

# Series CGCN Three-jaw grippers with T-guide

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

SERIES CGCN THREE-JAW GRIPPERS WITH T-GUIDE



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

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 IICT120° 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

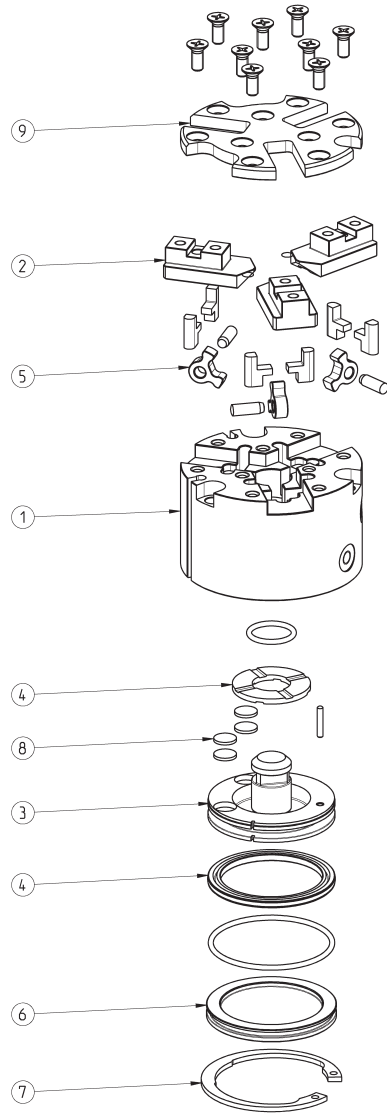
NOTE: Pressurize the pneumatic system gradually in order to avoid uncontrolled movements.

## CODING EXAMPLE

<b>CGCN</b>	-	<b>050</b>	-	<b>EX</b>
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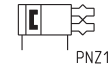
<b>CGCN</b>	SERIES		
<b>050</b>	SIZES: 050 064 080 100 125	PNEUMATIC SYMBOLS PNZ1	
<b>EX</b>	VERSIONS: = standard EX = ATEX certified		

