SELF-CENTERING THREE-JAW GRIPPERS WITH T-GUIDE

SERIES CGCN

DOUBLE ACTING, MAGNETIC, SELF-CENTERING
SIZES: 50, 64, 80, 100, 125 MM



- Compact design
- 3 self-centering jaws
- IP 40
- Supply on the side
- Long stroke
- In compliance with ROHS directive
- PTFE, Silicone and Copper free

The new Series CGCN pneumatic grippers are available in 5 different sizes (50, 64, 80, 100, 125).
Their compact design allows high clamping force and long strokes in reduced dimensions.

Thanks to the permanent magnet integrated into the gripper piston, the Series CSD magnetic proximity switches can be inserted in the grooves on the body.

GENERAL DATA

Type of construction	Three-jaw self-centering gripper with T-guide
Operation	Double acting
Sizes	50, 64, 80, 100, 125 mm
Force transmission	Lever
Air connections	M5 (50, 64, 80), G1/8 (100, 125)
Working pressure	2 ÷ 8 bar
Working temperature	5°C ÷ 60°C
Store temperature	-10°C ÷ 80°C
Maximum use frequency	5 Hz (50, 64); 3 Hz (80); 2 Hz (100, 125)
Repeatability	≤ 0.05 mm
Interchangeability	0.1 mm
Medium	Air in class 7.4.4 according to ISO 8573-1. In case lubricated air is used, we recommend ISOVG32 oil and to never interrupt lubrication.
Lubrication	After 10 million cycles, grease the sliding zones using Molykote DX grease.
Protection class	IP40
Compatibility	ROHS Directive
Certifications	ATEX (II2G Ex h IIC T4 Gb II2D Ex h IIIC T120° Db -20°C≤Ta≤70°C). To order the ATEX version add EX at the end of the commercial code.
Materials	free from Copper, PTFE and Silicone

NOTE: Pressurize the pneumatic system gradually in order to avoid uncontrolled movements.

CODING EXAMPLE

CGCN	-	050	-	EX

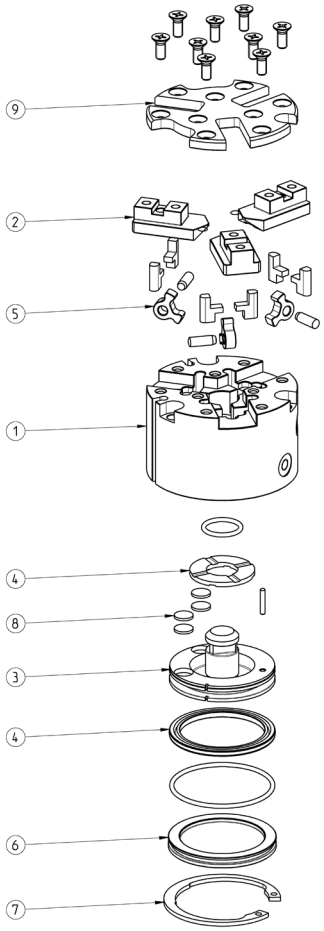
CGCN	SERIES
050	SIZES 050 064 080 100 125
EX	VERSIONS: = standard EX = ATEX certified

PNEUMATIC SYMBOLS
PNZ1

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SELF-CENTERING THREE-JAW GRIPPERS WITH T-GUIDE
SERIES CGCN - MATERIALS

