



2023

# COMPANY PROFILE

SERMSUK PATHUM THANI PLANT

*Together Everyone Achieves more*

## 1. Organization Profile.

Sermsuk Public Company Limited started the beverage business in Thailand. Started operations on April 18, 1952, and began to build the first factory to produce carbonated soft drinks under the trademark "Pepsi" and began bringing beverages to the market for the first time to Thai people on March 18, 1953. Sermsuk Public Company Limited has played a key role in establishing the foundation of the soft drink industry in Thailand for more than seven decades, as well as being a legend who created the Pepsi brand to be the leader in the Thai market. In 2011, Thai Beverage Logistics Co., Ltd. became a major shareholder of the company by purchasing shares from Pepsi shareholders and became a major shareholder in Sermsuk Company. and merged into one of the four main companies in the ThaiBev Group in 2012. Currently, the company produces and distributes “est” beverages as well as other leading non-carbonated beverages such as Crystal drinking water. Oishi ready-to-drink tea and becoming the country's first fully integrated non-alcoholic beverage company.



Figure 1 Sermsuk History

## Sermsuk organization.

Sermsuk Company is managed internally under management structure of Sermsuk Head Quarter with the highest executive, Mr. Kosit Suksingha as Managing Director and management team as shown in chart of the organization as follow



Figure 2 The organizational structure of Sermsuk public company limited

## Pathum Thani plant organization

Pathum Thani's management, the highest executive is Mr. Bhusorn Thaweephan, holding the position of assistant director of production 1, and Mr. Thongjerm Pancharoen is plant manager with departments under management. There are 8 main departments including head of production department. Head of maintenance department head of human capital head of quality department, raw materials, packaging materials warehouse department head of security department head of the prefabricated warehouse department and the head of logistics department.

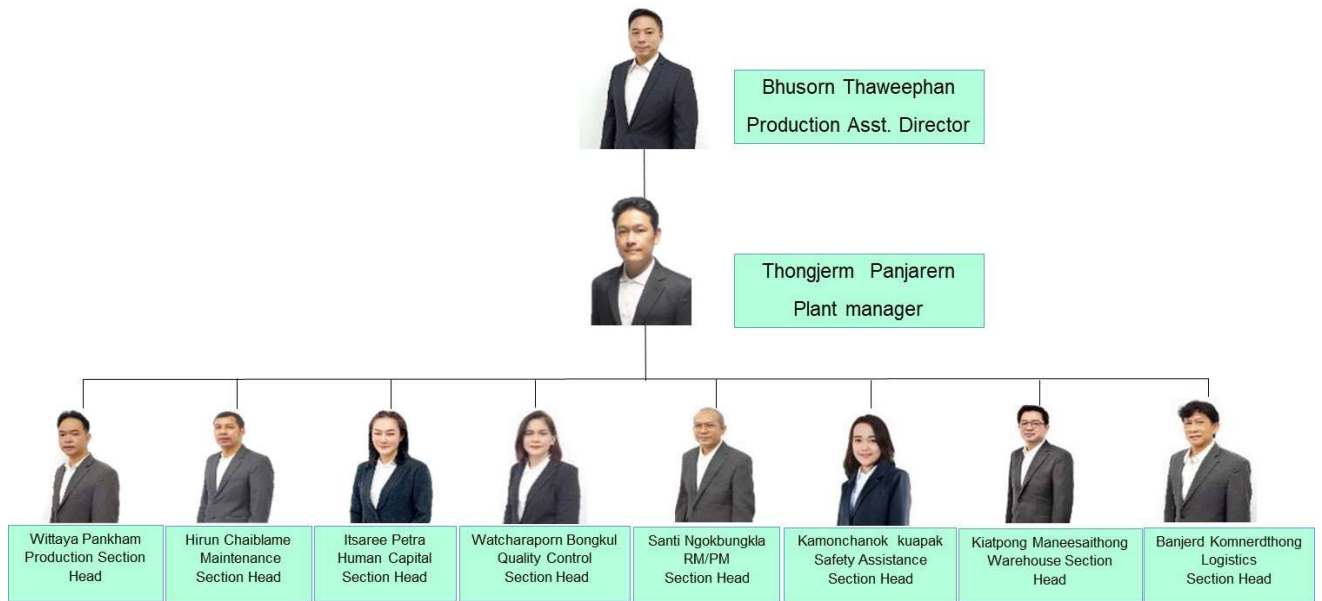


Figure 3 The organizational structure of Pathum Thani plant

### Plant location

Address: No 63, Moo 3, Bangkhayaeng Subdistrict, Muang District, Pathum Thani 12000

Maximum capacity:	60,558,821 cases/year
Plant Area:	262,752 sqm
Manpower:	361 peoples
Production:	9 Line
Number of Machines:	147 Machines

Product are a well-known water and soft drink company in Thailand. The products are divided into 4 group products

1. Drinking water group under the Crystal drinking water brand
2. Soft drink group under “est” brand
3. Contract manufacturing product group under brand 100 Plus
4. Contract manufacturing product group under brand “Sarsi”

### Total Capacity

Plant Site	Carbonate Drink (Case / Year)	Drink Water (Case / Year)	Total Product Case (Case / Year)
Pathum Thani	29,358,821	31,200,000	60,558,821

Table 1 Capacity Phathum Thani Plant

## 2. Milestone on the Journey to Manufacturing Excellence.

Background problem of Pathum Thani Plant.

