

Thin Compact Design, Light-Weight and High Grip Force with Cost in Mind



CKL-50AS

Key Features

- High grip force and high accuracy via direct drive mechanism
- High rigidity via long piston guide
- Oil-resistant sensors available (option)
- Switch slots available on 2 different surfaces of the body for sensing jaw position (open or closed)
- Hollow body type (option)

CKL			CKLG	CKH	CKLF
J2	L1	Q			
20AS-100AS	50AS-100AS	32AS-80AS	20AS-100AS	50AS-100AS	50AS-100AS

How To Order

Standard ----- **CKL-20AS**

Option ----- **CKL - 50AS - L1 - ET3S2 - Z** ----- Long stroke type CKL-50AS with 2 of ET3 non-contact reed switch and customer special specification

Model		Size		Stroke & Jaw Quantity		Sensor, Quantity		Option	
Symbol	Name	Symbol		Symbol	Name	Symbol	Name	Symbol	Name
CKL	3-Jaw	16AS	80AS	No Symbol	Normal	ET3	Non-Contact 3-Lead	E24L	Contact 2-Lead
CKL-□□-J2	2-Jaw	20AS	100AS	J2	2-Jaw	ET3L	Non-Contact 3-Lead	E25	Contact 2-Lead
CKL-□□-L1	Long Stroke Type	25AS	160AS	L1	Long Stroke Type	ET2	Non-Contact 2-Lead	E25L	Contact 2-Lead
CKL-□□-Q	Anti-Drop Type	32AS		Q	Anti-Drop Type	ET2L	Non-Contact 2-Lead	E40	Non-Contact 3-Lead
CKLG	Rubber Cover	40AS				E18	Non-Contact 3-Lead	E40L	Non-Contact 3-Lead
CKH	High Grip Force Type	50AS				E18L	Non-Contact 3-Lead	E41	Non-Contact 3-Lead
CKLF	Hollow Type	63AS				E19	Non-Contact 2-Lead	E41L	Non-Contact 2-Lead
						E19L	Non-Contact 2-Lead	S1	1 Sensor
						E24	Contact 2-Lead	S2	2 Sensors

For option detail ▶ **36P**

For sensor detail ▶ **277P**

*1 Please contact us for more detail *3 Except 16AS, 20AS, 25AS, and L1 type

*2 Except 16AS, 160AS, L1 type, and CKLF *4 Available only for 16AS

- Note) Please consider the followings when ordering CKL-□□-Q
- Since spring assists clamping, please use only open-side air port. Please do not use close-side air port since that may cause breakage of the gripper
 - Do not add stoppers to close-side air port
 - In harsh environments, debris or particulate may enter from close-side air port, resulting in air leakage. In that case, please use a filter to prevent them from getting inside
 - Please select a model that has more than enough capability to secure clamping since the grip force varies by length of external finger and also clamp position on the finger

Specification

Model	CKL-16AS <small>For Layout Drawing Z212</small>	CKL-20AS <small>For Layout Drawing Z213</small>	CKL-25AS <small>For Layout Drawing Z215</small>	CKL-32AS CKL-32AS-Q <small>For Layout Drawing Z216</small>	CKL-40AS CKL-40AS-Q <small>For Layout Drawing Z218</small>	CKL-50AS CKL-50AS-Q <small>For Layout Drawing Z219</small>	CKL-63AS CKL-63AS-Q <small>For Layout Drawing Z220</small>	CKL-80AS CKL-80AS-Q <small>For Layout Drawing Z225</small>	CKL-100AS <small>For Layout Drawing Z228</small>	CKL-160AS <small>For Layout Drawing Z229</small>
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)	5	5	6	8	10	12	16	20	23	50
Cylinder Diameter (mm)	dia.16	dia.20	dia.25	dia.32	dia.40	dia.50	dia.63	dia.80	dia.100	dia.160
Rod Diameter (mm)	dia.6	dia.6	dia.8	dia.10	dia.12	dia.14	dia.16	dia.16	dia.20	dia.34
Internal Volume (Reciprocation) (cm ³ /time)	1.2	1.8	3.3	7.7	15.6	28.3	60.3	118.2	215.5	937.0
Repeatability (mm)	±0.01									
Weight (kg)	0.07	0.12	0.19	0.24	0.36	0.54	0.97	1.85	3.14	7.94

*Please use compressed air (0.4 to 0.7MPa) for CKL-□□AS-Q

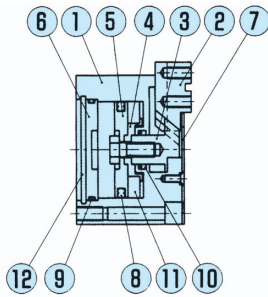
CKL-16AS/20AS/25AS/32AS/40AS/50AS/63AS/80AS/100AS/160AS CKH-50AS/63AS/80AS/100AS

Model	CKL-50AS-L1 <small>For Layout Drawing V229</small>	CKL-63AS-L1 <small>For Layout Drawing V229</small>	CKL-80AS-L1 <small>For Layout Drawing V230</small>	CKL-100AS-L1 <small>For Layout Drawing V230</small>	CKH-50AS <small>For Layout Drawing V219</small>	CKH-63AS <small>For Layout Drawing V220</small>	CKH-80AS <small>For Layout Drawing V220</small>	CKH-100AS <small>For Layout Drawing V221</small>
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)	30	30	40	40	6	8	10	12
Cylinder Diameter (mm)	dia.50	dia.63	dia.80	dia.100	dia.50	dia.63	dia.80	dia.100
Rod Diameter (mm)	dia.14	dia.16	dia.16	dia.20	dia.14	dia.16	dia.16	dia.20
Internal Volume [Reciprocation] (cm ³ /time)	70.7	113.0	236.4	274.8	28.3	60.3	118.2	215.5
Repeatability (mm)	±0.01							
Weight (kg)	1.2	1.6	3.2	5.0	0.59	1.02	2.02	3.45

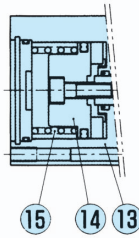
*Please contact us when you select CKLF.

Internal Structure / Parts & Seals

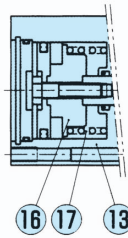
Standard



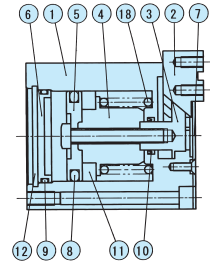
NO (Single Acting - Normally Open)



NC (Single Acting - Normally Closed)



Q Type



Parts List

No.	Name	Material	No.	Name	Material	No.	Name	Material
1	Body	Aluminum	7	Center Cover	Stainless Steel	13	NO & NC body	Aluminum
2	Master(Base) Jaw	Carbon Steel	8	Piston Seal		14	NO Piston C	Aluminum
3	Piston A	*1	9	Cylinder Seal		15	NO Spring	Stainless Steel
4	Piston B	Aluminum	10	Rod Seal		16	NC Piston B	Aluminum
5	Piston C	Aluminum	11	Magnet		17	NC Spring	Stainless Steel
6	Cylinder Cover	Aluminum	12	C-Type Snap Ring	*2	18	Q Spring	Stainless Steel

