

#### **Product range**





Precision chain systems for drive and conveyor purposes

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ıain guide

ive line product

# Welcome

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## at antriebssysteme!

## The direct route to your order!

You can reach our Customer Service Team on weekdays from 8 am to 6 pm non-stop.

Phone: +49 89 76909-1600

Or send your order by fax. For this purpose please use our enquiry form at the end of this catalogue.

Fax: +49 89 76909-1198

Our Customer Service Team will attend to your enquiries and orders immediately.

Sales-muenchen @iwis.com

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## range

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## iwis

#### Joh. Winklhofer Beteiligungs GmbH & Co. KG

Management Organisation of the Internationally operating companies

#### iwis motorsysteme GmbH & Co. KG

Subsidiary for the automotive sector, for example chain drives and mass balance drives as well as oil pump drives and

#### iwis antriebssysteme GmbH & Co. KG

Subsidiary for the industrial sector, high precision chains and drive systems for a wide range of applications

### iwis antriebssysteme

A distribution and service company within the chain drive industry

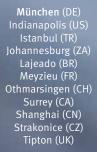
## iwis agrisystems

Competence centre for the iwis agricultural chain program for combines and maize harvesting

München (DE) Landsberg (DE) Pune (IN) São Paulo (BR) Seoul (KR) Shanghai (ĆN) Troy (US)











#### ecoplus

**Wilnsdorf** (DE) Indianapolis (US) Istanbul (TR) Johannesburg (ZA) Lajeado (BR) Meyzieu (FR) Othmarsingen (CH) Shanghai (CN) Surrey (CA) Tipton (UK)



Sontra (DE) Indianapolis (US) Istanbul (TR) Johannesburg (ZA)
Lajeado (BR)
Meyzieu (FR)
Othmarsingen (CH)
Shanghai (CN)
Surrey (CA)
Tipton (UK)



A company which has developed over 95 years has a story. The entrepreneurial family Winklhofer has been managing the fate of the company iwis since decades and has developed it into a group of companies which committed itself to tradition, precision and innovation. This group of companies produces high precision roller chains and systems for the automotive industry, the machine and plant manufacture, the packaging, printing and food industries, the agriculture and for industrial applications in the field of conveyor technology. More than 1000 employees at the production sites of Munich, Landsberg am Lech, Wilnsdorf, Sontra and Strakonice (CZ) have committed themselves to a quality standard on the highest level.

Our consequent customer orientation in all areas lead to a close cooperation with our customers and suppliers as well as to joint technical developments — as our goal is to always offer our customers a solution at the highest quality and sustainability level. Research and development play a major role in our company's philosophy:

The detection of new trends and the development of new materials and production technologies require an innovative power and motivation of which we are proud of and which explain our top position in the market. Thus iwis antriebssysteme GmbH & Co. KG is a worldwide driving force in the general machine manufacture and delivers precision chain systems which move all around the world.





Technical perfection of highest quality for a maximum customer benefit – that is our high standard. 100% exact replication of more than 30 million spare parts every single day – a quality benchmark which a single expression stands for at iwis: Highest precision. We are proud of that fact and numerous certifications and awards in the quality sector shows us that we follow the right path!





## Precision for your success







#### **Technical perfection**

- Use of high quality quenched, tempered and case-hardened steels
- High precision fabrication via SPC (statistical process control)
- Quality assurance complying with ISO 9001
- Optimisation of quality features via special heat treatment
- Constant monitoring of the chains for dimensional accuracy and articulation
- Surface coatings
- Special lubricants
- Special materials (i.e. corrosion-proof)

#### Highest possible quality

- · Above average length of life
- Excellent wear resistance
- Restricted length tolerances down to 1/6 of the DIN tolerance
- Significantly higher fractureresistance than the norm
- High fatigue strength
- All iwis chains are pretensioned
- Extremely efficient initial lubrication

#### Benefits to the user

- Longer maintenance intervals
- Maintenance-friendly, easy and quick to dismantle
- Fewer down times
- Benefits of parallel and synchronous running
- Extremely precise positioning
- Extremely quiet running
- Safety reserves at load peaks
- Reduced stretching during running-in

#### Application fields

- Printing presses
- Paper manufacturing and processing machines
- Copiers
- Ceramics and glass industry
- Packaging machines
- Medical technology

- Textile machines
- Machine tools
- Machines for processing plastics
- General engineering and systems construction
- Woodworking machinery
- Agricultural machinery

- Office equipment
- Building materials industry
- Construction machinery
- Conveyor technology
- Chemical engineering and process technology
- Tube and can industry

## Your perfect engineering partner



#### A scientific based company

iwis has the largest chain Research and Development department in Europe, having more than 60 development engineers soley engaged for the engineering of chain drive systems. Besides basic development and designing innovative customer solutions, the main focus of iwis Research and Development division ranges from calculations, design and testing to wear elongation and fatigue strength analysis.

