# PFEIFER

Score every time ...







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**PFEIFER Allround Anchor** 

# **Everything runs smoothly with the PFEIFER Allround Anchor...**

# PFEIFER Allround Anchor for maximum user safety:

The new lifting anchor from PFEIFER rounds off the existing thread system as a genuine "all-rounder". It combines the best of existing anchor variants and is suitable for installation in the most diverse precast concrete elements. In order to meet tomorrow's requirements today, the PFEIFER Allround Anchor has been tested to a particularly high safety level.

Your project is guaranteed to score when it comes to speed and high user safety.



# Wide range of applications

- · One anchor type for most applications
- Low stock keeping on account of there being only a few different anchor variants
- A suitable lifting key for every application



# **Rotation-symmetrical anchor foot**

- Hence shorter lengths in comparison with other anchor variants
- Easy positioning/rotation of the anchor in the formwork



### **Robust round thread**

- No downtimes due to dirty or damaged thread flanks
- High speed when screwing in due to short, smooth-running round thread



# **Trendsetting safety**

- Conforms to the technical directive VDI/BV-BS 6205 in interpretation of Directive 2006/42/EC
- Qualification on the basis of application-related test series with accredited testers
- Manufacturing monitoring through certified factory production control
- PFEIFER colour coding for clear assignment of combinable products from one manufacturer





Colou	r coding – thr	ead s	ystem
	Size Rd 12		Size Rd 30
	Size Rd 14		Size Rd 36
	Size Rd 16		Size Rd 42
	Size Rd 18		Size Rd 52
	Size Rd 20		Size Rd 56
	Size Rd 24		Size Rd 60





# **PFEIFER Allround Anchor long**





# Front-sided installation



The PFEIFER Allround Anchor long is intended for use as a lifting anchor for front-sided installation in wall-type concrete elements. Through the upset head in combination with the short anchor lengths this anchor – in comparison with other anchor variants – is particularly easy to place in the formwork, even with a dense reinforcement layout.

# Thread System Lifting Anchor

### Advantages:

- Especially designed for front-sided installation in thin walls
- Practically oriented short anchor lengths for fewer disruptions in the component
- Economical as requires little reinforcement
- Simple installation and integration in existing reinforcement

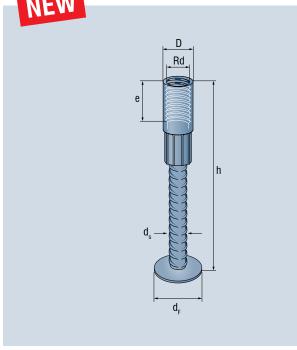
Materials:

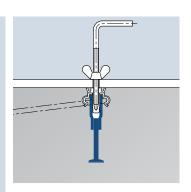
Socket: Precision steel pipe

optionally galvanised/ stainless steel

Foot: Reinforcing steel bar B500 B

black





Ref. no.	Ref. no.	Туре	Resist	ances	Thread size			Dimension	s		Weight approx.
galvanized	stainless steel	••	N <sub>R,adm</sub> [kN]	<b>V<sub>R,adm</sub></b> [kN]		<b>D</b> [mm]	<b>d</b> <sub>F</sub> [mm]	<b>d</b> s [mm]	<b>e</b> [mm]	<b>h</b> [mm]	zn/VA [kg/pc]
05.004.123.110	005.004.124.110	ARL 12	5	2,5	Rd 12 x 1,75	15,0	24	8	22	110	0,07/0,07
05.004.143.130	005.004.144.130	ARL 14	8	4,0	Rd 14 x 2,00	18,0	30	10	25	130	0,13/0,13
05.004.163.150	005.004.164.150	ARL 16	12	6,0	Rd 16 x 2,00	21,0	36	12	27	150	0,20/0,22
05.004.183.175	005.004.184.175	ARL 18	16	8,0	Rd 18 x 2,50	24,0	42	14	34	175	0,32/0,34
05.004.203.210	005.004.204.210	ARL 20	20	10,0	Rd 20 x 2,50	27,2	38	16	35	210	0,52/0,54
05.004.243.235	005.004.244.235	ARL 24	25	12,5	Rd 24 x 3,00	31,0	38	16	43	235	0,59/0,62
05.004.303.310	005.004.304.310	ARL 30	40	20,0	Rd 30 x 3,50	39,5	46	20	56	310	1,21/1,26
05.004.363.385	005.004.364.385	ARL 36	63	31,5	Rd 36 x 4,00	47,0	55	25	67	385	2,15/2,27
05.004.423.470	005.004.424.470	ARL 42	80	40,0	Rd 42 x 4,50	54,0	70	28	80	470	3,30/3,55
05.004.523.650	005.004.524.650	ARL 52	125	62,5	Rd 52 x 5,00	67,0	70	32	97	650	5,90/6,33



### Notice:

The specified permissible resistances  $N_{\text{R,adm}}$  apply to tensile and parallel shear loads up to an angle of 45°.

