



# OPERATING MANUAL Xcool

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# Preamble

Dear customer,

Thank you for choosing the spindle equipment Xcool from SPINOGY.

Along with this equipment for the spindle, you experience a perfectly aligned system.

The single components are manufactured with our machines, assembled in Weiterstadt and completed with high-quality purchased parts. So, we can monitor the complete manufacturing process and always ensure a high quality. In order to keep the quality of this product for a long period, please carefully read this operating manual.

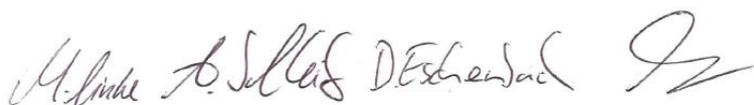
SPINOGY is always working on further development of our products. Therefore, deviations may occur with the product and the operating manual. We therefore ask you for your understanding, that no claims can be derived from technical data, illustrations, or descriptions.

During the development of this equipment, we have always taken care to involve the feedback of our customers. Nevertheless, we always want to improve to be able to respond to requests even more specific. Therefore, we are very grateful for your praise, constructive criticism, and suggestions.

Please contact us for any request, questions or wishes about our products or your application case, we are glad to help you. Just use our contact form on our website or contact us via E-Mail: [mail@spinogy.de](mailto:mail@spinogy.de). Of course, we are also available for a personal conversation.

We wish you a successful work.

Marcel Linke, Andreas Schleifer, Dominik Eschenbach and Marc Schmidt-Winterstein  
Managing directors SPINOGY GmbH



# 01 General remarks

## 01.1 Notice

This operating manual contains important information about handling the product. It has to be read carefully before use. The Xcool may only be put into operation if the operating manual was understood completely. If there are obscurities, SPINOGY must be contacted. Please follow the instructions of this operating manual. This operating manual must be available for the user at any time and must be replaced in case of loss or impracticality immediately. The obligation to retain applies as long as someone is in possession of the product.

The content of this operating manual is checked for conformity with the described incomplete machine, but deviations and mistakes cannot be excluded. Technical and content-related changes, errors and misprints are reserved.

This operating manual is subject to the copyright law and may not be reproduced, copied, or changed in any form, neither all nor part, without the permission of the author. In case of contravention, there is a risk of criminal prosecution. All rights reserved.

## 01.2 Limitation of liability

SPINOGY doesn't assume liability for personal injuries, material damages, damages caused to the device and consequential damages caused by failure to follow this operating manual, improper use of the device, repairs or any other actions done by non-qualified workers (see chapter 2.3 personnel requisition) damages on this unit occur or occurred by using unauthorized non-approved spare parts. Non-compliance of maintenance intervals and maintenance specification of the manufacturer does also lead to non-liability. (Please see chapter 7 – maintenance) In addition, it is strictly prohibited to make any unauthorized modifications or technical changes on the device. If the Xcool is used for spindles from other manufacturers, SPINOGY does not assume liability for possible damages to the spindle in case it does not meet the cooling requirements for the spindles from other manufacturers. For the use of the Xcool with other spindles, the corresponding spindle manufacturer is to be consulted in advance.

## 01.3 Product name

This operating manual is created for the following product:

<b>Product name:</b>	Xcool
<b>Compatible with spindle:</b>	XP001, XP003, XP005, XP007, XP021, XP022, (as well as all configurations of these spindles), Spindles of other manufacturers (adhere to performance characteristics)

## 01.4 Labeling of the Xcool

The Xcool is labeled with a six-digit serial number. The serial number is located on the type plate at the rear side of the Xcool, pursuant to the picture. (Red frame)

Using this serial number, all necessary information about the Xcool can be obtained from SPINOGY at any time.



<b>XCOOL</b>	<b>SPINOGY®</b>
Spannung:	230 V
Max. Leistungsaufnahme:	40 W
Max. Durchfluss:	6,8 l/min
Max. Förderhöhe:	10 m
Tankinhalt:	3,5 l
Max. Kühlleistung:	600 W (20°C)
Leergewicht:	9,8 kg
Schutzklasse:	IP20
SPINOGY GmbH Brunnenweg 17 64331 Weiterstadt mail@spinogy.de	Art.-Nr.: XC001 Serien-Nr.: <span style="border: 1px solid red; padding: 2px;">XXXXXX</span>

The type plate displays the characteristics of the Xcool in German. The following chart shows the translation:

German word	English word
Spannung	Voltage
Max. Leistungsaufnahme	Maximum power consumption
Max. Durchfluss	Maximum flow
Max. Förderhöhe	Maximum head
Tankinhalt	Tank capacity
Max. Kühlleistung	Maximum cooling performance
Leergewicht	Empty weight
Schutzklasse	Protection class

## 01.5 Manufacturer details

<b>Name:</b>	SPINOGY GmbH
<b>Address:</b>	Brunnenweg 17, 64331 Weiterstadt
<b>E-Mail:</b>	mail@spinogy.de
<b>Phone:</b>	+49 6150 / 970 960
<b>Website:</b>	spinogy.de

## 01.6 Target group

This operating manual is primarily aimed at the following staff:

- Installation staff
- Machine operators
- Maintenance staff

## 01.7 Lifecycles of the machine

The machine processes the following lifecycles:

- Transport
- Assembly
- Operation
- Maintenance
- Disassembly
- Disposal

# 02 Safety instructions

## 02.1 Contractual use

The Xcool is to be considered as an incomplete machine for the installation into machine tools, covered by the definition of a fixed industrial large tool. Seen in isolation, the Xcool cannot fulfill any function. The installation has to be done by the manufacturer of the machine tool, as the required skills for professional installation cannot be expected from end users. The Xcool is to be considered as equipment for a spindle from SPINOGY and is only approved for this purpose.

