



A member of the THIELE-Group



LIFTING TECHNOLOGY MADE IN GERMANY

Grade 80
GK8



TM
Hoists

THIELE
lifting
evolution

superior XL®
**Grade
100**



TLP
Hoist Rings

EDITION 1

The **Name**
for **Safety.**

Company Profile



Our parent Company

The company was founded in 1935 by August Thiele. Chains were even welded in forge with only 8 employees. Later on automatic bending and welding machines facilitated the hard physical strain. In the fifties THIELE began the production of chains for the mining industry. The stainless steel (23 MnNiMoCr 54) generally used for high-performance chains was invented by THIELE engineers. All heavy mining-chains have been designed and introduced by THIELE. The development of rated sizes of 22 to currently 48 mm for mining-chains has also been carried out by THIELE.

Quality Philosophy

We are one of the first companies in the industry to comply worldwide with the quality assurance criteria outlined by DIN EN ISO 9001. Based on the traditions of our company, we are steadily propelling our product process and organization development forward. Our quality target is "zero defects" – anything less is unacceptable. Consistently and thoroughly applied quality inspections during all production phases and indepth final product inspections guarantee that we come as close to this goal as humanly possible.

At the end of the sixties Schlieper and Nordland were taken over. As a result, the product range was extended by heavy anchor chains and snow chains. In addition to aforementioned companies, the following also belong to the THIELE group: Reilloc Chain (UK), THIELE Asia (SIN)

Today the THIELE group produces 5000 different chains and accessories. Our target to be innovative leaders in chain technology has been proved several times in company history. We built the longest (915 m) and heaviest (100 t) anchor chains in the world.



KWS – A member of the THIELE-Group

In 1995 Mr. Ulrich Thiele established operations in the United States specifically focused on the sales of the THIELE brand of overhead lifting chain and components. Since then, Conveying Chain, Fishing Chain, Hoists and Hoist Chains have been added to the product line. New products are continually being added, most recently Magnet Chain Assemblies.

Still today the company is family-owned. In close cooperation with our customers we always search for better and more innovative solutions. We are also supported by renowned universities and leading research institutes. We are continuously researching new knowledge in material technique and shaping in order to develop lighter, more solid and safer products.





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General Information

Sales-Service

Our Sales- and Technical staff is available for you during work hours and can be reached under the following contact information.

Address:


KWS Inc.
P.O. Box 470487
Tulsa
OK 74147
Toll Free 1-800-872-9313
Phone (918) 665-4114
Fax (918) 665-4118
email: sales@kwschain.com

Working hours

Mo. – Fr.: 8:00 am – 5:00 pm central time
Closed for lunch from noon - 1:00 pm central time



KWS, Inc. Conditions of Sale & Limited Warranty

Payment Terms:	1% 10 days, net 30 days from date of invoice
Delivery Terms:	F.O.B. shipping point Freight prepaid at lowest tariff rate on shipments of 1000+ lbs.
Cut Chain:	A minimum charge of 20% per foot will be applied to each length of chain cut from stock
Special Items:	All orders for non-stock items will be accepted based on the understanding that the delivered quantity can vary plus or minus 10% from the original quantity and invoice will be issued accordingly.
Returns:	Return requests will only be honored on standard items in NEW condition and within 90 days from original invoice date. Customer is responsible for return freight. If returned item is part of original prepaid shipment, a portion of original freight will also be assessed against the returned item. Minimum standard restocking charge is 20% or \$25.00 whichever is greater. If item is not in new condition, credit will not be issued and item will be discarded.
WARNINGS:	<p>To prevent accidents, proper selection, application, and loading of chains and accessories is absolutely necessary.</p> <p>NEVER exceed the published working load limits of chains and accessories.</p> <p>Accessories must always have equal or higher working load limits than the chain.</p>
THIELE Plant Standard (TWN)	THIELE Plant Standards fulfill the requirements of the EG Directive  for Machines, particularly for the safety relevant components. The Working Load Limits and the test requirements are more strict than the European Standards.

XL-Program

Comparison between Grade 80 and Grade 100

Save up to 30% weight on a 2-leg chain sling.

for Example:

Part-No.	THIELE Plant Standard	Pieces
Master Link	TWN 1808A	1
XL-LOK®	TWN 1820	2
2 m Round Steel Link Chain	TWN 1805A	2
Clevis Sling Hook	TWN 1840/1	2



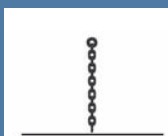






Working Load Limit [lbs.]	GK8 Grade 80 Weight [lbs.]	Grade 100 Weight [lbs.]	Saving
9,900	20.5	14.5	30 %
19,200	36.4	23.3	35 %
26,000	59.0	40.6	31 %

Properties	GK8 Grade 80	Grade 100
Weight		abt. 30 % less
Breaking Stress	800 N/mm ²	1,000 N/mm ²
Application Temperature	- 40 to 400 °F	- 20 to 400 °F US ASTM - 20 to 700 °F US PAS*
Acids and Lyes	not allowed	not allowed
Compatibility with other systems	yes	restricted
Color Round Steel Link Chains	black painted (RAL 9005)	7/32-5/8" = grey painted (RAL 7011) 3/4-1" = blue painted (RAL 5002)
Color Forgings	powder coated red (RAL 3003)	blue powder coated (RAL 5002)
Standards	European EN and International ANSI and ASTM	European PAS and International ANSI and ASTM