*1 Stainless Steel for 16AS and 32AS and Carbon Steel for 40AS to 80AS

*2 Stainless Steel for 16AS to 63AS and Carbon Steel for 80AS to 100AS

Seals List

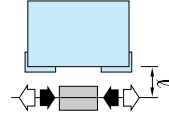
No.	CKL-16AS	CKL-20AS	CKL-25AS	CKL-32AS CKL-32AS-Q	CKL-40AS CKL-40AS-Q	CKL-50AS (L1) CKL-50AS-Q	CKL-63AS (L1) CKL-63AS-Q	CKL-80AS (L1) CKL-80AS-Q	CKL-100AS (L1)	CKL-160AS
8	PSD-16	PSD-20	PSD-25	PSD-32	PSD-40	PSD-50	PSD-63	PSD-80	PSD-100	PSD-160
9	dia.14×dia.1	dia.18×dia.1	dia.22.33×dia.1.02	S-29	S-36	S-46	S-60	G-75	G-95	G-150
10	MYA-6	MYA-6	MYA-8	MYA-10	MYA-12	MYA-14	MYA-16	MYA-16	MYA-20	MYA-34

Performance Data

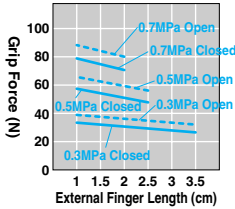
■ Grip Force

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

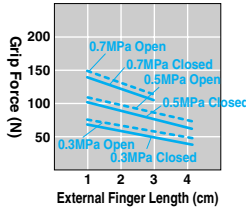
Open (⇐) ————
 Closed (⇒) ————



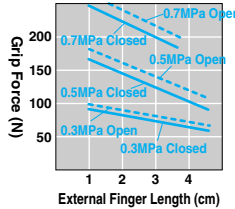
■ CKL-16AS



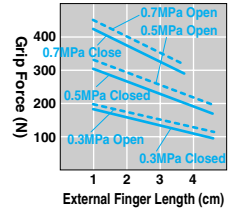
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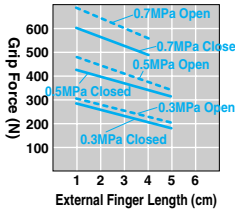
■ CKL-25AS



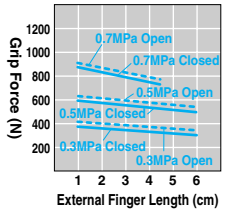
■ CKL-32AS



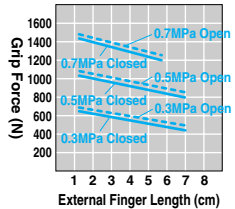
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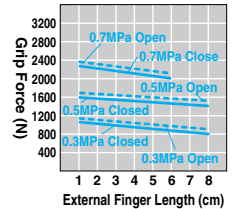
■ CKL-50AS



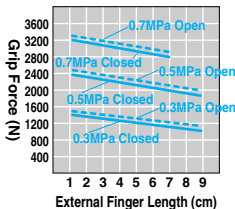
■ CKL-63AS



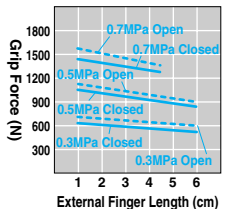
■ CKL-80AS



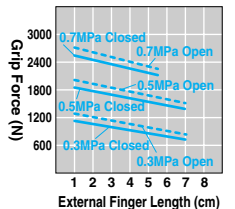
■ CKL-100AS



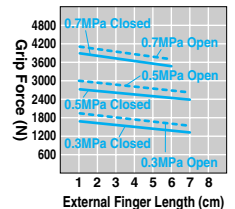
■ CKH-50AS



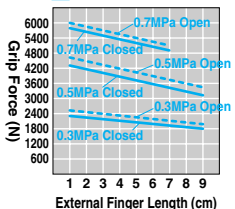
■ CKH-63AS



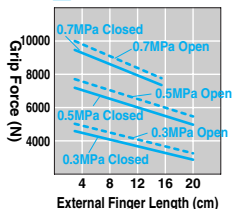
■ CKH-80AS



■ CKH-100AS



■ CKL-160AS



Chuck
(233-Jaw)

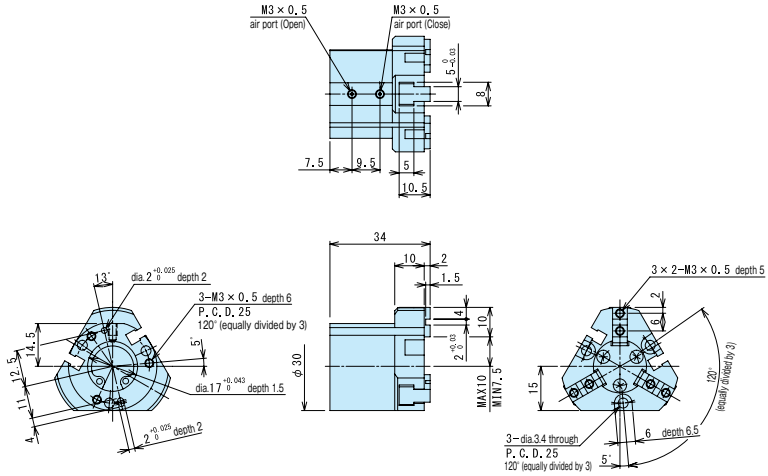
CKL-16AS/20AS/25AS/32AS/40AS/50AS/63AS/80AS/100AS/160AS CKH-50AS/63AS/80AS/100AS

Layout Drawing

For CAD data, please go to **▶518P**

CKL-16AS (Optimal Grip Force 40N to 60N)

CKL-16AS Standard



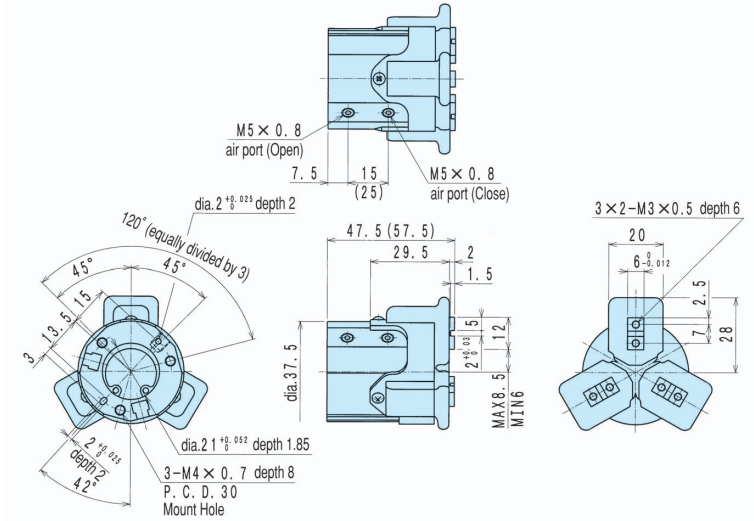
Chuck
(2&3-Jaw)

