

Angular Gripper – GW

- Self-centering
- Double acting
- Long life and reliability, maintenance free.
- Different options for fastening.
- Optional sensors available on page 653.
- Spring closed (-NC) or spring open (-NO) option.
- Finger Blanks available on page 649.

The Gimatic GW series piston rod is totally guided for the entire stroke and it can't move from its seat. This feature has been designed to avoid failures on the jaws.



Mounting brackets available on page 628.



Double Acting Models

Quick#	6337	6338	6339	6340
Part#	GW-10	GW-16	GW-20	GW-25
Price	\$99.00	\$122.00	\$124.00	\$139.00
Medium	Filtered, lubricated / non-lubricated compressed air			
Pressure range	30–116 psi			
Opening total torque at 87 psi	2 in-lbf	8 in-lbf	16 in-lbf	32 in-lbf
Closing total torque at 87 psi	1.4 in-lbf	6.4 in-lbf	14 in-lbf	28 in-lbf
Stroke ($\pm 1^\circ$)	2x20°			
Maximum repeatability tolerance	$\pm 0.04^\circ$			
Weight	39g	88g	180g	300g

Normally Open Models

Quick#	Part#	Price	Finger Stroke	Wt.
6341	GW-10-NO	\$99.00	40°	39g
6342	GW-16-NO	\$122.00	40°	89g
6343	GW-20-NO	\$124.00	40°	173g
6344	GW-25-NO	\$139.00	40°	304g

Normally Closed Models

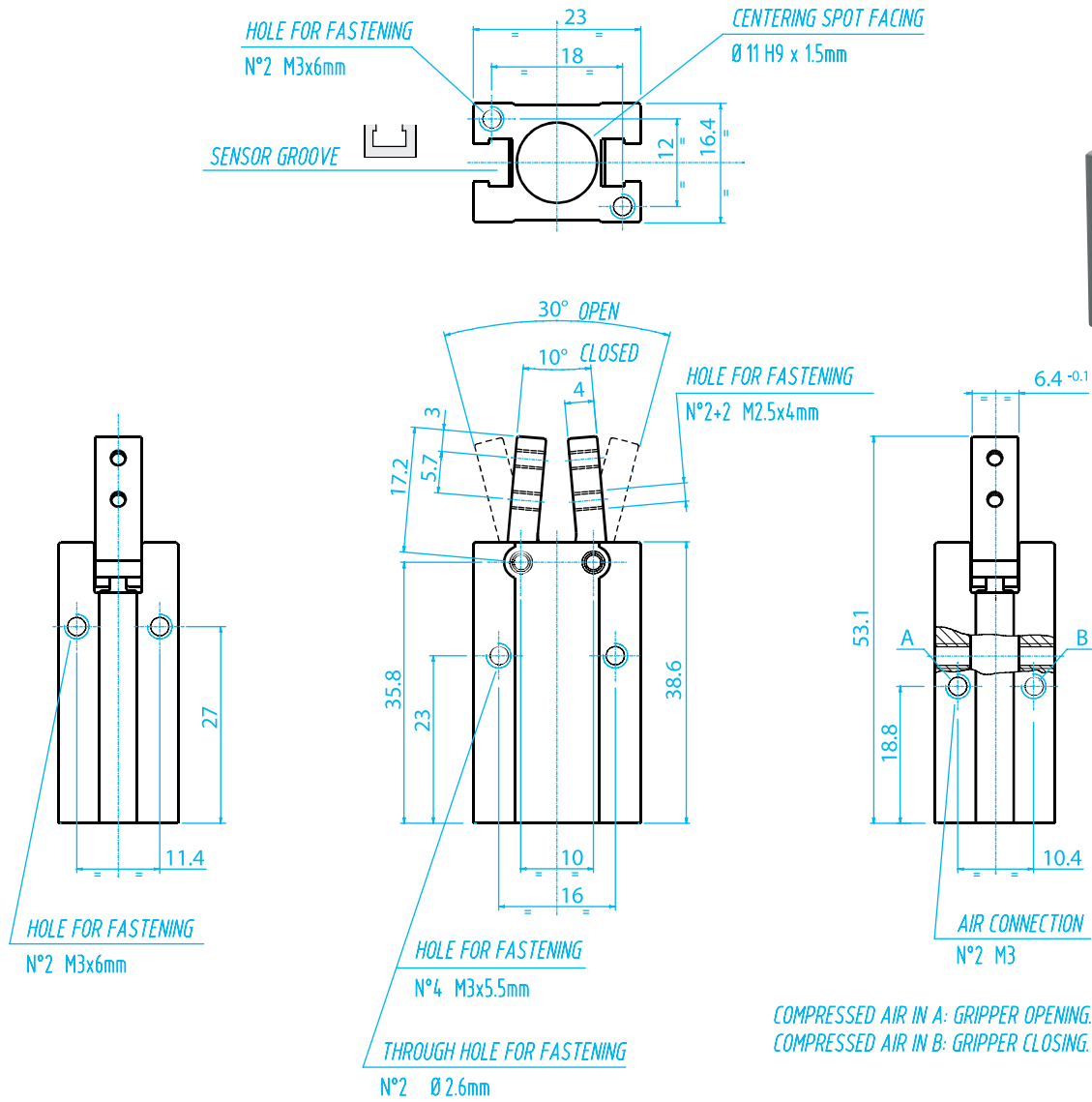
Quick#	Part#	Price	Finger Stroke	Wt.
6345	GW-10-NC	\$99.00	40°	39g
6346	GW-16-NC	\$122.00	40°	89g
6347	GW-20-NC	\$124.00	40°	173g
6348	GW-25-NC	\$139.00	40°	304g

