DİNAMİK
TRANSMİSYON ZİNCİR TİC.SAN.A.Ş.

iwis
antriebssysteme
wir bewegen die welt

JWIS® EUROCHAIN® powered by iwis

iwis solutions for the confectionery industry

The confectionery industry is renowned for its strong global growth, high standard of production efficiency and increasingly strict hygiene requirements for product quality and safety. iwis chains ensure the reliability, long service life and maximum precision of confectionery production machinery.

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Maximum positioning accuracy

Chains and chain drive systems used in confectionery production, one of the most important branches of the food industry, must meet extreme requirements. The crucial factors are steady, reliable parallel running , precise positioning and optimised down-times to guarantee maximum efficiency and trouble-free conveying of moulds. Cleaning, relubrication and corresponding product safety are also becoming increasingly important issues.

Thanks to the wide and diverse range of suitable products, products, processes, materials and lubricants we provide, iwis precision chains offer outstanding service life, the highest possible length accuracy and narrow tolerances for pair-matched chains in every application.

iwis antriebssysteme – drive systems technology leader and your partner for every conveying solution!

Highlights

- Reliability and extremely long service life
- Highest possible length accuracy and pair tolerances
- Optimum selection of materials and lubricants
- Maintenance-free MEGAlife chains – for applications where relubrication is impossible or undesirable
- Local customer care by iwis staff

iwis antriebssysteme regards itself as a development partner and technology leader who can help you to meet the challenges you face. State-of-the-art simulation and configuration tools developed in-house help our design engineers to decide on the right products at an early stage.

Product range chain and attachment versions

iwis reference	ISO	Pitch p (in)	Pitch p (mm)	Ave. tensile strength F_B (N)	Min. tensile strength F_U (N)	Breaking area f (cm^2)	Weight per m q (kg/m)	Inner link b_1 (mm) min.	Inner link b_2 (mm) min.	Inner link g (mm) max.	Outer link a_1 (mm) max. [1]	Outer link a (mm) max. [1]	Roller d_1 (mm) max.	Pin d_2 (mm) max.
Maintenance-free roller chains														
L 85 ML	08 B-1	1/2	12,70	22.000	17.800	0,50	0,70	7,75	11,30	11,80	16,90	18,50	8,51	4,45
L 85 AML	08 A-1 ANSI 40	1/2	12,70	17.500	13.900	0,44	0,60	7,94	11,15	12,00	16,60	17,50	7,95	3,96
M 127 ML	12 B-1	3/4	19,05	30.000	28.900	0,89	1,25	11,75	15,62	16,20	22,70	23,60	12,07	5,72
M 128 AML	12 A-1 ANSI 60	3/4	19,05	41.000	31.300	1,06	1,47	12,70	17,75	18,00	25,30	26,70	11,91	5,96
M 1611 ML	16 B-1	1	25,4	75.000	60.000	2,10	2,70	17,02	25,45	21,10	36,10	36,90	15,88	8,28
M 2012 ML	20 B-1	1 1/4	31,75	120.000	95.000	2,92	3,72	19,56	29,1	26,2	41,6	43,3	19,05	10,17
Special chains and double-pitch chains														
EC-13-M-NI			20,0	35.500	34.200	1,35	2,00	16,00	22,50	19,00	32,10	35,90	12,00	6,00
LR206		1 1/4	31,75	28.000	22.400	1,65	1,20	28,75	32,20	15,10	38,70	42,80	10,16	5,08
LR248A		1 1/2	38,1	32.300	30.000	1,06	1,00	12,70	17,75	18,09	25,50	28,00	11,91	5,96

[1] Differing dimensions for cranked links. If cranked links are fitted, it should be noted that the breaking strength of the chai n my be reduced by approximately 20 %.

