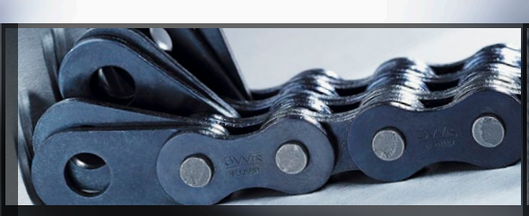
Special Conveyor Chains

iwis offers an extensive program of special chains for various industrial applications and requirements. While the plate chain is being used wherever smooth and reliable conveying through very narrow bends is necessary, the transfer chains are utilized wherever gentle transportation is required. iwis grip chains are applied wherever plate and sheet type materials are drawn in or off, transported or positioned. Additional iwis special conveyor chains: tube and can transport chains (POC), pallet transporting chains, side bow chains, leaf chains, push pull chains and hollow pin chains.



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iwis® Grip Chains

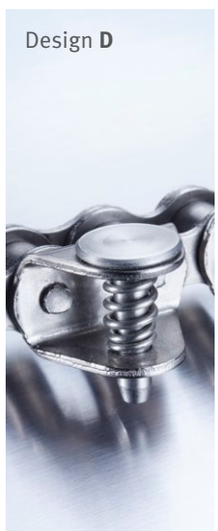
Safe infeeding, transportation and positioning of thin-walled, large-area soft foils and panels

PRODUCT RANGE

With 1 tip

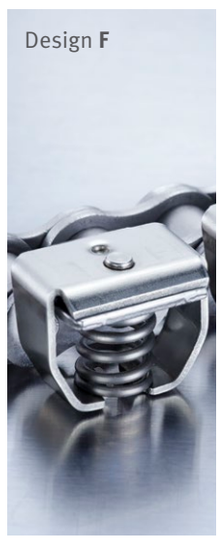
With 2 tips

With flat clamps



With button clamps

With clamp E



With clamp F

HIGHLIGHTS

- iwis high-performance chains with excellent wear resistance
- Minimal initial elongation due to optimum pre-stretching
- High rigidity also enables applications in long machines
- Basic chain versions are chemically nickel-plated / MEGAlife maintenance-free versions are available on request
- Identical chain lengths (within the selected tolerance range) ensure excellent running characteristics in both synchronous and parallel operation
- Differing levels of spring force allow an extremely wide range of materials to be gripped gently and held securely
- Chains with restricted length tolerances can be produced
- Recommended maximum running speed:
  - 2 m/s for the 1/2" grip chain
  - 1,2 m/s for the 5/8" grip chain
  Different control geometry is required for higher running speeds.
- iwis provides complete, ready-to-install solutions!

FLYER

See our product flyer for more information.

All chains can be supplied with a high-quality **food-grade** initial lubricant!

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THE NEW IWIS GRIP CHAIN

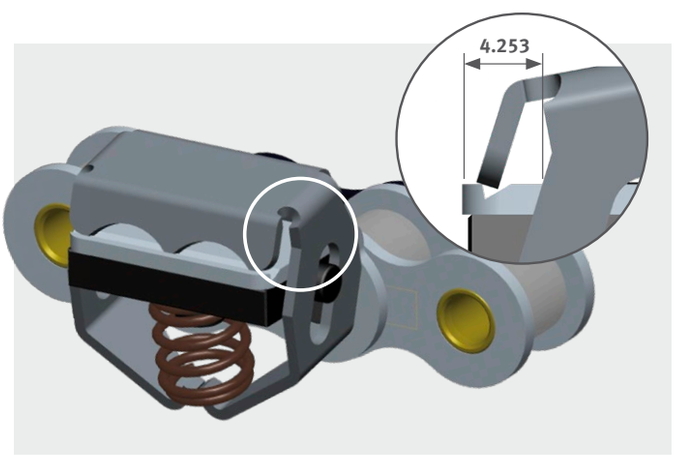
For more technical details, see **p. 90**

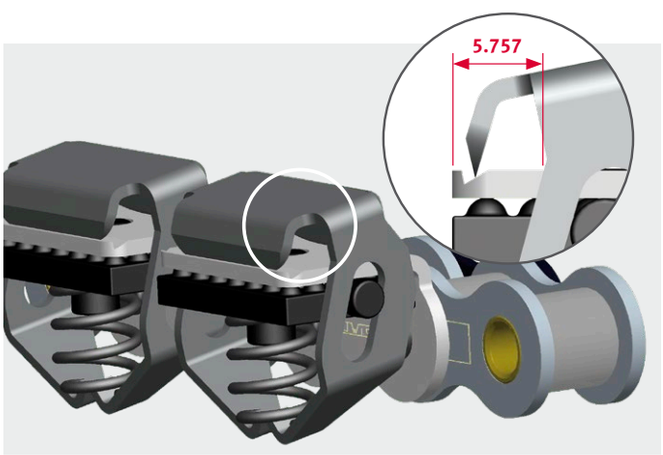
CURRENT SOLUTION

- Not enough space to insert film
- Applying force only to individual points in the foil can cause the film to tear, which also results in increased noise.
- Foil deformation possible at the edge of the gripper element

OUR SOLUTION

- Accurate fitting of gripper in the groove
- Better retention force than the competition
- Retention force dependent on plastic film used
- Burled plate for optimized functional safety and hygiene
- More free space for better foil insertion
- Films are not twisted, no deformation at the edge of the gripper element
- Lower noise emissions
- Easier removal of foil scraps at the line outfeed





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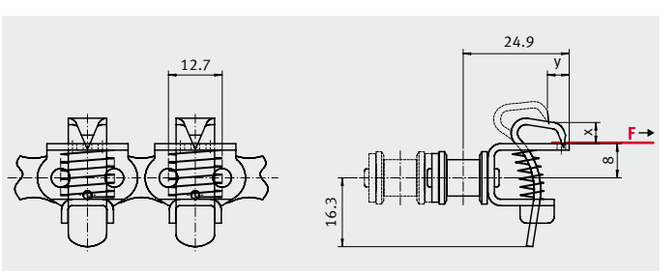
"1-TIP" GRIP CHAINS

Design **A**

TECHNICAL FEATURES

- **Simplex and duplex chain** 1/2 x 5/16" acc. to ISO 606
- Gripper with 1 tip, special designs on request
- Retention force is dependent on material conveyed and spring design – different number of coils and wire spring diameters available
- The gripper opens when it runs against a control disc (e.g. sprocket hub), causing it to swivel away outwards
- Food-grade initial lubrication
- Sprocket designs on request

iwis reference	DIN ISO	Pitch p [mm]	Average foil retention force F* [N]	Spring	x	y	Article No.
L 85 Grip	08 B-1	12.7	10	0.7 x 6	5	6	50007495
L 85 Grip	08 B-1	12.7	24	0.9 x 5	4	5	50034722
D 85 Grip	08 B-2	12.7	10	0.7 x 6	5	6	50007033