Series CGCN gripper - construction

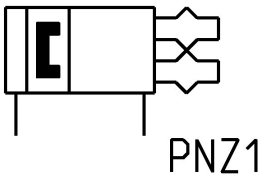


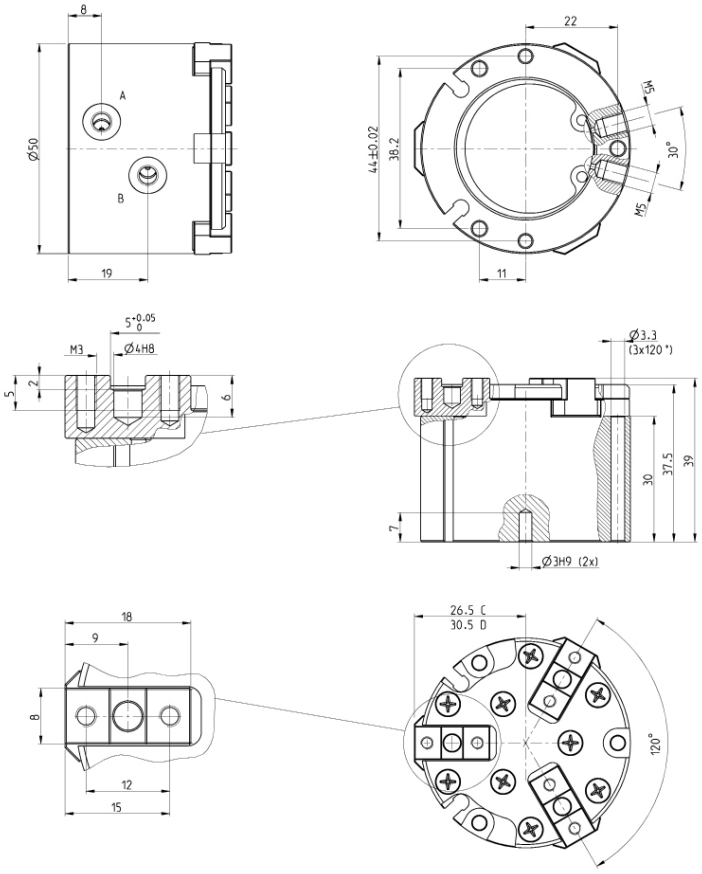
PARTS	Materials
1 - Body	Aluminium
2 - Jaw	Stainless steel
3 - Piston	Stainless steel
4 - Seals	HNBR / NBR
5 - Levers	Steel
6 - End cover	Aluminium
7 - Seeger	Steel
8 - Magnet	Neodymium
9 - Cover	Aluminium

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Grippers - size 50mm







DRAWING LEGEND:
A = Opening of air connection
B = Closing of air connection
C = Closed gripper
D = Open gripper

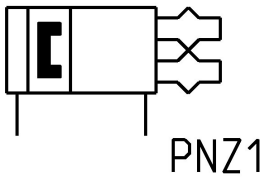
Mod.	Closing gripping force each jaw at 6 bar (N)	Total closing gripping force at 6 bar (N)	Opening gripping force each jaw at 6 bar (N)	Total opening gripping force at 6 bar (N)	Stroke per jaw (mm)	Working pressure (bar)	Working temperature (°C)	Repeatability (mm)	Opening T (ms)	Closing T (ms)	Weight (kg)
CGCN-050	84	253	95	286	4	2 ÷ 8	5 ÷ 60	≤ 0.05	60	64	0.21

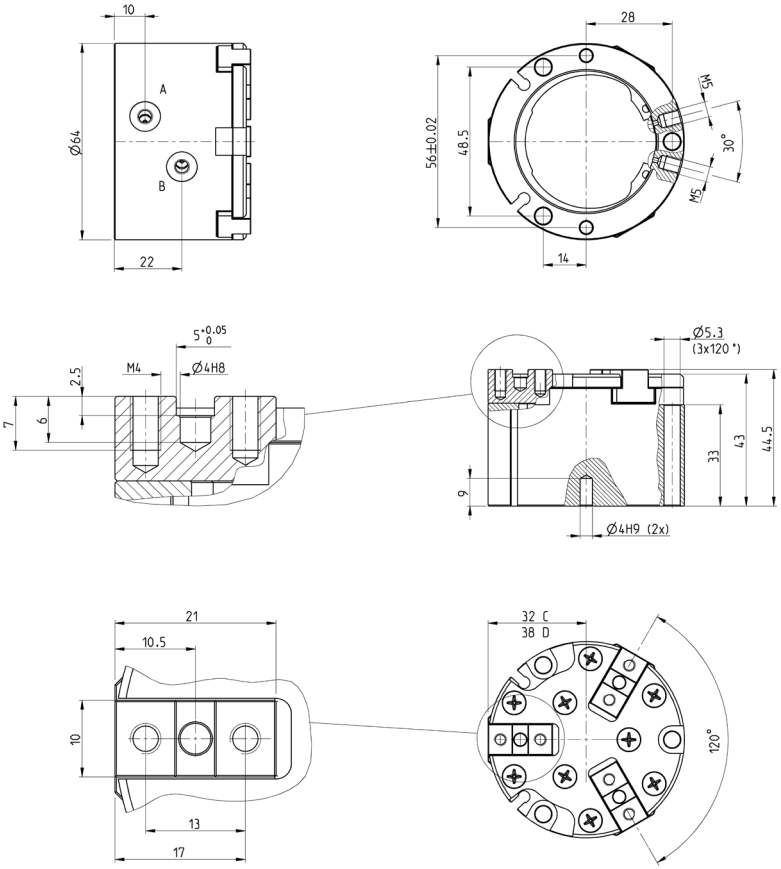
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SELF-CENTERING THREE-JAW GRIPPERS WITH T-GUIDE
SERIES CGCN - DIMENSIONAL CHARACTERISTICS

