

# Stationary Concrete Pumps

## **High-Pressure Concreting**



# **LIEBHERR**

# Investing for increased profit



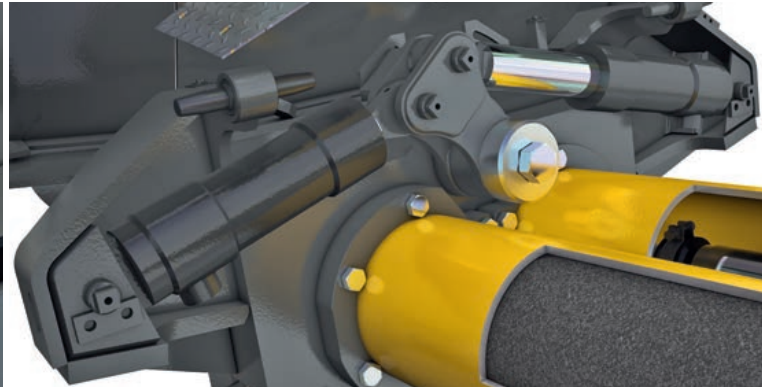
## Sound investment – financial savings over the long term

Maximum life-expectancy and reduced servicing costs ensure smooth and cost-effective operation over many years. Superior resale prices are an additional customer benefit.

Liebherr's rugged stationary concrete pumps are ideally suited for height and extension requirements of concrete conveyance via concrete lines or concrete distribution systems.

When purchasing from Liebherr, you are guaranteed high-quality "Made in Germany" products designed for the most demanding of applications. We place utmost value on quality and all of our installed components are acquired from renowned manufacturers. Comprehensive test series and field tests, as well as meticulous material analyses guarantee maximum life-expectancy of the concrete pump.

Innovative pump units, the hydraulic system and state-of-the-art control ensure extremely cost-effective operation of the stationary concrete pumps.



#### **Cost-effective**

- The overall construction is designed for maximum pump output and cost-effective operation.
- All moving parts are highly wear-resistant and are easy to replace.

#### **Powerful**

- All components are largely dimensioned for powerful pump operation.
- End position damping of the pivoting cylinder ensures particularly smooth running of the pump.

# Overview of stationary concrete pumps

## Crawler concrete pumps

The crawler concrete pumps are particularly suited for building site applications in which the working position is regularly changed.

- Low-emission, environmentally-friendly engine (Tier 4i)
- Large, protected suction opening for optimum cooling performance
- Large-sized cover for easy access to all components
- Remotely-controlled crawler drive allows flexible manoeuvrability on the building site





### Trailer-mounted concrete pumps

The trailer-mounted concrete pumps are ideally suited for arduous applications on large or small building sites across the globe.

- Lifting lug
- Specially formed discharge hopper for optimum concrete flow
- Two independent agitator motors channel the concrete to the suction opening
- Solid, torsionally-resistant basic frame
- Powerful and smooth-running pump unit
- Rugged, fully-galvanised support feet

# Rugged



## Perfectly designed for everyday building site applications

The entire design was conceived with everyday use on any building site throughout the world in mind, whether in 40° Celsius weather in Dubai, or extreme winter conditions in Russia.



The pump unit is mounted on an extremely rugged steel frame. A sturdy sheet metal housing ensures protection against the weather and noise reduction. A large steel grid provides protection for the cooling system in the suction area and guarantees reserves for cooling performance. All components are compactly integrated and encased in a state-of-the-art design.

### **Rapid discharge of the hopper**

The large-sized, sturdy gate on the base of the receiving hopper allows speedy discharge of residual concrete and easy cleaning.



### **Optimum concrete flow**

Largely-dimensioned and robust conveyance lines with considerable radii ensure an unrestricted flow of concrete and reduced frictional resistance.



# Versatile



## Adaptable for applications on all building sites

Liebherr stationary concrete pumps require only minimal space on the building site, are quickly set up and can be positioned anywhere. Regardless of the height or distance being pumped, the control of the pumps guarantees maximum versatility.





