



*Sigma*

EXCELLENCE AWARD FOR TPM  
ACHIEVEMENT



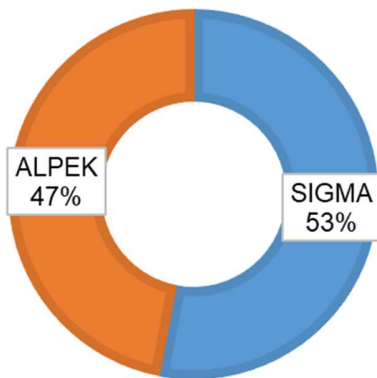
TANGAMANGA PLANT  
Sigma Alimentos

### 1. COMPANY PROFILE

Alfa group is a company that administrate and impulse a large portfolio of business leaders on food (Sigma) and petrochemicals (Alpek) with international presences, providing products and services to improve people’s quality life.

The group counts with presence in 25 countries at the continents of America, Europe, and Asia.

#### REVENUES 3Q23



Sigma Alimentos is one of the largest, refrigerated food companies in the world, operating in 17 countries, whit a large portfolio of categories and added value brands, which are highly recognized and considered leaders in their categories and market segments, to offering the favorites foods of the communities.

Sigma Alimentos has the largest refrigerated distribution network in Latin America, which is one of its strengths.

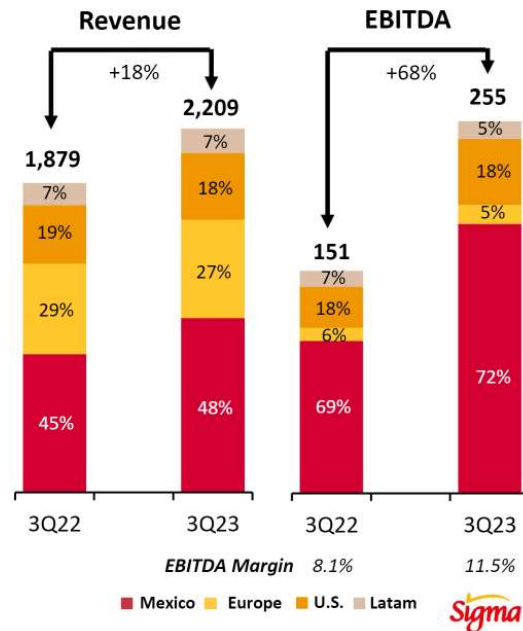
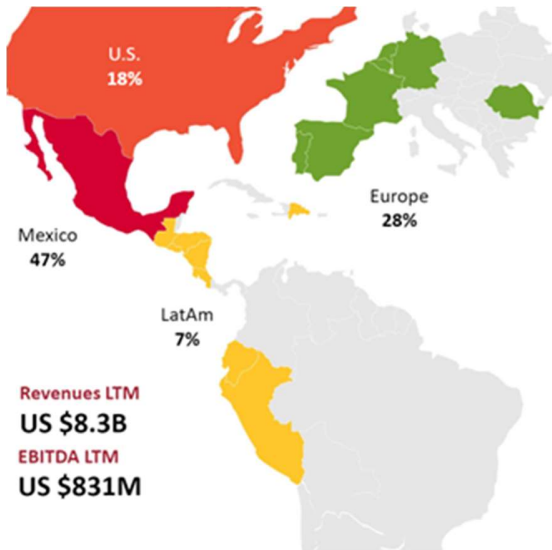
**51%**  
Alfa Revenues



