

Human Assist

For your safety at work,
For the future of manufacturing,
We chose this form for the Device

The PowerArm shares the payload for a safer workplace.
The new model is now even safer and easier to use.

Status quo of workers in the manufacturing industry

- 64% of workers are 40 years of age or older.
- **Back pain** accounts for more than half of work-related injuries.

* From the Ministry of Internal Affairs and Communications "2017 Annual Report on the Labour Force Survey"
* From the Ministry of Health, Labour and Welfare "2017 Survey on the State of Occupational Illness, Etc."

New pneumatic pressure balancer enables assistance from the floor upwards

Belt-type assistive devices

- The center of gravity is far from the area of operation (transported item), **making operation difficult. (Starts and stops strain the body)**

Arm-type assistive devices

- Compact storage is difficult, **requiring a large space.**
- Use of the arm is hampered by **interference with the ceiling or walls.**

PAW Series
PowerArm

[2019 Good Design Award]

Human Assist

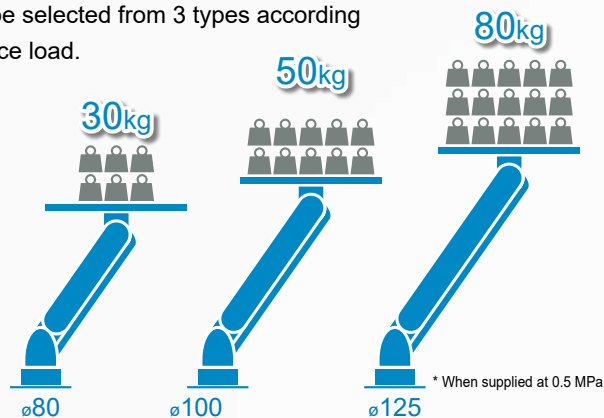
Transform workstyles with assistive devices.



Variation

Arm variations tailored to the workpiece

The arm can be selected from 3 types according to the workpiece load.

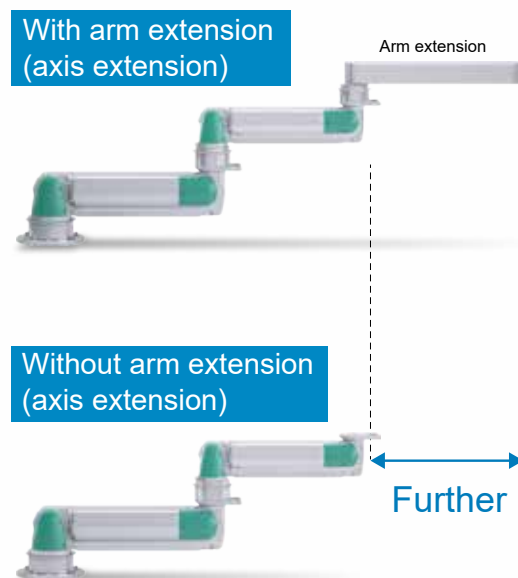


*Refer to the load capacity chart on page 2 for details.

Wide

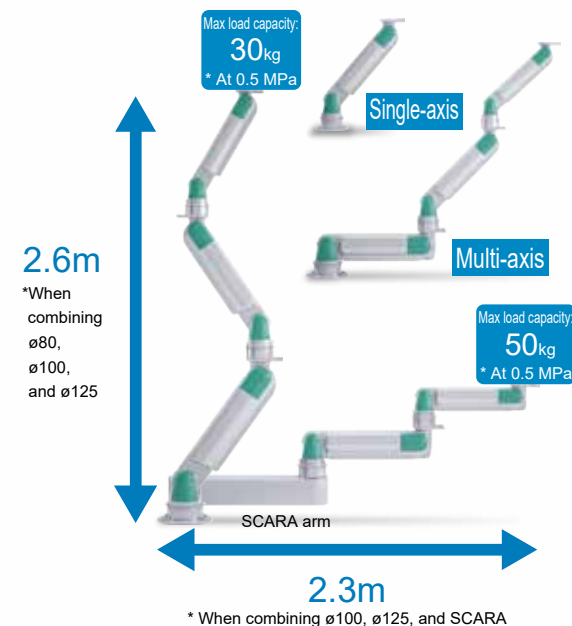
Achieving a wider range of movement

Extension arms (extension axes) can be used for multi-axis specification types to enable an even wider range of motion.



