

The background features a large, solid orange shape on the left side, which tapers towards the center. To the right of this shape, a series of horizontal orange stripes of varying lengths create a sense of depth and movement, extending towards the right edge of the frame.

LIXIL

TOSTEM THAI CO.,LTD.

LIXIL Corporation

Overview

Major Businesses

The Company controls and manages domestic and overseas companies that operate housing-related businesses and urban environment related businesses through acquisition or holding of stocks.

Head Office

Osaki Garden Tower
1-1 Nishi-Shinagawa 1-chome,
Shinagawa-ku, Tokyo

Established

19 September 1949

Employees

55,000 (consolidated basis)
As of March 2023

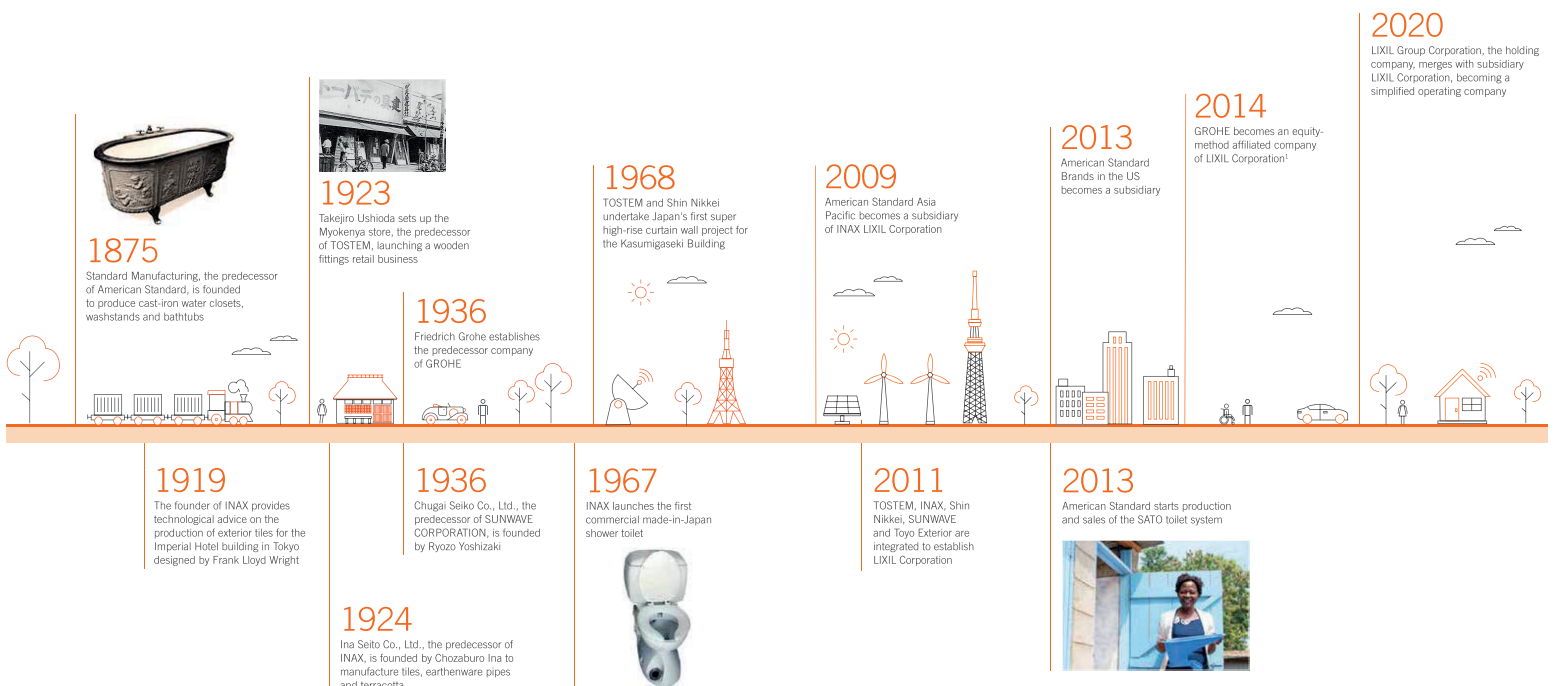


Year ended March 2023 (JPY)

