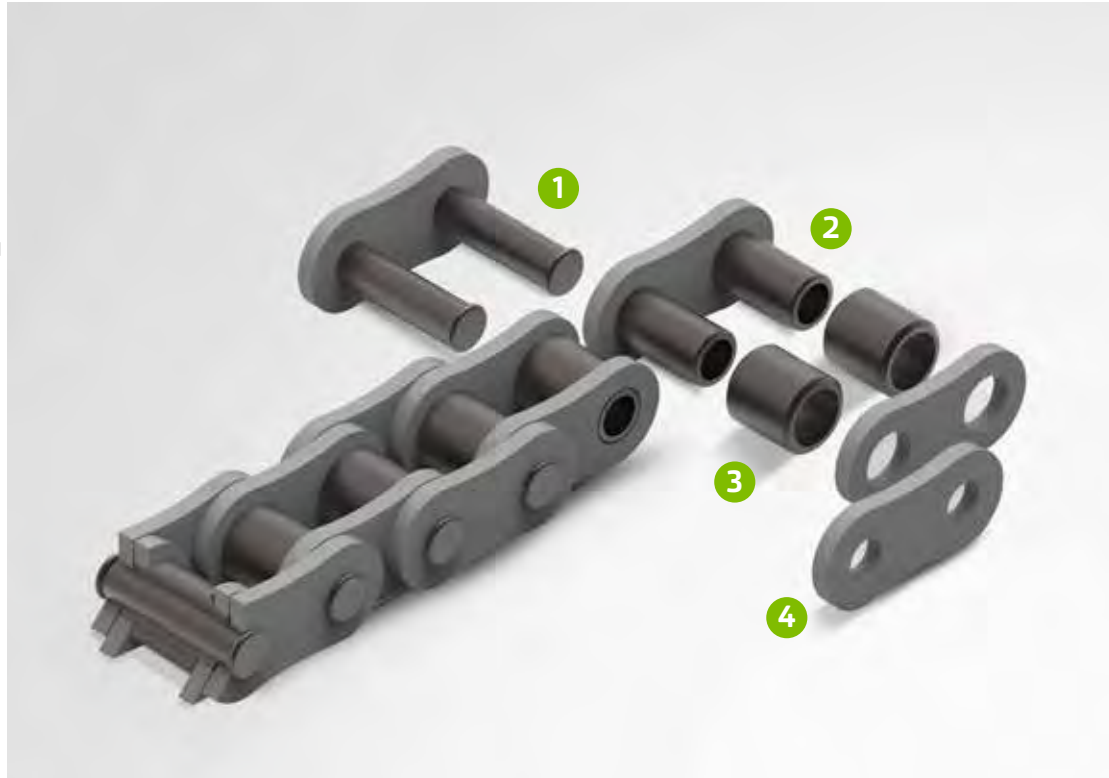


HFS roller chains

- 1 Pins made of special alloyed case-hardened steel, cold-extruded (pins starting from 1 1/2" are made of high alloy heat-treated steel and through hardened), grinded
- 2 Bush – seamless, wear-optimised, cold-extruded bush, case-hardened
- 3 Roller – seamless, cold-extruded Roller, quenched and tempered
- 4 Link plates – high-precision stamped, quenched and tempered ball-blasted, holes calibrated with particularly high percentage contact area. The plate shape is wide waisted



High Fatigue Strength (HFS) roller chains

The KettenWulf roller chains for high-stress applications.

The chain series HFS "High Fatigue Strength" was developed as a response to the ever-increasing requirements in the field of drive technology. The KettenWulf HFS roller chain has the best quality standard on the market.

Apart from the optimised wear resistance, the main focus is to provide ultimate fatigue strength properties. The high alloy case-hardened steel (up to 1 1/4") of the pins guarantees an outstanding shear strength and a very high flexural strength. The cold drawing process for manufacturing the pins guarantees a high surface hardness while ensuring a high surface quality at the same time.

The wear resistance is further improved by grinding the pins' surface after drawing. Pins that are 1 1/2" or bigger are made of high alloy heat-treated steel. Such pins ensure an even better fatigue strength of the chains and increase the effective breaking loads.