**Series CGCN gripper construction**

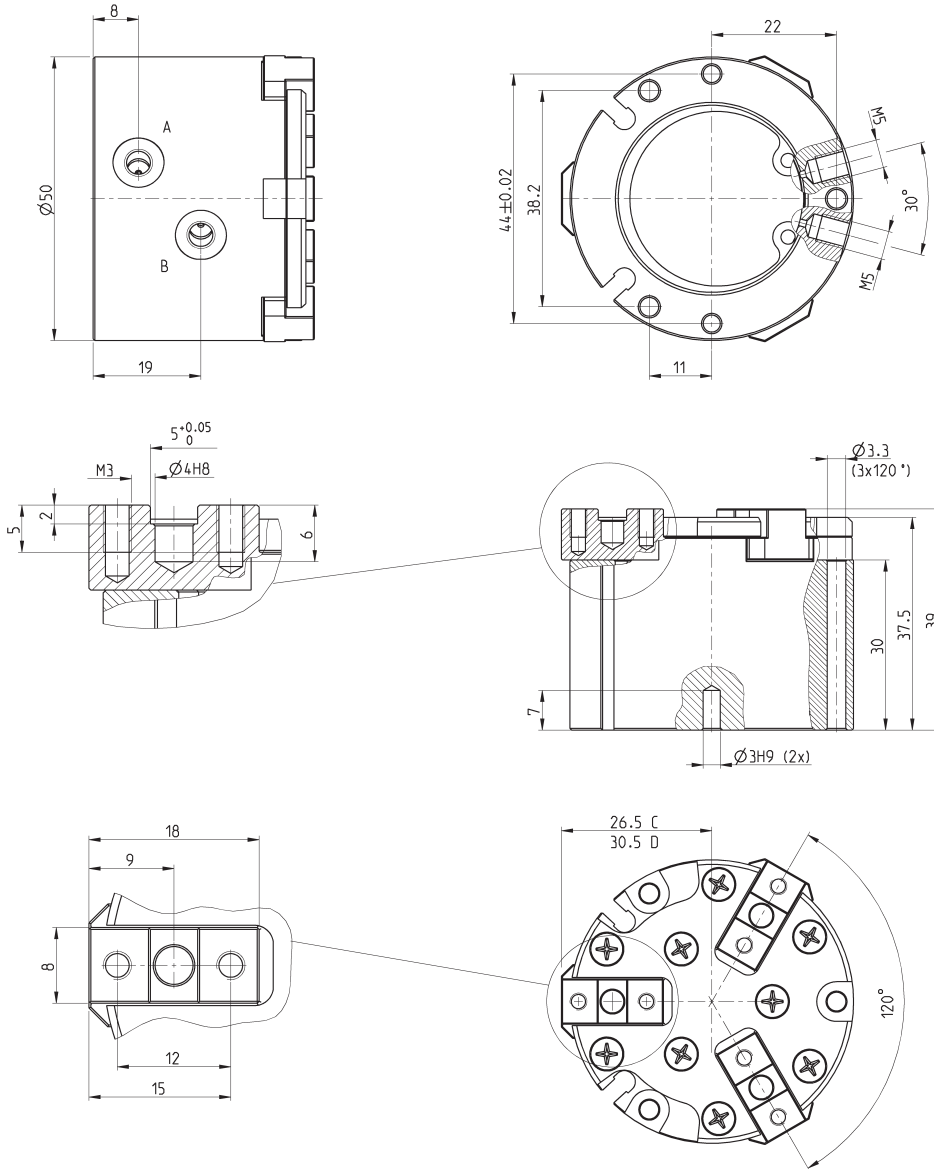


LIST OF COMPONENTS	
PARTS	MATERIALS
1 - Body	Aluminium
2 - Jaw	Stainless steel
3 - Piston	Stainless steel
4 - Seals	HNBR / NBR
5 - Levers	Steel
6 - End cover	Aluminium
7 - Seeger	Steel
8 - Magnet	Neodymium
9 - Cover	Aluminium

**Serie CGCN grippers, size 50mm**



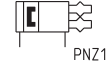
**DRAWING LEGEND:**  
 A = Opening of air connection  
 B = Closing of air connection  
 C = Closed gripper  
 D = Open gripper



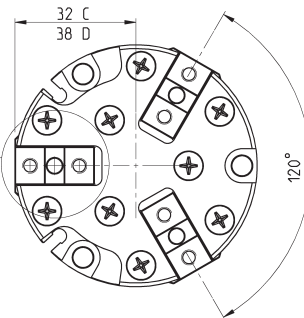
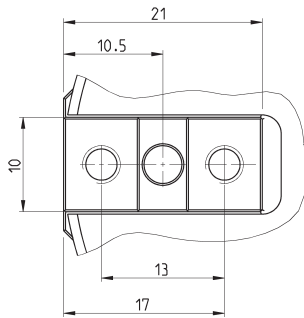
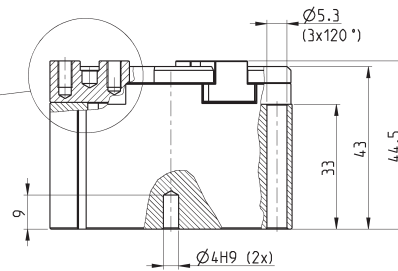
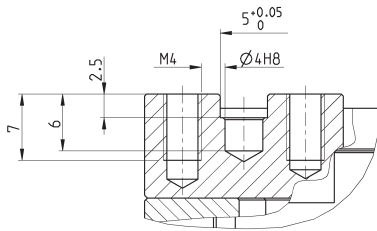
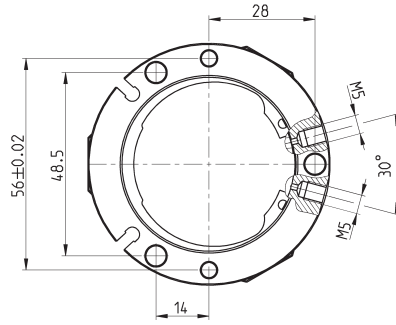
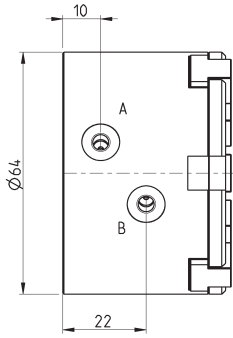
SERIES CGCN THREE-JAW GRIPPERS WITH T-GUIDE

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**

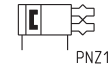


**DRAWING LEGEND:**  
A = Opening of air connection  
B = Closing of air connection  
C = Closed gripper  
D = Open gripper

