pewag

STRONG IS NOT ENOUGH

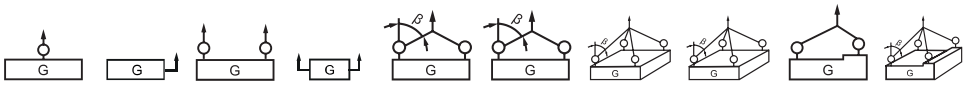
www.pewag.com

Translation of Original operating manual

pewag winner profilift

PLDW pewag winner profilift delta lifting point

These lifting points are designed for lifting and holding the load considering this manual as well as the national regulations for lifting and holding. Read the manual carefully before using the lifting points. The user must have access to the operating manual until withdrawal of the product from service. The manual is updated continuously and valid only in the latest version.
The manual is available as a download under the following link: www.pewag.com



Method of lifting											
No. of legs	1	1	2	2	2	2	3+4	3+4	2	3+4
Angle of inclination	0°	90°	0°	90°	0°–45°	45°–60°	0°–45°	45°–60°	asymm.	asymm.

Code	Thread [mm]	Tightening torque [Nm]	Load capacity G [kg]									
PLDW 0,3 t	M8	10	600	300	1.200	600	400	300	600	400	300	300
PLDW 0,5 t	M10	10	1.200	500	2.400	1.000	700	500	1.000	750	500	500
PLDW 0,7 t	M12	15	1.800	700	3.600	1.400	950	700	1.400	1.000	700	700
PLDW 1 t *	M14	25	2.400	1.000	4.800	2.000	1.400	1.000	2.100	1.500	1.000	1.000
PLDW 1,5 t – M16	M16	30	2.800	1.500	5.600	3.000	2.100	1.500	3.100	2.200	1.500	1.500
PLDW 1,5 t – M18	M18	40	2.800	1.500	5.600	3.000	2.100	1.500	3.100	2.200	1.500	1.500
PLDW 1,8 t	M20	80	2.800	1.800	5.600	3.600	2.500	1.800	3.800	2.700	1.800	1.800
PLDW 2,5 t	M20	80	5.000	2.500	10.000	5.000	3.500	2.500	5.300	3.500	2.500	2.500
PLDW 3,5 t	M24	150	5.000	3.500	10.000	7.000	4.900	3.500	7.400	5.200	3.500	3.500
PLDW 4 t	M24	150	7.000	4.000	14.000	8.000	5.500	4.000	8.400	6.000	4.000	4.000
PLDW 5,3 t	M30	230	7.000	5.300	14.000	10.600	7.400	5.300	11.200	7.900	5.300	5.300
PLDW 6,7 t	M30	230	10.000	6.700	20.000	13.400	9.400	6.700	14.200	10.000	6.700	6.700
PLDW 8 t	M36	450	12.500	8.000	25.000	16.000	11.200	8.000	16.800	12.000	8.000	8.000
PLDW 10 t	M42	600	16.000	10.000	32.000	20.000	14.000	10.000	21.000	15.000	10.000	10.000
PLDW 12 t	M45	600	16.000	12.000	32.000	24.000	16.900	12.000	25.400	18.000	12.000	12.000
PLDW 13 t – M48	M48	600	16.000	13.000	32.000	26.000	18.300	13.000	27.500	19.500	13.000	13.000
PLDW 13 t – M52	M52	600	16.000	13.000	32.000	26.000	18.300	13.000	27.500	19.500	13.000	13.000
PLDW 24 t	M56	800	28.000	24.000	56.000	48.000	33.900	24.000	50.900	36.000	24.000	24.000
PLDW 25 t	M64	800	28.000	25.000	56.000	50.000	35.300	25.000	53.000	37.500	25.000	25.000
PLDW 40 t	M72	1.200	60.000	40.000	120.000	80.000	56.500	40.000	84.800	60.000	40.000	40.000
PLDW 45 t	M80	1.400	60.000	45.000	120.000	90.000	63.600	45.000	95.400	67.500	45.000	45.000
PLDW 55 t – M90	M90	1.500	60.000	55.000	120.000	110.000	77.700	55.000	116.600	82.500	55.000	55.000
PLDW 55 t – M100	M100	1.600	60.000	55.000	120.000	110.000	77.700	55.000	116.600	82.500	55.000	55.000

* Special type. Only on request.

