

# BRINGING A NEW DIMENSION TO FEED ENGINEERING

by Roger Gilbert, Publisher, Milling and Grain

**N**ote to self: Stop working for myself but work for the market. Stop turning inwards and confront the market. Face the competition. Start from this point each day.

That's the philosophy of Nicola Reffo who goes on to say that successful companies in the Western world will have a positive and disproportionate impact on the livelihoods of those in poorer, transitional countries if they can "stay connected to the market."

"The challenge for us in the West is to stay attached to the train so to speak, even although major crises occur we must keep our optimism that things will be better in the future."

This does not sound like the approach of a major engineering company serving the animal feed industry, and which is one of just a handful of companies feed manufacturers rely upon for their pellet press rolls and dies. However, Nicola Reffo, a third-generation senior manager at La Meccanica in Cittadella, Italy is bringing another dimension to the running of the family business.

"Engineering has been traditional in our family, but I wanted to do something different so I went to university to study economics."

When asked if that is an advantage in an engineering company, he says "Yes, it is. Especially when you have to consider the products you produce from the customers point-of-view and doubly so when your company relies heavily on the international market," he says.

"The international side of our business is extremely important to us. 75-to-80 percent of our turnover is from the international market. This has always been so. We felt the need to step outside Italy right from the beginning."

And that beginning was in 1961 when his grandfather, an engineer, formed the company in Cittadella, some 60km north-west of Venice. This company provided international services to the feed milling sector from the start. Its original factory is still providing those services to its international customers, while in the early 1970s a new factory was built which Milling and Grain visited in December last year.

Today, the company's production is divided between three operation centres in and around Cittadella. The original site which is its smallest and is its 'international service centre' and was home to the original factory in 1961. In the early 1970s, the company build a new production unit on the southern outskirts of Cittadella which today does all its die and roll production in addition to equipment manufacturer and assembly.

Across the road from this main production faculty is the factory and service centre for the company's Italian market.

## Rolls and dies

"The building we are in is over 40 years old and has become a little restrictive for the flow of materials and efficient production," says Mr Reffo, who is one of the company's export managers. However, what is being produced inside this neatly kept exterior would amaze you!

"It is largely two block building connected by a large corridor. It would be better to have a complete square

building for our operation today.”

There’s a number of automated drilling enclosures, grinding and cutting machines that work automatically along with 12 drilling stations of varying sizes and drilling heads.

“Dies account for just over one-third of La Meccanica’s turnover,” says Mr Reffo who showed us around the factory.

A further third of the business is generated through rolls, spare parts, service and after-sales contracts within Italy and abroad, while the final third is accounted for through machinery and equipment sales.

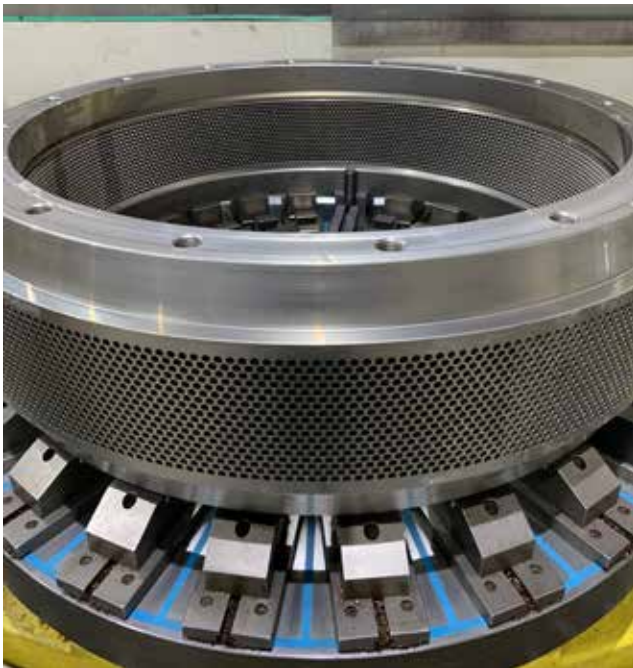
The company produces a range of feed manufacturing equipment from pellet presses, vibration sifters, crumbles, ribbon and paddle mixers, counter-flow coolers and hammer mills to name just a few. It also provides equipment for heavy oil extraction processes, from vegetable sources, and wood chip and biomass compaction.

While margins on die manufacturing for this Italian company and for all manufacturers, are modest the quality of its dies and rolls remain high, sourcing the best Italian steel and using precision engineering equipment to produce a comprehensive range of dies and rolls. La Meccanica is one of just a handful of international suppliers of dies and rolls to the feed industry and an attention to quality and detail sits it among the top two or three companies globally.

“We are supplying some 2,500 dies per year and we have a capacity to produce just under 3,000. We don’t make rolls and dies just for our own pellet presses, which range from 200-1000mm in diameter, but also for almost every other pellet press in the market. Nor, when it comes to dies, do we work for the ‘warehouse’. We work on pure orders,” he adds.

Based on this strategy of supply to meet actual demand, the company has to work very closely with its customers in order to be in a position to meet their refurbishing needs and any additional demands for dies in a timely manner.

