iwis® 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, pallet transporting chains, side bow chains, leaf chains anti back bend chains and hollow pin chains.

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iwis® Plate chains

PROBLEM/INITIAL SITUATION

Secure and smooth transportation and storage of workpieces and workpiece carriers using very narrow curved track.

OUR SOLUTION

iwis high performance roller chain 3/4 x 7/16“ according to DIN 8187 with special plates pressed in precision in full contact (see sketch below).

HIGHLIGHTS

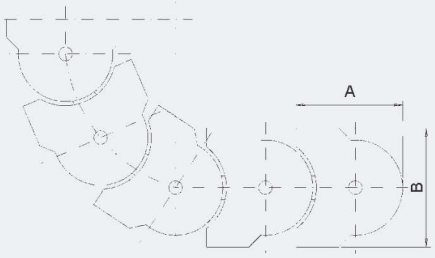
- Plates pressed directly on to chain pins guarantee an absolutely flat transport track with no steps
- Optimum seal for the functioning areas of the chain
- Smooth contact area for workpieces due to engaging form of plates
- Extremely narrow radii of curvature are possible via specially designed plate shape
- Long conveying distances in most close-quartered space possible
- No risk of injury
- Use of DIN chain wheels

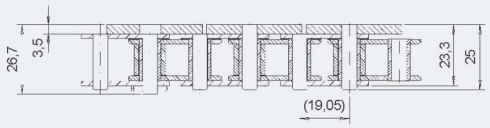
AREAS OF APPLICATION

- Conveyor Technology
- General Engineering
- Packaging and Food Industry
- Medical Technology and Pharmaceutical industry
- Linking machines and automation
- Storage and buffer systems

...and everywhere where smooth and reliable conveying through very narrow bends is necessary.

DIN ISO No.	Ref. no. iwis	P (mm)	s (mm)	A (mm)	B (mm)	R min. (mm)	z min.
12 B-1	M 127 Vers. 1	19,05	3,5	45	50	60	20
12 B-1	M 127 Vers. 2	19,05	3,5	59	80	150	30
16 B-1	M 1611	25,04	3,5	69,5	80	180	22





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iwis® Transfer chains

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

PROBLEM/INITIAL SITUATION

Open transport chains:
- Prone to interference from foreign bodies and small parts
- Often cause operational breakdowns
- Increased risk of injury
- Damage to material being conveyed
- Adherence of dirt and dust

OUR SOLUTION

The TF chains: iwis high performance roller chains with wear-resistant highly resistant plastic support brackets.
Exclusive to iwis.

HIGHLIGHTS

- Functional areas of the chain are completely sealed, basic chain protected from penetration by foreign bodies
- Gentle transportation when free sensitive materials
- Precisely fitting cover prevents the risk of injury and operational breakdowns
- Chain is completely clean on the outside, therefore no dust is bonded to it.
- Initial lubrication with extremely high adhesion to the base chain, as standard

TECHNICAL FEATURES

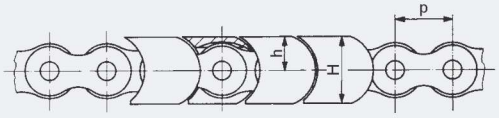
- Supporting bracket: made of polyacetal resin
- Temperature range: 40°C to 100°C, up to 140°C for brief periods
- High wear resistance if the material being conveyed has a smooth surface
- Good chemical resistance
- Shore hardness to DIN 53505: 85
- Antistatic on request

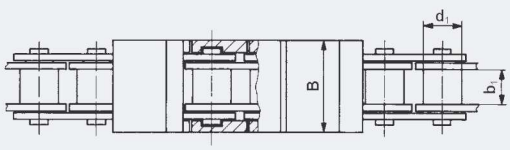
AREA OF APPLICATION

- General engineering
- Transport and storage technology
- Packaging and food industry
- Electronics and printed circuit board industry
- Electrical and household equipment
- Medical technology and pharmaceutical industry
- Wood, glass and ceramics processing
- Chemical and process technology
- Printing and paper

...and everywhere where gentle transportation is required.

