



## MARATHON

Long distance chain that needs no relubrication

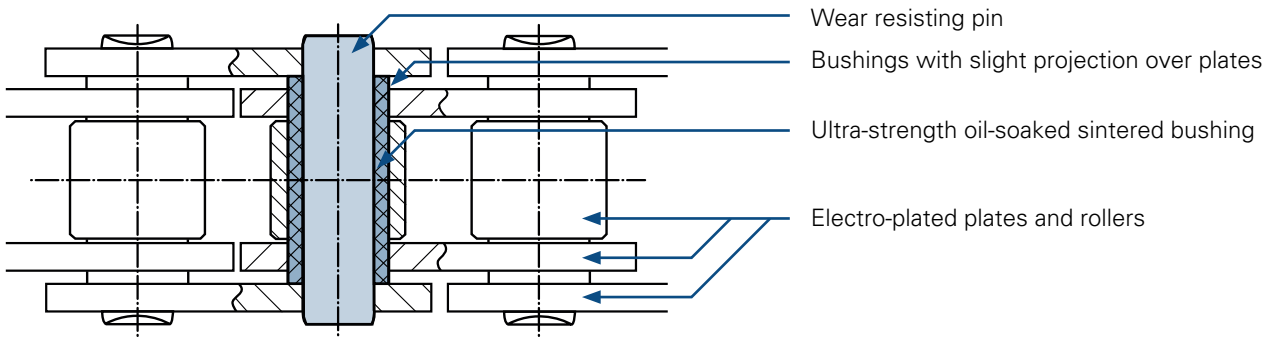
Apart from availability, operational safety and reliability, the fact that components are maintenance-free is getting more and more important in machine and plant construction. The use of MARATHON chains always makes sense where relubrication of roller chains is either not possible or not desired, but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

### Technical features

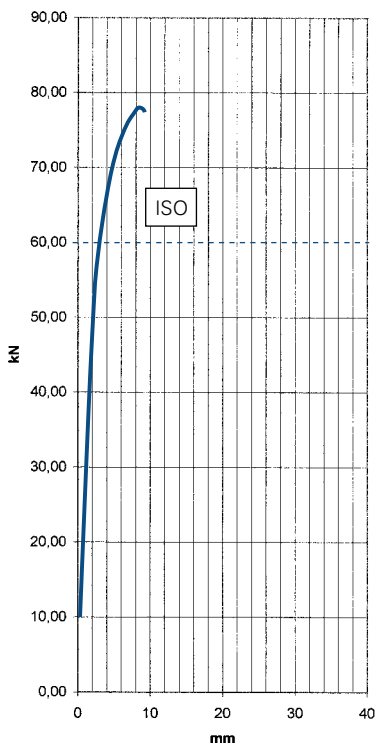
- Up to 35 times longer wear life in comparison with other standard roller chains without lubrication
- Up to 5 times longer wear life than other maintenance-free chains
- No relubrication required
- Clean application with no soiling of machinery and transported goods
- Joint bushings made with a new 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.



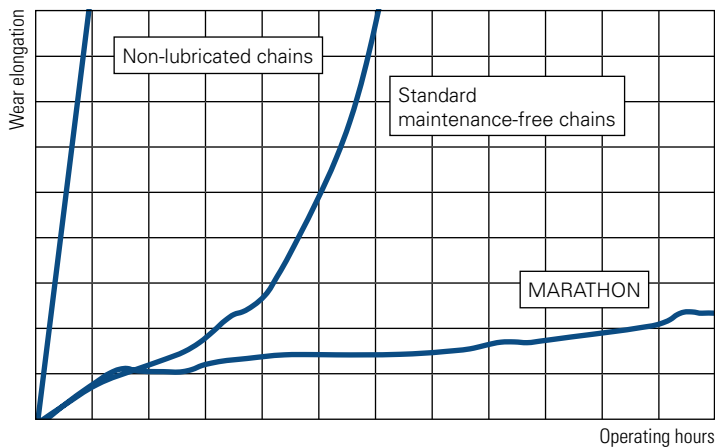
Force projection diagram



Type of test: Tensile test  
 Object: 548 MARATHON chain  
 Test length: 5 links

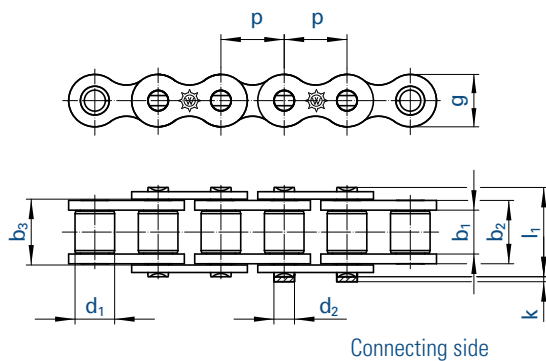
Breaking load: 78,000 N  
 Breaking point: Pins

