



DONGHUA CHAIN GROUP

A BRIEF DESCRIPTION OF THE GROUP

THE FAMILY-OWNED BUSINESS

Donghua was founded in 1991 by the current owner and CEO, Xuan Bihua. The consistent focus on our customers' requirements in terms of quality, competitiveness and reliability has been the fundamental reason becoming one of the world's leading chain manufacturers.

"Our goal is achieving and consolidating a market leading position in the important industrial and sales sectors with long-term and cooperative customer collaborations. Trust and reliability, along with open and transparent communication between us and our customers are the core values of fair partnership."

WORLDWIDE PRODUCTION

7 PRODUCTION PLANTS

Highly specialized and leading OEM-certified manufacturing facilities for chains and sprockets in China, Germany, Poland and Japan.

20,000 SPECIFICATIONS

Always providing the same solution is not an approach we care to take. With more than 20,000 specifications, we now offer the largest product portfolio worldwide.

LOCAL PRESENCE

17 SALES & LOGISTICS CENTRES

Our qualified staff in the local logistics centers are your contacts in the areas of sales and engineering, as well as for special chain and sprocket production in Europe, the United States and Asia.

440,000m² PRODUCTION AREA

Ultra-modern and flexible manufacturing plants with a sustainable and worldwide industry-leading environmental protection concept.

3,800 EMPLOYEES

Globally, Donghua employs 3,800 qualified employees. In a variety of internal and external qualification programs, our employees will be constantly further qualified according to their personal skills and individual development potential.

EXPERTISE

500 ENGINEERS – 147 PATENTS

500 engineers in the areas of manufacturing, development and engineering provide the competitive implementation of customer-specific product requirements. The number of active Donghua patents, which by now reaches 147, underscores our development expertise.

▲ Sales, Logistics, Engineering & Services
■ Manufacturing, Research, Development & Sales

RELIABILITY

OEM-QUALITY

Our customers regularly confirm our reliability in all sectors by A-ratings and quality awards. Many leading OEMs rely up to 100 % on our value add creation and on our close supply chain.

IN-HOUSE PRODUCTION

FROM THE ROLLING MILL TO THE FINISHED PRODUCT

Unlike most providers of chains, our products are exclusively manufactured in our own specialized and certified facilities. With production processes from the mill until the finally assembled product, we do have the world's largest vertical range of manufacture. Thus, we can guarantee a consistent high quality of our products.



Hangzhou, China



Hangzhou, China



Xinghua, China



Bangkok, Thailand



Kaga-Shi, Japan



Donghua HQ, Hangzhou, China



Żnin, Poland



Glendale Heights, USA



Wuppertal, Germany



Wednesfield, United Kingdom



Montesson, France



Alkmaar, Netherlands



Leverkusen, Germany



Budapest, Hungary

DONGHUA IN EUROPE

LOCAL EXPERTISE, MANUFACTURING, LOGISTICS AND AVAILABILITY

THE BASIS OF MUTUAL SUCCESS – UNIQUE!

Over the decade, the Donghua Chain Group has developed and implemented a unique concept for a successful and strategic collaboration with a large number of leading original equipment manufacturers, as well as with many medium-sized companies. The combination of local presence with comprehensive and competent services in conjunction with global, highly specialized production plants can only be found in this form at Donghua. Our customers benefit directly from the close cooperation with the manufacturer. The dynamic and powerful development of Donghua in the market is the best proof of this unique recipe for success.

LOCAL EXPERTISE

- Consulting and support by industry specialists
- Joint development and application engineering
- Optimization of your entire supply chain
- Cost reduction already in the development phase
- Failure analysis and enhancement of your products

LOCAL PRODUCTION & FINISHING

- Automatic installation of attachments and special pins
- Assembly of complete components
- Special lubrication (such as high / low temperature, H1 registered etc.)
- Sprocket machining and production
- Paired alignment

GLOBAL LOGISTICS

- Secure planning of your production supply
- Monitoring and continuous improving of all logistics processes
- Pro-active response to deviations
- Overarching quality management system
- Delivery of call off orders from the logistics centers

LOCAL AVAILABILITY

- Largest inventory of standard and special products in Europe
- Stocking of fluctuation reserves in framework contracts
- Short-term modification of stored products
- Fast delivery service

