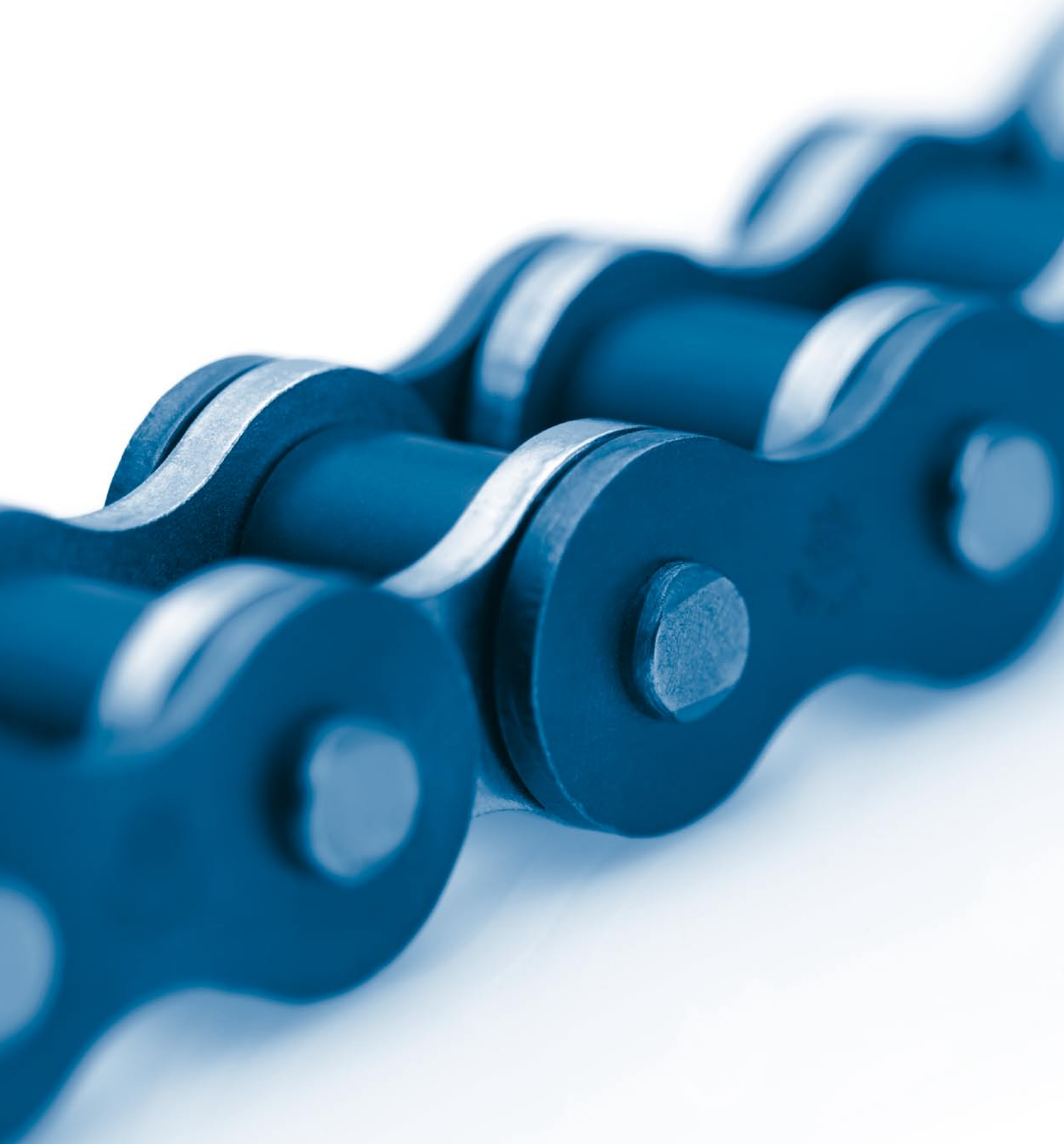


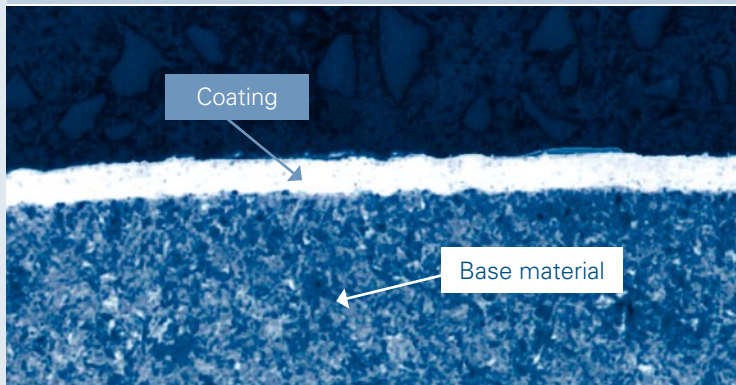


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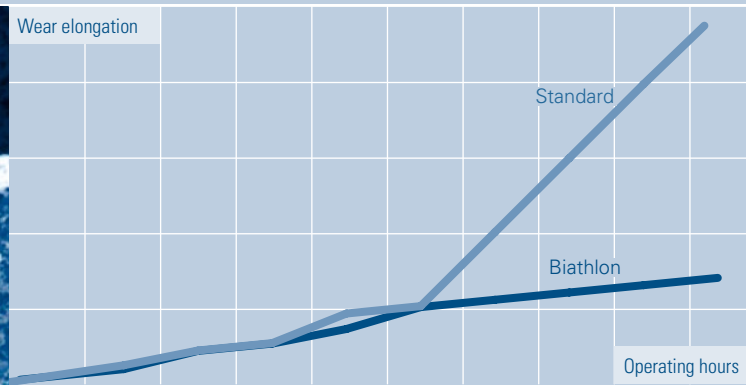


BIATHLON

**HIGH-PERFORMANCE ROLLER CHAIN
WITH SPECIAL WEAR PROTECTION**



Cross-section polish of coated chain pin



Wear diagram

WEAR PROTECTION FOR MORE EFFICIENCY

Special coatings increase wear life – even with little maintenance.

Range of application

The high-performance chain Biathlon shows its advantages wherever the use of standard roller chains is not economical due to difficult maintenance conditions.

The special coating of chain pins and rollers allows for excellent dry-running operation characteristics and thus makes this chain particularly resistant against phases without sufficient relubrication. The extended wear life increases the availability of machines and equipment.

The Biathlon chain can also be supplied in a corrosion-protected design.

