

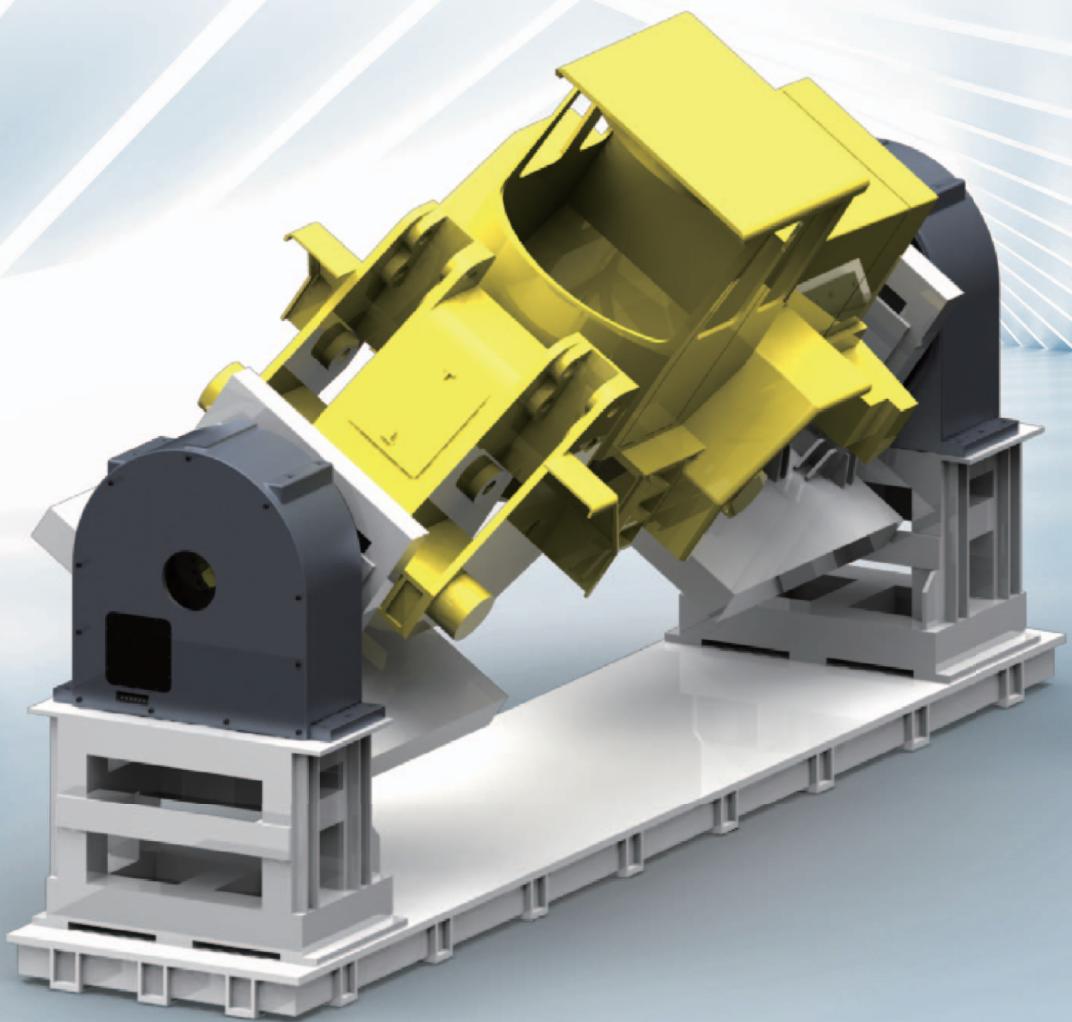
NEW

Vertical, heavy load, welding positioner

RollerDrive®

SP10TV

Handle workpieces up to 20 tons with the SP10TV x 2
360°/20sec (3min⁻¹) rotation

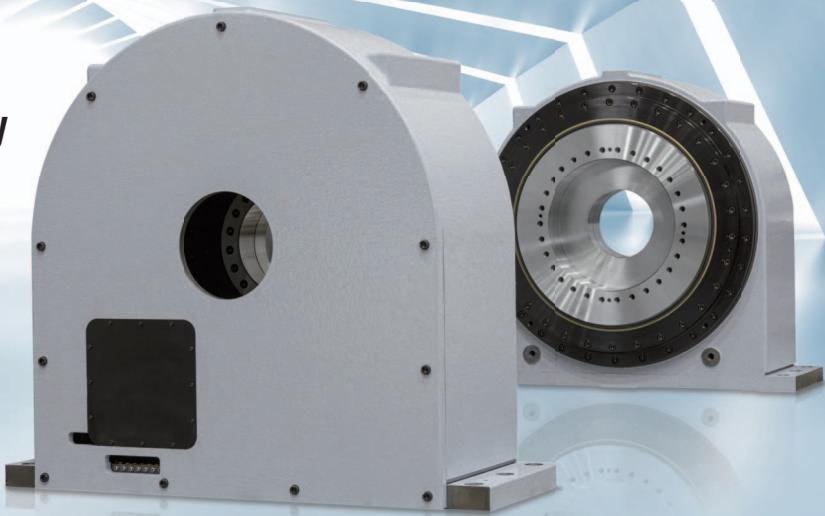


Features/Model code

Vertical welding positioner specifically designed for heavy loads

RollerDrive® SP10TV

SP10TV gives you high efficiency
and quality of welding.



Features

- ▶ Enables **positioning a large-heavy workpiece** by using a heavy-load bearing.
- ▶ Enables **stable positioning** by using a roller drive as driving unit.
- ▶ The large-diameter hole ($\phi 700$, 365 mm) allows you to **wire and piping**, as well as **install additional devices**.
- ▶ **Simply maintenance** by consolidating the maintenance window and the grease ports to the back tide of the unit.

Model code

SP10TV-1134-A Z-X

①

②

③

④

⑤

① Model	② Gear ratio	③ Attachment code*1	④ Servo motor installation		⑤ Standard/Custom	
SP10TV	1134	A	W	Installed by Sankyo	Blank	Standard
		B	Z	Installed by the customer	X	Custom
		C				
		D				
		E				

*1: Please refer to the "Attachment code list" on page 3.

