iwis
antriebssysteme
wir bewegen die welt

Grip Chains: precise, corrosion-resistant, reliable!

Grip Chains from iwis have **wear- and corrosion-resistant** clamping elements that guarantee safe and reliable feeding, transport and positioning of thin-walled materials with a large surface area. Grip chains are used, for example, in **packaging**, **medical technology**, **electronics**, **PCB production** and **metalworking industry** applications.

iwis® Grip Chain Product Range

Gripping, feeding and conveying flexible films

With 1 tip

With 2 tips

With flat clamps

Product highlights

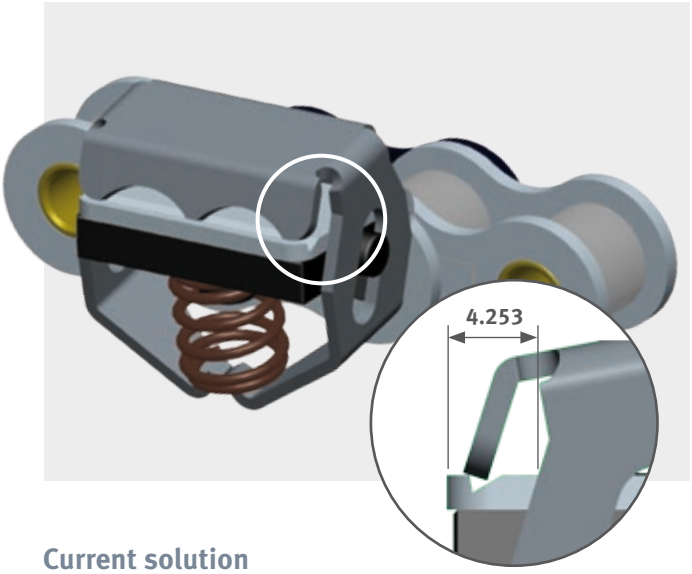
- iwis high-performance chains with excellent wear resistance
- Minimal initial elongation due to optimum pre-stretching
- High rigidity also enables applications in long machines
- Basic chain versions are chemically nickel-plated / MEGAlife maintenance-free versions are available on request
- Identical 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
  - 0.6 m/s for the 5/8“ grip chain

  Different control geometry is required for higher running speeds.
- iwis provides complete, ready-to-install solutions!

With button clamps

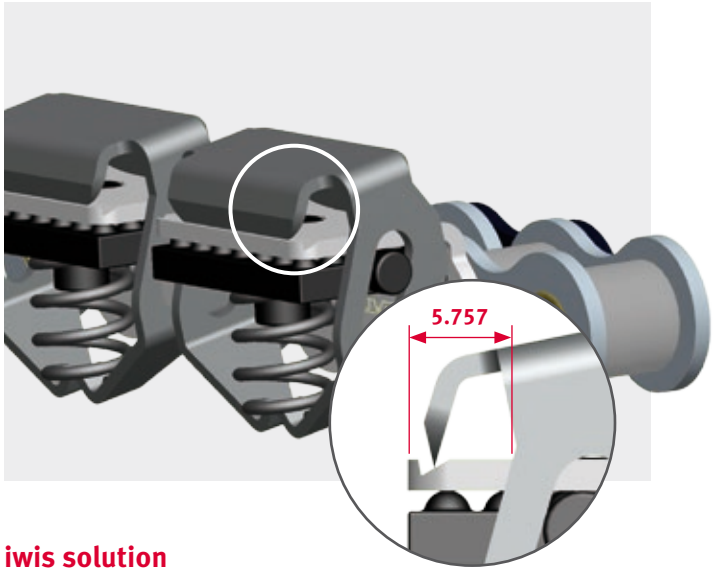
With clamp F

Our recommendation: the complete solution



Current solution

- Not enough space to insert film
- Point load application to the film may cause film rupture and excessive noise emission
- Foil deformation possible at the edge of the gripper element



iwis 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

Ahead of the competition!

