Series CGCN self-centering three-jaw grippers with T-guide

New

Double acting, magnetic
Sizes: 50, 64, 80, 100, 125 mm

- Compact design
- 3 self-centering jaws
- IP40
- Supply on the side
- Long stroke
- In compliance with ROHS directive
- Free from Copper, PTFE and Silicone

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.

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.

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
Suitable magnetic proximity switches	Series CSD

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

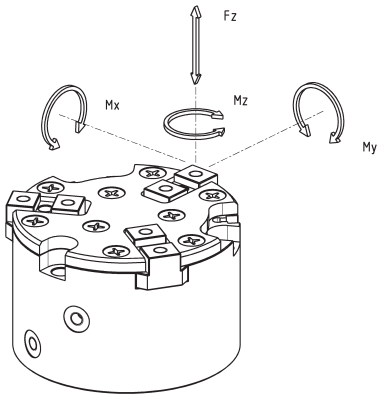
CODING EXAMPLE

CGCN	-	050	-	EX

CGCN	SERIES	
050	SIZES: 050 = Ø32 064 = Ø45 080 = Ø54 100 = Ø76 125 = Ø96	PNEUMATIC SYMBOLS PNZ1
EX	VERSIONS: = standard EX = ATEX certified	

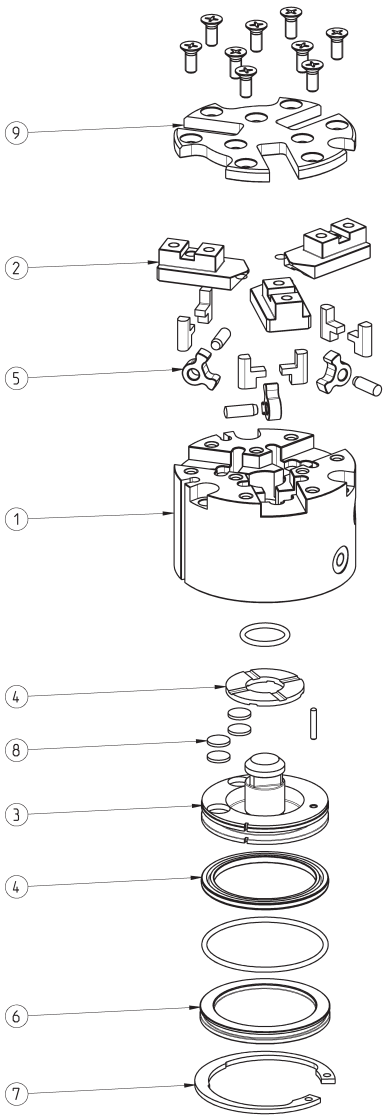
Maximum admissible loads and torques

Fz s, Mx s, My s, Mz s =
maximum admissible loads and
torques in static conditions



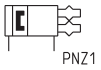
Mod.	Fz s (N)	Mx s (Nm)	My s (Nm)	Mz s (Nm)
CGCN-050	360	6.3	6.93	6.57
CGCN-064	540	11.7	12.6	12.6
CGCN-080	900	23.4	24.3	21.6
CGCN-100	1350	52.2	58.5	58.5
CGCN-125	2250	90	108	108