Transversal shear loads are possible up to the permissible resistances  $V_{R,adm}$ . All resistances are valid from a concrete cube compressive strength of 15 N/mm².

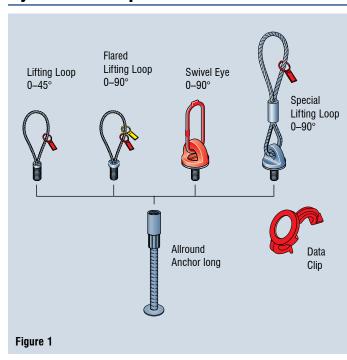


### Notice:

In the case of loads with a force application angle of over 12.5°, an additional reinforcement is necessary in accordance with Tables 4 and 5 (see page 5) in addition to the minimum surface reinforcement.

# **System description**

### FOR PLANNERS · FOR PRECAST PLANTS · FOR USERS



The PFEIFER Thread System consists of lifting anchors, lifting keys, colour-coded data clips and an extensive range of accessories.

Table 1 - Data Clip with colour coding for ARL

for type	Ref. no.	Colour
ARL 12	05.220.120	Pastel orange
ARL 14	05.220.140	Pure white
ARL 16	05.220.160	Flame red
ARL 18	05.220.180	Light pink
ARL 20	05.220.200	Pastel green
ARL 24	05.220.240	Anthracite grey
ARL 30	05.220.300	Emerald green
ARL 36	05.220.360	Light blue
ARL 42	05.220.420	Silver grey
ARL 52	05.220.520	Sulphur yellow



### Notice:

These instructions for installation and use are to be used in addition to the product brochure for the "PFEIFER Thread System".

# Safety

### FOR PLANNERS · FOR PRECAST PLANTS · FOR USERS

The following safety factors for the PFEIFER Lifting Anchor Systems are derived as follows in accordance with the VDI/BV-BS 6205 directive, with the prerequisite of the machinery directive 2006/42/EC. The load-side dynamic working coefficient  $\psi_{dyn}$  – for dimensioning according to VDI/BV-BS 6205 – is to be defined by the responsible planner.

- Steel failure wire rope:

 $\gamma_s = 4.0$ 

Concrete failure:

 $\gamma_c = 2,1$ 

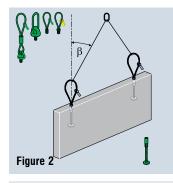
- Steel failure chains or full sections:

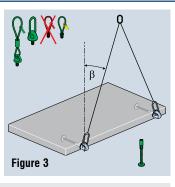
 $y_{s} = 3.0$ 

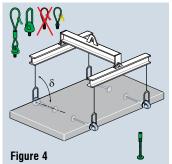
For the constant factory-monitored manufacturing of the precast concrete elements

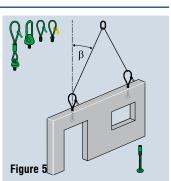
# Intended use

### FOR PLANNERS · FOR PRECAST PLANTS · FOR USERS





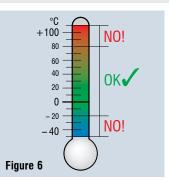


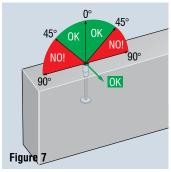




### Warning:

The use of non-matched system components can lead to reduced safety levels. That is hazardous to life and limb. Therefore, use exclusively PFEIFER components that are matched to each other!





# <u>•</u>

### Caution:

The entire lifting anchor system is to be planned for all load conditions by an engineer. The instructions for installation and use of the selected anchor type must be followed here!

Table 2 - Application limits ARL (Figs. 6 and 7)



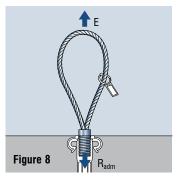
	Force application angle	Lifting key	
Tensile loads	$\beta = 0^{\circ} - 12,5^{\circ}$	SOE, TSO, SPA, DA	OK 🗸
Parallel shear loads	$\beta = 12,5^{\circ} - 45^{\circ}$	SOE, TSO, SPA, DA	OK 🗸
Transversal shear loads	δ ≤ 90°	TSO, SPA, DA	OK 🗸
Temperature	-20 to 8	0° C	OK 🗸



- All reinforcements listed in Table 3 refer to the local load application in the anchoring area.
- . The necessary reinforcement of the complete structural element must be defined by the responsible planner.
- The minimum surface reinforcement is to be anchored in the area facing away from the load.
- Already existing reinforcement can be counted towards the necessary minimum reinforcement according to Table 3.

