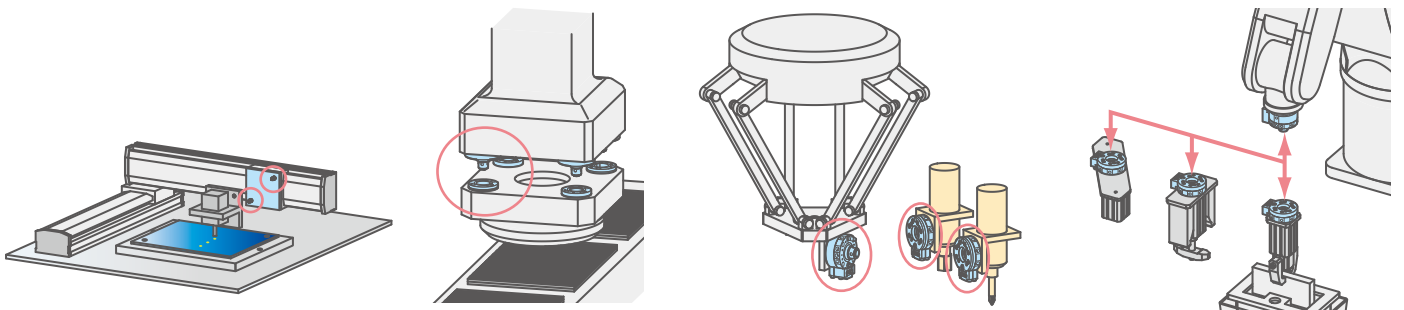


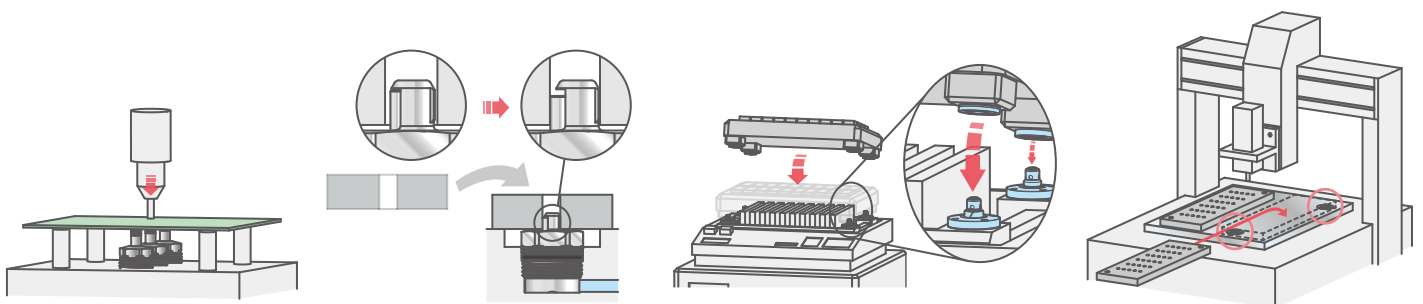
FA • Robotic Automation Products

Application Examples

For Automotive • Semiconductor • LCD Panel
Electronics • Precision Equipment Industries



More Automation Solutions



KOSMEK
Harmony in Innovation

Product Line-Up

Locating Clamp Coupler

Robotic Hand Changer

Model SWR

No Backlash High Accuracy • High Rigidity • Long Life

Locating Repeatability: 3 μm Compact and Easy to Use

Allowable Load (at Pneumatic Pressure 0.5MPa): 3kg / 7kg / 12kg / 25kg / 50kg / 75kg / 120kg



Air + Spring Lock / Air Release

Locating Clamp

Pneumatic Location Clamp

Model SWT

Locates and Clamps Simultaneously

Locating Repeatability: 3 μm

Clamping Force (at Pneumatic Pressure 0.5MPa): 0.8kN / 1.5kN / 2.3kN / 3.3kN / 5.1kN



Air + Spring Lock / Air Release

Locating Clamp

Screw Locator

Model VXF

NEW

M4/M5 sizes are added to the line-up!
Most Suitable for Locating Small Plates

Simple Manual Setup High Accuracy Locating of Pallets/Plates

Locating Repeatability: 3 μm Most Suitable for Pallets and Equipments Requiring High Accuracy Locating

Bolt Size : M4 / M5 / M6 / M8 / M10 / M12 / M16



Manual Lock / Manual Release

Locating

Expansion Locating Pin Smaller Diameter Model

Model VRA/VRC

Zero Clearance Between Expansion Pin and Reference Hole

Locating Repeatability: 3 μm Durability of Ten Million Cycles (When using VRA)

Workpiece Hole Diameter: φ3 / φ4 / φ5 / φ6



Spring Lock / Air Release

Locating

Pneumatic Expansion Locating Pin

Model WM

Zero Clearance with High Accuracy Locating Pin

Locating Repeatability: 3 μm

Workpiece Hole Diameter: φ8 / φ9 / φ10 / φ12 / φ13 / φ15 / φ16 / φ18 / φ20



Air + Spring Lock / Air Release

Locating

Manual Expansion Locating Pin

Model VX

Zero Clearance with High Accuracy Manual Locating Pin

Locating Repeatability: 5 μm

Workpiece Hole Diameter: φ8 / φ10 / φ12 / φ16 / φ20



Manual Lock / Manual Release

Clamp

Robotic Hand

Model WPH/WPP/WPQ

Compact with High Gripping Force

Most Suitable for Using with Robotic Hand Changer



Air Lock / Air Release

Clamp

High-Power Pneumatic Clamp

Model WHE/WCE/SWE

Higher Clamping Force and Holding Force with Mechanical Lock and Pneumatic Pressure

Clamping Force which Withstands the Load with Holding Force does not Distort the Workpiece.



Air Lock / Air Release

Support

Auto Backup Pin

Model WDC

Prevents Chattering and Distortion Counter to the Load

Pin Touches Workpiece Softly and Stops to Provide Support



Spring Lock / Air Release

Support

High-Power Pneumatic Work Support

Model WNC

Firmly Supports the Workpiece and Prevents Chattering/Distortion

The World's First Collet-Style Work Support with Pressure Range of 0.25~0.7MPa.



Air Lock / Spring Release

Coupler

Auto Coupler

Model JVA/JVB JVC/JVD JVE/JVF

Compact Coupler to Connect Hydraulic/Pneumatic Circuits

Connection Stroke: 1mm Commonly Used with Screw Locator and Pneumatic Location Clamp



Control

Air Sequence Valve

Model BWD

Actuates Multiple Air Actuators in Sequence Without Electricity.

Delay Time: 1~10sec Most Suitable for Electricity-Free Environments



Kosmek works to meet the needs of every customer, developing and producing innovative products.

<http://www.kosmek.co.jp> We have various types of hydraulic and pneumatic products. Please let us know your requirements, and we will make it happen.

For further information of each product, please refer to "FA • Robotic Automation Products Complete Catalog". Please contact us or request it from our website.

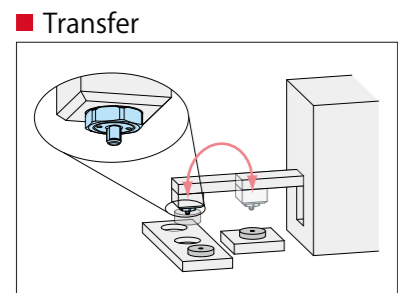


FA • Robotic Automation Products Complete Catalog
Catalog No.FA0020□-□-GB

Application Examples

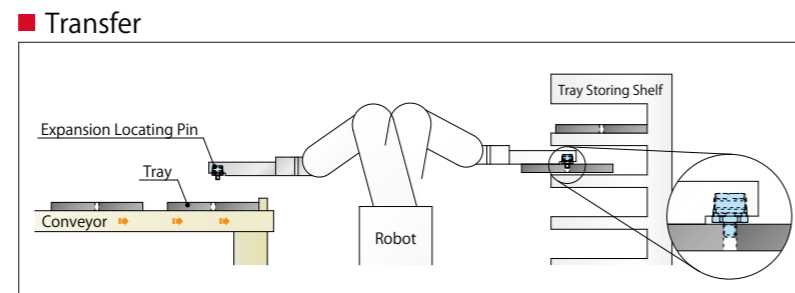
Category

- Transfer
- Deburring
- Soldering, Sealing
- Welding



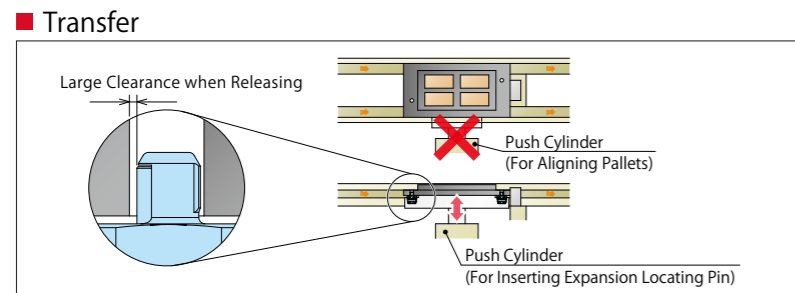
Expands to hold the workpiece hole. For Pick-and-Place of Table Robots

Model VRA/VRC WM



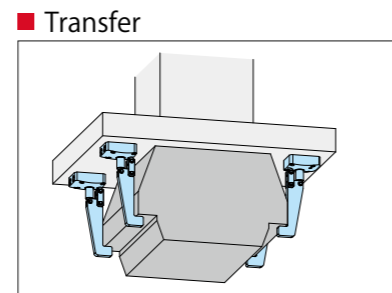
Clamps the tray hole and transfers it to the storing shelf.

Model VRA/VRC WM



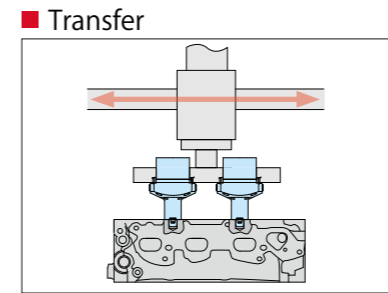
Expansion locating pin allows for easy pallet loading/unloading. It prevents transfer error of conveyors.

Model VRA/VRC WM



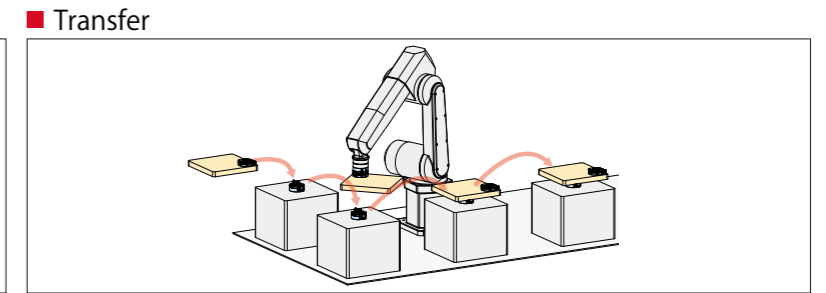
Prevents workpiece from falling with holding force even at OMPA.

Model SWE WCE



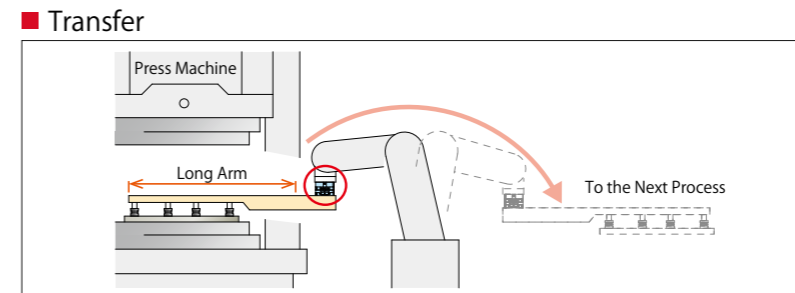
Minimize the Transfer Equipment by clamping workpiece hole.

Model SWE



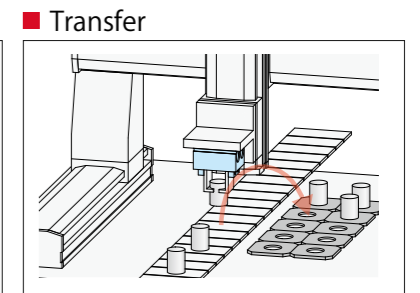
Robotic Hand Changers mounted to the pallets. It enables not only tool change, but also pallet transfer.