Series CGCN gripper construction

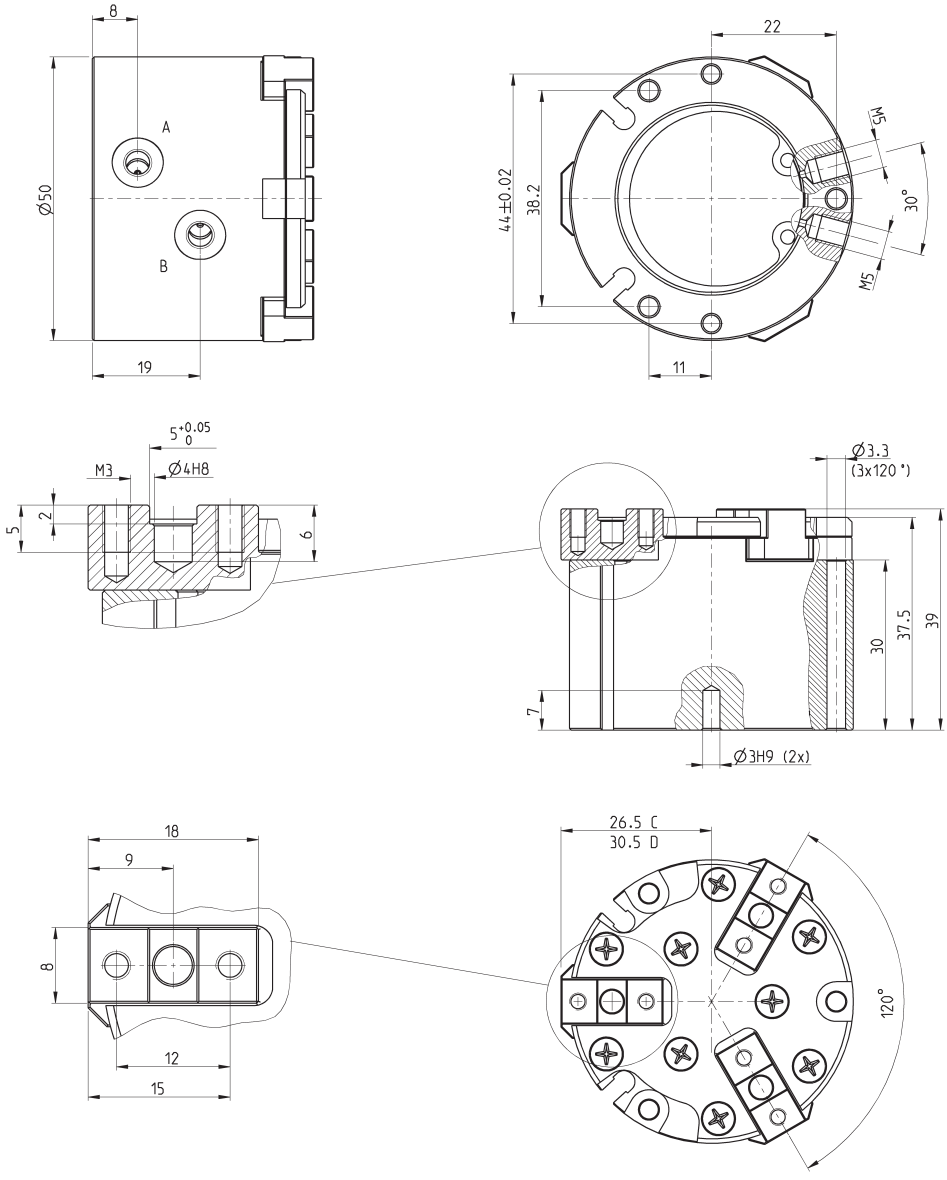


LIST OF COMPONENTS	
PARTS	MATERIALS
1 - Body	Aluminium
2 - Jaw	Stainless steel
3 - Piston	Stainless steel
4 - Seals	HNBR / NBR
5 - Levers	Steel
6 - End cover	Aluminium
7 - Seeger	Steel
8 - Magnet	Neodymium
9 - Cover	Aluminium

Serie CGCN grippers, size 50mm



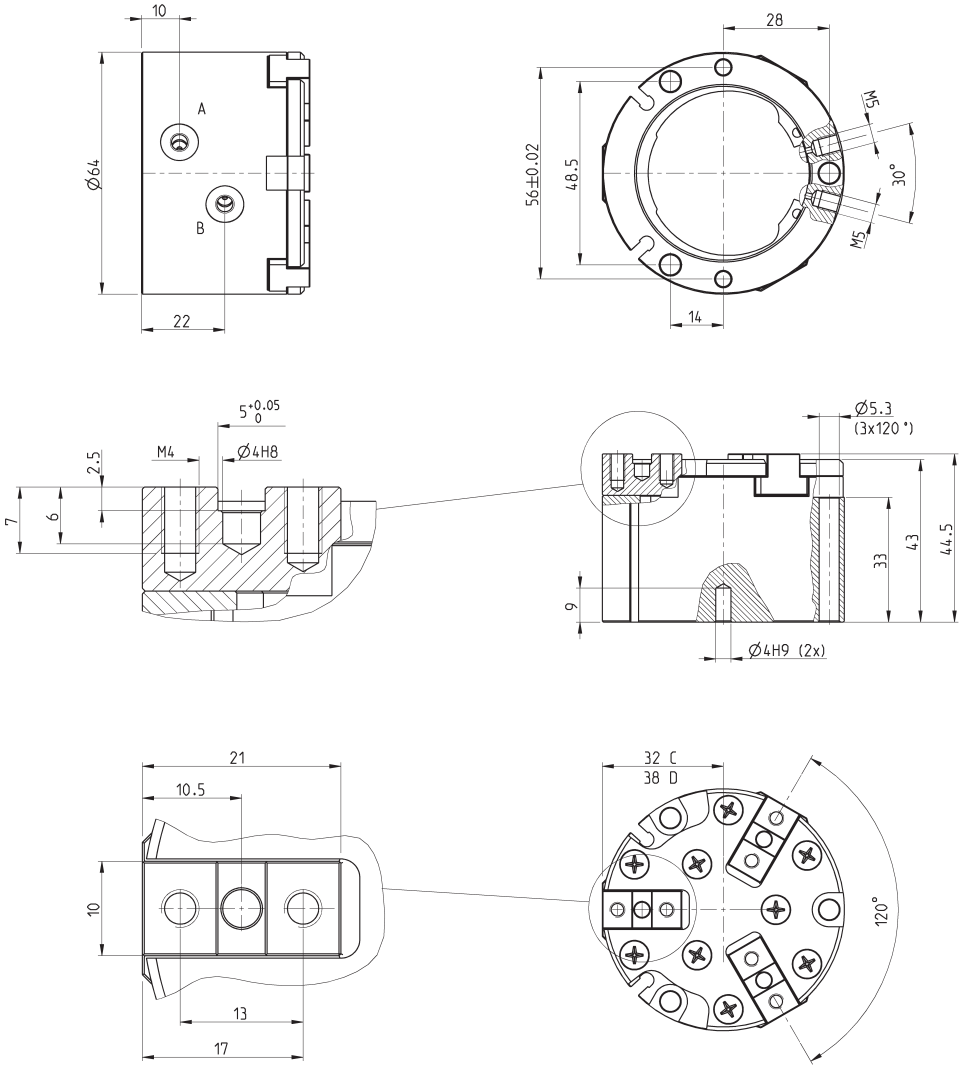
DRAWING LEGEND:
A = Opening of air connection
B = Closing of air connection
C = Closed gripper
D = Open gripper



