

Top class in power and technology – the newly developed BSS 70-5 semi-trailer machine

Optimised down to the finest detail

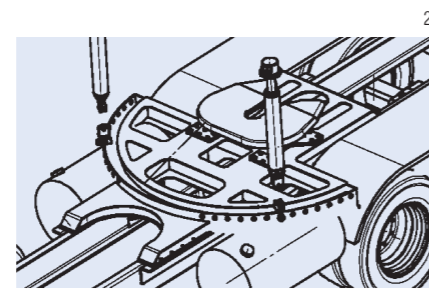
The new BSS 70-5 combines the world's only 69.3 m vertical reach boom with the latest Putzmeister concrete pump technology – in terms of steel construction, hydraulic systems and electrical systems.

In order to be able to deploy a machine of this size, however, a detailed overall concept was required. In terms of load distribution, design of the semi-trailer superstructure or determination of the distance between axles, the Putzmeister team set new benchmarks.

With almost 30 years of experience in the design and construction of long-reach boom pumps, Putzmeister now offers its customers the BSS 70-5, a reliable truck-mounted concrete pump which can show strengths precisely in large construction projects.

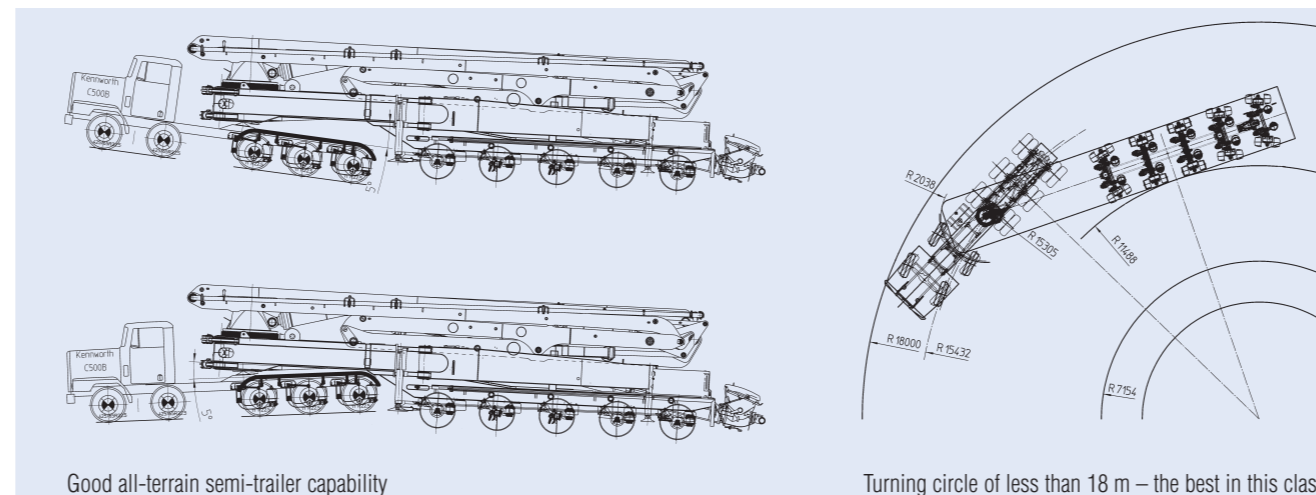
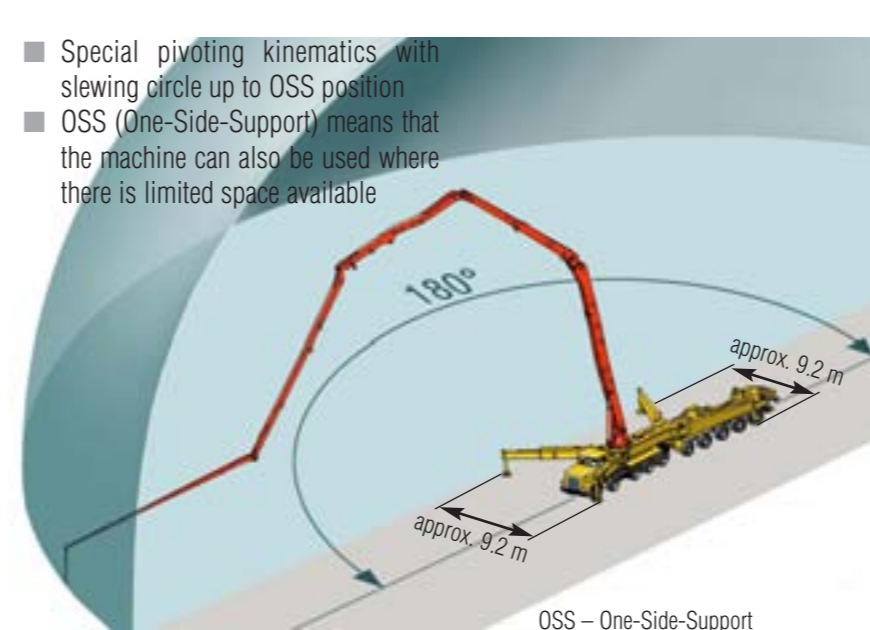
Reliable stability thanks to innovative support technology (IRS)

