

# CK·CKB·CKD Series Long Stroke Chuck

## Basic Long Stroke 3-Jaw Grippers

### Key Features

- **No adjustment for multi-purpose application**  
Long motion stroke for multi-purpose use
- **3 types available for various types of application**  
3-Jaw = CK, 2-Jaw = CKB, and 4-Jaw = CKD
- **Compact and powerful**  
Light-weight compact design but high grip force



### How To Order

Standard ----- **CK-1AS**

Option ----- **CK - 1AS - ET3S2 - FE** ----- Iron Body CK-1AS with 2 of ET3 non-contact reed switches

Model		Size		Sensor, Quantity				Option			
Symbol	Symbol	Symbol	Name	Symbol	Name	Symbol	Name	Symbol	Name	Symbol	Name
CK	1AS	ET3	Non-Contact 3-Lead	S2	2 Sensors	NO	Normally Open	SUA	All Stainless Steel		
CKB	1.5AS	ET3L	Non-Contact 3-Lead			NC	Normally Closed	T	Heat-Proof		
CKD	2AS	ET2	Non-Contact 2-Lead			FE	Iron Body				
		ET2L	Non-Contact 2-Lead			H	Low Pressure Hydraulic				
		S1	1 Sensor			SU	Stainless Steel for Iron Material				

For sensor detail ▶ 277P

For option detail ▶ 36P

### Specification

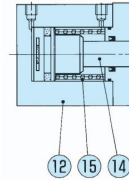
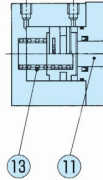
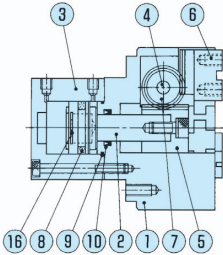
Model	CK-1AS	For Layout Drawing	▶255P	CK-1.5AS	For Layout Drawing	▶256P	CK-2AS	For Layout Drawing	▶257P
	CKB-1AS	For Layout Drawing	▶255P	CKB-1.5AS	For Layout Drawing	▶256P	CKB-2AS	For Layout Drawing	▶257P
	CKD-1AS	For Layout Drawing	▶255P	CKD-1.5AS	For Layout Drawing	▶256P	CKD-2AS	For Layout Drawing	▶257P
Working Pressure	Pneumatic: 0.3 to 0.7MPa								
Lubrication	Not Required or Turbine Oil Class 1 (ISOVG32)								
Ambient Temperature (°C)	5 to 60								
Total Jaw Stroke (mm)	20			20			40		
Cylinder Diameter (mm)	dia.25			dia.44			dia.44		
Rod Diameter (mm)	dia.12			dia.16			dia.16		
Internal Volume [Reciprocation] (cm <sup>3</sup> /time)	7.9			26.4			52.8		
Repeatability (mm)	±0.03								
Weight (kg)	0.85			1.90			2.90		

## Internal Structure / Parts & Seals

■ **Standard (Double-Acting)**

■ **NO (Single Acting - Normally Open)**

■ **NC (Single Acting - Normally Closed)**



### Parts List

No.	Name	Material	No.	Name	Material	No.	Name	Material
1	Gripper Body	Aluminum	8	Piston Seal		15	NC Spring	Piano Wire
2	Piston	Stainless Steel	9	Cylinder Seal		16	Magnet	Carbon Steel
3	Cylinder	Aluminum	10	Rod Seal				
4	Pinion Gear Shaft	Carbon Steel	11	NO Piston	Carbon Steel			
5	Rack	Carbon Steel	12	NC Cylinder	Aluminum			
6	Master(Base) Jaw	Carbon Steel	13	NO Spring	Piano Wire			
7	Pinion Gear	Carbon Steel	14	NC Piston	Carbon Steel			

### Seals List

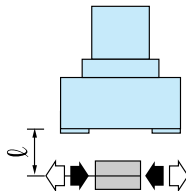
No.	(CK·CKB·CKD) -1AS	(CK·CKB·CKD) -1.5AS	(CK·CKB·CKD) -2AS
8	PSD-25	PSD-44	PSD-44
9	S-28	S-42	S-42
10	MYA-12	MYA-16	MYA-16

## Performance Data

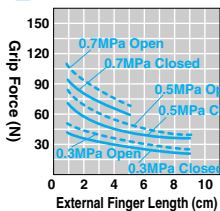
### Grip Force

The graph shows grip force in opening and closing with effective external finger lengths  $\ell$  from gripper cover surface under different air pressure (MPa)

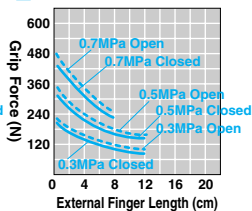
Open (⇐) ---  
 Closed (⇒) ———



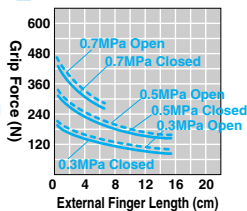
#### CK·CKB·CKD-1AS



#### CK·CKB·CKD-1.5AS



#### CK·CKB·CKD-2AS



Chuck  
(2,3 & 4-Jaw)