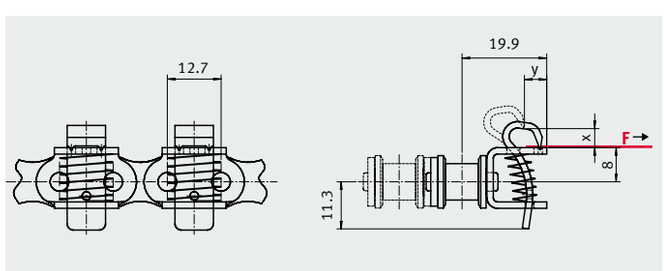
"2-TIP" GRIP CHAINS

Design **B**

TECHNICAL FEATURES

- **Simplex and duplex chain** 1/2 x 5/16" acc. to ISO 606
- Gripper with 2 tips, special designs on request
- Retention force is dependent on material conveyed and spring design – different number of coils and wire spring diameters available
- The gripper opens when it runs against a control disc (e.g. sprocket hub), causing it to swivel away outwards
- Higher retention force in comparison with 1-tip grip chain
- Food-grade initial lubrication
- Sprocket designs on request

iwis reference	DIN ISO	Pitch p [mm]	Average foil retention force F* [N]	x	y	Article No.
L 85 Grip	08 B-1	12.7	35	3.0	4.5	50024958



Dimensions x and y are dependent on the springs used. These are maximum values for the opening stroke.
A smaller opening stroke will increase life expectancy of the spring.
* Reference foils were used to determine the average foil gripping force (F).
Concrete values are dependent on the film used (material, surface, thickness). Deviations are possible.

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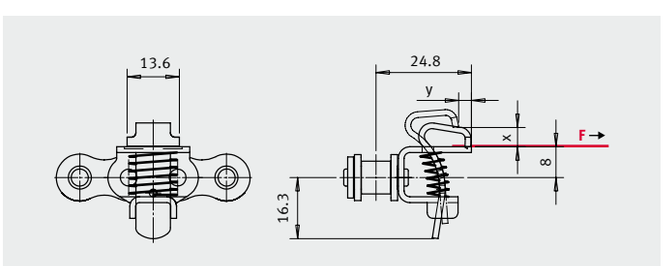
"FLAT CLAMP" GRIP CHAINS

Design **C**

TECHNICAL FEATURES

- **Simplex and duplex chain** 1/2 x 5/16" acc. to ISO 606
- Gripper with flat clamping surface
- Retention force is dependent on material conveyed and spring design – different number of coils and wire spring diameters available
- The gripper opens when it runs against a control disc (e.g. sprocket hub), causing it to swivel away outwards
- Gentle handling of materials
- Low transmission forces
- Sprocket designs on request
- Can also be used for paper

iwis reference	DIN ISO	Pitch p [mm]	Average foil retention force F* [N]	Spring	x	y	Article No.
L 85 Grip	08 B-1	12.7	3	0.7 x 6	5	3.5	50037062
L 85 Grip	08 B-1	12.7	5	0.9 x 5	4	2.8	50035540
D 85 Grip	08 B-2	12.7	3	0.7 x 6	5	3.5	50032581



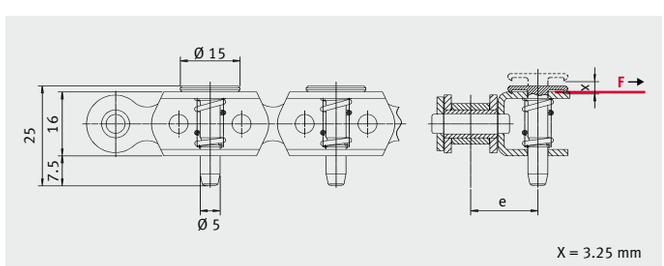
"BUTTON CLAMP" GRIP CHAINS

Design **D**

TECHNICAL FEATURES

- **Simplex chain** 1/2 x 5/16" or 5/8 x 3/8" acc. to ISO 606
- Rotationally symmetrical gripper element
- Extremely flat button clamp
- Retention force is dependent on material conveyed and spring design – different number of coils and wire spring diameters available
- **iwis patent** (spring without additional fixing elements)
- Does not swivel away outwards when opened
- Sprocket designs on request

iwis reference	DIN ISO	Pitch p [mm]	Average foil retention force F* [N]	e	Article No.
M 106 Grip	10 B-1	15.875	70	16.8	50034301
L 85 Grip	08 B-1	12.7	70	15.8	50035491



Dimensions x and y are dependent on the springs used. These are maximum values for the opening stroke.
A smaller opening stroke will increase life expectancy of the spring.
* Reference foils were used to determine the average foil gripping force (F).
Concrete values are dependent on the film used (material, surface, thickness). Deviations are possible.

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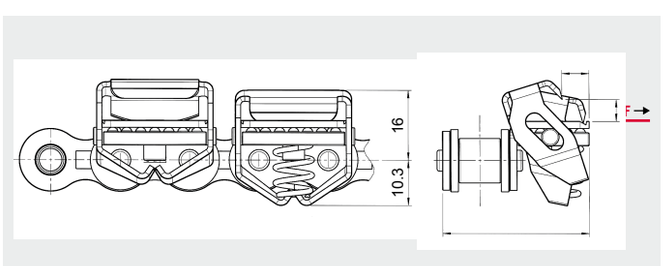
GRIP CHAIN WITH CLAMP E

Design **E** NEW

TECHNICAL FEATURES

- Optimization of grip chain M106 with attachment 202.6 on one side and delivery as a complete solution with gripper system consisting of clamp, burled plate and spring
- Clamp and spring made of corrosion-resistant steel
- Chain is chemically nickel-plated
- Available with long-lasting lubrication or food-grade lubricant
- Alternative: M106 standard chain also available without attachments (Customers' own clamps can be fitted)
- Springs with optimised surface structure

iwis reference	ISO	Pitch p [mm]	Average foil retention force F* [N]	x	y	Article No.
M 106 Grip	10 B-1	15.875	85	4.9	6.1	50039260



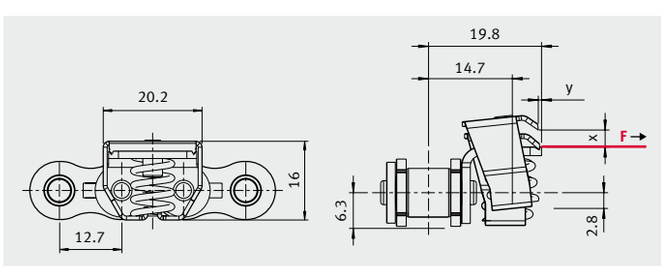
GRIP CHAIN WITH CLAMP F

Design **F** NEW

TECHNICAL FEATURES

- **Single and duplex chain** 1/2 x 5/16" acc. to ISO 606
- Complete gripper element
- Gripper element with a continuous sharp-aged gripping flange
- Retention force is dependent on material conveyed
- Clamp and spring made of stainless steel spring steel
- Due to a special geometry of sprockets used, the gripper opens with a slight sideways movement
- Food-grade initial lubrication
- Sprocket designs on request

iwis reference	ISO	Pitch p [mm]	Average foil retention force F* [N]	Spring	x	y	Article No.
L 85 Grip	08 B-1	12.7	42	1.3 x 5.5	3	0.6	50045980



Dimensions x and y are dependent on the springs used. These are maximum values for the opening stroke.
A smaller opening stroke will increase life expectancy of the spring.
* Reference films were used to determine the average film gripping force (F).
Concrete values are dependent on the film used (material, surface, thickness). Deviations are possible.

