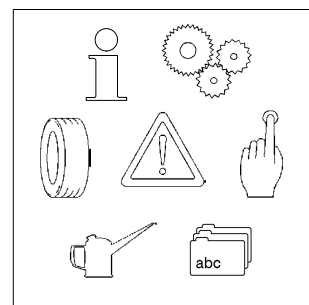


Operating Instructions

for machine operator and maintenance staff

always keep by the machine



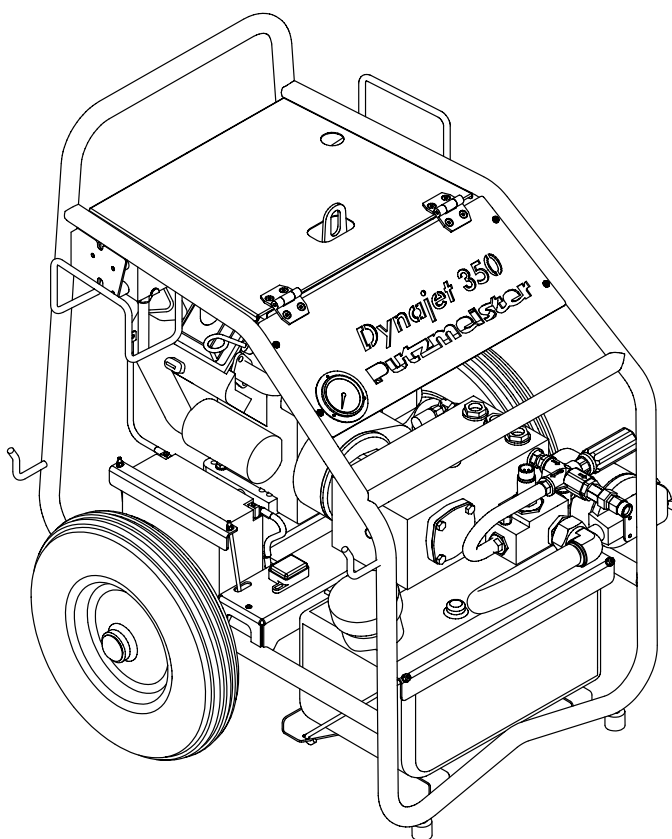
High-Pressure Cleaner

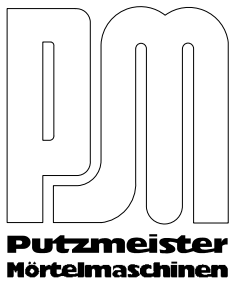
Dynajet 350 mg Plus

Art. no.

111486047

Machine no.

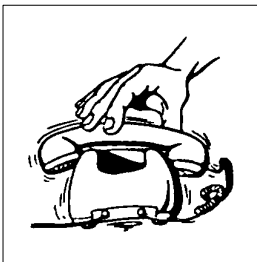




Putzmeister
Mörtelmaschinen
GmbH
Max-Eyth-Str. 10
D-72631 Aichtal

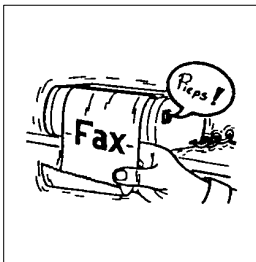


Postfach 2152
D-72629 Aichtal



07127 / 599-0

Hotline:
(07127) 599-699

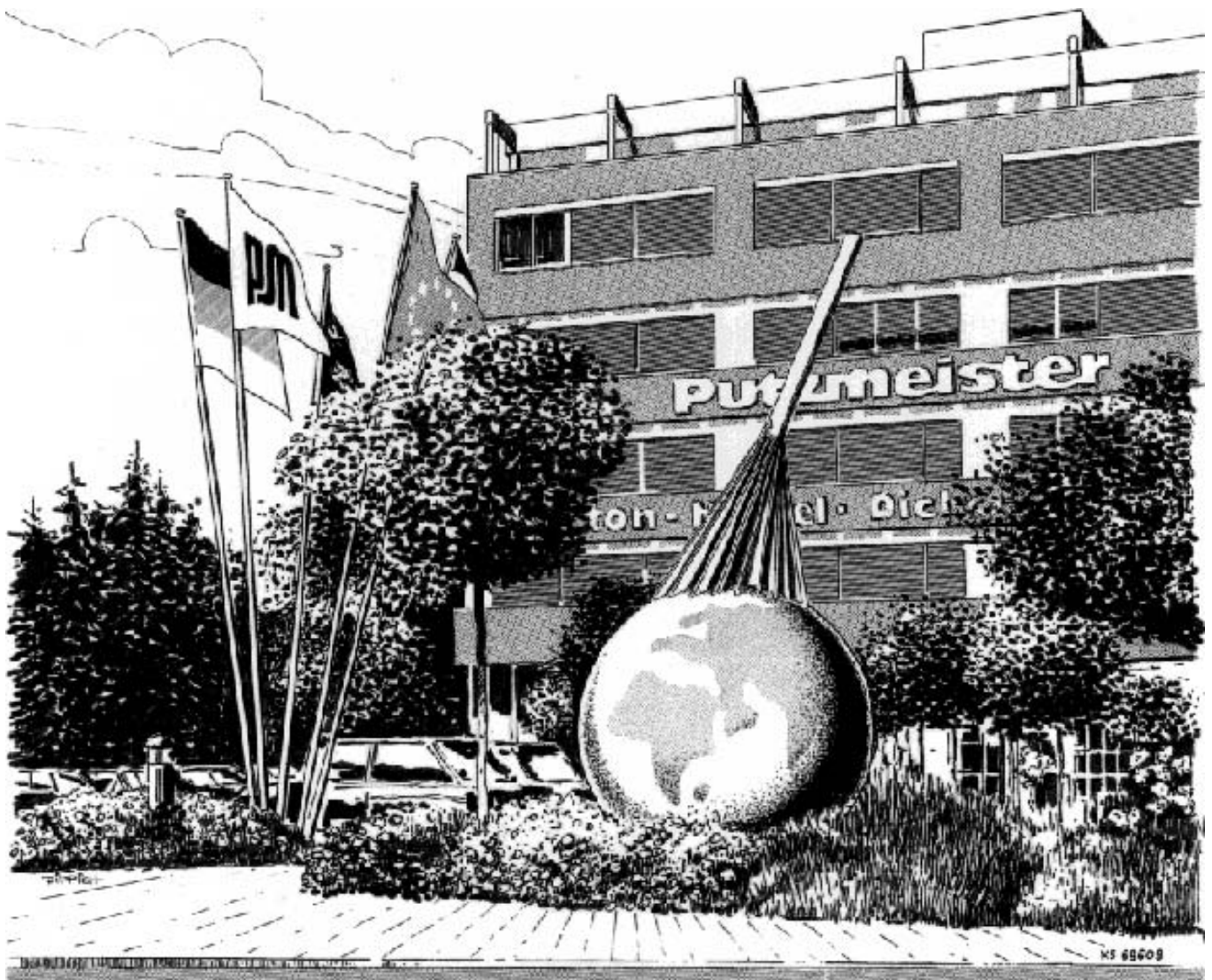


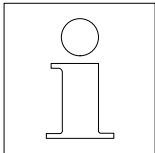
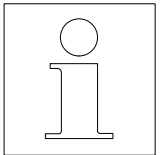
07127 / 599 743



Internet:
www.putzmeister.de

e-mail:
pmm@pmw.de





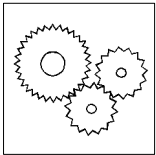
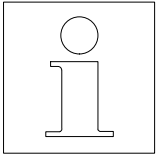
1 About these Operating Instructions

1.1	Foreword	1	—	2
1.2	Signs and symbols	1	—	4



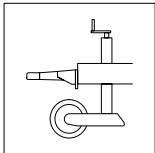
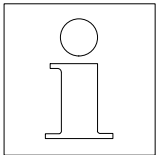
2 Safety Regulations

2.1	Principle	2	—	2
	Onwards sale	2	—	2
2.2	Designated use	2	—	3
2.3	Use contrary to the designated use	2	—	4
	Exclusion of liability	2	—	4
	Modifications	2	—	4
2.4	Sources of danger	2	—	5
	Hot machine components	2	—	5
	High-pressure gun	2	—	5
	Safety equipment	2	—	5
2.5	Handling high-pressure hoses	2	—	6
2.6	Injuries from high-pressure water jets	2	—	7
2.7	Unauthorised use	2	—	7
2.8	Personal protective equipment	2	—	7
2.9	Selecting qualified personnel	2	—	9
	Qualified electrician	2	—	9
2.10	Hydraulic operation	2	—	9
	Inspection	2	—	10
	Depressurising	2	—	10
	Lines	2	—	11
2.11	Liability	2	—	11
2.12	Place of work	2	—	11
	Operator	2	—	11
2.13	Working area	2	—	11
2.14	Noise	2	—	12
	Ear defenders	2	—	12
	Operator	2	—	12
2.15	Environmental protection	2	—	12
2.16	Spare parts	2	—	12



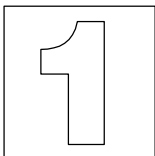
3 General Technical Description

3.1	Designation of the high-pressure cleaner	3	—	1
3.2	Scope of delivery	3	—	2
3.3	Overview	3	—	2
	Dynajet 350mg Plus	3	—	2
3.4	Technical data	3	—	3
	Rating plate	3	—	4
3.5	Safety equipment	3	—	5
	EMERGENCY-STOP	3	—	5
	Overpressure safety device in the high-pressure circuit (unloader)	3	—	5
	Personal protective equipment	3	—	5
3.6	Water system	3	—	6
3.7	Functional description	3	—	6
	General set-up of the machine	3	—	6
	Drive motor	3	—	6
	High-pressure water pump	3	—	7
	High-pressure gun	3	—	7
	Fan jet nozzle	3	—	8
	Operating module	3	—	9
	Socket (12 V)	3	—	10
	Additional equipment for emergency operation of the hydraulic system	3	—	10
3.8	Components on the control and monitoring units	3	—	11
	Water valve fitting	3	—	11
	Water pressure gauge	3	—	11
	Operating module	3	—	12



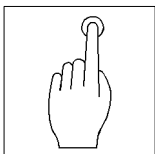
4 Transport, Set-up and Connection

4.1	Unpacking the machine	4	—	1
	Disposing of packaging material	4	—	1
4.2	Loading	4	—	2
4.3	Set-up site	4	—	2
	Setting up	4	—	2
4.4	Connecting	4	—	3
	Water connection	4	—	3
	Laying the water pipeline	4	—	3
4.5	Setting up the machine for emergency operation	4	—	4
	Oil pressure hose diagram	4	—	7



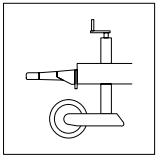
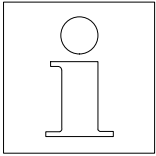
5 Starting up

5.1	Use as an emergency hydraulic unit	5	—	1
5.2	General	5	—	2
5.3	Checks	5	—	2
	Water filter	5	—	3
	Refuelling the machine	5	—	3
5.4	High-pressure gun	5	—	4
5.5	Test run	5	—	5
	Starting the motor	5	—	5
	Checking functions	5	—	6
	Stopping the machine after a test run	5	—	7
5.6	Starting the motor using the manual starting device	5	—	8



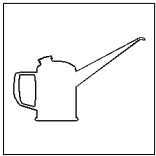
6 Operation

	Tip for cleaning surfaces	6	—	1
6.1	Setting	6	—	1
6.2	High-pressure cleaning	6	—	1
	Pressure adjustment	6	—	2
	Switching off the machine on completing the work	6	—	3
6.3	Use as an emergency hydraulic unit	6	—	3
6.4	Cleaning	6	—	4
	General	6	—	4
6.5	Storing the machine	6	—	5



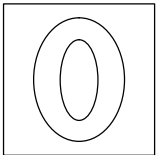
7 Faults, Cause and Remedy

7.1	High-pressure cleaner with operating module	7	—	1
7.2	High-pressure cleaner, general	7	—	2



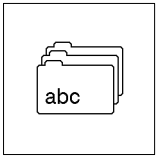
8 Maintenance

8.1	Maintenance intervals	8	—	2
	General	8	—	2
	Drive motor	8	—	2
	Water pump	8	—	3
	Water supply	8	—	3
	Transmission	8	—	3
8.2	Operating materials	8	—	4

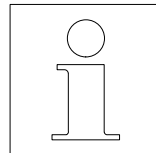


9 Decommissioning

9.1	Temporary decommissioning	9	—	1
	Frost protection	9	—	2
	Preservation	9	—	3
9.2	Storing the machine	9	—	4
9.3	Final decommissioning, disposal	9	—	4
	Material used	9	—	5
	Parts requiring separate disposal	9	—	5



Index of Key Words



1 About these Operating Instructions

This chapter contains instructions and information that make this handbook easier to use. In the event of any queries, please consult:

Putzmeister Aqua Pressure System
Max-Eyth-Str .10
D-72629 Aichtal, Germany
Tel.: +49 (0)7127 599-0
Fax: +49 (0)7127 599-743
Internet: <http://www.Dynajet.de>
E-mail: @pmw.de

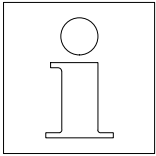
or the branch or services agent responsible for you.