**59%**  
Alfa EBITDA

## Extensive supply chain and distribution network

**64** Manufacturing Facilities    
 **179** Distribution Centers    
 **680K+** Points of Sale

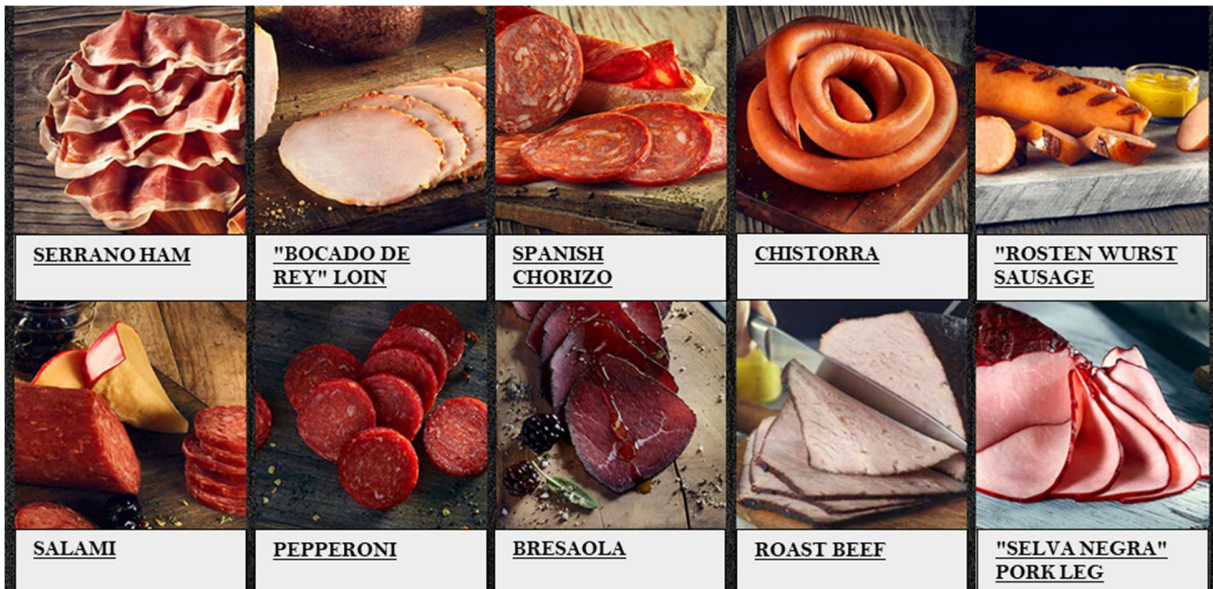


The Tangamanga plant was founded in 1973 by master ham makers coming from a traditional Spanish family who mastered culinary arts of Spanish, Italian, German, and English houses.

In 1999 Tangamanga became part of Sigma Alimentos, being the only plant specialized in the production of delicatessen and gourmet products. Tangamanga is located in the state of San Luis Potosí, this ubication brings with it a logistical advantage because the plant is in the middle of a triangle formed by the main cities of the country: Guadalajara, Monterrey and Mexico City.

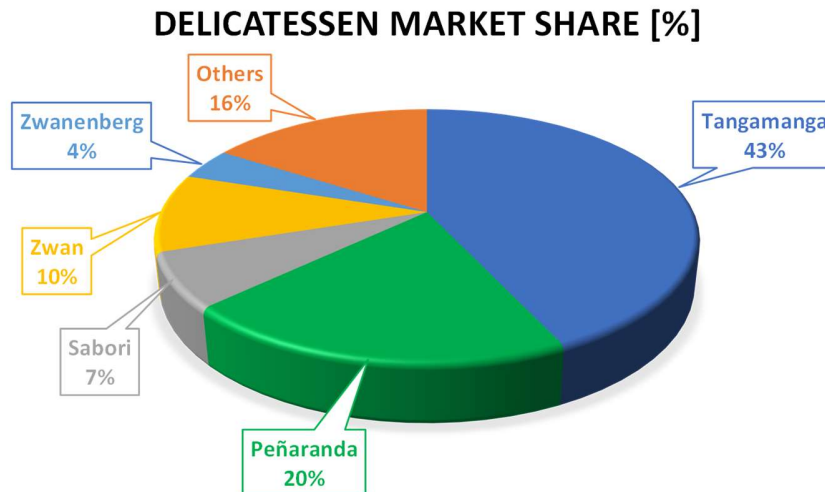


The Tangamanga plant has a wide selection of matured and cooked products among which the mains are the pepperonis, salamis, fine hams, and sausages. Currently there are 82 SKUS in total.



We have a staff of 154 employees divided into 3 shifts working 6 days a week.

The Tangamanga plant has a 43% share in the Delicatessen market, being the leading brand in the country.



At Tangamanga we strive for innovation throughout the plant, in processes, products and machines, while maintaining our traditional signature style.

## 2. MILESTONE ON THE JOURNEY OF MANUFACTURING EXCELLENCE

Seeking to have with a standardized management system for all Sigma Alimentos factories, in 2015 the Tangamanga plant starts TPM activities under the mentoring of JES consultants. Seeking highly efficient people, processes, and machines with the least possible losses, we started with 4 pilot teams of Autonomous Maintenance in the most critical production lines of the plant with support from pillar leaders forming part of the pilot teams.

In this same year, 2015, the TPM committee was formed with the participation of the 8 pillar leaders, who were trained in the activities and methodologies of each pillar. The indicators to be managed were selected according to the plant's strategy and the master plan was created with all the activities of each pillar scheduled. This master plan is a guide to follow the path to excellence.

Two years later in 2017 our TPM "Kick Off" takes place, in this event the entire plant participates with great enthusiasm to learn about the work done by the pilot teams of Autonomous Maintenance and officially start with TPM activities in all areas of the plant through the 8 pillars.