Grippers - size 64mm







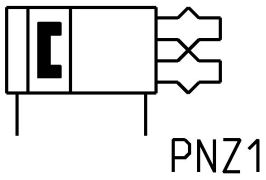
DRAWING LEGEND:
A = Opening of air connection
B = Closing of air connection
C = Closed gripper
D = Open gripper

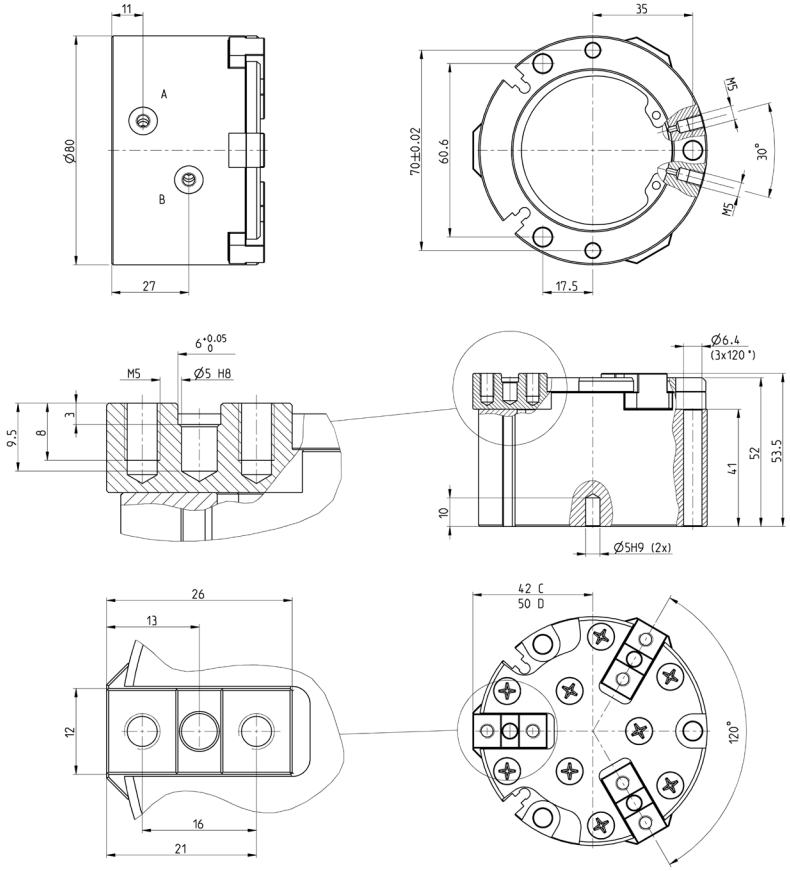
Mod.	Closing gripping force each jaw at 6 bar (N)	Total closing gripping force at 6 bar (N)	Opening gripping force each jaw at 6 bar (N)	Total opening gripping force at 6 bar (N)	Stroke per jaw (mm)	Working pressure (bar)	Working temperature (°C)	Repeatability (mm)	Opening T (ms)	Closing T (ms)	Weight (kg)
CGCN-064	230	690	255	764	6	2 ÷ 8	5 ÷ 60	≤ 0.05	79	78	0.4

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Grippers - size 80mm







DRAWING LEGEND:
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D = Open gripper

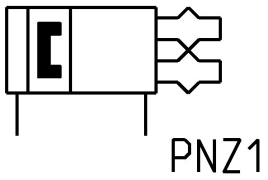
Mod.	Closing gripping force each jaw at 6 bar (N)	Total closing gripping force at 6 bar (N)	Opening gripping force each jaw at 6 bar (N)	Total opening gripping force at 6 bar (N)	Stroke per jaw (mm)	Working pressure (bar)	Working temperature (°C)	Repeatability (mm)	Opening T (ms)	Closing T (ms)	Weight (kg)
CGCN-080	320	960	365	1095	8	2 ÷ 8	5 ÷ 60	≤ 0.05	87	99	0.76

