LF roller chains

1. **Pins made of alloyed steel, cold-extruded pins starting from 1 ½" are made of highly alloyed heat-treated steel, nickel-plated with high surface hardness and particularly smooth grinding**
2. **Bush – self-lubricating, oil impregnated bush with special lubricant**
3. **Roller – seamless, cold-extruded roller, through hardend, ball blasted, extremely shock resistant**
4. **Link plates – high-precision stamped, quenched and tempered and subsequently ball-blasted, holes calibrated with particularly high percentage contact area**

All components are nickel-plated for optimal corrosion protection

Lube free (LF) roller chains

The new generation of KettenWulf LF "Lube Free" chains is based on the manufacturing technology and material of the standard KW chain.

In addition to the standard features, this chain is characterised by a special oil-impregnated sintered bush which forms a particularly wear-resistant and long-lived chain link in combination with the unique smoothness and hardness of the specially treated pin.

Since the special lubricant for sintered bearings will only escape from the bush when exposed to friction and temperature, these roller chains are delivered with a thin layer of initial lubrication. In order to ensure a very high level of corrosion protection, all components are plated with nickel, in addition.

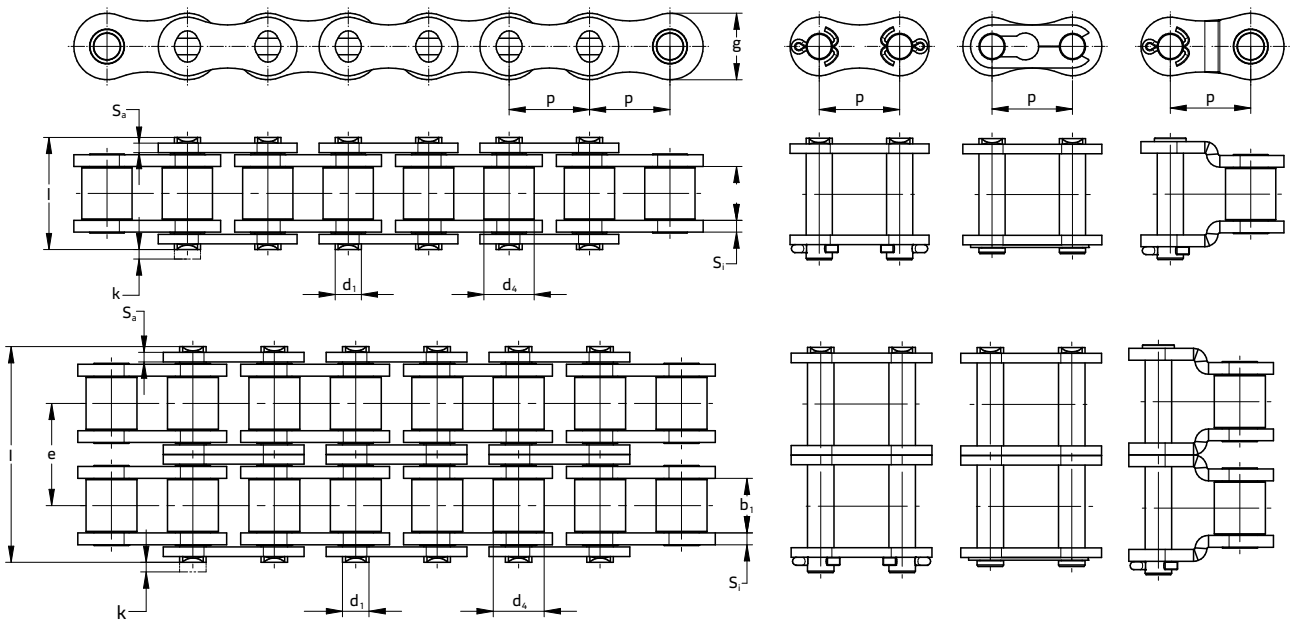
The operating temperature range of the chains is between -30°C and +160°C. LF chains are available for an extended temperature range upon request. The functional dimensions are those stipulated in ISO 606. Furthermore, KettenWulf LF roller chains can be delivered with straight link plates. These are ideally suited for pallet and skid transport.