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

Serie CGCN grippers, size 64mm

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

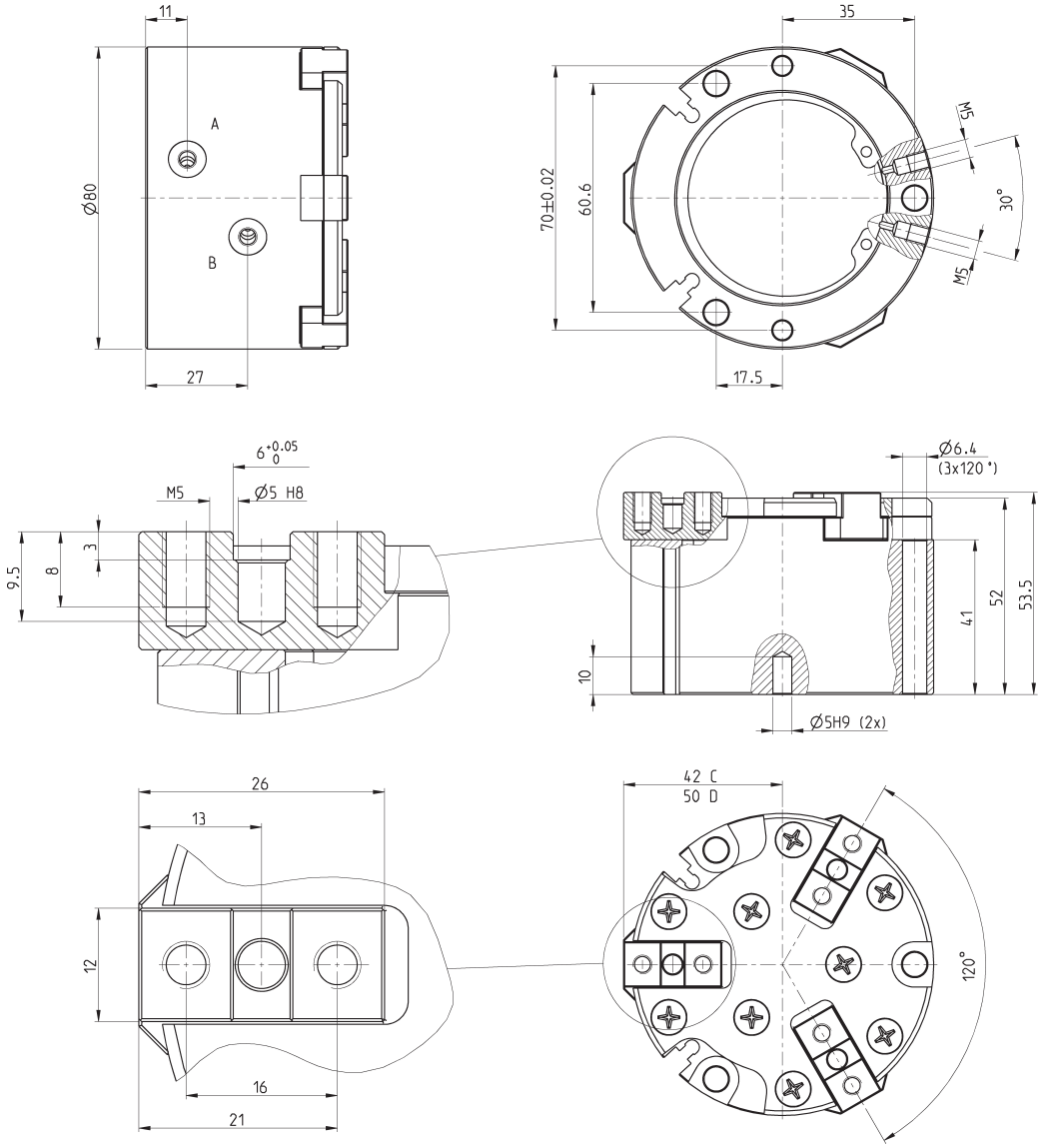


Mod.	Closing gripping force each jaw at 6 bar (N)	Total closing gripping force at 6 bar (N)	Opening gripping force each jaw at 6 bar (N)	Total opening gripping force at 6 bar (N)	Stroke per jaw (mm)	Working pressure (bar)	Working temperature (°C)	Repeatability (mm)	Opening T (ms)	Closing T (ms)	Weight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

Products designed for industrial applications.
General terms and conditions for sale are available on www.camozzi.com.

