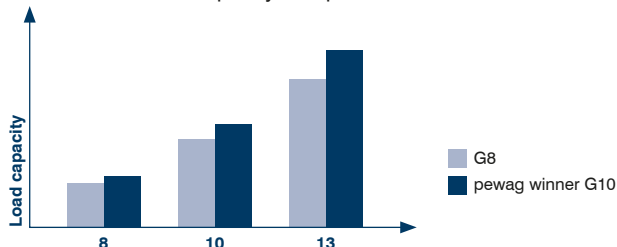




## Lifting chains in G10 quality – benefits that outweigh the rest

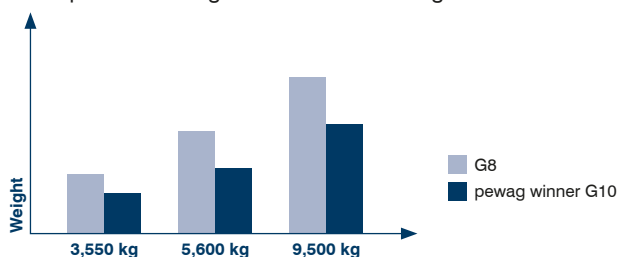
pewag is among the world's best manufacturers of lifting chains – for a good reason, as our products are the result of a responsible development process that focuses on user-friendliness and safety. These features are clearly measurable and form the basis of the pewag product development and manufacturing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

- 25 % more load capacity compared to G8



Load capacity	Previous chain Ø	pewag winner chain Ø
3,550	10	8
5,600	13	10
9,500	16	13

- Simplified handling thanks to a 30 % weight reduction



Load capacity	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 %

- 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
- WIN 400 Easy identification – each link is marked with “W”  
WIN 200 Easy identification – each link is marked with “10”
- Code on chain and component ensures traceability of all manufacturing data
- Distinctive oval-shaped tags with precise information helps avoid confusion with grade 8

- High-visibility orange powder-coating for simple visual identification
- Largest range of components in special grade 10 quality – for 11 chain dimensions
- Fastest and simplest assembly of slings thanks to VXKW set with unique shortening element



- Additional safety feature compared to shortening claws, thus reducing risks resulting from improperly attached chains of our shortening hooks
- Easier and faster annual inspection as fewer components are used
- Compatible with our grade 8 range – used slings are easy to repair. NOTE: Grade 10 components may be used to repair G8, but not at an increased load capacity!
- First company to offer parallel hooks with 100 % load capacity – shortening of the sling chain does not require a reduction in load caused by shear effect of the hook!
- 3 assembly systems of slings: welded, Connex and Clevis system
- Pioneer: pewag were the first to sell G10 lifting chains and have a wealth of experience in this field
- 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
- 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 16mm 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 – winner by name, winner by nature

- Top ranking:**  
**pewag winner 200** – meets the requirements of ASTM A973/A973M-01 and of EN 818-2 but with higher load capacity (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 16mm and Machinery Directive 2006/42/EC
- Stress at load capacity limit:** 250 N/mm<sup>2</sup>
- Test stress:** 625 N/mm<sup>2</sup> – equals 2.5 times the load capacity
- Breaking stress:** 1,000 N/mm<sup>2</sup> – equals 4 times load capacity
- Breaking elongation:** min. 20 %
- Bending according to EN 818-2 or 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:** 100 at a spacing of approx. 300 mm till 16 mm chain (other 0.9 m) and 10 additionally on the back of each link  
 pewag winner 400: 8W at a spacing of approx. 300 mm up to 16 mm chain (other 900 mm) and W on the back of each link  
**Components – 10**  
**pewag winner 400 PAS:** 10 at a spacing of approx. 300 mm  
**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