The seamless bushes are characterised by their optimal cylindrical holes which is much higher than that of precision-steel pipe bushes. The chain has a high length precision and a minimum elongation when engaging on the sprocket.

The Cr-alloy steel for the bushes further increases the wear resistance compared to the KettenWulf KW chains.

The high precision of the manufacturing process ensures cylindrical holes in the link plates with the highest possible proportion of clear-cut surface. Such a clear-cut surface is required to ensure high press fit. Combined with the outstanding properties of the Cr-alloyed heat-treated steel material this makes KettenWulf HFS roller chains more durable and resistant to fatigue. The seamless and tempered roller ensures a high level of shock and wear resistance.

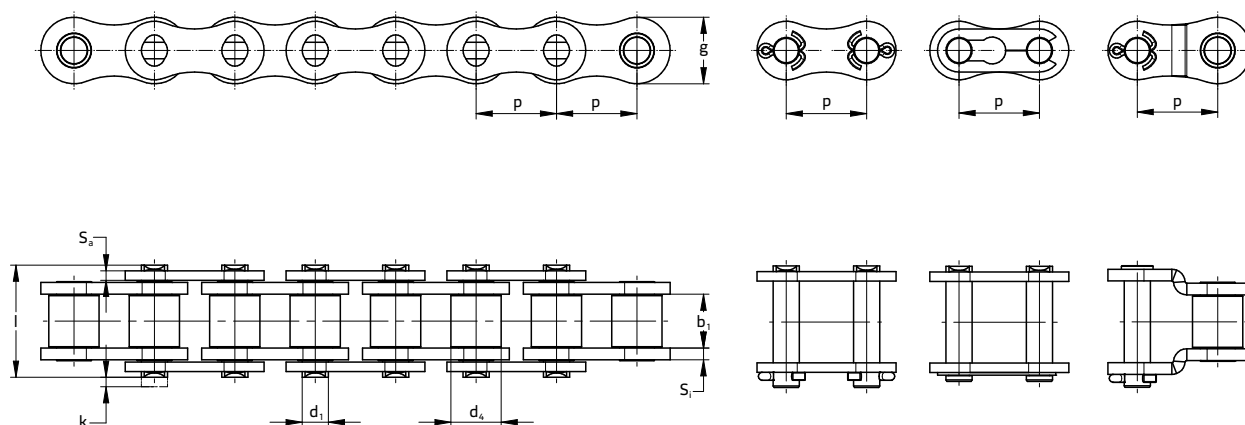
KettenWulf Betriebs GmbH

Distributor: TYMA CZ, s.r.o., Na Pískách 731, 400 04 Trmice, CZ, tel.: +420 475 655 010, e-mail: info@tyma.cz, web: <https://www.tyma.cz>

DIN 8187 / ISO 606-compliant HFS roller chains

KW HFS simplex

Drawings / product data (European standard)



KettenWulf roller chains for high-stress applications

KW HFS simplex, sizes according to European standard

ISO 606 / DIN 8187

Designation	Pitch [mm]	Min. inner width [mm]	Max. protection roller \varnothing [mm]	Max. pin \varnothing [mm]	Max. pin length [mm]	Max. overhang connecting pin [mm]	Inner plate thickness [mm]	Outer plate thickness [mm]	Plate height [mm]	Bearing area [cm ²]	Min. breaking load [N]	Weight [kg/m]
Chain type	p	b ₁	d ₂	d ₁	l	k	S ₁	S ₂	g	f	F _b	≈ q
KW 08BHFS	12.700	7.75	8.51	4.45	17.00	1.60	1.50	1.50	11.80	0.50	17800	0.75
KW 10BHFS	15.875	9.65	10.16	5.08	19.60	2.50	1.70	1.70	14.70	0.67	24400	0.98
KW 12BHFS	19.050	11.68	12.07	5.72	22.70	3.30	1.85	1.85	16.10	0.89	28900	1.26
KW 16BHFS	25.400	17.02	15.88	8.28	36.10	3.10	4.00	3.00	21.00	2.10	72500	2.83
KW 20BHFS	31.750	19.56	19.05	10.19	43.20	4.40	4.50	3.50	26.40	2.96	105000	3.94
KW 24BHFS	38.100	25.40	25.40	14.63	53.40	6.00	6.00	4.80	33.40	5.54	175000	7.21
KW 28BHFS	44.450	30.99	27.94	15.90	65.10	5.90	7.50	6.00	37.00	7.39	235000	9.58
KW 32BHFS	50.800	30.99	29.21	17.81	67.40	4.60	7.00	6.00	42.20	8.10	265000	9.97
KW 40BHFS	63.500	38.10	39.37	22.89	81.50	7.00	8.50	8.00	52.90	12.75	400000	17.00
KW 48BHFS	76.200	45.72	48.20	29.20	99.10	6.90	12.00	10.00	64.00	20.61	600000	27.00
KW 56BHFS	88.900	53.34	54.00	34.30	113.00	12.00	14.00	12.00	78.00	27.90	850000	38.00
KW 64BHFS	101.600	60.96	63.50	39.40	129.00	19.00	15.00	14.00	93.30	36.25	1120000	49.50
KW 72BHFS	114.300	68.58	72.39	44.50	147.00	14.00	18.00	15.00	103.63	46.19	1400000	64.50

