

**Pinza pneumatica radiale autocentrante a 2 griffe
(serie GX-S)**

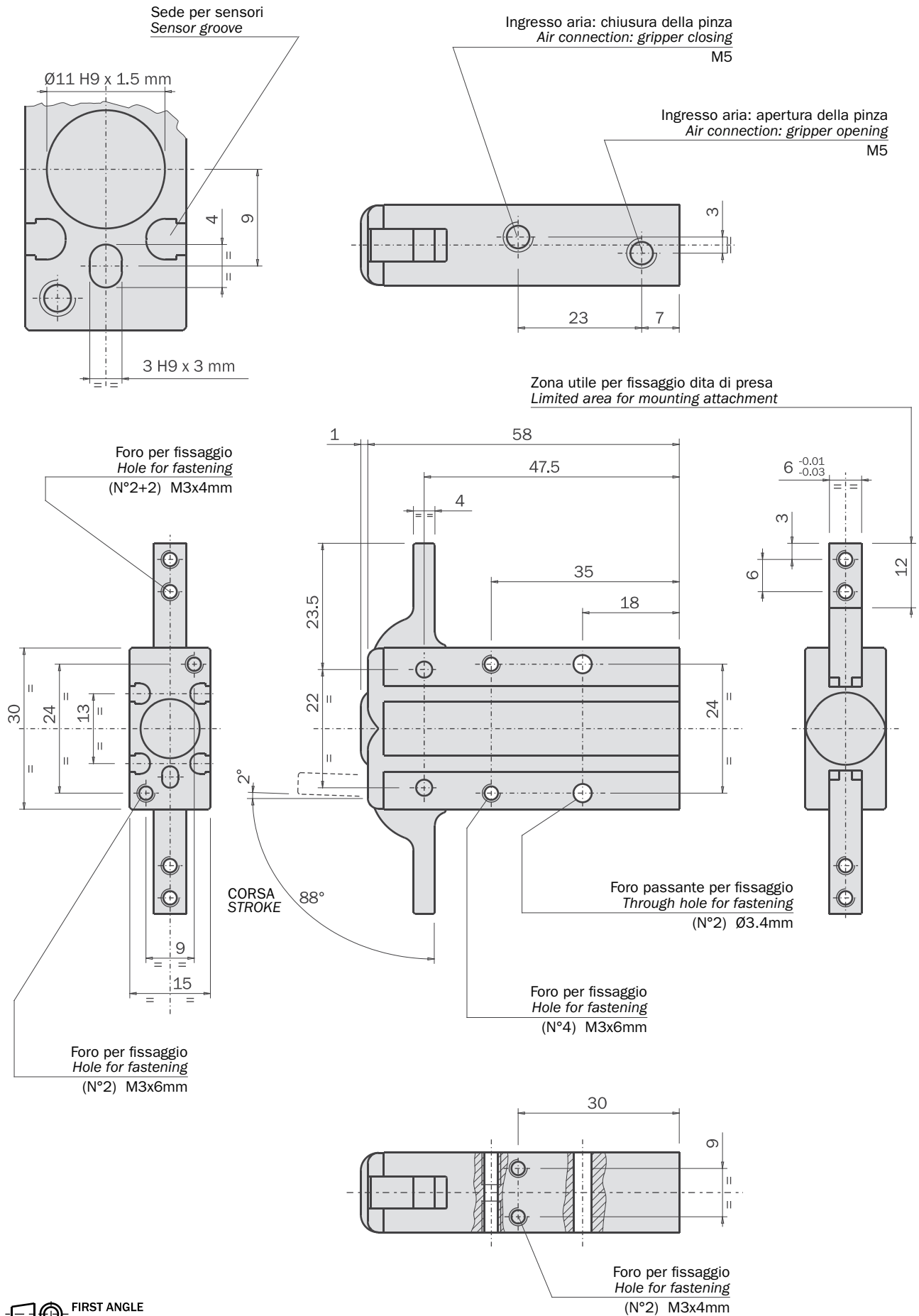
- Azionamento a doppio effetto.
- Elevata forza di serraggio alla fine della corsa di chiusura.
- Grande durata e affidabilità senza manutenzione.
- Diverse possibilità di fissaggio.
- Sensori magnetici opzionali.

**2-jaw self centering radial pneumatic gripper
(series GX-S)**

- Double acting.
- Very high gripping force at the end of the closing stroke.
- Long life and reliability, maintenance free.
- Various options for fastening.
- Optional proximity magnetic sensors.