Use Quick#s for easy online ordering.

Angular Gripper – GW

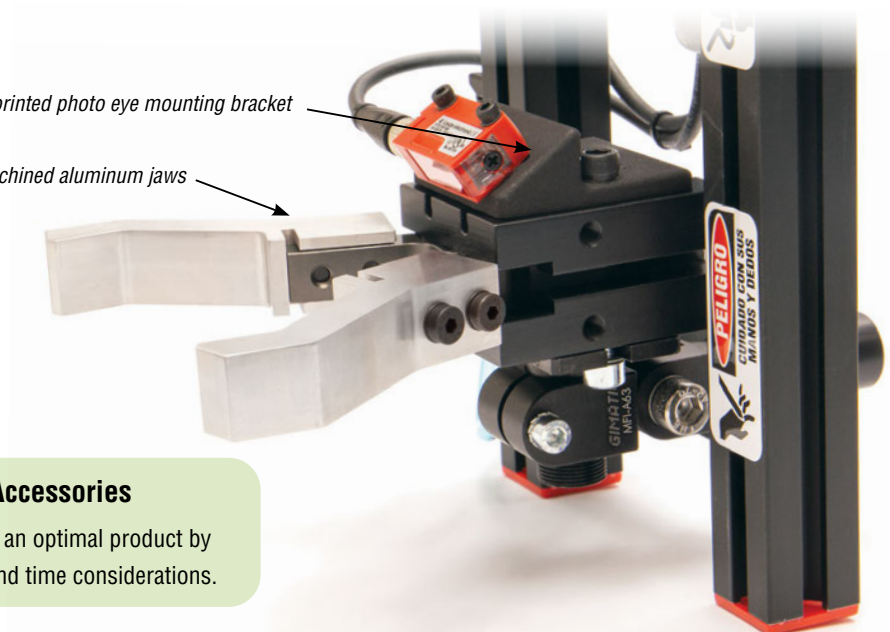
(Dimensioned drawing shown full scale)

