# **BOOSTER 15**

#### Twin-cylinder piston pump

**Booster 15** diesel engine Stage 5 - 22.3 kW **1106120** 

Booster 15 R diesel engine Stage 5 - 22.3 kW EU road-towable approved 1106121





#### Description

Booster 15 is an extremely small and light stationary concrete pump, capable of pumping concrete with a maximum grain size of 25 mm, or projecting micro concrete with a grain size of up to 12 mm. The machine is equipped with a variable displacement hydraulic pump that allows to vary the number of S-valve switches per minute, increasing or reducing the useful flow rate of the material according to the application.

Compact and reliable, it is equipped with:

Hydraulic pump with variable flowIMER electronic control board

• Yanmar engine Stage 5

"Cool-Fast" cooling systemSoundproofed engine compartment

Ideal for small and medium-sized construction sites, especially if located in places where the operating spaces are small and / or difficult to reach with other pumping systems.

#### It is suitable for pumping:

- Concrete with a maximum grain size of 25 mm (1")
- Fiber-reinforced concrete
- Self-compacting concrete
- Refractory concrete (only for wet application)
- Grouting or fill core grout
- Self-levelling cement / anhydride based flow screeds
- It is suitable for spraying:
- Shotcrete
- Shotcrete with setting accelerating additives
- Structural mortar, also fiber-reinforced

Booster 15 can be optimized to meet specific pumping or spraying needs, thanks to the availability of a wide range of optional accessories.

### Hydraulic cylinders "S" valve exchange sensors Dispensing cylinders Ø120 mm and stroke 700 mm S-valve tube Agitator shaft Ø100 material outlet manifold

#### Operation

Booster 15 is a two-cylinder piston pump with exchange S-tube valve. The pumping cylinders are 120 mm in diameter and have a stroke of 700 mm. The S-valve has an elongated conical shape (from Ø 120 to Ø 100) and is equipped with a special self-compensation system for the wear of the sealing plates.

Booster 15 is based on a completely hydraulic free flow operation, capable of developing 220 bar of pressure. The particular and exclusive cooling system "Cool Fast" of the hydraulic oil provides the use of a special auxiliary hydraulic pump and a generously sized air / oil radiator. The "Cool Fast" system is able to guarantee continuous operation even with high ambient temperatures.

The material must be unloaded into the hopper directly from the batching plant / truck mixer / dumper / large mixers. Passing through the vibrating grid, it is filtered by any excessively large stones. In the case of pumping with small diameter hoses (Ø 50 mm), the machine can be equipped with a thin mesh grid.

Booster 15 works with the following cycle:

- The agitator in the bottom of the hopper accompanies the material in front of the dispensing cylinders.
- The two pistons inside the dispensing cylinders suck the material from the hopper until it reaches its limit switch backwards.
- The exchange sensors detect the arrival of the piston and control, through the exchange cylinders, the position of the S-valve.
- The piston that had finished its backward stroke (in suction) now pushes and pressurizes the material into the pipe through the S valve, while the other piston is engaged in the suction phase.

The cycle is renewed from 4 to 34 times per minute, depending on how the operator sets the material flow rate in the control panel.

**EU road-towable approved** (approved up to 140 Km / h). With braking system, 195 R14 wheels, wheel lock wedges, mudguards, light bar and anticyclist bars. Standard on Booster 15 R.





5-function cable **remote control** (standard):

- March
- Stop
- Inversion
- Flow rate increase Flow rate decrease





### ANTI-SHOCK control panel:

- Material flow regulation
- Hydraulic pressure control gauges
- Emergency operating system in case of failure of the
- exchange sensors
- Hour counter

- - Maximum performance thanks to:
  - Quick exchange of S-valve tube
  - Cylinder with Hardox® steel wear plates
     Self-componention ductors
  - Self-compensation system of wear
  - Agitator shaft to avoid segregation of the material during work

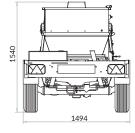
### **Standard Equipment**

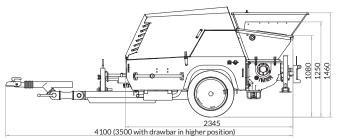
Liquid cooled diesel engine - Yanmar 3TNV82A-BDYE Stage 5
Hopper with agitator shaft
Hopper grid with 12V electric vibrator
Free flow hydraulic system
Pumping group with S-valve tube
Victaulic 4 "delivery manifold (Ø 100 mm)
ANTI-SHOCK control panel
Hour meter
Cable remote control 5 functions
Tool kit for replacing pumping pistons
Manual greasing pump
Axle with wheels 195R14
Adjustable handling bar (Booster 15 version)
EU road-towable approved (Booster 15 R version)