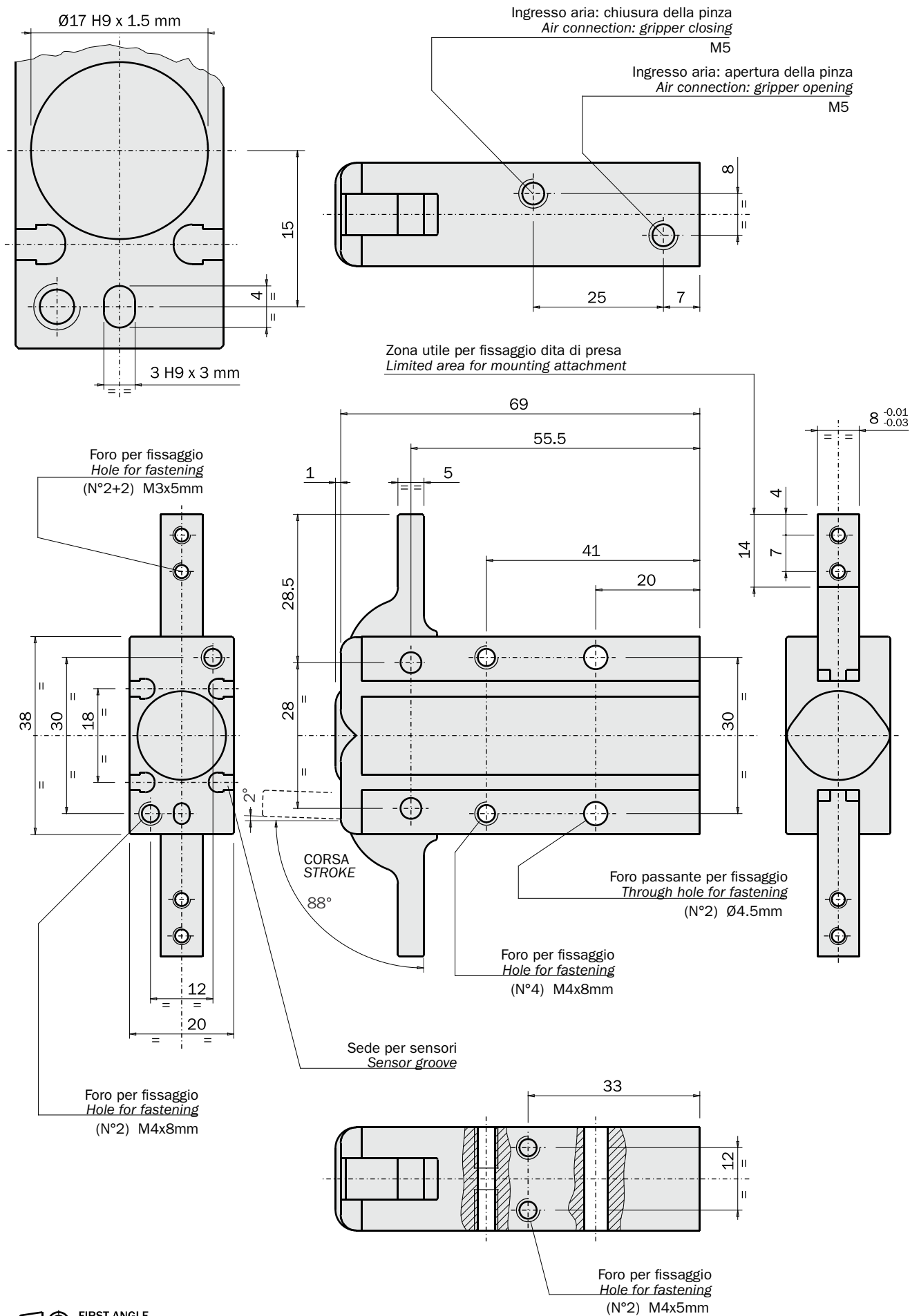


	GX-10S	GX-16S	GX-20S	GX-25S
Fluido Medium	Aria compressa filtrata, lubrificata / non lubrificata Filtered, lubricated / non lubricated compressed air			
Pressione di esercizio Operating pressure range	2 ÷ 8 bar			
Temperatura di esercizio Operating temperature range	5° ÷ 60°C.			
Coppia massima per griffa in apertura a 6 bar Opening maximum torque at 6 bar on each jaw	35 Ncm	120 Ncm	230 Ncm	430 Ncm
Coppia massima totale in apertura a 6 bar Opening maximum total torque at 6 bar	70 Ncm	240 Ncm	460 Ncm	860 Ncm
Coppia massima per griffa in chiusura a 6 bar Closing maximum torque at 6 bar on each jaw	26 Ncm	105 Ncm	210 Ncm	400 Ncm
Coppia massima totale in chiusura a 6 bar Closing maximum total torque at 6 bar	52 Ncm	210 Ncm	420 Ncm	800 Ncm
Corsa Stroke (±4°)	2x90°	2x90°	2x90°	2x90°
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	2 cm ³	6 cm ³	11 cm ³	22 cm ³
Tempo di chiusura senza carico Closing time without load	0.04 s	0.08 s	0.10 s	0.08 s
Ripetibilità Repetition accuracy	0.05°	0.05°	0.05°	0.05°
Peso Weight	70 g	140 g	290 g	510 g



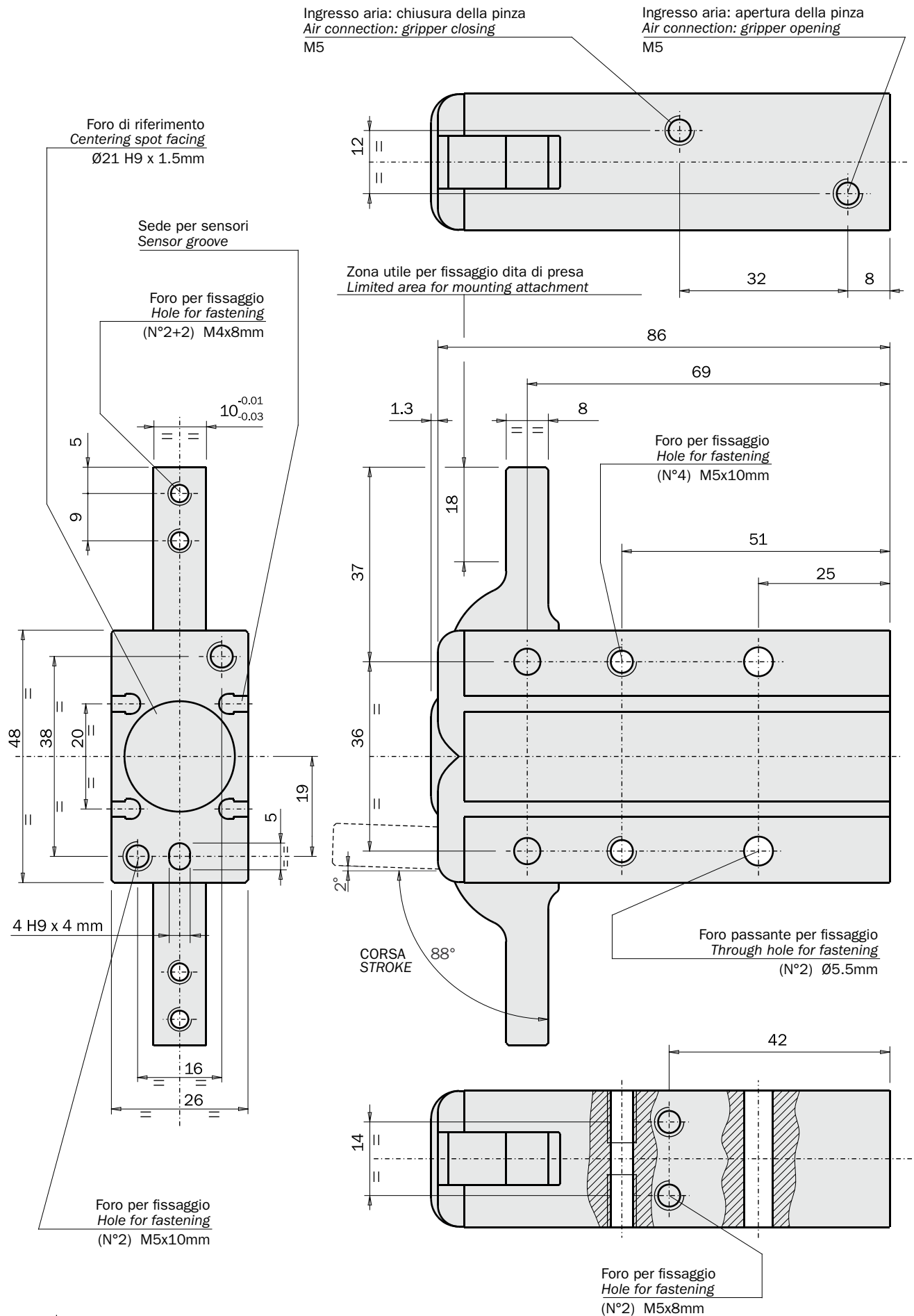
Dimensioni (mm) / Dimensions (mm)

