pewag

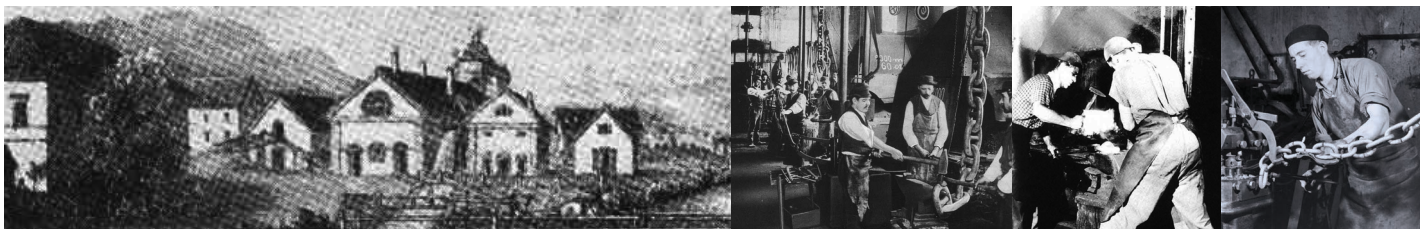
STRONG IS NOT ENOUGH

pewagchain.com

pewag winner inox
G6/Grade 63 stainless steel chain

Chains and Components

pewag History



At the core of chain innovation since 1479

pewag is one of the oldest chain manufacturers in the world and the company's history goes back over 535 years when the first production facility was established in the town of Brückl, Austria in 1479. With over 535 years of engineering and manufacturing know-how, pewag has continued its research and development to provide the highest-quality innovative chain products to the market.

The **pewag** brand is well known for premium-quality chain products around the world and is well established as a global market leader. Today, pewag is the technological innovator in the high quality chain business. Stringent demands are placed on all employees to ensure high standards of quality.

pewag products

The **pewag** group has a substantial and diverse spectrum of products and services.

- **Industrial Lifting Chains & Components**
- **Traction Chains**
  (cars, trucks, special purpose vehicles)
- **Tire Protection Chains**
  (mining vehicles)
- **Conveyor and Hoist Chains & Components**
- **Security Chains**

Contact

pewag, Inc
600 W. Crossroads Parkway
Bolingbrook, IL 60440
P: 630.566.1394
F: 630.759.0788
sales@pewagchain.com
pewagchain.com

Timetable of important events

1479
First documented references of a forging plant in Brückl

1787
Founding of a chain forge in Kapfenberg

1803
Founding of a chain forge in Graz

1836
Establishment of an iron casting plant in Brückl

1912
Production of the first Snow Chain worldwide

1923
Merger of plants in Graz and Kapfenberg
Creation of the name"pewag"

1947
Production of the first Tire Protection Chain

1975
Established pewag Inc. the North American Distribution Company

2013
Creation of pewag Mexico

2014
pewag opens first chain production plant outside Europe in Pueblo, CO
pewag acquires Terrier Lifting Clamps

2015
pewag is the first producer of Friction Welded Chains

pewag G6/Grade 63 winner inox Contents

pewag G6/Grade 63 winner inox Features and Benefits

Clean, tidy and hard-working.

pewag winner inox G6/Grade 63 - weighty benefits

Iron discipline in development and steely principles are the reasons why pewag is not satisfied with being among the global leaders in chain manufacturing. pewag works tirelessly to further enhance its competence in the field of stainless chains for the lifting of loads. pewag's winner inox G6/Grade 63 offers a 25% increase in carrying capacity compared to the same nominal diameter in Grade 50; therefore more lifting capacity with similar weight! The chains are tested at 100% of their load capacity, which is an impressive 880 to 26,400 lbs – quite an achievement!

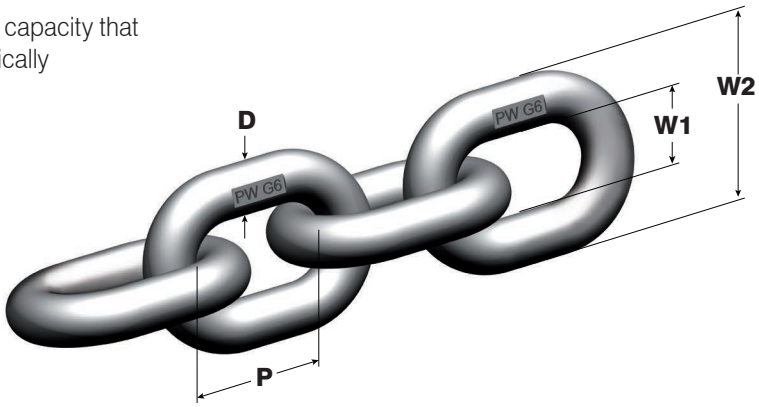
The chain is electrically welded for an extra-clean finish, stamped and with a higher resistance to acids and caustics than the standard lifting chains Grade 80, Grade 100 and Grade 120. The chain is guaranteed to be compatible with the Connex CWI links, with dimensions that are similar to DIN 5687-1 and EN 818-2. The stamp makes the chains clearly identifiable.

The WOX chain is particularly suited for use in water and wastewater applications. It can also be used in connection with chemicals and food products; however, restrictions will apply.

winner inox (WOX) G6/Grade 63 Chain

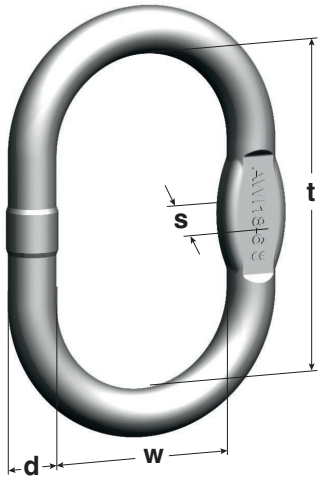
High-grade stainless steel lifting chain lifting chain with a load capacity that is 25% higher than Grade 50 lifting chains. The chain is electrically welded for an extra-clean finish, stamped and with a higher resistance to acids and caustics than standard lifting chains G80, G100, and G120.

WOX G63 chain is particularly suited for the use in water and wastewater applications and can be used with chemicals and food products; however restrictions will apply.



Code	Chain Size	Nominal Thickness D	Pitch P (inch)	Inside Width min. W1 (inch)	Outside Width max. W2 (inch)	WLL (lb)	Breaking Load (lb)	Drum Length (feet)	Weight (lbs/ft)
WOX 4-6	5/32″	0.157″ (4 mm)	0.47	0.23	0.58	900	3,597	200	0.88
WOX 5-6	3/16″	0.197″ (5 mm)	0.59	0.29	0.73	1,400	5,620	200	1.34
WOX 6-6	7/32″	0.236″ (6 mm)	0.71	0.31	0.85	2,000	8,430	200	1.94
WOX 7-6	9/32″	0.275″ (7 mm)	0.83	0.37	0.99	2,700	11,240	200	2.62
WOX 8-6	5/16″	0.315″ (8 mm)	0.94	0.42	1.12	3,500	14,163	200	3.37
WOX 10-6	3/8″	0.394″ (10 mm)	1.18	0.53	1.42	5,500	22,481	200	5.29
WOX 13-6	1/2″	0.512″ (13 mm)	1.53	0.69	1.84	9,300	38,217	200	8.90
WOX 16-6	5/8″	0.630″ (16 mm)	1.89	0.85	2.27	13,900	56,202	150	13.23
WOX 20-5	3/4″	0.787″ (20 mm)	2.36	1.06	2.83	17,600	70,590	50	20.50
WOX 26-4+	1″	1.023″ (26 mm)	3.07	1.38	3.68	26,500	105,885	-	35.71

AWI / Master Link



This is a standard master link for creating Single and Double leg chain slings using the CWP Connex connecting links and wire rope slings (similar to DIN 3088-1989). The master link may also be used in VWI Quad leg assemblies and as an end link. Its dimensions are similar to DIN 5688-1 and it is tested at 100% of its load capacity.

A particular bonus is the higher resistance to acids and caustics compared to the standard loading rings Grade 80, Grade 100 and Grade 120. The stamp makes the master link clearly identifiable. The master link also bears the CE-mark.

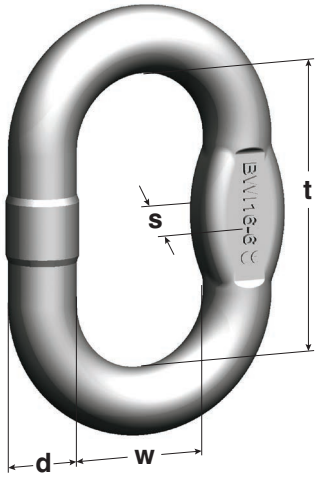
The AWI Master link is particularly suited for use in water and wastewater applications. It can also be used in connection with chemicals and food products; however, restrictions will apply.

Code	Single leg sling	Double leg sling	WLL (90°- 60°) (lb)	Fits on single hook DIN 15401	Fits on double hook DIN 15402	d (inch)	t (inch)	w (inch)	s (inch)	Weight (lbs/pc)
AWI 8-6	5/32″	5/32″	1,500	0.5	0.5	0.31	2.36	1.38	-	0.18
AWI 10-6	3/16″	3/16″	2,400	1.6	2.5	0.39	3.15	1.97	-	0.35
AWI 13-6	7/32″ 9/32″ 5/16″	7/32″	3,600	2.5	4	0.51	4.33	2.36	0.39	0.75
AWI 16-6	3/8″	9/32″ 5/16″	7,000	2.5	4	0.63	4.33	2.36	0.55	1.17
AWI 18-6	-	3/8″	9,300	5	6	0.71	5.31	2.95	0.55	1.83
AWI 22-6	1/2″ 5/8″	1/2″	15,800	6	8	0.91	6.30	3.54	0.67	3.42
AWI 26-6	3/4″	5/8″	24,200	8	10	1.06	7.09	3.94	0.79	5.42
AWI 32-6	-	3/4″	36,100	10	12	1.26	7.87	4.33	1.02	8.50
AWI 36-6	-	-	40,000	16	20	1.42	10.24	5.51	1.14	13.71
AWI 45	1″	-	26,500	25	32	1.77	13.39	7.09	-	28.26

Custom-made, also with flattening available.

BWI / Transition Link

This is a standard transition link used in multi-leg Master link assemblies and may be used as a connecting link or an end link in welded assemblies. With its extra-large inner width compared to the A master link, it is suitable for double hooks and larger single hooks. In addition, it is ideally suited for use in water and wastewater applications, with a higher resistance to acids and caustics compared to the standard transition links Grade 80, Grade 100 and Grade 120. Can also be used in connection with chemicals and food products; however, restrictions will apply.