* Reduction starting at 400 ° F

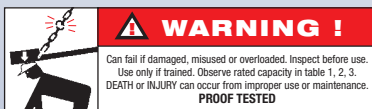
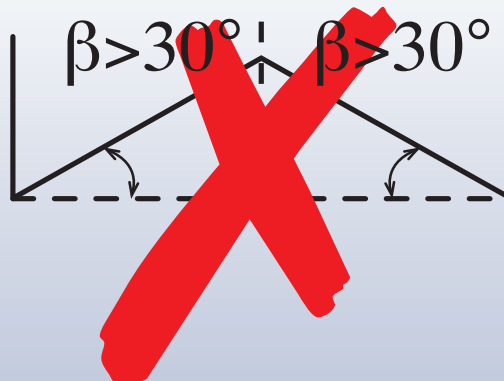
XL-Working Load Limit Tables

Working Load Limit in lbs. – direct sling

Table 1		Single Sling (lbs.) 90° Angle of Lift	Double Sling (lbs.)			Triple and Quad Sling (lbs.)		
Chain Size [mm]	Chain Size [inch]		60° Angle	45° Angle	30° Angle	60° Angle	45° Angle	30° Angle
6	7/32							
7	9/32	2,700	4,700	3,800	2,700	7,000	5,700	4,000
8	5/16	4,300	7,400	6,100	4,300	11,200	9,100	6,400
10	3/8	5,700	9,900	8,100	5,700	14,800	12,100	8,500
13	1/2	8,800	15,200	12,400	8,800	22,900	18,700	13,200
16	5/8	15,000	26,000	21,200	15,000	39,000	31,800	22,500
20	3/4	22,600	39,100	32,000	22,600	58,700	47,900	33,900
22	7/8	35,300	61,100	49,900	35,300	91,700	74,900	53,000
26	1	42,700	74,000	60,400	42,700	110,900	90,600	64,000
		58,300	101,900	82,900	58,300	153,500	125,100	88,000

*WLL acc. to ASTM

Inclination Angles β over 30° are prohibited



Endless chain

K11



K12



K22



XL-200 Grade 100 Round Steel Link Chains TWN 0072A according to ASTM 973

XL-400 Grade 100 Round Steel Link Chains TWN 1805 according to PAS 1061



	TWN 0072A XL-200						TWN 1805 XL-400		
Trade Size mm	6 - XL	7 - XL	8 - XL	10 - XL	13 - XL	16 - XL	20 - XL	22 - XL	26 - XL
Part. No.	F01616A	F01621A	F01617A	F01618A	F01619A	F01620A	F01638B	F01650B	F01660B
Nominal Size (d)	7/32	9/32	5/16	3/8	1/2	5/8	3/4	7/8	1
Pitch (p) (inch)	0.71	0.83	0.95	1.18	1.54	1.89	2.36	2.60	3.07
Pitch Tolerance (±) (inch)	0.02	0.03	0.03	0.04	0.05	0.06	0.07	0.08	0.09
Inside Width w ₁ min. (inch)	0.38	0.38	0.43	0.51	0.61	0.81	1.02	1.13	1.33
Outside Width w ₂ (inch)	0.81	1.02	1.17	1.46	1.90	2.33	2.92	3.21	3.79
Working Load Limit (lbs)	3,200	4,300	5,700	8,800	15,000	22,600	35,300	42,700	58,330
Weight approx (lbs/ft)	1.98	2.64	3.53	5.51	9.04	13.66	22.26	27.11	37.69

TWN 0072A / XL 200 acc. to ASTM 973

Elongation at break, self colored, min. 25%; other surface finishes min 20%.

Factor: Load- to Proof- to Breaking Stress 1 : 2 : 4 Finish: Iron grey, RAL 7011

TWN 1805 / XL 400 acc. to PAS 1061

Elongation at break, self colored, min. 25%; other surface finishes min 20%.

Factor: Load- to Proof- to Breaking Stress 1 : 2.5 : 4

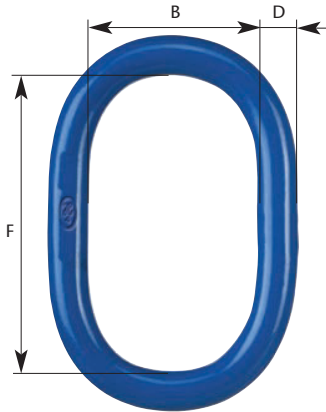
Finish: Blue RAL 5002



We provide high working load chains needed for today's new energy sources.



XL-Suspension Components



The Master Link Form A TWN 1807A

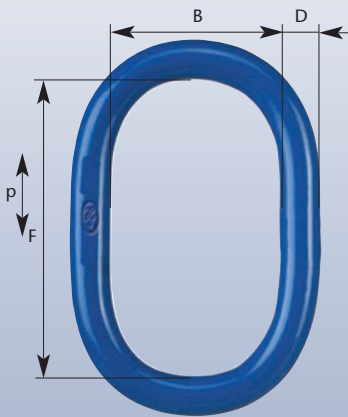
according to DIN 5688 for 1-leg chain slings enables an easy assembly of an **XL-LOK®** TWN 1820. This Suspension component's coupling offers a higher flexibility in sling assembly with the advantage of less inventory.

The Master Link Form A TWN 1807 is suitable for Crane Hooks according to DIN 15401:

Trade Size	Crane Hook No	Trade Size	Crane Hook No.
6 – XL	No. 2.5	13 – XL	No. 6
8 – XL	No. 2.5	16 – XL	No. 8
10 – XL	No. 5		

Finish: RAL 5002

Trade Size	Part.-No.	Nominal Size [inch]	Working Load Limit [lbs.]	Dimensions [inch]			Weight approx. [lbs.]
				D	F	B	
6-XL	F180706	7/32	3,200	0.51	3.55	1.97	0.64
8-XL	F180708	5/16	5,700	0.63	4.33	2.36	1.17
10-XL	F180710	3/8	8,800	0.71	5.12	2.76	1.74
13-XL	F180713	1/2	15,000	0.87	6.30	3.55	3.31
16-XL	F180716	5/8	22,600	1.02	7.09	3.94	5.07
22-XL	F180722	7/8	42,700	1.42	9.84	5.51	13.67



The Master Link Form A TWN 1808A

according to DIN 5688 for 2-leg chain slings enables an easy assembly of an **XL-LOK®** TWN 1820. This Suspension Components coupling offers a higher flexibility in sling assembly with the advantage of less inventory.

