

Excellence in Galvanizing

WEDGE



GALVANIZING STEEL FOR LIFE

Hot Dip Galvanizing is a highly effective corrosion prevention treatment that creates long-lasting protection for any type of steelwork.

www.wedge-galv.co.uk



MORE THAN 150 YEARS OF HISTORY AND KNOWLEDGE

With more than 150 years of history, Wedge Group Galvanizing is the UK's largest hot dip galvanizing organisation.

We have 14 plants strategically placed around the UK, enabling us to offer a truly national service for all your galvanizing requirements.

We can process anything from a 1.5mm thick plain washer to a 29 metre beam.

Continuing investment in new technology and plant, together with our commitment to customer care, ensures we offer first-class quality and service.

Our plants are designed and equipped to set industry-leading standards for sustainability and low environmental impact.



WORKING ACROSS ALL SECTORS

Wedge Group Galvanizing have knowledge and expertise of working across many sectors.

Hot Dip Galvanizing, with its winning combination of long-lasting protection, ease of application and sustainability, is the finish of choice for many industries across the globe including; construction, manufacturing, infrastructure and agriculture.

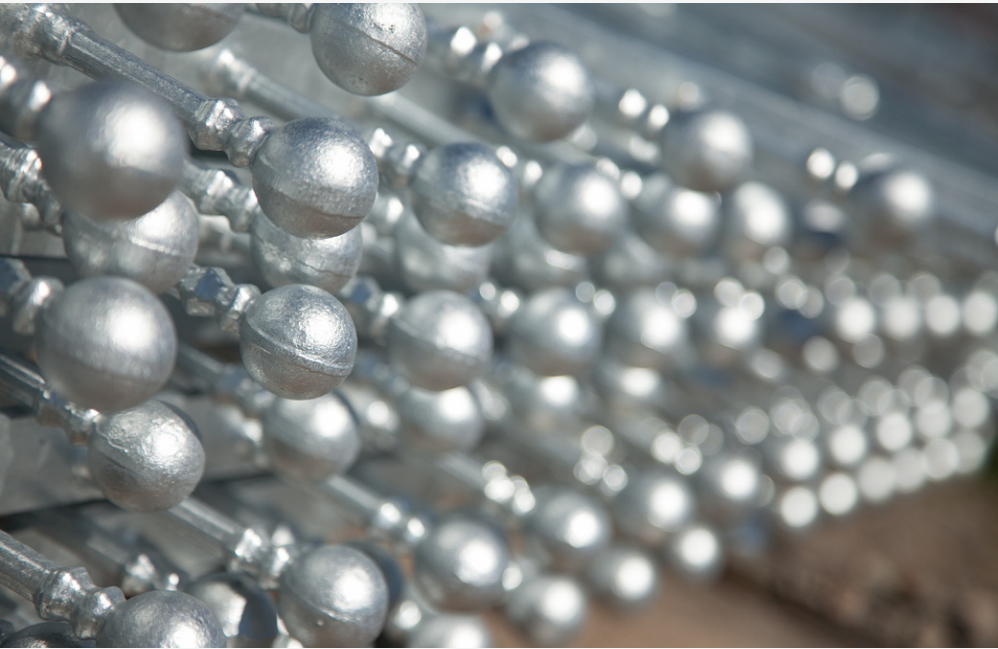
Wedge Group Galvanizing has supplier approval for a number of key sectors including Rail, Power and Oil & Gas.

We have been through their stringent processes covering our H&S, Environmental and Quality procedures, so customers can be assured of high-quality galvanizing backed by excellent customer-focused service.



Bait Tables Sculpture by Katie Ventress
Photo Credit - Rick Hilley

WHY CHOOSE GALVANIZING



WHAT IS HOT DIP GALVANIZING?

Hot dip galvanizing is a process developed to prevent steel from corroding.

Before the process can take place, the steel goes through a thorough chemical clean which removes all rust, oil and mill scale from the surface.

When the cleaning solution has been rinsed off, the coating process can begin.

The steel is dipped into a bath of molten zinc heated to around 450°C (860°F) before being left to cool in a quench tank. When the cooling process is complete, the zinc coating is then metallurgically bonded to the steel.

COST EFFECTIVE SOLUTION

There are numerous benefits to hot dip galvanizing, the most significant of which is its ability to dramatically extend the lifetime of steel products in a range of environments; particularly important since an estimated 4% of the world's GDP is lost each year through corrosion.

Galvanizing's ability to prolong a product's lifetime make it highly cost-effective, since little or no maintenance is required – giving hot dip galvanizing the lowest overall cost compared to other protective steel coatings.

Unlike most coatings, such as paint, which rely solely on preparation of the steel to obtain adhesion, hot dip galvanizing produces a coating bonded metallurgically to the steel.

