pewag
lifting solutions

pewag winner chain system in G10

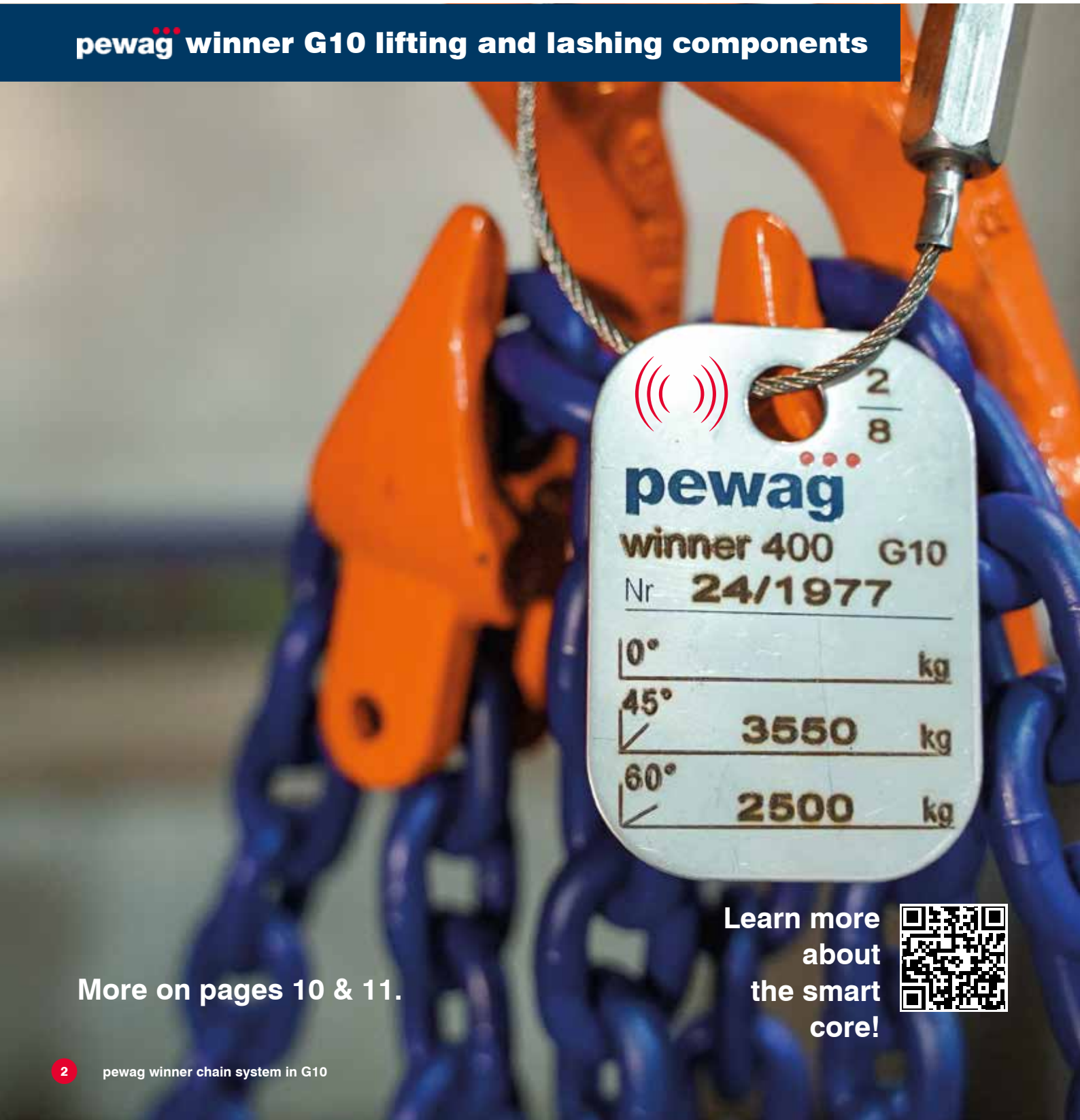
Lifting and Lashing

English EN

Hard shell – smart core

peTAG solution

pewag winner G10 lifting and lashing components



More on pages 10 & 11.

Learn more about the smart core!

Contents

The pewag product range – tailor-made with safety in mind.

For pewag, the focus always lies on service, quality and tradition. For centuries, the company has been continuously expanding its expertise in the field of chain systems and today it is among the global leaders in the industry. Innovation, safety and sustainability are key features of all our products.

Our lifting technology and load-securing chain system in G10 is currently the most comprehensive range on the market and customers all over the world appreciate the fact that we go far beyond standard market requirements. Application-specific, customised solutions and a great eye for detail are part and parcel of the pewag philosophy – in the past, in the present, and in future.

LEEA
Full Member

Technical changes and misprints excepted.

We are part of the **pewag group**

pewag lifting solutions is part of an internationally operating group of companies. Our success story goes back to the year 1479.

WHAT DRIVES US

Through our entrepreneurial spirit - shaped by the joy of innovation - we strive to offer the best solutions for the market. Today and in the future.

The high quality of our brands, products and services, as well as the passionate commitment of our employees are our most valuable assets to exceed customer expectations and to live up to our corporate responsibility towards people and environment.

LEADING TO EXCELLENCE

striving for excellence in QUALITY

The values of the pewag group brands are demonstrated by our first-class quality and continuous innovation. You can rely on us.

striving for excellence in RESPONSIBILITY

Our goal is CO_2 neutral production by 2030. We live sustainable and fair partnerships and an open way of working together. We take on social as well as environmental responsibility.

striving for excellence in ENTREPRENEURSHIP

Through the specific expertise of each individual and decentralized responsibilities, we ensure healthy growth and a sustainably successful future.

striving for excellence in TECHNOLOGY

We ensure our technological strength by striving for quality, continuous improvement and innovation of our products and production processes.

FROM AUSTRIA....

1479
First documentary mention of the forge

1787
Foundation of the chain forge in Kapfenberg

1803
Foundation of the location in Graz

1836
Establishment of an iron casting plant in Brückl

1912
Production of the first pewag snow chain

2009
pewag develops into an international group of companies

2021
Extensive investment in renewable energies. Goal: CO_2-neutral production by 2030

....ACROSS THE GLOBE

IN A SUSTAINABLE WAY

Social Excellence

The corporate ethics of the pewag group are based on our clear commitment to universal human rights. As a globally active group of companies, we bear a social and corporative responsibility. This applies in particular to our employees. Their occupational safety and health protection are our top priority. We promote their personal and professional development and foster a culture of open, honest, non-discriminatory and team-oriented exchange based on transparent communication. We apply the same standards in our dealings with customers, suppliers and other business partners.

Environmental Excellence

We are committed to a careful and sustainable approach to the environment. This applies to all areas and activities of our group of companies. For us, it is a matter of course to use resources as efficiently as possible and to ensure this also in the future through new environmentally friendly and efficient processes. We are continuously working to optimize the durability and recyclability of our products. In this context, one of our core concerns is to continuously improve our energy efficiency and thus reduce energy consumption in the long term. The energy we use comes from renewable energy sources and is already partly generated by ourselves.

WHAT DEFINES US

Snow and forestry chains

Hoist and conveyor chains

Do-it-yourself

Engineering

Lifting solutions

Tire protection chains

Our Expertise.

Our international brands have an extensive and diverse range of products and services.

The portfolio ranges from traction chains for tires, tire protection chains for mining vehicles over a wide range of technical chains and innovative lifting solutions up to products for the do-it-yourself area as well as forming technology.

Our Network.

With over 50 locations on five continents, the pewag group forms a global platform of product specialists, partners and suppliers.

This community is strengthened by a large network of external experts from science, research and development and a wide range of brands and companies within the group.

Our Experience.

Based on centuries of experience, genuine craftsmanship and innovative technologies we process the highest quality materials with the claim to offer the best solutions on the market.

What unites us as people within the pewag group is the strong ambition for continuous development.

pewag peTAG solution

Your smart solution
for efficient product management

The peTAG solution enables the company-wide, flexible servicing and administration of a wide range of objects.

peTAG solution

The intelligent solution for clear object identification, seamless data transfer, servicing of objects, safe archiving of data, efficient interaction with partner companies and much more.

peTAG manager

PC and mobile end devices work hand in hand with this adaptable, high-performance platform that stands out in any working environment and improves data quality at the same time. Additional, expensive reading devices and manual data transfer belong to the past.

Intelligent software
User-specific adaptation of object data, inspection processes and steps. Automated compilation, dispatch and archiving of inspection reports. Sophisticated authorisation concept.

Save time & money
Efficient documentation of working processes, thereby making daily workflows easier. Seamless data exchange, error-free data communication.

Mobile solution
Direct, location-independent data retrieval (e. g. working load limit, safety information, latest inspection report etc.). Smart servicing of objects via the mobile app. Offline availability.

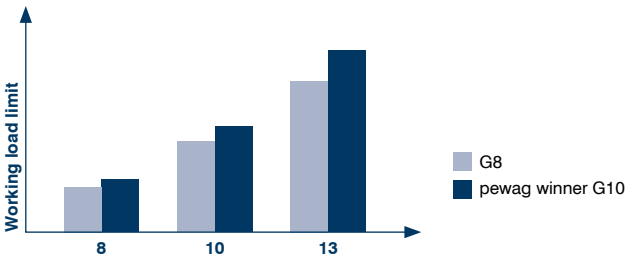
Linked partnerships
Easy exchange and efficient interaction between service providers, dealers and customers. Improved service and data quality. Increased satisfaction and loyalty.

Always up to date
Access to the latest product data and information. Overview of all inspection data. Documented inspection. Full traceability of the object history.

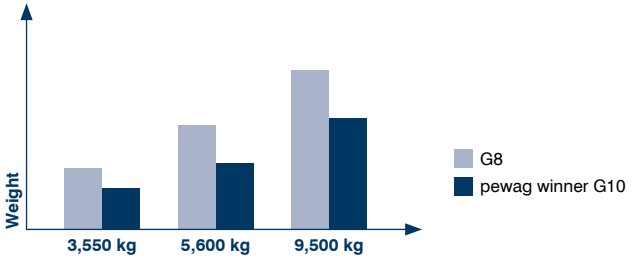
INNOVATIVE SOLUTIONS for Your Needs

Lifting chains in G10 quality - significant advantages.

pewag is among the world's best manufacturers of lifting chains – for a good reason, as our products are the result of a responsible development process that focuses on userfriendliness and safety. These features are clearly measurable and form the basis of the pewag product development and manufacturing process, where only the best results count!



Working load limit e.g. II strand	Previous chain ø	pewag winner chain ø
3,550	10	8
5,600	13	10
9,500	16	13



Working load limit	Previous chain weight	pewag winner chain weight	% weight reduction
3,550	16.20 kg	11.00 kg	32 %
5,600	27.60 kg	17.60 kg	36 %
9,500	42.20 kg	29.60 kg	30 %

- Pioneer: pewag were the first to sell G10 lifting chains and have a wealth of experience in this field.
- 25 % more working load limit compared to G8.
- Simplified handling thanks to a 30 % weight reduction.
- Attractive price/performance ratio thanks to the small price differential compared to grade 8.
- One dimension smaller than grade 8 slings, for many load ranges – thus providing excellent value.
- Extended service life due to higher wear resistance.
- Code on chain and component ensures traceability of all manufacturing data.
- High-visibility orange powder-coating for simple visual identification.
- Largest range of components in special grade 10 quality – for 11 chain dimensions.
- 3 assembly systems of slings: welded, Connex and Clevis system.
- Quality-approved European production by an ISO 9001 certified company.
- Worldwide distribution network – smooth supply of spare and replacement parts.
- All components comply with EN 1677-1, -2, -3 or -4 with higher working load limit
- A true-as-steel bonus: The pewag winner 400 chain meets the EN 818-2 with higher working load limit resp. PAS 1061 up to 16 mm and Machinery Directive 2006/42/EG.

pewag lifting chains – environmentally friendly, resource-preserving, strong.

True-as-steel quality management principles best explain why pewag is now offering even more benefits for lifting chains. For instance, ISO 14001 certification is being rigorously implemented for the G10 lifting chains, resulting in significantly lowered energy and material consumption during manufacturing, thus preserving raw materials – an environmentally friendly approach throughout! And the reduced amount of materials used also means that less material has to be recycled.

Core data of the pewag winner range

- **Top ranking:**
  pewag winner 200 – meets the requirements of ASTM A973/A973M-01 and of EN 818-2 but with higher working load limit (however admissible operating temperature of 200 °C max.) and 2006/42/EG Machinery Directive.
  Chain quality of pewag winner 400 meets the EN 818-2 with higher working load limit resp. PAS 1061 up to 16 mm and Machinery Directive 2006/42/EC.
- **Stress at working load limit:** 250 N/mm².
- **Test stress:** 625 N/mm² – equals 2.5 times the working load limit.
- **Breaking stress:** 1,000 N/mm² – equals 4 times working load limit.
- **Breaking elongation:** min. 20 %.
- **Bending according to EN 818-2 and PAS 1061:** 0.8 x nominal diameter.

- **Admissible operating temperature:**
  pewag winner 200 – 200 °C max.
  pewag winner 400 – up to 380 °C.

- **Quality grade stamps**
  pewag winner 200 and pewag winner 400: 10 at a spacing of approx. 300 mm till 16 mm chain (other 900mm).
  Components - 10.

- Manufacturer's name or symbol on the chain and components: **PW or pewag.**

- **Surface:**
  pewag winner 200: shot-blasted and clear coated
  pewag winner 400: blue painted
  Components: orange powder-coated
  Welded system: blue painted

- **Compatibility:**
  pewag winner chains and components may be combined by a competent person under consideration of the manufacturer specifications with all grade 8 components that meet the requirements of EN 818 and EN 1677. Furthermore, the pewag winner chains may be combined with all competitor chains and components that are compatible with EN 818 and EN 1677 qualified items. Please note that the products cannot be combined with items that do not comply with EN 818 or EN 1677! The maximum working load limit of the overall system is always defined by its weakest part. Only original pewag spare parts (e. g. pins and bolts, safety catches, etc.) may be used for pewag products, subject to inspection and approval by the competent person.

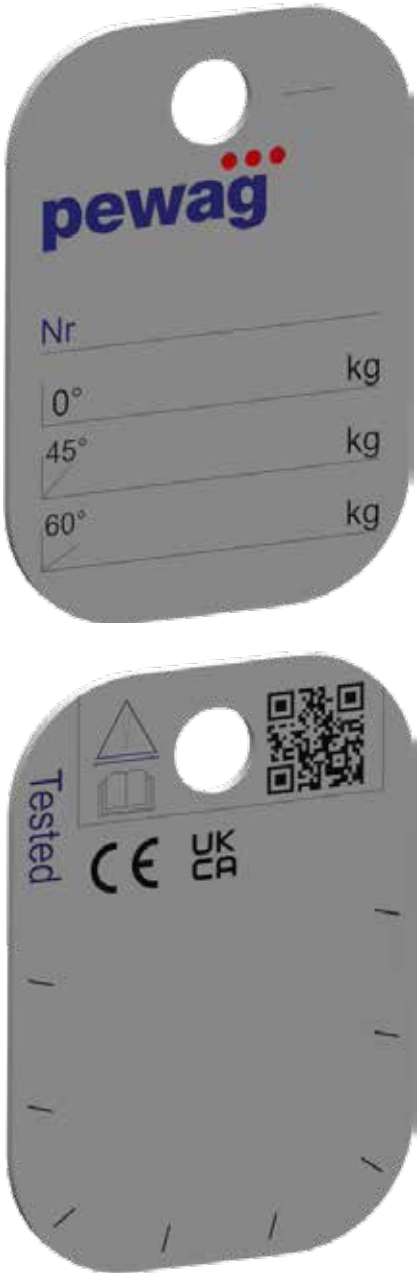
- **Product characteristics** for stress crack corrosion are equal to those of grade 8.

Working load limit tag.

pewag is always striving to develop its products further. The shape of the working load limit tags was changed to a rectangular design that offers numerous benefits to the user, thus taking our idea of safety yet one step further. The tags are made from stainless steel material and linked to the sling with stainless steel, quick-release fastener, thus considerably increasing user safety.
This will eliminate once and for all an error that happened fairly often in the past: As all standard documents for lifting chains describe ID tags where the number of corners correspond to the grade category of the lifting chain, users frequently made the mistake of estimating the working load limit of the chain based on this information, without paying attention to the actual markings on the tag. However, standards only ever describe the minimum requirements that a product must comply with and can always be exceeded.

The rectangular working load limit tags prevent this mistake from happening and offer the following benefits to the user:

- Prevention of incorrect assessment of the working load limit as looking at the tag prior to each lifting operation becomes unavoidable.
- When the marking is not observed, the lifting chain will be classed as a maximum grade 4.
- Corrosion-resistant: therefore resistant to solvents, acids, caustics and their vapours.
- Easily replaceable due to the stainless steel cable with quickrelease fastener.
- All information is engraved, allowing for customer-specific markings.
- Direct access to the operating instructions for chain slings by scanning the QR code.



The new pewag working load limit tag is focused on safety.

pewag winner working load limits.

The working load limits listed are maximum values of the various sling types, stated according to the standard (Uniform Load) method of rating.

Safety factor 4		I-leg chains		II-leg chains				III- + IV-leg chains
								
Angle of inclination β		-	-	0° – 45°	45° – 60°	0° – 45°	45° – 60°	0° – 45°
Load factor		1	0.8	1.4	1	1.12	0.8	2.1
Code	**d**	**Working load limit [kg]**						
WIN 5	5	1,000	800	1,400	1,000	1,120	800	2,000
Ni 5 G8	5	800	640	1,120	800	900	640	1,600
WIN 6	6	1,400	1,120	2,000	1,400	1,600	1,120	3,000
Ni 6 G8	6	1,120	900	1,600	1,120	1,250	900	2,360
WIN 7	7	1,900	1,500	2,650	1,900	2,120	1,500	4,000
Ni 7 G8	7	1,500	1,200	2,120	1,500	1,700	1,200	3,150
WIN 8	8	2,500	2,000	3,550	2,500	2,800	2,000	5,300
Ni 8 G8	8	2,000	1,600	2,800	2,000	2,240	1,600	4,250
WIN 10	10	4,000	3,150	5,600	4,000	4,250	3,150	8,000
Ni 10 G8	10	3,150	2,500	4,250	3,150	3,550	2,500	6,700
WIN 13	13	6,700	5,300	9,500	6,700	7,500	5,300	14,000
Ni 13 G8	13	5,300	4,250	7,500	5,300	5,900	4,250	11,200
WIN 16	16	10,000	8,000	14,000	10,000	11,200	8,000	21,200
Ni 16 G8	16	8,000	6,300	11,200	8,000	9,000	6,300	17,000
WIN 19	19	14,000	11,200	20,000	14,000	16,000	11,200	30,000
Ni 19 G8	19	11,200	8,950	16,000	11,200	12,500	8,950	23,600
WIN 22	22	19,000	15,000	26,500	19,000	21,200	15,000	40,000
Ni 22 G8	22	15,000	12,000	21,200	15,000	17,000	12,000	31,500
WIN 26	26	26,500	21,200	37,500	26,500	30,000	21,200	56,000
Ni 26 G8	26	21,200	16,950	30,000	21,200	23,700	16,950	45,000
WIN 32	32	40,000	31,500	56,000	40,000	45,000	31,500	85,000
Ni 32 G8	32	31,500	25,200	45,000	31,500	35,200	25,200	67,000

If the chain slings are used in severe conditions (e.g. high temperature, asymmetric load distribution, edge load, impact/shock loads), the maximum working load limit values in the table must be reduced by the load factors specified on page 12.

Please also note the user information on different conditions of use and their effects on the working load limit values!

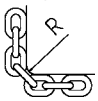
The safety factor for all chain slings is 4. For higher safety factors, please reduce the working load limit or consult the technical department.

III- + IV-leg chains	IV- leg chains with load distributor		Endless chain sling	Single lifting sling		Double lifting sling	
							
45° – 60°	0° – 45°	45° – 60°	-	0° – 45°	45° – 60°	0° – 45°	45° – 60°
1.5	2.8	2	1.6	1.4	1	2.1	1.5
1,500	2,800	2,000	1,600	1,400	1,000	2,000	1,500
1,180	2,240	1,600	1,250	1,120	800	1,600	1,180
2,120	4,000	2,800	2,240	2,000	1,400	3,000	2,120
1,700	3,150	2,240	1,800	1,600	1,120	2,360	1,700
2,800	5,300	3,750	3,000	2,650	1,900	4,000	2,800
2,240	4,000	3,000	2,500	2,120	1,500	3,150	2,240
3,750	7,100	5,000	4,000	3,550	2,500	5,300	3,750
3,000	5,600	4,000	3,150	2,800	2,000	4,250	3,000
6,000	11,200	8,000	6,300	5,600	4,000	8,000	6,000
4,750	8,500	6,300	5,000	4,250	3,150	6,700	4,750
10,000	19,000	13,200	10,600	9,500	6,700	14,000	10,000
8,000	14,000	10,600	8,500	7,500	5,300	11,200	8,000
15,000	28,000	20,000	16,000	14,000	10,000	21,200	15,000
11,800	22,400	16,000	12,500	11,200	8,000	17,000	11,800
21,200	40,000	28,000	22,400	20,000	14,000	30,000	21,200
17,000	-	-	18,000	16,000	11,200	23,600	17,000
28,000	53,000	37,500	30,000	26,500	19,000	40,000	28,000
22,400	-	-	23,600	21,200	15,000	31,500	22,400
40,000	75,000	53,000	42,500	37,500	26,500	56,000	40,000
31,500	-	-	33,500	30,000	21,200	45,000	31,500
60,000	-	-	63,000	56,000	40,000	85,000	60,000
47,500	-	-	50,000	45,000	31,500	67,000	47,500

Exposure severities.

Even the highest quality products lose their properties at high temperatures, asymmetry and edge stress, impact or other load-related difficulties. The user information must be observed in this regard!

As described above, the following conditions are considered to be load difficulties:

Temperature load	-40 °C – 200 °C	over 200 °C – 300 °C	over 300 °C – 380 °C
Load factor pewag winner 200	1	not permissible	not permissible
Load factor pewag winner 400	1	0.9	0.75
Load factor pewag G8	1	0.9	over 300°C - 400°C - 0.75
Asymmetrical load distribution	The load capacity must be reduced by at least I chain strand, e.g: Classify III or IV-leg chain slings as II-leg chain slings. In case of doubt, only accept I strand as load-bearing.		
Edge load*	R= greater than 2x d* 	R= greater than d* 	R= d* or smaller 
Load factor	1	0.7	0.5
Shock	slight shocks	medium shocks	strong shocks
Load factor pewag winner 400	1	0.7	inadmissible
Load factor pewag winner 200	1	not permissible	not permissible

* d = Material thickness of the chain

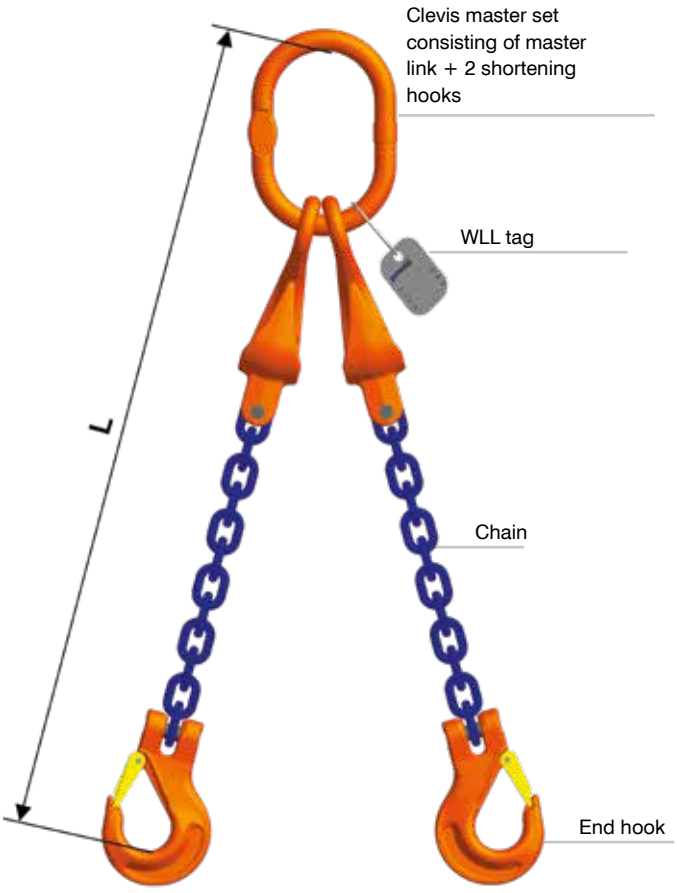
Sample order text for pewag winner sling types.

Here you will find some examples that show what an order of a fully assembled and commercially available pewag winner G10 chain slings could look like, clearly labelled and with all components and measurements.
What you see here is a pewag winner 400 II-leg chain sling, 13 mm, with shortening device and hook. Length: 3000 mm.

Coupling system:

WIN 13 400 II VMXKW – KHSW 3000

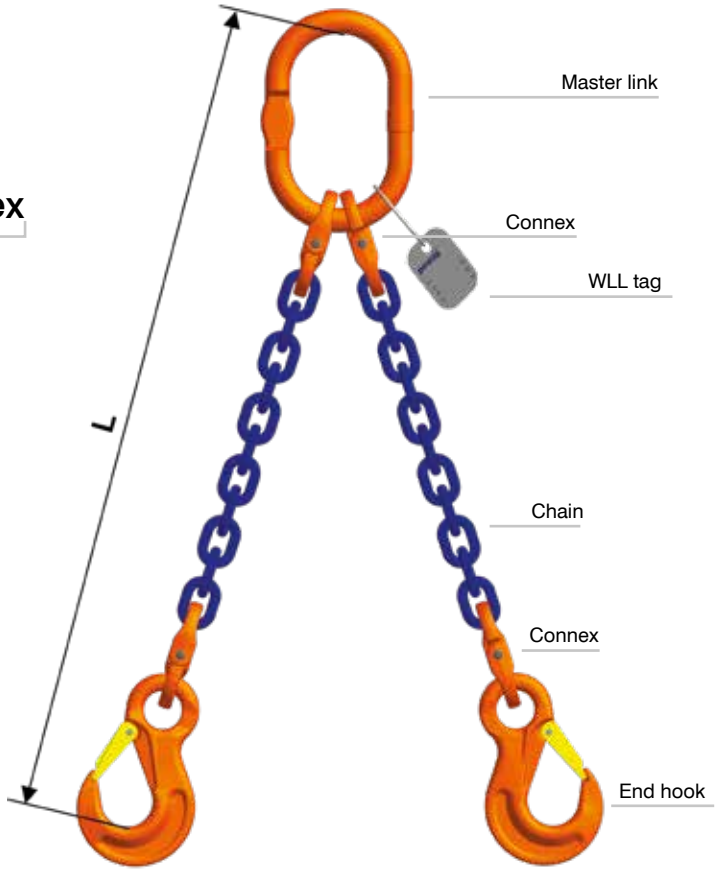
Short designation of the chain	Number of legs	Clevis master set	End hook	Length [mm]



Sample order text.

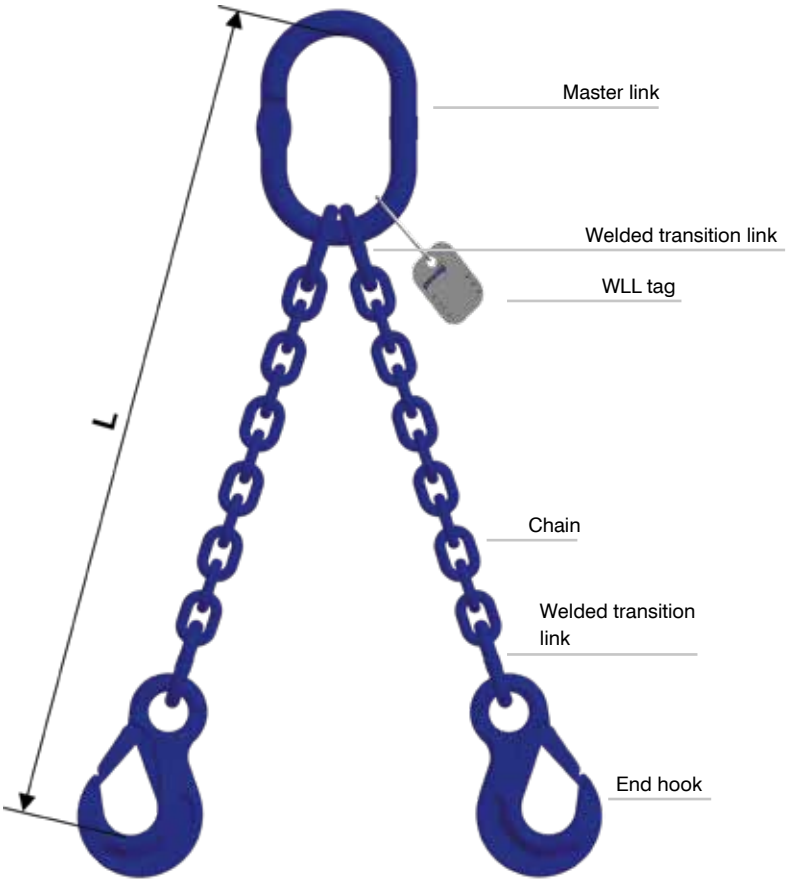
Connex System:

WIN 13 400	II	AW	–	HSW	3000	Connex
Short designation of the chain	Number of legs	Master link		End hook	Length [mm]	Assembly system



Welded system:

WIN 13 400	II	AW	–	HSW	3000
Short designation of the chain	Number of legs	Master link		End hook	Length [mm]



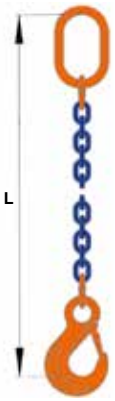
Information:
If the short chain sling designation does not include the additional term “Connex” at the end, a welded chain sling system is automatically assumed.

pewag winner standard sling types – perfect in the original!

