



MARATHON

Long distance chain that needs no relubrication

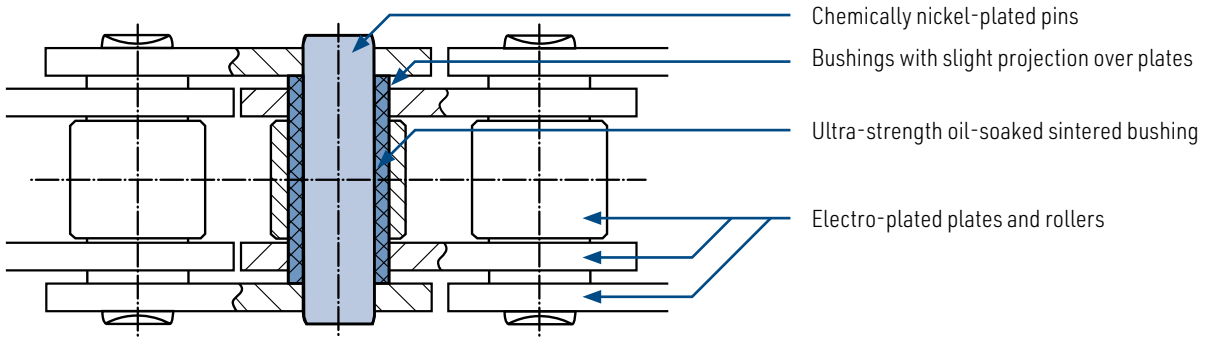
Apart from availability, operational safety and reliability, the fact that components are maintenance-free is getting more and more important in machine and plant construction. The use of MARATHON chains always makes sense where relubrication of roller chains is either not possible or not desired, but where, nevertheless, a long life cycle is required.

Technical features

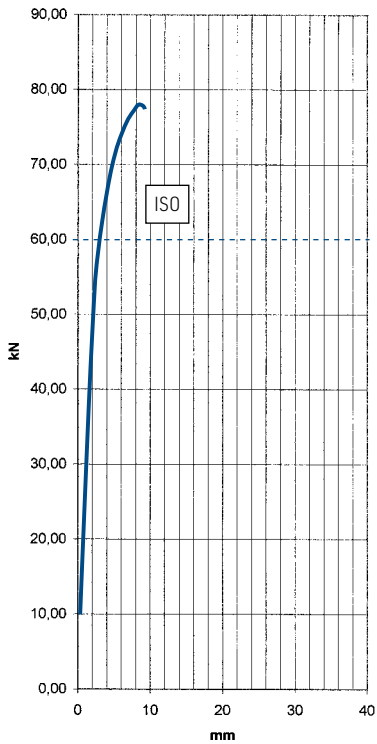
- Up to 35 times longer wear life in comparison with other standard roller chains without lubrication
- Up to 5 times longer wear life than other maintenance-free chains
- No relubrication required
- Clean application with no soiling of machinery and transported goods
- Joint bushings made with a new type of sintered metal with high strength treated with a special lubricant
- High-performance bearing joints
- Bushings longer than the width of the chain link with sliding contact to the outer plate
- The pins forming the joints with these bushings are made of alloyed hardened steel and are treated with a special coating. The resulting high-wearing coat guarantees an excellent sliding performance.
- Same tensile strength as with WIPPERMANN standard chains
- All MARATHON chains fit standard sprockets

Application areas

- Temperatures from 0°C to +100°C
- With special lubrication from -30°C to +250°C (after consultation)
- Speeds of up to $v = 150$ m/min.
- Electrical industry
- Production of printed circuit boards (PCBs)
- Television industry
- Packing industry
- Paper processing
- Printing industry
- Bookbinding industry
- Textile industry
- Automotive industry
- All systems where relubrication is either not wanted, problematic or not possible at all.

