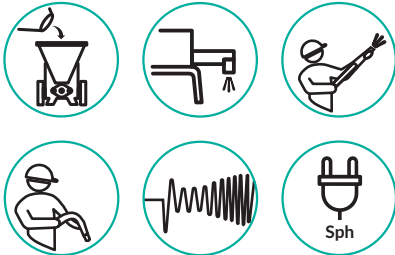


STEP 120 single-phase

Eccentric screw mortar pump

Step 120 230V / 50Hz Sph 2.2 kW
1106090

Planetary mixer 230V / 50Hz Sph 1.4 kW
1107572



IM250 compressor integrated in the machine and protected by the cover, easily accessible for the maintenance of the air filters.



Generously sized agitator shaft located inside the hopper. It allows to move the material when the machine starts working again after a long stop with the material inside, preventing segregation.

Description

The single-phase Step 120 mortar pump is the right solution for spraying or pumping mortars in small or medium-sized construction sites. Equipped with the exclusive IMER IM25L pumping unit, capable of satisfying most of the pumping and spraying needs of different types of material.

It is suitable for pumping or spraying:

- Traditional lime / cement plasters (Standard version)
- premixed / pre-dosed cement / lime based plasters (also colored)
- premixed / pre-dosed structural plasters
- premixed / pre-dosed restorative plasters
- Insulating plasters based on polystyrene or cork
- Mortars for reinforcement with metal / polypropylene / carbon / glass fibers
- Masonry mortars
- Binders / mortars for consolidation injections
- Self-levelling cement / anhydride based screeds
- Lightweight polystyrene-based screeds
- Fireproofing
- Refractory mortars (wet only)
- Mortars for fill core grout or grouting
- Adhesives for thermal insulation coatings (only for large surfaces)
- Waterproofing sealer (only large surface)

The low loading height of the hopper allows it to be filled by any type of external mixer:

- Planetary mixer series "MIX"
- Continuous mixer "SPIN 30"
- Concrete mixer series "SYNTESI"

For greater compactness and ease of handling, the planetary mixer may be integrated into the machine.

Operation

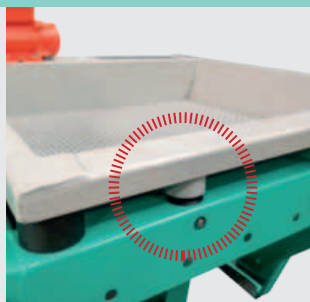
The mixture prepared in the mixer is poured directly into the hopper through a vibrating grid that filters out any big size stones. The material is sucked by the eccentric screw pump and pushed into the hose until it reaches the opposite end where the spray gun is located.

With the help of the air supplied by the standard integrated compressor, the material is projected through the gun onto the application area.

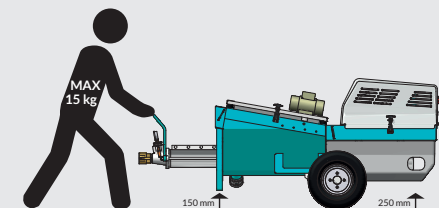
Different accessories can be connected to the hose for spraying the products or devices for controlled pressure injections, or the machine can be used simply "with an open hose" for the pouring of self-levelling or filling products.

The exclusive IMER A1 inverter allows to set the pumping speed, adapting the machine to the different needs of use. Step 120 is also equipped with a diagnostic display, capable of immediately signaling any anomalies during use and the relative intervention methods.

The IMER A1 inverter allows the machine to work with suitably sized generators.



Extremely reliable
hopper opening safety
sensor, with light signal
in the control panel when
the grid is removed.



Extremely handy and light.
Easy to move on construction
sites thanks to the considerable
ground clearance in the
displacement position.
15 kg (with mixer on board) is
the maximum weight it reaches
when the operator moves it to
the construction site.