Revenue	JPY 1,495.6 bn
Core Earning	JPY 25.7 bn
Total Assets	JPY 1,853.5 bn
Total Equity	JPY 627.7 bn

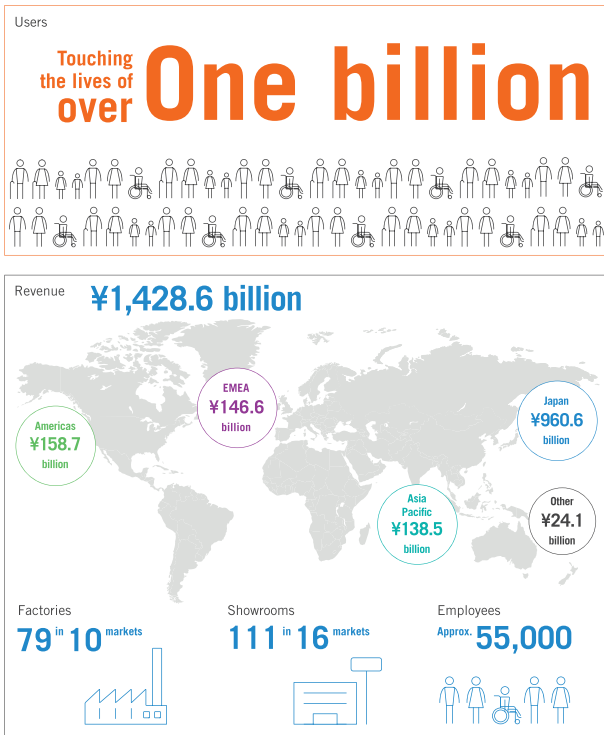
History

For over 100 years, the successful brands that are part of LIXIL have combined the best of the past with a vision for the future.



About us

LIXIL makes products that improve how people live, from shower toilets to baths, kitchen systems, windows, doors, building exteriors and interior furnishings.