**GW-10
#6337**



EMI 3D printed photo eye mounting bracket

EMI Machined aluminum jaws



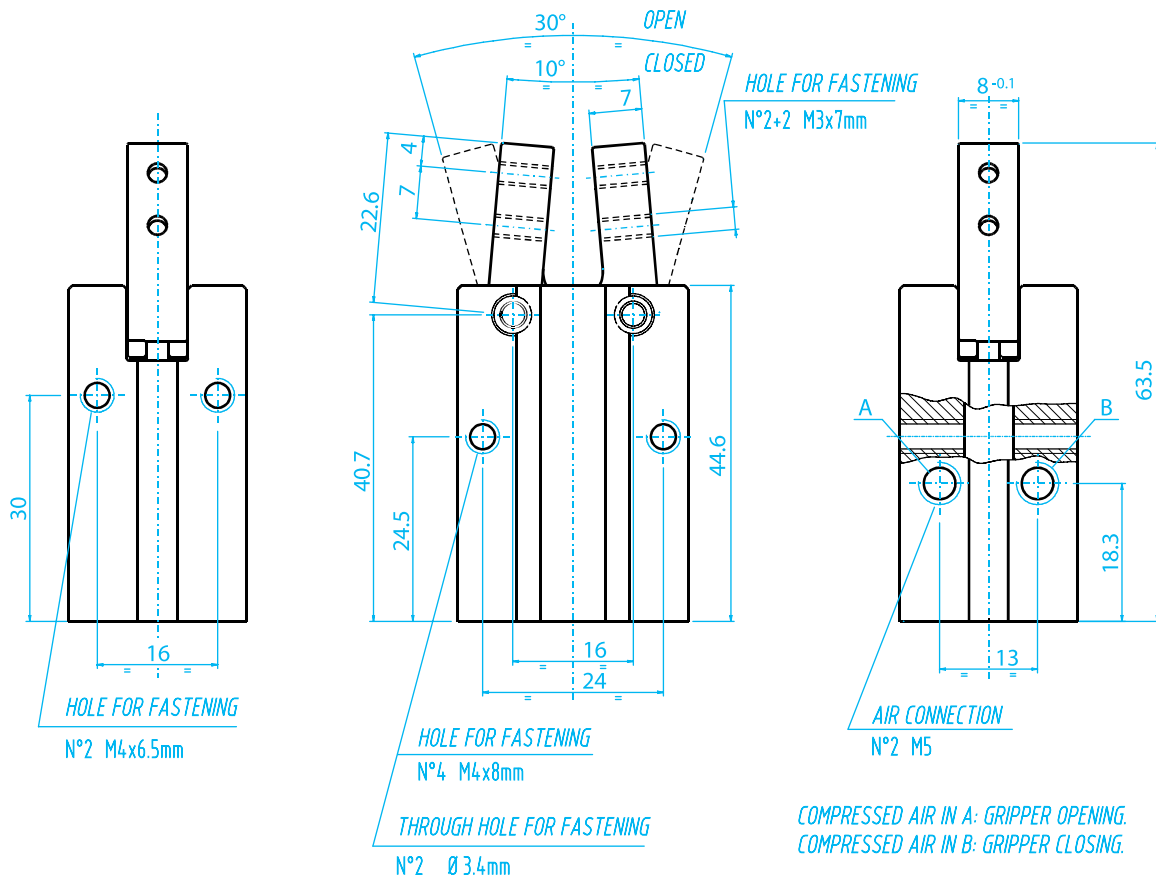
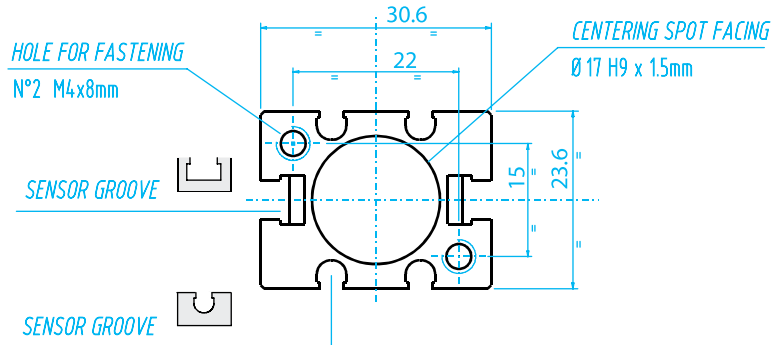
Custom Machined and 3D Printed Accessories

EMI engineers will work with you to develop an optimal product by analyzing your project requirements, cost, and time considerations.

Angular Gripper – GW

(Dimensioned drawing shown full scale)