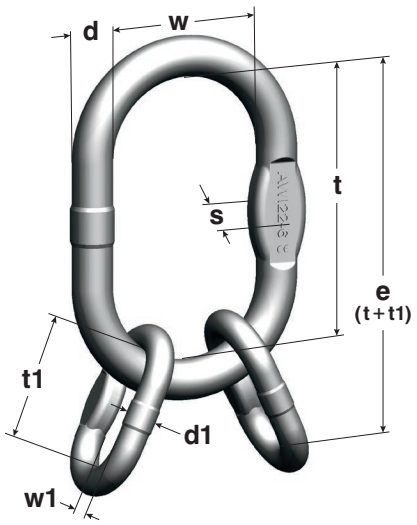
Code	Single leg sling	Double leg sling	WLL (90°- 60°) (lb)	d (inch)	t (inch)	w (inch)	s (inch)	Weight (lbs/pc)
BWI 7-6	3/16″ 7/32″	3/16″ 7/32″	2,000	0.28	1.42	0.63	-	0.09
BWI 9-6	9/32″	9/32″	2,700	0.35	1.73	0.79	-	0.15
BWI 10-6	5/16″	5/16″	3,500	0.39	1.73	0.79	-	0.20
BWI 13-6	3/8″	3/8″	5,500	0.51	2.13	0.98	0.39	0.40
BWI 16-6	1/2″	1/2″	9,300	0.63	2.76	1.34	0.55	0.77
BWI 20-6	5/8″	5/8″	13,900	0.79	3.35	1.57	0.63	1.48
BWI 22-6	3/4″	-	17,600	0.91	4.53	1.97	0.67	2.56
BWI 26-6	-	-	23,600	1.06	5.51	2.56	0.79	4.23
BWI 32-6	1″	-	26,500	1.26	5.90	2.76	1.02	7.01

Custom-made, also with flattening available.

VWI / Master Link Assembly

The VWI Master link assembly is ideally suited for Double, Triple and Quad leg sling chains. The VWI Master link assembly is tested at 100% of its load capacity. It is made from high-grade stainless steel with a higher resistance to acids and caustics than the standard Quad leg chain slings Grade 80, Grade 100 and Grade 120.

It is ideally suited for use in water and wastewater applications and can also be used in connection with chemicals and food products; however, restrictions will apply. The stamp and the CE-mark ensure that the product is clearly identifiable.



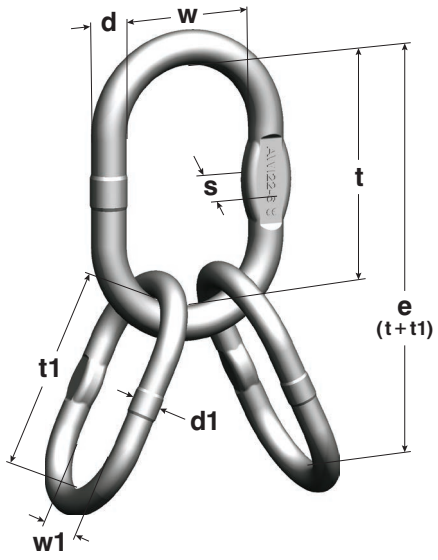
Code	Consisting of	WLL (90°- 60°) (lb)	Fits on single hook DIN 15401	Fits on double hook DIN 15402	Weight (lbs/pc)
VWI 4-6	AWI 10-6 + 2 BWI 9-6	2,300	1.6	2.5	0.62
VWI 5-6	AWI 13-6 + 2 BWI 10-6	3,600	2.5	4	1.15
VWI 6/7-6	AWI 16-6 + 2 BWI 13-6	7,000	2.5	4	2.00
VWI 8-6	AWI 18-6 + 2 BWI 16-6	9,100	5	6	3.62
VWI 10-6	AWI 22-6 + 2 BWI 20-6	14,300	6	8	6.66
VWI 13-6	AWI 26-6 + 2 BWI 22-6	24,200	8	10	10.54
VWI 16-6	AWI 32-6 + 2 BWI 26-6	36,100	10	12	17.60

Code	e (inch)	d (inch)	t (inch)	w (inch)	s (inch)	d1 (inch)	t1 (inch)	w1 (inch)
VWI 4-6	4.88	0.39	3.15	1.97	-	0.35	1.73	0.79
VWI 5-6	6.06	0.51	4.33	2.36	0.39	0.39	1.73	0.79
VWI 6/7-6	6.46	0.63	4.33	2.36	0.55	0.51	2.13	0.98
VWI 8-6	8.07	0.71	5.31	2.95	0.55	0.63	2.76	1.34
VWI 10-6	9.65	0.91	6.30	3.54	0.67	0.79	3.35	1.57
VWI 13-6	11.61	1.06	7.09	3.94	0.79	0.91	4.53	1.97
VWI 16-6	13.39	1.26	7.87	4.33	1.02	1.06	5.51	2.56

Custom-made, also with flattening available.
Number close to code reflects the size of chain used in combination with product.

VAWI / Special Master Link Assembly for Wire Ropes

This asymmetrical master link assembly is equipped with extra large links that are perfect for crane hooks. With its flattened transition links, this stainless steel master link assembly for wire ropes opens up universal connection possibilities. If safety is your primary concern, you can't go wrong with this Quad leg master link assembly with extra-large transition links to create Triple and Quad leg wire rope slings in the welded or assembled system. The assembly is wide enough to fit two rope thimbles per transition link and is electrically welded and stamped for an extra clean finish.



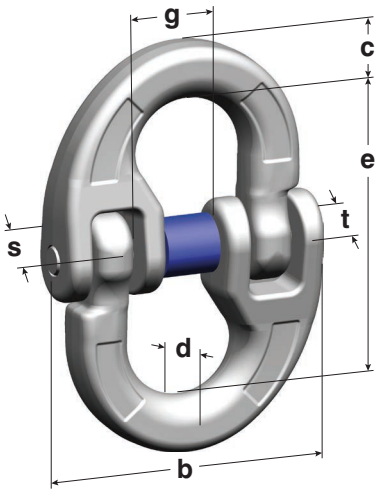
Code	Consisting of	WLL (90°- 60°) (lb)	Fits on single hook DIN 15401	Fits on double hook DIN 15402	Weight (lbs/pc)
VAWI 6-6	AWI 16-6 + 2 AWI 13-6	5,200	2.5	4	2.67
VAWI 7/8-6	AWI 18-6 + 2 AWI 16-6	9,100	4	6	4.37
VAWI 10-6	AWI 22-6 + 2 AWI 22-6	14,300	6	8	10.58
VAWI 13-6	AWI 26-6 + 2 AWI 26-6	24,200	8	10	16.27
VAWI 16-6	AWI 32-6 + 2 AWI 32-6	36,100	10	12	27.38

Code	e (inch)	d (inch)	t (inch)	w (inch)	s (inch)	d1 (inch)	t1 (inch)	w1 (inch)
VAWI 6-6	8.66	0.63	4.33	2.36	0.55	0.51	4.33	2.36
VAWI 7/8-6	9.65	0.71	5.31	2.95	0.55	0.63	4.33	2.36
VAWI 10-6	12.60	0.91	6.30	3.54	0.67	0.91	6.30	3.54
VAWI 13-6	14.17	1.06	7.09	3.94	0.79	1.06	7.09	3.94
VAWI 16-6	15.75	1.26	7.87	4.33	1.02	1.26	7.88	4.33

Number close to code reflects the size of chain used in combination with product and with wire rope with appropriate WLL in accordance with relevant rules of rope slings.

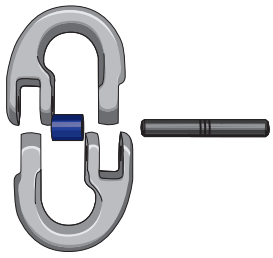
CWI / Connex Connecting Link

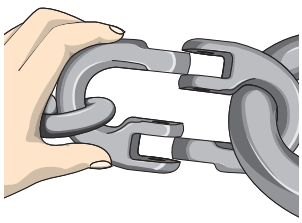
This stainless steel connecting link is drop-forged and stamped and consists of two symmetrical halves made from high-grade stainless steel. The connecting link may be divided and used for the universal assembly of chain slings, master links, master link assemblies, shortenings, shackles and other accessories and is guaranteed to be compatible with all pewag winner inox components Chainof the same nominal size.

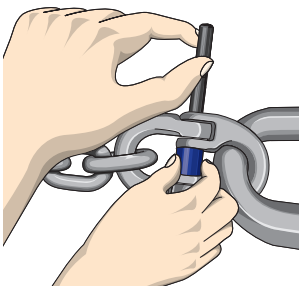


Code	Size	WLL (90°- 60°) (lb)	e (inch)	c (inch)	s (inch)	t (inch)	d (inch)	b (inch)	g (inch)	Weight (lbs/pc)
CWI 5-6	3/16″	1,400	1.42	0.28	0.39	0.43	0.28	1.34	0.51	0.13
CWI 6-6	7/32″	2,000	1.65	0.31	0.43	0.47	0.28	1.57	0.51	0.18
CWI 7-6	9/32″	2,700	2.13	0.35	0.51	0.55	0.35	2.00	0.67	0.31
CWI 8-6	5/16″	3,500	2.28	0.39	0.51	0.55	0.33	2.00	0.67	0.35
CWI 10-6	3/8″	5,500	2.87	0.51	0.71	0.71	0.51	2.76	0.98	0.81
CWI 13-6	1/2″	9,300	3.62	0.67	0.91	0.98	0.67	3.39	1.14	1.68
CWI 16-6	5/8″	13,900	4.09	0.83	1.26	1.10	0.79	4.13	1.46	3.11

Number close to code reflects the size of chain used in combination with product.

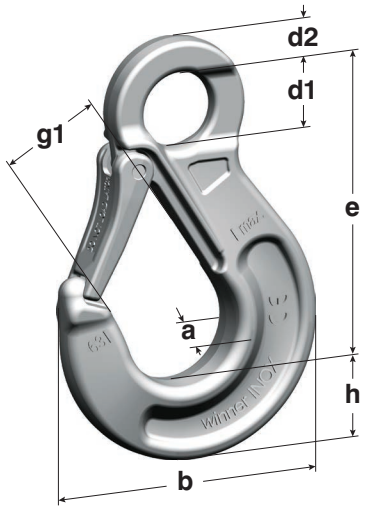






HSWI / Eye Sling Hook

A high grade stainless steel hook that is drop-forged and stamped. The compact design of the hook ensures the highest possible load capacity while maintaining a minimum product weight. The hook provides impact protection for the safety latch, a large hook mouth and an extra-wide hook point to prevent accidental hooking into the chain. Due to the flat section on the eye, the hook is also compatible with alternative connecting systems.