Wide movable range according to usage

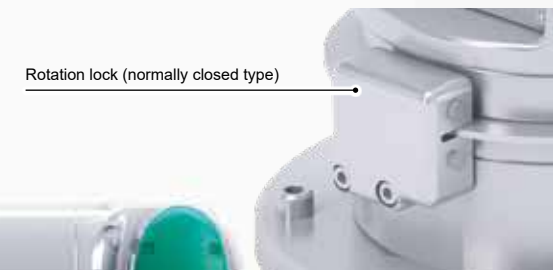
Freely combine single-axis and multi-axis specifications to suit your applications and worksites.



Safety

Holds position when motor power (air, electric power) is down

In addition to a position-locking function (standard equipment) via block valve, a rotation lock can be mounted on the normally closed type (option). Position holding is possible during emergency stops.



Snag prevention

Fingers, etc., do not fit into the joint gaps.

In addition, the space remaining when the joints are closed keeps fingers from being snagged.



* European safety standard CE marking applies only to the PowerArm body.
* CE marking is conditionally available for the automatic operation pressure adjustment type. Please contact us.

Simple

Simple assistive mechanism based on pneumatic pressure control

Uses a pneumatic pressure cylinder in part of the body. The simple mechanism can be easily handled.

Compact

Compact

Multi-axis specification enables fold away for more compact storage than the arm or belt types



Flexible

Customers can easily incorporate arms

With the simple structure, arm combinations can be flexibly changed by the customer.



Human Assist

New Mechanical Lock specifications available to make work transport safer and easier



Safety

Secure structure with built-in locking function
With the lock mechanism inside, it can be used safely without fingers getting caught.

Vertical locking available for all strokes
The stop position can be locked at any position in the vertical movable range as long as the arm remains still.

Holds position when motor power (air, electric power) is down

A normally closed lock mechanism enables position holding in emergency stops.

Manual lock can be released

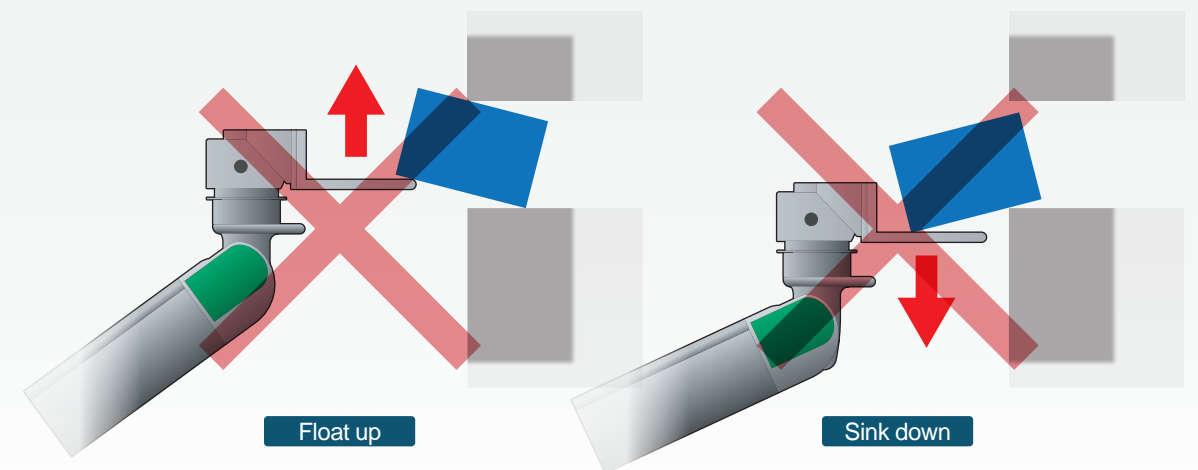
In an emergency, the lock can be manually released.