### Concrete placement

A climbing mast or a rotary distributor attachment allow quick and cost-effective placement of concrete. Concrete distributor systems and concrete pumps from Liebherr are designed to work in perfect harmony with one another.

Mixing, transport and pumping of concrete – Liebherr provide it all in one.

### Concrete pile foundations

The Liebherr THS 1100 D-K with drilling equipment for concrete pile foundations.

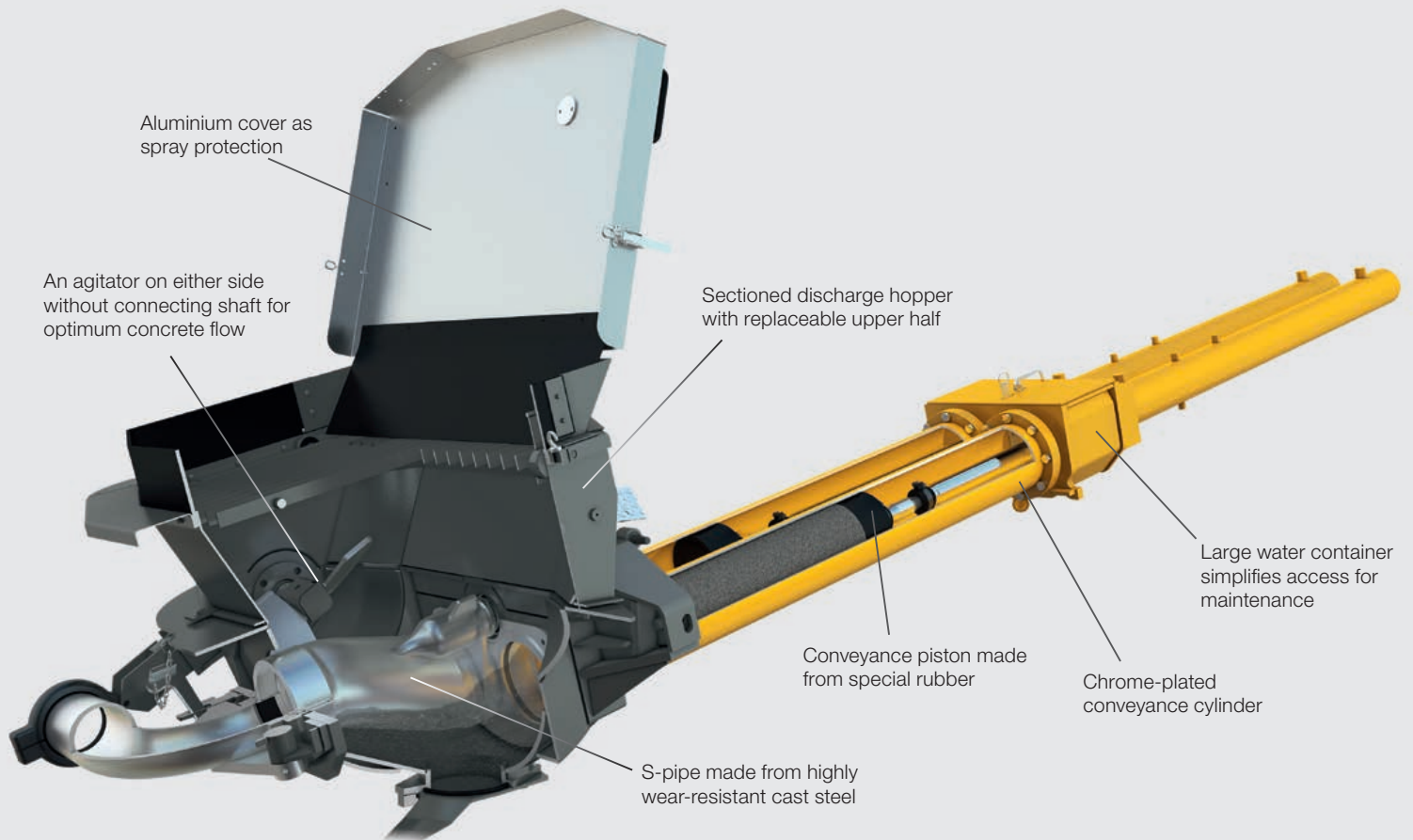


### Concrete elevation requirements

Liebherr trailer-mounted pump THS 80 D fulfilling concrete elevation requirements on a tower block building site.