### **Technical data**

Diesel engine Stage 5		3TNV82A-BDYE2
Installed power	kW	22.3
Pumping system		Two-cylinder piston
Grain size	mm	25
Material flow*	m³/h	2-15
Pumping pressure*	bar	70
Pipe connection manifold	mm	Victaulic 25 (4")
Hopper capacity		240
Loading height	mm	1080
Horizontal pumping distance	m	200
Pumping height	m	80
Pumping cylinder size	mm	120
Pumping cylinder stroke	mm	700
Number of S-valve exchanges	min	4 - 34
Machine dimensions w/l/h	mm	1494/4100/1540
Machine weight	kg	1550
Packed machine dimensions w / I / h	mm	1550/1550/3500
Packed machine weight	kg	1610
Sound pressure level	dB (A)	<103
(*) The data on distance, height and hourly output are non-bi	nding indicative va	lues, which vary according to the

(\*) 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 15**

<ul> <li>Kit IMERVIEW Prestige/ Booster 15 Connect 4.0</li> <li>GPS-GSM electronic control unit, GPS antenna integrated and air pressure sensor.</li> <li>Web Dashboard access and Cloud storage</li> <li>5 years of data traffic included</li> <li>Pre-delivery installation included.</li> </ul>		Watch the video on our YouTube channel
<ul> <li>Recommended for control:</li> <li>GPS position (and movement tracking)</li> <li>Hours of work per day</li> <li>Memorization of the number of work cycles</li> <li>Management costs analysis</li> <li>Ambient working temperature</li> <li>Scheduled maintenance</li> <li>Diesel engine alarms</li> <li>Compressor alarms</li> <li>Remote problem analysis</li> <li>Direct connection to Imer Service (when required)</li> </ul>	1107639	
➡ Recommended when loading the material with a truck mixer	1107196	Booster rubber hopper extension 380 l kit, loading height 1250 mm
Recommended when loading the material with a batching plant	1107197	Booster steel hopper extension 500 l kit, loading height 1460 mm
➡ Recommended for automatic and continuous lubrication	1107170	Automatic greasing system kit
➡ Recommended to speed up washing operations	1107171	High pressure cleaner kit 140 bar
➡ Recommended for pumping in general	1107001	5 functions radio control kit • March • Stop • Inversion • Flow rate increase • Flow rate decrease
EU road-towable approved (Other models available in the Spare Parts section)	1107069	Caravan hook kit for Booster R (other models available in the Spare Parts section)

# Accessories for specific applications **BOOSTER 15**

Fitting accessories suitable for pumping aggregates with a grain size of 19 mm → Recommended for pumping: • Concrete grain size 0-19 mm • Fiber-reinforced concrete • Self-compacting concrete • Refractory concrete (only for wet application) • Grouting and fill core grouting • Self-levelling cement / anhydride based screeds	1107178	Inspection and lubrication steel bend 90° for 4" Victaulic pipes
	1107200	Steel bend 45° Ø 3¼" (75 mm)
	1107199	Steel bend 90° Ø 3¼" (75 mm)
	1107179	Victaulic Ø 4" fixed lever coupling for Ø 100 pipes
	1107193	Victaulic Ø 3¼" fixed lever coupling for Ø 75 pipes
	1107191	Reduction cone Ø 100 (4") - Ø 75 (3¼") att. Victaulic I = 1000 mm
	1107190	Rubber extension hose Ø 75 L 10 m Victaulic 3¼ "+ Victaulic 3¼"
	1107180	Victaulic kit for gasket for Ø 4" coupling for Ø100 pipes
	1107194	Kit of 5 Victaulic Ø 3¼" joint gaskets for Ø75 pipes
	1107195	One sponge ball for pipes Ø 75 (3 ¼")

#### Basic kit pumping concrete grain size 25 mm (1")

#### Accessories for pumping concrete with maximum grain size 25 mm (1")

- ← Recommended for pumping: Concrete with a maximum grain size of 25 mm
- Fiber-reinforced concrete
- Self-compacting concrete
- Refractory concrete (wet only)
- Grouting and fill core grouting

Total packaging weight (kg) 330 Pallet dimensions w / I / h (mm) 1100/3000/1100 Box dimensions w / I / h (mm) 370/800/470



#### Accessories contained in the Kit

- 7 Steel pipes Ø 4" L 3 m Victaulic 4"
- 1 rubber hose 4" L 3 m Victaulic 4" free outlet
- 2 steel bends Ø 4" r = 250/90 ° Victaulic
  2 steel bends Ø 4" r = 250/45 ° Victaulic
- 12 Fixed lever coupling Ø 4" Victaulic
- 15 Gasket for Victaulic Ø 4" coupling
- 1 sponge collection basket Ø 4"
- 1 steel bend 90 ° 4" Victaulic
- 1 cap for Ø 100 Victaulic bend