* Dedicated jig is used

Improved workability

Eliminates arm lifting and sinking

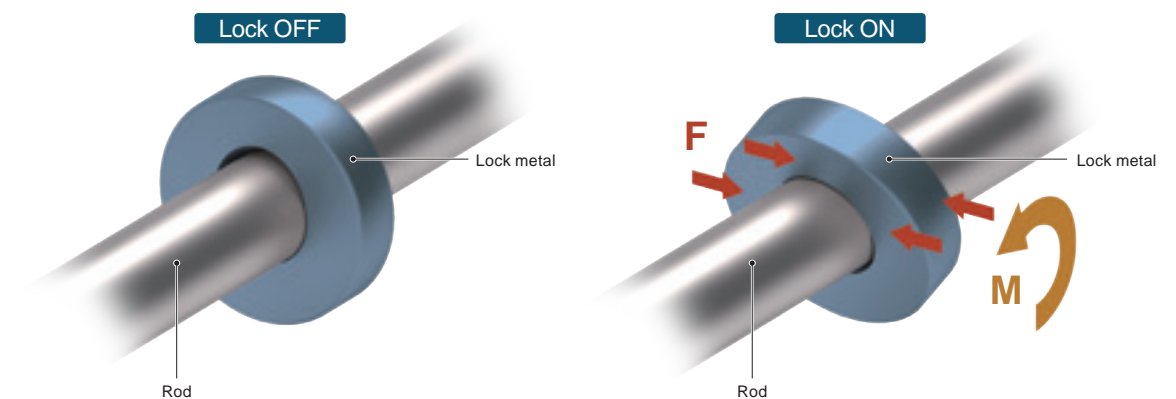
Eliminates floating and sinking of arms due to changes in the weight of workpieces, improving workability.



High reliability

Highly reliable circular slit system

Highly reliable locking mechanism with a proven track record in cylinders. Applying torque M to the lock metal generates axial force F , which holds the rod.



Human Assist

Palletizing specification that saves space and enables stacking and unloading of work.

Specialized

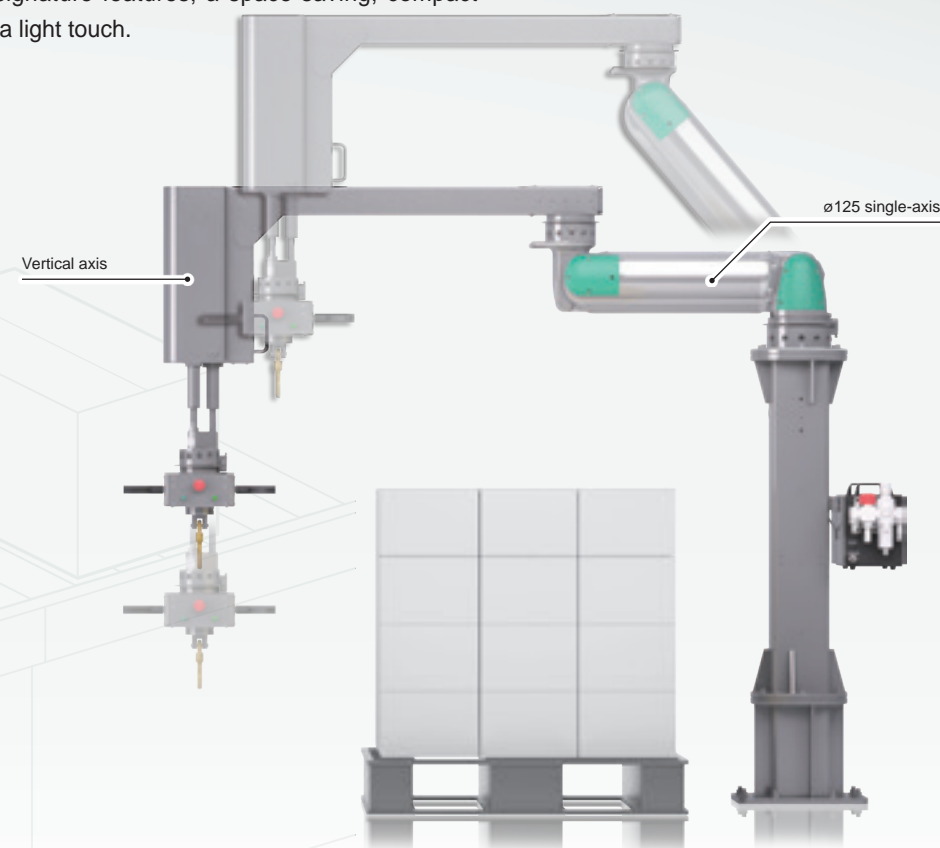
Focused on stacking and unloading tasks

A vertical axis is now equipped with this product to ensure easier use in the palletizing process while maintaining PowerArm signature features; a space-saving, compact design, and a light touch.

Wide

A wide moving range

The combination of the ø125 single-axis and vertical axis provides a wider moving range.



Compact

Space saving storage

This product can be stored folded.