CKL-16AS/20AS/25AS/32AS/40AS/50AS/63AS/80AS/100AS/160AS CKH-50AS/63AS/80AS/100AS

For CAD data, please go to **▶518P**

CKLG-20AS Standard • NO • NC

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



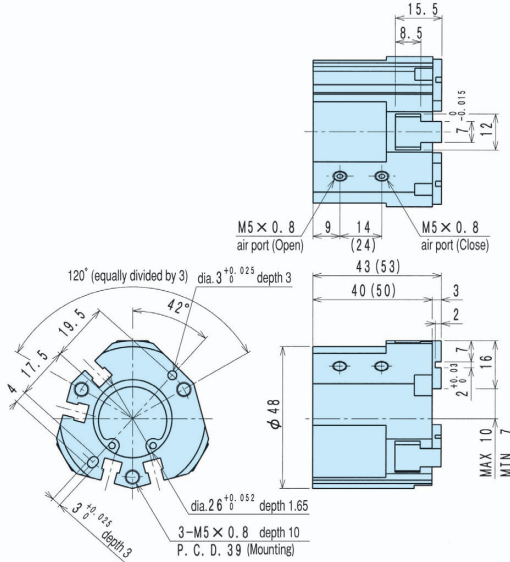
Chuck
(2&3-Jaw)

Layout Drawing

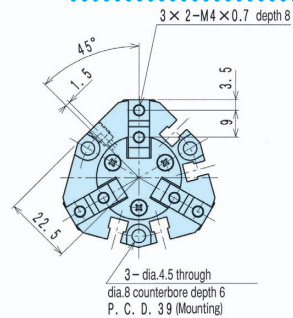
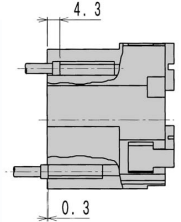
CKL-25AS (Optimal Grip Force 80N to 180N)

CKL-25AS Standard • NO • NC

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

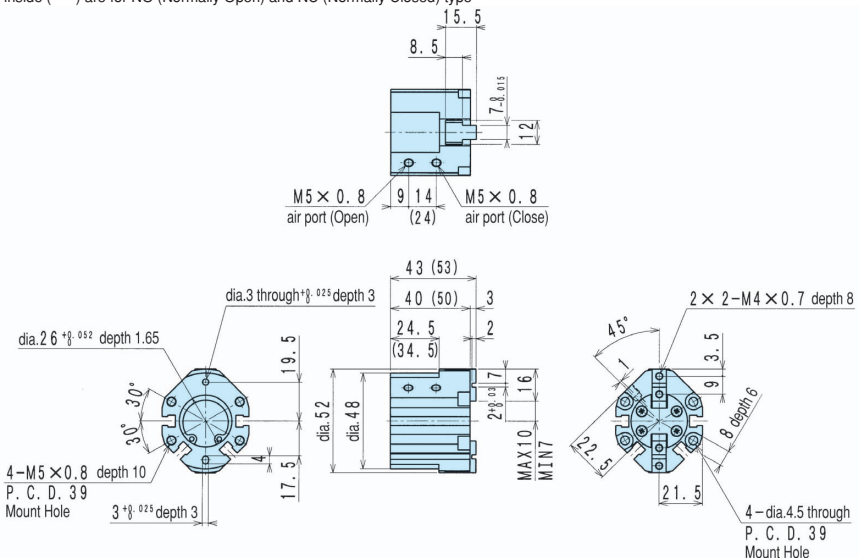


CKL-25AS-E □ □ □



CKL-25AS-J2 Standard • NO • NC

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



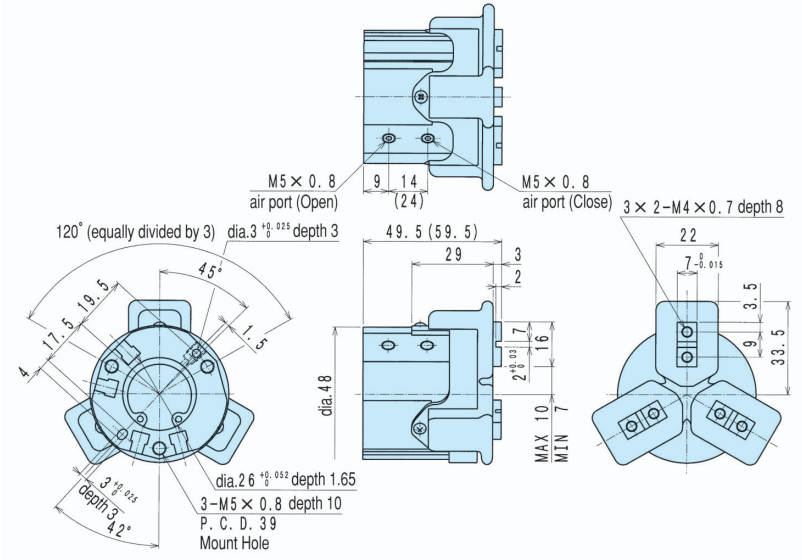
Chuck
(253-Jaw)

CKL-16AS/20AS/25AS/32AS/40AS/50AS/63AS/80AS/100AS/160AS CKH-50AS/63AS/80AS/100AS

For CAD data, please go to **▶518P**

CKLG-25AS Standard • NO • NC

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



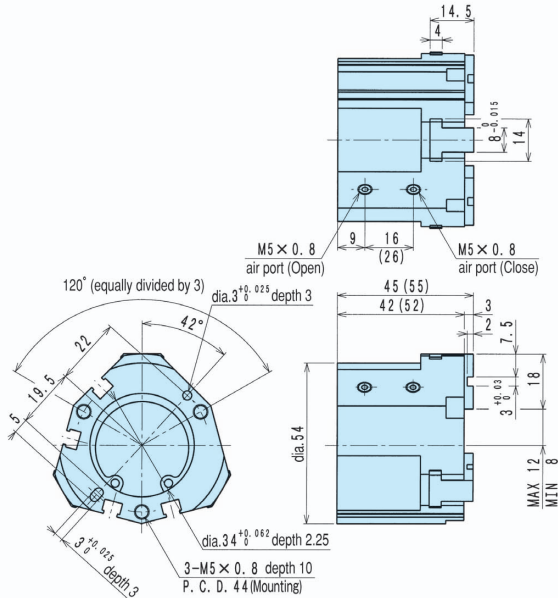
Chuck
(2&3-Jaw)

Layout Drawing

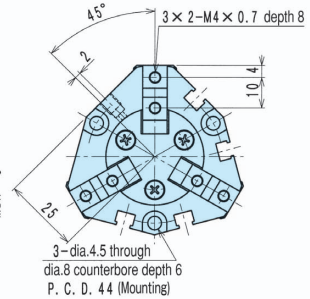
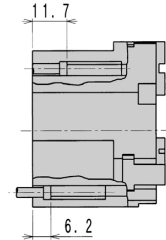
CKL-32AS (Optimal Grip Force 150N to 300N)