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iwis® Tube Conveyor Chains

Gentle support and reliable transportation for thin-walled hollow bodies

PROBLEM/INITIAL SITUATION

Gentle support and reliable transportation for thin-walled hollow bodies through several processing stations (cleaning, painting, drying...).

OUR SOLUTION

iwis high-performance chains – roller chains with corrosion-resistant, easy to change attachments. **Exclusive to iwis.**

HIGHLIGHTS

- Transport bars can be changed easily on site using the special iwis tool provided; no need to break the chain or remove it from the machine
- Adapter and bars made of highly alloyed, corrosion-resistant steels with good elastic characteristics
- iwis standard roller chains with particular wear-resistant SL-pins are used, so longer service life in comparison with hollow pin chains
- Transport bars available in required lengths with 1 mm graduations
- Different shapes for bar ends avaiable – for example protection heads made of aluminium or plastic
- Freely selectable distance between the bars
- Basic chains also available in maintenance-free version (MEGAlife)
- 1/2", 5/8" und 3/4" also available in curved side design (only ANSI)

TECHNICAL FEATURES

- The bars are pinched on to the extended pins of the base chain using an adapter and secured by fins to prevent twisting
- The bar can be changed quickly and easily if repairs are necessary by breaking open the adapter with the iwis special tool (see illustration)

Suitable tool for mounting and removal can be supplied.

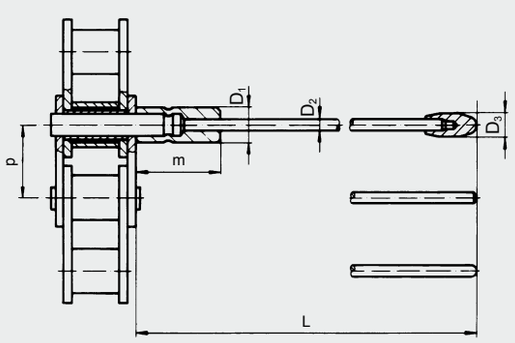
AREAS OF APPLICATION

- Everywhere where tubes and other thin-walled hollow bodies (cans) are transported, cleaned, painted, dried...

Inquiry form tube conveyor chains:
www.iwis.de/
tube-conveyor-chains-inquiry

ISO	iwis reference	Pitch P (mm)	L max. (mm)	D_1 (mm)	m (mm)	D_2 (mm)	D_3 (mm)
08B-1	L 85 SL	12.7	300	8.0	22.0	4.0	8.0
10B-1	M 106 SL	15.875	300	8.0	22.0	4.0	8.0
12B-1	M 127 SL	19.05	300	8.0	22.0	4.0	8.0
12 A-1 ANSI 60	M 128 ASL	19.05	300	8.0	22.0	4.0	8.0

Please state the length L in any enquiry or order.



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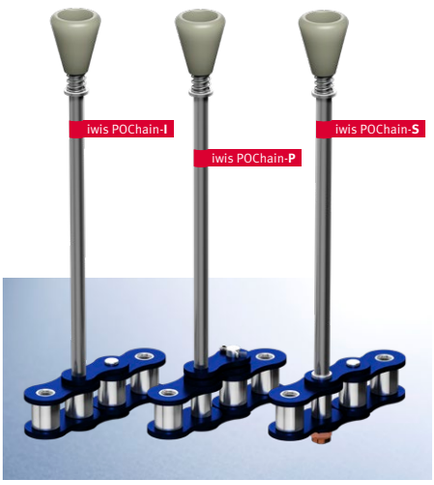
iwis® Pin Oven Chains

The reliable and safe transport of cans



PROBLEM/INITIAL SITUATION

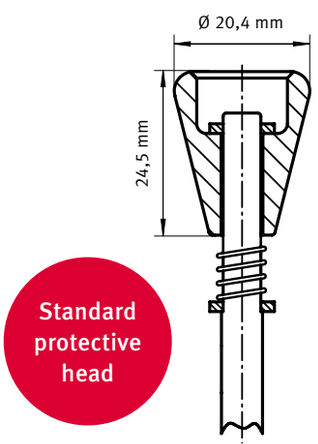
The reliable and safe transport of cans or other thin-walled hollow bodies at high speeds and temperatures.

OUR SOLUTION

iwis high-performance chains are extremely wear-resistant with specially adjusted transport pins and superior protective heads – the right solution for every 2-part can handling application!

HIGHLIGHTS

- iwis precision roller chains are long-lasting, reliable and particularly wear resistant.
- iwis Pin Oven Chains for can manufacturing applications are initially treated with our special lubricant IPP. IPP is PWIS-free, drip-proof, has a very low evaporation rate, is suitable for high-temperature operation and approved for use in the food industry.
- **Standard protective head:** high-performance material (PEEK), outstandingly heat-resistant (up to at least 260 °C, depending on application). PEEK is also highly resistant to chemicals.
  Protective heads are also optionally available with sliding washers, if necessary (only recommended for applications where contamination is uncritical).
- Length of transport pins can be adapted to your specifications.
- Transport pins: easy to change on the production line without breaking the chain or removing it from the machine (POChain P/-S)
- Transport pins can be installed at defined intervals (e.g. every 7th pin).
- iwis offers three fixture options for transport pins:
  – POChain-**I**: pins are integrated in the outer chain plates
  – POChain-**P**: split-pin fixture
  – POChain-**S**: pins are secured with special nuts
- Temperature range: 0 °C to +260 °C



AREAS OF APPLICATION

- Everywhere where cans or other thin-walled hollow bodies are transported, painted, dried...

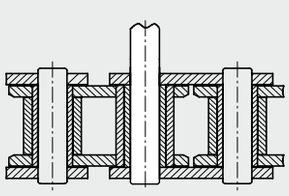
Inquiry form POChain:
www.iwis.de/**POChain-inquiry**

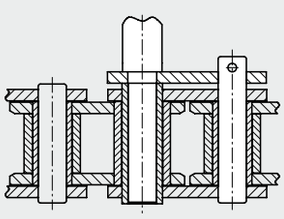
TWO PIN VERSIONS

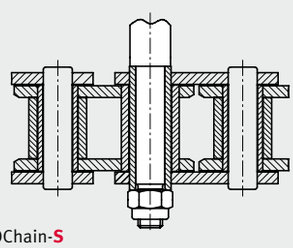
Bendable pin: These pins are manufactured to be tough yet bendable enough to withstand inadvertent impact during conveyor jams or accidental contact with the machine frame. These pins are easy to bend back into their original position by hand.

SnapOff pin: The material specification of these pins cause them to break off in the event of any accidental contact or impact during operation. The advantage for you: the hardness of the transport pin material is similar to that of the pins of the base chain, so the wear rate of both sets of pins is the same.

