



NEW

iwis solutions for egg grading machines



Fully automated egg grading machines have to meet stringent demands in respect of **production efficiency, grading accuracy** and ever more stringent **hygiene requirements** in relation to product quality and safety.

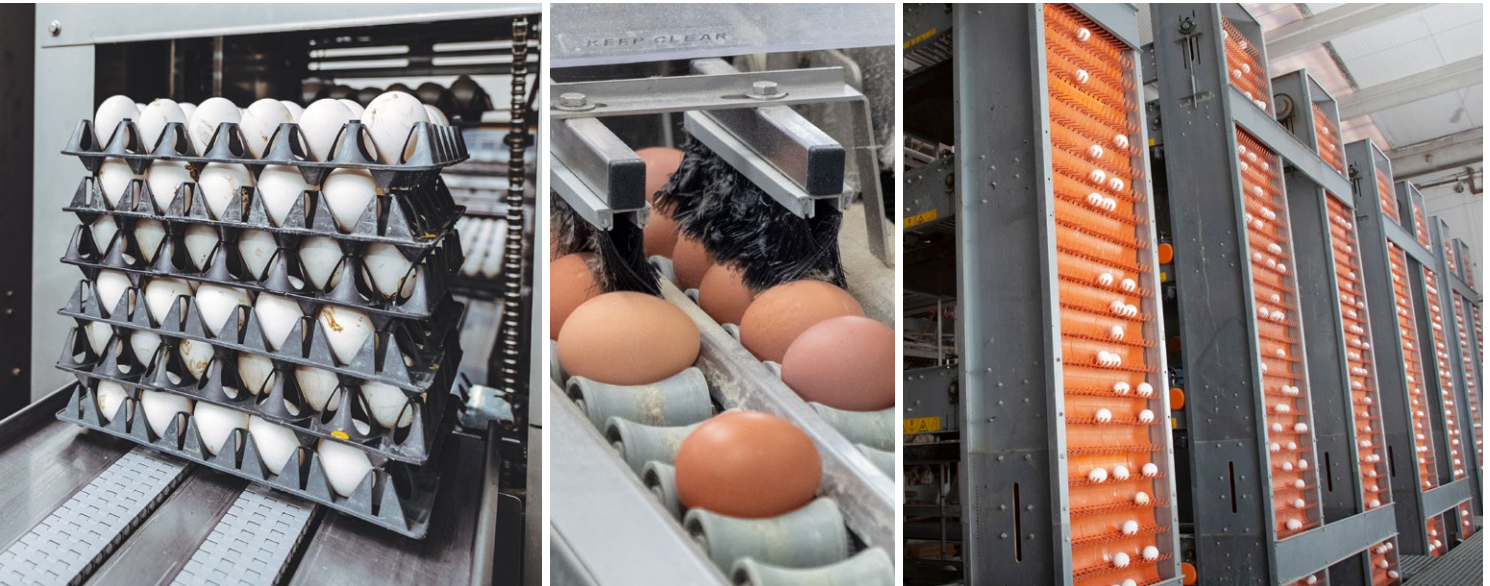
iwis roller chains ensure **reliability, long service life** and **maximum precision** in each of the relevant production steps.

iwis industry solutions



www.iwis.de/industries

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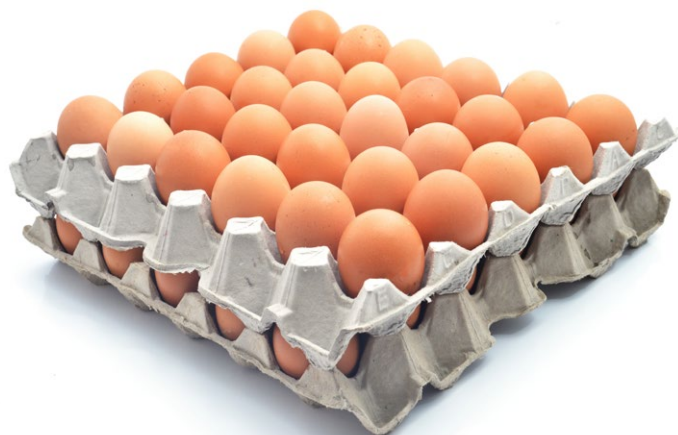


Maximum grading accuracy

Fully automated egg grading machines have extreme demands on the chains and chain systems in every phase of the process. These demands focus on **synchronous parallel operation, precise positioning, corrosion resistance** and **optimized downtimes** in order to ensure the most efficient and problem-free conveying of the eggs. In addition, the issues of cleaning the machines, relubrication of the chain systems and the associated product safety are becoming ever more significant.

