



SANKYO

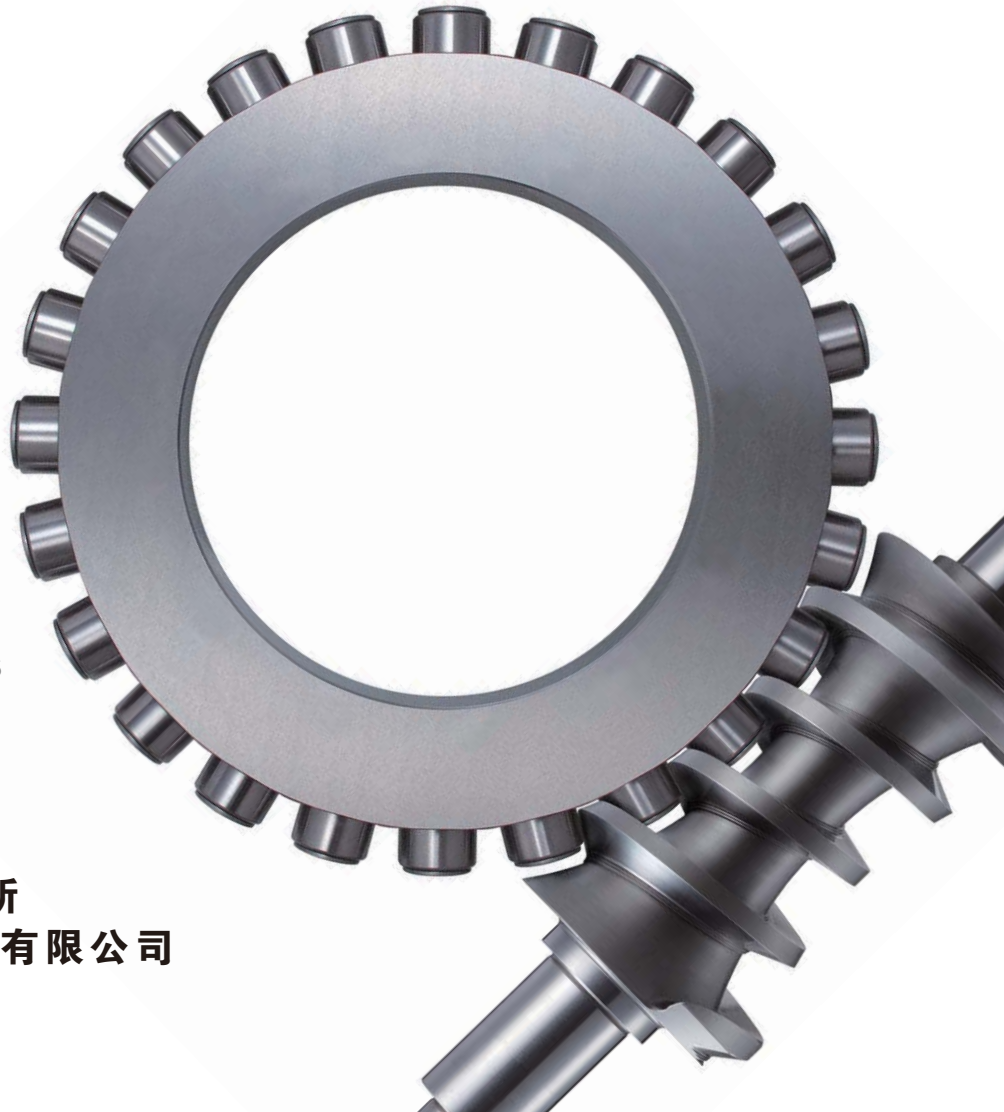
企业及产品简介

RollerDrive

SANDEX

Variax

For MachineTools



株式会社 三共制作所
三共机械销售(上海)有限公司

继往开来、支持我们、选择我们



代表取締役社長

小川 廣海

1938年创业以来，株式会社三共制作所一直重视与客户进行良好的沟通与交流，为制造产业界提供了具有贡献意义的各类产品，从而支持和提升了企业的生产效率。

近年来，随着经营环境和技术革新的不断变化，更加要求企业去挑战前所未有的反应速度和应变能力。为此，我们将凭借长年累积的经验教训和专业技能，继续以真挚的态度立足于制造业，通过强化集团力量、提高应对速度来体现“价值创造”，为社会的可持续发展和保护地球环境而竭尽全力。

今后，我们三共在日益FA化、自动化、合理化进程的工厂中，将继续追求“用心去制造商品”这一理念，为实现“高精度化”、“高速化”、“高效化”的发展目标而加倍研发V凸轮技术的解决方案。携手我们的顾客，去实现“价值创造”的企业集团，来回报广大顾客对我们的殷切期待。

株式会社 三共制作所
代表取締役社長：小川广海



三共机械销售(上海)有限公司

To be the Chosen One

Since our founding in 1938, Sankyo Seisakusho has provided the manufacturing industry with a variety of products designed to help boost productivity. Today's business environment and technological breakthroughs dictate a need for unprecedented speed and reform. We are fully committed to creating new values that will help advance society and preserve the global environment. This requires faster business management and a stronger organization that embraces our years of knowledge and passion for “monozukuri”, the art of manufacturing. Our goal is to become a business that creates value with the customer. Our approach is to exploit Sankyo's “V Cam Technology” -- a value creation strategy that promotes greater accuracy, speed, and efficiency with the five basic motions. This will provide the ever-evolving monozukuri industry with advanced automation and efficiency.

HIROUMI OGAWA
President

中国经济需要持续发展，工业自动化是必经之路。具有70多年研究、开发、生产历史的三共集团企业将以“高精度、高速度、高可靠、高耐久”的凸轮技术产品赋予中国的工业界，为中国经济的可持续发展做出贡献。

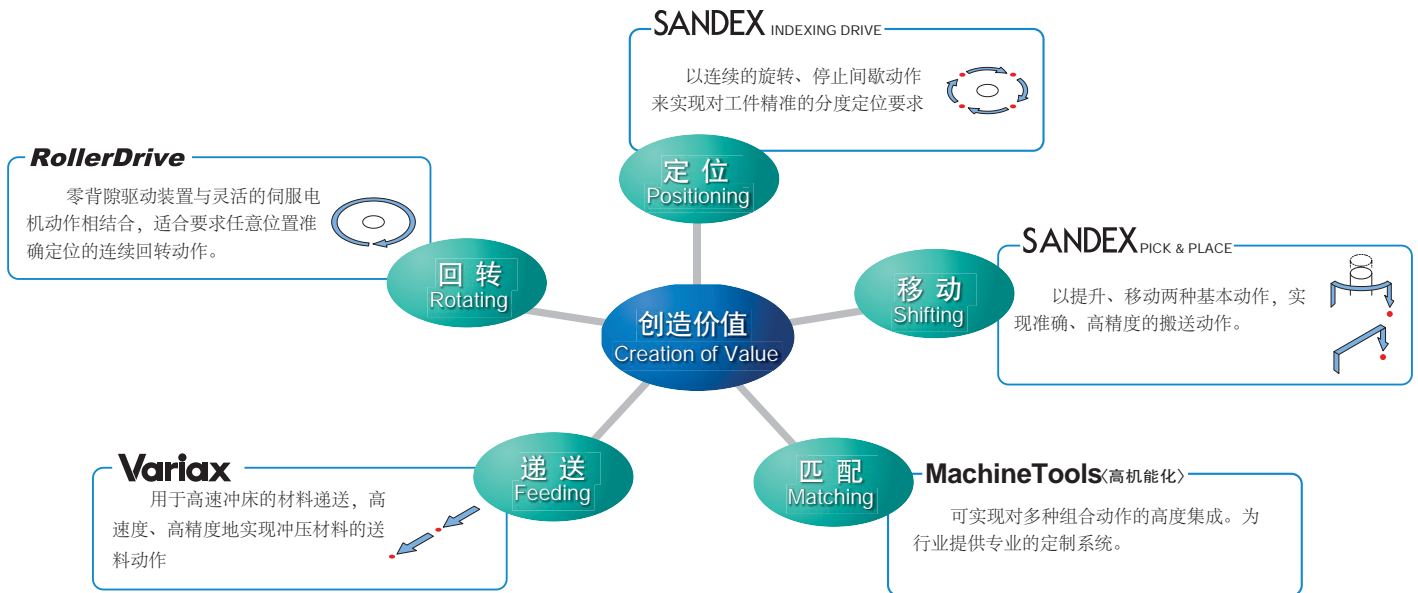
三共机械销售（上海）有限公司是由日本株式会社三共制作所于2006年投资创立，是“三共凸轮”产品在中国唯一的销售窗口，我们将竭诚为广大中国客户提供全方位的售前和售后服务。