GX-16S



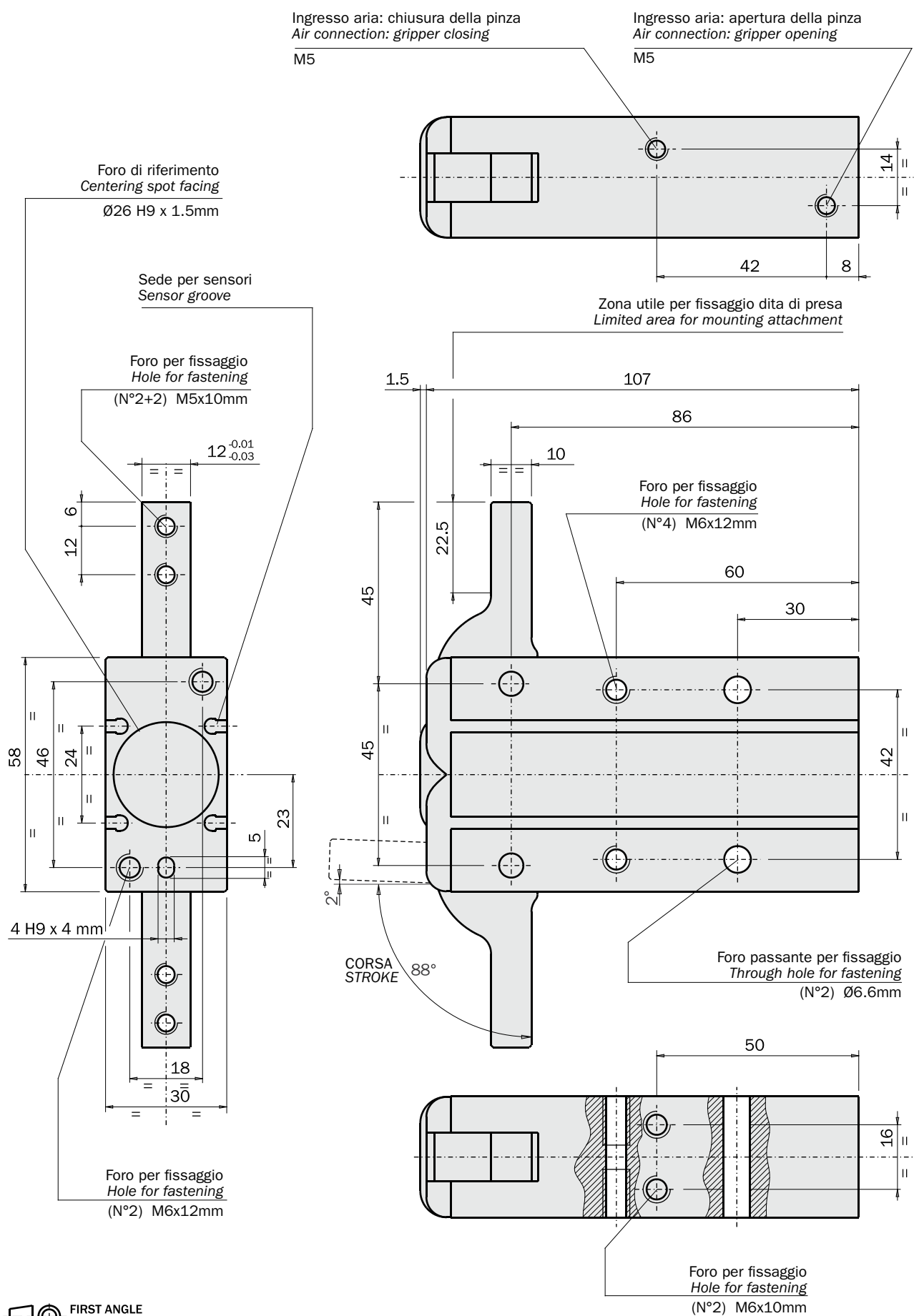
Dimensioni (mm) / Dimensions (mm)

GX-20S



Dimensioni (mm) / Dimensions (mm)