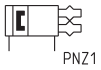
Serie CGCN grippers, size 80mm

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

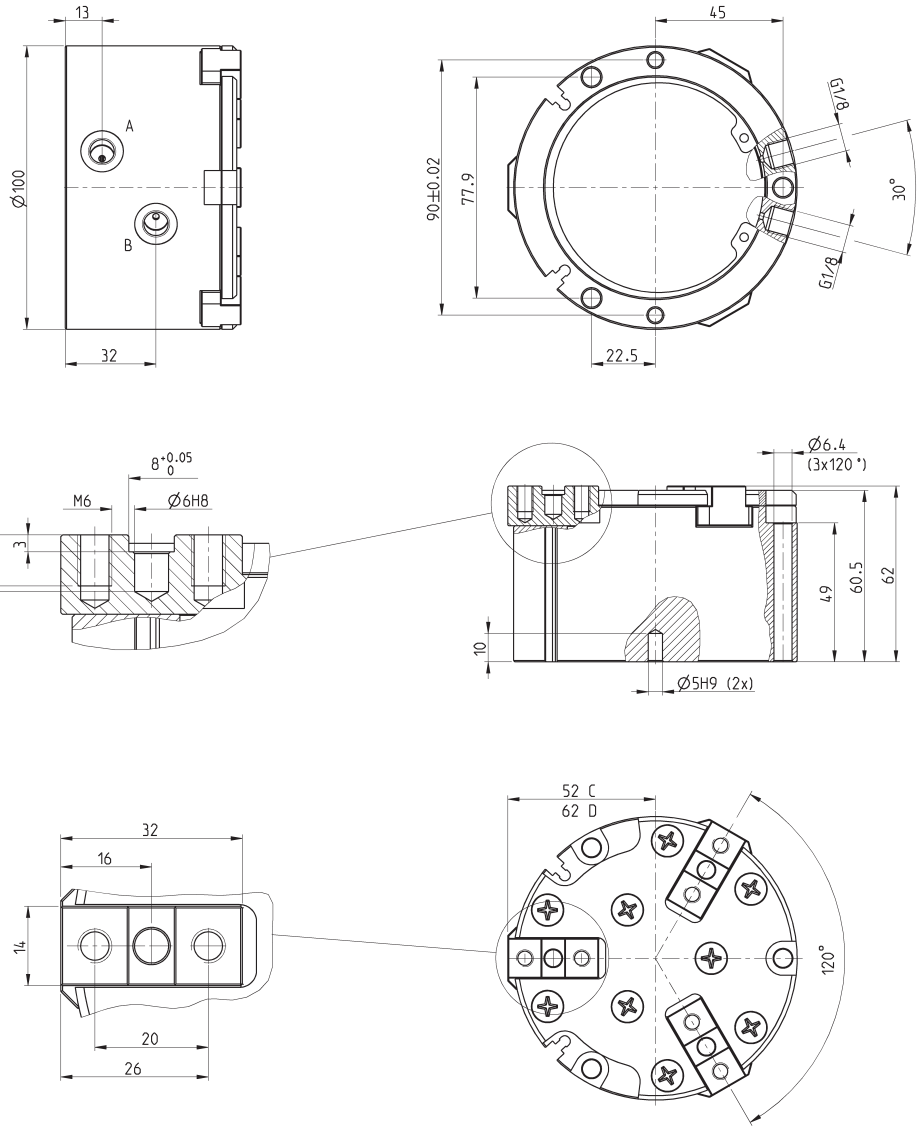


Mod.	Closing gripping force each jaw at 6 bar (N)	Total closing gripping force at 6 bar (N)	Opening gripping force each jaw at 6 bar (N)	Total opening gripping force at 6 bar (N)	Stroke per jaw (mm)	Working pressure (bar)	Working temperature (°C)	Repeatability (mm)	Opening T (ms)	Closing T (ms)	Weight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

Serie CGCN grippers, size 100mm

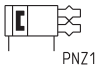


DRAWING LEGEND:
A = Opening of air connection
B = Closing of air connection
C = Closed gripper
D = Open gripper