Address: _____

Telephone: _____

Fax: _____

E-mail: _____



1.1 Foreword

This operating instructions should help you to get to know the machine and its range of intended uses.

The operating instructions contain important information for operating the machine safely, correctly and economically. Observing these instructions helps to avoid hazards, reduce repair costs and downtimes and increase the reliability and the service life of the machine.

The instructions must be supplemented to include existing national regulations for accident prevention and environmental protection.

The instructions must always be available at the location where the machine is operated.

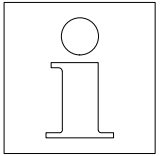
Chapters must never be removed from these operating instructions. If the operating instructions or certain pages - in particular, the Chapter "Safety Instructions" - are missing, they must be replaced immediately.

The machine owner must make the location of these operating instructions known to all personnel charged with performing jobs on the machine and ensure they are accessible. These operating instructions must be read and applied by any person who carries out work with and on the machine e.g.

- Operation, including setup, fault rectification during operation, removal of production waste, maintenance, disposal of operating and auxiliary materials,
- Maintenance (servicing, inspection, repair) and/or
- Transport

In addition to these operating instructions and binding regulations for accident prevention applicable in the country and at the site of use, recognised technical regulations for safe, professional working procedures must also be observed.

Continuation next side



If after reading these operating instructions you have any questions, please contact your local branch, dealer or the Aichtal Works.

You will make it much easier for us to answer any questions if you can give us the details of the machine model and the machine number.

These operating instructions do not include a description of the drive motor; please refer to the operating instructions provided by the motor manufacturer.


In the interest of continual improvement, these instructions are updated at defined intervals to include changes that were not added to these operating instructions at the time of going to print.

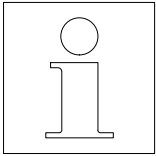
These operating instructions are not covered by the Amendment Service of Putzmeister Mörtelmaschinen GmbH. Alterations may be made to these operating instructions without prior notification.

The contents of this document or extracts thereof may not be passed on to third parties without written approval from Putzmeister. All technical specifications, drawings etc. are subject to copyright law.

The pages are divided into chapters where they are numbered consecutively.

Example: Page 3-2
 Chapter 3
 Page 2

© Copyright by 



About these Operating Instructions



1.2 Signs and symbols

The following signs and symbols are used in these operating instructions:

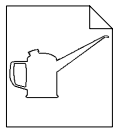


Action symbol

The text following this symbol describes tasks that usually have to be carried out in the sequence shown.



The text following this symbol describes the result or the consequences of an action.



Refer also to the maintenance charts:

This symbol draws attention to necessary maintenance charts, possibly as a supplement to the current maintenance chart.



The following special tool is required:

This symbol indicates that special tools are required for performing a specific task. Normal tools, i. e. standard tools or tools carried in the vehicle are not listed additionally.



Environmental protection

This symbol precedes tasks where special attention must be paid to environmental protection. The accompanying text appears in italics and is followed by a line.



Note

Important specifications regarding economical use of the machine appear after the word Note written in bold and the pictogram shown. The accompanying text appears in italics and is followed by a line.



Caution

Important specifications or regulations and prohibitions for damage prevention appear after the word Caution written in bold and the pictogram shown. The accompanying text appears in italics and is followed by a line.



Danger

Important specifications or regulations and prohibitions for preventing personal injury or extensive damage appear after the pictogram shown, the word Danger written in bold and a line. The accompanying text appears in italics and is followed by a line.



2 Safety Regulations

This chapter summarises the most important safety regulations. This chapter is, therefore, particularly suitable for an initial basic instruction for new operators. Naturally, the various regulations are also repeated once more at the appropriate points in the operating instructions.



Note

Special safety regulations may be required for some tasks. These special safety regulations will only be found in the description of the particular task.

The following safety instructions should be regarded as supplements to the existing national accident prevention regulations and laws.

Existing accident prevention regulations and laws must be observed in all cases.

We include here a listing of regulations and safety standards for your information:

- Machine Directive 98/37/EC
 - EN 292, Safety of machinery,
-



2.1 Principle

Use high-pressure cleaners only as specified and in a technically perfect condition. Avoid danger by observing safety factors and the specifications in the operating instructions. Any faults, especially those affecting safety must therefore be rectified immediately.

Make sure that:

- safety equipment is not removed, rendered inoperable or modified.
- safety equipment removed for the purposes of maintenance work is refitted immediately after the work is completed.

Check operational safety every time you start work. Any defects found or suspected must be repaired immediately. If necessary, inform the project supervisor. Cease work if defects are found that could jeopardise operational safety.

Use only high-pressure hoses, water hoses and couplings, etc. from the machine manufacturer that are in perfect condition and suitable for cleaning tasks.

Onwards sale

If you sell on the high-pressure cleaner you must observe the following:

Pass on to the new operator all the accompanying documentation (operating instructions, maintenance instructions, diagrams, machine cards, inspection certificates etc.) you received with your high-pressure cleaner. If necessary, you may have to order the papers from us, specifying the machine number .

Reporting an onwards sale or acquisition to Putzmeister ensures that you will be sent any information relating to modifications or innovations relevant to safety, and you will also be eligible for technical consultancy from our works.

Instruct the new operator and his operating personnel in the operation of the machine, just as you were instructed by us, and have them confirm that they have received instruction from you. Should you so require, we will be happy to carry out the instruction of the new operator and the new operating personnel on your behalf.



2.2 Designated use

The machine has been built in accordance with the state of the art and recognised safety rules. Nevertheless, its use may constitute a fatal risk to the operator or third parties, or cause damage to the machine and to other property.

The machine should only be used as specified in the operating instructions and the accompanying documents. All instructions and safety regulations in the operating instructions must be stringently observed.

The machine is intended for cleaning with pressurised water and serves as a unit for emergency operation of Putzmeister concrete pumps for boom and support operation.

The DYNAJET mg supplies cold pressurised water at a maximum of 350 bar, depending on the model.

Cold, clean mains water should be supplied to the machine via the low-pressure hose. Other materials should not be used.

The machine can be used for emergency operation of Putzmeister concrete pumps for boom and support operation.

Always consult the machine supplier before using at oil hydraulic installations.

Any protective covers belonging to the machine should be fitted before operation.

The machine must only be operated with the safety equipment fitted.

Specified inspection work should be carried out at regular intervals.

Never make any modifications, additions or conversions to the machine without first obtaining the manufacturer's approval.

The machine must be inspected for operational reliability by a technical expert at least once a year. The operator is responsible for commissioning the inspection.

Any work on the electric system of the machine must be carried out only by trained and qualified electricians.



2.3 Use contrary to the designated use

Use of the machine other than that described above, or which goes beyond such use, is considered contrary to the designated use. Putzmeister Mörtelmaschinen GmbH accepts no liability for damage resulting from such use. The machine operator bears full responsibility for risks caused by misuse of this kind.

Exclusion of liability

We state here expressly that Putzmeister Mörtelmaschinen accepts no liability for damage arising from incorrect or negligent operation, servicing or maintenance or as a result of use contrary to the designated use. This statement is equally valid for modifications to, additions to and customisation of the machine which may compromise safety. The guarantee will no longer be valid in such cases.

Modifications

Never make any modifications, additions or conversions to the machine which may affect safety without first obtaining the manufacturer's approval. This also applies to the installation and adjustment of safety devices and valves as well as to welding work on load-bearing elements.

In particular, this requirement refers to:

- adjustment of safety and control pressures, speeds of movement, power outputs, speeds of rotation and other settings to values other than those set in the works.

Safety equipment may only be repaired, adjusted or replaced by technically qualified experts.

All devices of relevance for safety must be in place and fully functional.



2.4 Sources of danger

Never reach into the moving parts of the machine, whether the machine is running or switched off. Always switch off the main switch first. Take note of the warning plate.

In the event of malfunctions, stop the machine immediately and secure it. Have any faults rectified immediately.

Before starting up the machine, make sure that nobody is placed at risk by the running machine.

Do not loosen or retighten pressurised screw connections.

Hot machine components

During and after completion of work, there is a danger of burns from hot parts on the drive motor.

When carrying out maintenance work, remember that the drive motor and the exhaust may still be hot. Allow them to cool down first. Work with protective gloves.

High-pressure gun

A water jet is discharged from the high pressure gun at a maximum pressure of 350 bar, depending on the model. This presents a high risk of injury.

When working with the high-pressure gun, wear your personal protective equipment at all times.

Never direct the high-pressure jet at personnel.

The high pressure produces jet reaction forces. Make sure you have a steady stance when working.

Safety equipment

Never remove safety equipment or render it inoperable by modifying the machine.

Safety equipment must only be repaired, adjusted or replaced by technically qualified experts.

All equipment required for safety and accident prevention (warning signs and information notices, cover grilles, covers, etc.) must be in place. Such equipment must not be removed, modified or damaged.

Any safety devices removed for set-up, maintenance or repair purposes must be refitted and checked immediately upon completion of the maintenance and repair work.



2.5 Handling high-pressure hoses

It is essential that correct high-pressure hoses be carefully selected and handled correctly to maintain the operational safety of the high-pressure cleaner.

Observe the following rules when handling high-pressure hoses:

- High-pressure hoses that are marked with a permissible operating overpressure lower than the one specified in the technical specifications or hoses that have no markings at all, should not be used.
- High-pressure hoses must be laid and secured in order to prevent any danger should the hose lines burst.
- High-pressure lines must consist of functioning hoses and connections that are compatible with each other.
- High-pressure hoses must not be painted.
- High-pressure hoses should only be connected by specially trained and qualified persons.
- Depressurise high-pressure hoses after operation.
- Do not crush high-pressure hoses or lay them over sharp edges. Avoid tensile and bending loads.
- High-pressure hoses must be stored free of kinks and tension.

High-pressure hoses are wearing parts with a limited service life. They should therefore be replaced at appropriate intervals according to the operating conditions, even if there are no obvious external defects.

The hoses must be replaced when the following defects occur:

- Scuff marks, cuts or cracks that pierce the outer layer and reach through to the wire infill.
- Embrittlement of the outer layer (crack formation) due to improper storage.
- Storage limit and usable service life have expired. As a reference value, DIN specifies 6 years plus a maximum of 4 years previous storage time for an unconnected hose.
- Leaks in the hose and at the connection point.

Never search for leaks in high-pressure hoses or pipes with your bare hands. An escaping high-pressure jet may not be visible and can cause serious injury.



2.6 Injuries from high-pressure water jets

Work with high-pressure water jets produces very high pressure that acts over a relatively small surface area. This concentration of energy is the reason why a high-pressure water jet may cause serious injury.

If a high-pressure water jet makes contact with the skin, it can penetrate the surface of the skin and damage the tissue underneath. In addition, the water can inject foreign matter deep into the body and cause dangerous infections. With injuries caused by high-pressure water jets, it is not possible to assess the extent of damage to the tissue from the outside. Therefore, any injury caused by a high-pressure water jet is regarded as an acute surgical emergency and must be treated by a qualified orthopaedic surgeon. Inform the acting doctor that the accident was caused by a high-pressure water jet.

