KWB
Safety in action
Lifting Equipment
Grade 80
DLHONLINE.CO.UK - 0161 223 1990

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KWB chain slings are synonymous with high quality and a guarantee of absolute safety.

KWB Super Alloy Grade 80 sling chains and components combine to create a fully European manufactured chain sling system providing industry leading quality whilst also meeting with the most stringent of safety standards.

The KWB brand originates from the chain forge „Kettenwerk Brückl", an Austrian company with experience in chain production dating back centuries.

Super Alloy Grade 80 customised chain slings are manufactured in accordance with EN818-4 (chain to EN818-2 and components to EN1677).

KWB's constant extension and expansion of its lifting product programs over the years has enabled the company to develop a comprehensive range of top quality lifting equipment to meet the rigorous demands of the modern industrial world.

Super Alloy Grade 80 sling chains and components provide a cost effective lifting solution whilst also guaranteeing safety, longevity and a firm focus on sustainability.

Advantages:

- Manufactured using high grade steels and alloys
- Production on specially developed bending and welding machines in Europe
- Process controlled heat and surface treatments
- BG approved – H29 number
- Continuous quality control (ISO 9001, 9002) with ongoing research and development of the product
- Worldwide distribution
- Long standing experience of our employees
- Lower carbon footprint

Subject to change without prior notice. KWB reserves the right to modify the dimensions of the articles shown in this catalogue according to production requirements, and adaptation of the legal regulations. Errors & omissions excepted.

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Super Alloy Grade 80

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Super Alloy G 80 – Characteristics

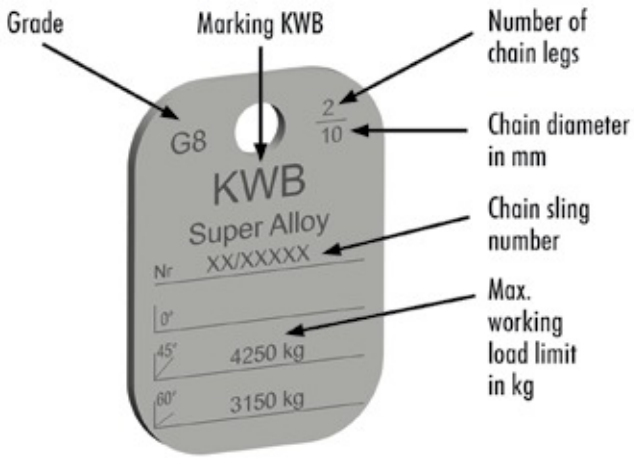
Chain Quality:	Super Alloy Chain	SA	Corresponds with EN 818-2 & machinery directive 2006/42/EC
Stress at Load Capacity Limit:			200 N/mm²
Test Stress:			500 N/mm² – corresponds to 2.5 times the load capacity
Breaking Stress:			800 N/mm² – corresponds to 4 times the load capacity
Breaking Elongation:			min. 20 %
Bending acc. to EN 818-2:			0.8 x nominal diameter
Permissible Working Temperature:	Super Alloy Chain	SA	max. 400 °C
	Components		max. 400 °C
Grade marking:	Super Alloy Chain	SA	8
	Components		8
Surface:	Super Alloy Chain	SA	Black painted
	Components		Powder coated
Working Load Tag:	Super Alloy Chain	SA	

All the required data is shown on the working load tag.

Note: Working load tags should only be assembled acc. EN 818-4 and by competent persons. Working load tags should be used, solely when the respective chain & KWB components are assembled in the chain sling. Should alternative Working load limits arise in the chain sling through the use of special parts, the tags are impermissible. Disregard of these instructions can lead to material damage and personal injury. KWB will not assume liability.

Temperature	-40° to 200 °C	above 200° to 300 °C	above 300° to 400 °C
Load Factor Super Alloy	1	0.9	0.75
Asymmetric Load Distribution	In this case the working load limit must be reduced by at least one chain leg, for example a 3-leg or 4-leg sling is to be classified as a 2-leg chain sling. In case of doubt, it must be supposed that only one of the chain legs carries the entire load.		
Edge Loads	R = larger than 2x chain Ø	R = larger than chain Ø	R = chain Ø or smaller
Load Factor	1	0.7	0.5
Impact Load	slight impact	medium impact	strong impact
Load Factor	1	0.7	impermissible

Clear Identification

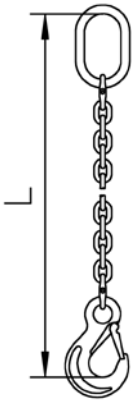


Sample of tag for ready made chain sling

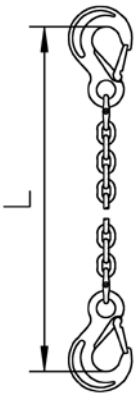
Certificate

A test certificate is issued for all our products which certifies all the specified charcteristics.