CKL-32AS Standard • NO • NC

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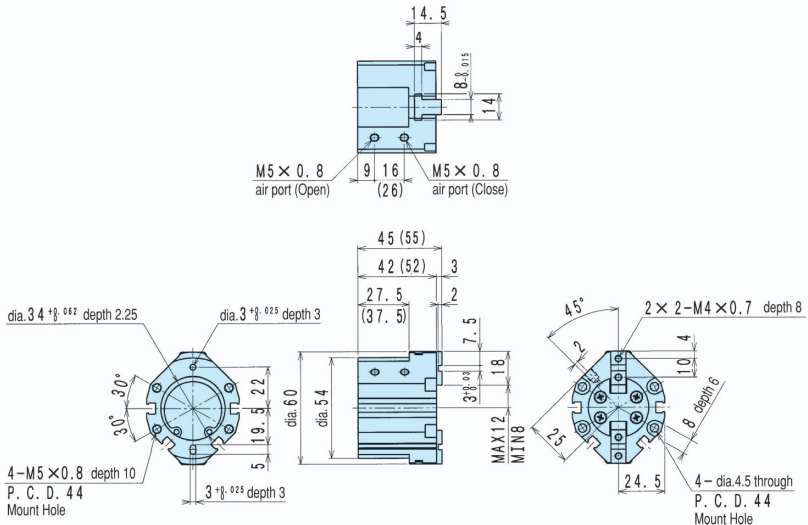


CKL-32AS-E□S□



CKL-32AS-J2 Standard • NO • NC

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

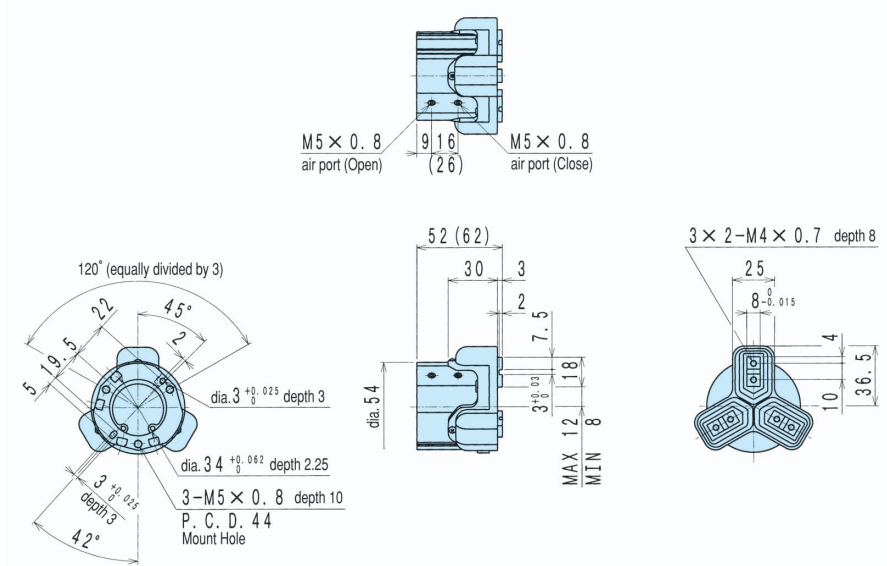


CKL-16AS/20AS/25AS/32AS/40AS/50AS/63AS/80AS/100AS/160AS CKH-50AS/63AS/80AS/100AS

For CAD data, please go to **▶518P**

CKLG-32AS Standard • NO • NC

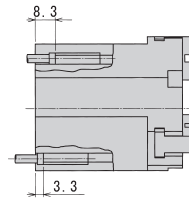
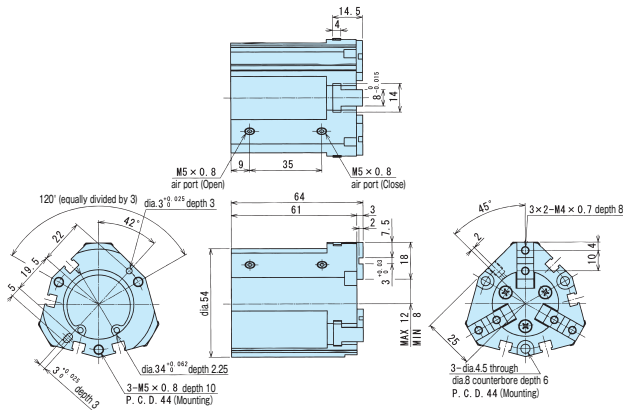
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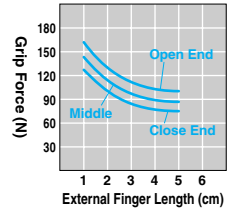
Chuck
(2&3-Jaw)

CKL-32AS-Q Standard

CKL-32AS-Q-E S



CKL-32AS-Q



CKL Series Powerful Chuck

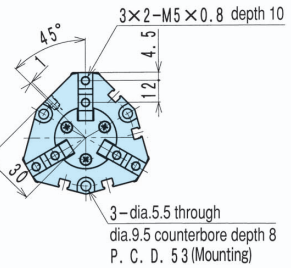
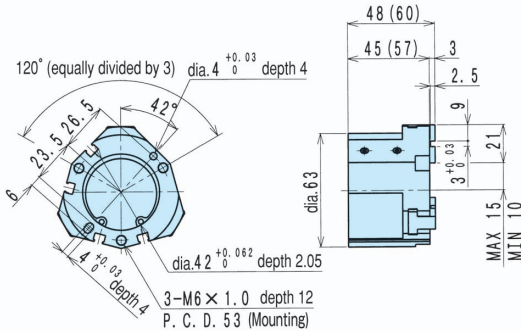
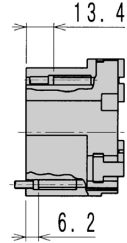
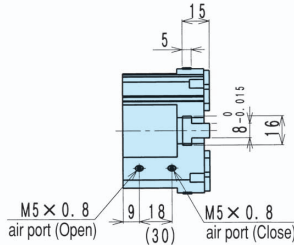
Layout Drawing

CKL-40AS (Optimal Grip Force 200N to 450N)

CKL-40AS Standard • NO • NC

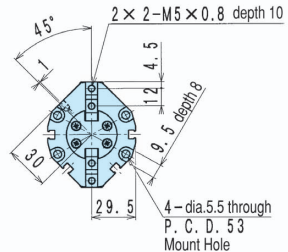
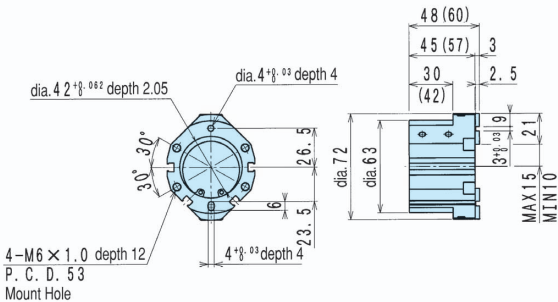
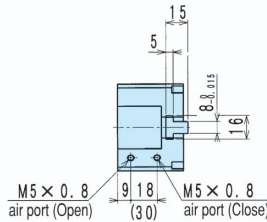
*Values inside () are for NO (Normally Open) and NC (Normally Closed) type

CKL-40AS-E□□□



CKL-40AS-J2 Standard • NO • NC

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



Chuck
(283-Jaw)