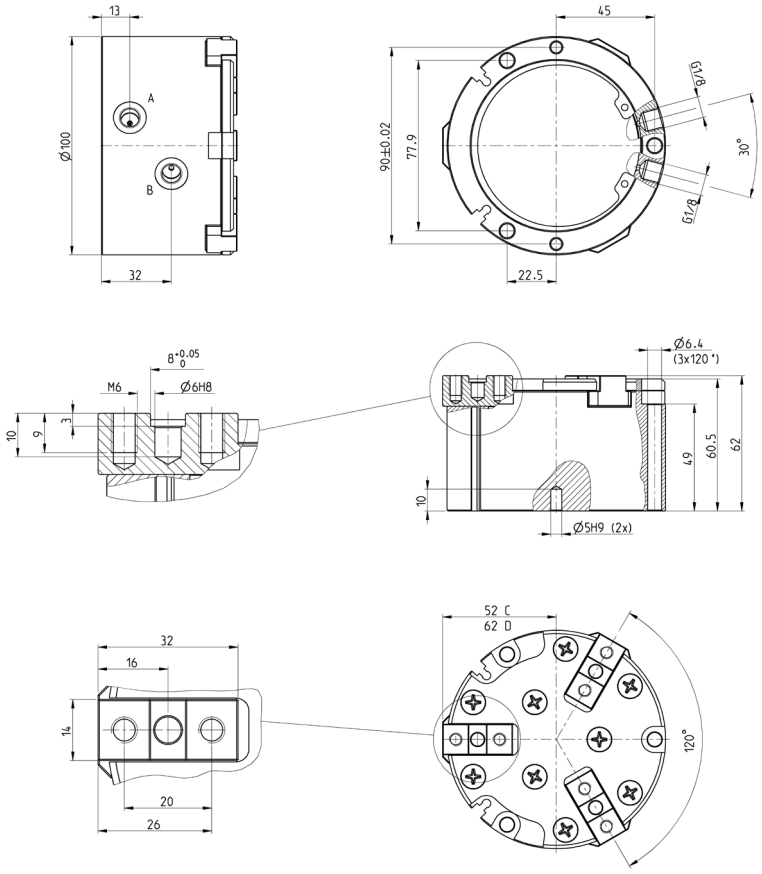
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SELF-CENTERING THREE-JAW GRIPPERS WITH T-GUIDE
SERIES CGCN - DIMENSIONAL CHARACTERISTICS

Grippers - size 100mm







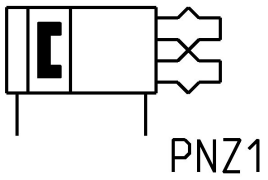
DRAWING LEGEND:
A = Opening of air connection
B = Closing of air connection
C = Closed gripper
D = Open gripper

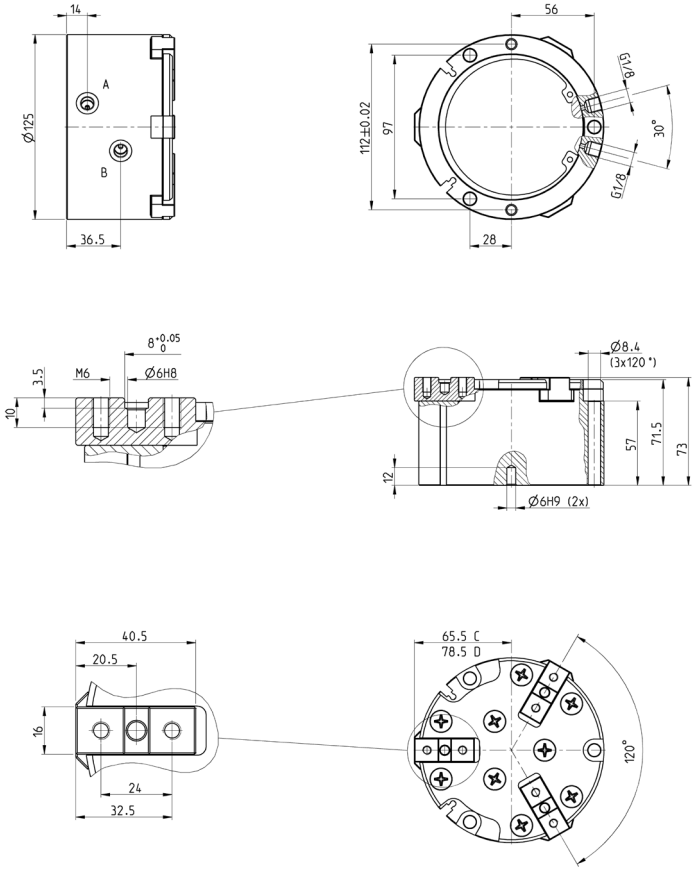
Mod.	Closing gripping force each jaw at 6 bar (N)	Total closing gripping force at 6 bar (N)	Opening gripping force each jaw at 6 bar (N)	Total opening gripping force at 6 bar (N)	Stroke per jaw (mm)	Working pressure (bar)	Working temperature (°C)	Repeatability (mm)	Opening T (ms)	Closing T (ms)	Weight (kg)
CGCN-100	677	2030	751	2254	10	2 ÷ 8	5 ÷ 60	≤ 0.05	110	125	1.36