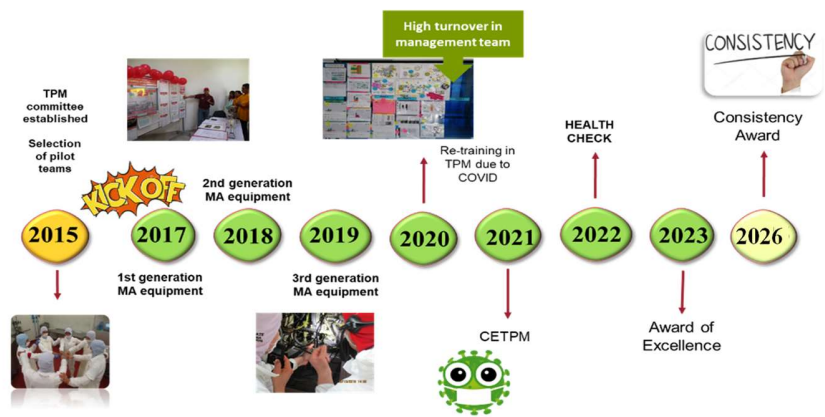
After the “Kick Off” event, first generation Autonomous Maintenance teams were created adding 3 production lines, three more lines were incorporated in a second generation in 2018 and in 2019 the third generation starts with another 2 lines.

Finally, in 2021 the services were incorporated as Autonomous Maintenance teams to total 17 teams and have 100 % of the plant’s machines with Autonomous Maintenance pillar activities. In addition, we can say that 100 % of plant personnel participate in TPM activities.

During the COVID-19 pandemic since the beginning of 2020, it was necessary a re-training in TPM issues to the personnel who had to support in different extra activities of other pillars due to the lockdown of some collaborators as well as those collaborators in lockdowns took remote training and performed activities from home.

Thanks to all the standardized TPM activities developed by the 8 pillars, the Tangamanga plant was able to avoid the negative effects caused by the COVID-19 pandemic without affecting the business continuity.

In 2022 all the work done by each pillar since the beginning of the TPM implementation was presented in an internal event with great success, which motivated the plant to seek the Excellence Award for TPM Achievement, maintain and improve that teamwork to be an excellent plant with excellent results.



### 3. BENEFITS ACHIEVED

The implementation of TPM in the Tangamanga plant, has made many benefits among the most important are a great sense of belonging of the operators to their workplace, this can be seen in the commitment to perform all activities related to TPM for create and sustain an ideal working environment to develop their daily activities with safety, quality, and efficiency.

Another benefit is to have a system to identify any anomaly in a timely manner to help us prevent losses, and a common language was also created between the different pillars to help create better communication and greater understanding.

Thanks to TPM we have collaborators with more skills and better level, proof of this is a machine designed and manufactured in Tangamanga to wash plastic crates by using obsolete equipment. With this machine we were able to save USD \$102,500.00 by avoiding the purchase of a new one and also reassign 3 operators to other activities.



### 4. KEY OF OUR MANUFACTURING EXCELLENCE

The main key of our manufacturing excellence is the plant's committed people. This is an achievement obtained through improvements in processes and machinery. These improvements were developed in most cases, with multidisciplinary teams and the main actors were the frontline employees, who gave their point of view and in this way realized that they are listened to generating a change of attitude in the search for continuous improvement.

The continuous training to learn new TPM methodologies for loss analysis, resolution and prevention is another major key in manufacturing excellence, because the skills of all personnel increase and a strong TPM system is generated. The implementation of these methodologies must become a habit in order to cope with any losses that the plant may arise.

Finally, tangible, and intangible results are the motivation for staff to embark on a path to excellence. This path to excellence and all the activities required to achieve it are described each year in the plant's strategy and is transmitted to all those who are part of the structured organization, starting with the manager and the pillar

leaders who define the specific objectives of each pillar to transform the individual activities of each collaborator into common objectives.

## 5. ACHIEVEMENT RECORD

### TPM Award Assessment Achievement Sheets

Company & plant name	SIGMA ALIMENTOS CARNES SELECTAS TANGAMANGA S.A DE C.V				
Category	Index	Unit	TPM Kick Off 2017	Actual status 2023	Target 2023
S	Number of work-related accidents requiring days off work	Cases/year	15	1	0
S	Number of work-related accidents no requiring days off work	Cases/year	40	5	0
P	Productivity	Ton/operator	1.89	2.22	2
P	OEE	%	54%	75%	77%
P	Availability	%	62.5%	76.78%	83%
P	Performance Rate	%	93.8%	97.85%	98%
P	Quality products Rate	%	92.2%	99.46%	99.3%
P	Number of breakdowns	Breakdowns/year	44	11	6
P	MTBF	Hour	16	67	75
P	MTTR	Hour	2.5	1.3	1.3
Q	Number of customer complaints	Number/year	1	1	0
Q	In-line defect rate (scrap)	%	8.4%	0.43%	0.3%
Q	In-line defect rate (rework)	%	ND	4.3%	3%
C	Fixed cost	USD/Kg	0.96	1.86	1.63
D	Production Lead Time Cooked	Days	11	82	92
D	Production Lead Time Matured	Days	45	121	142
D	Delivery performance	%	83%	98%	99%
S	Safety Index	Accidents per 1,000,000 operator hours	31.9	1	0
M	Number of employee suggestions	Number/year	16	1248	1450