Model SWR SWT WVS



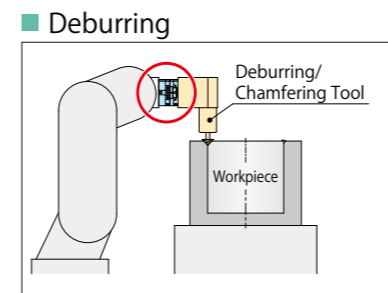
High accuracy locating of Robotic Hand Changer reduces fluctuation of press machine transfer arm and prevents errors.

Model SWR



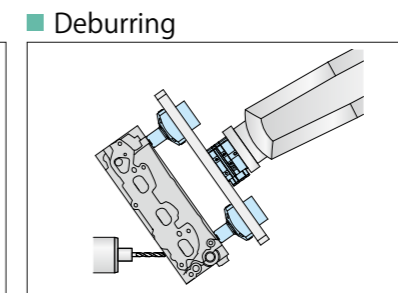
Long Stroke Robotic Hand allows for transferring various kinds of workpieces.

Model WPH WPP WPQ



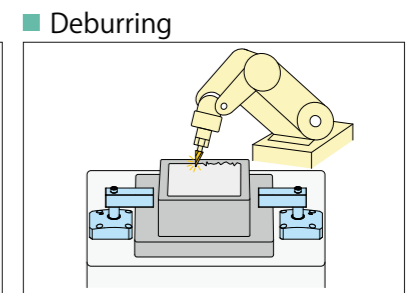
High accuracy robotic tool changer improves machining accuracy.

Model SWR



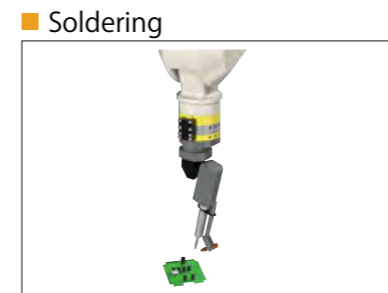
Clamps the workpiece by holding its holes. No Interference, Smooth Deburring

Model SWR SWE



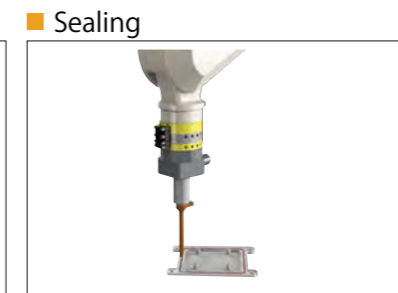
Clamps the workpiece with holding force. Scratches on the workpiece will be minimized.

Model WHE WCE



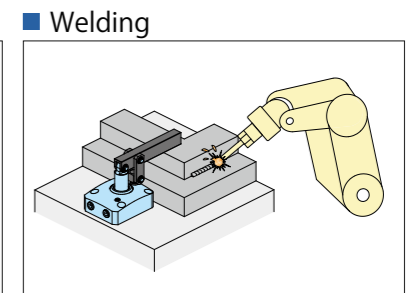
Soldering accuracy will be improved by high accuracy robotic tool changer.

Model SWR



High accuracy robotic tool changer improves sealing accuracy.

Model SWR



Clamp Automation ※ Spatter measurement is required.

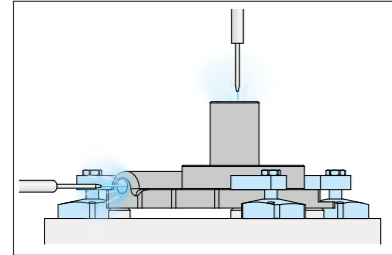
Model WHA WCA

Application Examples

Category

- Washing
- Assembly
- Press Fit
- Test

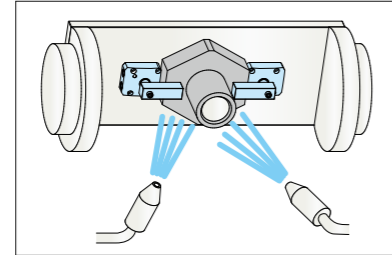
■ Washing



Clamps the workpiece with holding force. Scratches on the workpiece will be minimized.

Model ■ WHE ■ WCE

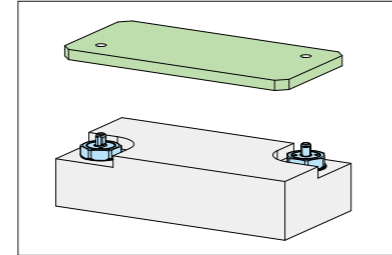
■ Washing



Washing Machine Automation with Automatic Clamps

Model ■ WHA ■ WCA

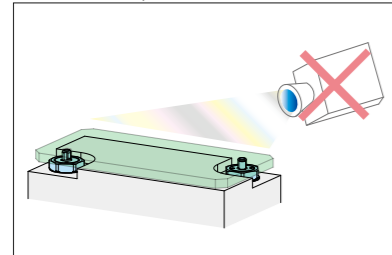
■ Assembly



High accuracy locating facilitates precision work.

Model ■ VRA/VRC ■ WM

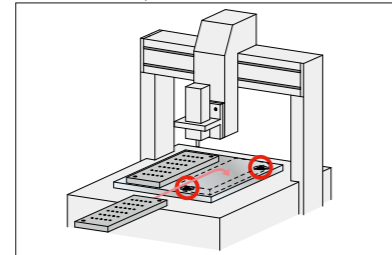
■ Assembly



Cost Reduction in Adjustment Equipment with High Accuracy Locating

Model ■ VRA/VRC ■ WM

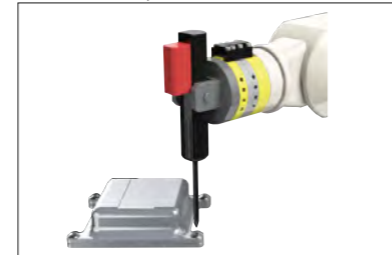
■ Assembly



Improves locating accuracy during pallet change.

Model ■ WM ■ VX ■ VXF

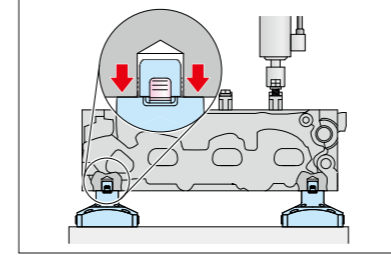
■ Assembly



Without backlash, robotic tool changer facilitates screw tightening and reduces defects.

Model ■ SWR

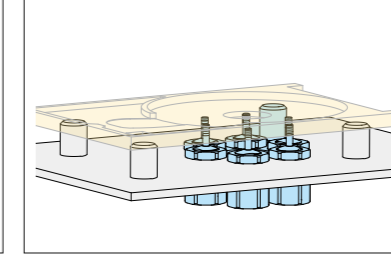
■ Assembly



Clamps the workpiece by holding its holes. Smooth Assembly with No Interferes

Model ■ SWE

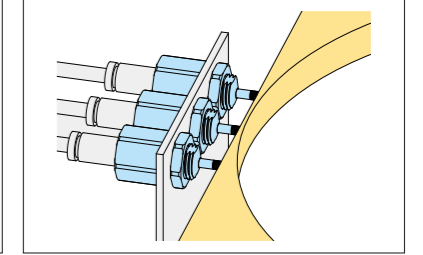
■ Assembly



Supports press fitting during HDD assembly, preventing deformation.

Model ■ WDC

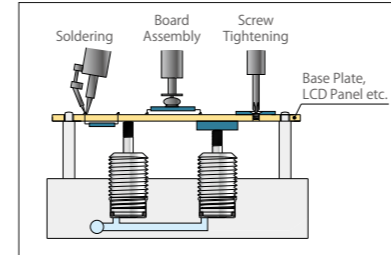
■ Assembly



Supports thin-walled part preventing deformation and cracking.

Model ■ WDC ■ WNC

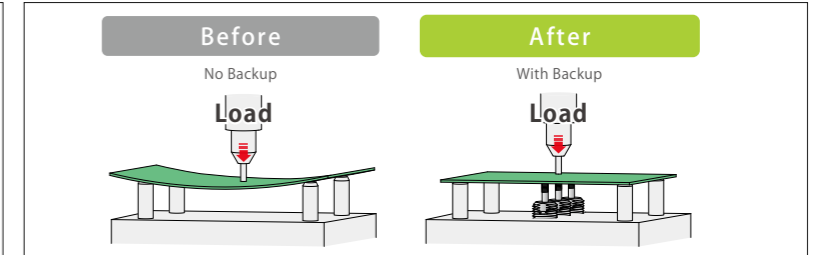
■ Assembly



Supports the bottom of the circuit board. Prevents backlash during board assembly.

Model ■ WDC

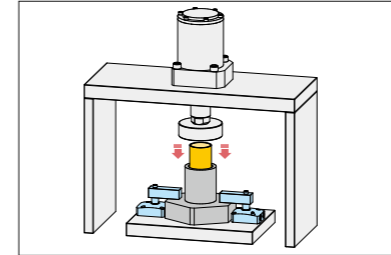
■ Assembly



Supports and backups the workpiece from the bottom preventing deformation caused by various kinds of loads.

Model ■ WDC ■ WNC

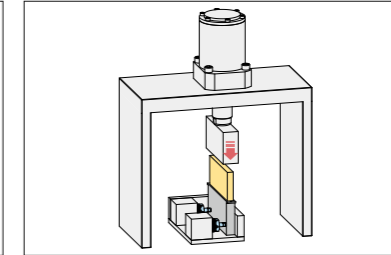
■ Press Fit



Press Fit Automation with Automatic Clamps

Model ■ WHE ■ WHA

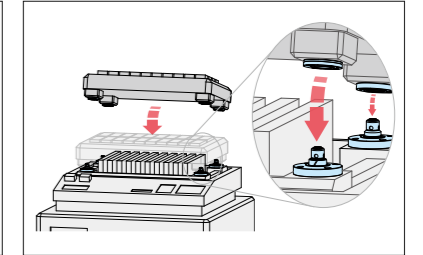
■ Press Fit



Supports the thin walled part, preventing deformation caused by press fit.

Model ■ WNC

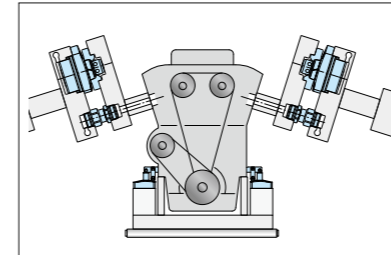
■ Test



Improves accuracy of the semiconductor test device. Locates cassette with high accuracy.

Model ■ SWT ■ WVS

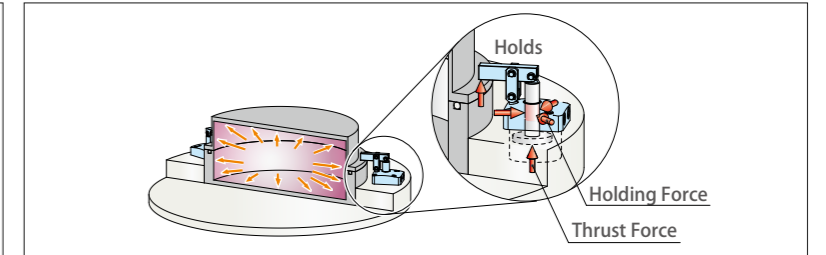
■ Test



Engine Test Device Tool Change Standardization of Test Device

Model ■ SWT ■ SWR ■ JV

■ Test

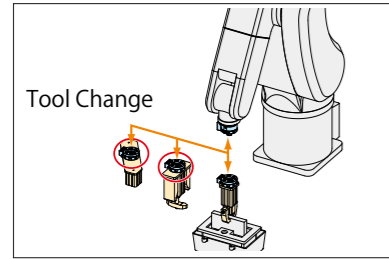


Securely holds the pressure container for leak test with clamping force and holding force.

