

# Diamond Core Drill

## SR 65 JUMBO

*new water-cooled SR-motor  
 splash water proof according IP 55  
 Soft turn - screwing speed for easy assembling of the bit*



*very low in maintenance, due to no carbon brushes and no turning windings  
 6 motor speeds changeable while drilling  
 Scale of drilling diameter on the display*

### Technical data:

Type		SR 65 / SR 6508	SR65 S
Rated Voltage	V	400 3~	400 3~
Rated Current	A	15	15
Nominal Power	W	7500	7500
Output Power	W	5700	5700
Speeds	1/min	140/175/205 240/270/305	260/320/380 440/500/560
Nominal Torque	Nm	187-250	121-162
Length	mm	515	440
Weight	kg	18,3	14,7
Drilling Ø in concrete approx.	mm	120 - 500	80 - 350
Tool Fixture		1 1/4" or M33/3	1 1/4"

My name is **JUMBO SR 65**. My motor is a further development of the new SR-drive for diamond core drills that is already used by WEKA on the SR38 and SR75.

Like already the SR75 I bring a power of 7,5 kW at 400 Volt with only a weight of 18,3 kg.

Most of all following features show my outstanding skills:

**SR-Motor** - my motor is based on the principle of the switched reluctance motor (SR = switched reluctance). My stator is very robust and built simple. My rotor consists 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 current feed 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.

**Oil bath lubrication with oil pump** - my gear is thus lubricated optimally in all general purposes and thus offers a high efficiency on long lifetime and little maintenance.

**Safety Clutch** - due to my new motor I am fitted with a novel multi flange clutch 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 together with my power electronic is optimally cooled by a water cooling system that is patented by WEKA. It is already used successfully in my colleagues, the DK 42 and DK 52 and my family members SR 35 and SR 75. Hereby 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. My casing is protected at the sensitive side by a laterally running carrying handle.

**Service** - The operating hours counter which is integrated in my micro controller lets me work for 250 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 65** 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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