Specifications/Dimensions

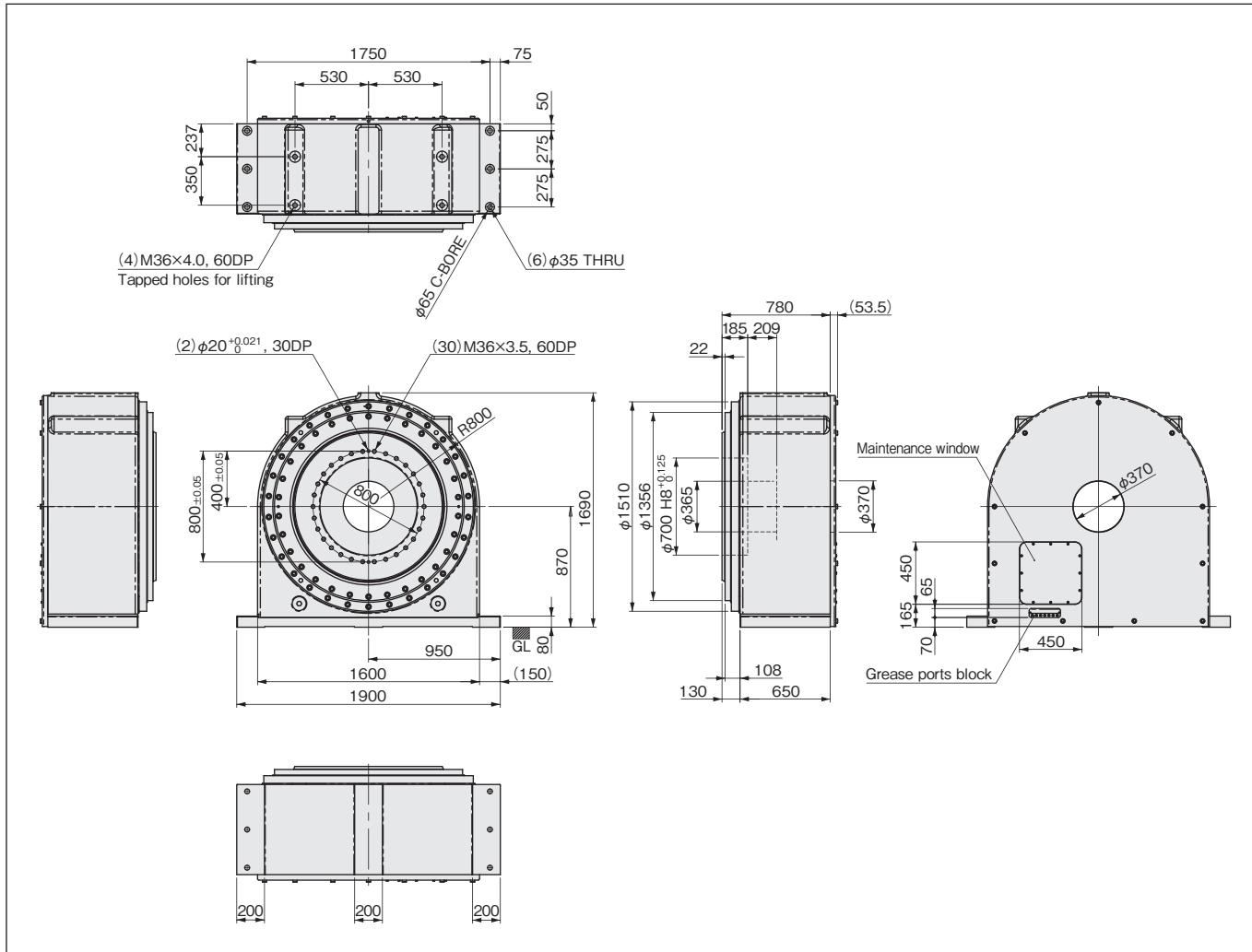
Specifications

Model		SP10TV
Allowable payload	kg	10,000
Output table diameter	mm	1080
Output hollow diameter	mm	365
Gear ratio		1134
Maximum rotating speed	min ⁻¹	3.0(18°/sec)
Repeatability	mm	±0.5(R=500mm)
Momentary max. allowable torque	N·m	25,380
Start/Stop limit torque	N·m	11,300
Allowable moment load ^{*1}	N·m	150,000
Internal moment of inertia at the input shaft ^{*2}	kg·m ²	1.15×10 ⁻³
Net weight	kg	5,850

*1 Allowable moment load depends on the mounting direction and payload. For details, please refer to the allowable moment diagrams on page 4.

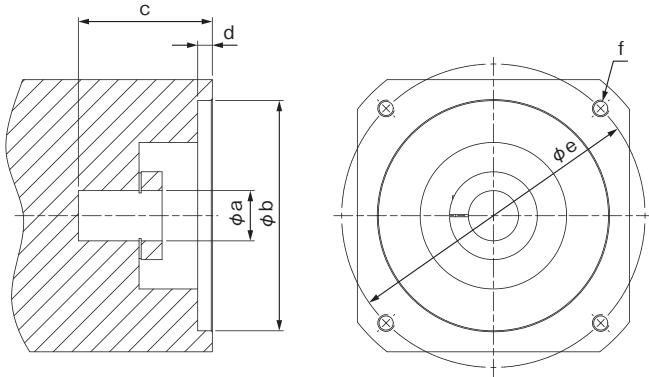
*2 Internal moment of inertia at the input shaft depends on the attachment code. For details, please refer to the attachment code selection table on page 3.