LIXIL's PURPOSE

MAKE BETTER HOMES A REALITY FOR EVERYONE, EVERYWHERE

LIXIL BEHAVIORS

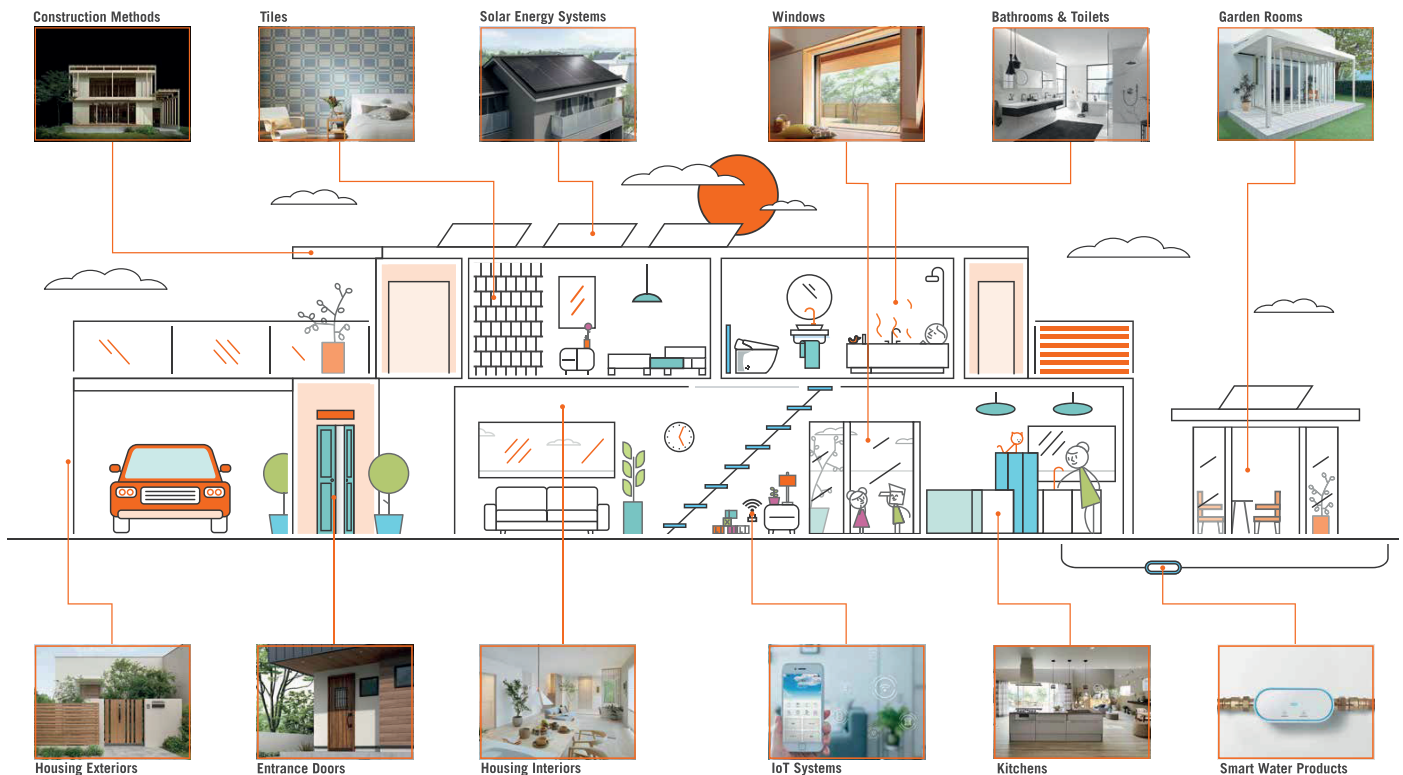
- > DO THE **RIGHT** THING
- > WORK WITH **RESPECT**
- > **EXPERIMENT AND LEARN**

Consolidated Financial Results

(International Financial Reporting Standard)

Products and services to create better homes

LIXIL is made of brands which create products that make better homes a reality for everyone, everywhere.



Tostem Thai Co., Ltd.

Our company performs a critical role as a core production base for products under the brand TOSTEM with a fully integrated operation. We maintain a strong sales infrastructure in Thailand with the goal to pursue business growth within the Southeast Asian region in the coming years.



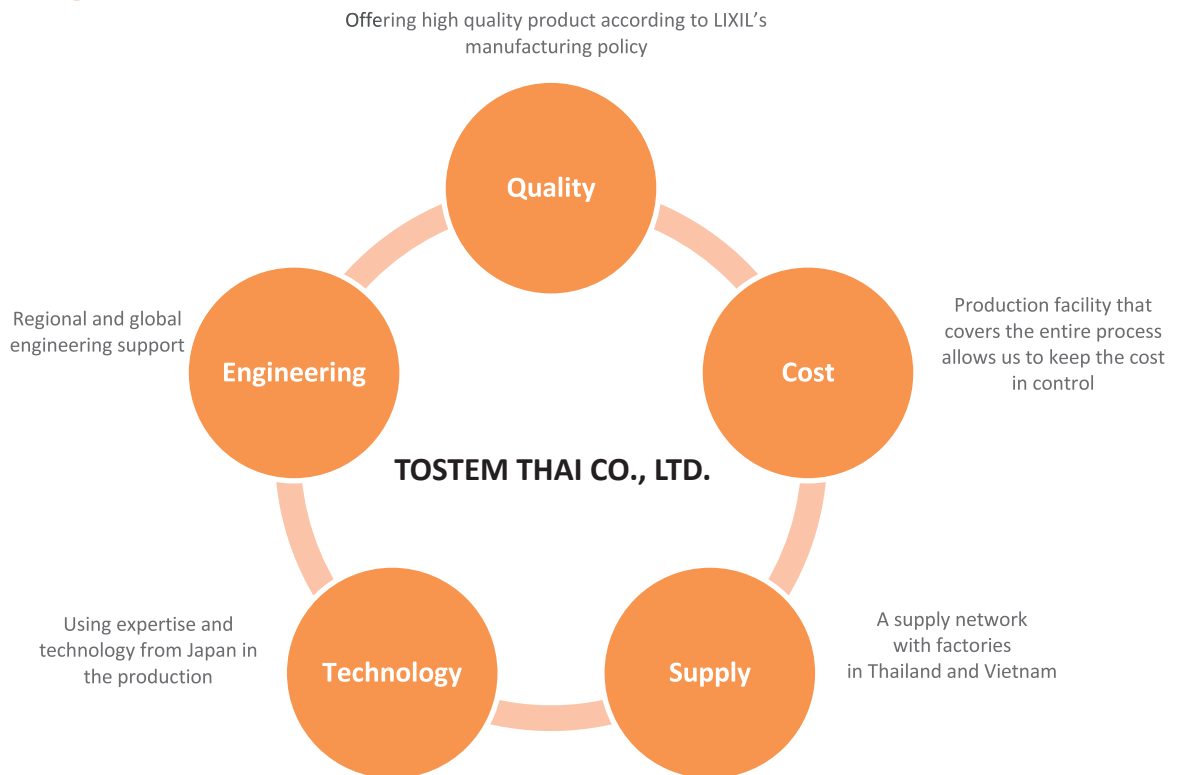
Overview	
Established	10 April 1987
Site Area	591,332 sq.m.
Capital	2,767 million baht
Employees	5,154 (as of Dec 2023)
Products	Aluminium OEM industrial parts, Aluminium extrusion bars, Aluminium windows and doors