A wide range of choices with respect to suitable products, processes, materials and lubricants give precision chains from iwis an outstanding service life, the greatest possible length precision and strict tolerances across pairs of chains in any application.

iwis antriebssysteme – Technology leader and your partner for any conveyor solution!



Highlights

- Reliability and extremely long service life
- Greatest possible length precision and tolerances across pairs of components
- Resistant to corrosion
- Optimum selection of materials and lubricants
- On-site customer support by iwis

iwis antriebssysteme sees its role as a **development partner** and, as a technology leader, supports you in overcoming the challenges you face. Ultramodern **simulation and design tools that have been developed in house** help our development engineers to select the right products up front.

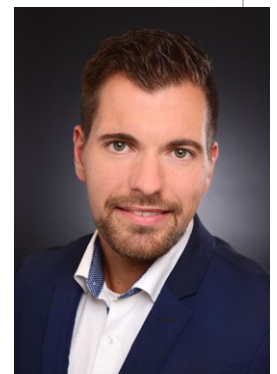
Your iwis segment manager

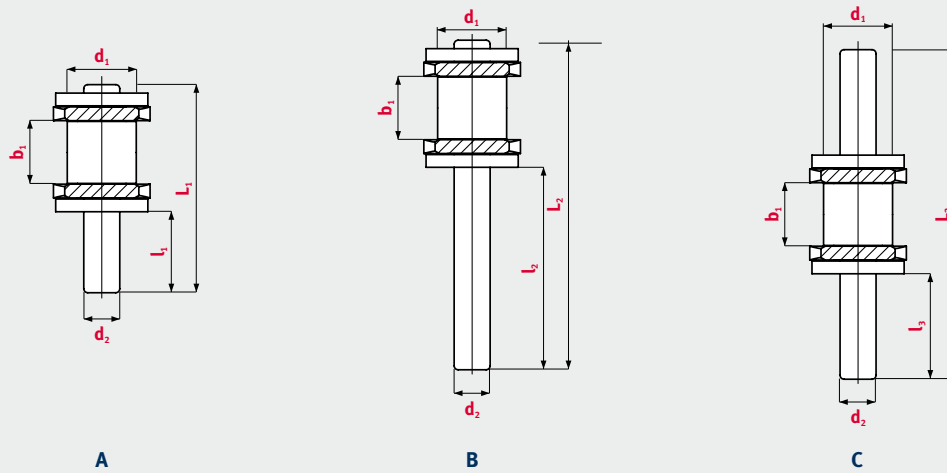
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iwis vCard – Simply take a picture and automatically save the contact details!