OUR FIXTURE SOLUTIONS


iwis POChain-**I**


iwis POChain-**P**


iwis POChain-**S**

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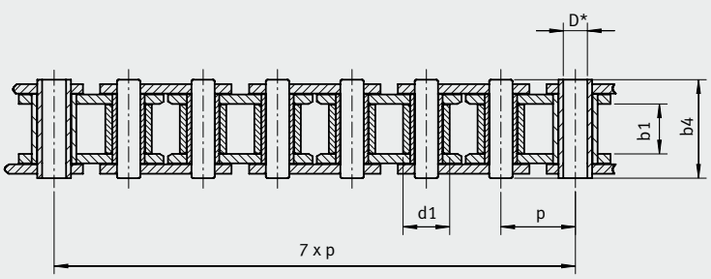
Chain type	ISO	iwis designation	Pitch × inner width p x b1	Breaking load min. F_B (N)	Roller Ø d_1 max. (mm)	Hollow pin inner Ø min. D (mm)	Inner width b_1 min. (mm)	Pin length b_4 (mm)	Transport pin Ø T (mm)	Weight (dependent on transport pin length s)
POChain-**I**	12 A-1/ANSI 60	M 128A SL	3/4 × 1/2“	31,300	11.91	–	12.7	26.3	5.97	approx. 1.9 kg/m
POChain-**P**	12 A-1/ANSI 60	M 128A SL	3/4 × 1/2“	31,300	11.91	6.0	12.7	26.7	5.97	approx. 1.9 kg/m
POChain-**S**	12 A-1/ANSI 60	M 128A SL	3/4 × 1/2“	31,300	11.91	6.0	12.7	26.7	8.00	approx. 2.3 kg/m

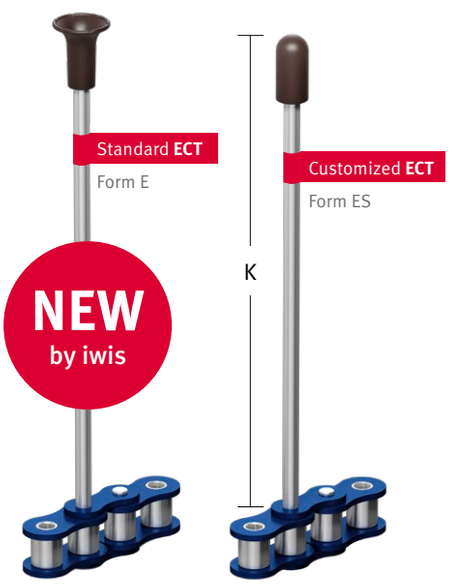


*Notice: Dimensions only apply to POChain-P/S. K defines the dimension from outer plate to the end of the protective head.

HIGHLIGHTS IWIS ELASTIC CAN TIP (ECT)

- Less complex design: one high-temperature elastomeric head replaces one PEEK protective head, three washers and a spring!
- The design and material properties of the elastomeric head take over the damping properties of a spring.
- Defective heads can be replaced easily and without tools.
- Even defective heads still have emergency running capabilities.
- ECT material is PWIS-free and FDA approved!
- Will not damage thin-walled drinks cans.
- Suitable for temperatures up to 215 °C. Available now!

New iwis head solutions
for your special requirements:
innovative and patented



NOMENCLATURE

Our precise nomenclature makes ordering easier for you. The detailed designation code helps you to find and order exactly the right chain for your application quickly and without any trouble – in writing, by phone or via our online request form.

www.iwis.de/**POChain-inquiry**

1 2 3 4 5 6 7 8

60-M128A-ST-I-7-7.060-SO-P-S-322L-POChain

1. **[ST]** Standard with IPP lubricant
2. **[I]** Integral **[P]** Push-fit **[S]** Threaded
3. Pin interval (every 7th pin)
4. Pin length dimension K (4-digit in inches 4-digit in mm)
5. **[SO]** SnapOff pin **[BE]** Bendable pin
6. **[P]** PEEK **[E]** Elastomeric standard ECT **[ES]** Customized elastomeric ECT
7. **[S]** without loose-fit spacer **[W]** with loose-fit spacer
8. Individual chain length (links)

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JWIS® Push Pull Chains

Compact, flexible, strong!

PROBLEM/INITIAL SITUATION

- Restricted installation space
- Absorption and/or transmission of pressure forces in and perpendicular to running direction
- Deflection of pressure forces from any direction

OUR SOLUTION

The compact design of iwis push pull chains makes them ideal for the transmission of both compressive and tensile forces – even without chain guides. Chain engineering for the tightest spaces.

HIGHLIGHTS

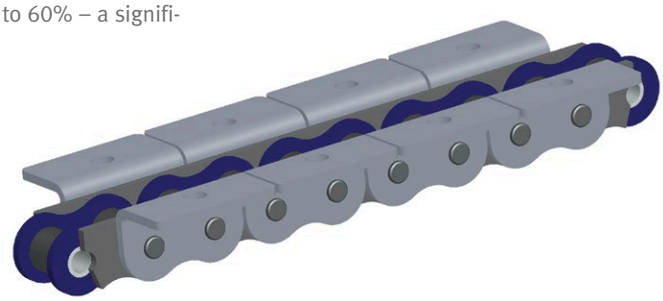
- Push pull chains are only flexible in one direction
- Compact design for maximum functionality
- Suitable for pushing loads and bridging gaps without chain guides
- Conversion of translational tensile and compressive forces into rotational motion and vice versa
- Variety of material specifications can be supplied
- JWIS endpieces are the interface between push pull chain and traction/ propulsion element; they create the chain pre-tensioning required.
  – Easy fitting with standard components
  – Individual interface available on request
- Stainless steel versions also available.

ROTATIONAL, TRANSLATIONAL

- Push pull chains can perform the same functions as linear drives, so an endless, continuous chain drive is often no longer necessary.
- The side-bow and back-bend capabilities of push pull chains can be individually customised, which offers a wide range of versatile solutions.
- An added bonus of these chains is their extremely compact design, resulting in space savings of up to 60% – a significant cost factor.

APPLICATIONS

- General mechanical engineering
- Medical technology
- Automotive engineering
- Conveyor systems
- Building services engineering
- Machine tools
- Ergonomic workplace design and furniture



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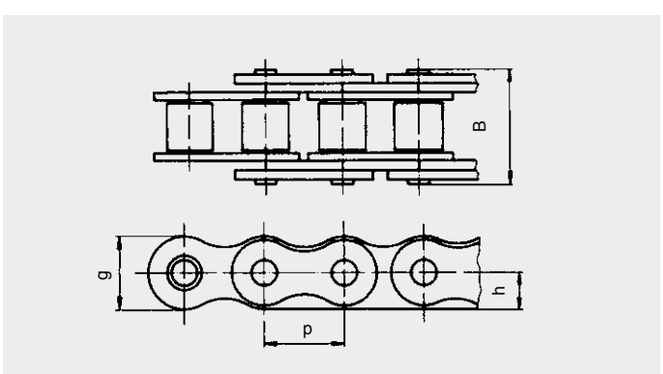
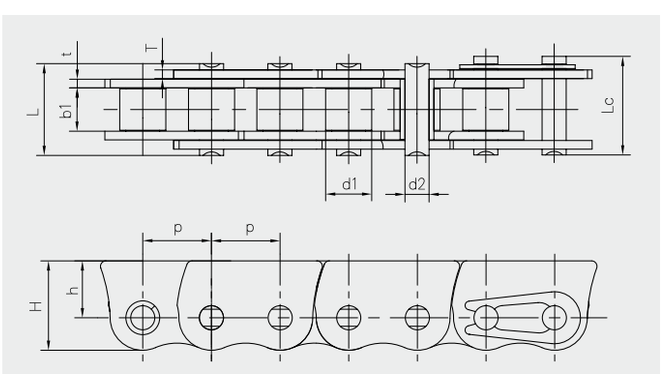
iwis reference	Pitch p (mm)	Roller diameter da max (mm)	Width between inner plates b1 min (mm)	Pin diameter d2 max (mm)	Pin length L max (mm)	Pin length Lc max (mm)	Plate dimension H (mm)	Plate dimension h (mm)	Plate dimension t/T max (mm)	Max. compressive force [2] FD max (kN)	Min. tensile strength F_U (kN)	Weight q (kg/m)
Push Pull Chains												
G52 RS [1]	8.00	5.00	3.16	2.31	10.1	11.2	7.1	3.6	0.8	0.9	3.0	0.27
G67 RS [1]	9.525	6.35	5.72	3.31	15.7	16.9	8.2	4.1	1.2	1.8	6.5	0.55
08AF6	12.70	7.92	7.90	3.98	17.2	19.2	17.1	11.0	1.5	3.5	13.0	1.02
L85 RS [1]	12.70	8.51	7.75	4.45	19.8	21.4	11.8	5.9	1.7/1.5	3.8	13.0	0.93
M106 RS [1]	15.875	10.16	9.65	5.08	22.8	24.2	14.4	7.2	1.7/1.6	5.7	16.0	1.56
M128 ARS	19.05	11.91	12.60	5.96	30.0	31.4	18.0	9.0	2.4	10.2	25.0	1.96
M1610 ARS	25.40	15.88	15.88	7.92	39.0	40.9	23.0	11.5	3.2/3.0	18.5	40.0	3.56

