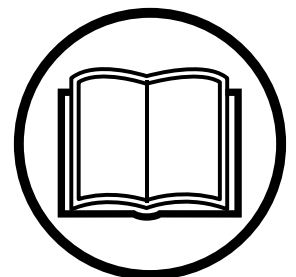


МАГАЗИН
БАШ МАЙСТОРА®
ПРОФЕССИОНАЛНИ РЕШЕНИЯ



Operator's manual Manuel d'utilisation Manual de instrucciones WS 440 HF



Please read the operator's manual carefully and make sure you understand the instructions before using the machine.

Lire attentivement et bien assimiler le manuel d'utilisation avant d'utiliser la machine.

Lea detenidamente el manual de instrucciones y asegúrese de entender su contenido antes de utilizar la máquina.

US (2-20)
CA (21-39)
ES (40-58)

KEY TO SYMBOLS

Symbols on the machine:

WARNING! The machine can be a dangerous tool if used incorrectly or carelessly, which can cause serious or fatal injury to the operator or others.

Please read the operator's manual carefully and make sure you understand the instructions before using the machine.

Always wear:

- Approved protective helmet
- Approved hearing protection
- Protective goggles or a visor
- Breathing mask

Environmental marking. Symbols on the product or its packaging indicate that this product cannot be handled as domestic waste. It must instead be submitted to an appropriate recycling station for the recovery of electrical and electronic equipment.

By ensuring that this product is taken care of correctly, you can help to counteract the potential negative impact on the environment and people that can otherwise result through the incorrect waste management of this product.

For more detailed information about recycling this product, contact your municipality, your domestic waste service or the shop from where you purchased the product.



Explanation of warning levels

The warnings are graded in three levels.

WARNING!



WARNING! Used if there is a risk of serious injury or death for the operator or damage to the surroundings if the instructions in the manual are not followed.

IMPORTANT!



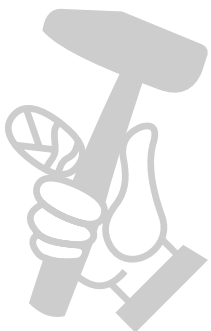
IMPORTANT! Used if there is a risk of injury to the operator or damage to the surroundings if the instructions in the manual are not followed.

CAUTION!



CAUTION! Used if there is a risk of damage to materials or the machine if the instructions in the manual are not followed.

Other symbols/decals on the machine refer to special certification requirements for certain markets.



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Note the following before starting:



WARNING! Cutting, especially when DRY cutting, generates dust that comes from the material being cut, which frequently contains silica. Silica is a basic component of sand, quartz, brick clay, granite and numerous other minerals and rocks. Exposure to excessive amount of such dust can cause:

Respiratory disease (affecting your ability to breath), including chronic bronchitis, silicosis and pulmonary fibrosis from exposure to silica. These diseases may be fatal;

Skin irritation and rash.

Cancer according to NTP* and IARC* */ National Toxicology Program, International Agency for Research on Cancer

Take precautionary steps:

Avoid inhalation of and skin contact with dust, mist and fumes.

Wear and ensure that all bystanders wear appropriate respiratory protection such as dust masks designed to filter out microscopic particles. (See OSHA 29 CFR Part 1910.1200)

Wet cut when feasible, to minimize dust.

Dear customer!

Thank you for choosing a Husqvarna product!

It is our wish that you will be satisfied with your product and that it will be your companion for a long time. A purchase of one of our products gives you access to professional help with repairs and services. If the retailer who sells your machine is not one of our authorised dealers, ask him for the address of your nearest service workshop.

This operator's manual is a valuable document. Make sure it is always at hand at the work place. By following its content (using, service, maintenance etc.) the life span and the second-hand value of the machine can be extended. If you ever lend or sell this machine, make sure that the borrower or buyer gets the operator's manual, so they will also know how to properly maintain and use it.

More than 300 years of innovation

Husqvarna AB is a Swedish company based on a tradition that dates back to 1689, when the Swedish King Charles XI ordered the construction of a factory for production of muskets. At that time, the foundation was already laid for the engineering skills behind the development of some of the world's leading products in areas such as hunting weapons, bicycles, motorcycles, domestic appliances, sewing machines and outdoor products.

Husqvarna is the global leader in outdoor power products for forestry, park maintenance and lawn and garden care, as well as cutting equipment and diamond tools for the construction and stone industries.

Owner responsibility

It is the owner's/employer's responsibility that the operator has sufficient knowledge about how to use the machine safely. Supervisors and operators must have read and understood the Operator's Manual. They must be aware of:

- The machine's safety instructions.
- The machine's range of applications and limitations.
- How the machine is to be used and maintained.

Local regulations could restrict the use of this machine. Find out what regulations are applicable where you work before you start using the machine.

The manufacturer's reservation

All information and all data in the Operator's Manual were applicable at the time the Operator's Manual was sent to print.

Subsequent to publishing this manual Husqvarna may issue additional information for safe operation of this product. It is the owner's obligation to keep up with the safest methods of operation.

Husqvarna AB has a policy of continuous product development and therefore reserves the right to modify the design and appearance of products without prior notice.

For customer information and assistance, contact us at our website: www.husqvarna.com

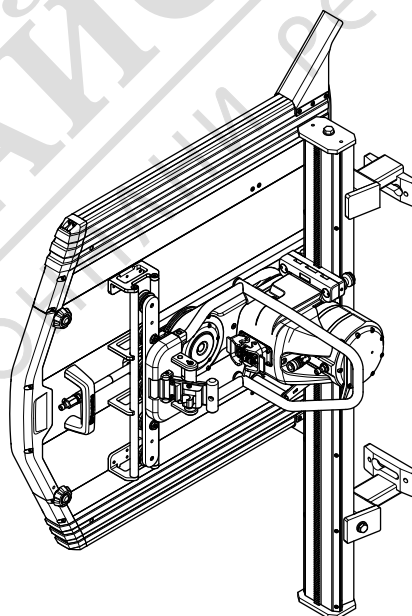
Design and features

The WS 220 is a rail mounted wall saw which is used with segmented diamond blades to cut hard materials such as reinforced concrete, stone and brick. During development of the WS 220, great focus has been placed on product weight and user-friendliness, in order to improve and streamline the operator's work environment. With its low weight, compact design and powerful high-frequency engine, the WS 220 is a wall saw which can handle most jobs. Designed for 600-900 mm blades, this saw is able to cut through wall thicknesses of up to 390 mm. The sawing system is stored on a compact transport trolley, which facilitates transportation to and from the workplace.

The Wall Saw is designed to cut hard materials like concrete or reinforcement and should not be used for any purpose not described in this manual. Safe operation of this product requires the operator to read this manual carefully. Ask your dealer or Husqvarna should you need more information.

Some of the unique features of your product are described below.

WS 440 HF



It is our wish that you will be satisfied with your product and that it will be your companion for a long time. Think of this operator's manual as a valuable document. By following its' content (using, service, maintenance etc) the life span and the second-hand value of the machine can be extended. If you ever lend or sell this machine, make sure that the borrower or buyer gets the operator's manual, so they will also know how to properly maintain and use it.