2.7 Unauthorised use

Always secure the machine against rolling away and unauthorised use when you leave the workplace!

Always secure the machine against unauthorised starting before leaving the work area. This means:

- Remove the ignition key

2.8 Personal protective equipment

The operator must provide personal protective equipment to be used by the operating personnel.

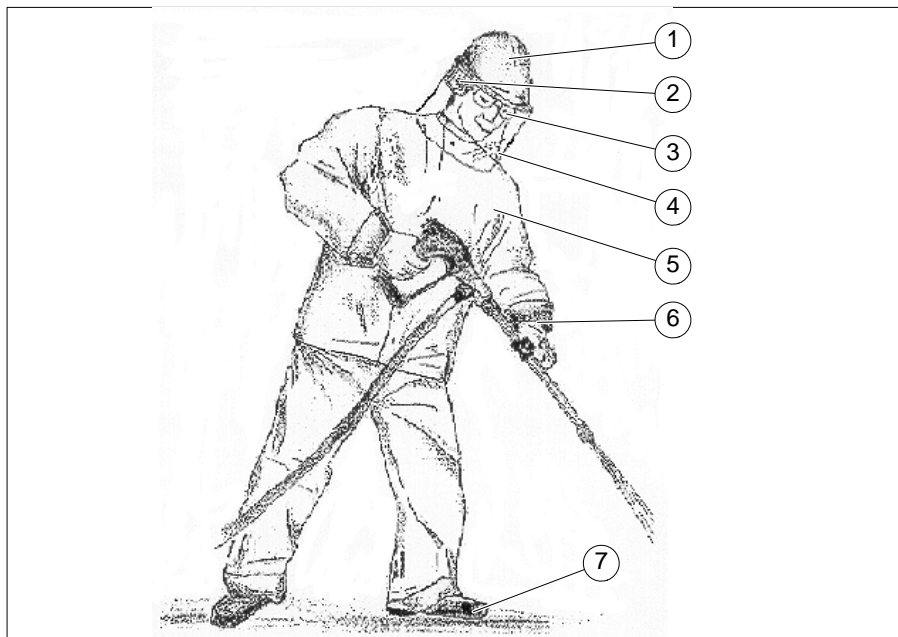
Provide and use personal protective equipment if necessary or if required by regulations.

Personal protective equipment includes protective suits for the high-pressure area, a protective helmet with visor and ear defenders, protective goggles, gloves and rubber safety boots.

Continuation next side



Safety Regulations



- 1 Protective helmet
- 2 Ear defenders
- 3 Protective goggles
- 4 Face protection visor
- 5 Protective suit
- 6 Protective gloves
- 7 Protective boots

Operating personnel must be informed that waterproof protective clothing only provides protection from spray water and splash particles.

In the case of direct contact with the high-pressure water jet, protective equipment does not guarantee protection against injuries caused by the high-pressure water jet.

Never direct the high-pressure jet at personnel to clean dirty protective clothing still being worn.



2.9 Selecting qualified personnel

The machine may only be operated, maintained or serviced independently by persons (machine operators) who:

- have reached the legally required age;
- are physically capable (rested and not under the influence of alcohol, drugs or medication);
- have been instructed in the operation and maintenance of the machine;
- can be expected reliably to execute the tasks they are charged with.

Do not allow persons who have not yet completed training or instruction, or persons taking a general training course, to operate the machine unless under the constant supervision of an experienced person.

Qualified electrician

Work on the electrical system and equipment of the machine must be carried out by a qualified electrician or by instructed persons under the supervision and guidance of a qualified electrician and in accordance with electrical engineering rules and regulations.

2.10 Hydraulic operation

Work on hydraulic equipment should only be performed by personnel that has special knowledge and experience in hydraulics and is able to provide corresponding evidence of their qualification (training certificates)!



Always wear a face mask and gloves when working on the hydraulic system. Discharged oil is toxic and may penetrate the skin.



Not without protective equipment

Continuation next side

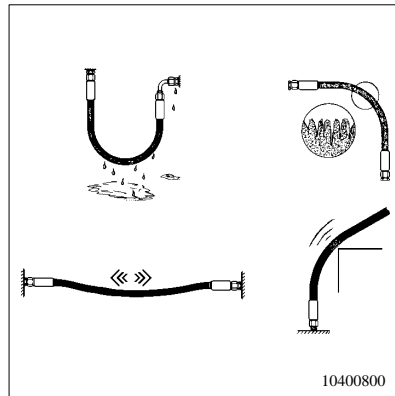


Safety Regulations



Inspection

Check all lines, hoses and threaded unions regularly for leaks and external damage! Have any damage repaired immediately! Discharged oil can cause injuries and burns.



Checking hydraulic hoses

Regular checks are required as part of the overall machine safety inspection routine. Bursting lines pose a hazard to personnel! The manufacturer shall not be held liable for damage resulting from the use of worn or faulty components.

Replace damaged hydraulic pipes: DO NOT repair them. Replace damaged or damp hydraulic hoses immediately.

Hydraulic hoses should be replaced every 6 years (including a maximum storage time of 2 years), even if there are no signs of external damage. The duration should be calculated starting from the date indicated on the connector label (manufacturing date of the hose line).

Depressurising

System sections and pressure lines (hydraulic and pneumatic) should be depressurised in accordance with the assembly description before repair work is started!

Switch off the hydraulic pump drive and drive motor. Observe the motor operating instructions.

Only perform work if units are depressurised! Risk of operating material discharging under pressure.

Continuation next side



There is a risk of eye and skin injuries caused by hydraulic oil discharging when screw connections are opened without the complete system having been previously depressurised.

Lines

Lay and fit hydraulic lines professionally! Make sure the connections are correct! Connectors and the length/quality of the hoses must meet requirements.



Danger

Hoses that are fitted incorrectly pose a risk of injury from the force produced by bursting hydraulic lines.

2.11 Liability

The operator is obliged to act in accordance with the Operating Instructions.

Accidents which can be ascribed to the failure to comply with safety regulations and German Accident Prevention Regulations:

- issued by German Industrial Employers' Liability Insurance Association; or

- the responsible corporate liability insurance company or

- the legal authorities in your country;

or to inadequate supervision, will be made the responsibility of:

- the machine operator; or (where he cannot be held responsible due to lack of training or basic knowledge),

- his supervisors,

under the law.

Please therefore ensure that the necessary caution is taken.

2.12 Place of work

The workplace refers to the area in which people remain in order to carry out work.

Operator

The place of work of the operator while using the high-pressure cleaner is at the high-pressure gun.

2.13 Working area

The working area refers to the area in which work is carried out using the high-pressure gun. Parts of the working area can become danger areas, depending on the job that is being performed with the high-pressure spray gun.

The working area and the working environment around the machine must be cordoned off against unauthorised access by other personnel when work is carried out. If necessary, erect warning signs and barriers.



2.14 Noise

Extreme noise levels can cause permanent hearing damage.

Ear defenders

Depending on the operation involved, sound levels of 85 dbA may be exceeded within close-range of the machine. Close-range means at a distance of less than 5m from the machine.



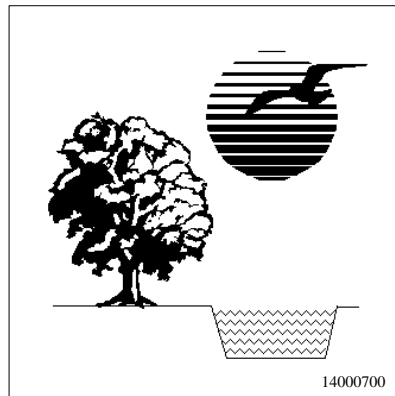
Wear the specified ear defenders!

Operator

Instruct your personnel to always wear their personal ear defenders. As the operator, you are responsible for ensuring that your personnel comply with this regulation.

2.15 Environmental protection

Have old materials such as oils, filters, batteries, replaced parts etc. disposed of in line with regulations. Used cleaning cloths must also be disposed of correctly.

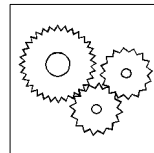


Environmental protection

2.16 Spare parts

Spare parts must comply with the technical requirements specified by the manufacturer. Spare parts from original equipment manufacturers guarantee that this is the case.

Use only original spare parts. Putzmeister Mörtelmaschinen GmbH accepts no liability for damage caused as a result of using non-original spare parts.



3 General Technical Description

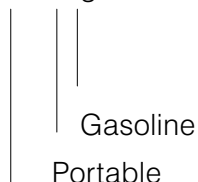
This chapter includes a description of the function of the components and assemblies on the high-pressure cleaner. Please note that possible options are also described. Please see the machine card to find out whether a particular option is fitted.

3.1 Designation of the high-pressure cleaner

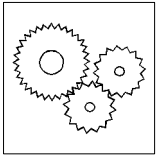
Your high-pressure cleaner is a Dynajet mg from Putzmeister Mörtelmaschinen GmbH.

You will make it much easier for us to answer any questions or respond to orders if you can give us the details of the machine model and the machine number.

Dynajet XXX mg



XXX bar maximum pressure



3.2 Scope of delivery

The scope of delivery includes:

- the Dynajet mg,
- a 10 m high-pressure hose,
- a spray gun with nozzle pipe and a fan jet nozzle,
- a 10 m oil-pressure hose
- a 10 m oil intake hose
- a hose connection
- operating instructions
- a spare parts list
- a document folder



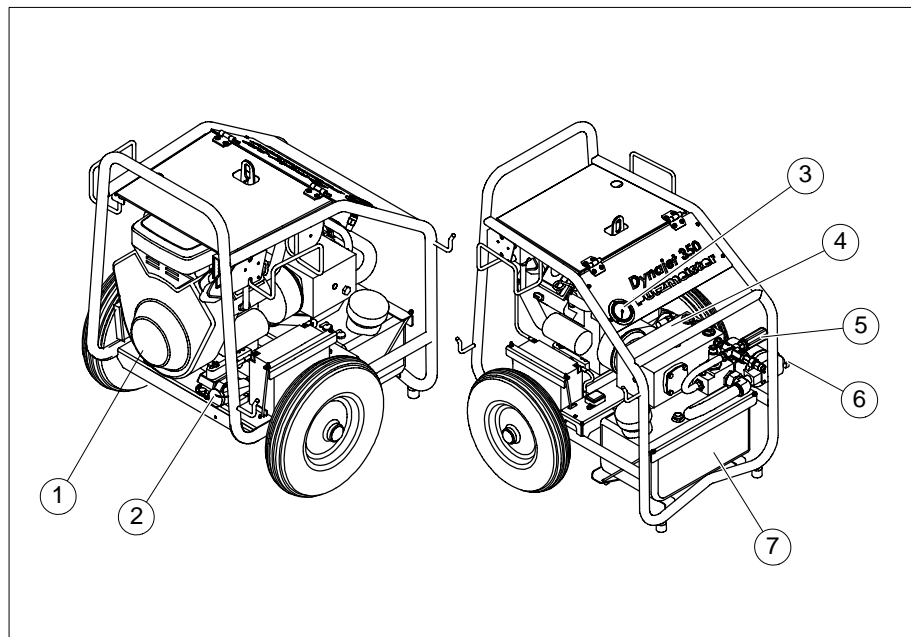
Note

The specifications relate to the series machine and may deviate if special equipment is fitted. Please refer to the supplied machine card for details.

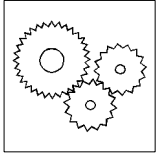
3.3 Overview

Below you will find an overview of the most important components which are then described on the following pages.

Dynajet 350mg Plus



- 1 Drive motor
- 2 Socket (12 V)
- 3 Water pressure gauge
- 4 High-pressure water pump
- 5 Unloader
- 6 Water filter
- 7 Fuel tank



3.4 Technical data

The technical data and features listed below relate to the Dynajet mg.