Layout Drawing

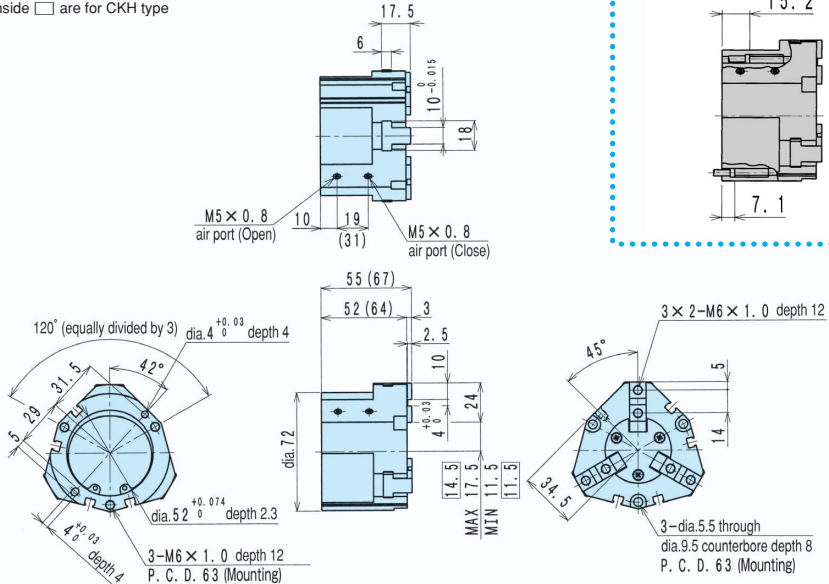
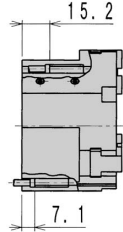
CKL-50AS (Optimal Grip Force 450N to 650N)

CKL-50AS Standard • NO • NC

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

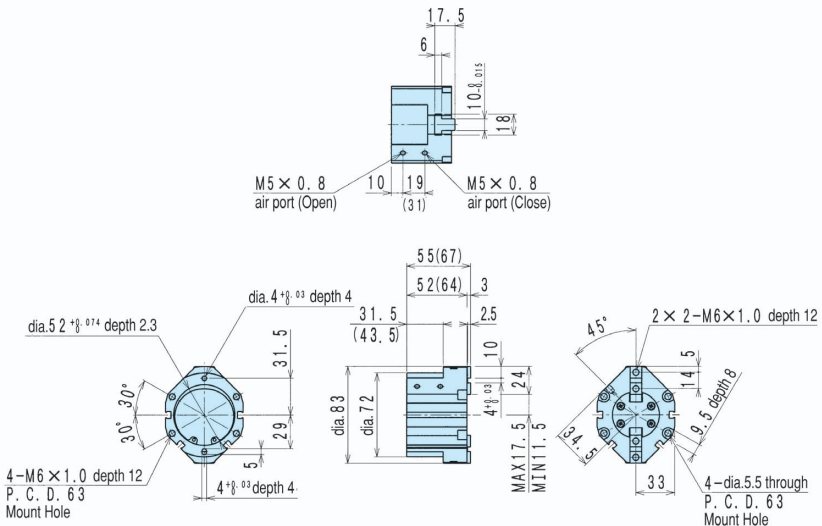
*Values inside □ are for CKH type

CKL-50AS-E□S□



CKL-50AS-J2 Standard • NO • NC

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

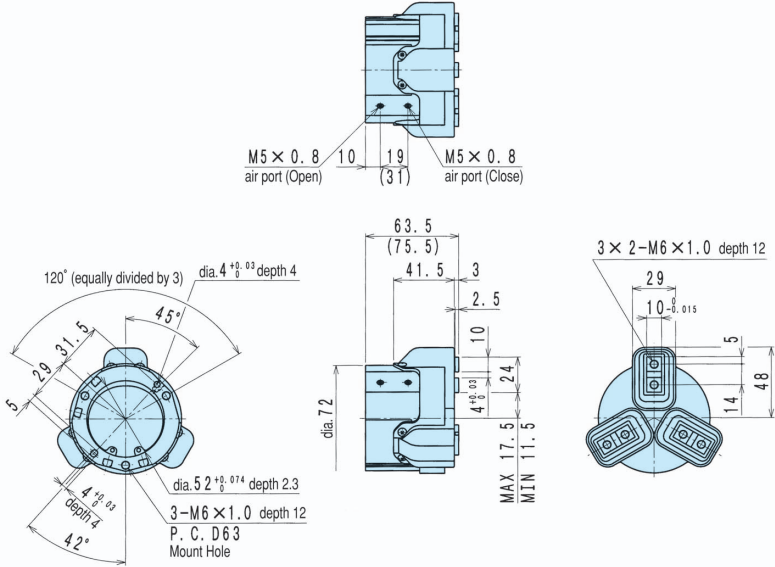


CKL-16AS/20AS/25AS/32AS/40AS/50AS/63AS/80AS/100AS/160AS CKH-50AS/63AS/80AS/100AS

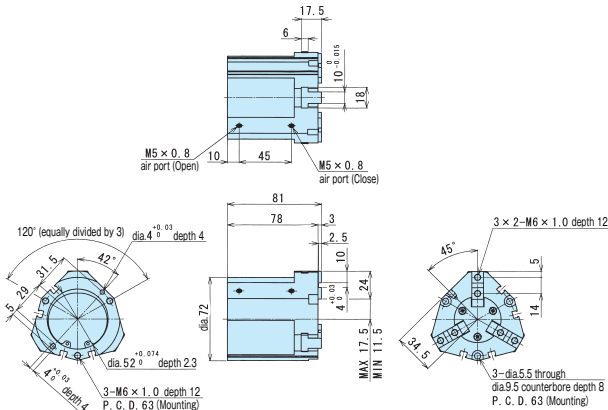
For CAD data, please go to **▶518P**

CKLG-50AS Standard • NO • NC

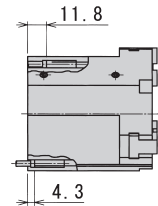
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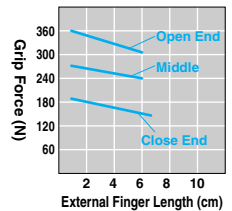
CKL-50AS-Q Standard



CKL-50AS-Q-E S □



CKL-50AS-Q



Chuck
(2&3-Jaw)

CKL Series Powerful Chuck

Layout Drawing

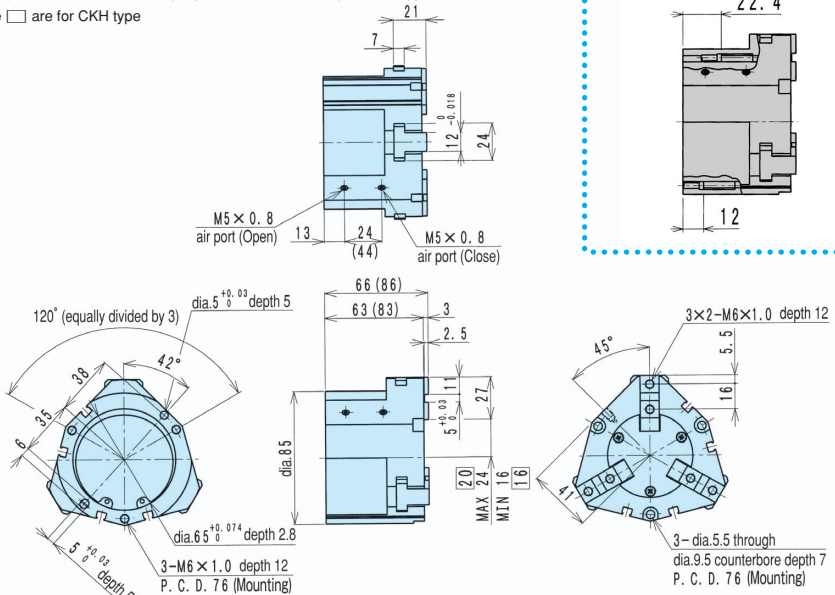
CKL-63AS (Optimal Grip Force 600N to 1000N)

