

INGENIA chain hoists give any galvaniser a lift

For nearly 15 years, INGENIA GmbH from Linz in Upper Austria has been building hot dip galvanising plants. The company has also established a leading position in the field of supplementary material logistics - especially for lifting gear.

"Rope or chain hoist?" This is a question with which Philipp Roth, INGENIA's Senior Sales Manager, is frequently confronted. His answer, from long-term experience: *"This depends upon where the hoist is to be used. There is no general answer."* However, what both types of lifting gear do have in common is the shared task of transporting heavy loads, in extreme cases on a 24-7 basis. In really tough conditions, INGENIA always recommends chain hoists. Why? Because it develops and builds such systems and employs chains produced to its own specifications. But let us begin at the beginning.

Quality from the outset

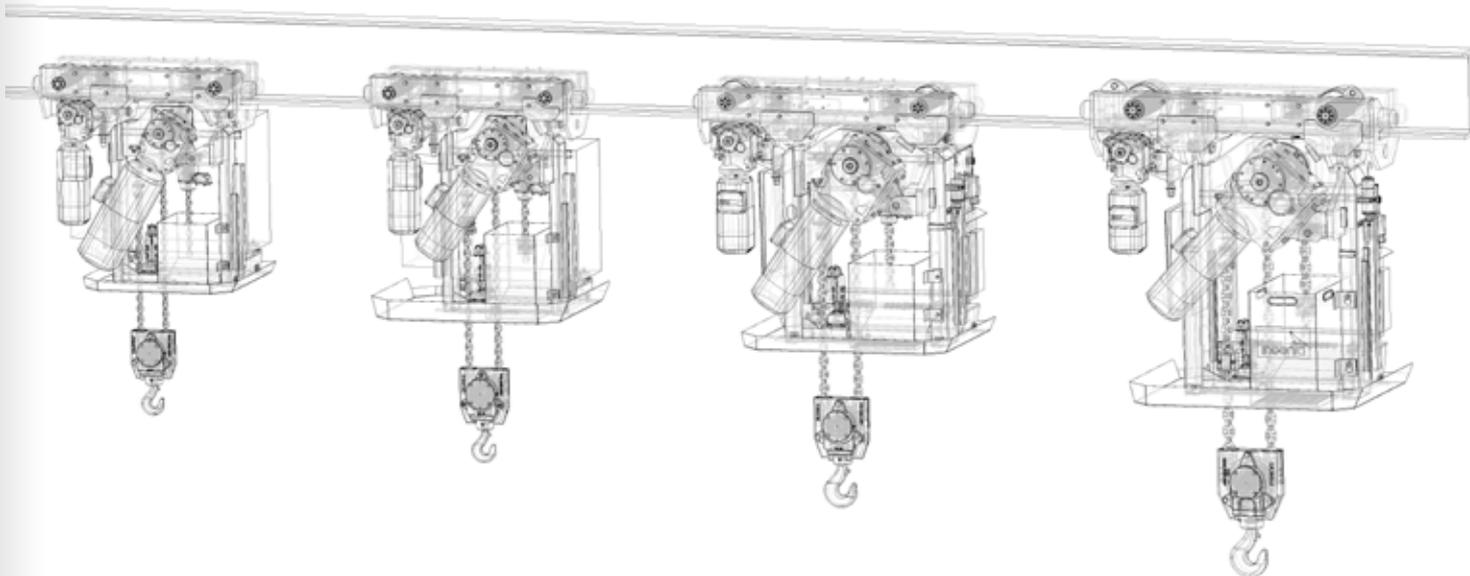
When Rudolf Geiersberger founded INGENIA GmbH during 2001 through a management buyout, his team already had over 10 years of experience in transport technology, plant building and the construction of hot dip galvanising plants. To date, INGENIA has successfully realised 56 plants throughout Europe - a role that extends from the supply of components to general contracting for complete, customised plants with closed process cycles for both bulk goods and small parts. As a life cycle partner, INGENIA accompanies clients from the idea, which can be simulated in 3D, via planning, supply



INGENIA chain and chain wheel / Chain hoists for galvanizers

and installation, training and start-up. Such relationships are based on trust and continue well after plant commissioning - as INGENIA also offers its customers an extensive range of services and maintenance and a 24-7-365-hotline.

Company founder, Rudolf Geiersberger, puts one of his criteria for success in a nutshell: *"When it comes to quality, we are uncompromising. And for us, quality also means first class, after-sales performance."* He goes on to add that this full service not only applies to customers purchasing a new plant, but also those completing a retrofit which can involve the overhaul of their galvanising plant by the Upper Austrians or the installation of individual modules or components.



