



TAMAGAWA SEIKI CO., LTD. / TAMAGAWA TRADING CO., LTD.

Developing State-of-the-Art Technology in Anticipation of Society's Needs

Southern Japanese Alps

We always respond to our customers' global needs and help them find solutions with our technology.

In order to coexist and evolve with the Earth, technology must be kind to people and nature, and furthermore, have power to create the future.

We look to the wisdom of our predecessors, open our hearts and challenge ourselves to even greater technological development.

Ranging from technological development necessary for the space age, which has already begun, to technological development of everyday products, we will respond with flexible ideas and solid know-how.

Tenryu River

Iida City

Chuo Expressway

TAMAGAWA SEIKI CO., LTD.
Headquarters

Company Profile

TAMAGAWA SEIKI CO., LTD.

■Date of Establishment

March 3, 1938

■Headquarters

1879 Oyasumi, Iida, Nagano Pref.
395-8515 Japan

■Executive

Honorary Board Chairman Hiroyuki Hagimoto
(Ph.D., in Mechanical Eng'g.)
Board Chairman & CEO Yasuo Hagimoto
President & COO Tadanori Matsuo
Senior Managing Director Hideo Kumagai
(Ph.D., in Electrical Eng'g.)
Senior Managing Director Masashi Uryu
Managing Director Hiroshi Hagimoto
Managing Director Kazuyuki Miyazawa
Director Makoto Yamaguchi
Director Tadasu Takigawa
Auditing Director Toshiaki Ito
Auditing Director (Part time) Yusuke Kishimoto

TAMAGAWA TRADING CO., LTD.

■Executive

Honorary Board Chairman Hiroyuki Hagimoto
(Ph.D., in Mechanical Eng'g.)
Board Chairman & CEO Yasuo Hagimoto
President & COO Tadanori Matsuo
Managing Director Tadasu Takigawa
Director Masahiro Shiozawa
Auditing Director Toshiaki Ito
Auditing Director (Part time) Yusuke Kishimoto

■Main Products

Contract manufacturing, Sales and service of servo components (encoder, resolver, rate sensor, gyro, AC servomotor, LVDT etc.) motor driver, controller, robot, IMU, automatic control equipment and (bio) research reagents.

■Associated Banks

Sumitomo Mitsui Banking Corporation
MUFG Bank, Ltd.
Mizuho Bank, Ltd.
THE HACHIJUNI BANK LTD.

■Group Company

Tamagawa Hightech Corporation
Tamagawa Microtep Co., Ltd.
Tamagawa Seiki Electronics Co., Ltd.
Tamagawa Logistics Co., Ltd.
TAMAGAWA MOTORTRONICS CO., LTD.
TAMAGAWA HONG KONG LIMITED
Tamagawa TECHNOCREATION CO., LTD.
TAMAGAWA MOBILE EQUIPMENT CO., LTD.
TAMAGAWA AERO SYSTEMS CO., LTD.
Tamagawa Seiki Suzhou Co., Ltd.
Tamagawa Links Co., Ltd.
Tamagawa Sky Precision Co., Ltd.
Tamagawa Parts Manufacturing Co., Ltd.
Tamagawa Europe GmbH
TAICANG TAMAGAWA TRADING CO., LTD.