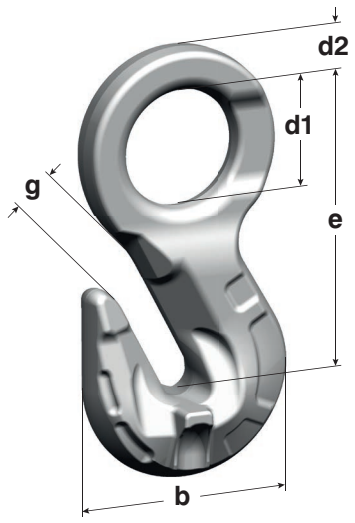


Code	Size	WLL (90°- 60°) (lb)	e (inch)	h (inch)	a (inch)	d1 (inch)	d2 (inch)	g1 (inch)	b (inch)	Weight (lbs/pc)
HSWI 5/6-6	3/16″- 7/32″	2,000	3.31	0.79	0.55	0.83	0.31	0.87	2.64	0.55
HSWI 7/8-6	9/32″- 5/16″	3,500	4.41	1.14	0.79	1.06	0.51	1.26	3.86	1.54
HSWI 10-6	3/8″	5,500	5.24	1.30	1.10	1.46	0.59	1.54	4.53	2.98
HSWI 13-6	1/2″	9,300	6.77	1.69	1.38	1.89	0.71	2.00	5.79	5.73
HSWI 16-6	5/8″	13,900	8.39	2.00	1.73	2.17	0.94	2.60	7.17	10.69

Number close to code reflects the size of chain used in combination with product.

PWI / Parallel Hook

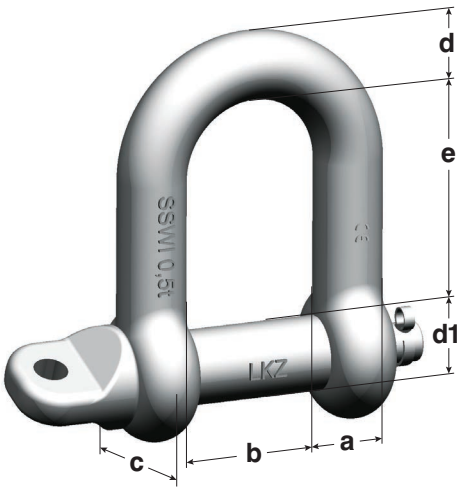
This parallel hook serves as a shortening hook for shortening chain legs. The special design of the chain support enables an optimal interaction between chain and hook. A reduction of the chain sling's load capacity is not necessary when shortening of chain legs to desired length is performed.



Code	Size	e (inch)	b (inch)	d1 (inch)	d2 (inch)	g (inch)	Weight (lbs/pc)
PWI 5/6-6	3/16″- 7/32″	2.56	1.73	0.96	0.35	0.28	0.44

SSWI / Safety Shackle

This stainless steel safety shackle with a reinforced suspension bolt is designed for use as an end fitting in chain and wire rope slings and in connection with pump chains for the lifting of submersible pumps and breathers, where maximum safety is key. The shackle comes with a safety mechanism to protect against unintentional release.



Code	WLL (lb)	e (inch)	a (inch)	b (inch)	d (inch)	d1 (inch)	c (inch)	Weight (lbs/pc)
SSWI 0.63 t-S[1)]	1,380	1.30	0.31	0.71	0.31	0.35	0.71	0.15
SSWI 0.63 t-S-W[1)]	1,380	1.38	0.31	0.85	0.31	0.35	0.71	0.15
SSWI 0.9 t-S[1)]	2,000	1.61	0.39	0.85	0.39	0.43	0.87	0.22
SSWI 1.6 t-S[1)]	3,500	1.61	0.47	1.02	0.47	0.51	0.98	0.48
SSWI 2.5 t-S[1)]	5,500	2.44	0.63	1.38	0.63	0.67	1.26	2.05
SSWI 4.25 t-S[1)]	9,300	3.07	0.75	1.61	0.75	0.83	1.85	2.20
SSWI 6.3 t-S[1)]	13,900	4.29	0.98	2.20	0.98	1.14	2.36	5.28
SSWI 26-C	28,600	5.99	1.34	2.99	1.34	1.50	2.95	12.76

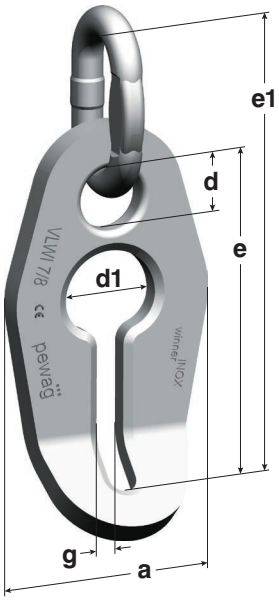
[1)] Will be available soon.

Other sizes and special models available on request!
Stronger shackles are also available on request.

Bolt safety mechanism
S = with safety splint
C = with bolt adhesive

VLWI / Chain Shortener

This corrosion-resistant chain shortener is manufactured from high-grade stainless steel and has a welded-in BWI transition link for the simple, effortless link-by-link shortening of stainless steel chains.

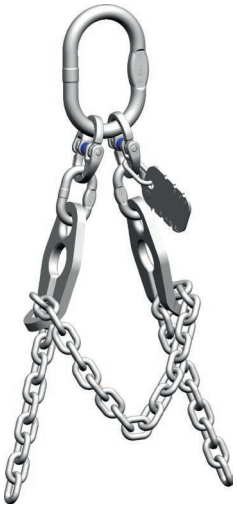


Code	Size	WLL (lb)	e (inch)	e1 (inch)	a (inch)	d (inch)	d1 (inch)	g (inch)	Weight (lbs/pc)
VLWI 5/6-6	3/16“- 7/32“	2,000	3.15	4.49	2.05	0.63	1.02	0.31	0.49
VLWI 7/8-6	9/32″- 5/16″	3,500	4.37	6.14	2.68	0.87	1.34	0.43	1.26
VLWI 10-6	3/8″	5,500	5.24	7.32	3.39	1.06	1.57	0.47	2.34
VLWI 13-6	1/2″	9,300	6.65	9.53	4.25	1.26	2.05	0.63	4.89
VLWI 16-6	5/8″	13,900	8.03	11.18	5.28	1.50	2.52	0.79	9.17

Number close to code reflects the size of chain used in combination with product.

Permitted Application

Permitted Application



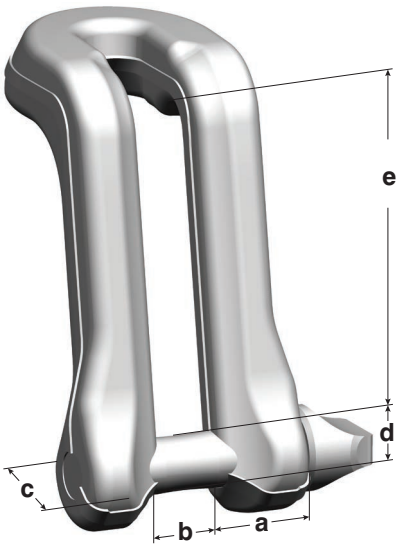
Permitted Application

Not-permitted Application

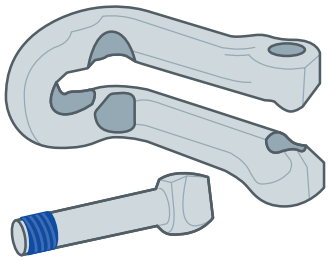
LCWI / Loop Connector

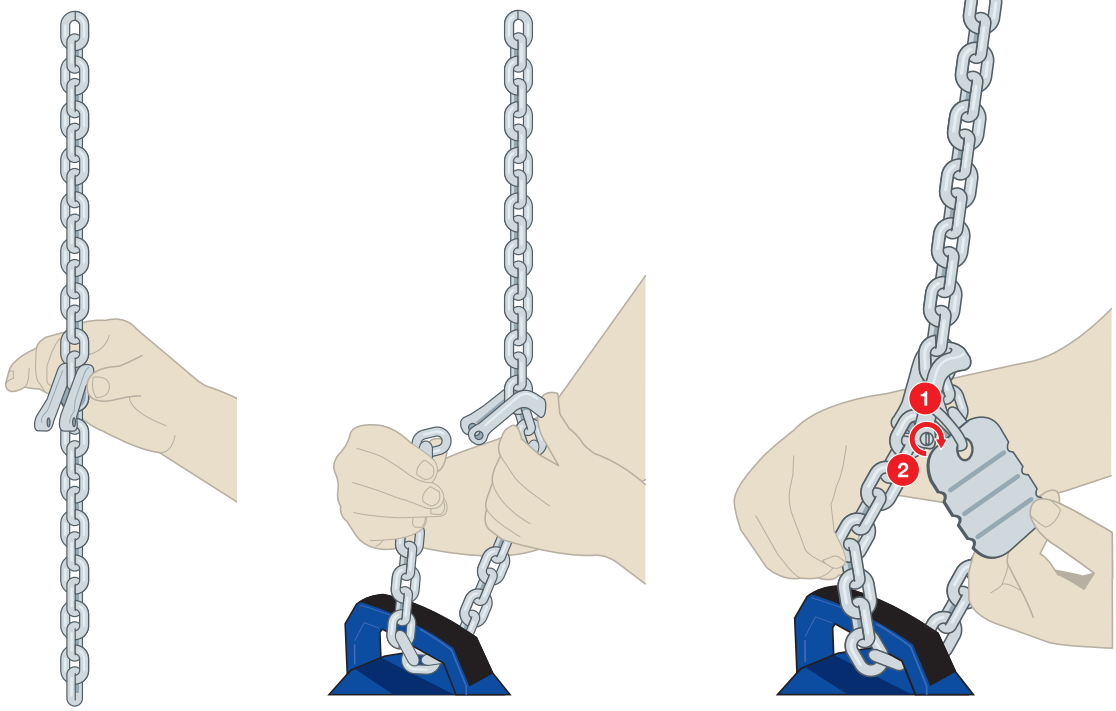
Special applications such as the lifting of pumps require user friendly solutions that simplify work processes and comply with all legal regulations. For pewag, these aspects are a matter of course – and the LCWI loop connector is a prime example of a product that encompasses all of them.

With the loop connector, forming loops even through narrow eyes (they must of course be large enough to feed the chain through) is easy, quick and does not require an additional connecting link. The loops will not tighten and, thanks to the special design, it is no longer necessary to reduce the load capacity down to 80% when using a loop.