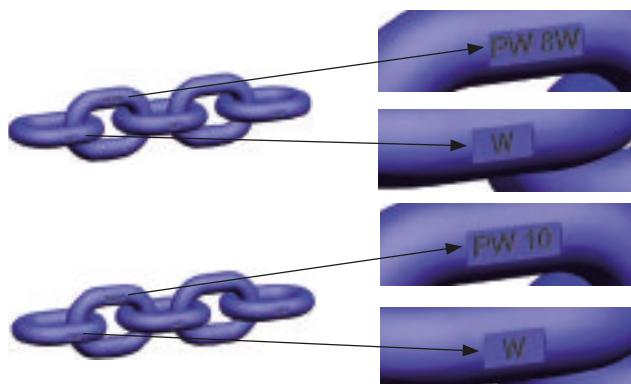
pewag winner chains may be combined with all competitor chains and components that are compatible with EN 818 and EN 1677 qualified items. Please note that the products cannot be combined with items that do not comply with EN 818 or EN 1677! The maximum working load capacity of the overall system is 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.

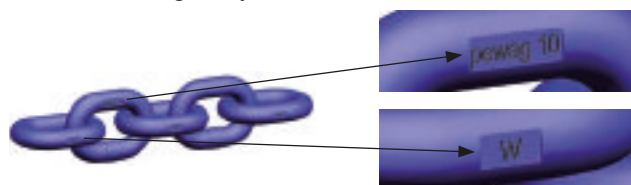
- Product characteristics** for stress crack corrosion are equal to those of grade 8

## pewag winner chain markings, old and new

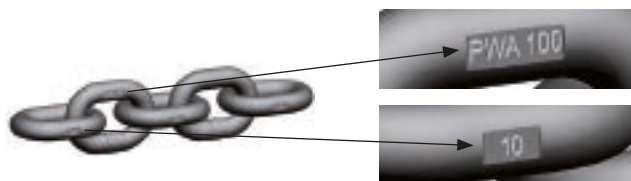
pewag winner 400 chain with old chain markings and the usual outstanding safety characteristics:



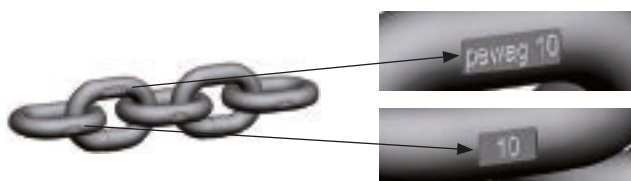
pewag winner 400 chain with new chain markings and the usual outstanding safety characteristics:



WIN 200 chain with old chainmarking:



WIN 200 chain with new chainmarking:



## pewag winner identification tags – fast and easy to read

All necessary technical data is attached on the chain ID tag. For easier identification of the chain grade and quality, a separate ID tag is used.

### pewag winner 200



The pewag winner 200 load capacity tag.

### pewag winner 400 – old load capacity tags



The pewag winner 400 load capacity tag.

## Novelty: rectangular load capacity tag

pewag is always striving to develop its products further. The shape of the load capacity 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 rust-proof material and linked to the sling with a rust-proof, 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 load capacity 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 load capacity tags prevent this mistake from happening and offer the following benefits to the user:

- Prevention of incorrect assessment of the load capacity 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
- Corrosion-resistant: therefore resistant to solvents, acids, caustics and their vapours
- Easily replaceable due to the rustproof cable with quick-release fastener
- All information is engraved, allowing for customer-specific markings
- Pre-stamped years for the periodic inspections make it immediately apparent when the last inspection took place
- For periodic inspections, only the month must be stamped

### pewag winner 400 – new load capacity tag





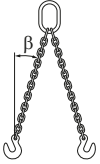
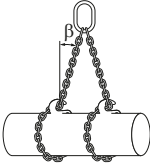
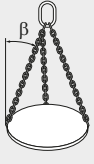
Safety first was the guiding principle behind the development of the new pewag winner 400 load capacity tag

# pewag winner G10 – in safety lies strength.



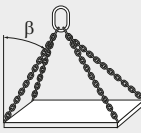



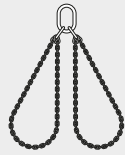
## pewag winner load capacities

The load capacities 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 $\beta$	-	-	$0^\circ - 45^\circ$	$45^\circ - 60^\circ$	$0^\circ - 45^\circ$	$45^\circ - 60^\circ$	$0^\circ - 45^\circ$	
Load factor	1	0.8	1.4	1	1.12	0.8	2.1	
Code	d	Load capacity [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 load capacity values in the table must be reduced by the load factors specified on page 20.