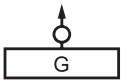
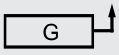
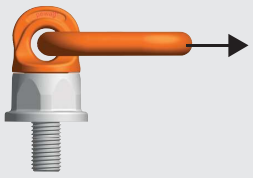
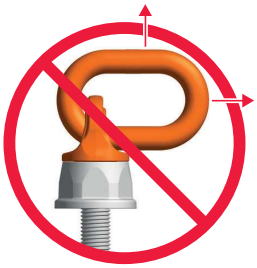
Safety factor 4

Method of lifting										
No. of legs	1	1	2	2	2	2	3+4	3+4	2	3+4
Angle of inclination	0°	90°	0°	90°	0°–45°	45°–60°	0°–45°	45°–60°	asymm.	asymm.

Code	Thread [inch]	Fastening torque [ft-lbs]	Load capacity G [lbs]									
PLDW U3/8	3/8"-16	7,5	2.640	1.100	5.290	2.200	1.500	1.100	2.330	1.650	1.100	1.100
PLDW U1/2	1/2"-13	11	3.900	1.500	7.900	3.000	2.100	1.500	3.200	2.300	1.500	1.500
PLDW U5/8	5/8"-11	22	6.100	3.300	12.300	6.600	4.600	3.300	7.000	4.900	3.300	3.300
PLDW U3/4	3/4"-10	60	8.800	4.400	17.600	8.800	6.200	4.400	9.300	6.600	4.400	4.400
PLDW U1	1"-8	110	15.400	8.800	30.800	17.600	12.400	8.800	18.700	13.200	8.800	8.800
PLDW U1 1/4	1 1/4"-7	170	22.000	14.700	44.000	29.500	20.800	14.700	31.300	22.100	14.700	14.700
PLDW U1 1/2	1 1/2"-6	330	27.500	17.600	55.100	35.200	24.600	17.600	37.400	26.400	17.600	17.600
PLDW U1 3/4	1 3/4"-5	440	35.200	22.000	70.500	44.000	31.100	22.000	46.700	33.000	22.000	22.000
PLDW U 2	2"-4,5	440	35.200	27.500	70.500	55.100	38.900	27.500	58.400	41.300	27.500	27.500
PLDW U 2 1/2	2 1/2"-4	600	61.700	39.600	123.400	79.300	56.100	39.600	84.100	59.500	39.600	39.600

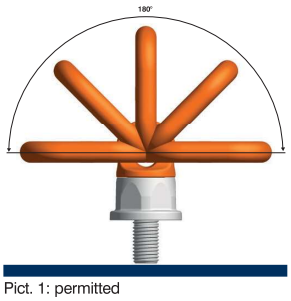
Safety factor 4

Important: Subject to technical changes!

Straight load direction 0°	Side load direction „allowed“ (ring aligned) 90°	Side load direction „not allowed“ (ring not aligned)
	 	
Higher load capacity in direction of screw axis (Column „0°“ in load table)	Nominal load capacity perpendicular to screw axis (Column „90°“ in load table)	Not allowed because of unstable condition. Ring could turn suddenly under load – high risk for load and/or people.

Intended use

Load capacity: working load acc. to test certificate resp. working load table for various applications (acc. to picture 1).
Lashing: The lifting points may also be used as lashing points. In this case, the admissible lashing capacity is twice the nominal load capacity. LC in daN = 2x nominal capacity in kg (e. g. nominal load capacity of 4000 kg for lifting -> 8000 daN admissible lashing capacity). This product may only be used for lifting or lashing. Once a lifting point has been used for lashing, it may no longer be used for lifting (and vice versa).
Admissible operating temperature: -40 °C to 200 °C (please note WLL reduction at high temperature).
Impacts: Slight shocks which occur because of e.g. acceleration during lifting and lowering can be unconsidered.
Other: Although the upper part is ball bearing and rotatable 360° before usage you should adjust the ring in the correct direction of tension (picture 1). That applies in particular when lifting with multi leg slings.
With a non-aligned ring (forbidden load acc. to picture 2), the ring holder could turn suddenly under load, and it comes to high risk for the load and/or people.