In other words, the iron and zinc react together to form a series of alloys which make the coating an integral part of the steel surface with excellent cohesion.

As well as the corrosion protection galvanizing offers, it also provides Sacrificial Protection as the zinc corrodes in preference to steel and sacrifices itself to protect the steel, hence hot dip galvanizing will provide this sacrificial protection.

Providing the steel with three methods of protection:

1. The coating weathers at a very slow rate.
2. Scratches are sealed by weathering products from the zinc and
3. With large damaged area, the sacrificial protection prevents the sideways creep of rust.

BENEFITS OF GALVANIZING

SUSTAINABLE

Sustainability is becoming a significant consideration when choosing materials to ensure that buildings are as sustainable as possible. Galvanizing has long been seen as the most environmentally-friendly finishing process available to prevent corrosion, as it is highly sustainable and produces minimal waste.



MAIN BENEFITS OF GALVANIZING

- Long life - galvanizing creates an easy to clean surface which can give a maintenance free life of more than 70 years (depending on the environment used in).
- When maintenance eventually becomes necessary, it is straightforward. No complex preparation treatments are required.
- Lowest lifetime costs - low initial cost and long life make galvanizing the most versatile and economic way of protecting steel for long periods.
- The benefits of no maintenance, or extended maintenance intervals, include fewer problems of access in remote areas, difficult terrain, when buildings are closely packed together or when there area safety restriction such as electricity pylons.
- Costing toughness - galvanizing is unique. The hot dip process produces a coating which is bonded metallurgically to the steel. No other coating process has this feature and, as a result, galvanized steel has by far the greatest resistance to mechanical damage during handling, storage, transport and construction - an important factor where steel work is to be shipped around the world.
- Complete coverage - because it is formed by dipping steel into molten zinc, all parts of the surface of the steel are coated - inside, outside, awkward corners and narrow gaps which would be impossible to protect in any other way.
- The coating actually tends to build up at vital corners and edges rather than thinning out as is often the case with brushed, sprayed or other dipped coatings.

OUR COMMITMENT TO SERVICE & QUALITY

GALVANIZING QUALITY

All works are undertaken in hot dip galvanized strictly in accordance with EN ISO 1461 and under the control of ISO 9001.

All hot dip galvanizing is carried out in a CLASS 1 BATH with agreed compositional limits and records of assessment retained for 10 years.

Our galvanizing baths are also lead free.

Wedge Group Galvanizing also has supplier approval for Rail and Gas & Oil. We have been through their stringent audit processes so you can be assured of high quality galvanizing backed by excellent customer service.



CUSTOMER PROMISE

Wedge Group Galvanizing is committed to continuous quality improvements with our 'Customer Focus Initiative'. This includes regular customer feedback surveys to ensure our customers are receiving the best service available.

We also have a continuous improvement team on all of our sites to help action any improvements we need to make following feedback from customers.





GALVANIZING & THE CIRCULAR ECONOMY

HOW IS GALVANIZED STEEL MORE SUSTAINABLE THAN NON-GALVANIZED STEEL?

Hot dip galvanizing is essentially the process of coating clean steel with a layer of molten zinc to protect the it from corrosion and provide a long-lasting, durable surface. It's more robust than other coatings that only bond chemically or mechanically, and it has the added advantage of fully coating the steel.

As a finish, it is not only highly effective, but is also extremely eco-friendly. A single, one-off treatment will coat a product both inside and out, providing a finish which can protect steel and keep it maintenance-free for more than 70 years, often longer in the right conditions.

WHAT HAPPENS TO LEFTOVER ZINC?

Any molten zinc which does not instantly form a metallurgic reaction with the steel to coat it remains in the galvanizing bath to be reused again and again. Zinc can be reused repeatedly without having any negative impact on its chemical constitution.

IS GALVANIZED STEEL RECYCLABLE?

Galvanized products, once constructed or installed, can also be removed, re-galvanized and re-used. They are also easily recycled with steel scrap in the steel production process.



HOW LONG DOES GALVANIZED STEEL LAST?

Galvanized steel can last more than 70 years or more in the right conditions.

In fact data has shown that it provides between 34 (in vert harsh environments) to 170 years of protection to steel.

Unlike paint or powder coating, galvanizing doesn't need to be maintained throughout its life to ensure continued effectiveness - reducing the need for manual labour, and the associated costs of down-time to conduct repairs and maintenance.

One of the main atmospheric pollutants that affect the performance of hot dip galvanizing is Sulphur Dioxide.

INDUSTRY LEADERS



CONTINUAL INVESTMENT

Continual investment and improvements ensure all our plants are designed and equipped to set industry-leading standards for sustainability and low environmental impact.

These include:

Using the most innovative **pulse-fired high velocity** systems in our plants which improve fuel efficiency and performance.