Before implementing TPM in the company, we found that the cost of production was high. Customer satisfaction is unacceptable. Due to delayed delivery and frequent complaints from customers and quality stores. Including frequent accidents during work.

**People** The mainly problems of Pathum Thani plant issue of elderly generation person and closely retirement that they don't have knowledge transfer and working methods in order to support young generation employees in small group. In addition, we found that employees lack knowledge operating and maintenance of machines. These affect in poor performance with the machine until machine have a huge breakdown.

**Machine** Our machine found many chronic problems of machine breakdown frequently occurring and performance losses propagation are due to minor stoppages and reduced speed including lack of good maintenance management system.

We have made a decision to apply TPM principle to the plant management system. This way is a benefit of Pathum Thani plant because there are clear guidelines for practice step by step this will give us a more systematic way to develop job skills and maintain our machines and we confident that our people change mindset in there are work for excellence.

Sermsuk realized the importance of these issues and decided to use TPM as the main tool to eliminate these problems. Reduce the factors that may lead to failure to achieve the goals and increase the beneficial factors. All goals are applied to all levels from management to our employees. It relates to key responsibilities through objectives and goals. And deploy it as Sermsuk's TPM policy.

“Sermsuk has developed an operating system with Total Preventive Maintenance (TPM) as a framework for excellence in efficiency and sustainability. as well as competitive costs to lead the organization to excellence.”

1. Establish a production system aimed at eliminating all losses, with a goal of zero.
2. Developing the skills and abilities of employees to solve problems.
3. Establishing a quality production system aiming at zero waste.
4. Encourage the use of TPM to improve work processes in all parts of the organization.
5. Create a safe environment and work area and prevent hazardous risks that cause zero accidents.

### **3. Benefit of Achievement.**

#### **Tangible Result**

1. Customer Complaints reduce by 83.6%
2. Production cost per unit was reduced by 2.7%
3. Syrup loss reduction by 44.9%
4. CO2 loss reduction by 53.2%
5. Water Usage improvement by 22.3%
6. Breakdown reduces by 30.1%.

#### **Intangible Result**

##### **External results of personnel (People Development)**

External results from the implementation of TPM system are employees have the skills to increase production efficiency through communication. This promotes teamwork in the workplace resulting in preferable workflows. To achieve the same goal is to continue to be a world-class Beverage factory.

##### **Indirect results of a machine (Machine Improvement)**

The indirect results of an implementation of TPM system are preventing machine problems from causing accelerated depreciation of machines by using root cause analysis, which leads to well-managed problem-solving. As well as establishing operational standards that can prevent the problem of the machine before the problems occur. In addition, the working area is more secure. Machines are ready to work more. Fewer problems and has a sustainable and proactive prevention system.

##### **Indirect results of management (Management System)**

Indirect results of management from the implementation of TPM system are top management team is involved in pushing human resource development activities. And promote improvement of work efficiency continuing over the years. Inspire employees to be alert. There is an incentive to improve the way we work. Whether organizing a competition. There are various contests in the factory. Make the management system more systematic. From this employee have to report their work results and systematically improve them. TPM system is one of the most effective indirect results of management (Management System)

#### 4.TPM Award Assessment Achievement Sheet.

Category	Index	Unit	TPM Started 2019	2020		2021		2022		2023	
				Target	Actual	Target	Actual	Target	Actual	Target	Actual
Productivity	Productivity	Liter / Man-Hour	608	639	641	673	704	775	791	830	854
	OEE	%	71.7	74.9	74.1	76.4	74.4	77.9	76.5	79.5	86.3
	Number of breakdowns	Case / Month	72	0	65	0	58	0	51	0	7
	MTBF	Hour/case	1,022	1,125	2,113	2,324	3,127	3,439	3,396	3,735	4,430
	MTTR	Minute	65	50	58	44	48	39	49	34	55
Quality	Customer complaints	Case	50	25	28	12	9	6	9	0	3
	In-line defect rate	PPM (Part per million)	63	57	55	50	55	45	46	36	31
	Defect mode	Mode	171	155	145	127	128	105	103	58	100
Cost	Cost index	%	0	-4	-6	-8	-32	-12	-30	-16	-18
	Water usage	Liter raw water/ Liter production	5.3	5.17	4.86	4.69	4.58	4.65	3.65	3.70	3.73
	Syrup loss	%	1.1	0.80	1.40	0.60	0.50	0.30	0.30	0.20	0.10
	CO2 loss	%	41.9	36.0	32.4	30.0	59.7	20.0	17.3	10	21.1
Delivery	Service level agreement	%	99.70	99.50	99.60	99.50	99.60	99.50	99.60	99.50	99.85
Safety	Loss time accident	Cases/year	0	0	0	0	0	0	1	0	0
	Non-loss time Accident	Cases/year	8	0	4	0	8	0	6	0	4
Morale	Number accumulation of Kaizen suggestions	Sheet / year	1,074	4,296	6,688	8,807	10,091	14,819	13,672	16,642	19,653

## 5.Key to our Manufacturing Excellence.

TPM system implementation history and expected success.

The significant key to advancing towards Pathum Thani plant is the employee. Specifically, Employee attitude is willing to learn more about new knowledge, and have a passion to practice a new skill. Therefore, implementing the TPM system can influence employees' attitudes and make them feel like the machine's ownership, zero breakdown maintenance, and working in a safe environment.



Figure 4 Road Map to World-Class Manufacturing.