A purchase of one of our products gives you access to professional help with repairs and services. If the retailer who sells your machine is not one of our authorised dealers, ask him for the address of your nearest service workshop.

Husqvarna Construction Products has a policy of continuous product development. Husqvarna reserves the right to modify the design and appearance of products without prior notice and without further obligation introduce design modifications.

General

- The powerful, water-cooled electric motor produces an impressive 13 kW to the spindle, even though the saw weighs just 25 kg (55 lbs).
- Spindle speed is electronically controlled and adjusted using the remote control for the power unit.
- Short distance between blade and track, for a straighter cut.
- Slip clutch for all movable components.
- The blade's direction of rotation can be controlled with the remote control which allows one to choose the direction of the water spray.
- Equipped with automatic blade brake that stops the blade within a few seconds.

Complete saw equipment consists of:

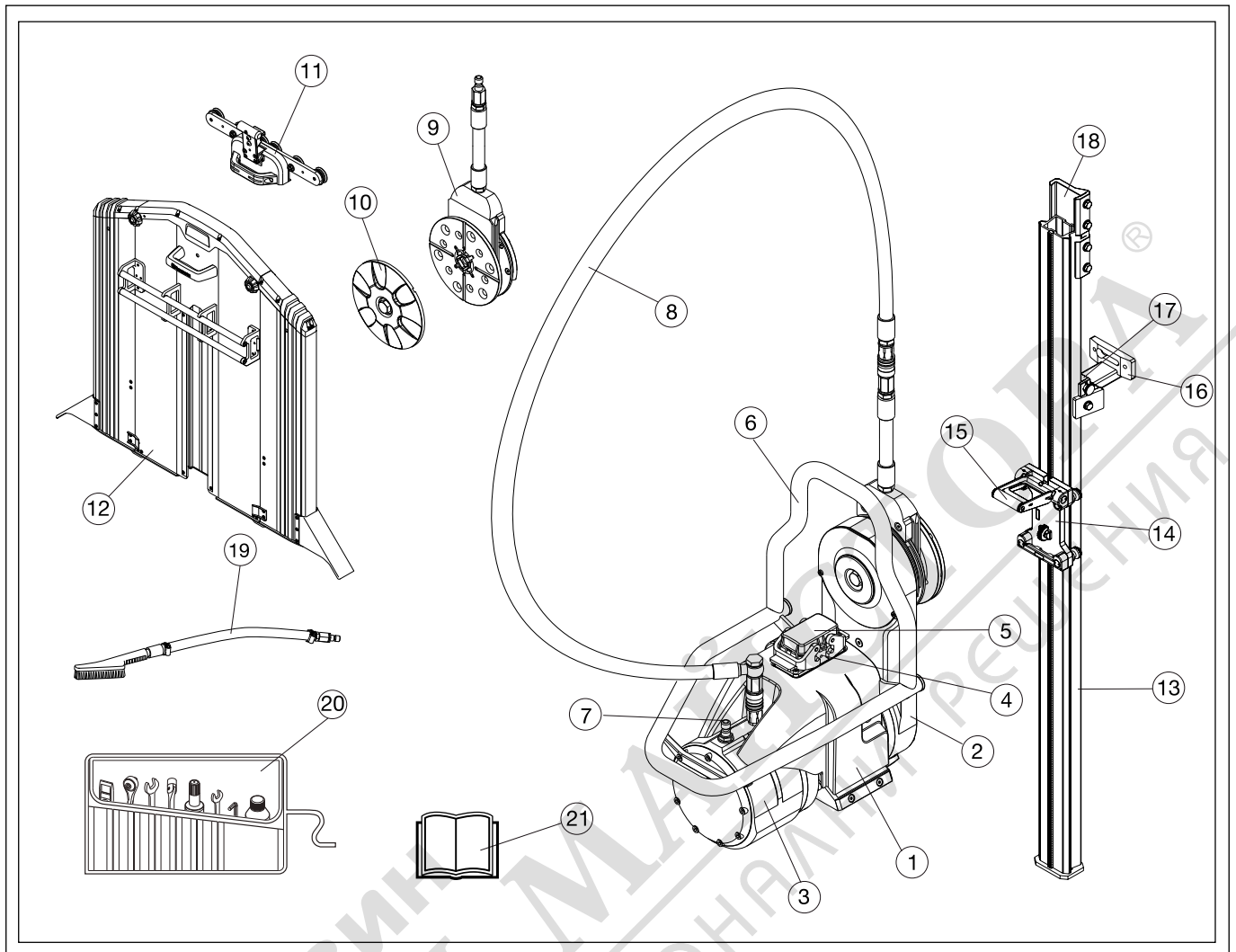
- One saw
- One track 1.2 m + saw carriage
- One track 2 m + saw carriage
- Four wall mountings
- One track holder
- One connector
- One blade guard 800 or one blade guard 1000
- One blade guard guide
- One tool kit
- One bottle of Husqvarna oil 220
- Transport cases for the different units.
- Cleaning brush
- Screws for flush cutting.

The saw carriage is mounted on both the long and short rails at the factory to make cutting as easy as possible.

As a large part of the sawing work consists transporting, the saw equipment is supplied in specially produced cases. The cases provide good protection during transport and reduced the number of packages that need to be moved between the workplaces, which makes the work more effective.



WHAT IS WHAT?



What is what on the wall saw?

- | | |
|-----------------------------|----------------------|
| 1 Saw unit | 12 Blade guards |
| 2 Cutting arm | 13 Track |
| 3 Propulsion engine, blade | 14 Saw carriage |
| 4 Cable connection | 15 Locking handle |
| 5 Protective cover | 16 Wall mounting |
| 6 Handle/blade guard mount | 17 Track holder |
| 7 Hose connection, water in | 18 Connector |
| 8 Water hose | 19 Cleaning brush |
| 9 Blade flange hub | 20 Tool kit |
| 10 Outer blade flange | 21 Operator's manual |
| 11 Blade guard guide | |

MACHINE'S SAFETY EQUIPMENT

General

This section describes the machine's safety equipment, its purpose, and how checks and maintenance should be carried out to ensure that it operates correctly. See the "What is what?" section to locate where this equipment is positioned on your machine.



WARNING! Never use a machine that has faulty safety equipment! Safety equipment must be inspected and maintained. See instructions under the heading Checking, maintaining and servicing the machine's safety equipment. If your machine does not pass all the checks, take it to a service workshop for repair.

Blade guards

The blade guard must always be used when sawing. Make sure the blade guard is in working order and that the outer sections can be locked in place. Also check that the blade guard guide is adjusted correctly and that the locking mechanism in the blade guard guide for the saw is in working order (see the adjusting the blade guard guide section). Check that the blade is not in contact with the guard but is centred in the blade guard.

