

the TriQ
sorts it all out





State of the art technology to quality sort grain

BoMill AB was founded in 2001 by the Swedish biochemist Bo Löfqvist. With more than 30 years experience within cereal technology, Bo Löfqvist retired from the industrial sector to dedicate time to develop his own ideas on grain quality sorting.

BoMill today is a company with profound know-how within quality sorting of wheat, durum wheat and barley. The BoMill head office is in the University town of Lund, Sweden, only 30 minutes from Copenhagen airport. The company sells quality sorting technology and know-how throughout Europe, North America and Australia, using its own sales organization or agents/distributors.

”It’s hard to believe, but the differences between the kernels on one plant, are often bigger than the quality variation within an entire wheat field”

BO LÖFQVIST
PH. D. AND INVENTOR



By using the TriQ quality sorting technology your company can:

- Improve food security and add value by removal of fusarium-infested, and thereby toxic kernels, from a grain lot
- Improve durum wheat quality and add value by sorting according to vitreousness
- Improve food quality and add value by upgrading malting barley according to protein content
- Improve food quality and add value by sorting wheat according to protein content



Identifies every single kernel

With the TriQ, you can exploit the full potential of your grain based on its chemical composition in a way no one thought was possible only a couple of years ago.

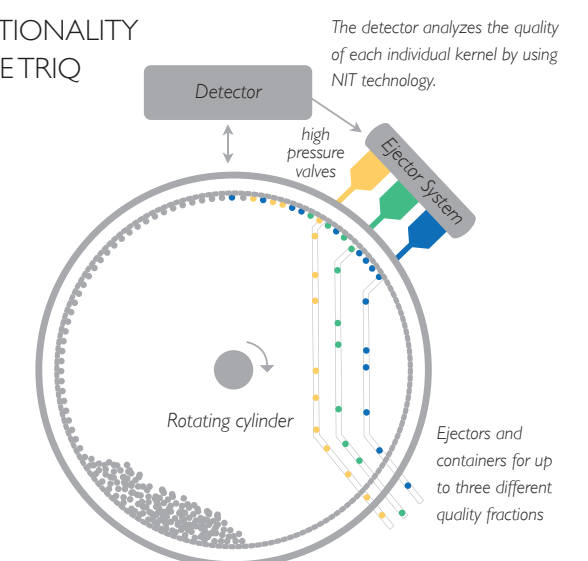
BoMill's patented grain quality sorting technology, makes it possible to analyze and identify each kernel in a batch of grain and sort them into quality certified fractions. The speed is fully compatible with the needs of industrial grain handling – delivering a sorting capacity from 3 to, at least, 30 metric tons of grain per hour.

THE TRIQ QUALITY SORTING TECHNOLOGY – GAINS HIGHER GRAIN POWER

Through laboratory tests we know that the grain quality in terms of e.g. gluten content and protein levels, varies substantially from one kernel to another. However, up until now, there has been no better way to determine the quality of a batch of grain than to analyze spot checks, randomly picking small portions of grain from every truck load as it arrives at the receiving site. This method can only measure the mean value of the entire load. By using our TriQ technology integrated into your process line, every single kernel of an entire lot is analyzed and sorted according to quality.

In conclusion, the TriQ quality sorting technology makes it possible to segregate high quality fractions out of batches that have an inferior average quality. World wide patent applications (PCTs) have been granted for the method of positioning, analysis and sorting.

FUNCTIONALITY OF THE TRIQ



Sorts it all out

The present line of products includes applications for durum wheat, soft wheat and barley. Based on standard components, the construction of the TriQ quality sorters is very robust and made to stand and operate in an industrial environment.



SORTING OF DURUM WHEAT

When making high quality pasta, only durum wheat of high vitreousness is used. Batches of lower vitreousness are downgraded and sold at a lower price. Our quality sorting technology changes all this. Processing lowgraded durum wheat through the TriQ quality sorter makes it possible to separate high-vitreousness kernels from low.



SORTING OF SOFT WHEAT

Protein content is one of the most significant parameters that determines the end use of the wheat. The TriQ grain quality sorter gives you a unique opportunity to sort out fractions optimized for production of vodka, biscuits or even high quality bread.



SORTING OF MALTING BARLEY

Not seldom, 50-70 percent of grain in a lot of downgraded malting barley, are topgraded kernels. By installing our TriQ grain quality sorters, you can, for example, process downgraded malting barley and separate the barley into two fractions: One *downgraded* and one *topgraded*.