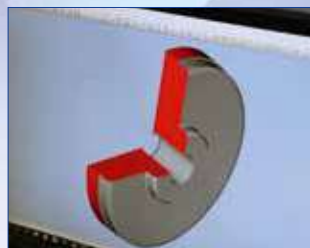
7 LOGISTICS CENTRES DISTRIBUTED THROUGHOUT EUROPE



PRODUCTION, PROCESSING & LOGISTICS IN EUROPE



Development and application engineering to customer specifications



State of the art 3D-CAD by our specialists



Automatic cut-to-length machines



Fully automated assembly of special pins



Installation of special carriers and attachments



Assembly of components and special carriers



Paired alignment of chains



Cleaning & special lubrication (e.g. Teflon-based)



Sprocket manufacturing on CNC machines



Sprockets notching



Automatic welding equipment



Sprocket finished parts warehouse



3D-coordinate measuring machines



QM and issuance of test certificates (e.g., 3.1)



Material analysis with spectrometer



Largest stock in Europe

DONGHUA STANDS FOR QUALITY

CERTIFIED & AWARDED

QUALITY, FROM EXPERIENCE

We ensure the consistent and high quality of Donghua chains with our certified management and production processes. Donghua is active in various NORM committees and thus always up to date regarding technical and scientific innovation. Our employees significantly influence the success of the Donghua Group. Therefore, all employees know their tasks in the entire process, approach them independently and meet them consistently. Knowledge of the upstream and downstream process steps, pronounced team spirit and passion for the job are the keys to our company's success. In so doing, constant questioning of current processes as well as cross-functional solutions and improvements are an integral part of our daily actions. Our customers define the requirements for our products and services. The mandatory fulfilment of these customer requirements is always our top priority. We value long-term and cooperative customer relationships based on our constant high quality.

ISO CERTIFICATION

Starting with the ISO 9001:2015 QM certification, followed by the ISO 14001:2015 Certificate, which documents the sustainability and environmental compatibility of our production and disposal processes, completed by the IATF 16949 quality requirements of the automotive industry, Donghua complies with all the internationally defined management systems. The amendment of the 9001 and 14001 norms have consequentially led to the recertification in 2018 according to the latest system revisions.

SPECIAL CERTIFICATES

Additional special certificates such as the one awarded by the American Petrol Institute, the "Certificate of Conformity for Measurement Management System" and the "Export Inspection Certificate" show evidence that Donghua will always meet the major industry demands.

OEM APPROVED PLANTS

Our global manufacturing facilities have been audited and certified by leading original equipment manufacturers from various industries.

ACCREDITED TEST CENTER

The Donghua test center is one of the most modern and prestigious testing centers for chains worldwide. In addition, the facility is accredited as a state-licensed testing laboratory.

EXCELLENT QUALITY

Donghua is an A-supplier with outstanding PPM rates. Leading OEMs in the fields of packaging, warehousing technology and logistics confirm this repeatedly in the guise of regularly documented supplier evaluations. Onsite inspections of our subsidiaries as well as of our production plants will regularly be made by our customers in the fields of automotive supply, forklifts and agricultural machinery manufacturing. At the beginning of 2017, Donghua has been awarded "Supplier of the Year" in the quality category by CLAAS.

INTERDISCIPLINARY TEAMS

With us, the customer is always top priority. Our interdisciplinary teams provide accurate and timely implementation of the entire supply and value chain. In so doing, we put the fulfilment of customer requirements for our products and services at the forefront.