三共机械销售(上海)有限公司
总经理：梅建定

世界领先的三共凸轮技术

V Cam Technology (V凸轮技术)

追求机械基本的5 (V) 种动作精准技术，为我们的客户创造价值 (Value)，以成为业界中首屈一指的凸轮技术厂商为公司的成功 (Victory) 目标。



三共制作所发展史 Company History

- | | |
|---|---|
| <p>1938 小川良平先生创立了小川制作所，生产机翼、拖拉机零部件。
Ryohei Ogawa founded Ogawa Seisakusho. The company started by making airplane wings, and tractor parts.</p> <p>1951 变更为有限会社三共制作所。制造汽车零部件及家电零部件。
The company was renamed Sankyo Seisakusho Limited. The company began making automotive parts and parts for household appliances.</p> <p>1964 成立株式会社三共制作所
The company was reorganized to Sankyo Seisakusho Co., Ltd.</p> <p>1970 凸轮机构间歇分度器的开发研究
Started investigation into development of an intermittent indexer based on the roller gear cam mechanism.</p> <p>1973 成功开发出精密间歇分度器并开始在市场上销售
Succeeded in developing an indexing drive, and began offering it.</p> <p>1974 开始销售摆动驱动器装置
Launched a pick and place unit, oscillating handler, and parts handler.</p> <p>1981 设立日本静岡工厂
Opened the Shizuoka Factory.</p> <p>1982 开发世界上速度最快、工作状态最稳定的冲压设备送料装置 Variax送料机
Developed the VARIAX, the world's fastest and easiest-to-use material feeder.</p> <p>1985 扩建静岡工厂，成为世界上规模最大的凸轮生产专业厂家。
Expanded the Shizuoka Factory making it the world's largest factory for manufacturing cams.</p> | <p>1987 美国三共公司成立
Established Sankyo America Inc.</p> <p>1994 设立日本宫城工厂
Opened the Miyagi Factory.</p> <p>1995 韩国三共公司成立
Established Sankyo Korea Co., Ltd.</p> <p>1998 销售驱动一体型的阿尔法系列分度器
Launched the Alpha Series of integrated drive and index packages.</p> <p>2002 杭州三共机械有限公司成立
Established Hangzhou Sankyo Machinery Co., Ltd.</p> <p>2005 研发成功零背隙驱动机构RollerDrive
Developed the RollerDrive, our zero-backlash reducer.</p> <p>2006 三共机械销售（上海）有限公司成立
Established Sankyo China Trading Co., Ltd.</p> <p>2007 研发成功零背隙CNC回转台机构RollerDriveCNC
Developed the RollerDrive CNC, our zero-backlash CNC table.</p> <p>2008 研发成功伺服滚轮送料装置Variax VS系列
Developed the VARIAX VS Series, our servo-driven roll feeder.</p> <p>2011 研发成功RollerDriveRY系列
Developed the RollerDrive RY Series, an all-in-one servo drive.</p> |
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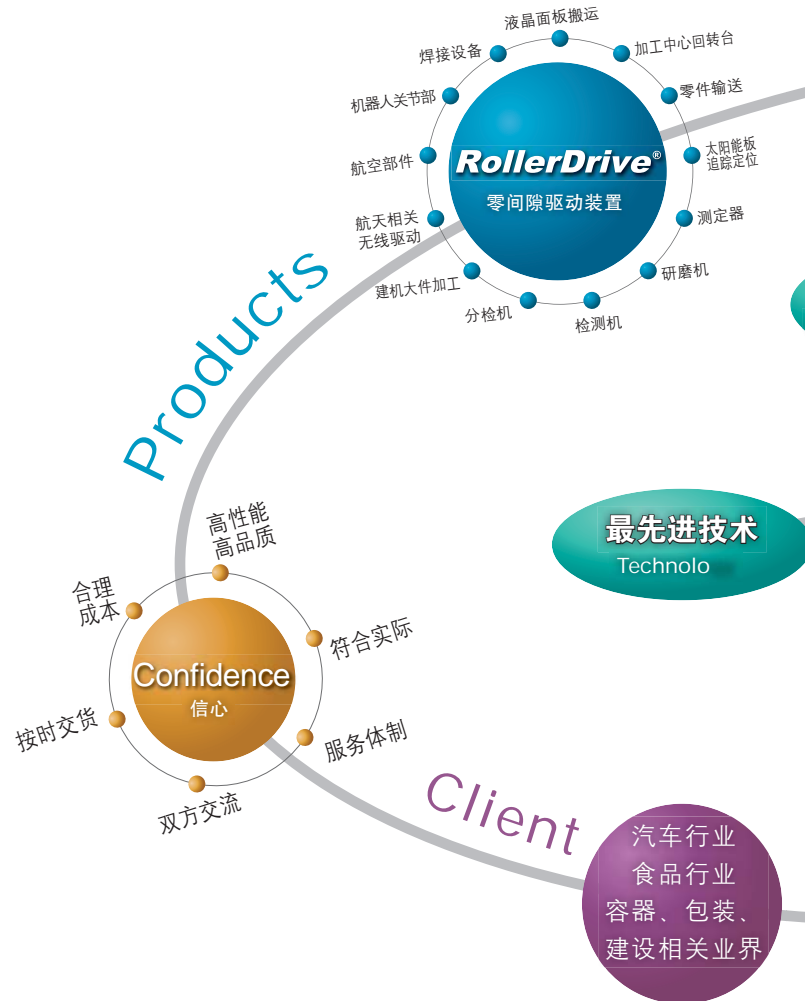
携手客户，成为创造价值的企业集团

从1970年起，（株）三共制作所不断发展凸轮的核心技术，并将其运用于公司的核心品牌中：

RollerDrive 零背隙驱动装置；**SANDEX** 精密分度器；**Variax** 超高速送料机和一系列与工作机相关联的旋转定位装置。通过与客户的双向交流，三共的核心产品广泛应用于诸多工业领域：汽车产业、食品行业、电子元器件行业、半导体产业、精密机械及数控机床、加工中心等领域。

三共制作所是以“回转、定位、移动、送料”机能相匹配的创造性企业，运用全球供应商的优势，在世界各个角落不断扩展我们的服务体系，拉近我们与客户之间的距离。

饱含创业的激情，通过与客户间更紧密的双向沟通，为客户提供更好的产品，创造更大的企业价值！



Creating Value With the Customer

The core technology that started with the development of the roller gear cam in 1970 has been implanted into what are now our core products: the Roller Drive precision reducers; the Sandex indexing systems; the Variax high-speed feeders; and an array of products for machine tool applications. Two-way communications with the customer has been the key to Sankyo's successful integration of its core products into industrial systems and production lines in a variety of fields: i.e., automotive, foodstuffs, electronic components, semiconductors, precision machines, machine tools, etc.

To strengthen our position as a global supplier of motions for rotating, positioning, shifting, feeding, and matching, Sankyo will expand its service structure to bring us closer to our customers outside Japan.

Our passion for monozukuri continues to drive us to embrace the value of two-way communications by creating new values that meet the demands of our customers.