# Powerful



## Powerful and smooth-running pump units

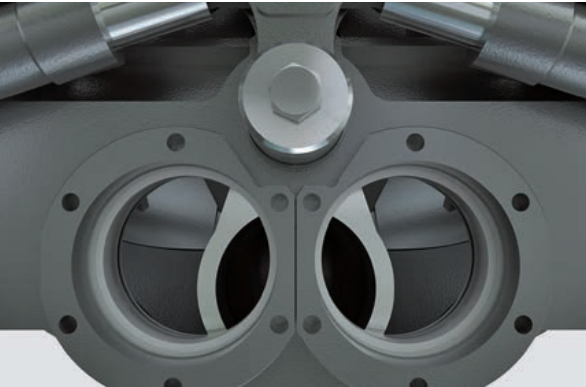
Liebherr employs an open hydraulic circuit. This system is reliable, easy to maintain and does not require pressure storage.

### **S-pipe system**

A dual-pivoted S-pipe with adjustable axial stop forces the concrete from both conveyance cylinders into the conveyance line. The design is particularly impressive due to minimal concrete deformation, reduced pressure loss and low wear.

### **Long life-expectancy**

of the bearing and seal surfaces attributable to automatic and stepless wear compensation, as well as an efficient pivoting pipe seal featuring automatic central lubrication.



#### **Largely-dimensioned**

- Large-sized suction openings on the cylinder facilitate smooth pump operation and outstanding suction performance.
- Largely-dimensioned hydraulic cylinders allow a powerful switchover with hydraulic pressures of up to 320 bar.