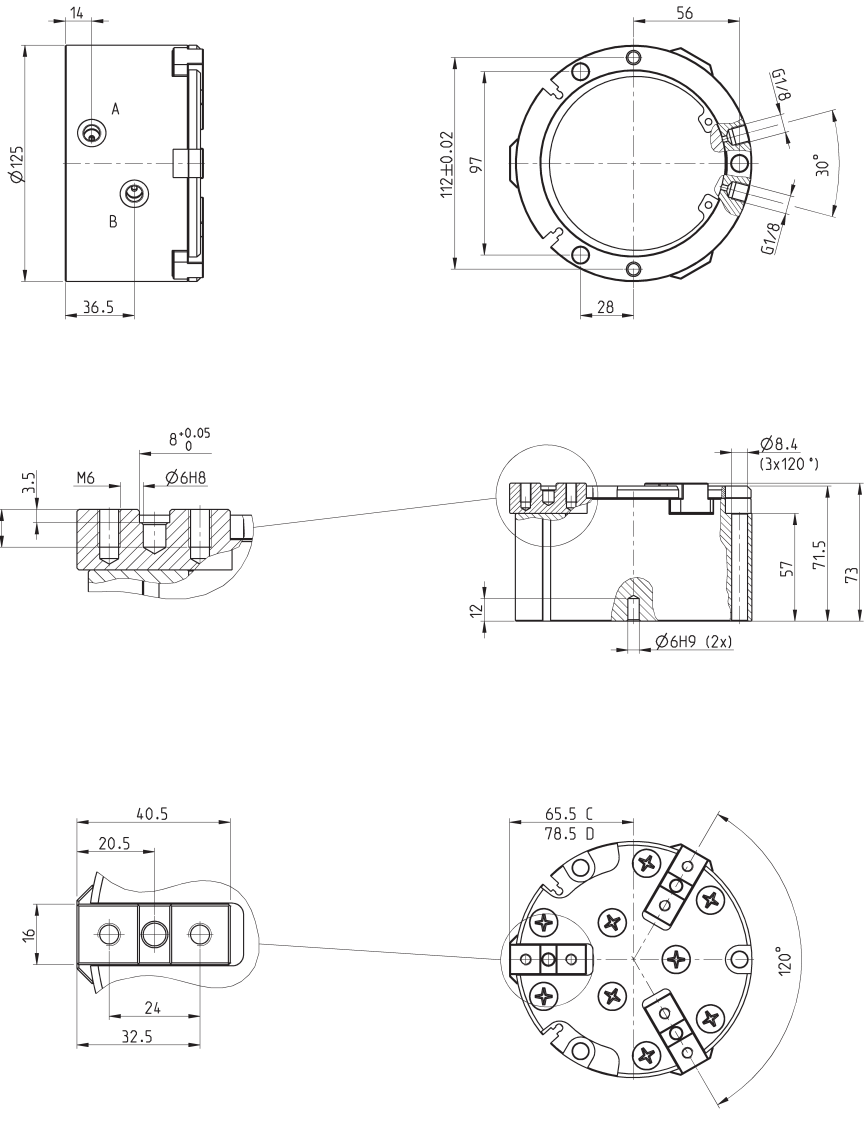


Mod.	Closing gripping force each jaw at 6 bar (N)	Total closing gripping force at 6 bar (N)	Opening gripping force each jaw at 6 bar (N)	Total opening gripping force at 6 bar (N)	Stroke per jaw (mm)	Working pressure (bar)	Working temperature (°C)	Repeatability (mm)	Opening T (ms)	Closing T (ms)	Weight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

Serie CGCN grippers, size 125mm

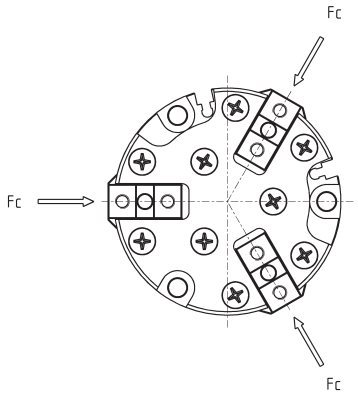


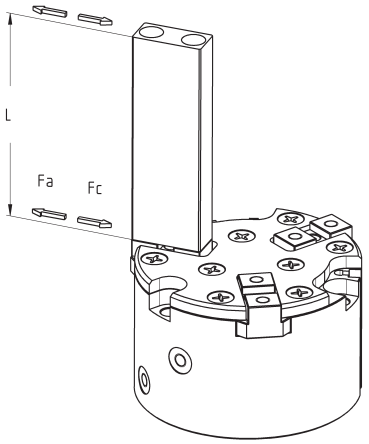
DRAWING LEGEND:
A = Opening of air connection
B = Closing of air connection
C = Closed gripper
D = Open gripper



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

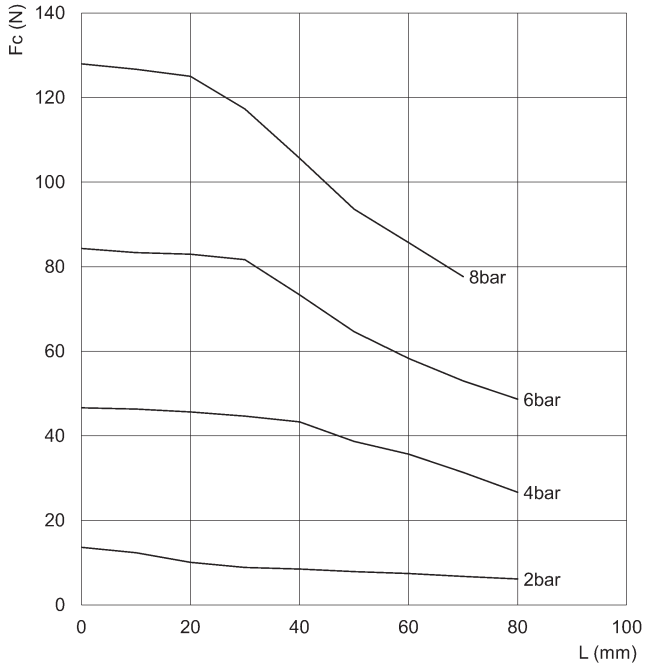
GRIPPING FORCE PER SINGLE JAW





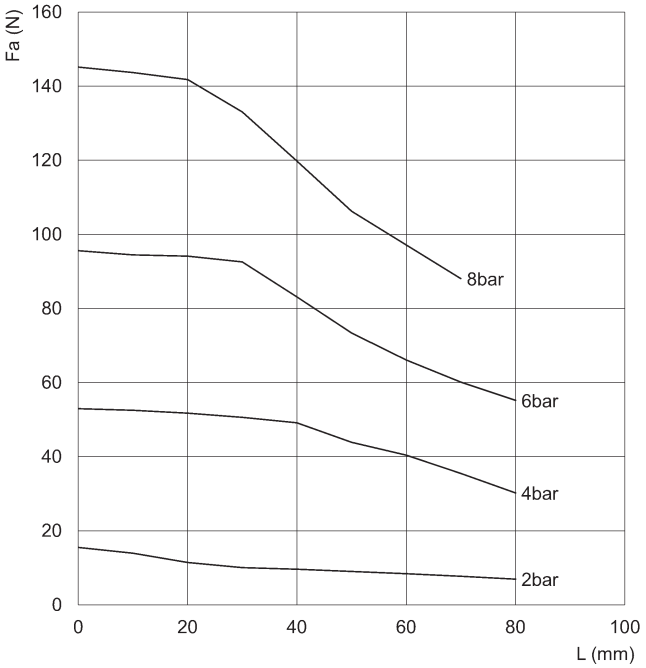
The total gripping force has to be calculated as follows:
Total Fc = Fc x 3
Total Fa = Fa x 3