Pict. 1: permitted

Pict. 2: forbidden

Information for use

- Lifting points should be used by a competent authorised person.
- Visual inspection before first usage (see maintenance instruction).
- Before every usage check for damages on screw and thread – lifting points must be rotatable and hinged easily.
- Load only in the specified direction (see picture 1) with WLL acc. to table.
- Please note restriction in application for eventually appearing difficulties in load.

Demanding conditions

Temperature	below -40 °C	-40 °C to 200 °C	200 °C to 300 °C	300 °C to 350 °C	above 350 °C
Load factor	forbidden	1	0.9	0.75	forbidden
Shock	slight shock		medium shocks	strong shocks	
Load factor	1		0.7	forbidden	

- Connected lifting gear (e.g. hook) must be flexible in the ring.
- Lifting points must be stored in a clean and dry area.

Attention:
- Do not overload lifting points. A falling down load may lead to injuries or death!
- Do not use damaged lifting points (see maintenance instruction) – they can fail in operating conditions – load can fall down!
- May not be rotated continuously under load.
- The transition link may not be impinged by bended stress.

Limits of use

When lifting points are used in not normal operating conditions (see above) they are only limited applicable.
- Do not use lifting points in connection with acids or bases or their steams. If the application is in a chemical surrounding please ask our technical expert.
- Do not load lifting points when links contact edges!
- Do not lift persons!
- Do not choke hitch.
- If the load distribution is asymmetrical (unequal angle of the legs of the lifting gear) only count 1-leg as bearing (see load table).

Mounting instruction

- Mounting only by competent authorized person
- The equipment, where the lifting points are mounted on, has to meet the requirements of the machinery directive 2006/42/EG.
- Choose adjustment of lifting points so that you have a symmetric load. Centre of gravity must be under the lifting point.
- Base material must be so strong that the force induced can be absorbed without deformation.
- Choose lifting point with adequate WLL – see table.
- Screwing area must be flat and provide with a diameter of minimum as big as the supporting surface of the lifting point. Threaded hole with an adequate depth must be in the middle and right angled. Whole screw must be screwed in (blind hole). No additional elements (such as washers) between the lifting point and the load must be underlaid.
- Minimum screw penetration:
  1 x M in steel (M = thread size e.g. M20 = 20 mm)
  1,25 x M in cast iron steel
  2 x M in aluminium
- Threaded hole must be cleaned before screwing. Thread must be checked for any damages.
- Screw must be mounted with the specified tightening torque – see table. For single transport process it is allowed to fasten by hand with wrench.
- If necessary (e.g. if vibrations occur) use liquids for securing the thread (please note manufacturer's instructions).
- Make sure before each use that the lifting point is screwed in completely, and the support surface fully touches to the load.
- Make sure that adjustment of lifting points will not lead to a wrong load, e.g if:
  - there is no possibility to align in direction of tension
  - direction of tension is not acc. to picture 1
  - the link contacts edges or surfaces
- Use only pewag original parts – recognizable by stamping (WLL, thread).
- It is not allowed to modify the lifting point, e.g. weldings, heat treatments and surface treatments (galvanising) are prohibited.
- Mount only lifting points that are without defects
- Check used lifting points acc. to service manual before application.
- After mounting lifting points must be rotatable and hinged.