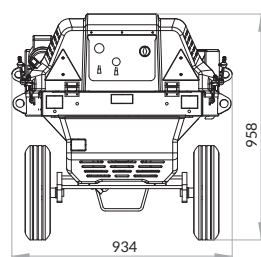
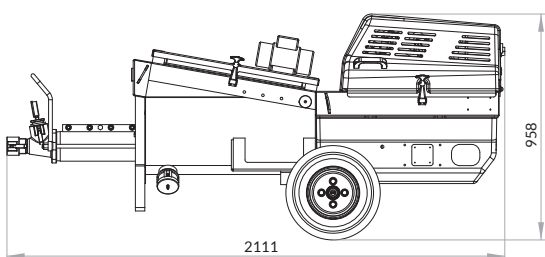
Standard equipment (Cod. 1106090 230V/50Hz)

Control panel with A1 inverter and diagnostic display
IM25L stator and rotor
Gun for traditional / premixed plaster Ø35
Vibrating grid passage 6 mm
Compressor 250 l / min.
30 m (20 + 10) Ø 35 material hose
Air hose 31 m Ø 13
Hose holder band
Accessory box
Accessory for cleaning material hose with air or water
Sponge balls for washing hoses Ø 35
Power cable 20 m
Remote control predisposition
Ø 50 hose connection (Ø 35 adapter in the hose)
Solid rubber wheels

Technical data

Version	-	with mixer	without mixer
Motor power	kW	2.2	2.2
Mixer motor power	kW	1.4	-
Electric compressor	-	0.75 kW - 250 l/min	0.75 kW - 250 l/min
Grain size (IM25L and 35 mm hoses)	mm	8	8
Flow rate *	l/min	from 4 to 20	from 4 to 20
Pumping distance *	m	40	40
Pumping height *	m	20	20
Hopper capacity	l	120	120
Hopper loading height	mm	-	700
Mixer capacity	l	120	-
Mixer loading height	mm	1300	-
Dimensions w / l / h	mm	934/2111/1273	934/2111/958
Machine weight	kg	404	280
Packed machine dimensions w / l / h	mm	1000/1650/1600	1000/1650/1100
Packed machine weight	kg	460	340

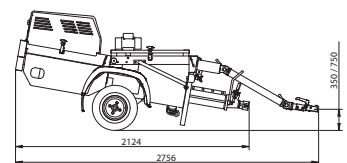
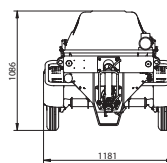
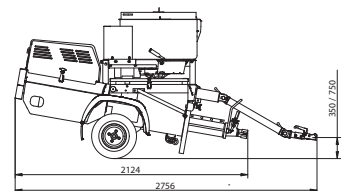
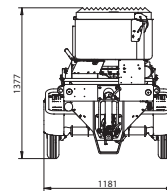
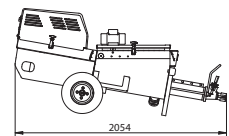
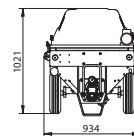
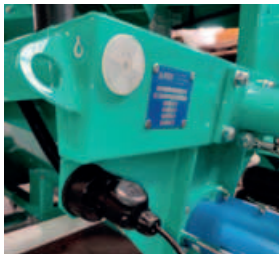
(*) The values indicated are subject to variations based on the characteristics of the materials used, their consistency, the type of stator / rotor installed and the size of the hose used.