Dimensions



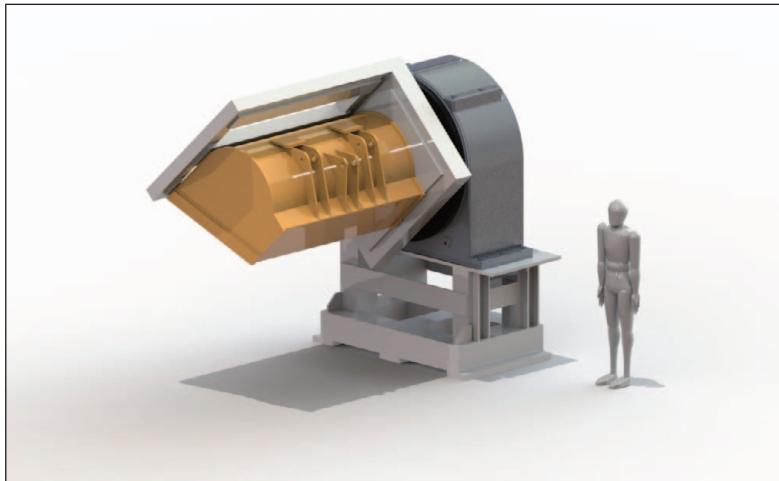
Attachment code/Applications

Attachment code

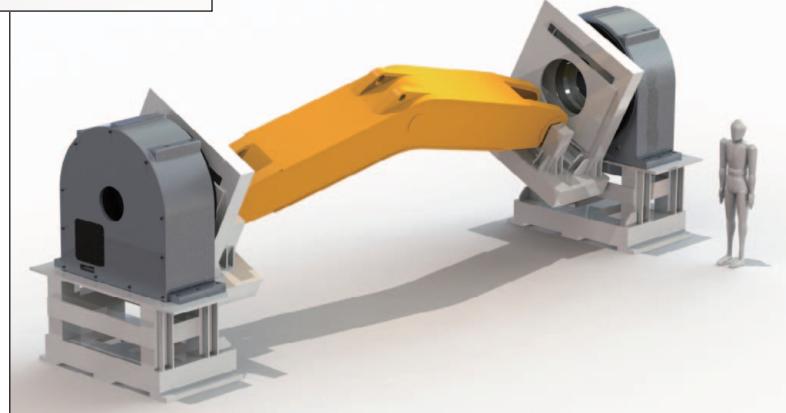


Attachment code	ϕ a		ϕ b		c	d	ϕ e	f	J (Internal moment of inertia at the input shaft) [kg·m ²]
A	22G7	+0.021 +0.007	114.3G7	+0.047 +0.012	52 to 66	8	160	(4)M10, 21DP	1.15×10^{-3}
B	28G7	+0.021 +0.007	114.3G7	+0.047 +0.012	52 to 66	8	200	(4)M12, 25DP	1.15×10^{-3}
C	32G7	+0.034 +0.009	114.3G7	+0.047 +0.012	55 to 81	8	200	(4)M12, 25DP	1.85×10^{-3}
D	35G7	+0.034 +0.009	114.3G7	+0.047 +0.012	55 to 81	8	200	(4)M12, 25DP	1.85×10^{-3}

Cantilever mounting, 1 axis: Welding example showing a construction machine bucket



Double-sided mounting, 2-axis: Welding example showing a construction machine boom