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Grippers - size 125mm







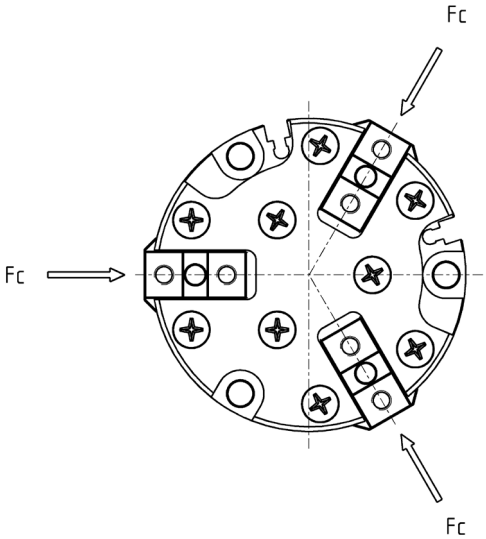
DRAWING LEGEND:
A = Opening of air connection
B = Closing of air connection
C = Closed gripper
D = Open gripper

Mod.	Closing gripping force each jaw at 6 bar (N)	Total closing gripping force at 6 bar (N)	Opening gripping force each jaw at 6 bar (N)	Total opening gripping force at 6 bar (N)	Stroke per jaw (mm)	Working pressure (bar)	Working temperature (°C)	Repeatability (mm)	Opening T (ms)	Closing T (ms)	Weight (kg)
CGCN-125	1093	3280	1195	3584	13	2 ÷ 8	5 ÷ 60	≤ 0.05	141	161	2.44

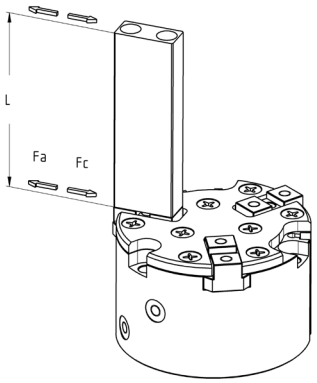
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SELF-CENTERING THREE-JAW GRIPPERS WITH T-GUIDE
SERIES CGCN - DIAGRAMS

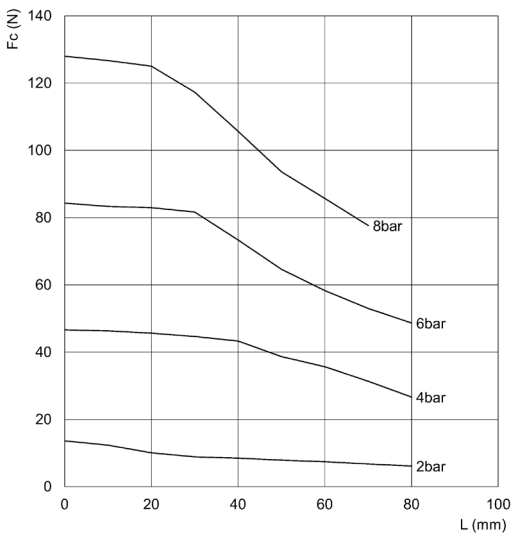
Gripping force per single jaw



The total gripping force has to be calculated as follows:
Total Fc = Fc x 3
Total Fa = Fa x 3