Locking handle

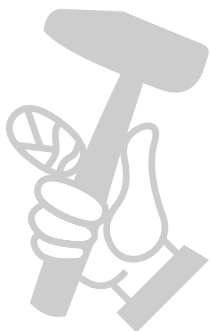
Make sure the locking handle on the saw carriage is correctly adjusted (see the adjust the saw carriage section) so that the saw unit sits securely on the carriage. Check that the locking pin can be fully inserted in the hole on the handle when in the locked position.

End stop on the rail

Make sure that end stops are mounted on the ends of the rails so that the saw does not come off the rails.

Power pack

Make sure to check the safety equipment on the supplied power unit. See the power unit manual.

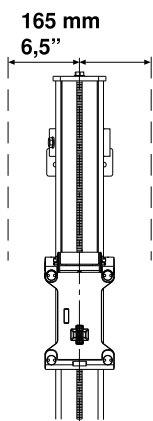


ASSEMBLING AND ADJUSTMENTS

Mount wall mountings and rail

Fit the wall mounting as set out below:

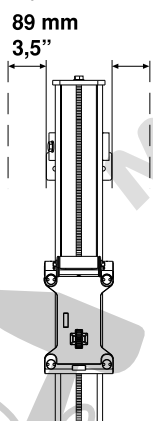
- 1 Mark off the cutting line and mark off the expander bolts holes 165 mm (6.5") from the cutting line.



- 2 Drill 15 mm (5/8") holes for the M12 (1/2") expander bolts.
- 3 Hang the wall mountings loosely from the expander bolts, using M6S 12 x 70 (1/2"x2") or similar.
- 4 Place the rail in the wall mountings and tighten the compression washers.

For vertical cuts, the rail must be mounted with the saw carriage lock handle upwards. This to facilitate fitting the saw unit.

- 5 Check that the rail is properly aligned with the tracks on the wall mounts before tightening the screws.
- 6 Adjust the distance between the cutting line and the wall mounting. The distance between the edge and the inner face of the saw cut should be 89 mm (3.5"). Tighten the expander bolts.



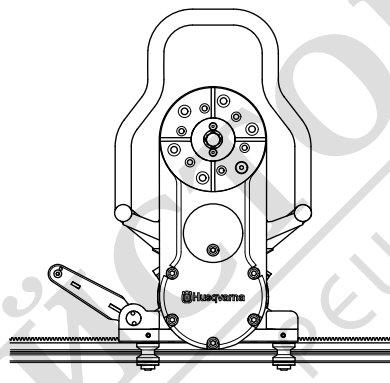
IMPORTANT! Only use the connectors supplied when purchasing the saw as older connectors are not designed for the WS 400 series.

Mount the saw carriage and saw

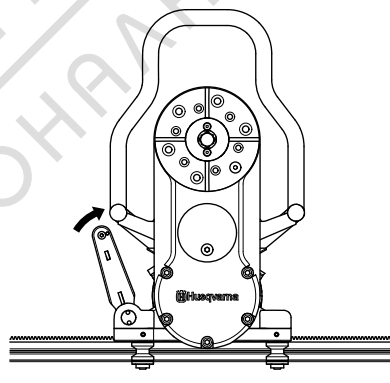


The saw carriage is mounted on the rail at delivery. The carriage can be dismounted from the rail by removing the end stop on the rail and pulling the carriage away.

- 1 Fit the saw body in the saw carriage by lifting the saw body into position. When the saw is lifted into position, the locking handle moves up into an intermediate position. In this position the saw remains in the saw carriage without it needing to be held. However, it is not sufficiently secured to begin cutting.



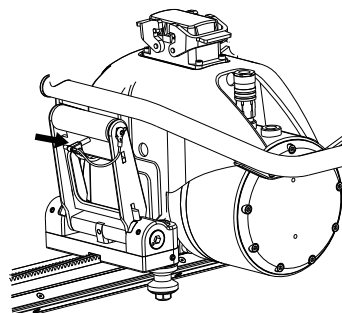
- 2 To secure the saw, lift the locking handle towards the saw until the handle locks.



WARNING! To cut without the saw securely assembled in the saw carriage and rail is associated with mortal danger.

Locking the handle

Lock the handle using the pin.



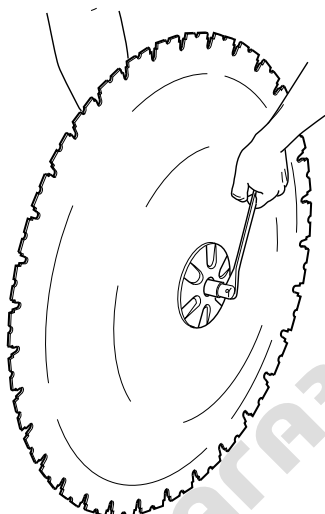
ASSEMBLING AND ADJUSTMENTS

Fit the blade

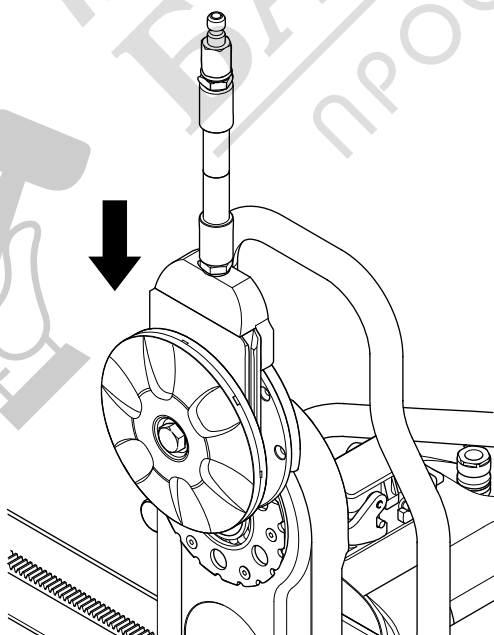


WARNING! Never mount or dismount the blade or blade guard without first pulling out the power cable running to the saw unit. Carelessness can result in serious personal injury or even death.

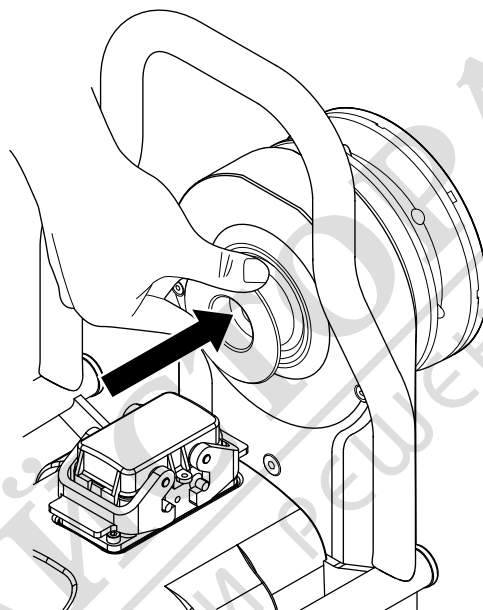
- 1 Start by removing any dirt from the contact surfaces on the blade flange and blade.
- 2 Check the blade's direction of rotation. The blade shall rotate with the exposed part of the diamond in the rotational direction of the blade. Since the blade rotation direction can be selected, the water spray from the blade can also be selected regardless of how the saw is turned on the rail.
- 3 Screw together the outer blade flange, blade and blade flange hub (tightening torque 70-80 Nm).