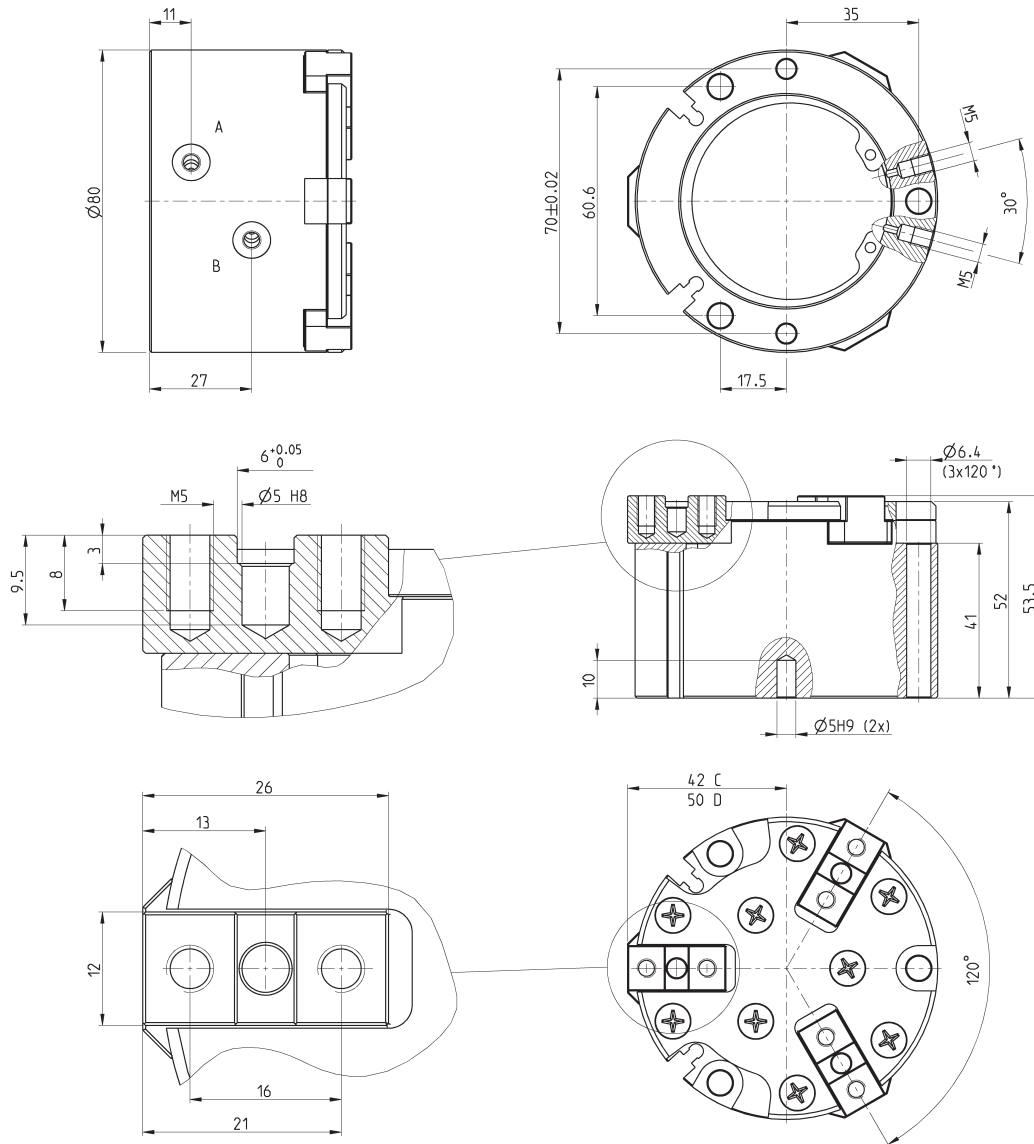


Mod.	Closing gripping force each jaw at 6 bar (N)	Total closing gripping force at 6 bar (N)	Opening gripping force each jaw at 6 bar (N)	Total opening gripping force at 6 bar (N)	Stroke per jaw (mm)	Working pressure (bar)	Working temperature (°C)	Repeatability (mm)	Opening T (ms)	Closing T (ms)	Weight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

## Serie CGCN grippers, size 80mm

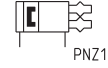


**DRAWING LEGEND:**  
 A = Opening of air connection  
 B = Closing of air connection  
 C = Closed gripper  
 D = Open gripper

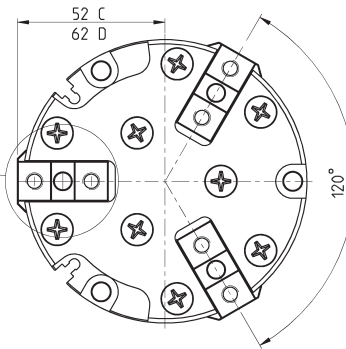
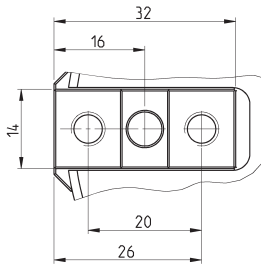
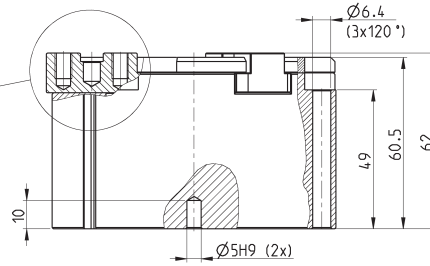
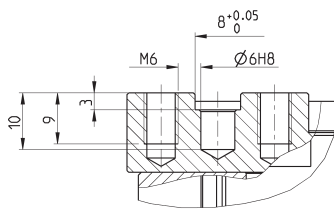
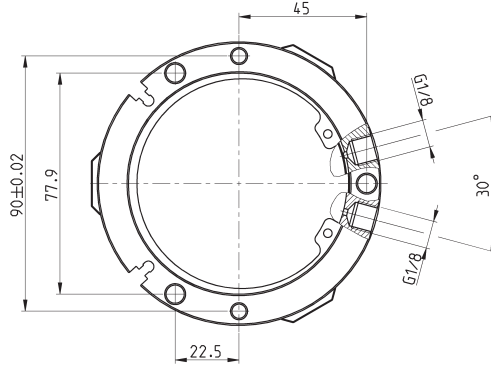
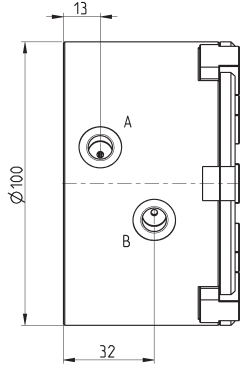


