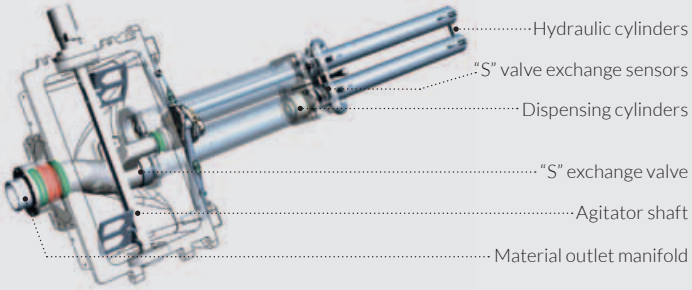
BOOSTER 50

Twin-cylinder piston pump

BOOSTER 50 diesel engine Stage 5 - 53 kW
1106500

BOOSTER 50 R diesel engine Stage 5 - 53 kW, EU road-towable approved
1106505

Essential but innovative technology:
- Control panel with self-diagnostics
- Mini display with diagnostic functions and hour counter
- Visual signaling for regeneration of the DPF filter
- Automatic Power Adjustment: automatic regulation of engine rpm
- SMART/STOP fuel reserve
- Pressure gauges for the control of hydraulic oil pressures



Description

Booster 50 is a wheeled pump suitable for all types of construction sites, and is able to satisfy the different pumping and handling needs of concrete even over long distances and at considerable heights.

Booster 50 is equipped with Automatic Power Adjustment system which reduces fuel consumption and CO2 emissions significantly (engine rpm adjustment system based on the power required for pumping).

It can be fed by truck mixer or directly by batching plant.

Equipped with conical "S" valve 180 mm to 150 mm with variable thickness, obtained from the fusion of special steels, and self-compensating wear ring, to minimize wear even with particularly abrasive concretes.

It is suitable for pumping:
- Concrete with a maximum grain size of 35 mm
- Fiber-reinforced concrete
- High Strength Concrete
- Refractory concrete (only for wet application)
- Screeds with expanded clay / sand / cement
- Screeds with EPS / sand / cement
- Cement / anhydride-based self-levelling screeds
- Injections on piles by gravity or pressure

Optimized to work simultaneously with the GERRIS 800 self-propelled concrete placing boom.

Operation

Booster 50 is a two-cylinder piston pump with switching valve ("S" valve). The pumping cylinders are 180 mm in diameter and have a stroke of 1000 mm. The switching valve is an ultra-fast exchange with a "Sure positioning electronic system", controlled by two inductive sensors. It ensures optimal operation even with more difficult concrete. The operation is completely hydraulic, with an axial piston main pump with variable flow and constant power and a gear pump for the auxiliary services (agitator shaft, pressure washer and supercharging). The "Open" type hydraulic circuit offers the particular advantage of keeping the oil temperatures low in any working condition, and is capable of developing a maximum pressure of **260 bar**.

"Cool Fast" system

A third pump is provided only for moving the oil from the tank to the generous radiator, keeping the operating temperatures low during continuous cycle work even in tropical climates.

The material must be unloaded into the hopper directly from the batching plant / concrete mixer / dumper / large mixers. Passing through the vibrating grid, it is filtered of any bodies of excessive size.

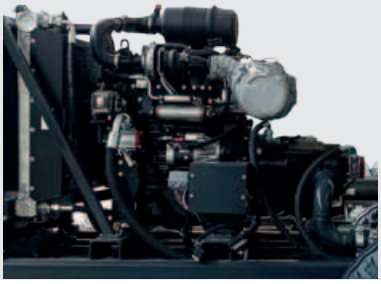
Booster 50 works with the following cycle:
- The agitator in the bottom of the hopper drives the material in front of the dispensing cylinders.
- The piston inside the dispensing cylinders sucks the material from the hopper until it reaches its limit switch backwards.
- The exchange sensors detect the arrival of the piston and drive, through the exchange cylinders, the position of the "S" valve, which is controlled by sensors for a "Sure positioning" in the following pumping phase.
- The piston that had finished its backward stroke (in suction) now pushes and pressurizes the material into the hoses through the "S" valve, while the other piston is engaged in the suction phase. The cycle is renewed from 2 to 33 times per minute, depending on how the operator sets the material flow rate in the control panel.