为客户创造价值的贡献案例：CASE STUDY

汽车行业 Automotive Industry

- 汽车用微电机生产
Motor stampings for hybrid and compact vehicles
- ➔ Variax高速送料器系列的使用，大幅缩短送料时间，提供生产效率
High-speed feeding, shorter retooling time
- 机器人焊接
Positioner for welding robots
- ➔ RollerDrive的高精度 高速度 高刚性特性
High level of rigidity, speed, and positioning accuracy
- 大型治具的高精度定位
Precision positioning of over-sized tooling
- ➔ SANDEX的高刚性结构确保使用的长久性
Eliminates external positioning mechanism, extends tooling life
- 高速回转时噪音控制
Stamping for noiseless chains and continuous velocity transmissions
- ➔ Variax高达600spm以上的高速旋转
High-speed operation at 600 spms and up



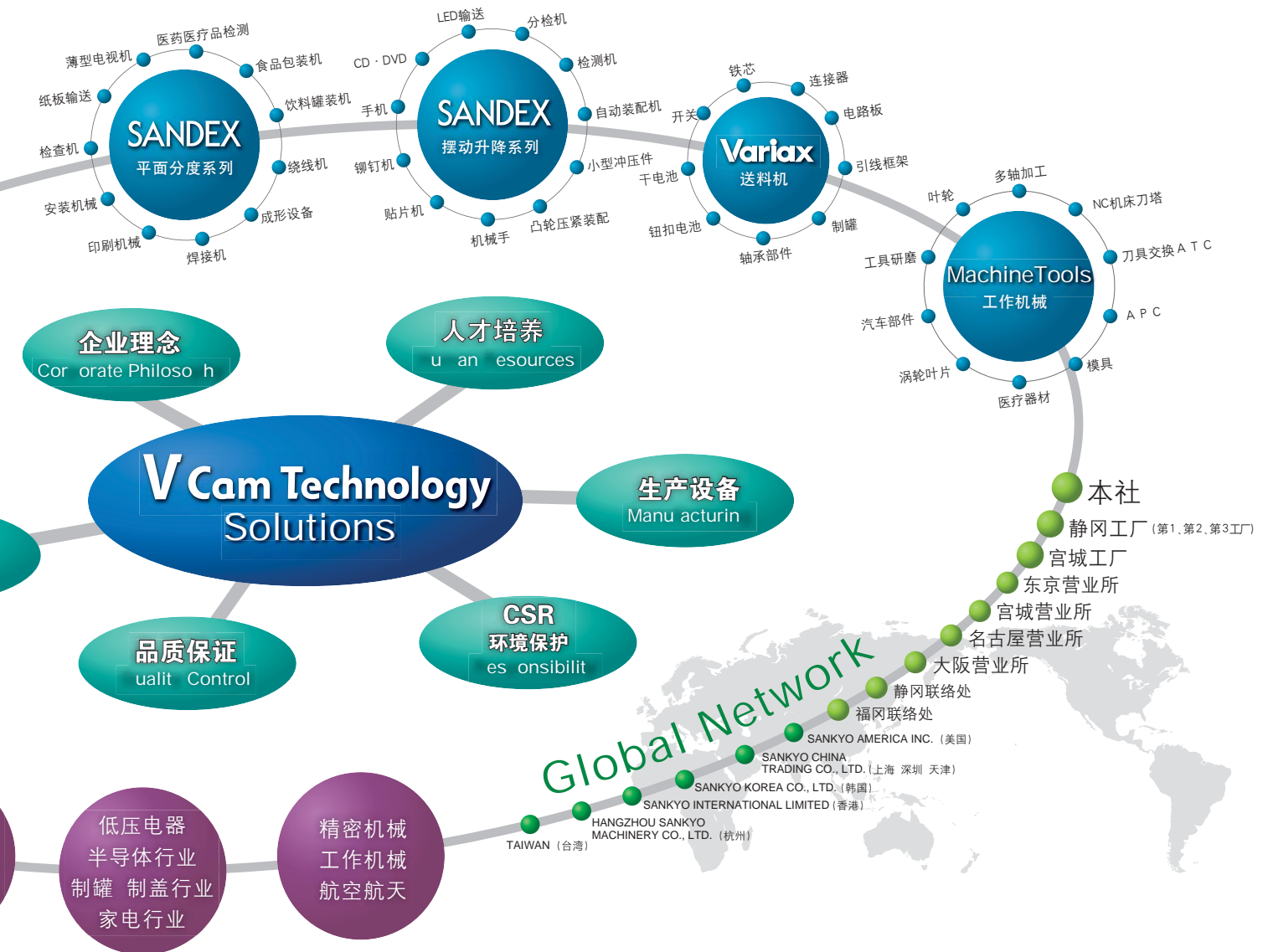
食品行业 Foodstuff Industry

- 食品烘烤设备的间歇驱动
Intermittent conveying applications for automated confectionery ovens
- ➔ 采用SANDEX分度器实现简单控制、可靠。
Simplified control and long equipment life

容器 包装行业 Container and Packaging Industry

- 液体的罐装 填充
Pitch conveyor for filling and sealing machines / Turntables for filling, bagging, and cosmetic vision inspection
- ➔ SANDEX的简单控制以及高精度回转保证了稳定及高效
Simplified control for stable conveyance, positioning, and longer equipment life.





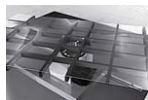
电子元器件行业 Electronic Devices Industry

●LED的送料及分类设备 → SANDEX高速无震动定位
LED conveyance and sorting machine / Vibration-free, high-speed positioning

●产品外观及特性检测 → SANDEX超高速定位
Vision Inspection and Characteristic Testing / Super high-speed positioning (drastically minimized settling time)

●自动化组装 → SANDEX高速、无振动定位
Assembling and ID marking equipment / Vibration-free, high-speed positioning

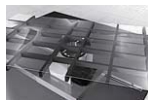
●冲压连接器、引线框 → Variax高速高精度送料
Stamping of connectors and other parts / High-speed, high-precision feeding



家电行业 Home Appliance Industry

●液晶制造(LCD 电视 电脑) → RollerDrive、SANDEX的高精度定位
Assembly of LCD TVs, PCs, tablets / Stable precision positioning

●液晶面板研磨设备 → 满足各种高速加工及高精度定位要求
LCD Glass Polisher / High-speed indexing of parts with high-rigidity for precision machining



制罐行业 Can-making Industry

●罐身 ●罐盖 → SANDEX的高速等分动作保证设备稳定
Internal coaters / Bottle neckers / Aluminum can blanking press / Delivers consistent, vibration-free high-speed indexing



精密机械行业 Precision Machinery Industry

●相机镜头研磨 ●精密轴承 → RollerDrive零背隙定位, 实现高刚性、高精度加工
●珠宝加工
Camera lens polishing / Precision bearings / High rigidity and precision polishing based on Zero-backlash positioning / Finishing of ornamental items

工作机械行业 Machine Tool Industry

●加工机主轴回转 ●工件的研磨 切削 → RollerDrive用于零件加工的高速高精度要求
●5轴加工中心
Turning axis on machining centers / Table for 5-axis machining center / Tool grinding / High-speed, precision indexing of the work piece



航空航天技术 Aerospace Industry

●追踪定位机构 → RollerDrive零背隙连续回转精确定位
Rotary positioner for parabola antennas / Continuous Zero-backlash positioning

●精密航天零部件加工 → RollerDrive CNC零背隙、高刚性连续加工
Machining of turbine blade and other parts for aerospace use / Rigid, continuous machining with zero backlash



一流的三共产品来自高品位的生

电子显微镜进行材料分析
Material analysis using an electron microscope



凸轮加工曲线的数据验证
Verifying machining data for a cam profile



三次元测定器进行形状测定
Profile measurement using a
coordinate measurement machine



使用三次元测量仪对凸轮曲面进行微米
(1/1000毫米) 单位检测
Micon-level (1000th of a millimeter) inspection of a cam
profile using a coordinate measurement machine

在数控机床、加工中心、半导体装置、精密零部件制造等行业，以及要求高精度、高产能、高可靠、高品质的自动化机械设备、生产流水线上都安装着我公司的系列产品。

我公司产品是由精密机械部件构成，特别是产品心脏部的滚动机构部分是严禁侵入粉尘、颗粒、灰尘等。如果有微量侵入、那么不仅要影响到产品的使用精度、产生震动等现象、还会导致产品的使用寿命缩短、动作错误等严重问题。

为满足广大客户对高性能、高品质产品的日益要求，向市场提供可信赖的三共产品，我公司构筑了独特的生产环境，努力实现产品的高品质。

我公司在世界各地的生产工厂都已经取得ISO9001认证，通过实施品质经营来不断提高公司产品的质量。为实现并保持三共产品在市场上的最高知名度和最高信赖度，我公司展开以生产现场、技术支持、产品研发等各个环节为一体的品质保证活动。

不仅要改善企业的工厂环境、还要改善员工的劳动环境，才能构筑更好的生产环境，最终创造个性的企业文化。

株式会社三共制作所正在以独特的“创造产品”方式实践于世界各地的三共现代化工厂之中。

Sankyo Products Are Built in a Quality-Oriented Production Environment

Sankyo products are used in mission-critical machines and production lines designed to deliver a high level of accuracy, productivity, and reliability, such as machine tools, and equipment for manufacturing semiconductors and precision parts.