Mod.	Closing gripping force each jaw at 6 bar (N)	Total closing gripping force at 6 bar (N)	Opening gripping force each jaw at 6 bar (N)	Total opening gripping force at 6 bar (N)	Stroke per jaw (mm)	Working pressure (bar)	Working temperature (°C)	Repeatability (mm)	Opening T (ms)	Closing T (ms)	Weight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

**Serie CGCN grippers, size 100mm**

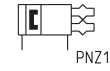


**DRAWING LEGEND:**  
A = Opening of air connection  
B = Closing of air connection  
C = Closed gripper  
D = Open gripper

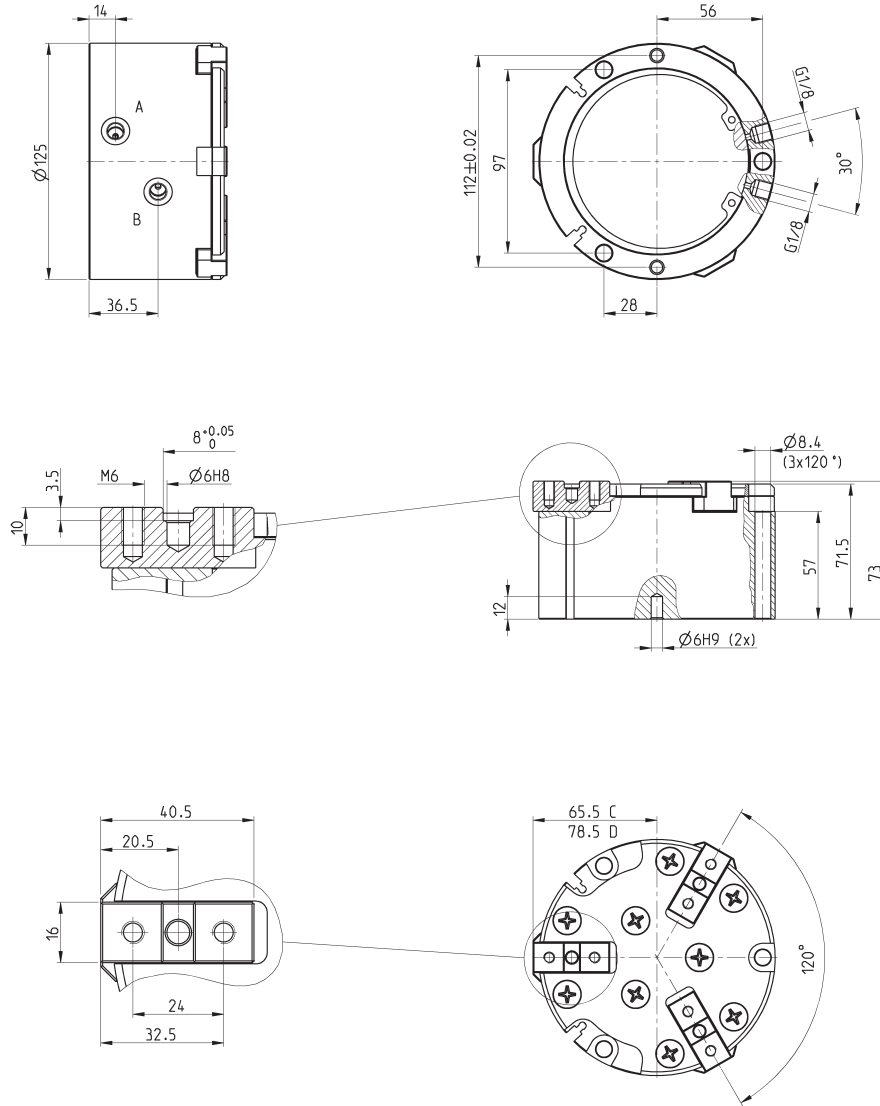


Mod.	Closing gripping force each jaw at 6 bar (N)	Total closing gripping force at 6 bar (N)	Opening gripping force each jaw at 6 bar (N)	Total opening gripping force at 6 bar (N)	Stroke per jaw (mm)	Working pressure (bar)	Working temperature (°C)	Repeatability (mm)	Opening T (ms)	Closing T (ms)	Weight (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