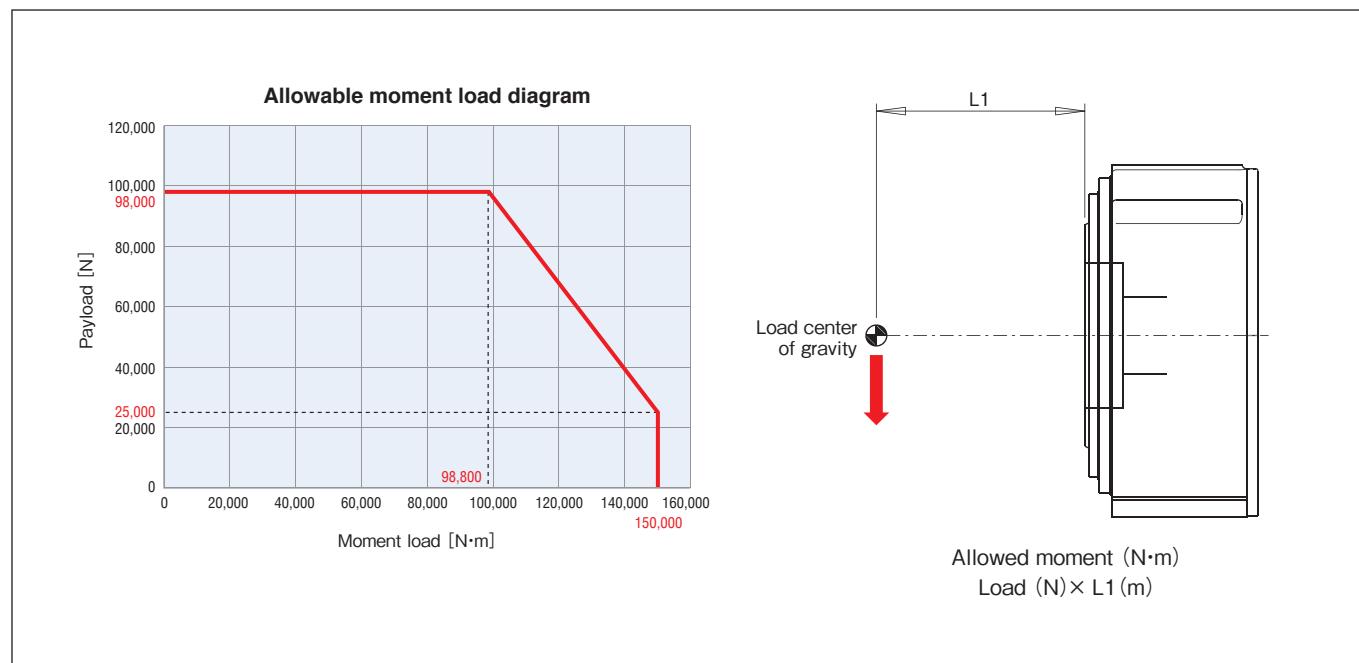




Technical data

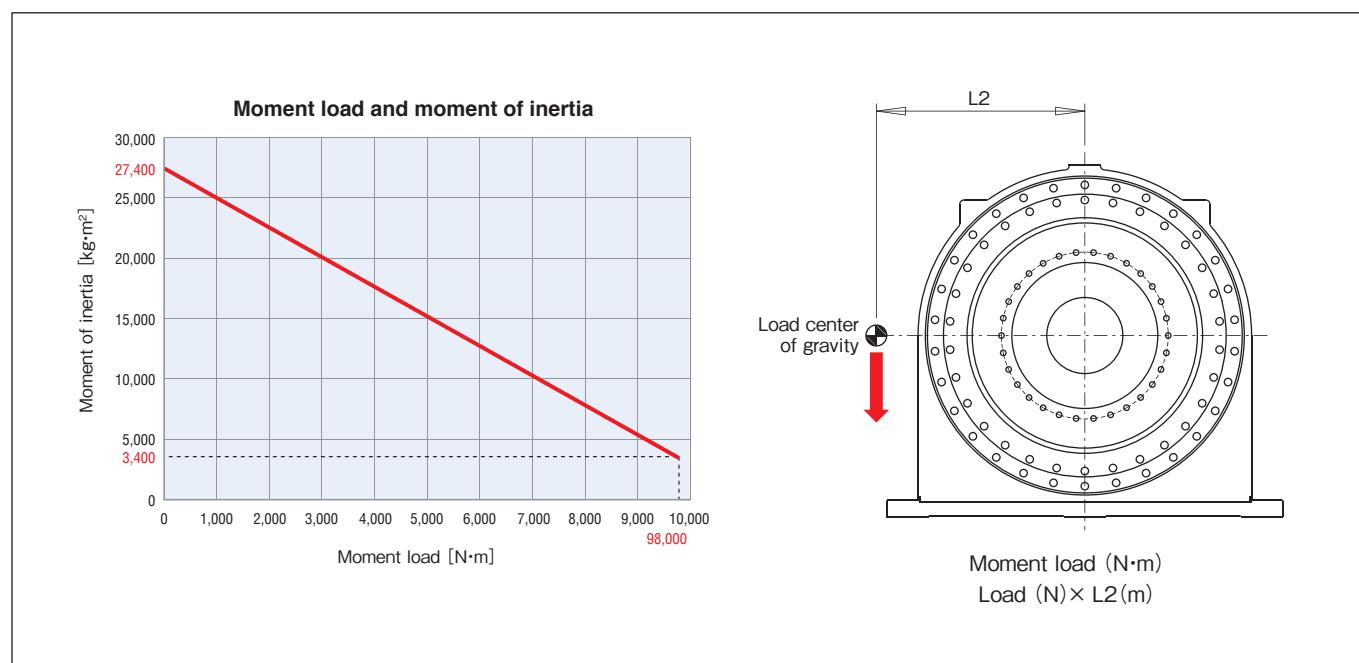
Allowable moment load diagram

The allowable load is limited by the position of the center of gravity of the workpiece load. Operating with a load that has more mass than the allowable load will significantly reduce the product operation life and lead to the product damage. Please use this diagram after you have determined the mass of the load mass and the position of its center of gravity.



Moment load and moment of inertia

The relationship between the moment load and the moment of inertia is shown below. Operating with a load that has more mass than the allowable load will significantly reduce the product operation life and lead to the product damage. Please use the diagram after accurately determining the mass of the load, the position of the center of gravity and the moment of inertia. If you want to use the product with over the allowable moment of inertia, please contact us.



Welding positioner lineup

Welding positioner, standard model **SP series**



⟨Features⟩

- ▶ Excellent settling performance for **reduced tact time**
- ▶ Large hollow bore output and wiring space for **simplified wiring and piping**