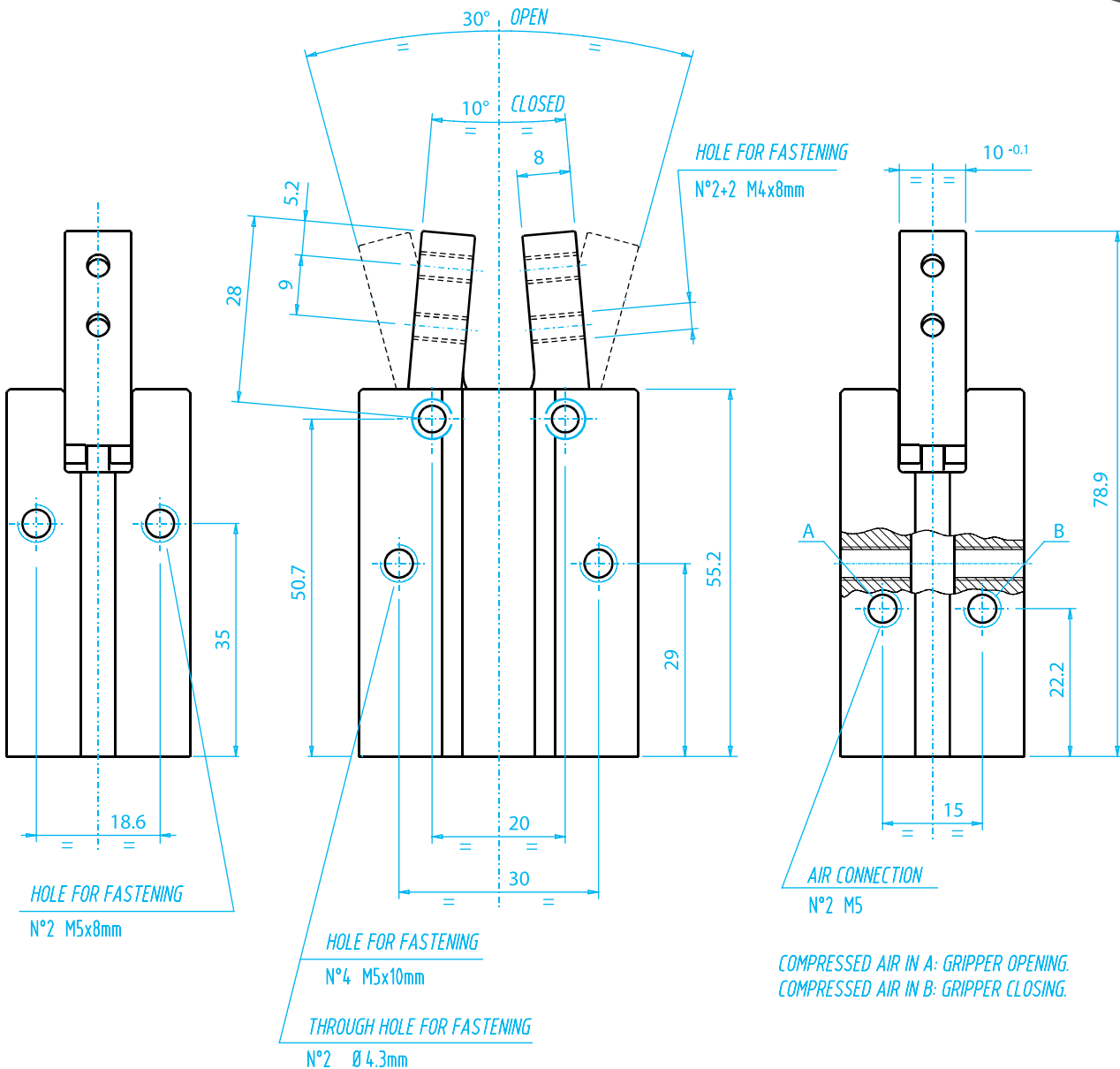
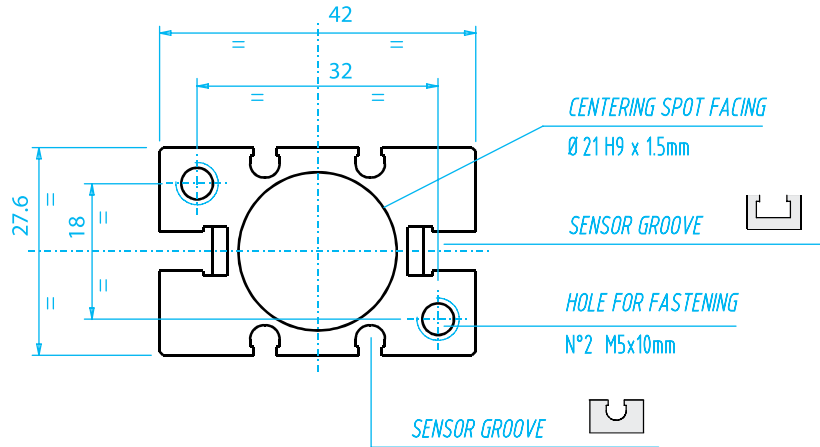
GW-16
#6338



Angular Gripper – GW

**GW-20
#6339**

(Dimensioned drawing shown full scale)

