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ELECTROHYDRAULIC CRUSHING DEVICES

Electrohydraulic crushing is a new way of grinding various materials, which allows obtaining a predetermined degree of grinding at a certain particlesizedistributionoftheproductandhashighcrushingselectivity.

Electrohydraulic crushing devices, unlike mechanical crushers, have no moving parts, and they are made of ordinary contractual steel, and their frame is not spoiled during the operation.

As a working fluid in electrohydraulic crushers, any liquid could serve (mainly industrial water). The maintenance of electrohydraulic crushers does not require a large number of highly skilled workers.

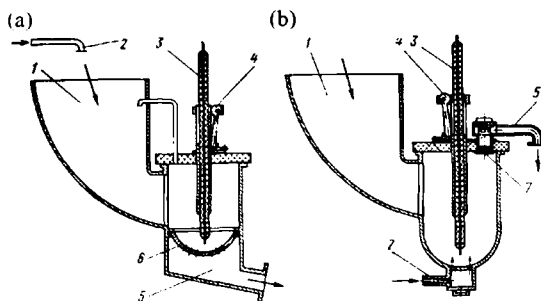


Figure 1 –Electrohydraulic crushers for crushing solid materials into large (a) and small fractions (b), 1 – loading hopper, 2 – water supply, 3 –positive electrode, 4 – clamp to adjust the length of the working spark gap, 5 –finished output product, 6 – crusher bottom (negative electrode), 7 – filter.

The purpose of the study of these devices is to automate the technological process of electrohydraulic crushing.

When operating, these electrohydraulic crushers do not generate dust, occupy relatively small production areas and allow a combination of the processes of crushing, mixing and flotation of materials.

The practical value of the study is that in electrohydraulic crushers can be crushed and reduced to fragments virtually any material: rocks, coal, brittle metals, mica, paper, cement, grain, peat, roughage. Also, electrohydraulic crushers can destroy microorganisms, extract diamonds from kimberlites and cultivate the soil.