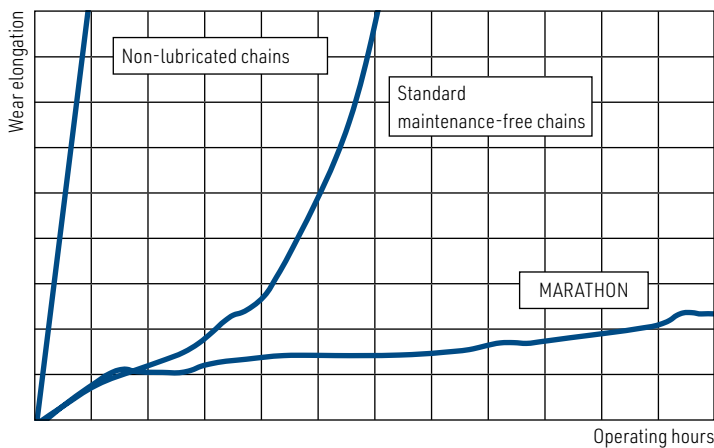


Force projection diagram



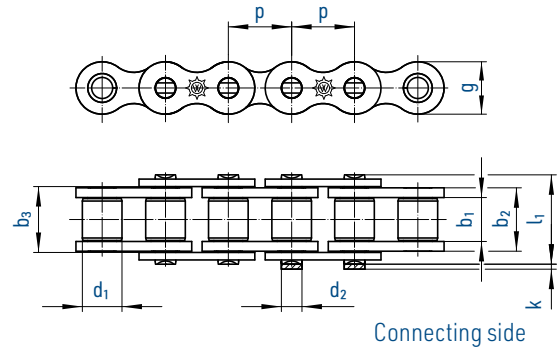
Type of test: Tensile test
Object: 548 MARATHON chain
Test length: 5 links
Breaking load: 78,000 N
Breaking point: Pins