For the BSS 70-5, new paths have been forged in the design of the side support and semi-trailer attachment system. The necessary stability for the long-reach boom pump is achieved through the rear swinging support legs and a new forward support system with a special coupling and pivoting kinematics. The "3-point mounting suspension" used as the connection to the semi-trailer makes it possible to use the weight of the tractor unit as the stationary weight. This design solution reduces the weight required on the Putzmeister semi-trailer and allows the narrowest possible support width. Thus, an angled position between the truck and the semi-trailer is also possible. This has advantages in awkward construction site situations and enables optimal adjustment to the terrain.



Small support area, gigantic working range

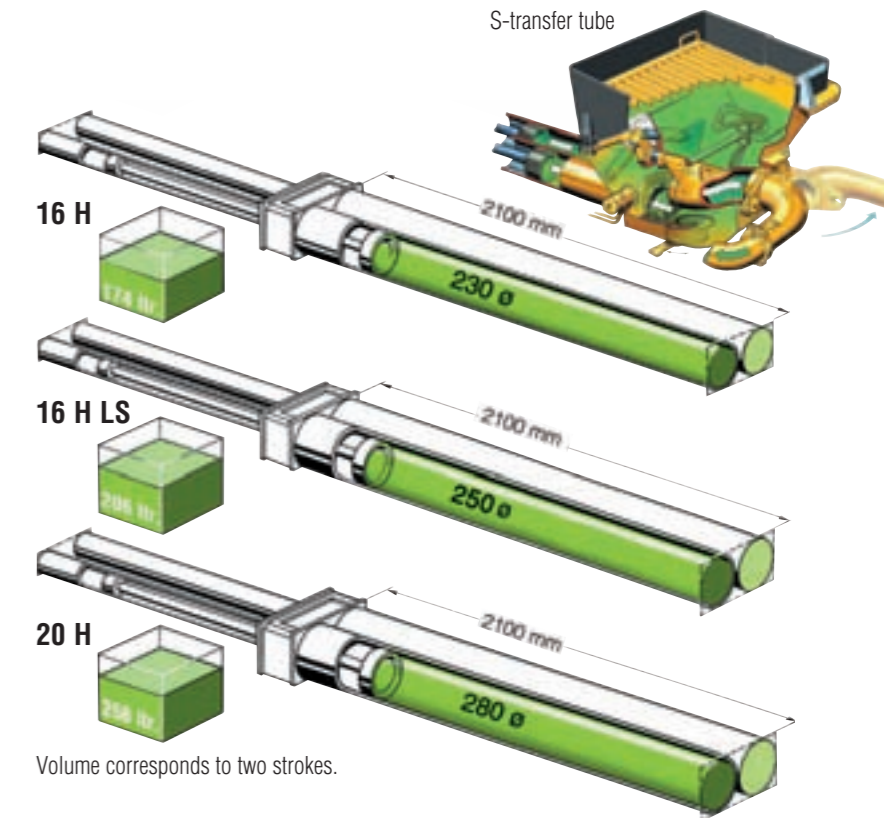
- 5-arm boom with RZ-folding for optimum flexibility
- RZ-folding allows good reach to floors at different heights. The boom can be completely unfolded above the area where the truck is standing – ideal for work in limited spaces.
- Boom delivery line consists of max. 3 m pipes – for easy handling.
- The IRS support system achieves optimal weight and support width thanks to the telescoping front legs