CKL-63AS Standard • NO • NC

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

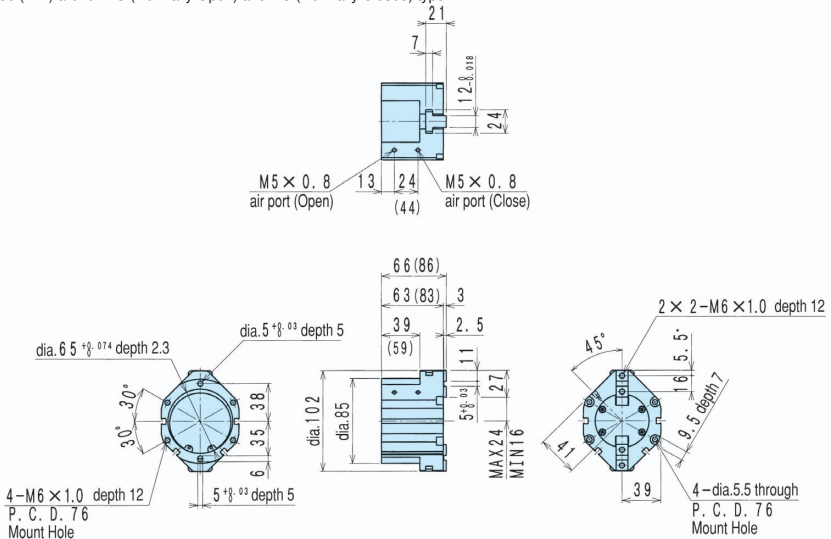
*Values inside □ are for CKH type

CKL-63AS-E □ □ □



CKL-63AS-J2 Standard • NO • NC

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



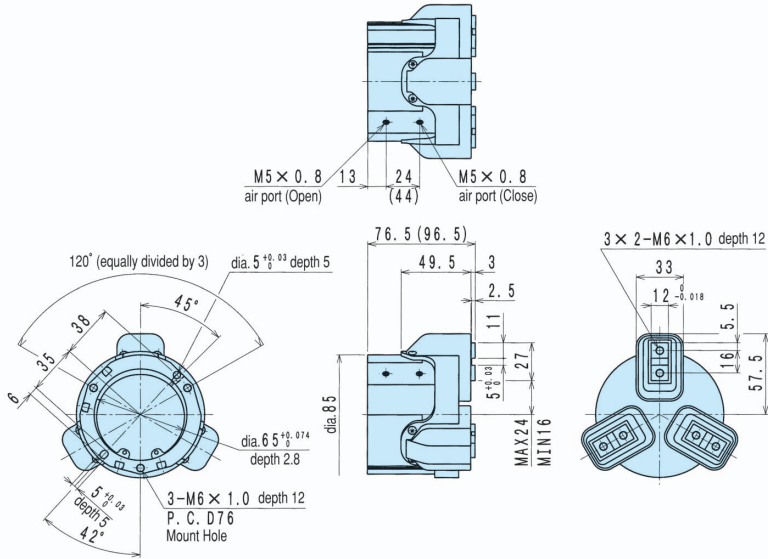
Chuck
(233-Jaw)

CKL-16AS/20AS/25AS/32AS/40AS/50AS/63AS/80AS/100AS/160AS CKH-50AS/63AS/80AS/100AS

For CAD data, please go to **▶518P**

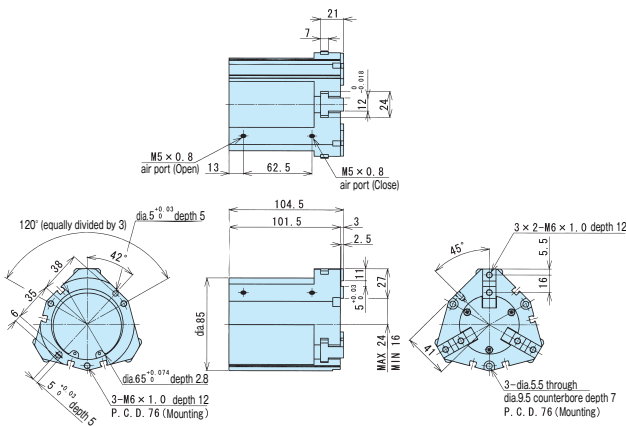
CKLG-63AS Standard • NO • NC

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

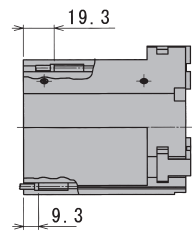


Chuck
(2&3-Jaw)

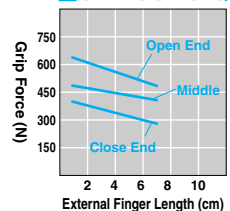
CKL-63AS-Q Standard



CKL-63AS-Q-E □ □ □



CKL-63AS-Q



Layout Drawing

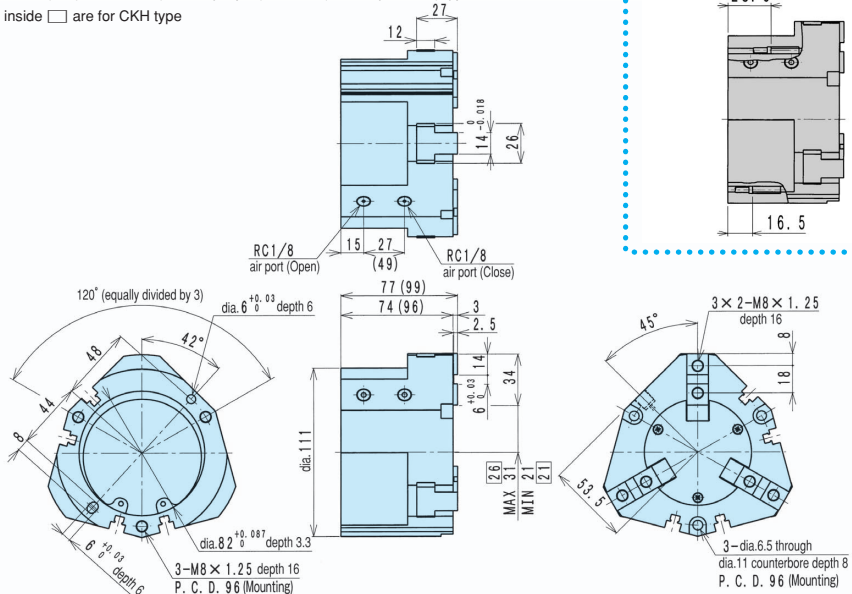
CKL-80AS (Optimal Grip Force 1300N to 1600N)