Results of long-term wear tests

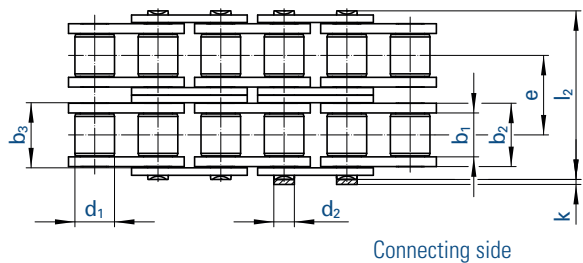




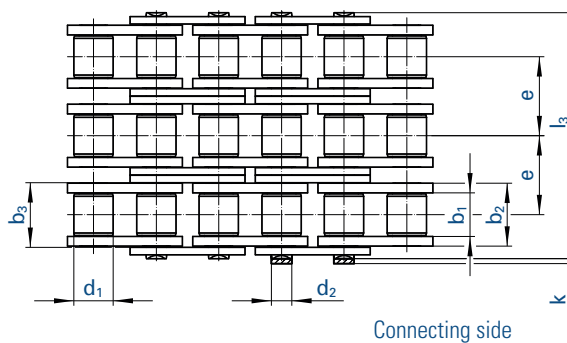
### Simplex chains



### Duplex chains



### Triplex chains



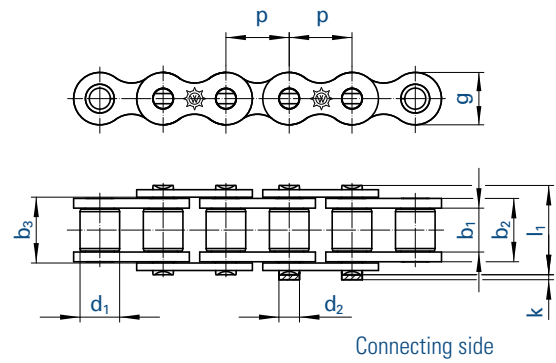
Chain according to ISO 606		Pitch		Inner width	Inner link width	Outer plate width	Roller Ø	Pin Ø	Transverse pitch	Plate height	Projection over connecting link	Width over pin	Bearing area	Breaking load	Weight	Connecting links
⚙		p		b <sub>1</sub> min.	b <sub>2</sub> max.	b <sub>3</sub> min.	d <sub>1</sub> max.	d <sub>2</sub> max.	e	g max.	k max.	l max.	f	F <sub>B</sub> min.	q ≈	No.
No.	Ind.	mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm <sup>2</sup>	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	-	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	111,12
24 B-1 MA		38,100	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
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	79,0	5,91	210,0	7,30	111,12
24 B-2 MA		38,100	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
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	116,0	8,87	300,0	10,60	111,12
24 B-3 MA		38,100	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

<sup>1</sup> with straight side plates

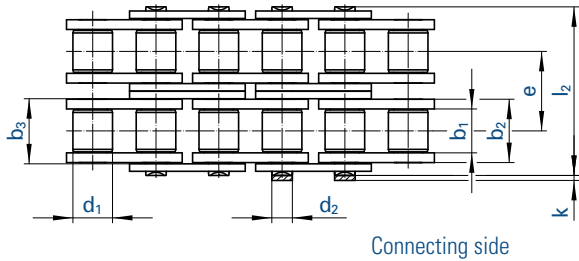
Standard sprockets can be used for these chains.



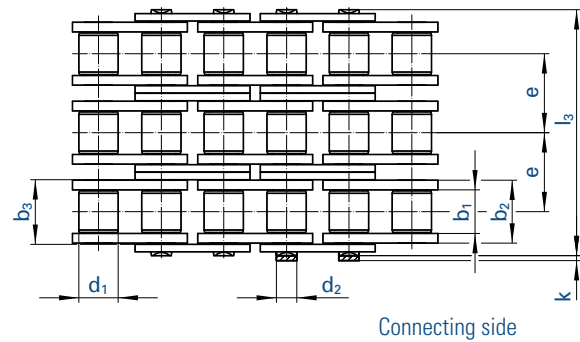
### Simplex chains



### Duplex chains



### Triplex chains



Chain according to ISO 606		Pitch		Inner width	Inner link width	Outer plate width	Roller $\varnothing$	Pin $\varnothing$	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.	$f$ cm <sup>2</sup>	$F_B$ min. kN	$q$ ≈ kg/m	
No.	Ind.	mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm <sup>2</sup>	kN	kg/m	No.
08 A-1 MA		12,700	1/2	7,85	11,15	11,28	7,95	3,96	-	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	13,80	13,93	10,16	5,08	-	15,0	4,1	21,8	0,70	30,0	1,01	11,12,15
12 A-1 MA		19,050	3/4	12,57	17,70	17,85	11,91	5,94	-	18,0	4,6	26,9	1,05	40,0	1,58	11,111,12,15
16 A-1 MA		25,400	1	15,75	22,50	22,70	15,88	7,92	-	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	27,40	27,60	19,05	9,53	-	30,1	6,1	41,1	2,61	92,5	3,80	111,12
08 A-2 MA		12,700	1/2	7,85	11,15	11,28	7,95	3,96	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	13,80	13,93	10,16	5,08	18,11	15,0	4,1	39,9	1,40	62,0	1,78	11,12,15
12 A-2 MA		19,050	3/4	12,57	17,70	17,85	11,91	5,94	22,78	18,0	4,6	49,8	2,10	76,0	3,15	11,111,12,15
16 A-2 MA		25,400	1	15,75	22,50	22,70	15,88	7,92	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	27,40	27,60	19,05	9,53	35,76	30,1	6,1	77,0	5,22	205,0	7,60	111,12
08 A-3 MA		12,700	1/2	7,85	11,15	11,28	7,95	3,96	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	13,80	13,93	10,16	5,08	18,11	15,0	4,1	57,9	2,10	88,0	3,02	11,12,15
12 A-3 MA		19,050	3/4	12,57	17,70	17,85	11,91	5,94	22,78	18,0	4,6	72,6	3,15	105,0	4,70	11,111,12,15
16 A-3 MA		25,400	1	15,75	22,50	22,70	15,88	7,92	29,29	24,1	5,4	91,7	5,35	193,0	7,50	11,111,12,15
20 A-3 MA		31,750	1 1/4	18,90	27,40	27,60	19,05	9,53	35,76	30,1	6,1	113,0	7,83	305,0	11,20	111,12

Sprockets on request.