# Original Operating Manual

### inoMIX S16 continuous mixer

Read this entire original operating manual before starting work.

#### Video inoMIX S16











Thank you for trusting INOTEC. By purchasing you have opted for a quality product.

If you have any suggestions or any issues, we would be delighted to hear your suggestions for improvement and your feedback. Speak to the sales representative assigned to you or, in urgent cases, contact us directly.

We work constantly to further develop our products and reserve the right to make changes for technical reasons relating to building legislation.

Yours faithfully **INOTEC GmbH** 

#### Legal notice

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Last updated: August 2021

Document number: 10039462-OBA-EN

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#### 1 General information

#### 1.1 Information about this manual

- This manual helps to ensure safe and efficient use of the machine.
- Operating personnel must have carefully read through and understood this manual before starting any work.
- Compliance with all the specified safety instructions is a basic prerequisite for working safely.
- This manual is a component of the machine and must be stored within direct proximity of the machine, accessible to operating personnel at all times.
- In addition to the notices in these instructions, the local accident prevention guidelines and national occupational health regulations also apply.

#### 1.2 Symbol explanation

Hazard notices feature symbols to make them easier to identify. These indicate the severity of the hazard.

• You must observe this information.



**DANGER** indicates an immediate hazard. Death or serious injuries may result from non-compliance.

**WARNING** indicates a potentially dangerous situation. Death or serious injuries may result from a failure to avoid these situations.

**CAUTION** indicates a potentially dangerous situation. Minor or slight injuries may result from failure to avoid these situations or damage to the machine or something in its vicinity.

**NOTICE** draws your attention to useful tips for effectively handling the machine.

#### 1.3 Information about this manual

#### 1.3.1 Purpose of this operating manual

The operating manual is used to provide information to the operating manager, assembly fitters and machine operators on the construction site. It contains important instructions for safe use, optimum results and a long service life.



Risk of incorrect operation

Failure to observe the operating manual could put the operator's life and health at risk and damage the machine.

- Read this operating manual carefully before passing it on to your assembly fitters or operators.
- Please ensure that assembly fitters and operators read this operating manual carefully before they start installing and commissioning the machine.
- Always keep the operating manual to hand and in a legible condition.

#### 1.3.2 Disclaimer

All technical information, data and instructions for use contained in this operating manual reflect the state of the art at the time of printing and are based on our experience thus far and the best of our knowledge.

The manufacturer cannot be held liable for any damages as a result of:

- Failure to comply with this manual
- Improper use
- Assignment of non-trained personnel
- Unauthorised alterations
- Technical changes
- Use of non-approved spare parts

#### 1.3.3 Warranty

Statutory warranty periods of 12 months from the date of purchase/the date of invoice of the industrial end customer apply to our machinery.

#### 1.3.3.1 Exercising claims

In the event of a warranty claim, send the entire machine, along with the invoice, to our headquarters in Waldshut-Tiengen.

Contact our free INOTEC service hotline beforehand on +49 7741 6805 777.

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Chapter 2 Safety Chapter 2 Safety





#### 1.3.3.2 Warranty claims

Claims apply only where material or manufacturing faults exist and where machinery has been used properly. Wear parts are not covered by the warranty. All claims shall become void if third-party parts are installed, where the machinery has been improperly used or stored and in the event of obvious non-compliance with the operating manual. In this connection, we refer you to our General Terms of Busi-

#### 1.3.4 Carrying out repairs

Repairs may only be carried out by employees at our INOTEC service centres.

#### 2 Safety

#### 2.1 Intended use

You may only operate this machine if the following conditions are met:

- The inoMIX \$16 is suitable for processing all factory pre-mixed and machine-compatible dry mortars. Load the continuous mixer only with dry goods (e.g. bagged
- Only use the machine within its limits of application and according to the technical data.
- Pay particular attention to the safety and warning notices outlined in this original operating manual.

Failure to use the inoMIX S16 properly could put the user's life and limb at risk and damage the inoMIX S16 or other assets.



Danger due to misuse!

Improper use of the inoMIX S16 can lead to hazardous situations.

- Never use the inoMIX S16 continuous mixer to create other products, such as food.
- Never operate the inoMIX S16 continuous mixer using values out of the ranges specified in the "Technical Data".

#### 2.2 General risk sources



Electrical voltage. Danger of death due to electric shock.

- Work on the electronic control system may only be performed by a qualified electrician.
- Switch off the machine and pull out the mains plug.
- Secure the machine against unexpectedly being switched back on.



Rotating shaft.

Danger of death due to being pulled into the machine and crushed.

When the motor is running, the metering shaft rotates, even if the mixing pipe has been removed with the mixing shaft!

- Do not reach into the rotating shaft.
- Do not place any objects into the rotating shaft.
- 1. Before working on the metering and mixing shaft, interrupt the external power supply.
- 2. To do this, press the red pushbutton.
- 3. Pull out the mains plug.
- 4. Secure the machine against unexpectedly being switched back on.



Water iet.

Risk of injury and risk of property damage due to escaping water.

- 1. Interrupt the external water supply by closing the water valve.
- 2. In order to release the pressure (approx. 2 bar), open the water drainage valve on the water measuring system.
- 3. Remove the hose from the external water supply.
- 4. Do not point the water jet at other people or yourself.

#### 2.2.1 Notices in the operating manual



Safety notices in the operating manual alert the operating personnel to any immediate danger. Please observe all the technical and hazard notices in this operating manual.

#### 2.2.2 Performing checks before starting work



Defects or damage can put the safety of operating personnel at risk and impair the functionality of the machine.

- Before commencing work, check the machine for any obvious external damage or defects.
- Do not commission the machine if you notice any damage to or defects in the machine.
- Ensure that the damage and/or defects are rectified.

#### 2.2.3 Conversions and changes



Conversions or changes can put the safety of operating staff at risk and impair the functionality of the machine.

• Do not make any changes, additions or conversions to the machine without first consulting Inotec GmbH and obtaining its written approval. Otherwise, the operating license will become void.

#### 2.2.4 Cleaning and maintaining the machine



Cleaning and maintenance work can put the safety of operating staff at risk and impair the functionality of the machine.

- 1. Switch off the machine and pull out the mains plug.
- 2. Secure the machine against unexpectedly being switched back on.
- 3. Before cleaning with the water jet, cover all the openings that water must not penetrate into for safety and functional reasons.
- 4. After cleaning, remove all the covers which were attached to protect against the water.

#### 2.2.5 Changing the location of the machine



Changing location can put the safety of operating staff at risk and impair the functionality of the machine.

- 1. Switch off the machine and pull out the mains plug.
- 2. Lift the machine up using the mixing pipe and place it in a new location on the building site.
- 3. Always install the machine in such a way that it is level
- Secure the machine against undesirable movements.
- 5. Reconnect the machine to the external power supply before restarting the machine.

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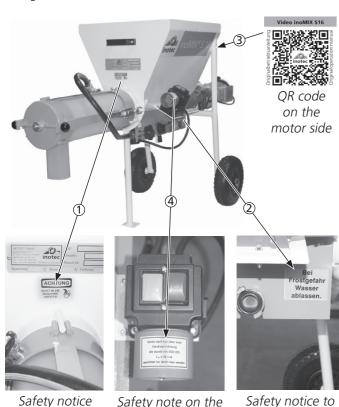
#### 2.3 Notices on the machine



Safety notices on the machine make operating staff aware of imminent danger.

The following warning notices are affixed to the inoMIX \$16:

- WARNING. Do not reach into the machine (1).
- If there is a risk of frost, drain the water (2).
- This QR code will take you to the original operating manual of the mixer (3).
- The machine may only be operated via a connector protected with an RCD (FI) I∆n ≤ 30 mA (4).
- Observe all the safety and hazard notices that are attached to the machine.
- Always keep the safety and hazard notices in a clearly legible condition.



Safety notice under the rating plate

Safety note on the power input

Safety notice to the right of the GEKA coupling

#### 2.4 Personnel qualification

INOTEC offers training sessions on operating the inoMIX S16. Use INOTEC service for the initial commissioning of the machine; this also serves as an opportunity to provide operators with training on how to operate the mixer.

DANGER

if the inoMIX S16 is operated by unqualified individuals, this could put the life and health of the operating staff at risk and cause property damage to the inoMIX S16 or other assets.

#### 2.5 Responsibility of the operator

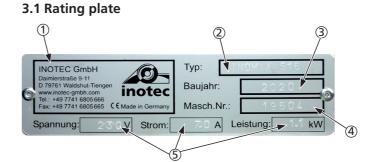
- Only task trained or instructed staff with operating the inoMIX S16.
- Define employees' responsibilities for operating, setting up, maintaining and servicing the machine clearly.
- Only task untrained staff or individuals who have not received any instruction with operating the machine when there is a trained or instructed specialist available to supervise them.
- Work on the electronic control system may only be performed by a qualified electrician.