Coating

The special surface coating of the Biathlon chain guarantees a high resistance against abrasive and adhesive wear even in case of poor lubrication. Thus fretting will be avoided to a large extent. Due to special finishing treatment procedures the surface has an optimal ductility despite its hardness.

The coating process features a reproducible layer thickness as well as an extraordinary outline constancy and an even layer thickness on the chain components.

Special technical features:

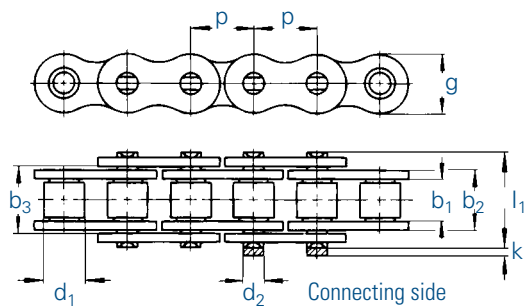
- Coated chain pins
- Coated rollers
- Special long-term lubricants

Advantages in application:

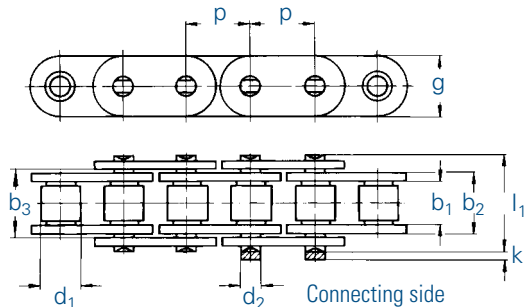
- Particularly efficient
- Dry-running operation characteristics in case of deficient lubrication
- Corrosion-protection on request



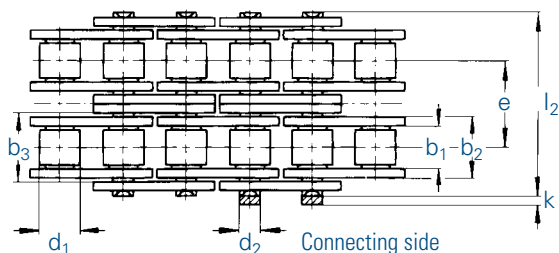
Simplex chains



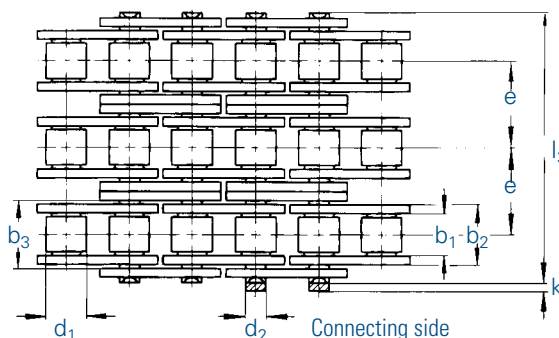
Simplex chains (type series GL)