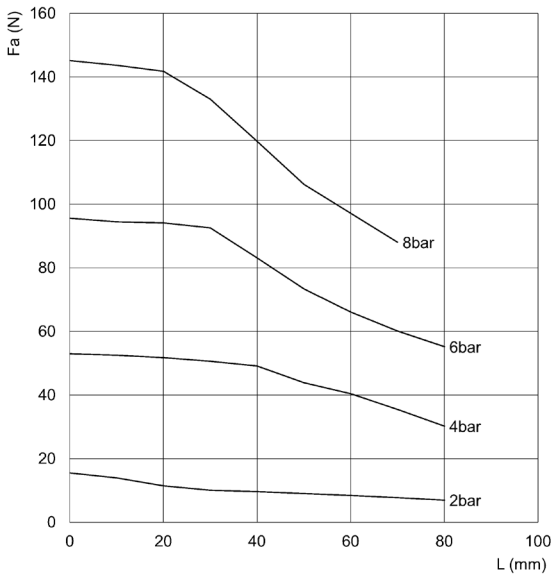


Fc = closing gripping force
Fa = opening gripping force
L = gripping point length



CGCN-050

Fc = closing gripping force
L = gripping point length

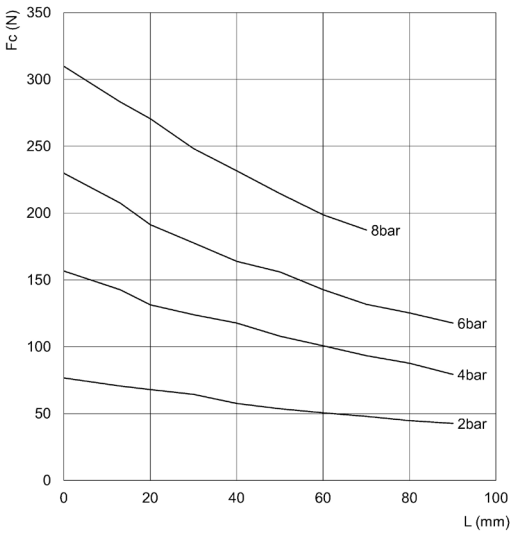


CGCN-050

Fa = opening gripping force
L = gripping point length

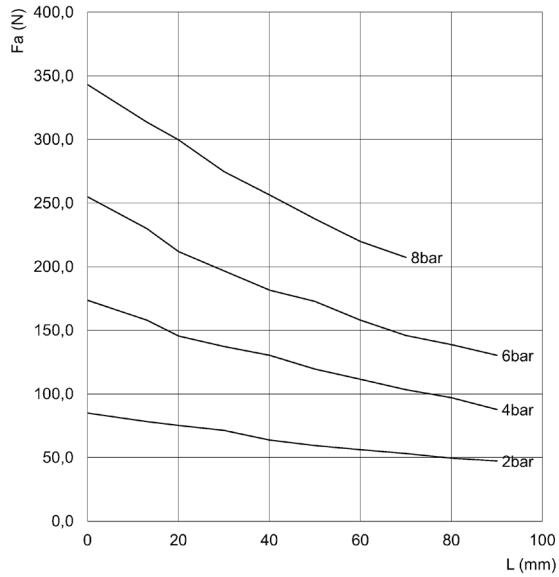
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Gripping force per single jaw