#### 2.6 Personal protective equipment (PPE)



PPE – particularly gloves, safety boots, a safety helmet and safety goggles and respiratory protection – must be used.

#### 3 Technical data



Item	Component	Value
1	Manufacturer, address and contact details, CE marking	-
2	Name and type of machine	-
3	Machine's year of construction	-
4	Machine number	-
5	<b>Technical data</b> - Voltage - Current - Output	230 V 16 A 1.1 kW

You must always state the machine number if you would like to order spare parts, have any queries or would like to make a complaint. You will find this information on the rating plate or on the delivery note.

### 3.2 Electric control system, pump output, particle size, weight, dimensions

Mains voltage	230 V, 50 Hz
Mains supply line (CEE plug)	16 A (to be supplied by customer)
Output	1.1 kW
Fuse	min. 16 A
Mixing capacity	max. 16 l/min.*
Weight	approx. 58 kg
Dimensions:	
Length without mixing pipe	1,030 mm
Length of mixing pipe	500 mm
Width	600 mm
Height	890 mm

<sup>\*</sup> Material-dependent – observe the material manufacturer's instructions.

#### 3.3 Water measuring system

Jib trater measuring system	
Pressure being too low	From 2 to 6 bar
Pressure reducer ex-works setting	2.5 bar
Solenoid valve	230 V, 50 Hz
Supply line	<sup>3</sup> ⁄ <sub>4</sub> inch water pipe (to be supplied by customer)

#### 3.4 Material hopper

Fill quantity	max. 45 l
---------------	-----------

#### 3.5 Motor

Output/rotation speed	1.1 kW, 387 U/min <sup>-1</sup>
Installation position	Motor horizontal
Electrical data	f = 50 Hz , I = 7 A, U = 230 V, IP 55
Insulation class	F, ED = S1
Colour	unvarnished

#### 3.6 Metering shaft

Diameter	51 mm
Diameter (wear limit)	45 mm

#### 3.7 Mixing shaft

Maximum height of mixer blades:	55 mm
Minimum height of mixer blades (wear limit)	50 mm

#### 3.8 Noise emissions

Guaranteed sound power	78 dB (A)
level LWA	

#### 3.9 Operating conditions

Temperature range	2 - 45 °C
Relative humidity, maximum	80 %

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#### 4 Assembly and function

#### 4.1 Scope of delivery of inoMIX \$16 (item no. 10039462)

The scope of delivery is generated using the components ordered and can be checked using the delivery note.

- Frame
- 2 running wheels
- Material hopper
- Gear motor
- PU mixing pipe
- Mixing shaft
- metering shaft
- Water fitting
- Operating manual

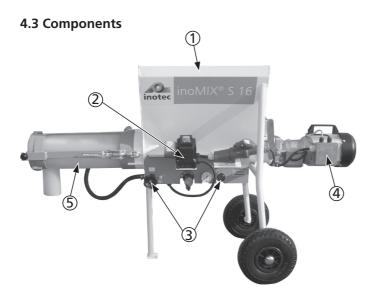
#### 4.2 Functionality

The continuous mixer is filled with bagged goods as standard. The mixing and metering shafts are directly driven by a gear motor. During operation, the dry material is conveyed from the material hopper into the mixing pipe via the metering shaft. In the mixing pipe, the dry material — with the addition of water — is mixed using the mixing shaft, to form a homogeneous, paste-like product, and is conveyed out of the mixing pipe.



#### Note the optimum assembly sequence.

- 1. Push the metering shaft into the main frame.
- 2. Attach the motor to the material hopper by means of the quick-release fastener, and ensure that the metering shaft is connected to the motor via the motor bracket.
- 3. Insert the motor plug into the machine's socket.
- 4. Assemble the mixing pipe by using both eccentric fastenings on the main frame and push the mixing shaft with the mixing pipe cover into the mixing pipe. Ensure that the mixing shaft is connected to the metering shaft.
- 5. To lock the mixing pipe cover, turn it clockwise so that both ball heads lock in the recesses provided in the steel frame.
- 6. Connect the main switch to the external power supply (230 V / 16 Hz)



#### 4.3.1 Description of the components

Item	Component	
1	Main frame with material hopper incl. metering shaft and wheels	
2	Control system	
3	Water measuring system	
4	Motor with motor covering	
5	Mixing pipe incl. mixing shaft	

### 4.3.1.1 Main frame with material hopper incl. metering shaft and wheels

The socket for the motor, main switch and water measuring system are attached to the main frame. Push the metering shaft into the main frame. The motor is attached to the main frame by the quick-release fastener and the mixing pipe by two eccentric fastenings. Finally, push the mixing shaft with the mixing pipe cover into the mixing pipe. To lock the mixing pipe cover, turn it clockwise so that both ball heads lock in the recesses provided in the steel frame.



Material hopper with hopper mesh, toothed rail and metering shaft

#### 4.3.1.2 Control system

Connect the main switch to the external power supply (230 V / 50 Hz). The cross-section of the supply cable must be at least 2.5 mm<sup>2</sup>! The inoMIX S16 may only be run with an approved FI circuit breaker (30 mA) (RCD).

#### 4.3.1.3 Water measuring system

The water measuring system is attached to the main frame. The optimum water quantity is set by opening and closing the needle valve.

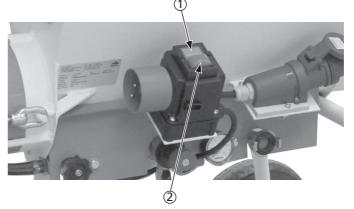
#### 4.3.1.4 Motor

The motor is attached to the main frame together with the motor cover by a quick-release fastener. The CEE plug of the motor is plugged into the socket on the main frame. The metering shaft previously pushed into the main frame is connected to the motor bracket attached to the motor.

### 4.3.1.5 Mixing pipe and mixing shaft with mixing pipe cover

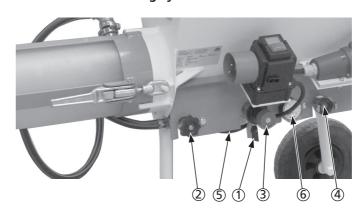
Assemble the mixing pipe by using both eccentric fastenings on the main frame and push the mixing shaft with the mixing pipe cover into the mixing pipe. Ensure that the mixing shaft is connected to the metering shaft. To lock the mixing pipe cover, turn it clockwise so that both ball heads lock in the recesses provided in the steel frame.

#### 4.4 Displays and controls



Electronic fitting with green pushbutton (1) to switch on the machine, and red pushbutton (2) to switch off the machine

#### 4.4.1 Water measuring system



#### Description of the components in the diagram

Item	Component
1	Water drainage valve
2	Needle valve
3	Pressure reducer
4	GEKA coupling with sieve insert (external water connection)
5	Solenoid valve
6	Pressure gauge
6	Pressure gauge



#### RNING Water iet.

### Risk of injury and risk of property damage due to escaping water.

• Do not point the water jet at other people or yourself.

#### 4.4.2 Installing the water measuring system

- 1. Connect the supply hose to the external water supply.
- 2. Open the water valve until a steady water jet comes out of the hose in order to both clean the water hose of dirt and ventilate it.
- 3. Then close the valve on the external water supply.
- 4. Connect the external water hose to the GEKA coupling of the water fitting.
- . Connect the water drainage valve to the water fitting.
- 6. Connect the internal water hose to the mixing pipe.

#### 4.4.3 Metering shaft

The metering shaft is connected to the motor via motor bracket and rotates during operation in the main frame. The mixing shaft is also connected to the metering shaft via a plug-in connection. The metering shaft can be pulled out for cleaning and maintenance work.



This image illustrates the connection from the motor (right) to the metering shaft, and from the metering shaft to the mixing shaft.

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Chapter 4 Assembly and function





#### 4.4.4 Mixing pipe and mixing shaft

The mixing shaft is firmly screwed to the mixing pipe cover. The mixing shaft is connected to the metering shaft via a plug-in connection. The mixing shaft in the mixing pipe rotates during operation. It is protected from tampering by the mixing pipe cover. The mixing shaft alongside the mixing pipe cover can be pulled out of the mixing pipe for cleaning and maintenance work.



#### Rotating shaft.

Danger of death due to being pulled into the machine and crushed.

When the motor is running, the metering shaft rotates, even if the mixing pipe has been removed with the mixing shaft!

