

Billet manufacturing:

briquetting press closes the cycle for aluminium shavings in a foundry

Keywords: Branch Aluminium industry - billet manufacturing for extruded profiles, aluminium chips, foundry, direct reuse of Al briquettes, 40,000 operating hours, 10,000 briquettes

An RBM 220 has been running for 25 years and still has an hourly rate of on average 250 kg of Aluminium processing. These are created by sawing Aluminium billets, which are produced in a foundry of the Norsk Hydro company. The Aluminium briquettes are instantly melted again in the foundry.

Since 1925 the metal Aluminium has been processed in Rackwitz near the city Leipzig in Germany. In 1998 Norsk Hydro took over the site. Hydro is an internationally leading Aluminium processing company and has 7 sites in Germany alone, of which Rackwitz with around 50 employees is the smallest. Still Rackwitz is equipped with the state of the art melting and casting technology and produces 90,000 to billets per year. These billets are sold by Hydro and their clients use them to produce extruded profiles. These are mainly supplied to the automotive and window profile industries. The billet production in Rackwitz involves a melting unit (hearth furnace), the casting and the length equipment (saws), as well as the chip treatment with an RUF press.

In 1991 the briquetting machine RBM 220 was installed, which is still in use today and is running faultlessly. The press processes the chips, which are created by sawing the billets, and makes them into briquettes. The name RBM is an abbreviation for „RUF briquetting machine metal“. Today it is just like the RUF 200, which can reach a cycle time of 3.5 briquettes per minute, with the format 150x60 and a pressure of 1700 kg/cm². The machine has reached an impressive 40,000 operating hours (last service on 26.08.2015 at 38,272 hours). This results in a total tonnage of 10,000 aluminium briquettes at an hourly throughput of 250 kg of al chips. During a visit at customers site in April 2016 he expressed again his satisfaction about the briquetting installation.



Remelting of briquettes

Hydro uses two gas heated hearth furnaces, each 55 to. The briquettes (density 2,0 - 2,1 kg/l) are getting charged in the empty furnace together with other scrap. The briquettes are only around one percent in the charging. Then the material is melted. Remelting is no problem at all, as well the small oil content due to the use of the spray device is no issue.