- ▶ Thin design of the body for **keeping systems compact**

⟨Size⟩

- ▶ Payload: 300, 600, 1,200, 2,400, 3,600 (kg)

Horizontal models **SH series**



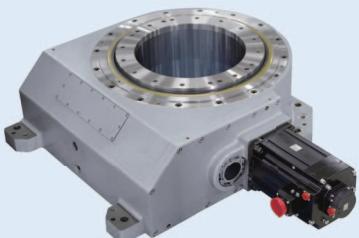
⟨Features⟩

- ▶ Large hollow bore output and wiring space for **simplified wiring and piping**
- ▶ Proprietary rolling reducer mechanism for **high-efficiency driving**
- ▶ Orthogonal axis with **no need to remove the jig** when replacing the motor

⟨Size⟩

- ▶ Payload: 5,000 (kg)

High-speed rotary welding positioner **RW series**



⟨Features⟩

- ▶ High speed and high accuracy with excellent setting performance for **reduced tact time**
- ▶ Large hollow bore output and wiring space for **simplified wiring and piping**
- ▶ **Reduces downtime** with a durability that can withstand the impact of an emergency stop

⟨Size⟩

- ▶ Payload: 2,000, 5,000, 9,000 (kg)

Double supported 2-axis model **SP_DS series**



⟨Features⟩

- ▶ High speed and high accuracy with excellent setting performance for **reduced tact time**
- ▶ Thin-yet-highly rigid compact design capable of handling **payloads up to 600 kg**
- ▶ Large-diameter hollow bore on each axis for **simplified wiring and piping**

