Instructions for installation and use PFEIFER LSP Lifting Loop for subsequent plug fitting

Attachment point for load attachment devices, satisfying EC machinery directive 2006/42/EC

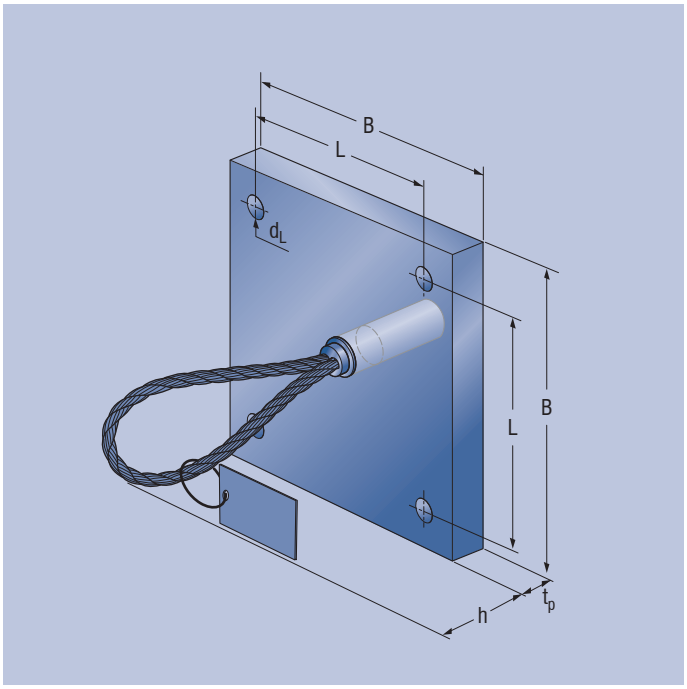
PFEIFER

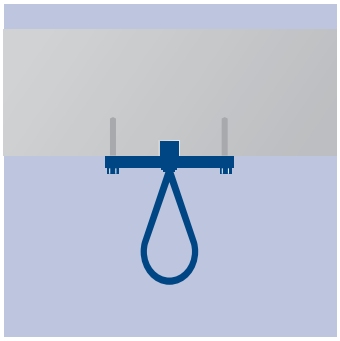
Fixing Systems

Lift Installation

PFEIFER LSP Lifting Loops are load-attachment devices for subsequent flat installation on the underside of the ceilings of lift shafts. They are only to be used for temporary suspension of lift cabins or other items during installation or maintenance work. They may not be used for transporting people, nor for attaching fall arrest systems.

Material:
Mounting plate with PFEIFER Welding socket
flexible steel cable, galvanized





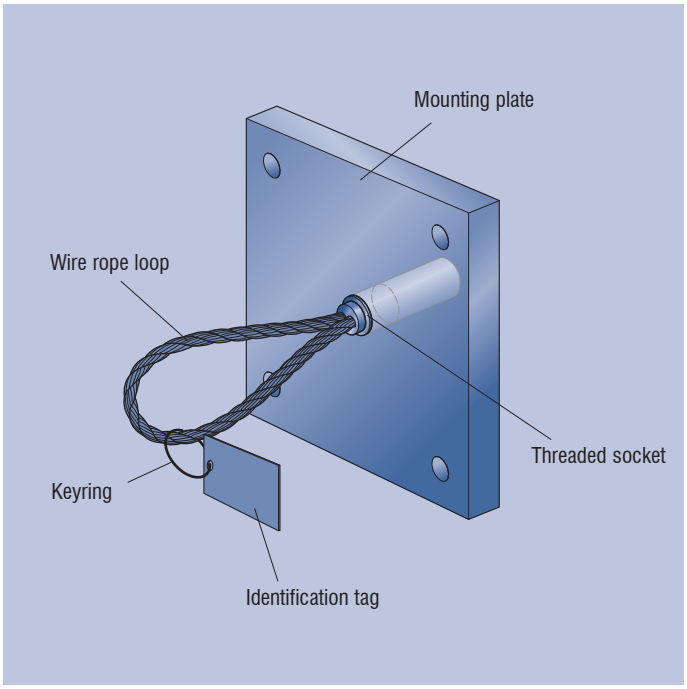
Order no.	Carrying capacity kg	WLL kN	Dimensions mm h	t_p	B	L	d_L	Weight kg/each
248928	1000	10	130	15	150	120	9	2,8
248951	1750	17,5	180	18	200	150	12	5,9
248953	2500	25	215	20	250	190	14	10,4
248954	4000	40	245	25	320	260	14	20,6