Dimensions

	Dynajet 350mg Plus
Length:	750 mm
Width:	790 mm
Height:	945 mm

Weights

Weight: (empty)	105 kg
-----------------	--------

Power output

Drive motor:	Petrol motor 14.5 kW 3250 rpm.
Working pressure:	350 bar
Pumping rate:	21 l/min



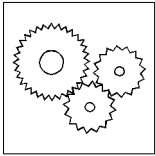
Note

The maximum pumping rate and the maximum working pressure cannot be achieved simultaneously.

Operating materials

Fuel:	Regular fuel, capacity 20 l
Motor oil:	SAE 30 W Motor oil quantity 1.6 l with filter, 1.4 without filter
High-pressure water pump:	1.04 l SAE 30 W AGIP Diesel Gamma
Gear unit:	180 gr. SAE 85/140 W AGIP Rotra

Continuation next side

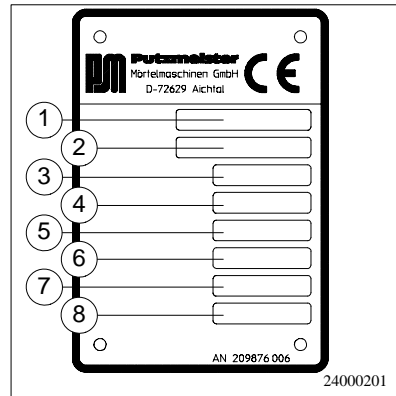


General Technical Description

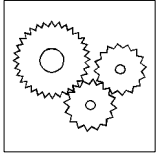


The most important data is shown in brief on the rating plate mounted on the machine.

Rating plate



- 1 Model (machine model)
- 2 Machine no. (machine number)
- 3 Year of manufacture
- 4 Max. delivery pressure [bar]
- 5 Hydr. pressure max. [bar] (maximum fluid pressure in the hydraulic system)
- 6 Voltage [V]
- 7 Frequency [Hz]
- 8 Power [kW]



3.5 Safety equipment

The following is a list of installed safety devices on the high-pressure cleaner.

EMERGENCY-STOP

Switching off the machine at the ignition lock triggers an EMERGENCY STOP!



Note

In the event of impending danger, switch the machine off at the ignition lock!

Overpressure safety device in the high-pressure circuit (unloader)

The function of the unloader is to adjust the working pressure to a maximum of 350 bar.

If a lower pressure is required, this can be achieved by turning the rotary knob.

The water in the bypass is returned to the intake port.

If the pressure is above:

- 150 bar, for the Dynajet 150 mg,
- 280 bar, for the Dynajet 280 mg,
- 350 bar, for the Dynajet 350 mg and 350 mg Plus.

the unloader depressurises the water and returns it to the water inlet.

Personal protective equipment

Personal protective equipment is not included in the scope of supply of the machine; it is supplied by Putzmeister and can be purchased through Parts Sales.



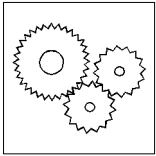
Danger

When carrying out work using the high-pressure cleaner, always wear protective equipment at all times.



Note

Refer to the "Accessories for High-Pressure Cleaners" brochure from Putzmeister Mörtelmaschinen GmbH for this and other accessories.



3.6 Water system

The high-pressure cleaner is connected to a water supply (minimum 2 bar, maximum 8 bar) via the low-pressure hose and the water filter.

The high-pressure water pump “sucks” the water through the water inlet and pressurises it.

The pressurised water then flows through the unloader. The unloader limits the system pressure to 350 bar.

The pressurised water is then directed through the high-pressure hose and the high-pressure gun.

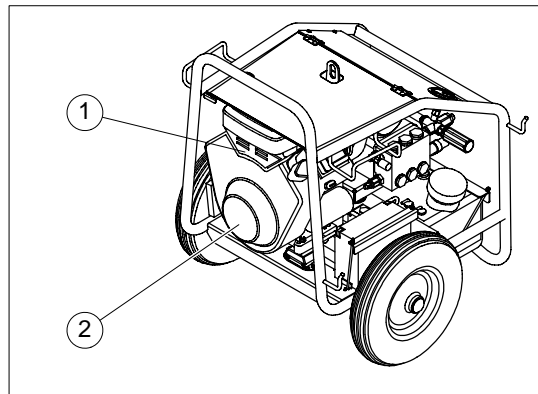
3.7 Functional description

This chapter is intended to help you understand the functions of the machine so that you can limit the field of the machine's applications to suitable areas and avoid errors in operation.

General set-up of the machine

Putzmeister machines are easy to assemble and operate. In spite of this, certain precautionary measures must be taken when operating the machine to ensure that the wear parts have a maximum life limit.

Drive motor



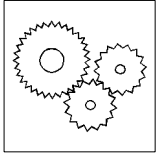
- 1 Drive motor
- 2 Manual starting device

The Dynajet mg is driven by a petrol motor.
The motor powers the high-pressure water pump.

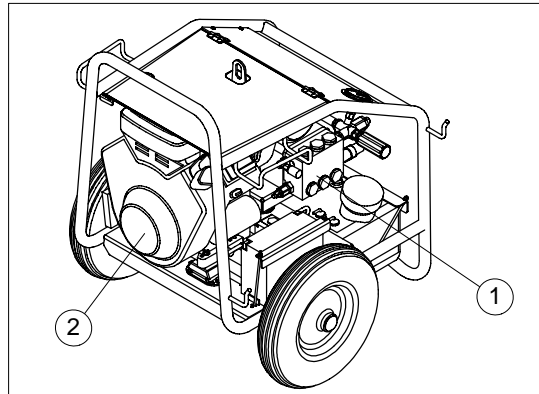
The motor has a manual starting device that can be used to start the motor if the battery voltage is insufficient.

For maintenance and operation of the drive motor, observe also the supplied manufacturer's documentation.

Continuation next side



High-pressure water pump



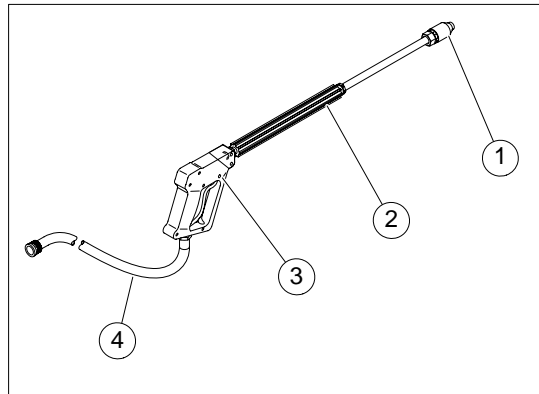
- 1 High-pressure water pump
- 2 Drive motor

The high-pressure water pump “sucks” the water through the water inlet and pressurises it at a maximum of 350 bar.

The high-pressure water pump is driven by the petrol motor.

The valve seats are suitable for hydraulic fluid up to 80° C and water up to 60° C.

High-pressure gun

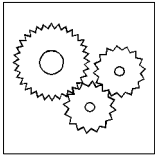


- 1 Nozzle with nozzle holder
- 2 High-pressure hose with insulation
- 3 High-pressure gun
- 4 High-pressure hose

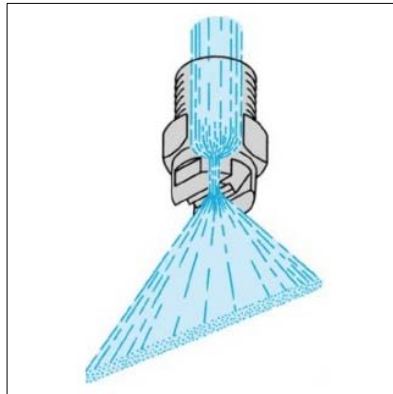
The purpose of the high-pressure gun is to regulate the high-pressure water jet. It is connected to the high-pressure hose. Activating the lever opens the nozzle and releases the high-pressure water jet.

The maximum operating pressure of the high-pressure gun is 350 bar.

Continuation next side



Fan jet nozzle



A fan jet nozzle (1505) is included in the scope of delivery. It has a spray angle of 15° and a nozzle size of 34.

Fan jet nozzles are characterised by a uniform fluid and pressure distribution. The flow geometry of the nozzles creates a compact, regulated jet. They can be used universally and are not sensitive to pressure fluctuations.

Nozzle designations are composed as follows:

XX	0XX
	Nozzle size
Spray angle	



Note

Bear in mind that the nozzles have an influence on the water pressure. If a nozzle is used and is too small, the pressure may increase and trigger the unloader which limits the system pressure to a maximum of 350 bar.

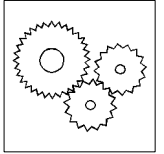
If the nozzle is too large, the pump may not be able to attain maximum pressure at the full delivery rate.

The pressure decreases as the nozzle wears.



Danger

Use only nozzles approved by Putzmeister. Please note that the use of other nozzles could lead to increased rebound pressure.



Operating module



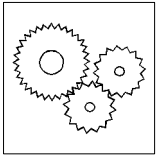
The operating module checks and displays the different machine parameters.

The ignition lock is also located in the operating module

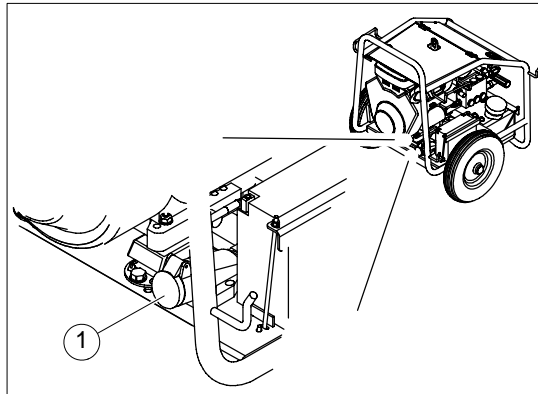
The LEDs indicate the status of the switch before the machine is started. If a switch changes status during operation, the motor is stopped after 3 seconds.

All signals are displayed, evaluated and processed as per the description. If a fault is pending for approx. 6-8 seconds, an acoustic horn sounds and the motor is stopped.

Continuation next side



Socket (12 V)

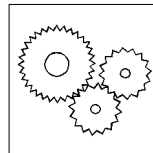


1 Socket (12 V)

The Dynajet mg is fitted with a 12V DC socket as standard. Additional equipment that requires a maximum of 16 amps 12V DC can be connected to the socket. The socket gives the option of connecting die Putzmeister Dynabox 350 12V, for example.

Additional equipment for emergency operation of the hydraulic system

A 10 m oil-pressure hose, a 10 m oil intake hose and a hose connection are included in the scope of supply for the Dynajet 350 mg Plus. With these components, the machine can be used for emergency operation of Putzmeister concrete pumps for boom and support operation.



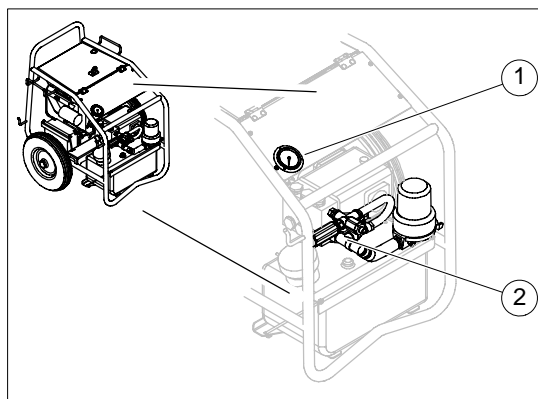
3.8 Components on the control and monitoring units

This section gives you a summary of the various control devices on the machine and the symbols used for control actions.