GX-25S

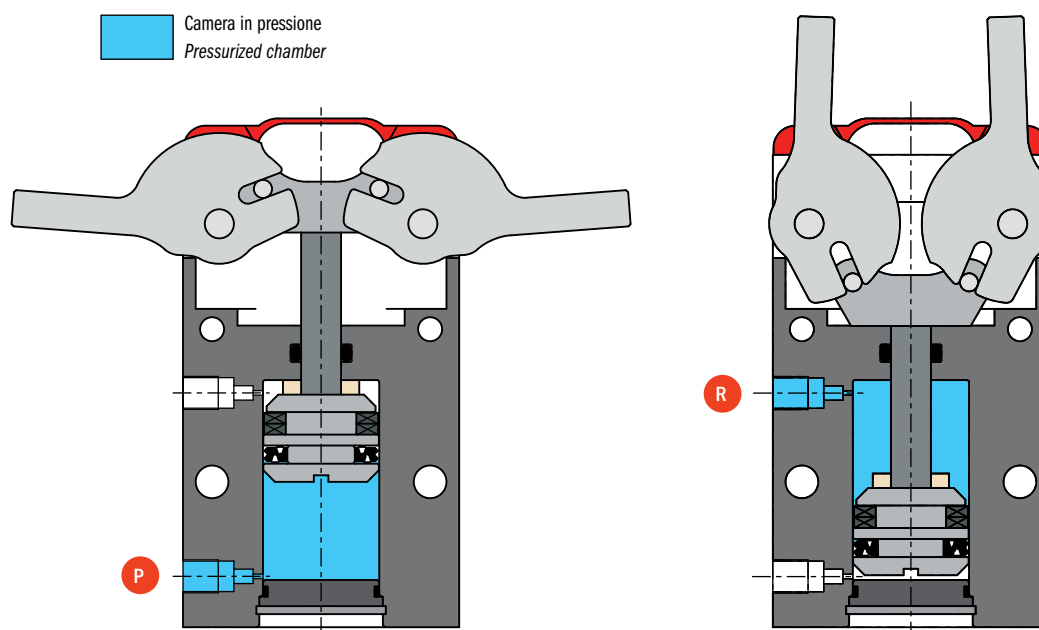
FIRST ANGLE
PROJECTION

Serraggio

La pinza è a doppio effetto e quindi può essere usata per la presa di un pezzo indifferentemente sia in chiusura che in apertura delle griffe.

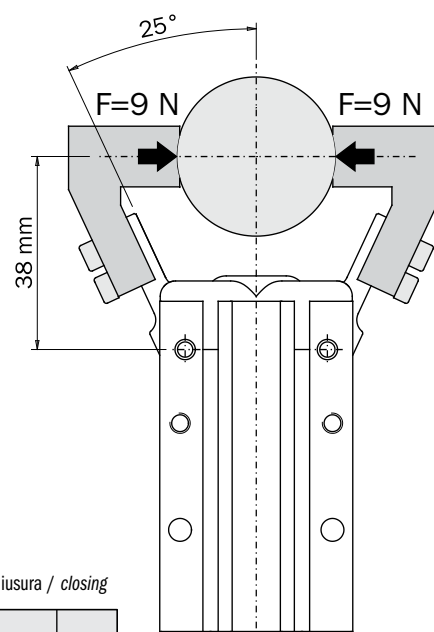
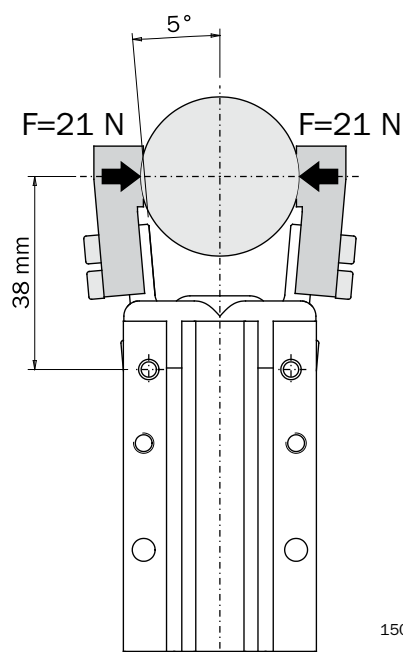
Gripping

As the gripper has a double acting motion, it can be used like internal or external gripping.

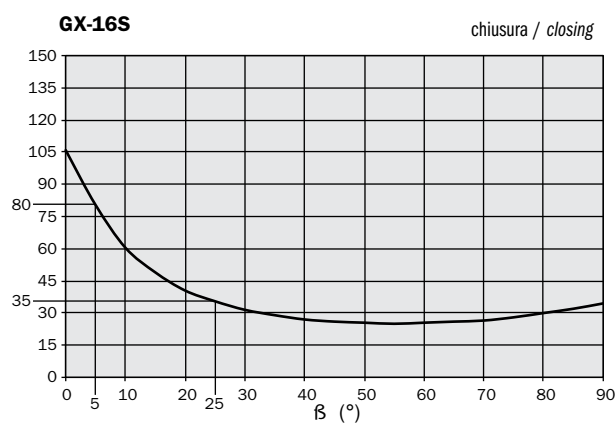


La forza di serraggio dipende dalla forma delle dita.

The gripping force depends on the shape of the gripping tools.



Coppia / Torque (Ncm)



Fissaggio

La pinza può essere montata in posizione fissa oppure su parti in movimento: in questo caso va considerata la forza d'inerzia cui la pinza ed il suo carico sono sottoposti.

- 1- Per fissare la pinza sul lato più largo utilizzare due viti passanti nella piastra ed avvitare nel foro filettato (A) della pinza.
- 2- Il fissaggio sul lato largo è possibile anche utilizzando due viti (B) passanti attraverso i fori (C).
- 3- Per fissare la pinza sul lato più stretto utilizzare due viti passanti nella piastra ed avvitare nel foro filettato (D) della pinza.
- 4- Per fissare la pinza sul fondo utilizzare due viti passanti nella piastra ed avvitare nel foro filettato (F), una pastiglia di centraggio nella lamatura centrale (G) ed una spina nell'asola (E).

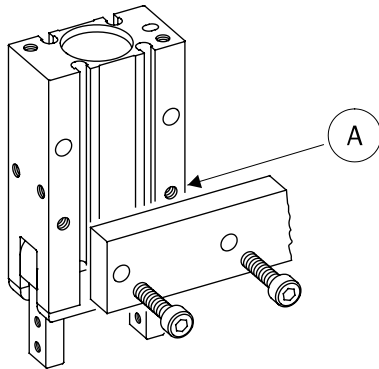
In questo caso si deve prevedere lo spazio per i sensori (Y).