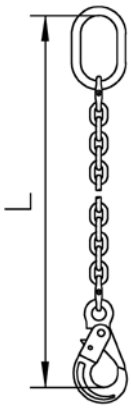
Sling Examples



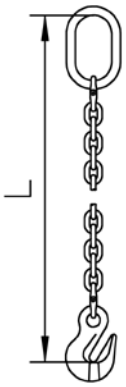
I A-HS V



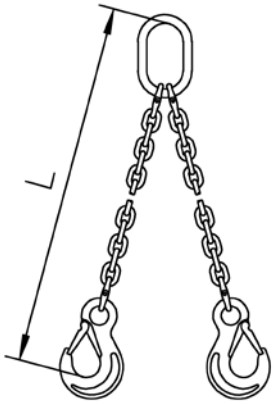
I HS-HS V



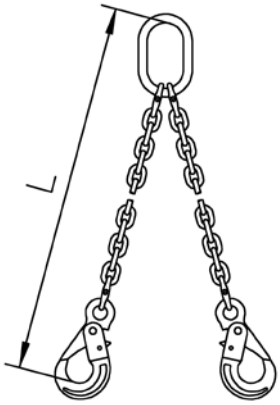
I A-HSB V



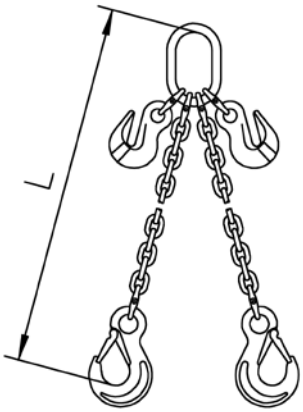
I A-P V



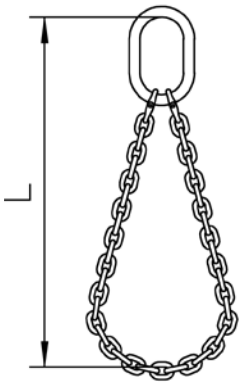
II A-HS V



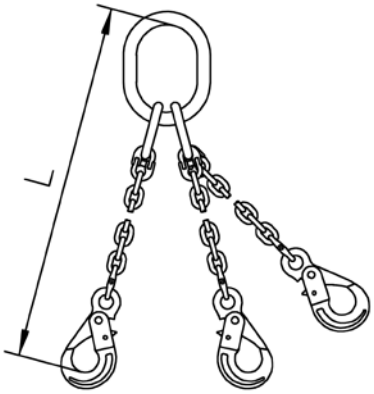
II A-HSB V



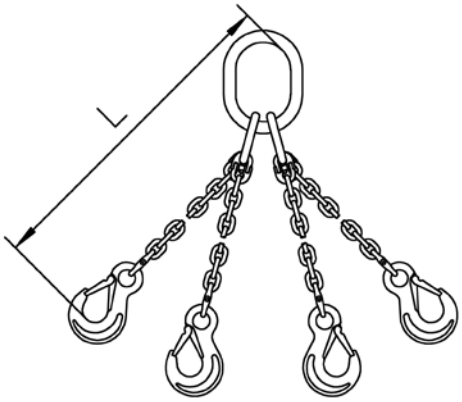
II A-HS-P V



II A-S V



III G-HSB V



IV G-HS V

Example of Order Text:

Super Alloy chain SA 10 mm, 2 legs with masterlink A and eye sling hook with forged safety latch HS, length 3,000 mm assembled with connecting link V.

SA 10 II A - HS 3000 V

Chain | Nominal diameter | Number of legs | Master Link | Hook | Length | Connecting link

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Master Links & Sub-Assemblies

		1-leg		2-leg		3 & 4-leg	
Super Alloy Chain Ø SA		Master Link A	Special Master Link T	Master Link A	Special Master Link T	Sub-Assembly G	Special Sub-Assembly TG
mm	inch	Code	Code	Code	Code	Code	Code
6	1/4	A 13	T 13	A 13	T 13	G 06/7.8	
7	9/32	A 13	T 13	A 16	T 13	G 06/7.8	TG 07.8
8	5/16	A 16	T 13	A 18	T 16	G 08.8	TG 08.8
10	3/8	A 18	T 16	A 22	T 20	G 10.8	TG 10.8
13	1/2	A 22	T 20	A 26	T 26	G 13.8	TG 13.8
16	5/8	A 26	T 26	A 32	T 32	G 16.8	TG 16.8
18	11/16	A 32	T 32	A 36	T 38	G 18.8	
20	3/4	A 36	T 32	A 36	T 38	G 20.8	
22	7/8	A 36	T 38	A/T 45	A/T 45	G 22.8	
26	1	A/T 45	A/T 45	A/T 50	A/T 50	G 26.8	
32	1 1/4	A/T 50	A/T 50	A/T 56	A/T 56	G 32.8	
36		A/T 56	A/T 56	A/T 56	A/T 56		
40		A/T 56					
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Connecting & Shortening Elements

Super Alloy Chain Ø SA		Connecting Link V	Omega Shackle VU	Webbing Coupling Link RSK	Eye Grab Hook P	Clevis Grab Hook PK	Clevis Shortening Clutch (with Securing Part) VKL
mm	inch	Code	Code	Code	Code	Code	Code
6	1/4	V 06.8 U	VU 06.8		P-06.8		VKL 06.8
7	9/32	V 07.8 U	VU 07.8		P 07/8.8	PK 07/8.8	VKL 07.8
8	5/16	V 08.8 U	VU 08.8	RSK 08.8 U	P 07/8.8	PK 07/8.8	VKL 08.8
10	3/8	V 10.8 N	VU 10.8	RSK 10.8/N	P 10.8	PK 10.8	VKL 10.8
13	1/2	V 13.8 U	VU 13.8	RSK 13.8 U	P 13.8	PK 13.8	VKL 13.8
16	5/8	V 16.8 U	VU 16.8	RSK 16.8 U	P 16.8	PK 16.8	
18	11/16						
20	3/4	V 20.8 U	VU 20.8		P 20.8	PK 20.8	
22	7/8	V 22.8			P 22.8		
26	1	V 26.8	VU 26.8		P 26.8		
32	1 1/4	V 32.8 U			P 32.8		
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Sling Hooks

Super Alloy Chain Ø SA		Eye Sling Hook with Forged Safety Latch HS	Clevis Sling Hook with Forged Safety Latch HKS	Eye Self Locking Hook HSB	Clevis Self Locking Hook HKSB	Swivel Safety Locking Hook WSB	Foundry Hook GH
mm	inch	Code	Code	Code	Code	Code	Code
6	1/4	HS 06.8 U	HKS 06.8 U	HSB 06.8	HKSB 06.8 U	WSB 06.8	
7	9/32	HS 07/8.8 U	HKS 07/8.8 U	HSB 07/8.8	HKSB 07/8.8 U	WSB 07/8.8	GH 07/8.8
8	5/16	HS 07/8.8 U	HKS 07/8.8 U	HSB 07/8.8	HKSB 07/8.8 U	WSB 07/8.8	GH 07/8.8
10	3/8	HS 10.8 U	HKS 10.8 U	HSB 10.8	HKSB 10.8 U	WSB 10.8	GH 10.8
13	1/2	HS 13.8 U	HKS 13.8 U	HSB 13.8	HKSB 13.8 U	WSB 13.8	GH 13.8
16	5/8	HS 16.8 U	HKS 16.8 U	HSB 16.8	HKSB 16.8 U	WSB 16.8	GH 16.8
18	11/16	HS 20.8 U		HSB 20.8			GH 20.8
20	3/4	HS 20.8 U	HKS 20.8 U	HSB 20.8			GH 20.8
22	7/8	HS 22.8 U	HKS 22.8 U	HSB 22.8			
26	1	HS 26.8 U					
32	1 1/4	HS 32.8 U					
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Special Accessories