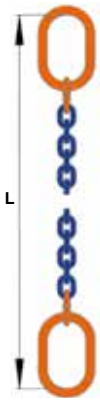
If you require a sling type that is not listed here, please submit a small sketch indicating the required type.

Important: Especially if you handle the assembly yourself, make sure that only pewag winner original parts are used! The usual tolerance of length “L” is +2 chain pitches.

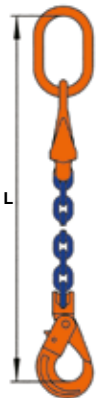
The sling designation system is the same as that of G8. The additional “W“ in the code of the individual parts points to the higher quality grade.



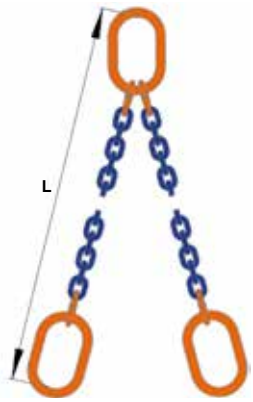
I AW-HSW Connex



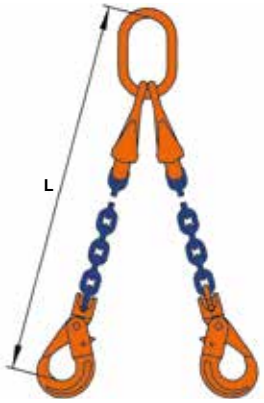
I AW-AW Connex



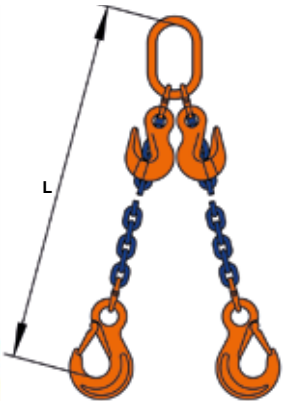
I VMXKW-KLHW



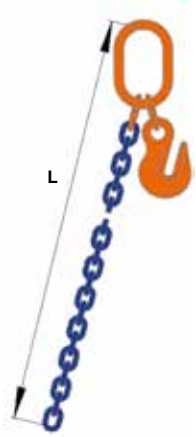
II AW-AW Connex



II VMXKW-KLHW

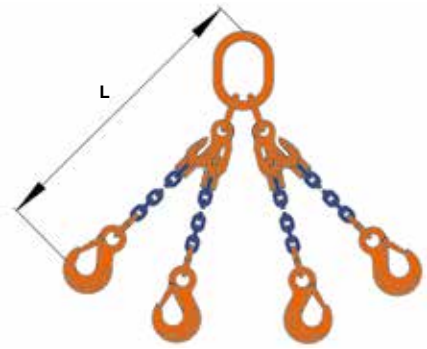


II AW-HSW-PW Connex



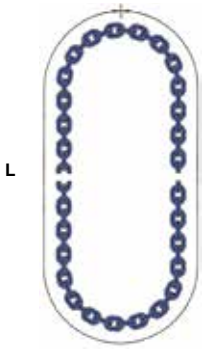
II AW-S-PW Connex

III VW-HSW Connex

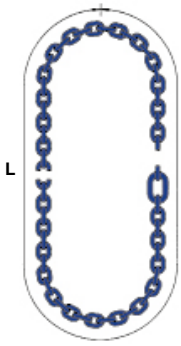


IV VMXKW-HSW Connex

IV VW-HSW-AGWW Connex

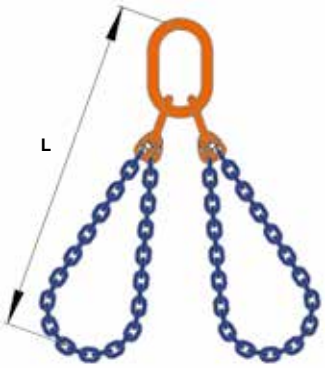


S



SK (erst ab Dimension 8 machbar!)

II AW-S Connex



IV VW-S Connex

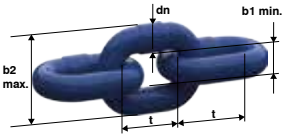
pewag winner 400 lifting chains

These sling chains are manufactured in accordance with EN 818-2 with increased mechanical values corresponding to grade 10 or PAS 1061. They are used in the manufacture of chain slings for lifting and transporting loads. They can also be used to make lashing chains.

The permitted operating temperature is between -40° C and +380° C.

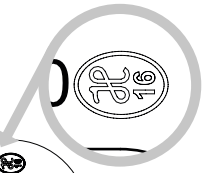
The standard surface is blue and the chains are available in sizes from 5 to 32 mm.

Further information can be found in the complete operating instructions.

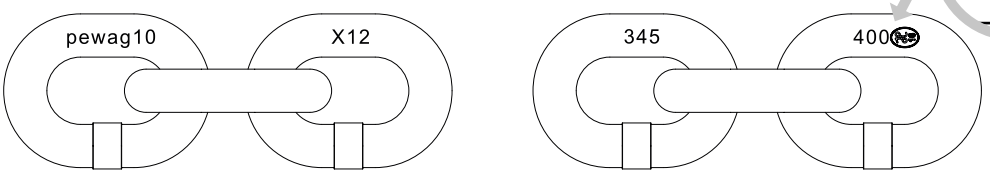


winner 400 lifting chains	Code	Nominal diameter dn [mm]	Standard delivery length [m]	Pitch t [mm]	Inside width b1 min. [mm]	Outside width b2 max. [mm]	Working load limit [kg]	Breaking force [kN]	Weight [kg/m]
	WIN 5 400	5	50	16	7.5	18.5	1,000	39.3	0.61
	WIN 6 400	6	50	18	8.7	22.2	1,400	56.5	0.96
	WIN 7 400	7	50	21	9.5	25.2	1,900	77	1.2
	WIN 8 400	8	50	24	10.9	28.8	2,500	101	1.57
	WIN 10 400	10	50	30	13.5	36	4,000	157	2.46
	WIN 13 400	13	50	39	17.7	46.4	6,700	268	4.05
	WIN 16 400	16	25	48	21.5	57.6	10,000	402	6.28
	WIN 19 400	19	25	57	26.6	69.4	14,000	567	8.92
	WIN 22 400	22	25	66	29.5	79.2	19,000	760	11.88
	WIN 26 400	26	25	78	35	94	26,500	1,063	16.18
	WIN 32 400	32	15	96	43.2	115	40,000	1,610	24.1

Also with corropro-PCP available!

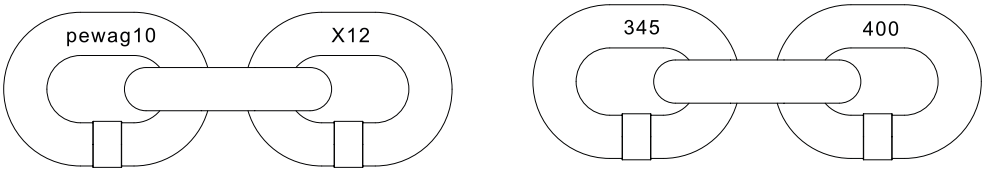


Stamping for:
Chain WIN 6 400 to WIN 16 400
Manufacturer: pewag
grade: 10
Type: 400 "H16
Traceability code: X12345



Front Back

Stamping for:
Chain WIN 5 400 and WIN 19 400 to WIN 32 400
Manufacturer: pewag
Grade: 10
Type: 400
Traceability code: X12345
Note: Chain WIN 5 400 with manufacturer's mark PW



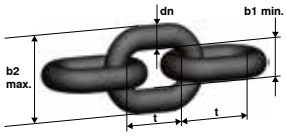
pewag winner 200 round steel chains

These grade 10 high-duty chains are manufactured according to EN 818-2 modified with mechanical values for G 10.

The winner 200 round-steel chains are particularly suitable in lifting and lashing chains and withstand operating temperatures between -40 °C and +200 °C. These chains are available in dimensions from 5 to 32 mm and the standard surface is blasted and clear painted.

Please notice that they are not allowed for lifting chains in Austria.

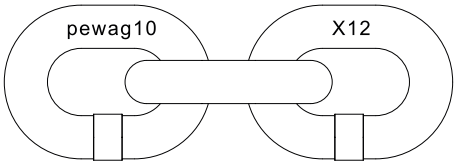
winner 200
Round steel chains



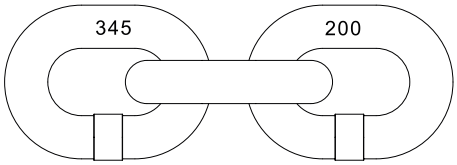
Also with **corropro-PCP** available!

Code	Nominal diameter dn [mm]	Standard delivery length [m]	Pitch t [mm]	Inside width b1 min. [mm]	Outside width b2 max. [mm]	Working load limit [kg]	Breaking force [kN]	Weight [kg/m]
WIN 5 200	5	50 / 100	16	7.50	18.50	1,000	39.30	0.61
WIN 6 200	6	50 / 200	18	8.70	21.60	1,400	56.50	0.96
WIN 7 200	7	50 / 250 / 300	21	9.50	25.20	1,900	77	1.20
WIN 8 200	8	50 / 50 / 200 / 250	24	10.90	28.80	2,500	101	1.57
WIN 10 200	10	50 / 130 / 150	30	13.50	37	4,000	157	2.46
WIN 13 200	13	50 / 75 / 100	39	17.50	46.80	6,700	265	4.18
WIN 16 200	16	25 / 50 / 100	48	21.50	57.60	10,000	402	6.28
WIN 19 200	19	25 / 35 / 50	57	26.60	69.40	14,000	567	8.92
WIN 22 200	22	25 / 30	66	29.50	79.20	19,000	760	11.88
WIN 26 200	26	25	78	35	94	26,500	1,060	16.18
WIN 32 200	32	20	96	43.20	115	40,000	1,610	24.10

Stampings:
Manufacturer: pewag
grade: 10
Type: 200
Traceability code: X12345



Front



Back

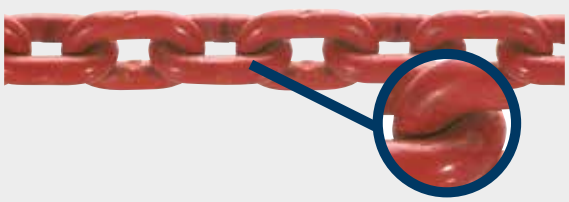
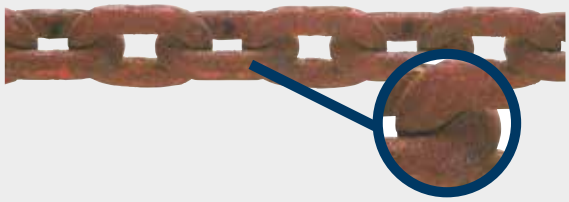
pewag corropro

The innovative corrosion protection.

Durable. Adhesion-resistant.
Free from heavy metals.

pewag corropro is an electromechanical coating process that is preceded by zinc phosphating as a pre-treatment. Due to the thin micro-protective layer, the corrosion protection process is ideal for coating complicated structures such as threads and moving parts.

Salt spray test according to ISO 9227 (NSS test).

Initial state	Final state
PCP – corropro	**after 528 h**
	
before	
PC – powder-coated	**after 528 h**
	
before	
GZN – electrogalvanized	**after 288 h**
	
before	
LAC – varnished	**after 168 h**
	
before	

Reliable products with innovative corrosion protection.

The entertainment and stage industry is a dynamic environment, with numerous special applications.
These operations require effective lifting and rigging solutions to ensure smooth execution and maximum safety.
pewag lifting solutions are developed and produced to meet all requirements.

pewag lifting equipment delivers efficient, precise and safe rigging and load handling

Coated with pewag PCP corropro.

In a dipping bath, an epoxy based anticorrosion layer (pewag PCP corropro) is elctrochemically isolated on the surface of the work pieces by coagulating the binder.

The colouring is black, similar to RAL 9005.

For more details, visit the corropro folder on our website or simply scan the QR code to access it directly.

Corrosion protection values in comparison

PCP – corropro	> 430 h
PC – powder coated	> 360 h
LAC – varnished	24 h

*) At mechanical undamaged, not covered areas. Minimal covered areas may occur at the coating process.

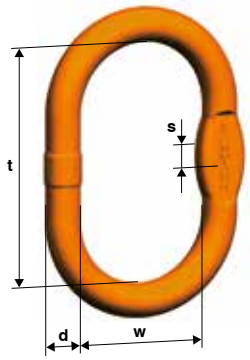
pewag AW Master link

For the production of chain slings in Connex or welded systems. The AW master link is equally suitable for I- and II-leg chain slings. For III and IV-leg chain slings, the use of VW four-leg assemblies is required.
The AW master link can also be used as an end link. The assignment to the maximum usable crane hooks in accordance with DIN 15401 and DIN 15402 is shown in the table.

The flattened section enables universal connecting options - an important benefit of this high-quality link.

Manufactured in accordance with EN 1677-4 with mechanical values corresponding to G10. BG-approval, CE-marking and full operating manual available.

AW Master link



Also with corropro-PCP available!

Code	Working load limit 0°-45° [kg]	d [mm]	t [mm]	w [mm]	s [mm]	Weight [kg/pc.]	For 1-leg slings	For 2-leg slings	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
AW 10	1,400	10	80	50	10	0.16	5	5	1.6	2.5
AW 13	2,300	13	110	60	10	0.35	6+7	6	2.5	4
AW 16	3,500	16	110	60	14	0.57	8	7	2.5	4
AW 18	5,000	19	135	75	14	0.89	10	8	5	6
AW 22	7,600	23	160	90	17	1.60	13	10	6	8
AW 26	10,000	27	180	100	20	2.50	16	13	8	10
AW 32	14,000	33	200	110	26	4.22	19	16	10	12
AW 36	25,100	36	260	140	29	6.44	22	19	16	20
AW 45	30,800	45	340	180	-	12.70	26	22	25	32
AW 50	40,000	50	350	190	43	16.00	32	26	32	40
AW 56	64,000	56	400	200	-	22.00	-	32	32	40
AW 72	85,000	70	460	250	-	41.50	-	-	50	63

For chain sling working load limits, please refer to the table "pewag winner working load limits".

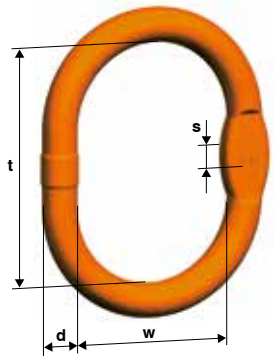
pewag MW Enlarged master link

For the manufacture of chain slings in the Connex or welded system.

It is equally suitable as a master link for I- and II-leg slings, but for III- and IV-leg slings only in combination with BW transition links as a VMW four-leg set. It can also be used as an end link. Its inner dimensions are larger than those of the AW master link, making it suitable for larger crane hooks or special hooks. See table below for the maximum crane hook size as specified by DIN 15401 and DIN 15402. The flattened section provides universal connection options.

Manufactured according to EN 1677-4 with mechanical values according to G10. With CE-marking and full operating manual.

MW Enlarged master link



Code	Working load limit 0°-45° [kg]	For 1-leg slings	For 2-leg slings	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
MW 10	1,400	5	5	2.5	4
MW 13	2,300	6+7	6	4	5
MW 16	3,200	8	7	5	6
MW 18	4,200	10	8	6	8
MW 22	6,700	13	10	10	12
MW 26	10,100	16	13	10	12
MW 32	16,000	19	16	12	16
MW 36	21,200	22	19	20	25
MW 56	40,000	32	26	50	63

Code	d [mm]	t [mm]	w [mm]	s [mm]	Weight [kg/pc.]
MW 10	11	90	65	10	0.22
MW 13	14	120	70	10	0.43
MW 16	16	140	80	13	0.70
MW 18	19	160	95	14	1.07
MW 22	23	170	105	17	1.69
MW 26	27	190	110	20	2.63
MW 32	33	230	130	26	4.75
MW 36	38	275	150	29	7.10
MW 56	56	350	250	46	21.98

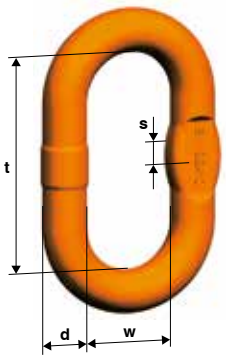
pewag BW Transition link

This link is versatile. It can be used as a transition and as an end link in welded systems. The flattened section opens up universal connection possibilities. The BG-approval ensure flawless quality.

This transition link is manufactured according to EN 1677-4 with mechanical values according to G10 and is supplied with a full operating manual.

Note: The BW link does not have a CE-marking.

BW Transition link



Code	Working load limit 0°-45° [kg]	d [mm]	t [mm]	w [mm]	s [mm]	Weight [kg/pc.]	Transition link for chain Ø I- + II-leg BW I/II
BW 7	1,000	7	36	16	-	0.03	5
BW 8 [1)]	1,400	8	36	16	-	0.05	6
BW 9	1,900	9	44	20	-	0.07	7
BW 10	2,500	10	44	20	-	0.09	8
BW 13	4,000	13	54	25	10	0.17	10
BW 16	6,700	17	70	34	14	0.39	13
BW 20	10,000	20	85	40	14	0.69	16
BW 22	12,500	23	115	50	17	1.16	-
BW 23 [1)]	14,000	23	115	45	17	1.16	19
BW 26	16,200	27	140	65	20	1.92	-
BW 27 [1)]	19,000	27	140	55	20	1.92	22
BW 32	26,500	33	150	70	26	3.16	26
BW 36	31,000	36	170	75	-	4.35	-
BW 40	40,400	40	170	80	-	4.12	32
BW 45 [1)]	42,400	45	170	80	-	7.15	-
BW 50	64,000	50	200	100	-	10.58	-

[1)] Only in welded systems.

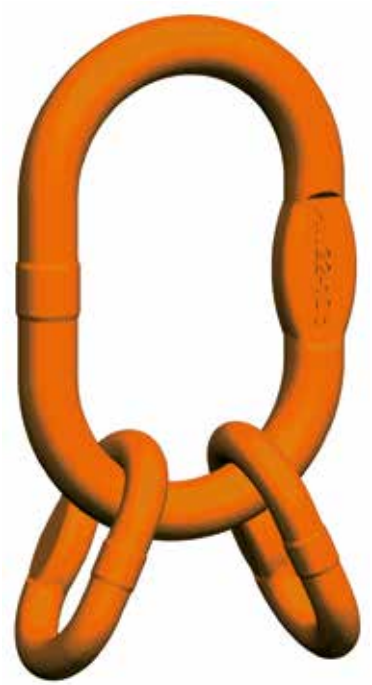
pewag VW IV-leg Master link assembly

This standard master link assembly is ideal for preparing III- and IV-leg chain slings in assembled or welded systems. It is manufactured according to EN 1677-4 with mechanical values for G10.

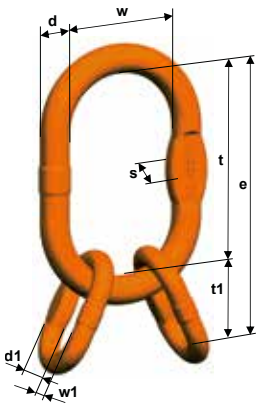
A flattened section on the transition links open up additional, universal connection possibilities (measurements can be obtained from the product “BW”). Includes CE-marking, BG-approval and full operating manual.

See table for the maximum crane hook size as specified by DIN 15401 and DIN 15402.

Note: The flattened section on the transition links opens up additional, universal connection possibilities (measurements can be obtained from the product “BW”).



VW IV-leg Master link assembly



Code	Consisting of	Working load limit 0°-45° [kg]	Fits on single hook acc, DIN 15401 no,	Fits on double hook acc, DIN 15402 no,
VW 5	AW 13 + 2 BW 10	2,300	2.5	4
VW 6	AW 18 + 2 BW 13	4,200	5	6
VW 7/8	AW 22 + 2 BW 16	7,600	6	8
VW 10	AW 26 + 2 BW 20	9,600	8	10
VW 13	AW 32 + 2 BW 22	14,000	10	12
VW 16	AW 36 + 2 BW 26	21,200	16	20
VW 19/20	AW 50 + 2 BW 32	34,100	32	40
VW 22	AW 50 + 2 BW 36	40,000	32	40
VW 26	AW 56 + 2 BW 45	56,000	32	40
VW 32	AW 72 + 2 BW 50	85,000	50	63

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	d1 [mm]	t1 [mm]	w1 [mm]	Weight [kg/pc.]
VW 5	154	13	110	60	10	10	44	20	0.52
VW 6	189	19	135	75	14	13	54	25	1.25
VW 7/8	230	23	160	90	17	17	70	34	2.28
VW 10	265	27	180	100	20	20	85	40	3.65
VW 13	315	33	200	110	26	23	115	50	6.40
VW 16	400	36	260	140	29	27	140	65	10.00
VW 19/20	500	50	350	190	43	33	150	70	22.50
VW 22	520	50	350	190	43	36	170	75	24.30
VW 26	570	56	400	200	-	45	170	80	36.00
VW 32	660	70	460	250	-	50	200	100	62.00

Please note that the allocation does not apply to suspension systems with a load distributor.

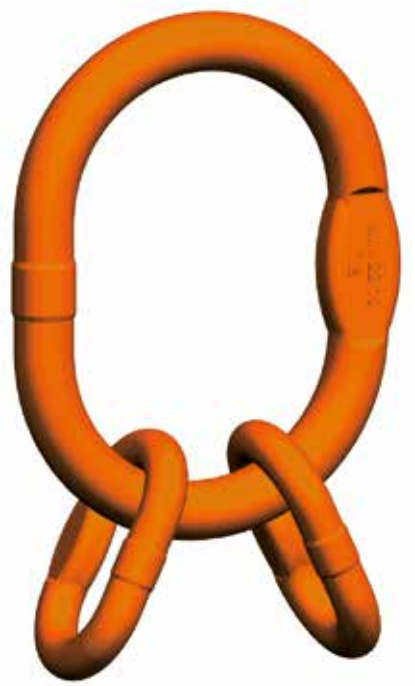
pewag VMW Enlarged IV-leg master link assembly

This master link assembly for III- and IV-leg chain slings in assembled or welded systems complies with EN 1677-4 and the mechanical values for G10.

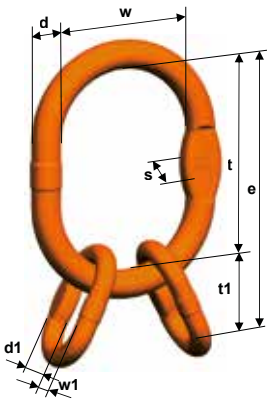
Thanks to the use of MW links, this master link assembly has larger inside dimensions than the VW IV-leg master link assembly and can thus also be used for the next size up crane hooks.

See table below for the maximum crane hook size as specified by DIN 15401 and DIN 15402. This powerful package comes with CE-marking and a full operating manual.

Note: The flattened section on the transition links opens up additional, universal connection possibilities (measurements can be obtained from the product “BW”).



VMW Enlarged IV-leg master link assembly



Code	Consisting of	Working load limit 0°-45° [kg]	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
VMW 6	MW 18 + 2 BW 13	4,200	6	8
VMW 7/8	MW 22 + 2 BW 16	6,600	10	12
VMW 10	MW 26 + 2 BW 20	10,100	10	12
VMW 13	MW 32 + 2 BW 22	15,700	12	16
VMW 16	MW 36 + 2 BW 26	21,200	20	25
VMW 19/20	MW 56 + 2 BW 32	34,100	50	63
VMW 22	MW 56 + 2 BW 36	40,000	50	63

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	d1 [mm]	t1 [mm]	w1 [mm]	Weight [kg/pc.]
VMW 6	214	19	160	95	14	13	54	25	1.43
VMW 7/8	240	23	170	105	17	17	70	34	2.46
VMW 10	275	27	190	110	20	20	85	40	4.01
VMW 13	345	33	230	130	26	23	115	50	7.10
VMW 16	415	38	275	150	29	27	140	65	11.30
VMW 19/20	500	56	350	250	46	33	150	70	28.30
VMW 22	520	56	350	250	46	36	170	75	30.22

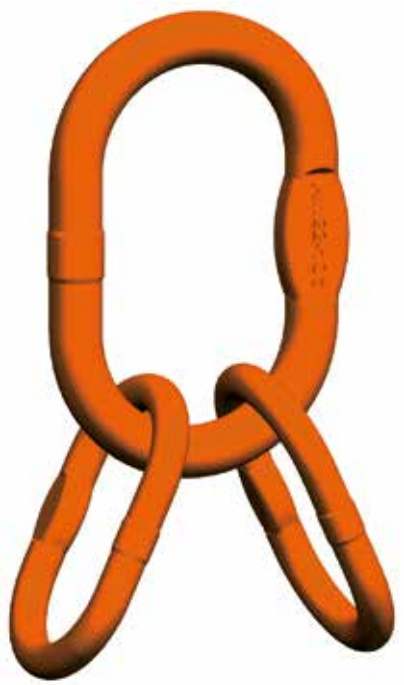
Please note that the allocation does not apply to suspension systems with a load distributor.

pewag VAW Special IV-leg master link assembly

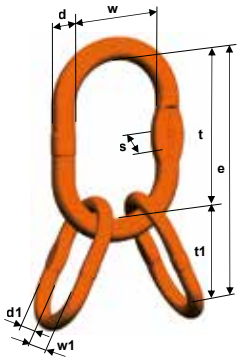
This IV-leg master link assembly can be used for III- and IV-leg chain slings in the assembled or welded systems.

The use of AW master links as transition links makes the VAW four-leg set ideal for the manufacture of rope slings.
Attention: Please consider that working load limit is indicated with safety factor 4!

See table below for the maximum crane hook size as specified by DIN 15401 and DIN 15402. For the detailed measurements of the single components please refer to the product “AW”.



VAW Special IV-leg master link assembly



Code	Consisting of	Working load limit 0°-45° [kg]	Fits on single hook acc, DIN 15401 no,	Fits on double hook acc, DIN 15402 no,
VAW 6/7	AW 18 + 2 AW 14	5,000	5	6
VAW 8	AW 22 + 2 AW 16	6,300	6	8
VAW 10	AW 26 + 2 AW 18	9,500	8	10
VAW 13	AW 32 + 2 AW 26	16,100	10	12
VAW 16	AW 36 + 2 AW 32	25,100	16	20
VAW 19/20	AW 50 + 2 MW 36	41,100	32	40
VAW 22	AW 50 + 2 AW 45	47,400	32	40
VAW 26	AW 56 + 2 AW 50	58,000	32	40
VAW 32	AW 72 + 2 AW 56	85,000	50	63

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	d1 [mm]	t1 [mm]	w1 [mm]	Weight [kg/pc.]
VAW 6/7	245	19	135	75	14	14	110	60	1.72
VAW 8	270	23	160	90	17	16	110	60	2.66
VAW 10	315	27	180	100	20	19	135	75	4.30
VAW 13	380	33	200	110	26	27	180	100	9.06
VAW 16	460	36	260	140	29	33	200	110	14.53
VAW 19/20	625	50	350	190	43	38	275	150	31.51
VAW 22	690	50	350	190	43	45	340	180	42.19
VAW 26	750	56	400	200	-	50	350	190	56.40
VAW 32	860	70	460	250	-	56	400	200	99.02

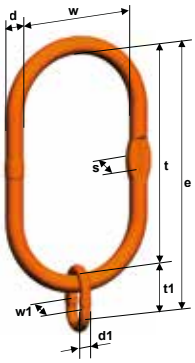
Please note that the allocation does not apply to suspension systems with a load distributor.

pewag VLW 1 Master link assembly

This master link assembly for I-leg chain slings in assembled or welded systems complies with EN 1677-4 and the mechanical values for G10. Extra-large rings make this master link assembly the perfect partner for crane hooks according to DIN 15401 up to no. 25 and according to DIN 15402 up to no. 32.

Versatile usability, full operating manual, CE-marking and BG-approval characterize this set.