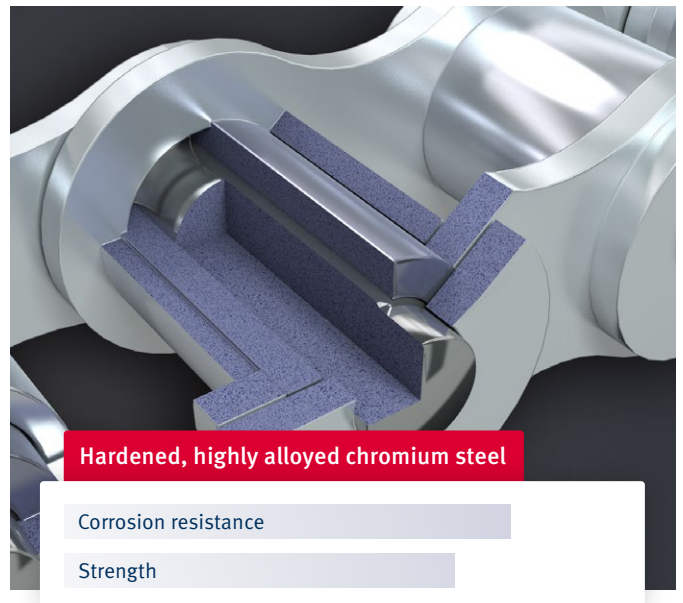
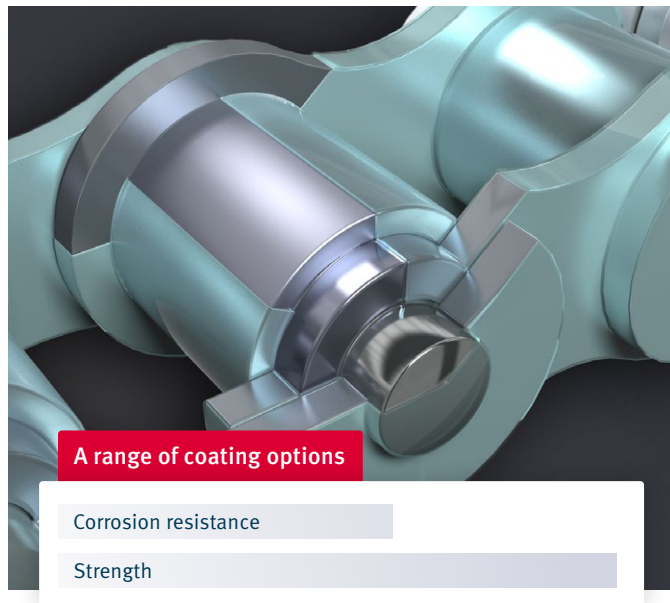


Product range for conveyor chains with extended pins

ISO ¹⁾	iwis designation	Pitch <i>p</i> (inches)	Pitch <i>p</i> (mm)	Internal width <i>b</i> ₁ (mm)	Roller diameter <i>d</i> ₁ (mm)	Pin diameter <i>d</i> ₂ (mm)	<i>L</i> ₁ (mm)	Design A <i>l</i> ₁ (mm) *	<i>L</i> ₂ (mm)	Designs B and C <i>l</i> ₂ (mm) *	<i>l</i> ₃ (mm) *
Standard range											
05 B-1	G 52	–	8.0	3.16	5.0	2.31	17.5	10.0	27.5	20.0	10.5
06 B-1	G 67	3/8	9.525	5.72	6.35	3.31	22.0	10.0	34.0	22.0	11.5
–	P 83 V	1/2	12.7	4.88	7.75	3.68	22.0	10.0	37.0	25.0	13.0
08 B-1	L 85 SL	1/2	12.7	7.75	8.51	4.45	25.5	10.0	40.5	25.0	13.0
10 B-1	M 106 SL	5/8	15.875	9.65	10.16	5.08	30.0	12.0	48.0	30.0	15.5
12 B-1	M 127 SL	3/4	19.05	11.75	12.07	5.72	36.0	15.0	51.0	30.0	15.5
16 B-1	M 1611	1	25.4	17.02	15.88	8.28	53.5	20.0	68.5	35.0	18.0
08 A-1 ANSI 40	L 85 A	1/2	12.7	7.94	7.95	3.96	25.5	10.0	45.3	30.0	15.5
10 A-1 ANSI 50	M 106 A	5/8	15.875	9.53	10.16	5.08	31.5	12.0	48.0	29.0	15.0
12 A-1 ANSI 60	M 128 A SL	3/4	19.05	12.70	11.91	5.96	38.0	14.0	48.0	24.0	12.5
16 A-1 ANSI 80	M 1610 A	1	25.4	15.88	15.88	7.92	49.5	19.0	61.3	31.0	16.0
208 B	LR 165 SL	1	25.4	7.75	8.51	4.45	25.5	10.0	40.5	25.0	13.0
210 B	LR 206 SL	1 1/4	31.75	9.65	10.16	5.08	30.0	12.0	48.0	30.0	15.5
212 B	LR 247 SL	1 1/2	38.1	11.75	12.07	5.72	36.0	15.0	51.0	30.0	15.5
216 B	LR 3211	2	50.8	17.02	15.88	8.28	53.5	20.0	68.5	35.0	18.0
Maintenance-free range											
08 B-1	L 85 ML	1/2	12.7	7.75	8.51	4.45	25.5	10.0	40.5	25.0	13.0
10 B-1	M 106 ML	5/8	15.875	9.65	10.16	5.08	30.0	12.0	48.0	30.0	15.5
12 B-1	M 127 ML	3/4	19.05	11.75	12.07	5.72	36.0	15.0	51.0	30.0	15.5
16 B-1	M 1611 ML ¹⁾	1	25.4	17.02	15.88	8.28	53.8	20.0	68.5	35.0	18.0