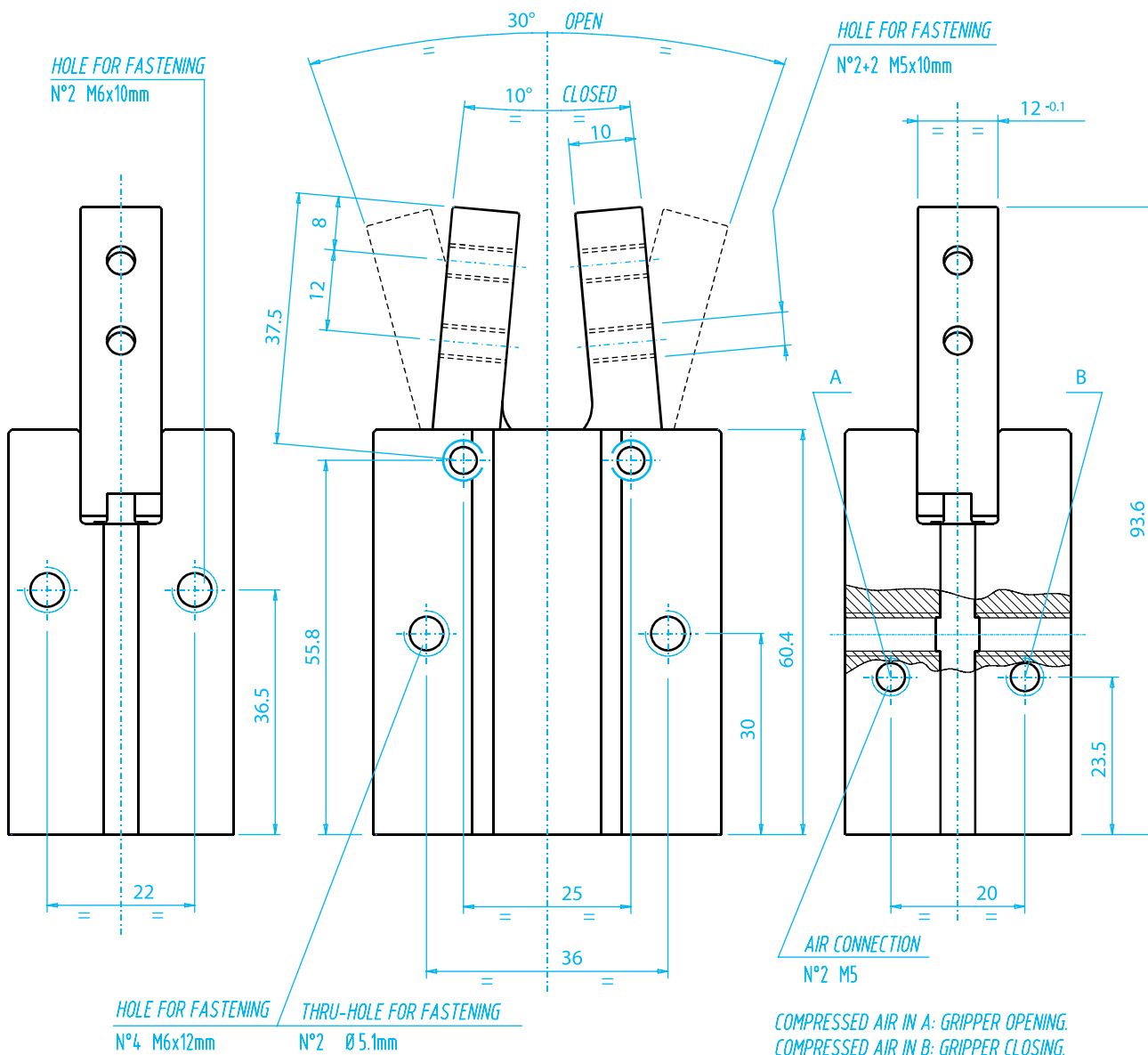
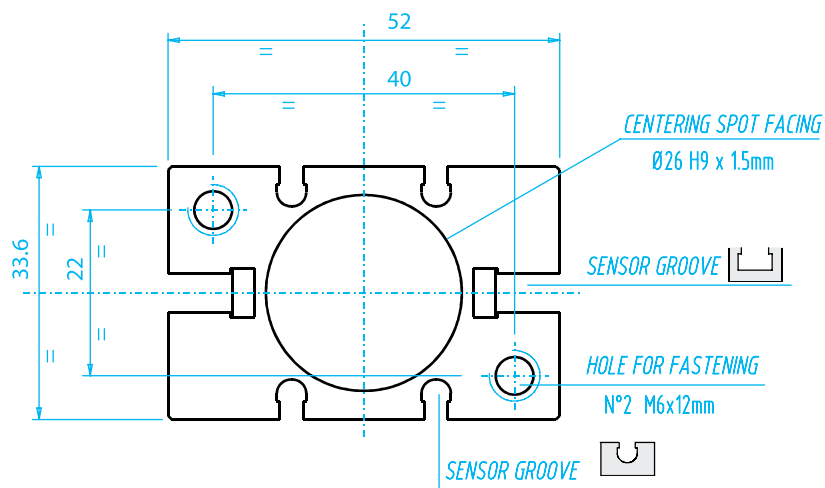


COMPRESSED AIR IN A: GRIPPER OPENING.
COMPRESSED AIR IN B: GRIPPER CLOSING.