- Do not reach into the rotating shaft.
- Do not place any objects into the rotating shaft.
- 1. Before working on the metering and mixing shaft, interrupt the external power supply.
- 2. To do this, press the red pushbutton.
- 3. Pull out the mains plug.
- 4. Secure the machine against unexpectedly being switched back on.

#### 4.4.5 Motor



### Danger of death due to electric shock.

- 1. Work on the electronic control system may only be performed by a qualified electrician.
- 2. Switch the machine off. To do this, press the red push-button.
- 3. Pull out the mains plug.
- 4. Secure the machine against unexpectedly being switched back on.

#### 4.5 Connections

#### 4.5.1 Power connection (230 V)



AC (alternating current) connection (230 V).

#### 4.5.2 Power connection of the motor



CEE plug of the motor in the socket

#### 4.5.3 Water fitting connections



Connection of the external water supply (1), connection of the mixing pipe to the water supply (2).

#### 4.6 Operating modes

The ready-mixed material can be filled into any container (bucket, wheelbarrow, etc.).

#### 4.7 Accessories

The following accessories can be supplied for the inoMIX S16.

	230 V extension cable, 3 x 2.5 mm², length 10 m, 16 A, Schuko plug and socket	Item no. 10015208	
	PU mixing pipe for inoMIX S16 Including mixing shaft, mixing pipe cover and holders	Item no. 10039949	
* The same	Mixing shaft  Complete metering shaft with two dowel pins (M8 x 50)	10039948	
Jec Mix	Water metering pipe with holder for inoMIX S16 For visual control of the water quantity	Water quantity litres per hour 100 - 1,000 l	Item no. 10040799

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#### 4.8 Spare parts and diagrams

The spare parts for the inoMIX S16 are designated with numbers in the following images. The individual items are described in the table under the respective diagrams.

#### **Description of the table columns:**

**Item:** Corresponds to the number in the drawing

designating a spare part.

**Item no.:** INOTEC item number.

Installation

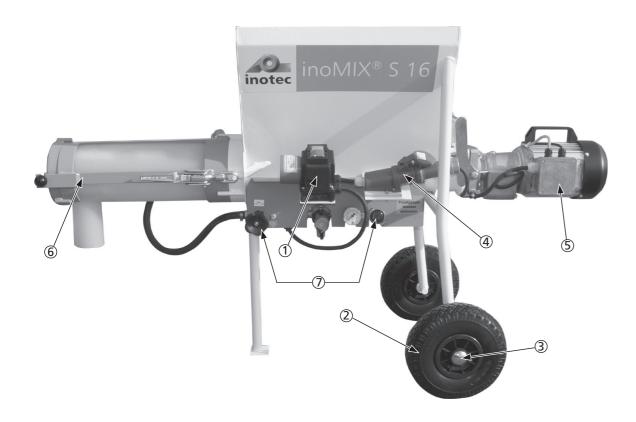
**quantity:** number of parts of this item when installed

in the original inoMIX S16.

**UQ:** Unit of quantity of this item. **Name:** Name of the spare part.

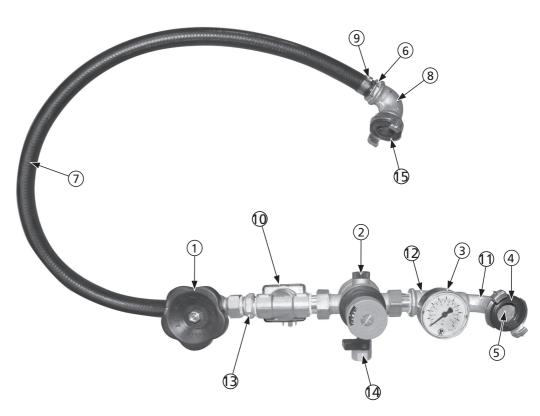
# NOTE Use the order form at the end of this operating manual to order spare parts.

#### 4.8.1 Overview of inoMIX \$16



Item	Item no.	Installation quantity	UQ	Name
	10039462	1	Units	inoMIX S16 continuous mixer for bagged goods, 1.1 kW 230V / 50Hz
1	10039946	1	Units	Complete main switch for inoMIX S16
2	10011185	2	Units	Wheel (puncture-free)
3	10006192	2	Units	Starlock cap, d = 20 mm
4	10039962	1	Units	CEE socket
5	10039958	1	Units	Complete drive unit for inoMIX S16
6	10039949	1	Units	Mixing pipe complete with GEKA coupling, mixing pipe cover and mixing shaft
7	10039460	1	Units	Water measuring system

#### 4.8.2 Water measuring system spare parts list



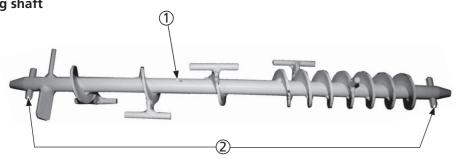
Item	Item no.	Installation quantity	UQ	Name
1	10006499	1	Units	Needle valve, 1/2" connection
2	10036240	1	Units	Pressure reducer D06F-1/2", with transparent sieve cup
3	10017821	1	Units	Pressure gauge 0 - 10 bar, 1/4" at back
4	10022373	1	Units	GEKA coupling, 1/2", ET
5	10006007	1	Units	Brass sieve insert
6	10006470	2	Units	Hose nozzle, 1/2" ET x 13 mm nozzle
7	10021968	1.0	Meter	Black rubber water hose, 1/2" with yellow stripes
8	10006471	1	Units	Angular, 1/2", 90°, galvanised, IT
9	10022443	2	Units	Hose clamp, 1-ear, 19.2 - 21.8, (1/2")
10	10023112	1	Units	Solenoid valve 1/2", 230 V, type 6213A
11	10022156	1	Units	Galvanised bend, DN 15, 1/2", IT/ET
12	10006493	1	Units	T-piece, 1/2" ET x 1/2" IT x 1/4" IT
13	10022166	1	Units	Double nipple, 1/2", galvanised
14	10017912	1	Units	Mini ball valve, 1/4", IT + ET
15	10022372	1	Units	GEKA coupling, 1/2", IT

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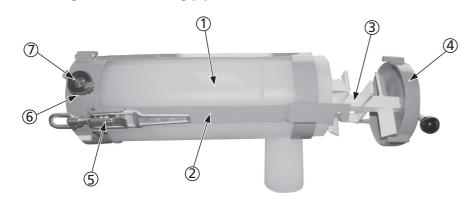


#### 4.8.3 Metering shaft



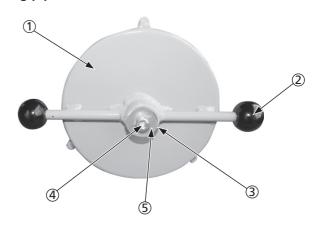
	Metering shaft				
Item	Item no.	Installation quantity	UQ	Name	
1	10039947	1	Units	Complete metering shaft	
2	10004698	2	Units	Dowel pins, M8 x 50	

#### 4.8.4 Mixing pipe with mixing shaft and mixing pipe cover (item no. 10039949)



	Mixing pipe				
Item	Item no.	Installation quantity	UQ	Name	
1	10039134	1	Units	Transparent mixing pipe insert	
2	10039951	1	Units	Mixing pipe frame/mixing pipe holder	
3	10039948	1	Units	Mixing shaft	
4	10039950	1	Units	Complete mixing pipe cover	
5	10017068	2	Units	Eccentric lock, size 0 with drawbar eye	
6	10036239	1	Units	Clamping plug G1/2 for plastic mixing pipe	
7	10022373	1	Units	GEKA coupling, 1/2", ET	

#### 4.8.5 Mixing pipe cover for mixing pipe (item no. 10039950)



	Mixing pipe cover				
Item	Item no.	Installation quantity	UQ	Name	
1	10039950	1	Units	Complete cover for mixing pipe (incl. items 2 + 3)	
2	10039952	2	Units	Ball head for mixing pipe cover	
3	10006175	1	Units	Plastic transfer for the mixing shaft	
4	10040694	1	Units	Allen screw, M8 x 12, left-hand thread	
5	10040419	1	Units	Splash guard washer, 8.4 x 35 x 1.5	

#### 4.8.6 Mixing shaft for mixing pipe (item no. 10039948)



	Mixing shaft				
١	Item	Item no.	Installation quantity	UQ	Name
	1	10039948	1	Units	Mixing shaft

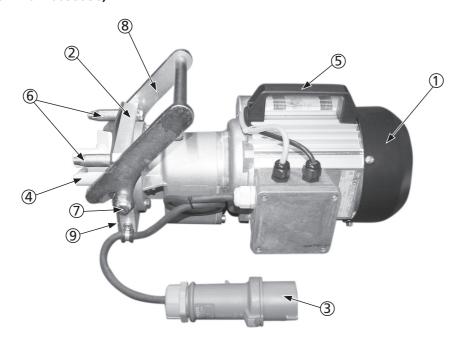
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Chapter 4 Assembly and function Chapter 5 Transport and storage





#### 4.8.7 Drive unit (item no. 10039958)



	Motor				
Item	Item no.	Installation quantity	UQ	Name	
1	10007515	1	Units	Gear motor, 1.1 kW	
2	10039953	1	Units	Complete motor flange (incl. items 7, 8, 9 and 10)	
-	10039955	1	Units	Motor flange without attachments	
3	10041323	1	Units	CEE plug 3 x 16 A, IP 44	
4	10039956	1	Units	Tappet bracket with paddles	
4.1	10039933	1	Units	Radial shaft seal	
5	10016644	1	Units	Bow handle	
6	10039944	2	Units	Centring bolt	
7	10039945	2	Units	Eccentric bushes	
8	10039954	1	Units	Clamping lever for quick-release fastener	
9	10041184	1	Units	Motor flange seal	



Use the order form at the end of this operating manual to order spare parts.