⟨Size⟩

- ▶ Payload: 600 (kg)



Handling

▶ Installation site

The product should be installed in a place satisfying the following conditions:

- Environment temperature from 0 to 40°C
- Non vacuum or extreme pressure
- No existence of explosive gas, other hazardous gas, or radio active materials
- Excessive shock or force does not act
- Minimum electro magnetic noise
(be cautious on welding machines)
- Humidity under 85% (no condensation)
- No exposure to water, oil, chemicals, dusts, etc.
- No direct sunlight
- Where there is little electromagnetic noise
- Where welding current will not flow inside the main body
(If necessary, connect a separate, secondary welding current ground.)

▶ About the operating conditions

- Depending on the operating pattern, the surface temperature of the product may rise due to heat generated inside the servo motor or product.
Pay attention so that the surface does not exceed 60°C.
- Repeated operation within a small turning angle range (10° or less) may cause poor lubrication and significantly reduce product life.
Please contact us when you routinely use an output rotation angle range of 10° or less.

⚠ Limitations on the use of this product

This product cannot be used in applications where operation of the product has a direct impact in human life, or can cause bodily harm to people. The scope of these use limitations includes the following applications:

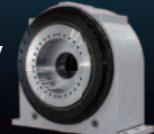
- i. Medical equipment
 - ii. Nuclear power related equipment
 - iii. Aerospace equipment
 - iv. Equipment for handling explosive, corrosive or toxic substances etc.
- Please consult with our company if you are considering use in one of the above applications.
 - If there is a possibility that this product will be used in a final use location outside Japan, in weapons or equipment for weapon manufacture, then it may be subject to regulation due to the Foreign Exchange and Foreign Trade Control Law. Please take extra care with regard to the application and region of use, and properly submit applications and follow procedures if necessary.

⚠ Notes on information

Specifications, dimensions and other information relating to this product provided in this catalog are subject to change without prior notice.

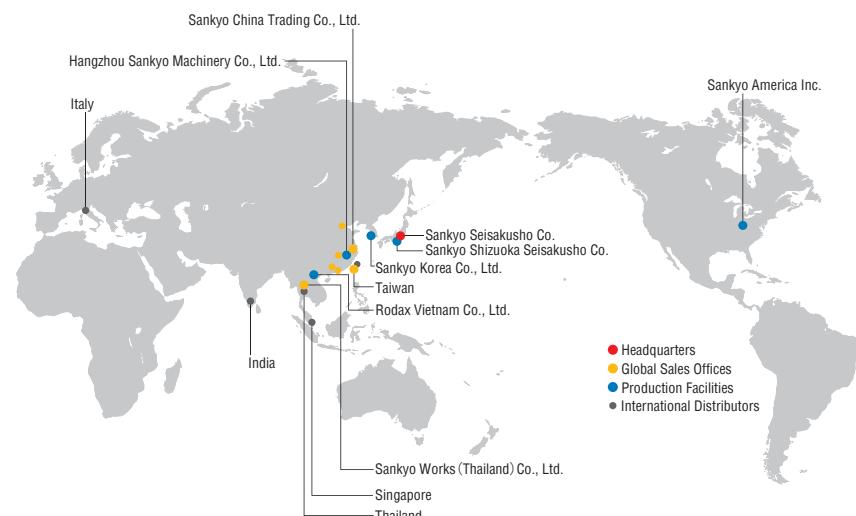
- The information in this catalog is current as of March 2021.
- Patent rights and copyrights for some mechanisms, trademarks, images, drawings and other material in this catalog all belong to Sankyo Seisakusho Co. Copying, reuse or distribution of any material in this catalog without the permission of Sankyo Seisakusho is forbidden.

For other safety information and detailed product handling methods, please refer to the instruction manual.



Service network

Global network



Group Companies

Sankyo America Inc.

