

# CKA·CKB·CKD Series Standard Chuck

## Light-Weight and Compact Basic Model

### 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 = CKA, 2-Jaw = CKB, and 4-Jaw = CKD
- **Compact and powerful**  
Light-weight compact design but with high grip force



CKA-50MS

Chuck  
(2, 3, & 4-Jaw)

### How To Order

Standard ----- **CKA-15AS**

Option ----- **CKA** - **20AS** - **ET3LS2** - **FE** ----- Iron body CKA-20AS with 2 of ET3L non-contact reed switches

Model		Size		Sensor, Quantity				Option			
Symbol	Symbol	Symbol	Name	Symbol	Name	Symbol	Name	Symbol	Name	Symbol	Name
CKA	15AS <sup>*1</sup>	ET3	<sup>*2</sup> Non-Contact 3-Lead	S1	1 Sensor	NO	Normally Open				
CKB	20AS	ET3L	<sup>*3</sup> Non-Contact 3-Lead	S2	2 Sensors	NC	Normally Closed				
CKD	25AS	ET2	<sup>*2</sup> Non-Contact 2-Lead			FE	Iron Body				
	30AS	ET2L	<sup>*3</sup> Non-Contact 2-Lead			H	<sup>*5</sup> Low Pressure Hydraulic				
	40AS	E24	<sup>*3</sup> Contact 2-Lead			SU	Stainless Steel for Iron Material				
	50MS	E24L	<sup>*3</sup> Contact 2-Lead			SUA	All Stainless Steel				
	60MS	E25	<sup>*3</sup> Contact 2-Lead			T	Heat-Proof				
	70MS	E25L	<sup>*3</sup> Contact 2-Lead			W	<sup>*5</sup> Spring Pusher				









<sup>\*1</sup> CKA only









For sensor detail ▶ 277P

For option detail ▶ 36P

# CKA-15AS/20AS/25AS/30AS/40AS/50MS/60MS/70MS CKB·CKD - 20AS/25AS/30AS/40AS/50MS/60MS/70MS

## Specification

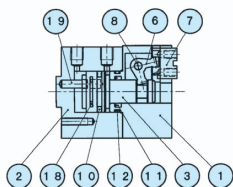
Model	CKA-15AS For Layout Drawing 	CKA-20AS For Layout Drawing 	CKA-25AS For Layout Drawing 	CKA-30AS For Layout Drawing 
	CKB-20AS For Layout Drawing 	CKB-25AS For Layout Drawing 	CKB-30AS For Layout Drawing 	CKD-30AS For Layout Drawing 
Working Pressure	Pneumatic: 0.3 to 0.7MPa			
Lubrication	Not Required or Turbine Oil Class 1 (ISOVG32)			
Ambient Temperature (°C)	5 to 60			
Total Jaw Stroke (mm)	6	5	7	9
Cylinder Diameter (mm)	dia.16	dia.25	dia.32	dia.40
Rod Diameter (mm)	dia.9	dia.10	dia.14	dia.18
Internal Volume [Reciprocation] (cm <sup>3</sup> /time)	1.0	2.2	5.1	10.1
Repeatability (mm)	±0.03			
Weight (kg)	0.11	0.25	0.42	0.61

Model	CKA-40AS For Layout Drawing 	CKA-50MS For Layout Drawing 	CKA-60MS For Layout Drawing 	CKA-70MS For Layout Drawing 
	CKB-40AS For Layout Drawing 	CKB-50MS For Layout Drawing 	CKB-60MS For Layout Drawing 	CKB-70MS For Layout Drawing 
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	25	30	38
Cylinder Diameter (mm)	dia.50	dia.63	dia.80	dia.100
Rod Diameter (mm)	dia.20	dia.20	dia.24	dia.28
Internal Volume [Reciprocation] (cm <sup>3</sup> /time)	36.1	76.9	148.8	294.0
Repeatability (mm)	±0.03			
Weight (kg)	1.41	2.6	4.5	6.4