	230V 50Hz Sph	230V 50Hz Sph	230V 50Hz Sph	230V 50/60Hz Sph	230V 50/60Hz Sph	230V 60Hz Sph	230V 60Hz Sph	230V 60Hz Sph	230V 60Hz Sph
	1106090	1106075	1106077	1106056	1106088	1106097	1106098	1106099	1106180
	STEP 120 STD	STEP 120 GR	STEP 120 GRM	STEP 120	STEP 120 F	STEP 120	STEP UP 120	STEP 120M LA	STEP 120 UP
	Standard	Standard towable	Standard Towable with mixer	Premix Grouting	Conventional Grouting	Standard	Standard Towable with mixer	Long distances pumping with mixer	Basis for customizations
Planetary mixer			✓				✓	✓	
Predisposition for optional planetary mixer	✓			✓	✓	✓			✓
Towable on the road (European approval)		✓	✓				✓		✓
Rigid axle and solid rubber wheels	✓			✓	✓	✓		✓	
Vibrating sieve	✓	✓	✓			✓	✓	✓	
Grid for premixed materials				✓					✓
IM25L pumping unit	✓	✓	✓	✓	✓	✓	✓	✓	✓
IM 250 membrane air compressor	✓	✓	✓			✓	✓	✓	
Predisposition for optional IM250 membrane air compressor				Only 60 Hz	Only 60 Hz				✓
Spray gun Ø 35	✓	✓	✓			✓	✓	✓	
Flat duse Ø12 and Ø14	✓	✓	✓			✓	✓	✓	
Conical deflectors Ø 14 and Ø 16	✓	✓	✓			✓	✓	✓	
Ø13 air hose with quick couplings	20m + 10m	20m + 10m	20m + 10m			20m + 10m	20m + 10m	20m +20m	
Ø35 material hose with MF cam fittings	20m + 10m	20m + 10m	20m + 10m	20m + 10m	20m + 10m	20m + 10m	20m + 10m	20m	10m
Ø50 material hose with MF cam fittings								10m+10m	
Conical reduction with cam connection Ø50M - Ø35F							✓		✓
Sponge ball for washing hoses Ø 35	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sponge ball for washing hoses Ø50								✓	
Wired remote control L 37m				✓					
Predisposition for wired remote control	✓	✓	✓	✓	✓	✓	✓	✓	✓
Electric control panel with Inverter R2	✓	✓	✓	✓	✓	✓	✓	✓	✓
Electric power cable L20 m	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.2kW electric motor	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hose support band	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hoses cleaning accessory with compressed air or water	✓	✓	✓	✓	✓	✓	✓	✓	✓
Accessory box	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hopper / Mixer loading height (mm)	700	1377	700	700	700	700	1377	1377	1377
Dimensions w / l / h (mm)	934/2054/1021	1181/2124/1086	1181/2124/1377	934/2054/1021	934/2054/1021	934/2054/1021	1181/2124/1377	934/2054/1300	1181/2124/1086
Machine weight (Kg)	280	290	400	240	243	280	400	390	250

STEP 120 Road Towing

European approval



Technical data

		Step 120 Towable on the road	
Towing ball hitch Ak 160b	mm/inc	50 - 2	50 - 2
Tubeless tires	Inc	4.8/4.00-8	4.8/4.00-8
Maximum speed limit	Km/h	130	130
Lighting system power supply	Volts	12 - 13.8	12 - 13.8
Car trailer round connection 7 pin	D/mm	36	36
Hopper / Mixer loading height	mm	1377	700
Dimensions w / l / h	mm	1181/2124/1377	1181/2124/1086
Machine weight	Kg	400	290
Packed machine dimensions	mm	1181/1195/1650	1181/1195/1050
Packed machine weight	Kg	460	350

WEIGHT AND MEASURES STEP 120 PACKED

Code	Model	Packed machine weight	Packed machine dimensions w / l / h (mm)
1106090	STEP 120 230V 50Hz Sph	340 kg	934 / 1650 / 1100
1106075	STEP 120 GR 230V 50Hz Sph	350 kg	1181 / 1995 / 1100
1106077	STEP 120 GRM 230V 50Hz Sph	460 kg	1181 / 1995 / 1650
1106056	STEP 120 230V 50/60Hz Sph	289 kg	934 / 1650 / 1100
1106088	STEP 120F 230V 50/60Hz Sph	292 kg	934 / 1650 / 1100
1106098	STEP UP 120 230V 60Hz Sph	460 kg	1181 / 1995 / 1650
1106097	STEP 120 230V 60Hz Sph	340 kg	934 / 1650 / 1100
1106180	STEP 120 UP 230V 60Hz Sph	305 kg	1181 / 1995 / 1100
1106099	STEP 120M LA 230V 60Hz Sph	490 kg	934 / 1650 / 1600