Weld-on Hook HAS	Ratchet Load Binder with Grab Hooks RLSP	Ratchet Load Binder RLS
Code	Code	Code
HAS 1.3	RLSP 08	RLS 08
HAS 3.8	RLSP 10	RLS 10
HAS 6.3	RLSP 13	RLS 13
HAS 10		
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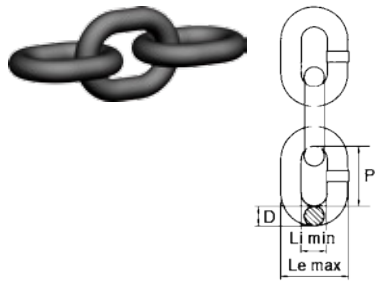
Super Alloy Chain

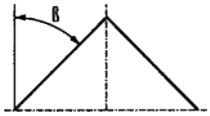
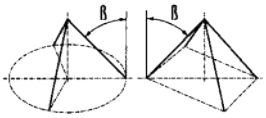
Super Alloy Chain SA acc, EN 818-2 – Measurements, Load Values, Weights



Chain D		P	Li / min.	Le / max.	Weight	Working Load Limit	Breaking Load
mm	inch	mm	mm	mm	kg/m	kg	kN
6	1/4	18	7.8	22.2	0.8	1,120	45.2
7	9/32	21	9.1	25.9	1.1	1,500	61.6
8	5/16	24	10.4	29.6	1.4	2,000	80.4
10	3/8	30	13	37	2.2	3,150	126
13	1/2	39	16.9	48.1	3.8	5,300	212
16	5/8	48	20.8	59.2	5.7	8,000	322
18	11/16	54	23.4	66.6	7.3	10,000	407
20	3/4	60	26	74	9	12,500	503
22	7/8	66	28.6	81.4	10.9	15,000	608
26	1	78	33.8	96.2	15.2	21,200	849
32	1 1/4	96	41.6	118	23	31,500	1,290

Safety factor 4:1

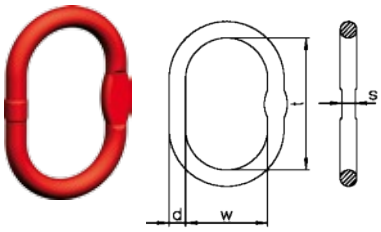
Maximum Working Load Limit for Super Alloy Chains

Chain Ø	1-leg Chains	2-leg Chains		3- & 4-leg Chains	
					
Angle of Inclination		0<ß≤45°	0<ß≤60°	0<ß≤45°	0<ß≤60°
Load Factor	1	1.4	1	2.1	1.5
Ø	Load Capacity [kg]				
6	1,120	1,600	1,120	2,360	1,700
7	1,500	2,120	1,500	3,150	2,240
8	2,000	2,800	2,000	4,250	3,000
10	3,150	4,250	3,150	6,700	4,750
13	5,300	7,500	5,300	11,200	8,000
16	8,000	11,200	8,000	17,000	11,800
18	10,000	14,000	10,000	21,200	15,000
20	12,500	17,000	12,500	26,500	19,000
22	15,000	21,200	15,000	31,500	22,400
26	21,200	30,000	21,200	45,000	31,500
32	31,500	45,000	31,500	67,000	47,500

If the chains are used in more demanding conditions (e.g. high temperature, asymmetric load distribution edge loads, impacts) the maximum load capacities in the table must be reduced, Please use the load factors on page 4 and refer to the specification in the user information,

Master Links, Sub-Assemblies & Accessories

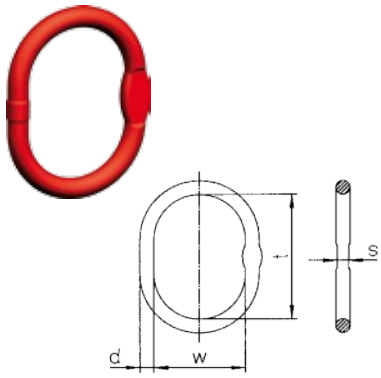
Master Link A



Chain Ø ⊥	Chain Ø ∧	Code	Commercial Code	Measurements d	Measurements t	Measurements w	Measurements s	Weight	Working Load Limit 0°-45° *)
mm	mm			mm				kg	kg
6+7	6	A 06/76.8	A 13	13	110	60	10	0.35	2,300
8	7	A 87.8	A 16	16.5	110	60	14	0.58	3,500
10	8	A 108.8	A 18	19	135	75	14	0.92	5,000
13	10	A 1310.8	A 22	23	160	90	17	1.60	7,600
16	13	A 1613.8	A 26	27	180	100	20	2.46	9,600
18	16	A 1816.8	A 32	33	200	110	26	4.10	13,600
20	18	A 2018.8	A 36	36	260	140		6.20	25,100
22	20	A 2220.8	A 36	36	260	140		6.20	25,100
26	22	A 2622.8	A 45	45	340	180		12.82	30,800
32	26	A 3226.8	A 50	50	350	190		16.55	40,000
36	32	A 3632.8	A 56	56	400	200		23.30	60,000
40	36	A 4036.8	A 56	56	400	200		23.30	60,000

*) Please refer to table „Maximum Working Load Limit“ on page 8 when using in chain slings.

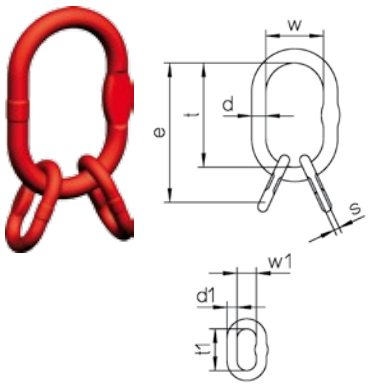
Special Master Link T



Chain Ø ⊥	Chain Ø ∧	Code	Commercial Code	Measurements d	Measurements t	Measurements w	Measurements s	Weight	Working Load Limit 0°-45° *)
mm	mm			mm				kg	kg
6+7+8	6+7	T 87.8	T 13	14	120	70	10	0.44	2,300
10	8	T 108.8	T 16	16.5	140	80	14	0.67	3,200
13	10	T 1310.8	T 20	20	160	95	14	1.21	5,400
16	13	T 1613.8	T 26	27	190	110	20	2.65	10,100
18+20	16	T 2016.8	T 32	33	230	130	26	4.78	15,700
22	18+20	T 2220.8	T 38	38	275	150	29	7.48	20,500

*) Please refer to table „Maximum Working Load Limit“ on page 8 when using in chain slings.