» We can also produce larger roller chains than 80B upon request.

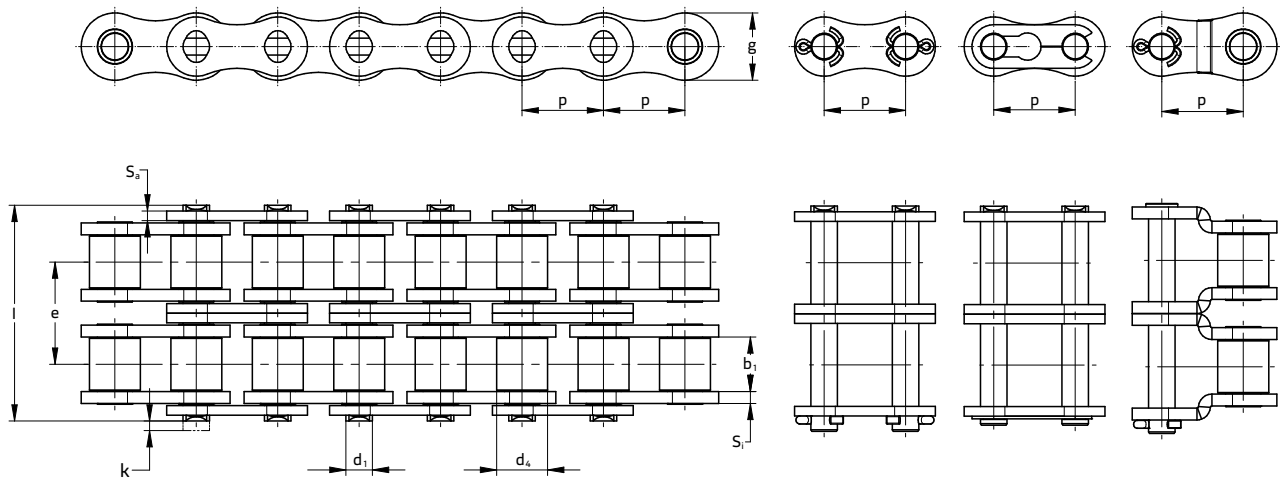
KettenWulf Betriebs GmbH

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DIN 8187 / ISO 606-compliant HFS roller chains

KW HFS duplex

Drawings / product data (European standard)