- Special knowledge of noise emission analysis and vibration engineering
- Our laboratory has the capabilities to carry out many different testing possibilities including microscopy, metallography, evaluation of mechanical properties, chemical composition and qualified analysis of data
- Dynamic simulation/analysis of chain drive systems with regard to chain load, torsional vibrations and friction losses
- FEM analysis of individual chain drive parts – static and dynamic stress and strength investigations
- Evaluation of iwis and customer readings at test facilities for verification of simulation models
- Identification of thermal characterstics of chain drives while testing in the climate-testing laboratory.



Evaluation of chain breaking strength and elongation up to 1000kN



More than 15 pulser are avaibale for testing dynamic fatigue strength according to different testing methods



Testing of chain wear elongation behaviour on more than 20 testig rigs



Each customer problem is a challenge for us. Either you need a special conveyor chain or perhaps an own chain configuration, integrating chain wheels and guides in existing modules:

## **Troubleshooting**

As a system manufacturer our specialists offer you individual solutions, which go far beyond the chain focus on the entire application and answer your problem as a whole. Our research and development department stands for creativity and innovation, as well as for a cooperation hand in hand with our customers. Do not hesitate to contact us in case you have a special problem.

## **Extreme flexibility**

Offering solutions for individual customer problems as well, is our speciality and part of our company's philosophy. By conducting feasibility studies hand in hand with our customers, producing components and executing deformation and stress tests we are able to adjust existing products to individual customer requirements or to develop new chain drives. By means of vibration and stress tests of the components the physical properties of the chain are examined. We try the prototypes on test stands which expose the chain drives to extreme conditions and pressure to ensure its durability and life time. Our customers can and have to be sure that they receive a high quality product – that is our requirement.

## iwis your strong partner

The iwis group goes global. By supporting own affiliated companies in Great Britain and Switzerland as well as sites in Brazil, China, France and the USA the iwis group operates internationally. iwis products are being sold by distribution partners in more than 30 countries on all continents.

## outside Germany as well

iwis has realised the chances of the globalisation at an early stage and has established a distribution structure by a targeted positioning which guarantees a worldwide supply. Thus we do not only open up new markets but our customers can appeal to a familiar and reliable local partner with regard to their business activities abroad.

You are important to us and therefore we are happy to support you in word and deed. Let our competent specialists of our technical service team and our committed external force advise you. We would like to do calculations and chain designs for you and give you advice as far as your choice of the right chain for your applications is concerned. You can reach our Customer Service Team at any time on weekdays from 8 am to 6 pm. And by the way: We are happy to service you during the operating time of the chain as a reliable partner in all matters that arise right around the iwis chain.