Example order for 10 PFEIFER LSP Lifting Loops with load capacity of 1000 kg / WLL 10 kN:
10 PFEIFER LSP Lifting Loops; WLL 10 kN, Ref. no. 248928

Instructions for installation and use of PFEIFER LSP Lifting Loop

Attachment point for load attachment devices, satisfying EC machinery directive 2006/42/EC

System



The system components of the PFEIFER LSP Lifting Loop are:
– Mounting plate
– Wire rope loop
– Threaded socket
– Identification tag with keyring

The anchor system is supplied complete.
Separate components cannot be ordered separately.

Warning: The use of incomplete anchors is not permissible. Missing components must be replaced only by the manufacturer. The use of parts that are not part of this system can result in reduced safety levels including failure of the anchor and falling of the building component. This is a hazard for the life and limb of the people working on the installation. The anchor system must be checked for completeness before use.

Warning: The PFEIFER LSP Lifting Loop must be kept away from contact with chemical products or other aggressive substances.

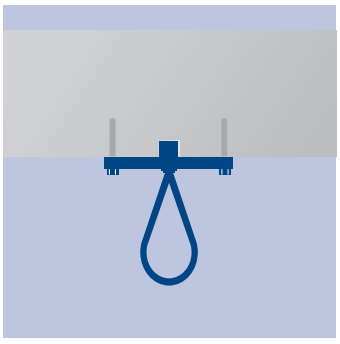
Safety

In accordance with machinery safety directive 2006/42/EC the following working coefficients were implemented:
– Working coefficient of all metal components: $\gamma = 4$
– Working coefficient of the cables: $\gamma = 5$
– The hole spacings shown in the drawing are chosen so that the anchoring in the shaft ceiling can be dimensioned for a safety factor of 4 with commercial off-the-shelf dowel systems.

Warning: Certification of adequate carrying capacity of the shaft ceiling (thickness, reinforcement, load transmission) is to be provided by the responsible planner.

Use

PFEIFER LSP load loops are attachment points for load attachment devices. They are intended for later flat fitting mainly in lift-shaft ceilings of reinforced concrete. They serve as load connection point for the temporary attachment of objects during assembly and maintenance work.



Notice: Only use the system if you are trained in safe handling. If you have any doubts about the safe condition of the system, the question of usability must be assessed by a suitably authorised person.

Warning: Use of the anchor by untrained personnel results in the risk of incorrect use and the risk of items falling down, causing a hazard to life and limb of persons. Use only trained personnel.

Warning: The attachment point for load attachment devices is provided for the attachment of objects. It is not intended as an attachment point for protection of people against falls from a height or for transporting people.

Installation instructions for PFEIFER LSP Lifting Loop

Attachment point for load attachment devices, satisfying EC machinery directive 2006/42/EC

PFEIFER

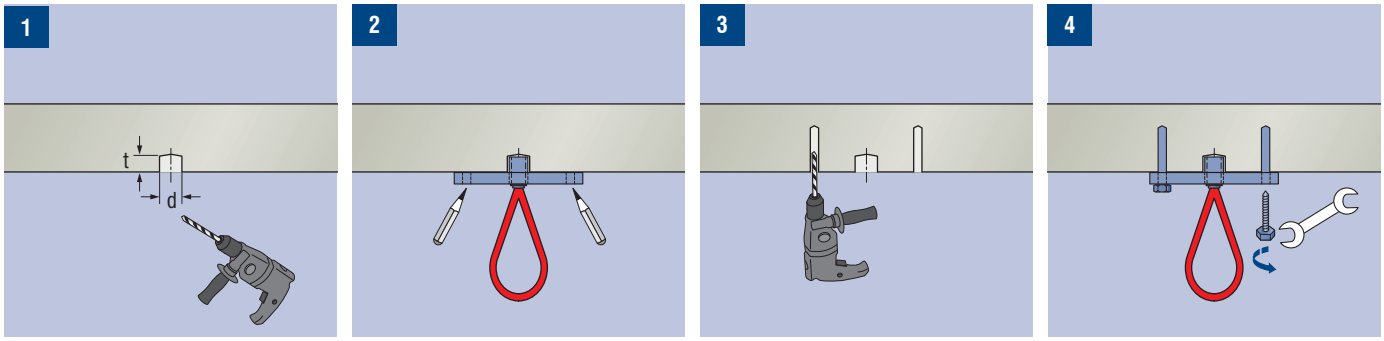
Fixing Systems

Lift Installation

Installation

Installation of the PFEIFER LSP Lifting Loop is as shown in the following drawings:

1) Cutout: Make a hole at a suitable location in the underside of the shaft ceiling for countersinking the socket
2) Place the lifting loop in position and mark the positions of the four holes for the fixing screws
3) Make the fixing holes to suit the chosen fixing system.
4) Use the appropriate fixing materials to fix the lifting loop to the underside of the shaft ceiling.



Caution: Incorrect fixing of the dowels will result in a reduced load-bearing capacity. This causes a hazard to life and limb.
The dowel system used must be dimensioned and fitted as documented by the manufacturer concerned.

Warning: All modifications, additions and welding work are prohibited. This can result in the load falling down and thus to injury or the death of persons. The LSP lifting loop must be used only in its original unmodified state.

Caution: Caution: Fitting must be done by qualified personnel who have appropriate experience in fitting dowels („dowel driving licence“).

Table 1:

WLL [kN]	d [mm]	t [mm]
10	25	20
17,5	30	25
25	35	30
40	45	50

Vorsicht: Do not load the PFEIFER LSP Lifting Loop before the concrete has reached a sufficient strength.
The required minimum concrete compressive strength is $f_{ck,cube} = 25\ N/mm^2$.

Dimensioning

The fixing materials (screws, dowels, expanding dowels, glued dowels etc.) are not supplied with the lifting loop and have not been verified by PFEIFER.

Planning the fitting of the lifting loop on the underside of the lift shaft must be done only by a qualified engineer. The hole spacings in the mounting plate were chosen to enable verification of fitting with a safety factor $\gamma = 4.0$ using a commercial off-the-shelf dowel system. Detailed plans must be drawn up using the dimensioning, describing all the details relevant for the fixing.
Fitting must be done by a qualified person who has appropriate experience in fitting dowels („dowel driving licence“).
The shaft ceiling must be dimensioned with regard to the loading from the lifting loop. The task must also be done by a qualified engineer.

Caution: The planning must be done only by qualified engineers.

Instructions for use of PFEIFER LSP Lifting Loop (including testing logbook

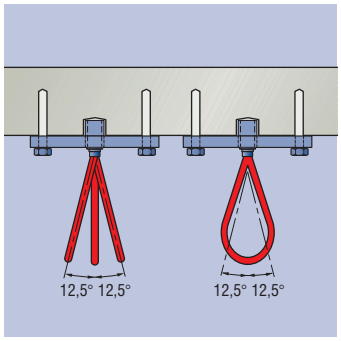
Attachment point for load attachment devices, satisfying EC machinery directive 2006/42/EC

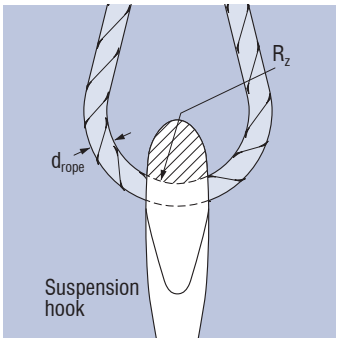
PFEIFER

Fixing Systems

Lift Installation

Use





PFEIFER LSP lifting loops are for subsequent fitting in the ceiling undersides of lift shafts. They are only for temporary suspension of lift cabins or other objects during installation or maintenance work, always without transporting people and never to protect against falling. In selecting the attachment device, the corner radii R_z as in Table 2 must be observed.
The LSP lifting loop is intended for taking loads resulting from straight pull. Planned loads due to skew pull ≥ 12.5° must be avoided.

Caution: Before the attachment device is used for the first time, the operating company must ensure that it enters service only after it has been examined by a suitably qualified technician and any faults discovered have been rectified.

Caution: All instructions for the use and application of any other products that are used in connection with the PFEIFER LSP Lifting Loop Box must be followed

Table 2:

WLL [kN]	R_z [mm]
10	≥ 7
17,5	≥ 14
25	≥ 17
40	≥ 21

Warning: Too small a corner radius R_z of the attachment device can result in failure or damage of the cable loop even at the rated load. Use only attachment devices with corner radius at least R_z.