Duplex chains



Triplex chains

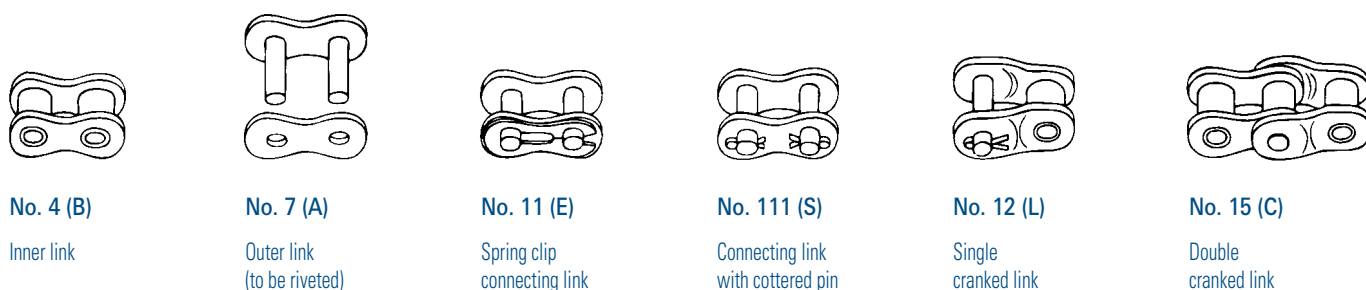


Chain according to DIN / ISO	Pitch		Inner width	Inner link width	Outer plate width	Roller Ø	Pin Ø	Transverse pitch	Plate height	Projection over connecting link	Width over pin	Bearing area	Breaking load	Weight	Connecting links
	p		b ₁ min.	b ₂ max.	b ₃ min.	d ₁ max.	d ₂ max.	e	g max.	k max.	l max.	f	F _B min.	q ≈	No.
No.	mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kN	kg/m	No.
08 B-1 BI	12,7	1/2	7,75	11,30	11,43	8,51	4,45	-	11,8	3,9	17,0	0,50	18,6	0,70	11,12,15
10 B-1 BI	15,875	5/8	9,65	13,28	13,41	10,16	5,08	-	14,7	4,1	19,6	0,67	27,0	0,91	11,12,15
12 B-1 BI	19,05	3/4	11,68	15,62	15,75	12,07	5,72	-	16,1	4,6	22,7	0,89	31,0	1,18	11,12,15
16 B-1 BI	25,4	1	17,02	25,40	25,60	15,88	8,28	-	21,0	5,4	36,1	2,10	72,0	2,68	11,111,12
20 B-1 BI	31,75	1 1/4	19,56	29,00	29,20	19,05	10,19	-	26,4	6,1	43,2	2,96	105,0	3,50	111,12
24 B-1 BI	38,1	1 1/2	25,40	37,90	38,20	25,40	14,63	-	33,4	6,6	53,4	5,54	180,0	6,80	111,12
08 B-2 BI	12,7	1/2	7,75	11,30	11,43	8,51	4,45	13,92	11,8	3,9	31,0	1,01	37,0	1,36	11,12,15
10 B-2 BI	15,875	5/8	9,65	13,28	13,41	10,16	5,08	16,59	14,7	4,1	36,2	1,34	54,0	1,82	11,12,15
12 B-2 BI	19,05	3/4	11,68	15,62	15,75	12,07	5,72	19,46	16,1	4,6	42,2	1,79	63,0	2,38	11,12,15
16 B-2 BI	25,4	1	17,02	25,40	25,60	15,88	8,28	31,88	21,0	5,4	68,0	4,21	140,0	5,30	11,111,12
20 B-2 BI	31,75	1 1/4	19,56	29,00	29,20	19,05	10,19	36,45	26,4	6,1	79,0	5,91	210,0	7,30	111,12
24 B-2 BI	38,1	1 1/2	25,40	37,90	38,20	25,40	14,63	48,36	33,4	6,6	101,0	11,09	360,0	13,40	111,12
08 B-3 BI	12,7	1/2	7,75	11,30	11,43	8,51	4,45	13,92	11,8	3,9	44,9	1,51	56,0	2,01	11,12,15
10 B-3 BI	15,875	5/8	9,65	13,28	13,41	10,16	5,08	16,59	14,7	4,1	52,8	2,02	80,0	2,70	11,12,15
12 B-3 BI	19,05	3/4	11,68	15,62	15,75	12,07	5,72	19,46	16,1	4,6	61,7	2,68	94,0	3,12	11,12,15
16 B-3 BI	25,4	1	17,02	25,40	25,60	15,88	8,28	31,88	21,0	5,4	99,9	6,31	211,0	7,50	11,111,12
20 B-3 BI	31,75	1 1/4	19,56	29,00	29,20	19,05	10,19	36,45	26,4	6,1	116,0	8,87	300,0	10,60	111,12
24 B-3 BI	38,1	1 1/2	25,40	37,90	38,20	25,40	14,63	48,36	33,4	6,6	150,0	16,63	523,0	20,00	111,12