The Master Link Form A TWN 1808 is suitable for Crane Hooks according to DIN 15401:

Trade Size	Crane Hook No	Trade Size	Crane Hook No.
6 – XL	No. 2.5	13 – XL	No. 8
8 – XL	No. 5	16 – XL	No. 10
10 – XL	No. 6		

Finish: RAL 5002

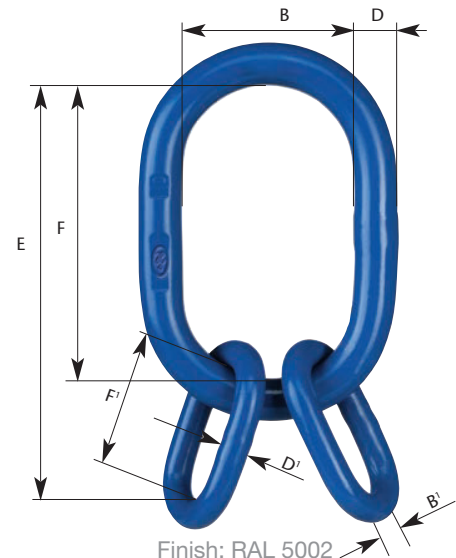
Trade Size	Part.-No.	Nominal Size [inch]	Working Load Limit [lbs.]	Dimensions [inch]			Weight approx. [lbs.]
				D	F	B	
6-XL	F180806	7/32	5,500	0.51	3.55	1.97	0.64
8-XL	F180808	5/16	9,900	0.71	5.12	2.76	1.74
10-XL	F180810	3/8	15,200	0.79	5.52	3.15	2.42
13-XL	F180813	1/2	26,000	1.02	7.09	3.94	5.07
16-XL	F180816	5/8	39,100	1.26	9.06	4.93	9.70
22-XL	F180822	7/8	74,000	1.77	12.60	6.89	26.46

The Master Link Assembly TWN1809A

according to DIN 5688 for 3/4-leg chain slings enables easy assembling of an XL-LOK® TWN 1820.

The Master Link Assembly TWN 1809 is suitable for Crane Hooks according to DIN 15401:

Trade Size	Crane Hook No	Trade Size	Crane Hook No.
6 – XL	No. 5	13 – XL	No. 10
8 – XL	No. 6	16 – XL	No. 16
10 – XL	No. 8		



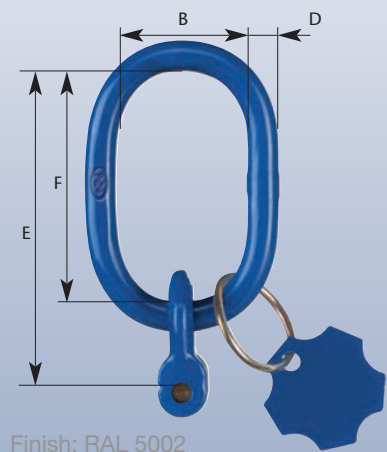
Trade Size	Part.-No.	Nominal Size	Working Load Limit	Dimensions								Weight approx.
		[inch]	[lbs.]	[inch]								[lbs.]
				E	D	F	B	D'	F'	B'		
6-XL	F180906	7/32	6,720	6.70	0.63	4.33	2.36	0.51	2.36	1.18	2.07	
8-XL	F180908	5/16	11,812	8.27	0.79	5.52	3.15	0.63	2.76	1.38	3.97	
10-XL	F180910	3/8	17,920	10.64	1.02	7.09	3.94	0.79	3.55	1.77	8.38	
13-XL	F180913	1/2	31,360	13.79	1.26	9.06	4.93	1.02	4.13	2.36	16.97	
16-XL	F180916	5/8	41,488	16.55	1.58	11.43	6.30	1.10	5.12	2.56	28.65	
22-XL	F180922	7/8	111,000	20.47	1.97	13.39	7.48	1.58	7.09	3.54	61.73	

The Fixed Size Master Link Assembly TWN 1810/1

Type TAA1 for 1-leg chain slings is automatically determined to the nominal size by the Ring-shackle. The Ringshackle moves freely. A welded identification tag contains all the data required. The dimensions are in accordance with DIN 5688, form A. The Fixed Size Master Link Assembly Type TAA 1 can also be delivered without the Ringshackle as a Master Link TWN 1807.

The Fixed Size Master Link Assembly TWN 1810/1 is suitable for Crane Hooks according to DIN 15401:

Trade Size	Crane Hook No	Trade Size	Crane Hook No.
6 – XL	No. 2.5	13 – XL	No. 6
8 – XL	No. 2.5	16 – XL	No. 8
10 – XL	No. 5		



Trade Size	Part.-No.	Nominal Size [inch]	Working Load Limit [lbs.]	Dimensions [inch]				Weight approx. [lbs.]
				E	D	F	B	
6-XL	F1810106	7/32	3,200	5.56	0.51	4.33	2.36	0.99
8-XL	F1810108	5/16	5,700	5.79	0.63	4.33	2.36	1.63
10-XL	F1810110	3/8	8,800	7.13	0.71	5.32	2.96	2.64
13-XL	F1810113	1/2	15,000	8.63	0.87	6.30	3.55	5.29
16-XL	F1810116	5/8	22,600	9.69	1.02	7.09	3.94	8.60



The Fixed Size Master Link Assembly TWN 1810/2

Type TAA2 for 2- leg chain slings is automatically determined to the nominal size by the Ring-shackle · The Ringshackle moves freely · A welded identification tag contains all the data required · The dimensions are in accordance with DIN 5688, form A · The Fixed Size Master Link Assembly Type TAA2 can also be delivered without the Ringshackle as a Master Link TWN 1808.