MOTORTRONICS®

Motor (Sensor) Technology

Electronics Technology

Precision Machinery Technology

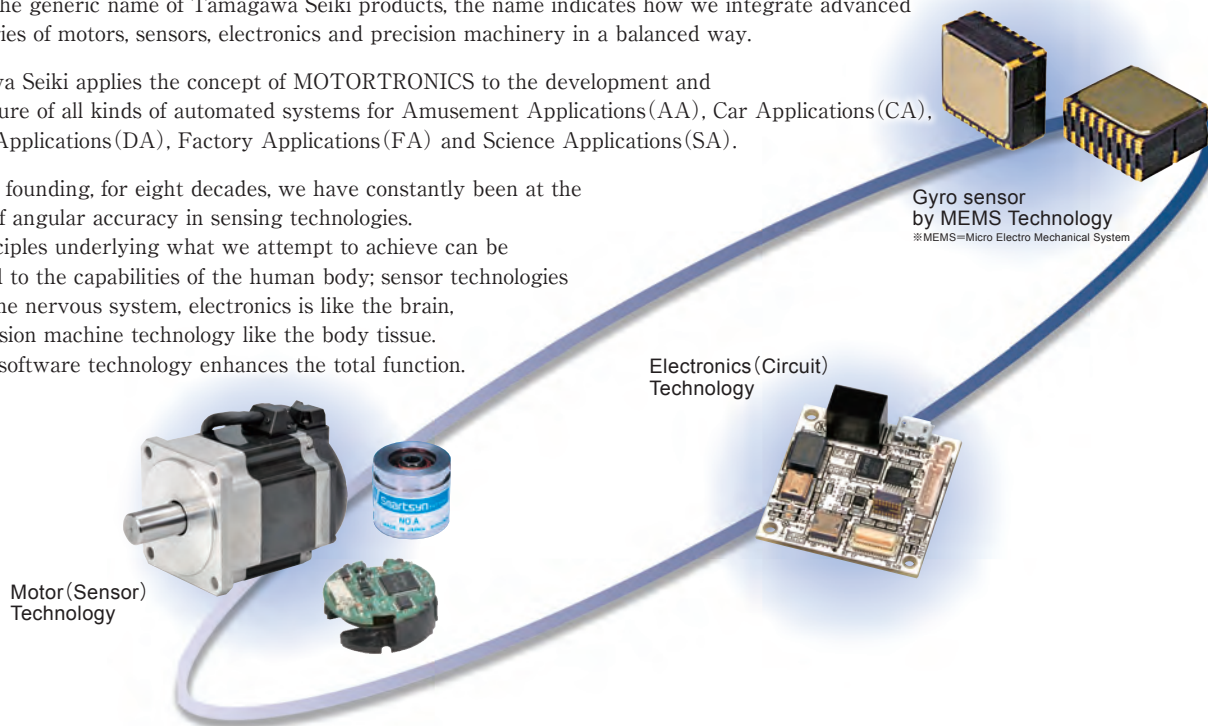
The trademark "MOTORTRONICS" is a compound term derived from the words "motor", "electronics" and 'mechanics'.

Used as the generic name of Tamagawa Seiki products, the name indicates how we integrate advanced technologies of motors, sensors, electronics and precision machinery in a balanced way.

Tamagawa Seiki applies the concept of MOTORTRONICS to the development and manufacture of all kinds of automated systems for Amusement Applications(AA), Car Applications(CA), Defense Applications(DA), Factory Applications(FA) and Science Applications(SA).

Since our founding, for eight decades, we have constantly been at the frontier of angular accuracy in sensing technologies.

The principles underlying what we attempt to achieve can be compared to the capabilities of the human body; sensor technologies are like the nervous system, electronics is like the brain, and precision machine technology like the body tissue. Also our software technology enhances the total function.

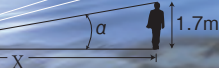


Driving Forward the Frontiers of Technology

Tamagawa Seiki is a leading manufacturer of 2-dimensional position/angle sensors, angle / angular velocity sensors in 3-dimensional space, and servo components.

Throughout its history, Tamagawa Seiki has succeeded in manufacturing products with the most accurate angular control possible at the time.

This attitude will continue, even if it takes more than 10 years to improve the accuracy by 1 digit.



Concept of Angles (angles given in the order of seconds)

α : Angle	X : Distance equivalent to human height
10000arc sec(2.8degrees)	35m
1000arc sec(0.28degrees)	350m
100arc sec(0.028degrees)	3.5km
10arc sec	35km (Tokyo-Hachioji) (Iida-Ina)
1arc sec	350km (Tokyo-Kyoto)
0.1arc sec	3500km (Tokyo-Hanoi, Vietnam)
0.01arc sec	35000km (to Synchronous Satellite)

350km
(1arc sec)
Tokyo - Kyoto

35000km
(0.01arc sec)
To Satellite



Business Summary

Tamagawa Seiki started its business form developing defense-related products. Sticking to the accuracy and quality of products with the highly reliable technology that we cultivated there, we are working on the development of new technologies and products.