Can also be supplied with attachments and straight plates (type series GL).
 Chains 16-B available with plate height g=21 mm (max.) and as type series GL with g=24 mm (max.).

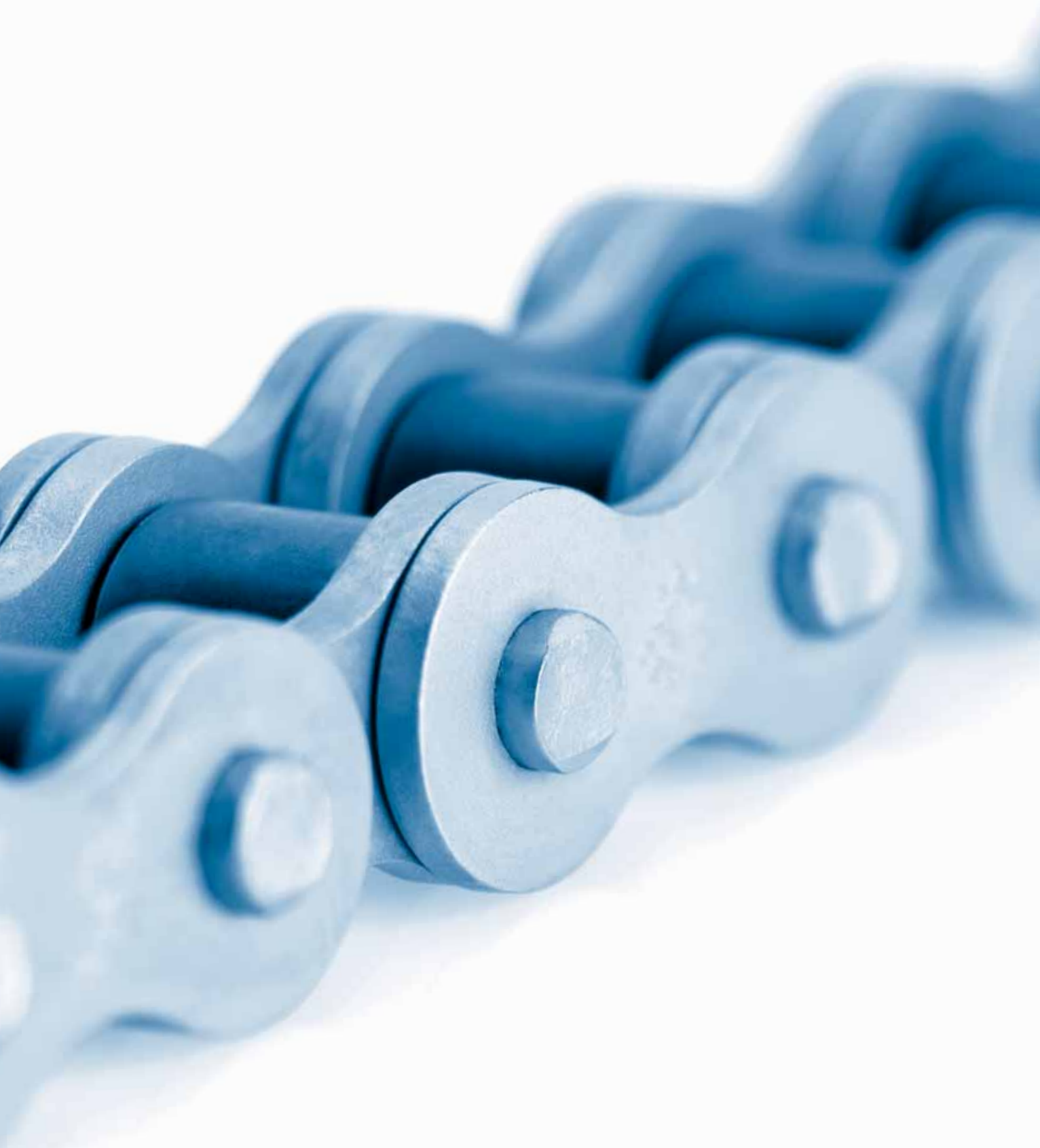
Standard sprockets can be used for these chains.