Code	WLL (lb)	e (inch)	d (inch)	a (inch)	b (inch)	c (inch)	Weight (lbs/pc)
LCWI 5-6 C	1,400	1.22	0.24	0.39	0.24	0.47	0.15



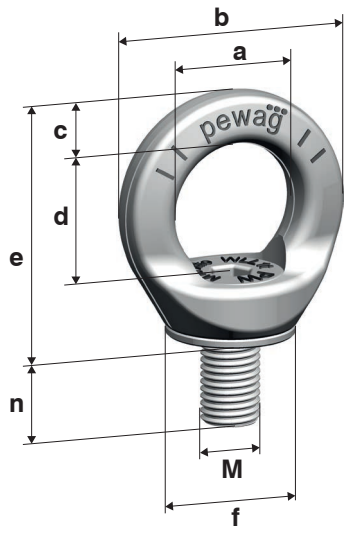


PLGWI / Gamma inox

The PLGWI Gamma inox eyebolt is 360° rotatable, comes with an interchangeable special screw that is 100% crack-tested and marked with the load capacity, thread size, and markings for 45° and 60° tilt angle. Also, the PLGWI eyebolt is rated for temperatures up to 536° F (280° C)!

Lifting point must be mounted hand tight using a standard Allen key (available as basic version only) then aligned in the load direction

For more detailed information on the PLGWI Gamma inox and other eyebolts, visit pewag's Lifting Point Catalog



			Method of Lifting / Angles									
			*Labeled WLL									
			1 Leg 0°	1 Leg 90°	2 Legs 0°	2 Legs 90°	2 Legs 30°- 45°	2 Legs 45°- 90°	3 & 4 Legs 30°- 45°	3 & 4 Legs 45°- 90°	2 Legs asymm.	3 & 4 Legs asymm.
Code	**Thread** (mm)	**Fastening torque**	**Working Load Limit (kg)**									
PLGWI 0.5 t	M12	Simply tighten by hand	500	1,500	1,000	3,000	500	700	750	1,060	500	500
PLGWI 1t	M16		1,000	3,000	2,000	6,000	1,000	1,400	1,500	2,100	1,000	1,000
PLGWI 2t	M20		2,000	3,800	4,000	7,600	2,000	2,800	3,000	4,200	2,000	2,000
1 kg = 2.2 lbs												
Code	**Thread** (mm)	**Fastening torque**	**Working Load Limit (lbs)**									
PLGWI 0.5 t	M12	Simply tighten by hand	1,100	3,300	2,200	6,600	1,100	1,540	1,650	2,330	1,100	1,100
PLGWI 1 t	M16		2,200	6,600	4,400	13,200	2,200	3,080	3,300	4,620	2,200	2,200
PLGWI 2 t	M20		4,400	8,360	8,800	16,720	4,400	6,160	6,600	9,240	4,400	4,400

*WLL is horizontal in plane.
Design factor 4:1 - for reference purposes only. Important: Subject to technical changes!

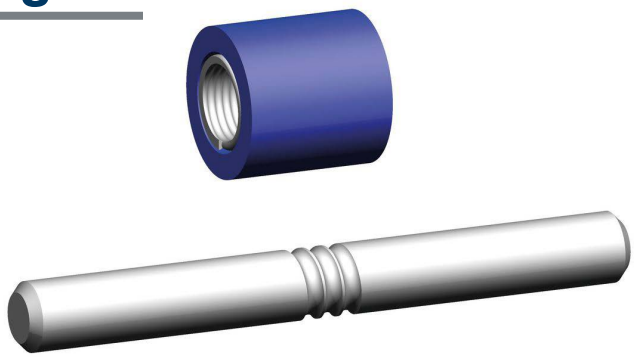
Code	**Thread** (mm)	**WLL (kg)** Marked on lifting point	**a** (mm)	**b** (mm)	**c** (mm)	**d** (mm)	**e** (mm)	**f** (mm)	***n** (mm)	****n max** (mm)	⬢ (mm)	**Weight** (kg/pc)
PLGWI 0.5 t	M12	500	30	55	12	30	59	30	18	160	8	0.23
PLGWI 1 t	M16	1,000	35	64	14	35	67	35	24	160	10	0.36
PLGWI 2 t	M20	2,000	40	72	17	40	80	45	30	160	12	0.60

Code	**Thread** (mm)	**WLL (lbs)**	**a** (inch)	**b** (inch)	**c** (inch)	**d** (inch)	**e** (inch)	**f** (inch)	***n** (inch)	****n max** (inch)	⬢ (inch)	**Weight** (lbs/pc)
PLGWI 0.5 t	M12	1,100	1.18	2.17	0.47	1.18	2.32	1.18	0.71	6.30	0.31	0.50
PLGWI 1 t	M16	2,200	1.38	2.52	0.55	1.38	2.64	1.38	0.94	6.30	0.39	0.79
PLGWI 2 t	M20	4,400	1.57	2.83	0.67	1.57	3.15	1.57	1.18	6.30	0.47	1.32

* "n" is standard bolt length.
** "n max" is maximum bolt length - available special order only.
Design factor 4:1 - for reference purposes only. Important: Subject to technical changes!

CBHWI / Connex Bolt and Bushing Set

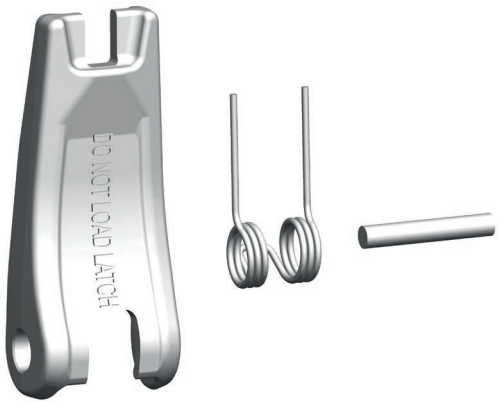
Spare parts for CWI / Connex Connecting Link.



Code	For Connex Type
CBHWI 5-6	CWI 5-6
CBHWI 6-6	CWI 6-6
CBHWI 7/8-6	CWI 7-6 + CWI 8-6
CBHWI 10-6	CWI 10-6
CBHWI 13-6	CWI 13-6
CBHWI 16-6	CWI 16-6

SFGWI / Safety Latch Set

Safety latch set for HSWI / Eye Sling Hook.



Code	For Hook
SFGWI 5/6-6	HSWI 5/6-6 stamped HSWI 5/6-6
SFGWI 7/8-6	HSWI 7/8-6 stamped HSWI 7/8-6
SFGWI 10-6	HSWI 10-6 stamped HSWI 10-6
SFGWI 13-6	HSWI 13-6 stamped HSWI 13-6
SFGWI 16-6	HSWI 16-6 stamped HSWI 16-6

pewag G6/Grade 63 winner inox Slings

Welded system

Special areas of application require special products.

In this day and age, manufacturers need high-impact arguments in their favour as well as high-impact products if they want to establish themselves on the market long-term. For decades, pewag has successfully adapted to changing user demands and requirements. Our nerves of steel definitely help us come up with innovative developments on an ongoing basis, which we then present to you on a silver platter (or rather, a stainless steel one)!

One of pewag´s core competencies is the their specialization in the professional welding of chains and components. Our history in this field goes back an impressive 500 years – that is how long we have been manufacturing chains, with expertise and know-how being handed down from generation to generation. A competitive advantage that we are holding on to with an iron fist.

All in one piece

When welding round link/profile chains and oval links, no outside material is used, making for a seamless finish. The chaining wires are welded using electric energy and mechanical upsetting forces to create a homogenous unit that withstands any load test. Full penetration (100 %) of welding locations prevents hollows and cracks inside the seams, thus ruling out water and chemical accumulations or residues.

This flawless quality and perfectly smooth surface make pewag chains particularly suited for hygiene applications, as any dirt or impurities may be removed quickly and easily.

If a chain sling is subject to strong vibrations, a welded system offers maximum safety and a long lifespan. Welded chain constructions can be used in a wide range of applications:

- Water, wastewater and pump technology.
- Chemical and oil industry.
- Environmental technology and renewable energy.
- Food, slaughter, hygiene and fishing industry.
- Power plant and plant engineering and construction (resistant even at high temperatures).
- Surface treatments.
- Navy and military use.
- Sports and leisure industry.

The stamp on the chain shows the seal that is synonymous with high quality.

pewag winner inox stainless steel chain slings and endless chains in the welded system

Below, you will find an overview of different combinations of stainless steel chain slings and components as well as endless chains. Of course, there are many more options available. We are also glad to supply customised variations upon request. All chain slings and endless chains in the welded system come with an identification tag and test certificate.

	Diameter d	WLL Single Leg (lb)	WLL 90° - 45° (lb)	WLL 45° - 30° (lb)	*Top fitting	Shortener	** Possible end fittings			
					Master link /-assembly AWI/VWI	Chain shortener VLWI	Eye sling hook HSWI	Master Link AWI	Transition link BWI	Shackle SSWI
	**Single Leg chain sling**									
	3/16″ (5mm)	1,400	-	-	AWI 10-6	VLWI 5/6-6	HSWI 5/6-6	AWI 10-6	BWI 7-6	SSWI 1.25t-S
	9/32″ (7mm)	2,700	-	-	AWI 13-6	VLWI 7/8-6	HSWI 7/8-6	AWI 13-6	BWI 9-6	SSWI 1.25t-S
	3/8″ (10mm)	5,500	-	-	AWI 16-6	VLWI 10-6	HSWI 10-6	AWI 16-6	BWI 13-6	SSWI 3.2t-S*
	1/2″ (13mm)	9,300	-	-	AWI 22-6	VLWI 13-6	HSWI 13-6	AWI 22-6	BWI 16-6	SSWI 5t-S*
	5/8″ (16mm)	13,900	-	-	AWI 22-6	VLWI 16-6	HSWI 16-6	AWI 22-6	BWI 20-6	SSWI 6.3t-S [1]
	**Double Leg chain sling**									
	3/16″ (5mm)	-	2,000	1,400	AWI 10-6	VLWI 5/6-6	HSWI 5/6-6	AWI 10-6	BWI 7-6	SSWI 1.25t-S
	9/32″ (7mm)	-	3,800	2,700	AWI 16-6	VLWI 7/8-6	HSWI 7/8-6	AWI 13-6	BWI 9-6	SSWI 1.25t-S
	3/8″ (10mm)	-	7,700	5,500	AWI 18-6	VLWI 10-6	HSWI 10-6	AWI 16-6	BWI 13-6	SSWI 3.2t-S*
	1/2″ (13mm)	-	13,000	9,300	AWI 22-6	VLWI 13-6	HSWI 13-6	AWI 22-6	BWI 16-6	SSWI 5t-S*
	5/8″ (16mm)	-	19,500	13,900	AWI 26-6	VLWI 16-6	HSWI 16-6	AWI 22-6	BWI 20-6	SSWI 6.3t-S [1]
	**Triple Leg chain sling**									
	3/16″ (5mm)	-	2,900	2,100	VWI 5-6	VLWI 5/6-6	HSWI 5/6-6	AWI 10-6	BWI 7-6	SSWI 1.25t-S
	9/32″ (7mm)	-	5,700	4,000	VWI 6/7-6	VLWI 7/8-6	HSWI 7/8-6	AWI 13-6	BWI 9-6	SSWI 1.25t-S
	3/8″ (10mm)	-	11,500	8,200	VWI 10-6	VLWI 10-6	HSWI 10-6	AWI 16-6	BWI 13-6	SSWI 3.2t-S*
	1/2″ (13mm)	-	19,500	13,900	VWI 13-6	VLWI 13-6	HSWI 13-6	AWI 22-6	BWI 16-6	SSWI 5t-S*
	5/8″ (16mm)	-	29,200	20,800	VWI 16-6	VLWI 16-6	HSWI 16-6	AWI 22-6	BWI 20-6	SSWI 6.3t-S [1]
	**Quad Leg chain sling**									
	3/16″ (5mm)	-	2,900	2,100	VWI 5-6	VLWI 5/6-6	HSWI 5/6-6	AWI 10-6	BWI 7-6	SSWI 1.25t-S
	9/32″ (7mm)	-	5,700	4,000	VWI 6/7-6	VLWI 7/8-6	HSWI 7/8-6	AWI 13-6	BWI 9-6	SSWI 1.25t-S
	3/8″ (10mm)	-	11,500	8,200	VWI 10-6	VLWI 10-6	HSWI 10-6	AWI 16-6	BWI 13-6	SSWI 3.2t-S*
	1/2″ (13mm)	-	19,500	13,900	VWI 13-6	VLWI 13-6	HSWI 13-6	AWI 22-6	BWI 16-6	SSWI 5t-S*
	5/8″ (16mm)	-	29,200	20,800	VWI 16-6	VLWI 16-6	HSWI 16-6	AWI 22-6	BWI 20-6	SSWI 6.3t-S [1]