The Fixed Size Master Link Assembly TWN 1810/2 is suitable for Crane Hooks according to DIN 15401:

Trade Size	Crane Hook No	Trade Size	Crane Hook No.
6 – XL	No. 2.5	13 – XL	No. 8
8 – XL	No. 5	16 – XL	No. 10
10 – XL	No. 6		

Finish: RAL 5002

Trade Size	Part.-No.	Nominal Size	Working Load Limit	Dimensions				Weight approx.
		[inch]	[lbs.]	[inch]				[lbs.]
				E	D	F	B	
6-XL	F1810206	7/32	5,500	5.56	0.51	4.33	2.36	1.19
8-XL	F1810208	5/16	9,900	6.78	0.71	5.32	2.96	2.64
10-XL	F1810210	3/8	15,200	8.12	0.87	6.30	3.55	5.07
13-XL	F1810213	1/2	26,000	9.42	1.02	7.09	3.94	8.82
16-XL	F1810216	5/8	39,100	10.48	1.26	7.88	4.33	15.65



The Fixed Size Master Link Assembly TWN 1810/4

Type TAA4 for 3/4- leg chain slings is automatically determined to the nominal size by the Ringshackle · The Ringshackle moves freely · A welded identification tag contains all the data required · The dimensions are in accordance with DIN 5688, form A · The Fixed Size Master Link Assembly Type TAA4 can also be delivered without the Ringshackle as a Master Link TWN 1809.

The Fixed Size Master Link Assembly TWN 1810/4 is suitable for Crane Hooks according to DIN 15401:

Trade Size	Crane Hook No	Trade Size	Crane Hook No.
6 – XL	No. 5	13 – XL	No. 10
8 – XL	No. 6	16 – XL	No. 16
10 – XL	No. 8		

Finish: RAL 5002

Trade Size	Part.-No.	Nominal Size	Working Load Limit	Dimensions					Weight approx.
				[inch]					
		[inch]	[lbs.]	E	D	F	B	D	[lbs.]
6-XL	F1810406	7/32	6,720	8.67	0.91	5.32	2.96	0.51	3.53
8-XL	F1810408	5/16	11,812	10.52	0.87	6.30	3.55	0.63	6.83
10-XL	F1810410	3/8	17,920	12.25	1.02	7.09	3.94	0.71	11.02
13-XL	F1810413	1/2	31,360	14.74	1.26	2.88	4.33	0.87	20.94
16-XL	F1810416	5/8	41,488	18.36	1.42	10.24	5.52	1.02	36.15

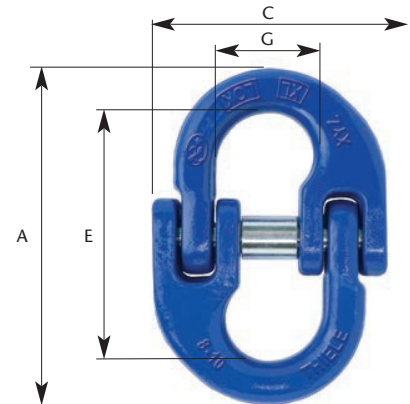
XL-LOK® Connector

The XL-LOK®-Connector TWN 1820

consists of two lok halves, which enables the assembly of Round Steel Link Chains or various components and lifting points to each other.

- The lok halves are interchangeable.
- The assembly does not require an expensive bushing.
- The assembly will be completed with two locking spirol pins according to the assembly instructions as shown below.
- 100% Magnetic Crack Tested. BG - approved.

Finish: Blue powder coated



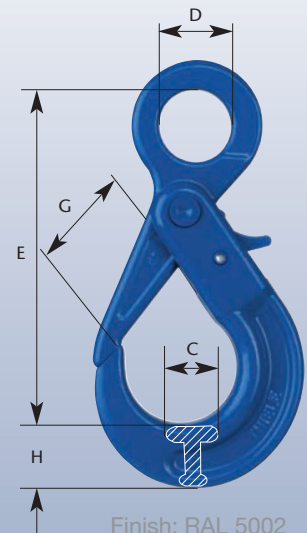
Trade Size	Part.-No.	Nominal Size [inch]	Working Load Limit [lbs.]	Dimensions [inch]				Weight approx. [lbs.]
				E	G	A	C	
6-XL	F30807	7/32	3,200	1.77	0.55	2.40	1.52	0.15
8-XL	F30817	5/16	5,700	2.44	0.75	2.79	2.17	0.44
10-XL	F30827	3/8	8,800	2.84	0.94	3.35	2.58	0.77
13-XL	F30837	1/2	15,000	3.43	1.10	2.83	3.25	1.63
16-XL	F30847	5/8	22,600	4.13	1.35	5.76	4.29	2.56
22-XL	F30861	7/8	42,700	5.51	1.86	7.87	6.50	7.76

XL-Hooks

The Eye Self Locking Hook TWN 1836

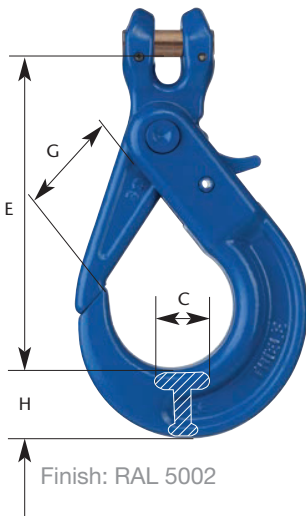
automatically locks under load.