Fastening

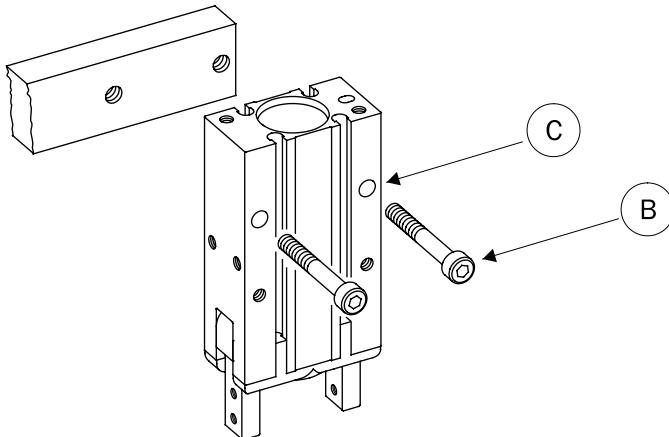
The gripper can be fastened to a static or moving part. When on a moving part, you must pay attention to the inertial force to which the gripper and its load are subjected.

- 1- To fasten the gripper on the wider side, use a plate with two through holes and two screws to be screwed on the threaded holes (A) on the gripper housing.
- 2- It is possible to fasten the gripper on the wider side also with two screws (B) passing through the threaded holes (C) on the gripper housing and screwed on threaded holes on the plate.
- 3- To fasten the gripper on the narrow side, two screws passing through the holes on the plate, must be screwed on the threaded holes (D) on the gripper housing.
- 4- The gripper can be fastened on the bottom as well, using two screws passing through the holes on the plate and screwed on the threaded holes (F) on the gripper housing. For the reference use a centering disc in the spot face (G) and a dowel pin in the slot (E). In this case the necessary room for sensor must be provided (Y).

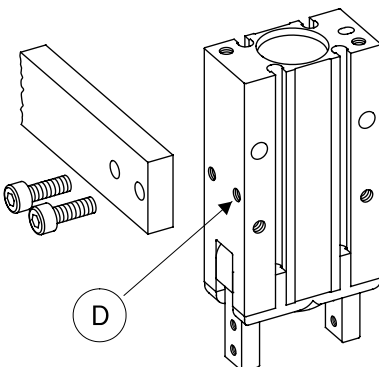
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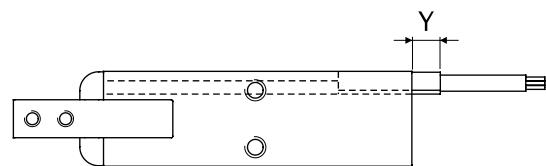
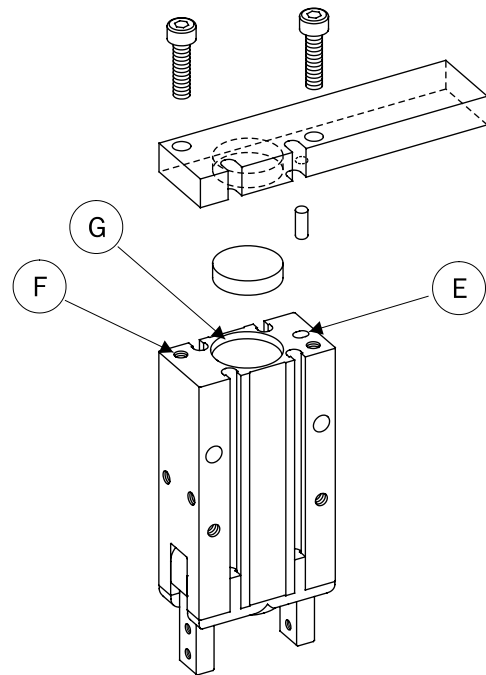
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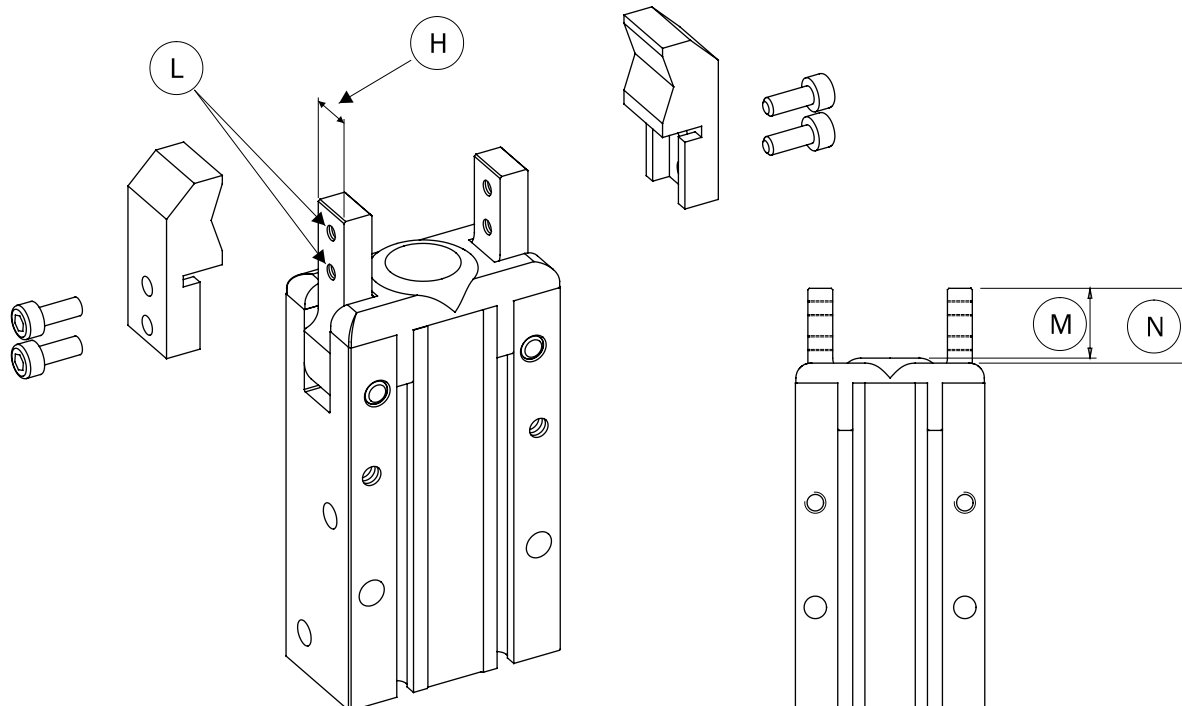