Situated in Navanakorn Industrial Zone (approx. 50 km from Bangkok)



Outstanding Features



Manufacturing Process

We are committed to produce high quality products to meet the requirements of our clients through superior quality and production control. Detailed inspections are carried out throughout the process, and only the products that pass our strict standard are being delivered to our customers.

Casting



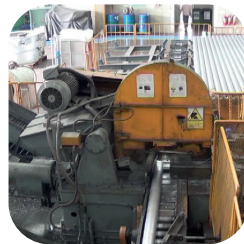
Billets size 5", 6", 7", 8.5", 10", and 12"
Capacity 7,500 tons/month



Aluminium Ingot



Melting and adjusting
chemical properties



Cut off waste ends and
homogenise



Casting into billets

Extrusion



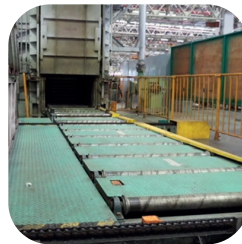
17 extrusion machines
Capacity 7,000 tons/month



Die preparation



Heating billet and extrude



Homogenising



Stretching and cutting
waste ends

Die Manufacturing

Extrusion dies are made using electrode fabrication and computer wire electric discharge processing. Dies used in the production at Tostem Thai are manufactured by Kyodo Die Works (KDT) with the factory situated right on the door-step of Tostem Thai.



Surface Treatment



Anodizing



Two processes available:

ED Coating

Sealing

Capacity
5,000 T/month
Max. length
6,200 mm.

Painting



Two processes available:

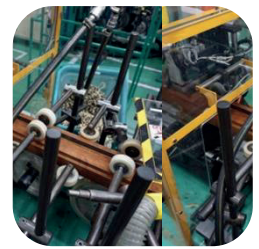
Static Paint (PVDF)

Capacity
100 T/month
Max. length
6,500 mm.

Powder Coat

Capacity
300 T/month
Max. length
6,500 mm.

Wrapping



Capacity
250 T/month
Max. length
6,000 mm.