L = Effective working length per customer specification
* Shackle cannot be removed
[1] G6 shackle

SWI Endless chain	Code	Diameter d	WLL laced (lb)
	These stainless steel endless chains are electrically welded for an extra-clean finish, with the same link dimensions as the chain, welded and tested at 100% of the load capacity.		
	SWI 5	3/16″ (5mm)	2,200
	SWI 7	9/32″ (7mm)	4,400
	SWI 10	3/8″ (10mm)	8,800
	SWI 13	1/2″ (13mm)	14,960
	SWI 16	5/8″ (16mm)	22,000

Order example: WOX 7-6 mm SWI 4,000 endless chain with a circumferential length of 4 m

pewag G6/Grade 63 winner inox Slings

Assembled system

Versatile like no other, sophisticated and with multiple combining options.

The CWI Connex connecting link is multi-functional and really comes into its own in terms of possible combinations and flexibility. Whether Connex links are used in combination with stainless steel chains or wire ropes, eye hooks and master links or additional Connex links, they are unsurpassed in terms of user-friendliness and the unbeatable pewag quality. There is no dependence on a single manufacturer and individual components may be replaced by products from other suppliers, if the quality, grade and tolerance levels are similar to pewag standards.

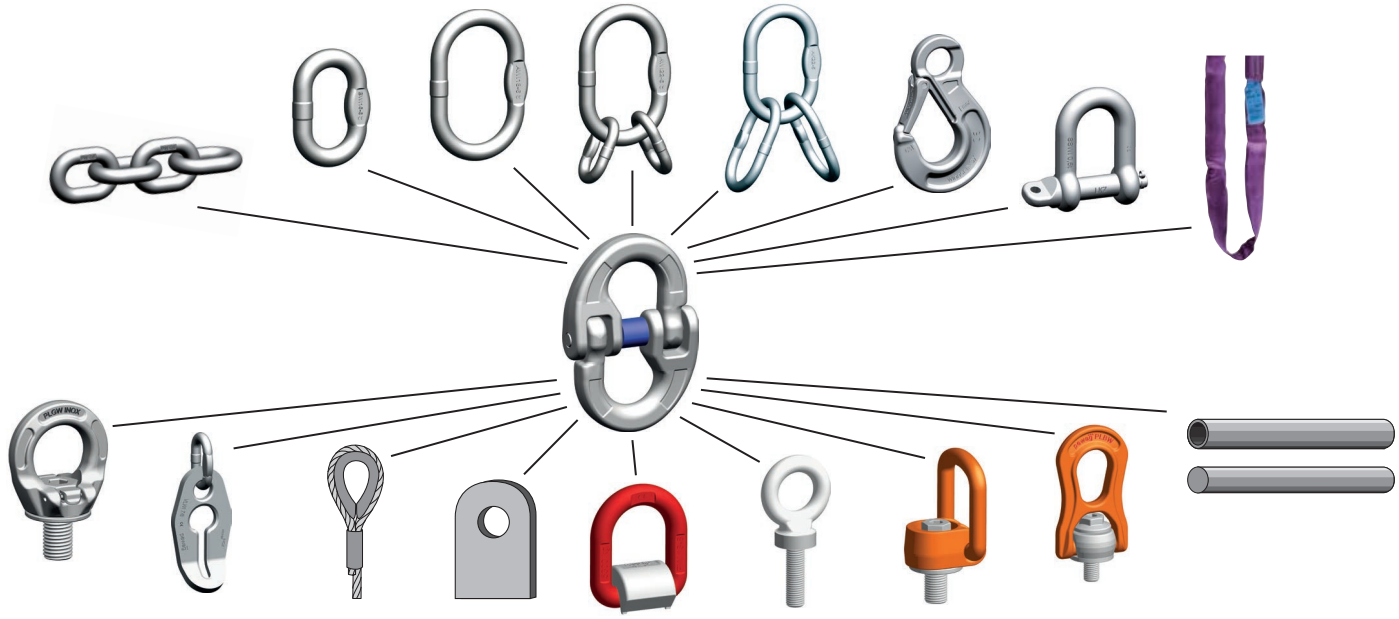
pewag winner inox is superior to conventional lifting slings: pewag winner inox can be used in dissimilar corrosive mediums as well as at elevated temperatures – in certain circumstances, even up to a maximum of +1,290 °F. Truly unique features that will surely melt away any remaining doubts. This is a highly sophisticated system whose chains and components are manufactured on the basis of high-grade steels Mat. 1.4571 (AISI 316 Ti) and 1.4404 (AISI 316 L) as well as 1.4462 (AISI F51). Due to a special manufacturing method, these only contain a limited proportion of carbon.

The pewag quality management system (ISO 9001) and ongoing controls during the manufacturing process ensure the highest possible level of safety.

The CWI Connex connecting link – linking chains and components.

The CWI Connex is not just any connecting link. Indeed, the arguments in its favour are as incorruptible as… well, as steel:

- No special requirements for connecting are needed, for instance flat sections or similar.
- Other lifting accessories such as hooks, master links, shortenings etc. can be just as easily integrated.
- The two-part design makes for easy connection with eyes or openings or mounting over shafts and tubes.
- Easy retrofitting or dismantling.
- Due to the large radii of the system, Connex provides plenty of space during the linking process in a wide range of applications.
- CWI Connex is also known as the “problem solver” – there are hardly any limits when it comes to combination with other elements



Extremely versatile when it comes to possible combinations: The trademark of the CWI Connex connecting link.

It is all about the combination within the assembled inox G6/Grade 63 plus system.

Below, you will find an overview of different combinations of components within the assembled system. The possibilities are nearly endless! Of course, there are many more options available. We are also happy to supply customised versions upon request.

	Diameter d	WLL Single Leg (lb)	WLL 90° - 45° (lb)	WLL 45° - 30° (lb)	*Top fitting	Shortener	** Possible end fittings			
					Master link /-assembly AWI/VWI	Chain shortener VLWI	Eye sling hook HSWI	Master Link AWI	Connecting link CWI	Shackle SSWI
	**Single Leg chain sling**									
	3/16″ (5mm)	1,400	-	-	AWI 10-6	VLWI 5/6-6	HSWI 5/6-6	AWI 10-6	CWI 5-6	SSWI 1.25t-S
	9/32″ (7mm)	2,700	-	-	AWI 13-6	VLWI 7/8-6	HSWI 7/8-6	AWI 13-6	CWI 7-6	SSWI 1.25t-S
	3/8″ (10mm)	5,500	-	-	AWI 16-6	VLWI 10-6	HSWI 10-6	AWI 16-6	CWI 10-6	SSWI 3.2t-S*
	1/2″ (13mm)	9,300	-	-	AWI 22-6	VLWI 13-6	HSWI 13-6	AWI 22-6	CWI 13-6	SSWI 5t-S*
	5/8″ (16mm)	13,900	-	-	AWI 22-6	VLWI 16-6	HSWI 16-6	AWI 22-6	CWI 16-6	SSWI 6.3t-S [1]
	**Double Leg chain sling**									
	3/16″ (5mm)	-	2,000	1,400	AWI 10-6	VLWI 5/6-6	HSWI 5/6-6	AWI 10-6	CWI 5-6	SSWI 1.25t-S
	9/32″ (7mm)	-	3,800	2,700	AWI 16-6	VLWI 7/8-6	HSWI 7/8-6	AWI 13-6	CWI 7-6	SSWI 1.25t-S
	3/8″ (10mm)	-	7,700	5,500	AWI 18-6	VLWI 10-6	HSWI 10-6	AWI 16-6	CWI 10-6	SSWI 3.2t-S*
	1/2″ (13mm)	-	13,000	9,300	AWI 22-6	VLWI 13-6	HSWI 13-6	AWI 22-6	CWI 13-6	SSWI 5t-S*
	5/8″ (16mm)	-	19,500	13,900	AWI 26-6	VLWI 16-6	HSWI 16-6	AWI 22-6	CWI 16-6	SSWI 6.3t-S [1]
	**Triple Leg chain sling**									
	3/16″ (5mm)	-	2,900	2,100	VWI 5-6	VLWI 5/6-6	HSWI 5/6-6	AWI 10-6	CWI 5-6	SSWI 1.25t-S
	9/32″ (7mm)	-	5,700	4,000	VWI 6/7-6	VLWI 7/8-6	HSWI 7/8-6	AWI 13-6	CWI 7-6	SSWI 1.25t-S
	3/8″ (10mm)	-	11,500	8,200	VWI 10-6	VLWI 10-6	HSWI 10-6	AWI 16-6	CWI 10-6	SSWI 3.2t-S*
	1/2″ (13mm)	-	19,500	13,900	VWI 13-6	VLWI 13-6	HSWI 13-6	AWI 22-6	CWI 13-6	SSWI 5t-S*
	5/8″ (16mm)	-	29,200	20,800	VWI 16-6	VLWI 16-6	HSWI 16-6	AWI 22-6	CWI 16-6	SSWI 6.3t-S [1]
	**Quad Leg chain sling**									
	3/16″ (5mm)	-	2,900	2,100	VWI 5-6	VLWI 5/6-6	HSWI 5/6-6	AWI 10-6	CWI 5-6	SSWI 1.25t-S
	9/32″ (7mm)	-	5,700	4,000	VWI 6/7-6	VLWI 7/8-6	HSWI 7/8-6	AWI 13-6	CWI 7-6	SSWI 1.25t-S
	3/8″ (10mm)	-	11,500	8,200	VWI 10-6	VLWI 10-6	HSWI 10-6	AWI 16-6	CWI 10-6	SSWI 3.2t-S*
	1/2″ (13mm)	-	19,500	13,900	VWI 13-6	VLWI 13-6	HSWI 13-6	AWI 22-6	CWI 13-6	SSWI 5t-S*
	5/8″ (16mm)	-	29,200	20,800	VWI 16-6	VLWI 16-6	HSWI 16-6	AWI 22-6	CWI 16-6	SSWI 6.3t-S [1]