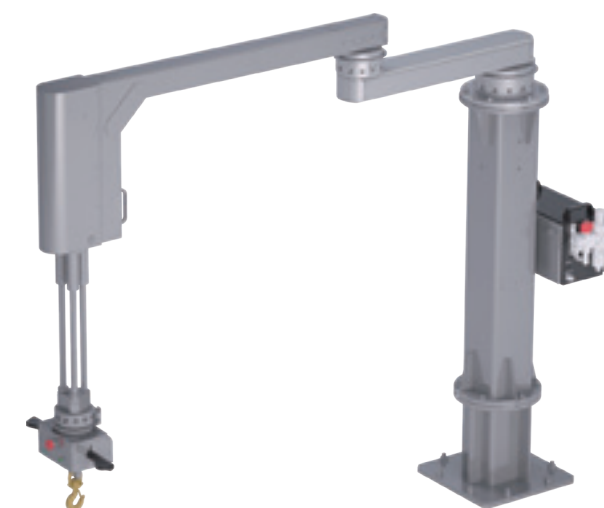


Stored condition

Variation

Simple combinations are possible

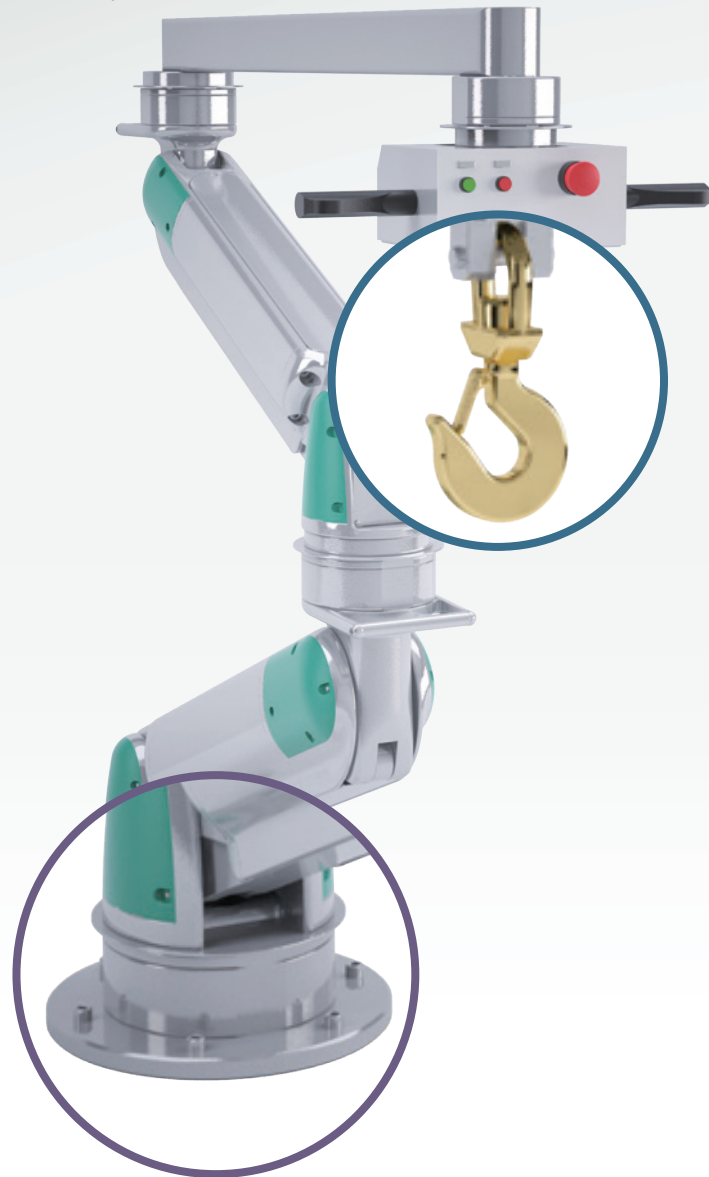
The vertical axis and SCARA arm can be combined and used if the product does not often make vertical strokes.