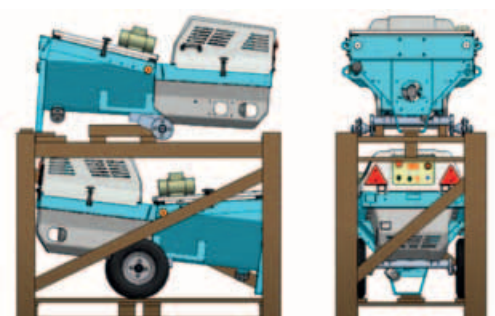
Please note: weights estimated with a tolerance of 5%.

Wood crate for superposing No.2 Step 120 without mixer

Dimensions of the wooden case w / l / h	(mm)	1250 / 1750 / 1000
Weight of the wooden crate	Kg	100
Packaging dimensions w / l / h	(mm)	2030 / 1750 / 1000
Packaging weight	Kg	According to the model

Can be used with the following STEP 120 models

1106090	STEP 120 230V 50Hz Sph	1106088	STEP 120F 230V 50/60Hz Sph
1106056	STEP 120 230V 50/60Hz Sph	1106097	STEP 120 230V 60Hz Sph



Optional accessories for customized setups **STEP 120** single-phase

For mixing all pumpable products with the Step 120 single-phase

1107572



Single-phase mixer 230V / 50Hz 1.4 kW

1107596

Single-phase mixer 230V / 60Hz 1.4 kW

Particularly suitable for mixing:

- Adhesives for thermal insulation coatings
- Waterproofing (only for large surfaces)
- Mortars for protecting metal structures from fire
- Binders / mortars for consolidation injections

1107618



Mixer rubber paddles

To be used with all pre-dosed or premixed products. Indispensable in the case of fiber reinforced products

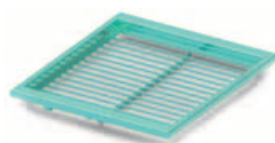
1108018



Premixed grid for Step 120 with mixer 1107572

To be used with all pre-dosed or premixed products. Indispensable in the case of fiber reinforced products

1107569



Premixed grid

For open hose pumping or controlled pressure injections

1108008



Remote control 16 m for A1 switch board

A1 remote control cable extension

1108009



Remote control extension 15 m for A1 switch board

Binders / mortars for automatically controlled pressure injections from 0.5 to 5 bar

1108014



AMPHENOL 230V / 400V injection device kit

- Pressure gauge + pressure switch group
- Spray gun
- 1 deflector with Ø 16 hose connector
- 5 m Ø 25 material hose with cam couplings
- 1 nozzle cleaner
- 1 washing sponge for Ø 25 tube
- Material hose (5 m) with Ø 25 Ø 35 connections
- Electric remote control with 16 m cable
- Remote control extension (15 m)

A1 accessory adapter

1108013



A1 (AMPHENOL) accessory adapter: 1108007, 110806, 1108009 and 1108008 on the previous version "R2" control panel

R2 accessory adapter

1108017



Accessory adapter for R2 panel to A1 control panel (AMPHENOL)

Exclusive accessory for customizing only Step 120 230V 1106180 and 1106056 at 60Hz
- Spray mortar applications

1107602



Kit Air membrane compressor IM250
230V / 60Hz Sph

Setups for specific applications **STEP 120** single-phase

A STEP 120 single-phase



- Adhesives for thermal insulation coatings
- Waterproofing and smoothing compounds (only for large surfaces)
- Mortars for grouting stone masonry (deep spraying with air)