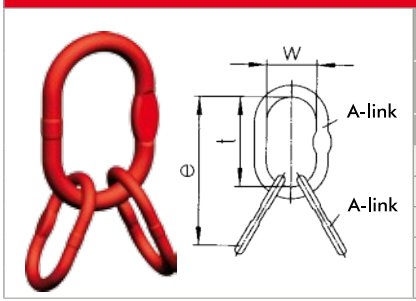
Sub-Assembly G



Chain Ø ⋀⋀	Code	Commercial Code	Measurements d	Measurements t	Measurements w	Measurements d1	Measurements t1	Measurements w1	Measurements s	Measurements e	Weight	Working Load Limit 0°-45° *)
mm			mm								kg	kg
6+7	G 06/7.8	G 06/7.8	19	135	75	13	60	38	10	195	1.23	4,200
8	G 08.8	G 08.8	23	160	90	16.5	70	34	14	230	2.27	7,600
10	G 10.8	G 10.8	27	180	100	19.5	85	40	14	265	3.43	9,600
13	G 13.8	G 13.8	33	200	110	23	115	50	17	315	6.60	13,780
16	G 16.8	G 16.8	36	260	140	27	140	65	20	400	10.06	20,800
18	G 18.8	G 18.8	45	340	180	33	150	70		490	19.14	30,700
20	G 20.8	G 20.8	50	350	190	33	150	70		500	22.87	34,100
22	G 22.8	G 22.8	50	350	190	36	170	75		520	24.79	40,000
26	G 26.8	G 26.8	56	400	200	40	170	80		570	37.75	54,000
32	G 32.8	G 32.8	70	460	250	50	200	100		660	66.60	76,000

*) Please refer to table „Maximum Working Load Limit“ on page 8 when using in chain slings.

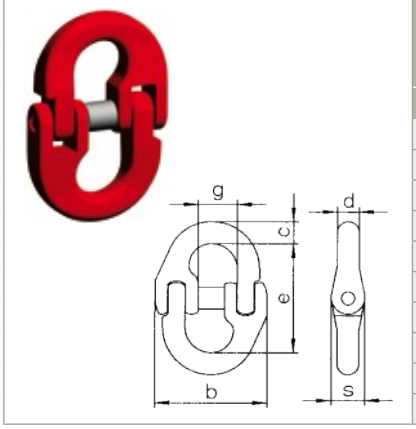
Special Sub-Assembly TG



Chain Ø	Code	Commercial Code	Measurements			Weight	Working Load Limit 0°-45° *)
			e	t	w		
mm			mm			kg	kg
7	TG 07.8	TG 07.8	280	160	95	2.14	3,150
8	TG 08.8	TG 08.8	310	170	105	3.10	4,250
10	TG 10.8	TG 10.8	350	190	110	5.21	7,000
13	TG 13.8	TG 13.8	420	230	130	9.44	13,200
16	TG 16.8	TG 16.8	505	275	150	17.04	20,500

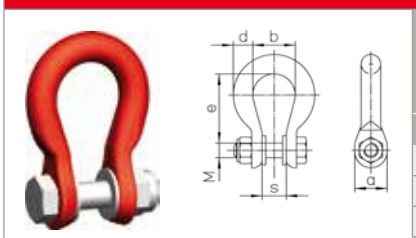
*) Please refer to table „Maximum Working Load Limit“ on page 8 when using in chain slings.

Connecting Link V



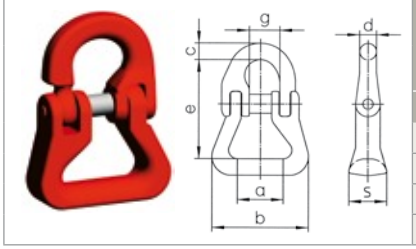
Chain		Code	Measurements						Weight	Working Load Limit
			g	s	b	e	c	d		
mm	inch		mm						kg	kg
6	1/4	V 06.8 U	14.1	11	39	44.4	7.8	7.6	0.10	1,120
7	9/32	V 07.8 U	17	13	47	51	10	9	0.18	1,500
8	5/16	V 08.8 U	18.35	14	55	62	11.5	10	0.22	2,000
10	3/8	V 10.8 N	24	18	64	72	15	13	0.33	3,150
13	1/2	V 13.8 U	27.6	22	79	88	19	16.7	0.88	5,300
16	5/8	V 16.8 U	33	29	106	103	21	21	1.65	8,000
20	3/4	V 20.8 U	41.7	35	123	115	29.5	23.5	2.76	12,500
22	7/8	V 22.8	48	39	150	133	27	27	3.24	15,000
26	1	V 26.8 U	61	46	159	164	32	30	4.76	21,200
32	1 1/4	V 32.8 U	80	50	195	194	40	32	9.55	31,500

Omega Shackle VU



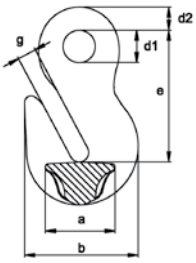
Chain		Code	Measurements						Weight	Working Load Limit
			e	b	d	s	a	M		
mm	inch		mm						kg	kg
6	1/4	VU 06.8	34	21	9	11	16	7	0.077	1,120
7	9/32	VU 07.8	49	28	13	16	22	8	0.22	1,500
8	5/16	VU 08.8	48	28	13	16	22	10	0.22	2,000
10	3/8	VU 10.8	60	35	16	20	27	12	0.41	3,150
13	1/2	VU 13.8	72	39	18	24	34	16	0.65	5,300
16	5/8	VU 16.8	80	47	23	32	44	20	1.34	8,000
20	3/4	VU 20.8	96	56	26	36	52	24	2.03	12,500
26	1	VU 26.8	132	77	33	49	66	30	4.70	21,200