ISO-9001:2015-Certificate



ISO-14001:2015-Certificate



OHSAS-18001:2007-Certificate



IATF 16949:2016-Certificate



Test bench for endurance



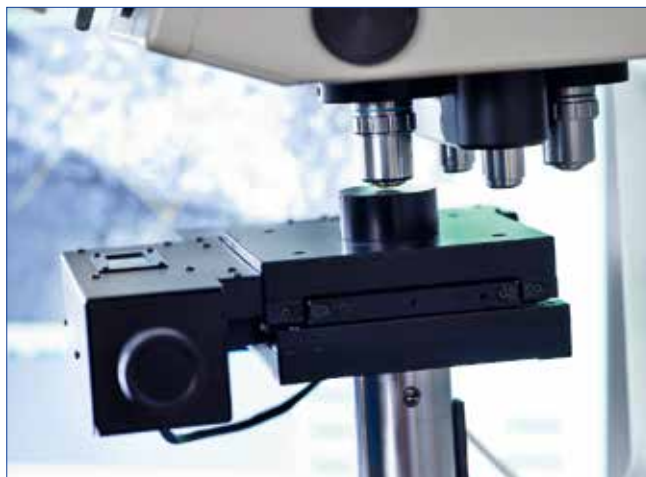
ISO/IEC 17025:2005-Certificate



CLAAS Supplier Of The Year Certificate



Export-Inspection and Certificate of Conformity for Measurement Management Systems



Vickers hardness test



American Petrol Institute Certificate



DONGHUA CHAIN VERSIONS

ALWAYS THE RIGHT SOLUTION



WE CAN PROVIDE STANDARD VERSIONS OR THE RIGHT VERSION FOR YOUR INDIVIDUAL NEEDS.

Donghua not only has the world's broadest product portfolio in special chains. We always offer our customers the right solution for their application in the area of standard chains. The majority of our versions are now available for immediate delivery from the warehouses, fast availability is assured.

SOME EXAMPLES OF OUR "STANDARD" VERSIONS:

STANDARD DESIGN

A high performance chain with chain quality parameters well above ISO

GALVANISED & CHROMATED

Medium to high corrosion resistance, Cr6-free

ZINC FLAKE COATED (SIMILAR GEOMET)

Very high corrosion resistance
e.g., in a salt water environment, Cr6-free

NICKEL-PLATED

Medium to high corrosion resistance, slightly increased wear resistance

CHEMICALLY NICKEL-PLATED

Significantly increased wear resistance and corrosion resistance

STAINLESS - 1.4301

Acid and corrosion resistance even in adverse environmental conditions

STAINLESS - WITH A 400 CHAIN LINK

Increased wear resistance by special heat treatment of pins and bushings

MAINTENANCE-FREE (LUBE FREE)

Design with self-lubricating sintered bushing, nickel-plated chain

HARD-CHROMATED PIN

Extremely high wear resistance, optionally with corrosion protection

MAX-SERIES

Highest operational safety through extremely high durability



X³ PREMIUM SERIES (BLACK)

At least 60% higher fatigue strength,
highly wear-resistant, limited length tolerance

HSP-DESIGN

Reliable even under extreme shock loads

1/3 DIN DESIGN

Maximum parallel operation accuracy by limiting the
length tolerance within the first third of DIN ISO