In turn, our products use precision-made machine parts and microelectronic devices. One of the most sensitive components is the roller drive mechanism, the heart of most of our products. It must be protected from dust and foreign particles as even the tiniest intrusion can affect accuracy and cause vibration, resulting in shorter life, erroneous operation, and other mission-critical failures. To meet the demanding level of performance and quality expected by our customers, Sankyo maintains a quality-oriented production environment designed to consistently build products of the highest quality.

To supplement the quality improvement activities practiced at our ISO 9001-certified factories worldwide, we enlist our production, engineering, and research departments in quality assurance activities that focus on sustainable reliability.

Additionally, all Sankyo factories practice our exclusive monozukuri culture, which includes an ongoing workplace improvement program that helps to improve conditions for our employees.

静岡·第一工場



生产环境



RollerDrive

超高精度伺服驱动机构 / Ultra precision model



高精度自动化用伺服驱动
Servo motor reducer for factory automation use

一体式形式 / All-in-one model



内置伺服电机及编码器
Built-in motor and encoder

Variax

伺服送料机 / Servo feed



优越的操作性能、紧凑型滚轮送料机
Compact roll feed

挟式送料机 / Gripper feed



凸轮式，高速度，高精度送料机
Cam driven, high speed, precision feeder

垂直多关节机器人 / Articulated robot
(轴滚动驱动)

焊接机器人装置
Profile measurement using a coordinate
measurement machine



高精度5轴加工
High precision 5-axis machining



SANDEX

分度器 / Indexing drive



装配电机，结构紧凑
With motor, compact footprint

高速二元型 / Pick place



超高速分度、上下运动，每分钟600次
Super fast handling, 600 passes/minute

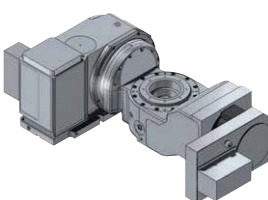
Machine Tools

CNC旋转工作台 / CNC rotary table



优秀的回转定位精度，零背隙CNC
Excellent rotary positioning accuracy

可倾斜回转工作台 / Tilttable rotary table



用于5轴联动机床的 轴工作台
-axis table for 5-axis machining

冲床用送料装置
Feed system for press machines



第三工場

第二工場

自然に優しく溶け込んだ緑豊かな工場の中で、お客様、地域住民の方々を招き、社員およびその家族にも愛され、信頼される元気な企業づくりを進めております。
The natural landscaping of our factory provides beautiful greenery that greets customers and local residents, and provides employees and their families with an atmosphere conducive to a healthy and reliable company.

RollerDrive

超精密驱动单元

RollerDrive 是一款在精度刚性和使用寿命等性能上拥有卓越表现的全新机构。采用了伺服电机作为动力源,结合内部独特的构造,满足了自动化设备要求的高速度运转高精度定位以及高刚性负载的各种要求。**RollerDrive** 的内部结构上,相比传统的齿轮啮合方式,它采用了交叉滚子轴承与精密凸轮相配合的全新方式,并且真正实现了传动的零间隙。相比之下,作为传统的齿轮啮合方式在传动过程中,间隙的产生是无法消除的。正是鉴于这点,**RollerDrive** 系列产品广泛应用于各类精度要求高的加工设备,如机器人的高精度定位回转单元等用途上,并以此推广至相关的领域中。

目前,作为比较成熟的应用领域主要有以下行业:液晶玻璃面板的断面研磨设备;大型玻璃基板的回转搬运;汽车零部件及整车装配线的大型回转焊接设备;太阳能光伏的自动化光源追踪定位装置以及LED分类设备等高端先进设备。此外,配合高端加工中心的使用中也有许多成功的案例。

我们对于 **RollerDrive** 在应用上有特殊要求以及希望使用的客户,可以量身定制出一套整体的解决方案,包括新产品的开发。

主要客户:

石川岛播磨重工业株式会社(IHI)/ 佳能株式会社(Canon)/
芝浦机电株式会社(SHIBAURA)/ 索尼株式会社(SONY)/
株式会社津上(TSUGAMI)/ TDK株式会社(TDK)/
中村留精密工业株式会社(NAKAMURA-TOME)/
株式会社尼康(NIKON)/ 日亚化学工业株式会社(NICHIA)/
日产自动车株式会社(NISSAN)/ 日特机械工程株式会社(NEG)/
日本精工株式会社(NSK)/ 日本电产新宝株式会社(SHIMPO)/
株式会社日迈嘉路微电子(M C)/ 松下电器产业株式会社(Panasonic)/
株式会社普利斯特通(BRIDGESTONE)/大河晶振株式会社(RIVER)

Roller Drive Technology Differentiates FA Equipment and Boosts Productivity

The Roller Drive is a high-performance positioning unit based on a roller gear cam mechanism. Instead of transmitting power through a line of contact between intermeshed gear teeth, the Roller Drive transmits power through a rolling contact between the cam and roller followers. This allows the followers to be preloaded, which completely removes backlash while efficiently transmitting power and extending machine life. Additionally, the output holds rigidly against external forces, unlike a conventional gear reducer. It is ideal as a precision positioning table, or as the rotary axis in a machining center, or as a robot joint.

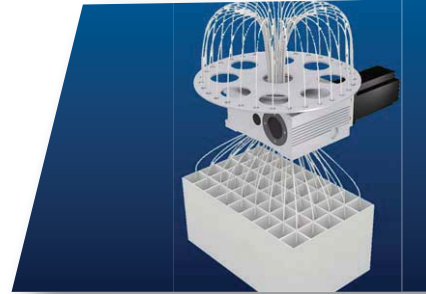
Actual applications serve many high-tech industries: edge polisher for LCD glass substrates; a handling robot for large glass substrates; a positioner for automotive welding robots; an automatic tracking positioner for solar power panels; and an LED sorting machine. Major machine tool manufacturers have also adopted the Roller Drive for their precision positioning tables.

Major clients

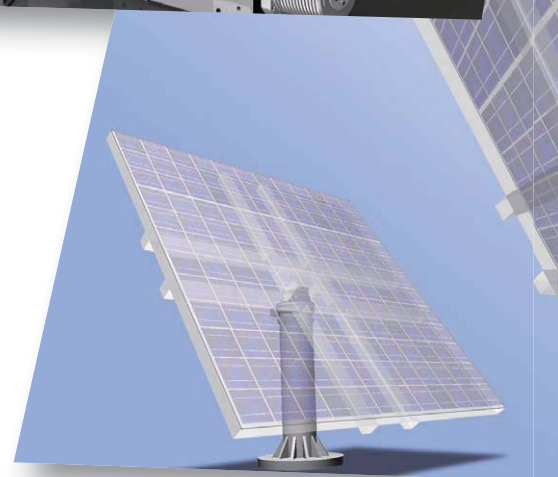
IHI Corporation / Canon Inc. / Shibaura Mechatronics Corporation / SONY Corporation
Tsugami Corporation / TDK Corporation / Nakamura-Tome Precision Industry Co., Ltd.
Nikon Corporation / Nichia Corporation / Nissan Motor Co., Ltd. / Nittoku Engineering Co., Ltd.
NSK Ltd. / NIDEC-Shimpo Corporation / Micronics Japan Co., Ltd.
Panasonic Corporation / Bridgestone Corporation / River Eletec Corporation

RollerDrive 技术

LED分类机



大型焊接机



oller ri e(超精密驱动单元)



RA Series

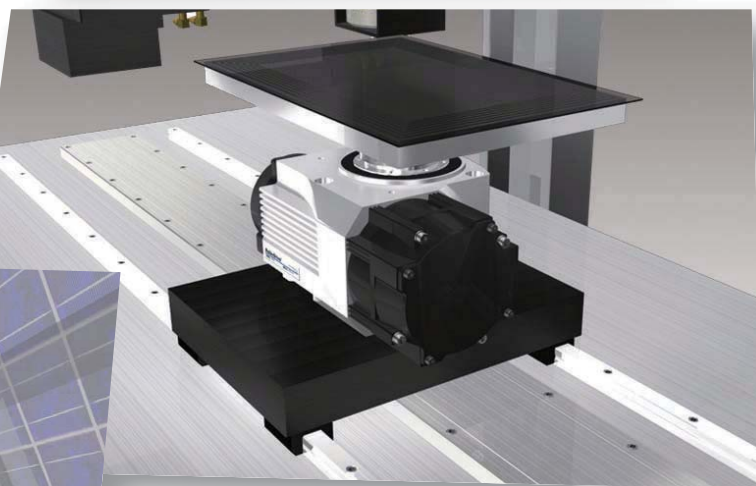
RA超精密型

采用RollerDrive技术,
对应高品牌的伺服电机型号。

High-end model packed with advanced
RollerDrive technology.
Compatible with various servo motor makes.