- The flattened extra large eye offers universal coupling options. A robust trigger at the back side of the hook can be easily hand-operated.
- Despite an extra wide hook opening, the Eye Self Locking Hooks offer a slim shape and enable a versatile use.
- The available Trigger Sets are universal for hooks type TWN1836 and 1837.



Finish: RAL 5002

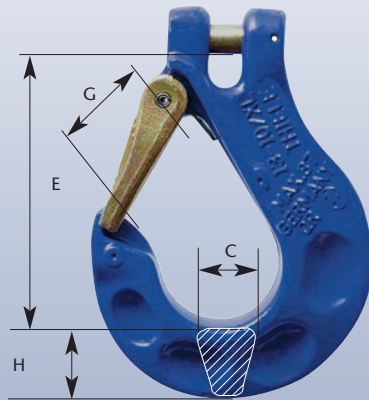
Trade Size	Part.-No.	Nominal Size [inch]	Working Load Limit [lbs.]	Dimensions [inch]					Weight approx. [lbs.]
				E	D	G	H	C	
6-XL	F092203	7/32	3,200	4.33	0.83	1.10	0.79	1.34	1.01
8-XL	F092213	5/16	5,700	5.39	1.06	1.41	1.02	1.81	1.85
10-XL	F092223	3/8	8,800	6.65	1.36	1.77	1.22	2.28	3.28
13-XL	F092233	1/2	15,000	8.23	1.58	2.11	1.61	2.72	6.45
16-XL	F092243	5/8	22,600	10	1.97	2.46	1.97	3.39	12.84
22-XL	F092273	7/8	42,700	12.57	2.76	3.15	2.56	3.86	25.86



The **Clevis Self Locking Hook TWN 1837** automatically locks under load.

- A robust trigger at the back side of the hook can be easily hand-operated.
- Despite an extra wide hook opening, the Clevis Self Locking Hooks offer a slim shape and enable a versatile use.
- The available Trigger Sets are universal for hooks type TWN1836 and 1837.

Trade Size	Part.-No.	Nominal Size [inch]	Working Load Limit [lbs.]	Dimensions [inch]				Weight approx. [lbs.]
				E	G	H	C	
6-XL	F092002	7/32	3,200	3.78	1.10	0.79	1.34	1.04
8-XL	F092012	5/16	5,700	4.84	1.41	1.02	1.81	1.95
10-XL	F092022	3/8	8,800	5.67	1.77	1.22	2.28	3.38
13-XL	F092032	1/2	15,000	7.17	2.11	1.61	2.72	6.62
16-XL	F092042	5/8	22,600	8.54	2.46	1.97	3.39	13.05
22-XL	F092072	7/8	42,700	10.89	3.15	2.53	3.86	27.14



The new **Sling Hook TWN1840/1**. Complete Performance: Great Strength, Stability and Value

Simply Better:

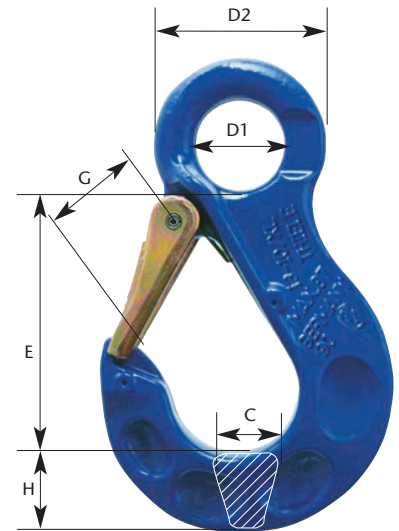
- The new design of the TWN 1840/1 Sling Hook offers an ergonomic design for easier and more comfortable use.
- The TWN 1840/1 is designed with a wide throat opening and fitted wear edges ensuring easily handled loads.
- The TWN 1840/1 also comes standard with a forged safety latch designed for tough service and long life.

Trade Size	Part.-No.	Nominal Size [inch]	Working Load Limit [lbs.]	Dimensions [inch]				Weight approx. [lbs.]
				E	G	H	C	
6-XL	F336050	9/32	3,200	3.00	1.00	0.87	0.62	0.75
8-XL	F336150	5/16	5,700	3.63	1.18	1.00	0.87	1.66
10-XL	F336250	3/8	8,800	4.50	1.50	1.25	1.06	3.10
13-XL	F336350	1/2	14,800	5.25	1.63	1.63	1.37	5.50
16-XL	F336450	5/8	22,000	6.37	2.00	2.00	1.63	9.70

The new **Eye Slip Hook TWN1841/1**.
Complete Performance: Great Strength, Stability and Value

Simply Better:

- The new design of the TWN 1841/1 Sling Hook offers an ergonomic design for easier and more comfortable use.
- The TWN 1841/1 is designed with a wide throat opening and fitted wear edges ensuring easily handled loads.
- The TWN 1841/1 also comes standard with a forged safety latch designed for tough service and long life.



Finish: RAL 5002

Trade Size	Part.-No.	Nominal Size [inch]	Working Load Limit [lbs.]	Dimensions						Weight approx. [lbs.]
				E	D ¹	[inch] D ²	G	H	C	
6-XL	F32905	9/32	3,200	3.50	0.44	0.81	1.00	0.75	0.83	0.75
8-XL	F32915	5/16	5,700	4.63	0.50	1.09	1.19	1.00	0.88	1.75
10-XL	F32925	3/8	8,800	5.75	0.69	0.50	1.50	1.75	1.11	3.25
13-XL	F32935	1/2	14,800	6.63	0.81	0.62	1.62	1.62	1.37	5.63
16-XL	F32945	5/8	22,000	8.75	1.00	2.12	2.00	2.00	1.62	10.25
22-XL	F32975	7/8	42,700	10.67	2.56	4.92	4.16	2.00	1.62	10.25

