
HWG/SMW HYDRAULIC MINING DRILLS



Device description:

Hydraulic mining drills of the HWG/SMW type are designed for manual drilling of holes in coal and rock up to a depth of 20m using typical spiral drill rods with a diameter of up to \varnothing 48 mm. The driving element of the drills is a hydraulic satellite motor of the SMW type adapted to be fed with oil water emulsion of the HFA type coming, for example, from emulsion hydraulic buses of mechanized casings. The tool is equipped with a slotted filter to eliminate larger dirt from the feed medium.

The drill consists of four basic elements: a hydraulic motor, a handlebar, a hydraulic connection with a control valve, and a chuck that holds a drill rod or drill bit.

The detailed design of the device is the result of direct long-term cooperation with end users.

The use of a handlebar with a double-sided handle with optimum spacing, a slider control system, a built-in filtration system and low noise levels (70 dB(A)) make the tools ergonomic, functional and safe to use.

MANUFACTURE AND SERVICE

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Drive unit description:

HWG/SMW mining drills are powered by SMW type hydraulic satellite motors developed and manufactured by SM Hydro. These motors are distinguished by their simple and compact design and high torque combined with high efficiency. The special advantages of SMW-type hydraulic satellite motors are due to the precision measured in microns and the quality of manufacture based on the state-of-the-art construction materials with high durability, including the use of sintered carbides.

The use of hydraulic satellite motors in mining is most often associated with the use of water-oil emulsion type HFA, but oil supply is also possible. SMW-type hydraulic satellite motors driving drilling machines vary in size and torque, making it possible to select a tool with the right power to achieve a specific purpose while ensuring the desired performance and drilling depth.

Hydraulic mining drills type HWG/SMW can operate in potentially explosive atmospheres.



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Technical characteristics of HWG/SMW type hydraulic mining drills:

#	Parameter	Unit	HWG/SMW 0,7/20	HWG/SMW 0,7/25	HWG/SMW 0,7/30
1.	Motor type		SMW 0,7/20	SMW 0,7/25	SMW 0,7/30
2.	Geometric displacement		26,3	32,9	39,5
3.	Nominal pressure*	MPa	22		
4.	Nominal torque	Nm	77,5	100	115
5.	Optimal drilling speed	rev/min	do 1000	do 900	do 800
6.	Noise level	dB/(A)	<70		
7.	Filtration	μm	100		
8.	Bore diameter	ø mm	do 48		
9.	Weight	kg	5,8	6	6,4
10.	Feed liquid	low-percentage water-oil emulsion HFA, hydraulic oil			

* When fed with low-percentage HFA emulsion, continuous operation at pressures higher than nominal will result in accelerated wear of the toothed working mechanism of the motor. Pressures higher than nominal in continuous operation are recommended only when fed with hydraulic oils.

All SM-type and SMW-type motors are suitable for operation on HFA water-oil emulsion. They can also be operated with hydraulic and also vegetable oils.

Detailed information on motors range can be found at www.smhydro.com.pl

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