## 02.2 Symbols and notes

The mentioned symbols in this operating manual shall obviously call the attention of the reader to potential dangers. Those indications or warnings can never be seen as a replacement for correct accident prevention.

	<b>Warning of general hazard</b>
	<b>Warning of dangerous electrical voltage</b>
	<b>Note to avoid material damage</b>

The following signal words are used:

SIGNAL WORD	MEANING
<b>DANGER</b>	Danger with a high risk-level that will result in death or serious injury in case of non-observance
<b>WARNING</b>	Danger with a medium risk-level that will result in death or serious injury in case of non-observance
<b>CAUTION</b>	Danger with a low risk-level that will result in minor or moderate injury in case of non-observance
<b>NOTE</b>	Information that may lead to material damage in case of non-observance

## 02.3 Personnel requisition

### Basic details

Only persons who can be expected to perform their work reliably are permitted as personnel. Persons who have an affected capacity of reaction, e.g., through drugs, alcohol, or medication, are not permitted. Adhere to the valid local regulations relating to age and profession when selecting staff.

	<b>WARNING: Improper use</b> Improper use of the product can lead to considerable personal injuries and material damage. All activities may only be carried out by qualified and trained personnel. If the personnel doesn't have the necessary expertise, the personnel is to be trained and instructed.
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## Qualification

The tasks described in this operating manual represent different personal and professional requirements for the qualifications of the people who are entrusted with these tasks. In this operating manual, the following qualifications are therefore named and required for various fields of activity:

### 1. Professionals

Professionals are, due to their technical training, knowledge and experience and their knowledge of the relevant standards and regulations, able to evaluate and carry out the given tasks. Furthermore, they are able to recognize and avoid potential dangers independently.

### 2. Electricians

Electricians are, due to their technical training, knowledge and experience and their knowledge of the relevant standards and regulations, able to evaluate and carry out the given tasks. Furthermore, they may recognize and avoid potential dangers independently. These electrical engineering works are only allowed, however, to be performed by electricians or under their direction and monitoring.

The technical requirements for electricians are:

- Technical education (electrical engineering)
- Knowledge and experience in the respective field of activity
- Knowledge of the relevant standards
- Evaluation of the work assigned to them
- Recognizing hazards

### 3. Instructed staff

Instructed staff are employees who can behave safely at their workplace. For this purpose, they must be informed about the possible hazards resulting from the tasks assigned to them. In addition, they should recognize the purpose of the occupational safety and health measures and assume personal responsibility for their health-conscious behavior.

For this purpose, they must be informed by the operator about the tasks assigned to them and possible hazards resulting from improper behavior. Corresponding effectiveness-checks by the operator are recommended.

Note: Staff must be regularly and sufficiently instructed by the operator. Further details are regulated in the national occupational safety laws and regulations. For better traceability, the execution of the instruction must be recorded.



#### **WARNING: Unauthorized staff**

Unauthorized staff is unaware of the hazards in their work area. Failure to comply with the personnel requisition can result in serious injury or even death.

### Unauthorized staff

Any person who:

- has not read this operating manual, has not read it completely or has not clearly understood it
- does not meet the qualification requirements for working with the Xcool
- has not received instructions from the operator for working with the Xcool  
is considered an unauthorized person.

The following points must therefore be observed in any case:

- Keep unauthorized persons away from the danger and work area
- In case of doubt, talk to persons and direct them away from the danger and work area
- Interrupt the work as long as unauthorized persons are in the danger and work area
- Deny access to unauthorized people

## 02.4 Responsibilities and duties of the operator

The operator himself is assumed to have the necessary qualifications and special expertise in handling machine tools and systems. If the operator does not carry out the necessary work himself, appropriate personnel must be called in for the professional installation, commissioning, maintenance and repair, dismantling/ decommissioning/ disposal.

In addition to the safety instructions in this manual, the country-specific safety measures, occupational health and safety measures and environmental protection regulations etc. valid for the application range of the machine must be observed.

Furthermore, the operator is responsible for the following points:

- Ensuring that the Xcool is always in a technically perfect condition
- Compliance with maintenance intervals
- Creating of operating instructions
- Creating of hazard assessments
- Training and instruction of authorized staff at regular intervals
- Ensuring that authorized persons using the Xcool have carefully read and understood the operating manual
- Equipping staff with the appropriate protective equipment

## 02.5 Modifications and unauthorized changes

Modifications and unauthorized changes at the Xcool by the operator are only permitted after consulting SPINOGY. If unauthorized modifications are made, the issued CE declaration of conformity loses its validity, and the operator legally becomes the machine manufacturer.

## 02.6 Special hazard warnings



### **DANGER: Electrical voltage**

There is a risk of electric shock, which can lead to serious injury or death. Before working on the Xcool, switch it off and disconnect it from the electrical network.

Especially when filling the tank with the cooling liquid, Xcool has to be disconnected from the electrical network.