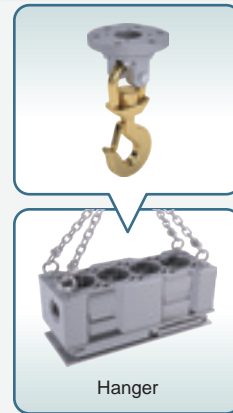
Human Assist

Compatible as an assistive system

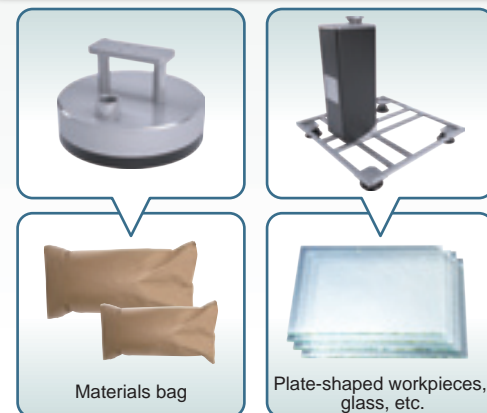
In addition to the assistive components as single units, we address requests including attachments, controllers, and movable type dollies. Contact CKD for details.



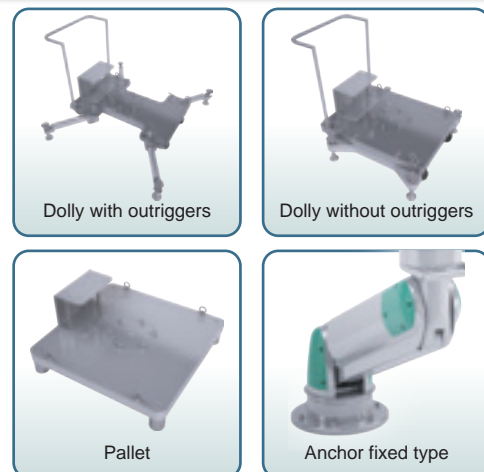
Hook



Vacuum



Dolly / Anchor

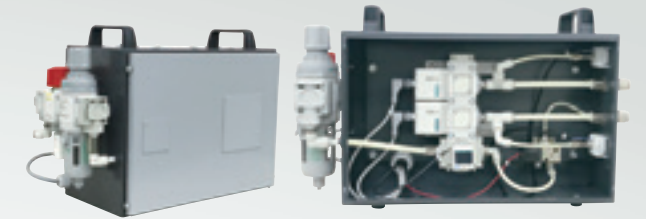


Clamp



Controller design and manufacture

We propose ideal air circuits for various assistance mechanisms. Easy transport is possible with the ideal control method for your transported items.



Example of controller interior.
Let us go over your needs with you.

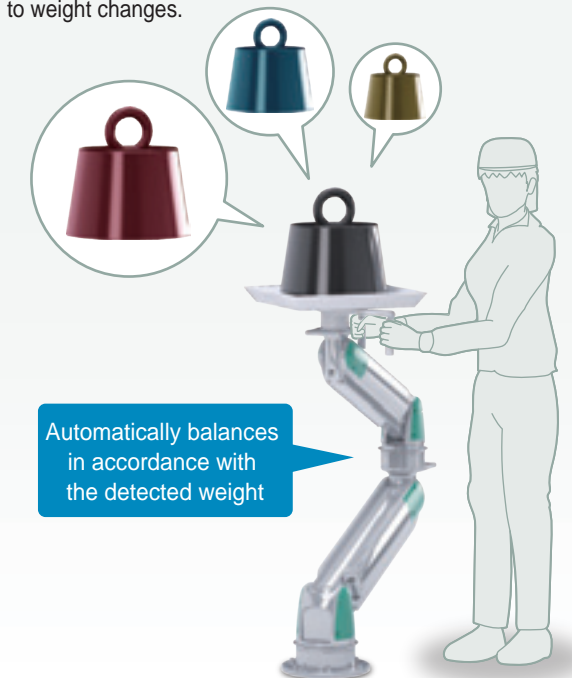
Operating pressure fixing control system

Suitable for assisting with the weight of jigs and tools.
Control that maintains balance at a constant weight.



Automatic operating pressure regulating control system

Suitable for transport of various types of workpieces of differing weights. Control which detects the transported item weight at the tip, and automatically adjusts the operating pressure in response to weight changes.



Demonstrations

We perform demonstrations so that you can experience the actual PowerArm devices.
We also offer demonstrations at various locations. Contact CKD for details.

Compatible with FP Series for secure food manufacturing processes*

NSF H1
grease for
foodstuffs is used

FP
Food Process™

This logo represents CKD's stance to provide you with safe components for supporting your food manufacturing processes.

* Contact CKD for details.

Introduction to PowerArm online

We have prepared a PowerArm introductory site.

* Depending on your smartphone environment, it may not be displayed correctly.

