

# Creating future mobility through innovation

We at JATCO supply automatic transmissions—the brains of a car—to customers around the world.

It has been over 50 years since the establishment of Japan Automatic Transmission Co., Ltd., one of our predecessor companies. Since then, as a manufacturer specializing in automatic transmissions for automobiles, we have released a wide range of products, including not only step automatic transmissions (ATs), but also environmentally-friendly continuously variable transmissions (CVTs) and transmissions for hybrid vehicles.

The automobile industry is in the midst of an unprecedented revolution. The very nature of cars and mobility in society will be transformed, and customer needs will surely become highly diverse, encompassing electrification, autonomous driving, AI capabilities, and more. Using our accumulated know-how and the proven technologies underpinning our market success and 50 years of history, we are working on "exploitation" that improves the efficiency and completeness of our current operations, and "exploration" that prepares for the electrification operations needed for sustainable growth. Utilizing our monozukuri strengths, we are creating future mobility, and in this new era, we will continue to respond to a variety of customer needs by providing unique value in the field of energy management. This once-in-a-century revolution is also a once-in-a-century opportunity.

What is of utmost importance in the work for this revolution is people. It is essential that each and every one of our employees around the world exhibits leadership and vibrantly works as a team for us to provide new value. They take on challenges together as proud members of JATCO, work to solve societal problems through a variety of activities, including our business activities, and aim to make us a beloved company in our local communities.

"Creating future mobility through innovation"

I want JATCO to be a company where our "exploitation" and "exploration" bring forth constant new innovation.

Tomoyoshi Sato President and CEO JATCO Ltd

佐藤明白

JATCO's innovative ideas and ability to take on technological challenges have allowed us to continuously produce high-performance automatic transmissions that best meet the needs of our customers and society.

Not only do our products provide people with an enjoyable driving experience, they also contribute to society and are environmentally friendly.

JATCO's mission is to fully use the strength and power of our passion.

Passion is our mission.



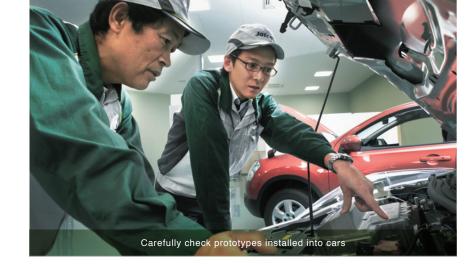
## Development Product Planning Product Development



#### Never ending challenges are the driving force of development

"How can automatic transmissions transmit energy more efficiently from the engine and motor?" With the aim of enhancing the performance of its products, JATCO has continued to maintain a stance of taking up bold challenges and has built up its technological prowess over its long years in the business.

Today, it has made the transition from the phase of "transmitting" energy to "managing" energy. JATCO will harness its boundless challenger spirit to bring about the realization of the future envisioned by our automobile-based society.



### Product planning that anticipates the needs of the market and the times

Each market around the world demands different types of performance from automobiles, such as driving performance, environmental performance, and comfort. These demands are also undergoing constant changes in tandem with the changing times. As a leader in the field of automatic transmissions, JATCO will continue to plan and provide proposals for the next unique product in anticipation of the needs of the market in order to bring about the realization of a society where automobiles and the environment coexist in harmony.

### Technology and product development to realize excellent ideas

Technological breakthroughs are necessary in order to commercialize excellent ideas. Speed is also important, as the needs of the times do not wait for technological development to catch up. JATCO is keeping up with its research activities on forward-looking core technologies and control technologies to wait for the moment when the market requires them. JATCO is able to successively offer the "world's first" products because it has successfully maintained its technology and product development capabilities that transform ideas into more than just ideas.

### Next-generation transmissions and technological innovations that look ahead to the future

According to forecasts, electric vehicles such as hybrid electric vehicles (HEVs), electric vehicles (EVs), and fuel cell vehicles (FCVs) will make up more than 50% of all vehicles by 2030. JATCO is poised to create innovative technology by anticipating future mobility. For example, the next-generation transmissions and e-Axles we are developing are compatible with a variety of power sources such as in HEVs, EVs, and FCVs, and we are aiming for smaller size, lighter weight, excellent loading performance, and high energy transmission efficiency.





# Production

Production

# Aiming for the highest monozukuri excellence in the world with JATCO's unique production system

#### "To provide JATCO's valuable products to global customers"

JATCO's mission is to supply high quality products continuously and stably in our manufacturing bases around the world. To accomplish this mission, we have developed a unique production system known as the JATCO Excellent Production System (JEPS). Our efforts for improvement and innovation never end as we aim for the highest level of monozukuri excellence in the world.