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

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	-	-	22,400	20,000	14,000	30,000	21,200
17,000	-	-	18,000	16,000	11,200	23,600	17,000
28,000	-	-	30,000	26,500	19,000	40,000	28,000
22,400	-	-	23,600	21,200	15,000	31,500	22,400
40,000	-	-	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

## Exceptional conditions of use

Even the highest-quality products will lose some of their load capacity if used at high temperatures, as a consequence of asymmetric load distribution, edge loading, shock/impact loading or other exceptional conditions of use. Please consult the user information for details.

The following circumstances are considered exceptional conditions of use as outlined above:

<b>Temperature</b>	-40 °C – 200 °C	above 200 °C – 300 °C	above 300 °C – 380 °C
<b>Load factor pewag winner 200</b>	1	not permissible	not permissible
<b>Load factor pewag winner 400</b>	1	0.9	0.75
<b>Asymmetric load distribution</b>	The WLL has to be reduced by at least 1 leg. In case of doubt only consider 1 leg as load-bearing.		
<b>Edge load *</b>	R = larger than 2 x d*	R = larger than d*	R = smaller than d*
			
<b>Load factor</b>	1	0.7	0.5
<b>Shock</b>	slight shocks	medium shocks	strong shocks
<b>Load factor</b>	1	0.7	not permissible

\* d = dia. of chain

## Sample order text for pewag winner sling types

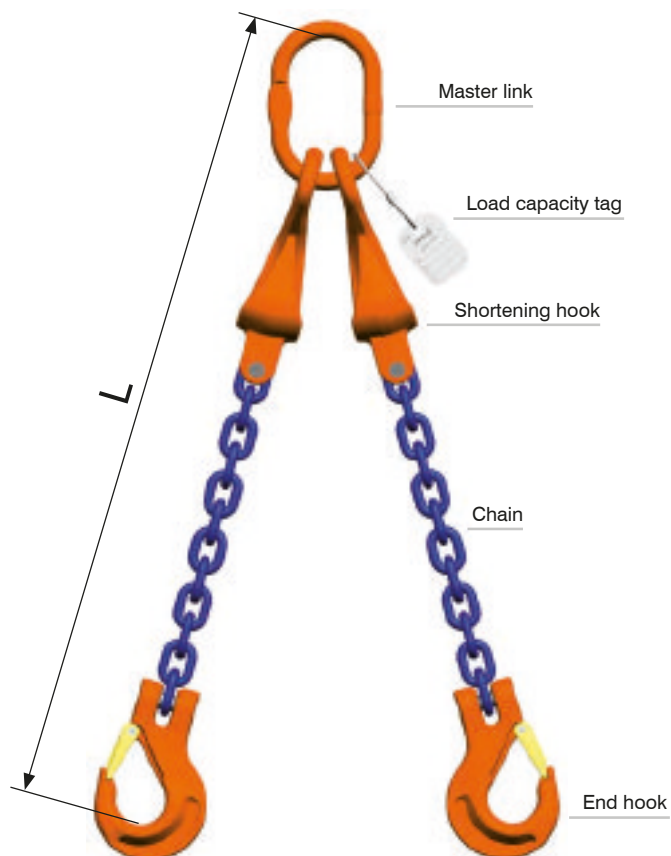
Here you will find some examples that show what an order of a fully assembled and commercially available pewag winner G10 chain system could look like, clearly labelled and with all components and measurements.

What you see here is a pewag winner 400 II-leg chain sling, 13 mm, with shortening device and hook. Length: 3000 mm.