Fabrication



Cut



Press



Bundle



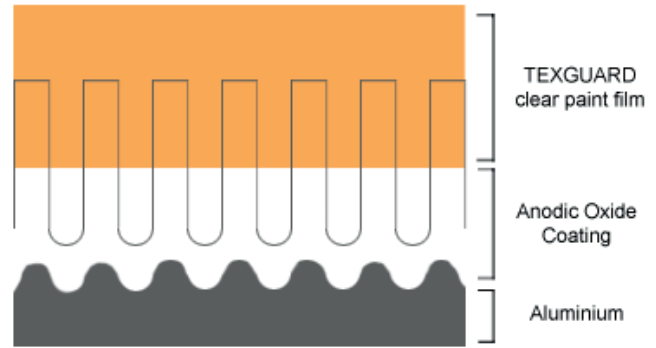
Assemble

Made-to-order fabrication service

One-stop service in Tostem's manufacturing plant using the machines for punching, cutting, drilling, or assembly that was made based on the technology from Japan. The fabrication process can be tailored according to the requirements of customers.

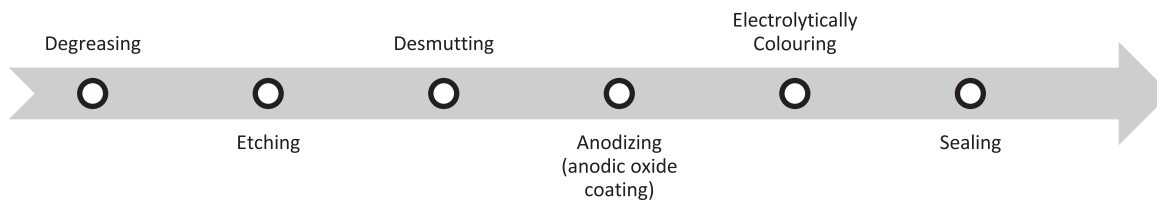
TEXGUARD Technology

TEXGUARD is a technology developed by Tostem. It provides an effective surface treatment by applying synthetic resin paint, which is then baked over an anodic oxide coating. The products are available in a wide range of colour selection, from light to dark bronze, Natural White, Ivory White, and Autumn Brown.

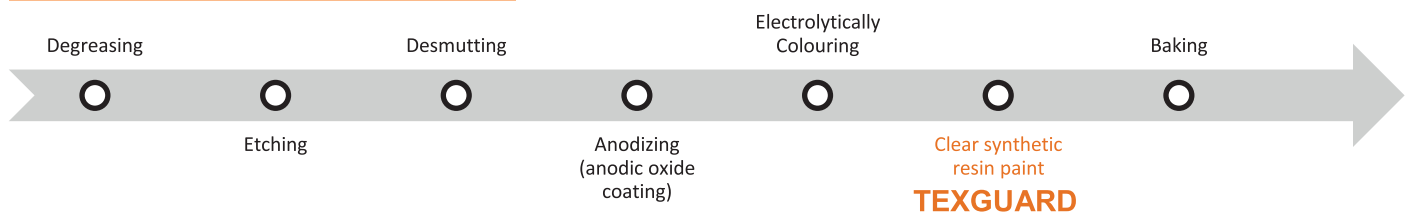


Surface Treatment Process (two types)

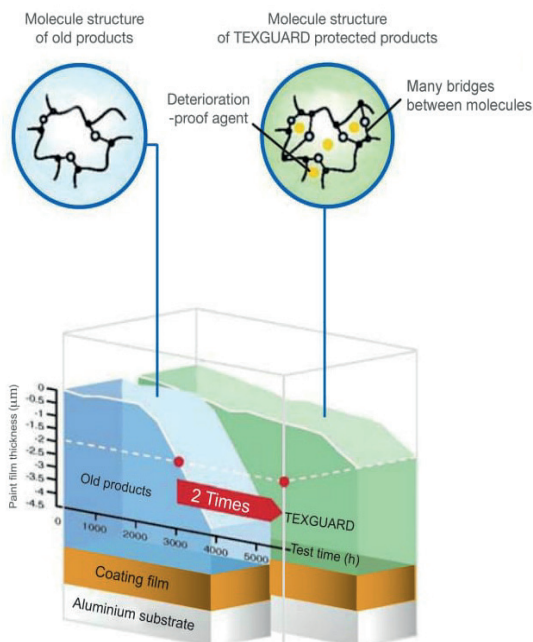
Sealing (Ordinary)



Non-gloss and Clearer Finish



TEXGUARD STRUCTURE



Why you should try TEXGUARD

Three unique qualities of TEXGUARD that we want you to see for yourself:

- Colour retention** – TEXGUARD protect the aluminium against harsh environmental conditions, making the colour gloss stay for at least 40 years.
- Increased hardness** – Dense coating of TEXGUARD improve hardness and provides scratch resistance for the aluminium surface.
- Ease of cleaning** – Dust and dirt accumulation resistance quality of TEXGUARD makes the task of cleaning the surface less effort.