#### JEPS (JATCO Excellent Production System)

JATCO's unique production system, JEPS, responds flexibly to changing market needs and achieves the highest level of monozukuri excellence in the world in all aspects of quality, time, and cost. JEPS eliminates waste completely by synchronizing the operations in each process—from the procurement of materials, machining, assembly, inspection, to shipment—as if they were carried out on a single line.

In the process, we continue to promote our "Diversity Line," a production line, where a diverse set of employees are playing an active role, and take on the challenges of efficient and innovative production technology utilizing IoT, AI, and RPA (Robotic Process Automation).

#### Two "unlimited" initiatives

The objective of JEPS is to realize two "unlimiteds" across the entire supply chain. The first is "unlimited" synchronization of manufacturing with customers. We make our cost and delivery target as close to customers' requirements as possible. The second is "unlimited" innovation and realization of challenges. JATCO is serious about closing the gap between its goal to be global No.1 in monozukuri and its current situation. At the same time, we commit to never ending improvement and reformation and to continuously improving our manufacturing systems.

#### Inheriting monozukuri excellence

JATCO places great importance on the development of its employees, with the aim of passing on its monozukuri excellence. Employees armed with the skills and knowhow acquired at JATCO's skills training facility take on mentoring roles and help to develop outstanding employees to provide support for each production base. The establishment of these employee development systems enables JATCO to launch new production bases within a short period of time.



#### Global network for mass production technology

JATCO has expanded its global production network across the world, from Japan to Mexico, China, and Thailand. The JEPS has been fully implemented in each of these production facilities, and high quality products are being manufactured in a stable manner. The flagship products, Jatco CVT7 and Jatco CVT8, are produced at production lines in multiple plants around the world. The ability to maintain the same level of quality at all production plants enables us to respond flexibly to changing market demands and to provide JATCO's valuable products without having customers wait.





# **Products**

Products offered by JATCO



#### JATCO's continuously evolving automatic transmission

"To transmit power from the engine and motor to the tires in the most optimal way and to create the ideal response to drivers"

For this purpose, the automatic transmission automatically controls the shift changes. From 1970, JATCO has produced a number of pioneering world's first products, such as the 5-speed electronically-controlled automatic transmission in 1989 and the steel belt CVT for 2-liter class engines in 1997. We are also conducting research and development on electrified transmissions and e-Axles for electric vehicles to meet the demands of the present age.

#### CVT (Continuously Variable Transmission), new-generation transmissions

Among the various types of automatic transmissions, the CVT, which enables non-step, continuous changes in gear ratios through a system of belts and pulleys, has drawn particular attention. The CVT is an innovative transmission that is able to shift gear ratios while staying within the efficient range of the engine so it can achieve a balance between a powerful drive and smooth gearshift, while providing excellent fuel performance. JATCO leads the world with the No.1 market share in the global market of CVTs for automobiles.

#### Transmissions for hybrid vehicles that meet market needs

JATCO is also putting effort into the design and development of transmissions for hybrid vehicles to match the needs of the market. With our high level of control technology built upon years of experience, a transmission optimizing the features of hybrid vehicles has been jointly developed with automobile manufactures. Both step AT and CVT-based hybrid transmissions realize efficient energy regeneration and motor driving as well as hybrid driving. They balance between driving performance and environmental performance at a high level.

# Transmission

Power from the engine is transmitted to the tires in the most optimal way. For that, the transmission plays an important role. Powerful driving force is necessary when a vehicle starts or climbs a hill. When driving at a certain speed, such as driving along highways, a quiet and eco-friendly drive with minimal engine revolutions is expected.

An automatic transmission produces the optimal driving force and engine revolutions corresponding to various driving conditions. Automatic transmissions are the brain of a car.

Lineup

#### Product lineup compatible with a wide variety of vehicles

JATCO is the only manufacturer in the world offering a lineup of CVTs that covers from mini vehicles to large passenger cars, as well as step ATs and transmissions for hybrid vehicles. JATCO's products are used by many automobile manufacturers and are well received by customers around the world.



Engine

### JATCO France SAS / Paris, France, and Barcelona, Spain

JATCO France SAS, established in 2003, serves functions including development, testing, market research, quality assurance services, and sales. It collects road information that is unique to Europe as well as customer opinions and feeds these back into the product planning and development processes

#### Moscow representative office / Moscow Togliatti representative office / Togliatti

The Togliatti representative office established in 2012 and the Moscow representative office established in 2013 mainly serve the functions of market research, quality assurance, and sales.



respond to the needs of the ASEAN market, which is experiencing dramatic growth. Production operations commenced in 2013. The production plant has an annual production capacity of 500,000 units per year.

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JATCO (Guangzhou) Automatic Transmission Ltd., established in 2007, commenced production in 2009 with the aim of supplying products to the Chinese market, one of the largest markets in the world. It has strengthened production capability rapidly to match the growth of the Chinese market, and today, has grown to become a production plant with a capacity of 1 million units per year.