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



CGCN-050

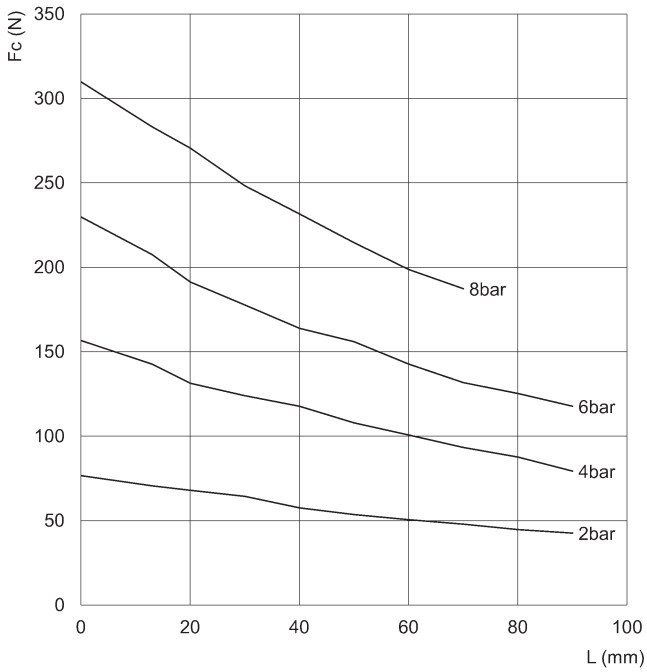
Fc = closing gripping force
L = gripping point length



CGCN-050

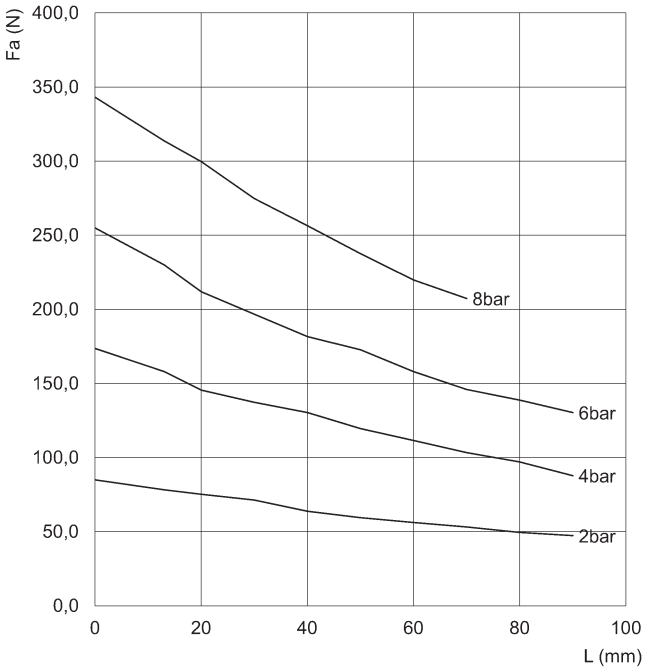
Fa = opening gripping force
L = gripping point length