Rain water harvesting - to minimise water usage, we have pioneered an innovative rainfall collection system at all of our plants to ensure any rainfall that falls on the roofs of plants is collected and stored on-site through a series of gutters and tanks, to be recycled back into the galvanizing system.

The use of **LED lighting** throughout our plants and offices

LEAD FREE

We have completed a unique conversion to lead-free galvanizing.

The decision was made to eliminate lead from our process at all of our 14 plants across the UK 2009.

The completion of the project means it's thought to be the first galvanizing company in the country to become 'lead-free'.

Small amounts of lead have been used to facilitate the galvanizing process for decades and it continues to be widely used today.

The challenge was to develop the metallurgy and overcome technical challenges while maintaining and improving on the quality of the finish expected by our customer base.

OTHER SERVICES



WHAT WE CAN OFFER:

- Collection and delivery service with our own fleet of over 100 vehicles.
- Direct-to-site deliveries.
- 24-hour turnaround service on request.
- Unrivalled customer service.
- Spin galvanizing.
- Shot blasting/powder coating*.
- Double Dip: Up to 29m.
- Vertical Dip: Up to 3.2m.
- ISO 9001 quality approved.
- Technical and design advice.

*These options are plant-specific. Please contact your nearest plant for more details

DESIGN CRITERIA

The galvanizing process should not be viewed in isolation but must be considered at the design stage.

Some parts may need extra venting or drainage points and, in the case of internal tread forms, a post-galvanizing operation will be necessary.

We offer free advice and guidance on best design practice to give you the best quality galvanizing.



Scan the QR code to
download a
Venting poster

LARGEST GALVANIZING BATH IN THE UK



WORKSOP GALVANIZING

Our Worksop plant has the largest galvanizing bath in the UK at 21m long, meaning that steel lengths of up to 29m can be galvanized (double dipped).

Worksop Galvanizing offer a nationwide collection and delivery service across the UK, along with a fast turnaround and unrivalled customer service.

Based in Worksop, Nottinghamshire, Worksop Galvanizing specialises in structural steelwork and other large products but also carry out general galvanizing work.

All works undertaken is hot dip galvanized strictly in accordance with EN ISO 9001.

STRUCTURAL STEEL

Hot dip galvanizing structural steel can aid in the fast erection of steelwork without need for any additional on-site work. The coating characteristics also offer the extra benefit of being able to withstand the rigours of transport and on-site handling.

Galvanizing has long been recognised as the most sustainable finishing process available to help the construction sector protect against corrosion, with the recent emergence of a number of technological advances making the procedure even more environmentally-friendly.

OUR SERVICES

- Collection and delivery service
- Delivery directly to site
- 24-hour turnaround on request
- Shot blasting
- Galvanize up to 29m (single beam double dip)
- Capacity up to 1,000t per week
- 3m Vertical dip

T: 01909 486384

E: worksop@wgg ltd.co.uk

DEDICATED SPIN/CENTRIFUGE PLANT

THE PROCESS

Spin or Centrifuge Galvanizing is the process used on smaller steel parts, such as nuts, bolts and screws.

This follows the same process as general galvanizing except that the work is placed in baskets to be galvanized, so they are not lost in the bath. They are removed from the bath before the zinc on the work solidifies.

The basket is placed in a centrifuge and spun for several seconds to remove excess zinc from the surface and prevent items from sticking together, ensuring a smooth finish. This is especially important for nuts and screws with threads to ensure the threads are clear of excess zinc.

All works undertaken is hot dip galvanized strictly in accordance with EN ISO 9001.

Galblast-450

Microblast preparation followed by hot dip galvanizing at 450°. The Galblast process is designed to meet the requirements of the fastener industry for reliable, long life, spun galvanized high-strength nuts and bolts, typically grade 8.8 – 10.9.



B.E. WEDGE LTD | OUR SERVICES

Our plant, B.E. Wedge Ltd are specialists in centrifuge galvanizing of small parts including threaded fasteners up to 2m long. We can also galvanize all types of cast iron.

B.E. Wedge offers regular collection and delivery services along with unrivalled customer service. Our experienced, expert team is always ready to provide free advice about your galvanizing requirements and to assist with any technical queries you have to ensure you get the best-quality galvanizing.

- Collection and delivery service
- 24-hour turnaround on request
- Galblast-450 – Threaded fasteners
- Two galvanizing lines

T: 01902 630 311

E: wedge@wgg ltd.co.uk



GALVACOAT®

Galvacoat® is a one-coat solution when colour needs to be added to galvanized steel.

Wedge Group Galvanizing supply Galvacoat® throughout the UK.

Galvacoat® is a tough, single application polyurethane topcoat that's specifically formulated to adhere perfectly to Hot Dip Galvanized steel.