KettenWulf roller chains for high-stress applications

KW HFS duplex, 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 [cm ²]	Min. breaking load [N]	Weight [kg/m]
Chain type	p	b ₁	d _e	d ₁	l	k	S ₁	S ₂	g	e	f	F _B	≈q
KW 08B-2HFS	12.700	7.75	8.51	4.45	31.00	1.60	1.50	1.50	11.80	13.92	1.01	35600	1.45
KW 10B-2HFS	15.875	9.65	10.16	5.08	36.20	2.70	1.70	1.70	14.70	16.59	1.34	48800	1.93
KW 12B-2HFS	19.050	11.68	12.07	5.72	42.20	3.00	1.85	1.85	16.10	19.46	1.79	57800	2.49
KW 16B-2HFS	25.400	17.02	15.88	8.28	68.00	3.40	4.00	3.00	21.00	31.88	4.21	145000	5.28
KW 20B-2HFS	31.750	19.56	19.05	10.19	79.00	5.10	4.50	3.50	26.40	36.45	5.91	210000	7.78
KW 24B-2HFS	38.100	25.40	25.40	14.63	101.00	7.00	6.00	4.80	33.40	48.36	11.08	350000	14.31
KW 28B-2HFS	44.450	30.99	27.94	15.90	124.00	6.30	7.50	6.00	37.00	59.56	14.79	470000	19.00
KW 32B-2HFS	50.800	30.99	29.21	17.81	126.00	4.70	7.00	6.00	42.20	58.55	16.21	530000	19.59
KW 40B-2HFS	63.500	38.10	39.37	22.85	153.00	7.40	8.50	8.00	52.96	72.29	25.50	800000	33.00
KW 48B-2HFS	76.200	45.72	48.20	29.20	190.40	7.60	12.00	10.00	64.00	91.21	41.23	1200000	54.00
KW 56B-2HFS	88.900	53.34	54.00	34.30	221.50	11.50	14.00	12.00	78.00	106.60	55.80	1600000	75.00
KW 64B-2HFS	101.600	60.96	63.50	39.40	250.00	10.00	15.00	14.00	93.30	119.89	72.50	2100000	100.00
KW 72B-2HFS	114.300	68.58	72.39	44.50	282.80	10.70	18.00	15.00	103.63	136.27	92.40	2700000	129.00

» We can also produce larger roller chains than 80B upon request.

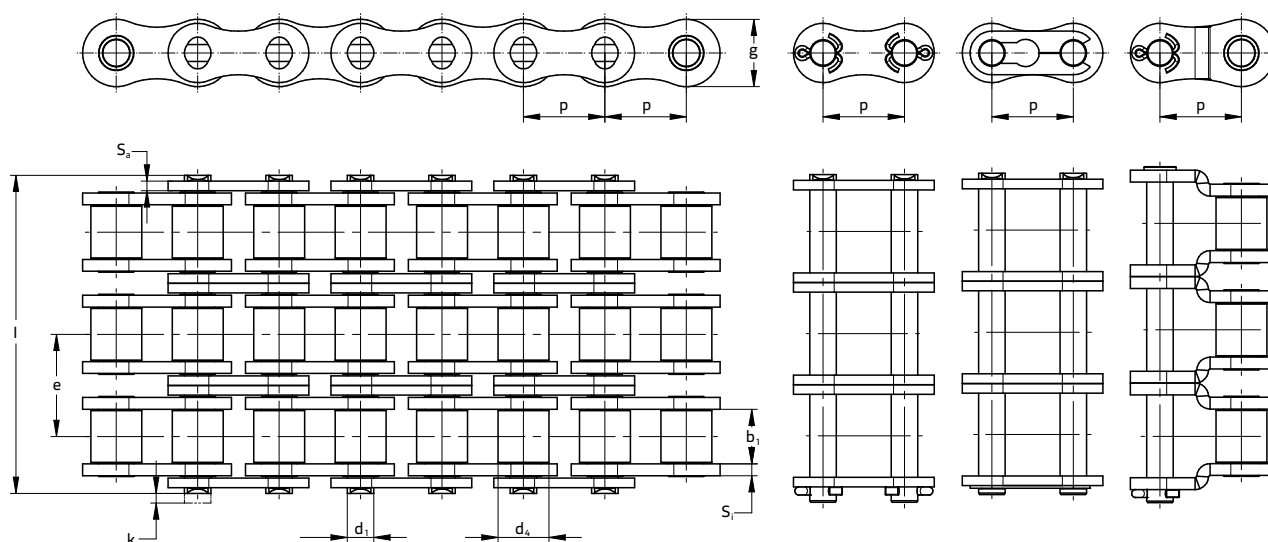
KettenWulf Betriebs GmbH

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DIN 8187 / ISO 606-compliant HFS roller chains

KW HFS triplex

Drawings / product data (European standard)