Model ■ WHE ■ WCE

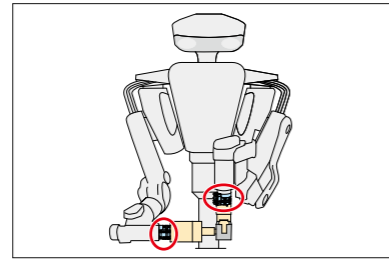
Application Examples

Robot Examples



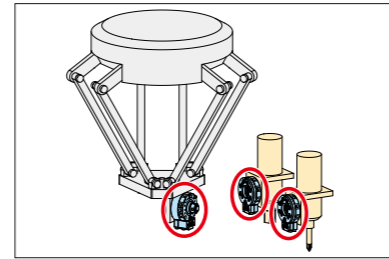
Articulated Robot
Standardized Tool Change

Model **SWR**



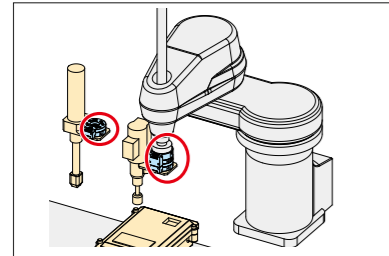
Humanoid Robot
End of Arm Tool Change

Model **SWR**



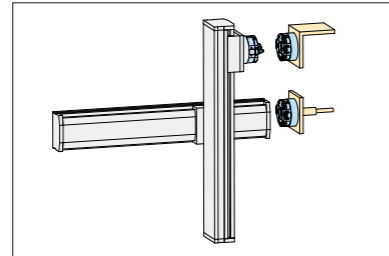
Parallel Link Robot
Screw Tightening Tool Change

Model **SWR**



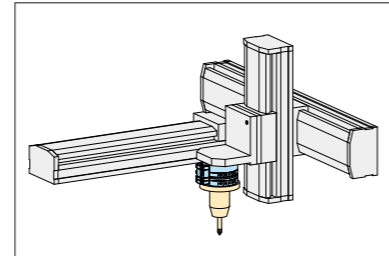
Scara Robot
Nut Runner Tool Change

Model **SWR**



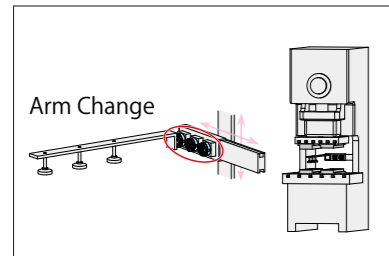
2-Axis Cartesian Coordinate Robot
Test Device Tool Change

Model **SWR**



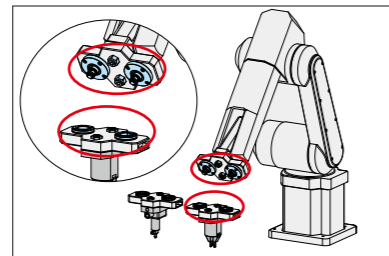
3-Axis Cartesian Coordinate Robot
Tool Change

Model **SWR**



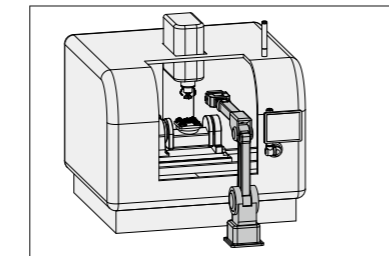
Press Machine
Transfer Arm Change

Model **SWR**



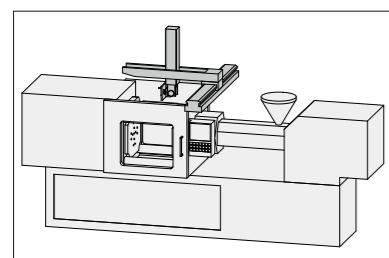
Large Robot
Design various kinds of robotic hands.

Model **SWR** **JV**



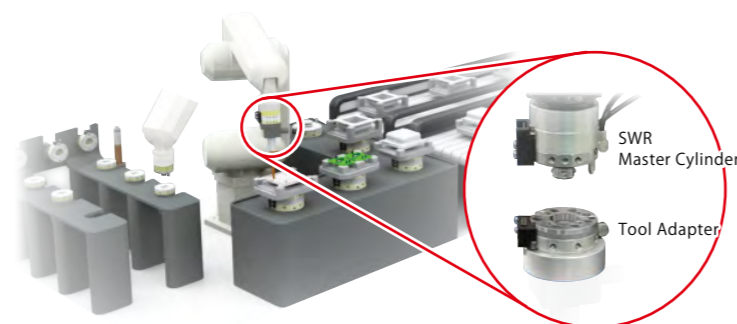
Articulated Robot
Unloading Machine Tool Pallets/Workpieces

Model **SWR**



Injection Molding Machine
Take-Out Robot

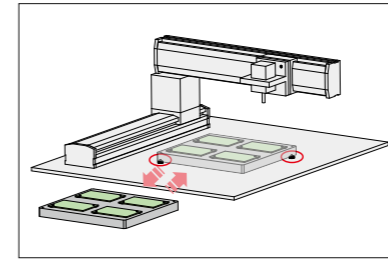
Model **SWR**



High-precision Robotic Hand Changer enables multiple functions of robots and setup time reduction. It enhances the productivity of automated production line.

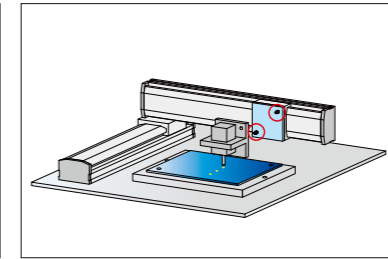
Application Examples

Setup Improvement Examples



Cartesian Coordinate Robot
High-Accuracy Pallet Setup

Model **VRA/VRC** **WM** **VX**



Cartesian Coordinate Robot
High-Accuracy Light Tool Setup

Model **WM** **VX**

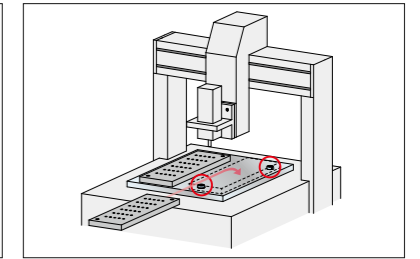
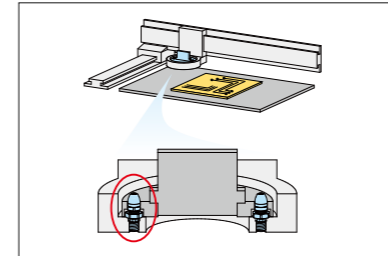


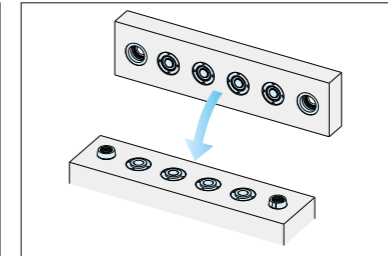
Table Robot
High-Accuracy Pallet Setup

Model **WM** **VX** **VXF**



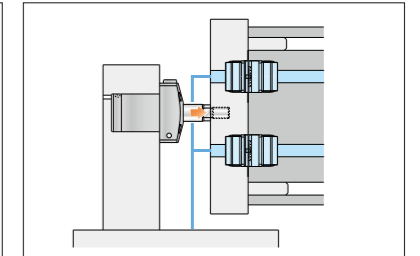
Ink-Jet Device
Head Change

Model **VX** **VXF**



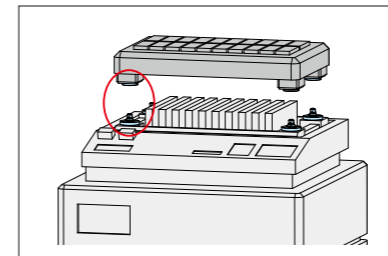
During Pallet Change
Locates with VX, connects circuits with JVA/B

Model **VXF** **JVA/B**



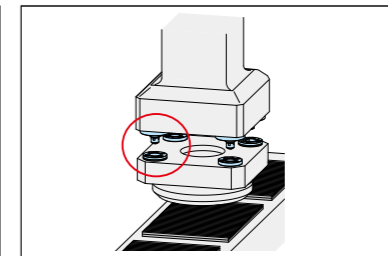
Circuit Connection Automation

Model **JV□**



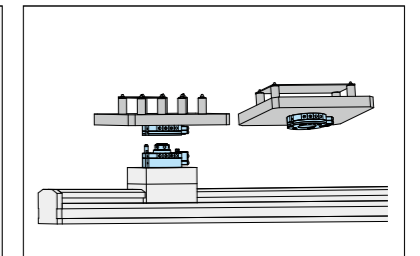
Semiconductor Test Device
High-Accuracy Cassette Setup

