Walls
Concrete inserts for solid, sandwich, double and L-shaped walls
For secure cohesion …

PFEIFER Connecting and Lifting Systems has been one of the leading manufacturers of professional concrete inserts for many decades. In the construction industry there is a variety of different wall types that have to be moved and connected together properly. PFEIFER’s products cover these applications completely. In several application examples, this brochure provides an overview of the specific wall elements concerned as well as the concrete inserts required.
Contents

Solid walls
Lifting solutions ................................................................. 4
Fixing solutions ........................................................................ 6
Connecting solutions .............................................................. 8
Reinforcing solutions ............................................................. 10

Sandwich walls
Solutions for lifting and connecting ........................................... 12

Double walls
Solutions for fixing and reinforcing .......................................... 14

L-shaped walls
Lifting solutions ....................................................................... 16

Product overview ..................................................................... 18

Notes ...................................................................................... 21
Solid walls
Lifting solutions

Lifting anchors or lifting anchor systems are normally used for the lifting and placement of solid walls made of steel reinforced concrete or masonry. The anchors must be reliable in use. They have to absorb safely all impacts from handling, lifting and assembly and transmit them into the structural element. In particular with very tightly packed and also minimal reinforcement layouts in thin solid walls, the PFEIFER lifting solutions offer an ideal performance.
**Thread System**
- Lifting anchor system with threaded coupling
- Wide variety of products for specific installation situations
- Low reinforcement outlay
- Slim wall geometries possible
- Extensive range of accessories

**WK System**
- Lifting anchor system with spherical head
- Cost-effective due to a considerable saving of time for attachment
- Ideal for heavily reinforced structural elements
- Sturdy lifting devices with clear marking

**BS Anchor System**
- Wire rope loop lifting anchor system
- Extremely high loads can be transported (standard anchors up to 85 t)
- No additional lifting devices necessary
- Flexibility of the wire rope

**Brickwork Anchor**
- Wire rope loop lifting anchor system
- Ideal for prefabricated masonry panels
- Simple integration into the cavities of bricks
- Flexibility of the wire rope

... Available anchor versions also for lightweight concrete walls ...
Solid walls
Fixing solutions

Besides lifting anchors, PFEIFER has also been producing products for permanent fixings to concrete elements for over 25 years. PFEIFER offers the ideal solution for all demands on a fixing: whether for the implementation of load-bearing, approved fixing points or structural solutions for subordinate structural elements.
**DB Anchors for permanent fixings**
- Permanent, load-bearing fastening point
- High performance through use in earthquake zones too
- Sign clip shows the load direction when installed
- Free dimensioning software
- European Technical Assessment (ETA)

**Alternative for the DB Anchor:**
**Anchor Bolt G1-K**
- Permanent, load-bearing fastening point
- Anchoring of the highest loads
- Integrated threaded bolt for connection
- Free dimensioning software
- European Technical Assessment (ETA)

See product overview page 18

**Socket Dowels/Polyamide Socket**
- Structural fastening points
- No additional reinforcement necessary
- Extensive range of variants

The illustrations are purely conceptual graphics.
Solid walls
Connecting solutions

PFEIFER offers a wide variety of solutions for connecting the structural elements temporarily during the installation or permanently. The majority of all wall connections can thereby be implemented innovatively and efficiently. The focus here is on the connection of a wall to the foundations or a column as well as corner connections or T-joints.
Fixing Bracket LCON
- Temporary or permanent angular connecting element for concrete elements
- Flexible tolerance ranges
- Fits all anchor systems
- Economical because reusable
- Type-static verified load capacities

Wall Shoe PWS
- Complete system for the transmission of tensile and shear forces
- Secure screw connection with foundation anchors
- Flexible tolerance ranges
- High safety standard guaranteed by industrial prefabrication
- Usable even from the smallest of wall thicknesses

Wall Connector
- Practical construction tolerances (both axial and angular deviation)
- Simple connection with bolts
- Can be disassembled

The illustrations are purely conceptual graphics
Solid walls
Reinforcing solutions