VLW 1 Master link assembly



Code	Consisting of	Working load limit [kg]	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
VLW 1-6/7/8	LW 22 + BW 13	2,500	25	32
VLW 1-10	LW 27 + BW 16	4,000	25	32
VLW 1-13	LW 27	6,700	25	32
VLW 1-16	LW 32	10,000	25	32
VLW 1-19/22	LW 40	19,000	25	32

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	d1 [mm]	t1 [mm]	w1 [mm]	Weight [kg/pc.]
VLW 1-6/7/8	394	23	340	180	17	13	54	25	3.37
VLW 1-10	410	27	340	180	20	17	70	34	4.76
VLW 1-13	340	27	340	180	20	-	-	-	4.40
VLW 1-16	340	33	340	180	27	-	-	-	6.70
VLW 1-19/22	340	40	340	180	29	-	-	-	10.00

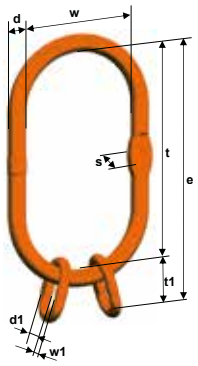
Example: VLW 1-6/7/8 can be used for I-leg slings with 6 mm, 7 mm and 8 mm chains.

pewag VLW 2/4 Master link assembly

Master link assembly for the manufacture of II, III and IV-leg slings in assembled or welded systems in accordance with EN 1677-4 with mechanical values corresponding to grade 10. Extra-large rings make this master link assembly the perfect partner for crane hooks according to DIN 15401 up to no. 25 and according to DIN 15402 up to no. 32.

Versatile usability, full operating manual, CE-marking and BG-approval characterize this set.

VLW 2/4 Master link assembly



Code	Consisting of	Working load limit 0°-45° [kg]	For 2-leg slings	For 3- and 4-leg slings	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
VLW 2-6/7/8/4-6	LW 22 + 2 BW 13	3,550	6/7/8	6	25	32
VLW 2-10/4-7/8	LW 27 + 2 BW 16	5,600	10	7/8	25	32
VLW 2-13/4-10	LW 32 + 2 BW 20	9,500	13	10	25	32
VLW 2-16/4-13	LW 40 + 2 BW 22	14,000	16	13	25	32
VLW 2-19/4-16	LW 40 + 2 BW 26	21,200	19	16	25	32

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	d1 [mm]	t1 [mm]	w1 [mm]	Weight [kg/pc.]
VLW 2-6/7/8/4-6	394	23	340	180	17	13	54	25	3.54
VLW 2-10/4-7/8	410	27	340	180	20	17	70	34	5.12
VLW 2-13/4-10	425	33	340	180	27	20	85	40	7.81
VLW 2-16/4-13	455	40	340	180	29	23	115	50	12.32
VLW 2-19/4-16	480	40	340	180	29	27	140	65	13.84

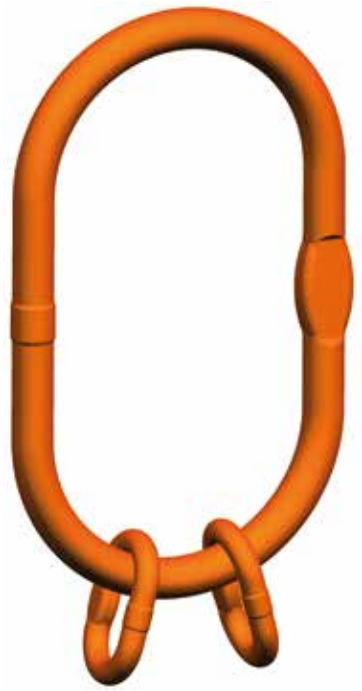
Example of multi-leg chain sling: VLW 2-10/4-7/8 can be used for 10 mm II-leg slings and for 7+8 mm IV-leg slings.

pewag VSW 2/4 Oversize master link assembly

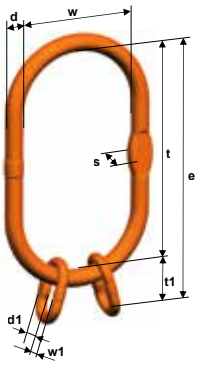
The VSW 2/4 master link assembly is designed for the creation of II, III and IV leg slings in assembled or welded systems.

The extra-large rings make this master link assembly the perfect partner for crane hooks according to DIN 15401 up to no. 40 and according to DIN 15402 up to no. 50. This master link assembly also comes with CE marking and was manufactured according to EN 1677-4, with the mechanical values of the G10 programme.

A full operating manual provides detailed information on all potential areas of use.



VSW 2/4 Oversize master link assembly



Code	Consisting of	Working load limit 0°-45° [kg]	For 2-leg slings	For 3- and 4-leg slings	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
VSW 2-10 / 4-8	SW 30 + 2 BW 20	5,600	10	8	40	50
VSW 2-13 / 4-10	SW 33 + 2 BW 20	9,500	13	10	40	50
VSW 2-16 / 4-13	SW 36 + 2 BW 22	14,000	16	13	40	50
VSW 2-19/20 / 4-16	SW 45 + 2 BW 26	21,200	19/20	16	40	50

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	d1 [mm]	t1 [mm]	w1 [mm]	Weight [kg/pc.]
VSW 2-10 / 4-8	515	30	430	220	24	20	85	40	8.16
VSW 2-13 / 4-10	515	33	430	220	26	20	85	40	9.66
VSW 2-16 / 4-13	545	36	430	220	29	23	115	50	12.32
VSW 2-19/20 / 4-16	570	45	430	220	-	27	140	65	19.54

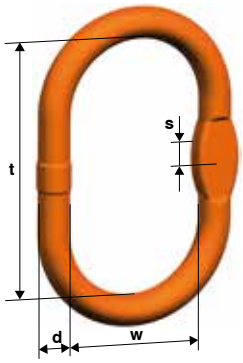
Example of multi-leg chain sling: VSW 2-10/4-8 can be used for 10 mm II-leg slings and for 8 mm IV-leg slings.

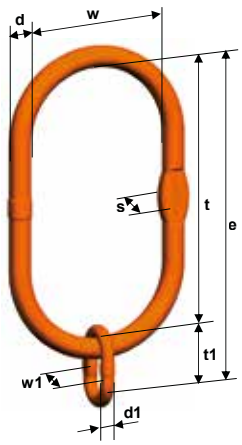
pewag VSAW 1 Master link assembly

This Master link assembly is used for the manufacture of I-leg slings in assembled or welded systems, and also for the manufacture of short assemblies. Extra-large internal ring dimensions that are suitable for single hooks according to DIN 15401 no. 50/100 and for double hooks according to DIN 15402 no. 63/125.

A flattened ring section opens up universal adaptation possibilities that are also outlined in the full operating manual. The assemblies are manufactured according to EN 1677-4 with the mechanical values of G10 and come with a CE marking for certified quality.

VSAW 1 Master link assembly





Code	Consisting of	Working load limit [kg]	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
VSAW 1-10/13	SAW 32+BW 20	10,000	50	63
VSAW 1-16	SAW 32	10,000	50	63
VSAW 1-19	SAW 40	16,000	50	63
VSAW 1-22	SAW 45	22,400	50	63
VSAW 1-26	SAW 50	33,600	50	63
VSAW 1-32	SAW 56	40,000	50	63
VSAW 1-32 / 320	SAW 60	40,000	100	125

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	d1 [mm]	t1 [mm]	w1 [mm]	Weight [kg/pc.]
VSAW 1-10/13	585	33	500	250	26	20	85	40	10.00
VSAW 1-16	500	33	500	250	26	-	-	-	9.32
VSAW 1-19	460	40	460	250	32	-	-	-	13.12
VSAW 1-22	500	45	500	250	-	-	-	-	17.80
VSAW 1-26	460	50	460	250	43	-	-	-	20.98
VSAW 1-32	460	56	460	250	-	-	-	-	26.68
VSAW 1-32 / 320	800	60	800	320	54	-	-	-	48.00

Example: VSAW 1-10/13 may be used for I-leg chain slings with a 10 mm or 13 mm chain.

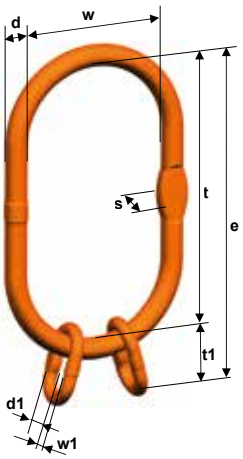
pewag VSAW 2 Master link assembly

The VSAW 2 assembly comes with the same benefits as the VSAW 1 assembly and can also be used to create transition assemblies. This system is ideal for simplifying lifting and transport processes as it enables the creation of very short transition assemblies, thereby facilitating the switch from a large to a small crane hook.

With a working load limit of up to 40,000 kg, these master links may be used to create II-, III- and IV-leg chain slings in the assembled or welded system. The flattened section on the rings make them universally adaptable and the extra-large interior dimensions of the rings make them easy to use with single hooks according to DIN 15401 no. 50/100 or double hooks according to DIN 15402 no. 63/125.

The assemblies are manufactured according to EN 1677-4 with the mechanical values of G10 and come with a CE-marking for certified quality. A full operating manual is provided.

VSAW 2 Master link assembly



Code	Consisting of	Working load limit 0°-45° [kg]	For 2-leg slings	For 3- and 4-leg slings	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
VSAW 2-10/13 / 4-10	SAW 32 + 2 BW 20	9,500	10/13	10	50	63
VSAW 2-16 / 4-13	SAW 40 + 2 BW 22	14,000	16	13	50	63
VSAW 2-19/20 / 4-16	SAW 45 + 2 BW 26	21,200	19/20	16	50	63
VSAW 2-22 / 4-19/20	SAW 50 + 2 BW 32	30,000	22	19/20	50	63
VSAW 2-26 / 4-22	SAW 56 + 2 BW 32	40,000	26	22	50	63
VSAW 2-26 / 4-22 / 320	SAW 60 + 2 BW 32	40,000	26	22	100	125

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	d1 [mm]	t1 [mm]	w1 [mm]	Weight [kg/pc.]
VSAW 2-10/13 / 4-10	585	33	500	250	26	20	85	40	10.68
VSAW 2-16 / 4-13	575	40	460	250	32	23	115	50	15.44
VSAW 2-19/20 / 4-16	640	45	500	250	-	27	140	65	21.64
VSAW 2-22 / 4-19/20	610	50	460	250	43	33	150	70	27.30
VSAW 2-26 / 4-22	610	56	460	250	-	33	150	70	34.92
VSAW 2-26 / 4-22 / 320	950	60	800	320	54	33	150	70	56.24

Example: VSAW 2-10/13 /4-10 may be used for II-leg chains with a 10 mm or 13 mm chain.

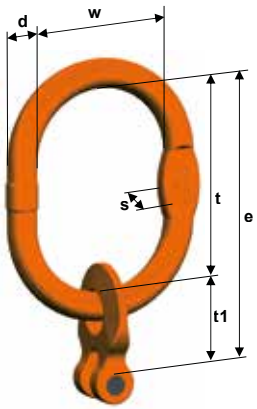
pewag KMGW 1 Enlarged clevis master set

The MW master ring and the welded-in KRW coupling ring are the perfect pair for creating I-leg chain slings in the assembled system. The chain is mounted directly in the coupling, thereby eliminating the need for an additional connecting link.

Disassembly is also simple and can be completed without special tools. However, make sure that it is performed by a competent person. An extra plus results from the enlarged internal dimensions of the master ring, which make it suitable for the next size crane hook.

The set is manufactured according to EN 818-4 with mechanical values for G10 and comes with CE-marking and a full operating manual. The coupling pin and the lock pin are available as a KBSW spare parts set.

KMGW 1 Enlarged clevis master set



Code	Working load limit [kg]	For chain-Ø	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
KMGW 1-6[1)]	1,400	6	4	5
KMGW 1-7	1,900	7	4	5
KMGW 1-8	2,500	8	5	6
KMGW 1-10	4,000	10	6	8
KMGW 1-13	6,700	13	10	12
KMGW 1-16	10,000	16	10	12
KMGW 1-19/20	16,000	19	12	16
KMGW 1-22	19,000	22	20	25

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	t1 [mm]	Weight [kg/pc.]
KMGW 1-6 [1)]	151	14	120	70	10	31	0.63
KMGW 1-7	163	14	120	70	10	43	-
KMGW 1-8	183	16	140	80	13	43	0.91
KMGW 1-10	212	19	160	95	14	52	1.53
KMGW 1-13	234	23	170	105	17	64	2.58
KMGW 1-16	265	27	190	110	20	75	4.14
KMGW 1-19/20	324	33	230	130	26	94	-
KMGW 1-22	377	38	275	150	29	102	-

[1)] May also be used with a 5 mm chain if working load limit is adjusted accordingly.

Also with **corropro-PCP** available!

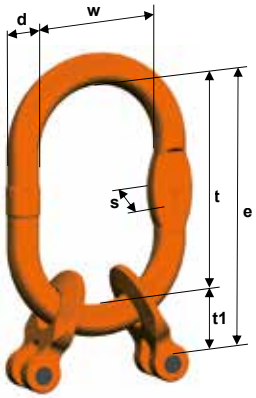
Example: KMGW 1-10 may be used for I-leg chains with a 10 mm chain.

pewag KMGW 2 Enlarged clevis master set

The chain is mounted directly into the coupling ring, eliminating the need for an additional connecting link. This makes the master set with a MW master ring and two welded-in KRW coupling rings even better suited for creating II-leg chain slings in the assembled system. Product features include easy assembly and disassembly by a competent person without the need for special tools – benefits that speak for themselves! Extra-large internal dimensions of the master ring also make this system suitable for the next size crane hook.

The set comes with a full operating manual. A CE-marking is standard. The extra-large clevis master set is manufactured according to EN 818-4 with mechanical values for G10. Coupling bolt and lock pin are available as a KBSW spare parts set.

KMGW 2 Enlarged clevis master set



Code	Working load limit 0°-45° [kg]	Working load limit 45°-60° [kg]	For chain-Ø	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
KMGW 2-6[1)]	2,000	1,400	6	4	5
KMGW 2-7	2,650	1,900	7	5	6
KMGW 2-8	3,550	2,500	8	6	8
KMGW 2-10	5,600	4,000	10	10	12
KMGW 2-13	9,500	6,700	13	10	12
KMGW 2-16	14,000	10,000	16	12	16
KMGW 2-19/20	20,000	14,000	19	20	25
KAGW 2-22	26,500	19,000	22	25	32

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	t1 [mm]	Weight [kg/pc.]
KMGW 2-6 [1)]	151	14	120	70	10	31	0.69
KMGW 2-7	183	16	140	80	13	43	-
KMGW 2-8	203	19	160	95	14	43	1.58
KMGW 2-10	222	23	170	105	17	52	2.54
KMGW 2-13	254	27	190	110	20	64	4.32
KMGW 2-16	305	33	230	130	26	75	8.47
KMGW 2-19/20	369	38	275	150	29	94	-
KAGW 2-22	442	45	340	180	-	102	21.51

Also with corropro-PCP available!

[1)] May also be used with a 5 mm chain if working load limit is adjusted accordingly.

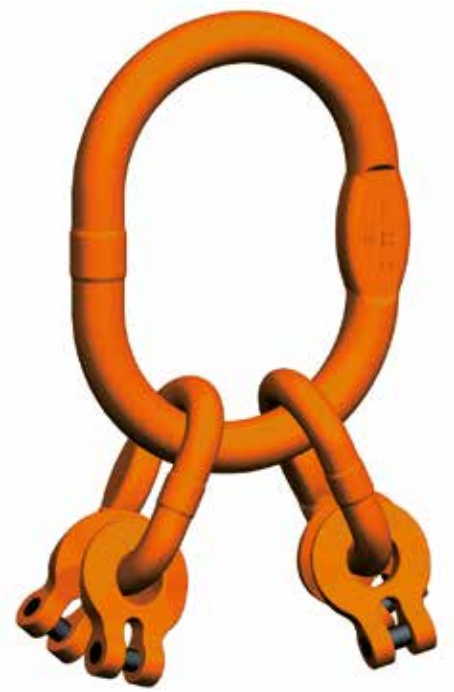
Example: KMGW 2-10 may be used for II-leg chains with a 10 mm chain.

pewag KMGW 4 Enlarged clevis master set

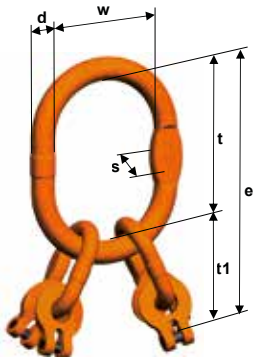
This clevis master set is manufactured according to EN 818-4 with mechanical values of G10 and consists of the VMW enlarged IV-leg master link assembly and four welded-in KRW coupling rings. This master set is ideal for the creation of IV-leg chain slings in the assembled system. The chain may simply be mounted directly into the coupling rings by a competent person, without the need for special tools. Disassembly is very easy.

Enlarged internal dimensions of the master ring make this product suitable for the next size crane hook. The coupling pin and the lock pin are available as KBSW spare parts sets.

This package comes with CE-marking and a full operating manual.



KMGW 4 Enlarged clevis master set



Code	Working load limit 0°-45° [kg]	Working load limit 45°-60° [kg]	For chain-Ø	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
KMGW 4-6 [1]	3,000	2,120	6	6	8
KMGW 4-7	4,000	2,800	7	10	12
KMGW 4-8	5,300	3,750	8	10	12
KMGW 4-10	8,000	6,000	10	10	12
KMGW 4-13	14,000	10,000	13	12	16
KMGW 4-16	21,200	15,000	16	20	25
KMGW 4-19/20	30,000	21,200	19	50	63
KMGW 4-22	40,000	28,000	22	50	63

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	t1 [mm]	Weight [kg/pc.]
KMGW 4-6 [1]	245	19	160	95	14	85	1.94
KMGW 4-7	283	23	170	105	17	113	3.30
KMGW 4-8	283	23	170	105	17	113	3.36
KMGW 4-10	327	27	190	110	20	137	5.55
KMGW 4-13	409	33	230	130	26	179	11.15
KMGW 4-16	490	38	275	150	29	215	17.67
KMGW 4-19/20	594	56	350	250	46	244	37.62
KMGW 4-22	622	56	350	250	46	272	46.02

[1] May also be used with a 5 mm chain if working load limit is adjusted accordingly.

Example: KMGW 4-10 may be used for IV-leg chain slings with a 10 mm chain.

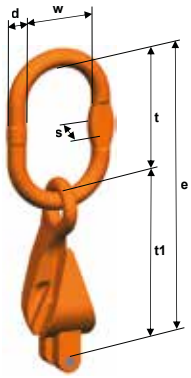
pewag VMXKW 1 Clevis master set

This safety product complies with EN 818-4 and has the mechanical values of G10. The chain is mounted directly into the coupling unit of the shortening element, thereby eliminating the need for an additional connecting link. The hook functions both as a connecting link and a shortening element, making for simple assembly and disassembly by a competent person, without the need for special tools.

This master set consists of a MW master ring and a welded-in XKW shortening hook for the creation of I-leg chain slings in the assembled system.

CE-marking is guaranteed and a full operating manual is included. The coupling pin and the lock pin are available as a KBSW spare parts set.

VMXKW 1 Clevis master set



Code	Working load limit [kg]	For chain-Ø	Fits on single hook acc, DIN 15401 no,	Fits on double hook acc, DIN 15402 no,
VMXKW 1-5/6	1,400	6	4	5
VMXKW 1-7	1,900	7	4	5
VMXKW 1-8	2,500	8	5	6
VMXKW 1-10	4,000	10	6	8
VMXKW 1-13	6,700	13	10	12
VMXKW 1-16	10,000	16	10	12

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	t1 [mm]	Weight [kg/pc.]
VMXKW 1-5/6	204	14	120	70	10	84	0.74
VMXKW 1-7	242	14	120	70	10	122	1.06
VMXKW 1-8	262	16	140	80	13	122	1.30
VMXKW 1-10	321	19	160	95	14	161	2.34
VMXKW 1-13	373	23	170	105	17	203	4.39
VMXKW 1-16	425	27	190	110	20	235	7.45

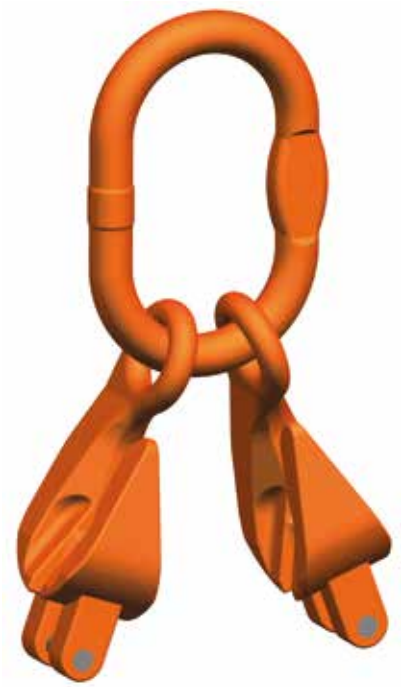
Example: VMXKW 1-10 may be used for I-leg chain slings with a 10 mm chain.

pewag VMXKW 2 Clevis master set

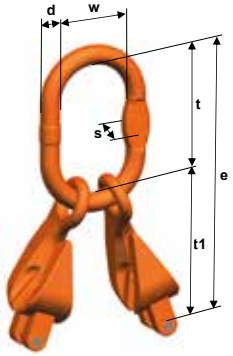
The fact that the hook functions both as a connecting and a shortening element, there is no additional connecting element needed. The chain may attached directly to the coupling unit of the shortening element. The set consists of a MW master ring and two welded-in XKW shortening hooks, facilitating the speedy assembly and disassembly of II-leg chain slings by a competent person, without the need for special tools.

The clevis master set is manufactured according to EN 818-4 with mechanical values for G10. This all-round package comes with CE-marking and a full operating manual.

The coupling pin and the lock pin are available as a KBSW spare parts set.



VMXKW 2
Clevis master set



Code	Working load limit 0°-45° [kg]	Working load limit 45°-60° [kg]	For chain-Ø	Fits on single hook acc, DIN 15401 no,	Fits on double hook acc, DIN 15402 no,
VMXKW 2-5/6	2,000	1,400	6	4	5
VMXKW 2-7	2,650	1,900	7	5	6
VMXKW 2-8	3,550	2,500	8	6	8
VMXKW 2-10	5,600	4,000	10	10	12
VMXKW 2-13	9,500	6,700	13	10	12
VMXKW 2-16	14,000	10,000	16	12	16

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	t1 [mm]	Weight [kg/pc.]
VMXKW 2-5/6	204	14	120	70	10	84	1.04
VMXKW 2-7	262	16	140	80	13	122	1.91
VMXKW 2-8	282	19	160	95	14	122	2.35
VMXKW 2-10	331	23	170	105	17	161	4.19
VMXKW 2-13	393	27	190	110	20	203	8.05
VMXKW 2-16	465	33	230	130	26	235	14.38

Example: VMXKW 2-10 may be used for II-leg chain slings with a 10 mm chain.

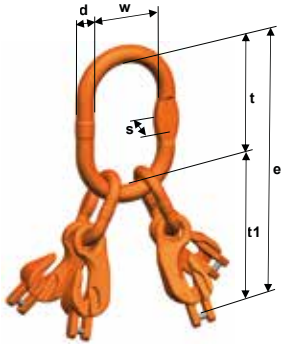
pewag VMXKW 4 Clevis master set

The chain is directly attached to the coupling unit of the shortening element. This has the advantage, that there is no additional connecting element needed, because the hook functions both as a connecting and a shortening element. The assembly and disassembly is done easily, quickly and without special tool by a competent person.

This master set, featuring a VMW four-leg master link assembly and four welded XKW shortening hooks, is used for the assembly of four-leg chain slings. The set is manufactured according to EN 818-4 with the mechanical values of G10 and comes with a CE-marking.

A full operating manual and the KBSW spare parts set consisting of coupling pin and lock pin are also included in the delivery.

VMXKW 4 Clevis master set



Code	Working load limit 0°-45° [kg]	Working load limit 45°-60° [kg]	For chain-Ø	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
VMXKW 4-5/6	3,000	2,120	6	6	8
VMXKW 4-7	4,000	2,800	7	10	12
VMXKW 4-8	5,300	3,750	8	10	12
VMXKW 4-10	8,000	6,000	10	10	12
VMXKW 4-13	14,000	10,000	13	12	16
VMXKW 4-16	21,200	15,000	16	20	25

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	t1 [mm]	Weight [kg/pc.]
VMXKW 4-5/6	298	19	160	95	14	138	2.63
VMXKW 4-7	362	23	170	105	17	192	4.84
VMXKW 4-8	362	23	170	105	17	192	4.93
VMXKW 4-10	436	27	190	110	20	246	9.01
VMXKW 4-13	548	33	230	130	26	318	17.90
VMXKW 4-16	650	38	275	150	29	375	30.52

Example: VMXKW 4-10 may be used for IV-leg chain slings with a 10 mm chain.

pewag LXKW 1 Clevis master set

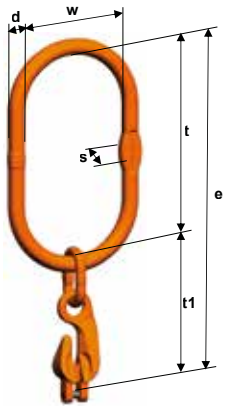
This clevis master set is frequently used on mobile cranes. It consists of an LW master ring and a welded-in XKW shortening hook for the creation of I-leg chain slings in the assembled system. The chain is mounted directly into the coupling unit of the shortening element. Assembly and disassembly of the system by a competent person is easy and quick, without the need for special tools.

The hook functions both as a connecting link and a shortening element and the master link is suitable for crane hooks up to no. 25 according to DIN 15401 and up to no. 32 according to DIN 15402.

The set is manufactured according to EN 818-4 with the mechanical values of G10, comes with CE-marking and BG approval as well as a full operating manual.

The coupling pin and the lock pin are available as a KBSW spare parts set.

LXKW 1 Clevis master set



Code	Working load limit [kg]	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
LXKW 1-6 [1]	1,400	25	32
LXKW 1-8	2,500	25	32
LXKW 1-10	4,000	25	32
LXKW 1-13	6,700	25	32
LXKW 1-16	10,000	25	32

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	t1 [mm]	Weight [kg/pc.]
LXKW 1-6 [1]	478	23	340	180	17	138	3.72
LXKW 1-8	516	23	340	180	17	176	4.03
LXKW 1-10	571	27	340	180	20	231	6.05
LXKW 1-13	628	27	340	180	20	288	8.82
LXKW 1-16	690	33	340	180	27	350	13.54

[1] May also be used with a 5 mm chain if working load limit is adjusted accordingly.

Example: LXKW 1-10 may be used for I-leg chain slings with a 10 mm chain.

pewag LXKW 2 Clevis master set

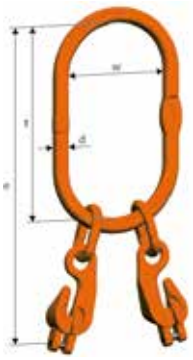
II-leg chain slings in the assembled system are created easily and quickly using this clevis master set, as the chain may be attached directly to the coupling unit of the shortening element.

Assembly and disassembly of the system by a competent person is easy and quick, without the need for special tools.

The hook functions both as a connecting link and a shortening element and the master link is suitable for crane hooks up to no. 25 according to DIN 15401 and up to no. 32 according to DIN 15402. The set itself complies with EN 818-4 and has the mechanical values of G10. Due to its large master ring, it is frequently used on mobile cranes.

CE-marking, BG-approval and a full operating manual are further quality features that are standard for pewag. The coupling pin and the lock pin are available as a KBSW spare parts set.

LXKW 2 Clevis master set



Code	Working load limit 0°-45° [kg]	Working load limit 45°-60° [kg]	Fits on single hook acc, DIN 15401 no,	Fits on double hook acc, DIN 15402 no,
LXKW 2-6 [1]	2,000	1,400	25	32
LXKW 2-8	3,550	2,500	25	32
LXKW 2-10	5,600	4,000	25	32
LXKW 2-13	9,500	6,700	25	32
LXKW 2-16	14,000	10,000	25	32

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	t1 [mm]	Weight [kg/pc.]
LXKW 2-6 [1]	478	23	340	180	17	138	3.97
LXKW 2-8	516	23	340	180	17	176	4.84
LXKW 2-10	571	27	340	180	20	231	7.69
LXKW 2-13	628	33	340	180	27	288	14.28
LXKW 2-16	690	40	340	180	29	350	23.17

[1] May also be used with a 5 mm chain if working load limit is adjusted accordingly.

Example: LXKW 2-10 may be used for II-leg chain slings with a 10 mm chain.

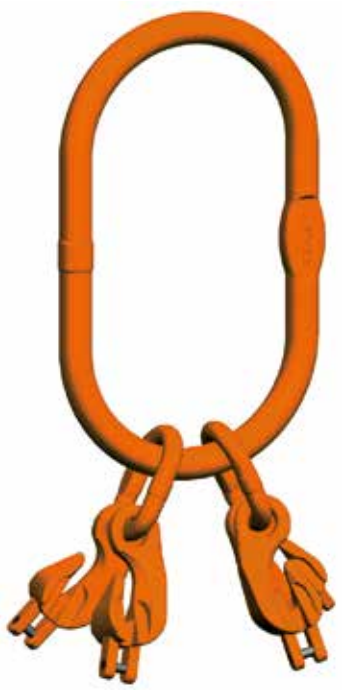
pewag LXKW 4 Clevis master set

This four-leg clevis master set was designed for the creation of IV-leg chain slings. The chain can simply be mounted directly in the coupling unit of the shortening element.