EU road-towable approved.
With braking system, approved wheels, wheel lock wedges, mudguards, light bar and anticyclist bars. Standard on Booster 50 R.

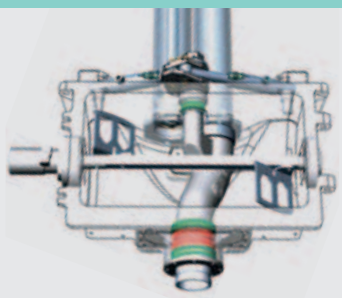
5-function cable **remote control** (standard):
- March
- Stop
- Inversion
- Flow rate increase
- Flow rate decrease

Large 350 l hopper with internal agitator.

Hopper unloading door.



Spacious engine compartment, easily accessible for periodic maintenance.
High reliability and reduced consumption thanks to the Yanmar 4TNV98CT-NY12D Stage 5 Final Tier 4 engine combined with the main axial piston pump with variable flow rate and constant power.



Maximum performance thanks to:
- Conical-shaped "S" switching valve (180 mm to 150 mm) controlled by the **"Sure positioning electronic system"**
- Cylinder with Hardox® steel wear plates
- Self-compensating wear system
- Agitator shaft to avoid segregation of the material during work

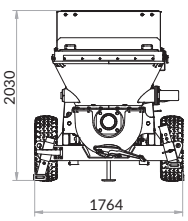
Standard Equipment

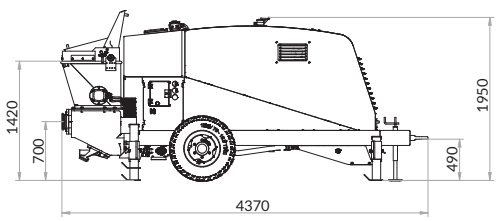
Liquid cooled diesel engine Yanmar Stage 5 Final Tier 4
Variable flow hydraulic pump
Hopper with agitator shaft
Hopper grid with 12V electric vibrator
Free flow hydraulic system
Pumping group with "S" switching valve
DN 150 (6") delivery manifold
ANTI-SHOCK control panel
Mini display with diagnostic functions and hour counter
Cable remote control 4 functions with 30 m cable
Tool kit for replacing pumping pistons
Automatic greasing pump
Axle with wheels
Four manual stabilizers
Adjustable handling bar (Booster 50)
EU road-towable approved (Booster 50 R)

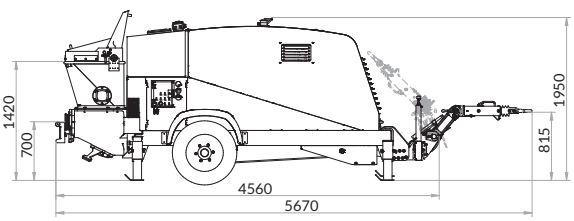
Technical data

Diesel engine Yanmar Stage 5		4TNV98CT-NY12D
Installed power	kW	53
Pumping system		Two-cylinder piston
Grain size	mm	35
Material flow (*)	m^3/h	3-50
Pumping pressure (*)	bar	80
Pipe connection manifold	mm	150
Hopper capacity	l	350
Loading height	mm	1420
Horizontal pumping distance (*)	m	250
Pumping height (*)	m	150
Pumping cylinder size	mm	180
Pumping cylinder stroke	mm	1000
Number of S-valve exchanges	min	2-33
Machine dimensions w / l / h	mm	1764/4370/1950
Machine dimensions w / l / h (R version)	mm	1764/5670/1950
Machine weight	kg	3100
Packed machine dimensions w / l / h	mm	1764/4370/1950
Packed machine dimensions w / l / h (R version)	mm	1764/4560/1950
Packed machine weight	kg	3100
Sound pressure level	dB (A)	<103

(*) The data on distance, height and hourly output are non-binding indicative values, which vary according to the consistency of the materials and the chosen configuration. Maximum pumping pressure and maximum flow are inversely proportional, never obtainable simultaneously.