技术的多用途与高效率

贴片、编带机



玻璃板侧面研磨机



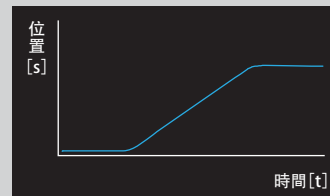
太阳能电池板追日装置

真正高品质传动的追求

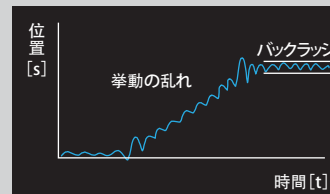
自动化设备对应传动的要求不会在静止的状态下,简单地以精度和刚性来衡量传动品质的高低,运转过程中的精度与稳定性才是影响设备的主要因素。

设备运转中动作的响应速度,与到位精度往往是一对互相制约和博弈的矛盾。

■ 动力输入

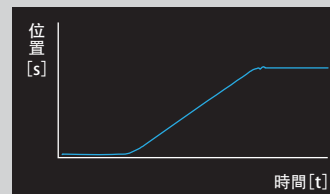


■ 稳定性差的传动输出



RollerDrive® 是零背隙技术产品, 输入动力后能忠实的、稳定的输出动作, 提升了自动化装置的性能。

■ RollerDrive® 的传动输出



RY Series

RY一体型

本体 伺服电机 连接部分一体式, 结构紧凑。

Basic model. All-in-one, affordable, includes servo amplifier

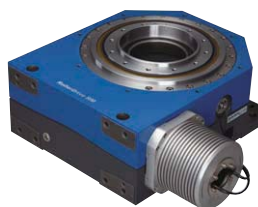


RE Series

RE泛用型

使用与普通高速运转及精度要求的设备。

Affordable and flexible, belt-driven for heavy loads, or shaft-coupled for speed and precision.

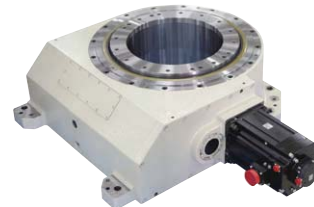


RM Series

RM承重型

为大型设备设计, 匹配DD马达及大扭矩输出法兰。

High power and high precision, built specifically for large-scale FA equipment.



RW Series

RW重载型

融合了重型负载及超高精度的RollerDriver产品。

Heavy loading and fine precision, both in the single unit.

SANDEX 系列分度器基于一套球面凸轮与相关滚动轴承的简洁配合，利用凸轮的曲面外形，带动与之表面相接触的滚动轴承，从而不断开发出各式各样客户所需要的动作。

1970年，从第一台 **SANDEX** 分度器诞生起，三共一直致力于开发凸轮分度结构，较之其他的动作机构，我们三共可以提供更高速、更坚固、更大的输出扭矩，且没有任何间隙的机械装置。如今，当客户需要一个可靠的旋转定位装置时，我们三共的 **SANDEX** 分度器一定是首选。

SANDEX 分度器是高效率自动化设备中的核心部件，无论从世界上最小的超小型设备到超大型设备，都可以见到 **SANDEX** 分度器所提供的各种动作。我们公司的主流产品除了使用相同的驱动原理外，不仅有普通的分度装置，还有更为复杂的摆动分度器装置，且都是无可挑剔的，诸如线性运动和垂直动作相结合的空间抓取单元和部件处理装置；另外，三共的扭矩限制器，是一种部件联接时起过载保护的选配件；除此之外，还有凸轮平衡装置，可使输出动作更为平稳。

三共的核心技术还被广泛应用于世界尖端领域，例如，要求运行速度达到 00rpm的LED编带机上。

主要客户：

旭硝子株式会社(AGC)/ 卫材机械株式会社(EISAI)/ 麒麟麦酒株式会社(KIRIN)/ 丰田汽车自动车株式会社(TOYOTA)/日产汽车自动车株式会社(NISSAN)/ 日本贵弥功株式会社(CHEMI-CON)/日本电气硝子株式会社(NEG)/ 松下电工株式会社(Panasonic)/株式会社日立制作所(HITACHI)/ 本田技研工业株式会社(HONDA)/三菱重工工业株式会社(MHI)/ 三菱电机株式会社(MITSUBISHI Electric)/尤妮佳株式会社(Unicharm)

Faster, More Reliable Positioning Using Cam Technology

The Sandex series of indexers are based on the roller gear cam mechanism, a simple combination of a globoidal cam and cam followers. The profile of the cam and the rolling contact surfaces of the cam followers allow unrestricted development of various motions.

Sankyo began researching and developing the roller gear cam mechanism in 1970, when it launched the first Sandex indexer. The Sandex offers greater speed, rigidity, output torque, and has no backlash, unlike other mechanisms. Customers continue to choose Sandex when they need a dependable rotary positioning device.

Sandex indexers are core components in productivity-oriented automated machinery. They come in various sizes and motions, from the world's smallest compact type to large over-sized types. Our mainstream drives either index or oscillate, but the same motion control principle drives our other products as well, such as our Pick and Place Units and Parts Handlers, which combine linear and vertical motions; our Torque Limiter, which safely disconnects torque in the event of overloads; and our Cam Balancer, which reduces the impact of fluctuating torque in the drive train.

Sankyo's core technology is used in machines that produce some of the world's most sophisticated products, such as a 800-parts-per-minute LED conveying machine.

Major clients

Asahi Glass Co., Ltd. / Eisai Machinery Co., Ltd. / Kirin Brewery Company, Limited
Toyota Motor Corporation / Nissan Motor Co., Ltd. / Nippon Chemi-Con Corporation
Nippon Electric Glass Co., Ltd. / Panasonic Electric Works Co., Ltd. / Hitachi Ltd. / Honda Motor Co., Ltd.
Mitsubishi Heavy Industries, Ltd. / Mitsubishi Electric Corporation / Unicharm Corporation

■由 SANDEX 商品组成的高速度自动生产设备



S N (分度器)