GRIPPING FORCE PER SINGLE JAW



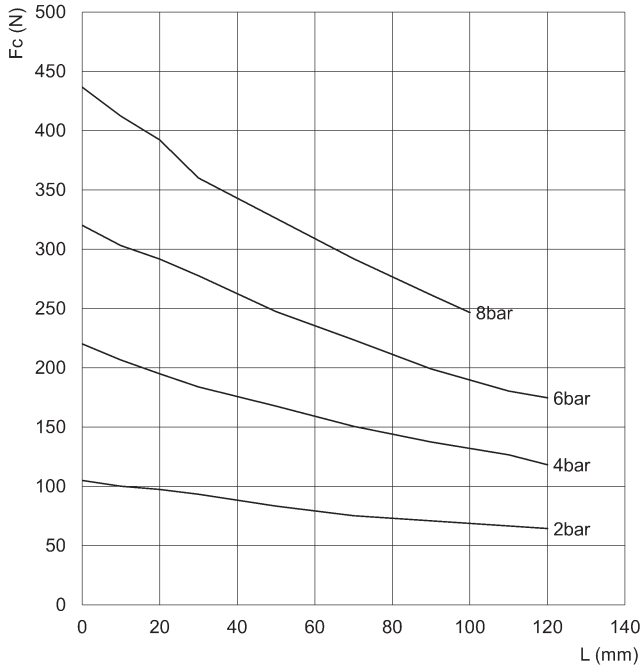
CGCN-064

Fc = closing gripping force
L = gripping point length



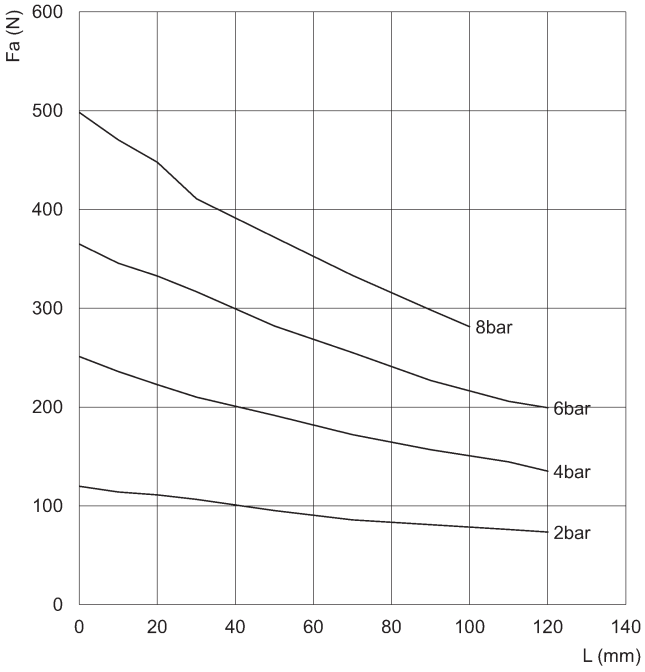
CGCN-064

Fa = opening gripping force
L = gripping point length



CGCN-080

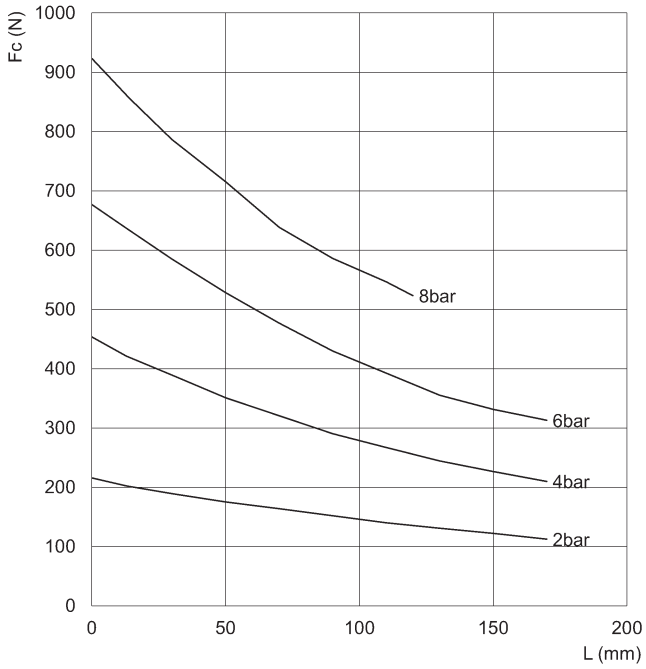
Fc = closing gripping force
L = gripping point length



CGCN-080

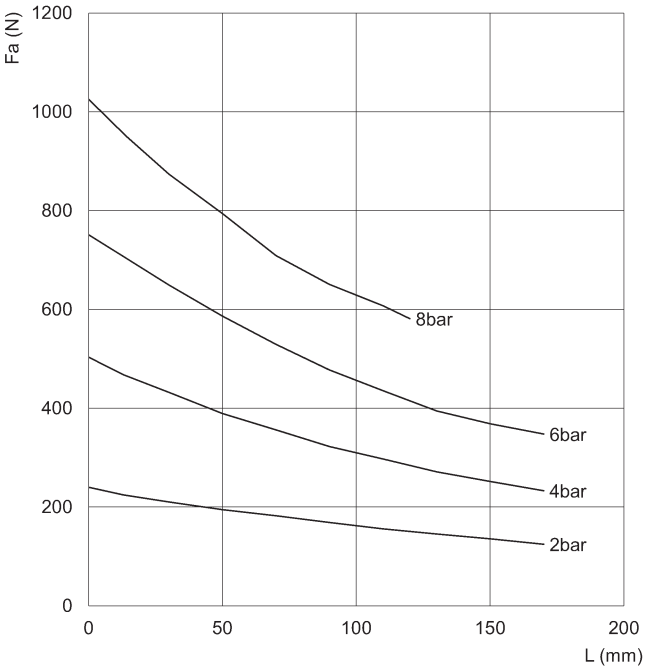
Fa = opening gripping force
L = gripping point length