Model **SWT** **WVS**



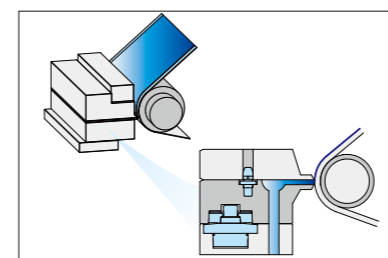
Production Line of LCD Panels

Model **SWT** **WVS**



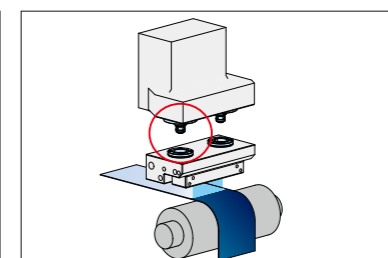
Single Axis Robot Pallet Change

Model **SWR**



Die Coater
Setup During Washing

Model **SWT** **VX** **VXF**



Coating and Coater Head

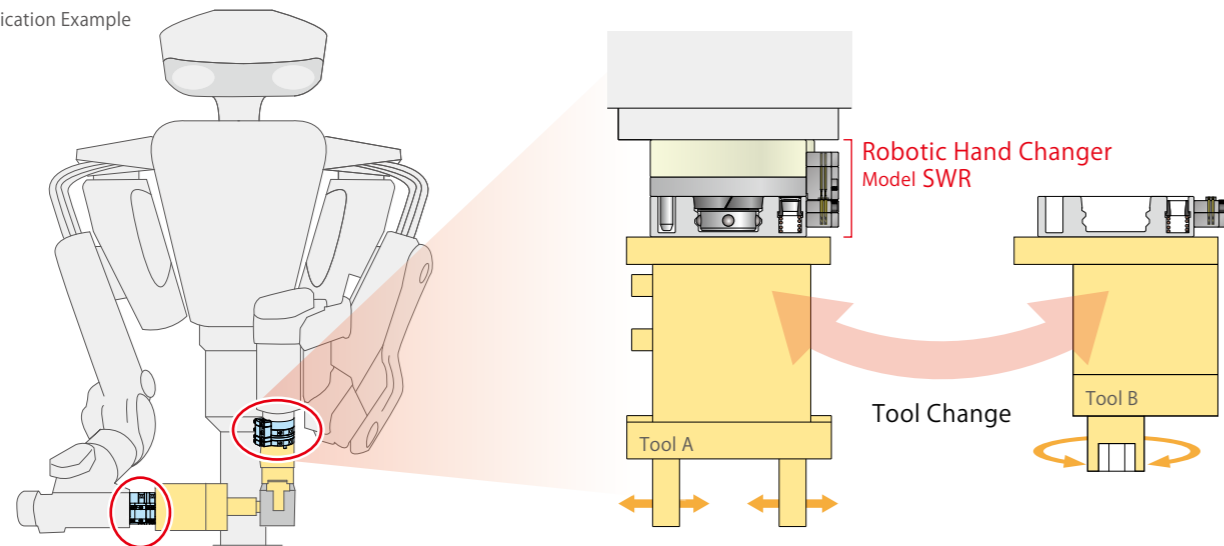
Model **SWT**



Kosmek Robotic Hand Changer is used for

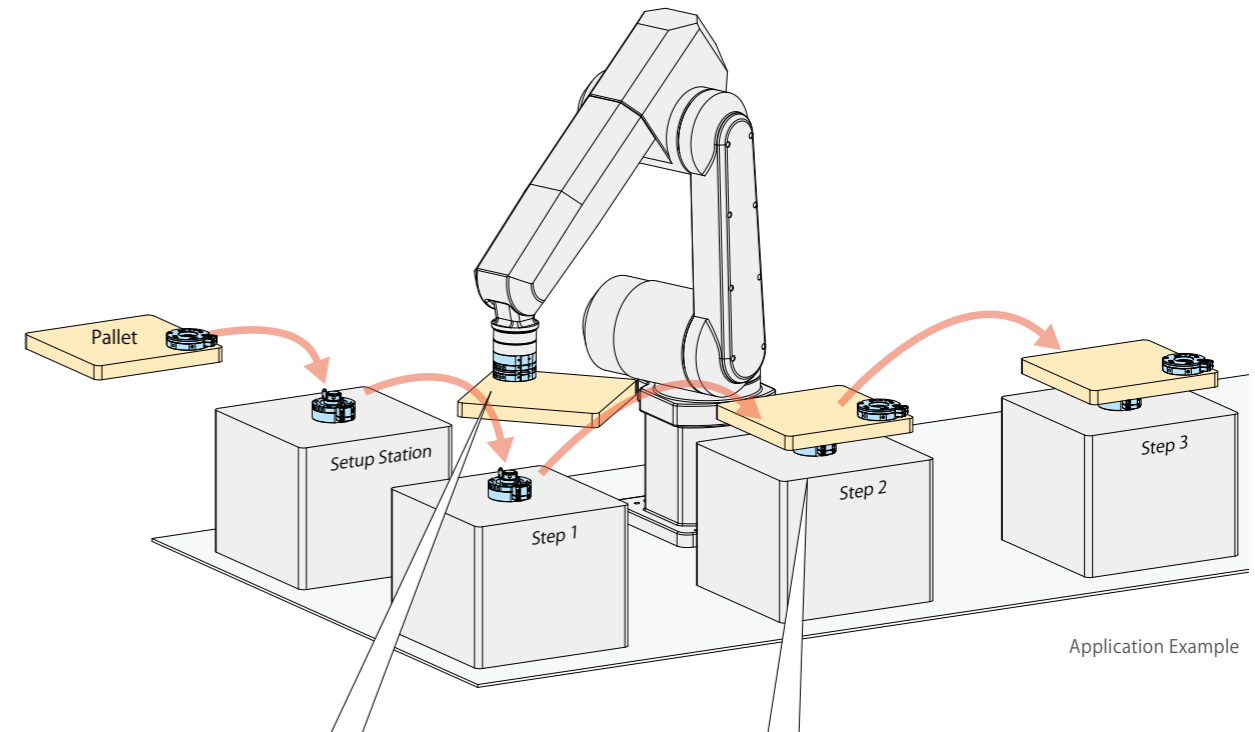
Humanoid Robot Tool Change

Application Example



Kosmek Robotic Hand Changer is used for both

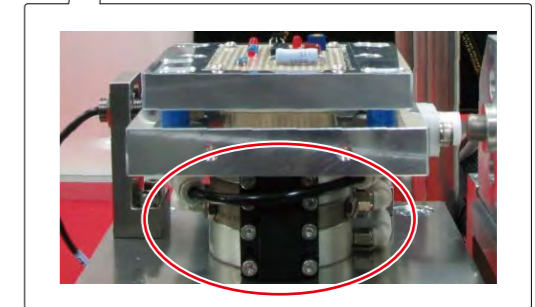
Transfer Robots and Pallet Locating



Application Example

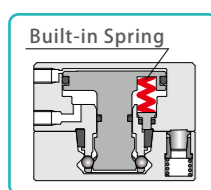


For Transfer Robot



For Locating Pallets

6 Reasons to Choose **KOSMEK**



Built-in Spring

Safe • Anti-Falling of Tool

Even without air supply, built-in spring maintains mating condition which prevents tool from falling.



115g

Light Weight • Compact

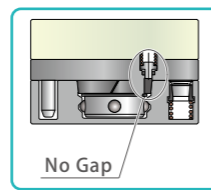
Suitable for robotic hands which are near the weight limit.
Light Weight yet Large Load Capacity!!
※ It shows the weight of SWR0030 without the electrode.



Error Prevention

Enhances Work Efficiency

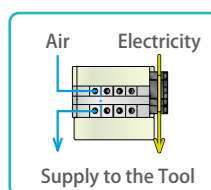
No backlash on mating part. Highly reliable electrode prevents momentary stop caused by communication error.



No Gap

No Backlash on Mating Part

No backlash (clearance) on mating part and most suitable for high load and high accuracy operation.



Air Electricity
Supply to the Tool

Connect Air/Electricity to the Tool

By air port and electrode, it is able to connect air and electricity to the tool side. Electrode is selectable from solder terminal, D-SUB connector and power transmission connector.



Locating Repeatability
0.003mm

Prevents Fluctuation

Locating repeatability of tool change is 0.003mm. Reduces the fluctuation of hand tool and conducts high accuracy operation.

High Accuracy

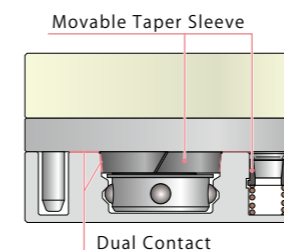
Locating Repeatability : within 3 μm

No backlash on mating part with the dual surface contact of movable taper sleeve.

Safety

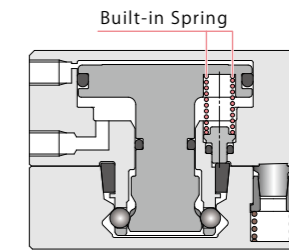
Pallet Fall Prevention

Mechanical locking system maintains mating condition with built-in spring.



Dual Contact

High Accuracy Locating with Dual Contact

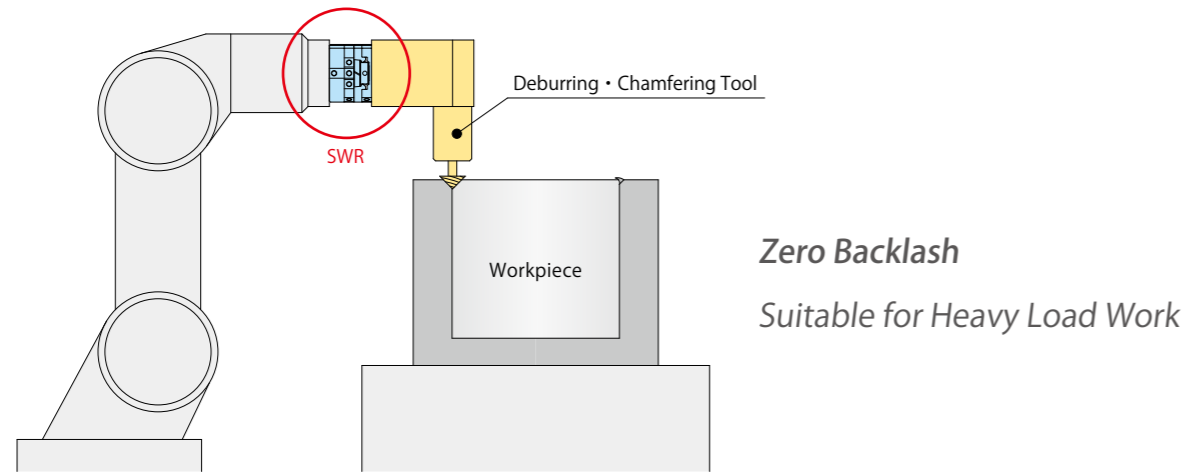


Built-in Spring

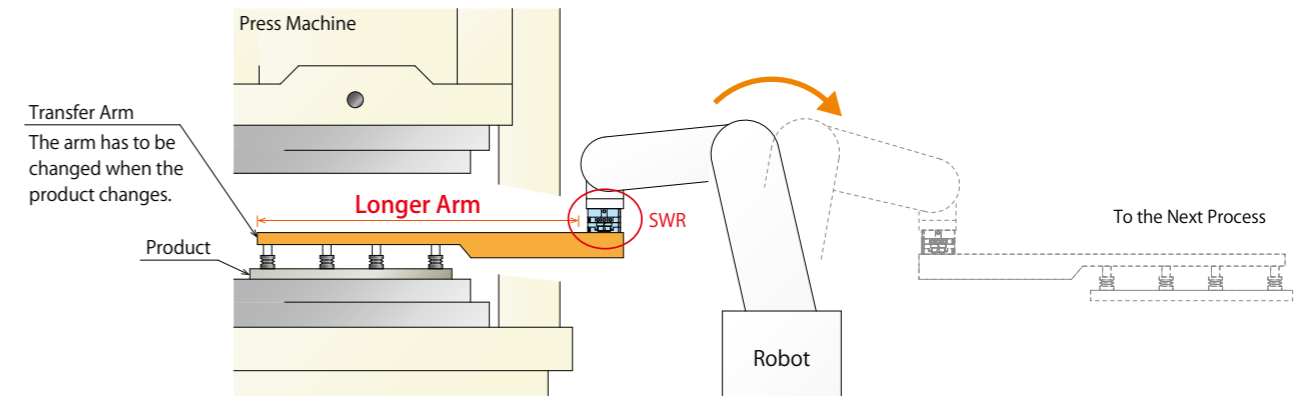
Built-in spring maintains the locked state.



Kosmek Robotic Hand Changer is used for
Deburring • Chamfering Robots for
Aircraft Engine Components

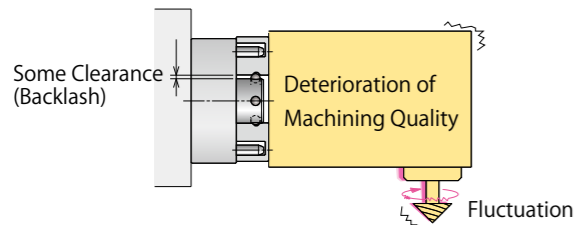


Kosmek Robotic Hand Changer is used for
Transfer Arm Change of
Press Machine Automatic Line

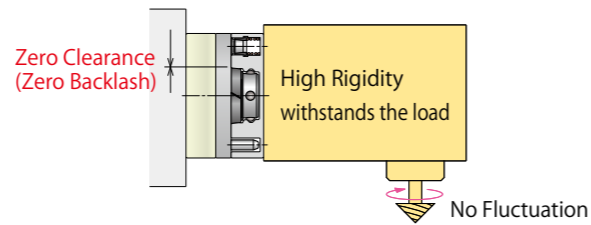


Kosmek robotic hand changer *minimizes fluctuation of the longer arm.*

Before General Robotic Hand Changer



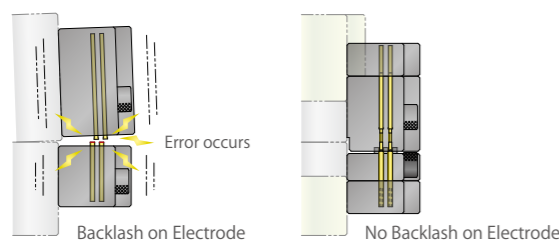
After Kosmek Robotic Hand Changer SWR



Locating Repeatability of Tool Change : $3\mu\text{m}$

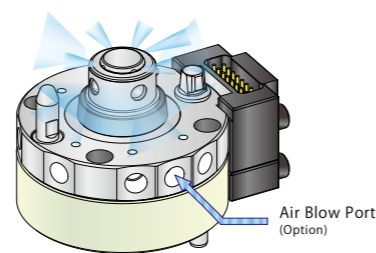
Productive **Enhances Work Efficiency**
No backlash on mating part is due to the dual surface mechanism with movable taper sleeve.

Circuit Connection **Supplies Air/Electricity to the Tool**
Air and electrical connections to the pallet available with the air port and electrode.



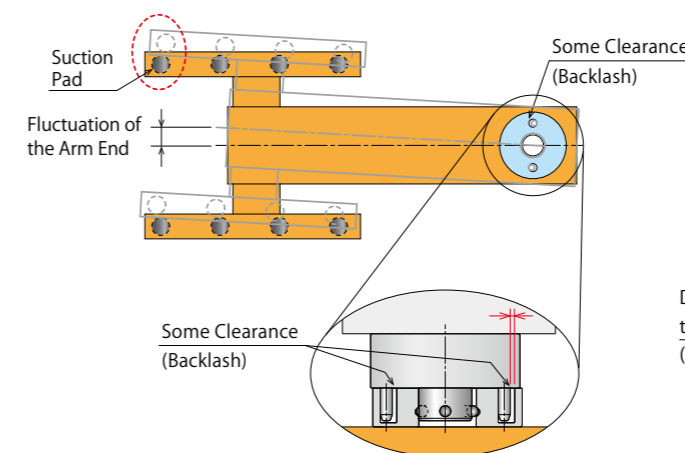
General Hand Changer → Kosmek Hand Changer

Kosmek hand changer has no backlash on electrode with dual surface contact.