Results of long-term wear tests

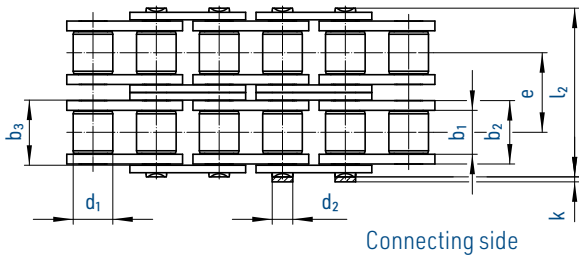




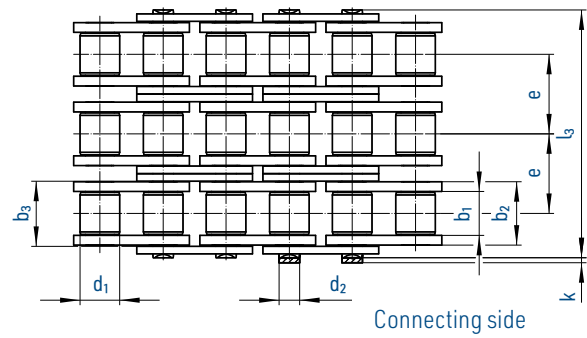
Simplex chains



Duplex chains



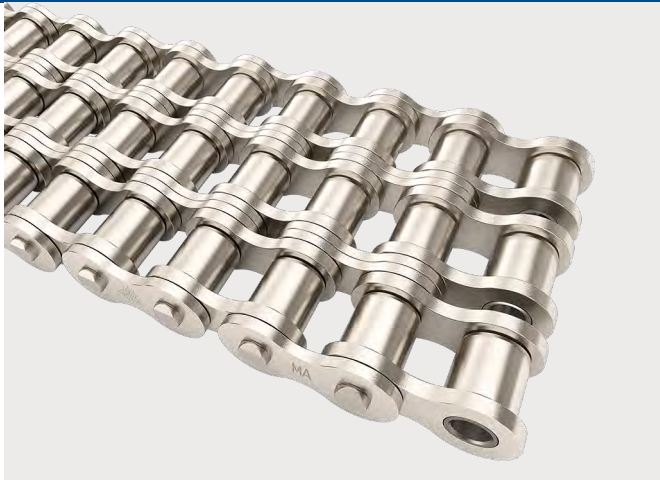
Triplex chains



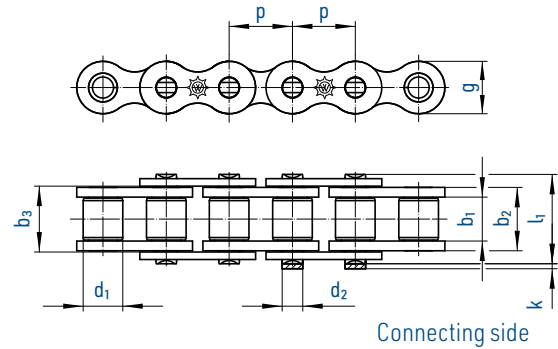
Chain according to ISO 606		Pitch		Inner width	Inner link width	Outer plate width	Roller Ø	Pin Ø	Transverse pitch	Plate height	Projection over connecting link	Width over pin	Bearing area	Breaking load	Weight	Connecting links
⚙️		p		b ₁ min.	b ₂ max.	b ₃ min.	d ₁ max.	d ₂ max.	e	g max.	k max.	l max.	f	F _B min.	q ≈	No.
No.	Ind.	mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kN	kg/m	No.
06 B-1 MA	¹	9,525	3/8	5,72	8,53	8,66	6,35	3,28	-	8,2	3,3	13,5	0,28	9,6	0,41	11,12,15
08 B-1 MA		12,700	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 MA		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 MA		19,050	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 MA		25,400	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
552 MA		30,000	-	17,02	25,40	25,60	15,88	8,28	-	21,0	5,4	36,1	2,10	72,0	2,50	11,111,12
20 B-1 MA		31,750	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	11,111,12
24 B-1 MA		38,100	1 1/2	25,40	37,90	38,10	25,40	14,63	-	33,4	6,6	53,4	5,54	180,0	6,80	111,12
06 B-2 MA	¹	9,525	3/8	5,72	8,53	8,66	6,35	3,28	10,24	8,2	3,3	23,8	0,56	17,4	0,86	11,12,15
08 B-2 MA		12,700	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 MA		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 MA		19,050	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 MA		25,400	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 MA		31,750	1 1/4	19,56	25,40	29,20	19,05	10,19	36,45	26,4	6,1	79,7	5,91	210,0	7,30	111,12
24 B-2 MA		38,100	1 1/2	25,40	37,90	38,10	25,40	14,63	48,36	33,4	6,6	101,8	11,09	360,0	13,40	111,12
06 B-3 MA	¹	9,525	3/8	5,72	8,53	8,66	6,35	3,28	10,24	8,2	3,3	34,0	0,81	24,9	1,30	11,12,15
08 B-3 MA		12,700	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 MA		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 MA		19,050	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 MA		25,400	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 MA		31,750	1 1/4	19,56	29,00	29,20	19,05	10,19	36,45	26,4	6,1	116,1	8,87	300,0	10,60	111,12
24 B-3 MA		38,100	1 1/2	25,40	37,90	38,10	25,40	14,63	48,36	33,4	6,6	150,2	16,63	523,0	20,00	111,12

¹ with straight side plates

Standard sprockets can be used for these chains.

