

# OPERATORS MANUAL

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QFS-1200 ELECTRIC FLOOR SAW

# GENERAL

With the QFS-1200 a floor saw has been developed convincing by its compact size and low weight. The working feed is effected by an electronically adjustable working feed drive. Blade admission left and right side. Blade lowering by crank mechanism. The machine has been specially designed to cut floor joints or floor separating cuts on civil or building engineering. To execute the cuts you are using a corresponding diamond saw blade up to 1200mm diameter.



Danger

**When cutting check that neither your hands nor your feet reach the cutting area, note the you can seriously be injured when getting in contact with the rotating saw blade. If you are not 100% familiar with the use of the joint tailor Diaquip QFS-1200, we carefully recommend you unconditional, to read this instruction manual and let you be instructed be a technical staff. Use the machine correctly and only according to it purpose.**

# TECHNICAL DATA

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Product Description	3 Phase Electric Floorsaw
Voltage	3 Phase 32A
Input Power	15Kw
Max Blade Diameter Ø	1200mm
Max Cutting Depth	510mm
Revolutions - Motor	1445rpm
Revolutions - at Shaft	950rpm
Weight	410kg
Bore Size Ø	24.5mm with 12mm Pin Hole



**In order to facilitate the work with the machine, we have made this operating instruction. Please make it available to your staff to assure a correct use and careful treatment.**

# 1. PUTTING INTO SERVICE

## 1.1) Installation of the diamond saw blade

**IMPORTANT: Switch motor off, remove power connection!**

The protective hood 12 must be removed and the engine must be put with the pressure switch 05 in its highest position. Important: The fastening is with a left-hand thread on the right side. A normal right-hand thread is on the left. The two flange parts have to be checked in respect of cleanness, if necessary they have to be cleaned. When fixing the diamond blade the rotating direction shown by an arrow has to be observed. The fastening screw has to be tightened normally with the fork wrench. An excessive tightening is senseless and leads to increased wear. Now the cover hood 12 must be mounted and fixed again. The enclosed fork key SW22 matches for the corresponding screws.



Danger

**Check that the cover hood is firmly mounted and that it the saw not toots touch the cover hood.**

**At not right assembly of the diamond saw blade very danger!  
You start the engine first after all assembly work is completed completely and the protective hood still is placed correctly!**



# 1. PUTTING INTO SERVICE

## 1.2) Switching On / Off of the electrical main motor

The blade drive is effected by a 400 Volt three phase electric engine with 15kW power.

**To start the engine**, use the main switch installed on the engine. When starting the engine check that neither your hands nor your feet reach the cutting area, **note the you can seriously be injured when getting in contact with the rotating saw blade.**

To start turn the main switch 08 up to the position “star” and you stay in this position until the diamond saw has reached its full revolutions (approx. 10-15 seconds). Then turn the switch up to the position “triangle” . According to the direction of rotation of the diamond saw (rotating direction shown by an arrow on the cover hood), you have to turn the main switch in to the opposite direction.



**It's important, that the machine is started in this order since otherwise the net is overloaded.**

**If the engine is operated in the permanent operation into switch position “star”, the motor is missing performance and it will take damage. The engine works only in the position “triangle” in the permanent operation.**

When turning the engine off you turn the main switch slowly backwards in the 2 steps to the '0-position'. The Emergency-Button 07 on the top of the switch is always at your disposal. The Emergency-Button 07 is pressed by pushing.

It is pointed out, to particularly, that the rearrangement to another tension or current intensity only may be carried out by an expert.

The appropriate prescriptions of the VDE/SEV and the electricity works have to be observed at connection of the engine. The connection network has to be checked. To protect the engine and persons from damage, whether the being device is grounded net-sided unobjectionable has to be checked.

# 1. PUTTING INTO SERVICE

## 1.3) Waters supply

Before cutting it has to be checked, that the saw blade is provided with sufficiently cooling water. The cooling water is guided through the cutting shaft and the flange. There are two type of flanges. There is a flange with a sealing joint. This flange is always to be used on the side where the saw blade is not installed. The other flange 12 with water channels, has to be used always with the saw blade.



**Please note that too little cooling water or only single-sided water supply has an important influence of the life time and cutting characteristics of the diamond saw blade!**



## 2. CUTTING OPERATION

### 2.2) Working with the electrical working forward feed

As a rule, moving the machine to the cutting position shall be done by pushing the machine, without the electrical working feed. The working feed is thought only for cutting.

A DC-Motor, 24 volts and 100 watts, drives the machine over two rubbing wheels for the rear axle about a gear train. The forward working feed speed is adjustable electronically by a potential converter 01. The potential converter permits to adjust the working feed speeds step less between 0 and 12 m per minute.

The switching **On / Off** of the pushing forward working feed is carried out via the feed lever 02.