Angular Gripper – GW

(Dimensioned drawing shown full scale)

GW-25
#6340



Finger Blanks for GW Grippers

Machine these finger blanks to your part's shape or contact EOAT Engineering for help!

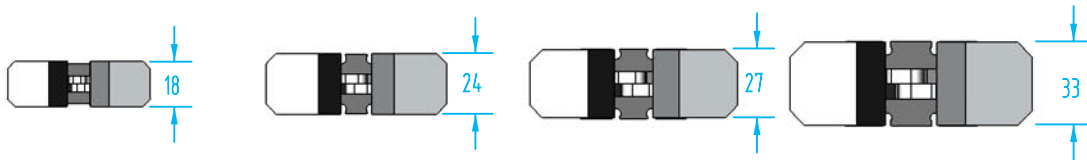
For more information on custom finger blanks for your application visit our 3D printing section on page 102.

Quick#	Part#	Material	For:	Wt. (g)	Price
5892	GW-10-FBA	Aluminum	GW-10 & MHC2-10	57	\$25.09
7466	GW-10-FBN	Nylon		3	\$19.30
5894	GW-16-FBA	Aluminum	GW-16 & MHC2-16	117	\$31.00
7467	GW-16-FBN	Nylon		6	\$23.85
5896	GW-20-FBA	Aluminum	GW-20 & MHC2-20	170	\$35.36
7468	GW-20-FBN	Nylon		9	\$27.20
5898	GW-25-FBA	Aluminum	GW-25 & MHC2-25	268	\$38.55
7469	GW-25-FBN	Nylon		14	\$29.65

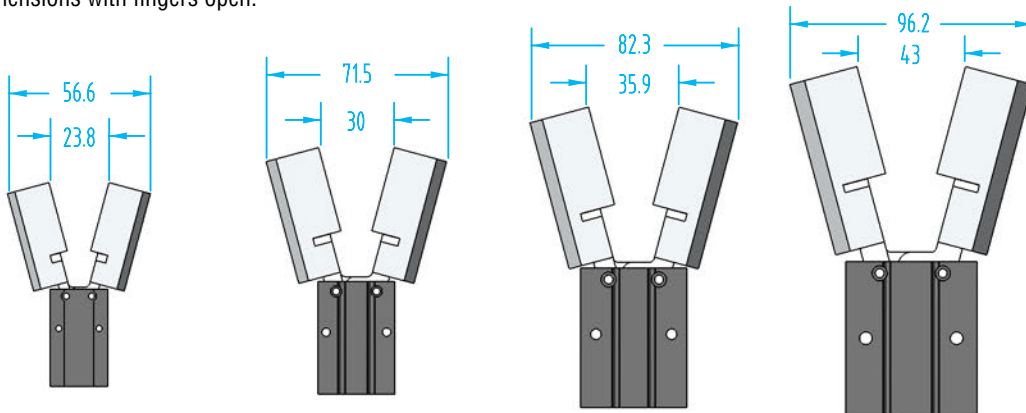
Note: Mounting Hardware Included



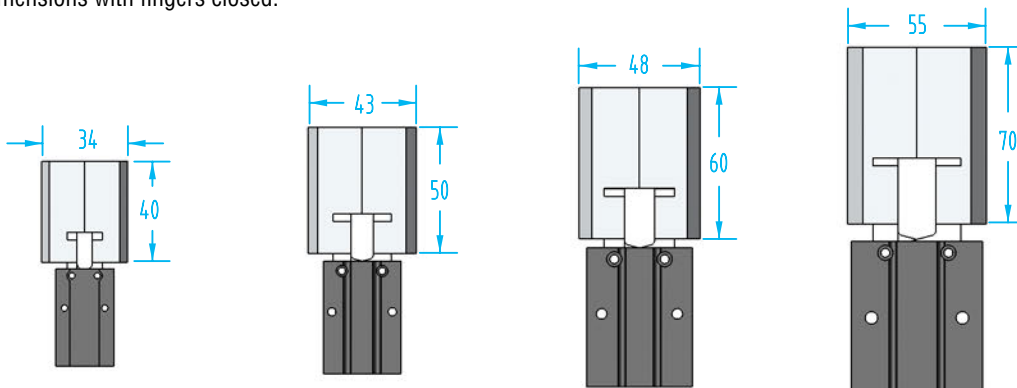
Gripper Fingers shown fully open.