“1-tip” Grip Chains

Technical features

- **Single 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

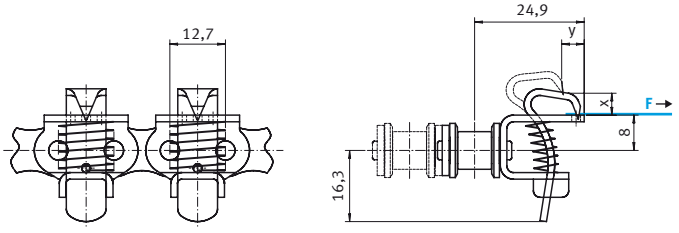
“2-tip” Grip Chains

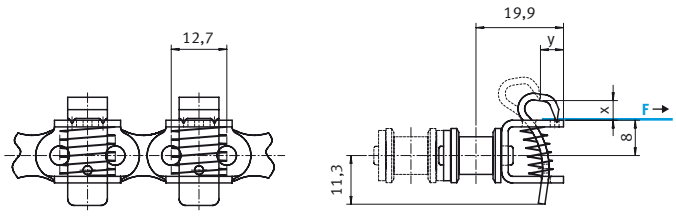
Technical features

- **Single 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

Ref. no. iwis	DIN ISO	Pitch p (mm)	Ave. foil retention force (N) F*	Spring	x	y	Mat. no.
L 85 Grip	08 B-1	12,7	10	0,7x6	5	6	50007495
L 85 Grip	08 B-1	12,7	24	0,9x5	4	5	50034722
D 85 Grip	08 B-2	12,7	10	0,7x6	5	6	50007033

Ref. no. iwis	DIN ISO	Pitch p (mm)	Ave. foil retention force (N) F*	x	y	Mat. no.
L 85 Grip	08 B-1	12,7	35	3,0	4,5	50024958





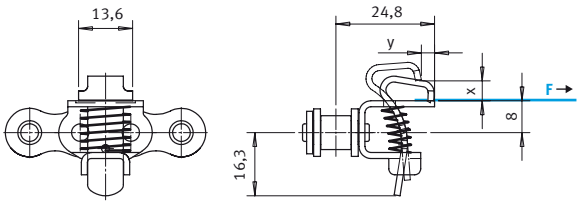
Dimensions x and y are dependent on the springs used. These are maximum values for the opening stroke.
A smaller opening stroke will increase life expectancy of the spring.
* Reference films were used to determine the average film gripping force (F).
Concrete values are dependent on the film used (material,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

“Flat clamp” Grip Chains

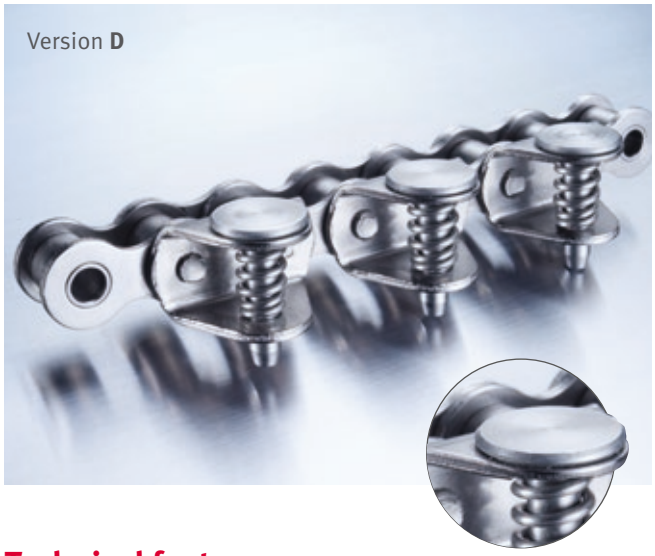
Technical features

- **Single 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

Ref. no. iwis	DIN ISO	Pitch p (mm)	Ave. foil retention force (N) F*	Spring	x	y	Mat. no.
L 85 Grip	08 B-1	12,7	3	0,7x6	5	3,5	50037062
L 85 Grip	08 B-1	12,7	5	0,9x5	4	2,8	50035540
D 85 Grip	08 B-2	12,7	3	0,7x6	5	3,5	50032581



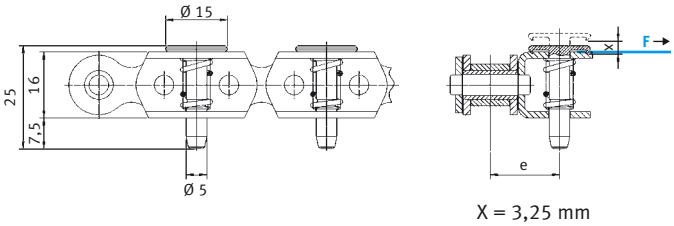
“Button clamp” Grip Chains



Technical features

- **Single 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

Ref. no. iwis	DIN ISO	Pitch p (mm)	Ave. foil retention force (N) F*	e	Mat. 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



X = 3,25 mm

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.

Version E – details of gripper function

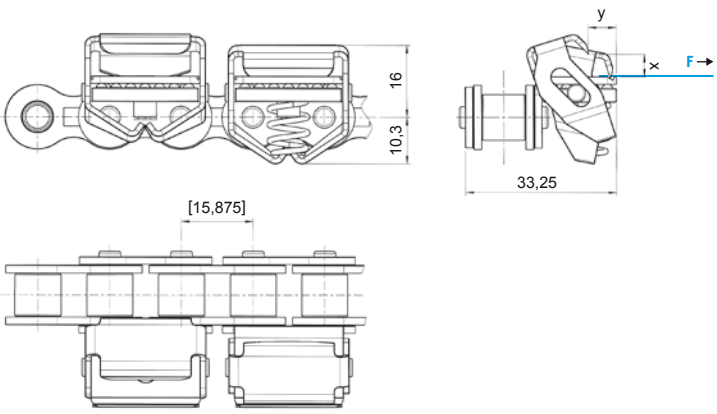
Version **E** NEW

Absolute precision!