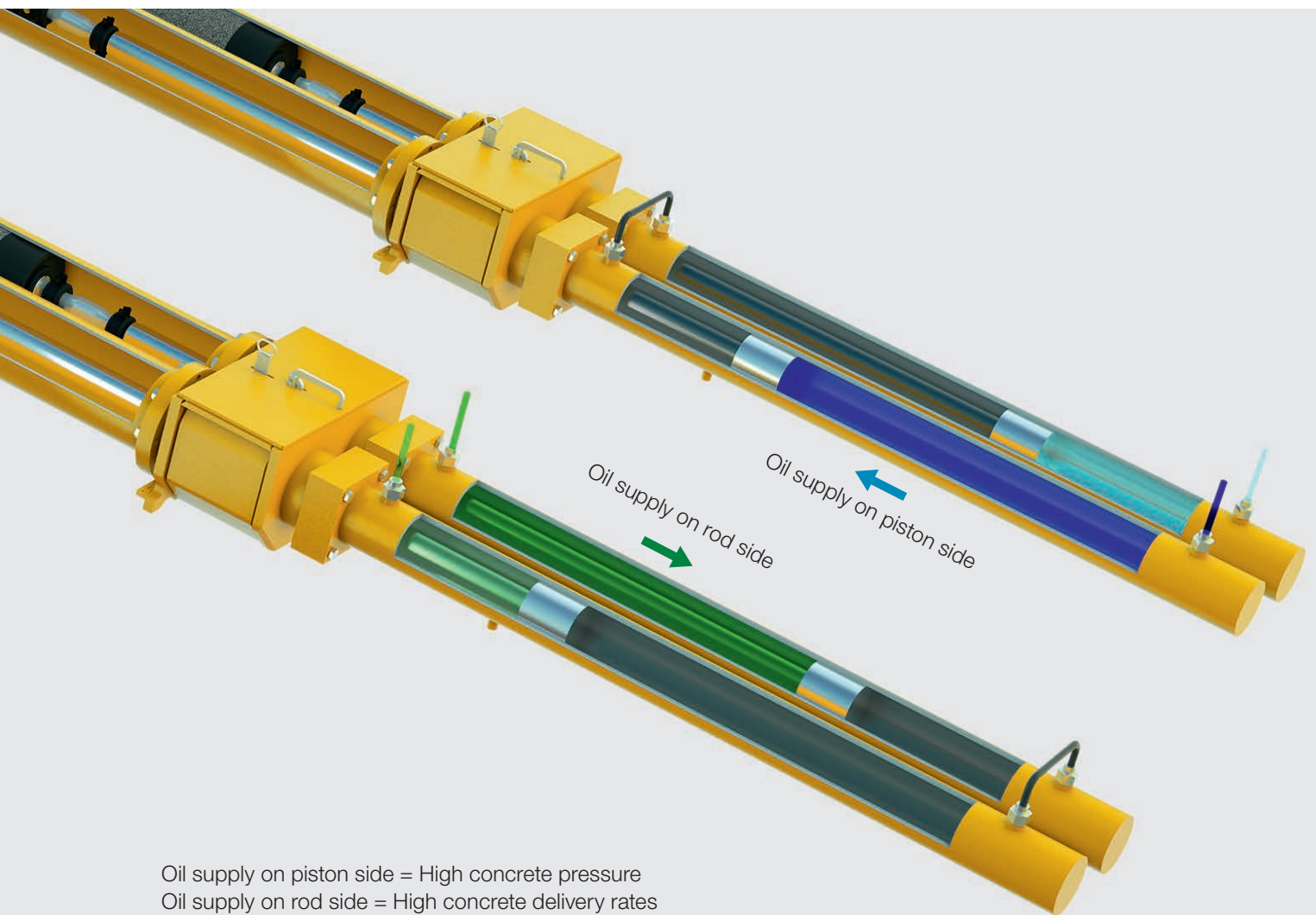
#### **Optimised hopper form**

- Reduced deposition of concrete due to optimised forming of the discharge hopper with smooth surfaces and no projecting edges.
- Improved concrete flow due to individually powered agitator paddles on left and right. No connecting shaft is therefore required between the paddles. Cleaning is thus also performed quickly and effortlessly.

#### **Excellent suction properties**

Innovative technology ensures optimum flow and suction properties to allow maximum degree of filling for the conveyance cylinders, even when pumping very firm concrete consistencies.

# Variable hydraulics



## Quickly adaptable to application requirements

The hydraulics can be reset between higher delivery rate or higher pressure in accordance with the respective application. A special hydraulic connection plate simplifies this changeover.

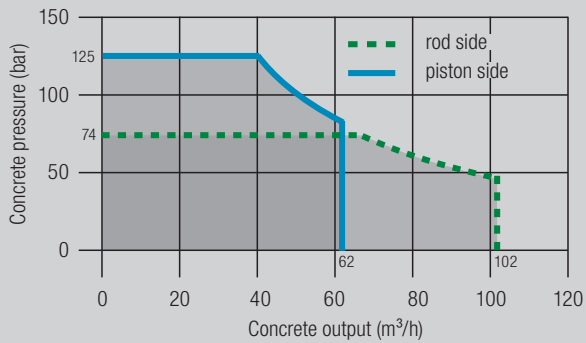
### Optimum pump configurations

Liebherr stationary concrete pumps are available in diverse configurations depending on type and hydraulic oil supply:

- Oil supply on piston side:  
Piston functions more slowly with more power  
= High concrete pressure for greater heights
- Oil supply on rod side:  
Piston functions more quickly with less power  
= High concrete delivery rates

### Hydraulic control

- Electro-hydraulic sequence control with automatic stroke adjustment.
- Switchover of drive cylinder and S-pipe is executed automatically via end position sensor control.



### Pump output

Output diagram with pump unit THS 110 D/THS 110 D-K as an example.

### Effortless switchover

The serial connection plate allows a quick and effortless switchover of hydraulic oil supply on the piston side to hydraulic oil supply on the rod side.

# Full control



## Central main control station

All relevant operating and display units are within comfortable reach via a central main control station.

### Mobility

The crawler concrete pump is particularly adaptable on the building site and may be manoeuvred effortlessly via radio remote-control. Installation of concrete pile foundations is a typical application for the crawler concrete pump. The concrete pump in this case functions parallel with the drilling equipment.

