

## Award for TPM Excellence, Category A

### Tetra Pak (Hohhot) Co., Ltd.

#### Closure Plant



## 1. Organization Profile

Tetra Pak was founded in 1951 by Dr Ruben Rausing, who was known as the world's leading company for food processing and packaging solutions. Working closely with customers and suppliers, Tetra Pak provides safe, innovative, and environmentally friendly products that each day meet the needs of millions of people in more than 160 countries around the world. More than 25,000 employees based all over the world, we believe in responsible industry leadership and a sustainable approach to business so to realize our promise PROTECTS WHAT'S GOOD and to make food safe and available everywhere.

Package Solution is one of key business unit of Tetra Pak company, in which including Pack-mat (packaging material) plants and Add-mat (additional material) plants. Pack-mat plant produces packaging material; while Add-mat plant produces three types of products: straw, strip and closure. Below is the map of Add-mat plants of Tetra Pak around world.

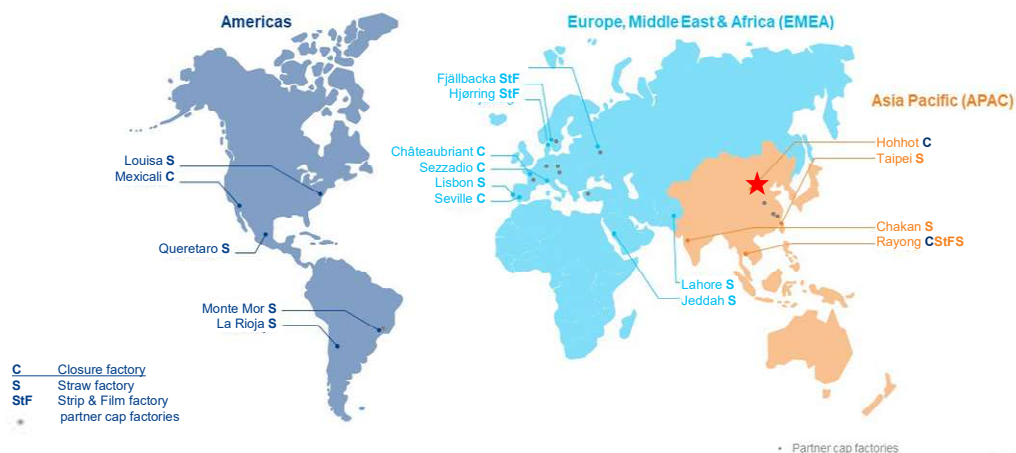


Figure 1-1 Tetra Pak Add-Mat Plants in the World

## Hohhot Company, Organization

Tetra Pak (Hohhot) Co., Ltd (below refer to Hohhot Company) has two plants, they are Pack-mat plant (produce packaging material) and closure plant (produce closures) belongs to one legal entity.



*Figure 1-2 Hohhot Factory of Pack Mat and Closure Plant*

Hohhot closure plant was built in 2020, the first commercial order was produced and delivered in July 2021.

Our plant is producing two major products of caps: Dream Cap 26 and A38 screw cap. With 16 Dream Cap 26 machines and 5 screw cap A38 machines. To fully meet customer demand, 2 QR Code Promo cap print machines have been installed and produced at 2021-year end.

In 2023, we totally produced 4.2 billion caps.

## 2. Milestone of the Journey of Manufacturing Excellence

- |         |   |
|---------|---|
| 2020/06 | Foundation  |
| 2020/07 | TPM activity kick off and EM pillar kick off                    |
| 2020/12 | First line of Dream Cap 26 installation finished                |
| 2021/01 | First Dream Cap 26 produced                                     |
| 2021/01 | Certification and audit related of production delivery finished |

2021/06	Deliver first commercial order product
2021/10	Delivery reach to 100 million caps
2022/03	Promo Cap kick off production
2022/06	Color Cap introduction
2022/11	Get internal approval to go for TPM Excellence Award
2023/12	Final assessment of Excellence Award A Category

### 3. Benefits Achieved

TPM (WCM) has been our One-way Journey to World Class Achievement. Steering Committee is organized with Factory Director, WCM manager and all of the pillar leaders, who have been governing TPM overall activities. Since we launched the TPM (WCM) program in 2020, the KPI performance has been continuously improved, such as safety, Extend CTC, production efficiency, quality, installation progress, etc.

We as a new plant, based on knowledge of Pack-mat plant which had run TPM activity over past 14 years, gained some important intangible benefits that cannot be physically measured but can be known throughout the plant.

- Factory strategy: “World class supplier with best value proposition” to meet customer needs dynamically
- Sharing WCM continuous improvement activities with customers
- 35 internal trainers developed
- WCM activities involvement rate of all employees is 100%

The performance of each indicator in term of PQCDSE, refer to the following index table of TPM Award Assessment Achievement.

## 2023 TPM Award - Achievement Sheet

Company	Tetra Pak (Hohhot) Co., Ltd
Plant name	Closure Plant
TPM Slogan/Objectives	World Class Supplier with Best Value Proposition
Year when TPM activity started	2020
Year of benchmarking	2021

Category	Index (Calculation Formula)	Unit	Kick off/TPM Started (or last time awarded)	Actual Status 2023
S	Number of work-related accidents requiring days off work	Cases/ year	0	0
S	Number of work-related accidents not requiring days off work	Cases/ year	0	0
P	Productivity	Vol/FTE	1631	29651
P	OEE (or Overall Plant Efficiency)	%	39.1	65
P	Performance Loss	%	9.9	8.1
P	Number of breakdowns	Breakdowns/ year	15.2	7.2
P	MTBF	Hour	11.6	73.8
P	MTTR	Hour	1.41	1.81
Q	In-line defect rate, scrap Defect Waste	%	2.24	2.04
D	Delivery performance	%	93.6	99.9
S	Safety index	Accidents per 1,000,000 operator hours	0	0
M	Number of Employee Suggestions	Number/year	202	697

### 4. Key of our Manufacturing Excellence

After review of the great benefits of tangible & intangible effects through WCM activities in our factory, we are planning to:

- Focus on effective loss intelligence to achieve more 0 loss results
- Eliminate defect with higher CML actions
- Guarantee team OTIF by PDCA Loop
- Standardization governance
- Improve people competence and prepare for next level