

THE OPTICAL FLUTING TEST: GUARANTEEING AN ACCURATE MEASUREMENT

by Balaguer Rolls, Spain



Wheat is the third most produced cereal worldwide, after corn and rice. According to FAO and USDA data, global wheat production will reach 739.9 million tonnes in 2017 and world wheat inventories are very likely to increase the most in the next months, reaching an all-time highest level of 256 million tonnes. The European Union, China, India and Russia continue to stand out among the main wheat production areas and countries.

Moreover, global flour exports have gradually increased since 2012-2013, when more than 12 million tonnes were reached, and, since then, exports have been increasing until reaching the forecasted 17 million of tonnes for 2017-2018 according to CIG.

At the flour production process, wheat grain goes through different process stages like cracking and extraction.

In order to properly crack the wheat grains as well as to get an optimal flourmill, rolls, having a uniform and constant hardness are needed, but it is mainly necessary to check that the roll flute is perfect. This is highly important, since the sift is not overloaded if we have a suitable flute and goods will arrive to the compression stages in optimal conditions for an efficient obtaining of flour. In this way, we will save energy and we will optimise the cracking and extraction process.

Nowadays, there are a lot of flute measuring tools available in the sector. Nevertheless, there is just one of them that can guarantee an accurate measurement of the flute, as it cannot be manually altered: The Optical Fluting Test.

The OFT is the last achievement of Balaguer Rolls R&D

Department and it has been developed by making use of the brand over 100 years' experience in order to meet the needs of a more and more demanding market. The Optical Fluting Test is a three-dimensional compact and portable system capable of quickly getting measurements without needing to contact the roll surface. Moreover, it allows for making an analysis of the fluting parameters with a four μm accuracy. The information is shown enlarged in a 10.8-inch touchscreen and it is exported to the computer by Wifi or USB.

By using this revolutionary technology of measuring the flute during the fluted rolls' production, Balaguer Rolls is able to manufacture rolls, which fulfill the most demanding requirements, so the value of the mills having Balaguer's rolls increases.

The most advanced systems of material melting, ultrasonic tests and wear resistance tests are used in the manufacture of

Balaguer's rolls. Moreover, at the company's laboratories, raw materials undergo tests as part of the quality control process in order to guarantee the excellence of the finished products. The raw materials come from blast furnaces and metal alloy components such as chromium, nickel, molybdenum, vanadium and titanium are used.

The company offers different qualities for either break rolls or reduction rolls, always according to the client's requirements.

As part of Balaguer Rolls effort at offering a more and more reliable and long-lasting product, the company cooperates with the most renowned metallurgical institutes and universities in order to develop together research projects focused on optimising the production process of the company and its clients.

The use of cutting-edge technology, the exhaustive quality controls and our staff with more than 200 people enable the obtainment of the highest quality standards as well as give our clients the peace of mind and the quality offered by Balaguer hallmark. 

