

PRESS RELEASE JDN127

THE ADVANTAGES OF PNEUMATIC VERSUS ELECTRIC HOISTS WHY AIR HOISTS ARE BEYOND COMPARE FOR SAFE, RELIABLE, COST-EFFECTIVE LIFTING

When considering a new investment in hoist technology, a full comparison between pneumatic and electric hoists can pay real dividends. In short, pneumatic hoists from J D Neuhaus (JDN) offer numerous advantages over their electric counterparts. In areas such as duty cycle, variable speed control, weatherproofing, installation and operation, maintenance, robustness, investment costs, lifetime costs and of course safety, a JDN pneumatic hoist really makes a difference.

Duty cycle is amongst others an important area of focus. Electric drives can only be used for intermittent operations (S2 duty), so are not suitable for continuous use. Conversely, JDN's pneumatic hoists have no downtime and a 100% duty cycle rating. In addition, JDN pneumatic hoists can work constantly without causing excessive temperatures thanks to the patented design self cooling gearbox, where decompressed air flows through channels within the gearbox to cool the gear train. This of course offers a great benefit to end users as hoists can be in uninterrupted use over multiple shifts.

With regard to variable speed, a pneumatically operated hoist is able to offer easy, accurate and wide-ranging speed control at low cost, enabling simple, sensitive and accurate positioning of loads in all environmental conditions. In comparison, an electric hoist will require a frequency converter (also known as a VFD) and shielded wires to prevent radio interference, while the motor will need thermo-elements to avoid increased heating at the windings.

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Clearly, safety becomes a major issue for electric hoists in potentially explosive environments such as oil rigs, mines and paint shops. Moreover, it is challenging to configure electric drives for use in such areas, at least not without considerable cost. In contrast, there are no such issues when using air-operated hoists from JDN. By using compressed air as the driving media, they are suitable for use within dust laden atmospheres, including areas at risk of explosion and even where organically flammable chemicals are in use.

Of course, if the hoist is intended for outdoor use, the whole issue of weatherproofing arises. Using an electric hoist for such an application means careful selection based on its IP protection class rating, which denotes its ability to resist the ingress of solids and moisture. Needless to say, there are no such issues with JDN's pneumatic hoists which, as non-electric equipment, are not subject to the IP rating system. Any contaminants such as dirt or water are simply blown out by air without any compromise to functionality. This is also crucial in areas where hoists need to be cleaned at regular intervals or within humid environments, such as the food industry.

Pneumatic hoists are low in weight compared with their electric counterparts, making them more mobile and far easier to handle. Not that this factor compromises operational strength, as air hoists are ideal for performing large lifting heights, providing true vertical lift without any limitation in the number of starts/stops per hour. The simplicity of pneumatic hoist technology also lends itself to easier installation compared to electric hoists which require qualified personnel.

Pneumatic hoists contain relatively few mechanical components compared to electric hoists and fewer components means less to go wrong. JDN's modular design also provides simple access to all parts making maintenance easy. This results in less downtime and faster, more affordable repairs.

Finally, when comparing the cost of pneumatic and electric hoists, many factors must be considered beyond the price tag, including installation, operation, inspection and maintenance costs. Upon performing this TCO (Total Cost of Ownership) calculation, the economic advantages of pneumatic hoists quickly become apparent.

Company Information

With over 200 employees across the group, J D Neuhaus manufactures pneumatically and hydraulically-operated hoists and crane systems up to 115 tonne capacity from its state-of-the-art facility in Witten, Germany. This globally unique specialisation means that J D Neuhaus has set the quality standard for the market, a move that has seen the company become the established global leader in its technology field with customers in more than 90 countries worldwide.

Over 80% of production from the Witten plant is exported, which is why the company has longestablished subsidiary companies in France, Great Britain, Singapore and the USA, all of which have helped create a tight-knit global network in collaboration with international partners.

Resilience and reliability are the key product differentiators, thanks largely to their explosive protection rating which makes them ideal for use even in the most challenging of operating environments. Extreme applications include oil and gas exploration in arctic temperatures as low as -45°C, along with underwater tasks such as ship hull repairs, and plenty of others in demanding sectors like mining, the chemical industry, foundries, steelworks, refineries and heavy plant construction. Other typical areas of application include the food, dairy, automotive, paper and textile industries along with general assembly lines and many areas of logistics to list but a few.

The wide portfolio of services provided by J D Neuhaus includes equipment assembly, inspection, maintenance and general overhaul, along with the supply of customer training courses. Their highly qualified sales staff, engineering team and service technicians all work in close collaboration to develop their product range and support clients throughout the world.

J D Neuhaus has history that can be traced back to 1745, and is now in its seventh generation of family ownership. Visitors to the Hebezeug-Museum (Hoist Museum) in Witten, are able to see for themselves the remarkable history of this progressive company.

Further information is available on request to:

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(approximately 980 words including photographic annotations)

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A Profi 2 TI air hoist in motorised trolley from J D Neuhaus, air hoists offer numerous advantages over their electric counterparts.

<u>Download high resolution 300dpi image (900 x 2400 px)</u> <u>Download low resolution 72dpi image (339 x 900 px)</u>



JDN Big Bag Handling hoist in the chemical industry.

<u>Download high resolution 300dpi image (2400 x 1800 px)</u> <u>Download low resolution 72dpi image (800 x 600 px)</u>

Company information



J D Neuhaus are a privately-owned company, founded in 1745, and for over 270 years they have been using their expertise and experience to manufacture the highest quality hoists and cranes.

Their products offer solutions to almost every material handling problem irrespective of the driving medium: from air and hydraulic hoists up to complete crane installations with explosion proofness.

JDN products are used in a wide variety of industries including:

Airplane Yards; Atomic/Coal Power Stations; Big Bag Handling; Cement Industry; Chemical Industry; Crane Manufacturers; Dairies; Food Industry; Foundries; Galvanisation; Glass/Ceramics; Large Kitchens; Leather Plants; Locks; Machine and Plant Construction; Mining; Motor Car Industry; Offshore/Onshore; Oil Storage; Over/Underground Construction; Paints and Varnish; Painting and Coating Installations; Paper Industry; Pharmaceutical Industry; Printing Industry; Pyrotechnics Industries; Refineries; Sawmills; Shipbuilding and Shiprepair Yards; Ships; Space Technique; Spray Booths; Steel Works; Surface Technique; Tank Cleaning Devices; Textile Industry; Tunnel; Tyre Manufacturers; Vacuum Technique

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J D Neuhaus are represented in more than 90 countries and over 70 branches Worldwide.



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