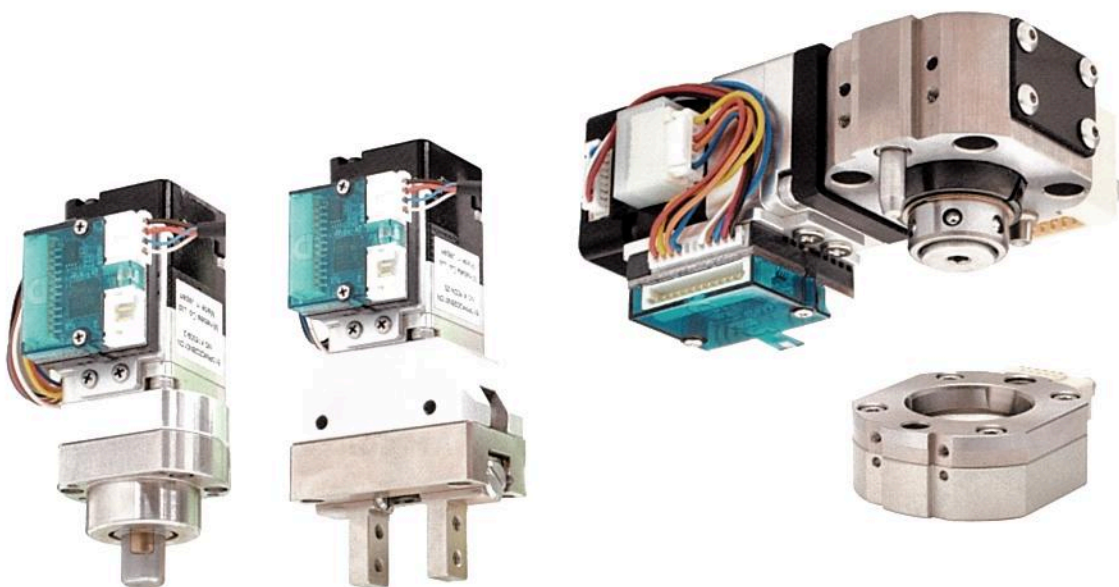


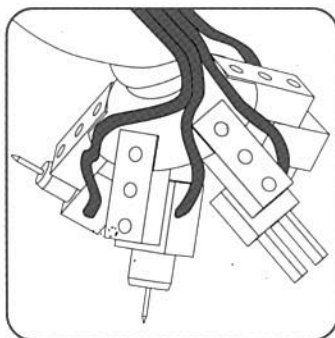
Reference Exhibit

Electric Robotic Hand • Hand Change Systems

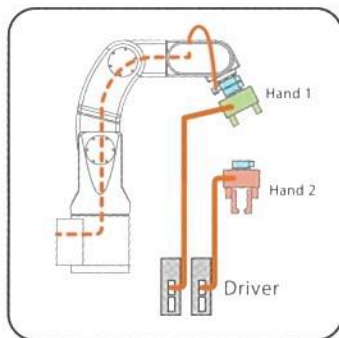
KOSMEK **S**mart **E**lectric **R**obot systems



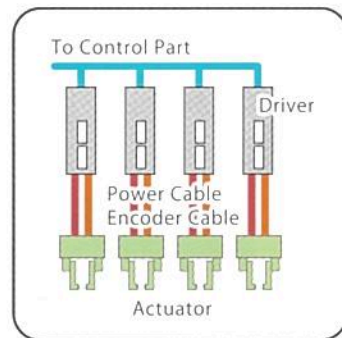
Problems of Current Electric Hand Systems



Complicated Multi-Function Hand

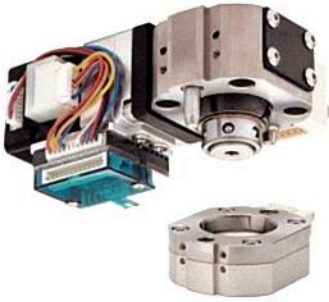


Unable to wire inside the robot due to a large number of cores inside cable.



The more tools are used, the more drivers and wiring are required.

Reference Exhibit



Electric Robotic Hand Changer

model SER

Highly rigid robotic hand is strong to "bending" and "torsion" with zero backlash at connecting part. High locating repeatability allows a robot to exert its full ability.

- Payload 3kg / 7kg
- Locating Repeatability : 3 μm
- Self-locking to prevent tool falling in case of power failure.

Electric Hole Clamp

model WEH

Holds a workpiece hole from the inside. More compact and lighter than outer gripping hands, suitable to workpieces that cannot be gripped from the outside.

- Workpiece Hole Diameter : $\phi 6 \pm 0.3 \sim \phi 12 \pm 0.3$ (in 0.5mm increments)
- Gripping Force (Max.) : About 170N
- Clamping Force (Max.) : About 26N

【Action Description of the Tip】

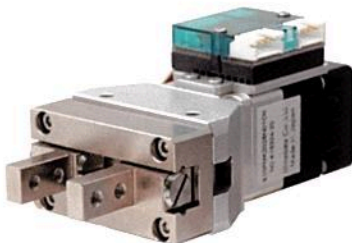


【Released State (Grippers Retracted)】



【Gripped State (Grippers Expanded)】

Gripper



Electric Parallel Gripper

model WEA

Allows for high-rigidity chucking and high-accuracy locating with linear guide function.

- Opening/Closing Stroke (Both Sides) : 8mm, 12mm
- Gripping Force (Max.) : About 60N
- Locating Repeatability : ± 0.01 mm

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