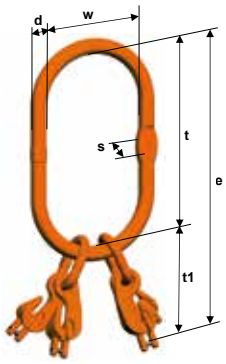
The master link is suitable for crane hooks up to no. 25 according to DIN 15401 and up to no. 32 according to DIN 15402.

A full operating manual instructs competent person in the assembly of the set, without any need for special tools. The set is manufactured according to EN 818-4 with the mechanical values of G10 and, because of its large master ring, it is frequently used on mobile cranes.

The coupling pin and the lock pin are available as a KBSW spare parts set. CE-marking and BG-approval are part of our standard programme.



LXKW 4 Clevis master set



Code	Working load limit 0°-45° [kg]	Working load limit 45°-60° [kg]	Fits on single hook acc. DIN 15401 no.	Fits on double hook acc. DIN 15402 no.
LXKW 4-6 [1]	3,000	2,120	25	32
LXKW 4-8	5,300	3,750	25	32
LXKW 4-10	8,000	6,000	25	32
LXKW 4-13	14,000	10,000	25	32
LXKW 4-16	21,200	15,000	25	32

Code	e [mm]	d [mm]	t [mm]	w [mm]	s [mm]	t1 [mm]	Weight [kg/pc.]
LXKW 4-6 [1]	478	23	340	180	17	138	4.38
LXKW 4-8	532	27	340	180	20	192	7.71
LXKW 4-10	586	33	340	180	27	246	12.88
LXKW 4-13	658	40	340	180	29	318	24.37
LXKW 4-16	715	40	340	180	29	375	34.53

[1] May also be used with a 5 mm chain if working load limit is adjusted accordingly.

Example: LXKW 4-10 may be used for IV-leg chain slings with a 10 mm chain.

pewag CW Connex connecting link

This universal connecting link consists of two symmetrical, forged halves, one bolt and one safety bush. For the connection of master ring and chain, chain and chain, chain and hook, master ring and hook and much more. It is suitable for straight pull only and must be assembled by a competent person. Thanks to the sophisticated design, no special tool is required.

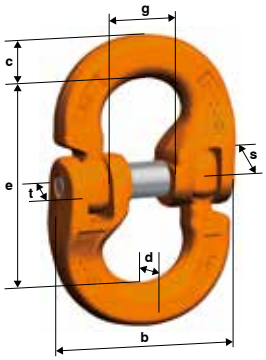
To maintain the high quality of this product, we recommend replacing the pin and tension sleeve after three assemblies/ disassemblies.

The product is manufactured according to EN 1677-1 with mechanical values for G10.

BG-approval and CE-marking are included. A full operating manual is also supplied.

Spare parts: CBHW (safety bush and bolt)

CW Connex connecting link



Code	Working load limit [kg]	e [mm]	c [mm]	s [mm]	t [mm]	d [mm]	b [mm]	g [mm]	Weight [kg/pc.]
CW 5	1,000	38	7	9	12	7	34	13	0.06
CW 6	1,400	44	8	11	13	8	39	14	0.09
CW 7	1,900	52	11	13	16	8	47	17	0.14
CW 8	2,500	59	13	14	18	10	54	19	0.24
CW 10	4,000	72	15	18	22	13	66	24	0.42
CW 13	6,700	88	20	23	26	17	80	28	0.83
CW 16	10,000	112	24	29	35	20	105	34	1.90
CW 19/20	16,000	126	32	35	45	25	126	44	2.50
CW 22	19,000	157	36	39	46	26	148	52	4.15
CW 26	26,500	179	40	46	57	30	175	62	6.90
CW 32	40,000	206	47	56	63	35	216	80	11.36

Also with corropro-PCP available!

The connecting link is wide enough to accommodate shorteners and chains. The part (chain or hook) can position itself centrally and the symmetrical load on the connecting link is given.

CW 5 – CW 16

CW 19/20 – CW 32

pewag CLW Connex connecting link

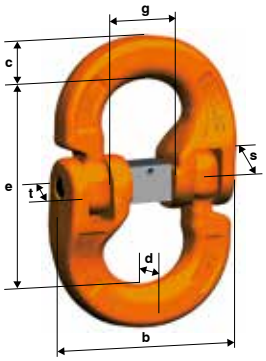
This universal connection link is manufactured from high-grade material. This product owes its outstanding quality and expediency to a sophisticated manufacturing process. Two symmetrical, forged halves and a special safety set ensure universal combination options of master ring/chain, chain/chain, chain/hook, master ring/hook and other elements.

Recommended for applications where the pin must not be removed once assembled, for instance when using lifting magnets or concrete buckets. The CLW Connex connecting link is suitable for straight pull only and cannot be dismounted after assembly. The link may be assembled by a competent person easily and quickly, without the need for special tools. Manufactured according to EN 1677-1 with the mechanical values of G10.

Product includes CE-marking, BG-approval and a full operating manual.

Spare parts: CLBHW (bush, bolt and retaining pin)

CLW Connex connecting link



Code	Working load limit [kg]	e [mm]	c [mm]	s [mm]	t [mm]	d [mm]	b [mm]	g [mm]	Weight [kg/pc.]
CLW 7	1,900	52	11	13	16	8	47	17	0.15
CLW 10	4,000	72	15	18	22	13	66	24	0.37
CLW 13	6,700	88	20	23	26	17	80	28	0.85
CLW 16	10,000	112	24	29	35	20	105	34	1.90

Info: Connecting links type CLRW - demountable, in sizes 19/20, 22, 26 and 32 available on request!

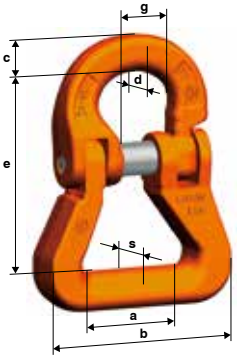
pewag CARW Round sling connecting link

Extra-safe round sling connecting links are required for the assembly of round slings or webbing slings, with a wide, protecting layer for round slings and webbing slings. The CARW round sling connecting link is manufactured according to EN 1677-1 with the mechanical values of G10 and fulfils these requirements down to the smallest detail. It is easily assembled and disassembled by a competent person, without the need for special tools.

It is recommended to use a new bolt and safety bush after three assemblies/disassemblies. Also note that this product is suitable for straight pull only. Includes CE-marking, BG-approval and full operating manual.

Spare parts: CBHW (safety bush and bolt)

CARW
Round sling connecting link



Code	Working load limit [kg]	e [mm]	a [mm]	c [mm]	d [mm]	b [mm]	s [mm]	g [mm]	Weight [kg/pc.]
CARW 8	2,500	66	29	12	10	68	18	19	0.35
CARW 10	4,000	81	40	15	13	82	21	24	0.62
CARW 13	6,700	104	44	20	17	101	28	28	1.25
CARW 16	10,000	113	47	24	20	110	40	34	2.50
CARW 22	19,000	188	110	36	25	215	58	52	8.97

Take a look at our textile catalog!

Textile catalog KA/19/00475

pewag DFW Swivel

The DFW Swivels are lifting components that can be rotated under load and can be installed in chain strands using Connex connecting links or in textile slings using CARW round sling connections. Thanks to the roller bearing, they can be rotated under load.

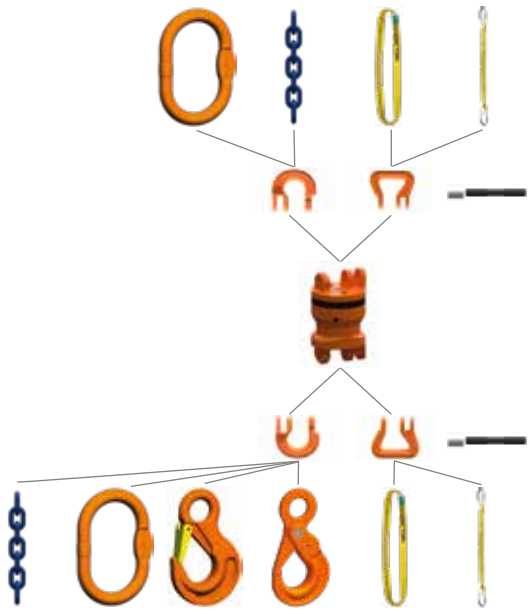
They can also be fitted with accessories for the Connex system with CW or CARW. They are used to rotate loads so that they can be placed precisely in the intended position. Furthermore, twisted chain strands can be straightened without detaching the chain sling from the load or the crane hook.

The DFW can be connected directly to the chain without special tools.

Spare parts: Connex CW, CARW, CBHW (safety bush and bolt)

DFW Swivel	Code	Working load limit [kg]	e [mm]	e1 [mm]	d [mm]	b [mm]	Weight of individual part [kg/pc.]	Weight set [kg/pc.]
	DFW 8	2,500	88	143	53	54	0.87	1.14
	DFW 10	4,000	100	163	65	66	1.49	1.96
	DFW 13	6,700	128	206	79	79	2.95	3.84
	DFW 16	10,000	169	266	104	106	6.00	8.05

Possible installation methods of the DFW Swivel



pewag AGWW Load distributor

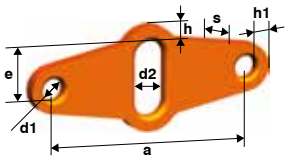
As this system offers a higher working load limit compared to standard IV-leg slings, it is all about the working load limit of the master link assembly. The load distributor may be turned by 180° once the elimination criteria have been reached, thereby doubling its lifespan!

The system is used for assembling IV-leg chain slings with Connex connecting links. Where required, all four legs may be considered load-carrying:

If two II-leg slings are used at the same time and one of them is provided with a load distributor, this system can be treated as a IV-leg sling with four load-carrying legs.

Please consult the operating manual for more detailed information.

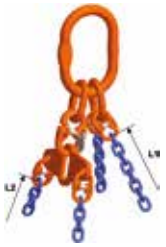
AGWW Load distributor



Code	Connecting link	Working load limit 0°-45° [kg]	Working load limit 45°-60° [kg]	Difference L1 / L2 [chain links]
AGWW 5/6	CW 8	2,000	1,400	6 for 5 mm chains 5 for 6 mm chains
AGWW 7/8	CW 10	3,550	2,500	6 for 7 mm chains 5 for 8 mm chains
AGWW 10	CW 13	5,600	4,000	4
AGWW 13	CW 16	9,500	6,700	4
AGWW 16	CW 19/20	14,000	10,000	4
AGWW 19/20	CW 32	20,000	14,000	5
AGWW 22	CW 32	26,500	19,000	5
AGWW 26	GSCHW VB G-4163 WLL 55 t	37,500	26,500	5

Code	e [mm]	a [mm]	d1 [mm]	d2 [mm]	h [mm]	h1 [mm]	s [mm]	Weight [kg/pc.]	Master link assembly to be used
AGWW 5/6	35	148	16	22	11	9	10	0.54	VW 6 / VMW 6 / VAW 6/7
AGWW 7/8	51	210	22	25	15.50	14	15	1.75	VW 7/8 / VMW 10 / VAW 10
AGWW 10	32	180	25	32	23	15.50	15	1.56	VW 13 / VMW 13 / VAW 13
AGWW 13	53	240	32	40	27	20	20	3.60	VW 16 / VMW 16 / VAW 16
AGWW 16	77	300	40	50	32	25	25	7.18	VW 19/20 / VMW 19/20 / VAW 19/20
AGWW 19/20	79	390	50	70	45	30	30	13.50	VW 22 / VMW 22 / VAW 19/20
AGWW 22	124	350	60	70	50	35	30	14.80	VW 26 / VAW 26
AGWW 26	130	400	70	75	60	40	40	25.20	VAW 32

Please use the displayed item in column "Connecting link" to assemble the load distributor in the four-leg sling.
Static test coefficient = 2.5 x working load limit of the respective chain section; safety factor = 4



Video AGWP

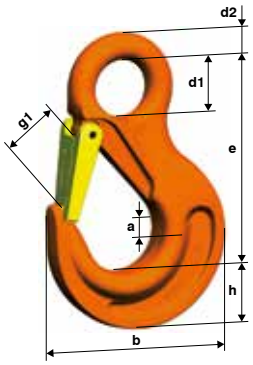
pewag HSW Eye sling hook

This universal eye sling hook is assembled with a forged safety catch that locks into the tip of the hook. The hook is suitable for Connex and the welded system and is manufactured according to EN 1677-2 with the mechanical values of G10.

Please note that the product is suitable for straight pull only. Loads must not be placed on the tip of the hook or the safety catch! Includes CE-marking, BG-approval and full operating manual.

Spare parts: SFGW safety catch set

HSW Eye sling hook



Code	Working load limit [kg]	e [mm]	h [mm]	a [mm]	d1 [mm]	d2 [mm]	g1 [mm]	b [mm]	Weight [kg/pc.]
HSW 5/6	1,400	85	21	17	20	10	19	68	0.34
HSW 7/8	2,500	106	27	19	25	11	26	88	0.58
HSW 10	4,000	131	33	26	34	16	31	109	1.20
HSW 13	6,700	164	44	33	43	19	39	134	2.25
HSW 16	10,000	183	50	40	50	25	45	155	3.72
HSW 19/20	16,000	205	55	48	55	27	53	178	5.97
HSW 22	19,000	225	62	50	60	29	62	196	8.02
HSW 26	26,500	260	80	70	70	37	73	240	14.10
HSW 32	40,000	299	97	82	66	45	87	291	28.50

pewag LHW Safety hook

This hook cannot be opened under load. It is perfect in combination with the Connex system and also offers additional, universal connection options thanks to the flattened section on the eye.

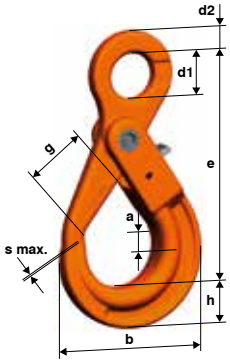
The tip of the hook and the safety catch must not get loaded and the hook should not be used in the welded system. Thanks to its wider jaw opening compared to the HSW, the LHW offers greater flexibility in application.

Please note that this hook is suitable for straight pull only.

The hook corresponds to EN 1677-3, with the mechanical values of G10, and comes with a full operating manual, CE-marking and BG-approval.

Spare parts: VLHW safety catch set

LHW Safety hook



Code	Working load limit [kg]	e [mm]	h [mm]	a [mm]	b [mm]	d1 [mm]	d2 [mm]	g [mm]	s max, [mm]	Weight [kg/pc,]
LHW 5/6	1,400	110	20	17	71	21	11	28	1	0.50
LHW 7/8	2,500	135	26	20	88	25	12	34	1	0.88
LHW 10	4,000	168	30	29	107	33	16	45	1	1.57
LHW 13	6,700	205	40	35	138	40	20	52	1.50	3.13
LHW 16	10,000	251	50	41	168	50	25	60	2	5.89
LHW 19/20	16,000	290	62	50	194	60	30	70	2	9.89
LHW 22	19,000	322	65	52	211	70	32	81	2	12.24
LHW 26	26,500	383	79	61	253	82	42	100	2	20.00
LHW 32	40,000	425	102	80	311	82	45	120	3	31.00

LHW 5/6 up to 22

LHW 26

ADVANTAGE:
The trigger is covered by a safety rib, therefore no unintentional activation of the trigger is possible

LHW 32

ADVANTAGES:
Improved trigger system (patented): better operability, withstands stronger impacts

Rejection marks on the tip of the hook:

pewag WLHBW Swivel safety hook

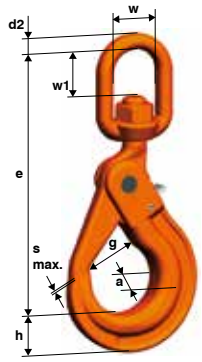
The swivel safety hook closes and locks automatically and comes with an axial bearing, ensuring that it may be rotated when under load. It is suitable for Connex systems; use in welded systems is not possible. Thanks to its large swivel casing, it offers additional connecting options.

Its jaw opening is larger than that of the HSW eye hook, making it more flexible in terms of potential use. The maximum operating temperature is 120°C.

Please note that the product is suitable for straight pull only. The tip of the hook and the safety catch must not get loaded. The full operating manual provides information on the possible applications.

CE marking and BG approval, as well as manufacture in accordance with EN 1677-3 and mechanical values corresponding to G10.

Spare parts: VLHW safety catch set



WLHBW Swivel safety hook	Code	Working load limit [kg]	e [mm]	h [mm]	a [mm]	w [mm]	w1 [mm]	d2 [mm]	g [mm]	s max. [mm]	Weight [kg/pc.]
	WLHBW 5/6	1,400	161	20	17	35	36	12	28	1	0.79
	WLHBW 7/8	2,500	182	26	20	35	36	12	34	1	1.17
	WLHBW 10	4,000	218	30	29	42	41	16	45	1	1.98
	WLHBW 13	6,700	269	40	35	49	47	20	52	1.50	3.85
	WLHBW 16	10,000	319	50	41	60	60	24	60	2	7.18
	WLHBW 19/20 *	16,000	394	62	50	80	86	35	70	2	14.30
	WLHBW 22 *	19,000	430	65	58	80	80	35	81	2	17.00

* Also available as WLHW (not rotatable under load) on request

Figure 1

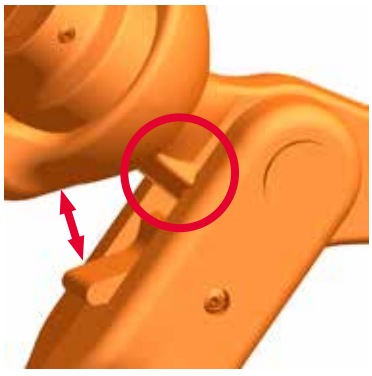


Figure 2

Figure 3

Sizes 19/20 and 22 offer specific advantages:

- Axial bearing in the swivel housing enables rotation under load (Figure 1)
- Special design prevents thumb pinching (Figure 2)
- Improved protection against environmental influences thanks to a nut enclosing the bearing. (Figure 3)

pewag WLHW Swivel safety hook

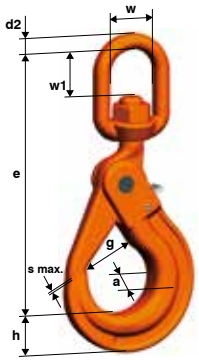
Thanks to its large swivel casing, the hook offers many universal connection options – the larger jaw opening compared to the HSW makes it significantly more flexible in use.

Opening or rotating the hook under load is not possible. The WLHW is not suitable for use in welded systems.It features CE marking and BG approval and complies with EN 1677-3, with mechanical values corresponding to G10.

The hook must only be used for straight pull; loading the tip of the hook or the safety catch is not permitted.The full operating manual provides detailed information on possible applications.

Spare parts: VLHW safety catch set

WLHW Swivel safety hook



Code	Working load limit [kg]	e [mm]	h [mm]	a [mm]	w [mm]	w1 [mm]	d2 [mm]	g [mm]	s max. [mm]	Weight [kg/pc.]
WLHW 5/6	1,400	161	20	17	35	36	12	28	1	0.79
WLHW 7/8	2,500	182	26	20	35	36	12	34	1	1.17
WLHW 10	4,000	218	30	29	42	41	16	45	1	1.98
WLHW 13	6,700	269	40	35	49	47	20	52	1.50	3.85
WLHW 16	10,000	319	50	41	60	60	24	60	2	7.18

pewag WSBW Swivel hook

The swivel hook is universally applicable and equipped with a forged safety catch that locks into the tip of the hook, providing excellent protection against lateral shifting.

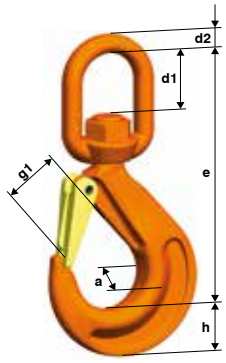
The hook must only be used for straight pull; loading the tip of the hook or the safety catch is not permitted.

The WSBW swivel hook is compatible with the Connex system and, thanks to its large swivel casing, offers numerous additional universal connection options. Use in welded systems is not possible. Rotation under load is enabled by the axial bearing design. The maximum operating temperature is 120°C, and the hook is manufactured in accordance with EN 1677-2, with mechanical values corresponding to G10.

The full operating manual provides detailed information on the wide range of possible applications for this swivel hook.

Spare parts: SFGW safety catch set

WSBW Swivel hook



Code	Working load limit [kg]	e [mm]	h [mm]	a [mm]	d1 [mm]	d2 [mm]	g1 [mm]	Weight [kg/pc.]
WSBW 7/8	2,500	154	28	19	37	12	26	0.84
WSBW 10	4,000	183	33	25	41	16	30	1.62
WSBW 13	6,700	221	40	30	47	20	38	2.86

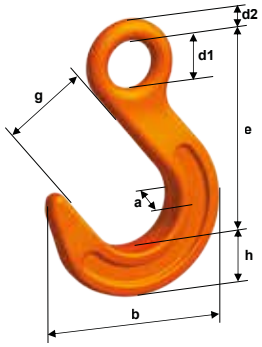
pewag FW Foundry hook

This hook stands out with its extra-large jaw opening, making it ideal where other hooks are no longer sufficient. It is particularly popular for use in foundries.The connection can be made using either the Connex or welded system. Installation with Unilock connecting links must generally be avoided.

The hook must only be used for straight pull; loading the tip of the hook is not permitted. In addition, it must be clarified in advance whether use without a safety catch is permissible.

It is manufactured in accordance with EN 1677-1, with mechanical values corresponding to G10. It features CE marking and is described in detail in the full operating manual.

FW Foundry hook



Code	Working load limit [kg]	e [mm]	h [mm]	a [mm]	d1 [mm]	d2 [mm]	g [mm]	b [mm]	Weight [kg/pc.]
FW 7/8	2,500	131	29	25	24	11	64	118	0.93
FW 10	4,000	158	35	32	31	14	76	143	1.66
FW 13	6,700	190	42	40	39	17	89	170	3.23
FW 16	10,000	224	50	46	47	22	102	200	5.75
FW 19/20	16,000	260	61	54	56	28	114	231	9.50
FW 22	19,000	287	75	63	47	31	140	284	13.40
FW 26	26,500	358	84	73	82	38	152	312	21.40
FW 32	40,000	370	101	90	66	44	170	359	35.00

FW 22, 26 and 32: With largest jaw opening "g" on the market!

pewag PW Grab hook

This standard shortening hook features a specially designed chain support that ensures optimal interaction between chain and hook. No reduction of the sling's load capacity is required when used in a shortened configuration. Loading the tip of the hook is not permitted.

The parallel hook is suitable for both Connex and welded systems and can also be retrofitted into the sling. It complies with EN 1677-1 with mechanical values corresponding to G10 and features CE marking.

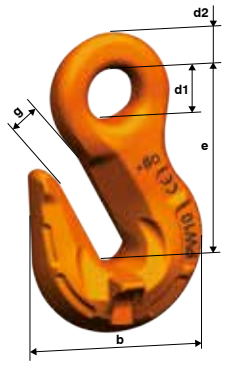
Not suitable for assembly with Unilock connecting links.

PW 5 – PW 16

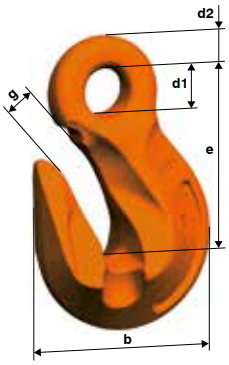
PW 19/20 – PW 32

PW Grab hook	Code	Working load limit [kg]	e [mm]	b [mm]	d1 [mm]	d2 [mm]	g [mm]	Weight [kg/pc.]
	PW 5	1,000	47	40	11	9	7	0.15
	PW 6	1,400	50	44	12	9	7	0.16
	PW 7/8	2,500	65	57	16	12	9	0.37
	PW 10	4,000	71	77	20	14	12	0.74
	PW 13	6,700	101	92	26	19	15	1.57
	PW 16	10,000	121	113	32	23	19	2.86
	PW 19/20 [1]	16,000	151	150	36	27	25	6.30
	PW 22 [1]	19,000	170	165	42	31	27	8.50
	PW 26 [1]	26,500	201	195	50	37	32	14.00
	PW 32 [1]	40,000	243	242	60	43	38	25.00

[1] Shape with support surface



Shape with saddle



Shape with support surface

pewag – passionate about user-friendliness

At pewag, the highest priority is placed on user-friendly product design, with a strong focus on market requirements. As a result, the design of parallel hooks in the pewag range is being gradually updated. The new design for sizes 5 to 16 features lateral support saddles that provide optimal support for the pewag winner chain. This ensures that the chain now sits securely at the base of the hook.

Exception: From size 19/20 onwards, the design has not yet been updated. Therefore, for these sizes, the chain must not rest at the base of the hook for technical reasons.

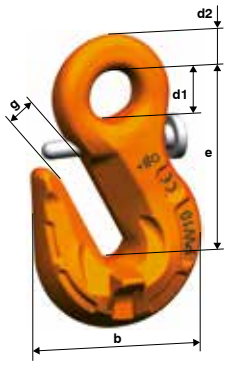
pewag PSW Grab hook with safety catch

This shortening grab hook features a specially designed chain support that ensures optimal interaction between the chain and the hook. The safety pin prevents the chain from unhooking unintentionally.
No reduction of the chain sling's working load limit is required when used in a shortened configuration.

The grab hook is suitable for the Connex system and can also be retrofitted into existing assemblies. Use in welded systems and with Unilock connecting links is not possible. The PSW is manufactured in accordance with EN 1677-1, with mechanical values corresponding to G10. The hook is CE marked.

Spare parts: PSGW safety catch

PSW Grab hook with safety catch



Also with corropro-PCP available!

Code	Working load limit [kg]	e [mm]	b [mm]	d1 [mm]	d2 [mm]	g [mm]	Weight [kg/pc.]
PSW 7/8	2,500	65	57	16	12	9	0.37
PSW 10	4,000	71	71	20	14	12	0.74
PSW 13	6,700	101	92	26	19	15	1.58
PSW 16	10,000	121	113	32	23	19	2.86

pewag XKW Clevis shortening hook

This hook is used as a shortening hook for shortening chain strands. The chain is mounted directly into the clevis connection of the hook. As standard, it is integrated into the VMXKW and LXKW chain sling systems, but it can also be assembled with Connex connecting links to master links or assemblies by a competent person.

The hook is not intended for forming loops; i.e., it must not be used to connect two load-bearing legs. Tip loading is also not permitted.

The clevis shortening hooks are manufactured according to EN 1677-1 with mechanical properties corresponding to G10. CE-marking and BG-approval are provided.

Spare parts: KBSW clevis load pin

XKW Clevis shortening hook

Code	Working load limit [kg]	e [mm]	b [mm]	a [mm]	d1 [mm]	d2 [mm]	g [mm]	Weight [kg/pc.]
XKW 5/6	1,400	84	37	29	18	9	8	0.26
XKW 7	1,900	122	54	39	24	12	11	0.71
XKW 8	2,500	122	54	39	24	12	11	0.71
XKW 10	4,000	161	70	50	31	14	13	1.28
XKW 13	6,700	203	92	64	37	18	15	2.90
XKW 16	10,000	235	102	80	48	24	20	5.17

pewag BWW Sheet metal plate hook

For lifting of sheet metal stacks, plates or similar. As a standard, it may be used with Connex and the welded system and corresponds with EN 1677-1 with the mechanical value of G10.

Please note that the product is not suitable for tip loading and that the hooks must be fully pushed onto the load. The lifting process must be carried out by means of min. a III-leg chain sling.

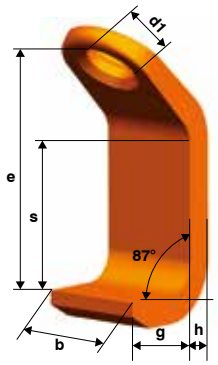
The classification of the WLL must be done carefully:

- If a III-leg chain sling is used, the WLL is that of the corresponding II-leg chain sling
- If a IV-leg chain sling is used, the WLL is that of the corresponding III-leg chain sling

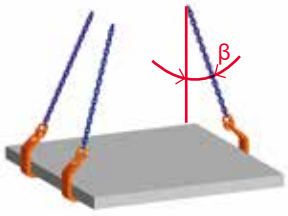
The angle of inclination of the lifting system must be adjusted between 15° and 30°.

The sheet metal plate hook comes with CE-marking and a full operating manual.

BWW Sheet metal plate hook	Code	Working load limit [kg]	e [mm]	s [mm]	b [mm]	h [mm]	d1 [mm]	g [mm]	Weight [kg/pc.]
	BWW 7/8	2,500	131	80	50	15	28	55	1.18
	BWW 10	4,000	170	100	70	20	36	65	2.80
	BWW 13	6,700	209	130	80	25	40	90	5.30
	BWW 16	10,000	263	160	100	30	50	110	9.50
	BWW 19/20	16,000	306	185	120	40	60	130	17.50
	BWW 22	19,000	368	220	140	50	75	150	30.50

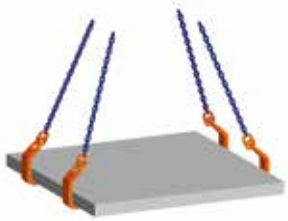


Custom designs available upon request



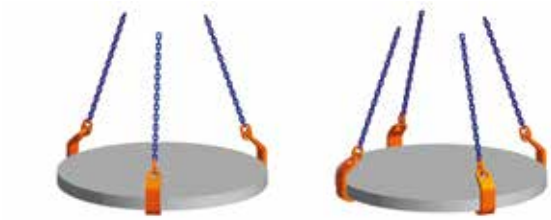
Lifting of rectangular / square loads using III-leg chains:

Working load limit: Is to be reduced to that of the corresponding II-leg-chain. The specified angle of inclination of 15°-30° applies to all strands and must be observed! The spread angle of the chain legs on one side must be set to approx. 10°.