### Added operational safety

Alternative operating modes allow continued pumping at all times, for example:

- A secondary back-up controller ensures uninterrupted emergency operation in the event of the main controller failing.
- Hydraulic pressure relaying following failure of a sensor, ensuring direct continuance of the pumping action.



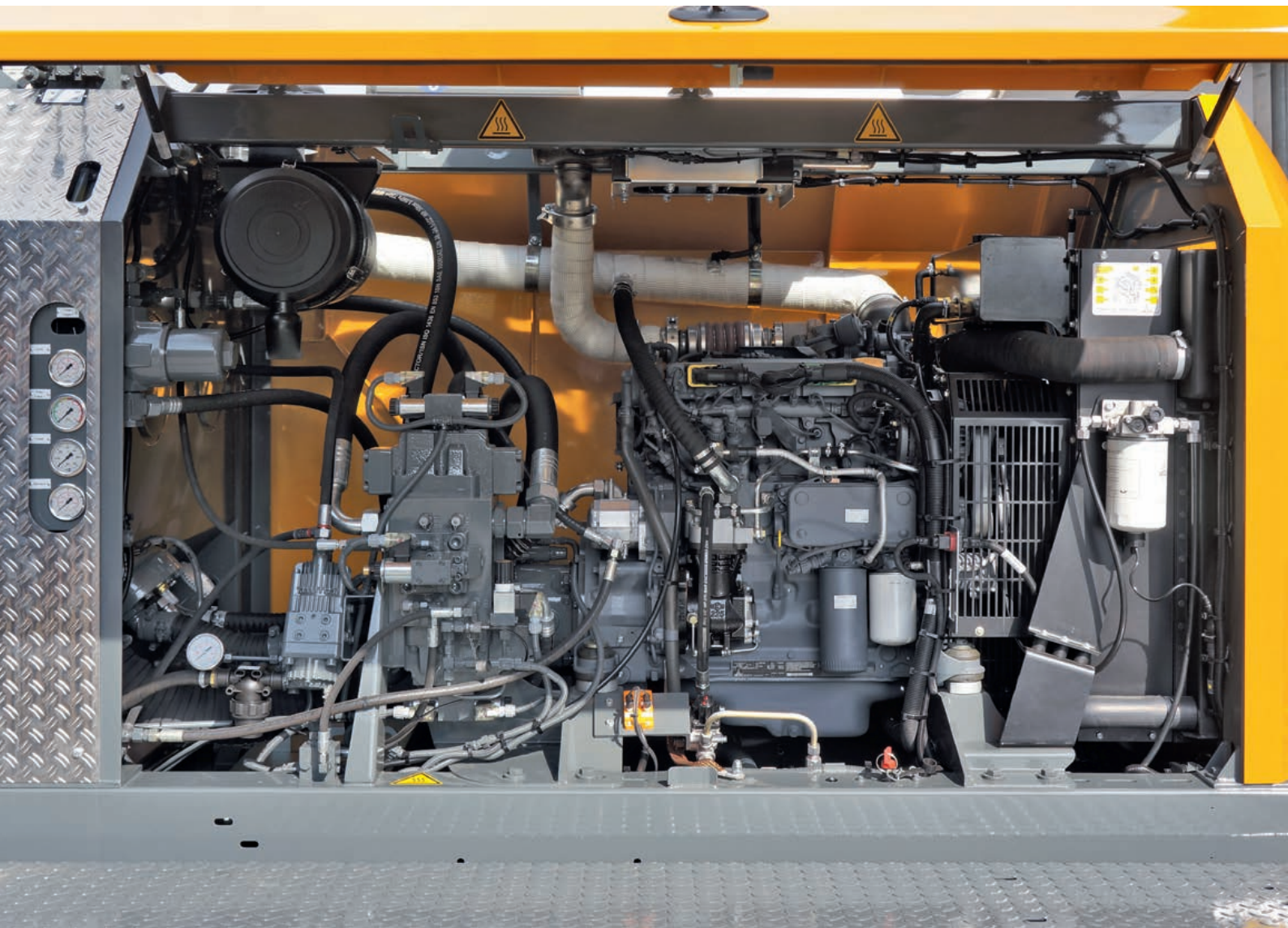
### Radio remote-control

The state-of-the-art radio remote-control of the crawler concrete pump allows sensitive communication of all commands to the machine from a clearly arranged operator's position.