4



Costruire le dita di presa il più possibile corte e leggere.
Fissarle con due viti nei fori filettati (L).
Per il centraggio sulle griffe si può fare riferimento alla quota calibrata (H). Fare attenzione alle quote (M) ed (N).

The gripping tools must be as short and light as possible.
They must be fastened by two screws (L).
For a precise positioning on the jaw use the calibrated dimension (H). Be careful to dimensions (M) and (N).



	GX-10S	GX-16S	GX-20S	GX-25S
A	M3x6 mm	M4x8 mm	M5x10 mm	M6x12 mm
B	M3x22 mm	M4x30 mm	M5x35 mm	M6x40 mm
C	Ø3.4 mm	Ø4.5 mm	Ø5.5 mm	Ø6.6 mm
D	M3x4 mm	M4x5 mm	M5x8 mm	M6x10 mm
E	3H9 x 3 mm	3H9 x 3 mm	4H9 x 4 mm	4H9 x 4 mm
F	M3x6 mm	M4x8 mm	M5x10 mm	M6x12 mm
G	Ø11H9 x 1.5 mm	Ø17H9 x 1.5 mm	Ø21H9 x 1.5 mm	Ø26H9 x 1.5 mm
H	6 ^{-0.01} mm	8 ^{-0.01} mm	10 ^{-0.01} mm	12 ^{-0.01} mm
L	M3x4 mm	M3x5 mm	M4x8 mm	M5x10 mm
M	11.7 mm	14 mm	18.7 mm	22.5 mm
N	13 mm	15 mm	20 mm	24 mm

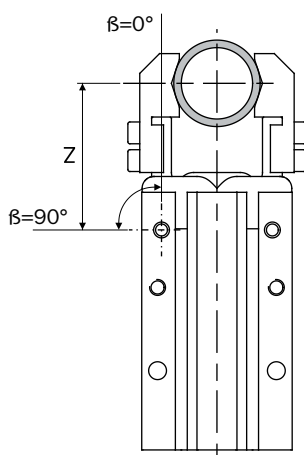
	GX-10S	GX-16S	GX-20S	GX-25S
SN	Y=4 mm	Y=2 mm	Y=1 mm	Y=0 mm
SS	Y=4 mm + cable	Y=2 mm + cable	Y=1 mm + cable	Y=0 mm + cable

Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione, del braccio di leva Z e della posizione angolare β della griffa.

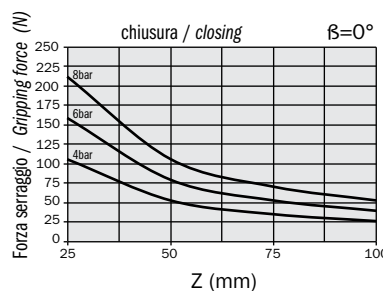
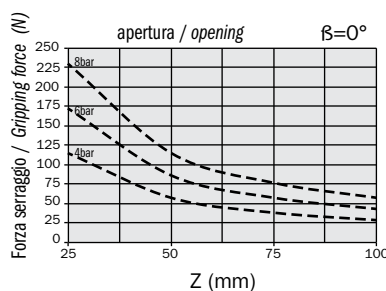
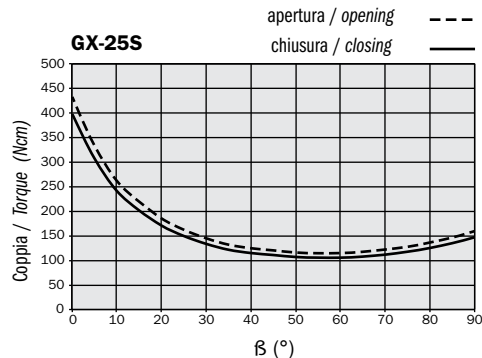
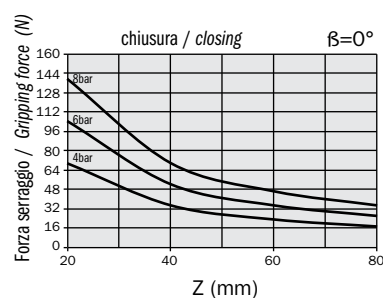
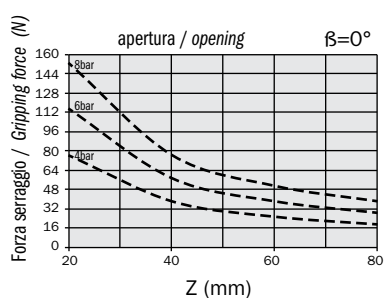
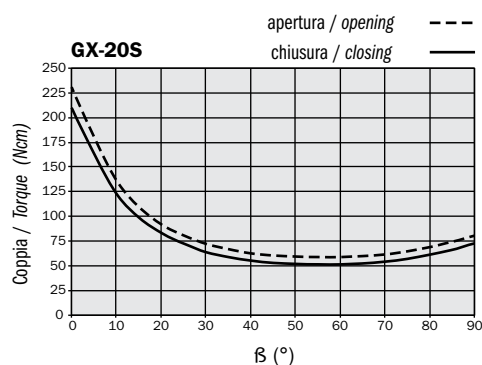
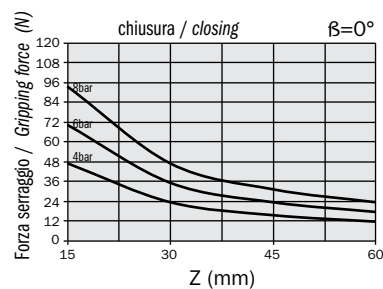
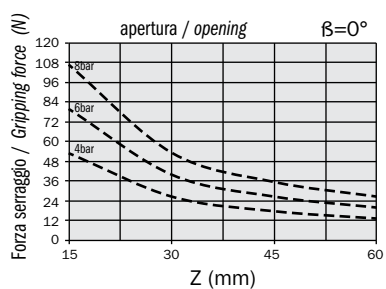
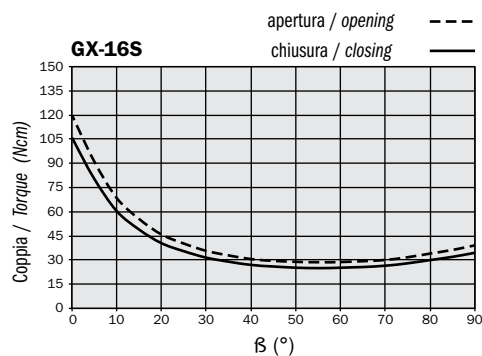
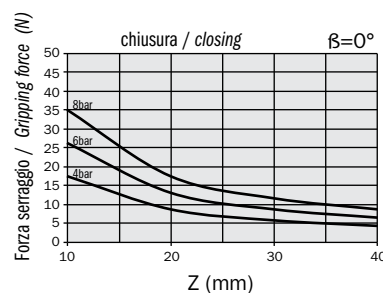
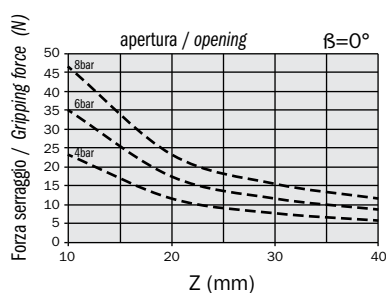
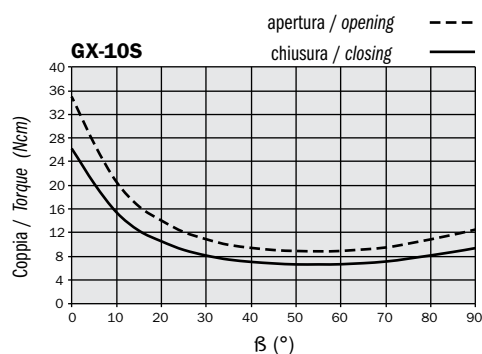
Gripping force