Lifting of rectangular / square loads using IV-leg chains

Working load limit: Is not to be reduced, the values on the sling tag apply. The specified angle of inclination of 15°-30° applies to all chains and must be observed! The spread angle of the chain legs on one side must be set to approx.10°.



Lifting of round loads by means of III and IV-leg chains:

Working load limit: Is not to be reduced, the values on the sling tag apply. The specified angle of inclination of 15°-30° applies to all legs and must be observed!

pewag GHW Fork hook

Safety is key when it comes to lifting sheet metal stacks, plates etc.

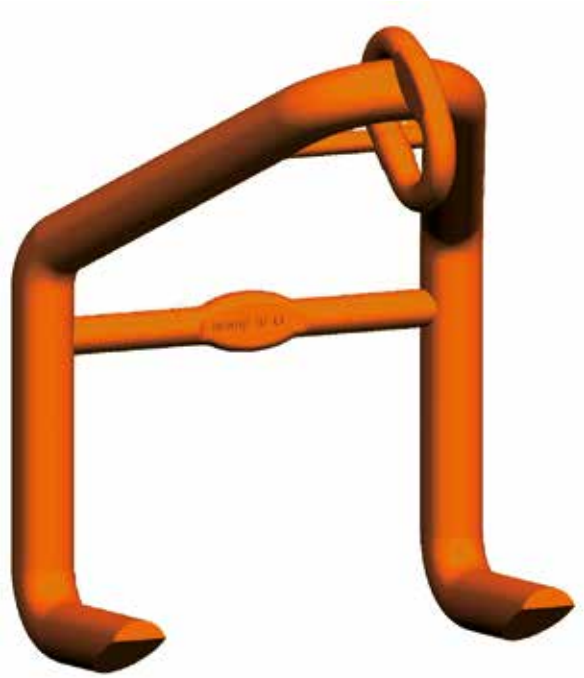
The GHW fork hook ticks all the boxes: It makes a great partner for Connex and welded systems and is available in customised dimensions upon request.

It comes with CE-marking, complies with EN 1677-1 and has the mechanical values of G10.

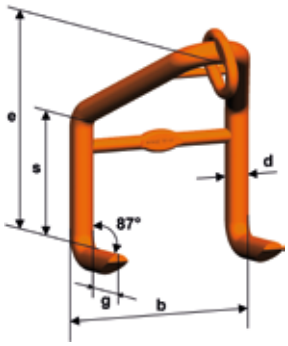
Tip loading must be avoided and care must be taken to ensure that the hooks are fully pushed onto the load.

The hooks must always be used in pairs, with a sling inclination angle of 30° to 45°.

For details, please refer to the full operating manual.

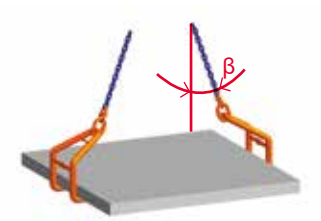


GHW Fork hook



Code	Working load limit [kg]	e [mm]	s [mm]	b [mm]	g [mm]	d [mm]	BW-link	Weight [kg/pc.]
GHW 5/6	1,400	203	100	190	65	23	BW 13	3.00
GHW 7/8	2,500	300	150	254	100	30	BW 16	7.00
GHW 10	4,000	402	200	380	130	40	BW 22	16.00

Custom designs are available upon request!



Application:

Only in II-leg chains, observing the angle of inclination of 30°-45°.

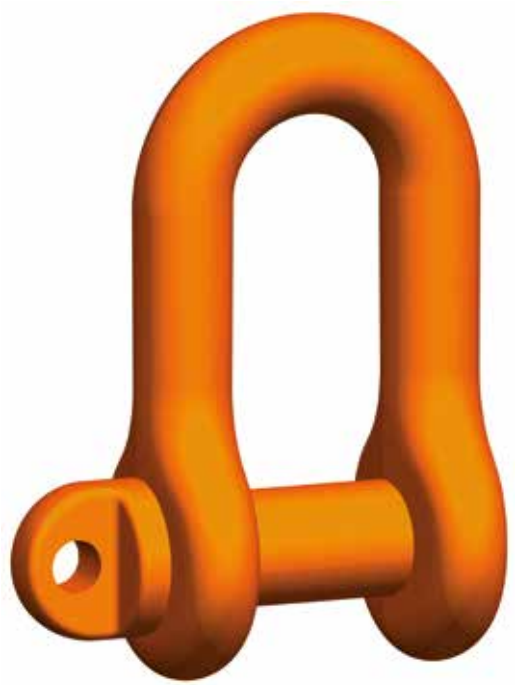
pewag SCHW Shackle

This high-strength shackle with a stud bolt in grade 10 and marked accordingly prevents mix-ups and is suitable for general lifting purposes.
Both sides of the smooth bolt rest in the eyes and the thread does not protrude into the opening of the shackle.

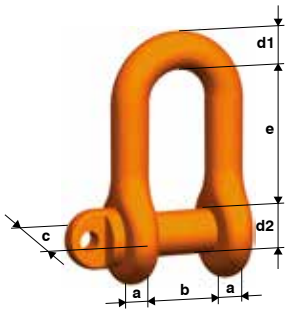
Please check that the bolt is sitting tightly prior to each lifting operation.
The shackle cannot be mounted directly into the chain.

Every single one of these safety products comes with CE-marking and a full operating manual.

UKCA marking possible on request.



SCHW Shackle



Code	Working load limit [kg]	e [mm]	b [mm]	a [mm]	d1 [mm]	c [mm]	d2 [mm]	Weight [kg/pc.]
SCHW 5	1,000	24	11	7	8	16	8	0.05
SCHW 6	1,400	30	14	8	10	20	10	0.10
SCHW 7/8	2,500	36	17	10	12	24	12	0.16
SCHW 10	4,000	49	21	13	15	32	16	0.34
SCHW 13	6,700	61	27	17	19	40	20	0.70
SCHW 16	10,000	73	33	21	23	48	24	1.30

pewag GSCHW Bow shackle

This high-strength, bow shackle with a grade 10 special thread bolt and corresponding markings is ideally suited for all kinds of general lifting processes, without the risk of mix-ups.

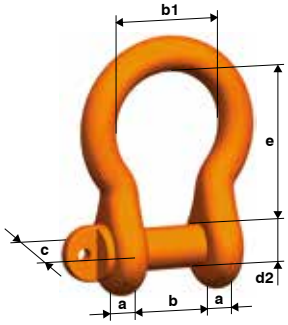
Both sides of the smooth bolt rest in the eyes and the thread does not protrude into the opening of the shackle.

Please check that the bolt is sitting tightly prior to each lifting operation.
The shackle cannot be mounted directly into the chain.

This pewag product comes with CE-marking and a full operating manual.

UKCA marking possible on request.

GSCHW Bow shackle



Code	Working load limit [kg]	e [mm]	b [mm]	b1 [mm]	a [mm]	c [mm]	d2 [mm]	Weight [kg/pc.]
GSCHW 7/8	2,500	51	22	32	13	34	16	0.35
GSCHW 10	4,000	64	27	43	16	40	19	0.64
GSCHW 13	6,700	76	31	51	19	46	22	1.13
GSCHW 16	10,000	95	43	68	25	59	28	2.22

Also with corropro-PCP available!

pewag KNEW Toggle

Thanks to its special low design, this toggle is frequently used for general transportation purposes in the construction industry, for instance of sheet piles.

As the toggle is welded into the sling with the next size up chain link, it takes up little space and is also suitable for small bores.

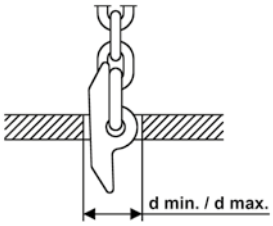
Please refer to the table for the minimum and maximum bore diameter (d).

Also available in other designs upon request.

The toggle is manufactured according to EN 1677-1 with mechanical values according to G10 and full operating manual.

We recommend using a 10 mm chain for the transportation of standing sheet piles.

KNEW Toggle



Code	For chain	Working load limit [kg]	e [mm]	a [mm]	b [mm]	c [mm]	d1 [mm]	d min. [mm]	d max. [mm]	Connecting link	Gewicht [kg/Stk.]
KNEW 8	8	2,500	10	17	120	38	15	40	60	WIN 10	0.17

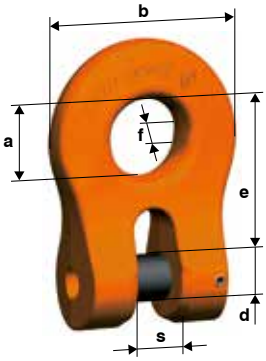
pewag KRW Coupling ring

It is normally installed in the KMGW master link assembly; however, installation can also be carried out using Connex connecting links on master links or assemblies by a qualified person.

It is manufactured according to EN 1677-1 with mechanical values for G10. The ring may be assembled easily and quickly by a competent person, without the need for special tools. A full operating manual is available.

Spare parts: KBSW clevis load pin

KRW Coupling ring



Code	Working load limit [kg]	e [mm]	s [mm]	a [mm]	b [mm]	f [mm]	d [mm]	Weight [kg/pc.]
KRW 5/6	1,400	31	7	18	38	8	7.40	0.08
KRW 7	1,900	43	10	24	54	11	9	0.19
KRW 8	2,500	43	10	24	54	11	10	0.22
KRW 10	4,000	52	12	28	63	14	12.50	0.40
KRW 13	6,700	64	15	33	76	17	16	0.70
KRW 16	10,000	75	18	40	88	20	20	1.34
KRW 19/20	16,000	94	23	50	114	24	24	2.67
KRW 22	19,000	102	25	50	122	31	27	3.70

pewag KOW Clevis reeving link

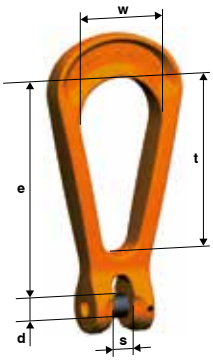
The high-strength, forged clevis reeving link serves to establish a direct connection with the chain. The link may also be used as an end link.

No connecting link is required. This powerful package comes with BG-approval, CE-marking and a full operating manual and is manufactured according to EN 1677-1 with the mechanical values for G10.

The link may be assembled by a competent person easily and quickly, without the need for special tools.

Spare parts: KBSW clevis load pin

KOW Clevis reeving link



Code	Working load limit [kg]	e [mm]	t [mm]	w [mm]	d [mm]	s [mm]	Weight [kg/pc.]
KOW 7	1,900	92	70	34	9	9	0.30
KOW 8	2,500	91	70	34	10	9	0.31
KOW 10	4,000	128	102	50	12.50	12	0.71
KOW 13	6,700	169	136	66	16	15	1.45
KOW 16*	10,000	214	172	83	20	18	2.96

* Discontinued item

pewag KHSW Clevis sling hook

These hooks are designed for quick and easy direct connection to the chain.
The safety catch locks into the tip of the hook, thereby providing excellent protection against lateral shifts.

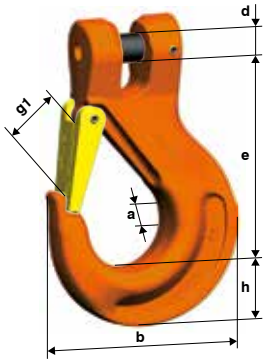
The clevis sling hook is manufactured in accordance with EN 1677-2 with the mechanical values for G10, comes with BG-approval and CE-marking and guarantees top performance under straight pull only.

A competent person will require no special tools for the quick and easy assembly of the chain. A full operating manual is provided.

The safety catch set consists of a forged safety catch, a stainless steel spring and a safety sleeve, all of which are easy to assemble, without the need for special tools.

Spare parts: KBSW clevis load pin, SFGW safety catch set

KHSW Clevis sling hook



Code	Working load limit [kg]	e [mm]	h [mm]	a [mm]	d [mm]	g1 [mm]	b [mm]	Weight [kg/pc.]
KHSW 5/6	1,400	69	20	15	7.40	19	66	0.25
KHSW 7	1,900	95	28	19	9	26	90	0.60
KHSW 8	2,500	95	28	19	10	26	90	0.61
KHSW 10	4,000	109	35	25	12.50	31	108	1.07
KHSW 13	6,700	136	41	34	16	39	131	2.04
KHSW 16	10,000	155	49	37	20	45	153	3.53
KHSW 19/20	16,000	184	53	51	24	53	177	7.04
KHSW 22	19,000	214	62	52	27	62	196	8.80

Also with corropro-PCP available!

pewag BKHSW Oversize clevis sling hook

The safety latch of the BKHSW oversize clevis sling hook locks into the tip of the hook, thereby providing excellent protection against lateral shifts.

The jaw opening is significantly larger than that of the standard KHSW, making this product extra-flexible.

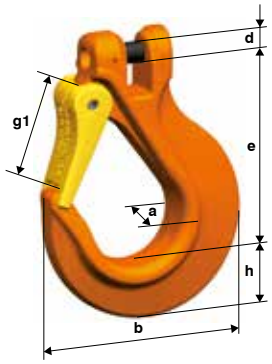
The product may be linked to the chain quickly and easily, without the need for an additional connecting element. The product is designed for
straight pull only. Care must be taken to protect the tip of the hook and the safety catch against loading.

Full operating manual is available.

Outstanding quality features include manufacturing according to EN 1677-2 with the mechanical values for G10, BG-approval and CE-marking.

Spare parts: KBSW clevis load pin, SFGW-B safety catch set

BKHSW Oversize clevis sling hook



Code	Working load limit [kg]	e [mm]	h [mm]	a [mm]	d [mm]	g1 [mm]	b [mm]	Weight [kg/pc.]
BKHSW 8	2,500	93	27	25	10	32	98	0.90
BKHSW 10	4,000	111	33	30	12.50	38	119	1.53

pewag KCHW Clevis C-hook

Quick attachment and detachment are the advantages of the KCHW clevis C-Hook.

Its hook tip is shaped in such a way as to prevent accidental unhooking when not under load. The chain may be linked to the clevis system easily and quickly, without the need for additional connecting links.

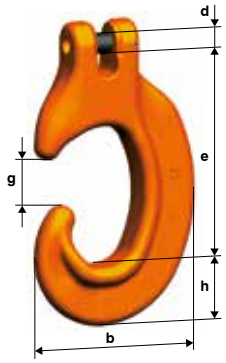
The hook is manufactured in accordance with EN 1677-1 with the mechanical values for G10, comes with BG-approval, CE-marking and a full operating manual.

The load must be applied only in a straight pull; loading at the tip of the hook is not permitted.

Spare parts: KBSW clevis load pin

Attention: Discontinued item!

KCHW Clevis C-hook



Code	Working load limit [kg]	e [mm]	h [mm]	d [mm]	b [mm]	g [mm]	Weight [kg/pc.]
KCHW 7	1,900	91	28	9	74	20	0.58
KCHW 8	2,500	90	28	10	74	20	0.55
KCHW 10	4,000	129	39	12.50	107	28	1.53
KCHW 13	6,700	166	51	16	137	41	3.00
KCHW 16	10,000	205	60	20	166	45	5.30

pewag KLHW Clevis safety hook

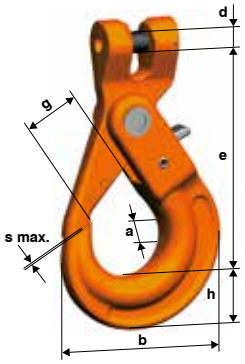
These hooks close and lock automatically when the load is applied; opening the hook under load is not possible.
It has a significantly larger jaw opening than the KHSW clevis hook, which makes it much more versatile.

The hook corresponds to EN 1677-3 with the mechanical values for G10. Please note that the hook is suitable for straight pull only and that the load must not be placed on the tip of the hook or the safety catch.

Assembly is quick and easy and does not require any special tools and must be performed by a competent person. The full operating manual tells you all you need to know about using this product correctly. The hook comes with BG-approval, CE-marking.

Spare parts: KBSW clevis load pin, VLHW locking set

KLHW Clevis safety hook



Code	Working load limit [kg]	e [mm]	h [mm]	a [mm]	b [mm]	d [mm]	g [mm]	s max. [mm]	Weight [kg/pc.]
KLHW 5/6	1,400	94	20	17	71	7.40	28	1	0.50
KLHW 7	1,900	123	26	20	88	9	34	1	0.90
KLHW 8	2,500	123	26	20	88	10	34	1	0.90
KLHW 10	4,000	144	30	29	107	12.50	45	1	1.52
KLHW 13	6,700	180	40	35	138	16	52	1.50	3.08
KLHW 16	10,000	218	50	41	168	20	60	2	6.00
KLHW 19/20	16,000	259	62	50	194	24	70	2	10.20
KLHW 22	19,000	286	65	52	211	27	81	2	13.26
KLHW 26	26,500	338	79	61	253	33	100	2	20.50

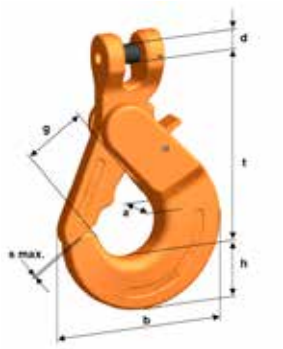
pewag KLHMW Clevis safety hook

As a Clevis safety hook, the KLHMW is specially designed for trunnion pins according to DIN EN 30720. With its combination of CPT and powder coating, it offers excellent corrosion protection, making it ideal for demanding applications.

The hook can be installed directly into the chain without the need for special tools or an additional connecting link. A key safety feature is its automatic closing and locking function under load, which prevents accidental opening.

In addition, the specially shaped safety catch ensures that the hook cannot detach from the trunnion pin on its own. Manufactured according to EN 1677-3 with mechanical properties corresponding to Grade 10.

Spare parts: KBSW coupling pin, VLH-KLHM+KLHMW locking set



KLHMW Clevis safety hook	Code	Working load limit [kg]	e [mm]	h [mm]	a [mm]	b [mm]	d [mm]	g [mm]	s max. [mm]	Weight [kg/pc.]
	KLHMW 13	6,700	164	44	28	141	16	49	1.5	3.30

pewag KFW Clevis foundry hook

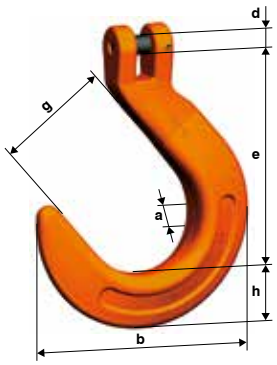
Due to its extra-large jaw opening, this hook is used in areas where the jaw width of other hooks is insufficient — for example, in foundries. However, before each use, it must be clarified whether the use of hooks without a safety catch is permitted.

Manufactured according to EN 1677-1 with mechanical properties equivalent to G10, BG-approval, and CE-marking, it qualifies as a typical quality product from pewag.

The load must only be applied in a straight line and never on the tip of the hook. A competent person can mount the clevis foundry hook quickly and without the need for special tools.

Spare parts: KBSW clevis load pin

KFW Clevis foundry hook



Code	Working load limit [kg]	e [mm]	h [mm]	a [mm]	g [mm]	d [mm]	b [mm]	Weight [kg/pc.]
KFW 7	1,900	121	29	25	64	9	118	1.04
KFW 8	2,500	120	29	25	64	10	118	1.00
KFW 10	4,000	140	35	32	76	12.50	143	1.86
KFW 13	6,700	170	42	40	89	16	170	3.41

pewag KPW Clevis grab hook

This standard shortening hook ensures optimal interaction between chain and hook thanks to the special design of the chain contact.

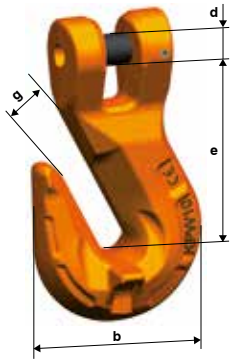
Even when shortened, the working load limit is not reduced and the product is suitable for retrofitting. The clevis system makes it possible to link the chain to the hook quickly and easily, without the need for an additional connecting element.

The clevis grab hook is manufactured according to EN 1677-1 with the mechanical values for G10 and comes with CE-marking. As specified in the full operating manual, it is not suitable for tip loading and assembly must always be performed by a competent person to ensure safe usage.

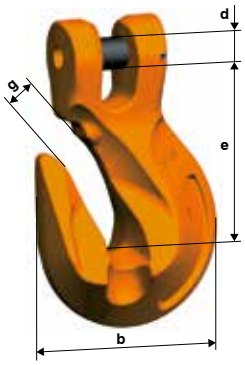
Spare parts: KBSW clevis load pin

KPW Clevis grab hook	Code	Working load limit [kg]	e [mm]	b [mm]	d [mm]	g [mm]	Weight [kg/pc.]
	KPW 6	1,400	47	44	7.40	7	0.17
	KPW 7	1,900	63	57	9	9	0.43
	KPW 8	2,500	63	57	10	9	0.43
	KPW 10	4,000	78	71	12.50	12	0.84
	KPW 13	6,700	93	92	16	15	1.73
	KPW 16	10,000	115	113	20	19	3.24
	KPW 19/20 [1]	16,000	141	150	24	25	7.24
	KPW 22 [1]	19,000	158	165	27	27	9.40

[1] Shape with support surface



Shape with saddle



Shape with support surface

pewag – passionate about user-friendliness

pewag sets great store by the user-friendliness of its products and stays abreast of market requirements in this respect. True to this principle, the design of parallel hooks in the pewag range is being adapted. The new design for dimensions 6 to 16 includes supporting saddles, offering perfect support for pewag winner chains and ensuring optimised positioning of the chain on the bearing surface.

Exception: Chain dimensions from 19/20 have not yet been adjusted. For technical reasons, chains with these dimensions must not touch the bearing surface of the hook.


KPW 19/20 and KPW22


KPW 6 - KPW16

pewag KPSW Clevis grab hook with safety catch

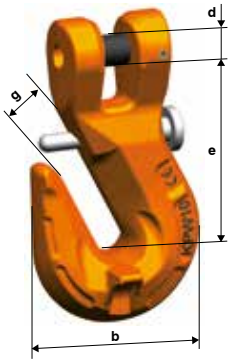
This standard shortening hook ensures optimal interaction between chain and hook thanks to the special design of the chain contact. Even when shortened, the working load limit is not reduced and

the product is suitable for retrofitting. The clevis system makes it possible to link the chain to the hook quickly and easily, without the need for an additional connecting element.

Thanks to its safety mechanism which prevents the accidental unhooking of the chain, this hook is also ideal for securing loads. The clevis grab hook is manufactured according to EN 1677-1 with the mechanical values for G10 and comes with CE-marking. As specified in the full operating manual, tip loading must be avoided and assembly must always be performed by a competent person to ensure safe usage. No special tools are required for assembling this product.

Spare parts: KBSW clevis load pin, PSGW safety catch

KPSW Clevis grab hook with safety catch



Code	Working load limit [kg]	e [mm]	b [mm]	d [mm]	g [mm]	Weight [kg/pc.]
KPSW 7	1,900	63	57	9	9	0.43
KPSW 8	2,500	63	57	10	9	0.43
KPSW 10	4,000	78	71	12.50	12	0.84
KPSW 13	6,700	93	92	16	15	1.71
KPSW 16	10,000	115	113	20	19	3.24

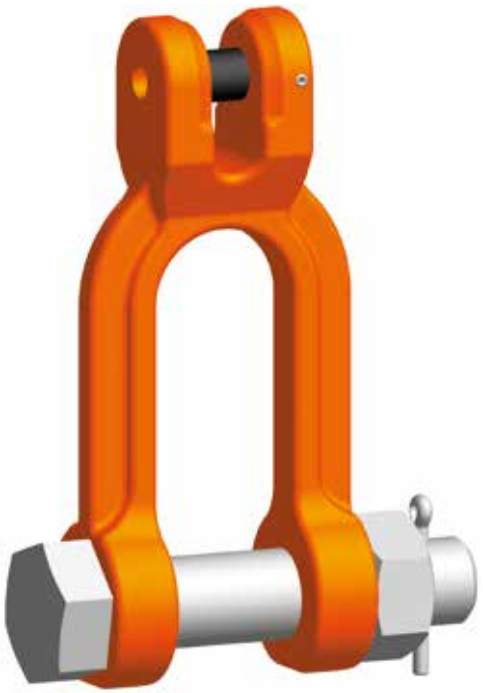
pewag KSCHW Clevis shackle

This high-performance shackle consists of a special screw, nut and split pin, which makes losing the screw practically impossible. The wide opening makes this shackle extremely versatile - for instance, it may be used on spreader beams. The clevis system makes linking the shackle to the chain quick and simple, without the need for an additional connecting element.

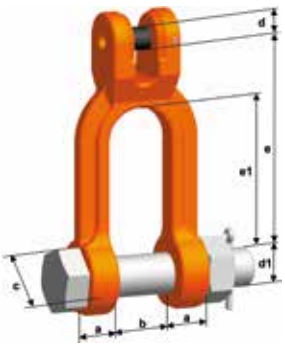
The clevis shackle is manufactured according to EN 1677-1 with mechanical values for G10, and comes with a full operating manual, BG-approval and CE-marking.

Prior to each lifting operation, it must be checked that the safety split pin is in place and that the system is subjected to straight pull only. Lateral forces must not be applied. Assembly must be handled by a competent person. No special tools are required.

Spare parts: KBSW clevis load pin, KBMSW pin, nut and split pin



KSCHW Clevis shackle



Code	Working load limit [kg]	e [mm]	e1 [mm]	b min. [mm]	a [mm]	d [mm]	c [mm]	d1 [mm]	Weight [kg/pc.]
KSCHW 7	1,900	76	54	26	12	9	31	16	0.64
KSCHW 8	2,500	76	54	26	12	10	31	16	0.66
KSCHW 10	4,000	105	76	32	16	12.50	39	20	1.22
KSCHW 13	6,700	113	77	42	21	16	50	24	1.81

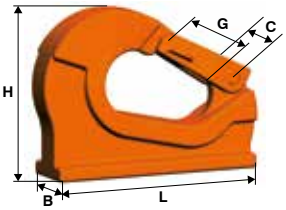
Also with corropro-PCP available!

pewag AWHW Weld-on hook

This high-strength hook is particularly well suited for welding onto excavator bucket, spreader beams etc. Its outstanding features include a forged, tempered safety catch, making it extra robust. As the safety catch locks into the tip of the hook, it provides excellent protection against lateral shifting.

The product is manufactured according to EN 1677-1 with a higher working load limit. Attention should be paid to the delivered operating manual and to the welding instructions.
The weld-on hook is of course provided with a CE marking.

Spare parts: SFGW-A safety catch set

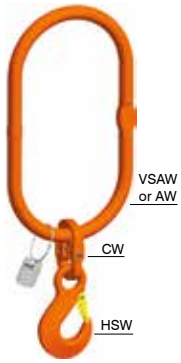


AWHW Weld-on hook	Code	Working load limit [kg]	L [mm]	H [mm]	G [mm]	B [mm]	C [mm]	Weight [kg/pc.]
	AWHW 1.3	1,300	95	74	20	25	34	0.64
	AWHW 3.8	3,800	132	106	26	35	40	1.43
	AWHW 6.3	6,300	167	133	29	45	49	3.13
	AWHW 10	10,000	175	136	29	50	49	3.98

pewag ÜW Transition assembly

The ÜW transition assembly is recommended when larger crane hooks need to be combined with smaller lifting chains. This component enables a reduction in both cost and weight. A wide range of combinations—and therefore load capacities—are possible thanks to the modular system. All details can be found in the full operating manual.

The ÜW transition assembly is manufactured according to EN 818-4 with mechanical values for G10.



ÜW Transition assembly	Code	Single hook DIN 15401	Working load limit [kg]	Consisting of	Weight [kg/pc.]
	ÜW 32/16 I AW-HSW Connex	32	16,000	AW 50/CW 26/HSW 19/20	29.50
	ÜW 32/19 I AW-HSW Connex	32	19,000	AW 50/CW 26/HSW 22	28.20
	ÜW 32/26.5 I AW-HSW Connex	32	26,500	AW 50/CW 26/HSW 26	30.40
	ÜW 50/4 I VSAW-HSW Connex	50	4,000	VSAW 1-16/CW 16/HSW 10	11.80
	ÜW 50/6.7 I VSAW-HSW Connex	50	6,700	VSAW 1-16/CW 16/HSW 13	12.90
	ÜW 50/10 I VSAW-HSW Connex	50	10,000	VSAW 1-16/CW 16/HSW 16	14.20
	ÜW 50/16 I VSAW-HSW Connex	50	16,000	VSAW 1-22/CW 22/HSW 19/20	27.80
	ÜW 50/19 I VSAW-HSW Connex	50	19,000	VSAW 1-22/CW 22/HSW 22	30.00
	ÜW 50/26.5 I VSAW-HSW Connex	50	26,500	VSAW 1-26/CW 26/HSW 26	41.10
	ÜW 50/40 I AW-HSW Connex	50	40,000	AW 72/CW 32/HSW 32	83.70
	ÜW 100/26.5 I VSAW-HSW Connex	100	26,500	VSAW 1-32/320/CW 26/HSW 26	68.10
	ÜW 100/40 I VSAW-HSW Connex	100	40,000	VSAW 1-32/320/CW 32/HSW 32	86.70

pewag ÜW Transition assembly

The ÜW transition assembly is recommended when larger crane hooks need to be combined with smaller lifting chains. This component enables a reduction in both cost and weight. A wide range of combinations and therefore load capacities are possible thanks to the modular system. All details can be found in the full operating manual.

