





# Next-gen medical technology will be smaller, lighter, faster.





How do you differentiate your product in a market of more than 500,000 medical technologies? The devices of the future will be more compact and portable, fitting more easily into patients' lives. Tomorrow's instruments will do more using less power, delivering precision performance at hospitals, labs, and in the field.

Reducing component size is critical to bringing this increased functionality into tighter spaces and more easily transportable equipment. However, miniaturization can present serious challenges to traditional manufacturing and automation, material handling, and packaging systems.

#### No one understands miniaturization better than KOGANEL

For more than 85 years, we've helped customers design and build game-changing equipment with miniature components. Let us put our innovation and expertise to work for your medical or life science design!

### Accelerate your development process.

With years of experience, our application engineers have created solutions for most design challenges. Our proven process optimizes your design for usability and manufacturability from day one.

#### Step 1: Understand & Define Your Application

We work closely with you to understand every aspect of your application up front.

## Step 2: Test & Evaluate Possible Solutions

We develop your prototype and work with you to test thoroughly, making adjustments if needed for functionality, volume, schedule, or budget.

#### Step 3: Pre-production Order

We confirm every last detail before scheduled production and shipments begin.

We listen, collaborate, and deliver the best result.



OEMs rely on KOGANEI for advanced pneumatic, fluid-handling, and electrical automation components and assemblies.

### The capacity and flexibility to deliver.

Our engineering team in Japan can work while the US is asleep to provide answers the following day. Our expansive manufacturing capabilities allow us to make your components quickly once designs are finalized. We'll even stock your final product for you and carry custom assemblies as a single part number.



### Tap into our global supply chain.

Looking for help to reduce your manufacturing time? A reliable supplier? Look no further. Over decades, we've established a network of quality sources, specialty manufacturers, and assembly options, so you will always enjoy the lowest costs and fastest delivery.

# Unexpected orders? No problem.

We can carry dedicated safety stock so you can accommodate for your customers' changing requests without holding extra inventory. Our U.S. Logistics Network will ensure you have the product you need when you need it.



**Expedited delivery from our U.S. Logistics Network.** 



# Unique technology that enhances your product.



With more than 512,000 products and the engineering expertise to combine them into a custom sub-assembly, you get the best possible product. (While minimizing the number of vendors and potential delays.) Your product will have one part number from a single source.

## Unrivaled quality components.

The cost of failure on a new medtech product is higher than ever. That's why we 100% test every single product before shipping, preventing costly changes or rework.

Our facilities are ISO 9001 and ISO 14001 certified, and in RoHS compliance.



	Miniaturization
V A L V E S	Solenoid Valve 5.9 mm Width
	Media Isolation Valve High Flow in Small Envelope
A C T U A T O R S	Linear Cylinder 2.5 mm Bore
	Guided Actuator 4.5 mm Bore
O T H E R S	Pressure Regulator 23 mm Square Body
	Desktop Robot  A4 Size Footprint

We make great designs even better.



Optimized designs with a variety of sizes and styles to fit almost any application.

Advantages of KOGANEI Technology			
Accuracy / Repeatability	Unique Performance	Longer Life	
Solenoid Valve Repeatable Response Time	Solenoid Valve  Battery Powered Device	Solenoid Valve 100+ Million Cycles	
Proportional Flow Control Repeatable to +/- 2% F.S.	Stepper Drive Flow Control Repeatable Setting	Media Isolation Valve  10 Million Cycles	
Guided Actuator +/- 0.0002" Running Parallelism	Linear Cylinder Low Speed to 10 mm/s	Linear Cylinder  15 Million Cycles	
Pneumatic Gripper No Finger Backlash	Pneumatic Gripper Superior O.D. Grip Force	Guided Actuator  5 Million Cycles	
Pressure Regulator +/- 0.15 PSI	Vacuum Ejector  Quiet Operation <50 dB	Air Line Water Separator No Filter Element to Clog	
Electric Gripper Fast 30 mm/s Gripping	Air Dryer Reduce Dew Point to -76 °F	Shock Absorber  3 Million Cycles	

We 100% test EVERY product before it ships.



# Advanced applications powered by KOGANEI.

#### Life Science Applications

- Automated Liquid Handling
- Automated Liquid Sampler
- Automated Sample Preparation
- Flow Cytometry
- Gas Chromatography
- Liquid Chromatography
- Molecular Diagnostics
- Immunoassays Analyzers
- Clinical Chemistry Analyzers
- Microbiology Analyzers
- Hematology Analyzers
- · Urinalysis Analyzers
- Emission Analysis
- GMO Analysis
- Air/Water Quality
   Analysis
- Mass Spectrometry
- Capnography Monitor



#### **Genetic Analyzer**

**Challenge**: Moving the test sample through the fluidics card while maintaining consistent pressures to the flow paths with no leakage.

**Solution**: Our low leak solenoid valves controlled the pressure signals, ensuring the system didn't experience any pressure loss throughout the life of the device.



#### **Cell Secretion Analyzer**

**Challenge**: Controlling up to 150+ flow paths while maintaining the smallest footprint possible and reducing the possibility of leaks and assembly errors.

**Solution**: Our micro solenoid valve met performance and envelope requirements. Providing the complete sub-assembly ensured accurate and fast installation.



#### **Immunoassays Analyzer**

**Challenge**: Keeping the control for the microfluidic cartridge membrane valves small, simple, and easy to install. (Competitive solutions were too large and highly complex.)

**Solution**: Our fully-integrated solution kept system complexity to a minimum, reduced potential leak points, and streamlined installation.

Precision and speed, from the lab to the operating room.



#### **Clinical Sterilization Equipment**

**Challenge**: Maintaining a precise level of clean, dry compressed air in a small, efficient assembly while sourcing parts from multiple suppliers.

**Solution**: Utilizing the breadth of our product line and compact compressed air treatment components, we provided a complete assembly that met the required particle and dew point levels.



#### **Endodontic Device**

**Challenge**: Finding compact, high-flow, and quiet operating fluid control valves for mixing and dispensing of the proprietary fluid.

**Solution**: Through a modification to the solenoid, we provided a custom valve assembly that met the OEMs application requirements while sufficiently reducing operating noise.



#### **Respiratory Equipment**

**Challenge**: Finding a solenoid valve small and lightweight enough to be easily mounted and plumbed directly on a PCB. The valve also needed to allow high flow and be low leak in order to quickly and consistently calibrate system sensors.

**Solution**: At only 5.9 mm wide, our high-flow, low-leak micro 3-way valve was easily mounted to the PCB and its built-in barbs allowed for quick plumbing.

#### Medical Applications

- Deep Vein Thrombosis
- Alternating Pressure Mattresses
- O2 Concentrator
- Negative Wound Therapy
- Root Canal Device
- Anesthesia Delivery
- Clinical Sterilizers
- Endoscopy
- O2 Conserver
- Ventilator
- Cataract Surgery
- Blood Pressure Monitoring
- Lasik Surgery
- Microdermabrasion
- Cardiovascular Assist
- Capnography Monitor
- CO2 Insufflators
- Dialysis Machine
- Chrysotherapy Therapy Device

Portability and performance for patients and physicians.

#### KOGANEI is committed to your success from concept, to initial design, to final delivery and beyond.



Focused on providing industry leading pneumatic, fluid handling, and electrical automation components and assemblies for the OEM market

#### Think KOGANEI



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