

Electronics Manufacturing Solutions



**The future of electronics manufacturing
equipment starts here.**

The Advantages of KOGANEI Technology

	Miniaturization		Accuracy and Repeatability		Unique Performance		Longer Life	
V A L V E S	005 Series Micro Valves	F-AVPN070 Fluoropolymer Valves	PVR Series Media Isolation Valves	KFPV Series Proportional Flow Valves	iB-Zero Series Valve Manifolds	iB-Flow Series Digital Flow Controls	F Series Valves and Manifolds	K Series High Speed Valves
								
	5.9 mm Width	High Flow in Small Envelope	Low 35 μ l Dead Volume	Repeatable to $\pm 2\%$ F.S.	Fast, Simple Assembly	Stepper Driven Needle Valve	100+ Million Cycles	Up to 1 Billion Cycles
A C T U A T O R S	PBDA Series Pen Cylinders	MBDA Series Mini Bit Cylinders	MGA Series Mini Guide Sliders	AFDPG Series Flat Grippers with Guides	MRV Series Rodless Cylinders	NHL Series L-Hand Grippers with Guides	BC Series Compact Cylinders	BCG Series Guided Actuators
								
	from 2.5 mm Bore	from 4.5 mm Bore	$\pm 0.0002''$ Running Parallelism	Minimal Finger Backlash	Low Speed to 8 mm/s	Superior External Gripping Force	15 Million Cycles	10 Million Cycles
O T H E R S	RN100 Series Pressure Regulators	PME Series Inline Vacuum Generators	PRS100 Series Precision Regulators	EW2H Series Electric Grippers	PAU Air Conservation Pulse Units	DTY-ELF14 Fan Type Ionizers	iB-Cyclone Air Line Water Separators	KSHP Series Shock Absorbers
								
	23 mm Square Body	from 8.5 mm Diameter and 0.5 mm Nozzle	± 0.1 5 psi Sensitivity	Positioning Accuracy ± 0.05 mm	Reduces Air Use by up to 50%	No Routine Needle Maintenance	No Filter Element to Replace	3 Million Cycles

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

KOGANEI parts in applications

Electronics Manufacturing Applications

- Surface Mount Technology (SMT)
- Reflow
- Screw Tightening
- Soldering
- PCB Cutting
- Mechanical Testing
- Electrical Testing
- Packaging
- Ink-Jet Coating (Flat Panel Display)
- Cleaning
- Shock Absorbing



Video Game Test Equipment

Challenge: Developing the compact, long-life pneumatic equipment necessary to test the durability and endurance of video game controllers.

Solution: Our miniature, high-performance **PBDA Series** pen cylinders exceeded the customer's critical life cycle requirement, out-lasting similar components from other manufacturers.

OLED (Organic Light-Emitting Diode) Ink Jet Printing Equipment

Challenge: Preventing degradation of the chemical solution due to the inevitable heat generated by the solenoid valves used in dispense process.

Solution: We developed an air operated version of our **PVR Series** media isolation valve and paired this with our micro 3-way solenoid valve. This enabled the electrical component to be isolated from the dispense process, resolving the customer's heat issue.

HDD (Hard Disk Drive) Assembly Equipment

Challenge: Maximizing the life of shock absorbers used in the cleanroom environment while preventing the introduction of oil and particulate contaminants due to their general leakage and failure.

Solution: Our **KSHC Series** cleanroom shock absorber with integrated particle pocket and oil scatter prevention filter eliminated the customer's contamination issues, while its high-performance, linear orifice design provided excellent life expectancy.

- Pick & Place
- Conveying
- Inserting
- Lifting
- Pushing
- Clamping
- Film Peeling / Laminating (Flat Panel Display)
- Painting
- Assembling
- Part Feeding
- Part Sorting



Solar Cell Pick & Place Equipment

Challenge: Reducing inaccuracies during cell handling caused by undesirable shifting and flexing normally associated with small pneumatic actuators.

Solution: Our **BCG Series** compact, precision guided cylinders provided the customer with the load capability and rigidity comparable to larger bore cylinders but within the envelope of their existing component, allowing them to improve performance without increasing footprint.



Magnetic Components (Inductors, Transformers) Assembly Equipment

Challenge: Adjusting the range of motion of assembly machinery quickly and precisely to simplify switching between workpieces of different thicknesses.

Solution: We modified the end of stroke adjustment mechanism on our **MGA Series** precision guided actuator so that operator could hold it more easily while tightening the adjustment bolt, saving them valuable time during their product changeover.



Car Audio System Assembly Equipment

Challenge: Maintaining the various ionizers required to prevent particle accumulation and Electro-Static Discharge (ESD) events, despite having limited in-house expertise and inadequate supplier support.

Solution: We conducted an ESD audit to evaluate the customer's **DTY-ELF Series** current ionizer implementation and provided field training and technical support to improve their maintenance process, enabling them to save time and related costs.



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