X/O-RING CHAINS

Lifetime lubrication, extreme wear resistance
even at high chain speeds

H-DESIGN

Increased breaking strength and resilience,
can be used with standard sprockets

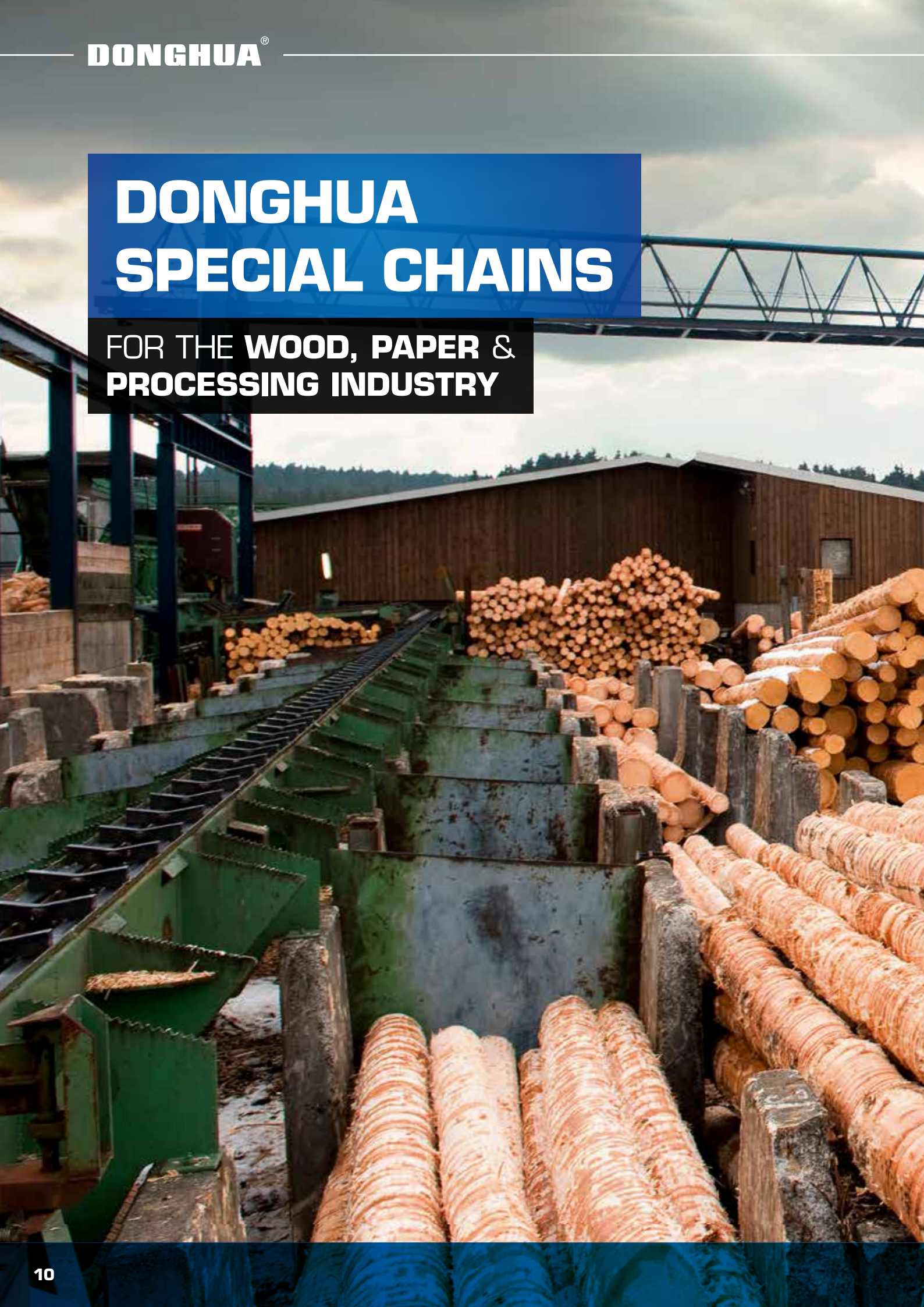
HIGH / LOW TEMPERATURE-DESIGN

Tested special lubrication for extreme temperature
ranges, as well as H1 approved for the food industry



DONGHUA SPECIAL CHAINS

FOR THE **WOOD, PAPER &
PROCESSING INDUSTRY**



AREAS OF APPLICATION

- + Roundwood isolation & transport
- + Butt-end reduction & debarking
- + Board transport in the planer mill
- + Conveyance of wood raw materials
- + Transport of composite wood panels
- + Paper roll transport (standing & lying)
- + Gluing edges / furniture industry
- + Transportation of recycled material
- + Glulam production
- + Chip disposal
- + Sorting strand
- + Canter infeed
- + Board transport
- + Board storage
- + Palletizing

PRODUCT FEATURES

In many sectors of the wood and paper industry, chains must endure extreme loads and exposure to environmental conditions. The processing operations are often linked and highly-automated. A drop out within this production flow, therefore, usually results in an operational failure and consequently into high downtime costs. Our chains for this kind of applications have consequently been developed with regard to these harsh conditions.

EXTREME RESISTANCE TO IMPACT

Special pin and lashing materials, high press-fits and design modifications of our chains ensure the necessary operational reliability even under high shock loads in continuous operation.

SPECIAL DESIGNS

Many special designs are now part of our standard range. Here, both the geometry of the chains or of the attachments and the materials used may vary. We can help our customers to analyze and define the correct specifications.