Table 3 - Minimum surface and longitudinal reinforcement (figs. 9 and 10)

Туре		Minimum	surface reinforceme	ent	Minimum long	gitudinal reinforcement
,,	Item	Mesh type	Mesh width b [mm]	Mesh height h [mm]	Item	Quantity & bar Ø [mm]
ARL 12	Pos. 1	Q188	300	450* <sup>1</sup>	-	_
ARL 14	Pos. 1	Q188	400	500* <sup>1</sup>	_	_
ARL 16	Pos. 1	Q188	400	500* <sup>1</sup>	_	-
ARL 18	Pos. 1	Q188	500	550*1	-	_
ARL 20	Pos. 1	Q188	550	550* <sup>1</sup>	-	_
ARL 24	Pos. 2	Q188	full	surface	_	_
ARL 30	Pos. 2	Q188	full	surface	-	-
ARL 36	Pos. 2	Q188	full	surface	Pos. 3	2 Ø 8
ARL 42	Pos. 2	Q257	full	surface	Pos. 3	2 Ø 8
ARL 52	Pos. 2	Q257	fulls	surface	Pos. 3	2 Ø 10



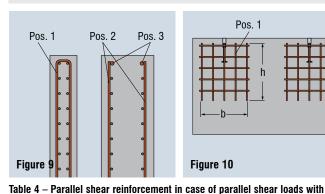




### Notice:

Determination of the stress E (fig. 8) according to VDI/BV-BS 6205.

\*1 The specified mesh height h can be reduced by the planning of the back anchoring by an engineer (for example, mesh cages closed on both sides)



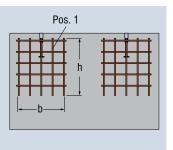


Figure 10

Notice:

Fig. 11 shows the erection of a wall panel using a tilting table and the force application angle  $\delta$  in case of transversal shear loads.

A transverse shear reinforcement only needs to be installed from a force application angle  $\delta > 15^{\circ}$ .

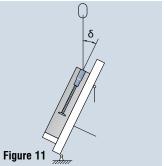


Table 5 – Transversal shear reinforcement in case of transversal shear loads with a force application angle of 15°  $< \delta \le 90$ ° (figs. 11, 14 and 15)

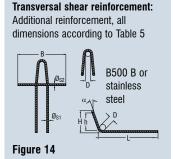
Type	d <sub>s</sub>			$\mathbf{d}_{Br}$		L
	12,5-30°	31 – 45°	12,5-30°		31 – 45°	
	[mm]	[mm]	[mm]		[mm]	[mm]
ARL 12	6			24		150
ARL 14	6			24		200
ARL 16	8			32		200
ARL 18	8			32		250
ARL 20	8			32		300
ARL 24	10			40		300
ARL 30	12			48		400
ARL 36	12	14	48		56	550
ARL 42	14	16	56		64	600
ARL 52	16	20	64		90*2	750

a force application angle of 12.5°  $\leq \delta <$  45° (figs. 12 and 13)

Туре	Ø <sub>81</sub>	L	h	Н	D	α	В	Øsz
	[mm]	[mm]	[mm]	[mm]	[mm]	[°]	[mm]	[mm]
ARL 12	6	270	23	35	24	15	280	8
ARL 14	6	350	30	42	24	15	350	12
ARL 16	8	420	33	49	32	15	400	12
ARL 18	8	460	36	55	32	15	450	12
ARL 20	10	490	44	64	40	15	490	14
ARL 24	12	520	51	75	48	15	550	14
ARL 30	12	570	68	92	48	15	580	16
ARL 36	14	690	90	118	56	15	700	16
ARL 42	16	830	111	143	64	15	850	20
ARL 52	20	930	134	174	90* <sup>2</sup>	15	1000	20

# Parallel shear reinforcement: Additional reinforcement, all dimensions according to Table 4 B500 B or stainless steel $0 - 30^{\circ}$ Figure 12

Angle of inclination Figure 13



Transversal shear loads perpendicular to the panel plane

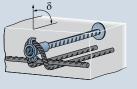


Figure 15



Notice: For simultaneous parallel and transversal shear loads only the transversal shear reinforcement as in Table 5 is required.

<sup>\*2</sup> Inspect reinforcing steel bars for cracks or damage after bending!

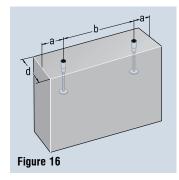


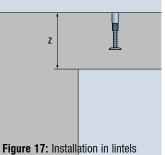
- It may be necessary to bend the parallel shear reinforcement in the case of installation close to the edge. This must take place in accordance with the regulations of the valid standard.
- · In general the existing concrete cover must be compared with that required. If the cover is less than the concrete cover required, the parallel or transversal shear reinforcement must be made of stainless steel.