Connecting links: According to DIN (...)





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BIATHLON KS

**SPECIAL WEAR PROTECTION COMBINED
WITH EXCELLENT CORROSION PROTECTION**



HIGHEST CORROSION RESISTANCE IN ITS CLASS

Application areas

In a number of industrial sectors, e.g. in the food processing or in the packing industry, humid ambient conditions frequently impede relubrication of the chains. The annoying consequence is considerable chain wear resulting in too short change intervals and thus in unnecessarily high maintenance costs. In this case the combination of low maintenance requirements and high corrosion resistance with carbon steel chains makes double sense.

Proven quality

The KS type Biathlon high performance chain has the highest corrosion resistance in its class. On the basis of the standard Biathlon chain with its already excellent wear protection, environmentally-friendly corrosion protection material of the highest quality is additionally applied when manufacturing the KS type Biathlon chain. In salt spray tests the Biathlon KS proved to be corrosion resistant for a period of more than 1000 hours. Under the same test conditions comparisons showed significant corrosion on competing chains after approx. 200 hours.

This long-life cycle has been achieved by combining different surface technologies that do not interact negatively with each other.

Technical characteristics of the BIATHLON KS chain:

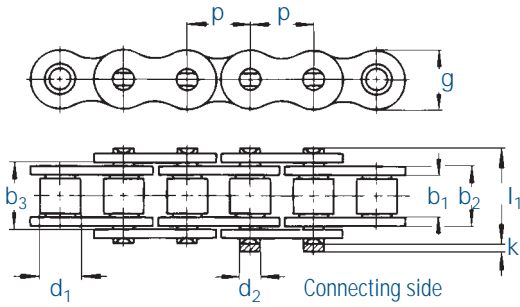
- coated chain pins and bushings
- coated rollers
- coated plates
- special long-term lubricants

Advantages in application:

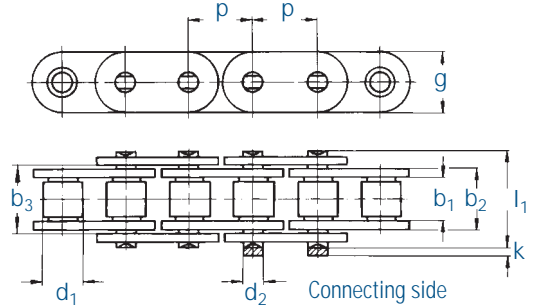
- particularly efficient
- dry-running operation characteristics in case of deficient lubrication
- high-tech corrosion protection
- RoHS compliance due to non-use of hexavalent chromium



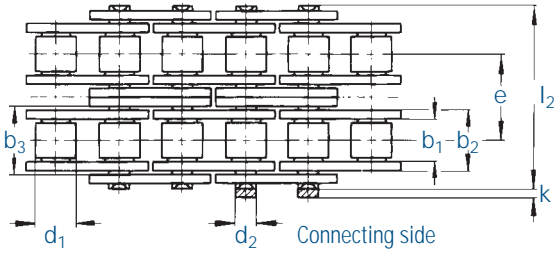
Simplex chains



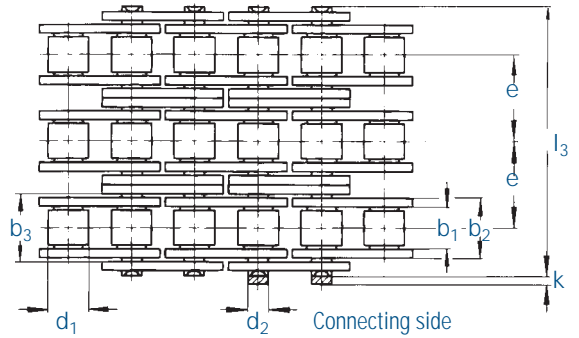
Simplex chains (type series GL)