Air blow function is for cleaning the taper reference surface and seat surface.

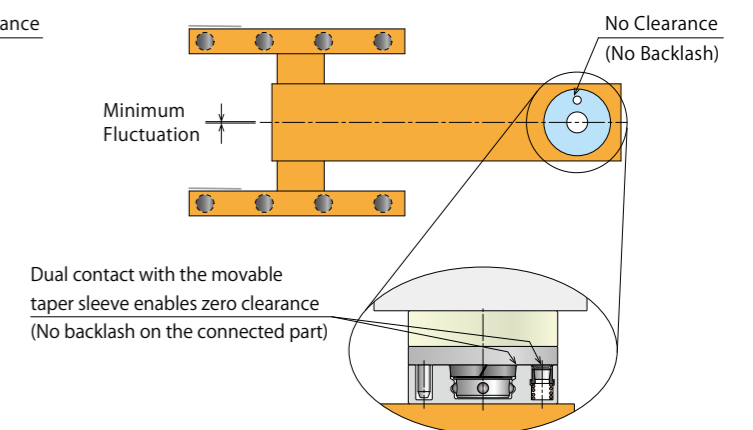
Before General Robotic Hand Changer



With low locating accuracy, fluctuation of the arm end becomes larger. Clearance on the hand changing part may result in gap due to the moment of robot movement. When suction pad is off-position, the pad may not adsorb products, or it cannot place products properly after transferring them.

※ Drawings do not show actual dimensions.

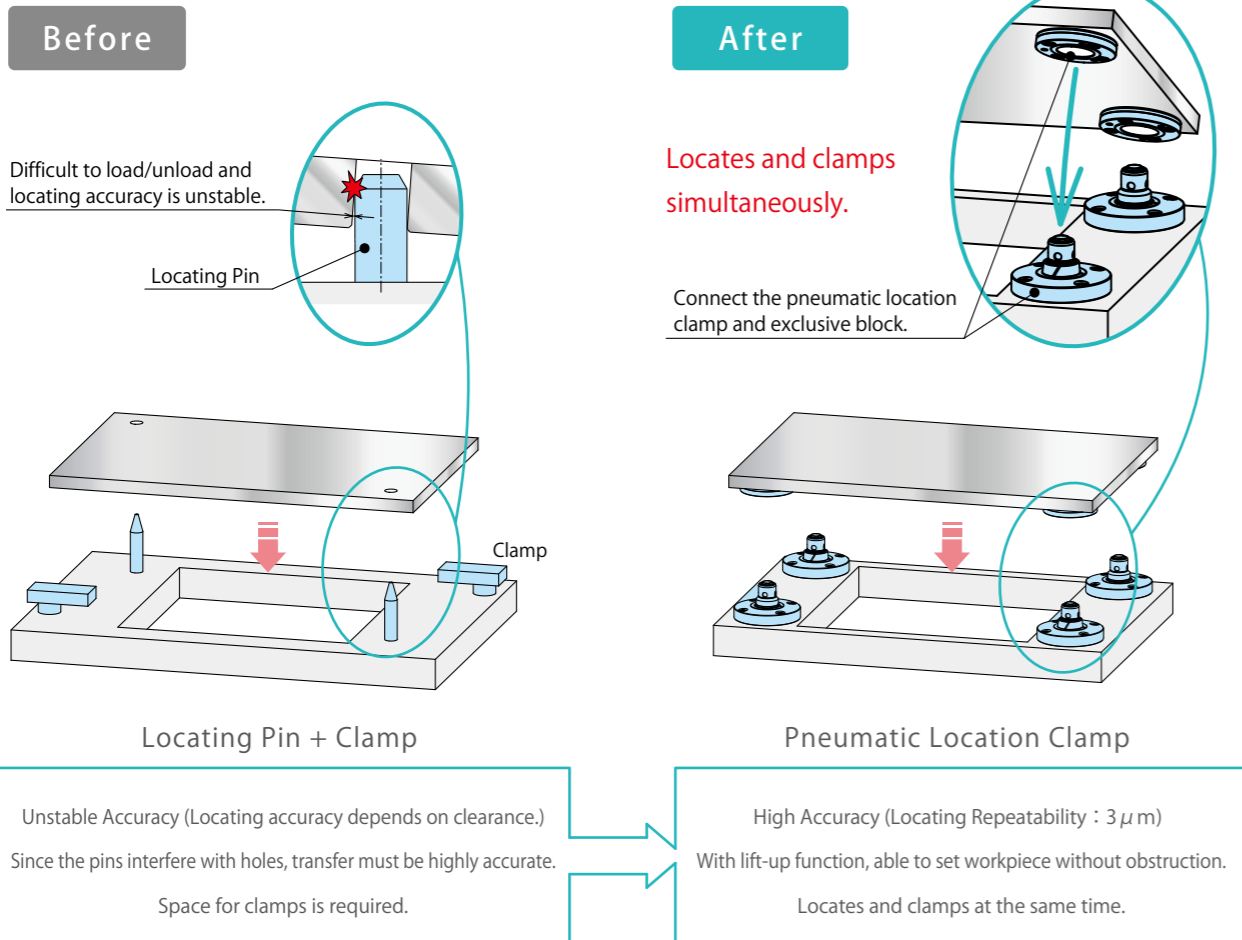
After Kosmek Robotic Hand Changer SWR



With high locating accuracy ($3\mu\text{m}$), fluctuation of the arm end is minimal. Since there is no clearance or backlash, the moment of robot movement does not affect attaching and detaching products. Prevent errors on attaching and detaching with high accuracy locating.



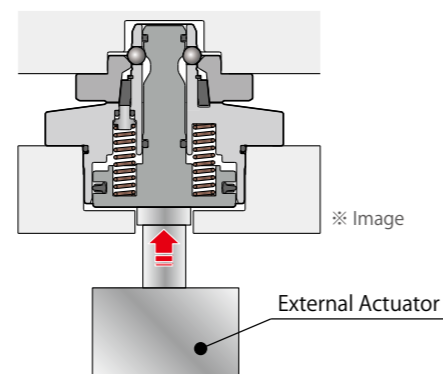
Pneumatic Location Clamp is used for
Locating and Clamping of Pallet/Tray Change



Application Example for Vacuum Facility

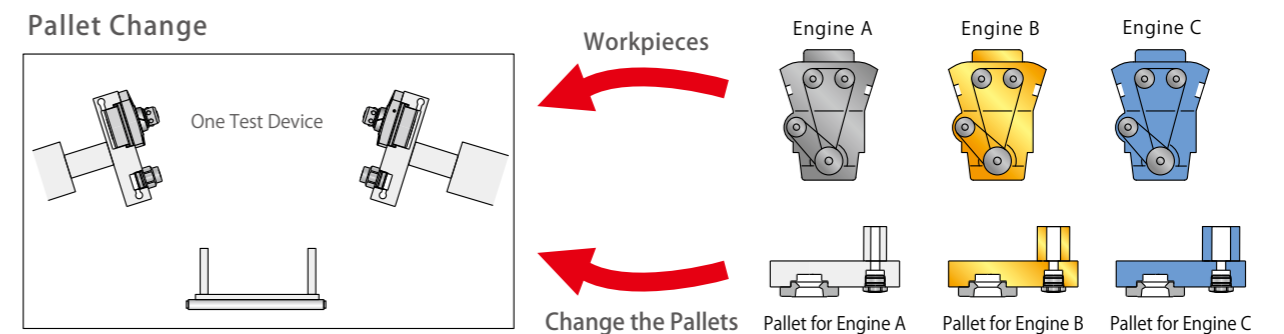
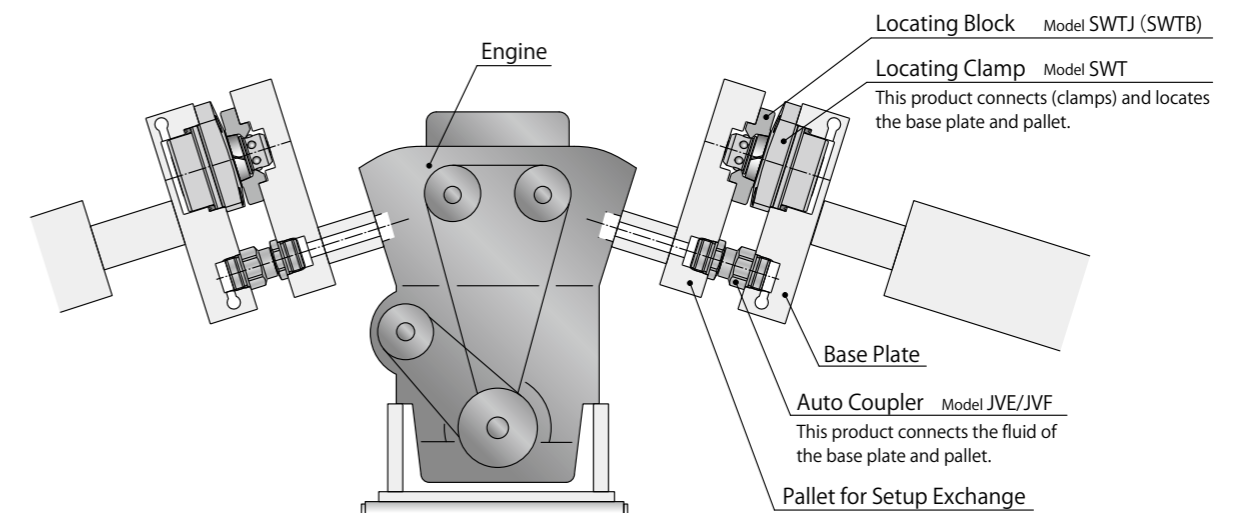
We are able to accommodate a fixture that does not supply air in a vacuum environment with SWT_Y which has the same function as SWT.
※Please contact us for use in this environment.

Example
Release with an external actuator (prepared by customer)
(Release action by lifting up a piston from the bottom of SWT_Y),
and lock with spring. SWT_Y on the fixture operates without air supply.

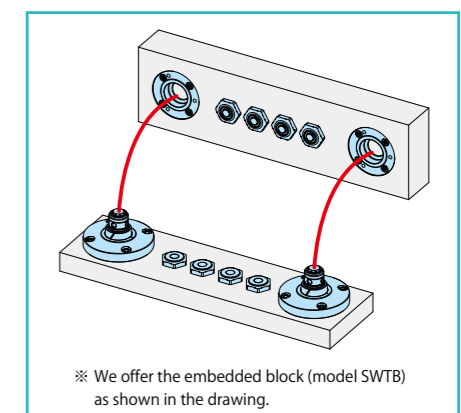
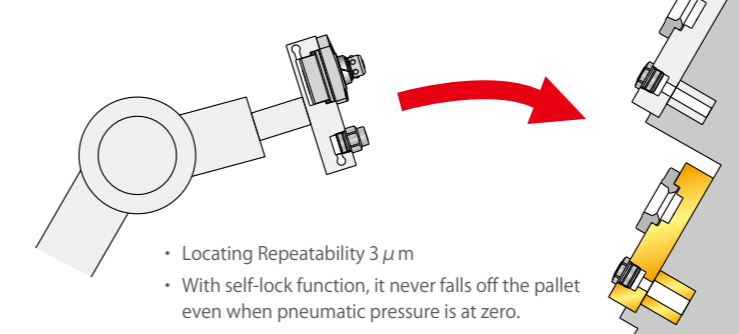


Pneumatic Location Clamp and Auto Coupler are used for
Automatic Setup Change of Engine Cold Test Device

In an engine cold test (engine function test in non-fired state), **every time an engine model changes, testing device had to be exchanged** due to the design of the testing device.
Applying pneumatic location clamp to a part (the joint part of an engine and testing device.) of testing device enables the **automatic setup exchange (time reduction in setup)** by the robot.