Large-volume pumps improve wear and filling rate

Large cylinder volumes have proved themselves, as they reduce the change-over frequency and wear and increase smooth running. The boom functions more quietly owing to the smaller number of change-overs.

The important factors in this are the larger diameter and corresponding stroke length, not a longer cylinder. Intake resistance is thus reduced. The finest components are not evacuated so much, and even more difficult concrete retains its pumpability with a high fill level.



Top-class equipment as standard

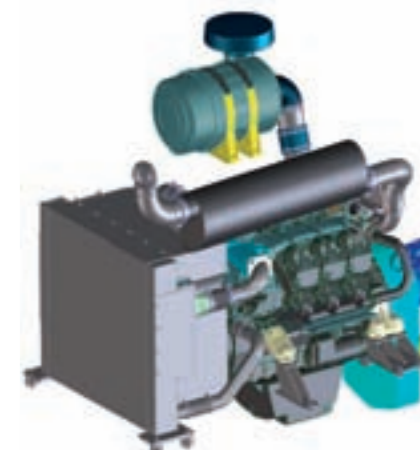
- EPS (Ergonic® Pump System) and EOC (Ergonic® Output Control)
- EBC (Ergonic® Boom Control)
- EGD and EGD-RC (Ergonic® Graphic Display on control cabinet and radio remote control)
- OSS (One Side Support)
- Centralised lubrication system for hopper and arm assembly
- 16 timber blocks
- Support leg illumination
- CAN bus display for the independent power unit
- and much more

■ A water-cooled, turbo-charged Deutz V6 (TCD2015) diesel separate engine with 330 kW (450 HP) supplies the boom and core pump with the necessary power.

■ The engine with 11,900 ccm and 2000 Nm torque (at 1,300 rpm) provides high performance with low fuel consumption and complies with TIER 3.



CAN bus display for the separate engine



3D model of the Deutz separate engine



Ergonic® Systems

The technical advancement for more efficiency – standard with M 70!



Greater efficiency, lower costs, increased flexibility – these are the results that Putzmeister concrete pumps with Ergonic® systems can achieve in practice. Being ready for use more quickly, achieving increased placing performance, being fuel efficient and working with little wear and tear are important economic

factors generally, and not just for machine and pump operators. Construction site managers have also been convinced by the potential of Ergonic®: the construction site is running more efficiently and Putzmeister pumps with Ergonic® are simply set up to place concrete in a shorter time. Ergonic® systems are microprocessor-assisted con-

trol systems for the control, regulation and monitoring of concrete pumps and booms. Further information about Ergonic® systems can be found in our brochure BP 3763 GB.



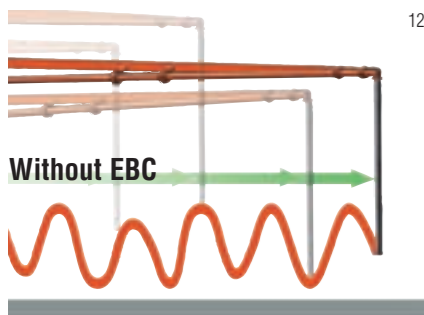
The clear display on the remote control provides up-to-date feedback and system information about the machine. Various parameters can be set here. The strength of the radio signal and charge status of the battery is indicated via bars.

EBC – Ergonic® Boom Control

controls and regulates concrete placing booms. EBC enables a higher placement rate, reinforces occupational safety on the construction site and makes boom operation easier. EBC includes functions such as the damping of boom vibrations, the horizontal extension of the end hose at a constant height, or the specification of a working area (upper/ lower limits).