Our service for our customers



## **Notice** Roller chains

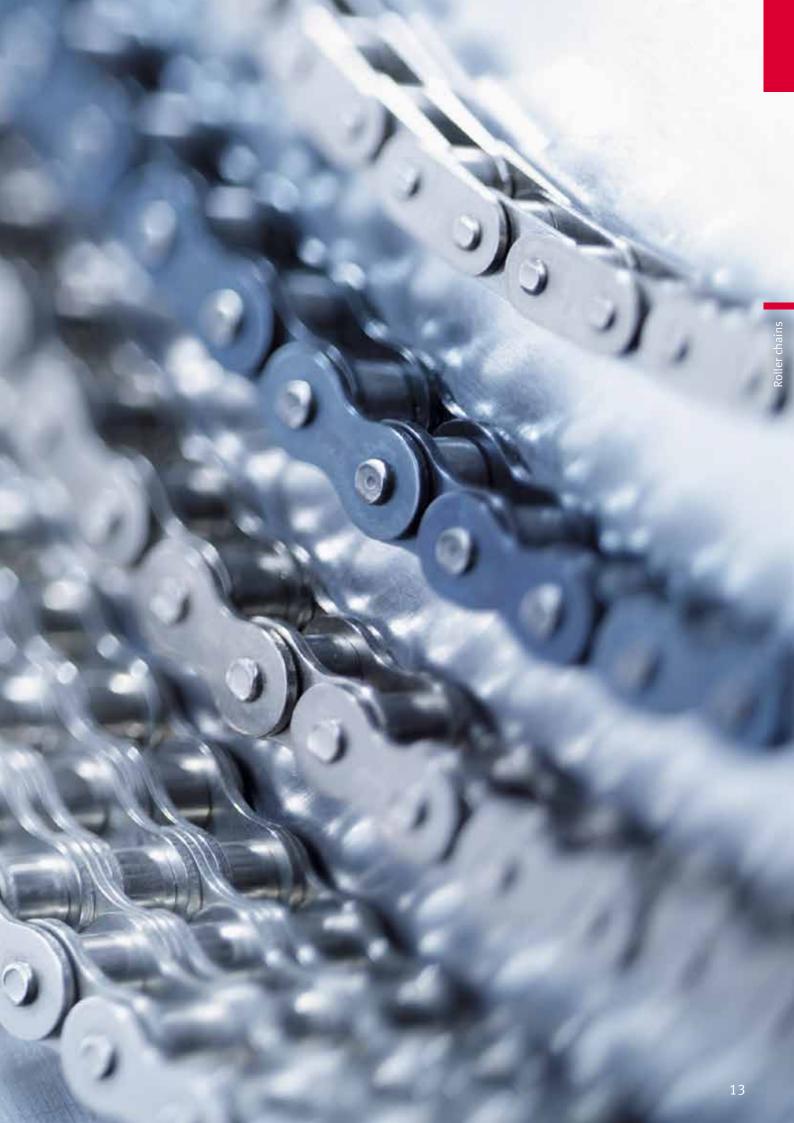
are characterised by an above-average service life due to excellent wear resistance, high consistency, matchless precision and a considerably higher breaking strength and fatigue strength than required by DIN/ISO standard. All iwis chains are pre-stretched and are provided with a highly efficient initial lubrication.

iwis SL series chains (Super Longlife) have pins with an extremely hard surface. This special design shows outstanding characteristics: Highest wear resistance, a prolonged service life, high breaking and fatigue strength, low susceptibility to deficient operational lubrication, corrosion and frictional corrosion in the chain links.









#### **TWIS** Roller chains

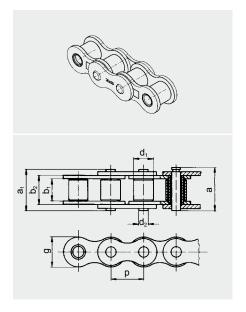
according to DIN 8187-1, ISO 606: 2004 and iwis standard