KettenWulf roller chains for high-stress applications

KW HFS triplex, sizes according to European standard

ISO 606 / DIN 8187

Designation	Pitch [mm]	Min. inner width [mm]	Max. protection roller \varnothing [mm]	Max. pin \varnothing [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 [cm ²]	Min. breaking load [N]	Weight [kg/m]
Chain type	p	b ₁	d ₄	d ₁	l	k	S ₁	S _a	g	e	f	F ₀	≈q
KW 08B-3HFS	12.700	7.75	8.51	4.45	44.90	1.70	1.50	1.50	11.80	13.92	1.51	53400	2.15
KW 10B-3HFS	15.875	9.65	10.16	5.08	52.80	2.50	1.70	1.70	14.70	16.59	2.02	73200	2.89
KW 12B-3HFS	19.050	11.68	12.07	5.72	61.70	3.20	1.85	1.85	16.10	19.46	2.68	86700	3.72
KW 16B-3HFS	25.400	17.02	15.88	8.28	99.90	3.60	4.00	3.00	21.00	31.88	6.31	217500	7.88
KW 20B-3HFS	31.750	19.56	19.05	10.19	116.00	4.60	4.50	3.50	26.40	36.45	8.87	315000	11.66
KW 24B-3HFS	38.100	25.40	25.40	14.63	150.00	5.80	6.00	4.80	33.40	48.36	16.63	525000	21.10
KW 28B-3HFS	44.450	30.99	27.94	15.90	184.00	5.80	7.50	6.00	37.00	59.56	22.18	705000	28.34
KW 32B-3HFS	50.800	30.99	29.21	17.81	184.00	4.80	7.00	6.00	42.20	58.55	24.31	795000	29.30
KW 40B-3HFS	63.500	38.10	39.37	22.89	226.00	7.00	8.50	8.00	52.90	72.29	38.25	1200000	50.00
KW 48B-3HFS	76.200	45.72	48.20	29.20	281.00	8.00	12.00	10.00	64.00	91.21	61.84	1800000	80.00
KW 56B-3HFS	88.900	53.34	54.00	34.30	330.00	12.00	14.00	12.00	78.00	106.60	83.71	2310000	111.50
KW 64B-3HFS	101.600	60.96	63.50	39.40	370.00	10.00	15.00	14.00	90.17	119.89	108.74	3050000	150.00
KW 72B-3HFS	114.300	68.58	72.39	44.50	420.00	14.00	18.00	15.00	103.63	136.27	135.57	3930000	194.00

» We can also produce larger roller chains than 80B upon request.

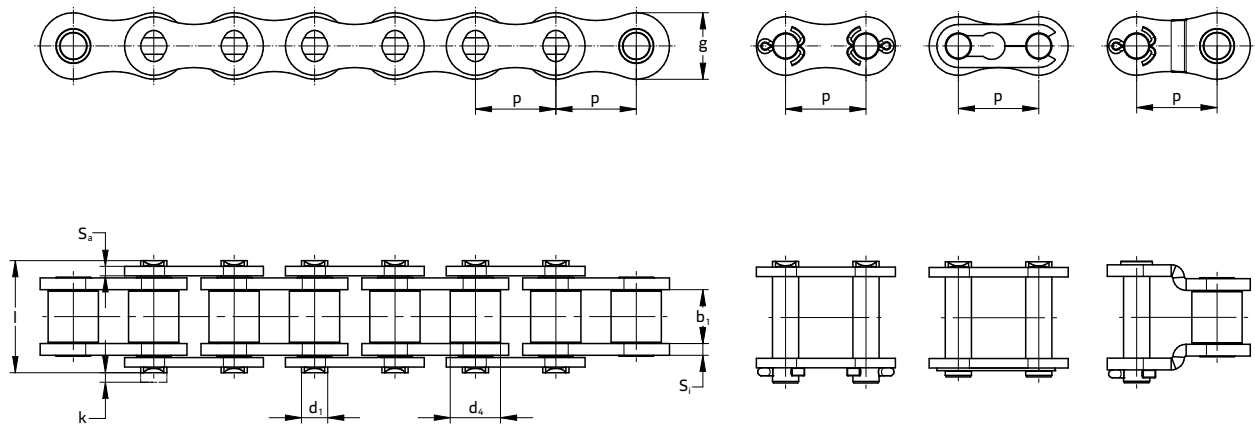
KettenWulf Betriebs GmbH

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DIN 8188 / ISO 606-compliant HFS roller chains