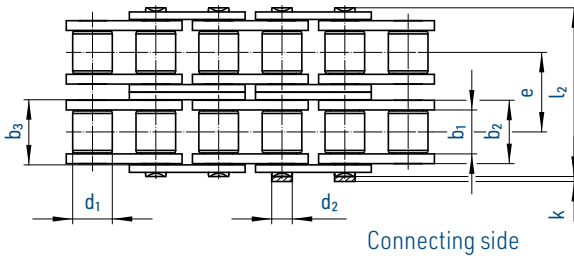


Simplex chains



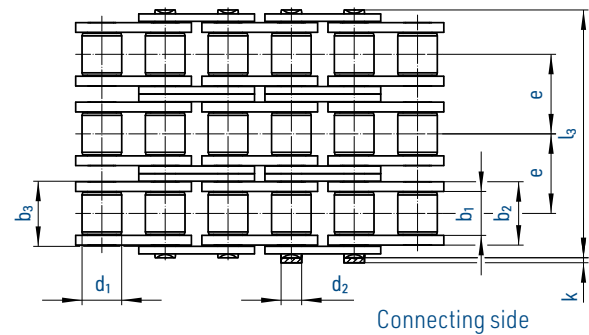
Connecting side

Duplex chains



Connecting side

Triplex chains



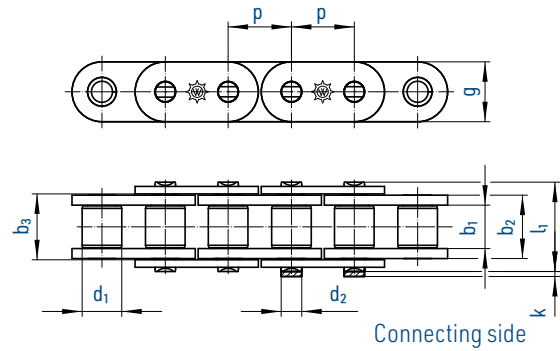
Connecting side

Chain according to ISO 606		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.	Ind.	mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kN	kg/m	No.
08 A-1 MA		12,700	1/2	7,85	11,17	11,23	7,92	3,98	-	12,0	3,9	17,8	0,44	16,5	0,60	11,12,15
10 A-1 MA		15,875	5/8	9,40	13,84	13,90	10,16	5,09	-	15,1	4,1	21,8	0,70	30,0	1,01	11,12,15
12 A-1 MA		19,050	3/4	12,57	17,75	17,81	11,91	5,96	-	18,1	4,6	26,9	1,05	40,0	1,58	11,111,12,15
16 A-1 MA		25,400	1	15,75	22,60	22,66	15,88	7,94	-	24,1	5,4	33,5	1,78	69,0	2,36	11,111,12,15
20 A-1 MA		31,750	1 1/4	18,90	27,45	27,51	19,05	9,54	-	30,2	6,1	41,1	2,61	92,5	3,80	111,12
08 A-2 MA		12,700	1/2	7,85	11,17	11,23	7,92	3,98	14,38	12,0	3,9	32,3	0,88	29,7	1,20	11,12,15
10 A-2 MA		15,875	5/8	9,40	13,84	13,90	10,16	5,09	18,11	15,1	4,1	39,9	1,40	62,0	1,78	11,12,15
12 A-2 MA		19,050	3/4	12,57	17,75	17,81	11,91	5,96	22,78	18,1	4,6	49,8	2,10	76,0	3,15	11,111,12,15
16 A-2 MA		25,400	1	15,75	22,60	23,66	15,88	7,94	29,29	24,1	5,4	62,7	3,56	135,0	4,90	11,111,12,15
20 A-2 MA		31,750	1 1/4	18,90	27,45	27,51	19,05	9,54	35,76	30,2	6,1	77,0	5,22	205,0	7,60	111,12
08 A-3 MA		12,700	1/2	7,85	11,17	11,23	7,92	3,98	14,38	12,0	3,9	46,7	1,32	41,2	1,80	11,12,15
10 A-3 MA		15,875	5/8	9,40	13,84	13,90	10,16	5,09	18,11	15,1	4,1	57,9	2,10	88,0	3,02	11,12,15
12 A-3 MA		19,050	3/4	12,57	17,75	17,81	11,91	5,96	22,78	18,1	4,6	72,6	3,15	105,0	4,70	11,111,12,15
16 A-3 MA		25,400	1	15,75	22,60	22,66	15,88	7,94	29,29	24,1	5,4	91,9	5,35	193,0	7,50	11,111,12,15
20 A-3 MA		31,750	1 1/4	18,90	27,45	27,51	19,05	9,54	35,76	30,2	6,1	113,0	7,83	305,0	11,20	111,12