Performance (Non-gloss and Clear Finish)

Test item	JIS H8602			
	A1 type	A2 type	B type	
Thickness of anodized coating	Over 5 mm	Over 5 mm	Over 5 mm	
Pencil scratch resistance	Scale down 1 level Min	Scale down 1 level Min	Scale down 1 level Min	
CASS corrosion resistance	R.N. 9.5 Min (120hr)	R.N. 9.5 Min (120hr)	R.N. 9.5 Min (72hr)	
Alkali resistance	R.N. 9.5 Min (24hr)	R.N. 9.5 Min (24hr)	R.N. 9.5 Min (24hr)	
Accelerated weathering resistance	Gloss retention	75 % Min (3000hr)	75 % Min (1500hr)	75 % Min (750hr)
	Color fade out	No remarkable change of color		

Quality Assurance

Tostem Thai applies the same quality standards to those that are used in Japan. Our production procedures involve rigorous safety management and quality control. A testing facility situated in production plant ensures that the products are regularly tested in order to maintain our standards.



ISO/IEC-17025 (The International Organization for Standardization / The International Electrotechnical Commission)

Available Test Machines

- Sunshine Test Machine
- Temperature and Humidity Chamber
- Coordinate Measuring Machine
- Tensile Strength Machine
- Cass Corrosion Test
- Digital Rockwell Hardness Testing Machine
- Acid Resistance Test

Assessment Standard



JIS H4100 No. TCTH08002 Aluminium and aluminium alloy extruded shape
JIS H8602 No. JQTH09004 Coat combined with anodic oxidation and organic finishing on aluminium and aluminium alloy



ISO 9001 International Organization for Standardization : Quality management system (QMS)



ISO 14001 International Organization for Standardization : Environment management system



TIS 218 Thai Industrial Standard : Anodized aluminium.



TIS 284 Thai Industrial Standard : Aluminium alloy extruded solid and hollow shapes.

Chemical Composition based on JIS H4100:2015

Chemical Composition % (Mass Fraction)												
Alloy No.	Si	Fe	Cu	Mn	Mg	Cr	Zn	V, Ni, B, Zr	Ti	Other		Al
										Each	Total	
6061	0.4 to 0.8	0.7 max	0.15 to 0.4	0.15 max	0.8 to 1.2	0.04 to 0.35	0.25 max	-	0.15 max	0.05 max	0.15 max	Remainder
6063	0.20 to 0.6	0.35 max	0.1 max	0.1 max	0.45 to 0.9	0.1 max	0.1 max	-	0.1 max	0.05 max	0.15 max	Remainder
6005C (6N01)	0.4 to 0.9	0.35 max	0.35 max	0.50 max	0.4 to 0.8	0.30 max	0.25 max	-	0.1 max	0.05 max	0.15 max	Remainder