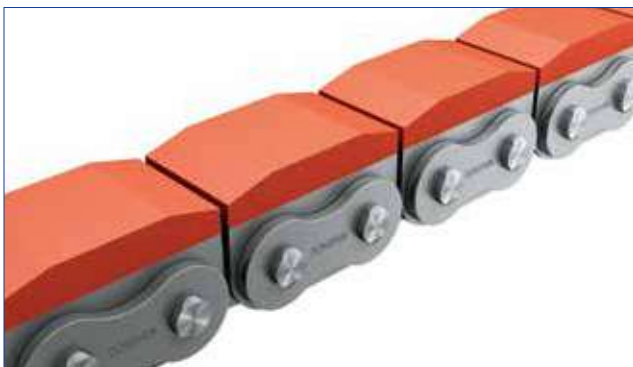
HIGH WEAR RESISTANCE

Abrasive and / or corrosive environments can lead to high wear in the chain link. Our chain links, which have been designed with special heat treatments, show increased resistance against wear under these extreme conditions. Moreover, additional coatings can significantly reduce the surface abrasion in the chain link.

OEM-QUALITY

Our customers include many of the leading OEMs from the aforementioned areas of application. Therefore, we will only provide the quality to you that we have defined for our original equipment manufacturers.

PRODUCT EXAMPLES



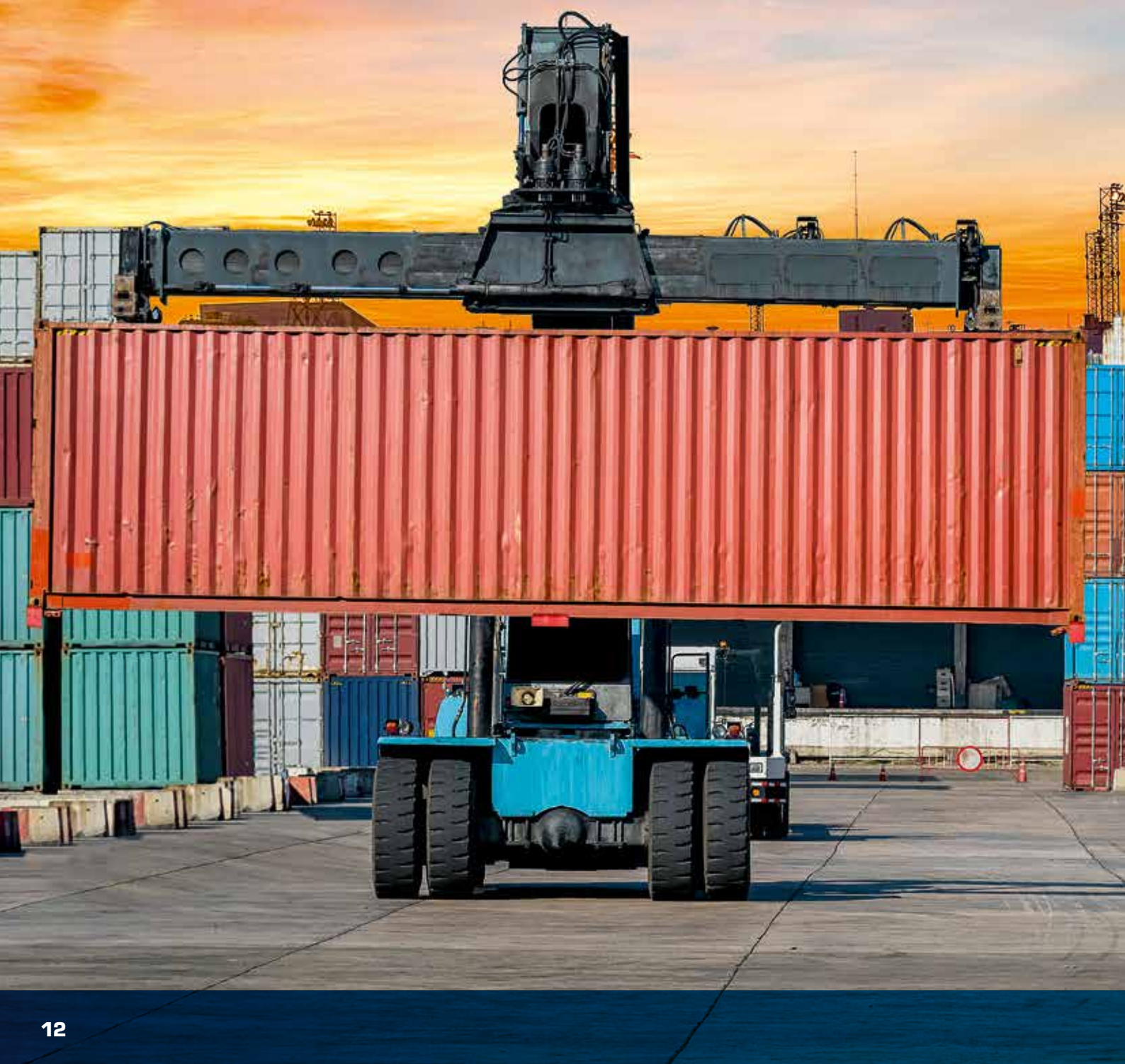
Conveyor chain for sensitive goods
with elastomer of NBR or PU
available in different shore hardnesses