DIN ISO no. Chain	Ref. no. iwis	Pitch p (mm)	Breaking strenght iwis F_B (N)	Permissible weight load per chain strand (N)	Weight (kg/m)	Width B (mm)	Carrier Attachment: Height H (mm)	Carrier Attachment: h (mm)	Carrier Attachment: max. Belastung pro Kunststoff-bügel (N)
08 B-1	L 85 TF	12,7	22.000	6250	0,82	19,8	15,2	8,0	12
10 B-1	M 106 TF	15,875	27.500	8000	1,18	24,8	17,5	9,5	26
12 B-1	M 127 TF	19,05	34.000	9750	1,59	29,8	19,8	11,0	43





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iwis® Transfer chains

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

CHAIN WHEELS

- For TF-chains standard sprockets for chains according to DIN 8187 can be used
- By using chain wheels with number of teeth z >18, the chain is completly protected in the deflection zone.

SPECIAL DESIGN OF BASIC CHAIN

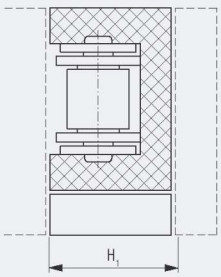
- Nickel-plated
- MEGAlife - maintenance-free
- CR-corrosion resistant
  only L 85 TF + M 106 TF

CONNECTING LINK

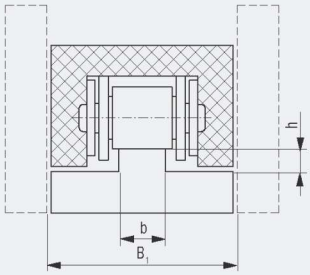
The ends of the chain are connected with a pin block ❶ which has a separate plug-in plate ❷ pushed on to it. The two supporting brackets ❸ can be clipped on over the chain rivets by pushing down the chain in the right way. No locking spring is required. The relevant 2 supporting brackets are black in colour to make it easy to find the connecting link.

VERSIONS INSTALLED

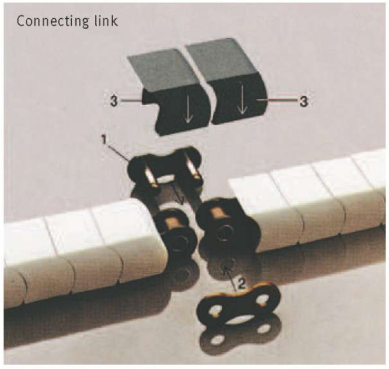
vertical



horizontal



Connecting link



Connecting link: Same dimensions as chain

CHAIN GUIDANCE

Ref. no. iwis	B_1	b	h	H_1
L 85 TF	20	7,5	3,1	15,4
M 106 TF	25	9,5	3,1	17,7
M 127 TF	30	11,3	2,9	20,0

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iwis® Grip chains

Gripping, retracting, transporting soft foils

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
Patent applied for.

HIGHLIGHTS

- Material to be transported is fed through in the best possible way because of the unique swivelling technique of the gripper
- Precise positioning of the material to be conveyed via reliable clamping
- Chain and clamping element with corrosion protection as standard
- Differing levels of spring force allow an extremely wide range of materials to be gripped gently
- Provided with initial lubrication, approved for use in the food industry, as standard

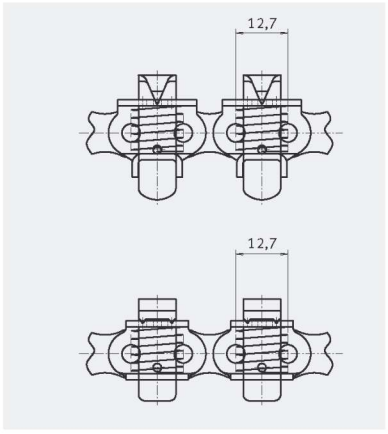
TECHNICAL FEATURES

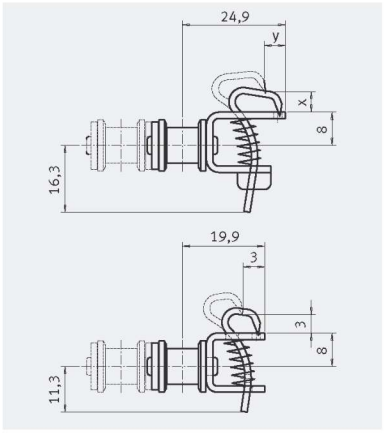
- Single or double chain 1/2 x 5/16 inch to DIN 8187-1/ ISO 606
- Gripper with 1 or 2 tips, special design on request
- Retaining force is dependent on material conveyed and spring design – differing number of coils and wire spring diameters obtainable
- The gripper opens by running against a control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