Webbing Coupling Link RSK



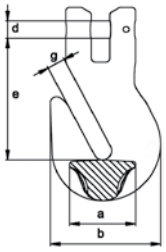
Chain		Code	Measurements							Weight	Working Load Limit
			b	e	s	a	g	d	c		
mm	inch		mm							kg	kg
8	5/16	RSK 08.8 U	68	66	18	29	19	10	12	0.36	2,000
10	3/8	RSK 10/N	82	81	21	40	24	13	15	0.616	3,150
13	1/2	RSK 13.8 U	100	104	28	50	28	16.5	19.5	0.57	5,300
16	5/8	RSK 16.8 U	110	112.5	40	47	33	21	21	1,52	8,000

Eye Grab Hook P



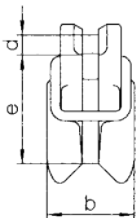
Chain		Code	Measurements						Weight	Working Load Limit
			g	d2	d1	e	a	b		
mm	inch		mm						kg	kg
6	1/4	P 06.8 *	7	9	12	50	26	41	0.14	1,120
7+8	9/32+5/16	P 07/8.8 *	9	12	16	65	34	55	0.35	2,000
10	3/8	P 10.8 *	12	14	20	77	46	69	0.65	3,150
13	1/2	P 13.8 *	15	19	26	101	60	89	1.44	5,300
16	5/8	P 16.8 *	19	23	32	121	70	110	2.40	8,000
18+20	11/16+3/4	P 20.8	25	27	36	151	84	150	6.15	12,500
22	7/8	P 22.8	27	31	42	170	91	165	8.30	15,000
26	1	P 26.8	32	37	50	201	107	195	13.80	21,200
32	1 1/4	P 32.8	39	44	60	245	139	231	20.27	31,500

Clevis Grab Hook PK



Chain		Code	Measurements					Weight	Working Load Limit
			g	d	e	a	b		
mm	inch		mm					kg	kg
7+8	9/32+5/16	PK 07/8.8 *	9	9	63	34	55	0.40	2,000
10	3/8	PK 10.8 *	12	12.5	78	46	69	0.79	3,150
13	1/2	PK 13.8 *	15	16	93	60	89	1.61	5,300
16	5/8	PK 16.8 *	19	20	115	70	110	3.00	8,000
20	3/4	PK 20.8	25	24	141	84	150	6.15	12,500

Clevis Shortening Clutch VKL

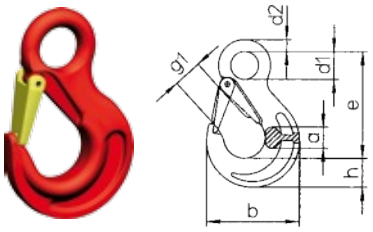


Chain		Code	Measurements			Weight	Working Load Limit
			e	b	d		
mm	inch		mm			kg	kg
6	1/4	VKL 06.8	45	36	7.4	0.27	1,120
7	9/32	VKL 07.8	58	44	9	0.5	1,500
8	5/16	VKL 08.8	58	44	10	0.5	2,000
10	3/8	VKL 10.8	70	55	12.5	0.8	3,150
13	1/2	VKL 13.8 [1]	90	70	16	1.53	5,300

[1] clevis connector with bent hitch pin, see figure

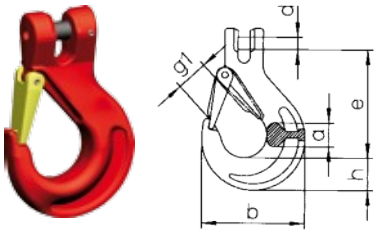
Warning Instructions:
- only load the inside chain
- only to be used with safety device
- make sure that the chain fits properly

Eye Sling Hook with Forged Safety Latch HS



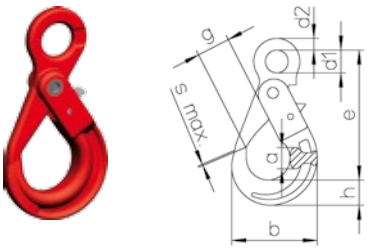
Chain		Code	Measurements							Weight	Working Load Limit
			g1	d2	d1	e	a	h	b		
mm	inch		mm							kg	kg
6	1/4	HS 06.8 U	19	10	20	85	17	21	68	0.34	1,120
7+8	9/32+5/16	HS 07/8.8 U	26	11	25	106	19	27	88	0.60	2,000
10	3/8	HS 10.8 U	31	16	34	131	26	33	109	1.25	3,150
13	1/2	HS 13.8 U	39	19	43	164	33	44	134	2.36	5,300
16	5/8	HS 16.8 U	45	25	50	183	40	50	155	3.77	8,000
18+20	11/16+3/4	HS 20.8 U	53	27	55	205	48	55	178	6.01	12,500
22	7/8	HS 22.8 U	62	29	60	225	50	62	196	8.19	15,000
26	1	HS 26.8 U	62	37	70	260	70	62	235	12.76	21,200
32	1 1/4	HS 32.8 U	87	37	70	299	87	97	291	22.31	31,500

Clevis Sling Hook with Forged Safety Latch HKS



Chain		Code	Measurements						Weight	Working Load Limit
			g1	a	h	d	e	b		
mm	inch		mm						kg	kg
6	1/4	HKS 06.8 U	19	15	20	7.4	69	66	0.29	1,120
7+8	9/32+5/16	HKS 07/8.8 U	26	19	28	9	95	90	0.63	2,000
10	3/8	HKS 10.8 U	31	25	35	12.5	109	108	1.14	3,150
13	1/2	HKS 13.8 U	39	34	41	16	136	131	2.25	5,300
16	5/8	HKS 16.8 U	45	37	49	20	155	153	3.69	8,000
20	3/4	HKS 20.8 U	53	51	53	24	184	177	5.60	12,500
22	7/8	HKS 22.8 U	62	52	62	27	214	196	9.13	15,000

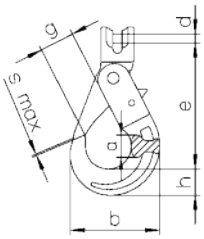
Eye Self Locking Hook HSB



Not for welded system!