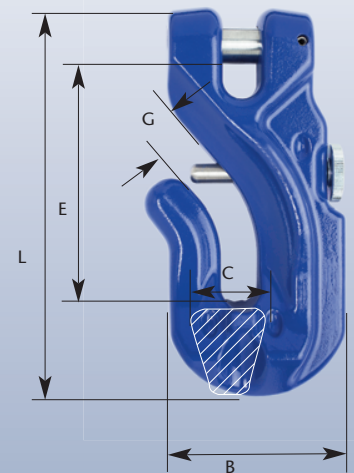
XL-Shortening Components

The Shortening Hook TWN 1827/1

The Shortening Hook TWN1827/1 according to DIN 5692 makes the lifting of loads safer. The new shape of the shortening Hooks TWN 1827/1 offer you much more safety than with conventional shortening hooks. The extra wide chain attachment enables us to guarantee you an especially firm seating of the inserted chain link and it is also protected from damage at the same time. The locking pin prevents an accidental loosening of the sling chain.

With our new TWN 1827/1 shortening hook, we are offering you grade 10 perfection together with a long shelf life of your slinging equipment.

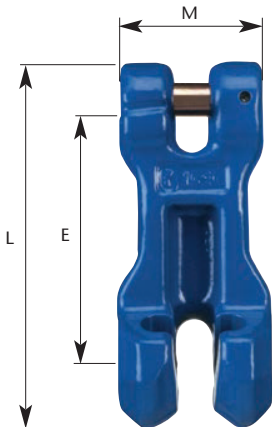
100% Magnetic Crack Tested. BG-approved.



Finish: RAL 5002

Trade Size	Part.-No.	Nominal Size [inch]	Working Load Limit [lbs.]	Dimensions					Weight approx. [lbs.]
				E	G	[inch] L	B	C	
6-XL *	F33195	7/32	3,200	-	-	-	-	-	-
8-XL *	F33205	5/16	5,700	-	-	-	-	-	-
10-XL	F33215	3/8	8,800	3.27	0.49	5.20	2.68	1.58	2.09
13-XL *	F33225	1/2	15,000	-	-	-	-	-	-
16-XL *	F33235	5/8	22,600	-	-	-	-	-	-

*In development



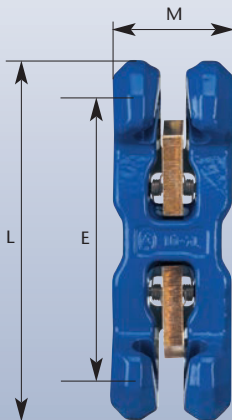
Finish: RAL 5002

The **Clevis Shortening Claw TWN 1851**

proven over many decades, has been further developed into the Grade **XL** and clevis is designed to the corresponding nominal size.

- The chain has a safe seat in the claw pocket so that premature release is avoided.
- Proven design

Trade Size	Part.-No.	Nominal Size	Working Load Limit [lbs.]	Dimensions			Weight approx. [lbs.]
		[inch]		E	[inch] L	M	
6-XL	F34904	7/32	3,200	2.13	3.19	1.26	0.46
8-XL	F34924	5/16	5,700	3.15	4.53	1.80	1.34
10-XL	F34934	3/8	8,800	3.55	5.28	2.21	2.12
13-XL	F34944	1/2	15,000	4.61	6.90	2.84	4.41
16-XL	F34954	5/8	22,600	5.67	8.43	3.39	7.87



The **RAPID-Shortening Claw TWN1852**

can be assembled and disassembled fast and easily with no additional tools. The ergonomic and compact design enables its positioning at any place on the chain. Two robust locking devices avoid the unsafe release of the chain in a loaded or unloaded condition. The locking device is equipped with a robust spring system.

100% Magnetic Crack Tested. BG-approved.

Finish: RAL 5002

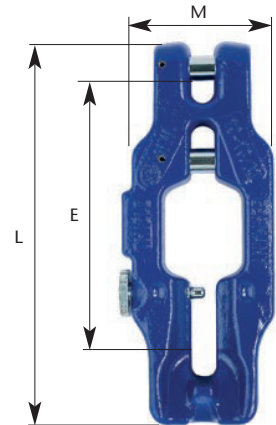
Trade Size	Part.-No.	Nominal Size	Working Load Limit [lbs]	Dimensions			Weight approx. [lbs]
		[inch]		E	[inch] L	M	
6-XL*	F34765	7/32	3,200	-	-	-	-
8-XL	F34775	5/16	5,700	4.37	5.83	1.89	1.74
10-XL	F34780	3/8	8,800	5.28	7.09	2.36	3.31
13-XL	F34785	1/2	15,000	7.05	9.45	3.07	5.95
16-XL	F34790	5/8	22,600	8.74	11.65	3.78	10.58

*In development

The Combi Quick Fastener TWN 1853

according to DIN 5692 makes for fast and extremely easy handling. The flat design and easy handling make it safe and convenient for the operator. It offers an integrated Clevis connection for the chain to be shortened, and allows for only one ring shackle per chain leg. Thanks to the locking pin, there is no unintended unlocking of the chain.

100 % Working Load Limit of the chain, 100 % Crack Tested, and BG - approved.



Finish: RAL 5002

Trade Size	Part.-No.	Nominal Size	Working Load Limit	Dimensions			Weight approx.
		[inch]		E	[inch] L	M	
6-XL *		7/32	3,200	4.21	4.65	1.85	0.88
8-XL *		5/16	5,700	5.63	6.22	2.48	1.87
10-XL	F349355	3/8	8,800	6.97	7.64	3.07	3.53
13-XL *		1/2	15,000	9.10	9.92	3.94	7.50
16-XL *		5/8	22,600	9.76	11.46	6.18	11.46
22-XL	F349845	7/8	42,700	14.37	15.59	6.38	29.98

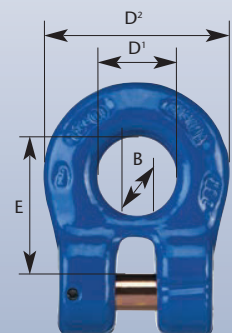
*In development

XL-Special Sling Component

The forged Ringshackle TWN1812

is automatically determined to the nominal size.