The functions of the machine are assigned to the following control devices:

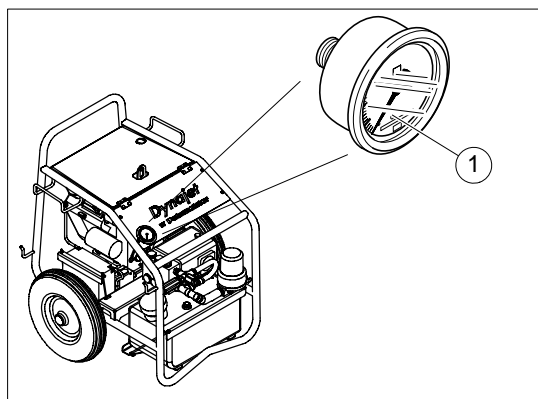
- Water valve fitting
- Water pressure gauge
- Operating module (depending on model)

Water valve fitting



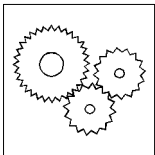
- 1 Pressure gauge
- 2 Unloader valve

Water pressure gauge

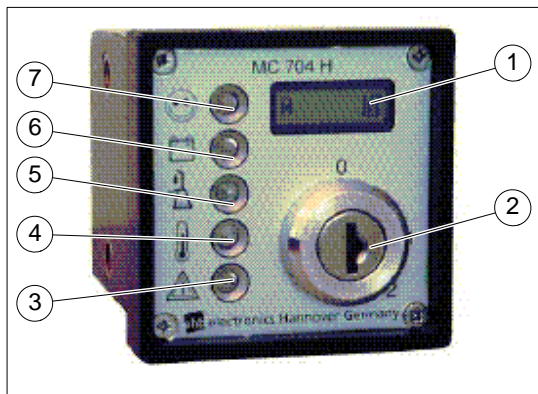


- 1 Water pressure gauge

The water pressure is indicated on the water pressure gauge (1).



Operating module



- 1 Operating hour counter
- 2 Ignition lock
- 3 Water-oil temperature above 80°
- 4 Water-oil deficiency
- 5 Oil pressure
- 6 Charge monitor
- 7 Ready

The operating module monitors and displays:

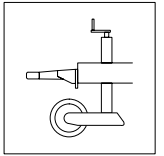
From the motor

- Motor oil pressure
- Dynamo

From the pump

- Oil temperature / Water temperature
- Oil level / Water level

The operating module has a horn for all fault messages. Faults are only detected and displayed in active operation.



4 Transport, Set-up and Connection

This chapter contains information concerning safe transport of the machine. In addition, this chapter describes operations that are required for assembling and connecting the machine. Starting up the machine will not be described until the chapter "Commissioning".

4.1 Unpacking the machine

Before shipment, the machine is packaged for transportation. Unpack the machine and dispose of the packaging material.

Disposing of packaging material

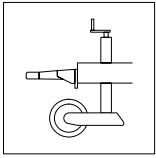
Recyclable materials are used to pack the machine.



Environmental protection

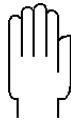
Dispose of the packaging material according to the applicable environment protection regulations.

Please separate cardboard, plastic and wood and dispose of accordingly.



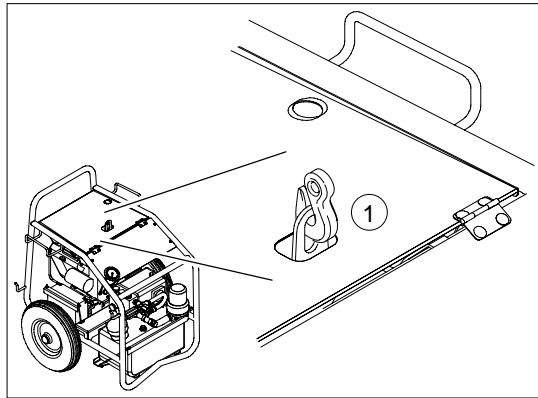
4.2 Loading

Use the slinging points provided on the machine when loading it by crane. Only in this way can you be sure that the machine is suspended horizontally and securely in the hook and will not be able to tip over.

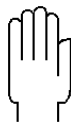


Caution

The machine may only be loaded by crane if it is attached by the jack rings designed for this purpose. Lifting equipment, lifting tackle, support trestles and other auxiliary equipment must be reliable and safe in operation. Make sure that the load-bearing capacity is sufficient.



1 Jack ring



Caution

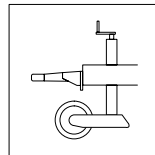
The machine must be properly secured on the transport vehicle to prevent it rolling away, slipping or tipping over.

4.3 Set-up site

Inspect the proposed site carefully and reject the set-up site if you have any doubts regarding safety.

Setting up

The high-pressure cleaner must be set up such that is absolutely stable and secured against slipping.



4.4 Connecting

The following section describes how to connect the high-pressure cleaner to the water supply.

Water connection

The connection to the drinking water supply may only be made in compliance with DIN 1988 - Technical Rules for Drinking Water Installations, i.e. using pipe disconnectors of installation type 1 or an independent outlet (buffer tank with a booster pump).

Please ensure that you check preconditions for connection to the water supply before beginning connection work.

- The pipe must be at least 3/4" in diameter.
- The existing water pressure must be at least 4 bar.

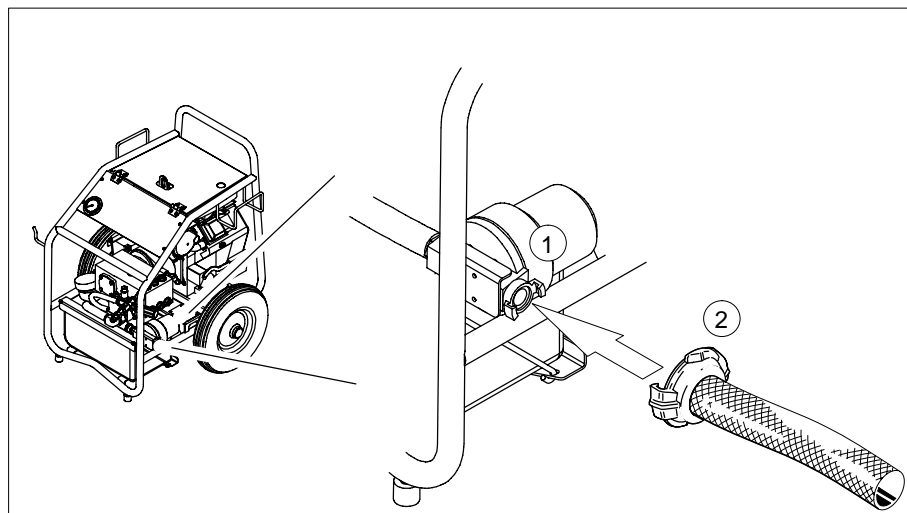
Laying the water pipeline

Water pipes must be laid visibly, taking local conditions into consideration, and secured against damage. They must not obstruct operating personnel.



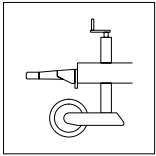
Caution

If there is a risk of freezing, the pipes must be laid in such a way as to avoid the possibility of the water freezing.



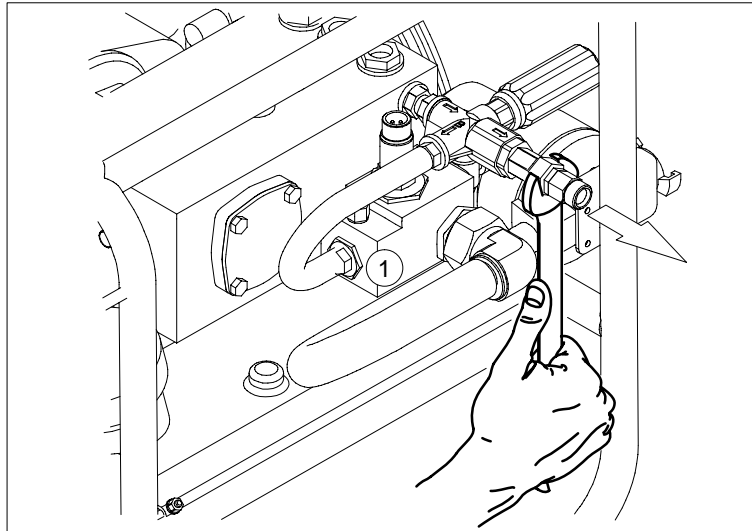
- 1 Water connection (Geka claw coupling on the Mikron water filter)
- 2 Water supply line from mains supply

- Connect the water supply line from the water system (2) to the water connection (1).



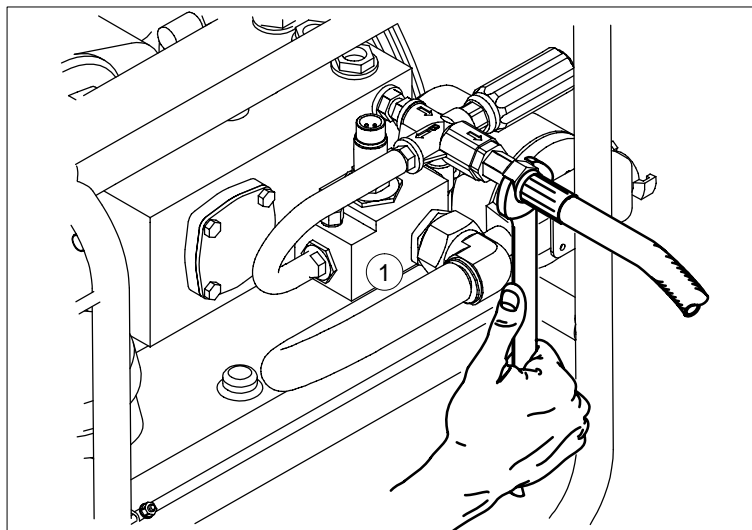
4.5 Setting up the machine for emergency operation

If you want to set up the machine for emergency operation, proceed as follows:



1 WGA nipple

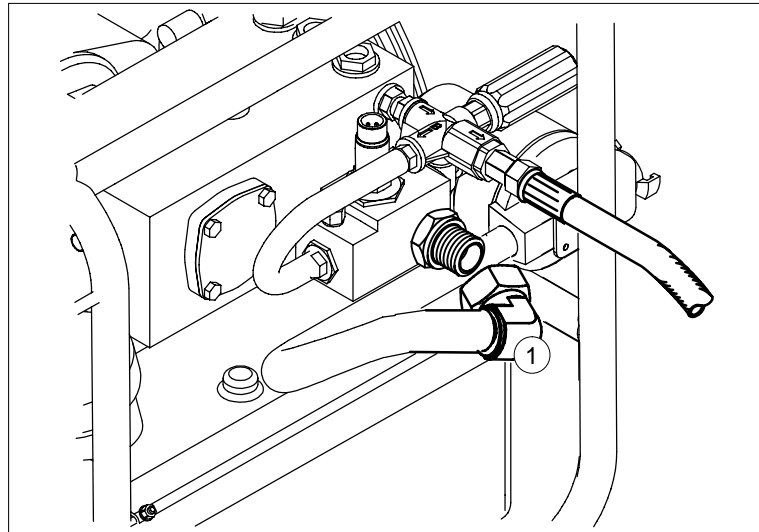
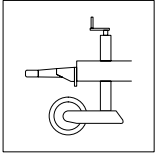
- Remove WGA nipple
⇒ A 12 L hydraulic connection remains on the pressure connection



1 Oil-pressure hose

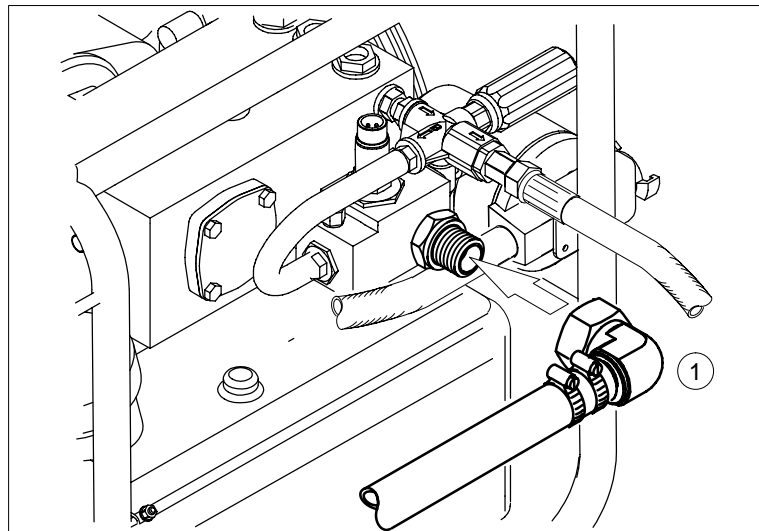
- Fit the oil-pressure hose (in the scope of supply for machine AN 446834) to the pressure connection.