Conveyor chain for heavy goods
Double-strand conveyor chain for mounting plates
for heavy goods

DONGHUA SPECIAL CHAINS

**FOR FORKLIFTS, LIFTING DEVICES
& LIFTING INSTALLATIONS**



AREAS OF APPLICATION

- + Forklifts
- + High-lift trucks
- + Heavy-duty forklift trucks
- + Lifters
- + Storage systems
- + Car parking systems
- + Tool machines (counterweight chains)

PRODUCT FEATURES

As a rule, lifting chains require high safety components, where a chain is associated with high risks for personal and property damage. Therefore, when choosing the right chain, we recommend not only looking at the statutory minimum-security against overload breakage, but in particular the fatigue strength of the chains. In normal use, the fatigue strength also determines the operational reliability.

SAFETY FIRST

Donghua leaf chains have been optimized for the respective applications. You can always rely on the operational safety of our chains, even under high impact loads, such as in a forklift truck under load running on an uneven surface or with frequent, jerky starts under load.

SPECIAL DESIGNS

In addition to the standard designs, we offer a variety of special designs for lifting applications. This includes chains with plastic elements for guiding and protecting of mast components, narrow designs and our MAX models for reaching the highest breaking loads and fatigue strengths. Our application engineers are available to assist in the correct selection and specification you may have.

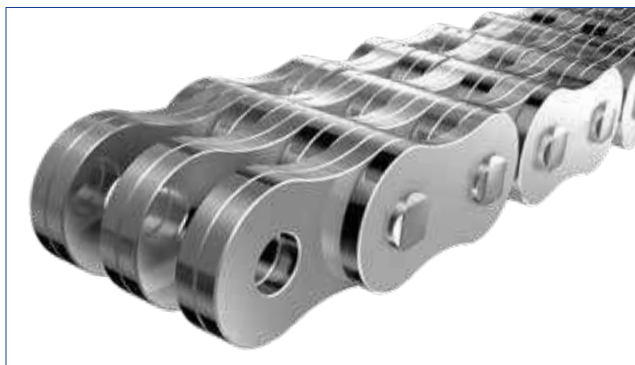
WEAR STRENGTH & CORROSION RESISTANCE

The wear resistance of the chains used is especially evident in applications in which the chains are continuously under load and often will be driven in stop&go mode. For these applications, we design our chains with particular pins and a special lubrication. In extremely corrosive conditions, such as in a port area or as mounted forklift on the truck, we recommend our version with zinc flake coating. This coating is extremely resistant against corrosion and excludes the risk of hydrogen embrittlement.

OEM-QUALITY

In most of the fields of application mentioned, Donghua is a preferred supplier to the leading original equipment manufacturers. Our manufacturing and testing procedures are aligned to the high demands of these OEMs. Therefore, you can always assume that our lifting chains will be produced with the high level of OEM quality.