10655 State Route 47 Sidney, Ohio, 45365 U.S.A.
Phone: +1-(0)937-498-4901 Fax: +1-(0)937-498-9403
Email: sales@sankyoautomation.com

Sankyo Korea Co., Ltd.

1449-48 Seobu-ro, Gwonseon-gu, Suwon-si, Gyeonggi-do, 16643 Korea
Phone: +82-(0)31-895-5991 Fax: +82-(0)31-895-6607
Email: kr-sales@rollerdrive.com

Sankyo China Trading Co., Ltd.

[Shanghai Sales Office]
Room 1103, Block B, No.391 Guiping Road,
Shanghai 200233 China
Phone: +86-(0)21-5445-2813 Fax: +86-(0)21-5445-2340
Email: sales@sankyochina-trading.com

[Shenzhen Sales Office]

Unit 19j, Tower B, Neo Building, No.6009 Shennan Avenue,
Futian District, Shenzhen China
Phone: +86-(0)755-8230-0270 Fax: +86-(0)755-8236-4605

[Tianjin Sales Office]

Room 1905, Pengzhanfeiwo Building A, Crossing Yale Road Yaolin Road,
Xiqing District, Tianjin 300380 China
Phone: +86-(0)22-2312-1005 Fax: +86-(0)22-2312-1007

[Guangzhou Sales Office]

Room 913, Xing Pu Building, No.12 Guan Hong Road,
Guangzhou Economic Development Zone, Huang Pu,
Guang Zhou 510670 China
Phone: +86-(0)20-8985-1846 Fax: +86-(0)20-8225-7346

[Wuhan Sales Office]

Room 2301, Taihe Square, No.134 Wusheng Road, Wuhan,
Hubei Province China
Phone: +86-(0)27-8568-5818 Fax: +86-(0)27-8568-2818

Hangzhou Sankyo Machinery Co., Ltd.

No.2518 Jiang Dong 2 Road, Hangzhou Jiang Dong Industrial Park,
Xiaoshan Zone, Hangzhou, Zhejiang, China
Phone: +86-(0)571-8283-3311 Fax: +86-(0)571-8283-1133

Rodax Vietnam Co., Ltd.

Plot No. M1, Thang Long Industrial Park II
Di Su, My Hao, Hung Yen, Viet Nam
Phone: +84-(0)221-3-589701 Fax: +84-(0)221-3-589701

Sankyo Works (Thailand) Co., Ltd.

9/31 Moo 5, Phaholyotin Road, Klongnueng,
Klong Luang, Pathumthani 12120 Thailand
Phone: +66-(0)2-516-5355 Fax: +66-(0)2-068-0931
Email: sales@sankyo-works.co.th

Contact us

Mon-Fri AM8:30–12:00 PM13:00–17:30 UTC + 09:00 (JST) (Except public holidays and company holidays)

**■ Headquarters
(International Sales Division)**
3-37-3 Tabata Shinmachi, Kita-ku, Tokyo, Japan 114-8538
Phone: +81-(0)3-3800-3330
Fax: +81-(0)3-3800-3380
Email: overseas@sankyo-seisakusho.co.jp
URL: <http://www.sankyo-seisakusho.co.jp>

■ Taiwan Sales Office
No.21, Ln.152, Jianxing Rd., Sanhe Vil., Daya Dist., Taichung City 42876, Taiwan (R.O.C.)
Phone: +886-(0)4-2359-4048
Fax: +886-(0)4-2359-4720
Email: tw-sales@rollerdrive.com



<http://www.sankyo-seisakusho.co.jp>

Specifications and dimensions are subject to change without notice.
Consult Sankyo sales before ordering.
Patent rights and copyrights for some mechanisms, trademarks, images,
drawings and other material in this catalog all belong to Sankyo Seisakusho Co.
"RollerDrive" is a registered trademark of Sankyo Seisakusho Co. in Japan.