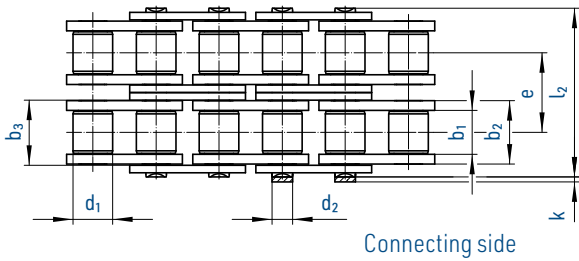
Sprockets on request.



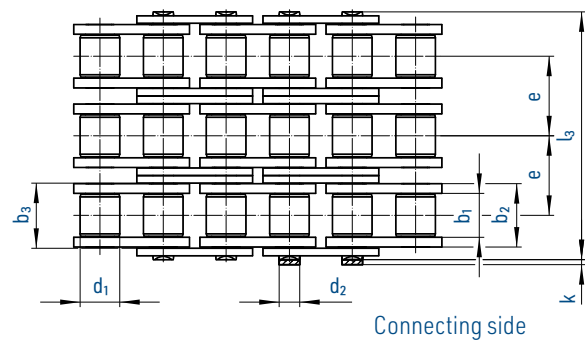
Simplex chains



Duplex chains



Triplex chains



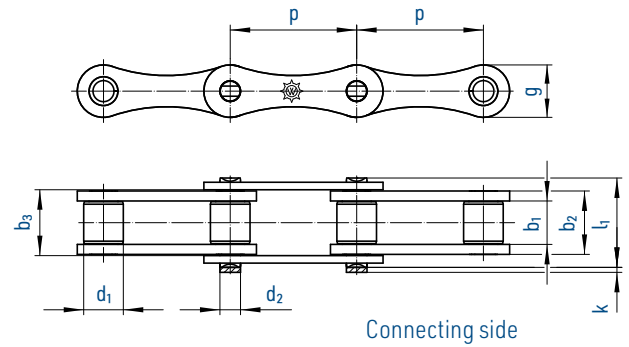
Chain according to ISO 606		Pitch		Inner width	Inner link width	Outer plate width	Roller Ø	Pin Ø	Transverse pitch	Plate height	Projection over connecting link	Width over pin	Bearing area	Breaking load	Weight	Connecting links
No.		Ind.	p	b ₁ min.	b ₂ max.	b ₃ min.	d ₁ max.	d ₂ max.	e	g max.	k max.	l max.	f	F _B min.	q ≈	No.
455 GL MA			9,525 3/8	5,72	8,53	8,66	6,35	3,28	-	8,2	3,3	13,5	0,28	9,6	0,41	4,7,11,12,15
462 GL MA			12,700 1/2	7,75	11,30	11,43	8,51	4,45	-	11,5	3,9	17,0	0,50	18,6	0,78	4,7,11,12
501 GL MA			15,875 5/8	9,65	13,28	13,41	10,16	5,08	-	14,2	4,1	19,6	0,67	27,0	1,03	4,7,11
513 GL MA			19,050 3/4	11,68	15,62	15,75	12,07	5,72	-	15,5	4,6	22,7	0,89	31,0	1,29	4,7,11,12
548 GL MA			25,400 1	17,02	25,40	25,60	15,88	8,28	-	24,0	5,4	36,1	2,10	72,0	3,29	4,7,11
548 GLS MA			25,400 1	17,02	25,40	25,60	15,88	8,28	-	21,0	5,4	36,1	2,10	72,0	2,90	4,7,11,12
563 GL MA			31,750 1 1/4	19,56	29,00	29,20	19,05	10,19	-	26,4	6,1	43,2	2,95	105,0	4,13	4,7,11,12
596 GL MA			38,100 1 1/2	25,40	37,90	38,10	25,40	14,63	-	33,4	6,6	53,4	5,54	180,0	7,34	4,7,11,12
455 GL-2 MA			9,525 3/8	5,72	8,53	8,66	6,35	3,28	10,24	8,2	3,3	23,8	0,56	17,4	0,86	4,7,11,12,15
462 GL-2 MA			12,700 1/2	7,75	11,30	11,43	8,51	4,45	13,92	11,5	3,9	31,0	1,01	37,0	1,50	4,7,11,12
501 GL-2 MA			15,875 5/8	9,65	13,28	13,41	10,16	5,08	16,59	14,2	4,1	36,2	1,34	54,0	2,00	4,7,11
513 GL-2 MA			19,050 3/4	11,68	15,62	15,75	12,07	5,72	19,46	15,5	4,6	42,2	1,79	63,0	2,62	4,7,11,12
548 GL-2 MA			25,400 1	17,02	25,40	25,60	15,88	8,28	31,88	24,0	5,4	68,0	4,21	140,0	5,83	4,7,11
563 GL-2 MA			31,750 1 1/4	19,56	29,00	29,20	19,05	10,19	36,45	26,4	6,1	79,7	5,81	210,0	8,03	4,7,11,12
