



## 1. Company Profile

Wuhan Bright Dairy Co., Ltd was founded in 1999., belongs to Bright Dairy & Food Co., Ltd. , The company is located in No.669 Zhang bai Road Dongxihu District, Wuhan city, Hubei Province, P.R. China.



Company with a registered capital of 195.16 million yuan, a factory area of approximately 126000 square meters, and an annual production capacity of 220 thousand tons.

In 2022, the production capacity was 140 thousand tons and the operating income was 950 million yuan. In 2023, The total production of fresh milk and fresh yogurt ranking first in the group

The company has 8 departments including Production Department, Power Department, Quality Department, Administration Department, Warehousing Department, Procurement Department, Human Resources Department, and Finance Department, with a total of 450 employees. There are three production workshops in the production department, with a total of 30 filling production lines.

We mainly produce pasteurized milk, high-temperature sterilized milk, fermented milk and milk drinks. Fresh milk products use MF&RO dual membrane filtration.

There are 7 packaging forms, including plastic cups, plastic bottles, plastic pots, paper cups, paper boxes, Ecolean bags, and glass bottles, with nearly 96 specifications.

The product was sold to 15 provinces and cities nationwide, achieving a profit of 200 million yuan.

The factory employees are relatively stable. Among them,55% of people aged 40 and above,67% of employees with more than 5 years of service experience,53% of direct production personnel.



## 2. Milestone on the Journey to Manufacturing Excellence

In order to become the most competitive factory in China's dairy industry, the factory has fully introduced TPM activities;

After 20 years of development, the company has entered the TPM Special Award stage.

Established in October 1999, the company produced bottled milk, packaged milk, yogurt with plastic cup and industrial milk powder with a daily output less than 20 tons.

It obtained ISO9001 quality system certification in 2002, then awarded HACCP certification in 2005.

In 2009-2010, The factory has achieved a production scale of 200 tons per day and it also obtained GMP certification in the same year.

From 2010 to 2011, The factory insists on carrying out activities to reduce costs and enhance efficiency, production increased to 300 tons per day.

In 2012, it won the honor of Cleaner Production Enterprises and the National Safety Production Standardization Enterprise Level 2.

TPM was introduced in 2014. The improvement activities were carried out to eliminate production line bottlenecks. The company obtained the Integrity Management System certification.

KICK OFF was held in February 2015 to implement TPM. The company won the first prize in the annual Bright Dairy Food Safety Chain Management Quality Review, Management Innovation award and TPM Projects Excellent Factory.

In 2016, TPM activities in full swing, the TPM team won the Dongxihu Area 'workers vanguard title' .

In 2017, we successfully passed the TPM Excellent Award Class B and achieved our goal one year ahead of schedule. We were awarded the WCM Excellent Factory of the Group in 2017.

In 2018, the TPM Excellent Continuing Award was launched, carrying out three maintenance cooperation activities consisting of on-site AM+PM+QM.

Assist in market development for new products, reduce product complaint rates, and improve raw material costs.

Awarded the Excellent WCM Factory of the Group in 2018

In 2019, cost reduction, talent cultivation, and food safety activities were carried out, and among the 17 factories, the comprehensive cost was the lowest.

In 2020, passed the TPM Excellent Continuing Award review, participated in the design planning and construction project of the new factory, and proposed 220 improvement



suggestions;

In 2021, a special award for implementing TPM in new factories will be launched through preventive improvement activities



In 2022, the new factory will officially relocate and achieve vertical mass production. Obtained ISO14001&ISO45001 system certification, national safety production standardization first level enterprise certification

In 2023, with the support of APQ (Production and Maintenance Pillar), TCI (Total Cost Improvement Pillar), and GEM (Green Early Management Pillar), production and profits reached historic highs; Obtained the 5A level modern evaluation certification for national dairy enterprises.

### 3. Benefits Achieved

#### 3.1 Tangible achievements

No	classify	Name	Unit	2020 actual number	2021 actual number	2022 actual number	2023 Target number	2023 actual number (November)	Completion status
1	P	OEE	%	85	85	85	86	87	OK
2	P	yield	10000 tons	11.6	14.1	13	15	13.5	OK



3	C	Net profit	Billion	1.2	1.58	0.78	1.2	1.9	OK
4	Q	Food safety incidents	Number of pieces	0	0	0	0	0	OK
5	M	Employee satisfaction	%	97.3	97.5	97.9	98.1	98.4	OK
6	D	On time delivery rate	%	100	100	100	100	100	OK
7	S	Human safety incidents	Number of pieces	0	0	0	0	0	OK
8	E	CO <sub>2</sub> emissions		26	72.5	100	32.4	32	OK

### 3.2 Intangible achievements

The cultivation and application of multi skilled workers have improved labor efficiency;  
 To achieve barrier free communication in production through a large unit approach;  
 The improvement of security and intelligence has built a secure workplace;  
 Automation has achieved an increase in production capacity and shortened L/T;  
 Green design/environmental activities have enhanced public image.

## 4. Key to our Manufacturing Excellence

The factory has now developed into a large-scale, comprehensive, and highly automated dairy product production enterprise.

- 4.1 Expand the scope, increase the number, and upgrade the level of skilled personnel, and provide corresponding training in combination with the talent needed for future new factories.
- 4.2 The retention rate of personnel has increased, key technical positions in the factory are stable, and production operations are stable.
- 4.3 Relying on the Wuhan Research Institute of Guangming Dairy Industry Research Institute and the operation mechanism of production and sales linkage, the product structure is continuously optimized, the product upgrade and replacement time is short, the contribution rate of new products is constantly increasing, and the product has a high market share;
- 4.4 Good control of raw material and labor costs, relatively low depreciation costs, and product costs have certain market competitiveness.
- 4.5 A comprehensive quality management system, a full industry chain management model, low complaint rate, good reputation, and high customer satisfaction.



## 5. TPM Activity Achievement Sheet

Category	Index (Calculation)	Unit	Kick off/ TPM Started (or last time)	Actual Status 2023	Target 2024
S	Number of work-related accidents requiring days off work	Cases/ year	1	0	0
S	Number of work-related accidents <b>not</b> requiring days off work	Cases/ year	16	0	0
P	Productivity for main products	Parts/Operator hours	30	45	50
P	OEE (or Overall Plant Efficiency)	%	60	71	80
	Availability	%	75	78	85
	Performance Rate	%	85	92	95
	Quality Products Rate	%	95	99	99.5
P	Number of breakdowns	Breakdowns/	102	40	35
P	MTBF	Hour	82	750	920
P	MTTR	Hour	35	25	20
Q	Number of customer complaints	Number/year	261	87	65
Q	In-line defect	Scrap	0.35	0.27	0.24
		Scrap and rework			
C	Cost index	Cost/Unit Cost/Kilogram	5800	6200	6100
D	Production Lead time	Days	2.9	2.0	1.7
D	Delivery performance	%	100	100	100
S	Safety index (ex Lost Time Incident Rate)	(Accidents per 1,000,000 operator hours)	0.16	0	0
M	Number of Employee Suggestions	Number/year	1585	5850	6120