Duplex chains



Triplex chains



Chain according to DIN / ISO		Pitch		Inner width	Inner link width	Outer plate width	Roller Ø	Pin Ø	Transverse pitch	Plate height	Projection over connecting link	Width over pin	Bearing area	Breaking load	Weight	Connecting links
⚙		p		b ₁ min.	b ₂ max.	b ₃ min.	d ₁ max.	d ₂ max.	e	g max.	k max.	l max.	f	F _B min.	q ≈	
Nr.	Ind.	mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kN	kg/m	Nr.
08 B-1 BI KS		12,7	1/2	7,75	11,30	11,43	8,51	4,45	-	11,8	3,9	17,0	0,50	18,6	0,70	11,12,15
10 B-1 BI KS		15,875	5/8	9,65	13,28	13,41	10,16	5,08	-	14,7	4,1	19,6	0,67	27,0	0,91	11,12,15
12 B-1 BI KS		19,05	3/4	11,68	15,62	15,75	12,07	5,72	-	16,1	4,6	22,7	0,89	31,0	1,18	11,12,15
16 B-1 BI KS		25,4	1	17,02	25,40	25,60	15,88	8,28	-	21,0	5,4	36,1	2,10	72,0	2,68	11,11,12
20 B-1 BI KS		31,75	1 1/4	19,56	29,00	29,20	19,05	10,19	-	26,4	6,1	43,2	2,96	105,0	3,50	111,12
24 B-1 BI KS		38,1	1 1/2	25,40	37,90	38,20	25,40	14,63	-	33,4	6,6	53,4	5,54	180,0	6,80	111,12
08 B-2 BI KS		12,7	1/2	7,75	11,30	11,43	8,51	4,45	13,92	11,8	3,9	31,0	1,01	37,0	1,36	11,12,15
10 B-2 BI KS		15,875	5/8	9,65	13,28	13,41	10,16	5,08	16,59	14,7	4,1	36,2	1,34	54,0	1,82	11,12,15
12 B-2 BI KS		19,05	3/4	11,68	15,62	15,75	12,07	5,72	19,46	16,1	4,6	42,2	1,79	63,0	2,38	11,12,15
16 B-2 BI KS		25,4	1	17,02	25,40	25,60	15,88	8,28	31,88	21,0	5,4	68,0	4,21	140,0	5,30	11,11,12
20 B-2 BI KS		31,75	1 1/4	19,56	25,40	29,20	19,05	10,19	36,45	26,4	6,1	79,0	5,91	210,0	7,30	111,12
24 B-2 BI KS		38,1	1 1/2	25,40	37,90	38,20	25,40	14,63	48,36	33,4	6,6	101,0	11,09	360,0	13,40	111,12
08 B-3 BI KS		12,7	1/2	7,75	11,30	11,43	8,51	4,45	13,92	11,8	3,9	44,9	1,51	56,0	2,01	11,12,15
10 B-3 BI KS		15,875	5/8	9,65	13,28	13,41	10,16	5,08	16,59	14,7	4,1	52,8	2,02	80,0	2,70	11,12,15
12 B-3 BI KS		19,05	3/4	11,68	15,62	15,75	12,07	5,72	19,46	16,1	4,6	61,7	2,68	94,0	3,12	11,12,15
16 B-3 BI KS		25,4	1	17,02	25,40	25,60	15,88	8,28	31,88	21,0	5,4	99,9	6,31	211,0	7,50	11,11,12
20 B-3 BI KS		31,75	1 1/4	19,56	29,00	29,20	19,05	10,19	36,45	26,4	6,1	116,0	8,87	300,0	10,60	111,12
24 B-3 BI KS		38,1	1 1/2	25,40	37,90	38,20	25,40	14,63	48,36	33,4	6,6	150,0	16,63	523,0	20,00	111,12

Can also be supplied with attachments and straight plates (type series GL).

Chains 16-B GLS available with plate height g = 21 mm (max.) and as type series GL with g = 24 mm (max.).

Standard sprockets can be used for these chains.

Connecting links: According to DIN (...)



No. 4 (B)

Inner link



No. 7 (A)

Outer link
(to be riveted)



No. 11 (E)

Spring clip
connecting link



No. 111 (S)

Connecting link
with cotttered pin



No. 12 (L)

Single
cranked link



No. 15 (C)

Double
cranked link

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