Dimensions with fingers open:



Dimensions with fingers closed:



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Gripping force

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

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

Reference:

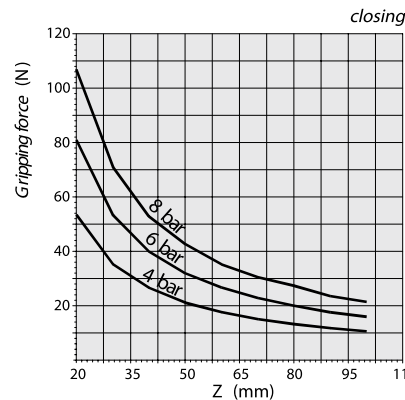
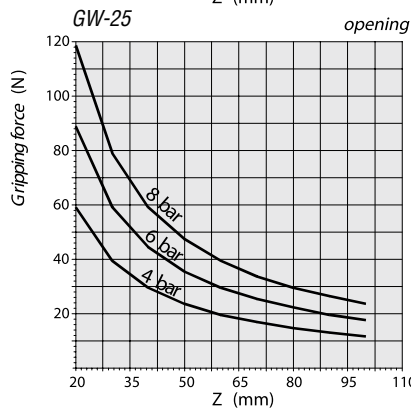
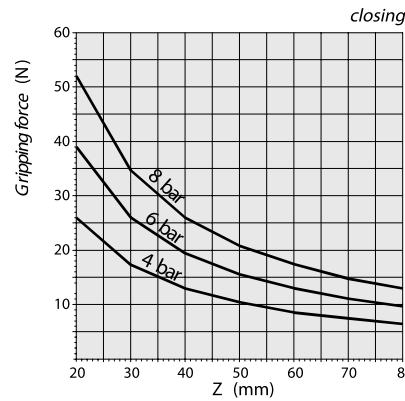
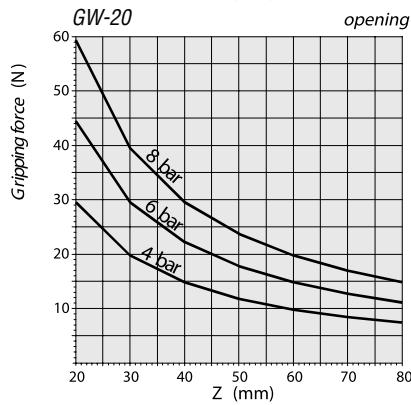
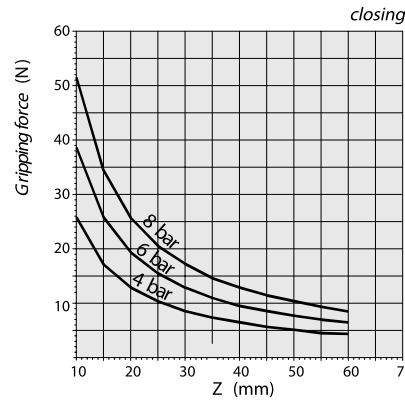
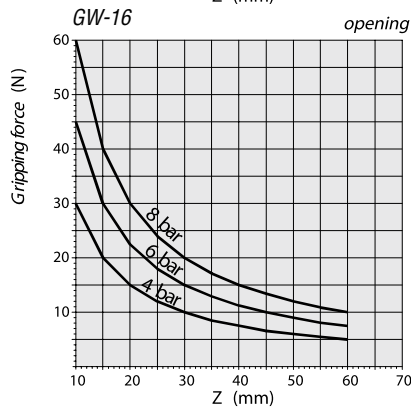
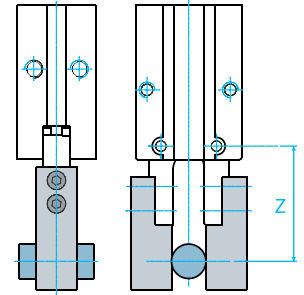
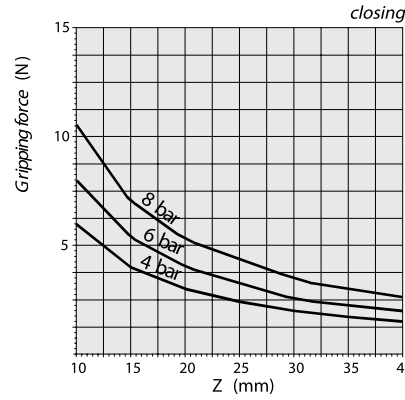
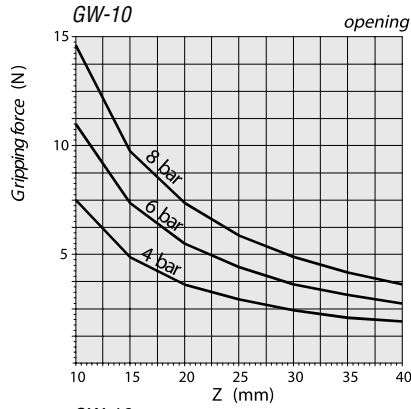
Force: N x 0.225 = lbf