596 GL-2 MA			38,100 1 1/2	25,40	37,92	38,10	25,40	14,63	48,36	33,4	6,6	101,8	11,09	360,0	14,47	4,7,11,12
455 GL-3 MA			9,525 3/8	5,72	8,53	8,66	6,35	3,28	10,24	8,2	3,3	34,0	0,81	24,9	1,30	4,7,11,12,15
462 GL-3 MA			12,700 1/2	7,75	11,30	11,43	8,51	4,45	13,92	11,5	3,9	44,9	1,51	56,0	2,21	4,7,11,12
501 GL-3 MA			15,875 5/8	9,65	13,28	13,41	10,16	5,08	16,59	14,2	4,1	52,8	2,02	80,0	2,97	4,7,11
513 GL-3 MA			19,050 3/4	11,68	15,62	15,75	12,07	5,72	19,46	15,5	4,6	61,7	2,68	94,0	3,43	4,7,11,12
548 GL-3 MA			25,400 1	17,02	25,40	25,60	15,88	8,28	31,88	24,0	5,4	99,9	6,31	211,0	8,25	4,7,11
563 GL-3 MA			31,750 1 1/4	19,56	29,00	29,20	19,05	10,19	36,45	26,4	6,1	116,1	8,87	300,0	11,66	4,7,11,12
596 GL-3 MA			38,100 1 1/2	25,40	37,90	38,10	25,40	14,63	48,36	33,4	6,6	150,2	16,63	523,0	22,00	4,7,11,12

Can also be supplied with attachments.

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.

Sprockets on request.



Chain according to ISO 1275		Pitch		Inner width	Inner link width	Outer plate width	Roller Ø	Pin Ø	Plate height	Projection over connecting link	Width over pin	Bearing area	Breaking load	Weight
⚙️		p		b ₁ min.	b ₂ max.	b ₃ min.	d ₁ max.	d ₂ max.	g max.	k max.	l ₁ max.	f	F _B min.	q ≈
No.	Ind.	mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kN	kg/m
208 B MA		25,40	1	7,75	11,30	11,43	8,51	4,45	11,8	3,9	17,0	0,50	18,0	0,48
210 B MA		31,75	1 ¼	9,65	13,28	13,41	10,16	5,08	14,7	4,1	19,6	0,67	22,4	0,55
212 B MA		38,10	1 ½	11,68	15,62	15,75	12,07	5,72	16,1	4,6	22,7	0,89	29,0	0,80
216 B MA		50,80	2	17,02	25,45	25,58	15,88	8,28	21,0	5,4	36,1	2,10	60,0	1,74
220 B MA		63,50	2 ½	19,56	29,01	29,14	19,05	10,19	28,0	6,1	43,2	2,96	95,0	2,55

* g-measurement not according to standard

Sprockets for double pitch roller chains can be used for these chains.