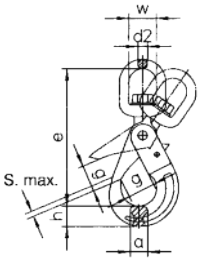
Chain		Code	Measurements								Weight	Working Load Limit
			g	d2	d1	e	b	a	h	s max.		
mm	inch		mm								kg	kg
6	1/4	HSB 06.8	28	11	21	110	71	17	20	1	0.52	1,120
7+8	9/32+5/16	HSB 07/8.8	34	12	25	136	88	20	26	1	0.92	2,000
10	3/8	HSB 10.8	45	17	32	169	107	29	30	1	1.57	3,150
13	1/2	HSB 13.8	52	20	40	205	138	35	40	1.5	3.19	5,300
16	5/8	HSB 16.8	60	27	50	251	168	41	50	2	6.24	8,000
18+20	11/16+3/4	HSB 20.8	70	30	60	290	194	50	62	2	9.75	12,500
22	7/8	HSB 22.8	81	32	70	322	211	52	62	2	11.45	15,000

Clevis Self Locking Hook HKSB



Chain		Code	Measurements						S max.	Weight	Working Load Limit
			g	d	e	a	b	h			
mm	inch		mm						mm	kg	kg
6	1/4	HKSB 06.8 U	28	7.4	94	17	71	20	1	0.56	1,120
7+8	9/32+ 5/16	HKSB 07/8.8 U	34	9	123	20	88	26	1	0.87	2,000
10	3/8	HKSB 10.8 U	45	12.5	144	29	107	30	1	1.61	3,150
13	1/2	HKSB 13.8 U	52	16	180	35	138	40	1.5	3.24	5,300
16	5/8	HKSB 16.8 U	60	20	218	41	168	50	2	5.96	8,000

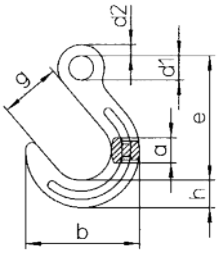
Swivel Self Locking Hook WSB



Standard type can not be swivelled when loaded. Not for welded system!

Chain		Code	Measurements						S max.	Weight	Working Load Limit
			e	h	d2	w	a	g			
mm	inch		mm						mm	kg	kg
6	1/4	WSB 06.8	161	20	12	35	16	28	1	1.20	1,120
7+8	9/32+ 5/16	WSB 07/8.8	182	26	12	35	20	34	1	1.54	2,000
10	3/8	WSB 10.8	218	30	16	42	25	45	1	2.14	3,150
13	1/2	WSB 13.8	269	40	20	49	35	52	1.5	4.42	5,300
16	5/8	WSB 16.8	319	50	24	60	35	60	2	7.34	8,000

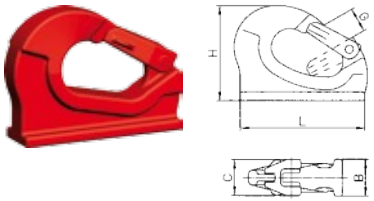
Foundry Hook GH



Chain		Code	Measurements							Weight	Working Load Limit
			g	d2	d1	e	a	h	b		
mm	inch		mm							kg	kg
7+8	9/32+5/16	GH 07/8.8	64	11	24	131	25	29	118	0.94	2,000
10	3/8	GH 10.8	76	14	31	158	32	35	143	1.69	3,150
13	1/2	GH 13.8	89	17	39	190	40	42	170	2.89	5,300
16	5/8	GH 16.8	102	22	47	224	46	50	200	5.17	8,000
18+20	11/16+3/4	GH 20.8	114	28	56	260	54	61	231	9.20	12,500

Special Accessories (Note Working Load Limits!)

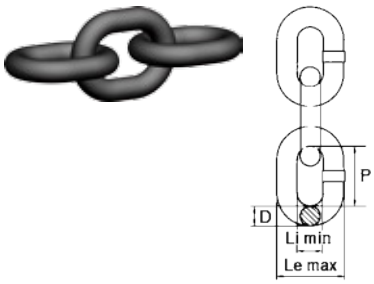
Weld-on Hook HAS



Weldable Safety Hook e.g. excavator buckets. According to safety specifications. Please consider welding instructions!

Code	Measurements					Weight	Working Load Limit
	L	H	G	B	C		
	mm					kg	kg
HAS 1.3	95	74	20	25	34	0.68	1,300
HAS 3.8	132	106	26	35	40	1.42	3,800
HAS 6.3	167	133	29	45	49	2.96	6,300
HAS 10	175	136	29	50	49	4.03	10,000

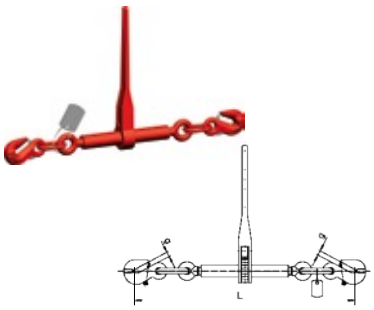
Lashing Chain Super Alloy SA acc. EN 818-2 – Measurements, Load Values, Weights



Safety factor 2:1

Chain D		Pitch P	Li/min.	Le/max.	Weight	LC Lashing Capacity	Breaking Force
mm	inch	mm	mm	mm	kg/m	kN	kN
8	5/16	24	10.4	29.6	1.4	40	80.4
10	3/8	30	13	37	2.2	63	126
13	1/2	39	16.9	48.1	3.8	100	212

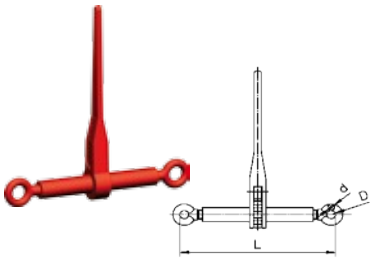
Ratchet Load Binder with Grab Hooks RLSP



Only for lashing. Not for lifting purposes!