- 4 Hang the blade with the blade flange and blade flange hub fitted on the cutting arm (blade is not shown in the figure).



- 5 Turn the blade flange hub carefully so that it slides into one of the tracks in the pivot arm and lands in the correct position to be screwed fast.
- 6 Press in the blade shaft into the cutting arm at the same time as the blade is rotated carefully. When the blade spindle can no longer be pressed in by hand it should be tightened using the supplied 18-spanner until it is properly secured (tightening torque 70-80 Nm).

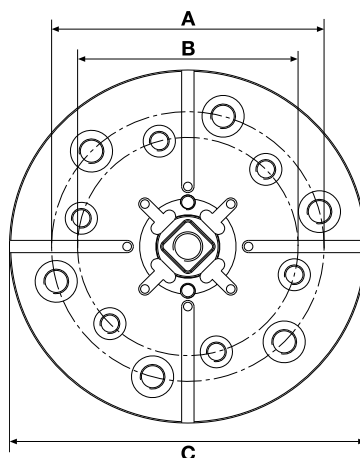


WARNING! Exercise care when assembling the blade so that it does not risk becoming loose when cutting. Carelessness can result in serious personal injury or even death.

Flush cutting



Screw off the outer blade flange and mount the blade on the blade flange hub.



A=110 mm/4.33 inch, 6xM10

B=89 mm/3.5 inch, 6xM8

C=144 mm/5.7 inch

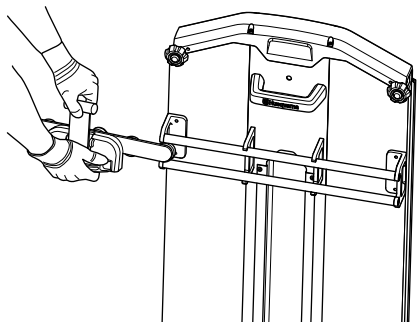
ASSEMBLING AND ADJUSTMENTS

Fit the blade guard

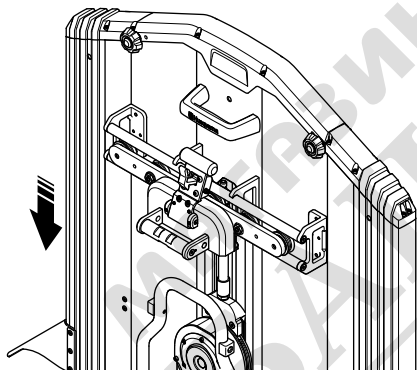


WARNING! Never mount or dismount the blade or blade guard without first pulling out the power cable running to the saw unit. Carelessness can result in serious personal injury or even death.

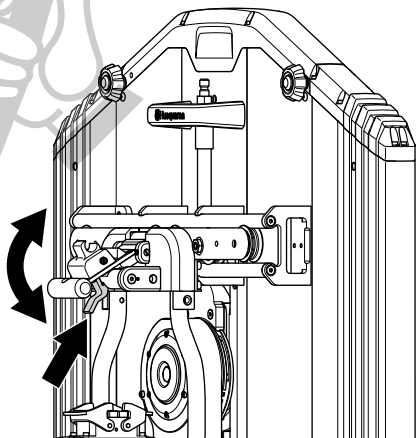
- 1 Slip in the blade guard guide between the stays on the blade guard. Place the blade guard guide in the middle. Lock the plastic heel on the handle to the upper stay on the blade guard.



- 2 Make sure that the cutting arm is positioned vertically. Lift the blade guard over the blade and hang the guard in the blade guard holder on the saw. Exercise care so that the runners on the blade guard are positioned in the slots on the water block.



- 3 Lock the blade guard by pulling the handle out of the guard and then down towards the saw unit so that the latch locks the handle.
- 4 To remove the guard, release the latch and pull the handle upwards and inwards to the guard. Lock the plastic heel on the upper stay.



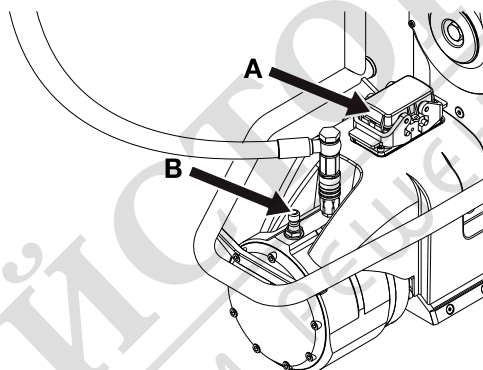
- 5 Connect the water hose from the out-coupling on the saw motor to the in-coupling on the blade flange hub.

Connect the power pack

IMPORTANT! This machine is only intended for use together with the Husqvarna PP 440 HF and PP 480 HF power units. All other use is forbidden.

Read through the manual supplied with the power pack before starting to use the machine.

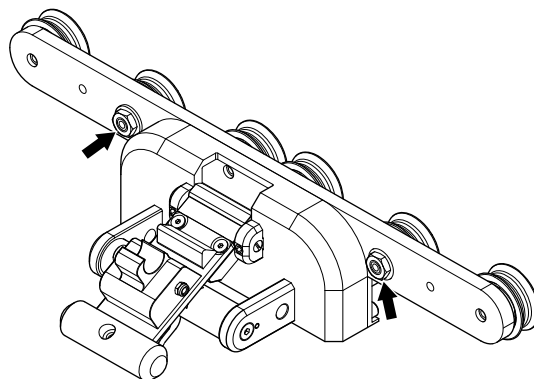
When the saw unit, the blade and the blade guard are mounted, the power cable (A) and the water cooling (B) should be connected to the power pack.



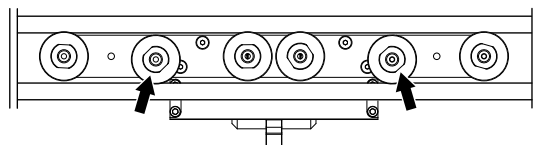
Once the power cable is connected to the saw, the carabiner on the cable must be attached to the saw unit to prevent pressure on the plug when in operation. The carabiner must be fastened to one of the bracket eyes on the handle which is screwed to the back of the drive motor.

Adjusting the blade guard guide

- Loosen the nuts on the two adjustable guide wheels.



- Fit the blade guard guide to the blade guard.
- Turn the eccentric cam shafts with a 22 mm spanner until the guide wheels touch the rail.