L = Effective working length per customer specification
* Shackle cannot be removed
[1] G6 shackle

pewag G6/Grade 63 winner inox Slings

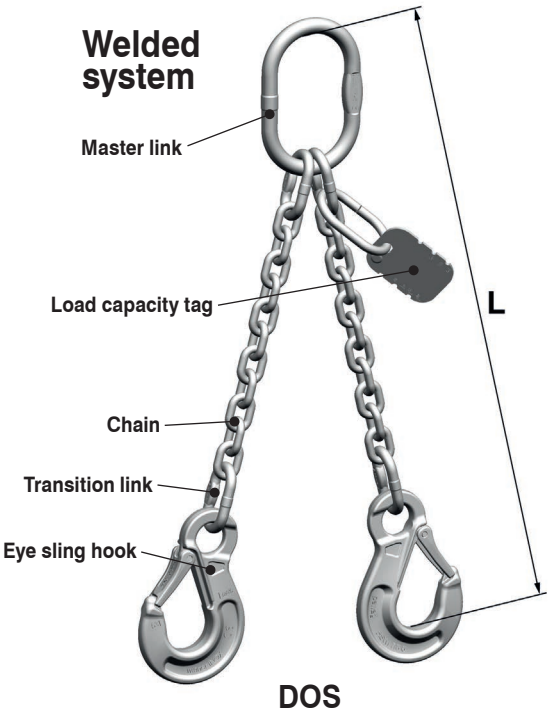
How to choose a winner inox G6/Grade 63 chain sling

- Determine the maximum load to be lifted.
- Determine the type of sling needed (single, double, etc.)
- Estimate the proper angle between the leg of the sling and the load during operation
- Select the proper fittings (master links, hooks, etc.)
- Determine the overall reach (measured from bearing point to bearing point)
- Choose the chain size which meets your required work load, angle, and reduction factor
- Deside on a welded or connex connected chain sling

Sling type explanation

The type of chain sling is indicated by 3 letters
(4th letter for adjustable)

- **First Letter** indicates number of legs on the sling
  - **S** = Single leg
  - **D** = Double leg
  - **T** = Triple leg
  - **Q** = Quad leg
- **Second Letter** indicates component on top of sling
  - **O** = Oblong Link (AWI, VWI)
  - **S** = Eye Sling Hook (HSWI)
- **Third Letter** indicates component on bottom of sling
  - **O** = Oblong Link (AWI, VWI)
  - **S** = Eye Sling Hook (HSWI)
- **Fourth Letter(s)** (if needed, indicates adjustable)
  - **VLWI** = Chain Shortener (VLMI

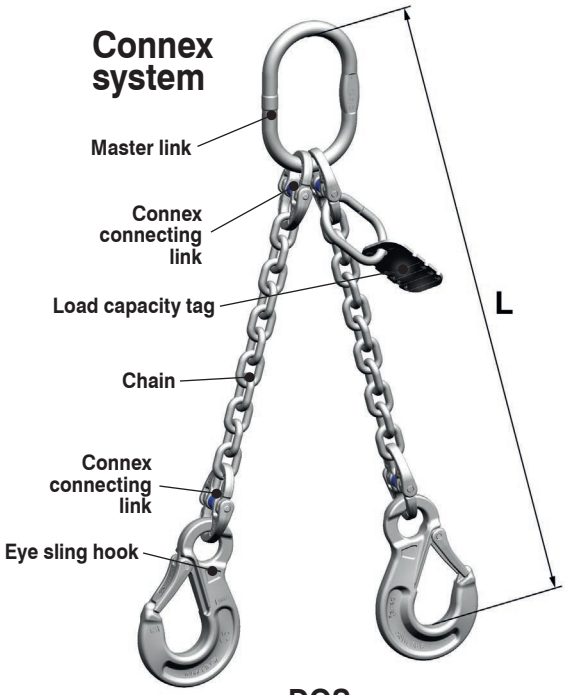


DOS

D (Double leg) **O** (Oblong) **S** (Sling hook)

Sample order: **8 / G63 / DOS / 4´**

Chain Size (mm) / Grade / Sling Type / Length



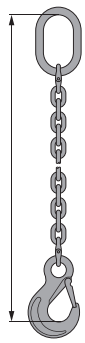
DOS

D (Double leg) **O** (Oblong) **S** (Sling hook)

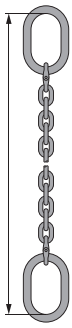
Sample order: **8 / G63 / DOS / 4´**

Chain Size (mm) / Grade / Sling Type / Length

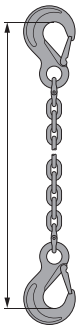
Standard G63 Sling Types



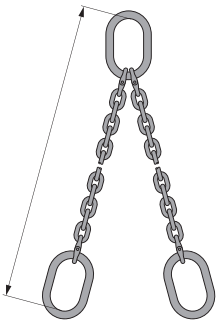
SOS



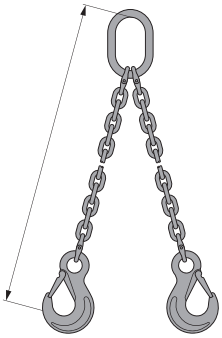
SOO



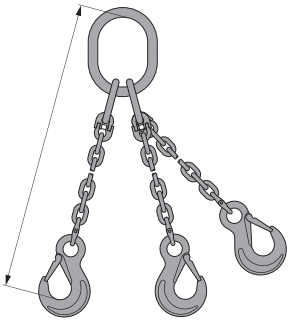
SSS



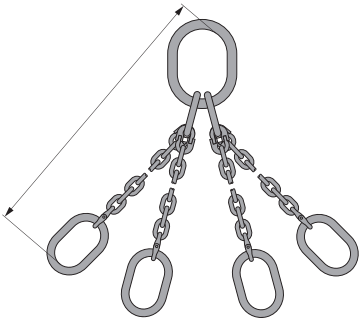
DOO



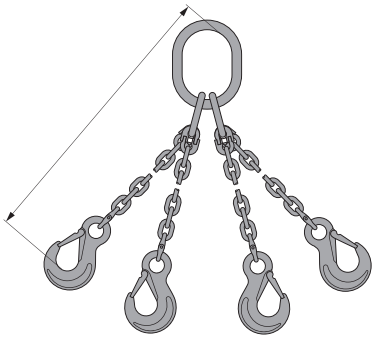
DOS



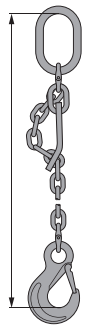
TOS



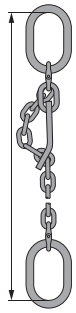
QOO



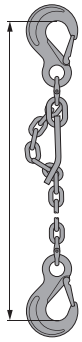
QOS



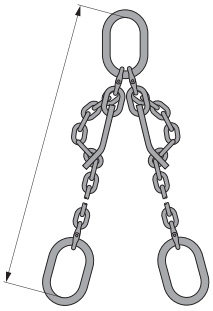
SOSVLWI



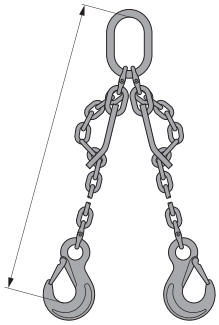
SOOVLWI



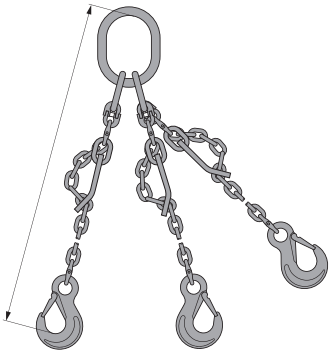
SSSVLWI



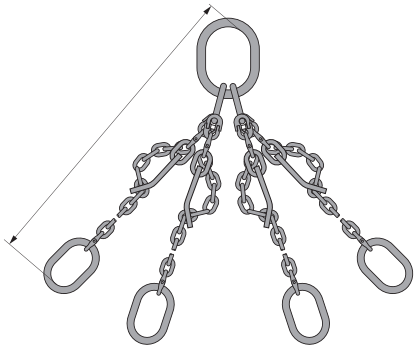
DOOVLWI



DOSVLWI



TOSVLWI

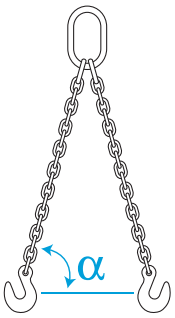
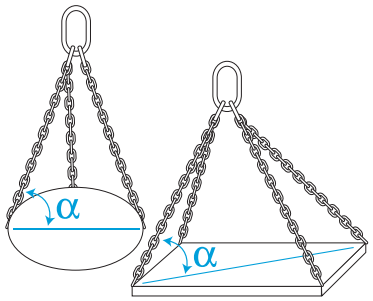


QOOVLWI

QOSVLWI

pewag G6/Grade 63 Chain Sling Working Load Limits

Working Load Limits of winner inox G6/Grade 63 chain slings

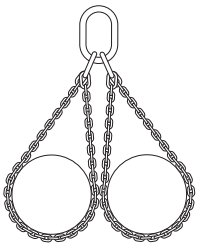
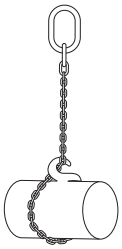
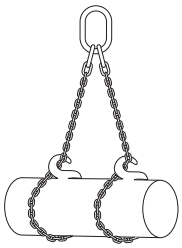
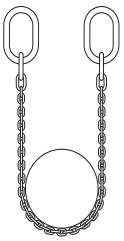
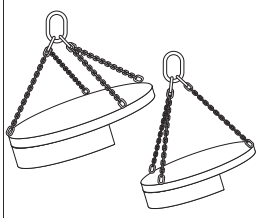
		Single Leg	Double Leg			Triple & Quad Leg			Endless Chain Sling
									