PFEIFER offers various solutions for the transmission of all loads through a secure and clever reinforcement layout in the contact area of two wall elements. These can be used innovatively and efficiently both for the connection of a wall to the column and for corner connections and T-joints.
VS® Systems
- Efficient wire rope loop system for the connection of walls
- No direction sensitive installation of the rails and bars
- Flexible case-related positioning of boxes
- Optimum profile for optimum connection
- Low mortar consumption, wide selection of mortar systems
- Saving of assembly time through high degree of prefabrication
- German approval

PH System
- High-performance reinforcement continuity system
- Reliable load transmission through screw connections
- Planned construction sections without protruding bars – no risk of accident
- Can also be used in earthquake regions
- German approval

The illustrations are purely conceptual graphics.
**Sandwich walls**

**Solutions for lifting and connecting**

The PFEIFER product range includes all concrete inserts required for the manufacture and assembly of sandwich walls. In addition to different lifting anchor systems, these also include various sandwich anchor systems as a solution for connecting together the load bearing layer, insulation layer and facing layer of a three-level wall.
**Sandwich Anchor System**
- Approved bearing anchors and shear connectors for the connection of the facing and load bearing layers (high-quality stainless steel)
- Implementation of high insulating layer thicknesses up to 400 mm without thermal bridges
- Simple installation, no pre-drilling of insulating boards
- High design resistance
- Efficient planning using free dimensioning software

**Cropped lifting anchors**
- Particularly suitable for three-level sandwich panels
- Screw or spherical head version
- Perpendicular positioning of the wall elements
- Attachment of various lifting devices possible

**General note for sandwich walls:**
With sufficient thickness of the load bearing layer, all applications and products mentioned in the solid wall section can also be implemented.
Double walls
Solutions for fixing and reinforcing

Double walls consist of two concrete panels that are connected by lattice girders. The central layer is casted on the construction site with cast-in-situ concrete. PFEIFER also offers suitable products for these special wall elements in order to securely connect them both during the installation and permanently with a load bearing connection.
**Fastening for push-pull props MoFi**
- Secure support of a double wall against wind and light impacts
- Use in combination with conventional bolts
- Qualified for use in waterproof double wall constructions
- Usable even from very small wall thicknesses of 50 mm or more
- German approval

**FS System**
- Unique due to many connection options and areas of application
- Flexibility guaranteed by case-specific box positioning
- No subversive elements in the assembly
- No danger of injury through protruding reinforcing steel bars
- German approval
L-shaped walls
Lifting solutions

L-shaped retaining walls are used both in gardening and landscape construction and for the securing of trenches and embankments. PFEIFER offers special lifting anchor systems for this.
**Bent Loop**
- Wire rope loop lifting anchor system
- Particularly suitable for L-shaped walls
- Low minimum wall thickness
- Simple integration in existing mesh reinforcement
- No additional lifting devices necessary

**Manhole Lifting System SAS**
- Lifting anchor system for L-shaped walls and manhole elements
- Special lifting devices, attachment perpendicular to the anchor axis
- Fixed attachment bolt

**General note on L-shaped walls:**
The innovative Reinforcement Connection System PH is recommended if the L-shaped wall is to be supplemented by cast-in-situ concrete. Every kind of fixing can be implemented with the aid of DB Anchors as well as Socket Dowels and Polyamide Sockets.
Product overview

Solid walls

Lifting solutions

Thread System
WK System
BS Anchor System
Brickwork Anchor

Fixing solutions

DB Anchors for permanent fixings
Anchor Bolt G1-K
Polyamide Socket
Socket Dowels

Connecting solutions

Fixing Bracket LCON
Wall Shoe PWS
Wall Connector
Reinforcing solutions

VS® Systems

PH System

Sandwich walls
Solutions for lifting and connecting

Cropped lifting anchors

Sandwich Anchor System
**Double walls**
Solutions for fixing and reinforcing

Fastening for push-pull props MoFi  
FS System

**L-shaped walls**
Lifting solutions

Bent Loop  
Manhole Lifting System SAS
Notes

| www.pfeifer.info |
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!