Code	Max. Permissible Lashing Capacity LC	Normal Tension Force STF	Length Closed L	Length Open L	Tension Range	Width Opening g	Weight
	kN	daN	mm				kg
RLSP 08	40	1,900	586	731	145	12	4.39
RLSP 10	63	1,900	626	771	145	15	5.22
RLSP 13	100	3,000	708	853	145	19.5	8.09

Ratchet Load Binder RLS

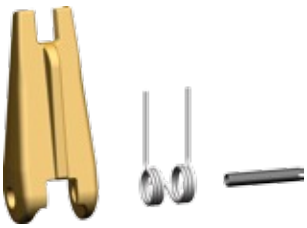


Only for lashing. Not for lifting purposes!

Code	Max. Permissible Lashing Capacity LC	Normal Tension Force STF	Length Closed L	Length Open L	Tension Range	D	d	Weight
	kN	daN	mm					kg
RLS 08	40	1,900	355	500	145	20	16	3.12
RLS 10	63	1,900	355	500	145	20	16	3.12
RLS 13	100	3,000	365	510	145	26	18	3.68

Spare Parts

Forged Safety Latch Kit for Clevis and Eye Sling Hooks



Chain		Code Forged Latch	Spare Part for
mm	inch		
6	1/4	FG 06	HKS/HS 06.8U
7+8	9/32+5/16	FG 07.8	HKS/HS 07/8.8 U
10	3/8	FG 10	HKS/HS 10.8 U
13	1/2	FG 13	HKS/HS 13.8 U
16	5/8	FG 16	HKS/HS 16.8 U
20	3/4	FG 20	HKS/HS 20.8 U
22	7/8	FG 22	HKS/HS 22.8 U
26	1	FG 26	HS 26.8 U
32	1 1/4	FG 32	HS 32.8 U

Safety Latch Kit for Weld-on Hooks HAS

Chain	Spare Part for
SFG-A1	HAS 1.3
SFG-A3	HAS 3.8
SFG-A6	HAS 6.3; HAS 10

Trigger Kit for Self Locking Hooks

Chain		Code for HSB/WSB/HKSB...U	Spare Part for
mm	inch		
6	1/4	HBG 06.8 U	HSB/HKSB/WSB 06.8 U
7+8	9/32+5/16	HBG 7/8.8 U	HSB/HKSB/WSB 7/8.8 U
10	3/8	HBG 10.8 U	HSB/HKSB/WSB 10.8 U
13	1/2	HBG 13.8 U	HSB/HKSB/WSB 13.8 U
16	5/8	HBG 16.8 U	HSB/HKSB/WSB 16.8 U
18+20+22	11/16+ 3/4+7/8	HBG 20/22.8 U	HSB 20.8+HSB 22.8 U

Load Pin Kit for Clevis Self Locking Hook

Chain		Code	Spare Part for
mm	inch		
6	1/4	KBG-HKSB 06.8 U	HKSB 06.8 U
7+8	9/32+5/16	KBG-HKSB 07/8.8 U	HKSB 07/8.8 U
10	3/8	KBG-HKSB 10.8 U	HKSB 10.8 U
13	1/2	KBG-HKSB 13.8 U	HKSB 13.8 U
16	5/8	KBG-HKSB 16.8 U	HKSB 16.8 U
20	3/4	KBG-HKSB 20.8 U	HKSB 20.8 U
22	7/8	KBG-HKSB 22.8 U	HKSB 22.8 U

Load Pin Kit for Clevis Sling Hook and Shortening Clutch

Chain		Code	Spare Part for
mm	inch		
6	1/4	KBG 06 U	HKS 06.8 U; VKL 06.8
7+8	9/32+5/16	KBG 07/8 U	HKS 7/8.8; U VKL 07.8
8	5/16	KBG 08 U	VKL 08.8
10	3/8	KBG 10 U	HKS 10.8 U; VKL 10.8
13	1/2	KBG 13 U	HKS 13.8; U VKL 13.8
16	5/8	KBG 16 U	HKS 16.8
20	3/4	KBG 20 U	HKS 20.8
22	7/8	KBG 22 U	HKS 22.8

Load Pin Kit for Clevis Shortening Hook PK

Chain		Code	Spare Part for	Code	Spare Part for
mm	inch				
7+8	9/32 + 5/16	KBG 07/8	PK 07/8.8	KBG 07/8 U	PK 07/8.8 NEW design
10	3/8	KBG 10	PK 10.8	KBG 10 U	PK 10.8 NEW design
13	1/2	KBG 13	PK 13.8	KBG 13 U	PK 13.8 NEW design
16	5/8	KBG 16	PK 16.8	KBG 16 U	PK16.8 NEW design
20	3/4	KBG 20	PK 20.8	KBG 20 U	

Load Pin Kit for Connecting Link

Chain		Code	Spare Part for	Code	Spare Part for
mm	inch				
6	1/4	BG-V 06.8 U	V 06.8 U	BG-V 06.8	V 06.8
7	9/32	BG-V 07.8 U	V 07.8 U	BG-V 07.8	V 07.8
8	5/16	BG-V 08.8 U	V 08.8 U/RSK 08.8 U	BG-V 08.8	V 08.8
10	3/8	BG-V 10.8 U	V 10.8 U/RSK 10.8 U	BG-V 10.8	V 10.8/RSK 10
13	1/2	BG-V 13.8 U	V 13.8 U/RSK 13.8 U	BG-V 13.8	V 13.8/RSK 13
16	5/8	BG-V 16.8 U	V 16.8 U/RSK 16.8 U	BG-V 16.8	V 16.8
18+20	11/16+3/4	BG-V 20.8 U	V 20.8 U	BG-V 20.8	V 20.8
22	7/8	BG-V 22.8 U	V 22.8 U	BG-V 22.8	V 22.8
26	1	BG-V 26.8 U	V 26.8 U	BG-V 26.8	V 26.8
32	1 1/4	BG-V 32.8 U	V 32.8 U	BG-V 32.8	V 32.8

Screw Set for Omega Shackle VU

Code	Spare Part for
mm	
UBMS 05.6	VU 06.8
UBMS 07	VU 07.8
UBMS 08	VU 08.8
UBMS 10	VU 10.8
UBMS 13	VU 13.8
UBMS 16	VU 16.8
UBMS 19	VU 20.8
UBMS 26	VU 26.8

Working Load Tag with Wire Rope Binder and Fastener

Code		
ID-Set	1/2/3/4-legs	

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User Information G8

General

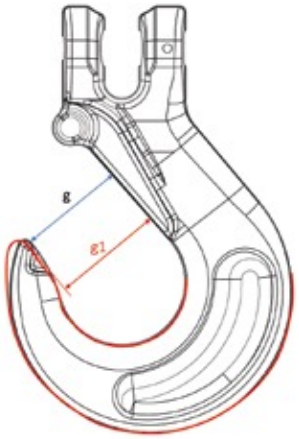
KWB sling chains and accessories can be used for general lifting purposes acc. EN 818-4. Chains should only be used by trained personnel, who have read and understood the instructions for use. KWB sling chains and components should not be altered e.g. twisting, grinding, removing of parts and drilling. The surface of the chains and accessories should not be subjected to acids or caustic solutions. If necessary please contact the KWB technical department.

