

New VSI rotor centrifugal crushers with extra high throughput

At the bauma 2016 in Munich BHS-Sonothofen will be presenting the new VSI rotor centrifugal crusher (RSMX) with “TwinDrive” for the first time – i.e. a double drive – for a throughput rate of up to 580 t/h. The first delivered machine has immediately proved to be a success in the treatment of gold-containing ores. The VSI rotor centrifugal crushers of type RSMX are successfully used throughout the world for crushing rock, including the treatment of abrasive ore. However, many potential users, e.g. in mining and ore treatment, require even more powerful machines for their production processes.

With the RSMX 1222 with “TwinDrive”, i.e. with a double drive, BHS-Sonothofen has now introduced a high-end version of the VSI rotor centrifugal crusher with a drive power of up to 2 x 315 kW. The machine processes up to 580 t of rock per hour depending on the properties of the feeding material and the desired final product.



Source: BHS-Sonothofen GmbH

The first VSI rotor centrifugal crusher RSMX 1222 “TwinDrive” shortly before shipment to the customer



Source: BHS-Sonothofen GmbH

The RSMX 1222 “TwinDrive” in a goldmine in China



Source: BHS-Sonothofen GmbH

The result: More than half of the output material is sand with a grain size between 0 and 5 mm

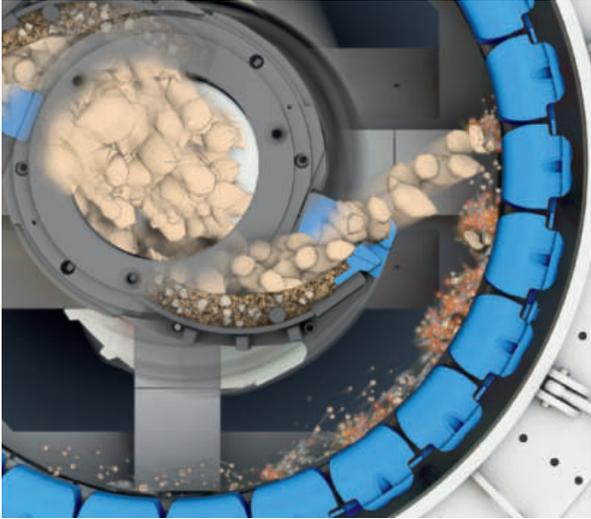
The first machine of type RSMX 1222 with a drive power of 2 x 250 kW was recently delivered and has passed the high requirements in the treatment of rock in a goldmine near Benxi City in the Chinese province of Liaoning. It processes granite with a feeding size up to 70 mm into sand with grain sizes between 0 and 5 mm and gravel with a grade between 5 and 20 mm. The proportion of sand is approximately 50 to 60 %.

The design engineers were required to apply almost twice as much drive power to the shaft of the rotor than before. The solution was to use two drives offset by 180° instead of one. This arrangement has several advantages, because the motors introduce considerably fewer lateral forces into the shaft of the rotor than a large one. The distribution of forces in the shaft is therefore balanced, the bearings are under less stress and the service life of the machine is increased. Owing to the large opening in the machine cover and the tried-and-tested twin-chamber rotor, the VSI rotor centrifugal crusher can process coarser feeding material than other crushers of this type. The



Source: BHS-Sonothofen GmbH

The RSMX 1222 “TwinDrive” with 2 x 250 kW drives in a goldmine in China



The feed material is effectively and selectively reduced in size in the impact on the external impact plates through impact and shearing forces

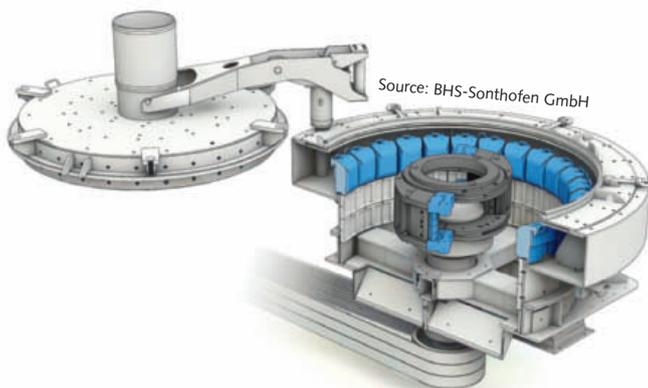
diameter of the feeding material can range up to 120 mm, depending on the type of rock.

The machine is unchanged apart from the new drives. It can be used for exactly the same tasks as the proven VSI rotor centrifugal crushers (RSMX) with only one drive. They process between 30 and 400 t/h depending on the drive power with drive powers of 75 to 400 kW. Both machine types are therefore also suitable, for example, for the selective crushing of softer and harder material.

The throughput of the machine and reduction ratio is depending on the characteristics of the feeding material. BHS offers the option of carrying out tests with the user's rock at the company's Technology Center in Sonthofen. In this way, the customer can be assured that their machine will achieve the desired results, before making an investment decision. The customer also obtains important information about the downstream processes, such as basic data for calculation of the screen surfaces.

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The lid of the VSI rotor centrifugal crusher – seen here in the version with impact plates – is hydraulically lifted and turned