中国制造
Made in China



C Series C 系列

在中国工厂完成整机生产，超高性价比。

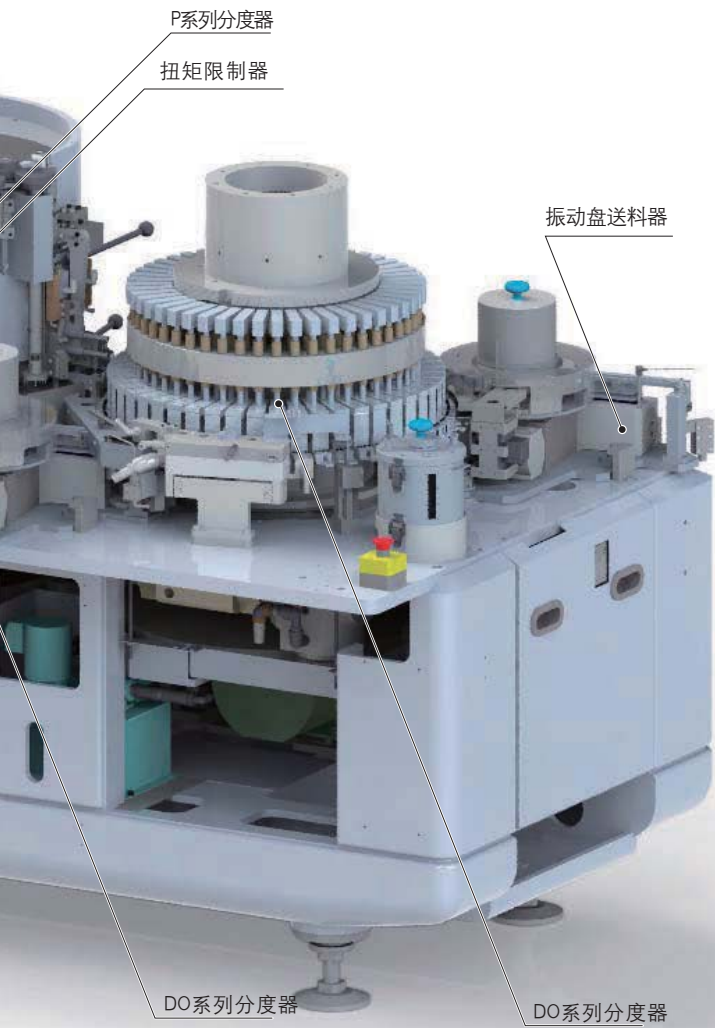
The CD Series is designed by SANKYO and made in China, which provide higher quality lower cost.

Series 系列

扁平且薄型的箱体，同时配合齿轮减速电机的适用，就是一个现成的运动单元。

All-in-one model with drive package. Affordable with a geared motor pre-mounted on a low-profile housing.

高速且更可靠的定位



摆动驱动器 Oscillate Handler

在二次元空间结构上的上下运动和分度动作，运用于抓取和搬运的运动模型

Cam driven pick and place unit combines vertical and intermittent rotary index or oscillate motions. Ideal for two-dimensional positioning, such as crimping and part inserting.

直线驱动器 Parts handler

在平面内，提供水平往复或上下的直线运动

Cam driven pick and place unit performs handling tasks through a two-dimensional vertical/linear motion.



振动盘送料器 Parts feeder

是三共运用精密凸轮椭圆振动形式的高速振动料盘驱动装置

Linear vibratory parts feeder uses a cam mechanism to vibrate in an elliptical motion. Suitable for powerful high-speed feeding.



多功能中心转台 Center column

输出轴提供分度动作的同时，可提供另一个连续旋转的动作

Indexer for driving rotary base machines Coaxial output features an index, continuous, and fixed table output.



扭矩限制器 Torque limiter

利用高可靠度的分离球和原点球的机理，采用优质材料，造就了三共特有的高精度原点复位式过载保护。Mechanical overload protection device. Features easy torque control and precision trip/reset mechanism.



Series 系列

SANDEX 分度器中的基本型号，轴输出的形式提供了强大的性能表现。

Basic model for Sandex products. Output shaft model offers affordability and performance.



Series 系列

法兰输出的特性，使得可以和相应的装置进行法兰直接联接，提供了一个更为高刚性的输出表现。

Flange output model features a rigid output shaft for mounting tables, gears, etc., directly to the flange surface.



T Series T 系列

桌面输出型 适用于较大直径的工作盘面，且又提供一个固定的中空法兰面。

Table output model for rigidity with large diameter tables. Hollow center hole lends this model for use as the base machine.



P Series P 系列

输入与输出轴相平行的一款产品，更多的应用于包装和输送行业。

Parallel input and output shafts ideal for driving conveyors and other applications.

SANDEX 分度机构及 **RollerDrive** 驱动技术可以广泛地应用在机床行业的设备中。其主要产品在旋转工作装置、自动刀具交换装置(ATC)、自动托盘交换装置(APC)、分度刀塔等CNC机床、NC机床的核心部位中得以应用。为机床设备实现多功能化、缩短加工时间、提高加工品质量等作出了巨大贡献。

三共以超平稳、高刚性、零背隙、高精度、无需锁紧的产品特性，为众多机床生产厂家提供了优秀的旋转工作轴装置。为满足超平稳、高刚性的要求，旋转输出的支撑部分采用了与精密交叉滚子轴承一体的坚固结构；同时结合**RollerDrive** 驱动技术，实现了零背隙、高精度定位、工件加工时不需要锁紧的性能。

使用三共制作所生产的旋转工作轴装置。可以实现高速切削、连续重切削、平稳且维持高品质的加工精度；无锁紧机能的运用可以省去无效加工时间，也为环保节能做出了贡献；为此，使用三共产品可以极大地提升机床设备的附加价值。

运用三共独创的 **RollerDrive** 驱动技术，开发CNC主轴旋转、NC旋转轴、NC倾斜轴以及复合产品，为5轴联动加工中心提供了可靠保证。

自动刀具交换装置(ATC)采用了 **SANDEX** 高速动作的凸轮机构，使刀具交换时间大幅缩短；同时采用油压辅助功能，使电力及运行费用等大幅减少。

三共制作所生产的机械单元产品，已经被众多世界知名机床厂家作为专用配套单元安装在其高端机床的系列产品中，为支撑世界制造业、最先进的产品开发等方面做出了应有的贡献。

我们将一如既往，提供现有规格产品、新机床设计所需产品，提升广大机床厂家产品的性能是我们永远的愿望。

主要客户：

大隈株式会社(OKUMA)/ 株式会社捷太格特(TEKT)/ 株式会社沙迪克(SODICK)/ 株式会社津上(TSUGAMI)/ 中村留精密 株式会社(Nakamura-Tome)/ 富士机械株式会社(FUJI)/ 兄弟工业 株式会社(brother)/ 株式会社牧野铣床制作所(MAKINO)/ 株式会社松浦机械制作所(MATSUURA)/ 株式会社森精机制作所(MORI SEKI)/ 山崎马扎克株式会社(mazak)

Pro i ng Rotary Technology To Meet ario s ol tions

Sankyo serves the machine tool industry with products based on the Sandex and Roller Drive. Our major machine tool products include a rotary table, automatic tool changer, pallet changer, and an indexable tool post. Each product contributes to the machine tool's performance by adding functionality, reducing cycle times, and improving machining quality.

The rotary table features a solid piece cross-roller bearing and output shaft that machine tool manufacturers like because it delivers runout-free rotation, high rigidity, zero backlash, precision dynamic rotary indexing, and clamp-free position holding. Roller Drive technology eliminates backlash and holds positions without clamping. The table supports both high-speed cutting and continuous heavy cutting with sustainable quality and accuracy, while saving energy by eliminating hydraulic clamping support.

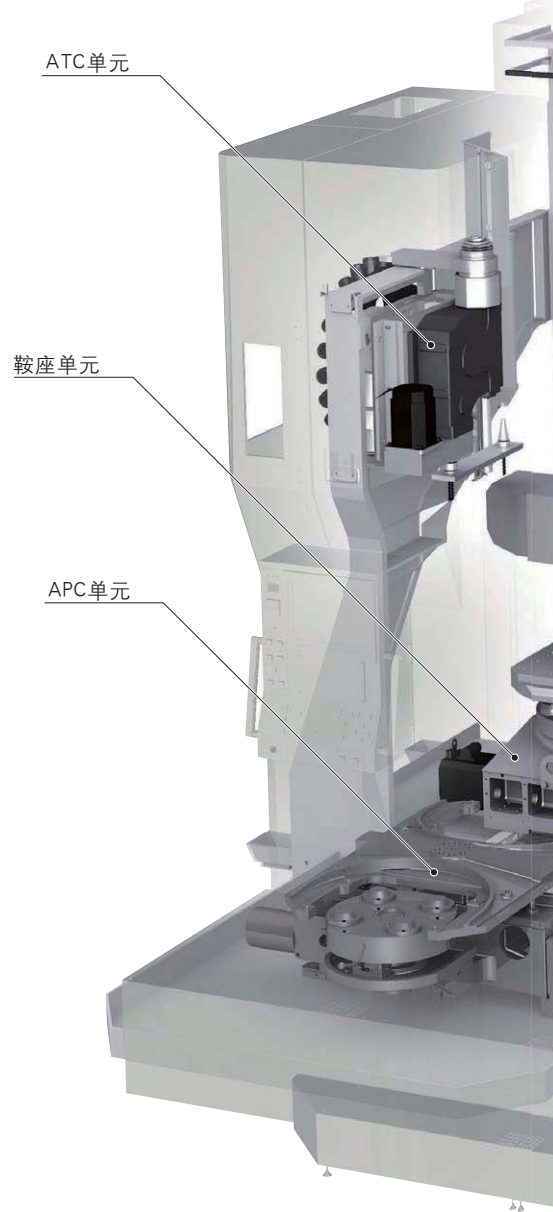
We also offer a rotary table with a second tilt axis that gives 5-axis machining functionality to existing machining centers.

