



هايتك للجلفنة  
HITECH  
GALVANIZING



1ST OF ITS KIND IN KSA  
**HITECH GALVANIZING**  
Precision. Protection. Saudi-Made.



2nd Industrial Area, Riyadh, KSA



+966 55 501 5798



# TABLE OF CONTENTS

<b>1.</b> COMPANY OVERVIEW	<b>2.</b> WHAT WE DO		
<b>3.</b> WHY SPIN GALVANIZING	<b>4.</b> OUR SERVICES	<b>5.</b> PROCESS FLOW	
<b>6.</b> QUALITY CONTROL	<b>7.</b> TECHNICAL SPECIFICATIONS	<b>8.</b> SPIN VS TRADITIONAL	<b>9.</b> KEY BENEFITS
	<b>10.</b> INDUSTRIES WE SERVE	<b>11.</b> LOCATIONS & COVERAGE	<b>12.</b> CONTACT US




هايتك للجلفنة  
HITECH  
GALVANIZING

# ABOUT US

We are a Saudi-based company specializing in Spin galvanizing for small metal parts under 3kg, including complex shapes. Our state-of-the-art technology ensures smooth, uniform coatings that provide corrosion resistance, precise threads, and long-lasting protection comply to ASTM A123/A153 requirement.

Extensive experience in the HOT DIP galvanizing industry, we combine local expertise with global standards to deliver cost-effective, speedy, high-quality solutions that meet the needs of industrial manufacturers across the Kingdom.

 [www.hitech.sa](http://www.hitech.sa)

 +966 55 501 5798




هايتك للجلفنة  
HITECH  
GALVANIZING




# HOT DIP GALVANIZING

FOR SMALL PARTS

 [www.hitech.sa](http://www.hitech.sa)

 +966 55 501 5798

 [Click to Watch the Complete HiTech Galvanizing Process](#)



# HOT DIP GALVANIZING

Hot-dip galvanizing is a corrosion protection process in which steel or iron components are cleaned and then immersed in molten zinc. During dipping, the zinc reacts with the base metal and forms bonded zinc-iron alloy layers, topped with a layer of pure zinc. This creates a tough, durable protective coating that shields the metal from moisture, oxygen, and aggressive environments. As a result, hot-dip galvanizing significantly reduces rust and corrosion, lowers maintenance needs, and extends the service life of the product for many years especially in outdoor and industrial applications