# 03 Transport, packaging and storage

## 03.1 Transport

The Xcool is to be transported in a stable packaging with sufficient padding. During the transport, it must be taken care to avoid strong vibrations or shocks, as otherwise damages may occur.

Transport may only be carried out by qualified transport companies or qualified personnel.

The corresponding dimensions and weight specifications of the Xcool can be found in the technical data in chapter 4.

## 03.2 Packaging

The packaging is intended to protect the Xcool until assembly from transport damages and other external influences such as corrosion. The packaging should therefore only be removed shortly before assembly. In addition, the packaging should be kept, if possible, to protect the Xcool in case of storage or to wrap it properly in case of return.

All packaging materials must be disposed at the appropriate collection points.

## 03.3 Storage

The following precautions must be arranged in case of storing the Xcool:

- Before storage of the Xcool, the tank is to be completely emptied
- The Xcool must be stored protected against dust, moisture, and other environmental influences
- Mechanical vibrations of the Xcool must be avoided
- All openings of the Xcool must be closed
- The following conditions for storage must be observed:
  - o Temperature storage location: +10 to 45 °C
  - o Relative humidity <40%
  - o Do not store outdoor

# 04 Technical description

## 04.1 Technical data

The Xcool is intended for the operation of all SPINOGY spindles with liquid cooling and is used for cooling the spindle. The Xcool can also be used for the operation of spindles from other manufacturers, as long as it meets the requirements for cooling from other manufacturers (please see chapter 01.2, limitation of liability).

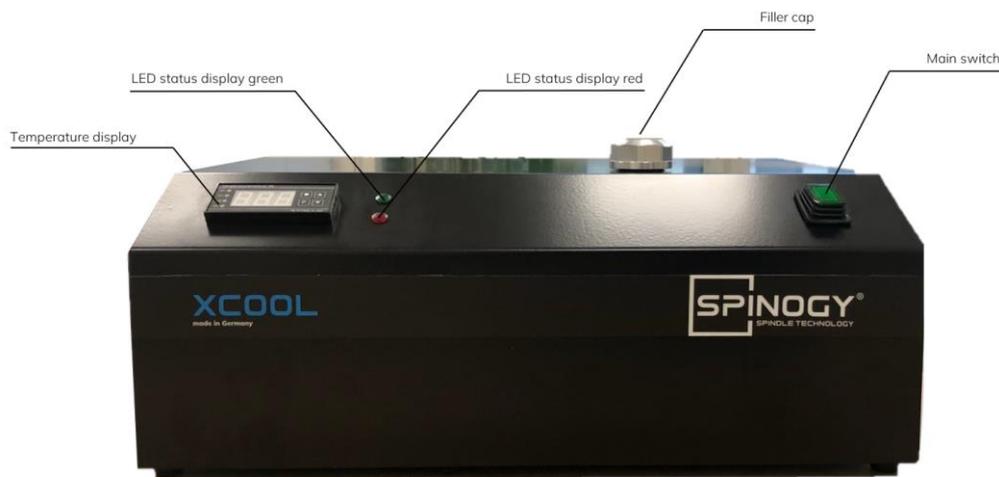
The following chart shows the technical data of the Xcool. These can also be taken from the type plate on the rear side of the Xcool.

Designation	Figure	Measurement unit
Voltage	230	V
Maximum power consumption	40	W
Maximum flow	6,8	l/min
Maximum head	10	m
Tank capacity	3,5	l
Maximum cooling performance	600	W (20 °C)
Empty weight	9,8	kg
Protection class	IP20	-
Sensor technology	Flow monitoring and temperature monitoring	-

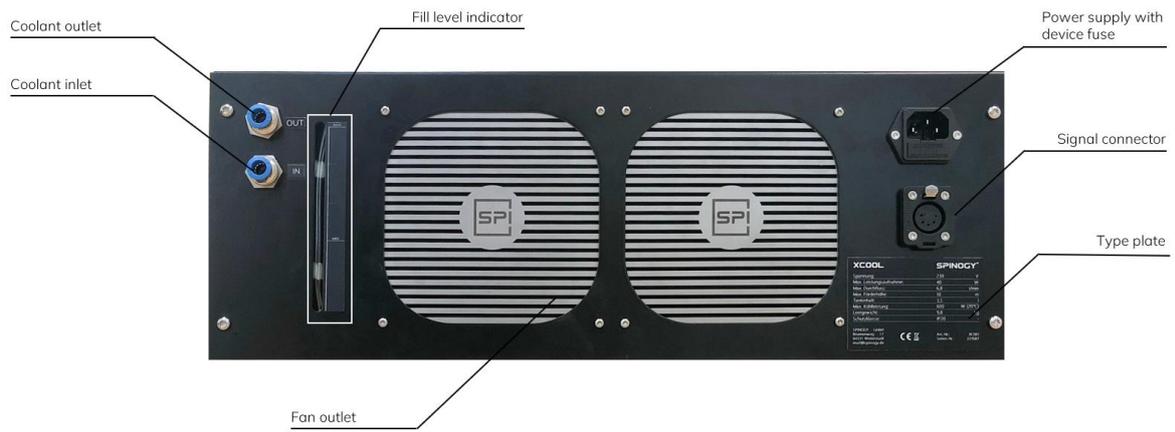
## 04.2 Components

The following picture shows the front view, rear view, and side view of the Xcool with the corresponding components:

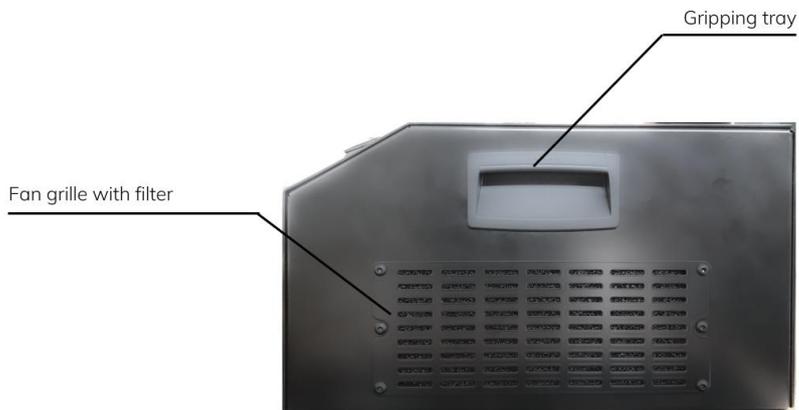
### Front view



### Rear view

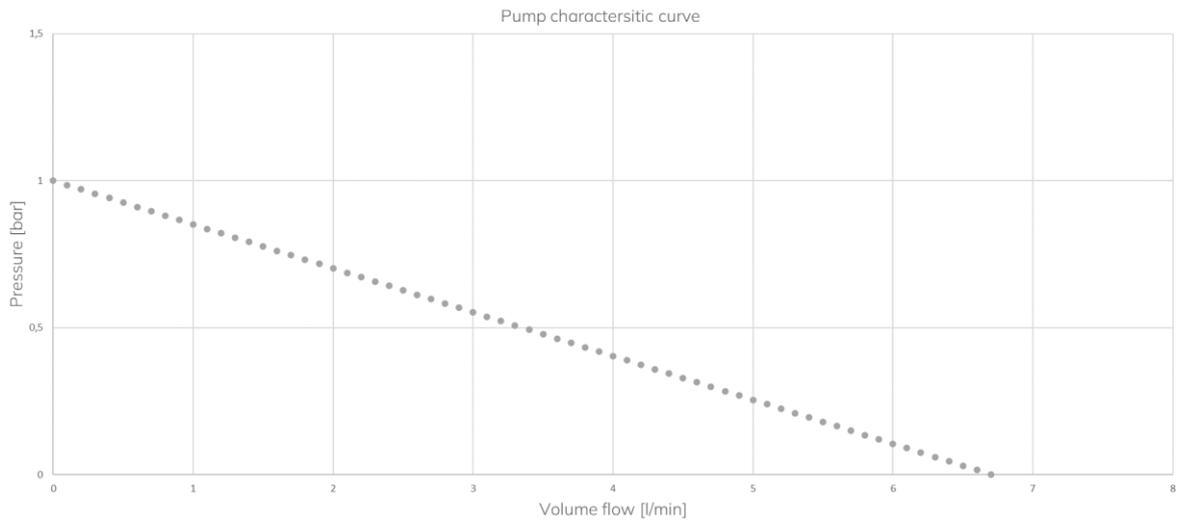


### Side view



## Pump

Maximum flow [l/min]	6,7
Maximum head [m]	10
Supply voltage [V]	24
Maximum current [A]	1,1
Sound level db(A) in 1 m distance	< 30



## Fan

Rotational speed [rpm]	2000
Volume flow [m <sup>3</sup> /h]	2000
Power supply voltage [V]	24
Maximum current [A]	1,1
Sound level [db(A)]	31,5

## Relay

Nominal voltage [V]	24
Maximum switched voltage [V]	250
Maximum switched current [A]	10
Maximum current [A]	1,1

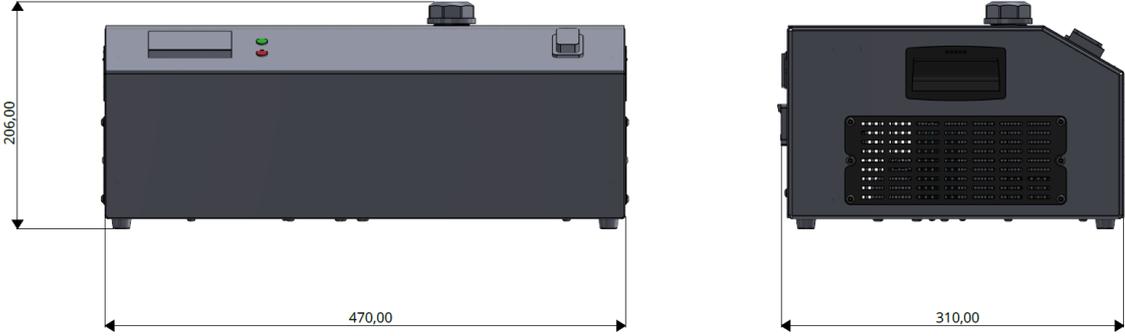
## Device fuse

Nominal voltage [V]	250
Nominal current [A]	300
Breaking capacity [V]	24
Diameter [mm]	5
Length [mm]	20

## Flow sensor

Maximum switched voltage [V]	230
Maximum switched power [W]	10
Contact type	Normally open
Switching flow [l/min]	> 0,55

### 04.3 Dimensions



# 05 Installation

## 05.1 Transport damages check

The entire delivery must be checked for transport damage after acceptance. In case of external damage to the packaging, this must be documented. After unpacking the Xcool and the additional scope of delivery, the products must be checked directly for transport damage. In case of damage to the products, this must be documented. Despite the greatest care in packaging and shipping our products, transport damage may occur as a result of improper handling or force majeure in transit. Defective or damaged products must not be put into operation. The products must always be used in perfect condition.