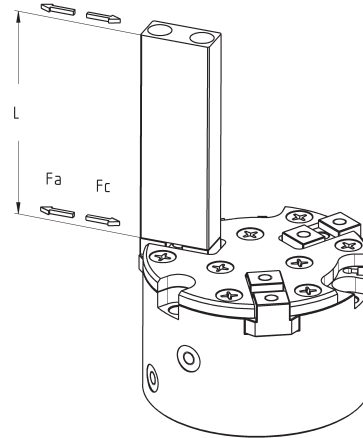
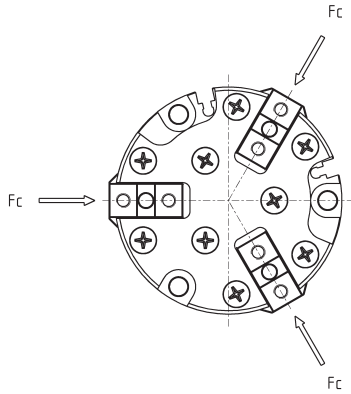
SERIES CGCN THREE-JAW GRIPPERS WITH T-GUIDE

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)
<b>CGCN-125</b>	1093	3280	1195	3584	13	2 ÷ 8	5 ÷ 60	≤ 0.05	141	161	2.44



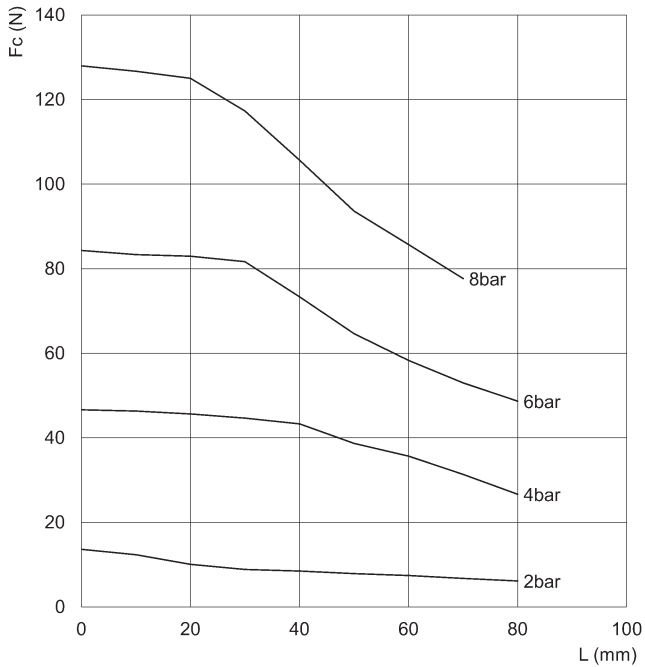
**GRIPPING FORCE PER SINGLE JAW**

SERIES CGCN THREE-JAW GRIPPERS WITH T-GUIDE



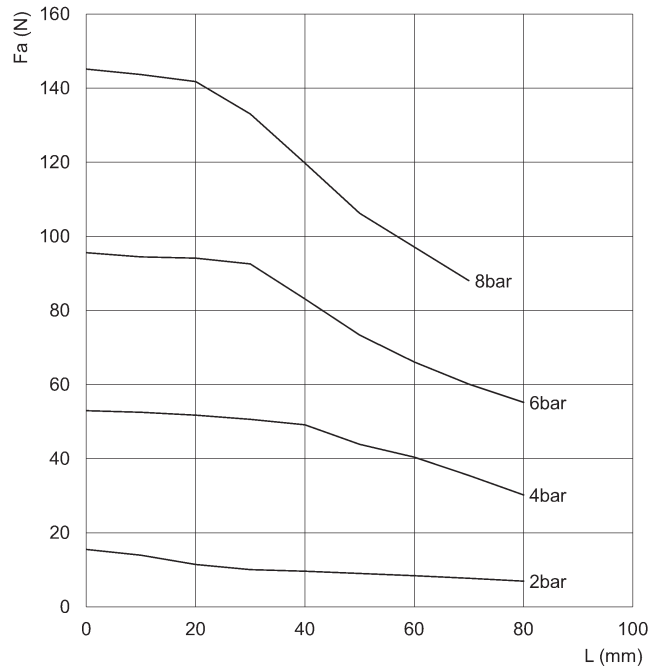
The total gripping force has to be calculated as follows:  
 Total  $F_c = F_c \times 3$   
 Total  $F_a = F_a \times 3$

$F_c$  = closing gripping force  
 $F_a$  = opening gripping force  
 $L$  = gripping point length