EPS – Ergonic® Pump System

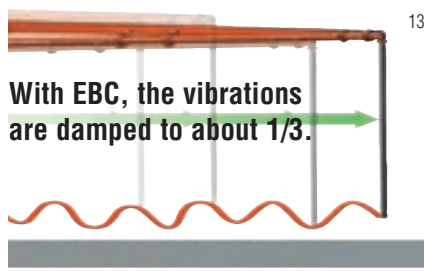
constantly monitors and regulates the operation of the concrete pump and the truck engine. Pump data, such as delivery pressure, delivery rate of the hydraulic pump, hydraulic pressure and many other signals, is actively and perfectly co-ordinated. This means maximum productivity and performance with minimum intervention from the operator.



Without EBC: Stop-start movements when the boom is moved and slewed and pump pulsations cause various degrees of deflection in the end hose.



Important information on the machine is indicated by the EGD (Ergonic® Graphic Display)



With EBC: EBC reduces the vertical movement of the boom to about 1/3 and also damps the deflection of the end hose in all directions.



Pump pressure and power can be very easily and quickly set to the respective requirements – this is important e.g. for renovation work

EOC – Ergonic® Output Control

ensures economic operation of the concrete pump. It automatically regulates the ideal engine speed with the lowest consumption, wear and noise.

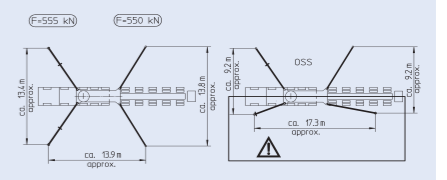
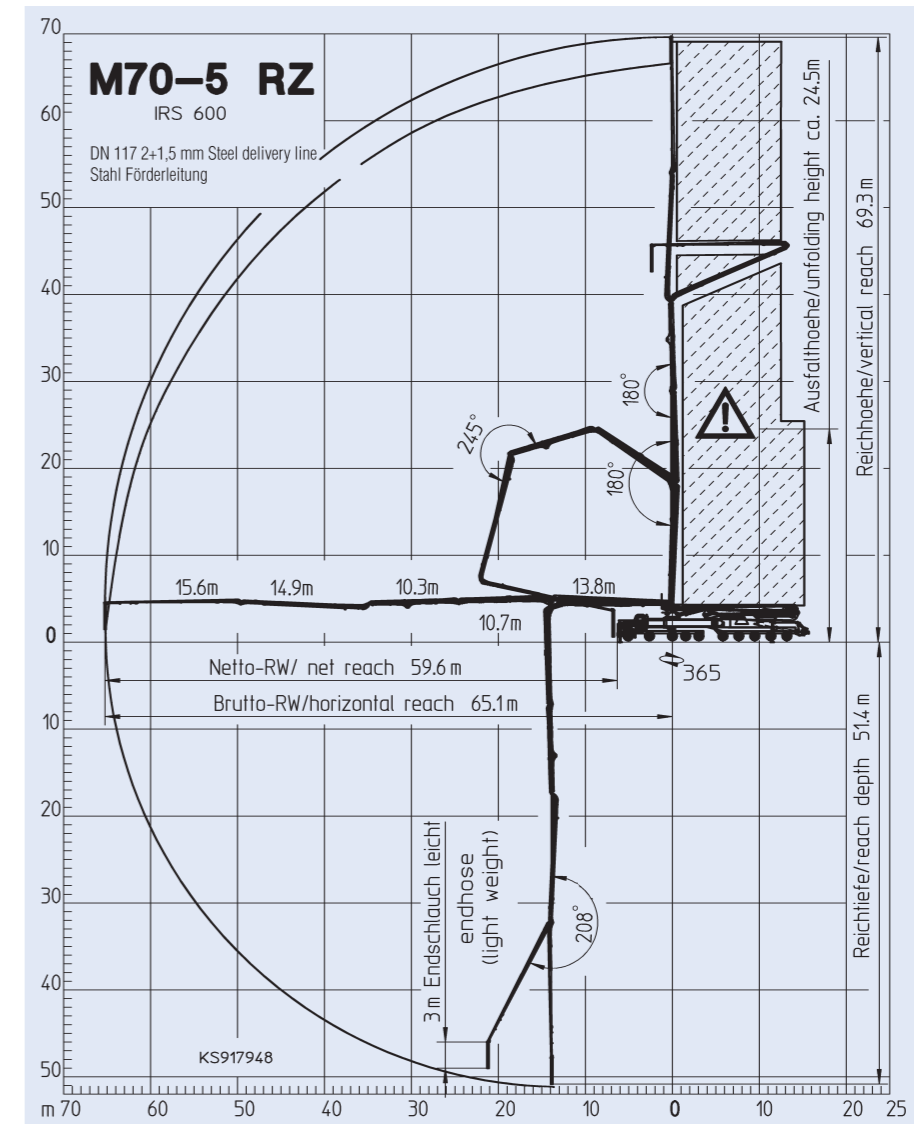
The EOC function is integrated in the EPS (Ergonic® Pump System).