The ÜW transition assembly is manufactured according to EN 818-4 with mechanical values for G10.

ÜW Transition assembly	Code	Double hook DIN 15402	Working load limit [kg]	Consisting of	Weight [kg/pc.]
	ÜW 50/4 II VSAW-HSW Connex	50	4,000	2xVSAW 1-16/AW36/ CW16/HSW10	27.40
	ÜW 50/6.7 II VSAW-HSW Connex	50	6,700	2xVSAW 1-16/AW36/ CW16/HSW13	28.50
	ÜW 50/10 II VSAW- HSW Connex	50	10,000	2xVSAW 1-16/AW36/ CW16/HSW16	29.80
	ÜW 50/16 II VSAW-HSW Connex	50	16,000	2xVSAW 1-16/AW36/ CW19/20/ HSW19/20	33.10
	ÜW 50/19 II VSAW-HSW Connex	50	19,000	2xVSAW 1-22/AW50/ CW26/HSW22	66.90
	ÜW 50/26.5 II VSAW-HSW Connex	50	26,500	2xVSAW 1-22/AW50/ CW26/HSW26	72.30
	ÜW 50/36 II VSAW-HSW Connex	50	36,000	2xVSAW 1-22/AW50/ CW32/HSW32	97.30
	ÜW 100/26.5 II VSAW-HSW Connex	100	26,500	2xVSAW 1-32/320/AW50/ CW26/ HSW26	132.70
	ÜW 100/40 II VSAW-HSW Connex	100	40,000	2xVSAW 1-32/320/AW50/ CW32/ HSW32	151.30

VSAW angle of inclination: max. 35°.

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pewag U Unilock connecting link

This universal connecting link in Grade 8 is suitable for a wide range of applications. The connecting link is easy and quick to assemble by a competent person thanks to the hexagon screw and nut. A full operating manual provides detailed information on the assembly process.

The connecting link is manufactured according to EN 1677-1, comes with CE-marking and is heat-resistant up to 100 °C. Always ensure that the nut is not overtightened and that the screw is able to rotate.

As the screw is a special screw, it must always be replaced by an original part.

Spare parts: UBMS screw, nut and washers

U Unilock connecting link

Code	Working load limit [kg]	e [mm]	b [mm]	d [mm]	s [mm]	a [mm]	d1 [mm]	Weight [kg/pc.]
U 5/6	1,120	33	21	9	11	17	7	0,077
U 7	1,500	49	28	13	16	24	9	0.22
U 8	2,000	48	28	13	16	24	10	0.22
U 10	3,150	60	35	16	20	28	13	0.41
U 13	5,300	72	39	18	24	34	16	0.65
U 16	8,000	80	47	23	32	44	20	1.34
U 19/20	12,500	96	56	26	36	52	24	2.03
U 26	21,200	121	77	36	49	74	33	4.70

U 7 - U 10 and U 26

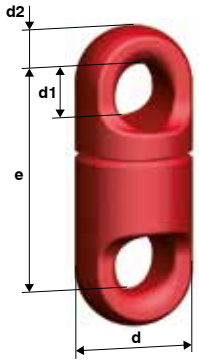
U 5/6, U 13 to U 19/20

pewag DF Swivel

This swivel is an excellent choice if you are looking for a special accessory in grade 8 that may be rotated under load and withstands an operating temperature of up to 130 °C.

The product is manufactured according to the pewag factory standard and comes with CE-marking, BG-approval and a full operating manual.

DF Swivel



Code	Working load limit [kg]	e [mm]	d [mm]	d1 [mm]	d2 [mm]	Weight [kg/pc.]
DF 5/6 [1)]	1,120	44	22	12	7	0.10
DF 7/8 [1)]	2,000	60	27	16	8	0.20
DF 10 [1)]	3,150	74	32	20	10	0.30
DF 13 [1)]	5,300	92	40	25	13	0.60

[1)] Upon request!

pewag KVS Clevis connector

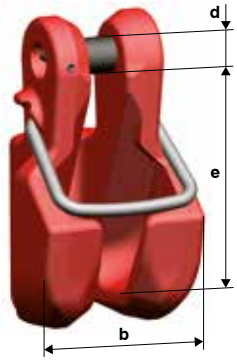
This clevis connector for grade 8 is designed for the shortening of chain slings and forming of slings that must not tighten and can be mounted without the need for special tools.

The shortening claw has a safety mechanism to prevent the accidental unhooking of the load, comes with CE-marking and BG-approval and is manufactured according to EN 1677-1.

A full operating manual outlines all areas of possible use and also gives
information on what to watch out for: for instance, the correct load direction of the chain and the correct assessment of the working load limit if combined with grade 10 chains. The clevis system makes this product easy and quick to assemble.

Spare parts: KBSW clevis load pin

KVS Clevis connector

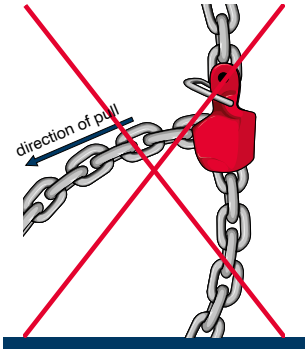


Code	Working load limit [kg]	e [mm]	b [mm]	d [mm]	Weight [kg/pc.]
KVS 6	1,120	45	36	7.4	0.27
KVS 7*	1,500	58	44	9	0.50
KVS 8	2,000	58	44	10	0.50
KVS 10	3,150	70	55	12.5	0.80
KVS 13*	5,300	90	70	16	1.53

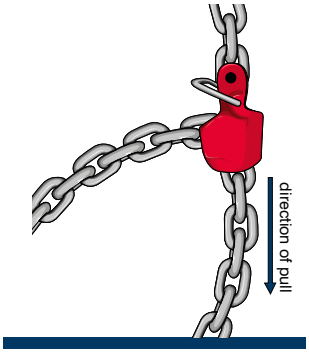
* Discontinued item

Safety warnings:

- Only load the inside chain.
- Only use with a safety device.
- Ensure that the chain fits neatly and securely.



Incorrectly attached chain



Correctly attached chain

pewag BRG Concrete pipe lifting sling

This three-leg chain sling with self-tightening grips is perfect for lifting and transporting concrete pipes with a diameter between 1,300 and 2,300 mm.

The pipes may have a wall thickness from 60 to 150 mm, with a maximum weight of 2,500 kg.

The concrete pipe lifting sling corresponds to the pewag factory standard and may be used in a three-leg chain sling with an angle of inclination of up to 30°. For safety reasons, the grippers must not be used for diagonal pull. The maximum operating temperature is 100 °C.

A full operating manual provides information on all features and areas of application.

BRG Concrete pipe lifting sling

Code	Leg length [mm]	Working load limit up to 30° [kg]	Up to tube diameter [mm]	Weight [kg/pc.]	Gripping range [mm]
WIN 6 400 III VMXKW-BRG 2000	2,000	2,500	1,800	35.30	60-150
WIN 6 400 III VMXKW-BRG 2500	2,500	2,500	2,300	36.60	60-150
WIN 6 400 III VW-BRG 1500	1,500	2,500	1,300	32.00	60-150
WIN 6 400 III VW-BRG 1500 Unilock	1,500	2,500	1,300	34.40	60-150
WIN 6 400 III VW-BRG 2000	2,000	2,500	1,800	35.10	60-150
WIN 6 400 III VW-BRG 2000 Unilock	2,000	2,500	1,800	35.30	60-150
WIN 6 400 III VW-BRG 2500 Unilock	2,500	2,500	2,300	36.60	60-150

Special lengths available on request!

Assembly options for BRG chain slings

VW	VMXKW	VW-Unilock
		

pewag BCW Concrete pipe lifting sling

Gripper slings for concrete pipes- and concrete shaft rings.

BCW clamps are preferably used for vertical lifting and moving of concrete pipes and wells. BCW/BCW-A clamps must always be used in pairs or per three clamps in combination with a chain sling. The movable side is fitted with a special high pressure plastic cover to protect load surface. High tensile two- or three leg chain slings available upon request. Type BCW-A: The jaw opening width is adjustable by steps of 25 mm.

BCW Concrete pipe lifting sling

Code	Leg length [mm]	Working load limit up to 30° [kg]	Up to tube diameter [mm]	Weight [kg/pc.]	Gripping range [mm]
WIN 6 400 III KMGW-BCW 1500 KRW	1,500	2,500	1,300	36.70	60-120
WIN 6 400 III KMGW-BCW 2000 KRW	2,000	2,500	1,800	38.20	60-120
WIN 6 400 III KMGW-BCW 2500 KRW	2,500	2,500	2,300	39.60	60-120
WIN 6 400 III VMXKW-BCW 2000 KRW	2,000	2,500	1,800	38.90	60-120
WIN 6 400 III VMXKW-BCW 2500 KRW	2,500	2,500	2,300	40.20	60-120

Special lengths available on request!

Assembly options for BCW chain slings

KMGW	VMXKW
	

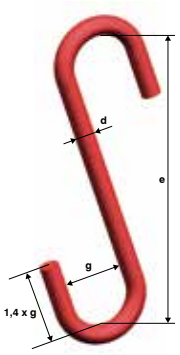
pewag SM S-Hook

This SM S-hook withstands temperatures of up to 300 °C. The hook may also be used as an intermediate hook if the „g“ jaw size of the HSW hook is insufficient, or as an intermediate hook with wire rope loops.

Prior to each use, please determine whether the hook may be used without a safety catch. Always observe the working load limits – they do not correspond to grade 10! A full operating manual provides details on usage and application.

This SM S-hook comes with CE-marking. It is suitable for straight pull only and the tip must not be placed under load. An added benefit: Customised designs (also with a safety catch) are available upon request!

SM S-Hook



Code	Working load limit [kg]	e [mm]	g [mm]	d [mm]	Weight [kg/pc.]
SM 5	800	180	42	16	0.60
SM 7/8	2,000	220	53	23	1.50
SM 10	3,150	280	58	31	3.40
SM 13	5,300	400	90	40	8.40
SM 16	8,000	500	120	50	16.00
SM 19	11,200	550	130	60	26.00

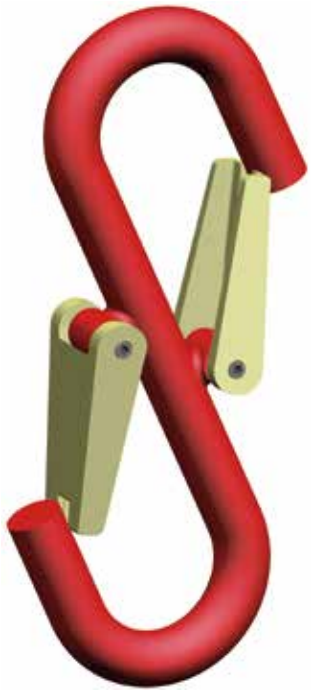
Custom designs are available upon request!

pewag SSM S-Hook

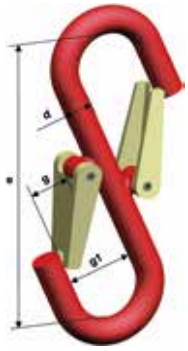
This SSM S-hook withstands temperatures of up to 300°C. It is manufactured according to EN 1677-1 and classified as a grade 8 special accessory. The hook may also be used as an intermediate hook if the „g1" jaw size of the HSW hook is insufficient, or as an intermediate hook with wire rope loops.

Always observe the working load limits - they do not correspond to grade 10! A full operating manual provides details on usage and application.

This SSM S-hook comes with CE-marking. It is suitable for straight pull only and the tip must not be placed under load.



SSM S-Hook



Code	Working load limit [kg]	e [mm]	g [mm]	g1 [mm]	d [mm]	Weight [kg/pc.]
SSM 5	800	180	31	42	16	0.88
SSM 7/8	2,000	220	43	53	23	1.6
SSM 10	3,150	280	51	58	31	4.1
SSM 13	5,300	400	76	90	40	8.5

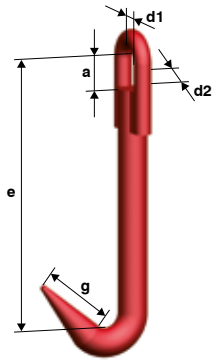
Custom designs are available upon request!

pewag BA Bale hook

The bale hook in grade 8 is suitable for lifting and transporting bales and structural steel wire meshes complies with the pewag factory standard and comes with CE-marking. A full operating manual provides details on usage and application.

Prior to each use, please verify whether the hook may be used without a safety catch. Also note that this hook is suitable for straight pull only and that the load must not be placed on the tip of the hook. An added bonus - customised designs are available upon request!

BA Bale hook



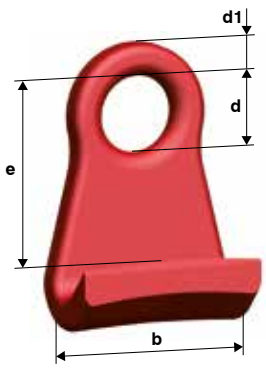
Code	Working load limit [kg]	e [mm]	d1 [mm]	g [mm]	a [mm]	d2 [mm]	Weight [kg/pc.]
BA 5/6	1,120	160	16	40	24	7	0.36
BA 7/8	2,000	200	19	50	30	10	0.72
BA 10	3,150	260	27	65	39	13	1.78

pewag FA Barrel hook

Please note that an inclination angle of 30° is the maximum value for this special accessory in grade 8. The hook is perfect for lifting and transporting barrels.

To do this, two hooks are attached to chain, which contracts under load. Moreover, the barrel hook complies with the pewag factory standard and comes with a full operating manual.

FA Barrel hook



Code	Working load limit [kg]	e [mm]	d [mm]	d1 [mm]	b [mm]	Weight [kg/pc.]
FA 5/6	500	90	40	17	70	0.80

Order example for a complete chain sling:

- WIN 6 II AW-S-FA 2500
- WIN 6 II AW-S-FA 100

pewag HZ High-tensile lifting tong

The tips of these high-tensile lifting tongs in grade 8 are reinforced, making the lifting of short steel bars easier than ever. Naturally the tongs comply with the pewag factory standard and come with a full operating manual.

Always observe the working load limits - they do not correspond to grade 8 and grade 10! Customised designs are available upon request, making these tongs a truly superior choice.

HZ High-tensile lifting tong

Code	Working load limit [kg]	Range [mm]	e [mm]	d [mm]	Weight [kg/pc.]	Required chain sling
HZ 0,125*	125	100 - 200	310	15	2.43	WIN 5 II AW-CW 310
HZ 0.25*	250	130 - 300	466	20	4.77	WIN 6 II AW-CW 410
HZ 0.5*	500	160 - 400	629	28	12.00	WIN 7 II AW-CW 570
HZ 1*	1,000	215 - 500	808	30	24.00	WIN 8 II AW-CW 730
HZ 2*	2,000	250 - 600	959	30	41.00	WIN 8 II AW-CW 830

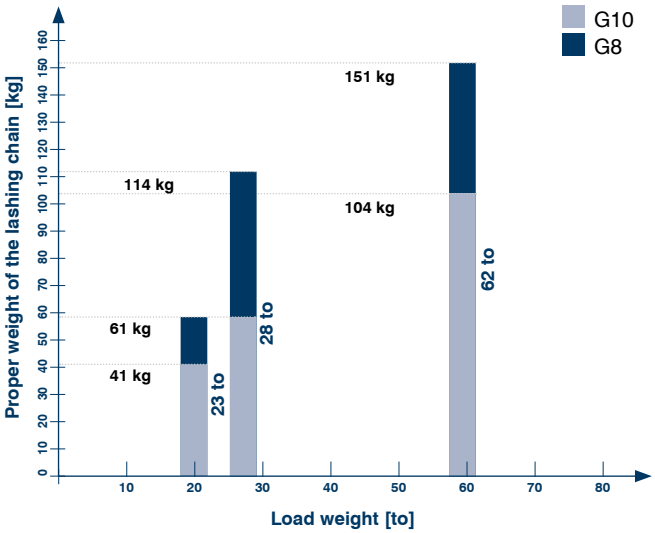
* On request

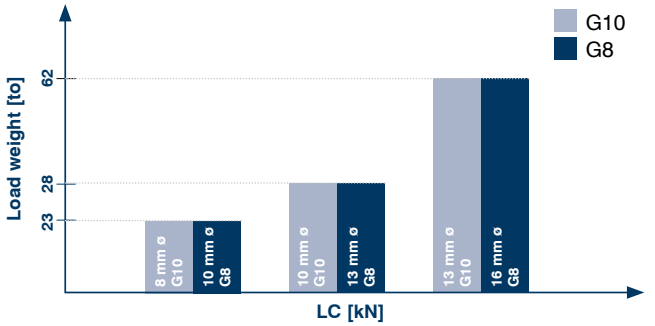
Lashing in G10

pewag lashing chains in G10 quality - unique benefits.

On a global scale, pewag is a true pioneer when it comes to the production of lashing chains. User-friendliness and compliance with all legal stipulations for securing loads are part for the course and constitute a solid foundation for all our products. These characteristics are clearly measurable and are influential factors during product development and manufacturing. Quite simply, only the best products get made!

- 25 % increase in lashing capacity and therefore also in load-securing capacity compared to G8.
- The same chain dimension secures a heavier and/or bulkier load - a performance increase of no less than 25 % compared to direct lashing in G8!





Admissible lashing LC	Previous weight of	pewag winner chains-ø	% Reduction
50	13.4	10.1	25 %
80	21.9	15.1	31 %

- Large product range for 5 chain dimensions
- Significant improvements for direct lashing: chain dimension is reduced, resulting in significantly lower weight and costs!
- For lashing-down operations with the same securing capacity (STF), you can always downsize to a smaller chain dimension, thereby reducing weight and costs.

Admissible lashing LC	Chains up to ø	pewag winner chains-ø
50	10	8
80	13	10
134	16	13

- Lashing operations using pewag winner result in considerably reduced weight and easier handling.
- Highest level of thanks to clear identification tag according to EN12195-3 with G10 values.

pewag winner key data – Unmatched and convincing.

Top of the rating:

- **Chain quality:** pewag winner complies with EN818-2 with modifications - higher mechanical values, reduced operating temperature
- **Lashing force:** 500 N/mm².
- **Test stress:** 625 N/mm².
- **Breaking stress:** 1,000 N/mm².
- **Breaking elongation:** min. 20 %.
- **Bending:** 0.8 x d.
- **Stress crack corrosion:** Same stress crack corrosion characteristics as in G8.
- **Operating temperature:** -40 °C to +200 °C.
- **Quality grade stamping:** pewag winner 200 lashing chain - 10 at a distance of 300mm; pewag winner components - 10
- **Manufacturer's name or symbol** on the chain and the components: **PW or pewag**
- **Surface:**
  Chain – clear-coated.
  Components – orange powder-coated.
- **Lashing tag** contains all the user-relevant data.
- **Compatibility:** pewag winner chains and components may be combined by a competent person under consideration of the manufacturer specifications with all components of G8 meeting the requirements of EN 818 and EN 1677. Furthermore, pewag winner chains may be combined with all competitor chains and components that are also compatible with EN 818 and EN 1677. Please note that pewag winner chains and components are not compatible with products that do not comply with EN 818 and/or EN 1677! The maximum lashing capacity of pewag lashing chains is always defined by their weakest part. Only original pewag spare parts (esp. pins and bolts, safety catches, etc.) may be used for pewag products, following the inspection and approval by a competent person.

The product dimensions given in this catalogue are nominal dimensions. Depending on the production process, they are subject to various manufacturing tolerances. If necessary, please contact our customer service team for more information.

Sample order text for pewag winner lashing system.

Below you will find a detailed example of a finished and commercially available pewag lashing chain (pewag winner 8 mm – single lashing chain with shortening components and clevis hook, mounted with Connex connecting links, length: 3,500 mm)

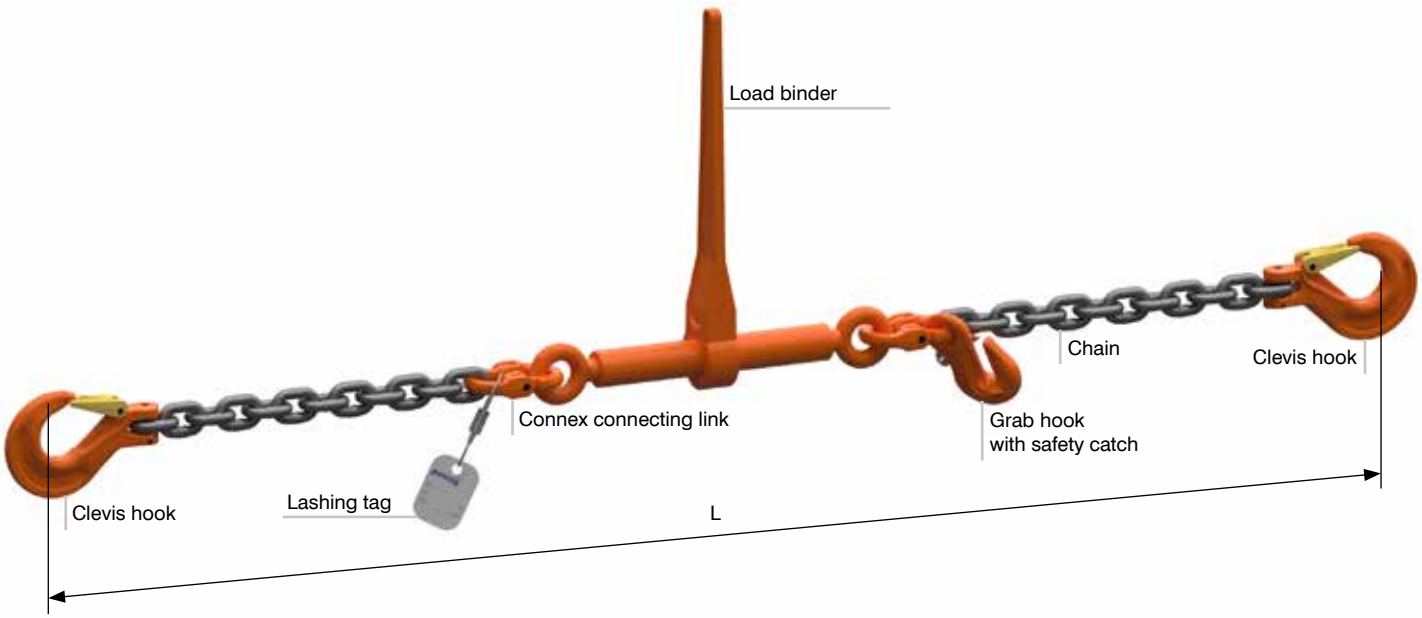
Labelling and documentation, taken seriously.

The lashing chains are supplied with the following labels and documents in accordance with EN 12195-3:

- Lashing chain tag.
- Manufacturer's certificate.
- User information.
- Test certificate/lashing chain file.

ZRSW 8 200 I - KHSW - KHSW - PSW 3500

- ZRSW 8 200 I: Nominal diameter
- I: single-piece
- KHSW: Clevis hook
- KHSW: Clevis hook
- PSW: Grab hook with safety catch
- 3500: Length [mm]



Direct lashing

Lashing system: WIN 7 chain with dimension 7 load binder (LC 38 kN; for 4 lashing chains)

Angle α	Angle β	Max. load [kg] at dynamic friction factor 0.01	0.1	0.2	0.3	0.4	0.5	0.6
20 - 35°	21 - 30°	-	-	8,200	11,050	13,350	16,500	21,000
20 - 35°	31 - 40°	6,050	7,000	8,300	9,950	12,150	15,050	18,950
20 - 35°	41 - 50°	5,050	5,950	7,150	8,650	10,600	13,050	16,450
20 - 35°	51 - 60°	3,950	4,700	5,750	7,100	8,700	10,650	13,500
36 - 50°	21 - 30°	-	-	7,450	9,600	11,950	15,050	19,550
36 - 50°	31 - 40°	-	5,750	7,100	8,750	10,950	13,900	18,150
36 - 50°	41 - 50°	4,000	4,900	6,150	7,700	9,750	12,500	16,450
36 - 50°	51 - 60°	-	3,950	5,100	6,500	8,350	10,850	14,450

Lashing system: WIN 8 chain with dimension 8 load binder (LC 50 kN; for 4 lashing chains)

Angle α	Angle β	Max. load [kg] at dynamic friction factor 0.01	0.1	0.2	0.3	0.4	0.5	0.6
20 - 35°	21 - 30°	-	-	10,800	14,550	17,600	21,750	27,600
20 - 35°	31 - 40°	7,950	9,200	10,950	13,150	15,950	19,800	24,950
20 - 35°	41 - 50°	6,650	7,850	9,400	11,400	13,950	17,200	21,650
20 - 35°	51 - 60°	5,200	6,200	7,600	9,350	11,400	14,050	17,800
36 - 50°	21 - 30°	-	-	9,850	12,650	15,700	19,850	25,750
36 - 50°	31 - 40°	-	7,550	9,300	11,550	14,400	18,300	23,900
36 - 50°	41 - 50°	5,250	6,450	8,100	10,150	12,850	16,450	21,650
36 - 50°	51 - 60°	-	5,200	6,700	8,550	11,000	14,300	19,000

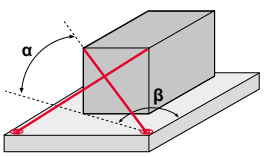
Lashing system: WIN 10 chain with dimension 10 load binder (LC 80 kN; for 4 lashing chains)

Angle α	Angle β	Max. load [kg] at dynamic friction factor 0.01	0.1	0.2	0.3	0.4	0.5	0.6
20 - 35°	21 - 30°	-	-	17,350	23,300	28,200	34,800	44,200
20 - 35°	31 - 40°	12,750	14,750	17,550	21,050	25,550	31,700	39,900
20 - 35°	41 - 50°	10,700	12,550	15,050	18,200	22,350	27,550	34,600
20 - 35°	51 - 60°	8,350	9,950	12,150	14,950	18,300	22,500	28,500
36 - 50°	21 - 30°	-	-	15,750	20,250	25,150	31,750	41,200
36 - 50°	31 - 40°	-	12,100	14,900	18,450	23,100	29,350	38,250
36 - 50°	41 - 50°	8,450	10,350	12,950	16,250	20,550	26,350	34,600
36 - 50°	51 - 60°	-	8,350	10,700	13,700	17,600	22,900	30,450

Lashing system: WIN 13 chain with dimension 13 load binder (LC 134 kN; for 4 lashing chains)

Angle α	Angle β	Max. load [kg] at dynamic friction factor 0.01	0.1	0.2	0.3	0.4	0.5	0.6
20 - 35°	21 - 30°	-	-	29,050	39,050	47,200	58,250	74,050
20 - 35°	31 - 40°	21,350	24,750	29,400	35,250	42,850	53,100	66,900
20 - 35°	41 - 50°	17,950	21,050	25,250	30,550	37,400	46,150	58,000
20 - 35°	51 - 60°	13,950	16,700	20,400	25,100	30,650	37,700	47,750
36 - 50°	21 - 30°	-	-	26,400	33,950	42,150	53,200	69,000
36 - 50°	31 - 40°	-	20,300	25,000	30,950	38,700	49,150	64,050
36 - 50°	41 - 50°	14,150	17,350	21,750	27,250	34,450	44,150	58,000
36 - 50°	51 - 60°	-	14,000	17,950	23,000	29,500	38,350	51,000

This table provides information on how to get the best use from the pewag lashing systems. The loads specified are maximum loads that may be secured using four equal lashing chains and given the specified angles and dynamic friction factors. Additional securing methods (i.e. wedges or similar) that may be used to secure even heavier weights have not been taken into account. Please contact our customer service. for more information.
Every lashing dimension has its own table. The maximum forces resulting from acceleration, braking and avoidance manoeuvres in road traffic acc. to EN 12195-1 were taken into account. Different tables apply for transport by rail and sea. Our customer service team will be pleased to provide additional information.