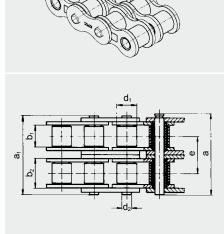
SMO	Page No. Im.	P. P	Pitch	iwis Mos	Tensile str	/	٠.	(Self) Self The Change of the	by Chr.	inim) min.	Inner linl	,	/ n .	rer link	(m) 2 (m) 2 (m) 4 (m) 4 (m) 4 (m) 4 (m) 4
Simple	ex														
04	G 42	6 x 2,8 mm	6,00	3.000	3.000	0,07	0,12	2, 3, 7, 8	2,80	4,10	5,00	6,70	7,60	4,00	1,85
05 B-1	G 52	8 mm x 1/8"	8,00	6.000	5.000	0,11	0,18	2, 3, 7, 8	3,16	4,85	7,10	8,10	9,20	5,00	2,31
-	G 53 HZ <sup>1) 3)</sup>	8 mm x 3/16"	8,00	8.500	-	0,25	0,34	2, 8	4,76	7,90	7,60	11,70	-	5,00	3,15
-	G 62 1/2 <sup>1)</sup>	3/8 x 5/32"	9,525	11.000	-	0,22	0,34	2, 3, 7, 8	3,94	6,63	8,20	11,00	12,20	6,35	3,31
06 B-1	G 67 1)	3/8 x 7/32"	9,525	10.500	9.000	0,28	0,41	2, 3, 6, 7, 8	5,72	8,53	8,20	12,90	14,10	6,35	3,31
-	P 83 V	1/2 x 3/16"	12,70	15.500	-	0,29	0,44	2, 3, 6, 7, 8	4,88	7,97	10,20	13,20	14,10	7,75	3,68
-	S 84 V	1/2 x 1/4"	12,70	18.000	_	0,38	0,58	2, 3, 6, 7, 8	6,40	9,65	12,00	15,00	16,00	7,75	3,97
08 B-1	L 85 SL*	1/2 x 5/16"	12,70	22.000	18.000	0,50	0,70	2, 3, 6, 7, 8	7,75	11,30	11,80	16,90	18,50	8,51	4,45
10 B-1	M 106 SL*	5/8 x 3/8"	15,875	27.000	22.200	0,67	0,95	2, 3, 6, 7, 8	9,65	13,28	14,40	19,50	20,90	10,16	5,08
12 B-1	M 127 SL*	3/4 x 7/16"	19,05	34.000	29.000	0,89	1,25	2, 3, 4, 6, 7, 8	11,75	15,62	16,40	22,70	23,60	12,07	5,72
16 B-1	M 1611*	1" x 17mm	25,40	75.000	60.000	2,10	2,70	2, 3, 6, 7, 8	17,02	25,45	21,10	36,10	36,90	15,88	8,28
20 B-1	M 2012	1 1/4 x 3/4"	31,75	120.000	95.000	2,92	3,72	2, 4, 6, 8	19,56	29,01	25,40	40,50	46,30	19,05	10,19
24 B-1	M 2416	1 1/2 x 1"	38,10	211.000	160.000	5,50	7,05	2, 4, 6, 8	25,40	37,92	33,50	53,10	60,00	25,40	14,63
28 B-1	M 2819	1 3/4 x 31mm	44,45	250.000	200.000	7,35	8,96	2, 4, 6, 8	30,95	46,58	37,00	63,60	69,90	27,94	15,90
32 B-1	M 3219	2" x 31mm	50,80	315.000	250.000	8,05	10,00	2, 4, 6, 8	30,95	45,57	42,30	65,10	70,10	29,21	17,81

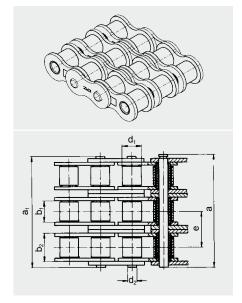
 $<sup>^{1)}</sup>$  Only with straight side plates  $^{-2)}$  Varying dimensions for cranked links  $^{-3)}$  Bush chain

The suffix SL indicates chains with particulary wear-resistant pins.

It should be noted that if cranked links are fitted, the breaking strength of the chain may be reduced by approximately 20%.