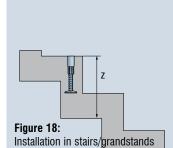
Table 6 - Minimum dimensions and distances (figs. 16, 17 and 18)

Туре		II thickness d	Edge distance a	Axis distance b	Minimum height z
	<b>0</b> ° < β ≤ 45° [mm]	15°< δ ≤ 90° [mm]	[mm]	[mm]	[mm]
ARL 12	60	60	150	300	170
ARL 14	70	70	200	400	200
ARL 16	80	80	200	400	230
ARL 18	80	95	250	500	255
ARL 20	90	110	275	550	300
ARL 24	100	125	300	600	335
ARL 30	120	140	350	700	430
ARL 36	150	210	500	1000	535
ARL 42	160	240	500	1000	630
ARL 52	200	280	600	1200	850











### Notice:

The local load application is ensured by compliance with the minimum requirements. Contact us if compliance with the minimum requirements is not possible. We will be glad to support you with individual suggestions and special solutions.

# Installation

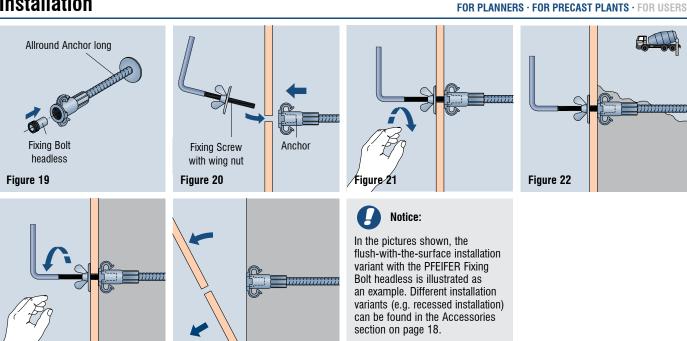
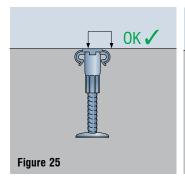
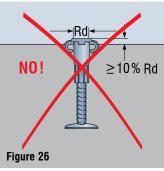
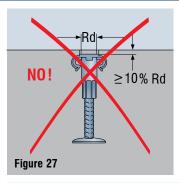


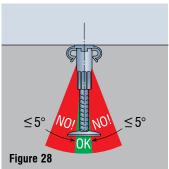
Figure 23

Figure 24











For a planned, recessed installation according to instructions for installation and use the same tolerance field is to be applied.



### **Caution:**

Incorrect positions and faulty installation of the anchor can lead to early failure and falling down – danger to life! As a rule, the anchor should be installed flush and at right-angles!

# Misuses

### FOR PLANNERS · FOR PRECAST PLANTS · FOR USERS



### Warning:

Use of the anchor by untrained personnel results in the risk of incorrect use and the risk of structural elements falling down, causing injury or death to persons. Employ only instructed personnel, observing the corresponding instructions for installation and use.

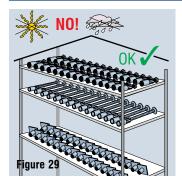


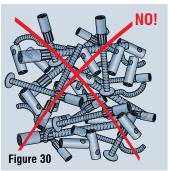
### Warning:

The use of a lifting anchor system to lash structural elements during transport is impermissible. This can result in the load falling down and thus to injury or the death of persons. Use lifting anchor systems only for lifting and moving precast concrete elements.