INGENIA lifting gear/chain hoists

12 years of development work for a key component

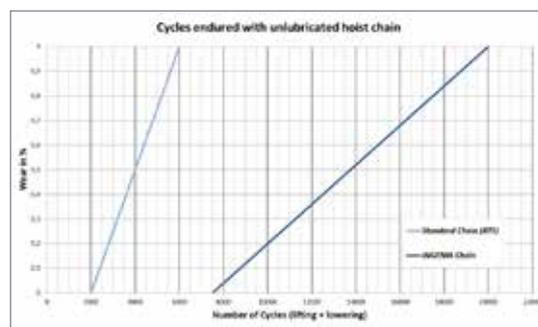
INGENIA chain hoists were developed explicitly for galvanising plants and the reasons are easily explained. Normally, chain hoists are either found with a traverse on the route from pre-treatment or in the zinc line, mounted on rails or a bridge crane. Consequently, even when zinc kettles are equipped with flue gas extraction and exhaust gas scrubbers are located in the pre-treatment area the hoists are subject to extremely tough requirements. This was reason enough to consider ways of extending the service life of both the chain hoists and the chains themselves.

Depending on their size, INGENIA chain hoists in the top category can operate around the clock with loads of 1 to 10 tonnes. The hoists are designed for multiple shift operation and offer a far longer service life than standard equipment. A further advantage is their infinitely adjustable, load-dependent speed control, which offers minimum lifting speeds. This guarantees optimum withdrawal from the zinc bath. The hoists are controlled manually, via radio remote control, or fully automatically via WLAN.

Value added chain

Chains form a decisive link between the crane and the goods. Their reliability is essential. But INGENIA does not employ standard chains. Instead, they are manufactured for INGENIA by a respected German producer in line with its own ideas and specifications and using special surface hardening. The chain links are permanently lubricated by an automatic lubricating unit

which operates directly on the contact point between two chain links.

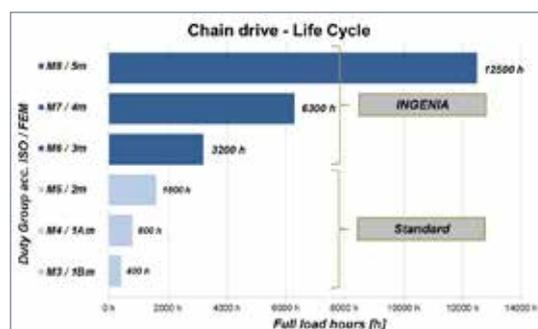


Chain design features: number of cycles (lifting & lowering)

Chain wheel

Unlike standard chain wheels, INGENIA products have at least seven chain pockets - for the simple reason that this provides extended service life. Smoother chain slippage is guaranteed and jerking caused by the so-called 'polygon effect' is minimised. The chain wheel is therefore an important component and in order that these can function safely and over a long period in an aggressive atmosphere, all the bearings have multiple sealings and cast elements.

Design features – chain drive



Energy efficiency through intelligent management

Hot dip galvanising plants are generally regarded as being energy intensive. However, thanks to an intelligent management system, INGENIA's builds some of the cleanest and most energy-efficient plants in the world.

A plant can be designed for maximum efficiency by using an advanced energy management system during the planning phase. The electricity requirement of all the consumers in the production area is evaluated, controlled and regulated. In practice, this means that the computerised control system knows in advance when and what loads the hoists have to raise and guides them in such a way that lifting is evenly distributed. This ensures that the maximum capacity of the plant is never exceeded and costly power consumption peaks are avoided. As a consequence, the cable and copper cross-sections (including earthing) are reduced and can be provided with an optimum layout, which also has a positive effect on investment costs.

This energy management system can already be installed in the "BASIC" plant type and electricity costs are further reduced because the motors used in INGENIA lifting gear offer high efficiency in tandem with low power consumption. The brake energy generated during load lowering is no longer lost. The motor acts as a generator - to recycle it back into the power system. This is Class IE2 international efficiency, in line with the global IEC-Norm (Code 60034-30) standard and quality directive.

Increasing demands

The demand and complexity with regard to both material logistics and the construction of galvanising plants are steadily increasing. In INGENIA's 1,400m² in-house Technology Centre, prototype and component test runs are permanently in progress in order to achieve continual progress.

INGENIA Chain Characteristics

- Case-hardened
- 100 % calibrated
- Highest dynamic strength
- Maximum operating safety

INGENIA Chain Hoist Features

- Tailor-made design for galvanising plants
- Highest safety standard
- Safe working loads (SWL) of up to 10t
- Long life cycle and high availability levels
- 100 % duty cycle
- Low maintenance costs
- Solid and corrosion-resistant
- Automatic chain lubrication
- "Side pull" protection
- For new configurations and retrofits
- Suitable for overhead cranes and monorails
- Infinitely adjustable hoist speed
- Chain monitoring
- Cast hook block
- Remote or automatic controls
- Compact design for narrow spaces
- Modular product family
- Suitable for vibration units

Visit us at Intergalva Booth G18 and see more at www.ingenia.at