AREAS OF APPLICATION

- Packaging industry, especially foil packaging
- Electronic industry and manufacture of printed circuit boards
- Feeding in thin-walled sheet, plastics and other hard materials

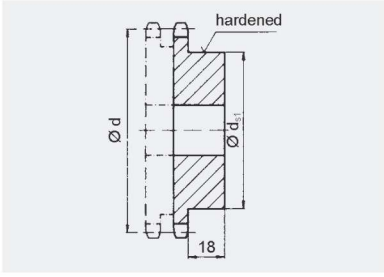
... and everywhere where plate and sheet type materials are drawn in or off, transported or positioned, e.g. for punching, welding, filling, coating, cutting, stretching, shaping, sealing etc.





Dimensions x and y dependent on the spring used, on request

Ref. no. iwis	Pitch p (mm)	Weight q (kg/m)
Simple chain L 85 Grip	12,7	1,15
Double chain D 85 Grip	12,7	1,80



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iwis® Grip chains

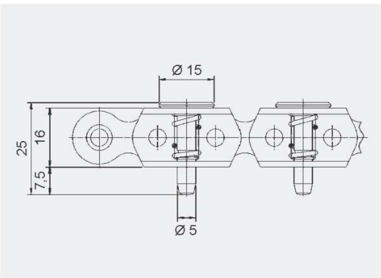
Gripping, retracting, transporting soft foils

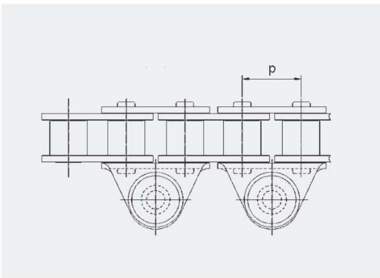
FILM TRANSPORT CHAIN

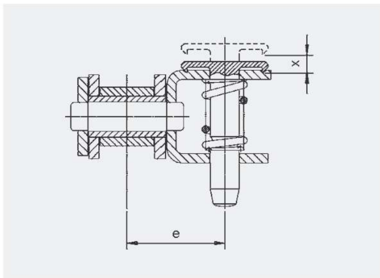
- special design with button grip elements

Ref. no. iwis	Pitch	Order No.
Simplex chain L 85	12,70	50035491
Simplex chain M 106	15,875	50034301

Dimensions x depend on the springs used, on request / Maße x abhängig von eingesetzten Federn, auf Anfrage







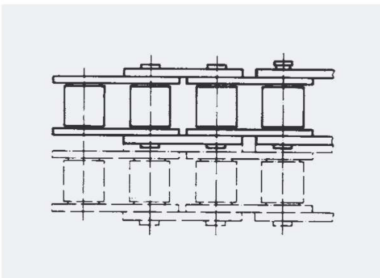
iwis® Pallet transporting chains

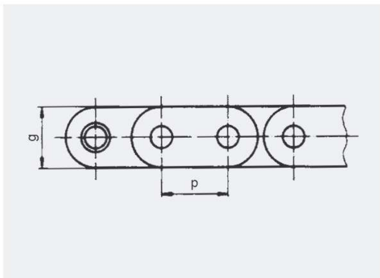
HIGHLIGHTS

- 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

Ref. no. iwis	Pitch p (mm)	g (mm)	Breaking strenght F_B iwis mean (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 DIN 8188.