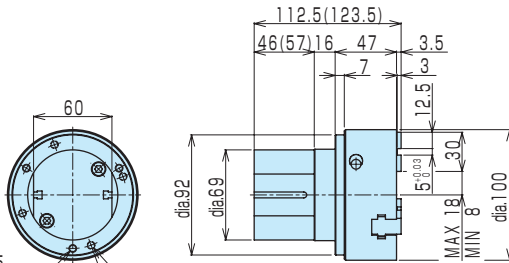
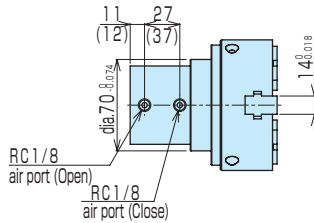
# CK·CKB·CKD-1AS/1.5AS/2AS

For CAD data, please go to **▶518P**

## ■CK-1.5AS (Optimal Grip Force 150N to 400N)

### CK-1.5AS Standard · NO · NC

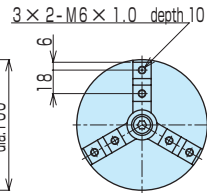
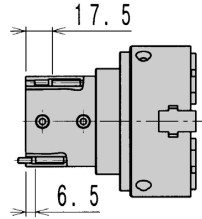
\*Values inside ( ) are for NC (Normally Closed) type



3-M6 × 1.0 depth 15  
P. C. D82 (120° (equally divided by 3))  
Mount Hole

4-M6 × 1.0 depth 15  
P. C. D82 (90° (equally divided by 4))  
Mount Hole (CKB-1.5AS)  
(CKD-1.5AS)

### CK-1.5AS-E□□

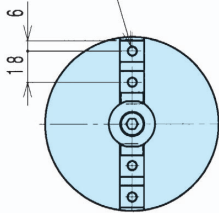


Chuck  
(2.3 & 4-Jaw)

### CKB-1.5AS Standard · NO · NC

\*Missing dimensions are the same as the dimensions of CK-1.5AS  
\*Check hole locations

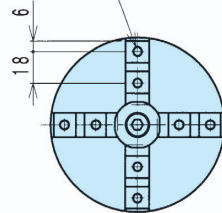
2 × 2-M6 × 1.0 depth 10



### CKD-1.5AS Standard · NO · NC

\*Missing dimensions are the same as the dimensions of CK-1.5AS  
\*Check hole locations

4 × 2-M6 × 1.0 depth 10



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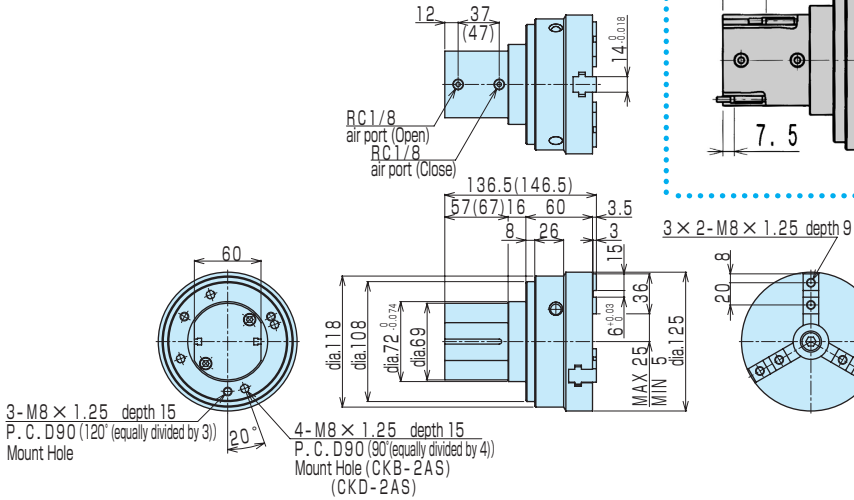
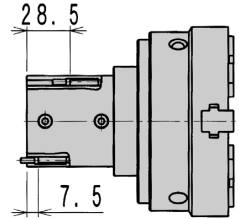
## Layout Drawing

### CK-2AS (Optimal Grip Force 150N to 300N)

#### CK-2AS Standard • NO • NC

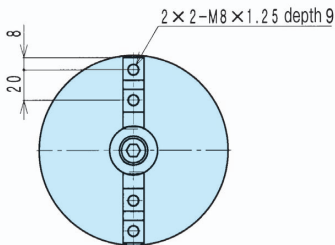
\*Values inside ( ) are for NC (Normally Closed) type

#### CK-2AS-E□S□



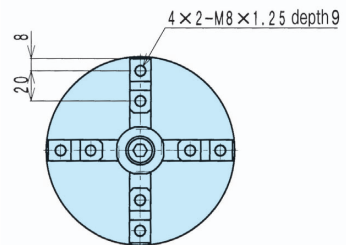
#### CKB-2AS Standard • NO • NC

\*Missing dimensions are the same as the dimensions of CK-2AS  
 \*Check hole locations




#### CKD-2AS Standard • NO • NC

\*Missing dimensions are the same as the dimensions of CK-2AS  
 \*Check hole locations



# CK·CKB·CKD-1AS/1.5AS/2AS

 For CAD data, please go to **▶518P**