If transport damage is detected or if there are any questions, SPINOGY must be contacted immediately.

## 05.2 Completeness check

The content of the consignment must be checked for completeness. If any parts are missing, contact SPINOGY.

### Scope of delivery:

- Xcool
- Power supply cable
- Sealing plug (coolant inlet / coolant outlet)
- 2x device fuse (already installed in the device)

## 05.3 Installation of the Xcool

The installation of the Xcool may only be carried out by qualified staff. During all work, the locally applicable occupational safety and accident prevention regulations as well as internal company regulations must be observed and complied with. Suitable tools must be used for the installation.



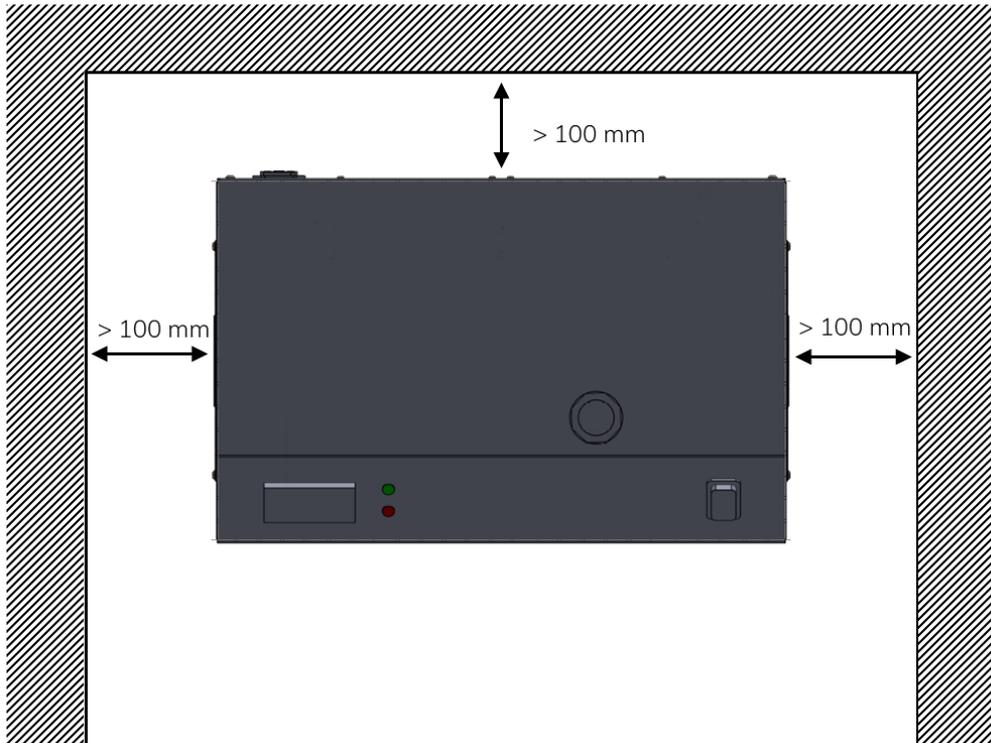
### **WARNING: Unauthorized staff**

Unauthorized employees are not aware of the hazards in the respective work area. Failure to comply with the personnel requisition can result in serious injury or even death.

The Xcool is to be assembled in the following steps:

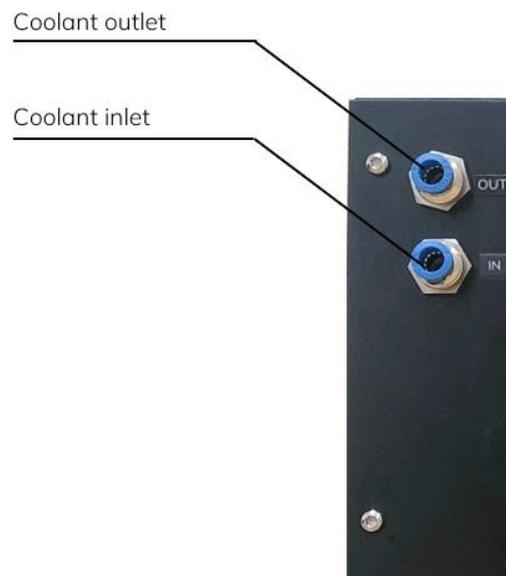
01. Set up the Xcool on a solid ground, observing the specified minimum distances to the side wall and the rear wall.
02. Lay the coolant hoses of the Xcool to the spindle.
03. If necessary, connect the signal connector and route it to the machine control.
04. Plug in the power supply cable to the power supply.

The Xcool must be set up with a minimum distance from the side and rear wall to the surrounding area so that the intake area of the fan and the air outlet remain free. The following picture shows the corresponding distance that must be observed.