Mechanical Properties

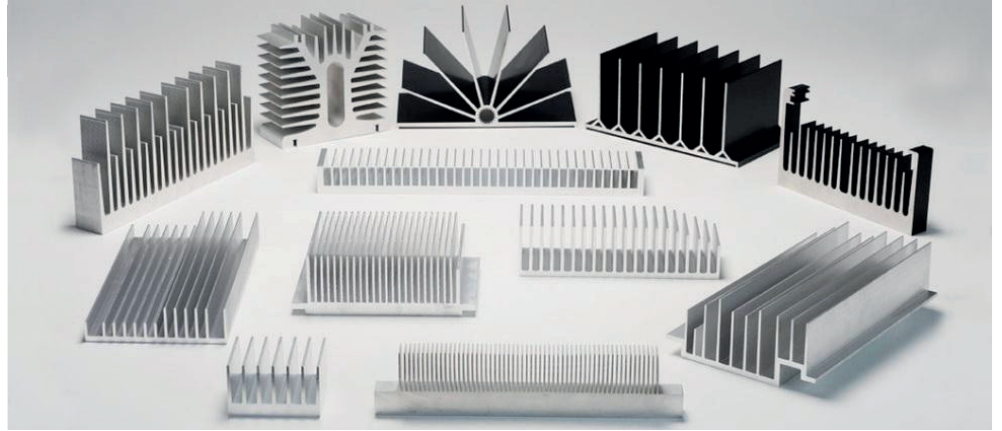
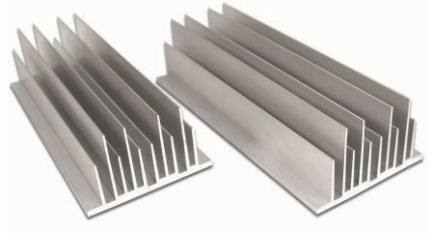
Alloy No.	Temper grade	Tensile test					Hardness	
		Wall thickness at specified measuring point (mm.)	Tensile strength (N/mm ²)	Proof stress (N/mm ²)	Elongation (%)		Wall thickness at specified measuring point (mm.)	HV5 (mm.)
					A _{50mm}	A		
6061	T6	6 or under	265 min.	245 min.	8 min.	7 min.	-	-
	T1	12 or under	120 min.	60 min.	12 min.	-	-	-
6063	T5	Over 12, up to and incl. 25	110 min.	55 min.	12 min.	-	-	-
		12 or under	150 min.	110 min.	8 min.	7 min.	0.8 min.	58 min.
	Over 12, up to and incl. 25	145 min.	105 min.	8 min.	7 min.			
	T6(T5A)	3 or under	205 min.	170 min.	8 min.	-	-	-
6005C (6N01)	T5	Over 3, up to and incl. 25	205 min.	170 min.	10 min.	-	-	-
		6 or under	245 min.	205 min.	8 min.	-	-	-
		Over 6, up to and incl 12	225 min.	175 min.	8 min.	-	-	-

Products

OEM Industrial Parts

Our OEM products can be manufactured specifically to suit your requirements using our advanced production technology.

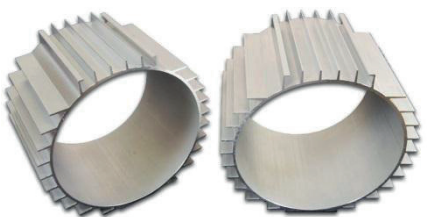
- Heat Sink



- Case and Frame



- Pipe

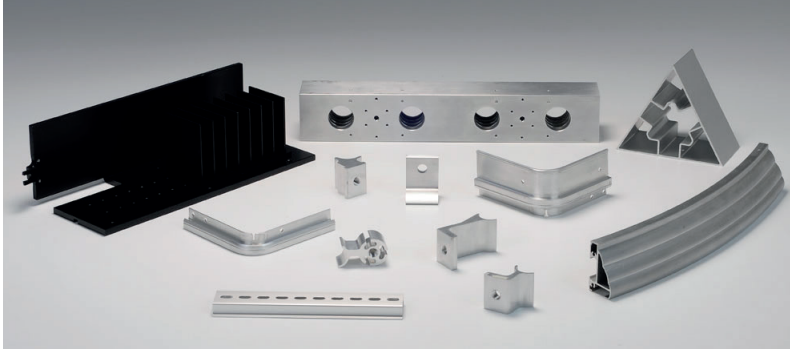


- Automotive



One Stop Service

Aside from extrusion and surface finishing process, Tostem Thai also has the facility to carry out fabrication process where the extruded aluminium parts are drilled, punched, bended, assembled, etc. The products from fabrication process are being used by major manufacturers in various industries include automotive, electronic, etc.