When processing durum wheat you can:

- Remove fusarium affected kernels
- Sort according to vitreousness
- Upgrade low quality durum wheat, sorting according to protein content

When processing soft wheat you can:

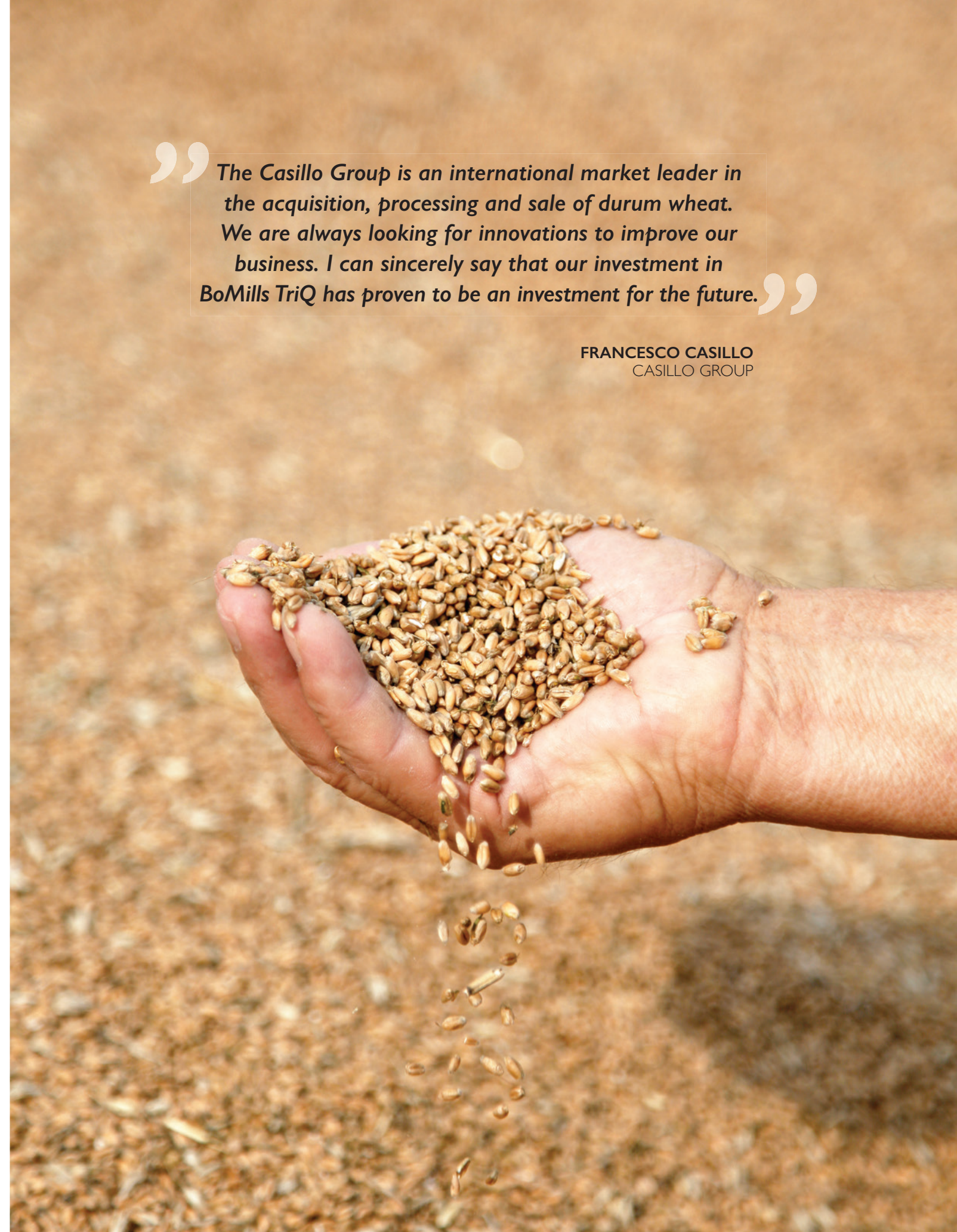
- Remove fusarium affected kernels
- Sort according to protein into fractions of high and low protein kernels

When processing malting barley you can:

- Remove fusarium affected kernels
- Sort according to protein into fractions of high and low protein kernels
- Generate more homogeneous malting barley for optimum malting characteristics

“The Casillo Group is an international market leader in the acquisition, processing and sale of durum wheat. We are always looking for innovations to improve our business. I can sincerely say that our investment in BoMills TriQ has proven to be an investment for the future.”