# Storage

### FOR PLANNERS · FOR PRECAST PLANTS · FOR USERS





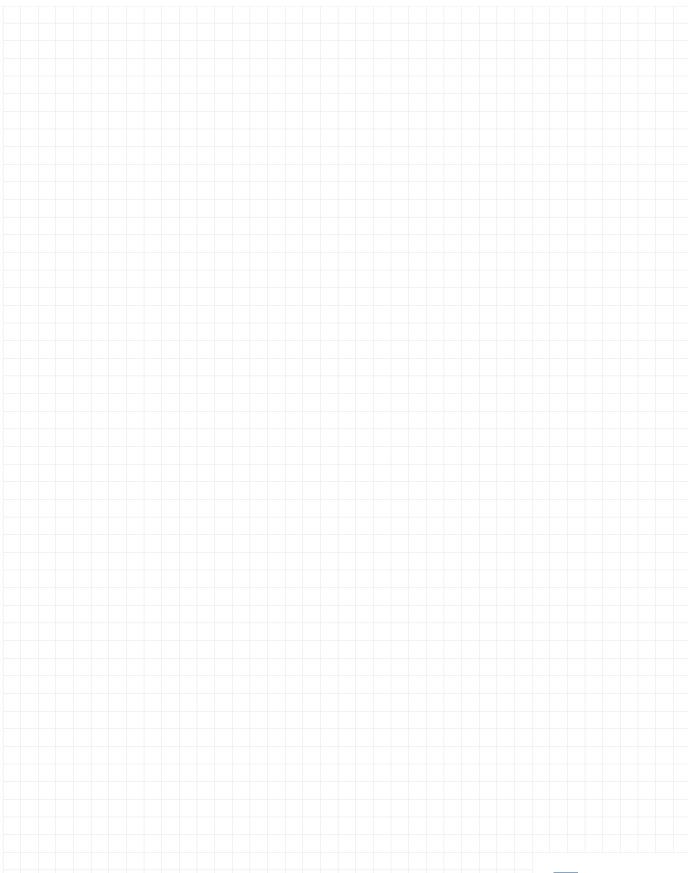


### Notice:

Store thread system components in a dry and protected place. There is a risk of corrosion if there are large changes of temperature, wetness (humidity) or any influence from acids, road salt or sea water!



# Notes



# **PFEIFER Allround Anchor short**





# **Top-sided installation**



The PFEIFER Allround Anchor short is intended to be used as a lifting anchor for top-sided installation in the surface of structural elements. The focus here is on minimising the anchor height to accommodate correspondingly slimmer components. The anchor sizes Rd 12 to Rd 24 are covered by the PFEIFER Bolt Anchor (see thread system brochure).

# Thread System Lifting Anchor

### Advantages:

- Specially qualified and tested for top-sided installation in thin elements
- Very short anchor lengths/low anchoring depths
- Lean structural elements can be implemented with high loads
- Simple installation and integration in existing reinforcement

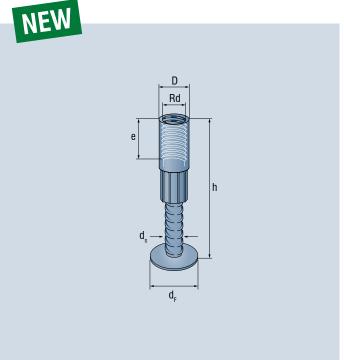
### Materials:

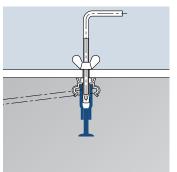
Socket: Precision steel pipe

optionally galvanised/ stainless steel

Foot: Reinforcing steel bar B500 B

black





Ref. no.	Ref. no.	Туре	Resistances	Thread size			Dimension	S		Weight approx.
galvanized	stainless steel		N <sub>R,adm</sub> [kN]		<b>D</b> [mm]	<b>d</b> f [mm]	<b>d</b> s [mm]	<b>e</b> [mm]	<b>h</b> [mm]	zn/VA [kg/pc]
			[KIN]		Limin	[111111]	[111111]	Liiiii	[mm]	[kg/pc]
05.004.303.170	05.004.304.170	ARK 30	40	Rd 30 x 3,50	39,5	46	20	56	170	0,86/0,90
05.004.363.225	05.004.364.225	ARK 36	63	Rd 36 x 4,00	47,0	55	25	67	225	1,54/1,65
05.004.423.265	05.004.424.265	ARK 42	80	Rd 42 x 4,50	54,0	70	28	80	265	2,31/2,56
05.004.523.350	05.004.524.350	ARK 52	125	Rd 52 x 5,00	67,0	70	32	97	350	4,06/4,48



## Notice:

The specified permissible resistances  $N_{R,adm}$  apply to tensile and parallel shear loads up to an angle of 45°.

All resistances are valid from a concrete cube compressive strength of  ${\bf 15\ N/mm^2}.$ 



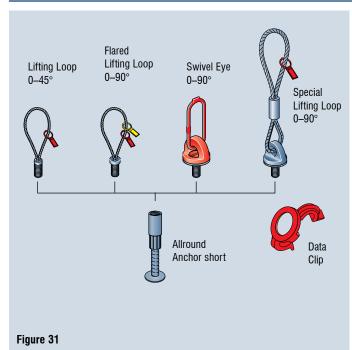
### Notice:

In the case of loads with a force application angle of over 12.5°, an additional reinforcement is necessary in accordance with Tables 9 (see page 11) in addition to the minimum surface reinforcement.

# Instructions for installation and use for top-sided installation

# **System description**

### FOR PLANNERS · FOR PRECAST PLANTS · FOR USERS



The PFEIFER Thread System consists of lifting anchors, lifting keys, colour-coded data clips and an extensive range of accessories.

Table 7 - Data Clip with colour coding for ARK

for type	Ref. no.	Colour
ARK 30	05.220.300	Emerald green
ARK 36	05.220.360	Light blue
ARK 42	05.220.420	Silver grey
ARK 52	05.220.520	Sulphur yellow



### Notice:

These instructions for installation and use are to be used in addition to the product brochure for the "PFEIFER Thread System".