Connecting links: According to ISO (...)



No. 4 (B)
Inner link



No. 7 (A)
Outer link
(to be riveted)



No. 111 (S)
Connecting link
with cottered pin



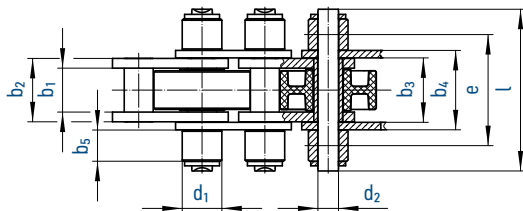
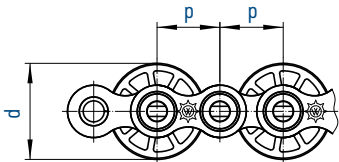
No. 11 (E)
for chain No. 713
with spring clip (E)



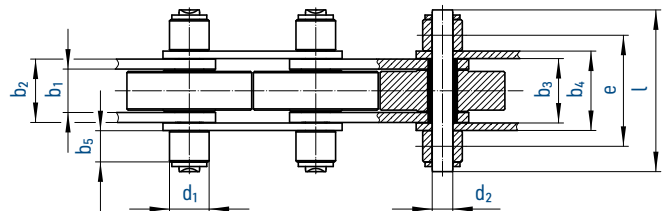
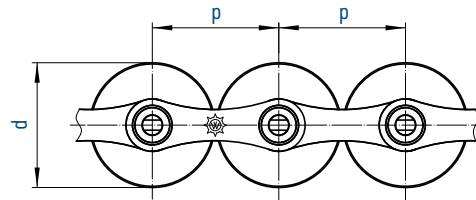
No. 12 (L)
Single
cranked link



Design E



Double pitch chain Design L



Chain	Pitch	Design	Inner width	Inner link width	Width		Support roller \varnothing	Pin \varnothing	Transverse pitch	Plate height	Width over pin	Support roller width	Width over pin Type l	Support roller width	
					between outer plates	over outer plates									
	p		b_1 min.	b_2 max.	b_3 min.	b_4 max.	d_1	d_2 max.	e	g max.	l max.	b_5 max.	l max.	b_5 max.	
No.	Ind.	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
513 SF MA		19,05	E	11,68	15,62	15,80	20,0	12,00	5,72	31,50	16,1	48,0	11,5	43,0	9,0
548 SF MA		25,40	E	17,02	25,45	25,81	32,0	15,88	8,28	44,50	21,0	65,0	12,5	-	-
722 SF MA		38,10	L	11,68	15,62	15,80	20,0	12,00	5,72	31,50	16,1	48,0	11,5	-	-
728 SF MA		50,80	L	17,02	25,45	25,81	32,0	15,88	8,28	44,50	21,0	65,0	12,5	-	-
D 513 SF MA		19,05	D	11,68	15,62	15,80	20,0	12,07	5,72	52,00	16,1	68,0	11,5	-	-
D 548 SF MA		25,40	D	17,02	25,45	25,81	32,0	15,88	8,28	76,76	21,0	97,0	12,5	-	-
T 513 SF MA		19,05	T	11,68	15,62	15,80	20,0	12,07	5,72	38,92	16,1	61,7	-	-	-
T 548 SF MA		25,40	T	17,02	25,45	25,81	32,0	15,88	8,28	63,76	21,0	99,9	-	-	-

Sprockets are available for all accumulator chains!

Connecting links with securing circlips.

Our connecting links always have the same length l as the ordinary pins.