The graphs show the gripping force on each jaw, as a function of the operating pressure, the gripping tool length Z and the angular position β of the jaw.



La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il doppio.

The force shown in these graphs refers to one jaw. The total force is double.



Carichi di sicurezza

Consultare la tabella per i carichi massimi ammissibili. Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.

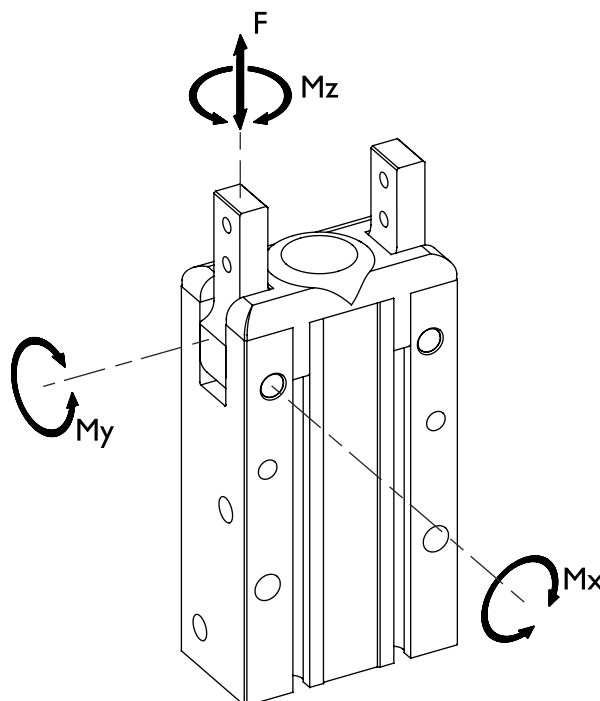
F, Mx, My, Mz, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme.

Safety loads

Check the table for maximum permitted loads.

Excessive forces or torques can damage the gripper, cause functioning troubles and endanger the safety of the operator. F, Mx, My, Mz, are maximum permitted static loads. Static means with motionless jaws.

	GX-10S	GX-16S	GX-20S	GX-25S
F	35 N	60 N	100 N	140 N
Mx	0.5 Nm	2 Nm	4 Nm	7 Nm
My	0.5 Nm	1 Nm	2 Nm	4 Nm
Mz	0.5 Nm	2 Nm	4 Nm	7 Nm



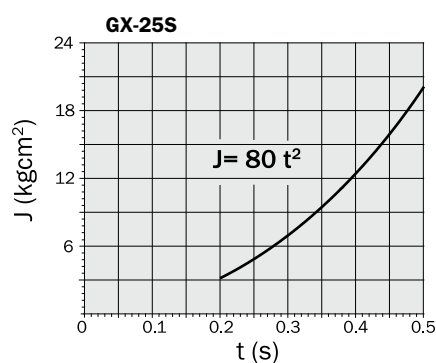
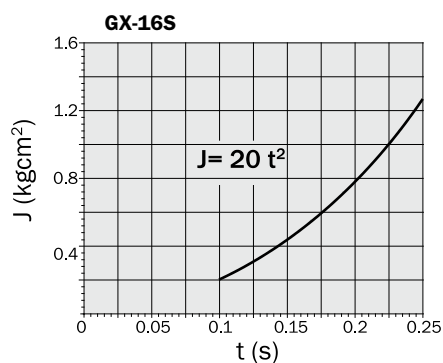
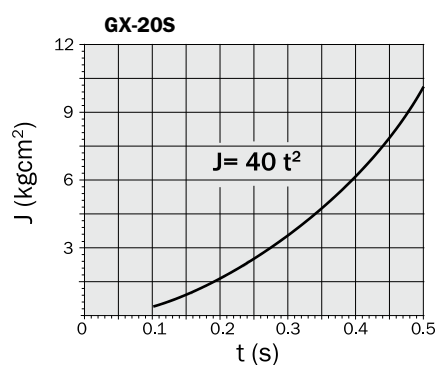
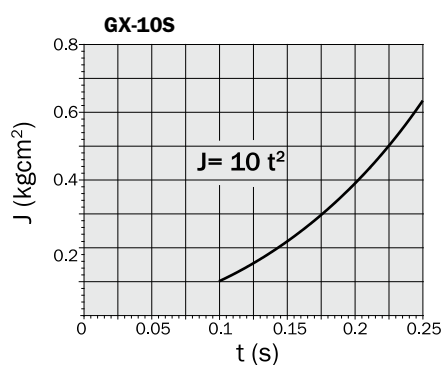
Regolazione della velocità