# Safety

### FOR PLANNERS · FOR PRECAST PLANTS · FOR USERS

The following safety factors for the PFEIFER Lifting Anchor Systems are derived as follows in accordance with the VDI/BV-BS 6205 directive, with the prerequisite of the machinery directive 2006/42/EC. The load-side dynamic working coefficient  $\psi_{\text{dyn}}$  – for dimensioning according to VDI/BV-BS 6205 – is to be defined by the responsible planner.

- Steel failure wire rope:

 $\gamma_s = 4.0$ 

- Concrete failure:

v \_ 0 1

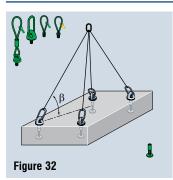
Steel failure chains or full sections: γ<sub>s</sub>

 $\gamma_s = 3.0$ 

For the constant factory-monitored manufacturing of the precast concrete elements

# Intended use

### FOR PLANNERS · FOR PRECAST PLANTS · FOR USERS





### Warning:

The use of non-matched system components can cause reduced safety levels and hazards to life and limb. Use exclusively PFEIFER components that are matched to each other!



### **Caution:**

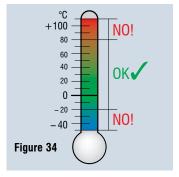
Table 8 - Application limits ARK (Figs. 33 and 34)

The entire lifting anchor system is to be planned for all load conditions by an engineer. The instructions for installation and use of the selected anchor type must be followed here!

45° OK NO! 90° \*3



	Force application angle	Lifting key				
Tensile loads	$\beta = 0^{\circ} - 12,5^{\circ}$	SOE, TSO, SPA, DA	OK 🗸			
Parallel shear loads	$\beta = 12,5^{\circ} - 45^{\circ}$	SOE, TSO, SPA, DA	OK 🗸			
Parallel shear loads	$\beta > 45^{\circ *3}$	_	NO!			
Temperature	-20 to	-20 to 80° C				



 $<sup>\</sup>star^3$  In the case of planned loads with a force application angle  $\beta>45^\circ$ , our professionals in the technical support are always at your disposal. Together with our team of technicians and engineers we can thus also implement individual applications. We look forward to your enquiry!



- · All reinforcements listed in Table 9 refer to the local load application in the anchoring area.
- The necessary reinforcement of the complete structural element must be defined by the responsible planner.
- · The surface reinforcement is to be installed independently of the force application angle.
- · Already existing reinforcement can be counted towards the necessary minimum reinforcement according to

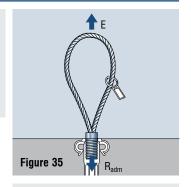


Table 9 – Surface and parallel shear reinforcement in case of parallel shear loads with a force application angle of  $12.5^{\circ} \leq \beta < 45^{\circ}$ 

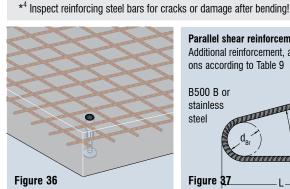
Туре	Surface reinforcement (fig. 33)	<b>Parallel shear reinforcement 12.5°</b> $< \beta \le 45^{\circ}$ (figs. 37 and					
	Mesh type	d <sub>s</sub>	$d_{Br}$	L			
		[mm]	[mm]	[mm]			
ARK 30	Q188	12	48	400			
ARK 36	Q257	14	56	550			
ARK 42	Q257	16	64	600			
ARK 52	Q335	20	90*4	750			

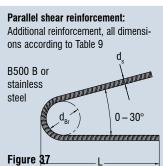


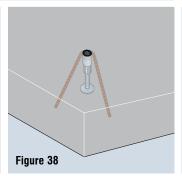


### Notice:

Determination of the stress E (fig. 35) according to VDI/BV-BS







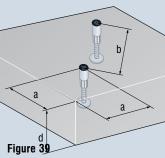
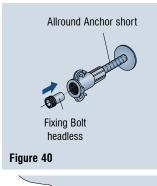
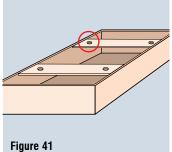
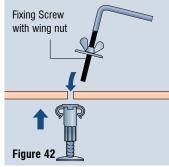


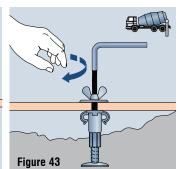
Table 10 - Minimum dimensions and distances (fig. 39)

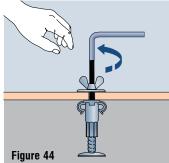
Туре	Edge distance a [mm]	Axis distance b [mm]	Minimum panel thickness d [mm]
ARK 30	490	980	200
ARK 36	650	1300	250
ARK 42	770	1540	300
ARK 52	1050	2100	400

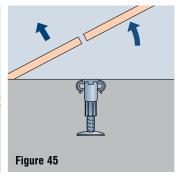










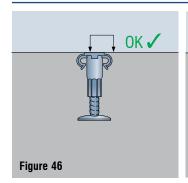


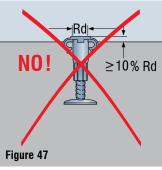


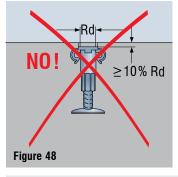
In the pictures shown, the flush-with-the-surface installation variant with the PFEIFER Fixing Bolt headless is illustrated as an example. Different installation variants (e.g. recessed installation) can be found in the Accessories section on page 18.