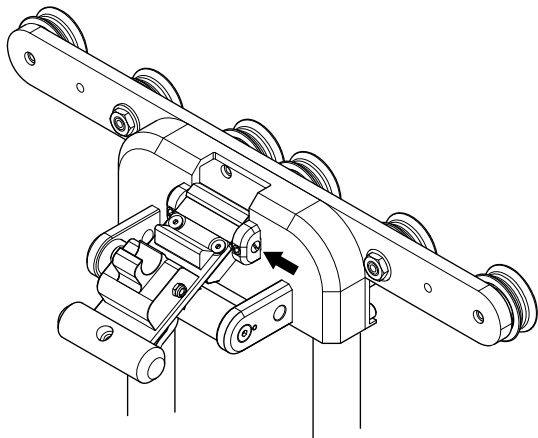


- Hold the shaft in position with a 22 mm spanner and tighten the nut with a 16 mm spanner.
- Make sure the wheels turn easily and that there is no play in the blade guard guide.

ASSEMBLING AND ADJUSTMENTS

Adjusting the locking handle on the blade guard guide

- Fit the blade guard guide to the saw unit.
- Loosen the two stop screws with a 3 mm allen key.
- Adjust the locking handle by turning the eccentric cam shaft with a screwdriver until the locking handle tightens around the blade guard bracket.



- Tighten the two stop screws with a 3 mm allen key.
- Remove the 4 screws that hold the snap-in lock in position with a 4 mm Allen key.
- Adjust the snap-in lock. The snap-in lock must tighten around the top rail.
- Tighten the 4 screws that hold the snap-in lock in place with a 4 mm Allen key.

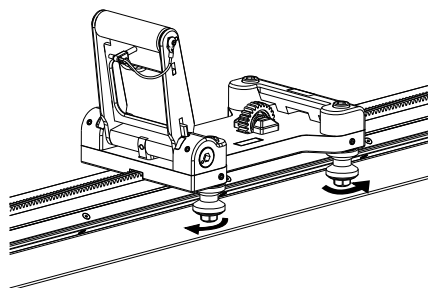
Adjusting the guide wheels

In order for the saw to run stably and saw a straight cut, the four guide wheels must rest against the rail and not have too much play.

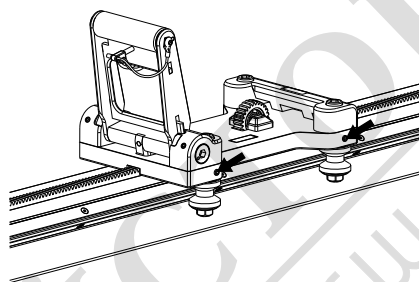
Check the guide wheels before each cut. When there is too much play between the saw carriage and rail the guide wheels must be adjusted:

Loosen the two hexagon socket M10 screws with an 8 mm allen key. Also loosen the two stop screws which locks the two exentric guide wheels with an 3 mm allen key.

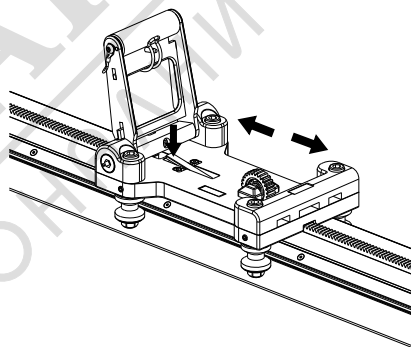
Turn the shafts gently with a 16mm wrench until the guide wheels rest against the rail.



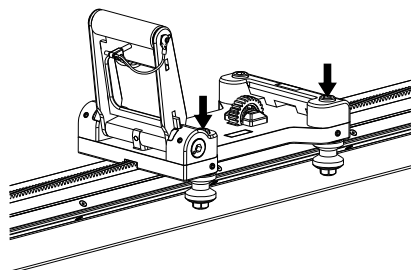
Hold the 16 mm wrench in position and tighten the two stop screws with a 3 mm allen key.



Press down the locking device and pull the saw carriage in both directions by hand. Carriage should slide easily with a slightly resistance. All 4 guide wheel should spin.



Tighten screws with a 8 mm allen key. Repeat the previous step.

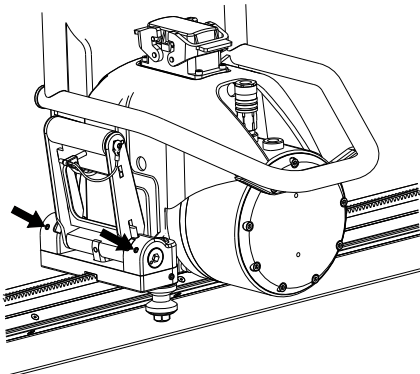


ASSEMBLING AND ADJUSTMENTS

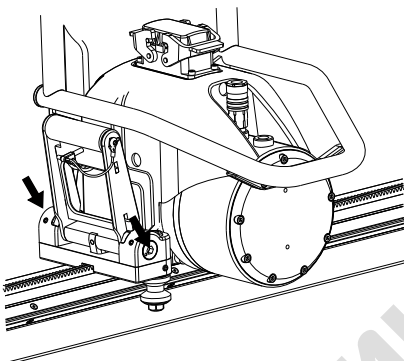
Adjust the saw carriage

As the saw wears, after a number of hours working, it can be a good idea to ensure that the saw sits firmly in the saw carriage and rail. If not, the handle probably needs adjusting:

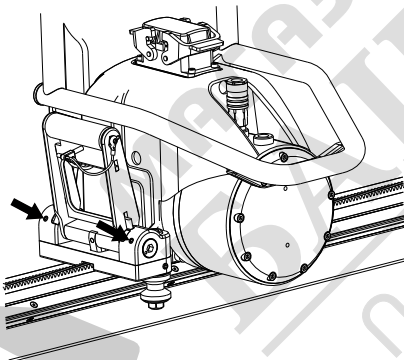
Loosen the two stop screws with a 3 mm allen key.



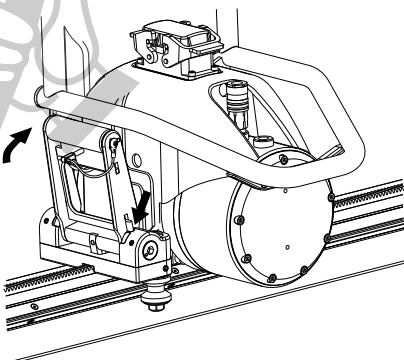
Turn the two excenter sleeves with a 8 mm allen key until the shaft is tight and parallel to the saw unit.



Tighten the two stop screws with a 3 mm allen key.



Make sure the locking handle is properly adjusted by open and close and see that the spring loaded lock is in locked position.



Then secure the locked handle with the locking pin.

OPERATING

Protective equipment

General

Do not use the machine unless you are able to call for help in the event of an accident.

Personal protective equipment

You must use approved personal protective equipment whenever you use the machine. Personal protective equipment cannot eliminate the risk of injury but it will reduce the degree of injury if an accident does happen. Ask your dealer for help in choosing the right equipment.



WARNING! The use of products such as cutters, grinders, drills, that sand or form material can generate dust and vapors which may contain hazardous chemicals. Check the nature of the material you intend to process and use an appropriate breathing mask.

Long-term exposure to noise can result in permanent hearing impairment. So always use approved hearing protection. Listen out for warning signals or shouts when you are wearing hearing protection. Always remove your hearing protection as soon as the engine stops.