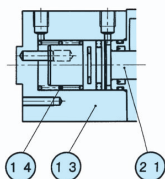
# CKA·CKB·CKD Series Standard Chuck

## Internal Structure / Parts & Seals

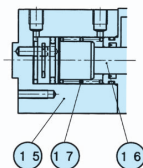
CKA-15AS Standard Type



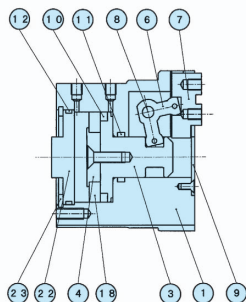
CKA-15AS NO Type



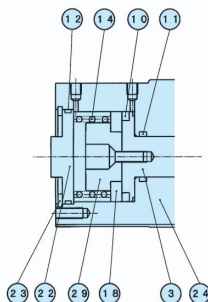
CKA-15AS NC Type



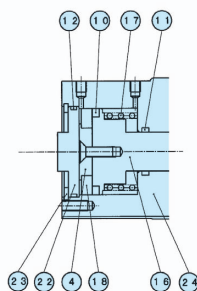
CKA-20AS Standard Type



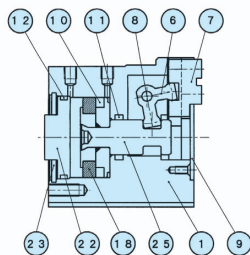
CKA-20AS NO Type



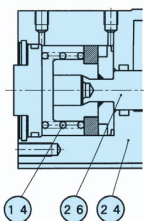
CKA-20AS NC Type



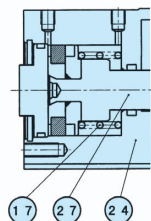
CKA-25AS to 40AS Standard Type



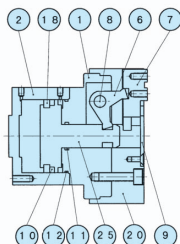
CKA-25AS to 40AS NO Type



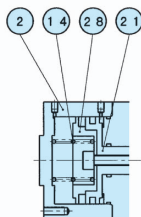
CKA-25AS to 40AS NC Type



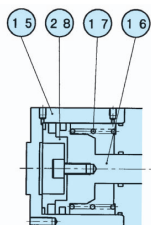
CKA-50MS to 70MS Standard Type



CKA-50MS to 70MS NO Type



CKA-50MS to 70MS NC Type



Chuck  
(2, 3, & 4-Jaw)

# CKA-15AS/20AS/25AS/30AS/40AS/50MS/60MS/70MS CKB·CKD - 20AS/25AS/30AS/40AS/50MS/60MS/70MS

## Parts List

No.	Name	Material	No.	Name	Material	No.	Name	Material
1	Body	Aluminum	12	Cylinder Seal		22	Cylinder Cover	Aluminum
2	Cylinder	Aluminum	13	NO Cylinder	Aluminum	23	Snap Ring	Stainless Steel
3	Piston A	Stainless Steel	14	NO Spring	Piano Wire	24	NO & NC body	Aluminum
4	Piston B	Aluminum	15	NC Cylinder	Aluminum	25	Piston	Aluminum & Stainless Steel
6	Arm	Carbon Steel	16	NC Piston A	Stainless Steel	26	NO Piston	Aluminum & Stainless Steel
7	Master(Base) Jaw	Carbon Steel	17	NC Spring	Piano Wire	27	NC Piston	Aluminum & Stainless Steel
8	Fulcrum Shaft	High Carbon Steel	18	Magnet		28	NO & NC Piston B	Aluminum
9	Center Cover	Stainless Steel	19	Anti-Rotation Pin	Stainless Steel	29	NO Piston B	Aluminum
10	Piston Seal		20	Gripper Cover	Aluminum			
11	Rod Seal		21	NO Piston A	Stainless Steel			

## Seals List

No.	CKA-15AS	CKA-20AS CKB-20AS CKD-20AS	CKA-25AS CKB-25AS CKD-25AS	CKA-30AS CKB-30AS CKD-30AS	CKA-40AS CKB-40AS CKD-40AS	CKA-50MS CKB-50MS CKD-50MS	CKA-60MS CKB-60MS CKD-60MS	CKA-70MS CKB-70MS CKD-70MS
10	PSD-16	PSD-25	PSD-32	PSD-40	PSD-50	PSD-63	PSD-80	PSD-100
11	MYA-9	MYA-10	MYA-14	MYA-18	MYA-20	MYA-20	MYA-24	PNY-28
12	S-14	dia.22.33×dia.1.02*	S-29	S-36	S-46	S-60	S-80	S-100

\*S-22.4 is used for CKB and CKD.