[1] The inner link dimensions of our push pull chains correspond to ISO 606. Smallest sprocket: 10 teeth.
[2] Max. compressive force dependent on chain length and drive parameters.





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JWIS® Plate Chains

For really tight bends

PROBLEM/INITIAL SITUATION

Ensuring the reliable, smooth conveying and storage of workpieces and workpiece carriers on narrow serpentine tracks.

OUR SOLUTION

JWIS brand plate chains with special plates pressed directly onto the chain pins guarantee an absolutely flat, step-free transport track in the tightest of spaces.

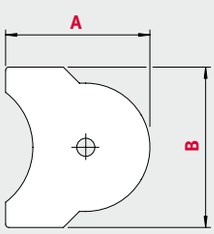
HIGHLIGHTS

- The iwis plate chain program includes roller chains according to standard ISO 606, ISO 1275 as well as works standard
- Guarantees an absolutely flat, step-free transport track
- Low noise emission
- Wide variety of different plate shapes allows individualised conveyor system design
- Various alternative plate materials available
- Effective protection of functional areas of the chain
- Intermeshing design of plates provides a continuous flat surface for workpiece transport
- Special plate shape allows the construction of very tight be
- Long conveying distances possible in very small spaces
- No risk of injury
- DIN sprockets may be used
- CAD data of all plate chain types available

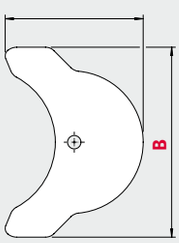
AREAS OF APPLICATION

- Conveyor technology
- Beverage industry
- Automotive industry
- General engineering
- Packaging and food industry
- Medical technology and pharmaceutical industry
- Machine-to-machine linking and automation
- Storage and buffer systems
- Tool transport
- Under-floor conveyors

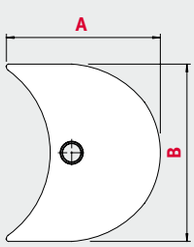
SOME EXAMPLES OF DIFFERENT PLATE CHAIN VERSIONS



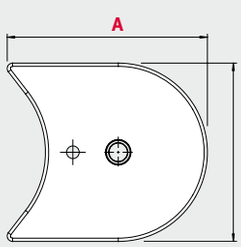
M127/LR247 Vers. 1



M127/LR247 Vers. 2



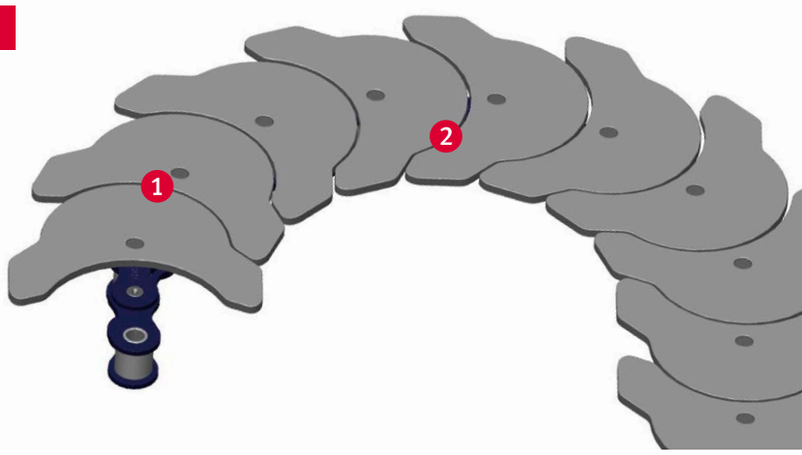
M1611



LR4810

HIGHLIGHTS

1. Wide variety of different plate shapes allows individualised conveyor system design
2. Various alternative plate materials available



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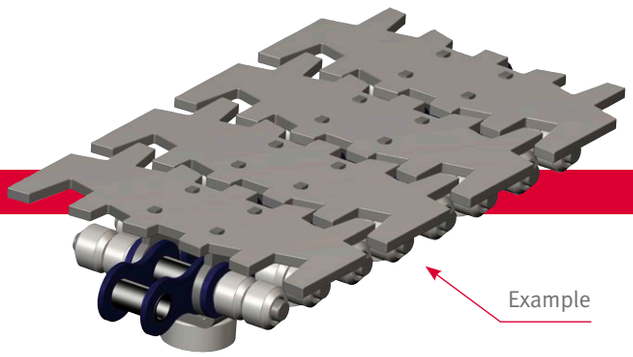
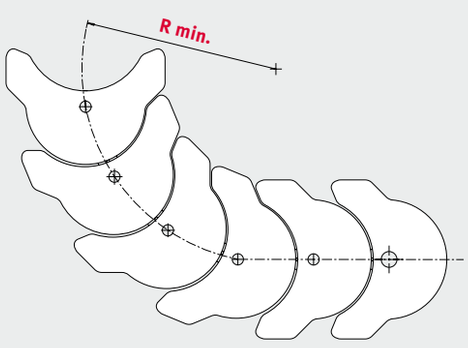


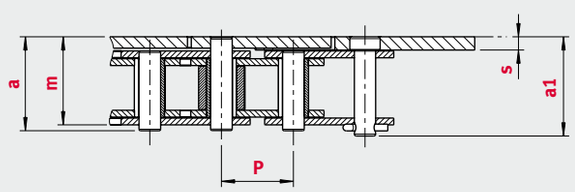
KNOW-HOW/ENGINEERING

If required, iwis will design customer-specific solutions for conveyor systems. Our design engineers will provide support with the configuration, calculation and construction of new conveyors.

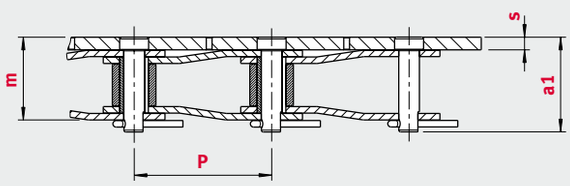
Contact us for more details!