**Clevis system:**

**WIN 13 400 II VXKW – KHSW 3000**

Nominal diameter	Short designation	Number of legs	Master link	End hook	Length [mm]
13	400 II	2	VXKW	KHSW	3000



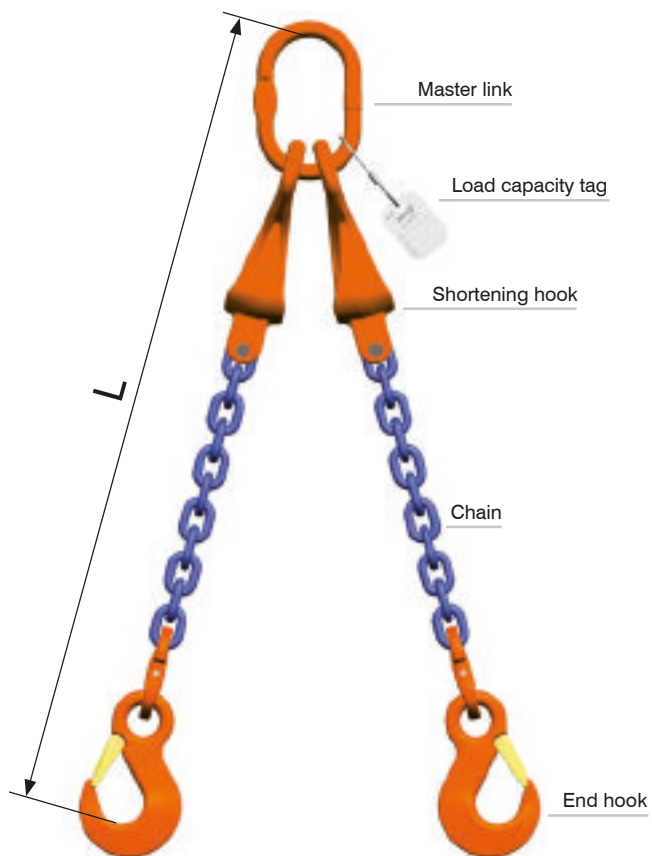


## Sample order text

### Connex System:

### WIN 13 400 II VXKW – HSW 3000 Connex

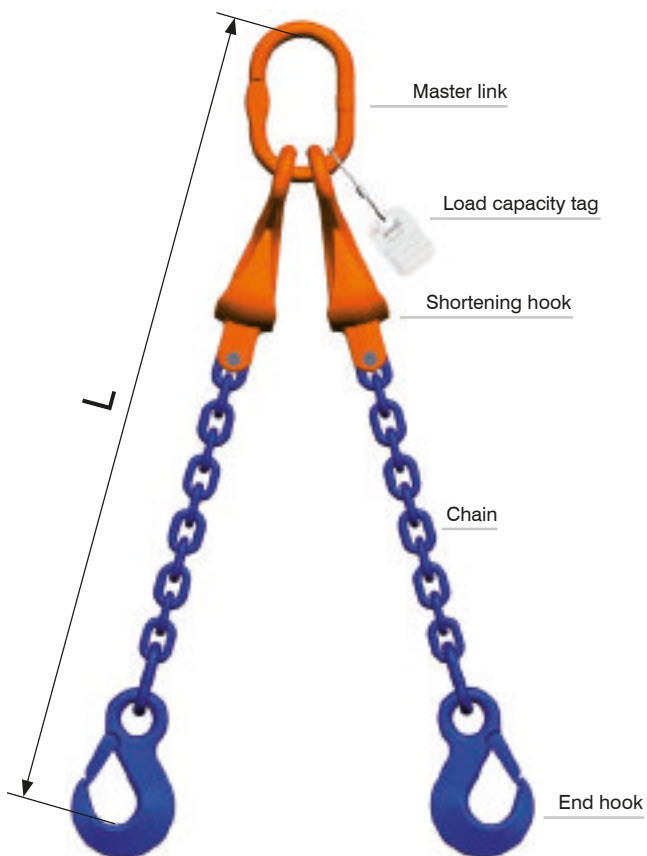
Nominal diameter	Short designation	Number of legs	Master link	End hook	Length [mm]
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### Welded system:

### WIN 13 400 II VXKW – HSW 3000

Nominal diameter	Short designation	Number of legs	Master link	End hook	Length [mm]
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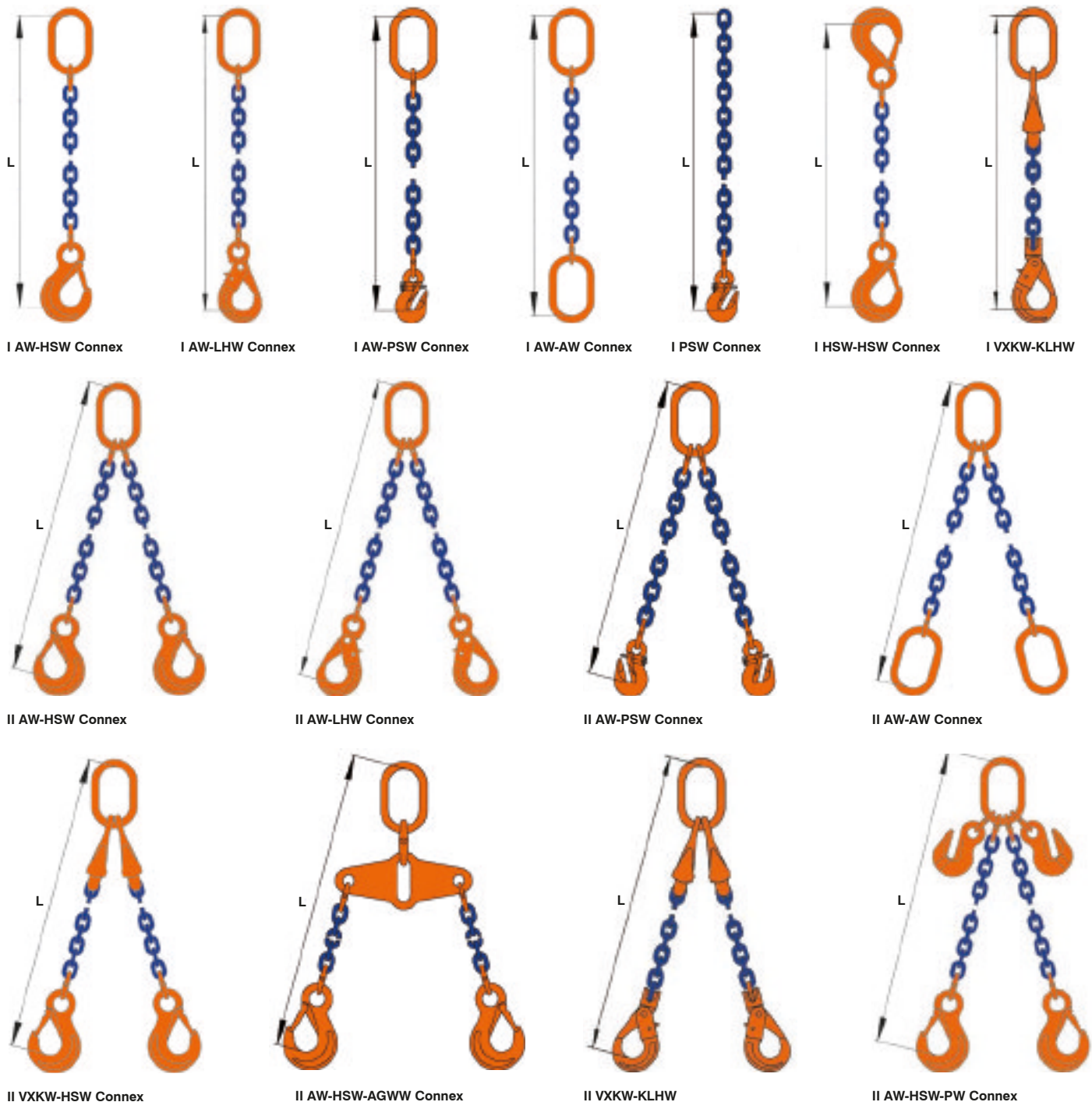
## pewag winner standard sling types – perfect in the original!