Continuation next side



1 Water intake hose

► Remove the water intake hose.



1 Oil intake hose

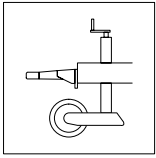
► Fit the oil intake hose.



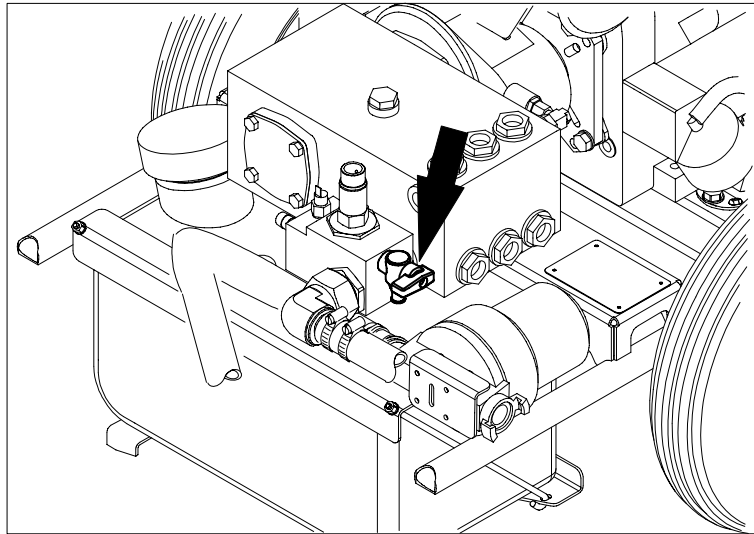
Note

Bypass the filter when connecting the oil intake because the high-pressure pump only has a low intake capacity.

Continuation next side



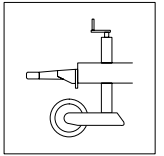
Transport, Set-up and Connection



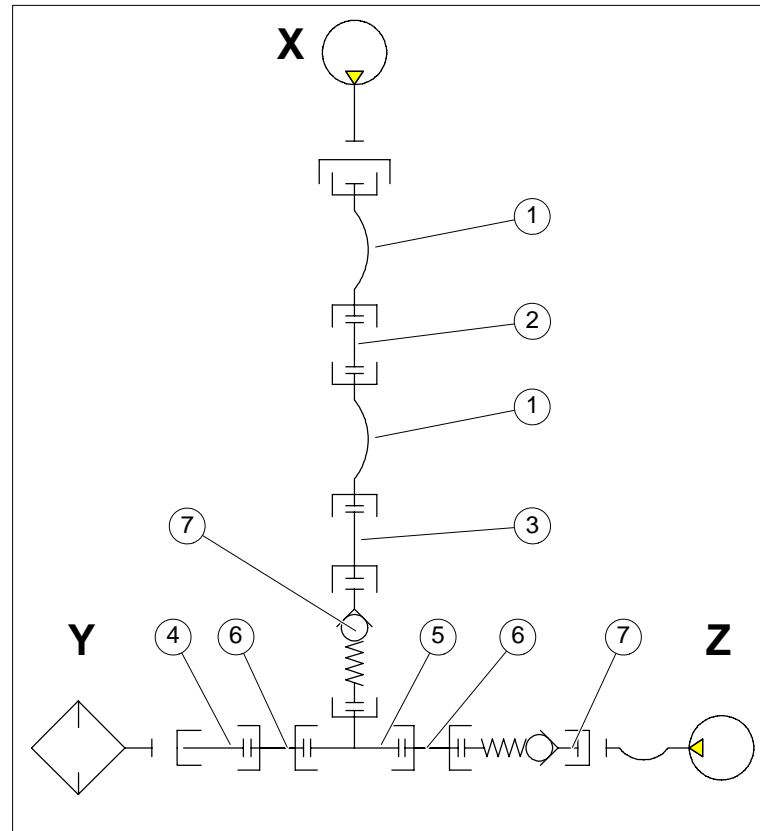
Ball valve for venting the oil intake hose

- Vent the oil intake hose via the yellow ball valve.

Continuation next side



Oil pressure hose diagram



- X Dynajet mg Plus
- Y High-pressure filter
- Z Boom pump
- 1 Hydr. hose (4SP DN10x 5000)
- 2 Connection (GS 12L)
- 3 Connection (REDSD 18/12L)
- 4 Connection (GES 18LM)
- 5 Connection (ETSD 18L)
- 6 Connection (SNV 18L)
- 7 Screw joints (BO-RV 18L-SA5)

5 Starting up

This section contains working steps for commissioning the machine for the first time and on how to prepare the machine prior to use after a longer standstill period.

Here you will be given instructions on how to check the condition of your machine and how to carry out a test run including functional checks.



Note

When commissioning for the first time, operating personnel should be instructed on how to use the machine!

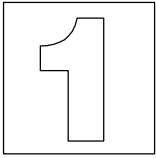
The entire system should be observed during the initial hours of operation to identify possible malfunctions.

5.1 Use as an emergency hydraulic unit

When using the Dynajet mg Plus as an emergency unit for operating Putzmeister concrete pumps for boom and support operation, commission as described, without water operation.

The water filter, high-pressure hose, high-pressure gun and unloader no longer need to be checked.

Carefully check the machine regarding the work required for conversion to an emergency unit.



5.2 General

When you accept the machine, you must make yourself familiar with the equipment so that damage and accidents cannot occur. Every time operators use the high-pressure cleaner, they accept full responsibility for the safety of anyone located in the machine's danger zone. You are therefore obliged to ensure the absolute operational safety of the equipment.

Carry out visual inspections, functional checks and a test run before commissioning at the operating location.



Note

Any defects found during these tests must be rectified immediately. A fresh inspection is necessary after every repair. The machine may only be put into operation once all the inspections described below have been concluded satisfactorily.

5.3 Checks

Each time the machine is used at a construction site, you should check the condition of your machine and carry out a test run including functional checks. If you identify any faults during the checks, you must eliminate these (or have these eliminated) immediately.

- ▶ Always inspect the machine thoroughly for visible defects before starting work.
- ▶ Check the water filter for contamination.
- ▶ Check the level in the fuel tank.
- ▶ Check the high-pressure hose for damage.

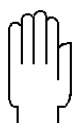
Continuation next side

Water filter

A contaminated filter may damage the high-pressure water pump. The filter system cleans the supplied water, thus safeguarding the high-pressure water pump.

The filter element from the water filter must be replaced if it becomes soiled.

The filter element changes colour when it becomes soiled.



Caution

Use only clean mains water.



Environmental protection

When changing filters, observe the waste disposal regulations that apply to your region.

Refuelling the machine

The high-pressure cleaner is driven by a combustion engine. The fuel tank is integrated into the frame. The high-pressure cleaner can be filled with fuel via the filler neck when it has been shut down.

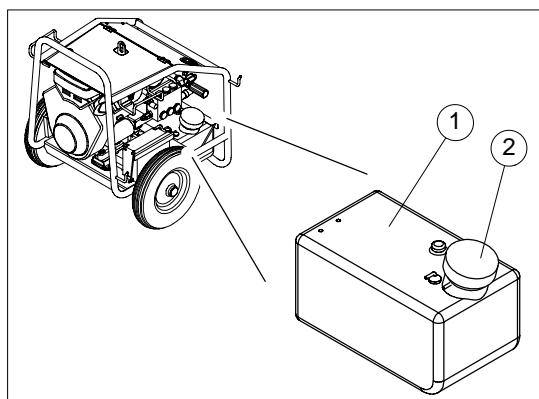
Before starting up, check that there is sufficient fuel in the tank and if necessary, top up with fuel via the filler neck.



Note

Do not fill the tank completely!

Fill the tank to a maximum of 1 cm below the top edge of the tank.



- 1 Fuel tank
- 2 Filler neck

Continuation next side

**Caution**

Fill the high-pressure cleaner with fuel only when the engine is at a standstill!

When filling the high-pressure cleaner with fuel, pay particular attention to cleanliness!

Do not spill fuel!

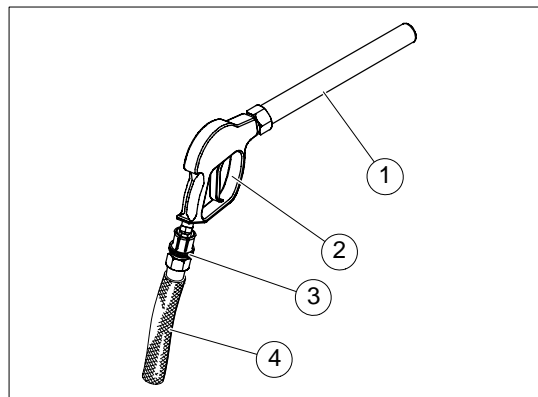
**Danger**

Do not smoke when you are filling up!

Never fill the fuel tank near naked flames or ignitable sparks.

Ensure that no fuel spills onto hot machine parts while you are filling up. There is a risk of the fuel igniting!

Avoid naked flames at the machine and lock the fuel tank after refuelling - danger of fire!

5.4 High-pressure gun

- 1 High-pressure pipe
- 2 High-pressure gun
- 3 Screw coupling
- 4 High-pressure hose

When the high-pressure gun is not yet ready for operation:

- ▶ connect the high-pressure pipe to the gun.
- ▶ connect the gun and the high-pressure hose to the screw coupling.

5.5 Test run

Starting the motor

Proceed as follows to start the engine:



Danger

During and after completion of work, there is a risk of burns from hot parts on the drive motor and the silencer.



Choke lever

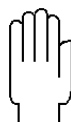
- Activate the choke lever.



Danger

*Never direct the water jet at persons or animals - the high operating pressure can lead to serious injuries.
The activated high-pressure gun produces recoil and torque.
Ensure equipment is secure and stable.*

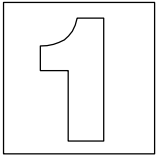
- Open the high-pressure gun.



Caution

*The pressure side must be fully open when the drive motor is started, i.e. press the spray gun trigger.
This optimises the quick-fill feature on the pump and avoids dry runs.*

Continuation next side



Starting up



- ▶ Switch on the ignition by turning the ignition key to "1".
 - ⇒ All pictograms on the operating module flash three times (self test)
 - ⇒ After the self test, the green LED lights up permanently.
 - ⇒ The status of all inputs is displayed at the same time.
- ▶ Start the motor by turning the ignition key to "2" on the ignition lock.
- ▶ Deactivate the choke lever after a brief warming-up period.



Note

The engine speed is controlled depending on the load. There is no accelerator control, the engine controls the speed depending on the load.

Checking functions

You can check the different machine functions while the motor is running.

- ▶ Check all joints on the machine for leaks.
- ▶ Set the working pressure on the unloader and check whether the machine reacts to changes.
 - ⇒ Changes in pressure can be viewed on the pressure gauge when the spray gun is actuated.
- ▶ When actuating the high-pressure pistol, check whether the motor reacts with an increase in speed.

Continuation next side

Stopping the machine after a test run

If the machine runs perfectly during the test run, you can use it for the intended task or switch it off.

If you want to continue using the machine, proceed as described in the chapter "Operation".

If you want to switch off the machine, proceed as follows:

- ▶ Switch off the drive motor.
- ▶ Depressurise the machine by actuating the high-pressure pistol.
- ▶ Turn the key in the ignition lock to "0".

5.6 Starting the motor using the manual starting device



If the battery voltage is insufficient, the motor can be started using the manual starting device.

- ▶ Activate the choke lever.

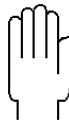
Danger

Never direct the water jet at persons or animals - the high operating pressure can lead to serious injuries.

The activated high-pressure gun produces recoil and torque.

Ensure equipment is secure and stable.

- ▶ Open the high-pressure gun.



Caution

The pressure side must be fully open when the drive motor is started, i.e. press the spray gun trigger.

This optimises the quick-fill feature on the pump and avoids dry runs.

The oil pressure that builds up during the manual starting phase will be insufficient. The supply line must be disconnect from the oil-pressure sensor first.

- ▶ Remove the supply line from the oil-pressure sensor.
- ▶ Start the motor by pulling the cord on the manual starting device.