ISO	iwis reference	P (mm)	s (mm)	A (mm)	B (mm)	Min. radius R (mm)	Min. no. of teeth per sprocket	a (mm)	a1 (mm)	m (mm)	Basic chain
12 B-1	M127 Vers. 1	19.05	3.5	45	50	64	21	24.8	26.25	23.3	standard
12 B-1	M127 Vers. 2	19.05	3.5	59.25	80	152	50	24.8	26.25	23.3	standard
16 B-1	M1611	25.4	3.5	69.5	80	90	22	37.4	39.9	35.4	standard
212 B-1	LR247 Vers. 1	38.1	3.5	45	50	62	10	–	26.35	23.05	cranked
212 B-1	LR247 Vers. 2	38.1	3.5	59.25	80	152	25	–	26.35	23.21	cranked
–	LR4810	76.2	3	92.6	82.5	147	12	34.0	35.9	31.12	standard

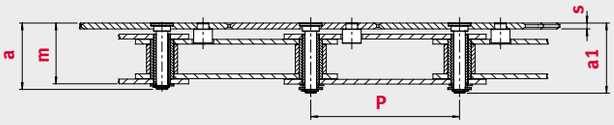




M127 Vers. 1 & Vers. 2 / M1611 (standard)



LR247 Vers. 1 & Vers. 2 (cranked)



LR4810 (standard)

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iwis® Transfer Chains according to ISO 606

Conveying, transporting, stop-start conveying of single parts, pallets...

PROBLEM/INITIAL SITUATION

Open conveyor systems are susceptible to contamination by foreign bodies or small parts, which can cause belt malfunction or damage the goods.

OUR SOLUTION

Fully enclosed transfer chains (= TF) with wear-resistant, rugged snap-on plastic attachments prevent malfunctions caused byforeign bodies etc.
Exclusive to iwis.

HIGHLIGHTS

- All-round protection of functional components of the chain: attachments enclose the chain on three sides, even in the vicinity of sprockets
- Variety of base chains available e.g. **MEGAlife**, nickel-plated or corrosion-proof
- Gentle handling of delicate goods
- Close-fitting covers prevent the risk of injuries and malfunctions
- Outside of the chain is absolutely clean, so there is no accumulation of dust
- Drive chain always remains clean, even under adverse operating conditions
- Suitable for horizontal and vertical installation
- No lifting of the load in the vicinity of the sprockets

TECHNICAL CHARACTERISTICS

Chain configuration
Depending on conveyor situation, friction coefficients of 0.1 to 0.3 are assumed for determination of the required chain tensile force. The friction coefficients refer to the contact between chain and chain guide. Base chain calculation is performed according to the examples set out in the iwis Chain Engineering Handbook or via the iwis chain calculation programme available on our website.

Important: TF roller chains are not riveted!

You can rely on iwis for help and support in case you have enquiries about details of chain design or CAD data. Please contact us if you need help.

AREAS OF APPLICATION

- General mechanical engineering
- Conveyor and warehouse technology
- Packaging and food industry
- Electronic components and PCB production
- Electrical goods and household appliances
- Medical devices and pharmaceuticals
- Wood, glass and pottery processing
- Chemicals and process engineering
- Printing and paper industry.

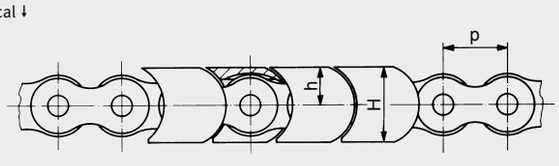
... and in all other applications that call for gentle handling.

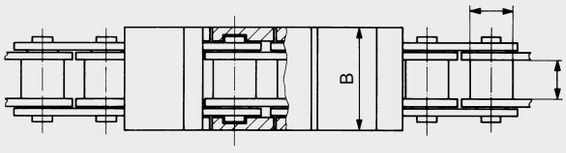
The chain is particularly suitable for machine-processed parts – even items with sensitive surfaces.

DIN ISO No.	iwis designation	Standard chain	Pitch p (mm)	Mean breaking load iwis F_B (N)	Inner width inner link b1 (mm)	Roller ø d1 (mm)	Width B (mm)	Attachment: Height H (mm)	Attachment: Height above centre of pin h (mm)	Attachment: Max. load per attachment F (N)	Attachment: Max. permitted surface pressure vertical (N/mm²)	Chain weight (kg/m)	Max. pull-off force acc. to iwis test (N)
08 B-1	L85 TF	L85 SL	12.7	22,000	7.75	8.51	19.85	15.5	8.1	137	0.45	0.84	200
10 B-1	M106 TF	M106 SL	15.875	27,000	9.65	10.16	25.0	17.6	9.7	195	0.45	1.18	300
12 B-1	M127 TF	M127 SL	19.05	32,700	11.75	12.07	29.8	19.9	11.3	265	0.45	1.59	620

*The suffix SL (Super Longlife) denotes base chains with especially wear-resistant pins

vertical ↓





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ATTACHMENT CHARACTERISTICS

iwis offers three attachment versions. The basic assumption for all temperature specifications is a max. surface pressure of 0.45 MPa; significantly higher temperature ranges are possible if surface pressure is lower. Please contact iwis in advance for advice. Different material configurations are possible for special applications e.g. with gradients, accumulation or aggressive media. In these cases, please contact iwis for an individual advisory consultation.

1. Standard applications

Colour:	white
Water absorption ASTM D570:	0.22%
Rockwell hardness M-scale ASTM D785:	80
Surface resistance ASTM D257:	› 1.0E + 15Ω
Max. temperature short-term:	140 °C
Max. temperature constant:	100 °C
Min. temperature:	-50 °C

2. Heat-resistant applications

Colour:	white
Water absorption ISO 62 in normal climate:	0.25%
Ball indentation hardness ISO 2039-1:	130 MPa
Surface resistance IEC 60093:	› 1.0E + 15Ω
Max. temperature short-term:	150 °C
Max. temperature constant:	140 °C
Min. temperature:	-50 °C

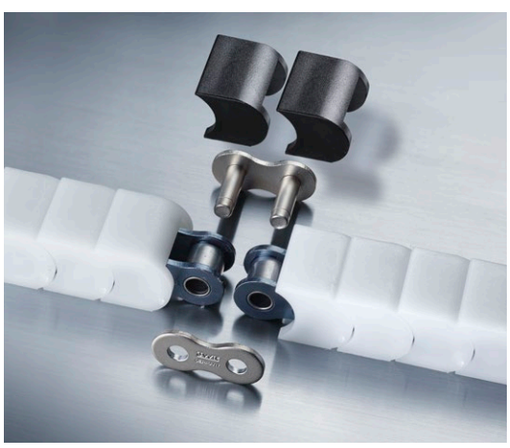
3. Antistatic applications

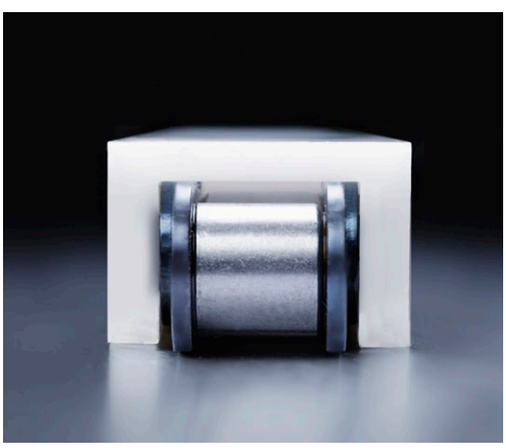
Colour:	white
Water absorption ISO 62 in normal climate:	9%
Surface resistance IEC 60093:	6.8E + 12Ω
Max. temperature short-term:	130 °C
Max. temperature constant:	90 °C
Min. temperature:	-40 °C

MATERIAL APPROVAL

Material	Standard	High-temperature	Antistatic
FDA approval [1]	✓	✓	✗
Silicone-free [2]	✓	✓	✓
PWIS-free [2]	✓	—*	—*
RoHS compliance	✓	✓	—*
REACH compliance	✓	—*	✓

[1] For contact with foodstuffs [2] Paint-wetting impairment substances
*Detailed information on PWIS, RoHS and REACH is available from your iwis contact.