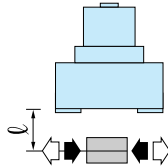
Chuck  
(2,3 & 4-Jaw)

## Performance Data

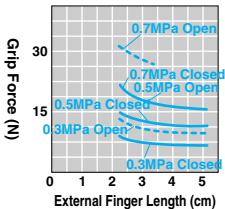
### Grip Force

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

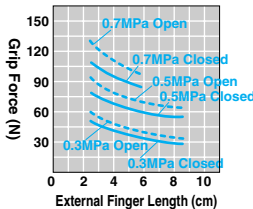
Open (←) ————  
Closed (→) ————



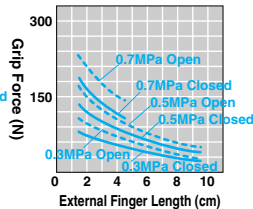
#### CKA-15AS



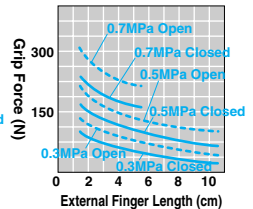
#### CKA·CKB·CKD-20AS



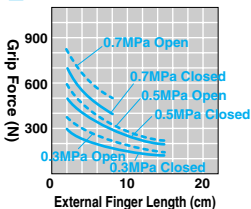
#### CKA·CKB·CKD-25AS



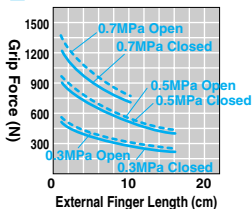
#### CKA·CKB·CKD-30AS



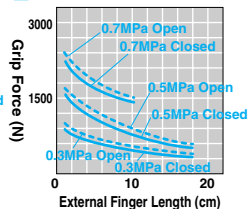
#### CKA·CKB·CKD-40AS



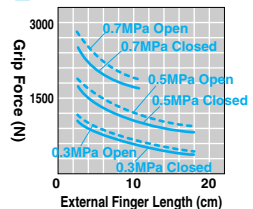
#### CKA·CKB·CKD-50MS



#### CKA·CKB·CKD-60MS



#### CKA·CKB·CKD-70MS



# CKA·CKB·CKD Series Standard Chuck

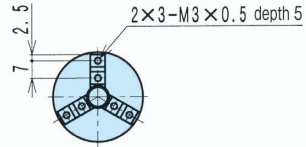
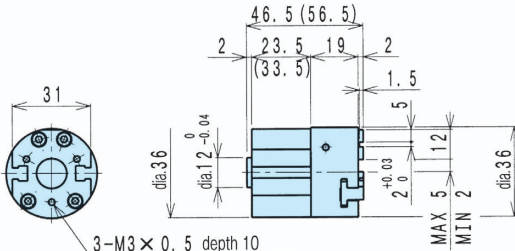
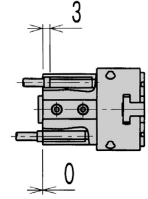
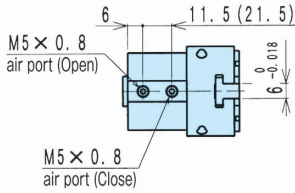
## Layout Drawing

### ■CKA-15AS (Optimal Grip Force 10N to 25N)

CKA-15AS Standard · NO · NC

CKA-15AS-E□S□

\*Values inside ( ) are for NO (Normally Open) and NC (Normally Closed) type



3-M3 × 0.5 depth 10  
P. C. D 2 3 (120° (equally divided by 3))  
Mount Hole

Chuck  
(2, 3, & 4-jaw)