You can set the delivery rate of your pump using just one rotary knob on the remote control. The EOC automatically controls the speed, avoiding the range which is unfavourable for the respective engine.

Truck-mounted concrete pump M 70-5

The largest truck-mounted concrete pump in the world – the original by Putzmeister!



Technical data

Boom M 70-5

Folding type	5-section roll-Z-fold (RZ)
Vertical reach	69.3 m
Horizontal reach	65.1 m gross
Reach depth	51.4 m
Unfolding height	24.5 m
Length end hose	3 m
Delivery line	DN 117 2+1,5 mm
	Proline 67 HRC max. 85 bar
Slewing range	365°

Support

Support width front	approx. 13.4 (9.2) ¹ m
Support width rear	approx. 13.8 (9.2) ¹ m
Support length	approx. 13.9 (17.3) ¹ m

Vehicle

Tractor	Kenworth C500B 10x6/4
	370 kW (500 HP)
Separate engine	Deutz TCD2015 V6
	330 kW (450 HP)
Axles	10 (3 driven)
Total length	approx. 21.4 m
Weight	< 80 t

Pump BSF .20 H

Output	200 m ³ /h
Concrete pressure	85 bar
Delivery cyl.-Ø /-stroke	280/2100 mm
Strokes/min	26

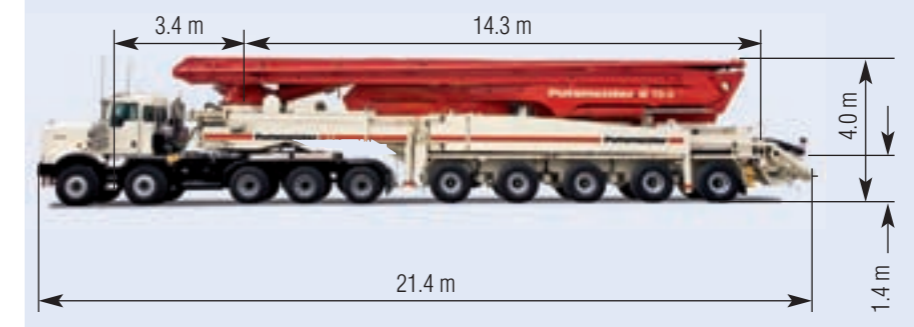
Pump BSF .16 H LS

Output	160 m ³ /h
Concrete pressure	85 bar
Delivery cyl.-Ø /-stroke	250/2100 mm
Strokes/min	26

Pump BSF .16 H

Output	160/108* m ³ /h
Concrete pressure	85/130* bar
Delivery cyl.-Ø /-stroke	230/2100 mm
Strokes/min	31/21*

All values max. theoretical.
* rod side / piston side - Max. output and max. concrete pressure cannot be operated simultaneously.
Standard boom pipework: max. pressure 85 bar
¹ figures in brackets with OSS-support



The Putzmeister Group
Concrete Technology PCT · Mortar Technology PMT
Pipe Technology PPT · Water Technology PWT
Industrial Technology PIT · Belt Technology PBT
Underground Technology PUC

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