Automatic Setup with Robots

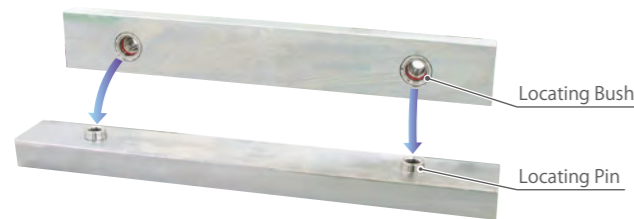


NEW

M4/M5 sizes are added to the line-up!
Most Suitable for Locating Small Plates



Screw Locator is used for
High-Accuracy Locating for
Pallet/Tray Change

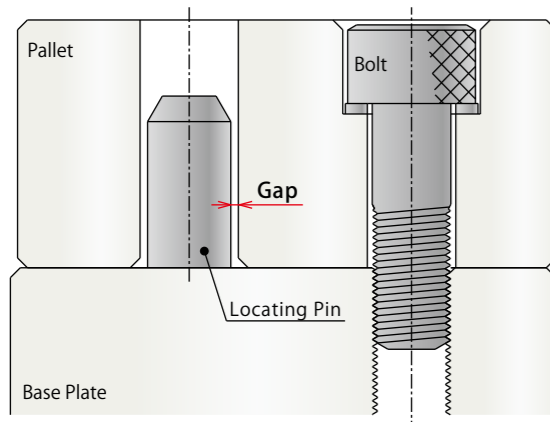


Screw Locator performs high-accuracy locating simply by fastening the bolts.

Before General Locating Pin

Mechanical pins have **clearance** creating unreliable accuracy and repeatability.

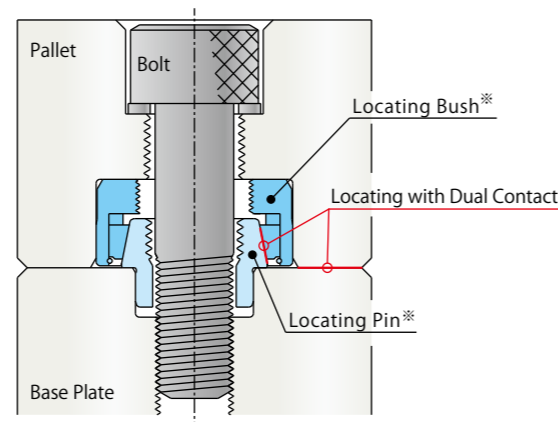
Less accuracy due to backlash
Space is required for mounting pins.



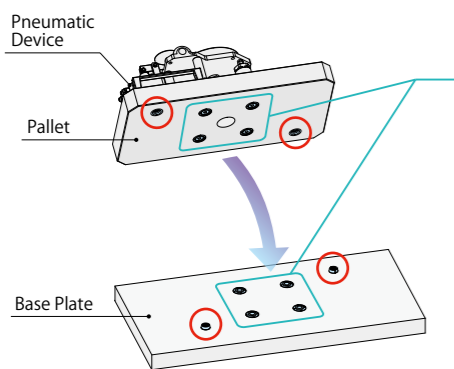
After Screw Locator

With Dual Contact of Screw Locator
Locating Repeatability is 3 μm

High locating accuracy makes less defective parts.
More Compact and Space-Saving

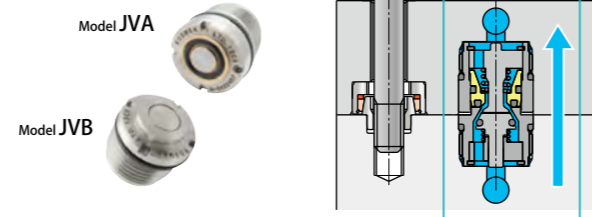


※ Screw locator consists of the locating pin and locating bush.



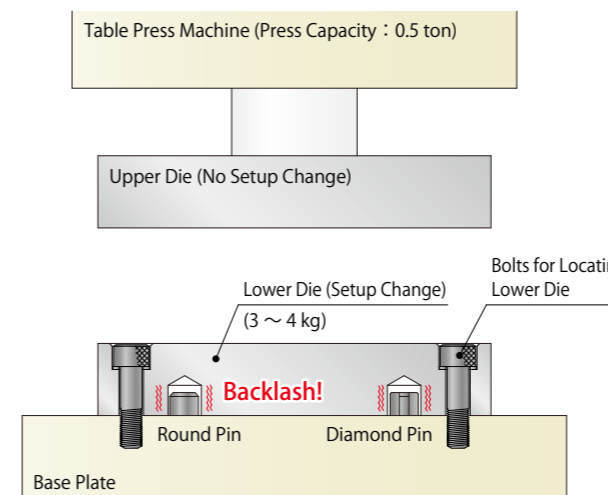
Locating Pallets • Setup Change with Screw Locator
Circuit Connection with Auto Coupler

Auto Coupler is most suitable for use with Screw Locator.



Screw Locator is used for
High-Accuracy Locating of
Lower Die of Table Press Machine

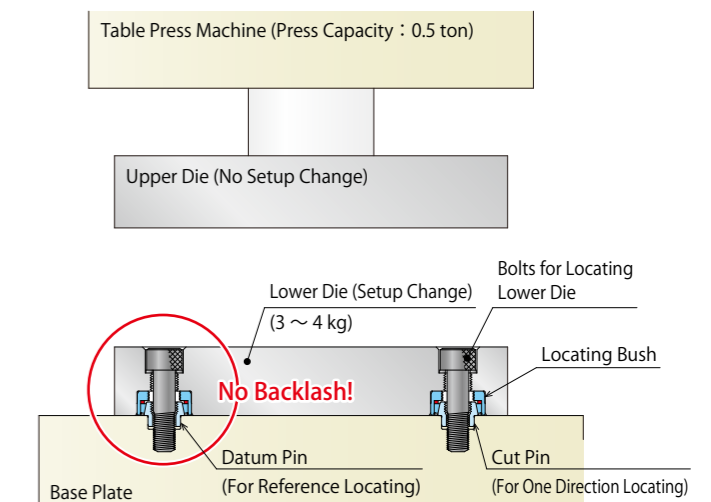
Before General Locating Pin



Pins and bolts are located in different places.
Requires More Space

Locating Accuracy is low.
Requires Re-adjusting

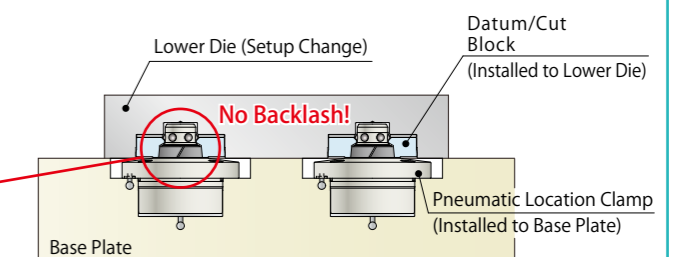
After Screw Locator



Pins and bolts are located in the same places.
Space Saving

Locating Repeatability : Within 3 μm
Re-adjusting is not Required

Pneumatic Location Clamp enables all automated high-accuracy locating and clamping with air supply.

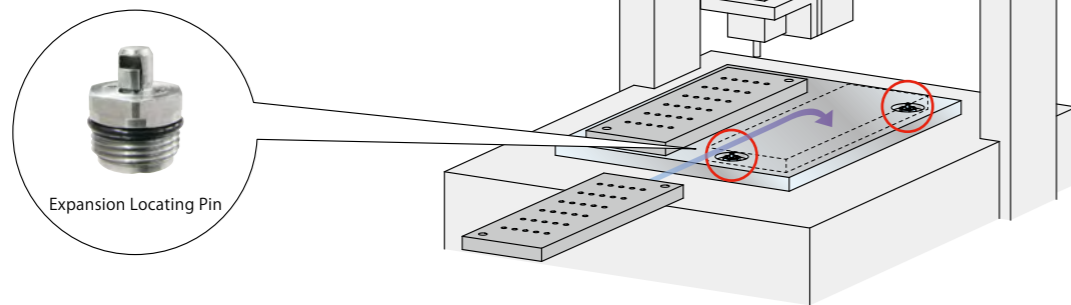


※ In this example, press load is not applied to pneumatic location clamp.
The bottom surface of lower die contacts with the top surface of base plate.

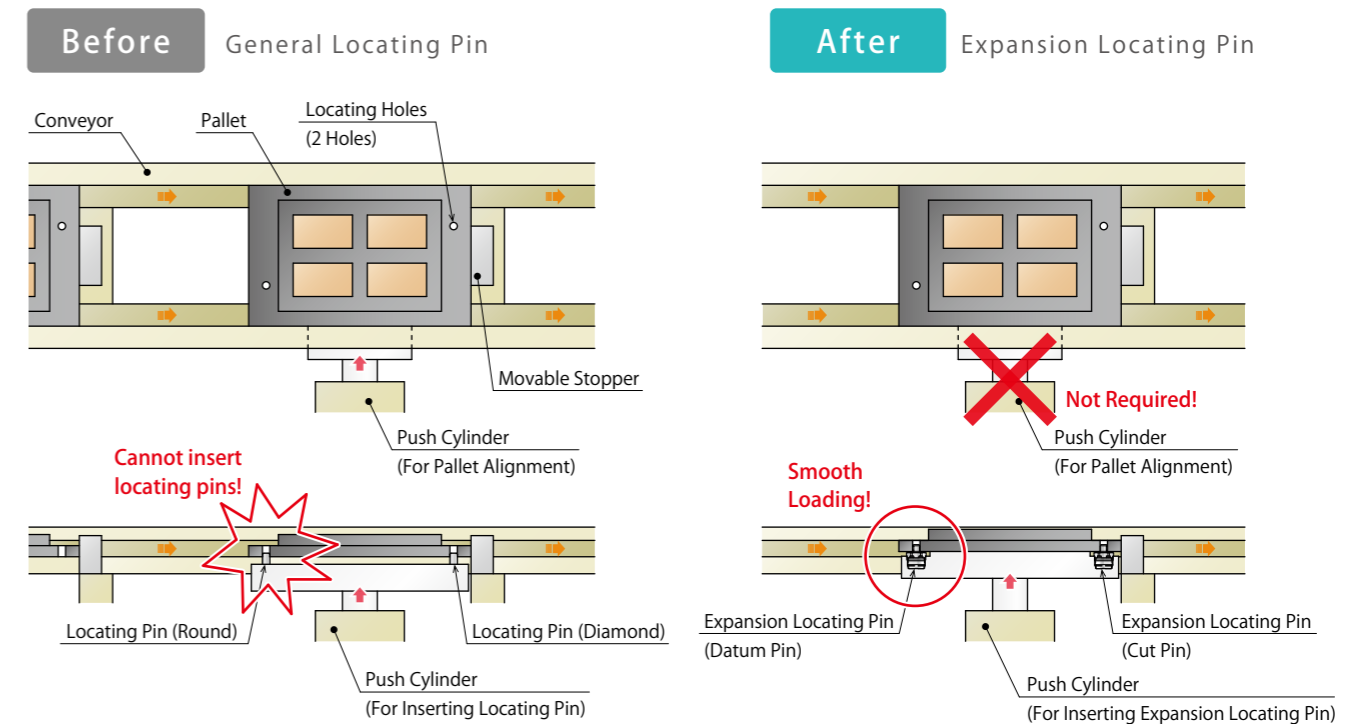


Expansion Locating Pin is used for
High Accuracy Locating for Pallet Change of Table Robot (Equipped with Camera Module Lens etc.)

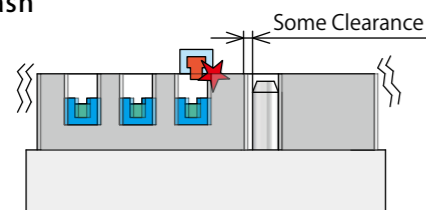
Expansion locating pin ensures high accuracy when exchanging pallets of a table robot at the situation of loading a camera module etc. leading to quality improvement and yielding resolution.