1107074 Hose Ø 25 5m M35M25 (gun adapter Ø25)

1108008 Remote control 16 m for A1 switch board

1108013 Accessory adapter for panel R2 to the remote control A1

1107011 Ø 25 F spray gun for finishing coat / spacing / touch pointing

1107604 Deflector kit for finishing coat / spacing / touch pointing

1107569 Premixed grid (use only for premixed or pre-dosed products)

1107519 10 pieces sponge kit for cleaning hose Ø 25

B STEP 120 single-phase



- Mortars for spacing

1107074 Hose Ø 25 5m M35M25 (gun adapter Ø25)

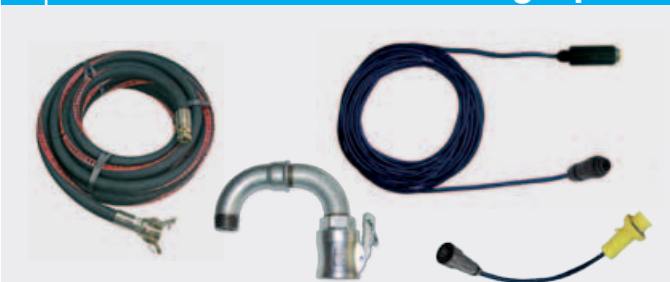
1108008 Remote control 16 m for A1 switch board

1108013 Accessory adapter for panel R2 to the remote control A1

- Conical tube gun for spacing Ø 25
- Sectionable steel tube to obtain the desired outlet diameter.
- No spreading ball valve

1107519 10 pieces sponge kit for cleaning hose Ø 25

C STEP 120 single-phase



- Core fill grout (Block wall filling system)

1107074 Hose Ø 25 5m M35M25 (gun adapter Ø25)

1108008 Remote control 16 m for A1 switch board

1108013 Accessory adapter for panel R2 to the remote control A1

1107570 U bend steel hose ø 25

1107519 10 pieces sponge kit for cleaning hose Ø 25

D STEP 120 single-phase



- Cement / lime based premixed / pre-dosed plasters

1107074 Hose Ø 25 5m M35M25 (gun adapter Ø25)

1107530 Air hose 5m Ø 13 mm

1107540 Ø 25 F spray gun for traditional /premixed plaster with Ø14 duse

1107569 Premixed grid (use only for premixed or pre-dosed products)

1107519 10 pieces sponge kit for cleaning hose Ø 25

E STEP 120 single-phase



- Premixed / pre-dosed plasters based on cement / lime / Colored plaster

1107074 Hose Ø 25 5m M35M25 (gun adapter Ø25)

1107530 Air hose Ø 13 - 5 m with quick couplings

1107568 Ø 25F spraying gun with no spreading ball valve and air flow regulator to create particular "textured" effects

1107569 Premixed grid (use only for premixed or pre-dosed products)

1107519 10 pieces sponge kit for cleaning hose Ø 25

F STEP 120 single-phase



- Fireproofing
- Cement / lime based premixed / pre-dosed plasters

1107074 Hose Ø 25 5m M35M25 (gun adapter Ø25)

1107530 Air hose Ø 13 - 5 m with quick couplings

1107549 Elongated gun Ø25 1.43 m with No spreading ball valve and air flow control

1107569 Premixed grid (use only for premixed or pre-dosed products)

1107519 10 pieces sponge kit for cleaning hose Ø 25

Stators and Rotors

IM 25L Blue

➔ Recommended for:

- Traditional lime / cement plasters
- Premixed / pre-dosed plasters based on cement / lime / colored plaster
- Premixed / pre-dosed structural plasters
- Premixed / pre-dosed restorative plasters
- Insulating plasters based on polystyrene or cork
- Fiber-reinforced mortar
- Masonry mortars
- Binders / mortars for consolidation injections
- Filling grout also with metal / polypropylene / carbon / glass fibers
- Concrete also fiber-reinforced (Max grain size 8 mm)
- Lightweight polystyrene-based screeds
- Fireproofing
- Refractory mortars (wet only)
- Self-levelling screeds with a maximum flow rate of 2.1 mc / h (three-phase Step)
- Shotcrete application with a maximum flow rate of 2.1 mc / h (three-phase Step)