## 05.4 Tubing of the Xcool

On the rear side of the Xcool, the coolant inlet, marked 'IN' and the coolant outlet, marked 'OUT' are located as shown in the following picture.



For the installation of the coolant hoses between the Xcool and a spindle from SPINOGY, proceed as follows:

01. Connect the hose from the Xcool port 'IN' to the spindle port  $W_{IN}$ .
02. Connect the hose from the Xcool port 'OUT' to the spindle port  $W_{OUT}$ .

Designation	Description	External diameter hose
IN	Coolant inlet	8 mm hose
OUT	Coolant outlet	8 mm hose

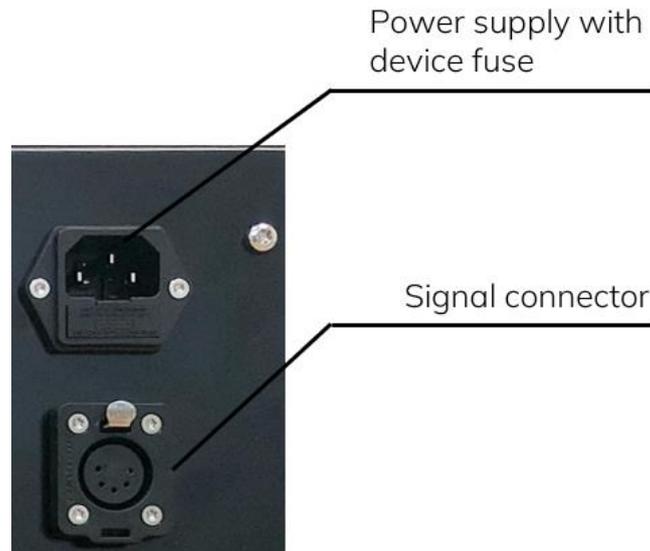
## 05.5 Electrical wiring



### **DANGER: Electrical voltage**

There is a risk of electric shock, which can lead to serious injury or death. Before working on the Xcool, switch it off and disconnect it from the electrical network. Especially when filling the tank with the cooling liquid, Xcool must be disconnected from the electrical network.

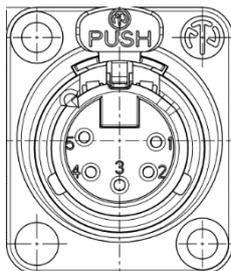
The power supply with integrated precision device, as well as the signal connector is located at the rear side of the Xcool.



Plug the power supply cable into the power supply and check if the connections are mechanically secured.

The device fuse is already installed on delivery.

The signal connector is used for the integration of the Xcool into the machine control. In the event that a flow error or high temperature is detected, a relay is switching. The allocation of the signal connector is as follows:



Designation	Description
Pin 1	Common relay contact
Pin 2	Relay contact normally open
Pin 3	Relay contact normally closed

It is possible to integrate the Xcool into Xcontrol-E. (Please see operating manual of the Xcontrol-E.)

# 06 Commissioning



## **WARNING: Machinery Directive 2006/42/EC must be applied**

Before placing on the market or commissioning a machine into Xcool is installed, the manufacturer or operator must ensure that the Machinery Directive 2006/42/EC applies. For this purpose, reference is made to Article 5 of the current valid Machine Guideline. Furthermore, it must be checked whether other regulations or directives apply and must be complied with.

## 06.1 Filling the tank

Before using the Xcool for the first time, fill the tank to avoid damaging the pump.



## **NOTE: Don't use pure or distilled water**

Using pure or distilled water may lead to considerable corrosion damage. A certain amount of corrosion protection must always be added.

We recommend using the coolant from SPINOGY as a cooling medium. If another coolant is used, a 30% glycosol-water mixture is to be used.

Before filling the coolant tank, always disconnect the Xcool from the power supply and ensure that it is a volt-free.



## **DANGER: Electrical voltage**

There is a risk of electric shock, which can lead to serious injury or death. Before working on the Xcool, switch it off and disconnect it from the electrical network. Especially when filling the tank with the cooling liquid, the Xcool has to be disconnected from the electrical network.

Unscrew the filler cap for filling the tank. It is recommended to use a funnel to avoid spilling the coolant. If coolant is spilled during filling, it must be wiped off immediately with a cloth.

In total, the tank holds 3,5 liters. When filling the tank, check the filling height on the rear side. Fill in enough coolant to ensure that the hydrostatic head is between 'Min' and 'Max'. After switching on the Xcool for the first time, the fill level will decrease a little. After that, some more coolant can be added. After the filling is complete, the filler cap must be screwed back on.

## 06.2 Initial commissioning

The following steps must be carried out when commissioning the Xcool for the first time:

01. Check the fill level of the Xcool to ensure that there is sufficient coolant in the tank.
02. Check if the coolant hoses are mechanically secured.
03. Plug in the power supply cable.
04. The Xcool can now be switched on via the main switch. The main switch lights up briefly and signals that voltage is present.

After switching it on for the first time, the pump will initially suck in air until it switches to the normal pumping operation. After a short warning noise has sounded twice, it will not sound again. If this is not the case switch off the Xcool again and repeat the switch-on procedure. If the warning signal continues to sound, contact SPINOGY.

Furthermore, the following points must be checked after switching it on for the first time:

05. The coolant connections must be checked for leaks.
06. Check whether the green LED lights up and indicates a proper operation.