1. Accurate fitting of gripper in the groove
2. Clamp made of corrosion-resistant, high-tensile, dimensionally stable steel
3. Burled plate guarantees optimum wear behaviour (steel-plastic)
4. Gripping flange with rounded sides to protect the conveyed plastic film
5. Sharp-edged, wear-resistant gripping flange guarantees long service life
6. “Support” radius on clamp for optimum opening and closing of the gripper (self centring)

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



Ref. no. iwis	DIN ISO	Pitch p (mm)	Average foil retention force (N) F*	x	y	Mat. no.
M 106 Grip	10 B-1	15,875	85	4.9	6.1	5-39260

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).
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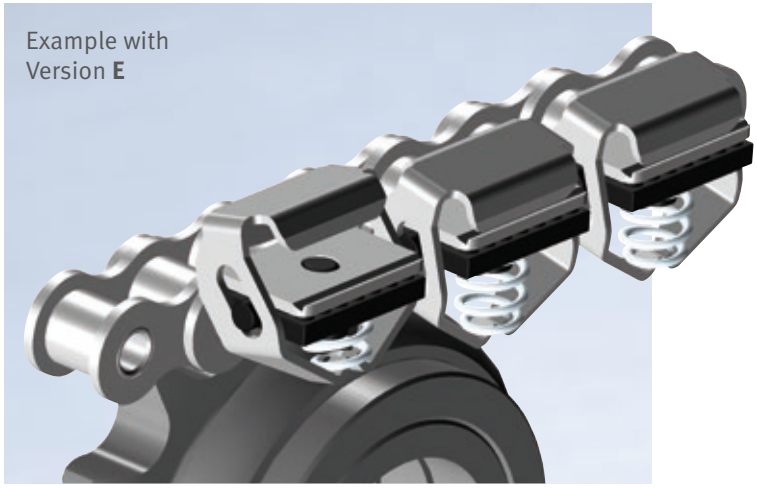
Grip chain with clamp F

Control sprockets for Grip Chain applications



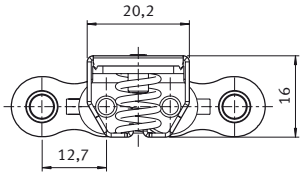
Technical features

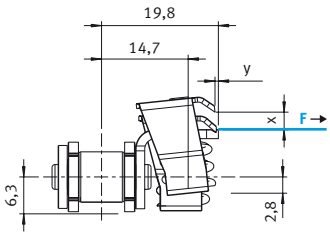
- **Single and duplex chain** 1/2 x 5/16“ acc. to ISO 606
- Complete gripper element
- Gripper element with a continuous sharp-aged gripping flange
- Retention force is dependent on material conveyed
- Clamp and spring made of stainless steel spring steel
- Due to a special geometry of sprockets used,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

Sprocket recommendations

- For applications with **½“ grip chains**, the recommended minimum number of teeth on the control sprocket is: **11**
- For applications with **5/8 “ grip chains,** the recommended minimum number of teeth on the control sprocket is: **14**
- For improved running characteristics, we recommend control sprockets with a minimum of 19 teeth.
- We recommend the use of a ramp for sprockets with fewer than 20 teeth. A ramp is optional if sprockets have more than 20 teeth.
- Different spring sizes require different control disc diameters.

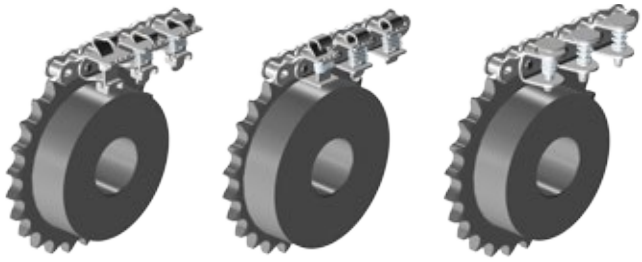
Ref. no. iwis	DIN ISO	Pitch p (mm)	Average foil retention force (N) F*	Spring	x	y	Mat. no.
L 85 Grip	08 B-1	12,7	42	1,3x5,5	3	0,6	50045980





Customised designs

Sprockets can be supplied in accordance with customer specifications e.g. bearing seats, keyways, threads, special diameters, surfaces... Please advise us of the technical specifications and quantities you require.



Version **A** Version **B** Version **D**

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.
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Concrete values are dependent on the film used (material, surface, thickness). Deviations are possible.

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