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JWIS® Transfer Chains according to ISO 606

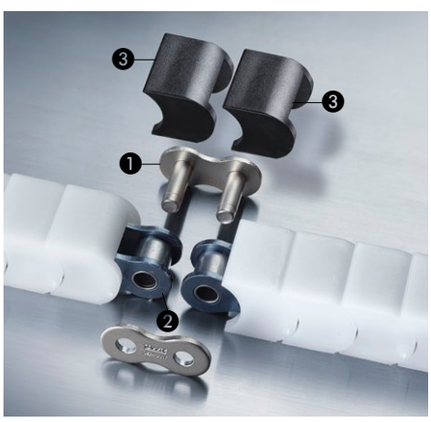
Conveying, transporting, stop-start conveying of single parts, pallets...

CHAIN GUIDES

For iwis transfer chains installed horizontally, we recommend T-shaped chain guides to support the chain rollers. T-shaped chain guides are not required for vertical chain installation.

CONNECTING LINK

The chain ends are connected by a two-pin outer link block ❶ and a push-fit side plate ❷ pressed onto the pins. By bending the chain appropriately, the two attachments ❸ can be clipped on over the pin. A locking spring is not required. The two relevant attachments are coloured black for easy location of the connecting link.



Connecting link: Same dimensions as chain

CORROSION RESISTANCE

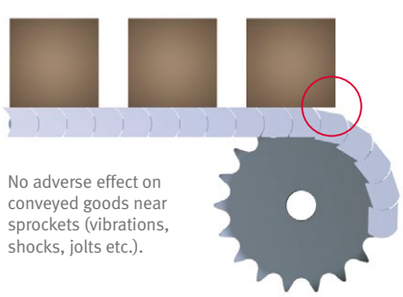
Corrosion-proof CR chains, nickel-plated chains or low-maintenance **MEGAlife chains** with maximum service life can also be used as base chains for transfer chains. For more information on these chains, please refer to the catalogue “JWIS Precision chain systems for drive and conveyor purposes”.

LUBRICATION

Selecting the right lubricant and the appropriate lubrication method guarantees minimisation of chain wear, adequate cor¬rosion protection and optimum damping performance. Depending on the required application, the base chain can be treated with one of the iwis initial lubricants. For an overview of lubricants, please refer to the catalogue “JWIS Precision chain systems for drive and conveyor purposes”.

SPROCKETS

Standard sprockets compliant with DIN 8187 can be used for TF chains. In the case of sprockets where z › 18, the TF chain is also completely enclosed in the vicinity of the sprockets and the drive chain is protected against the ingress of foreign bodies.



No adverse effect on conveyed goods near sprockets (vibrations, shocks, jolts etc.).

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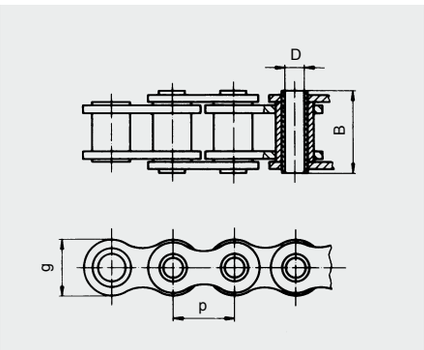
iwis® Hollow Pin Chain

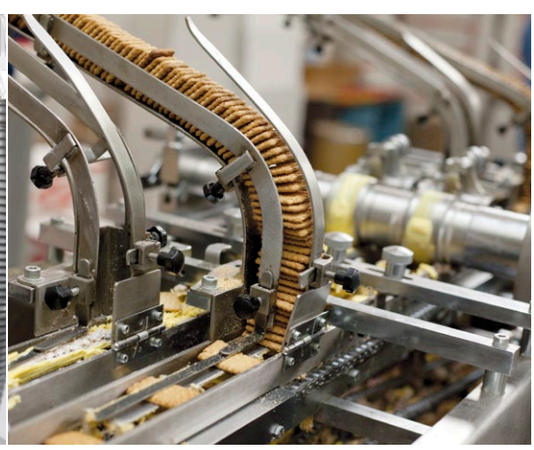
Simple fixing of attachments and transverse struts

iwis reference	Pitch p (mm)	g (mm)	B (mm)	D (mm)	Tensile strength F_B (N)	Weight (kg/m)
M 128 HB	19.05	18.0	25.5	6	36,500 [1]	1.23

[1] Breaking strength without pins inserted 34,500 N



Special bush chain in accordance with roller chain 3/4 x 1/2 inch to ISO 606. Hollow pins can be arranged at any desired interval.



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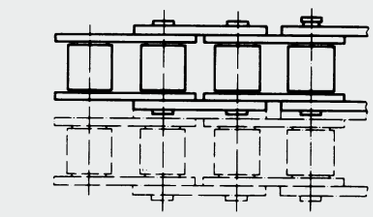
iwis® Pallet Transporting Chains

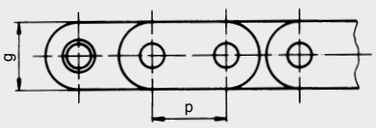
HIGHLIGHTS

- Material to be transported can be positioned throughout because of the straight side plates
- Roller chains with straight side plates for transporting a wide range of material
- Also available in MEGAlife version

iwis reference	Pitch p (mm)	g (mm)	Ave. tensile strength F_B (N)	Weigth q (kg/m)
Single strand chain M 128 AG	19.05	18.0	42,000	1.75
Double strand chain D 128 AG	19.05	18.0	84,000	3.50

Dimensions and figures not stated correspond to those for iwis chains M 128 A SL or D 128 A to ISO 606, ANSI Standard.





iwis® Side Bow Chains

Transporting, conveying, pulling on curved shape tracks

PROBLEM/INITIAL SITUATION

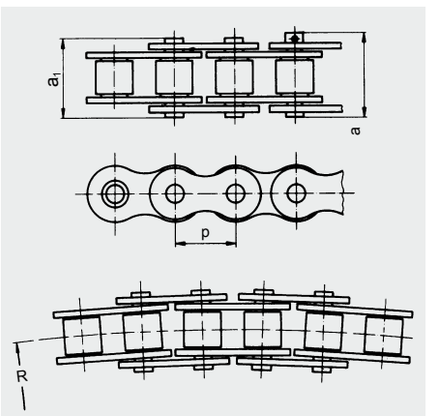
- Transporting and conveying on curved shape tracks
- Chains twisting when the shafts are at an angle to each other
- Change in the position of the material being transported e.g. from the horizontal to the vertical

OUR SOLUTION

iwis high-performance chains with specially designed chain link.
Exclusive to iwis.