Made-to-order KW LF chains can also be produced on the basis of the KettenWulf TGI chain. This version is best suited for all critical applications requiring particularly high fatigue strength, maximum corrosion protection and a special resistance to highest speeds.

Please do not hesitate to contact us for further information.

DIN 8187 / ISO 606-compliant LF roller chains
KW LF simplex, KW LF duplex, KW LF triplex

Drawings / product data (European & American standard)



KettenWulf lubrication-free roller chains

KW LF simplex, sizes according to European standard — **ISO 606 / DIN 8187**

Designation	Pitch [mm]	Min. inner width [mm]	Max. protection roller Ø [mm]	Max. pin Ø [mm]	Max. pin length [mm]	Max. overhang connecting pin [mm]	Inner plate thickness [mm]	Outer plate thickness [mm]	Plate height [mm]	Transverse pitch [mm]	Bearing area [cm²]	Min. breaking load [N]	Weight [kg/m]
Chain type	p	b_1	d_4	d_1	l	k	S_i	S_a	g	e	f	F_B	≈q
KW 08BLF	12.700	7.75	8.51	4.45	17.00	1.60	1.50	1.50	11.80	–	0.50	17800	0.75
KW 10BLF	15.875	9.65	10.16	5.08	19.60	2.50	1.65	1.65	14.70	–	0.67	22200	0.98
KW 12BLF	19.050	11.68	12.07	5.72	22.70	3.30	1.80	1.80	16.10	–	0.89	28900	1.26
KW C12BLF*	19.050	11.68	12.07	5.72	22.70	3.30	1.80	1.80	16.10	–	0.89	28900	1.26
KW 16BLF	25.400	17.02	15.88	8.28	36.10	3.10	4.00	3.20	21.00	–	2.10	60000	2.83
KW C16BLF*	25.400	17.02	15.88	8.28	36.10	3.10	4.00	3.20	21.00	–	2.10	60000	2.83
KW 20BLF	31.750	19.56	19.05	10.19	43.20	4.40	4.50	3.50	26.40	–	2.96	95000	3.94
KW 24BLF	38.100	25.40	25.40	14.63	53.40	5.50	6.00	4.70	33.40	–	5.54	160000	7.21
KW C24BLF*	38.100	25.40	25.40	14.63	53.40	5.50	6.00	4.70	33.40	–	5.54	160000	7.21
KW 32BLF	50.800	30.99	29.21	17.81	67.40	3.90	6.90	6.00	42.20	–	8.10	250000	10.00

KW LF duplex, KW LF triplex, sizes according to European standard — **ISO 606 / DIN 8187**