<sup>\*</sup> Easy break – chains with shouldered pins

#### **उ**₩ाड Roller chains

according to DIN 8187-1, ISO 606: 2004 and iwis standard

SIMO	Ono.	Sur. (2) 0(1) 11 (2) 11	Pilch	iwis	Tensile st		3/	Composition of the Composition o	Shings and	i (mm) min. b G	Inner li		/ _	er link	Pin max	(mm) max.
Duplex																
05 B-2	D 52	8"	8,00	9.100	7.800	0,22	0,36	2, 3, 8	3,16	4,85	7,10	13,90	15,00	5,00	2,31	5,64
06 B-2	D 67 1) *	3/8"	9,525	20.000	16.900	0,56	0,78	2, 3, 6, 7, 8	5,72	8,53	8,20	23,40	24,60	6,35	3,31	10,24
08 B-2	D 85 SL*	1/2"	12,70	40.000	32.000	1,00	1,35	2, 3, 6, 7, 8	7,75	11,30	12,20	30,80	32,40	8,51	4,45	13,92
10 B-2	D 106 SL*	5/8"	15,875	56.000	44.500	1,34	1,85	2, 3, 6, 7, 8	9,65	13,28	14,40	36,00	37,50	10,16	5,08	16,59
12 B-2	D 127*	3/4"	19,05	68.000	57.800	1,78	2,50	2, 3, 6, 7, 8	11,75	15,62	16,40	42,10	43,00	12,07	5,72	19,46
16 B-2	D 1611*	1"	25,40	150.000	106.000	4,21	5,40	2, 3, 6, 7, 8	17,02	25,45	21,10	68,00	68,80	15,88	8,28	31,88
20 B-2	D 2012	1 1/4"	31,75	210.000	170.000	5,84	7,36	2, 4, 6, 8	19,56	29,01	25,40	79,70	82,90	19,05	10,19	36,45
24 B-2	D 2416	1 1/2"	38,10	370.000	280.000	11,00	13,85	2, 4, 6, 8	25,40	37,92	33,50	101,80	106,50	25,40	14,63	48,36
28 B-2	D 2819	1 3/4"	44,45	500.000	360.000	14,70	18,80	2, 4, 6, 8	30,95	46,58	37,00	124,70	129,20	27,94	15,90	59,56
32 B-2	D 3219	2"	50,80	530.000	450.000	16,10	19,80	2, 4, 6, 8	30,95	45,57	42,30	126,00	128,30	29,21	17,81	58,55
Triplex																
08 B-3	Tr 85*	1/2"	12,70	58.000	47.500	1,50	2,00	2, 3, 7, 8	7,75	11,30	12,20	44,70	46,30	8,51	4,45	13,92
10 B-3	Tr 106*	5/8"	15,875	80.000	66.700	2,02	2,80	2, 3, 7, 8	9,65	13,28	14,40	52,50	54,00	10,16	5,08	16,59
12 B-3	Tr 127*	3/4"	19,05	100.000	86.700	2,68	3,80	2, 3, 7, 8	11,75	15,62	16,40	61,50	62,50	12,07	5,72	19,46
16 B-3	Tr 1611*	1"	25,40	220.000	160.000	6,32	8,00	2, 3, 6, 7, 8	17,02	25,45	21,10	99,20	100,70	15,88	8,28	31,88
20 B-3	Tr 2012	1 1/4"	31,75	315.000	250.000	8,76	11,00	2, 4, 6, 8	19,56	29,01	25,40	116,10	119,40	19,05	10,19	36,45
24 B-3	Tr 2416	1 1/2"	38,10	560.000	425.000	16,50	20,31	2, 4, 6, 8	25,40	37,92	33,50	150,20	155,40	25,40	14,63	48,36
28 B-3	Tr 2819	1 3/4"	44,45	750.000	530.000	22,05	28,00	2, 4, 6, 8	30,95	46,58	37,00	184,60	188,90	27,94	15,90	59,56
32 B-3	Tr 3219	2"	50,80	795.000	670.000	24,15	29,60	2, 4, 6, 8	30,95	45,57	42,30	184,50	186,50	29,21	17,81	58,55

<sup>1)</sup> Straight side plate 2) Varying dimensions for cranked links

The suffix SL indicates chains with particulary wear-resistant pins.

It should be noted that if cranked links are fitted, the breaking strength of the chain may be reduced by approximately 20%.

#### **CHAIN COMPONENTS AND CONNECTING LINKS**



Nr. 2 Inner links Standard designation B



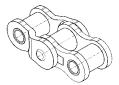
Nr. 3 Connecting link with spring clip Standard designation E



Nr. 4 Connecting link with split pin fasting Standard designation S



Nr. 6 Single cranked link with split pin fastening Standard designation L



Nr. 7 Double cranked links Standard designation C



Nr. 8 Outer link Standard designation A

#### **उ**₩ाड Roller chains

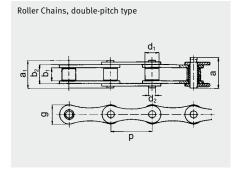
according to DIN 8188-1, American standard, ISO 606: 2004