CGCN-050

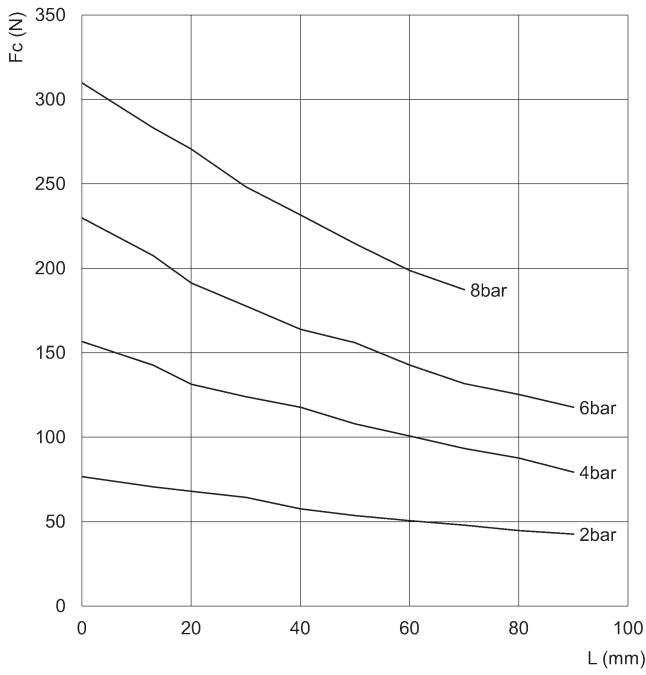
$F_c$  = closing gripping force  
 $L$  = gripping point length



CGCN-050

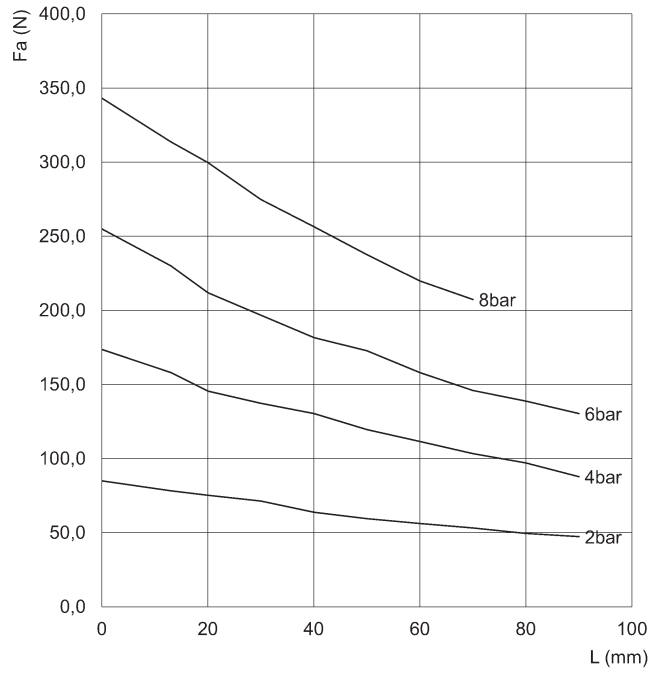
$F_a$  = opening gripping force  
 $L$  = gripping point length