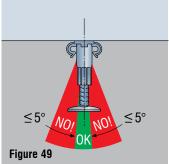
# **Installation tolerances**

### FOR PLANNERS · FOR PRECAST PLANTS · FOR USERS











### Notice:

For a planned, recessed installation according to instructions for installation and use the same tolerance field is to be applied.



### Caution:

Incorrect positions and faulty installation of the anchor can lead to early failure and falling down – danger to life! As a rule, the anchor should be installed flush and at right-angles!

# Misuses

### FOR PLANNERS · FOR PRECAST PLANTS · FOR USERS



### Warning:

Use of the anchor by untrained personnel results in the risk of incorrect use and the risk of structural elements falling down, causing injury or death to persons. Employ only instructed personnel, observing the corresponding instructions for installation and use.

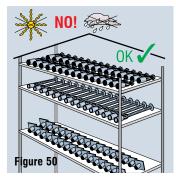


### Warning:

The use of a lifting anchor system to lash structural elements during transport is impermissible. This can result in the load falling down and thus to injury or the death of persons. Use lifting anchor systems only for lifting and moving precast concrete elements.

# Storage

## FOR PLANNERS $\cdot$ For Precast Plants $\cdot$ For USERS







### Notice:

Store thread system components in a dry and protected place. There is a risk of corrosion if there are large changes of temperature, wetness (humidity) or any influence from acids, road salt or sea water!





# **Lifting Keys**

Various lifting keys are suitable for the proper attachment of the lifting anchor located in the concrete via a threaded coupling. PFEIFER provides the correct lifting key for every application case. Hence, every structural element can be raised, transported and placed in the intended position using the tried-and-tested PFEIFER Thread System.

See for yourself ...







# PFEIFER Lifting Loop SOE

- Usage range from 0-45° parallel shear loads
- · Value for money through intelligent use of materials
- · Robust round thread
- · Safety through unambiguous colour coding





# **PFEIFER Lifting Loop waisted SOT**

- Innovative through use in deep recesses
- · Robust round thread
- · Safety through unambiguous colour coding





# **PFEIFER Flared Lifting Loop** TSO

- Flexible seamless application range from tensile to transversal shear loads
- Transverse shear loads possible on account of gentle deflection of the wire rope loop at the flared pressing
- Unique product on the market
- · Value for money through intelligent use of materials
- · Robust round thread
- Safety through unambiguous colour coding









# **PFEIFER Special Lifting Loop SPA**

- Flexible seamless application range from tensile to transversal shear loads
- · Ideal for occasional use
- · Robust round thread
- · Safety through unambiguous colour coding



# **PFEIFER Swivel Eye** DA

- Flexible seamless application range from tensile to transversal shear loads
- Can rotate freely without the risk of unscrewing under load
- · Long-lasting so economical
- · Ideal for frequent use
- · Robust round thread
- · Safety through unambiguous colour coding





Further information on our lifting keys can be found online at:

# www.pfeifer.info/ts-lifting-keys

The items shown are described in detail in the product brochure for the PFEIFER Thread System.





# **Accessories**

PFEIFER offers the most diverse products for simplified formwork fixing as well as various possibilities for a recessed installation of a lifting anchor. Following the successful use of a lifting anchor, the recess remaining on the surface of the concrete structural element needs to be closed. Appealing, high-quality PFEIFER solutions are available to the user for this. See for yourself ...







# **PFEIFER Fixing Bolts**

- · Simple formwork fixing
- · Fast un/screwing thanks to short thread
- Different variants for the top-sided and recessed installation of lifting anchors: headless, shallow, middle and deep (see also page 18)



# **PFEIFER Fixing Screw**

- To be used in combination with the PFEIFER Fixing Bolts
- Simple formwork fixing with formwork in different thicknesses



# **PFEIFER Cover Caps**

- High-quality PFEIFER Cover Caps and Cover Plates are available in different diameters and depths (see also page 18)
- Choice of stainless steel, concrete or plastic
- Visually appealing and architecturally valuable



# **PFEIFER Data Clip**

- Simple assignment of lifting anchors and lifting keys though unambiguous colour coding
- · Considerable saving of time
- Fixing of the lateral additional reinforcement
- Identification of the lifting anchor even in the installed state
- Information shown on the clips:
  - Type/Size
  - Manufacturer
  - Diameter of the additional reinforcement





For a large number of further useful accessories, visit us online at:

# www.pfeifer.info/ts-accessories

Please refer to the product brochure for the PFEIFER Thread System for detailed information on the items shown.