Various standard attachments

Asymmetrical bent attachments

Conic attachment plates

Push-fit connecting links with asymmetrical attachments

Push-fit connecting links with symmetrical attachments and plastic plates

Push-fit connecting links with attachments and spacing rollers as finished sub-assembly

Roller chains with bent attachments for pater - noster lifts with pitches 60 mm and 70 mm

Double-pitch chains with triple rollers and attachments

Roller chains with special attachments and lateral ball bearings

Maintenance-free iwis chains for added value

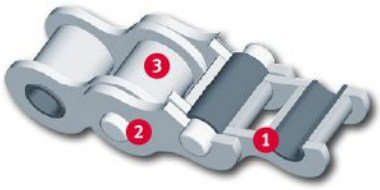
MEGAlife

MEGAlife maintenance-free roller chains feature chemically nickel-plated individual components for corrosion protection, and can be used in a temperature range from -40° to +160°C.

Special oil-impregnated sintered bushes are a **highlight in terms of wear resistance and prolonged service life**, as they provide long-term self-lubrication of the chain bearing – no additional lubricants are required.

Highlights

- Seamless sintered bush ❶ made of a material developed specifically for this application, hardened and treated to optimize its tribological properties
- Pin ❷ with wear-resistant, friction-optimized coating
- Seamless roller ❸ with corrosion-resistant coating and optimized geometry for the sintered bush



b.dry

b.dry roller chains are made from rust- and maintenance-free CF stainless steel, and their optimized link design is a **high-precision highlight**. The secret of the b.dry range: "steel-on-steel" is a thing of the past!

Our b.dry bushes are made from a special high-performance polymer and are completely lubricant-free. To date, the properties of this material are unrivalled and unique.

Highlights

- High-performance polymer bush ❶ made from FDA-compliant material
- Thin-walled seamless stainless steel bush ❷, ball-drifted
- Base chain: JWIS CF stainless steel chain ❸

Benefits of our maintenance-free roller chains:

Optimized wear properties, very high fatigue strength and breaking strength, high-quality long-lasting corrosion protection, reduced downtime and maintenance costs for machines and plant, reduced risk of product or production facility contamination.

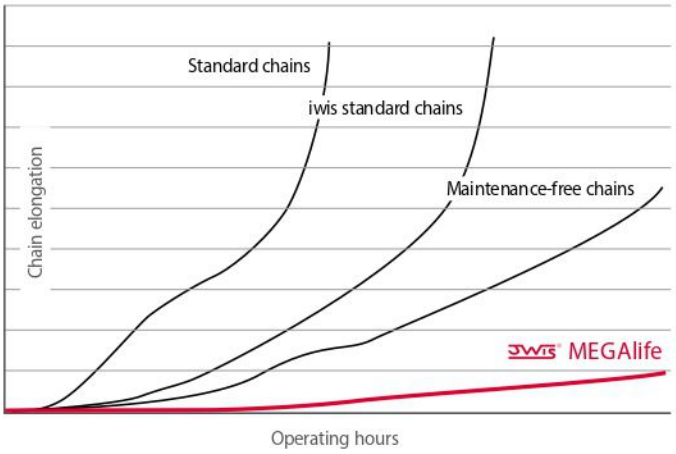
Engineering

Elongation

Increased productivity and higher output volumes mean that reg - ular preventive maintenance of production facilities can only take place at long intervals, so it is vital to ensure that drive chains and conveyor systems are durable and completely reliable.

We reduce initial and operational wear with a special pre-stretch - ing process that allows fast, easy and precise chain fitting, and optimize wear elongation with a balanced combination of ideal material matching, high-precision chain production and mainte - nance-free components.