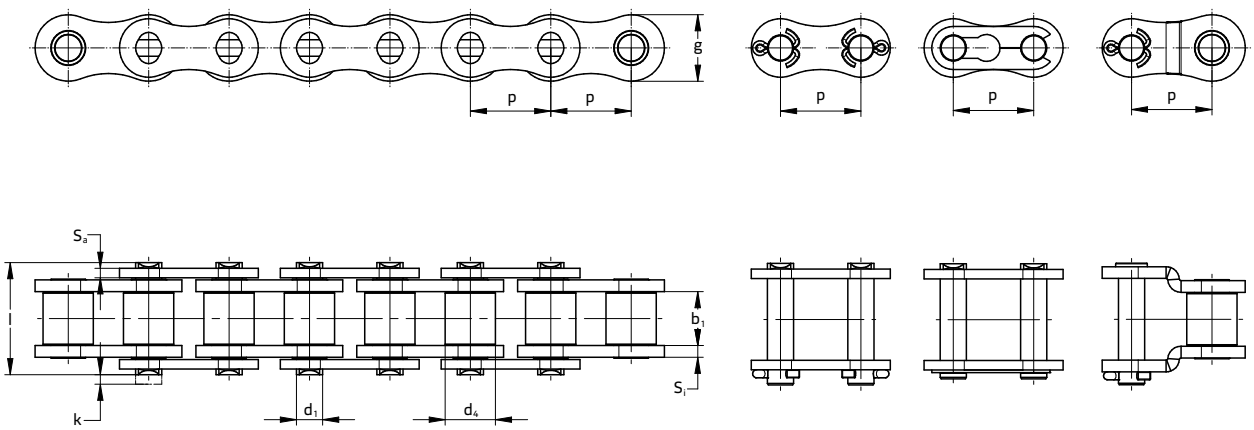
Chain type	p	b_1	d_4	d_1	l	k	S_i	S_a	g	e	f	F_B	≈q
KW 08B-2LF	12.700	7.75	8.51	4.45	31.00	1.60	1.50	1.50	11.80	13.92	1.01	31100	1.45
KW 10B-2LF	15.875	9.65	10.16	5.08	36.20	2.70	1.65	1.65	14.70	16.59	1.34	44500	1.93
KW C10B-2LF*	15.875	9.65	10.16	5.08	36.20	2.70	1.65	1.65	14.70	16.59	1.34	44500	1.93
KW 12B-2LF	19.050	11.68	12.07	5.72	42.20	3.00	1.80	1.80	16.10	19.46	1.79	57800	2.49
KW C12B-2LF*	19.050	11.68	12.07	5.72	42.20	3.00	1.80	1.80	16.10	19.46	1.79	57800	2.49
KW 16B-2LF	25.400	17.02	15.88	8.28	68.00	3.40	4.00	3.20	21.00	31.88	4.21	106000	5.28
KW 20B-2LF	31.750	19.56	19.05	10.19	79.00	5.10	4.50	3.50	26.40	36.45	5.91	170000	7.78
KW 24B-2LF	38.100	25.40	25.40	14.63	101.00	6.40	6.00	4.70	33.40	48.36	11.08	280000	14.31
KW C24B-2LF*	38.100	25.40	25.40	14.63	101.00	6.40	6.00	4.70	33.40	48.36	5.54	280000	14.31
KW 32B-2LF	50.800	30.99	29.21	17.81	126.00	4.70	7.00	6.00	42.20	58.55	16.21	450000	19.59
KW 20B-3LF	31.750	19.56	19.05	10.19	116.00	4.60	4.50	3.50	26.40	36.45	8.87	250000	11.66

* with straight link plates

›› All chains are also available as triplex upon request.

DIN 8188 / ISO 606-compliant LF roller chains
KW LF simplex

Drawings / product data (American standard)



KettenWulf lubrication-free roller chains

KW LF simplex, sizes according to American standard — **ISO 606 / DIN 8188**

Designation	Pitch [mm]	Min. inner width [mm]	Max. protection roller Ø [mm]	Max. pin Ø [mm]	Max. pin length [mm]	Max. overhang connecting pin [mm]	Inner plate thickness [mm]	Outer plate thickness [mm]	Plate height [mm]	Bearing area [cm²]	Min. breaking load [N]	Weight [kg/m]
Chain type	p	b_1	d_4	d_1	l	k	S_i	S_a	g	f	F_B	≈q
KW 50LF	15.870	9.50	10.14	5.08	20.30	2.17	2.00	2.00	15.08	0.70	21800	1.00
KW 60LF	19.050	12.70	11.88	5.95	25.26	2.80	2.40	2.40	18.09	1.05	31300	1.45
KW 80LF	25.400	15.85	15.84	7.93	32.76	3.67	3.20	3.20	24.13	1.78	55600	2.55
KW 100LF	31.750	19.10	19.00	9.53	40.08	3.86	4.00	4.00	30.16	2.61	87000	4.00
KW 120LF	38.100	25.40	22.20	11.11	49.92	6.00	4.80	4.80	36.19	3.92	125000	5.64

›› We can also produce larger LF roller chains according to American standard upon request.