Tests

Tests are to be performed as described below and recorded in the testing logbook. When the test criteria are no longer met, the PFEIFER LSP lifting loop can no longer be used.

Regular inspection
Inspection prior to use

The contractor or operating company is responsible for ensuring that the PFEIFER Lifting Loop LSP is inspected at regular intervals. Whenever the anchor is used, it must first be verified that the last inspection and confirmation of its usability took place not longer than 12 months earlier. Depending on the operational conditions (frequency of use, environmental influences), inspections may also be necessary at shorter intervals. The inspection tests must always be conducted by suitably qualified persons.

Extraordinary inspection

The contractor or operating company must ensure that the PFEIFER LSP Lifting Loop undergoes a special inspection test by a suitably qualified person after any unusual incident that could affect its carrying capacity. Written authorisation by a suitably qualified person is also required before using the attachment device after it has undergone repairs.

Inspection criteria

Caution: The attachment point must be in a good operating condition and undamaged. Broken wires, signs of corrosion, visible distortions or deformations are unacceptable.

Caution: The shaft ceiling, particularly the concrete, must be in sound condition. Any visible cracking, blow out or signs of corrosion are unacceptable.

Caution: Do not use an attachment point which has an unreadable or missing identification label.

Disposal

Notice: As soon as the anchor is seen to be ready for scrapping, it must be clearly and unmistakably marked as such.
After their removal from installation and until they are scrapped, anchors marked like this must be stored in a special temporary store.

Notice: Before scrapping (steel scrap), the anchor or cable loop must be rendered unusable (cut the cable etc.) to ensure it cannot be reused.

Identification mark

PFEIFER LSP Lifting Loop

Type / ID no: 000000
Year of manufacture: 2012

Load attachment point

PFEIFER

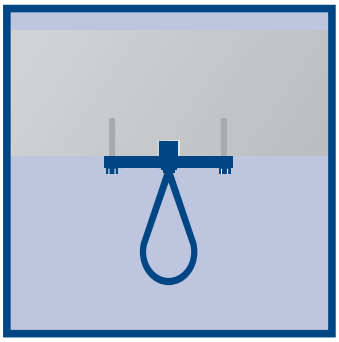
PFEIFER Seil- und Hebetechnik GmbH
Dr.-Karl-Lenz-Straße 66
D-87700 Memmingen

1000 kg

CE 2006/42/EG

Usage instructions for PFEIFER LSP Lifting Loop

Attachment point for load attachment devices, satisfying EC machinery directive 2006/42/EC



PFEIFER

Fixing Systems

Lift Installation

Testing logbook

Year of manufacture:	**Date of first use:**
Purchase date:	**Batch number:**

Date	Reason for action (regular inspection or repair)	Damage seen, repairs done etc.	Name / signature of qualified person	Date of next regular inspection

PFEIFER SEIL- UND HEBETECHNIK GMBH
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Email bautechnik@pfeifer.de · Internet www.pfeifer.de

EC declaration of conformity according to the EC machinery directive 2006/42/EC, appendix II 1A

The manufacturer **PFEIFER SEIL- UND HEBETECHNIK GMBH**
DR.-KARL-LENZ-STRASSE 66
D-87700 MEMMINGEN

declares that the following lifting device according to article 2 d) with the

product designation **PFEIFER LSP Lifting Loop (for through-bolted installation)**
in the sizes **1.0 t / 1.75 t / 2.5 t / 4.0**

conforms to the regulations contained in the directives listed below on account of its design and construction
– EC machinery directive 2006/42/EC

Applied harmonised standards
– DIN EN ISO 12100:2011-03
Safety of machinery – general design principles - risk assessment and risk reduction

The person responsible for the creation and maintenance of the technical documentation is
– Mr. Dipl.-Ing. Christoph Neef
Manager, Development Connecting and Lifting Systems, PFEIFER Seil- und Hebetechnik GmbH

PFEIFER Seil- und Hebetechnik GmbH
Memmingen, 02/07/2012

ppa. Dipl.-Ing. Matthias Kintscher
Manager, Business Area Connecting and Lifting Systems

i. V. Dipl.-Ing. Christoph Neef
Manager, Development Connecting and Lifting Systems