**GRIPPING FORCE PER SINGLE JAW**



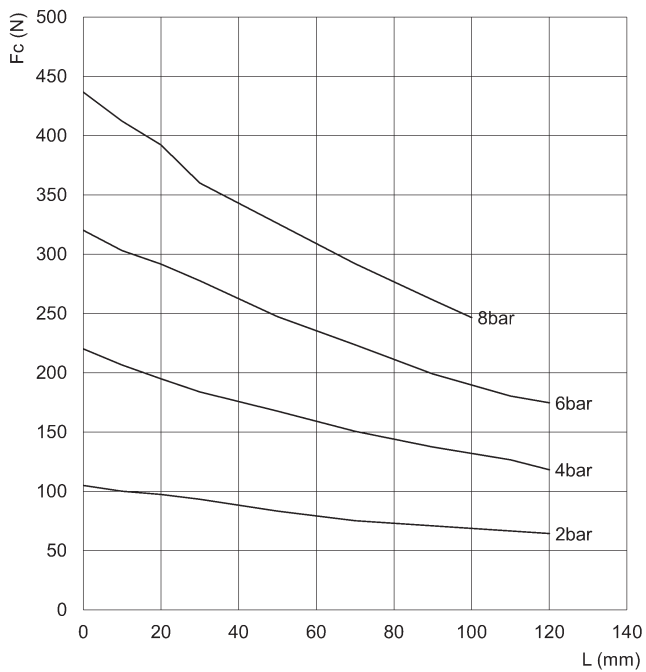
CGCN-064

Fc = closing gripping force  
L = gripping point length



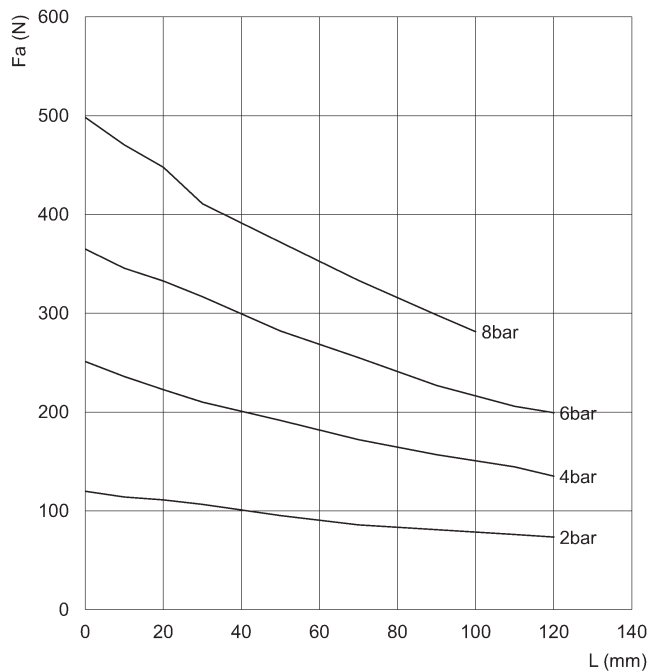
CGCN-064

Fa = opening gripping force  
L = gripping point length



CGCN-080

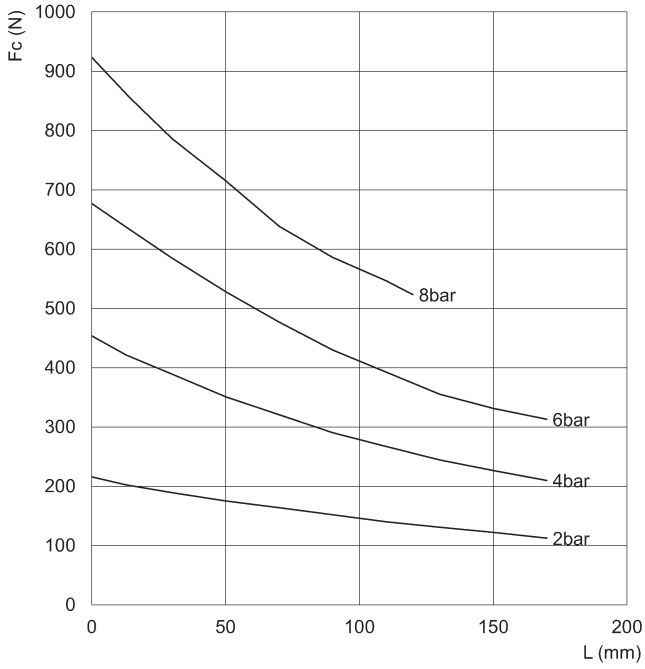
Fc = closing gripping force  
L = gripping point length



CGCN-080

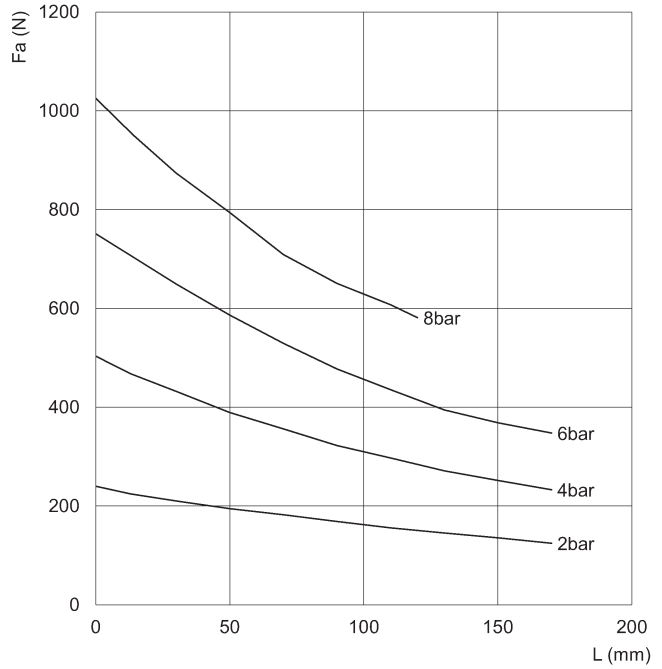
Fa = opening gripping force  
L = gripping point length

