Ideas for Improvement

in Semiconductor Manufacturing Process

Support

Locate

| Quick Change

Clamp

Transfer

for Wafer Manufacturing and Front-end/Back-end Process



Front-end Process

A wide variety of products to meet your needs. Enhance productivity in every process.

KOSMEK offers a wide variety of hydraulic and pneumatic products to meet your needs. Please feel free to let us know your requirements (100% stainless steel, low-dust grease, high-temperature environment, etc.). *The figures shown below are examples.

Wafer Manufacturing

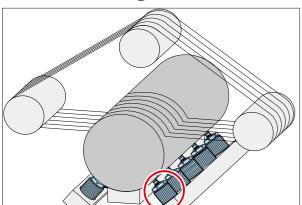
Polishing/ Inspection/Oxidation

Photoresist Coating

Exposure



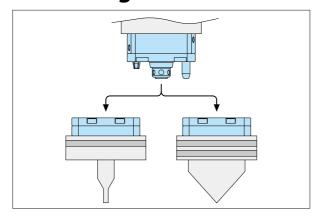
To Slice Ingots



The tip stops when it touches the workpiece, providing strong support during machining.

High-Power Pneumatic Work Support model WNC

To Change Nozzle

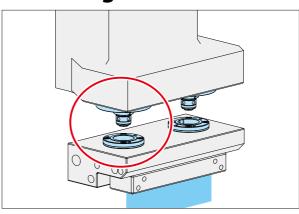


Instant, high-precision locating and clamping. Reduce setup time, improve stability during changeover.

Nozzle Changer

model SWRY
Please contact us for details.

To Change Coater Head

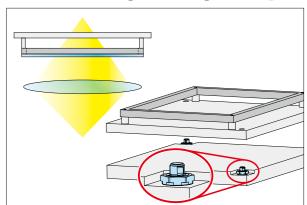


Instant, high-precision locating and clamping. Reduce setup time, improve stability during changeover.

Air Location Clamp model SWT/SWQ

Robotic Hand Changer model SWR

For Locating during Setup



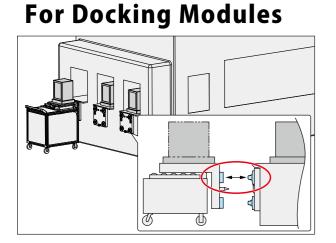
Expansion locating pin enables high-accuracy locating of fixture/workpiece.

Expansion Locating Pin model VRA/VRC

Pneumatic Expansion Locating Pin model VWH/VWM

Etching/Cleaning

- -



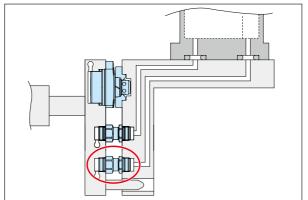
Locating/Clamping for docking modules.

High-Power Pneumatic Pallet Clamp model WVS

High-Power Automation Pallet Clamp model WVG

High-Power Pull Stud Clamp model WPT

For Fluid Supply



Connect various fluids to equipments.

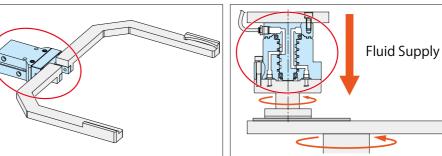
Leakless Coupler model JWC/D
Auto Coupler model JTA/B•JV□
Compact Compressor model AYW

Robotic Hands with 100% Stainless Steel For Fluid Supply

Supply various fluids.

Rotary Joint model JR

CMP Chemical Mechanical Polishing



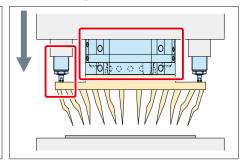
Various Robotic Hands enables more efficient hand design.

Robotic Hands model WP

** The standard models are not made of 100% stainless steel. Please contact us for details.

To Change Testing Device Tool

Wafer Inspection



Reduce setup time for testing device tools. Improve stability during tool change.

Robotic Hand Changer

Large Model

Pallet Gripper model WVA

High-Power

Pneumatic Work Support model WNC

2

model SWL

Back-end Process

A wide variety of products to meet your needs. Enhance productivity in every process.

