

Complex for rock processing ROCK-CRUSHING PLANT DSZ

Authors: prof. Bondarenko A.O, the Department of Mining Machines and Engineering, Sozin G.E."Ukrainian Mining Company"

APPOINTMENT

Processing of rock with compressive resistance 600...2500 kgf/cm² for getting crushed stone and sand production capacity to 1.5 million t/year, warehousing and shipment of commercial products to consumers.

THE ESSENCE OF TECHNOLOGY

Processing of the rock mass is divided into two stages:

- refining by face complex equipment within self-moving rock-crushing units(SDA);
- processing on a semi-portable rock-crushing plant DSZ.

Raw material by face complex involves usage of consistently installed SDA-1 with crushing on jaw crusher and SDA-2 with the crushing cone crusher and transportation by stationary conveyor at semi-portable rock-crushing complex DSZ.

Processing of rock mass by semi-portable rock-crushing plant is performed in two stages (Fig.).At that initial rock mass divided into classes: 0-2 mm, 2-5 mm, 5-10 mm, 10-20 mm, 20-40 mm, 40-70 mm.

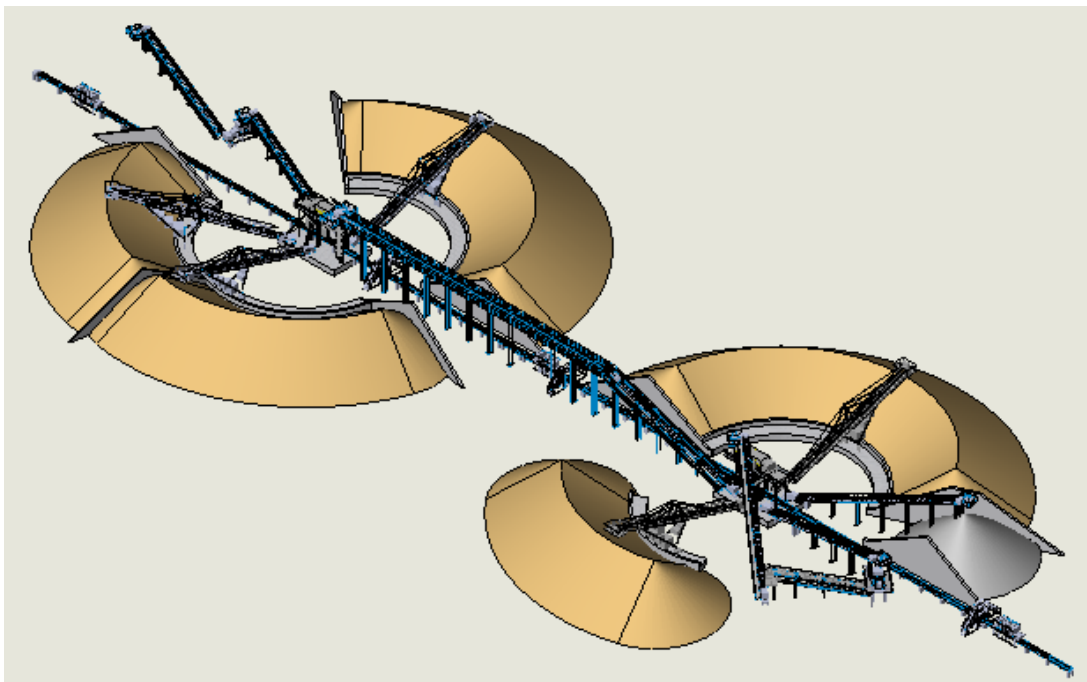


Fig. Model of rock-crusing complex.

Designing of rock-crushing complex and development of technical documentation executed with application of SolidWorks software.

ADVANTAGES AND DISADVANTAGES

Usage of innovative technologies of rock processing provides high efficiency of the finished product, high automation of processes, different variance during shipping products to consumers, minimal distance of transportation. Besides warehousing in stacking ring and the cone warehouses, in addition, by means of belt conveyors products can directed on the further fragmentation of mainline or on the conveyor rail-loading complex.

CONTACT INFORMATION

SHEI «National Mining University»

Dnipro, Ukraine.

Doctor of Technical Sciences, prof. Bondarenko A.O.

+38-050-362-84-38

E-mail: bondarenkoa@nmu.org.ua; <http://htmp.com.ua>