HIGHLIGHTS

- Instead of being in contact with the line, the chain link is in overall contact throughout the curved area.
- Very narrow radii of curvature are possible because of symmetrical, tapered pins
- By using iwis straight and bent side plates suitable for universal use as conveyor chains



iwis reference	Pitch p (mm)	Outer width a_1 (mm)	Outer width a (mm)	Min. radius R (mm)	Tensile strength F_B (N)	Max. permissible chain pull power Continuous (N)	Max. permissible chain pull power Transient (N)	Weight (kg/m)	Connecting links available
L 85 A-SB	12.7	16.8	17.8	425	10,000	600	1,500	0.65	2, 4, 8
M 106 A-SB	15.875	21.0	22.3	500	18,000	900	2,500	1.00	2, 4, 8
M 128 A-SB	19.05	26.3	27.7	750	26,000	1200	3,700	1.50	2, 4, 8

Dimensions and values not stated here correspond to iwis chains L 85 A, M 106 A and M 128 A SL.

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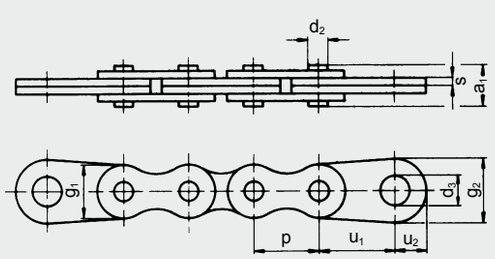
iwis® Leaf Chains

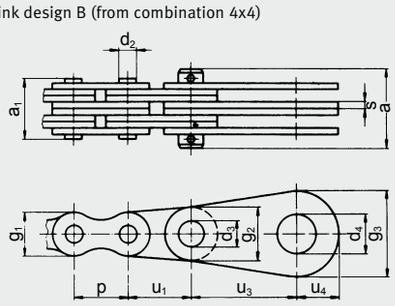
iwis reference	Pitch p (inch)	Pitch p (mm)	Length over 100 x pitch (mm)	Plate combination	Arrangement	Min. iwis tensile strength F_U (N)*	Bearing area f (cm²)	Weight q (kg/m)	Bearing pin diameter d_2 (mm)	Overall width a_1 (mm)	Overall width a (mm)	Plate height g_1 (mm)	Plate thickness s (mm)	End link dimensions d_3 (mm)	d_4 (mm)	g_2 (mm)	g_3 (mm)	u_1 (mm)	u_2 (mm)	u_3 (mm)	u_4 (mm)
Leaf chains																					
FL 522	–	8.0	800.0	2 x 2		5,000	0.05	0.15	2.31	5.6	–	6.3	1.0	6.2	–	16.0	–	15.0	10.0	–	–
FL 523	–	8.0	800.0	2 x 3		7,000	0.05	0.19	2.31	6.7	–	6.3	1.0	6.2	–	16.0	–	15.0	10.0	–	–
FL 623 [1]	3/8	9.525	945.0	2 x 3		10,000	0.08	0.32	3.31	8.3	–	8.1	1.2	6.2	–	16.0	–	15.0	10.0	–	–
FL 623 b [1]	3/8	9.525	944.0	2 x 3		20,000	0.20	0.46	3.31	10.9	–	8.2	2.0	6.2	–	–	–	–	–	–	–
FL 823 b	1/2	12.70	1268.0	2 x 3		28,000	0.18	0.65	4.45	12.4	–	10.8	2.0	8.2	–	18.0	–	20.0	11.0	–	–
FL 834 a	1/2	12.70	1268.0	3 x 4		21,000	0.17	0.42	3.68	13.1	–	9.1	1.5	8.2	–	18.0	–	20.0	11.0	–	–
FL 834 b	1/2	12.70	1268.0	3 x 4		42,000	0.27	0.91	4.45	16.5	–	10.8	2.0	8.2	–	18.0	–	20.0	11.0	–	–
FL 845 a	1/2	12.70	1268.0	4 x 5		34,000	0.24	0.67	3.68	16.9	25	9.1	1.6	8.2	12.2	18.0	25.0	20.0	11.0	30.0	15.0
FL 845 b	1/2	12.70	1268.0	4 x 5		52,000	0.32	1.00	4.45	19.0	25	10.8	1.8	8.2	12.2	18.0	25.0	20.0	11.0	30.0	15.0
FL 866 a	1/2	12.70	1268.0	6 x 6		44,000	0.36	0.88	3.68	21.7	28	9.1	1.6	8.2	12.2	18.0	25.0	20.0	11.0	30.0	15.0
FL 866 bd	1/2	12.70	1268.0	3 x 3 [2]		62,000	0.40	1.17	4.45	20.6	28	10.8	1.5	8.2	–	18.0	–	20.0	11.0	–	–
FL 1044 bd	5/8	15.875	1587.5	2 x 2 [2]		57,000	0.37	1.12	5.08	16.8	28	13.7	1.8	10.4	16.2	20.0	35.0	25.0	12.0	45.0	21.0
FL 1066 bd	5/8	15.875	1587.5	3 x 3 [2]		86,000	0.55	1.68	5.08	24.0	35	13.7	1.8	10.4	16.2	20.0	35.0	25.0	12.0	45.0	21.0
FL 1266 bd	3/4	19.05	1898.0	3 x 3 [2]		115,000	0.76	2.18	5.72	30.0	40	14.9	2.2	10.4	16.2	20.0	35.0	25.0	12.0	45.0	21.0
FL 1644 d	1	25.40	2530.5	2 x 2 [2]		157,000	1.00	2.92	8.28	28.0	40	20.8	3.0	12.2	18.2	25.0	40.0	30.0	15.0	50.0	24.0
FL 1666 d	1	25.40	2530.5	3 x 3 [2]		231,000	1.50	4.35	8.28	41.0	50	20.8	3.0	12.2	18.2	25.0	40.0	30.0	15.0	50.0	24.0

[1] Straight side plates [2] double *iwis standard

End link design A



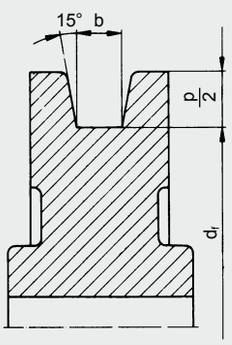
End link design B (from combination 4x4)



iwis Leaf Chains
are manufactured from precision iwis roller chain parts according to ISO 606. Therefore the actual pitch deviates from the nominal pitch. For length calculations use the length over 100 x pitch, not the nominal pitch.

Special versions and combinations with roller chains are available on request.

Dimensioning should be carried out with at least a 10-fold safety margin, depending on chain exposure to low- or high-impact shocks and subject to any regulations imposed by external authorities.



Example for the design of a deflection roller

Inner roller width:
$b = a_1 \cdot 1.15$
Minimum base diameter:
$d_{f\,min} = p \cdot 5$

Where possible, fit large diameters.