PRODUCT EXAMPLES



Leaf chains per the heavy American standard
with extremely high impact resilience
e.g., for forklift & heavy duty lifting vehicles



Parallel lift chain with sprocket
adjusted in pairs, high-wear resistant
e.g., for car-parking systems

DONGHUA SPECIAL CHAINS

FOR THE **PACKAGING MATERIALS**
& **FOODSTUFF INDUSTRY**

AREAS OF APPLICATION

- + Film transport
- + Thermoforming machines
- + Precision stamping
- + Filling
- + Closing
- + Folding
- + Conveying (e.g., bucket conveyor)
- + Washing / Cleaning

PRODUCT FEATURES

In the packaging industry, the demands on the parallel operation of chains are extremely high. The quality of the final product, which often undergoes a plurality of successive process steps within a line, is determined inter alia by a significantly limited length tolerance in the individual chain strand. Therefore, the premature wear of the chain has an almost immediate effect on the quality of the manufacturing and packaging process. Donghua has developed its new manufacturing technologies for these special requirements.

HIGH PARALLEL DRIVE PRECISION

Donghua special chains for the packaging materials industry have a particularly high parallel running accuracy of < 0.03-0.05%.

LONG-LIFE DESIGNS

In the long-life design, the chain receives a hard-chromed pin plus a special lubrication based on Teflon. In the process, the chains' wear resistance is increased many times over. Maintenance intervals with extensive post-adjustments will be significantly prolonged.

LONG TERM LUBRICATION / H1

As initial lubrication for these chains, we recommend a special lifetime lubricant on a Teflon basis. This lubricant is also available with H1 approval in high and low-temperature versions. In addition, the adhesion of dust or product residues is significantly reduced by this lubrication.

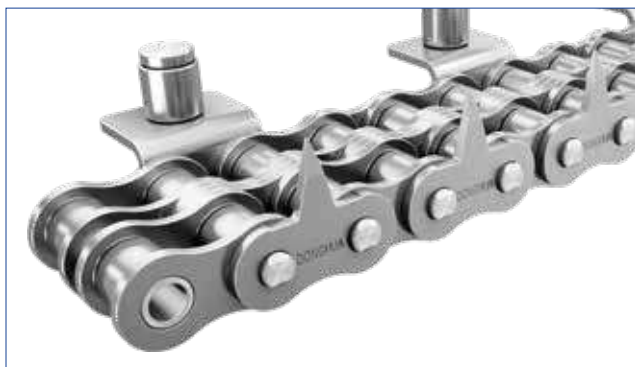
PRECISION - LENGTH TOLERANCE 1/3 DIN ISO

For high precision purpose the length tolerance of all chain strands is limited to the first third of DIN ISO = 0% - 0.05%. This way the accuracy between successive process steps will be significantly increased.

EXTREME PRECISION - LENGTH TOLERANCE 1/3 x 1/3 DIN ISO

The precision chain is further finely adjusted in up to 5 length tolerances groups within the DIN field. The result is a high-precision design that is ensured in the final product, even in long production lines with several concatenated processing steps and extremely narrow tolerances.

PRODUCT EXAMPLES



Film transport chain with Extreme Precision design
e.g., for thermoforming machines



Gripper chain with high precision parallel operation
Corrosion resistant, e.g., for cup filling

DONGHUA PREMIUM CHAINS

**HIGH-PERFORMANCE FOR
HIGH-END APPLICATIONS**

XB



AREAS OF APPLICATION

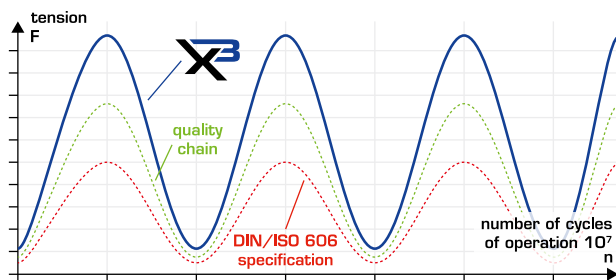
- + Safety-related drives
- + Safety-related stroke applications
- + Stop & Go operation with high starting torques
- + Increased requirements while keeping the geometries
- + High impact loads
- + Limited length tolerance
- + Insensitive to dust and dirt
- + Visual (colour) detection of a Premium chain

PRODUCT FEATURES

Donghua X³ chains have been developed in cooperation with several major OEMs. Initially, a general increase in operational reliability was the focal point of the basic development, even under extreme dynamic loads and peak loads, as well as increasing the performance while retaining the geometrical chain dimensions. Over the time, the chains have been further designed with special properties and for the visual distinction, especially for the end-customer, dyed black.