## Additional accessories to the basic kit **1106123**

Steel pipe extension Ø 4" I = 3 mt Victaulic 4"	1107185	Rubber hose extension Ø 100 mm l. 3 m Victaulic 4"- Victaulic 4"
Steel pipe extension Ø 4" l = 1 mt Victaulic 4"	1107186	Rubber end hose Ø 100 mm l. 3 m Victaulic 4"- free exit
Column support vertical pipes Basic bend for pumping pipe column	1107198	U bend Ø 100 4" with hook for castings ir raised tube formwork with forklift / crane / excavator
Additional steel bend Ø 4" r = 250/90° Victaulic	1107180	Victaulic kit nr 5 gasket for Ø 4" coupling for Ø100 pipes
Additional steel bend Ø 4" r = 250/45° Victaulic	1107202	Optional accessories for cleaning the pipe with compressed air 4" hose cleaning kit
Victaulic Ø 4" fixed lever coupling for Ø100 pipes	1107184	Optional accessories for cleaning the pipe with compressed air Sponge collection basket Ø 4"
Column support vertical pipes Pipe support Ø 4" for wall	1107183	One sponge ball for pipes Ø 100 (4")
	Victaulic 4"         Steel pipe extension Ø 4" l = 1 mt         Victaulic 4"         Column support vertical pipes         Basic bend for pumping pipe column         Additional steel bend Ø 4" r = 250/90°         Victaulic         Additional steel bend Ø 4" r = 250/45°         Victaulic         Victaulic         Victaulic         Victaulic         Column support vertical lever coupling for Ø100 pipes         Column support vertical pipes	Victaulic 4"110/185Steel pipe extension $\emptyset$ 4" l = 1 mt1107186Victaulic 4"1107186Column support vertical pipes Basic bend for pumping pipe column1107198Additional steel bend $\emptyset$ 4" r = 250/90° Victaulic1107180Additional steel bend $\emptyset$ 4" r = 250/45° Victaulic1107202Victaulic $\emptyset$ 4" fixed lever coupling for $\emptyset$ 100 pipes1107184Column support vertical pipes1107183

## Setups for specific applications **BOOSTER 15**

#### 1106124

#### Shotcrete kit suitable for spraying aggregates with a maximum particle size of 12 mm

- ← Recommended (excluding the use of the gun and the additional compressor) for pumping:
- Self-levelling cement / anhydride based screeds
- Self-compacting concrete
- Grout and core fill grouting
- ← Recommended for spraying:
- Shotcrete
- Structural mortars also fiber reinforced
- ← Minimum requirements for additional compressor 4500 l/min - 159 cfm (optional)





#### Shotcrete kit base hoses Ø 50 L30m Victaulic (without additive)

#### Accessories contained in the Kit

- 2 rubber hoses Ø 50 L 10 m Victaulic 2" Victaulic 2"
- 1 rubber hose Ø 50 L 10 m Victaulic 2" camlock Ø 50
- 1 hopper grid for Shotcrete, 15 mm width
- 1 Shotcrete spray gun Ø 50 with quick air connection 3/4" 1 Reduction cone Ø 100 (4") - Ø 50 (2") Victaulic I = 1000 mm
- 1 hose holder band
- 2 washing sponges for Ø 50 mm hose
- 1 Victaulic Ø 4" fixed lever coupling
- 2 gaskets for Ø 4" Victaulic coupling
- 3 fixed lever couplings Ø 2" Victaulic coupling
  6 gaskets for Ø 2" Victaulic coupling
- 1 Ø 50 camlock coupling gasket

## Complementary kit to code **1106124**



#### Accessories contained in the complementary Kit Shotcrete gun with material in let connection, Ø50 F

- camlock and double air inlet additive with compressed air connections (Ludecke)
- Dosing pump complete with proportional valve and hydraulic pipes. Quick connection inlet 3/4 "and outlet connection type compressed air 3/4"
- Complementary control panel for additive pump; - ON / OFF and Manual / Automatic controls - Additive percentage setting based on the quantity of
- material pumped - Fixed flow manual mode function, for priming and washing
- 4 m hose with quick coupling for connection to additive container



### Automatic pump for dosing accelerating additives

It is an eccentric screw pump synchronized with the number of switching of the S valve, capable of precisely dosing the quantity of additive preset.

Very simple to use. Simply set the percentage of additive per cu. m. desired and the pump will keep it constant regardless of the pumping speed. The start and stop are synchronized with the material dispensing cylinders.



## Additional accessories to kits **1106124** and **1107172**

1106250	The	Shotcrete gun without additive inlet - Ø 50 camlock coupling and air inlet with 1/2" quick connection
1106251	-	Deflectors for shotcrete gun, without additive inlet
1107178	100	Victaulic pipe inspection and lubrication 90 ° bend
1107189		Terminal rubber hose Ø 50 mm L 10 m Victaulic 2" - camlock Ø 50
1107188	F <b></b>	Rubber hose Ø 50 mm L 10 m Victaulic 2"

1107192	Shotcrete gun for additive - Ø 50 camlock coupling and 3/4" quick couplings. Double inlet for air and accelerating additive
1107187	Reduction cone Ø 100 (4") - Ø 50 (2") Victaulic I = 1000 mm
1107521	Kit 10 pieces sponge for cleaning hose Ø 50
1107180	Victaulic kit n° 5 gasket for Ø 4" couplings for Ø100 steel pipes
1107182	Kit n° 5 gasket for Ø 2" Victaulic couplings for Ø 50 hoses
1107179	Victaulic Ø 4" fixed lever couplings for Ø 100 hoses
1107181	Victaulic Ø 2" fixed lever couplings for Ø 50 hoses