I grafici indicano il momento di inerzia massimo ammissibile per ogni dito di presa (J), in funzione del tempo di apertura o chiusura delle griffe (t).

Usare i regolatori di flusso (non forniti) per ottenere la velocità desiderata.

Speed adjustment

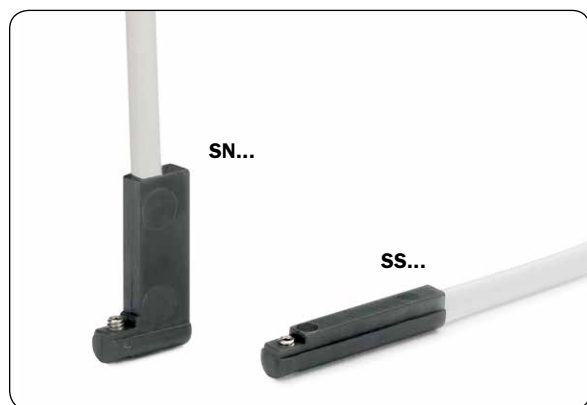
The graphs show the maximum permitted moment of inertia on each gripping tool (J), as a factor of the opening or closing time (t). Use flow controllers (not supplied) to get the proper speed.



Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso il magnete sul pistone. Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

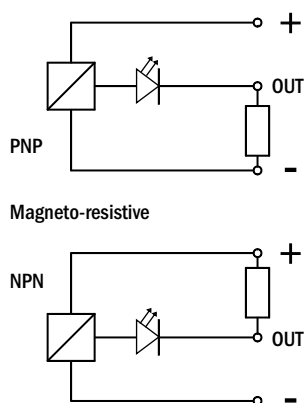
I sensori utilizzabili sono:



Sensors

The operating position is detected by magnetic proximity sensors (optional) through a magnet placed on the piston. Due to the presence of magnetic proximity sensors, the unit should not be used in the vicinity of large masses of ferromagnetic material or intense magnetic fields as this may cause detection problems.

The sensors that can be used are:



			GX-S
SN4N225-G	PNP	Cavo 2.5m / 2.5m cable	✓
SN4M225-G	NPN	Cavo 2.5m / 2.5m cable	✓
SN3N203-G	PNP	Connettore M8 / M8 snap plug connector	✓
SN3M203-G	NPN	Connettore M8 / M8 snap plug connector	✓
SS4N225-G	PNP	Cavo 2.5m / 2.5m cable	✓
SS4M225-G	NPN	Cavo 2.5m / 2.5m cable	✓
SS3N203-G	PNP	Connettore M8 / M8 snap plug connector	✓
SS3M203-G	NPN	Connettore M8 / M8 snap plug connector	✓

Sono tutti dotati di un cavo piatto a tre fili e di un led.

They are all provided with a flat three-wire cable and lamp.



Avvertenze

Evitare il contatto con sostanze corrosive, spruzzi di saldatura, polveri abrasive, che potrebbero danneggiare la funzionalità della pinza.

Per nessun motivo, persone od oggetti estranei devono entrare nel raggio d'azione della pinza.

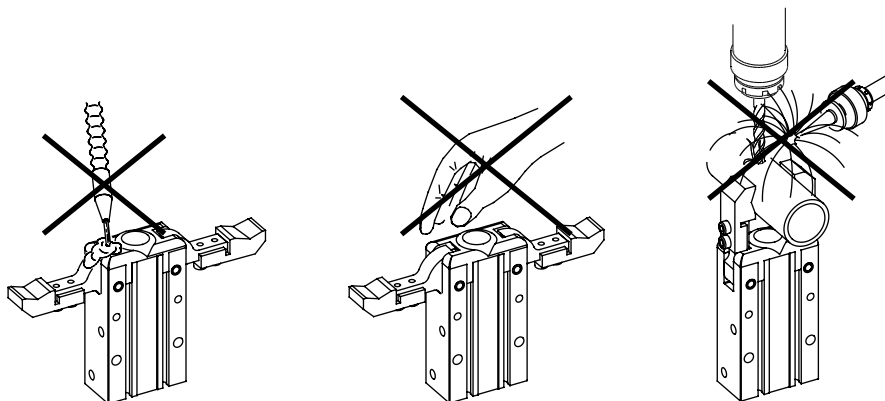
La pinza non deve essere messa in servizio prima che la macchina di cui fa parte sia stata dichiarata conforme alle disposizioni di sicurezza vigenti.

Caution

Never let the gripper come into contact with corrosive substances, soldering splashes or abrasive powders as they may damage the actuator.

Never let personnel or objects stand within the operating range of the gripper.

Never operate the gripper if the machine on which it is fitted does not comply with safety laws and standards of your country.

**Manutenzione**

La pinza va ingrassata ogni 10 milioni di cicli con:

- Molykote DX (parti metalliche);
- Molykote PG75 (guarnizioni).

Il gioco delle griffe è indicato qui sotto.

Maintenance

Grease the gripper after 10 million cycles with:

- *Molykote DX (metal on metal);*
- *Molykote PG75 (gaskets).*

The figure below shows the jaw backlash.