There is always a risk of crush injuries when working with products containing moving parts. Wear protective gloves to avoid body injuries.

Always wear:

- Approved protective helmet
- Hearing protection
- Protective goggles or a visor
- Breathing mask
- Heavy-duty, firm grip gloves.
- Tight-fitting, heavy-duty and comfortable clothing that permits full freedom of movement.
- Boots with steel toe-caps and non-slip sole

Be careful as clothing, long hair, and jewellery can get caught in moving parts.

Other protective equipment



WARNING! Sparks may appear and start a fire when you work with the machine. Always keep fire fighting equipment handy.

- Fire fighting equipment
- Always have a first aid kit nearby.

General safety precautions



WARNING! Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

This section describes basic safety directions for using the machine. This information is never a substitute for professional skills and experience. If you get into a situation where you feel unsafe, stop and seek expert advice. Contact your dealer, service agent or an experienced user. Do not attempt any task that you feel unsure of!

- Please read the operator's manual carefully and make sure you understand the instructions before using the machine.
- This machine is only intended for use together with the Husqvarna PP 440 HF and PP 480 HF power units. All other use is forbidden.
- Read through the manual supplied with the power pack before starting to use the machine.
- The machine can cause serious personal injury. Read the safety instructions carefully. Learn how to use the machine.
- This machine is designed for and intended for sawing concrete, brick and different stone materials. All other use is improper.
- Keep in mind that the operator is responsible for accidents or hazards occurring to other people or their property.
- All operators shall be trained in the use of the machine. The owner is responsible for ensuring that the operators receive training.
- The machine must be kept clean. Signs and stickers must be fully legible.



WARNING! The machine can be a dangerous tool if used incorrectly or carelessly, which can cause serious or fatal injury to the operator or others.

Never allow children or other persons not trained in the use of the machine to use or service it. Never allow anyone else to use the machine without first ensuring that they have read and understood the contents of the operator's manual.

Never use the machine if you are tired, if you have drunk alcohol, or if you are taking medication that could affect your vision, your judgement or your co-ordination.

WARNING! Unauthorized modifications and/or accessories may lead to serious injury or death to the user or others.

Do not modify this product or use it if it appears to have been modified by others.

Never use a machine, battery or battery charger that is faulty. Carry out the checks, maintenance and service instructions described in this manual. Some maintenance and service measures must be carried out by trained and qualified specialists. See instructions under the heading Maintenance. Only use original spare parts.

OPERATING

Work safety

Do not use the machine without first reading and understanding the contents of this Operator's Manual.

Work area safety

- Always check the back of the wall where the blade comes out when cutting through. Secure, cordon off and make sure that no people can be injured or materials damaged.
- Always check and mark out where gas pipes are routed. Cutting close to gas pipes always entails danger. Make sure that sparks are not caused when cutting in view of the risk of explosion. Remain concentrated and focused on the task. Carelessness can result in serious personal injury or death.
- Make sure that no pipes or electrical cables are routed in the working area or in the material to be cut.
- Make sure that electrical cables within the working area are not live.
- Make sure that no people or animals come closer than 4 m (15 ft) when the machine is running.
- Do not use the machine in bad weather, such as dense fog, rain, strong wind, intense cold, etc. Working in bad weather is tiring and can lead to dangerous conditions, e.g. slippery surfaces.
- Ensure that the working area is sufficiently illuminated to create a safe working environment.
- Always ensure you have a safe and stable working position.

Electrical safety



WARNING! There is always a risk of shocks from electrically powered machines. Avoid unfavourable weather conditions and body contact with lightning conductors and metal objects. Always follow the instructions in the Operator's manual to avoid damage.

- Never carry the machine by holding the cable and never pull the plug by pulling the cable.
- Keep all cables away of water, oil and sharp edges. Make sure the cable is not pinched in doors, fences or the like. Otherwise it can cause the object to become live.
- Check that the cables are intact and in good condition. Use cable intended for outdoor use.
- Never use the machine if any cable is damaged, but hand it in to an authorized service workshop for repair.
- The machine should be connected to an earthed outlet socket.
- Check that the mains voltage corresponds with that stated on the rating plate on the machine.

Personal safety

- Never leave the machine unsupervised with the motor running.
- Never saw in such a way that you cannot easily reach the emergency stop on the remote control or on the power pack. See power pack manual.
- Make sure that there is always another person close at hand when you use the machines, so that you can call for help if an accident should occur.
- People that need to be in close proximity of the machine must wear hearing protection as the sound level when cutting exceeds 85 dB(A).
- Observe care when lifting. You are handling heavy parts, which imply the risk of pinch injuries or other injuries.
- People and animals can distract you causing you to lose control of the machine. For this reason, always remain concentrated and focused on the task.
- Be careful as clothing, long hair, and jewellery can get caught in moving parts.

Use and care

- Check that the blade guard is not damaged and that it has been fitted correctly.
- Never use blades other than original blades designed for the machine. Check with your Husqvarna dealer to see which blades are best suited for your usage.
- Never use a damaged or worn blade.
- Never mount or dismount the blade or blade guard without first pulling out the power cable running to the saw unit.
- Never pull out the power cable without first switching off the power pack and waiting for the engine to come to a complete halt.
- Never cut without using the blade guard.
- Check that the blade is not in contact with anything when the machine is started.
- Remain at a distance from the blade when the engine is running.
- Water cooling must always be used. This cools the blades and increases their life and prevents dust build-up.
- Check that all couplings, connections and cables are intact and free from dirt.
- Clearly mark out all cuts to be made before you start sawing, plan these so they can be carried out without danger to persons or the machine.
- Firmly secure or anchor concrete blocks before cutting. The heavy weight of cut material can cause both extensive damage to the machine and serious personal injury if it cannot be moved under controlled conditions.

Transport and storage

- Always switch off the power pack and pull out the electric cable before moving the equipment.
- Dismount the blade and blade guard before transport and storage.
- Store the equipment in a lockable area so that it is out of reach of children and unauthorized persons.
- If there is a risk of freezing, the machine must be drained of any remaining water coolant.
- Use the cases provided to store the equipment.

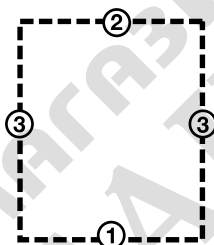
Basic working techniques



- Always start by cutting a pilot cut. This is done by feeding the blade 3-7 cm (1,2"-2,8"). Now make the pilot cut. The cut should not be made at maximum speed, but with care in order to obtain a straight cut and with that a basis for the next cut. The cutting arm allows blades up to 1 000 mm (40") to be used as the start blade. It is, however, recommended to start cutting with an 800 mm (31.5") blade.
- When the pilot cut is finished, a deeper cut can be made. The depth of these is determined from instance to instance and depends on factors such as hardness of the concrete, existence of reinforcing bar, etc. Max. diameter of the blade for deeper cuts is 1,200 mm (47").
- If you change blades to cut deeper in the same cut, make sure the thickness of the blade matches the width of the groove.
- Let the machine work without forcing or pressing the blade.
- Firmly secure or anchor concrete blocks before cutting. The heavy weight of cut material can cause both extensive damage to the machine and serious personal injury if it cannot be moved under controlled conditions.