### Operating and display unit

A state-of-the-art operating and display unit provides information regarding all operating conditions and allows local operation without the need for radio communication.

# Maintenance-friendly



## Optimum accessibility

The new Liebherr design of the stationary concrete pumps allows plenty of room for the carrying out of maintenance work in the interior. At the same time, the side-mounted cover hoods provide protection against sun and rain when open.





### Exceptionally roomy

As well as providing optimum access for maintenance work, the large-sized openings on both sides also allow simple management of the diesel tank.

### Effortless cleaning

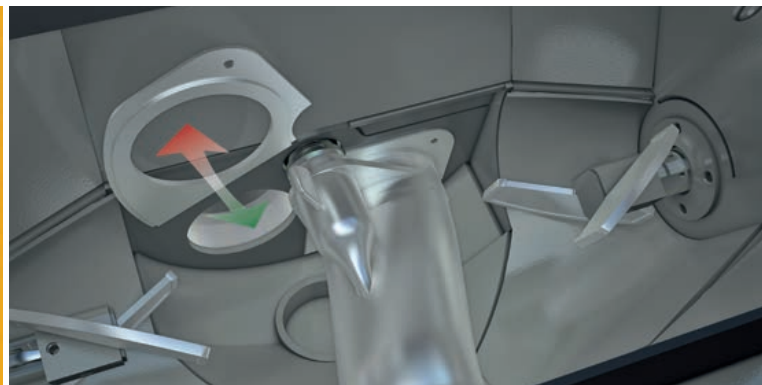
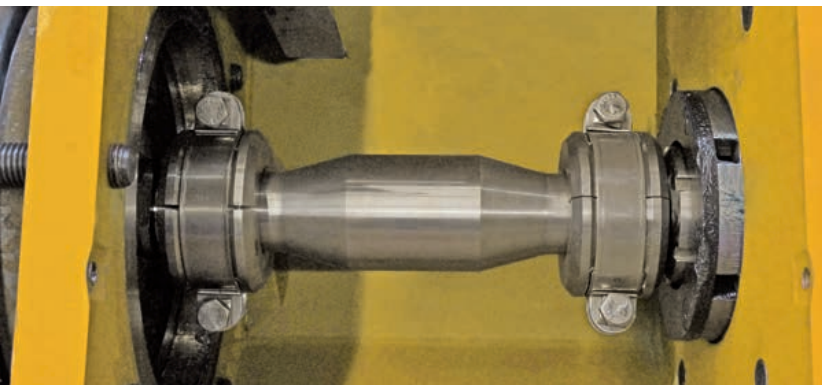
Smooth outer surfaces without protruding edges facilitate easier cleaning.

### Simple replacement of pistons

- A multitude of design details have simplified the replacement of wear parts in order to optimise the carrying out of maintenance.
- The conveyance pistons, for example, can be replaced extremely easily thru the water container.

### Sectioned spectacle wear plate

- The rugged S-pipe is designed to ensure long life-expectancy. The sectioned spectacle wear plate can be replaced with little effort, and without having to dismantle the S-pipe.




# Compact power



	Trailer-mounted concrete pumps	Crawler concrete pumps
	<b>THS 80 D</b>	<b>THS 80 D-K</b>
Max. delivery rate (rod side)	71 m <sup>3</sup> /h	71 m <sup>3</sup> /h
Max. concrete pressure (piston side)	125 bar	125 bar
	<b>THS 80 DH</b>	<b>THS 110 D-K</b>
Max. delivery rate (rod side)	73 m <sup>3</sup> /h	102 m <sup>3</sup> /h
Max. concrete pressure (piston side)	160 bar	125 bar
	<b>THS 110 D</b>	<b>THS 140 D-K</b>
Max. delivery rate (rod side)	102 m <sup>3</sup> /h	135 m <sup>3</sup> /h
Max. concrete pressure (piston side)	125 bar	95 bar
	<b>THS 140 D</b>	
Max. delivery rate (rod side)	135 m <sup>3</sup> /h	
Max. concrete pressure (piston side)	95 bar	