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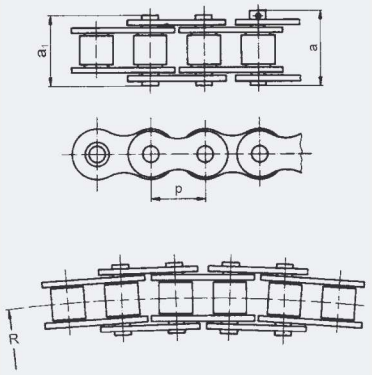
iwis® Side bow chains

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

Ref. no. iwis	Pitch p (mm)	Outer width a_1 (mm)	Outer width a (mm)	Minimum radius R (mm)	Breaking strenght iwis 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	1500	0,65	2, 4, 8
M 106 A-SB	15,875	21,0	22,3	500	18.000	900	2500	1,00	2, 4, 8
M 128 A-SB	19,05	26,3	27,7	750	26.000	1200	3700	1,50	2, 4, 8

Dimensions not stated correspond to those for iwis chains to DIN 8188, American standard.

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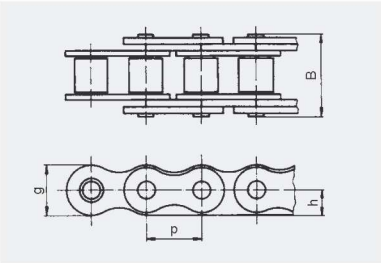
iwis® Anti back bend chains

Chain which is only flexible on one side for pushing lightweight loads and bridging short gaps without guides

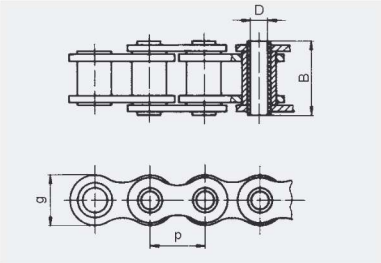


Ref. no. iwis	Pitch p (mm)	g (mm)	h (mm)	B (mm)	Weight (kg/m)
M 128 A SL anti back bend ex.	19,05	18,0	9	30	1,96

The principal dimensions correspond to iwis chain M 128 A SL to DIN 8188
Smallest chain wheel: 10 teeth

iwis® Hollow pin chain

Simple fixing of attachments and transverse struts



Special bush chain in accordance with roller chain 3/4 x 1/2 inch to DIN 8188-1
Hollow pins can be arranged at any desired interval.

Ref. no. iwis	Pitch p (mm)	g (mm)	B (mm)	D (mm)	Breaking strength iwis (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

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iwis® Tube transport chains

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 rust-resistant, easy to change attachments. **Exclusive to iwis.**

HIGHLIGHTS

- Change the transport bars in the system without difficulty using the special iwis tool
- Not necessary to dismantle the chain
- Adapter and bars made of highly alloyed, corrosion-resistant steels with good elastic characteristics
- Long life in comparison to hollow pin chains thanks to the use of the iwis standard roller chain
- Large standard of range of bar lengths
- Different shapes for bar ends - nipples made of aluminium or plastic are also available
- Freely selectable distance between the bars
- 3/4 inch chain also available in curved side design (M 128 ASB)

TECHNICAL FEATURES

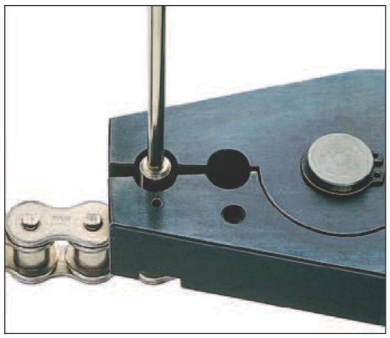
- The bars are pinched on to the extended pins of the base chain using an adapter and secured by fins to prevent twisting
- The bar can be changed quickly and easily if a repair is needed by breading open the adapter with the iwis special tool (see illustration)

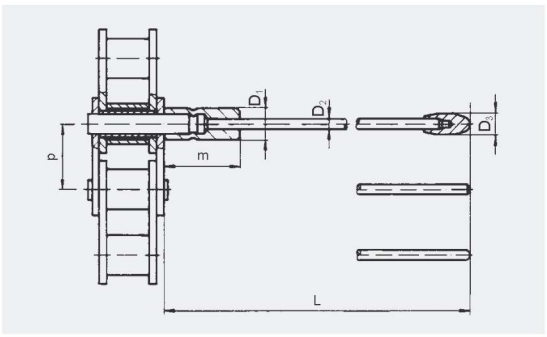
AREAS OF APPLICATION

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

DIN ISO no.	Ref. no. iwis	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 ASB	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® Can transport chains/Pin oven chains

PROBLEM/INITIAL SITUATION

Safer transport of thin-walled hollow bodies at high speeds and subject to the influences of differing temperatures and media.