CKL-80AS Standard • NO • NC

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

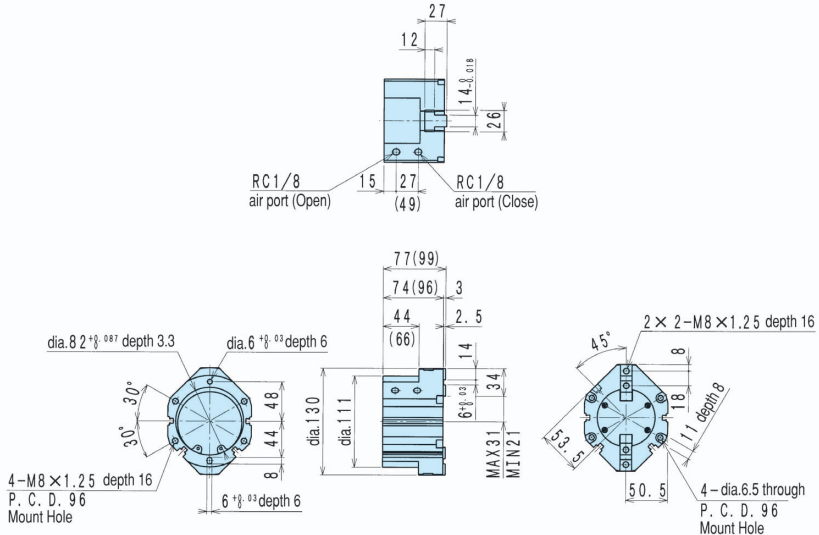
*Values inside □ are for CKH type

CKL-80AS-E □ □ □



CKL-80AS-J2 Standard • NO • NC

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

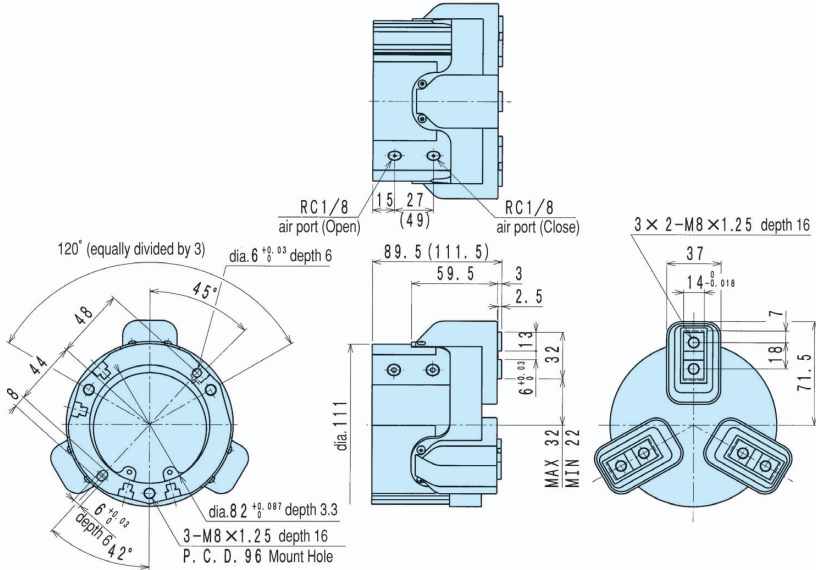


CKL-16AS/20AS/25AS/32AS/40AS/50AS/63AS/80AS/100AS/160AS CKH-50AS/63AS/80AS/100AS

For CAD data, please go to **▶518P**

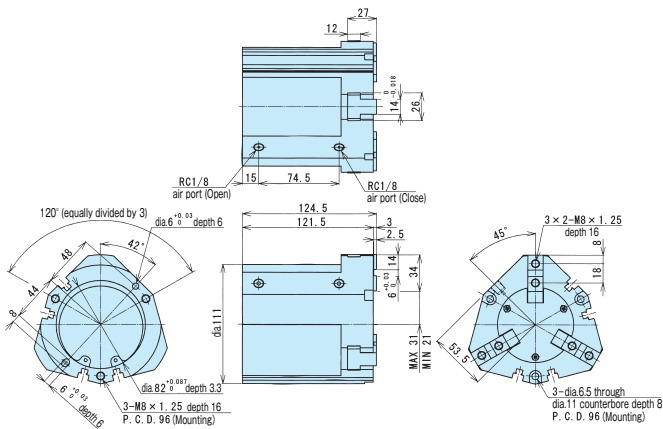
CKLG-80AS Standard • NO • NC

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

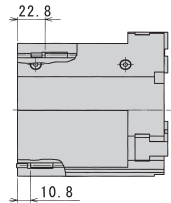


Chuck
(2&3-Jaw)

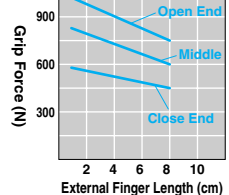
CKL-80AS-Q Standard



CKL-80AS-Q-E □ □ □



CKL-80AS-Q



CKL Series Powerful Chuck

Layout Drawing

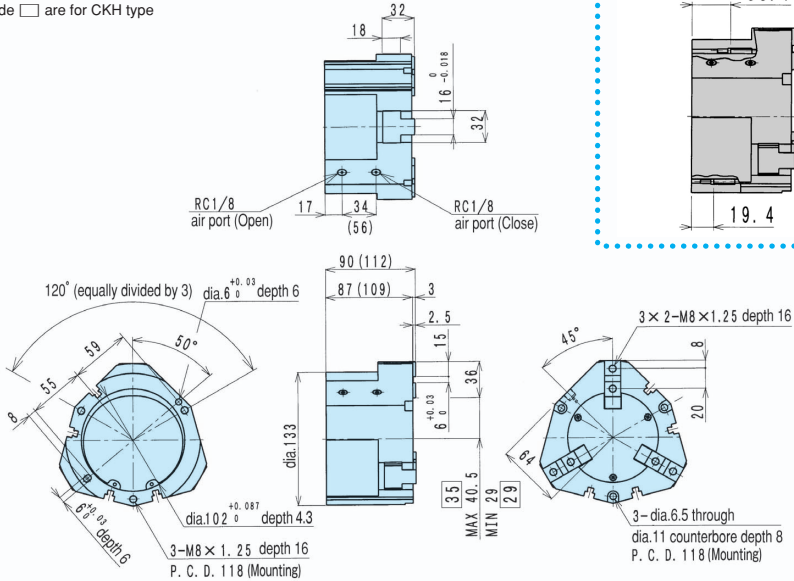
CKL-100AS (Optimal Grip Force 1400N to 2400N)