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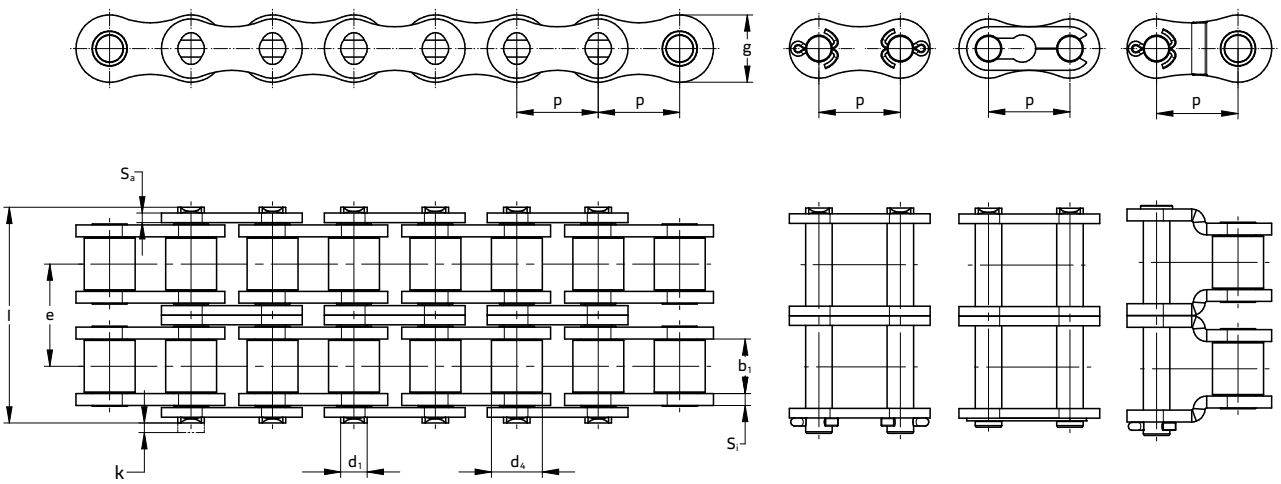
DIN 8188 / ISO 606-compliant LF roller chains
KW LF duplex

Drawings / product data (American standard)



KettenWulf lubrication-free roller chains

KW LF duplex, sizes according to American standard — **ISO 606 / DIN 8188**

Designation	Pitch [mm]	Min. inner width [mm]	Max. protection roller Ø [mm]	Max. pin Ø [mm]	Max. pin length [mm]	Max. overhang connecting pin [mm]	Inner plate thickness [mm]	Outer plate thickness [mm]	Plate height [mm]	Transverse pitch [mm]	Bearing area [cm²]	Min. breaking load [N]	Weight [kg/m]
Chain type	p	b_1	d_4	d_1	l	k	S_i	S_a	g	e	f	F_B	≈q
KW 80-2LF	25.400	15.85	15.40	7.93	61.96	4.10	3.20	3.20	24.13	29.29	3.56	111200	5.05
KW 100-2LF	31.750	19.10	19.04	9.53	75.80	4.30	4.00	4.00	30.16	35.76	5.22	174000	7.86
KW 120-2LF	38.100	25.40	22.20	11.11	95.86	4.37	4.80	4.80	36.19	45.44	7.84	250000	11.20

KW LF triplex, sizes according to American standard — **ISO 606 / DIN 8188**

Designation	Pitch [mm]	Min. inner width [mm]	Max. protection roller Ø [mm]	Max. pin Ø [mm]	Max. pin length [mm]	Max. overhang connecting pin [mm]	Inner plate thickness [mm]	Outer plate thickness [mm]	Plate height [mm]	Transverse pitch [mm]	Bearing area [cm²]	Min. breaking load [N]	Weight [kg/m]
Kettentyp	p	b_1	d_4	d_1	l	k	S_i	S_a	g	e	f	F_B	≈q
KW 120-3LF	38.100	25.40	22.30	11.11	141.00	4.96	4.80	4.80	36.19	45.44	11.76	375000	16.73

›› We can also produce larger LF roller chains according to American standard upon request.

Specific chain versions for different environmental conditions

Figure 1:
LF roller chain

Figure 2:
NP roller chain

Figure 3:
SS roller chain

Figure 4:
TGI roller chain

Formation of rust under different environmental conditions

	Water			5% saline solution			1% ammonia		
	3 days	9 days	15 days	3 days	9 days	15 days	3 days	9 days	15 days
Standard									
NP (Nickel plated)									
TGI									
SS 304