The Xcool is now ready for use.

## **06.3 Temperature sensor and flow sensor**

The Xcool is equipped with a temperature sensor as well as a flow sensor, which ensure that the Xcool is working properly and guarantees optimum cooling of the spindle.

The temperature of the coolant return is measured by the temperature sensor. The value is shown on the display on the Xcool. A switching threshold of 45 °C is set in the display. If this value is exceeded, the red LED switches on and a warning signal sounds. In addition, the relay output on the control socket, which can be integrated into an emergency stop circuit, switches so that the spindle is directly stopped.

The flow is permanently measured by the flow sensor. If the flow is falling below a certain level, e.g., due to a blockage of a coolant hose, this also generates a warning signal, with the additional lighting of the red LED and a switching of the relay output.

# 07 Maintenance

## 07.1 Maintenance

The operator is obliged to check, maintain and service the Xcool in such a way that technical safety in accordance with all relevant laws and standards, as well as functionality, is ensured at any time.

The following points need to be checked at regular intervals:

- Check connection cables for damage and fastening.
- Check the Xcool and all coolant connections for leaks.
- Check for contamination or corrosion.
- Check flow sensor (e.g., by interrupting coolant flow, which must result in a warning signal).
- Clean fan filter and check fan for functionality
- Carry out 'DGUV V3' inspection ('Deutsche gesetzliche Unfallversicherungs-Vorschrift 3 /Association of Occupational Accident Insurance Funds – regulation 3' or a comparable regulation.)

### Cleaning the filter

The filter must be cleaned as follows:

The Xcool must be switched off and disconnected from the power supply. There is a fan grille on the right and left side of the Xcool that must be removed to clean the filter. To achieve this, remove four screws on each side. The following figure shows which screws must be opened (green circle) The screws marked with red must not be opened under any circumstances.

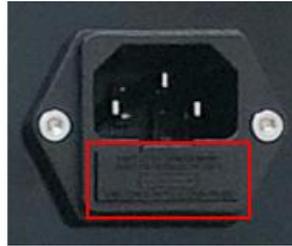


The filter must be removed for cleaning and then cleaned with a vacuum cleaner or compressed air gun, for example. After cleaning, the filter must be reinserted, and the fan grille screwed on finger tight. The Xcool must not be operated without the filter and the protective grille of the fan.

### Change of the device fuse

It may occur that the fine device fuse is damaged if a malfunction occurs, e.g., due to overvoltage. The fuse can be replaced. Before replacing it, however, check what caused the fuse to be damaged. In case of doubt, the Xcool must be sent to SPINOGY for verification.

To replace the fuse, disconnect the Xcool from the power supply. The fuse can then be replaced on the rear panel at the power supply connection. To do this, the fuse compartment must be pulled out (see following picture)



The old fuse must be removed and replaced with a new one. The fuse compartment must then be reinserted until it clicks into place. The Xcool is ready for operation again.

## 07.2 Spare parts

If spare parts are required, SPINOGY is to be contacted (e.g., device fuse, power supply cable or something of the sort).

# 08 Disassembly and disposal

## 08.1 Disassembly

The disassembly as well as the decommissioning of the Xcool may only be carried out by qualified staff. During all work, the locally applicable occupational safety and accident prevention regulations as well as internal company regulations must be observed and complied with. Suitable tools must be used for disassembly.



**WARNING: Unauthorized staff**

Unauthorized employees are not aware of the hazards in the respective work area. Failure to comply with the personnel requisition can result in serious injury or even death.



**WARNING: Repairs by operators or third parties are not permitted**

Unauthorized repairs carried out by the operator, or third parties can result in the product not being in a perfect condition afterwards, which can lead to property damage and, in the worst case, serious injury or even death.

The Xcool is to be put out of operation in the following steps:

01. The entire machine or system must be taken out of operation, before the Xcool is decommissioned. To achieve this, proceed as follows:
  - a. The spindle must be stopped, and it must be ensured that the shaft is at an absolute standstill. (If necessary, eject the tool via pneumatic actuation)
  - b. Operate the emergency stop on of the machine or system
  - c. Set the main switch of the machine or system to '0' or 'Off'
  - d. Secure the machine or system against unauthorized restarting
  - e. Disconnect the machine or system from the electrical power supply. For this purpose, physically disconnect the power supply lines and discharge any stored residual energy.
02. Remove the coolant from the coolant tank. To accomplish this, the coolant can be pumped out via the 'OUT' outlet on the rear of the Xcool using a hose of the Xcool pump. The tank can be emptied almost without leaving any residue by tilting the Xcool slightly backwards.
03. The Xcool must be switched off and disconnected from the power supply.
04. All connecting cables must be removed
05. Remove all coolant hoses.
06. The coolant connections 'IN' and 'OUT' must be closed.

## 08.2 Disposal

The disposal of the Xcool, any accessories and the packaging must be carried out in accordance with the relevant laws and regulations of the respective country. If in doubt, contact the relevant local authority or a waste disposal company. Depending on the material, the individual components should preferably be recycled. Disposal with domestic waste or similar facilities for the collection of municipal waste is not permitted.

After consulting SPINOGY, the Xcool can be returned directly to the manufacturer. In this case, a disposal fee may be charged by the manufacturer.