#### **5 Transport and storage**

#### 5.1 Safety notices for transport



Slipping machine

Danger of death for drivers and transport users.

- Ensure that the machine is in a secure position during transport.
- Secure the machine against slipping.



Risk of injury posed by carrying or lifting machine

• The machine weighs 58 kg. To prevent overloading and damaging the spine, at least 2 people must lift or carry the machine.

#### **5.2 Transport inspection**



Check the machine to ensure that all components are present and for transport damage immediately upon receipt.

• Do not leave any parts in the packaging.

#### 5.3 Damage report

### Proceed as follows in the event of externally visible transport damage:

- 1. Write a damage report with the following details:
  - Your client address
  - Name of the transport company and the driver
  - Date and time of the delivery
  - Order number and machine name according to the delivery note
  - Description of the damage
  - Signature of the driver
  - Signature of the recipient at the customer's premises
- 2. Have the transport damage confirmed by means of the driver's signature.
- 3. Send one copy of the damage report to the transport company and another to Inotec GmbH.
- 4. And clarify the possible ways in which the damage could be remedied with one of our service centres (see second last page)

#### **5.4 Complaints**

Claims for compensation relating to transport damage can only be made if the delivery company is informed of the same without undue delay.

#### 5.5 Packaging

The new machine will be shipped cellophane-wrapped on a Euro pallet.

• Dispose of the packaging material as required by law.

#### 5.6 Transport of the used machine in vehicle



Slipping machine.

Danger of death for drivers and transport users.

- 1. Ensure that the machine is stored securely during transport.
- 2. Secure the machine against slipping.



#### Leaking material residue

- Clean the machine before transport.
- Secure the machine in the vehicle using suitable fixing materials.

#### 5.7 Storage

If the machine is not likely to be used for an extended period of time, thorough cleaning will be required.

Store the machine under the following environmental conditions:

- Dry
- Frost-free
- Protected from dust
- Protected against corrosion (e.g. salt water)

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Chapter 6 Installation Chapter 7 Commissioning





#### **6 Installation**

Observe the following notices when assembling and positioning the machine:

#### **Installation location requirements**

- Ensure that there is enough space around the machine to enable filling of the material hopper and machine op-
- Install the inoMIX \$16 on an even and horizontal surface.
- Prevent the machine from sliding by locking the wheels. The mixing pipe points downwards.
- Cover the floor underneath the machine with a plastic sheet, if it is not on a firm, tarmacked surface.
- Keep the machine in a dry, protected area in wet weather.
- Prevent direct exposure to sunlight, especially while in continuous operation, in order to prevent the motor from overheating.

#### 6.1 Delivery condition of the machine

The inoMIX S16 is shipped with the metering shaft inserted and motor flanged on. The mixing pipe and mixing shaft still have to be attached.

#### 6.2 Connecting the metering shaft and motor

- 1. Push the metering shaft into the main frame.
- 2. Attach the motor to the (1) main frame by means of the guick-release fastener, and ensure that the metering shaft is connected to the motor.
- 3. Insert the CEE plug of the motor into the socket on the main frame.





#### 6.3 Assembling the mixing pipe and mixing shaft

- 1. Assemble the mixing pipe by using both eccentric fastenings on the main frame.
- 2. Push the mixing shaft with the mixing pipe cover into the mixing pipe. Ensure that the mixing shaft is connected to the metering shaft.
- To lock the mixing pipe cover, turn it clockwise so that both ball heads lock in the recesses provided in the steel





**DANGER** 

Rotating shaft.

Danger of death due to being pulled into the machine and crushed.

When the motor is running, the metering shaft rotates, even if the mixing pipe has been removed with the mixing shaft!

- Do not reach into the rotating shaft.
- Do not place any objects into the rotating shaft.
- 1. Before working on the metering and mixing shaft, interrupt the external power supply.
- 2. To do this, press the red pushbutton.
- 3. Pull out the mains plug.
- 4. Secure the machine against unexpectedly being switched back on.

#### 6.4 Connecting the electrical control system

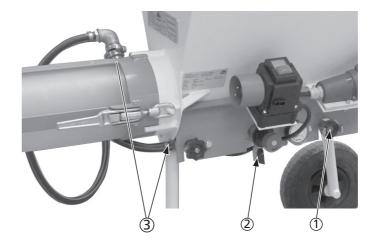
- 1. Connect the inoMIX S16 only to regulation 230 V construction site power distribution points with FI circuit breakers (30 mA) (RCD).
- 2. Ensure that the connection is protected by a 16 A fuse and that the cross-section of the supply cable is at least 2.5 mm<sup>2</sup>.
- 3. Connect the supply cable to the connector plug on the On/Off switch.



Connector plug on the On/Off switch

#### 6.5 Installing the water measuring system

- 1. Connect the supply hose to the external water supply.
- 2. Open the water valve until a steady water jet comes out of the hose in order to both clean the water hose of dirt and ventilate it.
- 3. Then close the valve on the external water supply.
- Connect the external water hose to the GEKA coupling of the water fitting (1).
- Connect the water drainage valve to the water fitting
- Connect the internal water hose to the mixing pipe (3).
- 7. Open the valve on the external water supply.





Water jet.

#### Risk of injury and risk of property damage due to escaping water.

- 1. Interrupt the external water supply by closing the water
- 2. In order to release the pressure (approx. 2 bar), open the water drainage valve on the water measuring sys-
- Remove the hose from the external water supply.
- 4. Do not point the water jet at other people or yourself.

Page 20 Page 21 Chapter 7 Commissioning





#### 7 Commissioning

#### 7.1 Adding material to the material hopper



Risk to health due to dust.

# When cleaning the machine, inhaled dust can cause long-term lung damage or other adverse health effects.

- The machine operator or people working in the dust area must each wear a dust mask when cleaning the machine.
- Find out about the technical rules for hazardous substances (TRGS 559) "Mineral dust" on the homepage of the German Social Accident Insurance Institution (www. bgbau.de).



Warning Risk of injury due to powdery material

When adding bagged goods to the material hopper, swirling material may pose a risk of injury, especially in the region of the eye and face.

• Always wear safety goggles.

#### 7.2 Opening and emptying bags of material



Warning Observe the applicable occupational safety regulations (e.g. respiratory protection)

#### To clean the bags of material, proceed as follows:

- 1. Place the bag of material on the hopper mesh with the tooth rail.
- 2. Tear open the bag of material by using short forward and backward movements.
- 3. Move the bag sideways and upwards and then empty the contents into the material hopper.
- 4. Observe the applicable occupational safety regulations (e.g. respiratory protection, etc.).
- 5. Dispose of the empty bags of material and other packaging material in an environmentally friendly manner in accordance with the instructions provided by the packaging manufacturer.

#### 7.3 Commissioning inoMIX S16

- 1. Connect the inoMIX S16 only to regulation 230 V construction site power distribution points with FI circuit breakers (30 mA) (RCD).
- 2. Ensure that the connection is protected by a 16 A fuse and that the cross-section of the supply cable is at least 2.5 mm<sup>2</sup>.
- 3. Connect the supply cable to the connector plug on the On/Off switch.
- 4. Fill the material hopper with bagged goods.
- 5. Open the valve on the external water supply, and check the water inlet pressure on the pressure gauge (2 bar).
- 6. Press the green pushbutton.
- 7. Turn the needle valve of the water fitting. This allows you to change the flow volume of the water and thus precisely determine the material consistency.