	Trailer-mounted concrete pump 
	<b>THS 70 E (electric)</b>
Max. delivery rate (rod side)	66 m <sup>3</sup> /h
Max. concrete pressure (piston side)	125 bar

# Fittings and accessories



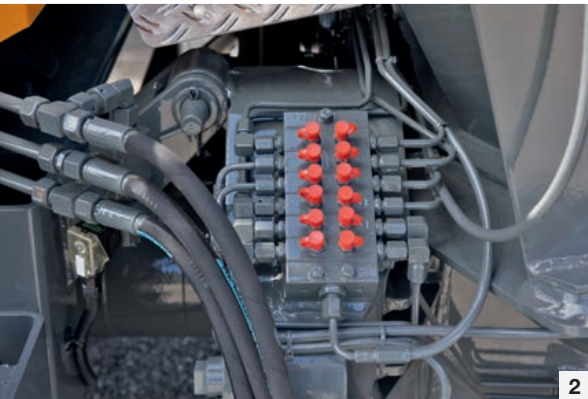
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3



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2



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6

1 Radio remote-control  
(crawler concrete pump)  
2 Central lubricant distributor

3 Conveyance line (crawler concrete pump)  
4 High-pressure cleaner (optional)

5 Tool box with basic configuration  
6 LED lighting

## Spare parts and wear parts

A globally expansive Liebherr service assures quick availability of all essential spare parts. All components used are of the highest quality and are acquired exclusively from renowned manufacturers. Reliable operation of our concrete pumps can therefore be guaranteed.



# Concrete technology from Liebherr

Liebherr provide a comprehensive range which encompasses the whole of concrete technology from a single source, from the production of concrete, to concrete transport and installing concrete on the building site. More than 60 years of experience and continued further development has guaranteed Liebherr status as a globally-renowned provider in the concrete production sector.



## Many years of experience

Featuring capacities of 5 to 15 m<sup>3</sup> nominal volume for the transport of concrete, the fixed-mounted truck mixers provided by Liebherr are compatible with all established chassis. Configuration as a semi-trailer is available in 9 to 15 m<sup>3</sup> nominal volume. An extremely comprehensive accessories catalogue completes the range.

## The correct solution for every requirement

Liebherr truck mounted concrete pumps featuring various configurations with boom sizes of up to 47 metres radius are perfectly designed for cost-effective supply of concrete onto the building site. Powerful stationary concrete pumps are available as trailer concrete pumps or as self moving concrete pumps mounted on a crawler. The concrete pump range also includes concrete distributors or climbing booms. Truck mixer concrete pumps are ideal for smaller building sites.

## System solutions from a single source

The conveyor belt mounted on the truck mixer is also perfectly suited for applications on smaller building sites. Featuring a radius of up to 16.4 m, the conveyor belt is operational in no time. As well as concrete, the conveyance of materials such as sand and gravel is also possible.

## Quality and state-of-the-art technologies

Liebherr concrete mixing plants are employed reliably and cost-effectively on a worldwide scale. The product range includes stationary plants in horizontal and vertical configurations, as well as mobile mixing plants for short term building site applications.

Liebherr's own mixing systems, capable of discharge rates between 30 and 300 m<sup>3</sup>, are installed in the concrete mixing plants. Liebherr also provide optimum solutions for residual concrete. The residual concrete recycling plants are available in „trough“ and „screw“ type series and feature washing outputs of between 10 and 22 m<sup>3</sup> per hour.

[www.liebherr.com](http://www.liebherr.com)

## Liebherr-Betonpumpen GmbH

Lessingstr. 4, 89231 Neu-Ulm / Germany  
☎ +49 731 72905-0, Telefax: +49 731 72905-30  
[www.liebherr.com](http://www.liebherr.com), E-Mail: [info.lbp@liebherr.com](mailto:info.lbp@liebherr.com)