Another machine tool product is our mechanical tool changer, designed to dramatically reduce tool change times and energy usage.

Sankyo also provides products for existing equipment to help customers gain performance from their current facilities.

Ma or el i eries

Okuma Corporation / TEKT Corporation / Sodick Co., Ltd. / Tsugami Corporation
Nakamura-Tome Precision Industry Co., Ltd. / Fuji Machine Mfg. Co., Ltd. / Brother Industries, Ltd.
Makino Milling Machine Co., Ltd. / Matsuura Machinery Corporation / Mori Seiki Co., Ltd.
Yamazaki Mazak Corporation.



CNC T T (CNC旋转工作装置)

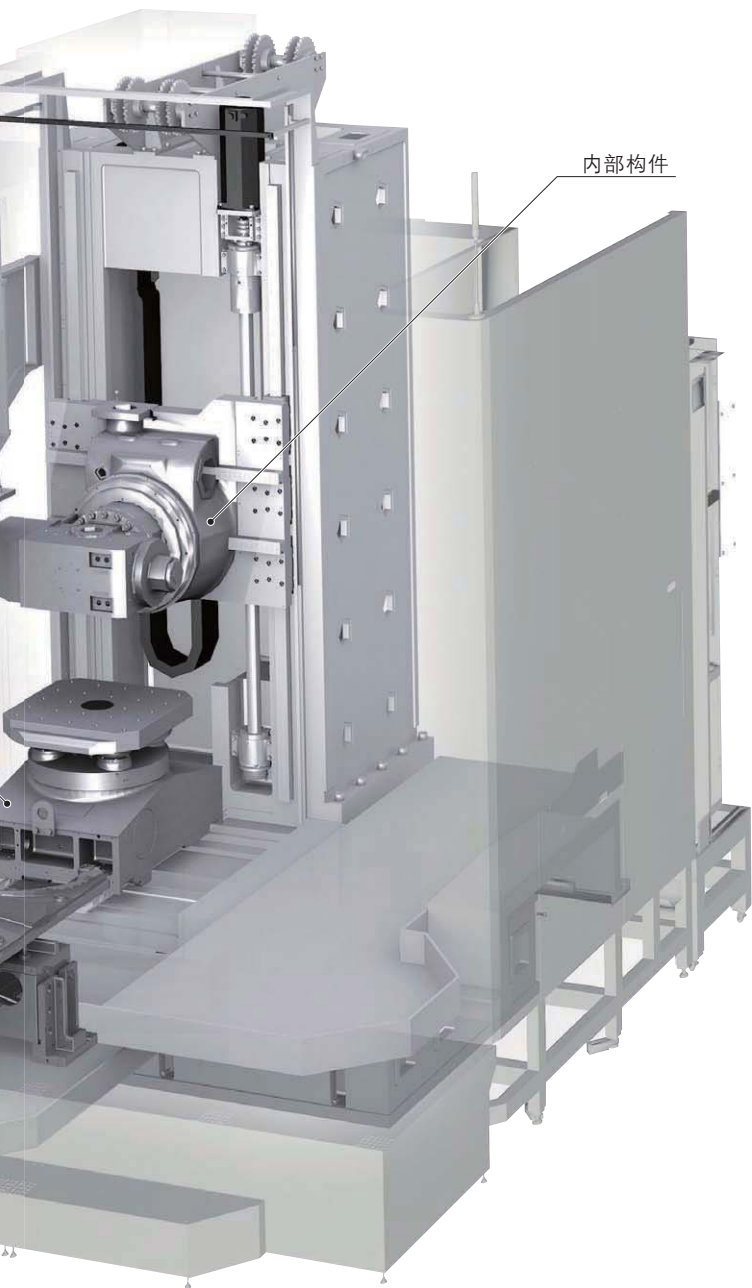


RC Series C 系列

具备凸轮机构的自锁性能，因此无需锁紧成抱闸，缩短了加工时间。RC系列已成为高刚性、多机能的世界标准模式。

Robust and multi-functional global standard model. The roller gear cam mechanism holds positions without clamping for shorter machining time.

回转系统技术



内部构件

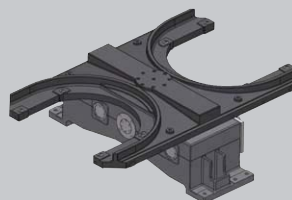


鞍座单元
Saddle unit

采用 **RollerDrive** 驱动技术的高性能鞍座单元
High-performance saddle unit based on the Roller Drive

内部构件
Component

RollerDrive 内部结构
Internal Roller Drive components for customer-integration.



APC单元
APC unit

无液压系统节能型高速自动工件托架交换装置
High-speed pallet changer. Non-hydraulic and energy-saving.

ATC单元
ATC unit

加工中心高速自动换刀装置
High-speed tool changer for machine tools



分度刀塔
High-speed indexable tool post
超高速NC车床用刀塔装置
Tool post for NC lathes

作装置)



RS Series S 系列

结构紧凑的RS机型适用于小型、高速加工中心及自动螺纹加工机等设备。

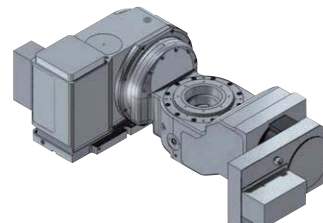
Compact model ideal for small-size high-speed machining centers and tapping machines.



RT Series RT 系列 2轴单臂式

适合安装在狭小空间，可倾斜2轴输出的RT系列。

Open-end two-axis tilt table in a small footprint for mounting in tight spaces.



RT Series RT 系列 2轴双臂式

适用于重切削、连续加工的RT系列。

Cradle-type with table spindle for continuous heavy cutting.

Variax 是应用于高性能高速度冲压加工业的送料装置和关联设备的总称。这个系列产品是以我公司核心技术凸轮为基础开发的。

Variax 是目前世界上最高速的送料装置，可分别采用同步带轮机构和利用我公司独自开发的运动曲线伺服机构两种驱动方式。

我们提供转速 000spm 的滚轮送料机和 600spm 的夹式送料机，在同类产品中都是世界上最快的。本品每种系列都能设定送料步距、板厚、夹紧力、滚轮平行度等参数，并且这些设定操作可以在冲床运转中进行，使 Variax 能满足高要求生产的需要。

送料机构和伺服控制形成同步系统，使冲压成型线能灵活加工并实现数字化控制。我们的 SCT 驱动方式和 VSD 驱动方式可以让 Variax 送料机装在这个世界上任何一台冲床上。

三共制作所为实现冲压高速化提供各系列 Variax 送料机产品。同时，我们的研发队伍也随时根据客户的具体要求，设计创造特定使用条件、特殊规格的 Variax 产品。

主要客户：

株式会社爱西施(ISIS)/ 会田工程技术株式会社(AIDA)/
日本电气京利株式会社(KYORI)/ 株式会社能率机械制作所(LEM)/
株式会社山田冲床(YAMADA DOBBY)/ 瑞士博瑞达AG公司(BRUDERER)/
美国明斯特机械有限公司(MINSTER)/ 米斯克精密机械工程技术有限公司(MISK)

The Variax Series Increases Through to Press Lines Using Cam Drive Technology

Variax is the name for high-performance high-speed press feeders and peripheral equipment and systems from Sankyo. This series combines our time-proven cam technology with the latest drive technology to solve various requirements in the press and forming industry.