#### 7.4 Function after commissioning

The motor starts up, the dry material from the material hopper is transported into the mixing pipe via the metering shaft. At the same time, the solenoid valve opens and allows the water to flow into the mixing pipe. The material is moistened by the inflowing water and homogeneously mixed by the mixing shaft, and conveyed to the downpipe section of the mixing pipe.

#### 7.5 Changing material

- 1. Run the inoMIX S16 until it is empty and dry.
- 2. Clean the material hopper, metering shaft, mixing pipe and mixing shaft.

#### 7.6 Change of location on the construction site

The inoMIX S16 is equipped with two wheels, and a handle is attached to the hopper. The mixer can therefore be moved on the construction site easily. Its mixing pipe can also be used to lift and move the inoMIX S16 around. To do this, disconnect the mixer from the electricity and water supply.

NOTE

This QR code will take you to the original operating manual of the mixer.

#### Video inoMIX S16



#### 8 Operation, use

#### 8.1 Checking operating performance

- 1. If you notice any deviations in the operating behaviour, decommission the inoMIX S16 immediately.
- 2. Ensure that the damage and/or defects which led to the deviating operating behaviour are rectified.

#### 8.2 Checking the consistency of the material

### Ensure an even, paste-like material consistency during operation.

 The viscosity may change, especially in warm weather conditions.

Material too rigid	Increase the water supply by re-adjusting it on the needle valve of the water fitting
Material too runny	Reduce the water supply by re-adjusting it on the nee- dle valve of the water fitting

#### 8.3 Correcting flow fluctuations

- 1. Check the water inlet screen and clean it if it is dirty.
- 2. Check the water pressure at the supply line and regulate it accordingly, if necessary.
- 3. Check the pressure reducer and regulate it, if necessary.

#### 8.4 Work break

If the duration of a work break exceeds the setting time of the material to be processed, there is a risk of the material setting during the break.

- 1. Stop the mixer by pressing the red pushbutton.
- 2. Pull out the mains plug.
- 3. Pull out the plug of the motor from the socket.
- 4. Use an external water hose for cleaning.
- 5. Remove the internal water hose that connects the mixing pipe to the water valve.
- 6. Pull the mixing shaft (screwed to the mixing pipe cover) out of the mixing pipe. To do this, turn the mixing pipe cover anti-clockwise to the left.
- 7. Open both eccentric fastenings to separate the mixing pipe from the main frame.
- Clean the mixing shaft and mixing pipe with water over a suitable drip tray or bucket.

NOTE Carry out this cleaning process before any longer breaks from work (> 0.5 hours). Do not operate the mixing pipe forcibly from the outside (e.g. by hitting it with a hammer).



PANGER Rotating shaft.

Danger of death due to being pulled into the machine and crushed.

When the motor is running, the metering shaft rotates, even if the mixing pipe has been removed with the mixing shaft!

- Do not reach into the rotating shaft.
- Do not place any objects into the rotating shaft.
- 1. Before working on the metering and mixing shaft, interrupt the external power supply.
- 2. To do this, press the red pushbutton.
- 3. Pull out the mains plug.
- 4. Secure the machine against unexpectedly being switched back on.



Water jet.

Risk of injury and risk of property damage due to escaping water.

- Interrupt the external water supply by closing the water valve.
- 2. In order to release the pressure (approx. 2 bar), open the water drainage valve on the water measuring system.
- 3. Remove the hose from the external water supply.
- 4. Do not point the water jet at other people or yourself.

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Chapter 9 Cleaning & decommissioning





#### 8.5 End of work

#### 8.5.1 Switching off the machine

- 1. Stop filling with bagged goods in sufficient time.
- 2. Empty the material hopper of the main frame and the mixing pipe.
- 3. Stop the mixer by pressing the red pushbutton.
- 4. Pull out the mains plug.
- 5. Pull out the plug of the motor from the socket.

### 8.5.2 Dismantling and cleaning the mixing pipe and mixing shaft

- 1. For cleaning, connect a water hose to the GEKA coupling (left) provided for this purpose on the water valve.
- 2. Remove the internal water hose that connects the mixing pipe to the water valve.
- 3. Pull the mixing shaft (screwed to the mixing pipe cover) out of the mixing pipe. To do this, turn the mixing pipe cover anti-clockwise to the left.
- 4. Open both eccentric fastenings to separate the mixing pipe from the main frame.
- 5. Clean the mixing shaft and mixing pipe with water over a suitable drip tray or bucket.
- 6. Interrupt the external water supply by closing the water valve.
- 7. In order to release the pressure (approx. 2 bar), open the water drainage valve on the water measuring system.
- 8. Remove the supply and cleaning hose from the water valve.

#### 8.5.3 Dismantling the motor and metering shaft

- 1. Remove the motor by opening the quick-release fastener that connects the motor to the main frame.
- 2. Pull out the metering shaft from the main frame.
- 3. Remove dry residual material by using a suitable broom. Use a suitable container to collect the residual material.

#### 9 Cleaning & decommissioning

#### 9.1 Cleaning process

- 1. Stop filling with bagged goods in sufficient time.
- 2. Empty the material hopper of the main frame and the mixing pipe.
- 3. Stop the mixer by pressing the red pushbutton.
- 4. Pull out the mains plug.
- 5. Pull out the plug of the motor from the socket.
- 6. Remove the internal water hose that connects the mixing pipe to the water valve.
- Pull the mixing shaft (screwed to the mixing pipe cover) out of the mixing pipe. To do this, turn the mixing pipe cover anti-clockwise to the left.
- 8. Open both eccentric fastenings to separate the mixing pipe from the main frame.
- 9. Clean the mixing shaft and mixing pipe with water over a suitable drip tray or bucket.
- 10. Interrupt the external water supply by closing the water valve
- 11. In order to release the pressure (approx. 2 bar), open the water drainage valve on the water measuring system.
- 12. Remove the supply and cleaning hose from the water valve.
- 13. Remove the motor by opening the quick-release fastener that connects the motor to the main frame.
- 14. Pull out the metering shaft from the main frame.
- 15. Remove dry residual material by using a suitable broom. Use a suitable container to collect the residual material.



#### Rotating shaft.

Danger of death due to being pulled into the machine and crushed.

When the motor is running, the metering shaft rotates, even if the mixing pipe has been removed with the mixing shaft!

- Do not reach into the rotating shaft.
- Do not place any objects into the rotating shaft.
- 1. Before working on the metering and mixing shaft, interrupt the external power supply.
- 2. To do this, press the red pushbutton.
- 3. Pull out the mains plug.
- 4. Secure the machine against unexpectedly being switched back on.



#### Water jet.

### Risk of injury and risk of property damage due to escaping water.

- Interrupt the external water supply by closing the water valve.
- 2. In order to release the pressure (approx. 2 bar), open the water drainage valve on the water measuring system
- 3. Remove the hose from the external water supply.
- 4. Do not point the water jet at other people or yourself.

#### 9.2 After cleaning

#### Note the optimum assembly sequence:

- 1. Insert the metering shaft.
- 2. Attach the motor to the main frame by using the quick-release coupling.
- 3. Mixing pipe and mixing shaft with mixing pipe cover.
- 4. Connect the water and electricity supply.

#### 9.3 Decommissioning

### 9.3.1 Running the machine until it is empty and switching it off

- 1. Stop filling with bagged goods in sufficient time.
- 2. Empty the material hopper of the main frame and the mixing pipe.
- 3. Stop the mixer by pressing the red pushbutton.
- 4. Pull out the mains plug.
- 5. Pull out the plug of the motor from the socket.

### 9.3.2 Mixing pipe and mixing shaft with mixing pipe cover

- 1. Remove the internal water hose that connects the mixing pipe to the water valve.
- 2. Open both eccentric fastenings to separate the mixing pipe from the main frame.

#### 9.3.3 Water measuring system

- 1. Interrupt the external water supply by closing the water valve.
- 2. In order to release the pressure (approx. 2 bar), open the water drainage valve on the water measuring system.
- 3. Remove the supply hose from the water valve.

#### 9.3.4 Dismantling the motor and metering shaft

- 1. Remove the motor by opening the quick-release fastener that connects the motor to the main frame.
- 2. Pull out the metering shaft from the main frame.
- 3. Remove dry residual material by using a suitable broom. Use a suitable container to collect the residual material.