Grinding

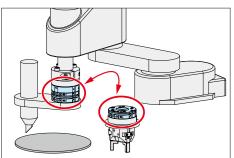
Dicing

Die Bonding Wire Bonding KOSMEK offers a wide variety of hydraulic and pneumatic products to meet your needs. Please feel free to let us know your requirements (100% stainless steel, low-dust grease, high-temperature environment, etc.). *The figures shown below are examples.

Molding

$| \rangle \rangle \rangle \rangle$

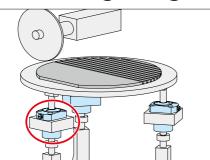
Tool Change Automation



Transfer, seal application, etc. Auto-changeover of various hands for different purposes.

Robotic Hand Changer model **SWR**

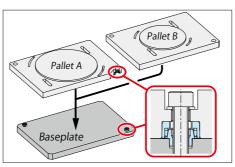
Lock Mechanism for the Stage Height



After adjusting the height and other settings, holds the rod with strong gripping force.

Pneumatic Work Support model WNA

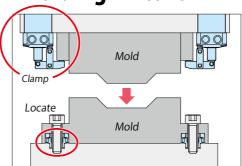
Change/Locate Fixture on Machine Side



Screw Locator enables fixture setup with 0.003mm locating repeatability.

Screw Locator model VXE/VXF

Clamp and Locate Molding Fixture



Clamp with Automatic Clamp. Locate with Screw Locator.

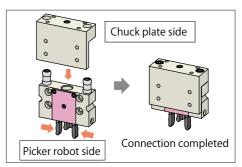
Pneumatic model
Link/Swing Clamp WCC/WFC/WHC

High-Power Pneumatic Link/Swing Clamp

wing Clamp WCE/WHE

Screw Locator VXE/VXF

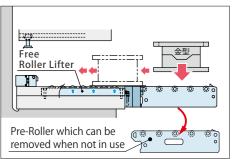
Change Chuck Plate on Picker Robot



Quick Chuck Changer enables simple and quick change of chuck plate.

Quick Chuck Changer model SXQ

Mold Loading



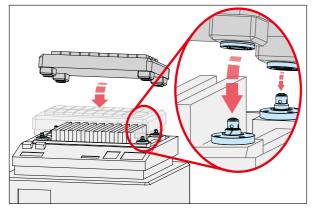
Support mold transfer.
Save space with
removable Pre-Roller.

Pre-Roller model MR□

Pneumatic Free Roller Lifter model RQC

Inspection

Change Testing Device Tool

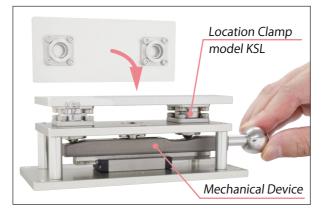


Locates and clamps with high-accuracy. Allows for highly accurate setup.

Air Location Clamp model SWT

Compact Location Clamp model SWQ

Mechanical Device



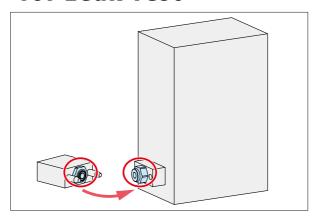
Powered by third-party source. Location Clamp mechanically operates using the force of a robot or a transfer device.

Smart Series Location Clamp

model KSL

Pressure Maintaining for Leak Test

model



Leakless Coupler outgoing side is able to keep the air pressure even when a coupler is disconnected.

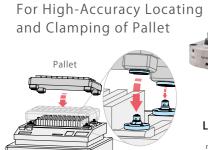
model JWC/D

Leakless Coupler

 $\mathbf{3}$

Introducing Kosmek Products by Application

Setup Change





Location Clamp

model SWQ/SWT



Pallet Clamp

 $model\ WVS$

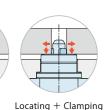




High-Power Pneumatic High-Power Automation Pallet Clamp model WVG/WVGT

Screw Locator model VXE/VXF





Hole Clamp

model SWJ







model RQC

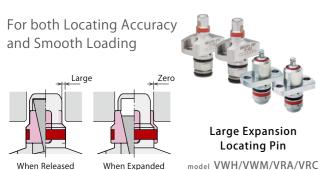




model MR

Pre-Roller

Locate



Support





Pneumatic

Work Support

Work Support [Rodless Hollow]