¹⁾ On request for multiple chains. Other pin shapes and lengths on request. *Deviations possible as a result of production tolerances. Technical details available on request.

Corrosion-free ranges



Corrosion-protected chains

A range of proven and newly developed high-tech coatings protect iwis chains with passive right through to active corrosion protection. High-strength carbon steels form the basis for the chain and the product is chosen in the light of the required resistance level, for example resistance to vapours, humidity and aggressive media. In addition to the coating itself, the coating process also has a major impact on subsequent performance.

Product solutions

JWIS MEGAlife chains

Maintenance-free roller chains for an outstanding service life, requiring no relubrication and with additional corrosion protection for mildly corrosive applications.

JWIS b.triton triton

Low-maintenance chains with outstanding active corrosion protection and specially coated links.

Nickel-plated chains

The nickel coating protects roller chains against corrosion and is resistant to various acids and alkalis. Thanks to the hard surface, this coating offers additional wear protection for the links.

Zinc-plated chains

The barrier effect provided by the zinc coating protects roller chains and also provides active cathodic corrosion protection. Even if the surface is damaged, the base material remains unaffected for a long period.

Corrosion-resistant chains

The highly alloyed, hardened chromium steel gives JWIS CR chains their **high level of corrosion resistance** and also makes them **considerably stronger** than the iwis CF chains. This permits more compact dimensions, e.g. **when installation space is limited**. This product is the ideal solution when coated chains do not offer adequate anti-corrosion protection and standard CF chains do not have the required strength.

Product solutions

JWIS CR chains

Because chains in contact with corrosive media have to exhibit a high level of endurance and wear resistance, chains made from ordinary steels corrode quickly, while stainless steel chains manufactured from V2-A steel have only limited endurance and wear resistance properties.

CR chains can be used for all applications where chains need to remain flexible despite corrosive environments or must not rust for reasons of hygiene or appearance. Lubrication of CR chains is recommended.

For further information, see our product flyer or visit www.iwis.com



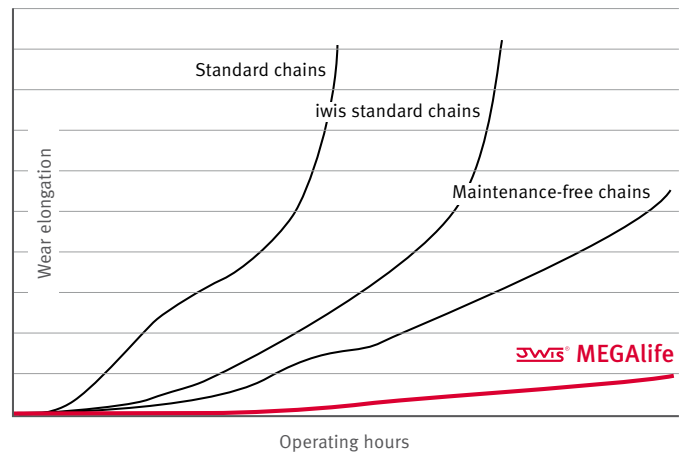
Engineering

Elongation

Greater productivity and higher output rates have led to regular preventive maintenance on production equipment becoming a rarity. Which makes it all the more important to be able to rely on the durability and reliability of drive chains and conveyor chains.

We use a special pre-stretching process to reduce the initial run-in elongation in order to allow simple, fast and accurate fitting of the chains. We optimize wear elongation by a combination of ideal material pairings, high manufacturing precision and maintenance-free components.

Our maintenance-free roller chains also prevent corrosion and stiffening.