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Chapter 10 Maintenance Chapter 11 Faults, causes and solutions



## EN

#### **10 Maintenance**

Have the machine inspected once a year by a specialist workshop. Replace parts which are subject to wear as soon as the wear limits have been reached. Portable machines, like the inoMIX S16, must be subject to an annual electrical inspection according to the implementing regulation for electrical plant and operating resources (DGUV V3). This inspection may only be carried out by a qualified electrician (e.g. electrical engineer, electrical technician, master electrician, senior electrician, foreman electrician or assistant electrician). Electrical specialists work at all INOTEC service centres, conducting electrical inspections in line with DGUV V3. To arrange an inspection, call the INOTEC service hotline on +49 7741 6805 777.



WARNING Cleaning and maintenance work can put the safety of operating staff at risk and impair the functionality of the machine.

- 1. Stop the mixer by pressing the red rotary switch on the main switch.
- 2. Pull out the mains plug.
- 3. Disconnect the 5-pole plug of the motor from the upper socket on the switching cabinet.
- 4. Secure the machine against unexpectedly being switched back on
- 5. Before cleaning with the water jet, cover all the openings that water must not penetrate into for safety and functional reasons.
- 6. After cleaning, remove all the covers which were attached to protect against the water.

#### 10.1 Maintenance plan

Have the machine inspected at a specialist workshop or at an INOTEC service centre	Once a year (Recommended)
Electrical inspection (DGUV V3) by a qualified electrician or at an INOTEC service centre	Once a year (Mandatory, stipulated by DGUV V3)
The dirt trap sieve in the water inlet is to be cleaned/replaced by the operator	Daily
The dirt trap sieve in the pressure reducer is to be cleaned/replaced by a service technician	Monthly

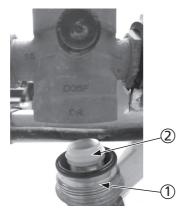
### **10.2 Dirt trap sieve in the water inlet** (Brass sieve insert, item no. 10006007)



- 1. Remove the dirt trap sieve (1) from the GEKA coupling.
- 2. Clean the dirt sieve trap daily.
- 3. Replace the dirt trap if it is very dirty.
- 4. Re-install the dirt trap sieve.

### 10.3 Dirt trap sieve in the pressure reducing valve

(replacement strainer for pressure reducer item no. 10006518)



- 1. Unscrew the sieve cup (1) from the pressure reducer.
- 2. Remove and clean the dirt trap sieve (2) once a month.
- 3. Replace the dirt trap if it is very dirty.
- 4. Install a new dirt trap sieve and screw the sieve cup onto the pressure reducer.

### 10.4 Wear limit for metering shafts (Item no. 10039947)



The metering shafts are subject to wear. The entire metering shaft must be replaced if the minimum height of the augur blades is either reached or not guite reached.

Diameter	51 mm
<b>Wear limit:</b> Diameter	45 mm

### 10.5 Wear limit for mixing shafts (Item no. 10039948)



The mixing shaft is subject to wear. The entire mixing shaft must be replaced if the minimum height of the mixing blades is either reached or not quite reached.

Maximum height of mixer blades	55 mm
<b>Wear limit:</b> Minimum height of mixer blades	50 mm

#### 11 Faults, causes and solutions

The inoMIX S16 is designed for fault-free operation. However, should a fault occur, please follow the instructions below on analysing, checking and remedying the fault or contact the Inotec Service team (see the address list for INOTEC service centres at the end of the document) or call the INOTEC service hotline on: +49 7741 6805 777.



**WARNING** Faults can put the safety of operating staff at risk and impair the functionality of the machine.

#### Proceed as follows where a fault occurs:

- 1. Cut off the power supply in the event of any faults which pose a direct risk to people or material assets. To do this, press the red pushbutton.
- 2. Pull out the mains plug.
- 3. Secure the machine against unexpectedly being switched back on
- 4. Determine the cause of the fault.
- 5. Report the fault to the responsible person on site.
- 6. Depending on the type of fault you can either rectify this yourself or have it rectified by a qualified electrical specialist.

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Chapter 11 Faults, causes and solutions

Chapter 12 Dismantling and disposal





#### The faults listed below feature recommendations as to who is authorised to rectify the fault.

Symptom		Potential cause	Check / solution	Personnel qualification
If the machine will not start.		Power supply is cut off.	Check the power supply (power distribution points, socket, power cable, cable reel).	Machine operator
		No input voltage available.	<ul> <li>Have the voltage supply checked at the worksite distribution board, supply cables and cable reels.</li> <li>Have the voltage supply restored if it was interrupted.</li> </ul>	Qualified electricians
		Blockage due to foreign bodies or hardened material in the mixing pipe	Remove the foreign bodies and clean the mixing pipe	Machine operator
The machin stopped.	e has	The overcurrent protection device has	Check the metering shaft and mixing shaft.	Machine operator
		tripped.	<ul><li>Have the motor checked.</li><li>Have the fault remedied if necessary.</li></ul>	Service technician/ qualified electrician
The machine has stopped.		Metering shaft me- chanically blocked.	Check whether any foreign bodies are in the metering shaft; if necessary, remove the foreign bodies.	Machine operator
The machine has stopped.		Mixing shaft mechanically blocked.	<ul> <li>Check whether any hardened material is in the mixing shaft; if necessary, remove the hardened material.</li> <li>Check whether any foreign bodies are in the mixing shaft; if necessary, remove the foreign bodies.</li> </ul>	Machine operator
Motor will not start or is spluttering.		Motor or electronic control is defective.	<ul> <li>Have the motor checked; have the motor replaced if necessary.</li> <li>Have the electronic control checked; the electronic control repaired if necessary.</li> </ul>	Service technician/ qualified electrician
		Foreign bodies or hardened material in metering shaft or mixing shaft.	Check whether any hardened material or foreign bodies are in the pump shaft; if necessary, remove the hardened material or foreign bodies.	Machine operator
Only dry material comes out of the mix- ing pipe outlet		The water supply has been interrupted.	<ul> <li>Check whether the hose is connected to the external water supply; connect the water hose if it has not been connected.</li> <li>Check whether the stop cock on the external water supply has been opened; open the stop cock if it is closed.</li> </ul>	Machine operator
		<ul> <li>Check the plug on the solenoid valve; secure the plug if loose.</li> <li>Check the coil of the solenoid valve; replace the coil if the defective.</li> <li>Check the solenoid valve; replace the solenoid valve if the a mechanical defect.</li> </ul>		Machine operator
Only water comes out of the mixing pipe outlet		The mixing shaft is not connected to the metering shaft.	<ul> <li>Check if the mixing pipe is mounted properly.</li> <li>Check whether the mixing shaft is connected to the metering shaft.</li> </ul>	Machine operator
Material consistency	too thick	The amount of water supplied is too low.	Increase the flow volume by adjusting it on the needle valve of the water fitting.	Machine operator
ŕ	too thin	The amount of water supplied is too high.	Reduce the flow volume by adjusting it on the needle valve of the water fitting.	Machine operator
	Consisten- cy fluctua- tions	The amount of water supplied is fluctuating.	<ul> <li>Check the water inlet screen; clean the water screen if necessary.</li> <li>Check the water pressure of the supply line; regulate the water pressure if necessary.</li> <li>Check the setting on the pressure reducer; regulate the setting if necessary.</li> </ul>	Machine operator

#### 12 Dismantling and disposal

After the machine's period of use has expired, the machine must be dismantled and sent for environmentally conscious disposal.

#### 12.1 Safety

- Only task trained or instructed staff with operating the inoMIX S16.
- Work on the electronic control system may only be performed by a qualified electrician.



G Risk of injury posed by improper disas-

Stored residual energy, sharp components, points and corners on and in the machine can cause injuries.

- Ensure there is enough space for disassembly.
- Wear gloves and safety boots to avoid injuries.
- Handle sharp-edged parts with care.
- Ensure that the workplace is tidy and clean. Loose components and tools lying around or on top of each other can cause accidents.
- Adopt good practice when dismantling the components.
- Note that some individual parts may be very heavy.
- Secure the individual parts to ensure these do not fall down or topple over.
- In the event of uncertainty, call the INOTEC service hotline on +49 7741 6805 777.



Clean and dismantle the machine before sorting the parts in compliance with the applicable occupational health and environmental protection regulations.

#### 12.3 Disposal

According to European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in national law, this machine should not be disposed of in general household waste, but recycled in an environmentally conscious manner!



The inoMIX \$16 consists primarily of high-quality metal. Observe the following if you are decommissioning the inoMIX \$16 for the final time:

- Send the metal to a recycling facility.
- Dispose of the inoMIX S16 via a scrap metal dealer or your local scrap metal collection centre.

Your used INOTEC equipment will be taken back by us and disposed of in an environmentally conscious manner. Please contact one of our service centres to arrange this.



Danger of death due to electric shock.

When switched on, electrical components can cause uncontrolled movements and lead to serious injury.