The Variax includes the world's fastest feeder, based on a roller gear cam drive mechanism and an originally developed motion profile and servo drive mechanism. We offer roll feeders capable of 2,000 spms and grip feeders capable of 3,600 spms, both the fastest in their class. Both types offer adjustable feed pitch, thickness, grip force, roll parallelism, and other other features. These adjustments can be easily done during continuous operation, making the Variax easy to use and suitable for higher productivity.

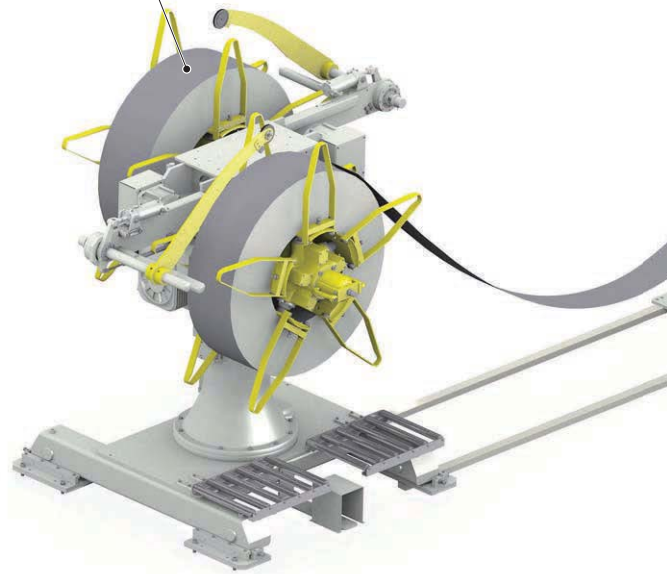
The feeder and servo controls form synchronized systems that turn press forming lines into flexible manufacturing systems or numerically controlled systems. Our SCT Drive or VSD Drive allows a Variax to be mounted on any press in the world. The Variax technology can help develop flexible manufacturing systems. Our R&D team is ready to listen to your goals, specifications, and other demands.

Major clients

Isis Inc. / Aida Engineering, Ltd. / NIDEC-Kyori Corporation / LEM / Yamada Dobby / Bruderer AG
Haulick Roos GmbH / Minster Machine Company

矫正整平机

开卷机



Variax (高速送料机)



中国制造
Made in China

VGC Series VGC系列

VGC是在中国生产具有较高性价比的新系列。其核心部件由日本进口。

VGC series is a new series based on the VG from a Japanese. The core parts from a Japanese and assembled in China

送料机组系列

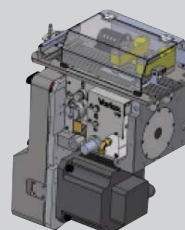


开卷机
Uncoiler

伺服驱动的高速度、快速反应的双头开卷机
Servo driven uncoiler for high-speed, quick-response applications.

伺服驱动
Servo drive

用于Variax的高速度伺服驱动系统，与冲床同步性非常优越
High-speed servo drive system for the Variax. Synchronizes with the press.

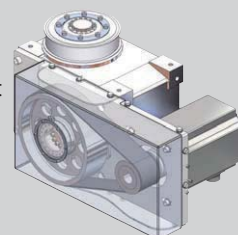


废料切断机
Scrap cutter

紧凑型凸轮式废料切断机
Compact cam driven scrap cutter.

铁芯叠压装置
Lamination Die Staggering Unit

模具配套专用，伺服式铁芯叠压装置
Servo driven unit staggers lamination die for motor core production.



矫正整平机
Loop controller

高速平稳的金属材料矫正整平机。
High-speed consistent material loop controller.



VG Series VG系列

VG系列是对薄型材料、软质材料进行高精度、高速度送料的标准配置系列。
The standard feeder for feeding thin or soft material with precision and speed.



VGX Series VGX系列

实现送料设定数字化管理，VGX系列是最高速多拨式送料机。
Digital feeder with high speed and user friendly numeric feed settings.



VS Series VS系列

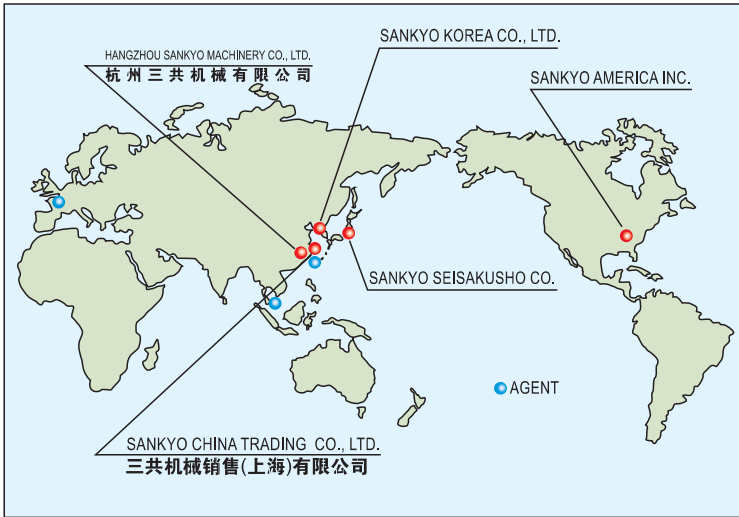
VS系列结构小巧紧凑，具有高性能的伺服滚轮式送料机。
Servo roll feeder with all foot ratchet high speed error cancellations mechanical feeders.



V Series V系列

V系列可以实现重型材料的高速输送，具有高功率的涡扇式送料机。
Heavy duty roll feeder capable of feeding heavy material at high speeds.

服务网



SHIZUOKA FACTORY

SANKYO SEISAKUSHO CO.

37-3, 3-chome Tabatashinmachi Kita-ku Tokyo Japan 114-8538
 PHONE: +81-3-3800-3330 FAX: +81-3-3800-3380
 E-mail: overseas@sankyo-seisakusho.co.jp
 U R L : <http://www.sankyo-seisakusho.co.jp>

SUBSIDIARY



SANKYO SEISAKUSHO CO. KOREA BRANCH

103-1105, Digital Empire 2,486
 Shin-dong, Youngtong-gu, Suwon-si,
 Kyeonggi-do, Korea 〒443-734
 PHONE: +82 31(695)5801
 FAX: +82 31(695)5803
 E-Mail: yuasa@sankyo-seisakusho.co.jp
<http://www.rollerdrive.jp>



SANKYO SEISAKUSHO CO., TAIWAN BRANCH

20F-3, No.6, Ln.256, Sec.2, Xitun Rd. Xitun
 Dist. Taichung City 40749, Taiwan (R.O.C.)
 TEL: +886-4-2451-6648
 FAX: +886-4-2451-6848

SANKYO AMERICA INC.

P.O.Box 4338 10655 State Route 47,
 Sidney, Ohio, 45365 U.S.A
 PHONE: +1-937-498-4901 FAX: +1-937-498-9403
 E-mail: sales@sankyoamerica.com
 URL: <http://www.sankyoamerica.com/>

HANGZHOU SANKYO MACHINERY CO., LTD.

NO.2518 JIANGDONG 2ROAD, HANGZHOU JIANGDONG
 INDUSTRIAL PARK, XIAOSHAN ZONE, HANGZHOU,
 ZHEJIANG, CHINA 311222
 PHONE: +86-571-8283-3311 FAX: +86-571-8283-1133
 URL: <http://www.sankyochina.com>

三共机械销售(上海)有限公司

地址: 上海市徐汇区桂平路391号新漕河泾国际商务中心B座1103室
 电话: (021) 54452813 54452913 54452931 54452873
 传真: (021) 54452340
 邮编: 200233
 邮箱: sales@sankyochina-trading.com
 URL: <http://www.sankyochina-trading.com>

深圳分公司

地址: 深圳市福田区深南路6009号NEO大厦C座13B室
 电话: (0755) 82300270 82300418
 传真: (0755) 82364605
 邮编: 518048
 邮箱: shenzhen@sankyochina-trading.com

天津分公司

地址: 天津市河西区南京路20号金皇大厦2706室
 电话: (022) 23121005
 传真: (022) 23121007
 邮编: 300042
 邮箱: tianjin@sankyochina-trading.com

上海总公司位置示意图

