

# Clamp Cylinder

Cylinder for Workpiece Clamping Jigs in Welding Processes  
Suitable for welding process environments, achieving durability and weight reduction



## Lightweight Clamp Cylinder, Double Acting, Single Rod Type

### CAC-N Series (ø32, ø40)

Compact and lightweight clamp cylinder contributing to weight reduction of welding jigs, etc.

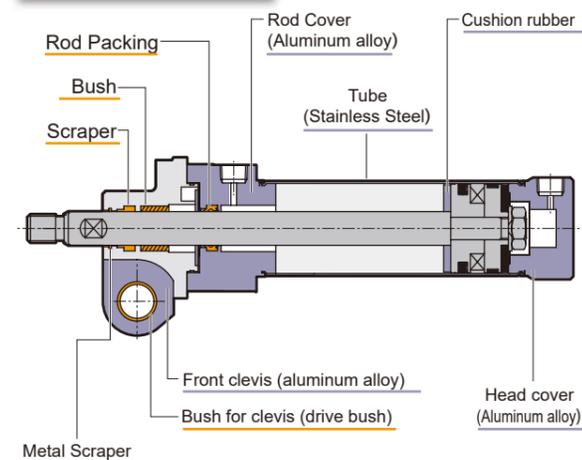


#### High reliability

The Cylinder Body adopts the highly reliable and lightweight CMK2 series.

#### Lighter weight and compatible with external environment-resistant structure

##### CAC-N internal structure

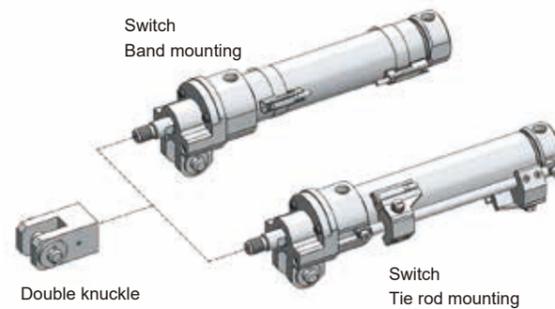


#### Lightweight

CAC-40-150 has a weight of Approx. 950 g, achieving Approx. 56% of the conventional ratio.

#### Metal scraper standardly built-in

#### System Configuration



## Clamp Cylinder, Double Acting, Single Rod Type

### CAC4 Series (ø40 to ø80)

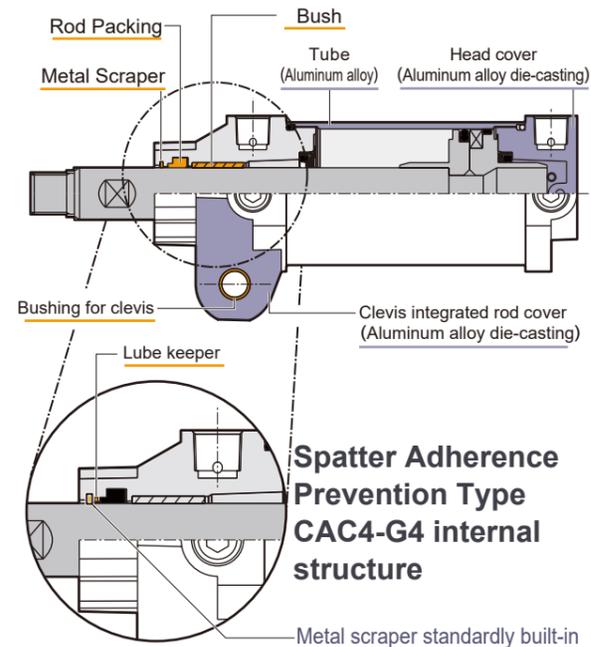
Dedicated clamp cylinder most suitable for harsh welding environments



#### Sputter adhesion prevention type

Sputter adhesion prevention type CAC4-G4 series also selectable.

##### CAC4 internal structure



#### Cylinder switch installable

Cylinder switch for AC magnetic fields/magnetized environments installable.

\*Strong magnetic field switch (H0, H0Y) installable (CAC4-L2)

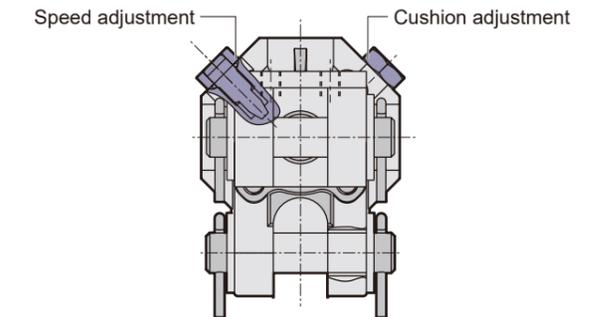
Solid state 2-color indicator type  
For AC Magnetic Field

2-color LED reed  
For Magnetized Environments



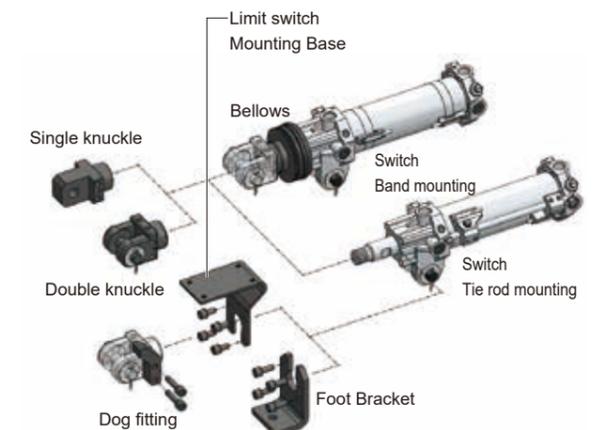
#### Built-in speed controller

Minimizes needle protrusion, achieving both ease of adjustment and high safety.