- 1. Switch the machine off. To do this, press the red push-
- 2. Pull out the mains plug and finally disconnect the machine from the electrical supply.

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Chapter 13 Systems Chapter 13 Systems



#### 13 Systems

The following documents are enclosed as annexes and form part of this operating manual:

#### 13.1 EC declaration of conformity

Name/address of the issuer: **INOTEC GmbH** 

Daimlerstraße 9-11

DE 79761 Waldshut-Tiengen

#### We hereby declare

that the machine described below, on the basis of its design and construction, as well as the version that we have put into circulation, complies with the relevant fundamental safety and health regulations of the EC Directive 2006/42/EC.

This declaration will become void in the event of any modification made to the machine without our approval.

Name of the device: inoMIX S16 Machine model: Continuous mixer Item number: 10039462

#### **Applied harmonised standards**

DIN EN 12100 Safety of machinery

DIN EN 60 204.1 Electrical equipment of machines - Part 1: general requirements

**DIN EN 13857** Safety of Machinery - Safety distances to prevent hazard zones being reached

by upper and lower limbs

#### Authorised representative for the compilation technical documentation:

#### **INOTEC GmbH**

Daimlerstraße 9-11 DE 79761 Waldshut-Tiengen

#### Jörg Tetling

Managing Director

Waldshut-Tiengen, August 2021

#### 13.2 General Terms of Business of the company INOTEC GmbH

#### Valid from April 2021

ms and conditions of the customer that deviate from or are not included in r terms and conditions are not recognised unless INOTEC GmbH has slicitly agreed to their validity in writing. Counter-confirmations by the stomer with reference to their terms and conditions of business or purchase are hereby rejected.

II. INOTEC GmbH's general terms and conditions of leasing apply to leasing

#### s – Product descriptions, application-related information, subject to change

Machine descriptions in brochures, technical data sheets, etc. do not constitute quality guarantees. Application-related information and recommendations that INOTEC Gmbh issues verbally and in writing to support the customer or processor are based on our current level of knowledge. They are non-binding and do not establish any contractual rights nor any secondary obligations from the purchase contract, unless explicitly

normal use of the delivery item or use required under the contract is not significantly or adversely affected and the change is reasonable for the customer.

### § 3 Delivery period, assembly deadline

I. Agreed delivery periods start on conclusion of the contract, but not before the customer has provided the necessary documents and approvals and has fully clarified all of the details regarding the requested execution and all technical questions. Compliance with the delivery period always requires the customer to meet its contractual obligations.

II. In the event of force majeure and any unforeseeable obstacles which were unknown on conclusion of the contract, where we are not responsible for such obstacles, the delivery period shall be extended appropriately including within a delay — insofar as it is proven that such obstacles impacted the provision of the service owed.

the provision of the service owed. This also applies if these circumstances apply to sub-suppliers. We shall notify the customer of the start and end dates of such obstacles as early as possible. If the obstacle lasts for more than three months or if it is determined that this will last for more than three months, both we and the customer may withdraw from the contract.

III. If we have agreed the time of delivery, assembly or installation with the customer, the customer is obliged to take all precautions at their place of work to be able to carry out their planned work. In particular, the customer is obliged to provide electrical connections, compressed air connections and adequate lighting at the place of work.

If the customer is responsible for the fact that we are unable to complete the

If the customer is responsible for the fact that we are unable to complete the planned work, are unable to complete it in full, or are unable to complete it within a reasonable period of time, the customer is obliged to compensate us for any admanges incurred, and is particularly obliged to reimburse use for any additional costs incurred as a result of additional journeys and wasted working hours additionally required from our employees. The assembly bas been carried out for acceptance by the customer by the deadline. If a test is stipulated by the contract, the deadline. If there are any delays as a result of force majeure or circumstances for which the customer is responsible, the assembly deadline shall be extended to a reasonable extent.

IV. If the customer has demonstrably suffered damage as a result of a delay by INOTEC GmbH as an assembly company, they are entitled to demand compensation for the delay. In the case of simple negligence on the part of INOTEC GmbH, this is a fixed amount totalling 0.5% for each full week of the delay, but this amount shall not exceed 5% of the value of the part of the total delivery that cannot be used on time or in line with the contract as a result of delayed assembly.

#### § 4 Transportation, transfer of risk, packaging, partial deliveries

I. Unless otherwise agreed, INOTEC GmbH shall deliver goods carriage forward and uninsured to the named destination at the risk of the recipient. If torward and unifrastrea to the named destination at the fixe of the recipient, in there are any damages in transit, the damage must be confirmed by the carrier before the goods are accepted. If carriage paid delivery is owed, this only applies to shipping and transportation standard in the industry. Additional costs, e.g. for express freight requested by the customer, shall be borne by the customer.

II. Unless otherwise agreed, risk for shipping transactions transfers to the II. Unless otherwise agreed, risk for shipping transactions transfers to the customer as soon as the delivery has been handed over to the person providing transportation. If dispatch is not possible for reasons for which INOTEC GmbH is not to blame, risk transfers to the customer upon notification that the goods are ready for dispatch. If the customer collects the goods, risk transfers when the goods are handed over.

IV. INOTEC GmbH is entitled to partial delivery and partial performance to a

#### § 5 Prices and payment, returns

I. Unless otherwise agreed, prices do not include packaging, transportation, insurance, unloading, installation, assembly and commissioning, namely for delivery ex works or from the delivery warehouse, and are exclusive of statutory VAT at the respective rate. The prices quoted are only valid for the respective individual order. Assembly is billed based on time spent, unless a fixed rate has been explicitly agreed.

II. If contracts have an agreed delivery period of more than two months, both contracting parties may request a change in the agreed price if costs decrease or increase after the contract is concluded and the contracting parties cannot avoid this, particularly if such decreases or increases are caused by collective bargaining agreements or changes in the cost of materials. The price change must be limited to the amount required to compensate for the cost decrease or increase. A party is entitled to a similar price adjustment if delays arise for which the other party is responsible and these result in an actual delivery period of more than two months.

III. Unless otherwise agreed (e.g. when the invoice is sent), payments are to be made immediately on delivery of the goods. Payment is only considered to have been made when INOTEC GmbH has the amount at its disposal.

IV. If the customer defaults on payment, INOTEC GmbH may demand

V. Offsetting payments or retaining payments where such retention equates to offsetting is only permitted if the customer has legal claims that are recognised by INOTEC GmbH, are not disputed, are pending judgement or have been established by law.

VI. Despite any of the customer's provisions to the contrary, INOTEC GmbH is entitled to initially offset payments against their older debts and will notify the customer about the type of offsetting that has taken place. If costs and interest have already been incurred, INOTEC GmbH is entitled to offset the payment against the costs first, then against the interest and finally against the main receivable.

VII. If the customer defaults on acceptance of the delivery items or on payment, INOTEC GmbH may withdraw from the contract and/or may demand compensation instead of performance after a reasonable grace period passes to no avail, where such a grace period is required by law and is set by INOTEC GmbH. If a compensation claim for damages is asserted, INOTEC GmbH may demand compensation at the amount of 15% of the purchase price, without being required to provide evidence to compensate for lost profit. The contracting parties are free to provide evidence of higher or significantly lower actual damage.

VIII. If we take back goods after consultation without any legal obligation, a credit note will be issued that totals a maximum of the value of the goods. With respect to the expenses incurred (loss of value, testing, cleaning, freight, packaging, administrative expenses, etc.), we reserve the right to deduct the working hours spent at current billing rates and/or a percentage of the value of the goods from the credit note, and with respect to machine returns, we reserve the right to carry out a leasing calculation using current leasing rates.

#### § 6 Retention of title, extended retention of title

I. INOTEC GmbH retains title to the delivered goods until all receivables from the concluded contract, including all accessory claims (e.g. exchange costs, financing costs, interest) have been met in full. If several items are delivered for a total price, ownership of all items remains reserved until full

payment has been made.

If a current account agreement has been made with the customer, retention of title exists until the recognised current account balance has been paid in

Tull.

If cheques or bills of exchange are accepted, fulfilment only occurs when the cheque or bill of exchange has been cashed and INOTEC GmbH has the amount at its disposal without any recourse risks.

II. The customer is obliged to treat the goods subject to retention of title with care and to immediately notify INOTEC GmbH in the event of seizure, confiscation, damage or loss. Any breach of this obligation gives INOTEC GmbH the right to withdraw from the contract. The customer shall bear all of the costs that have to be paid, particularly in the context of third-party action against seizure being lifted and, if necessary, for the replacement of the delivery items, unless they can be recovered from third parties.