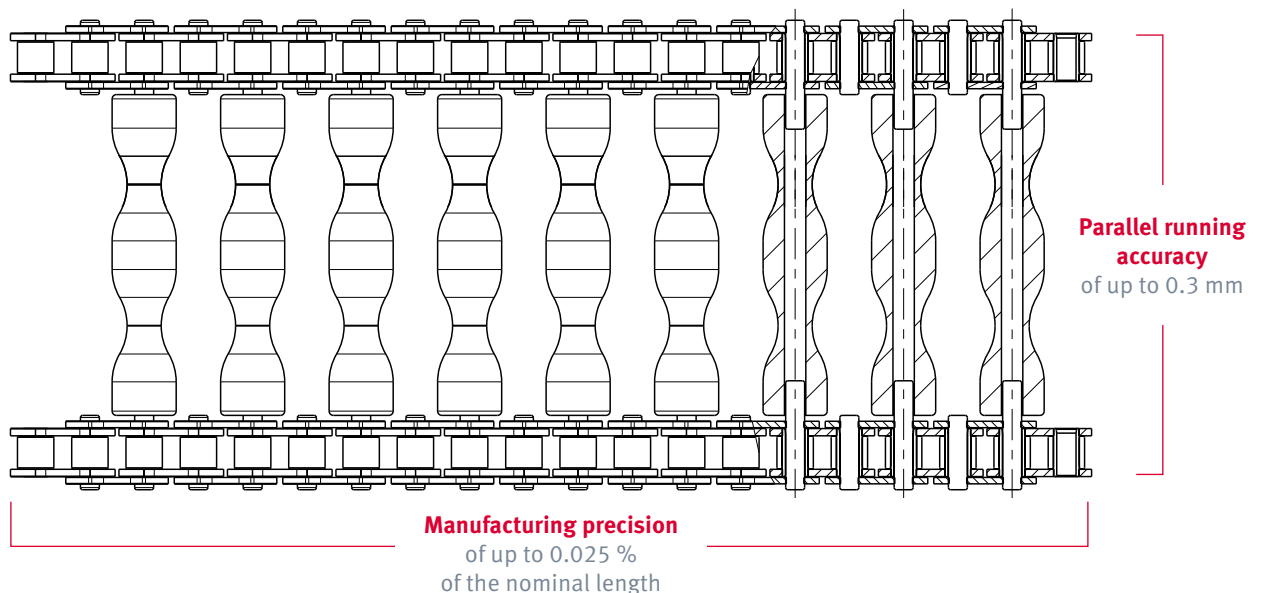
Positioning / Accuracy

Conveying eggs and their packaging very often requires the use of roller chains with small length tolerances: The high-precision parallel operation of a pair of chains ensures exact positioning of the attachments in relation to each other.

In this regard, DIN ISO 606 stipulates that chains must be manufactured within a tolerance of +0 to +0.15 % in respect of the nominal length at a defined measuring force and length. For a 5 m standard length, this means possible length discrepancies of up to 7.5 mm.

Using a special manufacturing process, we can reduce this tolerance in our JWIS precision chains even further, down to **0.025 % of the nominal length**, and thus achieve the highest possible precision in a roller chain.

With two parallel chain strands, we can also achieve parallel running accuracy of **up to 0.3 mm** – regardless of the total length – and thus ensure precise positioning.



Chain lubrication

Because most of the friction is generated in the chain link joints, lubrication of this location has a decisive impact on the service life of a chain drive. In egg grading machines, the use of food-grade lubricants depends on factors such as the accessibility of plant equipment, maintenance intervals, the risk of contamination and the intensity of cleaning.

When selecting the correct lubricant, it is also important to consider the media with which the chain comes into contact in the application. Pieces of egg shell, egg yolk, feathers and dust can penetrate the chain link joint, and this can take lubricant from the chain and/or have an abrasive effect. This can result in inefficient relubrication and stiffness in the chain link joints.

Depending on the conditions of use, we recommend the following **initial lubricants**:

IP16 Oil-based food-grade lubricants

IP16 offers optimum protection against wear and corrosion and excellent penetration into the chain link joint. The high-performance oil forms an effective protective film that cannot be thrown off and permits problem-free relubrication.