CKL-100AS Standard • NO • NC

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

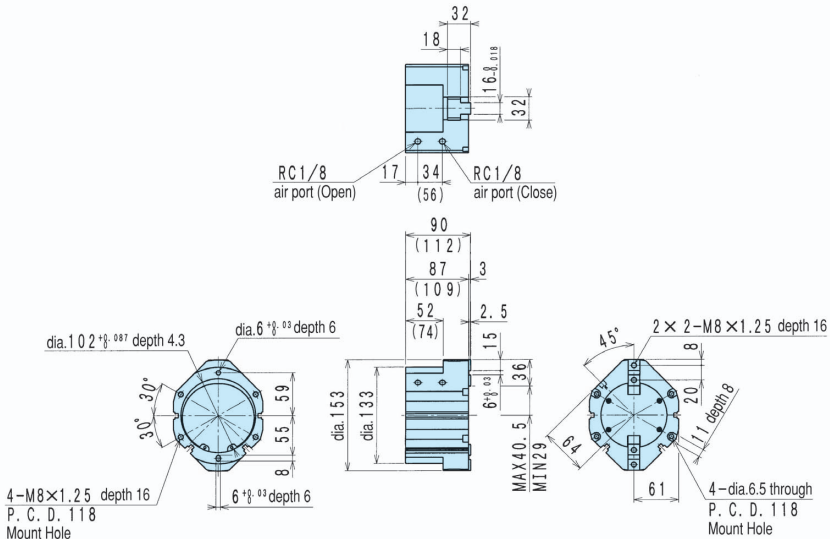
*Values inside □ are for CKH type

CKL-100AS-E□S□



CKL-100AS-J2 Standard • NO • NC

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



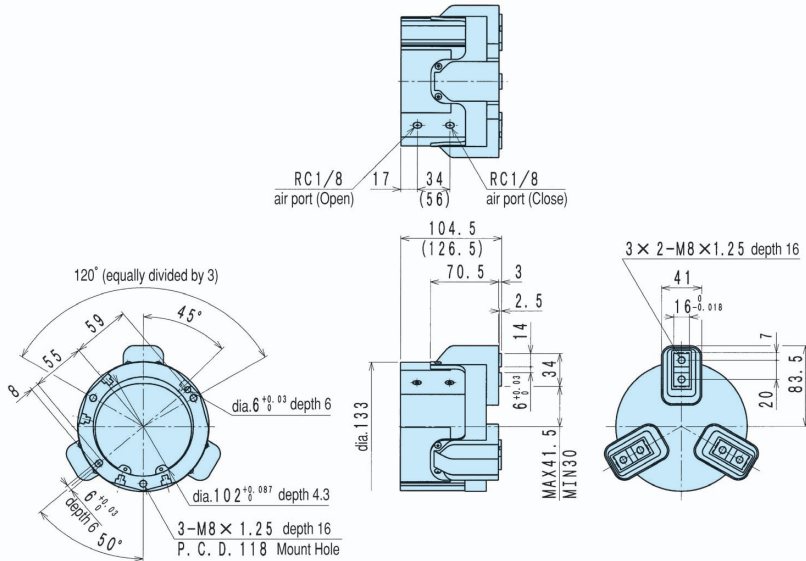
Chuck
(283-Jaw)

CKL-16AS/20AS/25AS/32AS/40AS/50AS/63AS/80AS/100AS/160AS CKH-50AS/63AS/80AS/100AS

For CAD data, please go to **▶518P**

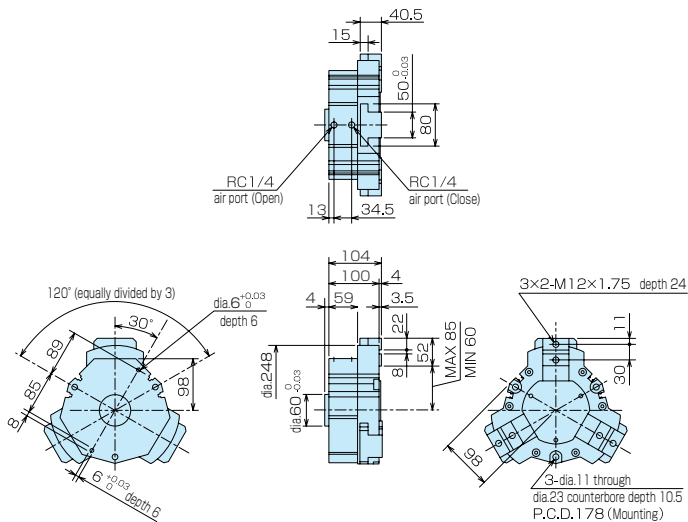
CKLG-100AS Standard • NO • NC

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



CKL-160AS (Optimal grip force 4500N to 7000N)

CKL-160AS Standard • NO • NC

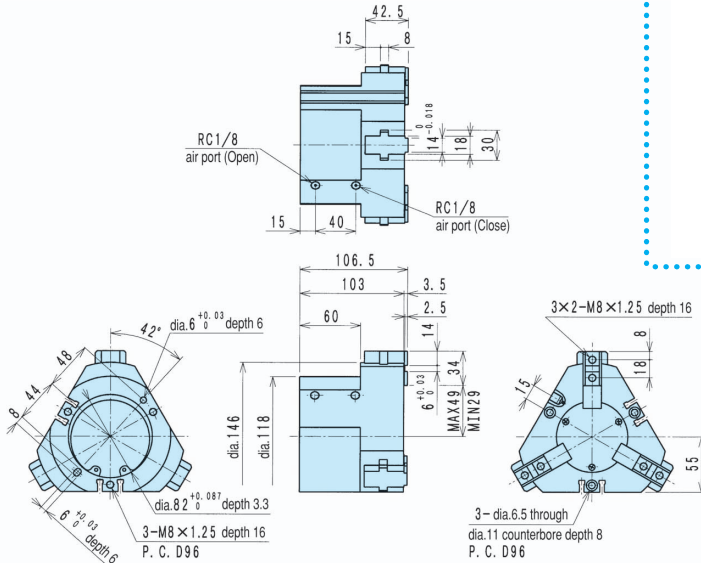


CKL-16AS/20AS/25AS/32AS/40AS/50AS/63AS/80AS/100AS/160AS CKH-50AS/63AS/80AS/100AS

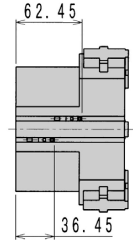
For CAD data, please go to **▶518P**

CKL-80AS-L1

CKL-80AS-L1

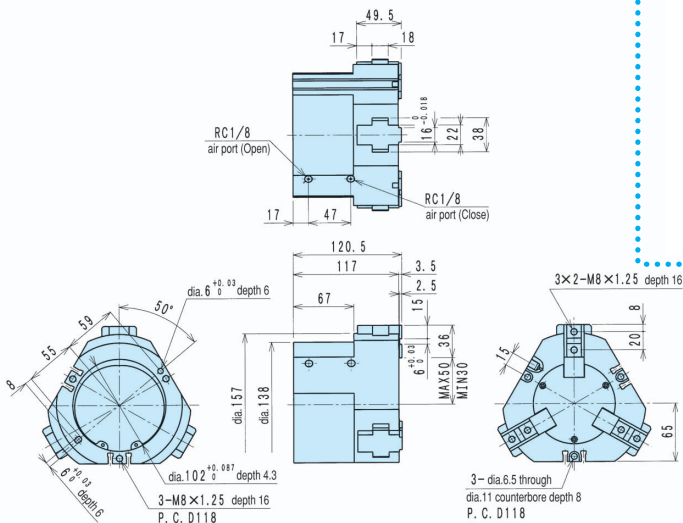


CKL-80AS-L1-E□S□

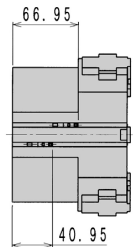


CKL-100AS-L1

CKL-100AS-L1



CKL-100AS-L1-E□S□



Chuck
(2&3-Jaw)