Lashing down

Lashing system: Load binder with STF 1900 [daN]

Angle to surface α	Max. load [kg] at dynamic friction factor 0.1	0.2	0.3	0.4	0.5	0.6
90°	430	1,010	1,820	3,040	5,060	9,120
85°	430	1,000	1,810	3,020	5,040	9,080
80°	420	990	1,790	2,990	4,980	8,980
70°	400	950	1,710	2,850	4,760	8,560
60°	370	870	1,570	2,630	4,380	7,890
50°	330	770	1,390	2,320	3,880	6,980
40°	270	650	1,170	1,950	3,250	5,860
30°	210	500	910	1,520	2,530	4,560

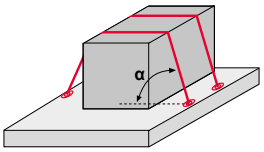
Lashing system: Load binder with STF 2500 [daN]

Angle to surface α	Max. load [kg] at dynamic friction factor 0.1	0.2	0.3	0.4	0.5	0.6
90°	570	1,330	2,400	4,000	6,660	12,000
85°	560	1,320	2,390	3,980	6,640	11,950
80°	560	1,310	2,360	3,930	6,560	11,810
70°	530	1,250	2,250	3,750	6,260	11,270
60°	490	1150	2,070	3,460	5,770	10,390
50°	430	1,020	1,830	3,060	5,100	9,190
40°	360	850	1,540	2,570	4,280	7,710
30°	280	660	1,200	2,000	3,330	6,000

Lashing system: Load binder with STF 3000 [daN]

Angle to surface α	Max. load [kg] at dynamic friction factor 0.1	0.2	0.3	0.4	0.5	0.6
90°	680	1,600	2,880	4,800	8,000	14,400
85°	680	1,590	2,860	4,780	7,960	14,340
80°	670	1,570	2,830	4,720	7,870	14,180
70°	640	1,500	2,700	4,510	7,510	13,530
60°	590	1380	2,490	4,150	6,920	12,470
50°	520	1,220	2,200	3,670	6,120	11,030
40°	440	1,020	1,850	3,080	5,140	9,250
30°	340	800	1,440	2,400	4,000	7,200

This table provides information on how to get the best use from the pewag lashing systems. The loads specified are maximum loads that may be secured using four equal lashing chains and given the specified angles and dynamic friction factors.
Please note: Use at least two lashing devices for lashing-down operations! Additional securing methods (i.e. wedges, using the side panel as a blocker etc.) that may be used to secure even heavier weights have not been taken into account in the table. Please contact our customer service, for more information. The values specified in the table only apply to situations where the lashing system on both sides of the load is not subject to the same tension force (STF) due to the deflection and edges. If this can be determined (e.g. using a pretensioning gauge), the values in the table may be increased by a factor of 1.3. The maximum loading weight depends on the STF value of the tensioning system, which is shown on the lashing system's tag. Every lashing system has its own table. The maximum forces resulting from acceleration, braking and avoidance manoeuvres in road traffic acc. to EN 12195-1 were taken into account. Different tables apply for transport by rail and sea. Our customer service team will be pleased to provide additional information.



Dynamic friction values of frequently transported goods

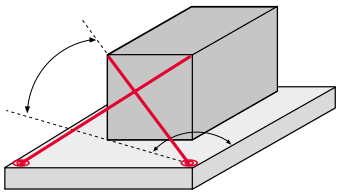
Combination of materials on the contact surface	Dynamic friction value
Sawn wood	
Sawn wood - fabric base laminate/plywood	0.45
Sawn wood - grooved aluminium	0.40
Sawn wood - shrink film	0.30
Sawn wood - stainless steel sheet	0.30
Plane wood	
Plane wood - fabric base laminate/plywood	0.30
Plane wood - grooved aluminium	0.25
Plane wood - stainless steel sheets	0.20
Plastic pallet	
Plastic pallet - fabric base laminate/plywood	0.20
Plastic pallet - grooved aluminium	0.15
Plastic pallet - stainless steel sheet	0.15
Steel and metal	
Steel crate - fabric base laminate/plywood	0.45
Steel crate - grooved aluminium	0.30
Steel crate - stainless steel sheet	0.20
Concrete	
Concrete rough - sawn wood battens	0.70
Concrete smooth - sawn wood battens	0.55
Anti-slip mat	
Rubber	0,60[1)]
Other material	As certified[2)]

- The friction coefficients are based on EN12195-1 and apply to clean surfaces under ideal conditions.
- Please note: Dirty, wet or icy surfaces will reduce friction factors. Be aware that changes in the friction coefficients may occur even during transportation, depending on the time of year!
- When selecting high values, only choose those that can be safely accepted - if in doubt, accept a lower value for safety reasons!

[1)] Can be used with a friction coefficient of 1.0 for direct lashing.
[2)] If special materials to increase friction, such as anti-slip mats, are used, a certificate for the friction coefficient is required.

Comparison between G8, G10 and G12 lashing chains.

Direct lashing of loads on trucks



When using 4 lashing chains of type	Admissible load [kg] when using 4 lashing chains α = 35°, β = 30°, friction coefficient μ = 0.3		
	ZRS G8	ZRSW G10	ZRSWP G12
Lashing chain 8 mm	14,100	17,600	21,150
Lashing chain 10 mm	22,200	28,200	35,250
Lashing chain 13 mm	35,250	47,200	56,400

Product overview lashing G10

Which accessories from the lifting program are suitable for lashing applications?

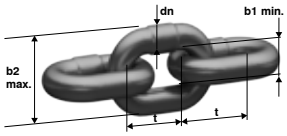
The table gives you an overview of our accessories from the lifting program, which we recommend for lashing applications.
Please note that due to different standard regulations, the permissible load during lashing differs from the maximum working load limit during lifting.
The permissible lashing force according to the following table must be taken into account for lashing applications.

Dimension	7	8	10	13	16
Lashing capacity LC [kN]	**38**	**50**	**80**	**134**	**200**
Lashing accessories					
winner 200 Lashing chain 	WIN 7 200	WIN 8 200	WIN 10 200	WIN 13 200	WIN 16 200
AW 	AW 13	AW 16	AW 18	AW 22	AW 26
MW 	MW 13	MW 16	MW 18	MW 22	MW 26
KMGW 1-... 	KMGW 1-7	KMGW 1-8	KMGW 1-10	KMGW 1-13	KMGW 1-16
CW 	CW 7	CW 8	CW 10	CW 13	CW 16
HSW 	HSW 7/8	HSW 7/8	HSW 10	HSW 13	HSW 16
PSW 	PSW 7/8	PSW 7/8	PSW 10	PSW 13	PSW 16
KHSW 	KHSW 7	KHSW 8	KHSW 10	KHSW 13	KHSW 16
BKHSW 	-	BKHSW 8	BKHSW 10	-	-
KLHW 	KLHW 7	KLHW 8	KLHW 10	KLHW 13	KLHW 16
KPSW 	KPSW 7	KPSW 8	KPSW 10	KPSW 13	KPSW 16
KSCHW 	KSCHW 7	KSCHW 8	KSCHW 10	KSCHW 13	-

pewag winner 200 Lashing chain

This lashing chain complies with EN 818-2 with the mechanical values of G10 and has a 25 % higher lashing capacity than grade 8. It is used to assemble lashing chains in the one- or two-part system in accordance with EN 12195-3 and is suitable for operating temperatures from -40 °C to +200 °C.

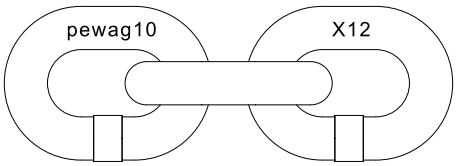
The chain is easy to assemble using the Connex or clevis system. A full operating manual is provided.



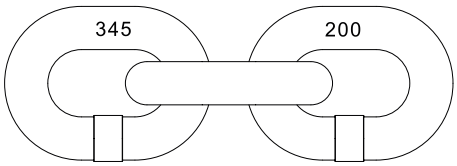
winner 200 Lashing chain	Code	Nominal diameter dn [mm]	Standard length [m]	Pitch t [mm]	Inside width b1 min. [mm]	Outside width b2 max. [mm]	LC lashing capacity [kN]	Breaking force [kN]	Weight [kg/m]
	WIN 7 200	7	-	21	9.5	25.2	38	77	1.20
	WIN 8 200	8	-	24	10.9	28.8	50	101	1.57
	WIN 10 200	10	-	30	13.5	37.0	80	160	2.46
	WIN 13 200	13	-	39	17.7	46.4	134	268	4.05
	WIN 16 200	16	-	48	21.5	57.6	200	402	6.28

The chain is lack varnished, optionally also available with the tried-and-tested corropro coating PCP for maximum corrosion resistance.

Stampings:
Manufacturer: pewag
Grade: 10
Type: 200
Traceability code: X12345



Front

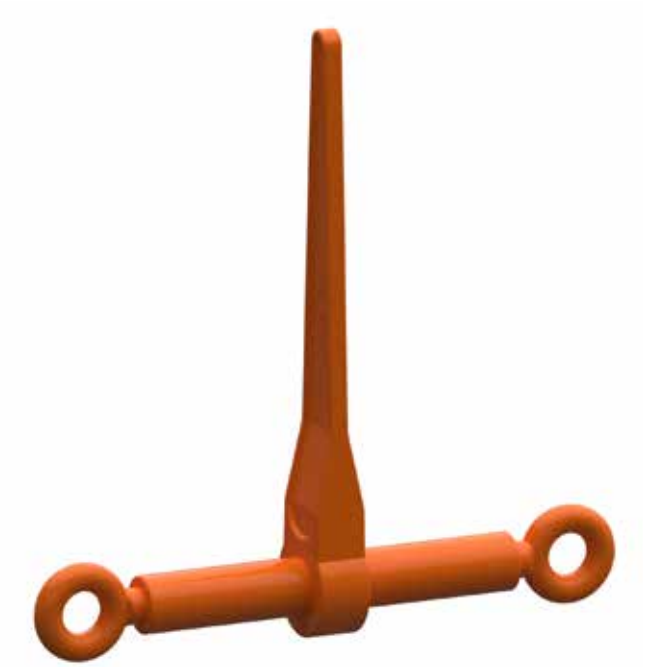


Back

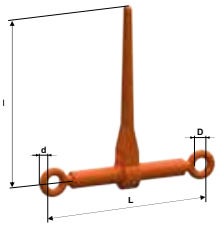
pewag RSW Load binder G10

This load binder for one-part lashing chains in accordance with EN 12195-3 is also suitable for frictional lashing, depending on the selected lever length (always take the STF value into account!). It has a 25 % higher lashing capacity than grade 8 and is manufactured according to EN 12195-3.

Please note that the product must not be used for the lifting. A full operating manual describes areas of application as well as the assembly process. Assembly into a lashing chain is simple and quick thanks to Connex connecting links.



RSW Load binder G10

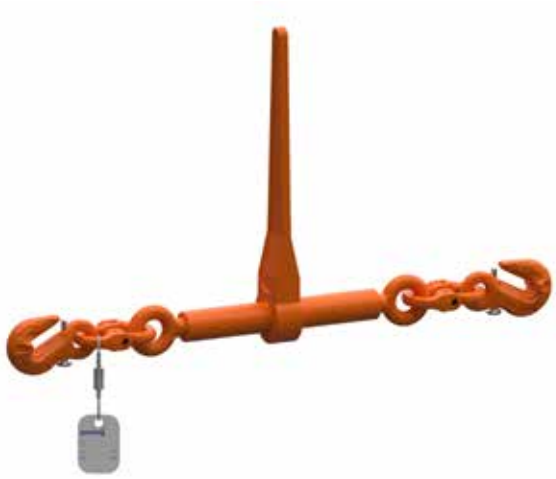


Code	Marking / stamping	LC lashing capacity [kN]	STF Standard tension force [daN]	Length closed L [mm]	Length open L [mm]	Tension distance [mm]	Lever length l [mm]	D [mm]	d [mm]	Weight [kg/pc.]
RSW 7/8	Typ A	50	1,900	355	500	145	237	20	16	3.20
RSW 10	Typ B	80	3,000	365	505	140	355	26	18	3.80
RSW 13	Typ C	134	2,500	576	866	290	359	31	22	9.90

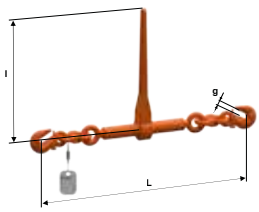
pewag RSPSW Load binder G10

This load binder for one-part lashing chains in accordance with EN 12195-3 is also suitable for frictional lashing, depending on the selected lever length (always take the STF value into account!). It has a 25 % higher lashing capacity than grade 8 and is manufactured according to EN 12195-3.

Please note that the product must not be used for the lifting. A full operating manual describes areas of application as well as the assembly process. Assembly into a lashing chain is simple and quick thanks to Connex connecting links.



RSPSW Load binder G10



Code	Marking / stamping	LC lashing capacity [kN]	STF Standard tension force [daN]	Length closed L [mm]	Length open L [mm]	Tension distance [mm]	Lever length l [mm]	g [mm]	Weight [kg/pc.]
RSPSW 8 [1)]	Type A	50	1,900	609	754	145	237	9	4.40
RSPSW 10	Type B	80	3,000	663	803	140	355	12	6.30
RSPSW 13	Type C	134	2,500	954	1,244	290	359	15	15.00

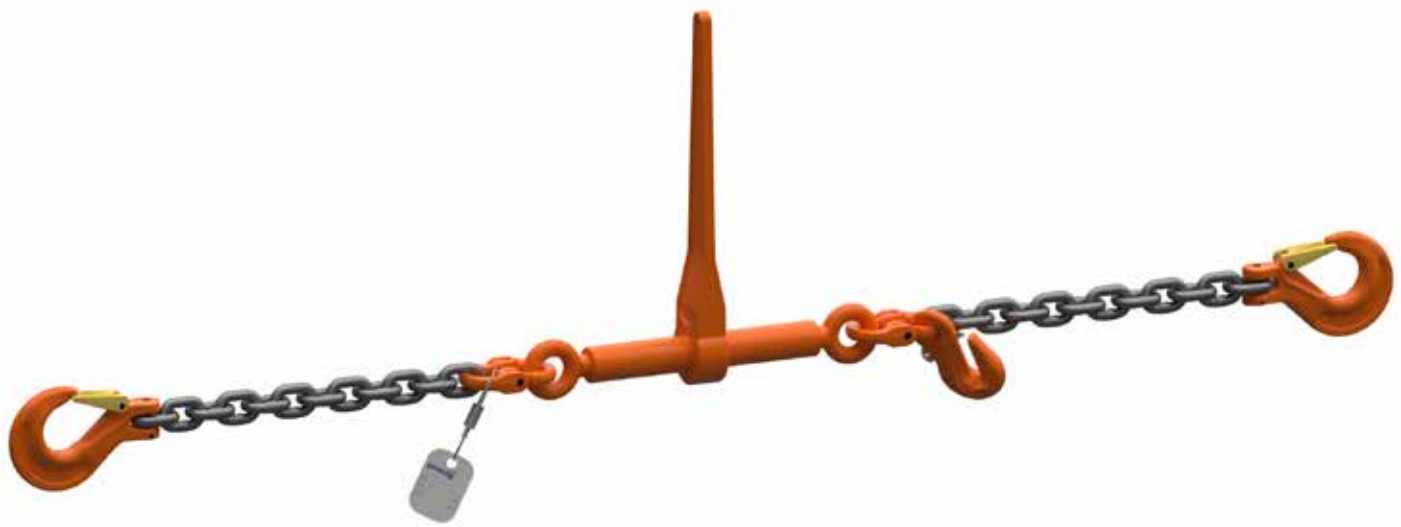
[1)] Also useable with a 7 mm chain. LC with 7 mm chain = 38 kN!

pewag ZRSW I KHSW-KHSW-PSW Lashing chain G10

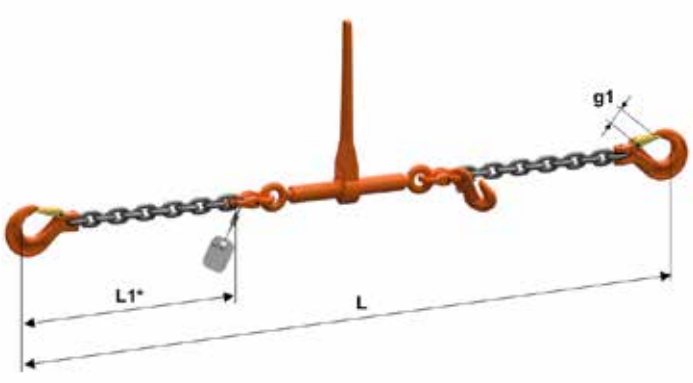
This lashing chain surpasses the requirements of EN 12195-3 as it has a 25 % higher lashing capacity than standard G8 lashing chains. The lashing chain comes in a modular design with a standard length of 3,500 mm and is also suitable for frictional lashing, provided that the STF value is taken into account. Other end fittings and/or combinations and delivery lengths are available upon request and with short delivery times.

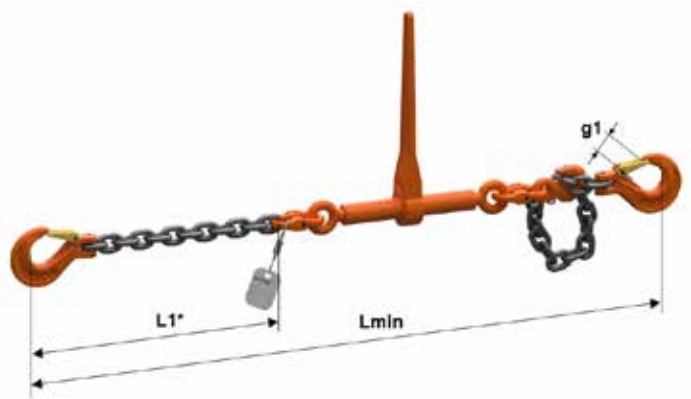
Please note that the product must not be used for lifting. A full operating manual tells you all you need to know about how to use the chain to its best advantage. Make sure you also refer to the tables for a useful overview.

This lashing chain is equipped with a PSW as a shortening hook.



Code	L in unshortened state, tensioner closed [mm]	Lmin in max. shortened state [mm]	Lashing capacity LC [kN]	STF Standard tension force [daN]	Length RSW closed L [mm]	Length RSW open L [mm]	Tension distance [mm]	Jaw size g1 [mm]	Weight [kg/pc.]
ZRSW 7 200 I KHSW-KHSW-PSW 3500	3,500	1,600	38	1,900	355	500	145	26	8.40
ZRSW 8 2 00 I KHSW-KHSW-PSW 3500	3,500	1,620	50	1,900	355	500	145	26	10.10
ZRSW 10 200 I KHSW-KHSW-PSW 3500	3,500	1,670	80	3,000	365	505	140	31	15.30
ZRSW 13 200 I KHSW-KHSW-PSW 3500	3,500	1,980	134	2,500	576	866	290	39	26.10





* L1 = 5 chain links up to 3m total length with closed tensioner
L1= 1m from 3m total length with closed tensioner
Other lengths L and L1 available on customer request!

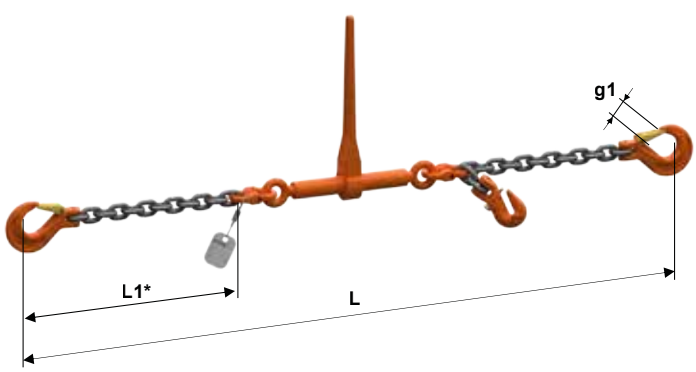
pewag ZRSW I KHSW-KHSW-KPSW Lashing chain G10

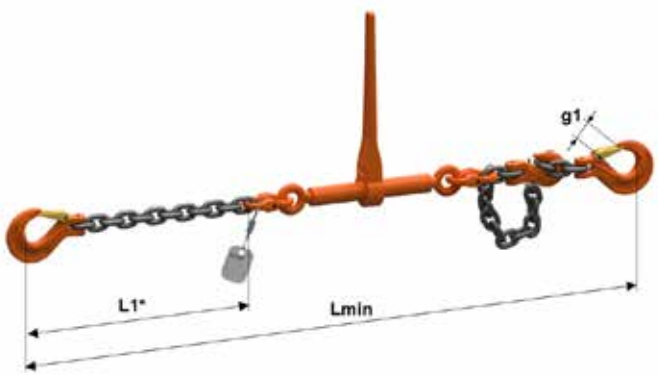
This lashing chain surpasses the requirements of EN 12195-3 as it has a 25 % higher lashing capacity than standard G8 lashing chains. The lashing chain comes in a modular design with a standard length of 3,500 mm and is also suitable for frictional lashing, provided that the STF value is taken into account. Other end fittings and/or combinations and delivery lengths are available upon request and with short delivery times.

Please note that the product must not be used for lifting. A full operating manual tells you all you need to know about how to use the chain to its best advantage. Make sure you also refer to the tables for a useful overview.

This lashing chain is equipped with a KPSW as a shortening hook.

Code	L in unshortened state, tensioner closed [mm]	Lmin in max. shortened state [mm]	Lashing capacity LC [kN]	STF Standard tension force [daN]	Length RSW closed L [mm]	Length RSW open L [mm]	Tension distance [mm]	Jaw size g1 [mm]	Weight [kg/pc.]
ZRSW 7 200 I KHSW-KHSW-KPSW 3500	3,500	1,640	38	1,900	355	500	145	26	8.40
ZRSW 8 200 I KHSW-KHSW-KPSW 3500	3,500	1,670	50	1,900	355	500	145	26	10.10
ZRSW 10 200 I KHSW-KHSW-KPSW 3500	3,500	1,730	80	3,000	365	505	140	31	15.30
ZRSW 13 200 I KHSW-KHSW-KPSW 3500	3,500	2,050	134	2,500	576	866	290	39	26.10





* L1 = 5 chain links up to 3m total length with closed tensioner
L1= 1m from 3m total length with closed tensioner
Other lengths L and L1 available on customer request!

pewag ZKSW I KHSW-KHSW-PSW Lashing chain G10

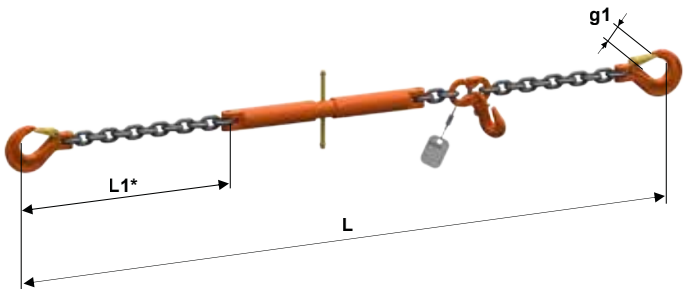
This lashing chain surpasses the requirements of EN 12195-3 as it has a 25 % higher lashing capacity than standard G8 lashing chains. The lashing chain comes in a modular design with a standard length of 3,500 mm.

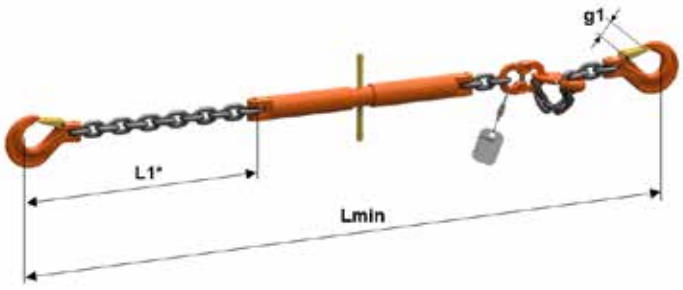
Other end fittings and/or combinations and delivery lengths are available upon request and with short delivery times.

Please note that the product must not be used for lifting. A full operating manual tells you all you need to know about how to use the chain to its best advantage.

This lashing chain is equipped with a PSW as a shortening hook.

Code	L in unshortened state, tensioner closed [mm]	Lmin in max. shorte-ned state [mm]	Lashing capacity LC [kN]	STF Standard tension force [daN]	Length KSSW closed L [mm]	Length KSSW open L [mm]	Tensi-on di-stance [mm]	Jaw size g1 [mm]	Weight [kg/pc.]
ZKSW 16 200 I KHSW-KHSW-PSW 3500	3,500	2,140	200	-	530	780	250	45	37.70



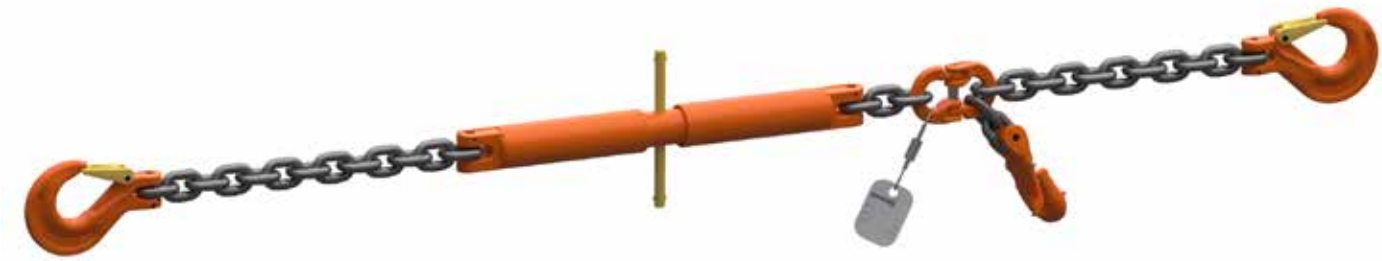


* L1 = 5 chain links up to 3m total length with closed tensioner
L1= 1m from 3m total length with closed tensioner
Other lengths L and L1 available on customer request!

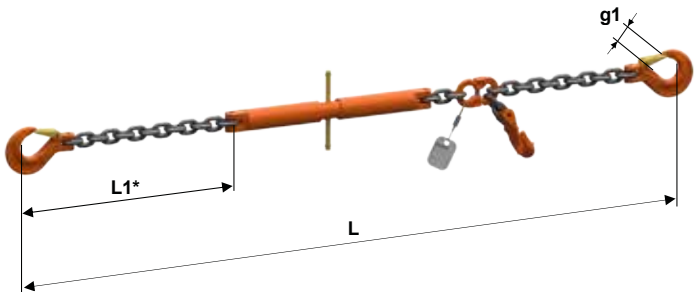
pewag ZKSW I KHSW-KHSW-KPSW Lashing chain G10

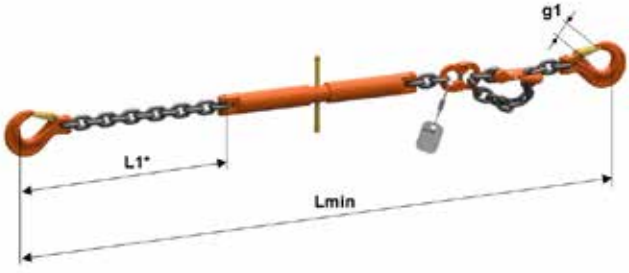
This lashing chain surpasses the requirements of EN 12195-3 as it has a 25 % higher lashing capacity than standard G8 lashing chains. The lashing chain comes in a modular design with a standard length of 3,500 mm.

Other end fittings and/or combinations and delivery lengths are available upon request and with short delivery times. Please note that the product must not be used for lifting. A full operating manual tells you all you need to know about how to use the chain to its best advantage. This lashing chain is equipped with a KPSW as a shortening hook.



Code	L in unshortened state, tensioner closed [mm]	Lmin in max. shortened state [mm]	Lashing capacity LC [kN]	STF Standard tension force [daN]	Length KSSW closed L [mm]	Length KSSW open L [mm]	Tension distance [mm]	Jaw size g1 [mm]	Weight [kg/pc.]
ZKSW 16 200 I KHSW-KHSW-KPSW 3500	3,500	2,230	200	-	530	780	250	45	37.70





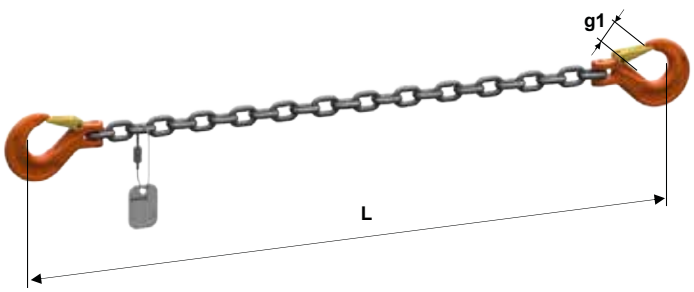
* L1 = 5 chain links up to 3m total length with closed tensioner
L1 = 1m from 3m total length with closed tensioner
Other lengths L and L1 available on customer request!

pewag ZKW Lashing chain for two-part system G10

This lashing chain surpasses the requirements of EN 12195-3 as it has a 25 % higher lashing capacity than standard G8 lashing chains. The lashing chain comes in a modular design with a standard length of 3,500 mm and is also suitable for frictional lashing, provided that the STF value of the tensioner is taken into account.

Other end fittings and/or combinations and delivery lengths are available upon request and with short delivery times. Please note that the product must not be used for lifting. A full operating manual tells you all you need to know about how to use the chain to its best advantage.