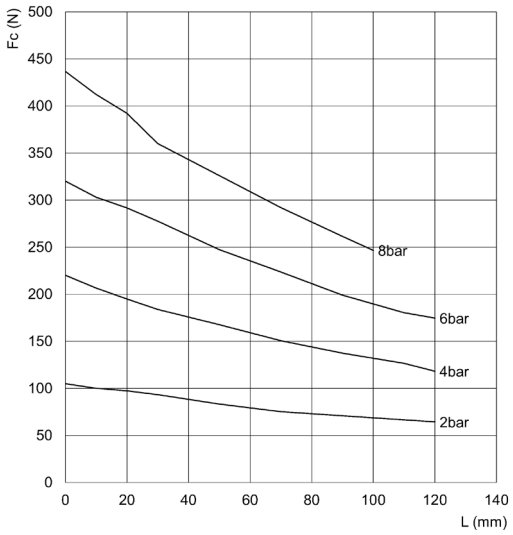
CGCN-064

Fc = closing gripping force
L = gripping point length



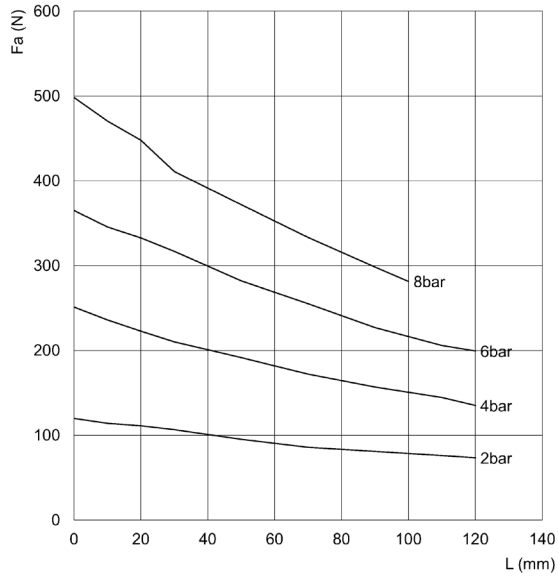
CGCN-064

Fa = opening gripping force
L = gripping point length



CGCN-080

Fc = closing gripping force
L = gripping point length



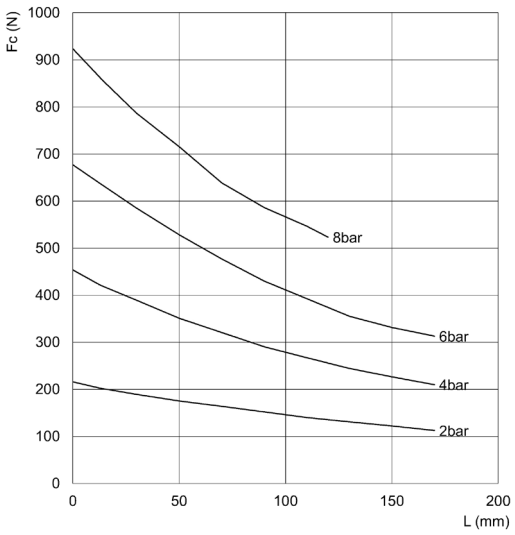
CGCN-080

Fa = opening gripping force
L = gripping point length

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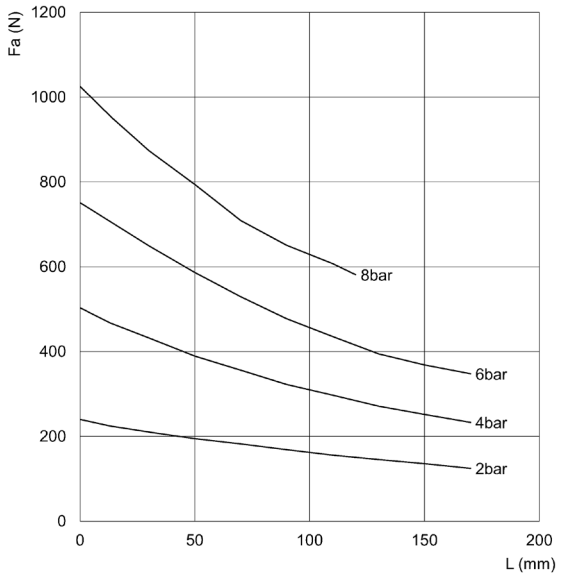
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SERIES CGCN - DIAGRAMS