The companies of the group – its mother firm, Italian after-sale, foreign after sale - have just under 100 employees; 60 employees excluding apprenticeships in manufacturing and the rest in the Italian and International



sales department, technical office, accounting department and after-sales teams. It exports to close to 60 countries and has 35 agents and distributors.

### Pellet presses

“In 1954, the year my father was born, a farmer co-operative in Cittadella installed the first pellet press here - a Spout Waldron. Some of Italy’s largest feed producers - started about that time and La Meccanica has worked with them ever since and continues today.”

To give an idea of how significant this company is its own right regarding equipment manufacturer, La Meccanica has sold over 300 pellet presses to Germany alone, and more than 1800 overall. Its markets stretch from the UK right across Europe and North Africa to the Balkans and to Russia and Ukraine. It is in North America and in Asia including Japan, South Korea and The Philippines.

“For example in Central and Easter Europe we can supply spares, service and dies overnight.”

However, pellet presses produce by the company can also meet the needs of the wood and biomass processing sectors.

“When it comes to pelleting, it’s in many ways a similar technology only a simpler process,” says Mr Reffo.

Where are the future markets likely to be we asked him? South East Asia including Malaysia and The Philippines, North Africa and Egypt in particular, where the company has already installed over 60 presses, and Eastern Africa and Nigeria, he says.

“Its where the populations are growing strongest and where poultry is well established but pelleting technology is not fully understood in terms of the benefits it brings. But developing a market is not just about global trends, it’s about people and this also means having the right people in the right areas,” he adds.

### New developments

La Meccanica is in the process of establishing a range of ‘LM’ machinery - that’s not LM for La Meccanica but to give it its full title ‘low maintenance’ machines, the first of which in the ‘CLM 630 Experience’ recently disclosed at EuroTier 2018.

These are pellet presses that will exploit the Industry 4.0 automation and data exchange technologies to its fullest, assisting the operators in knowing the exact performances they are getting and what they need in order to do better, while at the same time making easier for them to send feedback to La Meccanica’s headquarters.

“The closer our relationship is to the client; the better service we can provide the more success we have achieved. We still retro-fit and upgrade existing presses. Upgrading older presses can ultimately cost less than half the price of a new one for the same output,” he adds.

The smallest pellet presses with a 200mm die are build and sold for test purposes in the USA, Germany and Italy, among others.

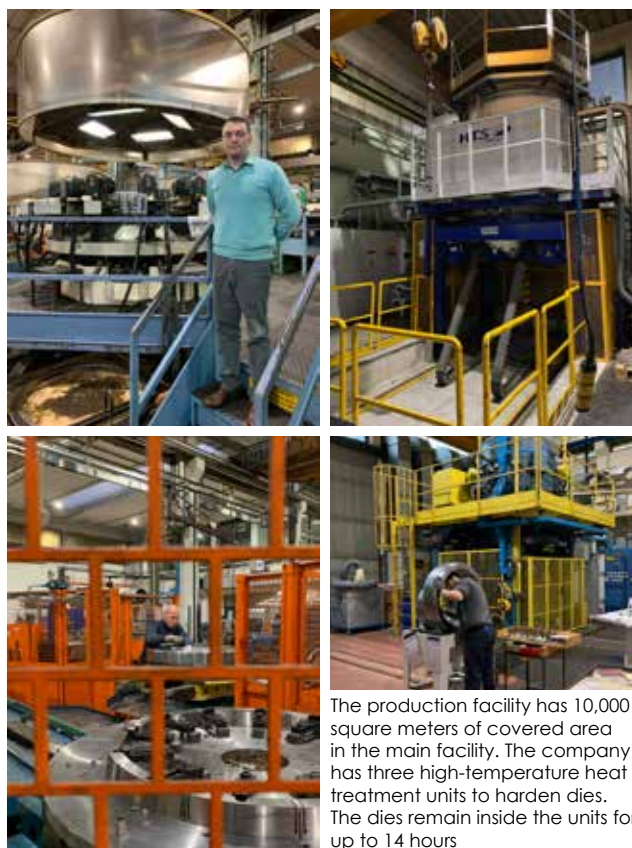
However, it is the 520-630mm dies and their respective pellet presses that forms the basis of the business. On these machines, with a 220kW motor driving the press and processing properly conditioned poultry rations, outputs of up to 18 tonnes-per-hour can be achieved. Depending on cattle feed formulations, with larger die holes, the machine can achieve 12 tonnes per hour.

The company works together with several branches

of Padua University and other higher education centres to further its technical training and to assist with design improvements. In fact, its EuroTier 2018 stand demonstrated a model of pellet press which was produced under this collaboration between a design school and company.

The company offers training in die handling and pellet press operation in addition to other training options. It focuses on different topics that engineers are interested in including health and safety, fire safety, lubrication and bearing maintenance. The courses are open to all.

[www.lameccanica.it/en](http://www.lameccanica.it/en)



The production facility has 10,000 square meters of covered area in the main facility. The company has three high-temperature heat treatment units to harden dies. The dies remain inside the units for up to 14 hours