#### JATCO(Suzhou)Automatic Transmission Ltd.

JATCO (Suzhou) Automatic Transmission Ltd., established in 2018, commenced production in 2019 as a production plant to respond to the increased demand for CVTs following the expansion of the Chinese automobile market. As JATCO's second production plant in China after JATCO Guangzhou, it has a production capacity of 480,000 units per year.

## Global Expansion Global Structure

#### Looking out at the global market with the spirit of monozukuri excellence

JATCO is expanding its development and production facilities around the world in locations close to customers. Products incorporating customer needs are planned. designed, and manufactured in a timely manner. There are as many as 12 facilities in eight countries outside of Japan. Production engineering in each production facility is designed with a global scope, and the same level high guality products are produced at all production plants in the world. Development facilities in the world closely cooperate with each other and transform market information into product development.

#### JATCO Engineering Ltd, established in 1989, serves functions such as development, production, and quality inspections and provides support for JATCO's product development amidst an environment of diversifying

JATCO Engineering Ltd

JATCO Ltd

market needs

JATCO Tool Ltd JATCO Tool Ltd, established in 1995, provides support for JATCO production sites around the world in the area of polishing cutting tools.

#### **JATCO Plant Tec Ltd**

JATCO Plant Tec Ltd was established in 1995, and provides JATCO with support in the areas of power equipment operation and maintenance, machine tools and telecommunications



JATCO USA. Inc., established in 1997. serves functions such as sales, development, testing, quality assurance, and after sales services. It is active in the North American arena, which is the largest market in the sector. From the bitter cold of Alaska to the scorching heat of Arizona, it provides support for development aimed at offering the best transmission systems to the massive North American market



JATCO MEXICO S.A. DE C.V. was established in 2003 and commenced production in 2005 as a production facility that supplies products to the North American market. Alongside the growth in automotive demand in the North American market as well as globally, the facility has expanded its production scale. In 2014, the second plant commenced production. Together with the first plant, the facility now produces 1.7 million units per year.



JATCO Korea Engineering Corporation, established in 1998, serves functions that facilitate all development work, from design to testing. In particular, it plays an indispensable and important role in JATCO's product development in the area of computer analysis, which it has expertise in.

#### **JATCO Korea Service** Corporation / Seoul and Busan, Korea

JATCO Korea Service Corporation, established in 2004, serves sales and quality assurance service functions in the Korea market. It plays a part in responding to the needs of customers in the Korea market in a timely manner. from a location that is close to them.





Production Base Research & Development

Sales & Service

## Social Responsibility Responsibility toward society

Jatco

#### All activities aimed at creating a society where automobiles and the environment coexist in harmony

In addition to abiding by the law, protecting human rights, and maintaining a sense of fairness at all times, JATCO also believes in actively fulfilling its social responsibilities by providing social value through its business and products. With the slogan of being a good corporate citizen, it has taken voluntary initiatives to promote social contribution activities with a focus on the three areas of environment, education, and welfare and to solve social issues with the aim of creating a JATCO that is well loved by the local community.

#### Provision of products that can meet the needs of customers

JATCO offers drivers a safe driving experience and enables them to drive as they please in places of extreme cold or in scorching hot deserts. It will continue to provide products that are tailored to the different uses of cars, which exceed the expectations of customers and meet the needs of automobile users around the world.

#### Reducing the burden on the environment through JATCO's products

JATCO aims to improve the fuel efficiency of automobiles around the world by 5% to 10% and beyond through the evolution of transmission systems. By supplying products with outstanding environmental performance, JATCO will continue to contribute to the protection of the earth's environment and to develop products with a view to the future of the automobile-based society.



#### Creating a kind society that gives consideration to the socially vulnerable

In Japan, JATCO is putting effort into welfare activities, including organizing the Yokohama F. Marinos Cup Power Soccer Tournament and JATCO × Yokohama F. Marinos Futuro Cup that involves soccer players with intellectual disabilities. In the United States, it is also putting active effort into activities that give consideration to the socially vulnerable, including participation in food banks.



#### Creating an environment where employees can work with vitality and energy

In order to bring about the realization of a vibrant organization and creative thinking, JATCO actively promotes employee diversity by accepting all forms of diversity, including gender, nationality, and career. In Japan, it has been highly appraised for its initiatives in developing an environment to help employees strike a balance between childcare and work and was the first company in Shizuoka Prefecture to be recognized as a Platinum Kurumin company in August 2015.

#### Complying with rules and engaging in fair corporate activities

JATCO puts company-wide effort into complying with laws and regulations and always acting in line with a high level of ethics through organizations that straddle the boundaries of divisions and departments. These organizations include the Compliance Committee and the Information Security Committee.