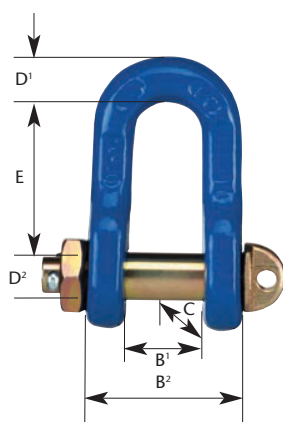
- It is used as a lower terminal in the chain sling to be connected to a clevis lashing point.
- Coupling with a **XL-LOK**® is possible.
- 100 % Magnetic Crack Tested. BG - approved.



Finish: RAL 5002

Trade Size	Part.-No.	Nominal Size	Working Load Limit	Dimensions				Weight approx.
		[inch]		E	[inch] D ₁	D ₂	B	
6-XL	F31704	7/32	3,200	1.22	0.67	1.54	0.32	0.22
8-XL	F31714	5/16	5,700	1.46	0.83	1.97	0.43	0.44
10-XL	F31724	3/8	8,800	1.81	1.02	2.44	0.55	0.86
13-XL	F31734	1/2	15,000	2.32	1.30	3.11	0.71	2.83
16-XL	F31744	5/8	22,600	2.96	1.65	3.94	0.91	3.50

XL-Shackles



Finish: RAL 5002

Bolt Shackle Type C, TWN 1871

dimensionally in accordance with DIN 82101. Supplied with galvanized bolt, nut and split pin.

- 100% Magnetic crack tested. BG-approved.

Trade Size	Part.-No.	Nominal Size	Working Load Limit	Dimensions						Weight approx.
		[inch]	[lbs.]	E	D¹	[inch] D²	C	B¹	B²	[lbs.]
10-XL	F303100	3/8	8,800	1.93	0.59	0.63	1.26	0.83	1.85	0.99
13-XL	F303200	1/2	15,000	2.40	0.75	0.79	1.58	1.06	2.40	1.85
16-XL	F303300	5/8	22,600	2.88	0.91	0.95	1.89	1.30	2.96	3.11

XL-Spare Parts an Accessories

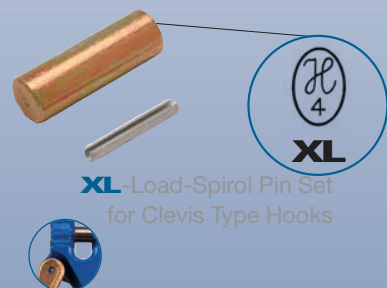
Spare Parts are only available as sets!



XL-Assembly Set TWN 0945

Consisting of 6 punches in a plastic holder to disassemble chains from components. The complete set covers all nominal sizes for use with the THIELE-Sling-Assembly-System.

Part.-No. Z03303



XL-Load-Spirol Pin Set
for Clevis Type Hooks

XL-Spare Parts TWN 1904/0

for Clevis Type Hooks (Load and Spirol Pin)

Trade Size	Part.-No.	Nominal Size	Packing Units	Weight approx.
		[inch]		[lbs.]
6-XL	F48686	7/32	1 set	0.02
8-XL	F48687	5/16	1 set	0.02
10-XL	F48688	3/8	1 set	0.07
13-XL	F48689	1/2	1 set	0.15
16-XL	F48690	5/8	1 set	0.24

Spare Parts are only available as sets!

XL-Spare Parts TWN 1908/0

for Sling Hooks (Safety Latch, spring and Spirol Pin)

Trade Size	Part.-No.	Nominal Size [inch]	Packing Units	Weight approx. [lbs.]
6-XL	F48731	7/32	1 set	0.07
8-XL	F48733	5/16	1 set	0.13
10-XL	F48735	3/8	1 set	0.24
13-XL	F48737	1/2	1 set	0.42
16-XL	F48739	5/8	1 set	0.71



XL-Spare Parts for Sling Hooks
(TWN 1835/1)

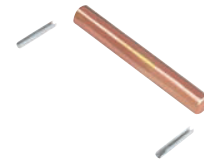


(TWN 1835/1) (TWN 1840/1) (TWN 1841/1)

Spare Parts TWN 1921

for XL-LOK® (Load pin and 2 Spirol Pins)

Trade Size	Part.-No.	Nominal Size [inch]	Packing Units	Weight approx. [lbs.]
6-XL	F486013	7/32	1 set	0.02
8-XL	F486043	5/16	1 set	0.04
10-XL	F486073	3/8	1 set	0.08
13-XL	F486103	1/2	1 set	0.10
16-XL	F486133	5/8	1 set	0.26
22-XL	F486191	7/8	1 set	1.01



Pin Set for XL-LOK® TWN 1820



(XL-LOK®, TWN 1820)

Spare Parts TWN 1930/0

for C-Shackle, TWN 1871 (Bolt, Nut and Cotter Pin)

Trade Size	Part.-No.	Nominal Size [inch]	Packing Units	Weight approx. [lbs.]
10-XL	F304510	3/8	1 set	0.29
13-XL	F304610	1/2	1 set	0.55
16-XL	F304710	5/8	1 set	0.79

Pin Set for C-Shackle
(TWN 1871)

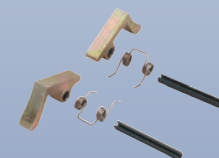


(TWN 1871)