Temperature range: - 30 to 100°C for steel conveyor rollers

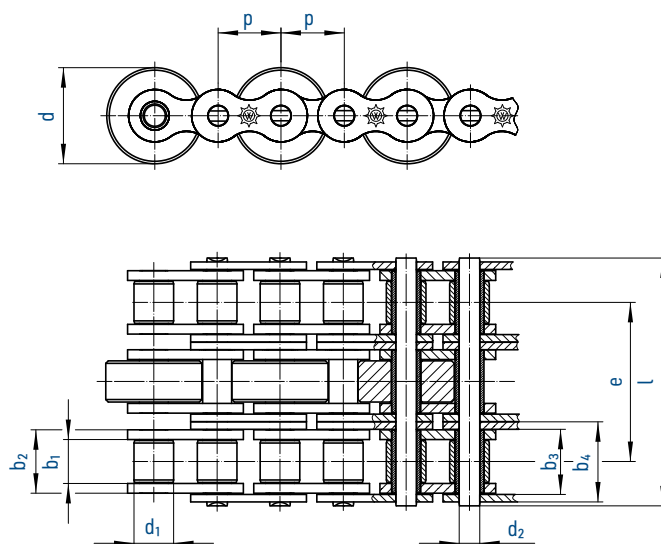
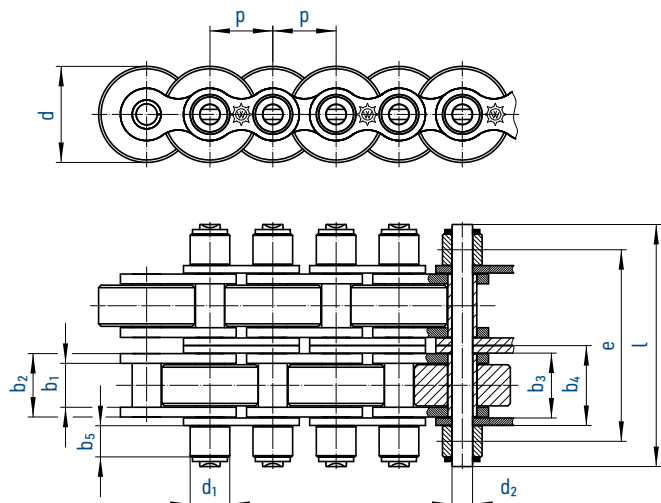
- 10 to 60°C for plastic conveyor rollers

For information on AFS clips for optimal equipment and finger protection see page 75.



Design D

Design T



Width over pin Type II l max. mm.	Support roller width b ₅ max. mm	Conveyor rollers						Breaking load F _B min. kN	Maximum load per m conveyor chain with 10 m conveyor length	
		Designation for material			Diameter				Steel	Plastic
		Steel	PA 6.6	Vestamide	d	Type I d	Type II d			
40,0	7,5	SF	SFK	SFV	24,0	26,0	28,0	29,0	300	260
-	-	SF	SFK	SFV	38,5	-	-	60,0	600	500
-	-	SF	SFK	SFV	24,0	26,0	28,0	29,0	300	260
-	-	SF	SFK	SFV	38,5	40,0	50,0	60,0	600	500
-	-	SF	SFK	SFV	24,0	26,0	28,0	57,8	600	520
-	-	SF	SFK	SFV	38,5	-	-	120,0	1200	1000
-	-	SF	SFK	SFV	24,0	26,0	28,0	60,0	600	260
-	-	SF	SFK	SFV	38,5	-	-	120,0	1200	500

The load per m applies for 10 m conveyor length per double chain strand. The load may be proportionally increased for shorter chain lengths and must be proportionally decreased for longer conveyor distances: e.g. 5 m conveyor distance = double load, 20 m conveyor distance = half load.

Maximum conveyor distances 25 - 30 m. The installation of guide plates is recommended as of 15 m. (see page 74).