#### Cooperation with partner companies

JATCO has drawn up Supplier CSR Guidelines for its business partners of component parts. For example, it has set out the rejection of involvement in child labor, ensuring the appropriate management of hazardous substances and other items as the premise for its trading activities. Together with its business partners, it has established the clear stance of promoting business fairly and transparently.

#### Preserving our precious environment for future generations

As a good corporate citizen, JATCO is putting effort into environmental activities. In its locations around the world, it is engaged in activities that aim to preserve our rich natural environment for the children of the future and contribute to the local community. These activities include tree-planting and cleanup activities, releasing young fish, and maintaining pedestrian promenades.

#### Communicating the wonders of monozukuri

As part of its educational initiatives, JATCO organizes job experience activities and accepts elementary, junior high, high school, and university students in the neighborhoods of its respective locations for plant tours corresponding to their respective age groups. It has also visited areas affected by the Great East Japan Earthquake and conducted visiting lessons to convey the enjoyment of monozukuri.

# JATCO's History

		1943 August	Yoshiwara Plant of NISSAN MOTOR CO., LTD. (Current Fuji Area No. 1) established
	World's First		
			Japan Automatic Transmission Co., Ltd. established through merger of NISSAN MOTOR CO.,
		1970 January	LTD., Mazda Motor Corporation (then Toyo Kogyo Co., Ltd.), and Ford Motor Company
	JR502E		
	World's first 5-speed electronically-controlled automatic transmission	1989 April	
Carlos Carlos		1989 October	Name changes to JATCO CORPORATION
	F06A	1989 October	
	World's first steel belt CVT for 2-liter class engines	1997 August	
·		1999 Ju <mark>ne</mark>	AT/CVT division of NISSAN MOTOR CO., LTD. splits off to become TransTechnology Ltd.
		1999 Oct <mark>ober</mark>	TransTechnology Ltd. and JATCO CORPORATION merge to form JATCO TransTechnology Ltd.
A A COL	JR006E		
	World's first mass production of a toroidal CVT, the ultimate CVT	1999 October	
Upper			
and the second second	weeks and the second	2002 April	JATCO TransTechnology Ltd. changes name to JATCO Ltd
1		2002 April	AT/CVT division of MITSUBISHI MOTORS CORPORATION splits off to become Diamondmatic Co., Ltd.
á	JF010E		
	World's first steel belt CVT for 3.5-liter class engines	2002 November	
The second second		2003 April	Diamondmatic Co., Ltd. merges with JATCO Ltd
	Jatco CVT7 (JF015E) World's first CVT with an auxiliary gearbox	2009 September	
600	world 3 mist ov r with an auxiliary gearbox	2009 September	
	JR712E		7 50 50 50
	World's first 1-motor, 2-clutch type hybrid vehicle	0010 1	
	transmission without a torque converter	2010 November	
	Jatco STE Jatco CVT8 HYBRID (JF018E)		
	World's first hybrid vehicle transmission to	0015 14	
A	adopt a dry type multi-plate clutch in the engine and motor coupling part	2015 May	
			Thank you
		2020 January	for 50 years!

#### **Corporate Profile**

Company name	JATCO Ltd		
Established	June 28, 1999		
Head office	700-1, Imaizumi, Fuji City, Shizuoka, Japan		
Main businesses	Development, manufacturing, and sale of transmissions and automobile components		
Paid-in capital	¥29,935.3 million		
Number of employees (consolidated)	12,700 (as of March 31, 2022)		
	NISSAN MOTOR CO., LTD		
Shareholders	MITSUBISHI MOTORS CORPORATION		
	SUZUKI MOTOR CORPORATION		

#### Financial results (consolidated)

			billion yen
	FY 2019	FY 2020	FY 2021
Net revenues	649.2	542.8	561.3
Operating income	28.1	18.6	26.7
Net income	1.9	5.8	16.5
			(

(Reference)

#### Locations

#### Head Office and Fuji Area

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#### Kambara Area

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#### Fujinomiya Area

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#### Kakegawa Area

#### Yagi Area

10-1, Yamada, Murohashi, Yagi-cho, Nantan City, Kyoto 629-0102, Japan TEL: +81-771-43-2200 FAX: +81-771-43-2216

#### Atsugi R&D Center

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#### Okazaki R&D Center

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#### Motegi Proving Ground

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#### Zama R&D Center

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#### Affiliated companies in Japan

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#### JATCO Tool Ltd

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#### JATCO Plant Tec Ltd

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#### Affiliated companies overseas

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#### JATCO Korea Engineering Corporation

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#### JATCO (Suzhou) Automatic Transmission Ltd.

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#### JATCO (Thailand) Co., Ltd.

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