Aviation, Space & Defense-Related Products

Main Products:

- Angular velocity sensors and systems
 - Rate gyros (mechanical type)
 - Gas rate sensors
 - Fiber optical gyros
 - Ring laser gyros
 - MEMS gyros
 - Inertial measurement equipment
 - Attitude heading reference system
 - Servo accelerometers
- Aviation instruments
 - Torque, Servo motor, LVDT, RVDT, RVDT cluster, Resolver
 - Power supply (Rectifier, AC/DC, DC/DC)
 - Engine indicators and instruments
 - Aircraft indicators and instruments
 - Electric actuators and other instruments
 - Pump
 - Valve
 - Surveillance Camera System

- Special instruments
 - S/D, D/S Signal converters
 - Rocket management systems (RMS)
 - Missile control devices
 - Surveillance Camera System
 - Slip ring
 - Optical measurement equipment
 - Position detectors
 - Trackballs
 - Throttle lever
 - Overhaul of equipment listed above

- Motors and Sensors for Outer Space
 - Reaction wheel
 - Brushless synchros and resolvers
 - Encoders
 - Brushless DC motors, Resolvers (geared)
 - Brushless DC motors, Encoders
 - Steptomotors (geared)
 - Actuators
 - Vacuum equipment
 - Ground test equipment
 - Mechanical units for space instrum



Brushless DC motor for driving flexible paddles in solar cells



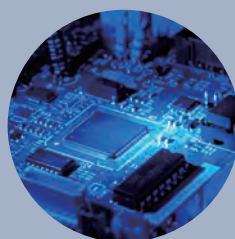
These products play an active role in 5 different application fields.



Defense Applications



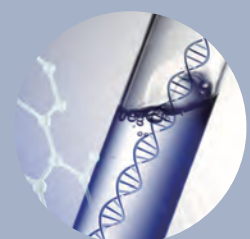
Car Applications



Factory Applications



Amusement Applications



Science Applications

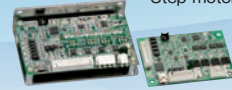
Servo Components

Main Products:

AC servomotors
Step motors(2-phase / 5-phase)
Optical Rotary encoders
(Absolute/Incremental)
Magnetic encoders
LVDTs/RVDTs
Synchros and resolvers
Brushless resolver "Smartsyn"
VR type resolvers "Singlsyn"
Multi-pole & speed synchros and resolvers
MEMS gyros



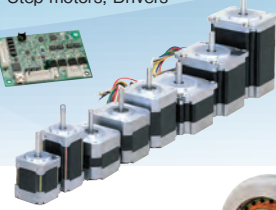
Extremely - accurate
Multi - pole & Multi -
speed synchros and resolvers



Step motors, Drivers



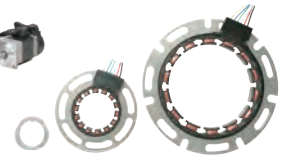
MEMS gyros



Smartsyn
Brushless resolvers



AC servomotors



Singlsyn VR type resolvers



Optical Rotary encoders



Magnetic encoders

System Equipments

Main Products:

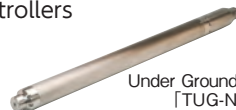
Iron and steel equipment
Water treatment equipment
Vehicle equipment
Ship related equipment
Peripheral equipment for semiconductor manufacture
Machine tool components
Logistics related equipment
Applied optics equipment
Medical care equipment
Spatial stability equipment
Test and inspection equipment
Smart Cam System
Servo drivers and controllers
Trackballs
Teaching aids
Leisure equipment
Inertial measurement unit



ATLAS-eye system



MEMS IMU



Under Ground Navigator
[TUG-NAVI]

Nano-magnetic beads



Smart Cam System



R/D Converter



Trackball



Synchro transmitters

Quality Policy

Provide Products & Services that give Satisfaction to Customers
"Each one promises Quality without the compromise."

1. We will obtain the latest information on quality and strive to improve quality.
2. We will act with a renewed awareness of the fact that the quality of procured products is also within the scope of our company.
3. We will promote manufacturing in defined parts and processes.
4. When changing 4M, we will review and respond to the details.

Environmental Policy

"Each of us Save an Enriched Nature Environment"

1. We achieve carbon neutrality through reduction of greenhouse gas emissions and effective use of resources in our business activity and throughout the life cycle of products and services.
2. We take on the challenge to develop next-generation technologies and resolve environmental issues.
3. We comply with environmental laws and regulations, control the effect of chemical substances, and protect eco-systems and biodiversity.
4. We go forward to improve our environmental performance through continuous improvement.
5. We cooperate with other companies and organizations to contribute to a sustainable development of community.