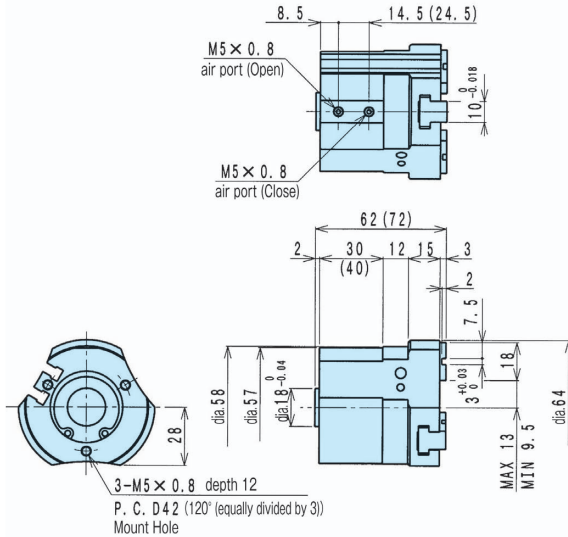
# CKA·CKB·CKD Series Standard Chuck

## Layout Drawing

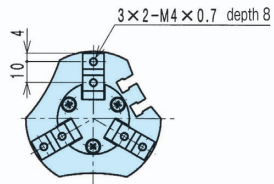
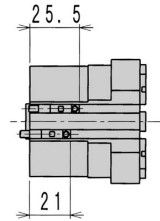
### ■CKA-25AS (Optimal Grip Force 100N to 200N)

#### CKA-25AS Standard · NO · NC

\*Values inside ( ) are for NO (Normally Open) and NC (Normally Closed) type



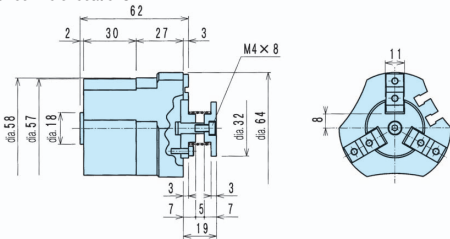
#### CKA-25AS-E□S□



Chuck  
(2.3, 3, 4-Jaw)

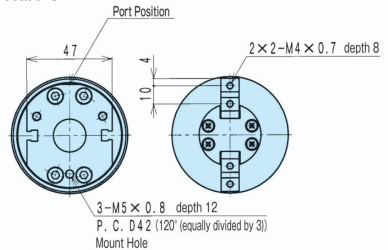
#### CKA-25AS-W (Spring Force 7N to 9N)

\*Missing dimensions are the same as the dimensions of CKA-25AS  
Check hole locations



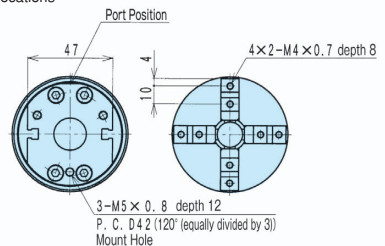
#### CKB-25AS Standard · NO · NC

\*Missing dimensions are the same as the dimensions of CKA-25AS  
Check hole locations



#### CKD-25AS Standard · NO · NC

\*Missing dimensions are the same as the dimensions of CKA-25AS  
Check hole locations



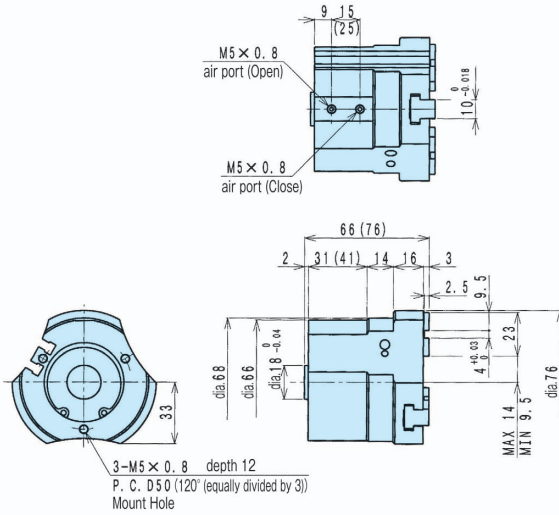
# CKA-15AS/20AS/25AS/30AS/40AS/50MS/60MS/70MS CKB·CKD - 20AS/25AS/30AS/40AS/50MS/60MS/70MS