Maintenance, Checks, Repairs

- An inspection in accordance with the national standards must be carried out annually by a technical expert. If used frequently under a full load these inspections can be implemented regularly. We also recommend a crack test every two years.
- The parts must be free from oil, dirt and rust for inspection and crack test. Adequate cleaning procedures are the ones, which do not overheat, hide failures in surface and cause hydrogen embrittlement or stress crack corrosion.
- This lifting point may not be loaded with proof force.
- During inspection check all parts which can influence safety and function, - e.g.:
  - Cracks, notches, deformation, noticeable signs of excessive heat.
  - Abrasion resp. corrosion of more than 10 % of the cross section. In case of doubt, if the lifting points are damaged, stop using them and have them examined by an expert.

Repairs
- Maintenance of the lifting points should only be carried out by technical experts.
- If small defects like notches or score marks are visible you can remove them with carefully polishing or filing. After repairs, repaired area must be intergradient, without a sudden change in cross-section. Due to complete elimination of the error, the cross-section may be reduced by no more than 5 %.
- Welding procedures and heat treatments are prohibited.

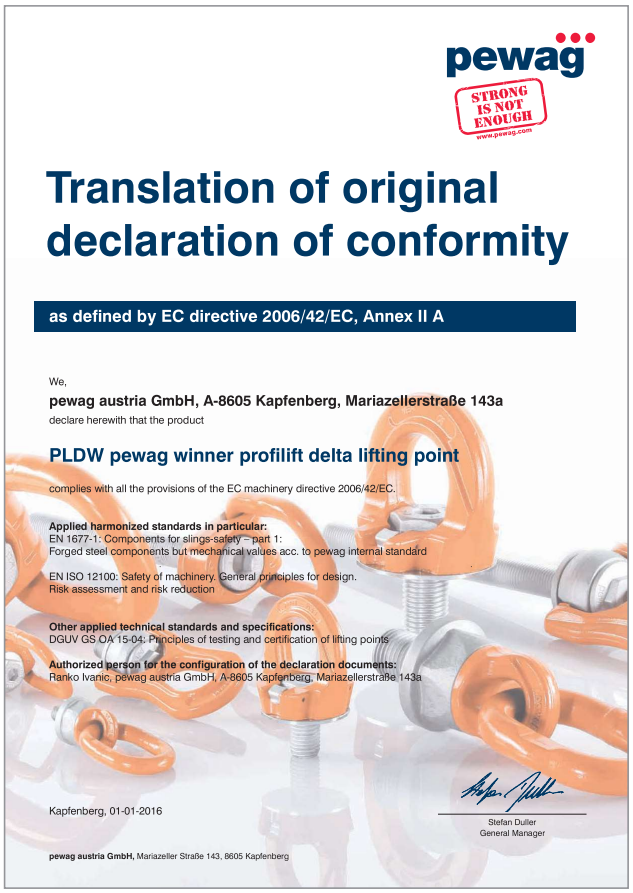
Each lifting point is marked with a unique number.
All tests and repairs must be recorded and kept for the life of the parts.

Exact dimensions can be found on our website www.pewag.com under industrial chains/lifting points.

Storage

pewag lifting shall be stored cleaned, dried, protected from corrosion, e.g. lightly oiled. While stored, they must not be exposed to corrosive, mechanical or thermal influences.

Declaration of conformity



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Translation of original declaration of conformity

as defined by EC directive 2006/42/EC, Annex II A

We,

pewag austria GmbH, A-8605 Kapfenberg, Mariazellerstraße 143a

declare herewith that the product

PLDW pewag winner profilift delta lifting point

complies with all the provisions of the EC machinery directive 2006/42/EC.

Applied harmonized standards in particular:
EN 1677-1: Components for slings-safety – part 1:
Forged steel components but mechanical values acc. to pewag internal standard

EN ISO 12100: Safety of machinery. General principles for design.
Risk assessment and risk reduction

Other applied technical standards and specifications:
DGUV GS OA 15-04: Principles of testing and certification of lifting points

Authorized person for the configuration of the declaration documents:
Ranko Ivanic, pewag austria GmbH, A-8605 Kapfenberg, Mariazellerstraße 143a

Kapfenberg, 01-01-2016

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