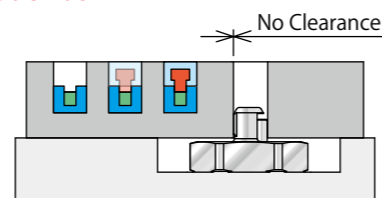
Expansion Locating Pin is used for
Automatic Loading • High Accuracy Locating of Pallets with Conveyor Transfer (Assembly Process for Smart Phone Components)



Before General Locating Pin
Backlash



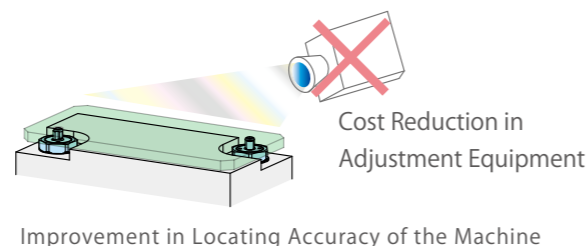
After Expansion Locating Pin
No Backlash



Clearance between the Pin and Hole Displacement leads to Malfunctions	No Clearance with Pin Expansion No Displacement, Yield Rate Reduced
Locating Accuracy is low. Accuracy Correction Required by hand or image recognition.	Locating Repeatability : within 3 μm No Accuracy Correction Required since machine accuracy is improved.

Quality Improvement • Cost Reduction

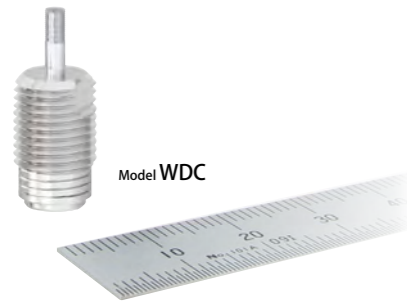
Accuracy improvement of locating pin leads to high accuracy operation and cost reduction in adjustment equipment.



Locating Pin with Small Clearance Pallet Alignment Required	Locating Pin with Large Clearance No Pallet Alignment Required
Using Pin with Small Clearance... Small clearance, hard to unload. Inserting/Removing pins forcefully leads to breakage of the pin.	Releasing Using Expansion Locating Pin Clearance Smoothly Inserted/Removed Minimum Damage
Using Pin with Large Clearance... Clearance causes Low Locating Accuracy	Locating Using Expansion Locating Pin Zero Clearance Locating Repeatability : within 3 μm High Accuracy Locating

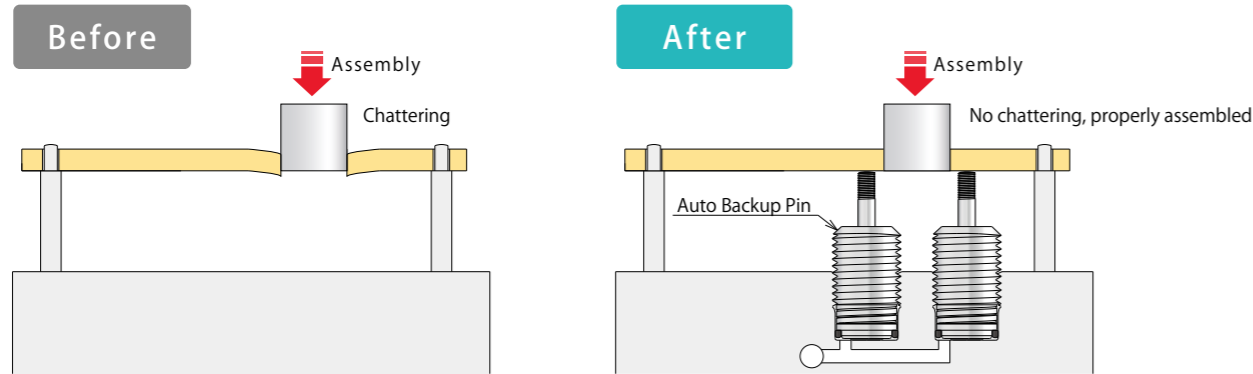
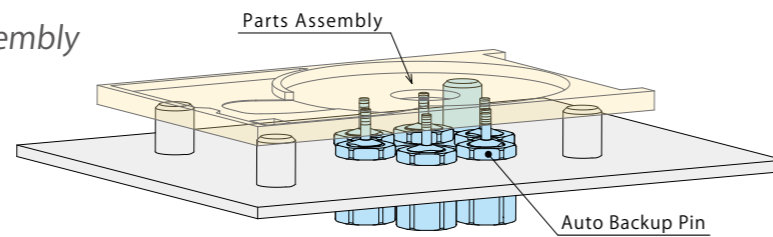
Productivity Improvement

Improvement in loading and unloading reduces errors.



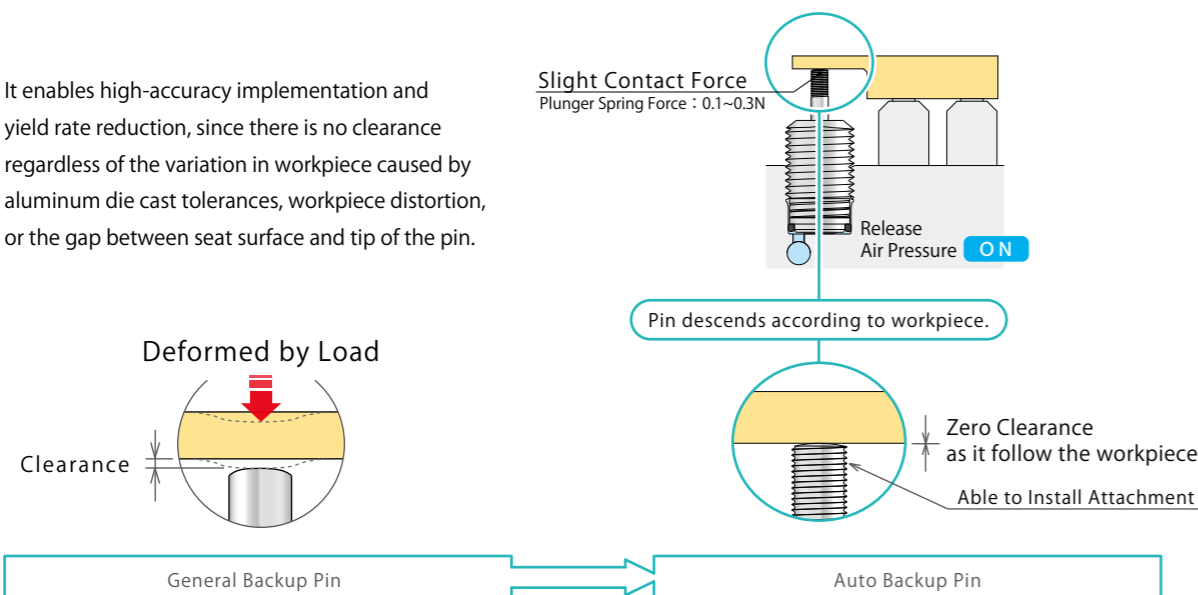
Auto Backup Pin is used for
Chattering Prevention of
HDD Parts Assembly

Prevents chattering caused by assembly (press fit) and assembly defects.



Auto backup pin contacts workpiece softly and holds it instantly (3N).
No clearance between the workpiece and pin since it follows the height of workpiece.

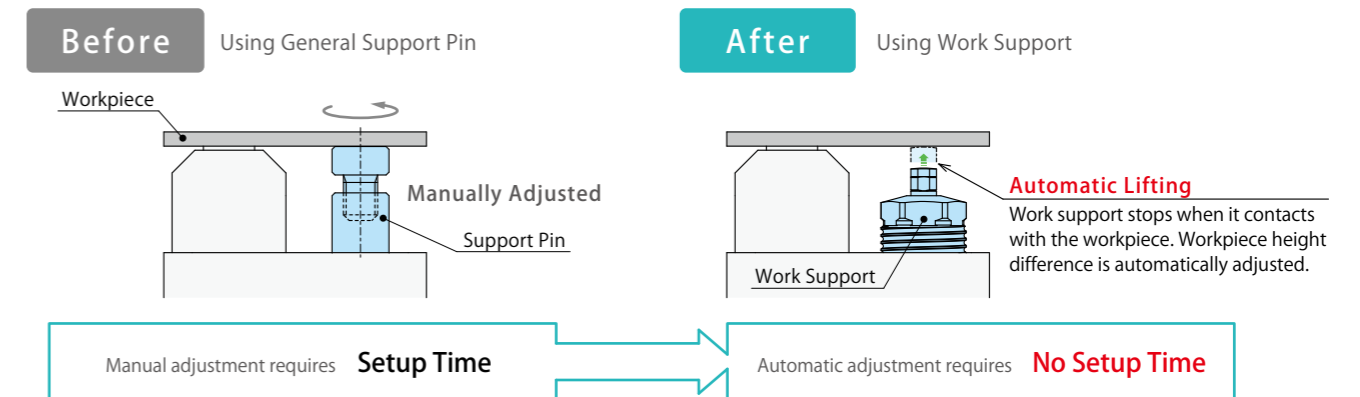
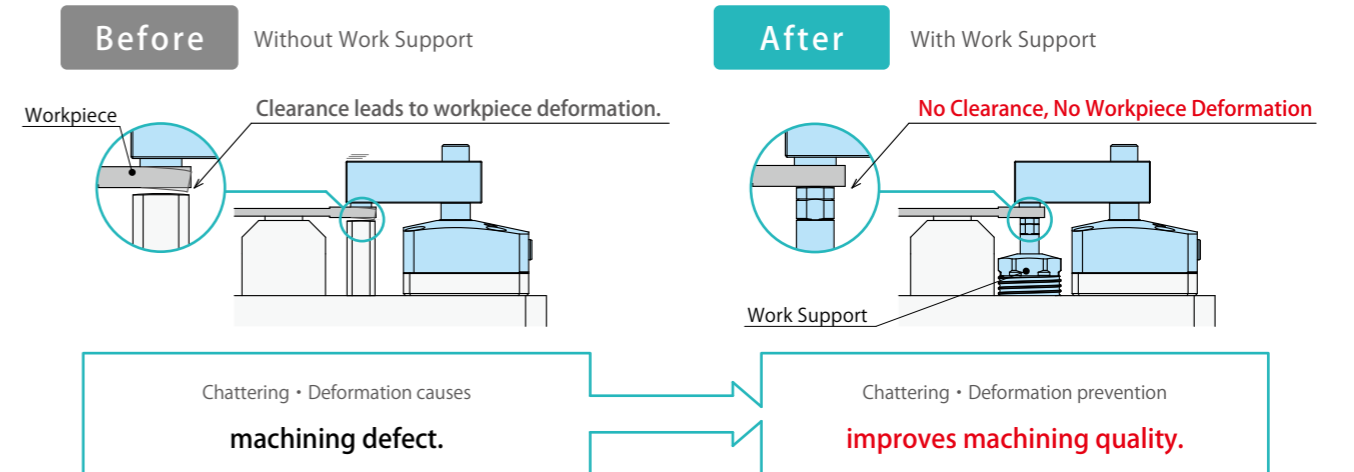
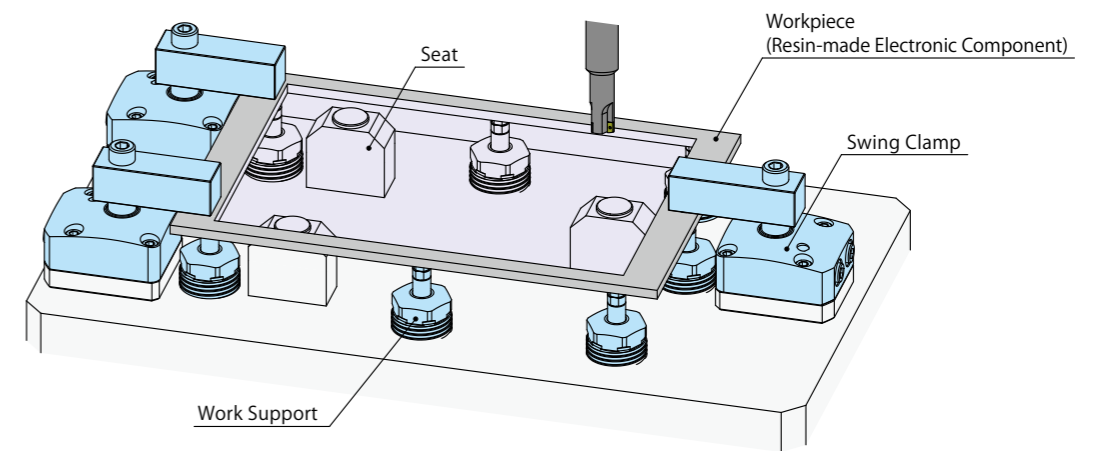
It enables high-accuracy implementation and yield rate reduction, since there is no clearance regardless of the variation in workpiece caused by aluminum die cast tolerances, workpiece distortion, or the gap between seat surface and tip of the pin.



