
**A TANK.**

# // 6 STEPS. ONE OBJECTIVE. PERMANENT SAFETY.



## 1. SURFACE PREPARATION

First, the tank is meticulously cleared of all surface contaminants. Subsequently, the tank walls and floor are roughened using an abrasive blasting process. Any exposed leaks are then securely sealed using our liquid metalpolymer, LPP. This rigorous preparation guarantees optimal adhesion for the subsequent DOPA® 6 protective layers.

## 2. PRIMARY EPOXY RESIN LAYER

Utilising a specialised procedure, glass-fibre reinforced plastic (GRP) is applied using a state-of-the-art 2K hot-spray system. Biaxially oriented glass fibres are fed through a chopper unit and mixed directly into the pre-heated, liquid resin. This creates a highly stable structural reinforcement for the internal tank wall – exceptionally durable, robust, and resilient under load.

## 3. ALUMINIUM DIMPLED FOIL

A textured aluminium foil (0.2 mm thick) is applied as a separating layer, thereby creating the vital interstitial monitoring space. Through the integration of a permanent electronic monitoring system, any leaks can be detected instantaneously.

## 4. LAMINATE REINFORCEMENT

The aluminium dimpled foil is reinforced with a glass-fibre fabric mesh and laminated using Epoflex resin. This layer delivers superior mechanical stability and provides the tank with an additional defence buffer against external operational stresses.

## 5. SECONDARY EPOXY RESIN LAYER

A secondary layer of epoxy resin is then applied. This offers vital supplementary protection against aggressive media and acts as an additional robust barrier against chemical degradation.

## 6. CONDUCTIVE TOPCOAT

The final application consists of an anti-static conductive layer. It actively prevents electrostatic charging, thereby making a critical contribution to enhanced operational health and safety.



## RESPONSIBILITY FOR PEOPLE AND THE ENVIRONMENT.

**Working on tank facilities, silos, and within confined spaces demands an uncompromising approach to health and safety. For us, the focus is not solely on our clients; the safety and well-being of our own personnel is our absolute highest priority.**

Our team undergoes comprehensive training and continuous professional development in strict accordance with the rigorous standards set by the German Social Accident Insurance (DGUV).

Training and certification as a "Competent Person for the Clearance Measurement of Containers and Confined Spaces" (in accordance with DGUV

Regulation 113-004) is a mandatory requirement for all our operational staff.

We conduct regular, rigorous training sessions at our own operational headquarters. Here, our staff master the safe deployment of cutting-edge measurement technology, minimising the inherent risks associated with entering dome shafts or silos. This proactive approach ensures potentially hazardous situations are neutralised before they can occur.

Furthermore, they are extensively drilled in vital rescue techniques to safely and efficiently extract injured or unconscious personnel from confined spaces.



## PRECISION PLANNING, SEAMLESS COORDINATION.

- + Detailed project consultation with engineering experts: We clearly outline every detail and contingency, ensuring our clients can transparently track every phase of our scheduled works.
- + HSE-driven planning for comprehensive safety: Prior to the commencement of any works, we coordinate all Health, Safety, Security, and Environment (HSE) measures with the petrol station operator in strict compliance with current guidelines. Our core objective is to engineer a fundamentally safe working environment and proactively eliminate potential risks.
- + Alignment and coordination with external contractors and subcontractors: To guarantee a flawless operational workflow, project timelines and the intersection of individual work phases are meticulously planned and coordinated to prevent any costly delays.
- + Comprehensive documentation and full regulatory approvals: All certification documents and comprehensive photographic evidence are formally handed over to the client upon project completion.

# /// SERVICE & MAINTENANCE SETTING THE STANDARD.



Interested in our structural survey and logging service?  
Send us an email at: [auftragsbearbeitung@tps-service.de](mailto:auftragsbearbeitung@tps-service.de)  
with the subject line "Survey Service".

## **SURVEY REPORTS:**

# A RELIABLE FOUNDATION FOR AUTHORITIES AND INSPECTION BODIES.

Operating a petrol station comes with immense responsibility – for safety, environmental protection, and legally compliant operation.

Our comprehensive survey reports provide a technically robust foundation to meet these responsibilities: clearly structured, objectively documented, and hyper-focussed on the essentials. We differentiate precisely between masonry and metallic dome shafts. Every single report contains bespoke refurbishment recommendations – rooted in a rigorous gap analysis (target vs. actual state). In doing so, we instil absolute confidence in regulatory authorities, testing bodies, and, naturally, our clients.

**Our unique selling proposition: Through the deployment of 360° dome shaft imaging, even entirely obscured areas are fully captured. This early damage detection – achieved completely without costly dismantling works – radically increases safety and prevents unnecessary capital expenditure.**

## **MAINTENANCE AGREEMENTS:**

# 5 INSTEAD OF 2 YEARS WARRANTY, AND ALWAYS UP TO STANDARD.

The statutory warranty period for dome shaft sealing systems in LAU facilities (facilities for storing, filling, and handling water-hazardous substances) is 2 years – commencing upon the completion of the refurbishment works.

By concluding a maintenance agreement, this warranty is extended to a full 5 years. Simultaneously, you benefit from systematic inspections and maximum operational facility safety. Our engineering experts conduct a rigorous, close-quarters inspection of your systems once a year – professionally documented and legally watertight.

**Regular maintenance – clearly documented: Through annual visual and functional testing, potential defects are identified and rectified at an early stage – long before they can lead to system failures or consequential costs. This proactive service includes the thorough cleaning and inspection of the coatings, as well as exhaustive documentation within the final report.**

**QUALITY IN FOCUS**  
RESPONSIBILITY IN ACTION



The Heine Group of Companies



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