Gripping force per single jaw



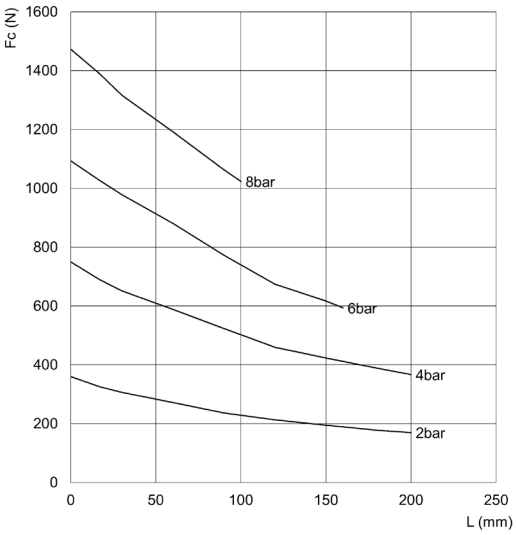
CGCN-100

Fc = closing gripping force
L = gripping point length



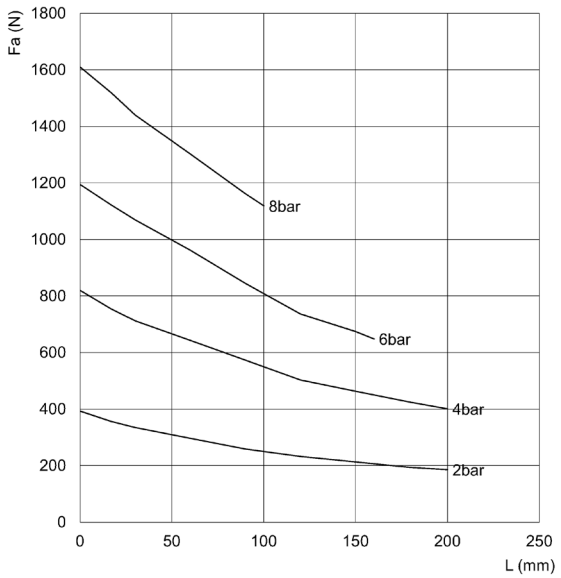
CGCN-100

Fa = opening gripping force
L = gripping point length



CGCN-125

Fc = closing gripping force
L = gripping point length

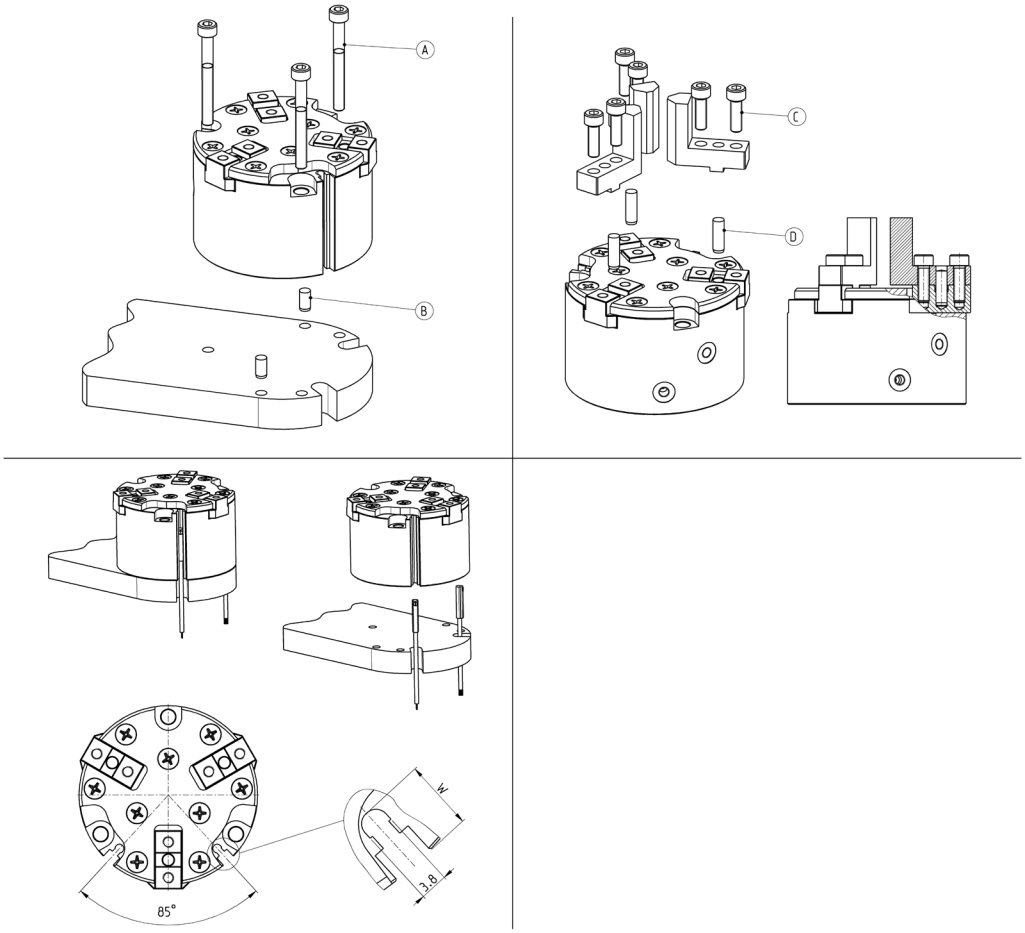


CGCN-125

Fa = opening gripping force
L = gripping point length

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Examples of mounting



Mod.	A	B	C	D	W
CGCN-050	M3	Ø3	M3	Ø4	6
CGCN-064	M5	Ø4	M4	Ø4	6.4
CGCN-080	M6	Ø5	M5	Ø5	9.5
CGCN-100	M6	Ø5	M6	Ø6	8.6
CGCN-125	M8	Ø6	M6	Ø6	11

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