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



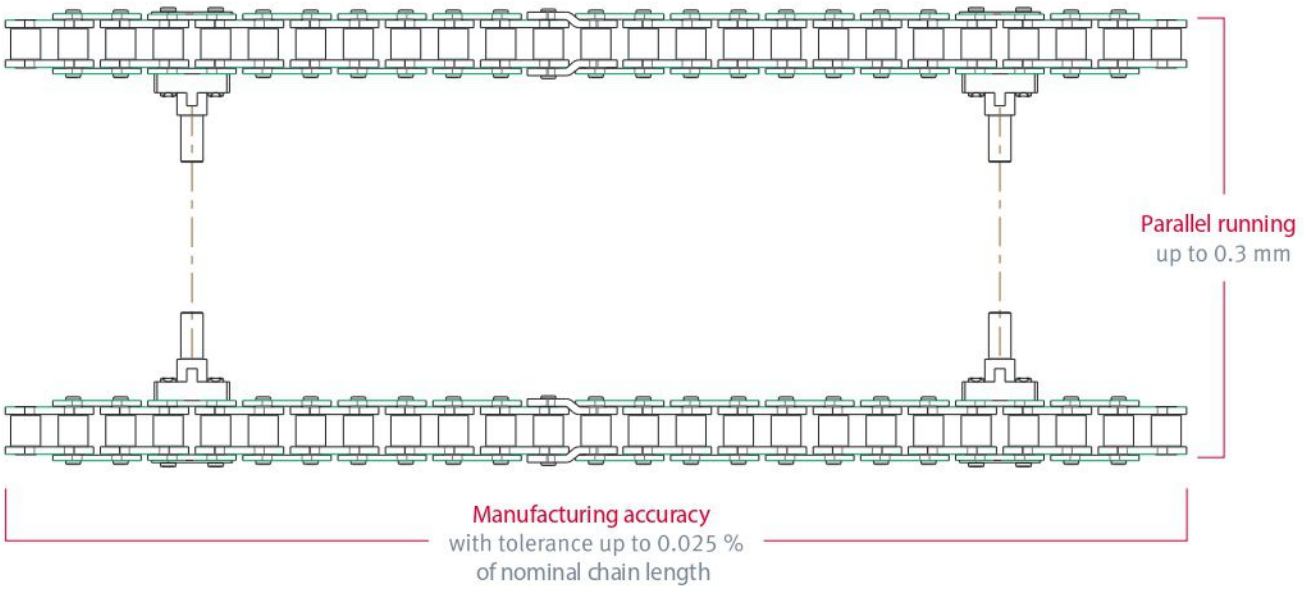
Positioning / Accuracy

Applications in the confectionery industry often involve the con - veying of finished products or moulds, which in turn requires the use of roller chains with restricted length tolerances to guarantee high-precision parallel drives and accurate relative positioning of chain attachments.

Chains manufactured to standard DIN ISO 606 must be produced to tolerances between +0 to +0.15 % of their nominal length under a defined measuring force and length. In the case of a 5-metre standard length chain, this can mean length deviations of up to 7.5 mm.

Thanks to a special production process, we are able to reduce the tolerance range of our JWIS precision chains even further – as little as 0.025 % of the nominal length – thereby achieving maximum possible accuracy within individual roller chains.

With parallel drives consisting of two chain strands, parallel run - ning to within 0.3 mm– regardless of total chain length – can also be achieved, which guarantees accurate positioning.



Chain lubrication

Most friction in chain drives occurs in the joint area, so lubrication here has a decisive influence on the service life of a chain drive. In the confectionery industry, the use of food-grade lubricants depends on operating conditions such as chain accessibility, maintenance intervals, risk of contamination and the intensity of cleaning processes.

When selecting a suitable lubricant, it is important to consider the substances which will come into contact with the chain in operation. Products such as chocolate, fruit jelly or powder can penetrate the chain joint, where they can neutralize the effect of lubricants and/or cause abrasion. Possible consequences are ineffective relubrication and stiff chain links.

Depending on application and operating conditions, we recommend the following initial lubricants:

IP16 Oil-based food-grade lubricant

IP16 provides optimum protection against wear and corrosion and ensures maximum penetration of the chain joint. This high-performance oil forms an effective, drip-proof protective film and allows trouble-free relubrication.