Cutting of blocks

- First make the lower horizontal cut. Now make the upper horizontal cut. Finish with the two vertical cuts.



- If the upper horizontal cut is made before the lower horizontal cut, the work piece will fall on the blade and jam it.
- When making the last cut, the saw should be mounted on an adjacent fixed wall.
- As the rail is symmetrical, the saw unit can be turned to make a new cut on the other side of the rail. In this way a cut piece is obtained that is in an easily handled size, making it easier to remove from the workplace.
- Since the blade rotation direction can be selected, the water spray from the blade can also be selected regardless of how the saw is turned on the rail.

STARTING AND STOPPING

Before starting

- Enclose the area to be cut so that unauthorised persons can not be injured or disturb the operator.
- Check that the blade and the blade guard is not damaged or cracked. Replace the blade or the blade guard if it has been exposed to impact or is cracked.
- Check that all cables and the water supply are correctly connected to the machine before starting it.
- If cutting is to begin in another position than where the saw unit is located, run the saw unit to the start position.

Starting

Follow the instructions for starting in the manual supplied with the power pack.

Stopping

- Once cutting is completed, remove the blade from the wall and shut down the blade rotation and the water flow.
- Turn off the power pack.

Dismantling the saw

- 1 Allow the motor to stop completely.
- 2 Disengage the power supply for the power pack.
- 3 Turn off and disconnect inflowing water to the power pack.
- 4 Disengage the power cable and the water hose from the saw unit.
- 5 The other steps are done in the reverse order to assembling.

Cleaning

The saw should be cleaned once cutting is finished. It is important to clean all the saw equipment. The saw is best cleaned with the supplied cleaning brush by connecting it to the water hose.

IMPORTANT! Do not use a high pressure washer to clean the saw.



MAINTENANCE

Service

IMPORTANT! All types of repairs may only be carried out by authorised repairmen. This is so that the operators are not exposed to great risks.

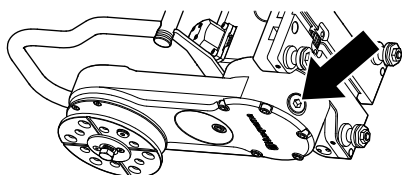
After 100 hours of operation, the message "Time for servicing" is displayed. The entire equipment shall then be taken to an authorized Husqvarna dealer for servicing.

Maintenance

IMPORTANT! Inspection and/or maintenance should be carried out with the motor switched off and the plug disconnected.

Oil change cutting arm

- There is an oil plug for draining the oil located on the cutting arm. This plug should be cleaned when changing the oil. The new oil is filled through the hole where the oil plug sits.

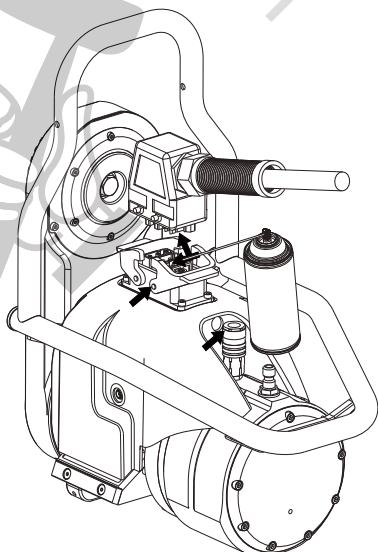


- The cutting arm contains 3 dl of Husqvarna Oil 220, a transmission oil of the type EP 220. The oil should be replaced for the first time in connection with the first service. A 3 dl bottle of oil is supplied when the machine is new.

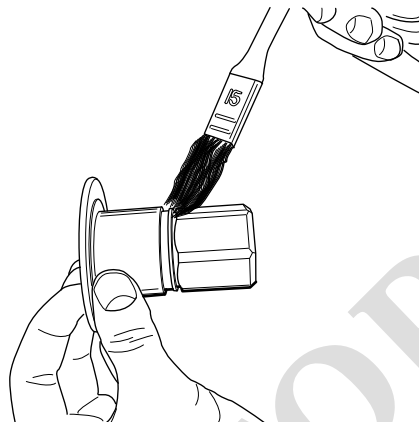
IMPORTANT! Used engine oil and transmission oil is hazardous to health and must not be disposed of in the ground or out of doors.

Daily maintenance

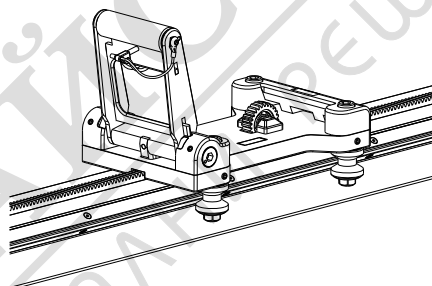
- 1 Check that all couplings, connections and cables are intact and free from dirt. Use a brush or a cloth and wipe clean, lubricate the contact's pins and locking catches with a lubricating and cleaning spray. Make sure the contacts fit tightly against each other when the catches are locked. Also lubricate the water couplings' sleeves.



- 2 In order to fit the blade shaft as easily as possible in the blade flange, it is sometimes necessary to clean and lubricate it. Check daily that the blade shaft turns freely and that the hexagon is not damaged.



- 3 Check that the saw carriage is correctly adjusted with respect to the guide wheels and that the locking handle is correctly adjusted. See the adjustment section for instructions.



- 4 Make sure the blade and blade guard are not damaged and cracked or damaged in any other way. Replace the blade guard and/or blade if they have been exposed to abnormal wear. Also check that the blade guard guide wheel turns without too much resistance, and that the guide is correctly aligned with the blade guard and the saw. See the assembly and settings when adjusting sections.
- 5 Check that the hoses and cables are intact.
- 6 Clean the outside of the machine. Do not use a high pressure washer to clean the saw.

TECHNICAL DATA

WS 440 HF

Weight

Saw carriage, kg/lbs	3,7/8,2
Saw unit, kg/lbs	25/55,1
Blade Guard 800 mm, kg/lbs	13/28,7
Blade Guard 1000 mm, kg/lbs	16/35,3
Track 1200 mm (47") kg/lbs	9,5/20,9
Track 2000 mm (79") kg/lbs	19/41,9

Blade size

Blade size - max, mm/inches	1200/47,2
Blade size - min, mm/inches	600/23,6
Starting blade - max, mm/inches	1000/39,4

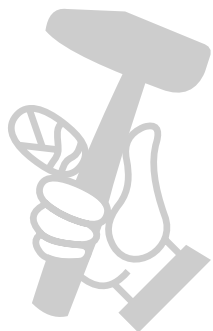
Saw depth - max, mm/inch	530/20,9
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Motor for saw blade drive	PM High cycle
Spindle output - max, kW	13
Power train	Gear drive
Output speed, rpm	0-1225
Feedingsystem/control	Electric/auto