For CAD data, please go to **▶518P**

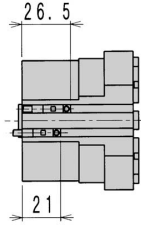
## ■CKA-30AS (Optimal Grip Force 150N to 300N)

### CKA-30AS Standard · NO · NC

\*Values inside ( ) are for NO (Normally Open) and NC (Normally Closed) type

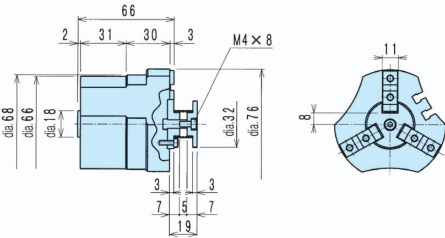


### CKA-30AS-E□S□



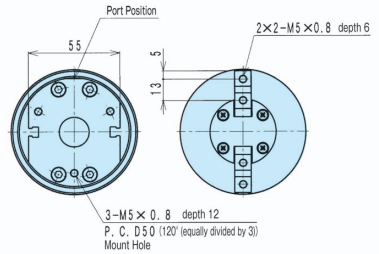
### CKA-30AS-W(Spring Force 12N to 15N)

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Check hole locations



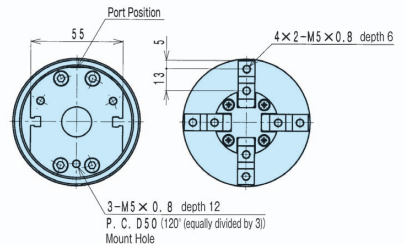
### CKB-30AS Standard · NO · NC

\*Missing dimensions are the same as the dimensions of CKA-30AS  
Check hole locations



### CKD-30AS Standard · NO · NC

\*Missing dimensions are the same as the dimensions of CKA-30AS  
Check hole locations



Chuck  
(2,3, & 4-Jaw)



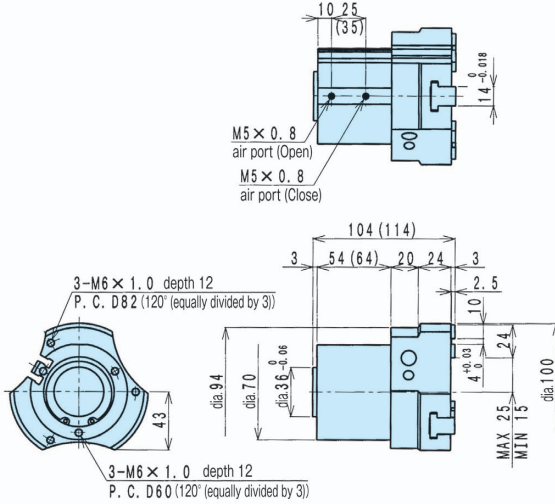
# CKA·CKB·CKD Series Standard Chuck

## Layout Drawing

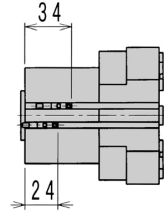
### ■CKA-40AS (Optimal Grip Force 200N to 500N)

#### CKA-40AS Standard · NO · NC

\*Values inside ( ) are for NO (Normally Open) and NC (Normally Closed) type



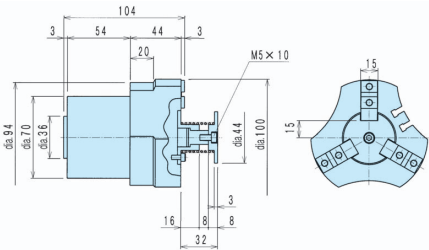
#### CKA-40AS-E□S□



Chuck  
(2, 3, & 4-Jaw)