Technical data:

Chemical composition	Synthetic hydrocarbon oil + ester oil
Colour	Yellow
Viscosity	Kinematic (40 °C | 104 °F): 15 cm2/s (1500 cSt)
Density	Approx. 0.86 g/cm³ (20 °C | 68 °F)
Physical state	Liquid
Operating temperature	-25 °C (-13 °F) to +120 °C (+248 °F)
NSF H1 certified	154891

EL-6 High-performance wax-based lubricant

EL-6 is a wax-based chain lubricant with outstanding adhesive properties. Developed especially for food industry applications, this lubricant has a positive effect on wear and corrosion by forming a protective layer which prevents abrasive particles from penetrating the chain joint.

Technical data: iwiDUR®

Structure	Paste
Colour	Beige
Viscosity	Approx. 125 mm²/s at +100 °C
Density	Approx. 0.89
Operating temperature	-25 °C to approx. +80 °C (changes state)
NSF H1 certified	154890

Relubrication

Our high-adhesion **VP6 Kombi Superplus Spray** is an ideal relubricant. It goes without saying that all these lubricants fulfil the strict FDA H1 requirements and are therefore suitable for food industry applications.

Our maintenance-free chains MEGAlife and CF b.dry also offer outstandingly long chain service life, even without initial or follow-up lubrication (dry running).

VP6 SuperPlus Spray

- Temperature range 0 °C to 250 °C
- Wide range of possible applications
- Easy dosage
- High-performance lubricant developed especially for chain applications
- Optimum penetration
- Silicone free

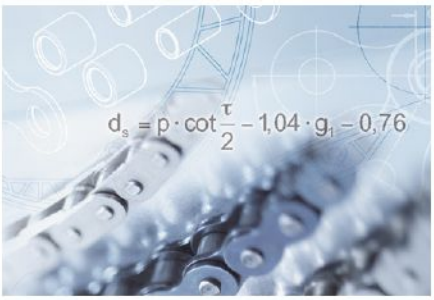
NEW VP8 FoodPlus Spray

- NSF H1 certified (No. 157999)
- MOSH/MOAH-free
- Easy, economical dosage
- Excellent penetration to the chain joint (creep)
- Temperature range -35 °C to +135 °C
- Free from animal products and ethanol
- Silicone free

iwis Services: close to our customers

On-site advice & expert evaluation

- Full assessment of chain drives and analysis of plant machinery
- Advice and recommendations from experts
- Application-specific solutions



Technical support

- Calculation of chain drives (www.iwis.com/chain-design)
- Service life tests and benchmarking
- Fatigue strength, tensile strength and metallographic analyses
- 3D-printing models
- Technical documentation

Individual solutions

- Wide range of attachment installation possibilities
- Redesign and optimization of attachments
- Customer-specific article inscriptions

Chain condition monitoring

Chain wear elongation monitoring system (CCM) as an ideal aid in preventive main - tenance.

Online tools

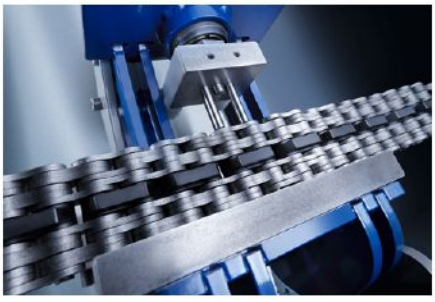
- CAD drawings
- ChainFinder
- Chain Configurator

Online Shop – www.iwis.com/shop

At-a-glance product information and fast–track ordering for standard chain lengths.

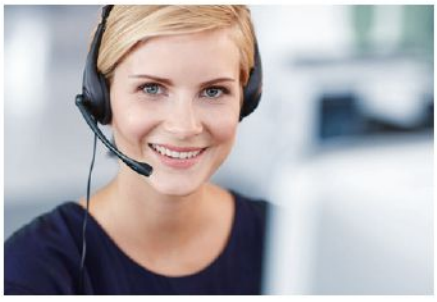
Drive components

- Sprockets
- Idler wheels
- Chain tensioners



iwiTools

- Chain breaking tools
- Chain pullers
- Pin extractors



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