Optional accessories for customized setups **BOOSTER 50**

IMERVIEW KIT Booster 50 Connect 4.0
• GPS-GSM electronic control unit, GPS antenna integrated and air pressure sensor
• Web Dashboard access and Cloud storage
• 5 years of data traffic included
• Pre-delivery installation included.
➦ Recommended for remote control:
• Geo fencing with immediate alert "machine outside perimeter"
• GPS position and movement tracking
• Battery status
• Working environment temperature
• Hydraulic system analysis
• Direct connection to Imer Service

1107700

➦ Recommended for pumping in general

1107001

5 functions radio control kit
• March
• Stop
• Inversion
• Flow rate increase
• Flow rate decrease

➦ Recommended for pressure washing the machine and pipes

1107729

High flow water pump 50 l/min 50 Bar

➦ Recommended for washing pipes with auxiliary air compressor or auxiliary water pump

1107713

Cleaning kit for pipe DN 125 mm 5" with water or compressed air.
Composed of:
• 1 sponge basket DN 5"
• 1 water/air washing hose DN 5"
• 2 DN 5" Fixed lever coupling
• 2 gaskets DN 5"
• 4 washing sponges DN 150

➦ Recommended in combination with code 1107713, for washing single or stacked pipes

1107610

C400 piston compressor 230V/50Hz 2.2 kW

➦ In cases of pumping in multiple directions without interruptions, several linear columns of pipe are prepared. This particular diverter allows to divert the concrete flow in a different direction quickly without disconnecting the pipes from the original column

1107712

DN 125 mm 5" manual exchange valve

➦ Recommended for pumping upwards and downwards
• Upwards: it interrupts the downward flow of the concrete allowing to disconnect the pump for washing.
• Downwards: it blocks the flow of concrete during stops, so that the pipe does not empty completely and it is possible to start again.

1107711

DN 125 mm 5" manual slide valve

Basic kit pumping concrete grain size 30 mm

➦ Recommended for pumping:
• Concrete with a maximum grain size of 35 mm (1 + 1/4")
• Fiber-reinforced concrete
• High Strength Concrete
• Refractory concrete (only for wet application)
• Screeds with expanded clay / sand / cement
• Screeds with EPS / sand / cement
• Cement / anhydride-based self-levelling screeds
• Injections on piles by gravity or pressure

1107701

Accessories contained in the Kit for pumping concrete with max. grain size 30 mm
(pipes total length 24 m)
• 7 Steel pipe DN 5" (diam 125 mm) L= 3 m
• 1 Rubber hose DN 5" (diam. 125 mm) L = 3 m
• 2 Steel bend DN 5" R = 500/90°
• 2 Steel bend DN 5" R = 500/45°
• 12 DN 5" Fixed lever coupling
• 12 Seal for DN 5" coupling
• 1 Washing sponge for pipes (diam. 150/200)
• 1 90° steel bend
• 1 DN 6" Fixed lever coupling
• 1 6" (150 mm) gasket
• 1 Output Reduction 6"-5" (150 mm to 125 mm)

Additional accessories to the basic kit **1107701**

1107702		Steel pipe DN 5" l=3m
1107703		Steel pipe DN 5" l=1m
1107716		Output reduction DN 150 - 125 mm 6"-5"
1107727		Output reduction DN 125 GF - 100 mm 5"-4" Light
1107726		90° steel bend DN 150 6" R=250/90°
1107704		Additional steel bend DN 125 mm 5" R=500/90°
1107705		Additional steel bend DN 125 mm 5" R=500/45°
1107714		DN 6" Fixed lever coupling
1107706		DN 5" Fixed lever coupling

1107707		Extension rubber hose DN 125 mm 5" l. 3 m (double collar)
1107718		Rubber hose DN 25 mm 5" l. 3 m (free outlet)
1107724		Rubber hose DN 100 mm 4" l. 1 m connected 125 mm 5" on one side only (free outlet)
1107725		Kit n° 5 seals for coupling DN 150 mm 6"
1107708		Kit n° 5 seals for coupling DN 125 mm 5"
1107709		Washing sponge DN 150 mm 6" for pipes DN 125 mm 5"