Safety · Connecting · Air Pressure Maintaining



Air Safety Valve

model BWS



Auto Coupler

model JVA/JVB/JV



Leakless Coupler

model JWC/JWD





Non-Leak Valve

model BWQ





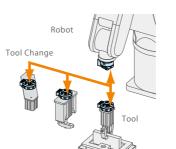


Compressor

model AYW

Tool Change

For Robot Standardization





Robotic Hand Changer (Spring Lock/Air Release) model STR



Robotic Hand Changer model SWR



Mechanical **Robotic Hand Changer**

model SMR



(Large Model)

Robotic Hand Changer

Manual Robotic Hand Changer

model SXR

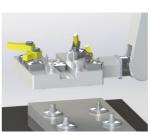
KOSMEK

Quick **Chuck Changer**

model SXQ

Transfer • Clamp

For Pallet Transfer









model WVA

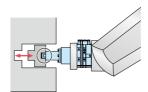
Internal Diameter Chucking Series



High-Power **Pull Stud Clamp**

model WPT

For Workpiece Transfer







High-Power Pneumatic Hole Clamp model WKH

Hole Clamp model SWE



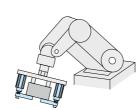
Locating Pin Clamp model SWP

Lock Cylinder

model WKA

External Chucking Series

For Workpiece Clamping and Transfer



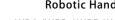




model KSC / KSR / KSS







model WPA/WPB/WPE/WPF/WPH/ WPJ/WPP/WPQ/WPS/WPW



Swing Clamp

model WHC



Retracting Model

model WFC





Link Clamp

model WCC

Pneumatic Pneumatic



Centering Vise

model FWD

High-Power **Pneumatic Clamp**

model WHE/WCE/WFE





model WRC



KOSMEK LTD.

https://www.kosmek.com/

HEAD OFFICE 1-5, 2-chome, Murotani, Nishi-ku, Kobe-city, Hyogo, Japan 651-2241 TEL.+81-78-991-5162 FAX.+81-78-991-8787

United States of America KOSMEK (USA) LTD.

SUBSIDIARY 650 Springer Drive, Lombard, IL 60148 USA

TEL. +1-630-620-7650 FAX. +1-630-620-9015

MEXICO KOSMEK USA Mexico Office

REPRESENTATIVE OFFICE Av. Loma Pinal de Amoles 320-piso PH oficina 504 interior 13, Vista Dorada, 76060

Santiago de Querétaro, Qro. Mexico TEL. +52-1-55-3044-9983

EUROPE KOSMEK EUROPE GmbH

SUBSIDIARY Schleppeplatz 2 9020 Klagenfurt am Wörthersee Austria

TEL. +43-463-287587 FAX. +43-463-287587-20

CHINA KOSMEK (CHINA) LTD.

SUBSIDIARY Room601, RIVERSIDE PYRAMID No.55, Lane21, Pusan Rd, Pudong

Shanghai 200125, China TEL. +86-21-54253000

INDIA KOSMEK LTD. - INDIA

 ${\sf BRANCH\ OFFICE} \qquad {\sf 4A/Old\ No:649, Ground\ Floor, 4th\ D\ cross, MM\ Layout, Kavalbyrasandra,}$

RT Nagar, Bangalore -560032 India TEL.+91-9880561695

THAILAND KOSMEK Thailand Representation Office

REPRESENTATIVE OFFICE 67 Soi 58, RAMA 9 Rd., Phatthanakan, Suanluang, Bangkok 10250, Thailand

TEL. +66-2-300-5132 FAX. +66-2-300-5133

For Further Information on Unlisted Specifications and Sizes, Please call us.

■ Specifications in this Leaflet are Subject to Change without Notice.

JQA-QMA10823 KOSMEK HEAD OFFICE



CAT.NO. SBR-SEMI01-01-G1B

2025/07 First 0.8De
Printed in Japan