Tamagawa Network

Tamagawa Seiki has developed production and sales bases in different areas of Japan as well as in the world to respond flexibly to various customer needs.

Network in Japan



Headquarters / First Plant /
Spacetronics Laboratory

Occupied area	138,200m ²
Building space	29,600m ²



Second Plant / Sensortronics Laboratory /
Motortronics Laboratory

Occupied area	44,000m ²
Building space	23,200m ²



Hachinohe Plant
First Hachinohe Factory

Occupied area	36,300m ²
Building space	5,300m ²



Second Hachinohe Factory /
Motortronics Laboratory

Occupied area	34,200m ²
Building space	16,400m ²



Third Plant

Occupied area	35,400m ²
Building space	11,300m ²



TAMAGAWA TRADING CO., LTD.
Headquarters



Occupied area	27,400m ²
Building space	6,300m ²

Second Fukuchi Factory /
Motortronics Laboratory



Occupied area	54,000m ²
Building space	20,300m ²



Occupied area	80,200m ²
Building space	5,700m ²



Matsukawa Town, Nagano Prefecture
Third Plant

Iida City, Nagano Prefecture
Headquarters / First Plant / Second Plant / Nagano Office

Kita-kanto
Office

Osaka Office

Nagoya Office

Nishi-kanto
Office

Chubu Office

Ota-ku, Tokyo
Tokyo Office

Fukuoka Office

Tokyo Office



Occupied area	2,300m ²
Building space	600m ²

TAMAGAWA SEIKI CO., LTD.

Headquarters :
1879 Ohyasumi, Iida, Nagano Pref.
395-8515 Japan
PHONE : +81-265-21-1800
FAX : +81-265-21-1861

Tokyo Office :
3-19-9 Shinkamata, Ohta-ku, Tokyo
144-0054 Japan
PHONE : +81-3-3738-3133
FAX : +81-3-3738-3134

TAMAGAWA TRADING CO., LTD.

Headquarters :
1-3-1 Haba-cho, Iida, Nagano Pref.
395-0063 Japan
PHONE : +81-265-56-5423
FAX : +81-265-56-5427

Representative office in Taiwan :
436 Bo-Ai 3rd Road,
Kaohsiung City 813 Taiwan, R.O.C
MOBILE PHONE : +886-922-0214-645
FAX : +886-7-3502257

TAMAGAWA HONG KONG LIMITED

Unit1010 10/F, Tower 3 Enterprise Square,
No.9 Sheung Yuet Road, Kowloon Bay,
Hong Kong
PHONE : +852 2753 9868
FAX : +852 2753 9869

Tamagawa Seiki Suzhou Co., Ltd.

TAICANGTAMAGAWA TRADING CO., LTD.
No8 Sanhe Road, Ludu Town Taicang city,
Jiangsu Province China
PRC 215412
PHONE : +86-512-53200791
FAX : +86-512-53200786

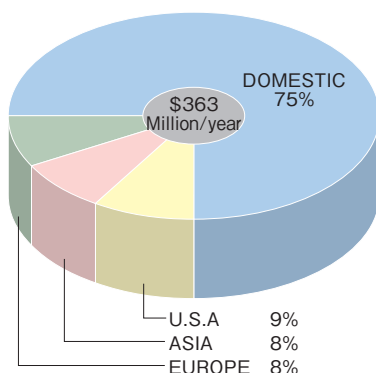
Tamagawa Europe GmbH

Emmy- Wechßler-Weg 7 89077 Ulm Germany
PHONE : +49 731 963 389 51
FAX : +49 731 963 389 57