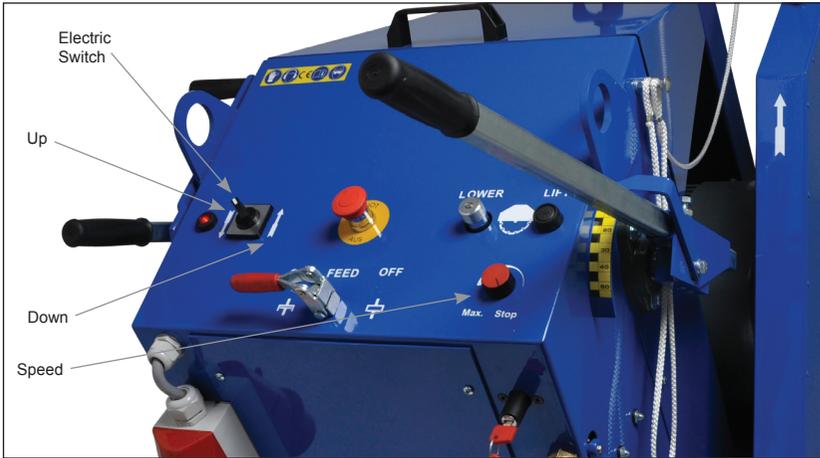
#### 2.2.1) Depth adjusting

Adjusting the desired cutting depth is carried out with the threaded spindle. To prevent a altering the easy common spindle stand-alonely becomes-show the pin 04 occurred at the hand crank. A adjustable depth display on the left side on the machine shows the respective cutting depth.

According to the saw blade diameter lower the saw by using the hand crank 05 so that the saw blade touching the ground. Now putting the cutting the indicator on the scale on zero.

## 2. CUTTING OPERATION

### 2.2.2) Motorized depth adjusting



The desired cutting depth is adjusted by a motorized threaded spindle unit. In order to rise or lower the saw blade you use the electric switch on the left side of the machine panel. Turning the switch from his zero position in **two steps** to the left side and hold

the switch in this position, the saw blade is going up; out of the cut. Turning the switch from zero position to the right, the saw blade is going down, in to the cut. The speed of the motorized depth adjusting unit can be regulated by the potentiometer 01.

If the cutting depth is achieved, turn the speed regulated by potentiometer 01 to stop and then turn the switch back to the zero position. Please note the potentiometer 01 is now active for the cutting speed of the machine. (see also point 2.3.)

A adjustable depth display on the left side on the machine shows the respective cutting depth. According to the saw blade diameter lower the saw blade by the motorized depth adjusting unit so that the saw blade touching the ground. Now putting the cutting the indicator on the scale on zero.



## 2. CUTTING OPERATION

### 2.3) Cutting operation

Aligning the machine according the cutting line. Lowering the direction indicators 11. Check that nobody is near by the saw blade. Start the main engine according instruction under point 1.2 of this manual. Putting on feed levers 02 and turning pushing forward knob 01 on 0 position and then opening water supply. Adjust cutting depth indicate to zero according point 2.2.1.

With the lowering valve 04 you adjust to the desired cutting depth. Now you turn the pushing forward knob (potentiometer) 01 an till the working feed speed has reached it maximum, so the main motor dos not lose revolutions and that saw blade stays down in the cutting depth. Make sure that the direction indicator 11 follows the predefined cutting line.

Its recommends to start with the first cut as a guide cut of only 5 to 6 cm depth. After this you can easily work with cutting slices of 10 to 12cm depth an till you reach the full cutting depth. Always drive at multiple slices in the same direction. Don't pull the machine back with an the saw blade still cutting since it is so possible that the diamond sheet of high stroke can get.

# 3. MAINTENANCE AND TRANSPORTATION

## 3.1) Maintenance

Switch the engine off according to section 1.2 and pull out the power cord

It is recommended to spraying and cleaning the machine with water after the deployment of labor.

Grease periodically the bearings of the cutting shaft, the blade lowering crank mechanism and all other bearings as well as the bearings of the wheels.



Danger

**Check the state of the electrical prolongation wire.**

**Never use a faulty cable!**

**Faulty cables are highly dangerous, you maybe get killed!**

## 3.2) Tensioning of the V-belts

The V-belts being used for driving the cutting shaft have to be strained tight (V-belt should allow to be pressed down approx. 1 cm). Too much tension means bearing load of the engine and cutting shaft and should be avoided.

### Changes of the drive-belts:

1. Switch the engine off and remove the power cord
2. Release the tow screws from V-Belt protection
3. Relax the drive-belts by the clamp bolt
4. Push the motor backward
5. Assemble the new drive-belts
6. Stretch the drive-belts with the clamp bolt,  
(V-belt should allow to be pressed down approx. 1 cm)
7. Assemble the V-belt protection cover with the 2 screws



# 3. MAINTENANCE AND TRANSPORTATION

## 3.3) Transport

The engine is transported without assembled diamonds sawing blade. Through this injuries and damages are avoided. Loaded the engine using to the central.



Danger

**At the transport, check always that the machine never is hangs free suspendedly over persons. Always fix the machine with belts on the transport surfaces.**



## APPROVED SERVICE CENTRE;

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