α Angle:		**90°**	**60°**	**45°**	**30°**	**60°**	**45°**	**30°**	**-**
Load Factor:		**1**	**1.7**	**1.4**	**1**	**2.6**	**2.1**	**1.5**	**1.6**
Chain	**Diameter**	**WLL** (lb)	**WLL** (lb)	**WLL** (lb)	**WLL** (lb)	**WLL** (lb)	**WLL** (lb)	**WLL** (lb)	**WLL** (lb)
WOX 4-6	5/32″	900	1,500	1,300	900	2,300	1,900	1,350	1,400
WOX 5-6	3/16″	1,400	2,400	2,000	1,400	3,600	2,900	2,100	2,200
WOX 6-6	7/32″	2,000	3,400	2,800	2,000	5,200	4,200	3,000	3,200
WOX 7-6	9/32″	2,700	4,600	3,800	2,700	7,000	5,700	4,000	4,300
WOX 8-6	5/16″	3,500	5,900	4,900	3,500	9,100	7,300	5,200	5,600
WOX 10-6	3/8″	5,500	9,300	7,700	5,500	14,300	11,500	8,200	8,800
WOX 13-6	1/2″	9,300	15,800	13,000	9,300	24,200	19,500	13.900	14,900
WOX 16-6	5/8″	13,900	23,600	19,500	13,900	36,100	29,200	20,800	22,200
WOX 20-5	3/4″	17,600	29,900	24,600	17,600	45,800	37,000	26,400	28,200
WOX 26-4	1″	26,500	45,000	37,100	26,500	68,900	55,600	39,700	42,400

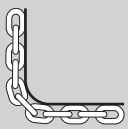
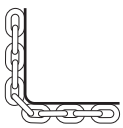
Even premium quality products will lose some of their load capacity when exposed to high temperatures, asymmetrical loading, edge loading, shocks or other severe operating conditions. Please refer to the operating manuals if you think that any of these conditions apply.

If chains are wound around support arms or other round shape loads, the diameter should be at least 3x the chain pitch. For smaller diameters, the lifting capacity of the chains must be reduced by 50%.

The winner inox chain system G63 should not be used with temperatures over 650° F. Under certain conditions the operation temperature can reach 1,300° F, please contact pewag for advisory information.

Temperature range	Below -40° F	-40° F to 650° F	Above 650° F
Load factor for winner inox G63 lifting chain	Not permitted	100% of WLL	Not permitted

Single Lifting Sling		Double Lifting Sling		Single Leg	Double Leg		U-Shape	Asymmetrical Distribution of Load
								
90° - 45°	45° - 30°	90° - 45°	45° - 30°	90°	90° - 45°	45° - 30°	-	Load factor: Reduce WLL by one (rated) leg. If in doubt, consider only one leg is carrying the load
1.4	1	2.1	1.5	0.8	1.12	0.8	2	
WLL (lb)	WLL (lb)	WLL (lb)	WLL (lb)	WLL (lb)	WLL (lb)	WLL (lb)	WLL (lb)	
1,300	900	1,900	1,350	700	1,000	700	1,800	
2,000	1,400	2,900	2,100	1,100	1,600	1,100	2,800	
2,800	2,000	4,200	3,000	1,600	2,200	1,600	4,000	
3,800	2,700	5,700	4,000	2,200	3,000	2,200	5,400	
4,900	3,500	7,300	5,200	2,800	3,900	2,800	7,000	
7,700	5,500	11,500	8,200	4,400	6,200	4,400	11,000	
13,000	9,300	19,500	13.900	7,400	10,400	7,400	18,600	
19,500	13,900	29,200	20,800	11,100	15,600	11,100	27,800	
24,600	17,600	37,000	26,400	14,100	19,700	14,100	35,200	
37,100	26,500	55,600	39,700	21,200	29,700	21,200	53,000	

Edge loading If chains are guided over edges without proper protection, their load capacity is reduced.	R > 2x chain dia. 	R > chain dia. 	R < chain dia. 
Load factor	**1.0**	**0.7**	**0.5**

Shock loading	Light shocks	Moderate shocks	Strong shocks
Load factor	**1.0**	**0.7**	Not permitted

pewag G6/Grade 63 User Information

General and safety information on the use, storage, inspection and maintenance of pewag winner inox chain slings.

General information

The pewag winner inox range was designed for a wide range of applications and easily handles different designs, loads and sling types – this is exactly what we had in mind during the development process. All information on construction and rating of load capacity in the catalogs that follow the uniform load method of rating take this versatility into account. An alternative method for rating the capacity of chain slings also exists, where the exclusive, specific case of application as well as all operating conditions must be known. In such a case, we recommend that you contact the pewag technical service team, as the information given in the catalogues does not apply to such processes.

Responsibility is key
If used correctly and by qualified personnel, pewag winner inox chain slings have a long service life and provide the highest possible degree of safety. Personal and material injury and damage can be prevented by reading and understanding the user information and acting responsibly and providently when using lifting equipment.

Changes or modifications from the condition as delivered

We strongly recommend using exclusively the supplied original components of the pewag winner inox chain slings, for instance bolts, safety pins, screws etc. Modifying the original condition of the chain slings by bending, grinding, separation of parts, welding, drilling, stamping etc. means exposing yourself and others to unnecessary risks as safety can no longer be guaranteed and use thus becomes hazardous. Hazardous conditions and modifications also include exposure to temperatures of more than 662°F and the removal of safety components such as safety pins, latches etc. If surface treatments should be required, please contact pewag for advice prior to performing such treatment. Dipping, flashing, blasting or removing the coating with chemicals are all dangerous processes that may give rise to hazards. Always contact our technical service department for advice.

Restrictions of use

For hazardous or dangerous conditions, please refer to the table on pages 24 - 25.

Temperature effects
The table on page 24 lists the reduction of load capacities as a result of high temperature. These apply until the chain and/or lifting components have returned to room temperature. pewag winner inox lifting accessories must not be used outside the stated temperature range. In the event of temperatures outside this range, the chain slings must be removed from service. For applications within higher temperature we are happy to advise you.

Exposure to acids, caustic solutions or chemicals
If exposure to chemicals such as acids, caustic solutions and chemicals and their vapours, food, cosmetic or pharmaceutical products is unavoidable, pewag experts must be consulted for prior approval. The tables on page 30-31 also deal with this important issue.

Hazardous conditions
The load capacities indicated in this catalogue are based on the assumption that no hazardous conditions apply. Such hazardous conditions include offshore applications, the lifting of people and potentially dangerous loads such as liquid metals, corrosive or caustic substances or nuclear material. In such special cases, the extent of the hazard must be assessed by an expert beforehand and the load capacity adjusted accordingly. Improper use in hazardous conditions must be avoided. In general, care should be taken to avoid hazardous conditions.

Prevention is better than the 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 load capacities stated on the chain sling correspond to the information given on the inspection certificate or certificate of conformity?
- Where applicable: Have all details of the chain sling been entered into the chain records?
- Has the operating manual outlining the correct use of the chain sling been supplied and read and understood by all personnel?

The chain slings must be checked for visible damage or signs of wear prior to each use. In case of doubt of visible damage, the chain slings must no longer be used and handed to a qualified person for inspection.

The chain sling must be inspected by a qualified person in accordance with national regulations, but at least once every 12 months. Please note that this interval must be shortened if the lifting chain is frequently working at maximum load capacity! In case of extraordinary events such as uncontrolled exposure to high temperatures, the chain sling must also be subjected to an additional inspection. We recommend subjecting the chain sling to a load test with 1.5 times the working load limit every two years, followed by a visual inspection, or another type of crack test.

Visual inspection criteria

The use of all parts must be discontinued if one or several of the criteria listed below apply:

- Breakage of a component.
- Illegible or missing marking of the chain sling. (i.e. information on identification data and/or load capacity)
- Deformation of sling parts or the chain itself.
- Elongation of the chain resulting in $\mathbf{t > 1.05\ t_n}$
- Signs of wear, as determined as the mean value of two measurements of diameters d_1 and d_2 carried out at a right angle (fig. 1). The chain must be discarded if:

$$d_m = \frac{d_1 + d_2}{2} < 0.9\ d_n$$

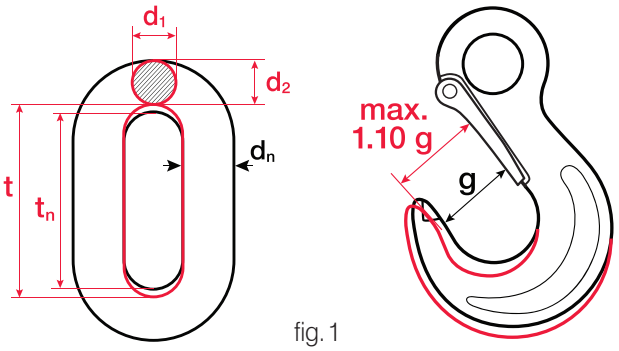


fig. 1

- 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 signs of wear or chemical abrasion (such as pitting), or when a permissible wear tolerance has been reached as per the table below.
- 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. If the safety catch is open, as this indicates that the hook is overloaded.

Maximum approved dimensional change (based on the nominal dimension):

Designation	Dimensions	Admissible deviation
Chain	d_m	-10%
	t	+5%
Rings	d	-10%
	t	+10%
Hook	e	+5%
	d2 and h	-10%
	g	+10%
CWI	Halves loose	No change admissible
	e	+5%
	c	-10%
Shackles	Bolt loose	No change admissible
Loop Connector	e	+5%
	d, d1, and M	-10%
Connex bolts	d	-10%

Maintenance and repair

pewag winner inox lifting accessories and chain slings should only be repaired by a qualified person. Only pewag winner pro spare parts may be used to minimize the risk of improper use.

Correct documentation

All tests and inspections and their results must be recorded and kept on file throughout the service life of the chain sling. Precise records of this sort constitute the best basis for effective maintenance and repair activities of our stainless steel solutions.

Proper storage

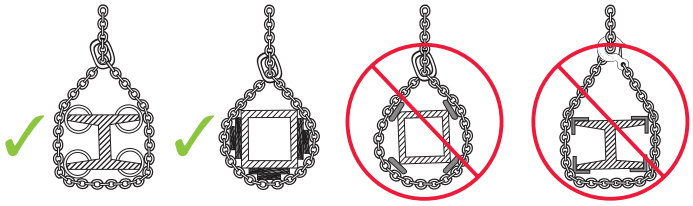
pewag winner inox chain slings must always be stored clean and dry. Chemical, thermal or mechanical influences during storage should be avoided.

