

Diamond Core Drill

SR 38 MAMMUT

water-cooled SR motor
splash water proof according IP 55
Soft turn - low speed for easy assembling of the core bit



Scale of drilling diameter on the display
low in maintenance, due to no carbon brushes and no turning windings
3 gear speeds x 6 motor steps = 18 speeds = extremely wide drilling range

Technical Data:	Rated Voltage	V	230~
	Rated Current	A	16
	Nominal Power	W	3700
	Output Power	W	2700
	Speeds	1/min	
	Gear step 1		180/220/260/320/380/445
	Gear step 2		360/430/520/630/755/880
	Gear step 3		560/670/810/980/1180/1370
	Drilling Ø in concrete approx.	mm	40 - 400
	Total length w/o handle	mm	500
	Weight	kg	16,5
	Tool fixture		1 1/4"

My name is **MAMMUT** SR 38. Through the combination of my powerful SR motor with my 3-speed gear box, I offer an extremely wide speed range together with a drilling range of 40 - 400 mm diameter. Thereby my weight however is only 16,5 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 the desired drilling diameter and thus the suitable speed can be simply selected by the +/- buttons in six steps. These are then shown legibly on my display in the three different gear speeds. By pressing both +/- buttons at the same time, the **soft turn** feature is selected by which I virtually assemble the drill bit on my own. Speed and torque are thereby 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. By the shift gear box in connection with the six motor steps, I have an extreme wide speed-torque-range and thus can drill deep holes in the range of 40 - 400 mm diameter.

Oil bath lubrication with oil pump - my gear is lubricated optimally in all general purposes and thus offers a high efficiency on long lifetime and low 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 **MAMMUT** SR 38 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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