Drive torque at saw blade - max, Nm	125
Starting torque, Nm	100

Cooling water temp. in at 3,5 l/min - max, C	25
Cooling water pressure - max, bar	7

Protection class	IP 65
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TECHNICAL DATA

Recommended blade speed



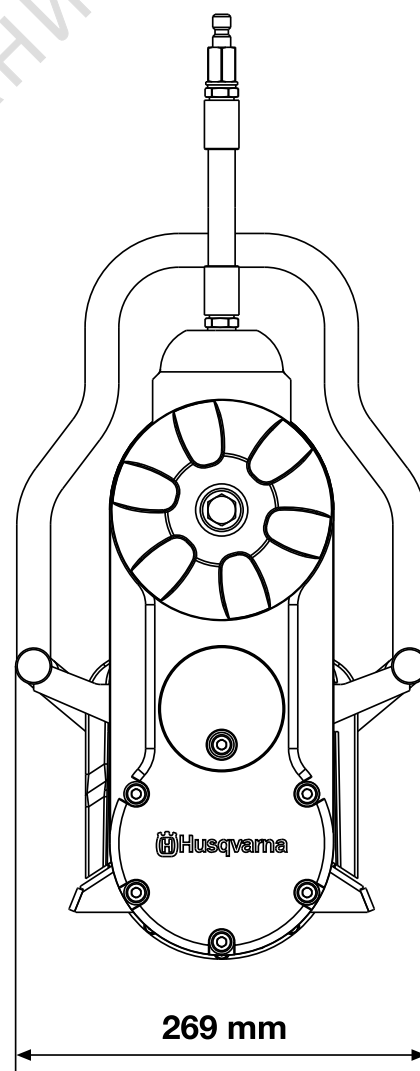
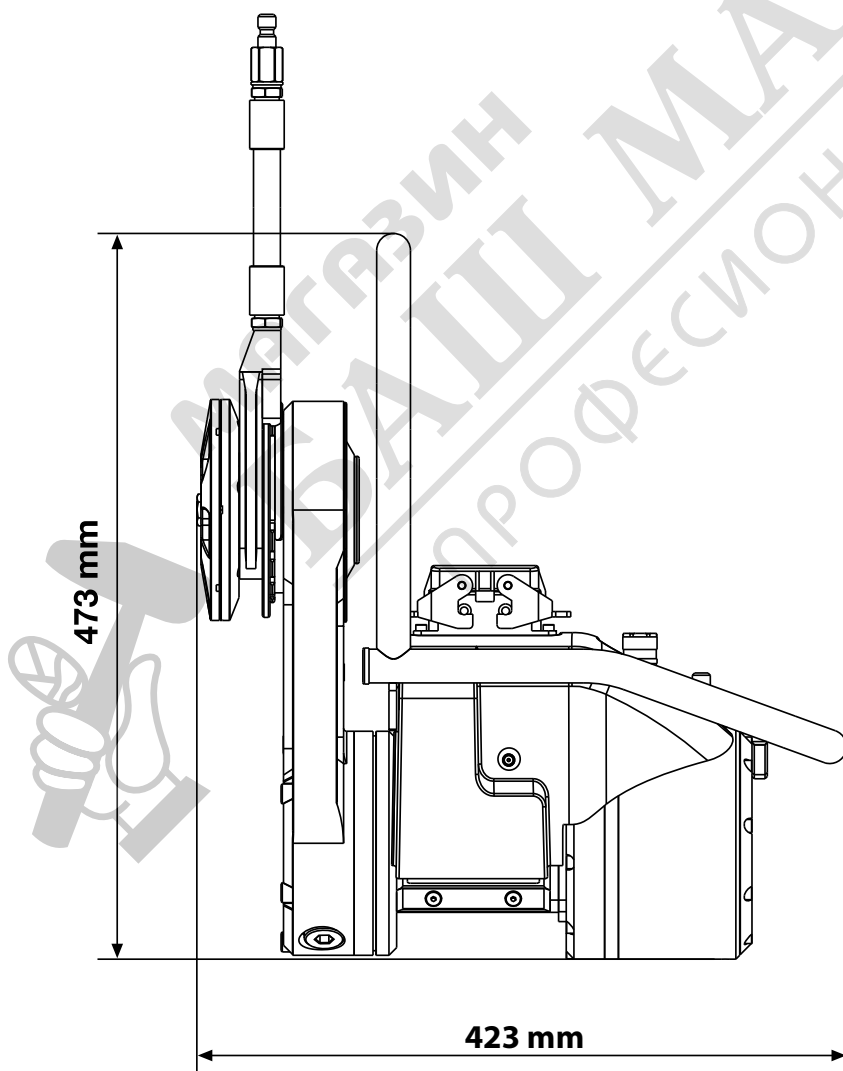
WARNING! Cutting at too high revs can cause damage to the blade and lead to personal injury.

Follow the blade manufacture's recommendations regarding material and blade speed when choosing blade. A lower blade speed should be used when cutting in hard concrete than if cutting in soft concrete.

	600 mm (24")	800 mm (32")	1000 mm (40")	1200 mm (48")
600 rpm				
700 rpm				
800 rpm				
900 rpm				
1000 rpm				
1100 rpm				
1200 rpm				

Concrete	
	Hard
	Medium
	Soft

Dimensions



US WARRANTY STATEMENT

WARRANTY POLICY

All warranty claims will be determined after inspection at a designated facility. A Returned Goods Authorization is required for all warranty claims. Contact Husqvarna Customer Service Department at 800-845-1312 for an RGA. The customer must prepay the freight and absorb any labor expense required to return or replace a product submitted for warranty consideration. Husqvarna will pay return shipping expenses for repaired or approved replacement products.

EQUIPMENT

Equipment manufactured by Husqvarna is warranted to be free from manufacturing defects in normal service for a period of two (2) years from date of purchase by the original consumer purchaser. **Component manufacturers offer separate warranty periods. Call Technical Services at 800-288-5040 for complete information.**

Our obligation under this warranty is expressly limited to the replacement or repair at Husqvarna Construction Products North America, Olathe, Kansas 66061, or at a service facility designated by us, of such part or parts as inspection shall disclose to have been defective.

This warranty does not apply to defects caused by damage, unreasonable use, faulty repairs made by others than an approved Husqvarna servicing dealer, or defects caused by failure to provide reasonable maintenance, while in the possession of the consumer. Further, the warranty is void if the product, or any of its components, are altered or modified by the consumer purchaser, or if the product is used in an inappropriate manner or with tools not recommended by the manufacturer.

Exceptions: Drill motors - 3 months, Wall saws - 1 year, Power cutters - 3 months, DM230 - 1 year, DM225 - 3 months, Gyro systems - 1 year, CD40 system - 1 year, DS160 C - 1 year, Smart box - 1 year, CS2515 - 1 year, PP455 E - 1 year, PP345 E - 1 year, HP40 - 1 year.

Wear items: Filters, spark plugs, bearings*, belts, wheels** and wear pads.

*Except IntelliSeal™ system. **Except delamination.