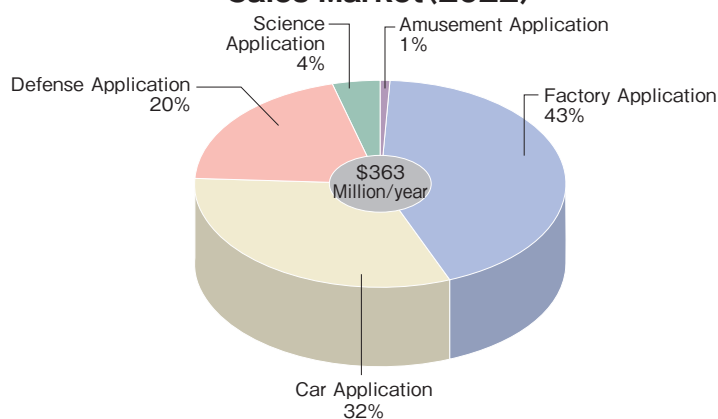
Global Network and Performance



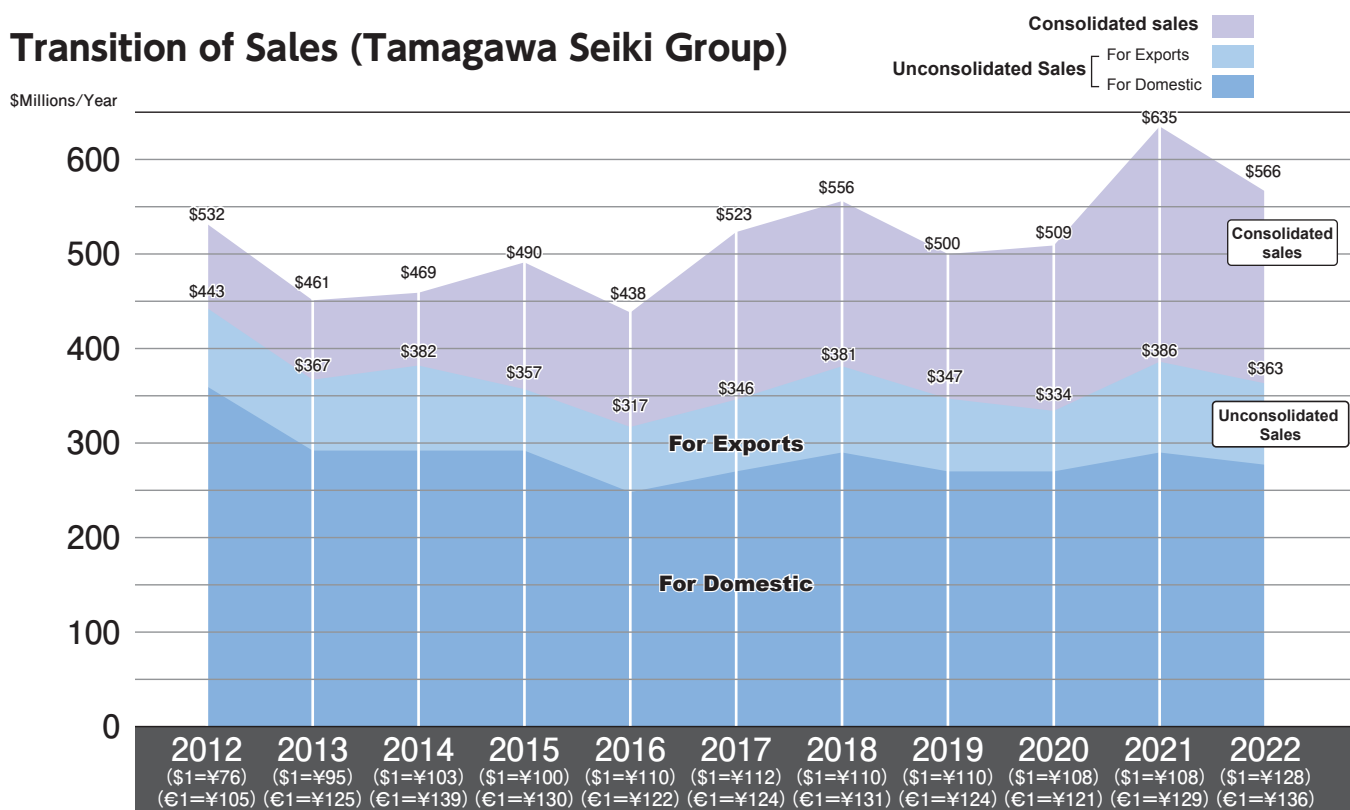
World' Market Ratio (2022)
\$1=¥128



Sales Market (2022)



Transition of Sales (Tamagawa Seiki Group)



●URL <https://www.tamagawa-seiki.com>



Contents printed in this catalog
are subject to change without notice.

'23.02

T12-1490N23 2023.2