Order-made Aluminium Bar for Building

The quality of our products are also being trusted by many construction companies. As a testament, we have been chosen to supply the construction of many high-profile buildings.

Project References



Mahanakorn Building
Bangkok



Spring Tower
Bangkok



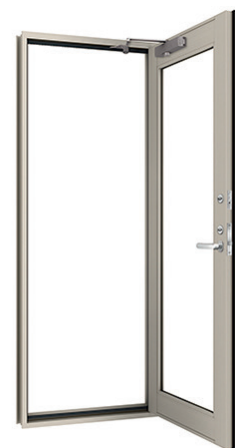
Emquartier
Bangkok



The Magnolias Waterfront
Residences
Bangkok

Window Sash and Doors

Our housing range includes doors, windows, and exterior products. With TOSTEM's production capabilities, they are designed to be durable, and to suit your preferences and lifestyles.



Parts Production and Parts for Doors and Windows

TOSTEM THAI is delighted to announce the promotion of parts for windows & door and parts for industrial applications from Parts Production (PP) department.



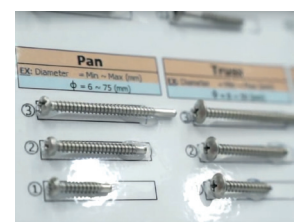
Crescent



Water drain Valve



Puller



Screw

Activities

Trade Show Exhibit

We participate in major trade exhibitions in Thailand and within Southeast Asia region every year to showcase the company's manufacturing capability through an array of our products, and to broaden our customer base.



Corporate Social Responsibility (CSR)



TOSTEM THAI was awarded CSR-DIW Continuous Certified since 2015 to current (Over 7 Year) and will continue this activity. Important activities include stakeholders Employee , Community , Government Customer and Supplier to create responsibility for all dimentsions of society.

Environmental Preservation



TOSTEM THAI applied for and was awarded Green Industry Level 5 Green Network Supply chain. TOSTEM THAI demonstrated the network extension throughout a green supply chain by supporting their business partners entering into accredited green industry processes in addition to establishing an environmental management organization and process internally. This year (Y.2021) a total of two firms were awarded in Green Industry Level 5, and TOSTEM THAI is the first firm from the Aluminium industry & Pathum thani after launched the project in 2019.

Renewable energy for the world



This Y2021 TOSTEM THAI have a renewable energy solar rooftop system capacity 5.20 MW, that started generating electricity on September 21. The solar system can reduce CO2 emissions by 2,500 t-CO2/year (equivalent to planting 250,000 trees). We use my production clamp for support installation PV solar.

Product life cycle



"In case the clients are unable to utilise the products owing to the degraded status and qualities of the aged products, or simply the clients are no longer in need for the products, it is recommended that the products are to be disposed by selling or forwarding them for recycling processes."

Corporate Governance

TTC has recognized the importance of good corporate governance (CG) as the key factor on the organization's efficiency, transparency and fairness in our businesses and competitions. In 2021, we have finally been certified in good governance standards from Department of Business Development, Ministry of Commerce



Tostem Thai Co., Ltd.

Factory and Sales Office

60/2 Soi Navanakorn 11, Moo 19, Paholyothin Road
Klongnueng, Klongluang, Pathumtani
12120 THAILAND

Telephone +66(0)5290474-5

sale_division@lixil.com

<http://lixil.tostem.co.th>



LIXIL Global Manufacturing Vietnam Co., Ltd.

Factory and Sales Office

D1 Street, Long Duc Industrial Park, Long Duc Ward,
Long Thanh District, Dong Nai, VIETNAM

Telephone +84-61-368-1111

Fax +84-61-368-1123

<http://lixilvina.com.vn>

PT LIXIL Aluminium Indonesia

Jl. Cendana Raya, Serang, Cikarang Sel.,
Bekasi, Jawa Barat
17530 INDONESIA

LIXIL International Pte. Ltd.

8 Temasek Boulevard #18-01/02/03 Suntec Tower 3
038988 SINGAPORE

Telephone +65-6690-4988

Fax +65-6690-4987

<http://www.lixil.com>

Printed May 2024