

Diamond Core Drill

SR 75 JUMBO

New water-cooled SR Motor
Waterproof protection class IP 55
Soft turn - low speed for easy assembling of the core bit



Low in maintenance, due to no carbon brushes and turning windings
3 gear speeds x 5 motor speeds = 15 regular speeds
Scale of drilling diameter on the display

Technical Data:

Type		SR 7508	SR 75 S / SR 7508 S
Rated Voltage	V	400 3~	400 3~
Rated Current	A	15	15
Nominal Power	W	7500	7500
Output Power	W	5700	5700
Speed	1/min		
Gear step 1		60*/70*/85/100/115	75*/90*/105/130/150
Gear step 2		115*/140*/165/200/230	150*/175*/210/250/290
Gear step 3		180*/215*/260/310/360	230*/280*/330/390/460
Length	mm	620	620
Weight	kg	19,5	19,5
Drilling Ø in concrete approx.	mm	150 - 900	120 - 800
Tool Fixture		M33/3	1 1/4" UNC / M33/3

* These gears are power-reduced

Diamond
Core Drills

WEKA

Diamond
Saws

My name is **JUMBO SR 75**. My motor is an advancement of the SR drive for core drills which was already introduced as a worldwide novelty by WEKA three years ago.

Adjusted to the 400 V three-phase mains I offer a Mammut power of 7,5 kW with a weight of only 19,5 kg. Especially for professional users this drive sets standards that can not be reached with conventional motors. Above all following features shows my superlative abilities:

SR Motor - my complete novel motor is based on the principle of the switched reluctance motor (SR = switched reluctance). My stator is very robust built simple. My rotor exists of a shaft on which there are strung several single steel laminations. Thus my motor works without any turning windings or short circuit rotor and therefore also without commutator and wear-affected carbon brushes. My motor is saving resources, it consists almost only of steel and copper.

The commutation (alternating currenting of the stator poles) is managed by my power electronic which gets its orders from a microcomputer as my super brain. The speed is over the whole capacity range almost constant, therefore the start drilling is made easier, the wear is reduced and the efficiency of the drill bit is increased.

Keypad and Display - Via my robust keypad with the +/- buttons very easily the desired drilling diameter and thus the suitable speed can be selected in six fine adjusted steps. These are shown in my display clearly readable. By pressing both buttons +/- at the same time, the **soft turn** feature is selected, by which I practically assemble the drill bit on my own. Speed and torque are reduced remarkably for safety reasons.



Motor protection - my motor current is controlled corresponding to the requirements and limited to the maximum. Therefore I cannot be overloaded.

Via thermal protective switches the actual appearing temperature of my motor and the power electronic is registered and depending on that I will be switched off safely.

Thus my motor and my power electronic are protected *directly* against thermal overload which may occur on insufficient cooling.

Error display - Via my display I show the operator error messages, e.g. when I get too hot, the voltage is too high or too low or if I am overloaded. Further more the service technician can analyse further information, like operation hours, software version, error memory on the display.

3-Speed Gearing Unit - like all members of WEKA I possess a very solid gear with wide drilling range (see technical data) on favorable adaption of speed and torque to the respective drilling diameter. Especially mentionable is here my very high torque of 628 Nm in the first gear.

Oil Bath Lubrication with Oil Pump - optimal gear lubrication on high efficiency, long lifetime and low maintenance expense. My very efficient oil pump that is already used in the DK 32 and DK 52 is responsible for an optimal lubrication in all positions of use.

Safety Clutch - due to my new motor I am fitted with a novel multi flange coupling which protects my operator, the tools and me against high mechanical overload. The higher number of friction surfaces guarantees a nearly constant releasing torque even after a few hundred overload cycles. Through the limiting of the torque by the motor management the wear out of the clutch is extremely low.

Water Cooling - my motor and my power electronic is optimally cooled by a water cooling system that is patented by WEKA and already used successfully in my colleagues, the DK 42 and DK 52 and my family member SR 35. At this the water flows controlled through the interspace between the motor case and the case sleeve. Through this arrangement my electrical part is completely separated from the cooling and thus the electrical safety is guaranteed.

Metal Case - my skin is completely made of aluminum. Thereby I am very robust, thermally stable and thus prepared for the professional use outstandingly.

Service - The operating hours counter which is integrated in my micro controller lets me work for 300 hours permanently. Then I show my operator that I want to be maintained by only starting, when my start button is pressed three times.

As **JUMBO SR 75** I am not only very strong and robust, but also water protected according IP 55 regarding EN 60 529, i.e. with proper use water cannot enter my inner life. Thus I am able to drill upwards in a vertical position (overhead drilling) without any further precautions.

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