KW HFS simplex

Drawings / product data (American standard)



KettenWulf roller chains for high-stress applications

KW HFS simplex, sizes according to American standard

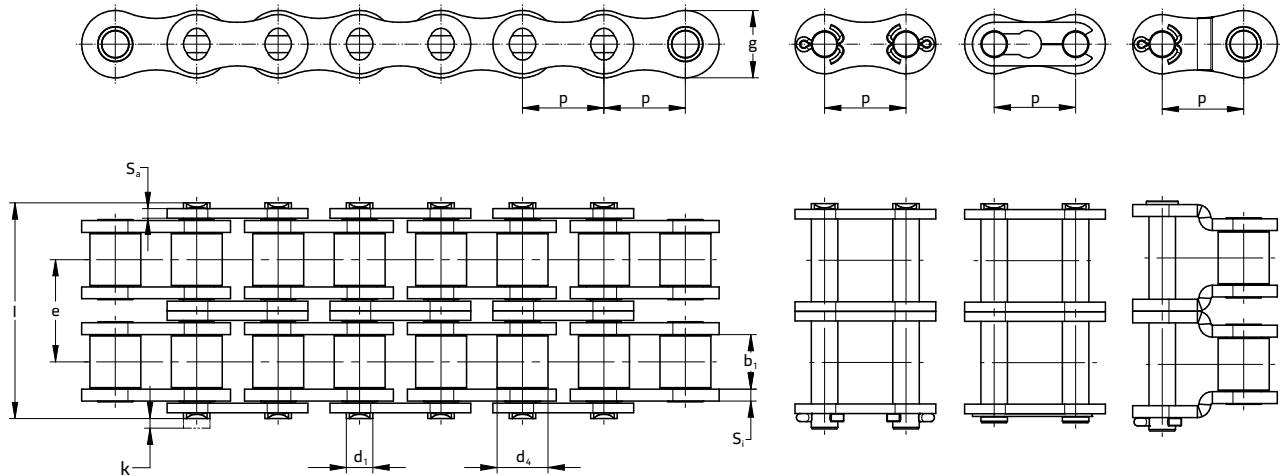
ISO 606 / DIN 8188

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 [cm ²]	Min. breaking load [N]	Weight [kg/m]
Chain type	p	b ₁	d ₂	d ₁	l	k	S ₁	S ₂	g	f	F _B	≈q
KW 40HFS	12.700	7.85	7.92	3.97	16.40	2.40	1.50	1.50	12.06	0.44	16000	0.62
KW 50HFS	15.875	9.40	10.16	5.08	20.40	2.17	2.00	2.00	15.08	0.70	26500	1.01
KW 60HFS	19.050	12.57	11.91	5.95	25.90	2.80	2.40	2.40	18.09	1.05	35000	1.45
KW 80HFS	25.400	15.75	15.88	7.93	32.76	3.67	3.10	3.10	24.13	1.78	72500	2.55
KW 100HFS	31.750	18.90	19.05	9.53	40.50	3.86	4.00	4.00	30.16	2.61	102900	3.95
KW 120HFS	38.100	25.22	22.30	11.11	50.40	6.00	4.80	4.80	36.19	3.92	142100	5.64
KW 140HFS	44.450	25.22	25.40	12.70	54.00	7.90	5.60	5.60	42.22	4.70	191100	7.38
KW 160HFS	50.800	31.55	28.58	14.29	65.60	4.30	6.40	6.40	48.26	6.36	260000	9.69
KW 180HFS	57.150	35.48	35.70	17.46	72.80	8.00	7.20	7.20	53.60	8.75	315000	13.30
KW 200HFS	63.500	54.94	39.68	19.84	79.50	6.00	8.00	8.00	60.00	10.73	420000	16.99
KW 240HFS	76.200	47.63	47.63	23.80	96.50	7.50	9.50	9.50	72.39	15.86	676000	25.00