HIGHEST FATIGUE STRENGTH = HIGHEST RELIABILITY

You can rely on the reliable running of the chains, even under extreme loads.



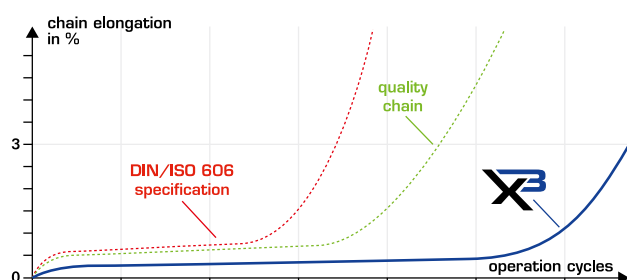
DYNAMIC

Highest dynamic load capacity caused by:

- High-quality materials
- Special heat treatment
- Calibrated plate bore holes
- Increased press-fits

MINIMUM CHAIN ELONGATION

Particularly minimal chain elongation in all load situations throughout the lifetime of the product



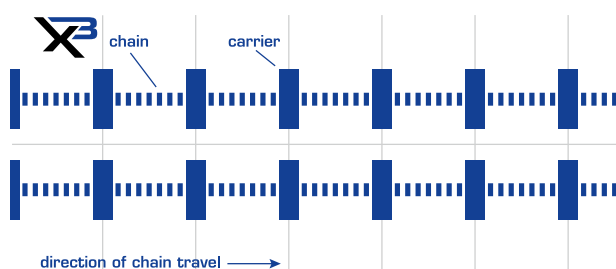
PERFORMANCE

Extremely low wear during operation caused by:

- Alloyed and case hardened steels in the chain link
- Additional treatment of the pin surfaces
- Special Teflon-based lubrication for optimizing the start-up behavior

PRECISE PARALLEL RUNNING

The chains are manufactured and finished with a 1/2 DIN ISO length tolerance.



PRECISION

Parallel drive precision caused by:

- The use of the latest cutting technologies
- Grinded round parts
- High-precision assembly

ADDITIONAL APPLICATION & PRODUCT EXAMPLES

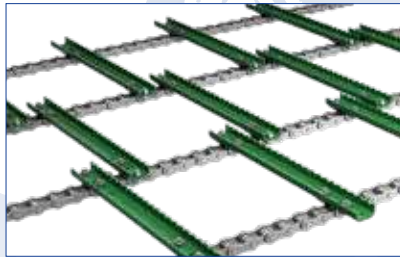
WITH DONGHUA HIGH-QUALITY CHAINS

PRODUCT EXAMPLES

Donghua has special chains for virtually any application. [You can find other versions](#) and information in the respective [product presentation](#) or visit our website at www.donghua-europe.com.



Chains for agriculture
e.g., corn harvest chains



Chains for agriculture
e.g., fully assembled feeder units



Chains for agriculture
e.g., elevator chains with rubber or plastic paddles



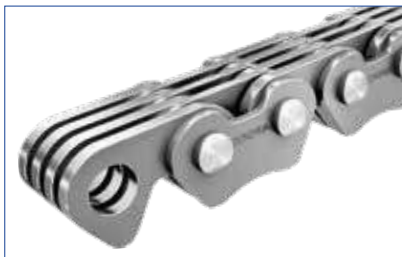
Chains for unloading
e.g., fully assembled double strand units



Chains for building technology
e.g., window operator chains



Chains for the automotive industry
e.g., for "transfer box", transmissions



Chains for the automotive industry
e.g., silent chains



Chains for heavy-duty drives
e.g., main drives for combines



Chains for suspended transport
e.g., over-head conveyors with special uptakes



Chains for steel plants
e.g., for bulk material handling



Chains for disposal
for example, double-stranded hollow pin chains for scrap disposal



Chains for general Mechanical engineering
e.g., for drive actuation & transmissions



Chains for internal transportation
e.g., side bow chains for sensitive goods



Conveyor chains with individual uptakes
e.g., for your own installation of special attachments



Sprockets for all applications
You can also get the matching sprockets for all chains from us.

Donghua subsidiaries and sales offices





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