Technical data:

Chemical composition	Synthetic hydrocarbon oil + ester oil
Colour	Yellow
Viscosity	Kinematic (40 °C): 15 cm ² /s (1500 cSt)
Density	Approx. 0.86 g/cm ³ (20 °C)
Physical state	Liquid
Temperature range	-25 °C to +120 °C
NSF H1 approval	no. 154891



IP4 High-temperature lubricant

Thermally stable with good wear and corrosion resistance. Low vaporization rate up to +250 °C and no formation of residue at temperatures greater than +250 °C. With NSF-H2 approval.

Technical data:

Chemical composition	ester oil + synthetic hydrocarbon oil
Colour	Yellow
Viscosity	Kinematic (40 °C): 11.75 cm ² /s
Density	0.91/cm ³ (20 °C)
Physical state	Liquid
Temperature range	0 °C to +250 °C

Relubrication

Our high-adhesion **VP8 FoodPlus Spray** is ideal for relubrication. It goes without saying that this lubricant meets the stringent requirements of NSF H1 and is thus approved for use in the food industry.

Furthermore, our **MEGALife** and **CF b.dry** maintenance-free chains permit a remarkable service life without any initial lubrication or relubrication (**dry running**).



NEW VP8 FoodPlus Spray

- NSF H1 food grade approval (no. 157999)
- Free of MOSH/MOAH
- Precise, economic application possible
- Optimum penetration of chain link joint
- Temperature range of -35 °C to +135 °C
- Free of animal products and ethanol
- Silicone-free



For more information, see our flyer
"Lubrication Solutions from iwis"

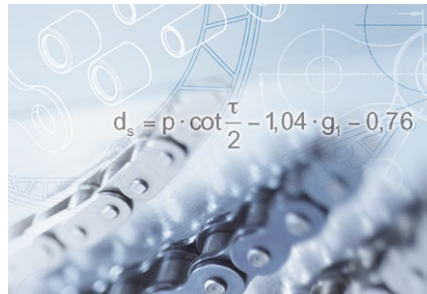


iwis Services: Close to the customer



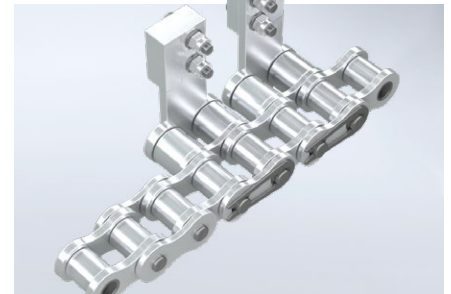
On-site advice and assessment

- Complete chain appraisals and plant analysis
- Expert experience and recommendations
- Application-specific solutions



Technical support

- Chain drive configuration
- Endurance tests and benchmarking
- Fatigue strength, breaking strength and metallographic analyses
- 3D printing models
- Technical documentation



Tailored solutions

- Wide variety of options for mounting attachments
- New design and optimization of attachments
- Customer-specific article labelling



CCM-S condition monitoring

Chain elongation monitoring system as a perfect preventive maintenance tool.



CLA lubrication system

The new CLA lubrication system from iwis ensures a long chain service life economically, cleanly and with absolute precision.



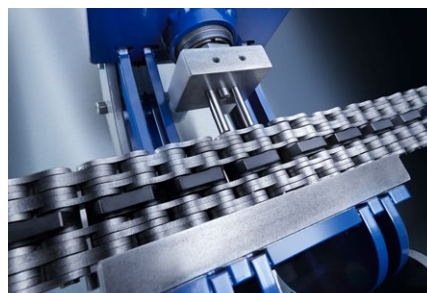
Online tools

- CAD drawings
- Chain finder
- Chain configurator



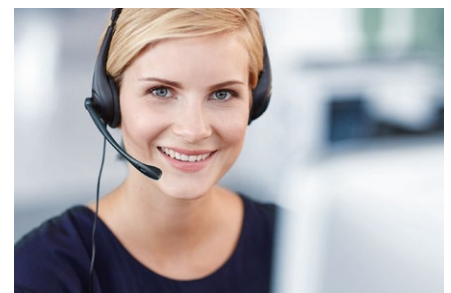
Drive components

- Sprockets
- Plate wheels
- Chain tensioners



iwiTools

- Chain breaking tools
- Chain pullers
- Pin extractors



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