1107110



Stator
IM 25L
CLAMP

1107111



Rotor
IM 25L

Step 120 three-phase

Pressure 15 bar

Maximum grain size 8 mm

Flow rate 17 - 35 l / min

Step 120 single-phase

Pressure 15 bar

Maximum grain size 8 mm

Flow rate 4 - 20 l / min

2L-6 Yellow

➔ Recommended for pumping with Ø 35 and Ø 25 guns and accessories of:

- Binders / mortars for consolidation injections (low flow high pressure)
- Premixed / pre-dosed plasters based on cement / lime / Colored plaster
- Premixed / pre-dosed structural plasters
- Premixed / pre-dosed restorative plasters
- Fiber-reinforced mortars (for pumping over long distances)

1107077



Stator 2L-6

1107078



Rotor 2L-6

Step 120 three-phase

Pressure 30 bar

Maximum grain size 6 mm

Flow rate 13 - 27 l / min

60.12 / 2L74 Yellow

➔ Recommended for open hose pumping.

- Self-levelling cement / anhydride based screeds
- Lightweight polystyrene-based screeds

Step 120 three-phase

Pressure 20 bar

Maximum 8-10 mm grain size

Flow rate 38 - 75 l / min

1107081



Stator 60.12
CLAMP

1107083



Rotor 60.12

Step 120 A

Pressure 20 bar

Maximum 8-10 mm grain size

Flow rate 117 l / min

1.5 L7 White

➔ Recommended for free tube pumping:

- Grout Core-fill grout max. grain size 12 mm
- Grout with metal / polypropylene / carbon / glass fibers
- Self-levelling cement / anhydride based screeds
- Light weight polystyrene-based screeds
- Refractory mortar (wet application only)
- Shotcrete

1107219



Stator 1.5 L7
CLAMP

1107218



Rotor 1.5 L7

Step 120 three-phase

Pressure 15 bar

Maximum 12 mm grain size

Flow rate 70 l / min (only in first speed)

Common accessories **STEP 120** single-phase / three-phase

Spray guns and nozzles

1107568



- Ø 25 F spray gun with no-spreading ball valve and air flow regulator
- Premixed / pre-dosed plasters based on cement / lime / Colored plaster (Monokote)
 - Fireproofing

1107577



- Ø 35 M spray gun for traditional plasters / premixed / stucco
- ➡ Recommended for spraying:
- Insulating plasters based on polystyrene or cork
 - Mortars for fiber-reinforced reinforcement
 - premixed / pre-dosed structural plasters
 - premixed / pre-dosed restorative plasters
 - Traditional lime / cement plasters

1107549



- Ø 25 F spray gun, 1.43 m long for fireproofing and premixed plaster
- Premixed / pre-dosed plasters based on cement / lime / colored plaster (Monokote)
 - Fireproofing

1106250



- Shotcrete gun without additive inlet - Ø 50 Camlock coupling and air inlet with 1/2" quick connection
- ➡ The use of the pumping unit 1.5 L7 and hoses is recommended
- Shotcrete

1107011



- Ø 25 F spray gun for finishing coat / filling / touch pointing / injections without deflectors, with air flow regulator and no-spreading ball valve
- ➡ Recommended for:
- Finish for thermal insulating coatings
 - Waterproofing seal (only for large surfaces)
 - Adhesives for thermal insulation coatings

1107604



Deflectors kit 5-6-8-12-16 hardened steel

1107566



- Kit 3 deflectors with hose nozzle Ø 16
- ➡ Recommended for:
- Mortars filling grout
 - Adhesives for thermal insulating coatings (laying glue on panel)

1107499



- Conical tube gun for spacing Ø 25
- ➡ Recommended for:
- Filling grout or tuckpointing