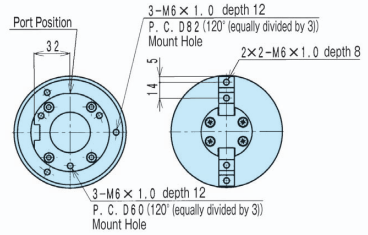
#### CKA-40AS-W (Spring Force 13N to 19N)

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Check hole locations



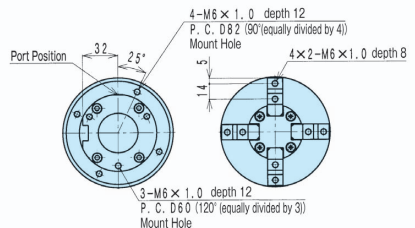
#### CKB-40AS Standard · NO · NC

\*Missing dimensions are the same as the dimensions of CKA-40AS  
Check hole locations



#### CKD-40AS Standard · NO · NC

\*Missing dimensions are the same as the dimensions of CKA-40AS  
Check hole locations



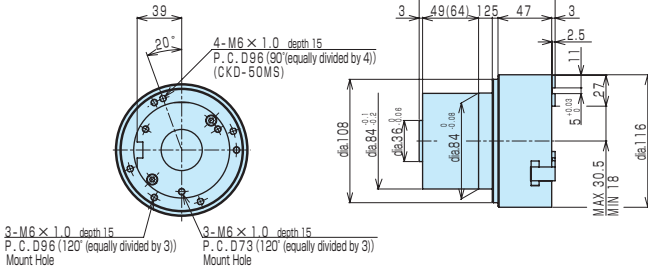
# CKA-15AS/20AS/25AS/30AS/40AS/50MS/60MS/70MS CKB·CKD - 20AS/25AS/30AS/40AS/50MS/60MS/70MS

For CAD data, please go to **▶518P**

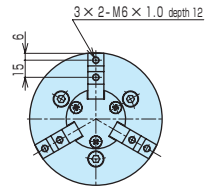
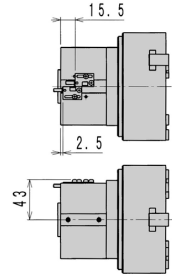
## ■CKA-50MS (Optimal Grip Force 300N to 700N)

### CKA-50MS Standard • NO • NC

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



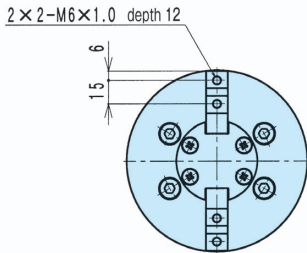
### CKA-50MS-E□S□



Chuck  
(2,3 & 4-Jaw)

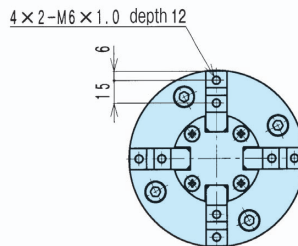
### CKB-50MS Standard • NO • NC

\*Missing dimensions are the same as the dimensions of CKA-50MS  
Check hole locations



### CKD-50MS Standard • NO • NC

\*Missing dimensions are the same as the dimensions of CKA-50MS  
Check hole locations



# CKA·CKB·CKD Series Standard Chuck

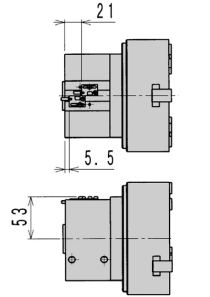
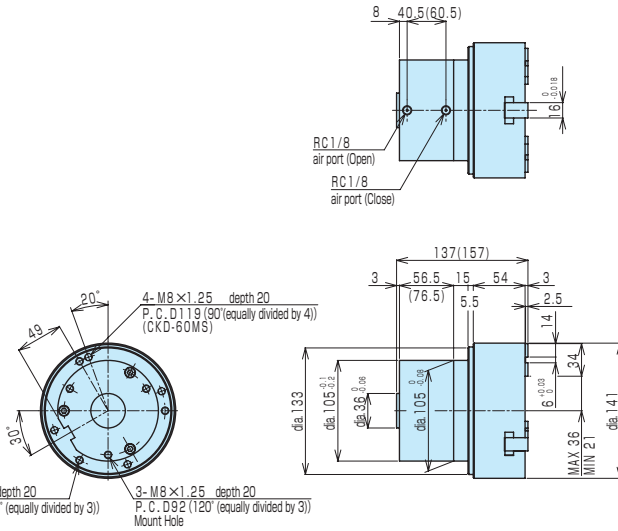
## Layout Drawing