# 09 Service and repair

## 09.1 Service and repair authorized users

Repairing of components of the Xcool may only be carried out by SPINOGY, since only then a perfect function can be guaranteed. If unauthorized repairs are carried out, any warranty and guarantee claim expires and SPINOGY is not liable for any resulting damage to property or personal injury.



**WARNING: Repairs by operators or third parties are not permitted**

Unauthorized repairs carried out by the operator, or third parties can result in the product not being in perfect condition afterwards, which can lead to property damage and, in the worst case, serious injury or even death.

# 10 Warranty

SPINOGY warrants the product against material defects excluding further claims, considering the following points:

01. The warranty period from the date of delivery is 24 months in accordance with statutory provisions.
02. In case of justified complaints of the goods, recognized by SPINOGY, which had their cause probably before the passage of risk of the goods - this concerns in particular the detective function, defects of the external condition or the delivery of a wrong product - According to the German Civil Code (called "BGB" = "Bürgerliches Gesetzbuch") Paragraph § 439 (passage 1) the ordering party may choose between two options: There is the option to have the defect repaired free of charge by SPINOGY and there is the other option to have it replaced by a defect-free product. The determination of above-mentioned defects at the products must be announced immediately to SPINOGY by documenting it in a written or graphic form. The claim of the guarantee presupposes that SPINOGY receives the possibility for the examination of the guarantee case, even if this requires to send in the product.
03. The claim for rectification of defects is not applicable if SPINOGY is entitled to refuse the rectification of defects due to legal regulations. This applies in particular in the case that the subsequent improvement is accompanied by disproportionately high costs. In this case, according to German Civil Code (called "BGB" = „Bürgerliches Gesetzbuch") Paragraph § 439 (passage 4), the purchaser's right to subsequent performance is limited to the other option.
04. If more than 6 months have passed since the purchase of the product, the obligation to provide proof lies with the customer. The customer has to prove that the defect already existed before delivery. This applies in particular to defects that are not immediately apparent. According to the legal regulations, business customers are obliged to report defects immediately.
05. Any parts or products replaced under warranty shall become the property of SPINOGY, unless SPINOGY expressly waives such right.
06. For all necessary rework and replacement deliveries, the buyer has to set an appropriate period after consultation with SPINOGY. If this is not the case, SPINOGY is released from the liability of resulting consequences.
07. If the warranty claim turns out to be legally valid, the costs arising from a rectification or replacement delivery plus the shipping costs are to be paid by SPINOGY. If the customer initiates the inspection of a product delivered by SPINOGY, and it turns out that there is no warranty case, that means there are no defects to be complained about or these are based on reasons for which SPINOGY is not responsible.
08. No warranty is given by SPINOGY in the following cases:
  - Improper use
  - Incorrect assembly or disassembly by the purchaser or third parties
  - Incorrect commissioning or decommissioning by the purchaser or third parties
  - Unauthorized modifications to the product
  - Usual wear and tear
  - Improper maintenance
  - Incorrect or careless handling
  - Incorrect storage
  - Disregarding of this operating manual
  - Defects the purchaser already knew at the time of the purchase
  - Force majeure
  - Unsuitable operating site
  - Chemical, electrochemical, or electrical influences
09. The ordering party shall be entitled to withdraw from the agreement under the legal provisions if SPINOGY- subject to legally specified exceptions - misses a reasonable deadline set for the improvement or delivery of a replacement product. If there is an insignificant defect, the purchaser shall only be entitled to a reduction of the contract price.
10. In case of self – remedy of defects by the buyer or third parties SPINOGY is not liable for the resulting consequences. The same applies to changes made, which SPINOGY has not agreed to.
11. SPINOGY reserves the right to make technical changes to the product (e.g., constructive) without prior notification or special notice.
12. SPINOGY reserves the right to update the product to the latest state of art over the course of repairs.

# 11 Declaration of installation

(In accordance with EG guideline 2006/42/EG annex IIB)

Original document

## Manufacturer

SPINOGY GmbH  
Brunnenweg 17  
64331 Weiterstadt  
Deutschland

## Authorized to issue documents:

SPINOGY GmbH  
Brunnenweg 17  
64331 Weiterstadt  
Deutschland

We hereby declare that the following product

<b>Product</b>	Cooling unit
<b>Type</b>	Xcool
<b>Serial no.:</b>	

den folgenden grundlegenden Anforderungen der Richtlinie Maschinen (2006/42/EG) entspricht: Anhang I, Unterkapitel 1.1.2, 1.1.3, 1.1.5, 1.3.2, 1.3.4

complies with the following basic requirements of the guideline machines (2006/42/EG) Annex 1, subchapterl 1.1.2, 1.1.3, 1.1.5, 1.3.2, 1.3.4

The partly completed machine may only be put into operation until it has been determined that the machine into which the partly completed machine is to be installed, complies with the purpose of the Machine Guideline (2006/42/EC) and the EC Declaration of Conformity according to Annex II A is available.

The special technical documents belonging to the partly completed machine according to Annex VII Part B have been created and are kept accordingly.

The manufacturer commits to provide the special technical documents according to Annex VII, Part B, for the partly completed machine to individual national authorities in digital form, upon reasonable request.

If the partly completed machine is modified after it has been handed over to the user without our approval, this declaration loses its validity with immediate effect.



Marc Schmidt-Winterstein  
Authorized representative for documentation

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