Only use the KWB chains and accessories up to the indicated temperature. Should the temperature be exceeded the reduction of the load capacity must be taken into consideration (see pages 4). In the event of temperatures outside this range, do not use the chain slings.

Do not use KWB lifting chains and accessories in acids, alkalines or chemicals or expose them to their fumes.
Important: Certain production procedures release acids and or fumes. If necessary please contact KWB. In especially dangerous conditions (e.g. offshore applications, lifting of persons or potentially dangerous loads i.e. molten metals, corrosive materials, nuclear substances) the working load limit must be adjusted according to the risk level by an expert.

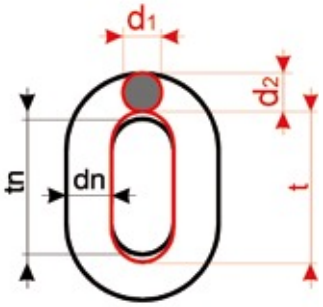
Inspection & Maintenance

Before using any lifting equipment for the first time please check the following:
- The sling chain corresponds exactly to the order.
- The test certificate or certificate of conformity have been supplied.
- Marking & working load limit of the chain correspond with the information on the test certificate or certificate of conformity.
- All the data regarding the sling chain has been entered in a register for lifting equipment, if required.
- Before use check the chains for visible damage or signs of wear. In case of damage do not use the chains. In case of doubt likewise.
- Sling chains depending on use should be inspected by an expert once a year i.e. after unusual events that could cause impairment of the chain sling.
- Every two years it is recommended that the chain be subjected to a load test 1.5 times the working load limit, followed by a visual inspection.



When one or more of the following criteria is fulfilled, the chain must be taken out of use:
- Broken link.
- Missing working load tag on the chain sling or illegible marking on the tag.
- Elongation of the chain. The chain must be discarded if $t > 1.05\ t_n$ (see catalogue).
- Wear: Wear is determined as the mean value of two measurements of diameters d_1 and d_2 carried out a right angle (see drawing). The chain must be discarded.

$$dm = \frac{d_1 + d_2}{2} \leq 09\ dn$$



- Cuts, notches, grooves, surface cracks, excessive corrosion, discoloration due to heat, signs of additional welding, twisted links or other faults.
- Missing i.e. non-functioning safety device or signs of widening of the hook i.e. noticeable enlargement of the opening or other forms of deformation.

Some of the imagery featured in the catalog are artistic depictions and do not show the actual application of the products.

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Designation	Dimensions	Max. Change Permitted
Chain	D	-10 %
	P	+5 %
Rings	d	-10 %
	t	+10 %
Hooks *)	e	+5 %
	h, d2	-10 %
	g, g1	+10 %
V, RSK	Both halves must be free to move	No change permitted
	e	+5 %
	c	-10 %
Connecting link VU	Bolts must be free to move	No change permitted
	e	+5 %
	d and M	-10 %
Clevis Bolts and Bolts for Connecting Links + Webbing Coupling Links	d	-10 %
HSB, HKSB, WSB	Tip opening	2 x s max.

*) HKSB/SUN, HKS/SUN
VK/S, P/S, PS/S, PK/S, HKS/S, VHKS/S, HKSB/S, GHK/S, HS/S, HSB/S, WSB/S, GH/S, BH/S, HS, GH, P, HKS, PK, VHKS, VKL, WSB, HKSB, HSB

KWB chain slings should only be repaired by qualified personnel.
Records of the inspections and repairs must be kept on file for the entire service life of the chain sling.
KWB chain slings should be stored in dry condition & protected from corrosion (preferably oiled).

Correct Use of Chain Slings

KWB chain slings should only be used with the angle of indination indicated on the working load tag.
Avoid angles of indination under 15°. Never use the chain slings with an angle of indination exceeding 60°.
If KWB chains are guided over edges protective padding should be used to avoid damage or the load capacity reduced (see page 4). But if chains looped at a beam or other round shaped loads the diamater should be minimum thrice the chain pitch. For smaller diameters the WLL of the chain must be reduced by 50 %.

In cases of possible impact load the working load limit of the KWB chains should be scaled down acc. to the table on pages 4.
Impact/shock can be defined as follows:
- Slight impact: arises e.g. when the lifting or lowering movement is accelerated.
- Medium impact: occurs e.g. when the chain slips during adjustment to the shape of the load.
- Strong impact: arises e.g. when the load falls into the unloaded chain.

KWB lifting chains and components are rated according to regulations for 20,000 load cycles. At high dynamic forces there may nevertheless be a risk of damage to the chain and accessories. According to the employer´s liability insurance association Metall Nord Süd this risk may be prevented if the stress at load capacity limit is reduced by using a larger chain dimension.
The load capacities of KWB chain slings are defined with the assumption that the load of the individual chain legs is distributed symmetrically. The load can still be considered symmetrical when all the following conditions are complied with:
- The load is smaller than 80 % of the indicated working load limit.
- The angle of indination of all chain legs is not less than 15°.
- The angle of indination of all chain legs are equal or deviate max. 15° from each other.
- In the case of 3- and 4-leg chain slings, the corresponding angles in the sling level deviate max. 15° from each other.

Should these parameters not be met, then the load is considered asymmetric and an expert must be called to evaluate the lifting process. In case of doubt the load capacity must be reduced to that of a single-leg chain sling. Individual chain legs which are not in use must be hung back into the master link and the working load limit reduced accordingly.

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KWB
Safety in action

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