### ■CKA-60MS (Optimal Grip Force 700N to 1400N)

#### CKA-60MS Standard · NO · NC

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

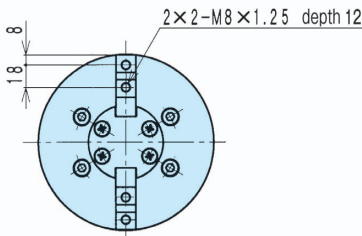
#### CKA-60MS-E □ S □



Chuck  
(2, 3, & 4-Jaw)

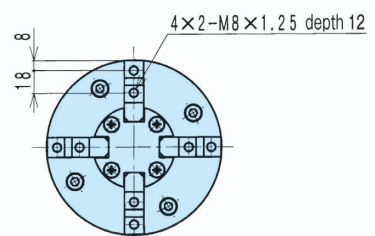
#### CKB-60MS Standard · NO · NC

\*Missing dimensions are the same as the dimensions of CKA-60MS  
Check hole locations



#### CKD-60MS Standard · NO · NC

\*Missing dimensions are the same as the dimensions of CKA-60MS  
Check hole locations



# CKA-15AS/20AS/25AS/30AS/40AS/50MS/60MS/70MS CKB·CKD - 20AS/25AS/30AS/40AS/50MS/60MS/70MS

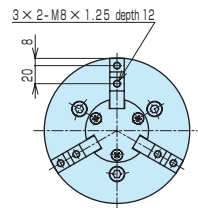
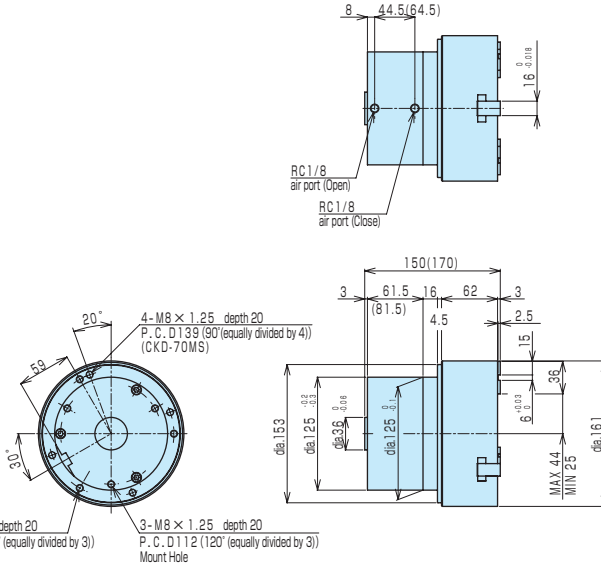
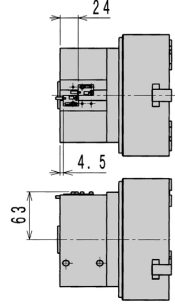
For CAD data, please go to **▶518P**

## ■CKA-70MS (Optimal Grip Force 1200N to 2000N)

### CKA-70MS Standard • NO • NC

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

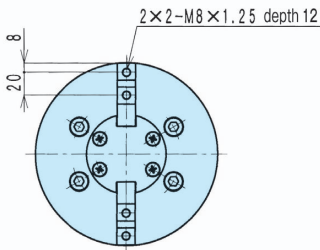
### CKA-70MS-E□S□



Chuck  
(2.3 & 4-Jaw)

### CKB-70MS Standard • NO • NC

\*Missing dimensions are the same as the dimensions of CKA-70MS  
Check hole locations



### CKD-70MS Standard • NO • NC

\*Missing dimensions are the same as the dimensions of CKA-70MS  
Check hole locations