Correct use of chain slings

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 load capacity tag. Preferably, all angles of inclination should be the same. Avoid angles of inclination greater than 75° because of the high risk of load instability. Never use chain slings with the angle of inclination less than 30°!

Edge-loading – know your limits

The maximum load capacity of pewag winner pro chain slings assumes that the individual chain legs are pulled straight under load, i.e. that they do not run over edges. However, if edgeloading is unavoidable, load protection (packing) should be used to avoid damage (see illustration):



If chains are guided over edges without proper protection, their load capacity is significantly reduced and safe usage can no longer be guaranteed. See the table on page 25 for the corresponding load factors. Where chain has to be wrapped around beams or other round-shaped loads, the diameter should be at least twice or 3 times the chain pitch.

For smaller diameters, the load capacity of the chains must be reduced by 50%.

Impact/Shock loading

For the load capacities of pewag winner inox 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 25 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 winner pro lifting chains and accessories withstand high load cycles. pewag products come with a standard rating of 20,000 load cycles. However, in case of high dynamic loads there is a risk of damage to the chain or chain components.

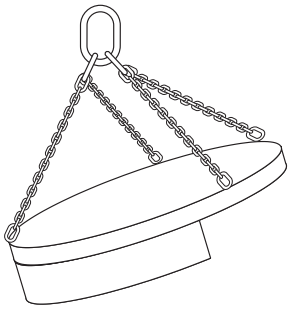
The Berufsgenossenschaft Metall Nord Süd recommends reducing stress at WLL by using a larger nominal thickness/ size in such a case.

Symmetrical loading

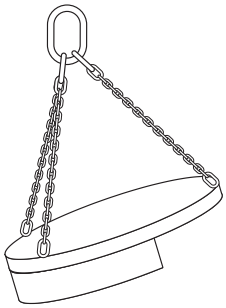
For the load capacities of pewag winner pro lifting chains to apply, it is assumed that the individual chain strands are placed under load symmetrically.

When the load is lifted, this results in equal angles of inclination and the individual strands are symmetrical to each other. The load may be considered symmetrical when all of the following conditions apply:

- The load is less than 80% of the indicated load capacity
- The angles of inclination of all chain strands are not greater than 75° and are very similar (i.e. only differ by a maximum of 15°)
- For Triple and Quad leg lifting chains, it must be ensured that the corresponding plan angles are within 15° of each other



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



The main part of the load is carried by two legs

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 load capacity values, please refer to the load capacity table on page 24 and 25.

Wrongful use defeats the purpose

pewag winner inox 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 load capacities apply as outlined in the tables on pages 24-25. In case of doubt regarding the intended purpose, the load capacity as indicated on the tag must be amended in accordance with the following table:

Type of sling chain	Number of individual legs used	Use factor in relation to the load capacity given on the tag
Double leg	1	1/2
Triple and Quad leg	2	2/3
Triple and Quad leg	1	1/3
2 x Single leg	2	1.4 at 90°- 45°
2 x Double leg	3 or 4	1.5 at 90°- 45° and 45°- 30°

Precautions

- Hang any individual strands (legs) that you are not using 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 less than 45° are not permitted!
- Use only chain slings of the same nominal thickness and grade at the same time

Detailed original operating manuals for individual products are available for download at pewagchain.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.

Identification and Testing

pewag lifting chains and fittings are marked with a batch identification number and the manufacturer's identification marking:

- "120" or "12" to indicate pewag Grade 120 Alloy
- "100" or "10" to indicate pewag Grade 100 Alloy
- "8" to indicate pewag Grade 80 Alloy
- "6" to indicate pewag Grade 63 Stainless

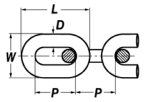
All Alloy chains are 100% tested to 2.5 times the working load values and are furnished with a test certificate to this effect, this exceeds US requirements.
Every chain sling manufactured by pewag is supplied with a test certificate and steel sling warning tag, as shown below.

Messrs. — **TEST CERTIFICATE**

Order No.

Works Ref. No..

	Nominal Diameter "D"	Pitch "P"	Outside Length "L"	Width "W"	Weight lbs
Dimension of Chain					



Norm - Designation

Material	Welding Process	Heat Treatment

Pieces	Length in Feet	Weight in Lbs.	Safe Working Load in Lbs	Production Proof Test Load in Lbs	Breaking Load in Lbs	Minimum Elongation

Total safe working load for multiple leg chain

30° LBS.
45° LBS.
60° LBS.

pewag Incorporated

Result of test

MEETS ALL STANDARDS

DATE:

Sling WARNING tag

Front(s)

Back

Resistance values for different media.

The following values are guideline values to indicate resistance to different material, liquids and chemicals that may deviate in practice.

The corrosion values are based on the assumption that corrosion sets in equally across the entire surface. One measurement of corrosion results from the weight difference of the material after a certain period of time, with the material being weighed before and after corrosion. The weight difference is expressed in grams per square metre and hour. This number corresponds roughly to denudation in millimetres per year. Exact and binding values can only be provided following tests for precisely defined corrosive agents and without dirt or impurities.

Professionals at work
pewag products are used in the food sector, e.g., dairies, slaughterhouses, etc., as well as the chemical industry, for instance in dyeing plants, and in many other areas where safe lifting, conveying and securing is essential.

Material no.	DIN-shortname	Cr %	Ni %	Mo %	Ti
1.4571 (AISI 316 Ti)	X6 CrNiMoTi 17-12-2	16.5-18.5	10.5-13.5	2.0-2.5	Addition
1.4404 (AISI 316 L)	X6 CrNiMo 17-12-2	16.0-18.0	10.0-13.0	2.0-2.5	-
1.4462 (AISI F51)	X6 CrNiMoN 22-5-3	21.0-23.0	4.5-6.5	2.5-3.5	-

Corroding media	Concentration %	Temperature °F	Resistance 1.4571/1.4404	Resistance 1.4462
Atmospheric corrosion*	-	-	0	0
Benzine	-	68/boiling	0	0
Formic-acid HCOOH	10-50	68	0	0
		boiling	1	1
	80	68	0	0
		boiling	3	3
Ammonia NH4OH	all	68/boiling	0	0
Ammonium nitrate NH4NO3	hydrous, cold saturated solvent	68/boiling	0	0
Chlorine water saturated		68	1	-
Acetic-acid CH3COOH	10	68	0	0
	10-50	boiling	0	0-1
	80	boiling	1 P	1
Fatty Acid (oil)		302	0	0
Hydrofluoric acid	10	68	2 P	2 P
	40	68	3	3
Tannic-acid	50	68/boiling	0	0
Potassium hydroxide KOH	hot saturated	248	1 S	1 S
Lime milk Ca(OH)2 (Calciumhydroxid)	-	68/boiling	0	0
Seawater	-	68	0 P	0 P
		boiling	1	0
Phosphor-acid H3PO4	1	68	0	0
	50	boiling	1	1
	80	boiling	2	1
	concentrated	boiling	3	3
Nitric-acid HNO3	1-90	68	0	0
	50	boiling	1	1
Hydrochloric-acid HCl	0.2-0.5	68	0 P	0 P
		122	1 P	0.2%: 0 P // 0.5% 1 P1
	1	68	0 P	0 P
		122	1 P	1 P
	2	68-122	1 P	1 P
Sulfuric-acid H2SO4	0.1	boiling	0	0+
	1	68	0	0
		176	1	0
		boiling	1	1
	5	68	0	0
		122	1	0
		boiling	2	1
	10	68	0	0
		122	1	0
		176	2	1
		boiling	2	2
Trichlorethylene CHCl:CCl2	-	68/boiling	0 P	0 P

* The complete resistance depends on kind, composition, and the water content of the atmosphere and is in industrial areas and near the coast considerably less than the highlands or in dry regions.

0 = completely resistent
1 = practically resistent
2 = little resistent
3 = theoretically non-resistent
P = pitting
S = stress corrosion

	g/m²h
0 corresp. to a weight-loss up to	0.1
1 corresp. to a weight-loss from	0.1-1.0
2 corresp. to a weight-loss from	1.0-10.0
3 corresp. to a weight-loss over	10.0
Completely non-resistent	-

pewag Industrial Products Terms and Conditions

- **TERMS:** Net 30 days - Credit must be established with pewag Inc.
  All other - cash in advance.
- **FREIGHT POLICY - USA & Canada**
  pewag Inc. shipments, including Terrier Lifting Clamps, over 1,500 lbs. or $4,000.00 within the continental United States or Provincial Canada are prepaid. Carrier at the discretion of pewag. Shipments under 1,500 lbs. or $4,000.00 will be prepaid and added to the invoice.
  Minimum order of $25.00
  For all shipments to Canada, customer will be responsible for duties and taxes.
- **PRICES:** All prices are shown in US Dollars, order will be accepted subject to prevailing prices at time of order. Prices are subject to change without notice.
- **RETURN GOODS:** pewag Inc./Terrier Lifting Clamps: Please note that we will accept returns only after a return merchandise authorization has been obtained. Items must be in new condition, unused in original packaging, with manuals and certifications. NO merchandise will be accepted without prior written authorization. Items must be returned to pewag within 120 days from the day shipped - NO returns accepted after 120 days. All returns are subject to a 25% (35% if manuals and certifications are not returned) restocking/handling charge, which will be deducted from the amount of the credit memo. Returned shipments must be prepaid. Collect or unauthorized shipments will be refused.
- **CHAIN SLINGS AND SPECIALTY/CUSTOM ITEMS:** Specialty items, cut chain, and chain slings are custom items and are NONRETURNABLE, NONCANCELLABLE, and NONREFUNDABLE.
- **FOR ALL OTHER PEWAG TERMS AND CONDITIONS OF SALE:**
  https://www.pewagchain.com/footer/service/terms-and-conditions/

Disclaimer for Printed Literature:

The information contained in our catalog is to be used only as a guide to assist with product selection. pewag Inc. makes no representation or warranty as to the completeness or accuracy of the information contained in our catalog. The products and specifications set forth in our catalog are subject to change without notice and pewag Inc. disclaims any and all liability for such changes. The information contained in our catalog is provided without warranties of any kind, either express or implied, and pewag Inc. disclaims any and all liability for typographical, printing, or production errors or changes affecting the products and/or the specifications contained in our catalog. It is the responsibility of the customer to thoroughly analyze all aspects of the customers' proposed application for the products. Due to the diversity of possible applications of pewag Inc. products, the customer is solely responsible for making the final selection of the product(s) to be used and to assure that all performance, safety and warning requirements of the application are satisfied.

Notes

Notes

pewag, Inc
630-566-1394
sales@pewagchain.com
pewagchain.com

G63CAT/09/2022