#### Metal scraper standardly built-in

#### System Configuration



Clamping

Clamping

CAC4

UCAC2

CAC-N

UCAC-N

RCS2

RCC2

PCC

CAC4

UCAC2

CAC-N

UCAC-N

RCS2

RCC2

PCC

Cylinder Switch

Ending

Cylinder Switch

Ending

# Clamp Cylinder with Fall Prevention

Lock mechanism installed in clamp cylinder considering safety and maintainability of welding equipment

Locks the rod when air supply stops due to power outage or accident, preventing load from falling under its own weight. The position locking mechanism acts as a one-way lock that allows the rod to be moved in the opposite direction to facilitate the emergency removal of workpieces, etc.



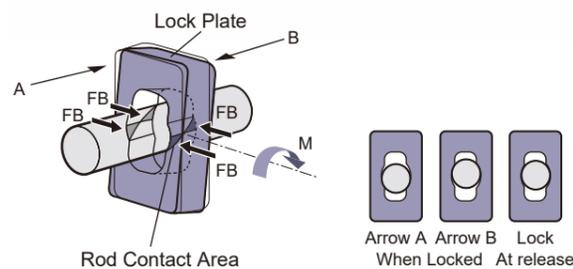
## Fall prevention is possible throughout the entire stroke

Unidirectional lock makes the opposite direction free. Forward direction lock and reverse direction lock types selectable.

## Fall Prevention Structure/Principle

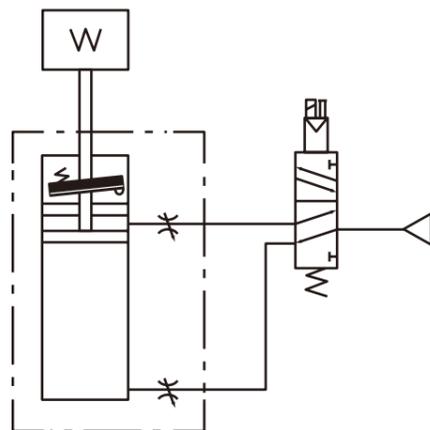
### Circular slit method

Installation of new swash plate type lock mechanism enables fall prevention at free position. By applying rotational force M to the lock metal, axial force F is generated, holding the rod.

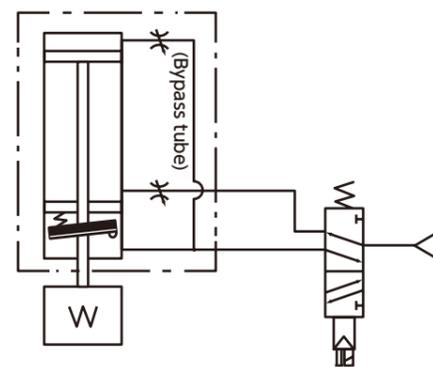


### Position locking circuit example

Backward locking B type



Forward locking F type



## Lightweight clamp cylinder with fall prevention

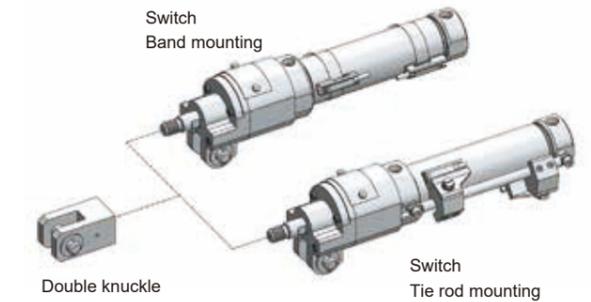
### UCAC-N Series (ø32, ø40)

Lock mechanism installed in compact and lightweight clamp cylinder contributing to weight reduction of welding jigs, etc.



## Metal scraper standardly built-in

## System Configuration



## Clamp Cylinder with Fall Prevention

### UCAC2 Series (ø50, ø63)

Lock mechanism installed in dedicated clamp cylinder most suitable for harsh welding environments

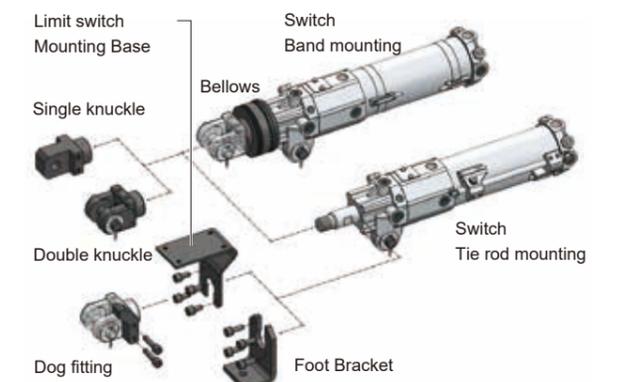


## Built-in speed controller

Minimizes needle protrusion, achieving both ease of adjustment and high safety.

## Metal scraper standardly built-in

## System Configuration



## Cylinder switch installable

For AC magnetic fields. Cylinder switch for magnetized environments installable.

\*Strong magnetic field switch (H0, H0Y) installable (UCAC2-L2)

Solid state 2-color indicator type  
For AC Magnetic Field



2-color LED reed  
For Magnetized Environments



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CAC4

UCAC2

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RCS2

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PCC

Cylinder Switch

Ending

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