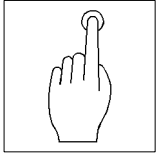


Caution

Fuel solenoid valve remains activated in position 1 for a maximum of 30 seconds.

- ▶ Once the motor is started, reconnect the supply line to the oil-pressure sensor immediately.
- ▶ Deactivate the choke lever after a brief warming-up period.

Commissioning and operation then continue as with a normal start.



6 Operation

This chapter contains information on machine operation. You will learn what operations are required for setting up the machine, operation and for cleaning.

Tip for cleaning surfaces

Do not direct the cleaning jet vertically onto the surfaces to be cleaned. Try to "peel off" the dirt layer from the surfaces.

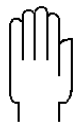
6.1 Setting

The setting values depend on the tasks to be carried out.

6.2 High-pressure cleaning

For cleaning work, proceed as follows:

- Start the engine as described in the section "Starting up".



Caution

The pressure side must be fully open when the drive motor is started, i.e. press the spray gun trigger.

This optimises the quick-fill feature on the pump and avoids dry runs.

- Depending on weather conditions, run the engine for a few minutes until it reaches its working temperature.

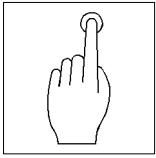


Danger

Observe the maximum operating pressure of the spray gun used.

The maximum operating pressure should not be exceeded.

Continuation next side

**Danger**

Always wear your own personal protective equipment when working.

Never direct the water jet at persons or animals - the high operating pressure can lead to serious injuries.

Never direct the water jet at electric components.

*The activated high-pressure gun produces recoil and torque.
Ensure equipment is secure and stable.*

Under no circumstances may explosive or inflammable materials be pumped.

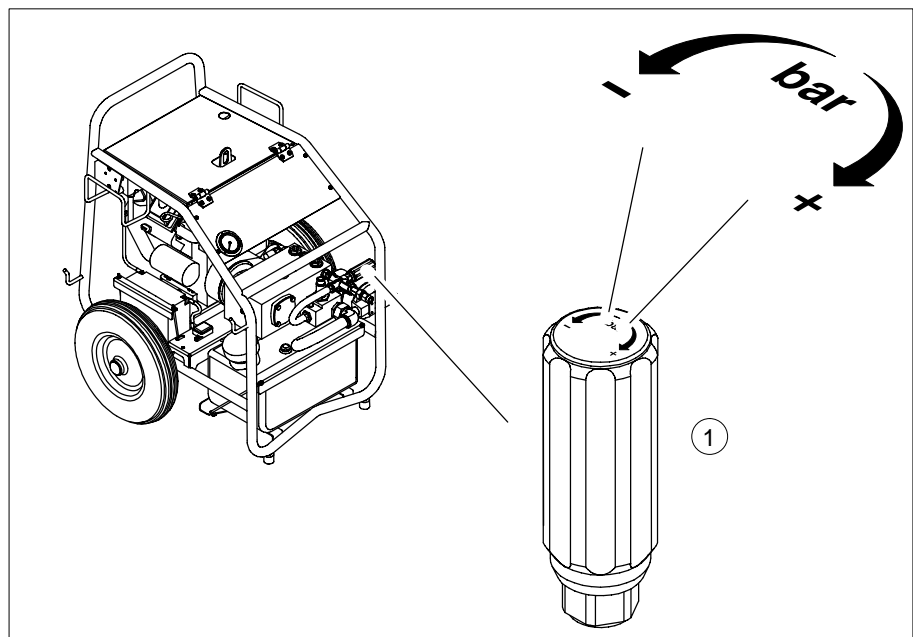
Protect the high-pressure hose from external intrusions and sharp corners.

Pressure adjustment

You can adjust the working pressure by turning the unloader.

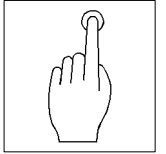
**Note**

The engine speed is controlled depending on the load. There is no accelerator control, the engine controls the speed depending on the load.



1 Unloader

Continuation next side



Switching off the machine on completing the work

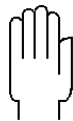
You must depressurise the machine after work has been completed.

- ▶ Switch the ignition lock to OFF.
- ▶ Press the spray gun trigger to relieve pressure.
⇒ The residual pressure in the line and spray gun is relieved.

6.3 Use as an emergency hydraulic unit

When using the Dynajet mg Plus as an emergency unit for operating Putzmeister concrete pumps for boom and support operation, proceed as follows:

- ▶ Check that the machine is connected for emergency operation as described in the chapter "Transport, Set-up and Connection".
- ▶ Start the engine as described in the section "Starting up".
- ▶ Depending on weather conditions, run the engine for a few minutes until it reaches its working temperature.



Caution

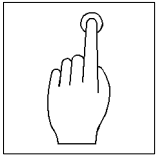
Always consult the relevant machine supplier before using the machine on oil hydraulic installations.

The high-pressure pump is deactivated by a pulse-controlled unloader valve and requires the initiation of a depressurised cycle, otherwise the loss of performance in the bypass circuit will deactivate the motor and trigger the horn.

- ▶ Set the unloader to maximum during emergency operation.
- ▶ Reset the unloader settings after using the machine as an emergency hydraulic unit.

After using the machine as an emergency hydraulic unit, remove all components attached for the conversion and set up the machines again for water operation.

- ▶ Proceed in reverse order to the instructions described in the section "Setting up the machine for emergency operation".



6.4 Cleaning

After completion of work, clean the machine and the delivery and high-pressure hoses. This ensures that the key components continue to function correctly.



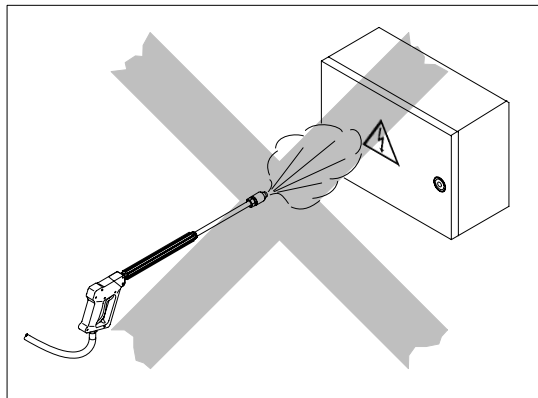
Environmental protection

During all cleaning work, observe the waste disposal regulations that apply to your region.

Do not allow cleaning additives to enter the sewage system.

General

Prior to cleaning the machine with a steam jet or high-pressure cleaner, cover or seal all openings where moisture must not enter for reasons of safety or relating to machine operation. Control cabinets and electrical plug-in connections are especially at risk.



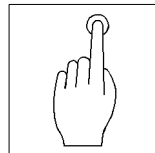
Do not allow water to enter the electrical systems



Note

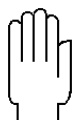
In the first six weeks of operation, clean all painted surfaces with cold water only at a maximum water pressure of 5 bar. Do not use any aggressive cleaning additives. Only after this time will the paint have hardened completely, allowing you to use steam jets or similar tools.

Continuation next side



Water sprayed at the machine from all directions does not have any damaging effect. The system is splash-proof but not waterproof.

Remove all the covers / seals after the cleaning process!



Caution

The machine and lines must be completely drained of residual water if there is a risk of freezing.

6.5 Storing the machine

If the machine needs to be stored, observe the instructions for storage in the chapter "Decommissioning".



7 Faults, Cause and Remedy

This chapter gives you a summary of faults and their possible causes, and also ways in which you may rectify them. Observe the safety regulations when searching for a fault. Only suitably trained technicians may work on the electrical system.

7.1 High-pressure cleaner with operating module

The Dynajet 350 mg Plus high-pressure cleaner (with the other Dynajets mg optional) is fitted with an operating module. Any faults relating to the assigned parameters are displayed here.

If a switch changes status during operation, the motor is stopped after 3 seconds. The time of faults < 3 seconds is added up and stored.

If the stored value exceeds 3 seconds, the motor is also stopped.

If a fault does not occur again within 10 seconds, the memory is deleted. The fault that occurs first is stored and all other inputs are locked so that you can easily determine which fault originally caused the machine to switch off, even if the input has reverted back to its normal status in the meantime.



Note

Input monitoring begins 7 seconds after the machine starts up in order to give the motor a chance to build up oil pressure and charge voltage.



7.2 High-pressure cleaner, general

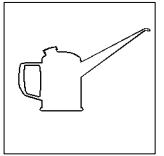
This chapter describes the possible causes of faults and how to rectify them.

Operating pressure fluctuates	
Cause	Remedy
Water filter soiled.	Clean or replace the water filter.
Spray nozzle blocked or worn.	Clean or replace the spray nozzle.
Operating pressure too low	
Cause	Remedy
Spray nozzle too large or worn	Use a smaller spray nozzle or replace spray nozzle.
Pump seal on the water pump worn	Replace pump seal. See documentation provided by the pump manufacturer.
Operating pressure too high	
Cause	Remedy
Spray nozzle too small.	Use a larger spray nozzle.
Spray nozzle soiled	Clean spray nozzle.



Note

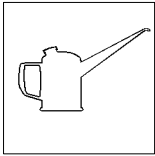
Work on the electrical system and equipment of the machine must be carried out by a qualified electrician or by instructed persons under the supervision and guidance of a qualified electrician and in accordance with electrical engineering rules and regulations.



8 Maintenance

This chapter contains information on the maintenance work necessary for the safe and efficient operation of the machine.

We would like to emphasise here that all specified checks, inspections and preventive maintenance work must be conscientiously carried out. Otherwise we will refuse any liability or warranty claim. Our After Sales department would be glad to provide you with advice and help at any time should you be in doubt.



8.1 Maintenance intervals

The following table shows the intervals for the various maintenance tasks listed by assembly. The associated maintenance charts can be found further on in this chapter.

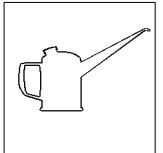


Note

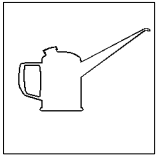
Have the initial After Sales service carried out by a Putzmeister Mörtelmaschinen GmbH After Sales service engineer, or by a dealer authorised by Putzmeister Mörtelmaschinen GmbH.

Frequency every ... operating hours / at least	Action	Measurement and inspection equipment, operating and auxiliary materials	Remarks
General			
daily	Visual and function check on all safety equipment.		visually
daily	Visual inspection of electrical cabling.		visually
annually	Check threaded unions with reference to the tightening torque table.	Torque wrench	
Drive motor			
See the manufacturer's documentation for information on how to carry out the work			
after the first 8 then every 50 / annually	Engine oil change.		Capacity 1.4 l without filter
after the first 8, at 100, then every 100	Change oil filter.		Capacity 1.6 l with filter
at 100, then every 100	Replace air filter.		
at least annually	Replace spark plugs.		

Continuation next side



Frequency every ... operating hours / at least	Action	Measurement and inspection equipment, operating and auxiliary materials	Remarks
Water pump See the manufacturer's documentation for information on how to carry out the work			
after the first 50, then every 500	Full oil change	SAE 30 W	Filling capacity 1.125 l
200	Checking the oil level		visually at sight glass
200	Check pump valves		
1000	Change pump valves		
Frequency every ... operating hours / at least	Action	Measurement and inspection equipment, operating and auxiliary materials	Remarks
Water supply			
200	Clean water filter		
400	Change water filter		
Transmission			
after the first 50, then every 500	Full oil change	SAE 90 W	Filling capacity 0.2625 l

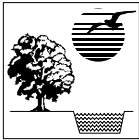


8.2 Operating materials

This chapter lists all the operating materials used in your machine.

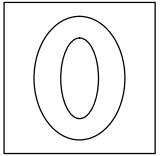
Fuel:	Regular fuel capacity 20 L
Engine oil:	SAE 30 W Motor oil quantity 1.6 l with filter, 1.4 without filter
High-pressure water pump:	SAE 30 W 1.125 l
Gear unit:	SAE 90 W 0.2625 l

Refer to the maintenance tables for oil change intervals.