FRANCESCO CASILLO
CASILLO GROUP



The second biggest commodity market in the world

Consistent quality is a fundamental issue in today's food production industry. At BoMill, we have developed state of the art quality sorting of grain at extremely high speeds.

The grain market is today the second biggest commodity market, second only to oil. However, a big part of the grain is not traded as a commodity, but traded with end use specific attributes. Large premiums on the price are paid for specific qualities such as malting barley versus feed barley (downgraded malting barley), durum wheat with high versus low vitreousness and high protein wheat used for bread versus general biscuit wheat.

Discount prices are paid for downgraded grain which can only be used for feed, and even more discounts are given for grain that will be used for energy production. The premiums differ

from year to year depending on weather conditions and general crop quality and it is not unusual that a premium quality can have a 20-50 percent higher price than the general price.

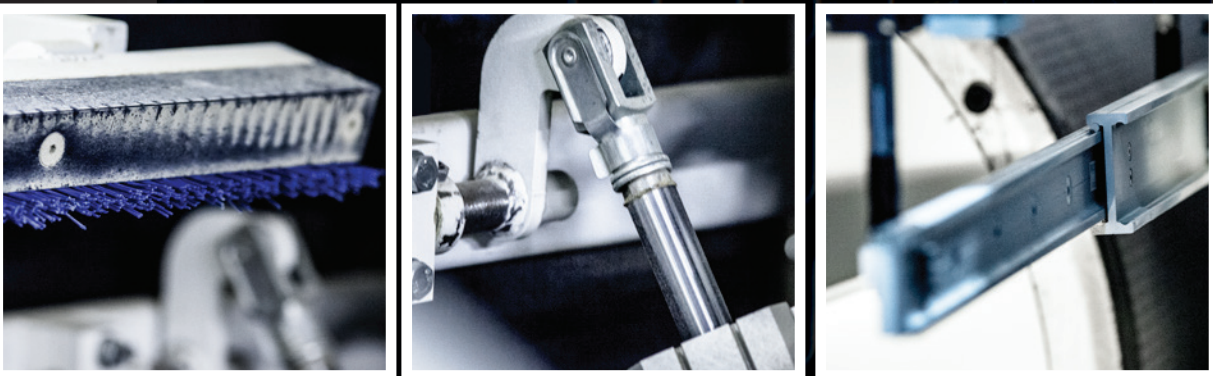
The TriQ technology can be used to analyze, sort and reclassify durum wheat, soft wheat and barley, with a speed of 24 000 kernels per second, hence increasing the value of large quantities of grain. This makes the TriQ very profitable for businesses within grain handling and milling.

The TriQ sorts it all out!

” Global population is rising. Climate changes and extreme weather conditions are on the increase. Speculation and rising energy costs contribute to dramatic price increases for cereals. Sweeping consequences are already evident, in particular for people living in developing countries.

It is, thus, more important than ever to reduce or avoid crop losses. Grain grading could be one solution. Numerous possibilities are available for cleaning batches by means of grading in order to raise their average quality and optimize processability.”

BRAUWELT INTERNATIONAL



We will guide you the whole way through

The TriQ sorters are built with high-quality standard components with well-documented history. Its modular design concept ensures high reliability and easy installation. BoMill is a know-how company that develops, manufactures and sells its revolutionary grain sorting technology.

We have a wide and well-organized network within production, installation planning and industrial automation. This means we offer you all the assistance you need, from pre-study to installation and startup of a fully operational sorting facility.

We'll take care of the training of the local staff. The graphical user interface makes it possible to control the sorting using any device with a browser, e. g. a PC, tablet or smartphone. Due to its user-friendly design, the training sessions are intuitive and time efficient.

IN THE LONG RUN

Your profit is directly related to how much you can produce in a given period of time, which in turn depends on the performance and reliability of your machines. Even though the TriQ-sorter is

designed to run 24/7 in industrial environments, it is essential to maintain each machine on a regular basis in order to ensure the highest performance possible and maximum up-time. Once a part breaks, it can mean big losses in production and cause unnecessary wear and breakage of other parts.

By signing a *BoMill Service Contract*, unexpected costs will be prevented through smart, purposeful and timely maintenance. The Service Contract is available at three different levels to keep your TriQ sorters running.

We provide a range of documentation to ensure you are fully informed of the current status of each machine, including detailed service reports. *Let us worry about keeping your TriQ sorter(s) running at its best!*



The TriQ fits in your production flow and sorts it all out!



The graphical user interface makes it possible to control the sorting using any device with a browser, e. g. a PC, tablet or smartphone. Due to its user friendly design, it makes the training sessions intuitive and time efficient.



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