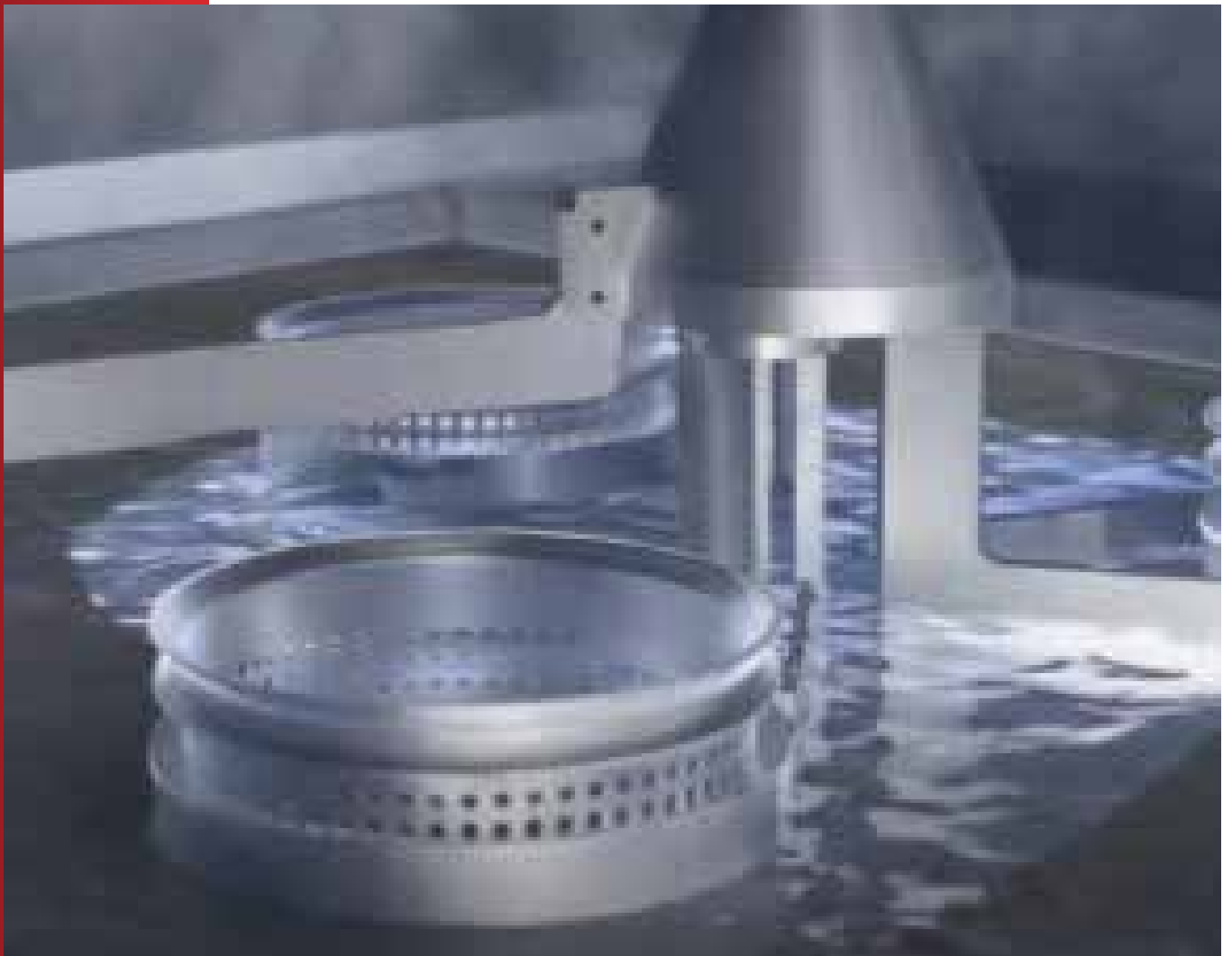




هايتك للجلفنة  
HITECH  
GALVANIZING

# SPIN GALVANIZING

1ST OF ITS KIND IN KSA



Spin galvanizing is a specialized galvanizing process used for small steel or iron components such as nuts, bolts, and washers. In this process, parts are dipped into molten zinc and then spun to remove excess zinc. This method is important because it ensures a uniform zinc coating, keeps threads clean and usable, prevents corrosion, and increases the durability and service life of the components.



# WHY SPIN GALVANIZING?

01

## Time Duration 24-48 Hrs

Parts are coated faster, usually ready in 24-48 hours.

02

## High-Quality Coating

Gives uniform, thread-safe zinc layer that prevents rust and lasts long

03

## Cost Saving

Spin galvanizing removes excess zinc, reducing waste and rework helping customers save over **50%** on coating costs.

04

## Best for Complex Parts

Spin galvanizing coats complex small parts evenly even in edges and recesses while processing large batches together for consistent quality





# SERVICES WE PROVIDE

We provide complete galvanizing solutions to protect steel and iron from rust and corrosion. Our services include hot-dip galvanizing and spin galvanizing for small, threaded, and complex components. We ensure a strong, uniform, and long-lasting zinc coating with careful control of thickness and bonding. Special attention is given to thread safety and clean finishing. Quality inspections are carried out at every stage, and third-party testing is available on request. All finished products are properly packed, labeled, and delivered on time, with a strong focus on durability and customer satisfaction.