Spare Parts TWN 1931/0

for RAPID® Shortening Claw, TWN 1852 (2 Retainers, 2 Springs and 2 Spirol Pins)

Trade Size	Part.-No.	Nominal Size [inch]	Packing Units	Weight approx. [lbs.]
8-XL	F347750	5/16	1 set	0.09
10-XL	F347800	3/8	1 set	0.22
13-XL	F347850	1/2	1 set	0.37
16-XL	F347900	5/8	1 set	0.73



Pin Set for
RAPID® Shortening Claw
(TWN 1852)



RAPID® Shortening Claw
(TWN 1852)



Spare Parts TWN 1933/0

for Clevis Self Locking Hook, TWN 1837 (Load Pin, 2 Spirol Pins)

Trade Size	Part.-No.	Nominal Size [inch]	Packing Units	Weight approx. [lbs.]
6-XL	F092001	7/32	1 set	0.02
8-XL	F092011	5/16	1 set	0.04
10-XL	F092021	3/8	1 set	0.09
13-XL	F092031	1/2	1 set	0.18
16-XL	F092041	5/8	1 set	0.35



Trigger Set TWN 1935

for Self Locking Hooks (TWN 1836 and TWN 1837)
(Retainer, Spring, Assembly Plastic Bush and Spirol Pin)

Trade Size	Part.-No.	Nominal Size [inch]	Packing Units	Weight approx. [lbs.]
6-XL	F092202	7/32	1 set	0.04
8-XL	F092212	5/16	1 set	0.09
10-XL	F092222	3/8	1 set	0.11
13-XL	F092232	1/2	1 set	0.40
16-XL	F092242	5/8	1 set	0.42



Spare Parts are only available in Sets!

XL-Chain Gauge TWN 1946

for XL-Round Steel Link Chains

Trade Size	Part.-No.	Weight approx. [lbs.]	
6-XL	F01690	0.22	
8-XL	F01691	0.33	
10-XL	F01692	0.44	
13-XL	F01693	0.55	
16-XL	F01694	0.66	



Our Performances and Services

- Bending and welding up to a diameter of 160 mm
- The Forging up to 60 kgs weight
- Machining works of complex pieces with modern CNC equipment
- Laser cutting up to 20 mm material thickness
- Cutting presses for material thickness up to 20 mm
- Turning of tooth flanks up to 1050 mm and hubs up to a diameter of 500 mm
- Heat treatments like hardening, case hardening, nitriding, inductive hardening and tempering
- Mounting of slings
- Corrosion protective processes like coloring, zinc galvanizing, hot dip galvanizing, chromating
- Pull testing up to 500 metric tons
- Laboratory research like tensile tests, bending tests, hardness profiles, chemical analysis etc.
- Construction and design of new high complex pieces

Conversion Factors

Convert from:	Multiply by:	Convert to:
Kilograms	2.204	Pounds
Metric Tons	2204.62	Pounds
Pounds	0.453	Kilograms
Metric Tons	1000	Kilograms
U.S. Tons	0.972	Metric Tons
Metric Tons	1.102	U.S. Tons
Celsius	9/5 (then add 32)	Fahrenheit
Fahrenheit	5/9 (after subtracting 32)	Celsius
Millimeters	0.0394	Inches
Meters	3.28	Feet
Inches	25.4	Millimeters
Inches	2.54	Centimeters
Centimeters	0.39	Inches
Feet	0.30	Meters
Yards	0.9144	Meters
Meters	1.09	Yards
Miles	1.61	Kilometers
Kilometers	0.62	Miles

Decimal and Metric Conversion Table

Fractional Equivalent (in.)	Decimal Equivalent (in.)	Metric Equivalent (mm)	Fractional Equivalent (in.)	Decimal Equivalent (in.)	Metric Equivalent (mm)
1/64	0.0156	0.397	33/64	0.5156	13.097
1/32	0.0312	0.794	17/32	0.5312	13.494
3/64	0.0469	1.191	35/64	0.5469	13.891
1/16	0.0625	1.588	9/16	0.5625	14.288
5/64	0.0781	1.984	37/64	0.5781	14.684
3/32	0.0938	2.381	19/32	0.5938	15.081
7/64	0.1094	2.778	39/64	0.6094	15.478
1/8	0.1250	3.175	5/8	0.6250	15.875
9/64	0.1406	3.572	41/64	0.6406	16.272
5/32	0.1562	3.969	21/32	0.6562	16.669
11/64	0.1719	4.366	43/64	0.6719	17.065
3/16	0.1875	4.762	11/16	0.6875	17.462
13/64	0.2031	5.159	45/64	0.7031	17.859
7/32	0.2188	5.556	23/32	0.7188	18.256
15/64	0.2344	5.953	47/64	0.7344	18.653
1/4	0.2500	6.350	3/4	0.7500	19.050
17/64	0.2656	6.747	49/64	0.7656	19.447
9/32	0.2812	7.144	25/32	0.7812	19.844
19/64	0.2969	7.541	51/64	0.7969	20.241
5/16	0.3125	7.938	13/16	0.8125	20.638
21/64	0.3281	8.334	53/64	0.8281	21.034
11/32	0.3438	8.731	27/32	0.8438	21.431
23/64	0.3594	9.128	55/64	0.8594	21.828
3/8	0.3750	9.525	7/8	0.8750	22.225
25/64	0.3906	9.922	57/64	0.8906	22.622
13/32	0.4062	10.319	29/32	0.9062	23.019
27/64	0.4219	10.716	29/64	0.9219	23.416
7/16	0.4375	11.112	15/16	0.9375	23.812
29/64	0.4531	11.509	61/64	0.9531	24.209
15/32	0.4688	11.906	31/32	0.9688	24.606
31/64	0.4844	12.303	63/64	0.9844	25.003
1/2	0.5000	12.700	1	1.0000	25.400



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