DIN 8188 / ISO 606-compliant HFS roller chains

KW HFS duplex, KW HFS triplex

Drawings / product data (American standard)



KettenWulf roller chains for high-stress applications

KW HFS duplex, sizes according to American standard

ISO 606 / DIN 8188

Designation	Pitch [mm]	Min. inner width [mm]	Max. protection roller \varnothing [mm]	Max. pin \varnothing [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 [cm ²]	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 35-2HFS	9.520	4.78	5.08	3.59	22.28	1.58	1.28	1.28	9.04	10.13	0.27	20500	0.63
KW 40-2HFS	12.700	7.85	7.92	3.97	30.90	2.40	1.50	1.50	12.06	14.38	0.88	32000	1.22
KW 50-2HFS	15.875	9.40	10.16	5.03	38.80	2.40	2.00	2.00	15.08	18.11	1.40	53000	2.00
KW 60-2HFS	19.050	12.57	11.91	5.95	48.80	2.72	2.40	2.40	18.09	22.78	2.10	70000	2.87
KW 80-2HFS	25.400	15.75	15.88	7.93	61.96	4.10	3.20	3.20	24.13	29.29	3.56	145000	5.05
KW 100-2HFS	31.750	18.90	19.05	9.53	76.30	4.30	4.00	4.00	30.16	35.76	5.22	235800	7.86
KW 120-2HFS	38.100	25.22	22.30	11.11	96.00	4.37	4.80	4.80	36.19	45.44	7.84	284200	11.20
KW 140-2HFS	44.450	25.22	25.40	12.71	103.50	7.40	5.60	5.60	42.22	48.87	9.40	382200	15.35
KW 160-2HFS	50.800	31.55	28.58	14.29	124.00	4.30	6.40	6.40	48.00	58.55	19.26	520000	19.23
KW 180-2HFS	57.150	35.48	35.70	17.46	139.10	5.50	7.20	7.20	53.60	65.84	12.72	630000	26.41
KW 200-2HFS	63.500	54.94	39.68	19.84	152.00	6.00	8.00	8.00	60.00	71.55	32.20	840000	33.94
KW 240-2HFS	76.200	47.63	47.63	23.80	185.00	9.00	9.50	9.50	71.00	78.83	31.70	1352000	46.00

KW HFS triplex, sizes according to American standard

ISO 606 / DIN 8188

Chain type	p	b ₁	d ₄	d ₁	l	k	S _i	S _a	g	e	f	F _B	≈ q
KW 40-3HFS	12.700	7.90	7.92	3.90	45.15	2.40	1.50	1.50	12.06	14.38	1.32	48000	1.82
KW 50-3HFS	15.875	9.50	10.16	5.08	56.60	2.75	2.00	2.00	15.08	18.11	2.10	79500	2.98
KW 60-3HFS	19.050	12.70	11.91	5.95	71.50	2.70	2.40	2.40	18.09	22.78	3.15	105000	4.28
KW 80-3HFS	25.400	15.85	15.88	7.93	91.50	3.90	3.10	3.10	24.13	29.29	5.34	217500	7.50
KW 100-3HFS	31.750	19.10	19.05	9.53	111.80	4.40	4.00	4.00	30.16	35.76	7.83	308700	11.75
KW 120-3HFS	38.100	25.40	22.30	11.11	141.00	4.96	4.80	4.80	36.19	45.44	11.76	426300	16.73
KW 140-3HFS	44.450	25.40	25.40	12.70	152.56	4.90	5.60	5.60	42.22	48.87	14.10	573000	21.93
KW 160-3HFS	50.800	31.65	28.35	14.29	183.08	4.56	6.40	6.40	48.26	58.55	19.26	735000	27.89
KW 180-3HFS	57.150	35.48	35.70	17.46	204.90	5.50	7.20	7.20	53.60	65.84	19.08	945000	39.48
KW 200-3HFS	63.500	38.10	39.67	19.84	222.00	9.00	8.00	8.00	60.00	71.55	32.20	1407000	48.90
KW 240-3HFS	76.200	47.63	47.63	23.80	272.00	9.00	9.50	9.50	71.00	87.83	47.60	2028000	72.70