OUR SOLUTION

Extremely wear-resistant iwis high performance chains with specially adjusted bars and variable protective heads

HIGHLIGHTS

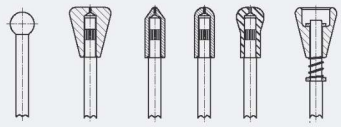
- Extremely long life and reliable roller chain with integrated hollow pins every seventh pitch
- Simple to change transport bars in the line
- Non-drip high temperature lubricant which evaporates without leaving a residue and is approved for use in the food industry
- Predefined fracturing points in the bars prevents damage within the line if there is a collision

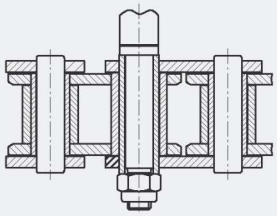
TECHNICAL FEATURES

- The transport bars are inserted in the hollow pins at defined intervals using retaining nuts or split pins
- Precise alignment of the chain wheels and good guidance of the chains increases the length of service life
- The chain should be brushed clean before relubrication at the correct points

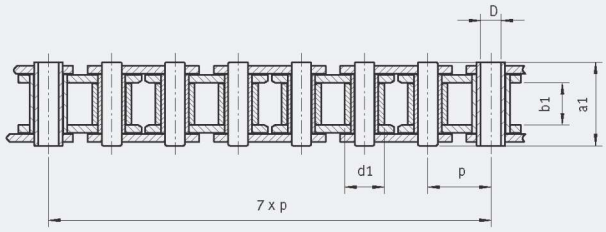
AREAS OF APPLICATION

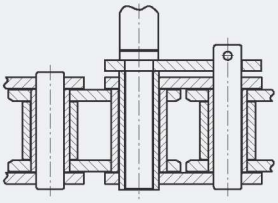
- Everywhere where cans or other thin-walled hollow bodies are transported, painted, dried ...





DIN ISO No.	Ref. no. iwis	Pitch p x Inner Width	Breaking Load F_B (N)	Roller d_1 (mm)	Hollow pin Diameter D (mm)	Inner Width b_1 (mm)	Pin Length max. a_1	Weight (kg/m)
12 A-1 ANSI 60	M 128A SL	3/4 x 1/2"	36.500	11,91	6,0	12,7	26,7	1,23





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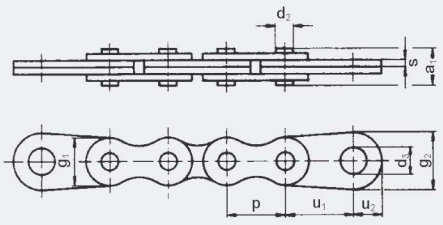
iwis® Leaf chains

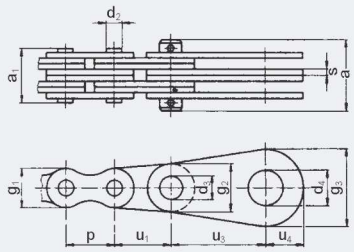
Ref. no. iwis	Pitch p (")	Pitch p (mm)	Plate combination	Arrangement	Breaking load F_B iwis min (N)	Bearing area f (cm²)	Weight q (kg/m)	Bearing pin diameter d_2 (mm)	Overall width a_1 (mm)	Overall width a (mm)	Plate height g_1 (mm)	Plate thickness s (mm)	End link dimensions d_3 (mm)	d_4 (mm)	g_2 (mm)	g_3 (mm)	u_1 (mm)	u_2 (mm)	u_3 (mm)	u_4 (mm)
Flyerketten																				
FL 522	–	8,0	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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

End link design A

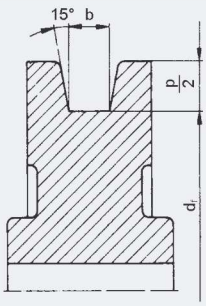


End link design B (from combination 4x4)



iwis leaf chains are manufactured from precision iwis chain parts to DIN 8187.

The chain selection will be determined by the size and frequency of shock loading and the appropriate national lifting regulations.



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 relatively large diameter