High-Power Pneumatic Work Support is used for
Chattering/Deformation Prevention for
Finishing Process of **Resin-made Components**



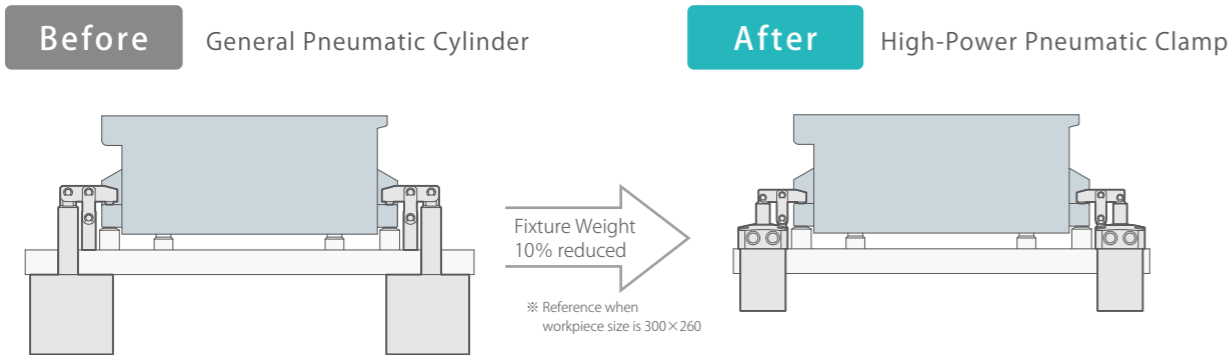
High-quality resin-made electronic component requires machining for finishing process. Kosmek work support prevents deformation or chattering on thin components and enables high quality machining. It also provides shorter setup time.



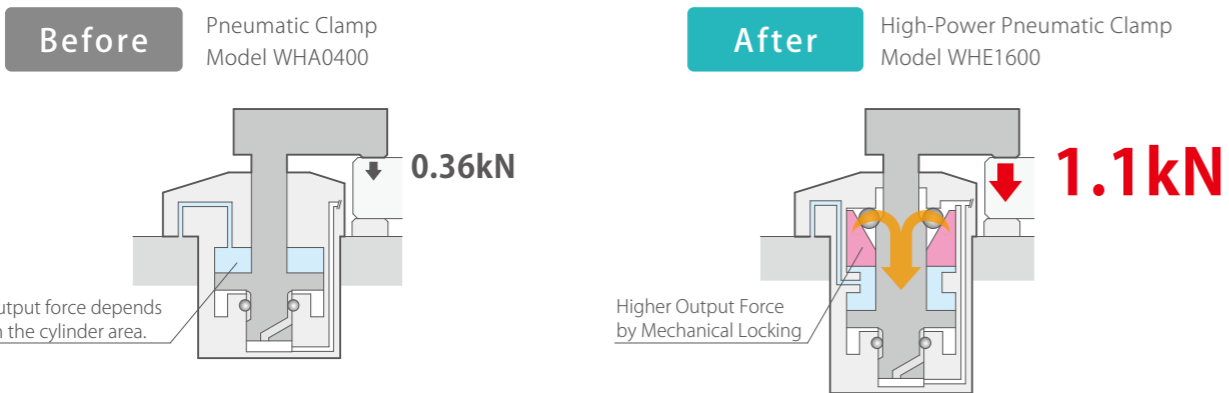


High-Power Pneumatic Swing Clamp Model WHE
High-Power Pneumatic Link Clamp Model WCE

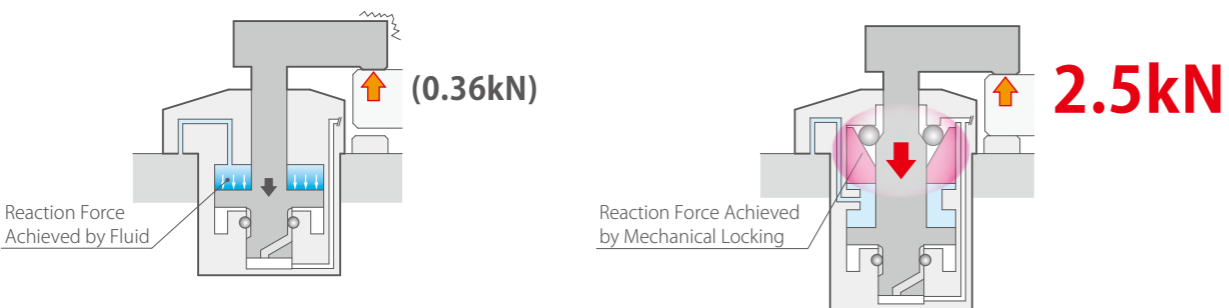
High-Power Pneumatic Clamp is used for **Fixtures** with **Limited Space**



High-power pneumatic clamp has compact body yet **exerts equivalent clamping force** to our conventional model. By reducing the weight of fixture, the load to equipment will be minimized.



Strong Clamping Force with Mechanical Lock
Exerts approximately 3 times higher clamping force than the same size comparison pneumatic cylinder.



Holding Force
Holding force is the force that endures reaction force (load), not the force that presses a workpiece.
The high holding force enables **heavy load machining and high accurate machining.**

※ Comparison of Cylinders with Piston Diameter φ40 (Air Pressure 0.4MPa, Lever Length 60mm)

Company Profile



KOSMEK LTD. Head Office

Company Name	KOSMEK LTD.
Established	May 1986
Capital	¥99,000,000
Sales	55 billion yen (period ended March 2014)
Chairman	Keitaro Yonezawa
President	Tsutomu Shirakawa
Employee Count	220
Group Company	KOSMEK LTD. KOSMEK ENGINEERING LTD. KOSMEK (USA) LTD. KOSMEK (CHINA) LTD.
Business Fields	Design, production and sales of precision products, and hydraulic and pneumatic equipment
Customers	Manufacturers of automobiles, industrial machinery, semiconductors and electric appliances
Banks	Resona bank, Tokyo-Mitsubishi bank, Ikeda bank

Sales Offices

Sales Offices across the World	Japan	TEL. +81-78-991-5162	FAX. +81-78-991-8787
Overseas Sales	KOSMEK LTD. 1-5, 2-chome, Murotani, Nishi-ku, Kobe-city, Hyogo, Japan 651-2241 〒651-2241 兵庫県神戸市西区室谷2丁目1番5号		
USA	KOSMEK (USA) LTD.	TEL. +1-630-241-3465	FAX. +1-630-241-3834
	1441 Branding Avenue, Suite 110, Downers Grove, IL 60515 USA		
China	KOSMEK (CHINA) LTD. 考世美(上海)貿易有限公司	TEL.+86-21-54253000	FAX.+86-21-54253709
	21/F, Orient International Technology Building, No.58, Xiangchen Rd, Pudong Shanghai 200122., P.R.China 中国上海市浦东新区向城路58号东方国际科技大厦21F室 200122		
Thailand	Thailand Representative Office	TEL. +66-2-715-3450	FAX. +66-2-715-3453
	67 Soi 58, RAMA 9 Rd., Suanluang, Suanluang, Bangkok 10250, Thailand		
Taiwan (Taiwan Exclusive Distributor)	Full Life Trading Co., Ltd. 盈生貿易有限公司	TEL. +886-2-82261860	FAX. +886-2-82261890
	16F-4, No.2, Jian Ba Rd., Zhonghe District, New Taipei City Taiwan 23511 台湾新北市中和區建八路2號 16F-4 (遠東世紀廣場)		
Philippines (Philippines Exclusive Distributor)	G.E.T. Inc, Phil.	TEL.+63-2-310-7286	FAX. +63-2-310-7286
	Victoria Wave Special Economic Zone Mt. Apo Building, Brgy. 186, North Caloocan City, Metro Manila, Philippines 1427		
Europe (Europe Exclusive Distributor)	KOS-MECH GmbH	TEL. +43-463-287587-10	FAX. +43-463-287587-20
	Schleppeplatz 2 9020 Klagenfurt Austria		
Indonesia (Indonesia Exclusive Distributor)	P.T PANDU HYDRO PNEUMATICS	TEL. +62-21-5818632	FAX. +62-21-5814857
	Ruko Green Garden Blok Z- II No.51 Rt.005 Rw.008 Kedoya Utara-Kebon Jeruk Jakarta Barat 11520 Indonesia		

Sales Offices in Japan	Head Office	TEL.078-991-5115	FAX.078-991-8787
	Osaka Sales Office	〒651-2241 兵庫県神戸市西区室谷2丁目1番5号	
	Overseas Sales		
	Tokyo Sales Office	TEL.048-652-8839	FAX.048-652-8828
		〒331-0815 埼玉県さいたま市北区大成町4丁目81番地	
	Nagoya Sales Office	TEL.0566-74-8778	FAX.0566-74-8808
		〒446-0076 愛知県安城市美園町2丁目10番地1	
	Fukuoka Sales Office	TEL.092-433-0424	FAX.092-433-0426
		〒812-0006 福岡県福岡市博多区上牟田1丁目8-10-101	

Product Line-up

We manufacture a wide range of clamping systems and components. Feel free to contact us.



■ KOSMEK WORK CLAMPING SYSTEMS

MACHINE TOOL RELATED PRODUCTS

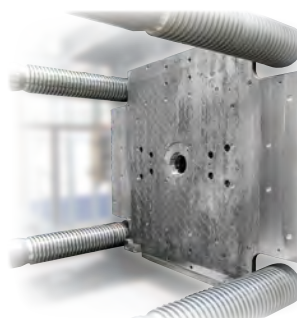
Our clamping system enables boltless automation making loading and unloading workpieces easier. The non-leak valve enables the use of hydraulic source and fixtures in a disconnected condition after locking (clamping action).



■ QUICK DIE CHANGE SYSTEMS

FOR PRESS MACHINES

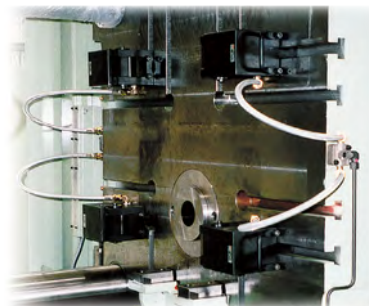
Kosmek Quick Die Change Systems are a cost effective way to improve the working environment, allow diversified and small-lot production, and reduce press down time. Available for a wide range of machines from large size transfer-presses to smaller high speed presses.



■ QUICK MOLD CHANGE SYSTEMS

FOR INJECTION MOLDING MACHINES

Automatic clamping systems have reduced mold change times and increased production efficiency for plastics manufacturers in a multitude of industries. We offer a variety of clamping options including hydraulically powered clamps, pneumatic clamps with a force multiplying mechanism, and magnetic clamping systems.



■ DIECAST CLAMPING SYSTEMS

FOR DIECAST MACHINES

Kosmek Diecast Clamping Systems (KDCS) enable stable die clamping for die casting and magnesium molding machines that are subjected to severe conditions caused by exposure to mold release agents and high temperature.

KOSMEK
Harmony in Innovation

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TEL.+81-78-991-5162 FAX.+81-78-991-8787

BRANCH OFFICE (U.S.A.) KOSMEK (U.S.A.) LTD.
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THAILAND REPRESENTATIVE OFFICE 67 Soi 58, RAMA 9 Rd., Suanluang, Suanluang, Bangkok 10250
TEL.+66-2-715-3450 FAX.+66-2-715-3453

- FOR FURTHER INFORMATION ON UNLISTED SPECIFICATIONS AND SIZES, PLEASE CALL US.
- SPECIFICATIONS IN THIS LEAFLET ARE SUBJECT TO CHANGE WITHOUT NOTICE.



<http://www.kosmek.co.jp>