Formwork fixing	Usable Lifting Keys	Possible closing/cap	
Fixing Screw Formwork: Wood Plastic Steel  Fixing Bolt headless Data Clip  Lifting Anchor	Swivel Flared Special Eye Lifting Loop  Lifting Loop	External Cap small (plastic)	Installed flush with the surface with headless fixing bolt or hex bolt.
Fixing Screw  Formwork:  Wood Plastic Steel  Fixing Bolt shallow  Data Clip  Lifting Anchor	Flared Lifting Loop	External Cap Cover Cap small shallow (plastic) (stainless steel)	Installed recessed 3–5 mm with fixing bolt shallow.
Fixing Screw Formwork: Wood Plastic Steel  Fixing Bolt middle  Data Clip  Lifting Anchor	Flared Lifting Loop	External Cap middle (plastic) (stainless steel)  Cover Plate concrete middle	Installed recessed 10–15 mm with fixing bolt middle.
Fixing Screw Formwork: Wood Plastic Steel  Fixing Bolt deep  Data Clip  Lifting Anchor	Lifting Loop	External Cap Cover Cap small deep (plastic) (stainless steel)	Installed recessed 30 mm with fixing bolt deep.
Fixing Screw  Formwork:  Wood Plastic Steel  Fixing Bolt middle  Recess Disc  Data Clip  Lifting Anchor	Swivel Flared Special Eye Lifting Loop  Lifting Loop	External Cap short (plastic)  Cover Plate (stainless steel/concrete large)	Installed recessed with magnetic disc or recess disc and fixing bolt middle.





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

edeclares that the load lifting attachments "PFEIFER Thread System" according to item 2d), consisting of the following system components:

PFEIFER Lifting Loop, Rd 12, 14, 16, 18, 20, 24, 30, 36, 42, 52

PFEIFER Flared Lifting Loop, Rd 16, 20, 24, 30, 36

PFEIFER Swivel Eye, Rd 12, 14, 16, 18, 20, 24, 30, 36, 42, 52, 56, 60

PFEIFER Special Lifting Loop, Rd 12, 14, 16, 18, 20, 24, 30, 36, 42, 52, 56, 60

PFEIFER Allround Anchor long, Rd 12, 14, 16, 18, 20, 24, 30, 36, 42, 52

PFEIFER Waved Anchor long, Rd 12, 14, 16, 18, 20, 24, 30, 36, 42, 52, 56, 60

PFEIFER Bar Anchor, Rd 12, 14, 16, 18, 20, 24, 30, 36, 42, 52

PFEIFER Socket, Rd 12, 14, 16, 18, 20, 24, 30, 36, 42, 52

PFEIFER Waved Anchor short, Rd 12, 14, 16, 18, 20, 24, 30, 36, 42

PFEIFER Bolt Anchor, Rd 12, 14, 16, 18, 20, 24, 30

PFEIFER Allround Anchor short, Rd 30, 36, 42, 52

PFEIFER Flat Steel Anchor, Rd 12, 14, 16, 18, 20, 24, 30, 36, 42, 52

PFEIFER Bar Anchor cropped, Rd 20, 24, 30, 36, 42, 52

PFEIFER Repair Kit Rd 16, 20, 30

on the basis of their design and construction are compliant with the requirements of the **directive 2006/42/EC of the European Parliament and the Council of 17**th **May 2006 concerning machines and with the amendment to the directive 95/16/EC** (in short: EC machinery directive 2006/42/EC).

### **Applied harmonised standards**

- EN ISO 12100:2011-03

Safety of machinery – general design principles – risk assessment and risk reduction

### Other applied standards or specifications

Directive VDI/BV-BS 6205:2012-04

Lifting anchors and lifting anchor systems for precast concrete elements

Principles, dimensioning, applications

### The person responsible for the creation and maintenance of the technical documentation is

- Dipl.-Ing. Christoph Neef

Manager, Development Connecting and Lifting Systems, PFEIFER Seil- und Hebetechnik GmbH

PFEIFER Seil- und Hebetechnik GmbH

Memmingen, 17.12.2018

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Business Unit Manager, Connecting and Lifting Systems

i. /. //

Dipl.-Ing. Christoph Neef

Manager, Development Connecting and Lifting Systems



The contact details of our locations and sales partners can be found at



# www.pfeifer.info/contacts-cls

We look forward to hearing from you!



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