Ideal for  
Small Metal parts

Focus  
Precision coverage

Outcome  
Thread-safe finish



# Our Process

## Inbound & Batch Registration

01

Each batch is received, sorted and digitally registered. Process requirements are checked to surface condition to ensure complete

Mechanical cleaning with sand blasting in order to remove rust, & oil to provide reactive steel surface to enable metallurgical bond

02

## Shot Blasting

## Degreasing

03

Oil and grease are removed in an alkaline bath, ensuring zero contaminants interfere with strong, consistent zinc-to-steel bonding quality

Rinsing and acid pickling remove oxides and mill scale, creating an ideal surface for forming a zinc-iron alloy layer

04

## Rinsing & Pickling

## Fluxing

05

Flux solution prevents re-oxidation and promotes wetting, ensuring molten zinc flows evenly across all surfaces during hot-dip process



[www.hitech.sa](http://www.hitech.sa)



# Our Process

## Drying

06

Controlled drying removes moisture pre-dip reducing defects, stabilizing immersion and improving bonding for a fine uniform finish

Parts are dipped in molten zinc ~445–455°C zinc bonds to steel, forming zinc-iron alloy layers for long-life corrosion-resistance

07

## Hot Dip Galvanizing

## Centrifuge & Cooling

08

After withdrawal, parts enter a basket and are spun at controlled RPMs to shed extra zinc from threads, edges and recesses, then cooled to set

Optional passivation bath enhances appearance and adds a protective layer that reduces early oxidation after galvanizing

09

## Passivation

## Packaging & Quality

10

We verify thickness ( $\mu\text{m}$ ), adhesion, and visual uniformity; batch reports available, third-party tests on request, Packed, labeled, shipped out



[www.hitech.sa](http://www.hitech.sa)



# COMPARISON

Spin Galvanize BEST FOR SMALL PARTS

Traditional Galvanize BEST FOR LARGE PARTS

## Method

The molten zinc is dipped on small pieces which are then rotated in high speed to shed off excess zinc.

Metal is dipped into molten zinc and allowed to drain itself.

## Best For

Ideal Small, threaded, or complex parts (nuts, bolts, washers, fittings).

Massive edifices such as beams, pipes, sheets and fabricated assemblies.

## Post - treatment

Post-treatment spinning is used to obtain even distribution and avoid sticking or clumping.

Draining may result in uneven surfaces or zinc deposits on complicated components.

## Surface Finish

Surface Finish Smooth, even, no drips or runs - precision components.

May contain thousands of coats; fine parts not permitted; but structural steel is.

## Thread Accuracy

Threads are clean and useful because of extra zinc removal.

Threads should also be re-tapped or wiped off.

## Thickness Control

Thickness Control Very uniform and steady.

The thickness of coating depends on shape, and angle of immersion.

## Corrosion Resistance

Corrosion Resistance Superior, since there is no spot of difference on small surfaces.

Very good, particularly as an exterior or building finish.

## Durability

Durability: Small components in harsh environments are high in terms of durability.

Ranges High in large portions, appropriate to long-term exposure.

## Processing Speed

Speed Processing Speed Faster on small parts; basket-based batch processing.

slower in many ways; more steps to do.

## Automation Potential

Automation Potential Small parts can easily be automated or semi-automated

Another thing is more manual loading/unloading of large items.

## Applications

Nuts, bolts, washers, screws, brackets and fittings.

Beams, guardrails, pipes, fencing, structural frames, towers, and so on.

UNINTERRUPTED,  
FLAT FINISH



EXCELLENT  
ADHESION



**KEY  
FEATURES**

THICKNESS  
CONTROL



EXCELLENT  
ADHESION



PRECISION  
APPLICATION



Parameter	TECHNICAL SPECIFICATION	Specification
Coating Material		Zinc ( $\geq 99.995\%$ purity)
Coating Thickness		40–85 $\mu\text{m}$ (customizable per specification)
Temperature Control		445°C – 455°C
Centrifuge Speed		500–1,500 RPM (depending on part size and weight)
Adhesion Test		Compliant with ASTM A123 / A153
Corrosion testing		Salt spray (ASTM B117) on request
Surface Finish		Smooth, uniform, thread-safe
Environmental Standard		ISO 14001 align practices, low zinc waste system