1107570



- U bend steel pipe Ø 25
- ➡ Recommended for:
- Core fill grout

Deflectors

1107551

10 pcs kit deflectors Ø 10 (Duse) in polyurethane for premixed plaster

1107557

5 pcs kit deflectors Ø 10 in polyurethane for traditional plaster

1107552



10 pcs kit deflectors Ø 12 (Duse) in polyurethane for premixed plaster

1107558



5 pcs kit deflectors Ø 12 in polyurethane for traditional plaster

1107553

10 pcs kit deflectors Ø 14 (Duse) in polyurethane for premixed plaster

1107559

5 pcs kit deflectors Ø 14 in polyurethane for traditional plaster

1107554

10 pcs kit deflectors Ø 16 (Duse) in polyurethane for premixed plaster

1107560

5 pcs kit deflectors Ø 16 in polyurethane for traditional plaster

1107561

Kit 3 deflectors Ø 5 hardened steel for finishing coat and decorative plaster

1106251



Deflectors for shotcrete gun, without additive inlet

1107562



Kit 3 deflectors Ø 6 hardened steel for finishing coat and decorative plaster

1107563

Kit 3 deflectors Ø 8 hardened steel for finishing coat and decorative plaster

1107564

Kit 3 deflectors Ø 12 hardened steel for fills deep spaces by spraying the mortar

Common accessories **STEP 120** single-phase / three-phase

1108013		A1 (AMPHENOL) Accessory Adapter: 1108007, 1108006, 1108009 and 1108008 on the previous version "R2" control panel	1108017		Accessory adapter for panel R2 to the control panel A1 (AMPHENOL)
1108014		Binders / mortars for injection at automatically controlled pressure from 0.5 to 5 bar Amphenol 230V / 400V injection device kit • Pressure gauge + pressure switch group • Spray gun • 1 deflector with Ø 16 hose connector • 5 m Ø 25 material hose with cam couplings • 1 nozzle cleaner • 1 washing sponge for Ø 25 tube • Material hose (5 m) with Ø 25 Ø 35 connections • Electric remote control with 16 m cable • Remote control extension (15 m)	1108008		Remote control 16 m for A1 switch board
			1108009		Remote control extension 15 m for A1 switch board
			1108007		Pressure control unit with adjustable pressure switch 0.2-5 bar for A1 switch board

Hoses extension

1107528		Material hose Ø 35 - 10 m with camlock coupling
1107533		Material hose Ø 50 - 10 m with camlock coupling
1107534		Material hose Ø 50 - 20 m with camlock coupling

Hoses extension with reduction couplings

1107074		Material hose Ø 25 M35 / M25 L5 m with camlock coupling
1107075		Material hose Ø 35 M50 / F35 L20 m with camlock coupling
1106178		Camlock coupling adapter Ø 35 F - Ø 50 M

Air hose extensions

1107530		Air hose Ø 13 - 5 m with quick couplings
1107531		Air hose Ø 13 - 10 m with quick couplings
1107532		Air hose Ø 13 - 16 m with quick couplings
1107076		Air hose Ø 13 - 20 m with quick couplings

1107046		Step 120 three-phase vibrating screen passage 12 mm Specific use in combination with the 1.5 L7 pumping unit for pumping concrete up to 12 mm
---------	--	--

Hoses cleaning accessories

1107104		Cleaning kit for Ø 50 hoses Accessory for cleaning Ø 50 hoses with air or water
1107087		Cleaning kit for Ø 35 hoses Accessory for cleaning Ø 35 hoses with air or water
1107103		Cleaning kit for Ø 25 hoses Accessory for cleaning Ø 25 hoses with air or water
1107521		Kit 10 pcs sponge balls for cleaning Ø 50 hoses
1107520		Kit 10 pcs sponge balls for cleaning Ø 35 hoses
1107519		Kit 10 pcs sponge balls for cleaning Ø 25 hoses