Environmental protection

You must carefully collect all operating fluids, e.g. used oil, filters and auxiliary materials and dispose of them separately from other waste. Observe the national and regional regulations applicable to your area. Only work with waste disposal companies that approved by the relevant authorities.



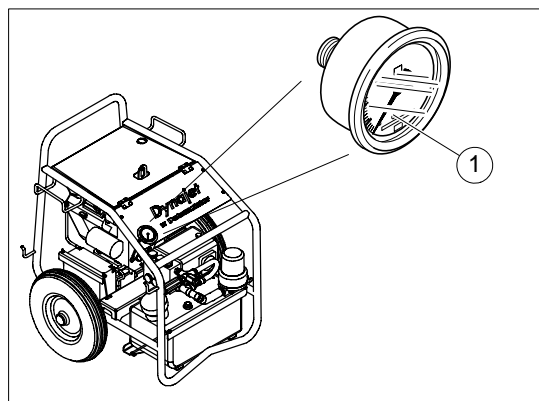
9 Decommissioning

This chapter contains information on decommissioning the machine.

9.1 Temporary decommissioning

If the machine is to be taken out of service temporarily, the following measures are sufficient:

- ▶ Switch off machine.
- ▶ Stop the water supply.
- ▶ Release the pressure in the high-pressure gun until no more water flows out.



1 Water pressure gauge

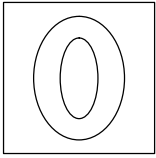
- ▶ Check the pressure gauge (1) to ensure that the system is fully depressurised.
- ▶ Remove ignition key from ignition lock.



Note

Remove the ignition key from the ignition lock. Under certain circumstances the battery may discharge if the ignition key is not removed.

Continuation next side



Frost protection

At the end of work, the machine must be completely drained of residual water if there is a risk of freezing.

- ▶ Disconnect the machine from the water supply.
- ▶ Completely drain the water from the hoses.



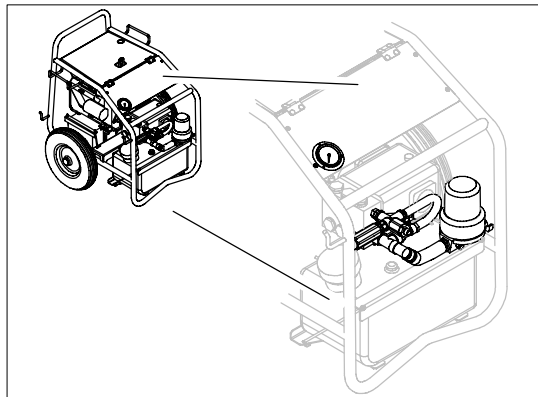
Caution

The machine and lines must be completely drained of residual water if there is a risk of freezing.

Only operate and store the machine in a frost-free location.

Frost can cause the water filter and the hoses to burst.

To prevent frost damage to the water filter, it must be completely drained of residual water.



Water filter

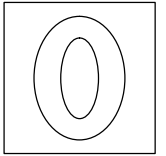
- ▶ Unscrew the water filter.
- ▶ Unscrew union nut on the water filter and remove the housing and the filter.
- ▶ Position the machine in such a way that residual water can drain from the filter housing, water pipeline and pump.
- ▶ Drain the water filter and dry.
- ▶ Install the water filter.



Note

Ensure that the gasket is correctly seated.

Continuation next side



To bypass the pressure gauge, which prevents the machine starting up without water pressure, a special adapter (GEKA on compressed-air connection, not supplied) is used to connect to compressed air instead of water.

- ▶ Connect the adapter.
- ▶ Open the air supply.
- ▶ Run the machine for a maximum of 5 seconds.
⇒ Water is forced out of the pump.
- ▶ Close the air supply.
- ▶ Disconnect the adapter.
- ▶ Open the bypass line to the GEKA connector and empty the high-pressure pump.

This method is used in the factory.

Preservation

If the high-pressure cleaner is to be put out of service or into storage, it has to be preserved beforehand, if required.

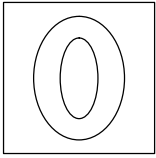


Note

Preservation of the high-pressure cleaner prevents corrosion and premature ageing. It is necessary if the machine:

- *is not used for longer periods;*
- *is exposed to corrosive atmospheres during storage or transportation.*

- ▶ Preserve the machine with a suitable agent.



9.2 Storing the machine

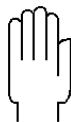
The high-pressure cleaner should only be stored in a dry, clean and well ventilated area.



Danger

There is a risk of fuel vapours building up and igniting if the high-pressure cleaner is stored in a poorly ventilated area.

- ▶ Fill with all operating materials before putting into storage.
- ▶ If the high-pressure cleaner is to be stored for a long time you must remove the battery and charge it regularly.
- ▶ The water in the hoses must be drained completely because they could freeze and burst.



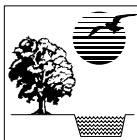
Caution

It is essential that frost protection measures be taken because frost may damage the pump and water filter and cause the hoses to burst.

9.3 Final decommissioning, disposal

The final decommissioning and disposal requires complete deinstallation of the power supply.

When disposing of all machine components, ensure that there is no possibility of damage to health or the environment.

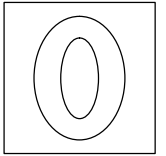


Environmental protection

Final disposal of the machine is carried out by a qualified specialist company.

Disassemble the machine into its individual components for final disposal.

Continuation next side



Material used

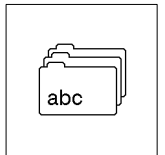
The main materials used for machine construction were:

Material	Used for / in
Copper	- Cables
Steel	- Machine frame
	- Pump parts
	- Motor parts
Galvanised steel	- Water valve fitting screws
Plastic, rubber, PVC	- Gaskets
	- Hoses
	- Cables
	- Wheels
Tin	- PCBs
Polyester	- PCBs

Parts requiring separate disposal

The following components and working materials must be separated prior to disposal:

Designation	Applies to
Electronic scrap	- Electrical supply
	- PCBs with electrical components
Oil	- Drive motor
	- High-pressure water pump



Index of Key Words

This chapter contains the main key words with the number of the page on which they are to be found as a header in the left-hand margin. This Index of key words is listed alphabetically by the main concepts. These are subdivided into associated sub-concepts, marked with a dash.

C

- Checks, 5 — 2**
- Cleaning, 6 — 4**
 - General, 6 — 4
- Commissioning**
 - General, 5 — 2
 - High-pressure gun, 5 — 4
 - Test run, 5 — 5
- Connecting, 4 — 3**
 - Water, 4 — 3
- Connection to water supply, Water pipeline, 4 — 3**
- Control devices, 3 — 11**
 - Water pressure gauge, 3 — 11

D

- Designated use, 2 — 3**
- Disposal, 9 — 4**
- Drive motor, 3 — 6**

E

- Ear defenders, 2 — 12**
- Emergency operation, 4 — 4**
- EMERGENCY-STOP, 3 — 5**
- Environmental protection, 2 — 12**

F

- Fault, cause and remedy, High-pressure cleaner, general, 7 — 2**
- Final decommissioning, 9 — 4**
- Foreword, 1 — 2**
- Frost protection, 9 — 2**
- Functional description, 3 — 6**
 - Drive motor, 3 — 6, 3 — 7

G

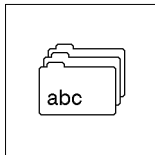
- Gas control lever, 3 — 11**
- General set-up, 3 — 6**

H

- High-pressure cleaning, 6 — 1**
- High-pressure gun, 3 — 7, 5 — 4**
 - Safety, 2 — 5
- High-pressure water pump, 3 — 7**
- Hot machine components, 2 — 5**
- Hydraulic emergency unit, 5 — 1, 6 — 3**
- Hydraulic operation, 2 — 9**
- Hydraulic system**
 - Inspection, 2 — 10
 - Lines, 2 — 11
 - Pressure, 2 — 10

L

- Liability, 2 — 11**
 - Exclusion, 2 — 4
- Loading, 4 — 2**



Index of Key Words



M

Maintenance intervals, 8 — 2

- Drive motor, 8 — 2
- General, 8 — 2
- Transmission, 8 — 3
- Water pump, 8 — 3
- Water supply, 8 — 3

Modifications, 2 — 4

N

Noise, 2 — 12

- Ear defenders, 2 — 12

Nozzle designations, 3 — 8

O

Onwards sale, 2 — 2

Operating materials, 8 — 4

Operating module, 3 — 9, 3 — 12

Operator, 2 — 11

Options, 3 — 1

Overview of components, 3 — 2

P

Personnel, 2 — 9

- Qualified electrician, 2 — 9

Place of work, 2 — 11

Preservation, 9 — 3

R

Rating plate, 3 — 4

Refuelling, machine, 5 — 3

S

Safety devices, EMERGENCY-STOP, 3 — 5

Safety equipment, 2 — 5, 3 — 5

- Overpressure safety device, 3 — 5
- Unloader, 3 — 5

Scope of delivery, 3 — 2

Set-up site, 4 — 2

Setting up the high-pressure cleaner, 4 — 2

Setting values, 6 — 1

Signs, 1 — 4

Spare parts, 2 — 12

Starting the motor, 5 — 5

- Using manual starting device, 5 — 8

Storing the machine, 6 — 5, 9 — 4

Symbols, 1 — 4

T

Technical data, 3 — 3

- Dimensions, 3 — 3
- Operating materials, 3 — 3
- Power output, 3 — 3
- Weights, 3 — 3

Test run, 5 — 5

U

Unauthorised use, 2 — 7

Use contrary to the designated use, 2 — 4

W

Water connection, 4 — 3

Water system, 3 — 6

**Putzmeister
Mörtelmaschinen GmbH**

Max-Eyth-Straße 10
72631 Aichtal
Postfach 21 52
72629 Aichtal
Tel. (0 71 27) 599-0
Fax (0 71 27) 599-743

Putzmeister Iberica S.A.

Camino de Hormigueras 173
28031 Madrid
Tel. (1) 428 81 00
Fax (1) 428 81 06

Putzmeister Limited

Chesterfield Trading Estate
Carrwood Road
Sheepbridge/Chesterfield/
Derbyshire S41 9QB
Tel. (0 12 46) 45 45 46
Fax (0 12 46) 126 00 77

Putzmeister (SA) (Pty) Ltd.

1485 Citrus Street.
Honeydew/Johannesburg
PO Box 5146
2118 Cresta / South Africa
Tel. 0027-(0)11-794-3790
Fax 0027-(0)11-794-4119

Putzmeister France

Zone Industrielle
Rue Jean Jaurès
91861 Epinay sous Sénart
Tel. (1) 69 39 69 39
Fax (1) 60 47 20 68

Putzmeister America

Mortar Maschine
1733 90th Street
Sturtevant, WI 53177
Phone: (262) 886 3200
Fax: (262) 886 3212

Weitere Werksvertretungen mit Kundendienst in:

Ägypten	Griechenland	Katar	Österreich	Syrien
Algerien	Guatemala	Kolumbien	Pakistan	Taiwan
Argentinien	GUS	Korea	Panama	Thailand
Australien	Hong Kong	Kroatien	Paraguay	Tschechien
Bahrain	Indien	Kuba	Peru	Tunesien
Belgien	Indonesian	Kuwait	Philippinen	Türkei
Bolivien	Irak	Libanon	Polen	Ukraine
Bosnien	Iran	Luxemburg	Portugal	Ungarn
Chile	Island	Malaysia	Rumänien	Uruguay
China	Israel	Malta	Rußland	USA
Costa Rica	Italien	Mauritius	Saudi-Arabien	Venezuela
Dänemark	Japan	Mexiko	Schweden-	Vereinigte
Ecuador	Jemen	Neuseeland	Schweiz	Arabische Emirate
El Salvador	Jordanien	Niederlande	Singapur	Vietnam
Finnland	Jugoslawien	Norwegen	Slovakei	Zypern
Frankreich	Kanada	Oman	Slovwenien	



Putzmeister Mörtelmaschinen GmbH
Postfach 2152
D-72629 Aichtal
Telefon (07127) 599-0
Telefax (07127) 599-743
Internet: <http://www.moertelmaschinen.de>
E-mail: pmm@pmw.de