

Glossary

Power transmission and control equipment

Power transmission and control equipment raises torque as the rotary speed of a motor is reduced to an optimum level. This kind of equipment has many applications, including elevators, escalators, industrial robots, and factory production lines. SHI produces a wide range of power transmission and control devices, from micro-miniature devices with a motor capacity of 6 watts to very large devices of several thousand kilowatts. SHI has the leading share of the Japanese market for this equipment.



ALTAGX® NEO
Gear Motor



RHYTAX® Drive

Plastic injection molding machines

Plastic injection molding machines are used to pour melted plastic into molds. Of the two system types, hydraulic and electromotive, the latter enables greater molding precision. SHI specializes in the precision, high-cycle molding required by optical discs and connectors, and has the top share in Japan for this device.



Fully Electric Controlled
Injection Molding
Machine "SE-DU"

Cyclotrons

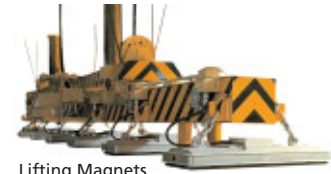
A cyclotron is an accelerator for particles which it has ionized using magnetic force. SHI is the only manufacturer of these devices in Japan, and has the top share of the domestic market for cyclotrons for positron emission tomography (PET) applications, which are highly effective in discovering and pinpointing cancer cells.



PET RADIO-TRACER
PRODUCTION SYSTEM
"HM-12S"

Lifting magnets

Lifting magnets are electromagnets attached to crane hooks, and are used for lifting iron plates and other bulky iron items. Our technology ensures that no magnetic force is transferred to the iron. SHI has the top share of this market in Japan (excluding self-propelled cranes).



Lifting Magnets

Silicon monocrystal lifting device

Using a super-conductive magnet, this device generates a powerful magnetic field enabling the formation of large silicon monocrystal ingots. The magnetic field facilitates precise control of the flow of the liquid silicon.



Silicon Monocrystal Lifting Device

Laser annealing system

Using a laser beam, this device crystallizes amorphous (non-crystal) silicone membrane. It is used in the manufacture of liquid crystal panels and organic electroluminescent (EL) products.



DPSS Laser
Annealing System
"SWA-90GD"

Cryopumps

This ultrahigh vacuum pump enables impurities to be removed from the air. It removes impurities at the molecular level by condensing and trapping gases and vapors on progressively colder surfaces. It can be used at the molecular level under very low temperature conditions, and is a crucial element in the semiconductor manufacturing process.



Cryopump System
"SICERA™"

4KGM cryocooler

This device is capable of cooling to a temperature of -269°C (4K). Used for the recondensation of helium gas (reliquefaction of evaporated helium), this product has the top share of the global market for magnetic resonance imaging (MRI) medical applications.



4KGM Cryocooler

Precision positioning stages

Precision positioning stages set the vertical and horizontal positioning of substrates, wafers and other components precision processing. Because two axes are involved, they are also called XY stages. This product is used for manufacturing and inspection processes for liquid crystal panels and semiconductor wafers. SHI's high-precision positioning stages are one of our particular strengths.



SA-300 Series
Air Guided Type
Planar XY Stage
for Small Travel

Flocculator

This system uses relative weight difference to separate off suspended matter in waste water. A coagulant agent triggers floc (lump) formation, enabling more efficient separation through sedimentation.



Sumi-Thickener

Aframax tanker

Midsized oil tankers, with deadweight freight capacity in the 80,000 to 120,000-ton class.



105,200MTDW
Oil Tanker

Continuous ship unloader

The continuous ship unloader is a large harbor-installed hoist used for continuous unloading of iron ore and other bulk raw materials from cargo vessels at dock. SHI has the top share of this market in Japan.



Continuous Ship
Unloader

Goliath crane

This is a large portal-type crane installed mainly in shipyards. Our Goliath cranes have a maximum lifting capacity of 1,200 tons, and help raise the efficiency of shipbuilding operations. SHI has the top share of the domestic market.



Goliath Crane

Jib crane

This is a large crane installed at harbors and shipyards which travels on rails. SHI has the top share of the domestic market.



Jib Crane

Rough terrain crane

This is a self-propelled crane for construction sites. It is vehicle-mounted, and can be driven and operated from the cab driving seat.



Rough Terrain Crane

Crawler cranes

This is a self-propelled crane for construction sites. It travels on caterpillars.



Lattice Crawler Crane