**GRIPPING FORCE PER SINGLE JAW**



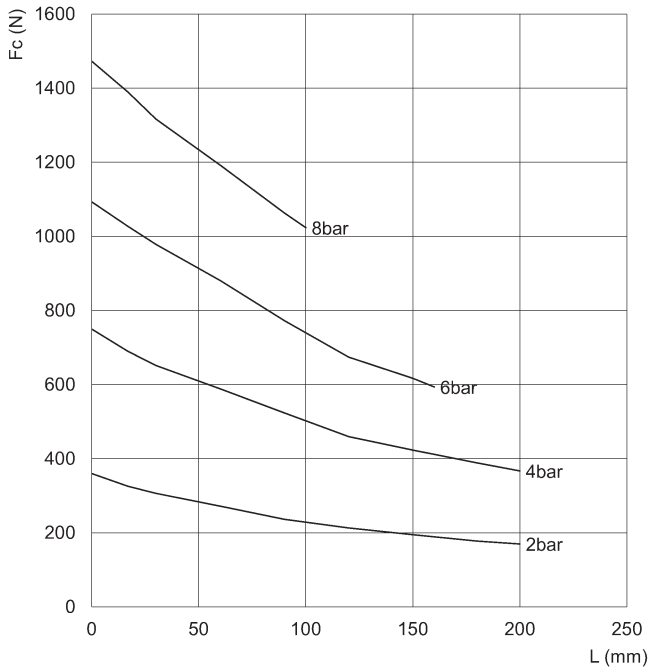
CGCN-100

Fc = closing gripping force  
L = gripping point length



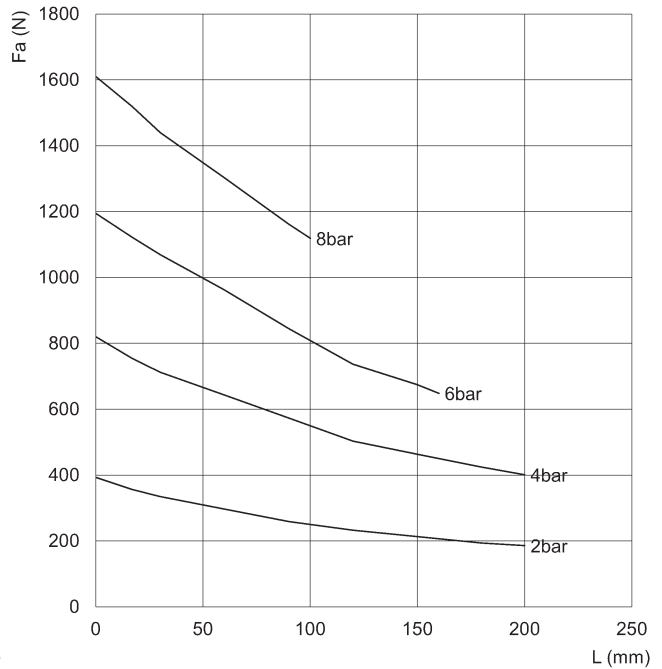
CGCN-100

Fa = opening gripping force  
L = gripping point length



CGCN-125

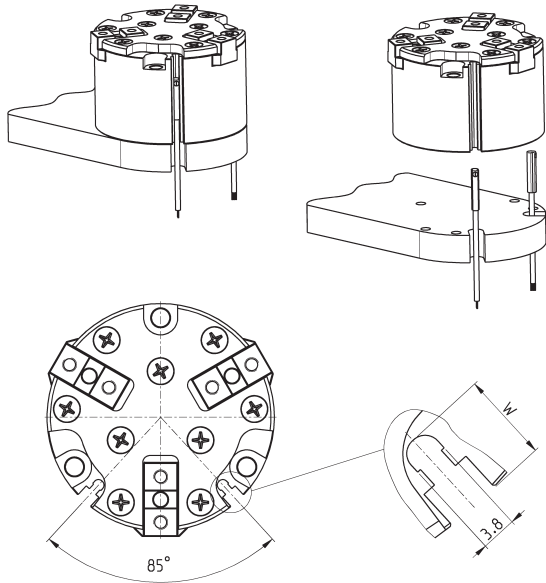
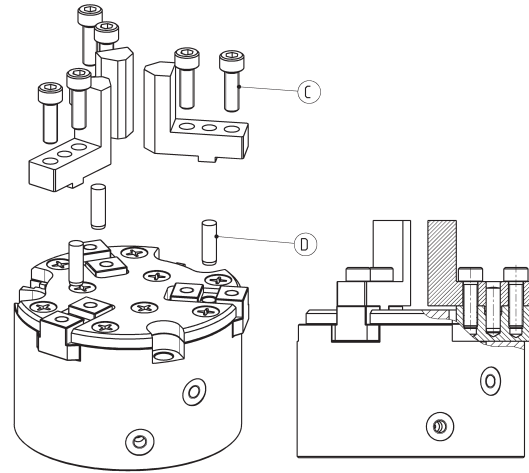
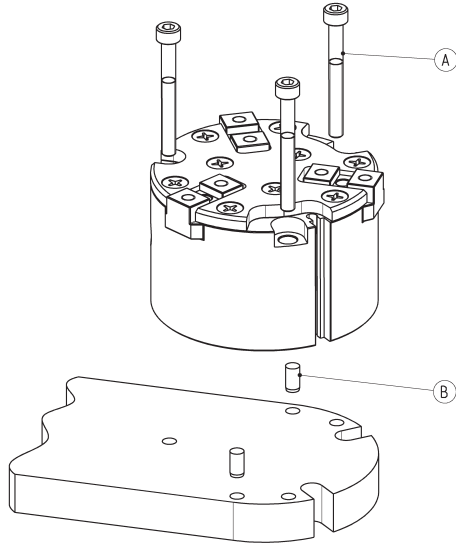
Fc = closing gripping force  
L = gripping point length



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