Code	Lashing capacity LC [kN]	Length L [mm]	Jaw size g1 [mm]	Weight [kg/pc.]
ZKW 7 200 I KHSW-KHSW 3500	38	3,500	26	5.17
ZKW 8 200 I KHSW-KHSW 3500	50	3,500	26	6.40
ZKW 10 200 I KHSW-KHSW 3500	80	3,500	31	10.27
ZKW 13 200 I KHSW-KHSW 3500	134	3,500	39	17.49



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- Weight reduction.
- Cost savings.
- Developed and manufactured in Europe.
- Anit- corrosion coating.

The best solutions for your lifting challanges:

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pro points

lifting magnets

lifting clamps

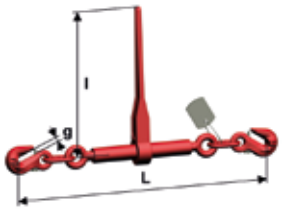
pewag RSPS Load binder G8

This load binder for two-part lashing chain systems in accordance with EN 12195-3 is intended for the ZKW lashing chain. It includes a pre-mounted shortening hook including safety catch and, depending on the selected lever length, all sizes are also suitable for frictional lashing (always take the STF value into account!).

As specified in the full operating manual, this load binder is not suitable for lifting. Please also note that, if used with grade 10 lashing chains, the lashing capacity must be assessed in accordance with G8!

Thanks to the pre-mounted shortening hook, the load binder may be positioned anywhere in the ZKW lashing chain.

RSPS Load binder G8



Code	LC lashing capacity [kN]	STF Standard tension force [daN]	Length closed L [mm]	Length open L [mm]	Tension distance [mm]	Lever length l [mm]	g [mm]	Weight [kg/pc.]
RSPS 8	40	1,900	586	731	145	237	12	4.60
RSPS 10	63	1,900	626	771	145	237	15	5.40
RSPS 13	100	3,000	708	853	145	355	19.5	8.00

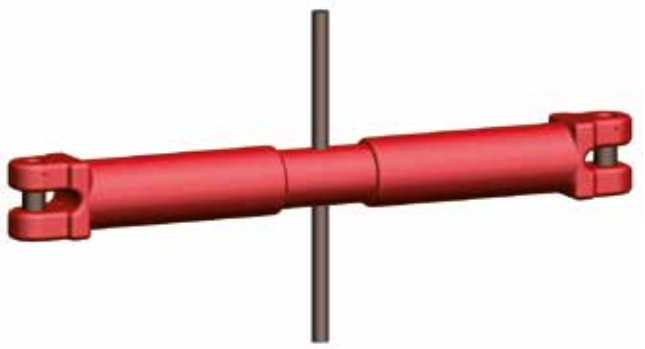
pewag KSS Clevis turnbuckle

The KSS clevis turnbuckle has a particularly robust design, with grade 8 clevis couplings that are die-forged and tempered.

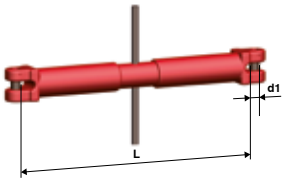
The turnbuckle is manufactured according to EN 1677-1 and comes with a full operating manual. It is suitable for straight pull only and may be assembled easily and quickly thanks to its clevis structure, without the need for special tools. For lifting operations, an additional safety chain must be used to prevent accidental opening.

Note: The KSS and KSSW Clevis turnbuckle can also be used for lifting. For more information, please contact customer service

Spare parts: KSS 8 to KSS 13: KBS-KSS special coupling pins
KSSW 16: KBSW clevis load pin



KSS Clevis turnbuckle



Code	Working Load Limit [kg]	LC lashing capacity [kN]	STF Standard tension force [daN]	Tension range [mm]	L min. [mm]	L max. [mm]	d1 [mm]	Weight [kg/pc.]
KSS 8	2,000	40	1,000	115	330	445	9	2.05
KSS 10	3,150	63	1,575	210	460	670	13	4.49
KSS 13	5,300	100	1,500	250	520	770	16	7.18
KSSW 16*	10,000	200	2,400	250	540	790	19.7	10.31

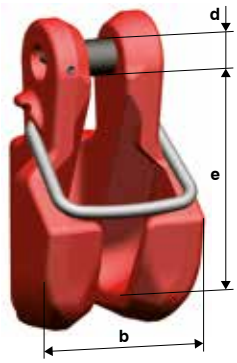
* Not a standard stock item

pewag KVS Clevis connector G8

For grade 8 lashing chains, we recommend using a shortening claw with a safety catch to prevent the accidental release of the load and the coarse shortening of lashing chains. Watch out for the correct load direction of the chain as outlined in the full operating manual.
The clevis connector is manufactured according to EN 1677-1 and comes with CE-marking and BG-approval. Please ensure that the lashing capacity of the connector is assessed in accordance with grade 8 if the product is used in combination with grade 10 chains. The clevis system makes this product easy and quick to assemble without the need for special tools.

Spare parts: KBSW clevis load pin

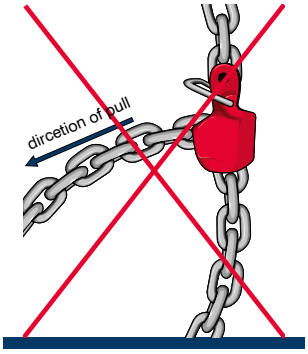
KVS Clevis connector G8



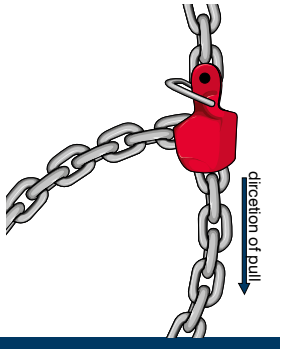
Code	LC lashing capacity [kN]	e [mm]	b [mm]	d [mm]	Weight [kg/pc.]
KVS 7*	30	58	44	9	0.50
KVS 8	40	58	44	10	0.50
KVS 10	63	70	55	12.5	0.80
KVS 13*	100	90	70	16	1.53

*Discontinued item

Safety warnings:
- Only load the inside chain
- Only use with a safety device
- Ensure that the chain fits neatly and securely



Incorrectly attached chain

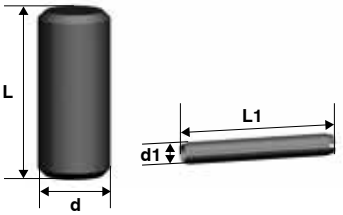


Correctly attached chain

For even easier handling when lifting and lashing, use the innovative winner pro G12 system - be smart. show profile.

pewag KBSW Clevis load pin

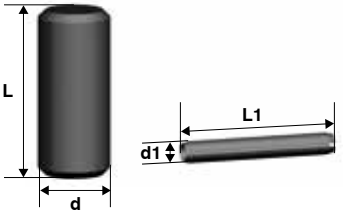
KBSW Clevis load pin



Code	L [mm]	d [mm]	L1 [mm]	d1 [mm]	Weight [kg/pc.]	For accessory part
KBSW 5/6	16.50	7.40	16	2.50	0.01	XKW 5/6, KRW 5/6, KHSW 5/6, KLHW 5/6, KPW 6, KVS 6
KBSW 7	23	9	22	3	0.02	XKW 7, KRW 7, KOW 7, KHSW 7, KCHW 7, KLHW 7, KFW 7, KPW 7, KPSW 7, KSCHW 7, KVS 7
KBSW 8	23	10	22	3	0.02	XKW 8, KRW 8, KOW 8, KHSW 8, BKHSW 8, KCHW 8, KLHW 8, KFW 8, KPW 8, KPSW 8, KSCHW 8, KVS 8
KBSW 10	29.50	12.50	28	3.50	0.03	XKW 10, KRW 10, KOW 10, KHSW 10, BKHSW 10, KCHW 10, KLHW 10, KFW 10, KPW 10, KPSW 10, KSCHW 10, KVS 10
KBSW 13	37	16	36	4	0.06	XKW 13, KRW 13, KOW 13, KHSW 13, KCHW 13, KLHW 13, KLHMW 13, KFW 13, KPW 13, KPSW 13, KSCHW 13, KVS 13
KBSW 16	52	20	40	4.50	0.12	XKW 16, KRW 16, KOW 16, KHSW 16, KCHW 16, KLHW 16, KPW 16, KPSW 16, KSSW 16
KBSW 19/20	73	24	50	5	0.27	KRW 19/20, KHSW 19/20, KLHW 19/20, KPW 19/20
KBSW 22	71	27	55	5	0.29	KRW 22, KHSW 22, KLHW 22, KPW 22
KBSW 26	86	33	70	5	0.59	KLHW 26

pewag KBS-KSS Special clevis load pin

KBS-KSS Special clevis load pin



Code	d x L [mm]	d1 x L1 [mm]	For accessory part
KBS-KSS 6/7	8 x 22.5	3 x 22	KSS 6/7
KBS-KSS 8	10 x 27.2	3 x 26	KSS 8
KBS-KSS 10	12 x 32.2	4 x 32	KSS 10
KBS-KSS 13	16 x 45.7	4 x 40	KSS 13

pewag SFGW Safety catch set

SFGW Safety catch set

Code	For accessory part
SFGW 5/6	HSW 5/6, KHSW 5/6
SFGW 7/8	HSW 7/8, KHSW 7, KHSW 8, WS 7/8, EHS 7/8, WSBW 7/8
SFGW 10	HSW 10, KHSW 10, WS 10, EHS 10, WSBW 10
SFGW 13	HSW 13, KHSW 13, WS 13, EHS 13, WSBW 13, SSM 5
SFGW 16	HSW 16, KHSW 16
SFGW 19/20	HSW 19/20, KHSW 19/20, SSM 7/8
SFGW 22	HSW 22, KHSW 22, SSM 10
SFGW 26/32	HSW 26, HSW 32, HS 32, SSM 13

pewag SFGW-A & SFGW-B Safety catch set

SFGW-A Forged safety catch set for AWHW	Code	For accessory part
	SFGW-A1	AWHW 1.3
	SFGW-A3	AWHW 3.8
	SFGW-A6	AWHW 6.3, AWHW 10,

SFGW-B Forged safety catch set for BKHSW	Code	For accessory part
	SFGW-B 8	BKHSW 8
	SFGW-B 10	BKHSW 10

pewag CBHW Bolt + safety bush

CBHW Bolt + safety bush	Code	For accessory part
	CBHW 5 G10	CW 5
	CBHW 6 G10	CW 6
	CBHW 7 G10	CW 7
	CBHW 8 G10	CW 8, CARW 8, DFW 8
	CBHW 10 G10	CW 10, CARW 10, DFW 10
	CBHW 13 G10	CW 13, CARW 13, DFW 13
	CBHW 16 G10	CW 16, CARW 16, DFW 16
	CBHW 19/20 G10	CW 19/20
	CBHW 22 G10	CW 22, CARW 22
	CBHW 26 G10	CW 26
	CBHW 32 G10	CW 32

pewag CLBHW Bolts + safety bush

CLBHW Bolts + safety bush	Code	For accessory part
	CLBHW 7 G10	CLW 7
	CLBHW 10 G10	CLW 10
	CLBHW 13 G10	CLW 13
	CLBHW 16 G10	CLW 16

pewag PSGW Safety catch

PSGW Safety catch	Code	For accessory part
	PSGW 7/8 G10	PSW 7/8, KPSW 7, KPSW 8
	PSGW 10 G10	PSW 10, KPSW 10
	PSGW 13 G10	PSW 13, KPSW 13
	PSGW 16 G10	PSW 16, KPSW 16

pewag UBMS Bolt + washer + nut

UBMS Bolt + washer + nut	Code	For accessory part
	UBMS 5/6	U 5/6
	UBMS 7	U 7
	UBMS 8	U 8
	UBMS 10	U 10
	UBMS 13	U 13
	UBMS 16	U 16
	UBMS 19/20	U 19/20
	UBMS 26	U 26

pewag KBMSW Bolt + nut + split pin

KBMSW Bolt + nut + split pin	Code	For accessory part
	KBMSW 7/8 G10	KSCHW 7, KSCHW 8
	KBMSW 10 G10	KSCHW 10
	KBMSW 13 G10	KSCHW 13

pewag VLHW Trigger set

VLHW Trigger set	Code	For accessory part
	VLHW 5/6 G10	LHW 5/6, KLHW 5/6, WLH(B)W 6
	VLHW 7/8 G10	LHW 7/8, KLHW 7, KLHW 8, WLH(B)W 7/8
	VLHW 10 G10	LHW 10, KLHW 10, WLH (B)W 10
	VLHW 13 G10	LHW 13, KLHW 13, WLH(B)W 13
	VLHW 16 G10	LHW 16, KLHW 16, WLH(B)W 16
	VLHW 19/20/22/26 G10	LHW 19/20, LHW 22, KLHW 19/20, KLHW 22, KLHW 26, WLH(B)W 19/20, WLH(B)W 22
	VLHW 32 G10	LHW 32

pewag ID Tag set for lifting

ID Tag set for lifting	Code	For lifting chains	Consisting of
	ID-Set neutral	I- and multi-leg slings	Tag neutral + rope with quick-release fastener + safety information

pewag ID Tag set for lashing

ID Tag set for lashing	Code	Consisting of
	ID-Set Lashing	Tag neutral + rope with quick release

User information

General information and safety-specific information on usage, storage, inspection and maintenance of pewag lifting accessories.

General information

pewag prides itself on its versatile and multi-faceted quality products that suit a wide range of applications. Different construction, and loading methods for general lifting applications do not pose a particular challenge for our universally applicable lifting accessories as they were manufactured with precisely these different demands in mind. All information on design and working load limits in the catalogues (Uniform Load Method) take this range into account. There is also an alternative method in existence for rating the product working load limit, for which the specific application scenario of the chain and all operating conditions must be known. In such a case, please contact the pewag Technical Service team, as the information contained in the catalogues does not apply to such processes.

Responsibility is key
If the pewag lifting accessories are used correctly and by competent people, they have a long lifespan and provide the highest possible safety standards. Material and personal damage can be avoided by reading this user information carefully and handling all lifting processes in a responsible, provident manner.

Changes to the condition as delivered

We urgently recommend using only the original parts that are included in the scope of delivery with pewag lifting chains (bolts, safety pins, screws etc.) Modifying the original condition of the lifting accessories by bending, grinding, removal of parts, welding, drilling, stamping etc. means exposing yourself and others to unnecessary danger. In such a case, safety can no longer be guaranteed and usage becomes dangerous.
Risk factors and conditions include heating the chains to a temperature of more than 380 °C (pewag winner 400) and removing safety parts such as safety pins, safety catches etc.
Do not apply any surface coatings to pewag chain slings, i.e. do not subject them to hot galvanizing or electrogalvanizing.
If any surface treatments are required, please make sure to double-check with the pewag service department first.
Dipping or removing a coating with chemicals are potentially dangerous processes that may give rise to hazards. We urgently recommend customers to check with the pewag technical team first.

Restrictions of use

For hazardous or dangerous conditions, please refer to the table on page 12!

Temperature effects
The table on page 12 lists the load reduction values in case of extreme temperatures. These apply until the chain and/or the lifting accessories have reached room temperature. pewag lifting accessories must on no account be used outside the indicated temperature range. If this has been the case, the chains must be removed from service.

Effects of acids, caustics and chemicals
pewag lifting accessories must not be used in acids or caustic solutions or be exposed to their vapours. Please be aware of this requirement at all times as certain production processes release acids and/or vapours! If the use of pewag lifting accessories with highly concentrated chemicals in combination with high temperatures cannot be avoided, please make sure to obtain the express approval of such usage by a pewag expert.

Hazardous conditions
The working load limits in this catalogue have been determined on the basis that the product is not being used in hazardous conditions. Hazardous conditions are present when lifting accessories are used offshore or for the lifting of persons or potentially dangerous goods such as liquid metal, corrosive or caustic substances or nuclear material. If the chain sling is to be used for such purposes, the extent of the risk is to be assessed by an expert, the working load limit must be adjusted accordingly and incorrect usage in hazardous conditions must be avoided at all cost. As a rule, usage in hazardous conditions should be avoided.

Prevention is better than cure!
Before using any lifting accessory, several inspections must be performed:
- Does the lifting chain correspond to the order?
- Has the inspection certificate or certificate of conformity been supplied?
- Do the markings and working load limits stated on the chain sling correspond to the information given on the inspection certificate or certificate of conformity?
- Have all the particularities of the chain sling been entered into a register of lifting equipment, if required?
- Has the operating manual outlining the correct use of the chain sling been supplied and read and understood by all personnel?

Please check the lifting accessories for visible signs of damage or wear prior to each use. In case of any doubt or damage, do not use the chain slings and have them inspected by a competent person.
Inspections by a competent person must be performed in accordance with national legislation, but at least once every 12 months. If the chain sling is frequently used at its full working load limit, more frequent inspections are required!

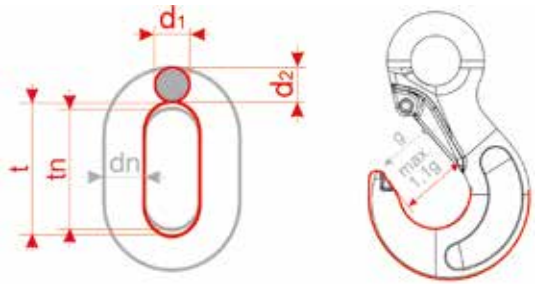
Please note that the chain sling must also be inspected after unusual events, for instance uncontrolled exposure to heat.

We recommend subjecting the chain sling to a load limit test with 2 times the working load limit every two years, followed by a visual inspection, or another type of crack test.

Visual inspection criteria
If at least one of the criteria listed below manifests itself during the visual inspection, all parts must be removed from service:

- Breakage of a component.
- Illegible or missing marking of the chain sling (i.e. information on identification data and/or working load limit).
- Deformation of suspension or sling parts or the chain itself.
- Elongation of the chain resulting in **t > 1.05 tn.**
- Wear as determined by the mean value of two measurements of diameters d_1 and d_2 carried out at a right angle as shown. The chain must be removed from service life if:

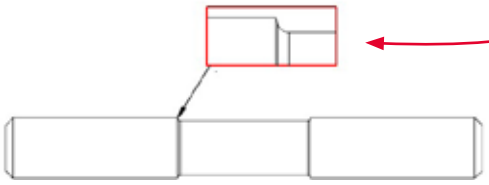
$$d_m = \frac{d_1 + d_2}{2} \leq 0{,}9$$



- Visible damage such as cuts, notches, grooves, surface cracks, discolouration due to excessive heat exposure, signs of subsequent welding, bent or twisted links or other flaws.
- Obvious wear or chemical removal of material if the admissible dimensional changes as outlined in the table supplied has been exceeded, e.g. pitting corrosion.
- Cracks and cross-cracks that are visible to the naked eye.
- Missing or non-functional safety device as well as signs of widening or twisting of hooks, i.e. noticeable enlargement of the opening or other forms of deformation. The critical point is reached when the enlargement of the opening exceeds 10 % of the nominal value or if the safety catch is open, as this indicates that the hook is overloaded.

Maximum approved dimensional change in relation to the nominal dimension:

Designation	Dimensions	Admissible deviation
Chain	dn	-10 %
	t	+5 %
Rings	d	-10 %
	t	+10 %
Hook*	e	+5 %
	d_2 and h	-10 %
	g, g1	+10 %
	a	-10 %
LHW, KLHW, WLH(B)W	opening of hook	2x s max.
CW, CARW, CLW	halves loose	no changing admissible
	e	+5 %
	c	-10 %
BWW, GWH	e	+5 %
	d	-15 %
	d_1	+5 %
	Angle change	≤3°
SCHW, GSCHW, U	bolt loose	no changing admissible
	e	+5 %
	d, d_1, d_2 and M	-10 %
SM	e	+5 %
	g	+10 %
	d	-10 %
BA	d_2	-10 %
FA	d_1	-5 %
Clevis bolt	d	-10 %
Connex bolt	d	No deformation, especially of the edges as shown in the picture, permitted



Correct maintenance
Please note that all maintenance activities of pewag lifting accessories must be handled by competent persons to minimise the risk of improper use.

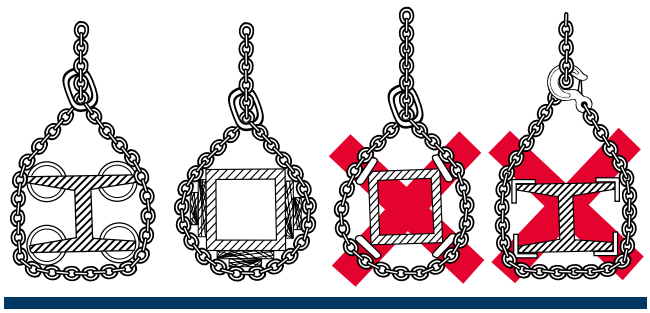
Precise documentation
All inspections and their results must be recorded and these records be kept throughout the service life of the chain slings. Precise records of this sort constitute the best basis for effective maintenance.

Clean storage
pewag lifting chains must always be stored in a clean and dried condition and protected against corrosion, i.e. slightly lubricated.

Correct use of chain slings

The right angle of inclination
To ensure safe handling, the slinging points and chain sling types must be selected in such a way that the angles of inclination of all chain strands (legs) lie within the data given on the working load limit tag. Preferably, all angles of inclination should be the same. Avoid angles of inclination of less than 15° because of the high risk of load instability. Never use chain slings with the angle of inclination exceeding 60°!

Edge-loading – know your limits
The maximum working load limit of pewag chain slings assumes that the individual chain legs are pulled straight under load, i.e. that they do not run over edges. However, if edge-loading is unavoidable, load protection (packing) should be used to avoid damage (see illustration):



If chains are guided over edges without proper protection, their working load limit is significantly reduced and safe usage can no longer be guaranteed. See the table on page 12 for the corresponding load factors. Where chain have to be looped around beams or other round-shaped loads, the diameter should be minimum 3 times the chain pitch. For smaller diameters, the working load limit of the chains must be reduced by 50 %.

Impact-/shock-loading
For the working load limits of pewag lifting chains to apply, it is assumed that the individual chain strands are not subjected to impact- or shock-loading. In cases of possible impact/shock, the load factors on page 12 apply.

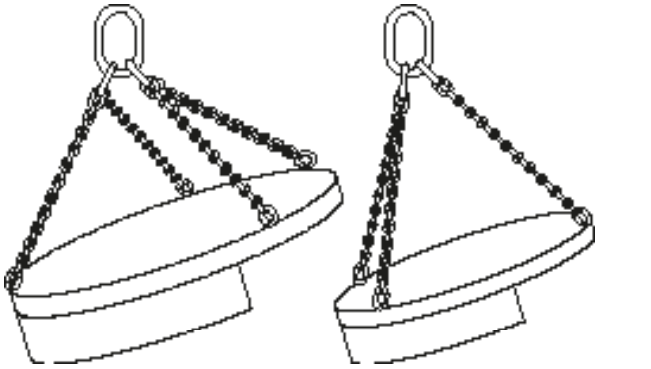
Classification of impacts
- Slight impact may result from accelerated lifting or lowering operations.
- Medium impact may result from the chain slipping while adjusting itself to the shape of the load.
- Strong impact results for instance from the load falling into the unloaded chain.

Vibrations
If they are used correctly, pewag lifting chains and accessories withstand high load cycles, with a standard rating of 20,000 load cycles. In case of high dynamic loads, there is a risk of the chain or components getting damaged. The employer's liability insurance association Metall Nord Süd recommends reducing stress at WLL by using a larger nominal thickness/size in such a case.

Symmetrical loading
For the working load limits of pewag lifting chains to apply, it is assumed that the individual chain strands are placed under load symmetrically. When the load is lifted, this results in equal angles of inclination and the individual strands are symmetrical to each other.

If there is both lack of symmetry in plan and unequal angles of inclination, the load can still be considered as symmetrical when all of the following conditions apply:
- The load is less than 80 % of the indicated working load limit
- The angles of inclination of all chain strands are not lower than 15° and are very similar (i.e. only differ by a maximum of 15°).
- For three- and four-stranded lifting chains, it must be ensured that the corresponding plan angles are within 15° of each other.

Be careful!
If not all of these parameters are complied with, the load cannot be considered symmetrical and the classification of the lifting operation must be left to an expert. In case of doubt, only one chain strand (leg) should be considered as load-bearing. For the corresponding working load limit values, please refer to the working load limit table on page 10 and 11 to determine the precise working load limit.



The main part of the load is carried by just one leg.

The main part of the load is carried by two legs.

Wrongful use defeats the purpose
pewag lifting chains offer perfect quality standards if they are used according to their intended purpose.
In cases where not all individual legs are used simultaneously or where several lifting chains are used at the same time, different working load limits apply as outlined in the tables on pages 10 and 11. In case of doubt regarding the intended purpose, the working load limit as indicated on the tag must be amended in accordance with the following table:

Type of sling chain	Number of individual strands used	Use factor in relation to the working load limit given on the tag
two-stranded (II-leg)	1	1/2
three- and four-stranded (III/IV-leg)	2	2/3
three- and four-stranded (III/IV-leg)	1	1/3
2 x single-stranded (single leg)	2	1.4 up to 45°
2 x two-stranded (II-leg)	3 or 4	1.5 from 0° – 45° and 45° – 60°

Precautions

- Hang any individual strands (leg) that you do not use back into the master link to prevent hazards caused by freely swinging chains or unintended hooking.
- Before using several chain slings at the same time, make sure that the crane hook is big enough for all the master rings. Make sure that the master rings cannot fall out of the hook during lifting.
- Angles of inclination of more than 45° must be avoided.
- Use only chain slings of the same nominal thickness and grade at the same time.

Additional detailed information

Never tip-load the hook!

Wrong!

Correct!

**Detailed original operating manuals for individual products are available for download at www.pewag.com.
Our manuals are subject to a continuous improvement process to ensure that they are always up to date.
For this reason, always refer to the latest version of a manual.**

User information

User information on pewag winner lashing equipment

General information

Overall, the same information applies to the pewag lashing chains as to the pewag winner lifting chain system. However, the following additional information must be taken into account:

- pewag winner lashing chains were developed to secure loads during transport. If used correctly, the lashing chains have a long lifespan and provide the highest possible safety standards Personal and material damage are best prevented by ensuring correct use. Please note that pewag winner lashing chains may only be used once the user information has been read and understood in full. A responsible, provident approach towards load-securing is crucial at all times.
- We offer tools to assist with selection and proper usage of the lashing chain assemblies. Nevertheless, adequate experience of load securing and use of lashing equipment is indispensable.
- Only authorised and competent persons as defined by EN 12195-1 and 3 are allowed to assemble and use pewag winner lashing chain systems.
- Please note: lashing chains have safety factor = 2, lifting chains have safety factor = 4. This means that, for safety reasons, lashing chains must not be used as lifting chains! Therefore, lashing chains must always have the correct identification tag with the appropriate warning "Not for lifting".
- When the number of the lashing assemblies is calculated according to EN 12195-1, some impact loads may arise that are not reflected in the calculation but which will be balanced by the vehicle and by the flexibility of the lashing system.

Information on use

Lashing points
Choose lashing points in such a way that the angles of the lashing chain assemblies are within the range given in our lashing table and the lashing chain assemblies are symmetrical to the driving direction. Use only lashing points with adequate strength. Any deviations are subject to prior consultation with the pewag technical service department.

Safe selection
When selecting the appropriate lashing chain system, consider the lashing method required and the load that needs to be secured. Size, shape and weight of the load as well as the intended usage category (friction lashing, direct lashing,…) and the transport environment (additional utilities, lashing points,…) must be taken into account for selecting the appropriate system.

For **lashing down,** we recommend using lashing straps because of their low weight and higher elongation.
Only select lashing equipment where the label or tag specifies an STF value.

For **direct lashing,** we recommend using lashing chains because of the high lashing capacity and low elongation.

To ensure that the minimum number of lashing systems is used, we recommend direct lashing to secure loads, especially for heavy loads.
The number of lashing systems may be calculated according to EN 12195-1.

In accordance with this standard, pewag has integrated the commonly used lashing methods in easy-to-use lashing tables. For more detailed information, please refer to pages 83 and 84.

For optimal stability, always use at least two lashing chains for lashing down and two pairs of lashing chains for diagonal lashing. Always ensure that the lashing chains are both long and strong enough for the application you have in mind! When in doubt, always opt for a **higher level of safety** to prevent overloading the chains.

All connecting parts of the lashing chains such as hooks and rings must be **free to move** within the lashing point and **adjustable in the tensile direction.** Bending stress on the accessories and tip loading of the hooks are not permissible. Hooks may only be loaded at the bearing area.

Lashing chains should **never be used in conjunction with lashing straps** as different lashing devices display different behaviours and elongation properties under load (for instance lashing chains and lashing straps made from synthetic fibres). If you have any further questions or require information on possible exceptions, please contact the pewag technical customer service.

Proper use
Proper and correct lashing practice is at the centre of any safe application. Before lashing, plan the lashing process and the release/opening of the lashing system.
During a longer trip, consider possible partial unloading. Watch out for overhead lines during loading and unloading and remove all lifting devices before starting the lashing process.

Also check the **tension of the lashing chain** regularly during transport. Before opening the lashing chain system, always check that the load is safe and that there is no risk of goods falling off or toppling down. Where required, attach any lifting equipment for further transport to the load immediately.

Prior to unloading, the lashing chains must be released far enough to ensure that the load is free-standing. Always ensure that there is no risk of the lashing chain getting tangled up during unloading.

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EN English