GRIPPING FORCE PER SINGLE JAW



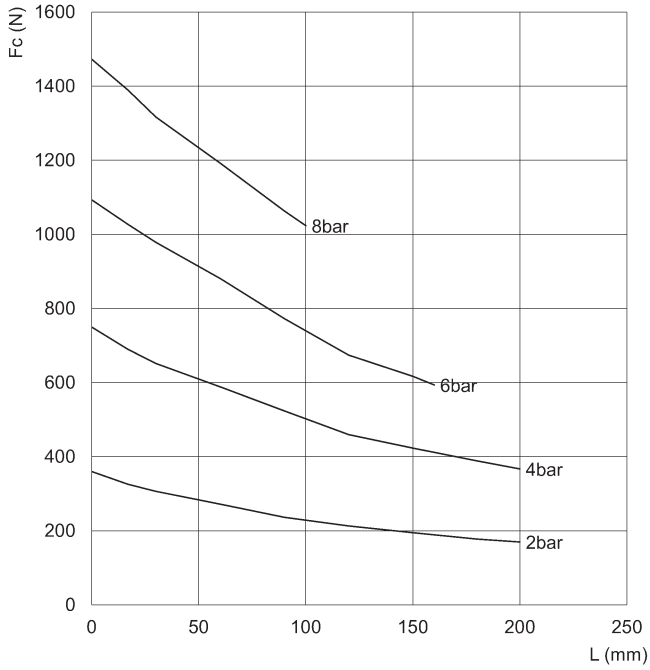
CGCN-100

Fc = closing gripping force
L = gripping point length



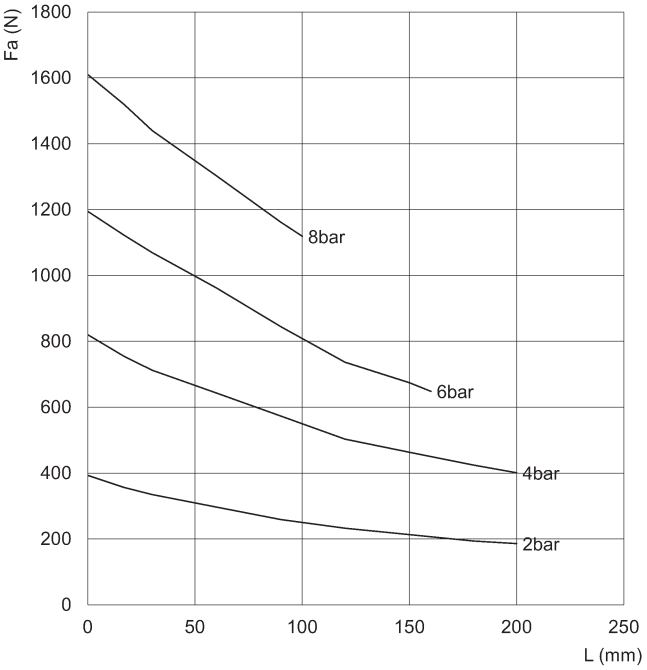
CGCN-100

Fa = opening gripping force
L = gripping point length



CGCN-125

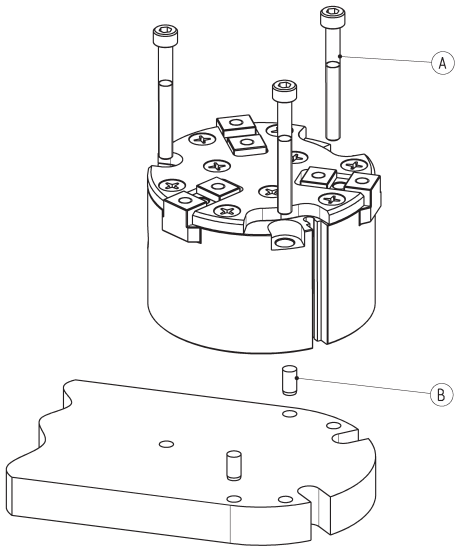
Fc = closing gripping force
L = gripping point length

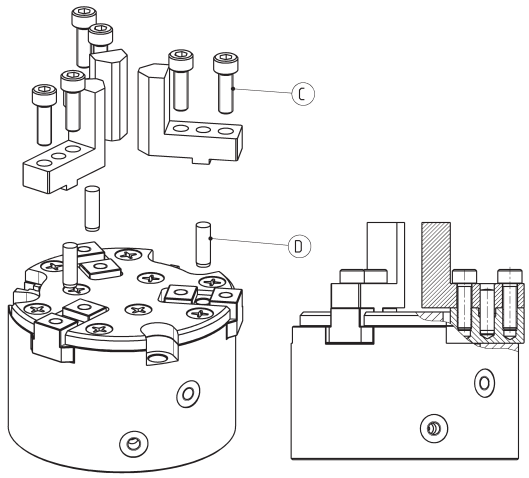


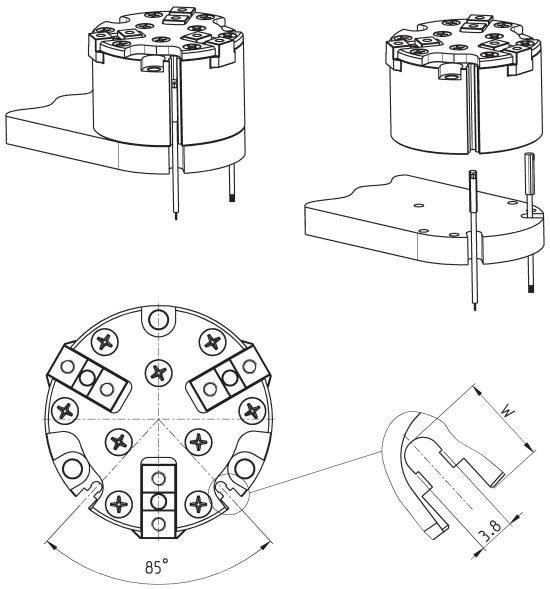
CGCN-125

Fa = opening gripping force
L = gripping point length

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