III. If the customer defaults in payment with respect to a not inconsiderable III. If the customer defaults in payment with respect to a not inconsiderable portion of its obligations, INOTEC Gmbl is entitled to temporarily take back the goods subject to retention of title. Exercising the right of withdrawal does not constitute a withdrawal from the contract, unless INOTEC Gmbl has explicitly declared withdrawal. The customer shall bear any costs that arise from the exercise of the right of withdrawal (in particular for transportation and storage) if INOTEC Gmbl theretain withdrawal within a reasonable period of time. INOTEC Gmbl is entitled to dispose of the goods subject to retention of title that have been taken back and to offset its claims with the proceeds, provided that INOTEC Gmbl has previously threatened to dispose of them. In the threat, INOTEC Gmbl must have set the customer a reasonable deadline to meet their obligations.

IV. The customer hereby assigns to INOTEC GmbH the purchase price, wage IN. The customer fleetey assigns to involve. Calino in the pluricase pinck, wages or other receivables (including the recognised balance from a current account agreement or, in the event of insolvency on the part of the customer's business partner, the "causal balance" available) at the amount of the invoice value for the goods subject to retention of title (inclusive of VAT) from the value for the goods subject to retention of title (inclusive of VAT) from the onward sale or further processing of the goods subject to retention of title, or which arise because of another legal reason (insurance, tort, loss of ownership caused by connecting the delivery item to a property): INOTEC GmbH hereby accepts the assignment. INOTEC GmbH revocably authorises the customer to collect receivables assigned to INOTEC GmbH or the account of INOTEC GmbH in their own name. This collection authorisation can only be revoked if the customer does not properly meet their payment obligations. In such a case and at the request of INOTEC GmbH, the customer must provide information on the assigned receivables which is required for collection, in addition to making corresponding documents available and notifying the debtor of the assignment. The assignment of receivables under sentence 1 serves to secure all receivables—
including in the future — from the business relationship with the customer.

#### § 7 Notice of defects, rights in the event of material defects

l. If a contract is established with a consumer (§13 of the Civil Code [Bürgerliches Gesetzbuch, BGB]), the statutory provisions that entered into force on 01/01/2002 shall apply.

II. If the purchase is a commercial transaction for both parties, the customer must provide immediate notice of any defects in writing, provided that this is in line with the normal course of business. Notice of hidden defects, however, must only be given after they are discovered; otherwise the goods are considered to be accepted.

III. Insofar as the delivery item and/or the associated assembly service is defective, the customer can either request that the defect is remedied (repair) or that an item free of defects is delivered (replacement delivery) as supplementary performance, at INOTEC GmbH's discretion, for a period of 12 supplementary performance, at INOTEC GmbH's discretion, for a period of 12 months from transfer of risk. If we are not prepared or are unable to carry out the repair/replacement delivery, particularly if this is delayed beyond a reasonable period for reasons for which we are responsible, or if the repair/replacement delivery fails in any other way, and if further attempts at supplementary performance are unreasonable for the customer, they shall be entitled to withdraw from the contract or to reduce the purchase price, at their discretion. If there is a negligible defect, the customer may only withdraw from the contract with our consent.

IV. No claims for material defects arise in the event of unsuitable or improper use or treatment of the goods, incorrect assembly or commissioning by the customer or third parties, natural wear and tear (especially for wearing parts unsuitable equipment or operating conditions, inadequate maintenance, etc.

#### § 8 Limitation of liability

INOTEC GmbH shall be liable for intent and gross negligence.

III. Liability for indirect and unforeseeable damage, loss of production and use, loss of profits, loss of savings and financial losses due to claims by third parties is excluded in the case of simple negligence, except in the case of injury to life, limb or health.

IV. Further liability that goes beyond this contract is excluded, regardless of the legal nature of the asserted claim. However, the above limitations or exclusions of liability shall not apply to no-fault liability that is mandatory by law (e.g. in accordance with the Product Liability Act [Produkthaftungsgesetz]).

V. Insofar as liability under points II and III is excluded or limited, this shall also apply to the personal liability of INOTEC GmbH's employees, workers, representatives, bodies and vicarious agents.

#### Fixed compensation for damages

I. If the buyer cancels the order before execution, INOTEC GmbH is entitled to demand 15% of the total order amount as compensation.

#### Documents, demonstration equipment, property rights

We shall retain title and copyrights to drawings, drafts, cost estimates and other documents provided by us, particularly samples and demonstration equipment. Documents and items may not be reproduced or made accessible to third parties without our explicit, specified consent.

#### Place of jurisdiction, applicable law

The law of the Federal Republic of Germany applies to these general terms and conditions and the entire legal relationship between INOTEC GmbH and the customer, excluding the UN Convention on Contracts for the International Sale of Goods (CISG).

II. If the customer is a merchant within the meaning of the Comm II. If the customer is a merchant within the meaning of the Commercial Code (Handelsgesetbuch), a legal entity under public law or a special fund under public law, the place of jurisdiction for all rights and obligations of the parties to the contract from any transaction — including those involving bills of exchange and cheque disputes — is Waldshut-Tiengen (Federal Republic of Germany). The same shall apply if the customer does not have a general place of jurisdiction in Germany, has moved their domicile or usual place of residence outside of Germany after concluding the contract, or their place of residence is outsula place of residence is not known at the time when the action is filed. However, we are also entitled to sue the customer at their capital class of intrictions. general place of jurisdiction

#### INOTEC GmbH

Daimlerstraße 9-11 D-79761 Waldshut-Tiengen

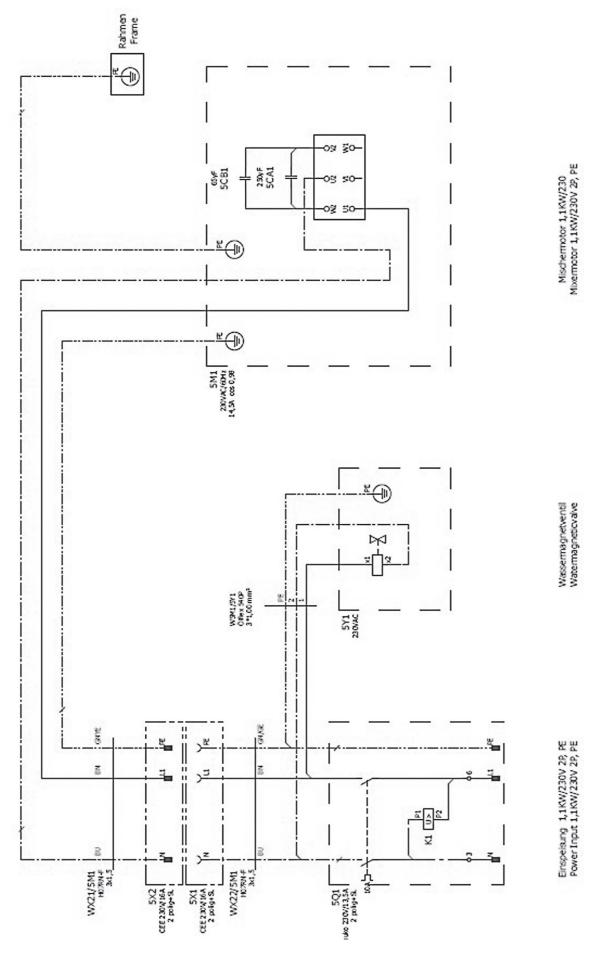
Freiburg District Court HRB 621 131

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#### 13.3 Circuit diagram for inoMIX S16



#### 14 Order form

Fax to:	+49(0)7741-6805-665
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Delivery address		Invoice to		
Name of customer	Consultan	t	Date	
				-

Number	Item no.	Item name
Number	item no.	item name
	+	
	†	
	+	
	+	
	+	
	1	1

Our General Terms of Business, Delivery and Payment apply. The customer has been made aware of these terms and agrees to the application of the same.

All goods shall be owned by us until we receive complete payment pursuant to Section 449 of the German Civil Code.





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#### **16 Locations**

Your sales partner (English language)

#### **INOTEC GmbH**

(Headquarter)
Daimlerstraße 9-11
79761 Waldshut-Tiengen
Germany
Phone +49 7741 / 6805 6

Phone +49 7741 / 6805 675 Fax +49 7741 / 6805 665 E-Mail: j.tetling@inotec-gmbh.com





# **Product range**

**Delivery pumps** 



Mixing pumps



Mixers



**Delivery systems** 



Silo technology



**OWC** technology



**Airless devices** 



Cutters



Grinders



One-handed guns



Waste water systems



Tillage



Compressed air / compressors



Heaters / air dehumidifiers / high-pressure cleaners



Accessories & spare parts



Power tools / electrical appliances