05/Ma	Ref no. im.	AMS/A	, or	110h 0(2)	iwis M	Tensile st	/	ь/	(Ref. perm Chair Consecon Nos ectine, per	b f.	' (mm) min. 6 .	Inner li		/ 2	uter link	/	(mm) max.
Simplex	(																
08 A-1	L 85 A	ANSI 40	1/2"	12,70	18.000	14.100	0,44	0,60	2, 3, 6, 7, 8	7,94	11,15	12,00	16,60	17,50	7,95	3,96	-
10 A-1	M 106 A	ANSI 50	5/8"	15,875	29.000	21.800	0,70	1,00	2, 3, 6, 7, 8	9,53	13,84	14,40	20,40	21,70	10,16	5,08	-
12 A-1	M 128 A SL 1)	ANSI 60	3/4"	19,05	42.000	31.800	1,06	1,47	2, 3, 4, 6, 7, 8	12,70	17,75	18,00	25,30	26,70	11,91	5,96	_
16 A-1	M 1610 A	ANSI 80	1"	25,40	68.000	56.700	1,79	2,57	2, 3, 4, 6, 7, 8	15,88	22,60	22,80	32,10	34,00	15,88	7,92	-
Duplex																	
08 A-2	D 85 A	ANSI 40-2	1/2"	12,70	36.000	28.200	0,88	1,19	2, 3, 4, 6, 7, 8	7,94	11,15	12,00	31,00	31,90	7,95	3,96	14,38
10 A-2	D 106 A	ANSI 50-2	5/8"	15,875	56.000	44.400	1,40	1,92	2, 3, 6, 7, 8	9,53	13,84	14,40	38,60	39,90	10,16	5,08	18,11
12 A-2	D 128 A 1)	ANSI 60-2	3/4"	19,05	84.000	63.600	2,12	2,90	2, 3, 4, 6, 7, 8	12,70	17,75	18,00	48,10	49,50	11,91	5,96	22,78
16 A-2	D 1610 A	ANSI 80-2	1"	25,40	145.000	113.400	3,58	5,01	2, 3, 4, 6, 7, 8	15,88	22,60	22,80	61,40	63,30	15,88	7,92	29,29
Triplex																	
08 A-3	Tr 85 A	ANSI 40-3	1/2"	12,70	50.000	42.300	1,32	1,78	2, 3, 6, 7, 8	7,94	11,15	12,00	45,40	46,30	7,95	3,96	14,38
10 A-3	Tr 106 A	ANSI 50-3	5/8"	15,875	80.000	66.600	2,10	2,89	2, 3, 6, 7, 8	9,53	13,84	14,40	56,70	58,00	10,16	5,08	18,11
12 A-3	Tr 128 A	ANSI 60-3	3/4"	19,05	125.000	95.400	3,18	4,28	2, 3, 4, 6, 7, 8	12,70	17,75	18,00	71,00	72,30	11,91	5,96	22,78
16 A-3	Tr 1610 A	ANSI 80-3	1"	25,40	210.000	170.100	5,37	7,47	2, 3, 4, 6, 7, 8	15,88	22,60	22,80	90,70	92,70	15,88	7,92	29,29

#### ত্র্পার<sup>®</sup> Roller chains, double-pitch type

according to DIN 8181 and ISO 1275:1995

208 B	LR 165 SL	-	1"	25,40	22.000	18.000	0,50	0,52	2, 4, 6, 8	7,75	11,30	11,80	16,90	18,60	8,51	4,45	-
210 B	LR 206 SL	-	1 1/4"	31,75	28.000	22.400	0,67	0,63	2, 4, 6, 8	9,65	13,28	15,10	19,50	20,80	10,16	5,08	-
212 B	LR 247 SL	-	1 1/2"	38,10	34.000	29.000	0,89	0,85	2, 4, 6, 8	11,75	15,62	16,10	22,70	24,10	12,07	5,72	-
216 B	LR 3211	-	2"	50,80	75.000	60.000	1,77	2,10	2, 4, 6, 8	17,02	25,45	20,60	36,10	38,10	15,88	8,28	-



 $<sup>^{\</sup>mbox{\tiny 1)}}$  Also available with straight side plates  $^{\mbox{\tiny 2)}}$  Varying dimensions for cranked links

It should be noted that if cranked links are fitted, the breaking strength of the chain may be reduced by approximately 20%.

The suffix SL indicates chains with particulary wear-resistant pins.

#### **TWIS** High performance chains

Quality products with a world reputation

#### HIGH QUALITY IS BASED ON EACH INDIVIDUAL PART BEING TECHNICALLY PERFECT

- Use of high-grade heat-treatable steels which are made exclusively for iwis to their material analysis, tolerance and surface quality.
- Each chain part is manufactured a million times daily to the same precision.
   This production is monitored by SPC (statistical process control).
- All chain parts are heat-treated, using special processes to optimize quality features.
- Constant geometry and high surface quality result from the use of modern production technologies.
- Chains are checked for dimensional accuracy: length tolerance, freedom of articulation and assembly component integrity, inspection of the press-in seating of the pin outer links and bush-inner link interfaces.
- The high standard of quality assurance conforms with the high requirements of ISO 9001: 2006.

- For special applications
  - Surface coatings
  - Special lubrications
  - Reduced length toleranced chains
  - Special materials (e.g. corrosion resistant)