Specially designed for Hot Dip Galvanized Steel, it is suitable for all spray systems or brush applications.

While most standard paints are intended for use on ferrous metals, Galvacoat® has been designed exclusively for use on non-ferrous metals, and can be applied in a single coating – without the need for special etch primers.

It adheres firmly to the galvanized surface and does not allow any salts to form, thus maximising the adhesion and delivering a quality coating that can be typically expected to last for up to 15 years.

BENEFITS:

- Specifically Designed for Hot Dip Galvanized Steel.
- No etch primers required.
- Can be applied directly to both freshly galvanized and weathered galvanized steel.
- Available in all RAL and BS colours.
- Save On Cost. With its long-life properties, the lifetime cost of Galvacoat is significantly cheaper than alternatives, which need to be replaced on a much more regular basis.
- Gain On Longevity. Galvacoat® retains its original colour to within 5% over a period of 20 years.
- Easy To Apply. Just a single application will keep your surface looking its brilliant best for years to come, and Galvacoat® is suitable for all spray systems or brush applications.
- Easy Onsite Touch-up. Unlike powder coating,
- Galvacoat® is extremely easy to touch up on-site.
- A Multitude Of Applications. Use Galvacoat® on applications as diverse as balconies and gates, power and sub-station equipment, railings, street furniture, structural steel and water treatment plants.



OUR PLANTS

Acrow Galvanizing Ltd

14 Piperell Way, Haverhill, Suffolk, CB9 8PH
Tel: 01799 522219 Email: acrow@wggltd.co.uk
Bath Size: 5m x 1.1m x 3.2m

B. E. Wedge Ltd

Stafford Street, Willenhall, West Midlands, WV13 1RZ
Tel: 01902 630311 Email: wedge@wggltd.co.uk
Bath Size: 7.62m x 1.22m x 2m
Centrifuge Galvanizing Specialist

East Anglian Galvanizing Ltd

Old North Road, Sawtry, Cambridgeshire, PE28 5XN
Tel: 01487 833160 Email: east.anglian@wggltd.co.uk
Bath Size: 8m x 1.3m x 3.1m

Edward Howell Galvanizers Ltd

Watery Lane, Wednesfield, West Midlands, WV13 3SU
Tel: 01902 637463 Email: edward.howell@wggltd.co.uk
Bath Size 1: 10m x 1m x 2.4m
Bath Size 2: 4m x 1.3m x 3m

Humber Galvanizing Ltd

Unit J, Citadel Trading Park, Hull, HU9 1TQ
Tel: 01482 322466 Email: humber@wggltd.co.uk
Bath Size: 7.5m x 1.05m x 2.5m

Manchester Galvanizing Ltd

Green Lane, Heywood, Lancashire, OL10 2DY
Tel: 01706 366191 Email: manchester@wggltd.co.uk
Bath Size: 10m x 1.4m x 2.9m

Merseyside Galvanizing Ltd

Blackburne Street, Garston, Merseyside, L19 8JA
Tel: 0151 427 1449 Email: merseyside@wggltd.co.uk
Bath Size: 6.2m x 1m x 2.4m

Metaltreat Galvanizers

Metaltreat House, Canal Road, Bradford,
West Yorkshire, BD2 1AN
Tel: 01274 221500 Email: metaltreat@wggltd.co.uk
Bath Size: 6m x 1.1m x 2.5m

Newport Galvanizers Ltd

Llanwern Works, Newport, Gwent, NP19 4QX
Tel: 01633 277400 Email: newport@wggltd.co.uk
Bath Size: 6.8m x 1.1m x 3.5m

Scottish Galvanizers Ltd

MacLellan Street, Glasgow, G41 1RR
Tel: 0141 427 3041 Email: scottish@wggltd.co.uk
Bath Size: 14.2m x 1.1m x 2.9m

South East Galvanizers Ltd

Crittall Road, Witham, Essex, CM8 3DR
Tel: 01376 501501 Email: south.east@wggltd.co.uk
Bath Size: 10m x 1.5m x 2.9m

South West Galvanizers Ltd

Marsh End, Lords Meadow Industrial Estate,
Credon, Devon, EX17 1DN
Tel: 01363 774574 Email: south.west@wggltd.co.uk
Bath Size: 10m x 1m x 2.1m

Wessex Galvanizers Ltd

Tower Industrial Estate, Tower Lane,
Eastleigh, Hampshire, SO50 6NZ
Tel: 02380 629952 Email: wessex@wggltd.co.uk
Bath Size: 7m x 1m x 2.7m

Workshop Galvanizing Ltd

Claylands Avenue, Worksop, Nottinghamshire, S81 7BQ
Tel: 01909 486384 Email: workshop@wggltd.co.uk
Bath Size: 20.5m x 1.35m x 2.4m