





**Problem/initial situation:** Reliable feeding, transporting and positioning of thin-walled materials with a large area. **Our solution:** iwis high performance chains with wear- and corrosion-resistant clamping elements!

### **Key features**

- iwis high performance chain with excellent wear resistance
- Marginal initial elongation due to optimal pre-stretching
- High rigidity enables applications also in long machines
- Basic chain chemical nickel plated
- Flawless operating parallel as well as synchronously running chains due to practically identical chain lengths
- All chains are provided with reliable, high quality initial lubrication, approved for use in the food industry
- Differing levels of spring force allow an extremely wide range of materials to be gripped gently
- Complete chain solution ready-to-install
- Delivery in 50 meter reels or in customized chain lengths
- Recommended max application speed is 2 m/s



### Version A "1-Tip" Grip chains

### **Version B** "2-Tip" Grip chains



#### **Technical features**

- Single and duplex chain 1/2 x 5/16 inch to DIN 8187-1/ISO 606
- Gripper with 1 tip, special designs on request
- Retaining force is dependent on material conveyed and spring design – differing number of coils and wire spring diameters obtainable
- The gripper opens by running against a control disc (e.g. chain wheel hub) which causes it to swivel out of the way to the outside
- Design of the chain wheel hub at request
- Inital lubrication approved in the food industry



#### **Technical features**

- Single and duplex chain 1/2 x 5/16 inch to DIN 8187-1/ISO 606
- Gripper with 2 tips, special designs on request
- Retaining force is dependent on material conveyed and spring design – differing number of coils and wire spring diameters obtainable
- The gripper opens by running against a control disc (e.g. chain wheel hub) which causes it to swivel out of the way to the outside
- Inital lubrication approved in the food industry
- Higher retention force in comparison with "1-Tip" Grip chain

Ref. no. iwis	DIN ISO	Pitch p (mm)	Ave. foil retention force (N)	Spring	х	у	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









Dimensions x and y dependent on the spring used, on request These are max. values for the opening stroke.

Lower opening strokes will increase life expectancy of the spring.

### **Version C** "Flat clamp" Grip chains

### **Version D** "Button" Grip chains



#### **Technical features**

- Single and duplex chain 1/2 x 5/16 inch to DIN 8187-1/ISO 606
- Gripper designed as a flat clamp
- Retaining force is dependent on material conveyed and spring design – differing number of coils and wire spring diameters obtainable
- The gripper opens by running against a control disc (e.g. chain wheel hub) which causes it to swivel out of the way to the outside
- Gentle material handling
- Low transmission forces

Ref. no. iwis	DIN ISO	Pitch p (mm)	Ave. foil retention force (N)	Mat. no.
L 85 Grip	08 B-1	12,7	5	50037062



- Single chain 1/2 x 5/16 or 5/8 x 3/8 inch to DIN 8187-1/ ISO 606
- Special design with button grip elements
- Gripper as a flat head
- Retaining force is dependent on material conveyed and spring design – differing number of coils and wire spring diameters obtainable
- **iwis Patent** (spring is fixed without washer)

Ref. no. iwis	DIN ISO	Pitch p (mm)	Ave. foil retention force (N)	е	Mat. no.
M 106	10 B-1	15,875	70	16,8	50034301
L 85	08 B-1	12,7	70	15,8	50035491



Dimensions x and y dependent on the spring used, on request These are max. values for the opening stroke. Lower opening strokes will increase life expectancy of the spring.



X = 3,25 mm

### **Version E** New iwis Grip chain – a complete solution



#### **Technical features**

- Optimization of the gripper Chain M106 with attachment 202.6 on one side and delivery as a complete solution with the gripper system consisting of clamp, plate and spring
- M106 standard chain also available without attachments
- Clamp and spring made of corrossion resistant steel
- Chain is chemically nickel-plated
- Available with long-lasting lubrication or with lubricant for food use

Ref. no. iwis	DIN ISO	Pitch p (mm)	Ave. foil retention force (N)	х	у	Mat. no.
M 106	10 B-1	15,875	85	4.9	6.1	50039260

These are max. values for the opening stroke.

Lower opening strokes will increase life expectancy of the spring.







# **Optimization of the gripper functioning**

More space for the plastic film



#### **Current solution**

- Not enough space for foil insertion
- Point load application on the foil may lead to foil rupture and noise exposure
- Foil deformation possible at gripper element



### iwis solution

#### **Advantages**

- Accurately fitting of the gripper in the groove
- Better retention force depending on plastic film
- Optimized functional safety and hygiene through burling plate
- Better foil insertion through more free space
- Foils do not twist

### Details of the gripper functioning

- Clamp is being made out of corrosion resistant, high-tensile and dimensionally stable steel
- "Back" radius on clamp for optimum opening and closing of the gripper (self centring)
- Accurately fitting of the gripper in the groove
- Sharpe edged and wear resistant gripping flange guaranties long life time
- Gripping flange is rounded on the side for protecting the transported plastic film
- Burling plate guaranties optimum wear behaviour (steel-plastic)



### **Sprockets**

The sprockets for our new gripper chain are really simple!



- Sprocket design is based on a two part assembly. One part is a sprocket nearly the one side hub sprocket like catalog. The second part is a control disk
- This part must be hardend because it is in contact to open the gripper
- The two parts are assembled with press fit
- As smallest sprocket for this application we advise 14 teeth

- For a better chain running we suggest more than 19 teeths for the sprocket
- A lot of adaptations are possible, for example plummer blocks, keyways, threads, special diameters, surfaces ...
- Please contact iwis with your technical requirements and quantity

# Examples of special sprockets for 1/2" Grip chains Version A and Version B



Dimensions x and y dependet on the spring used, on request. We recommend a ramp if the number of teeth is less then 20 teeth, beyond that ramp is optional.



## Available chain guides

made of plastic



component. This proven quality is characterised by its outstanding

sliding properties, abrasion resistance and mechanical values.



GL 2

GL 1B-C 2-Teile



ETA



GL 1B-C covered



Special custom-made guides are available on request!

For more chains guides, please check our ELITE Drive Components Catalog.