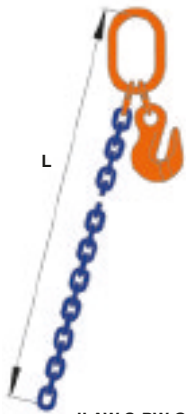
User reliability also comes first for those elements used as lifting components in our standard slings. To a large extent, these can also be manufactured and supplied in other assembly systems to the ones shown here.

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

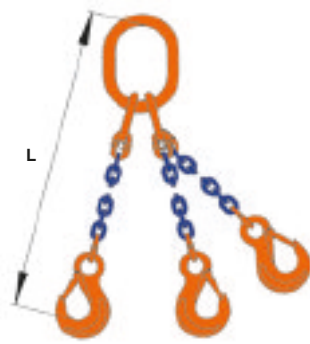
Important: Especially if you handle the assembly yourself, make sure that only pewag winner original parts are used! The usual tolerance of length "L" is +2 chain pitches. Unless stated otherwise, any securing links needed are mounted in the middle of the leg.

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.

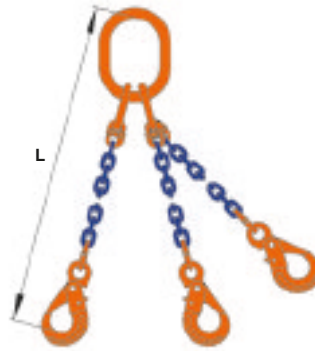




II AW-S-PW Connex



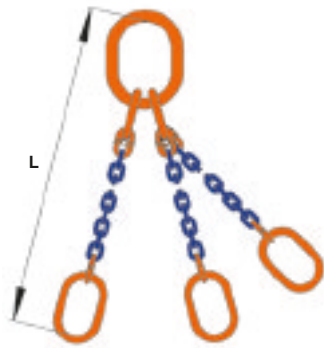
III VW-HSW Connex



III VW-LHW Connex



III VW-PSW Connex



III VW-AW Connex



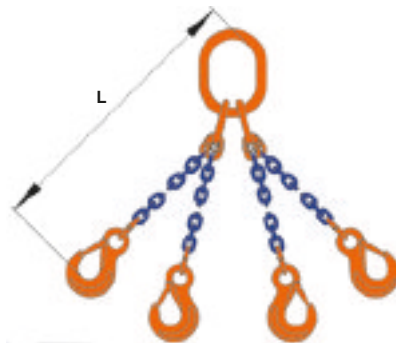
IV VXKW-HSW Connex



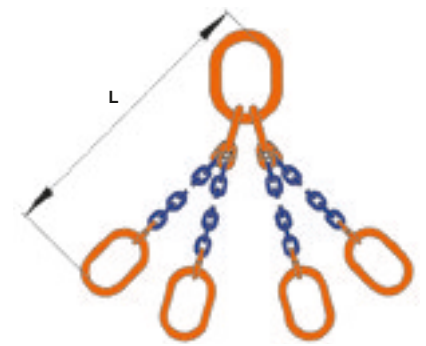
IV VW-HSW-AGWW Connex



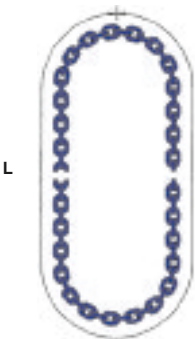
IV VXKW-KLHW



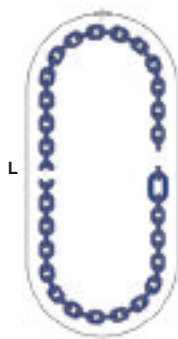
IV VW-HSW Connex



IV VW-AW Connex



S



SK (up from dimension 8!)



II AW-S Connex



IV VW-S Connex