Controlled Spin galvanizing parameters for consistent, long-life protection



# KEY BENEFITS

Improved Corrosion Resistance

Longer Component Life

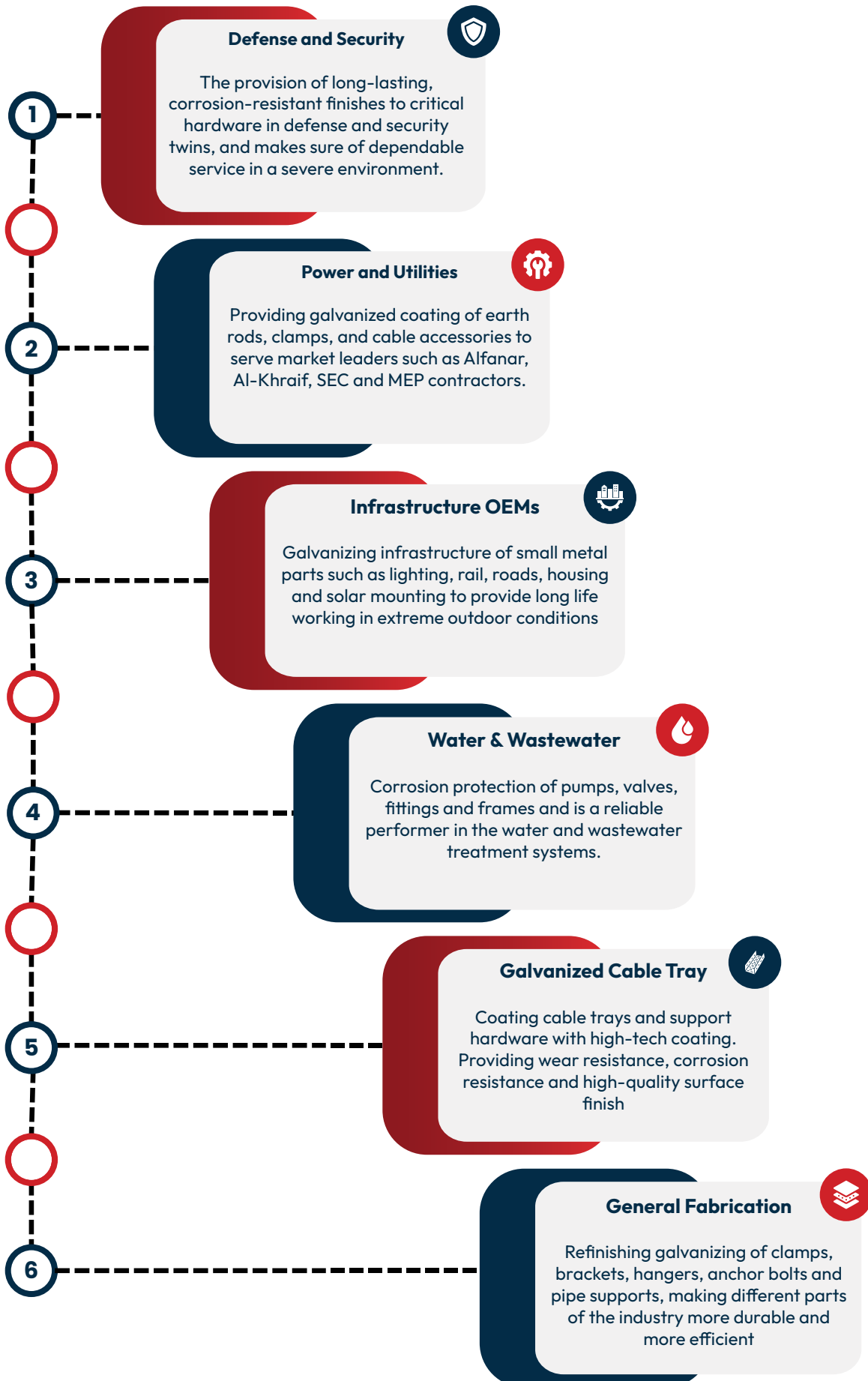
Better Productivity

Economical

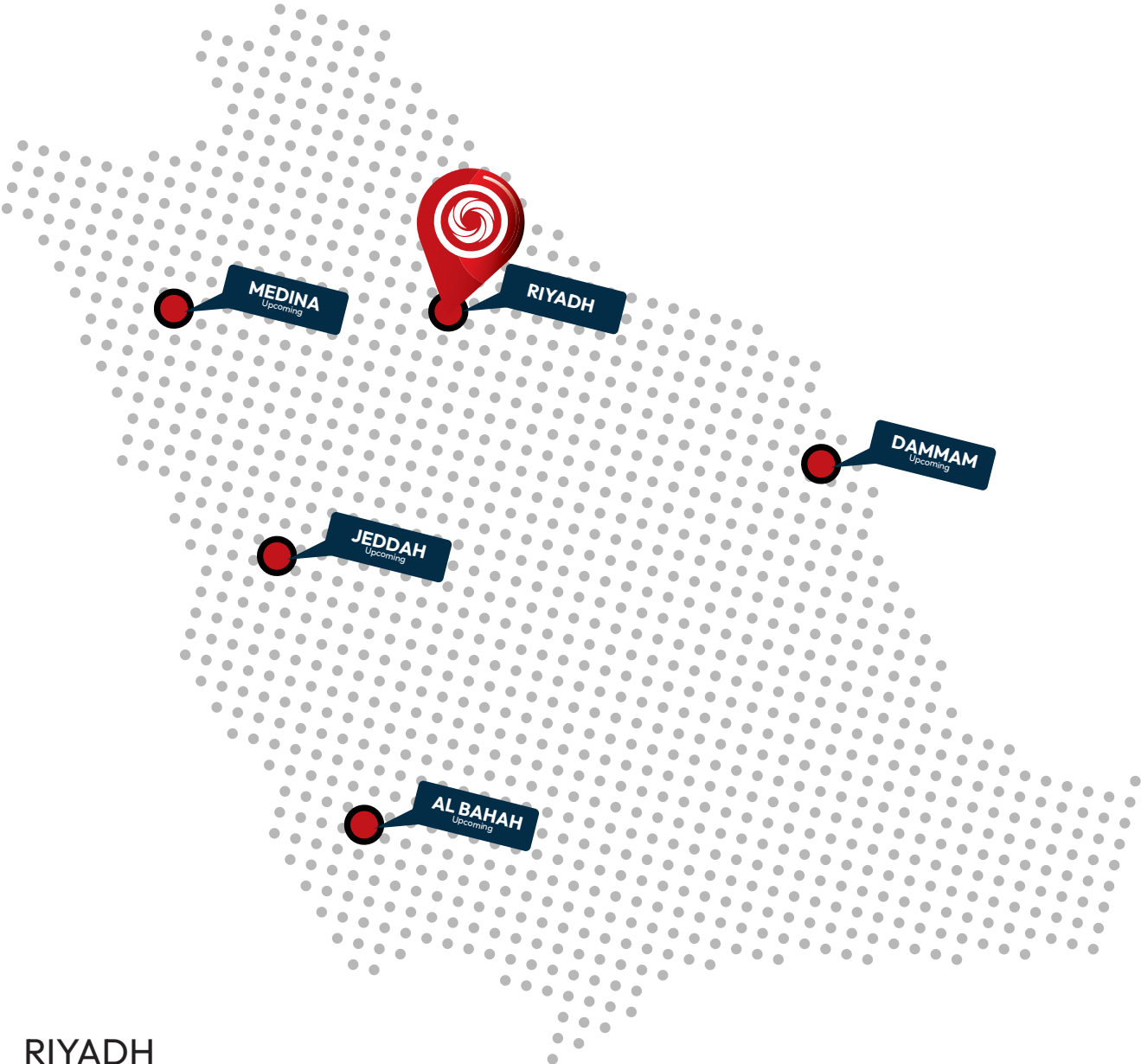
Green

International Standard Compliance

# INDUSTRIES WE SERVE



# OUR LOCATIONS



- RIYADH
- MEDINA
- JEDDAH
- AL BAHAH
- DAMMAM

Serving Saudi Arabia and Surroundings





# Thank You



 [Click Here to See How We Galvanize](#)

 [www.hitech.sa](http://www.hitech.sa)

 +966 55 501 5798

 [galvanized@hitech.sa](mailto:galvanized@hitech.sa)