Torque: Nm x 8.850 = in-lbf

Torque: Ncm x 0.089 = in-lbf

Pressure: bar x 14.5 = psi

Call our Engineering Department for assistance



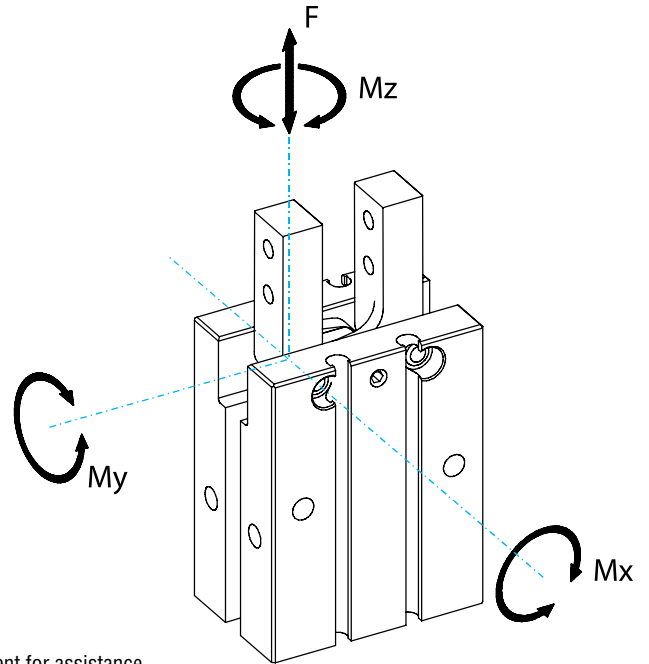
Angular Gripper – GW

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.

	GW-10	GW-16	GW-20	GW-25
F	40 N	60 N	100 N	100 N
Mx	0.4 Nm	1.2 Nm	1.5 Nm	2.2 Nm
My	0.5 Nm	0.9 Nm	2.2 Nm	2.2 Nm
Mz	0.5 Nm	0.9 Nm	2.2 Nm	2.2 Nm

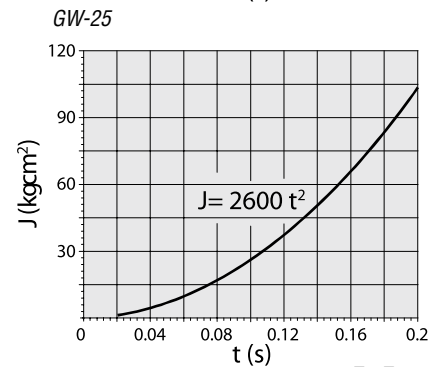
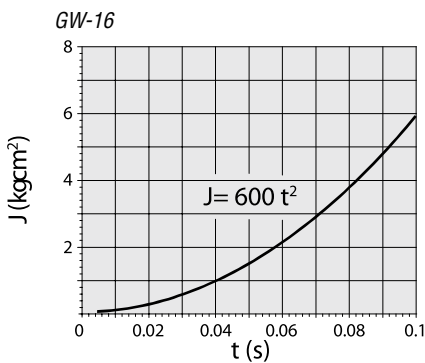
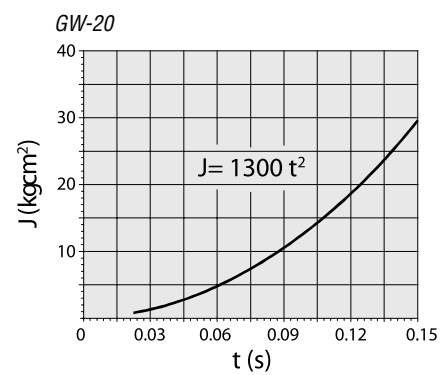
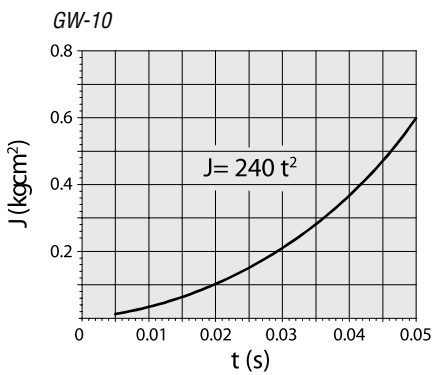


Reference:
Force: N x 0.225 = lbf
Torque: Nm x 8.850 = in-lbf
Torque: Ncm x 0.089 = in-lbf
Pressure: bar x 14.5 = psi
 Call our Engineering Department for assistance

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).

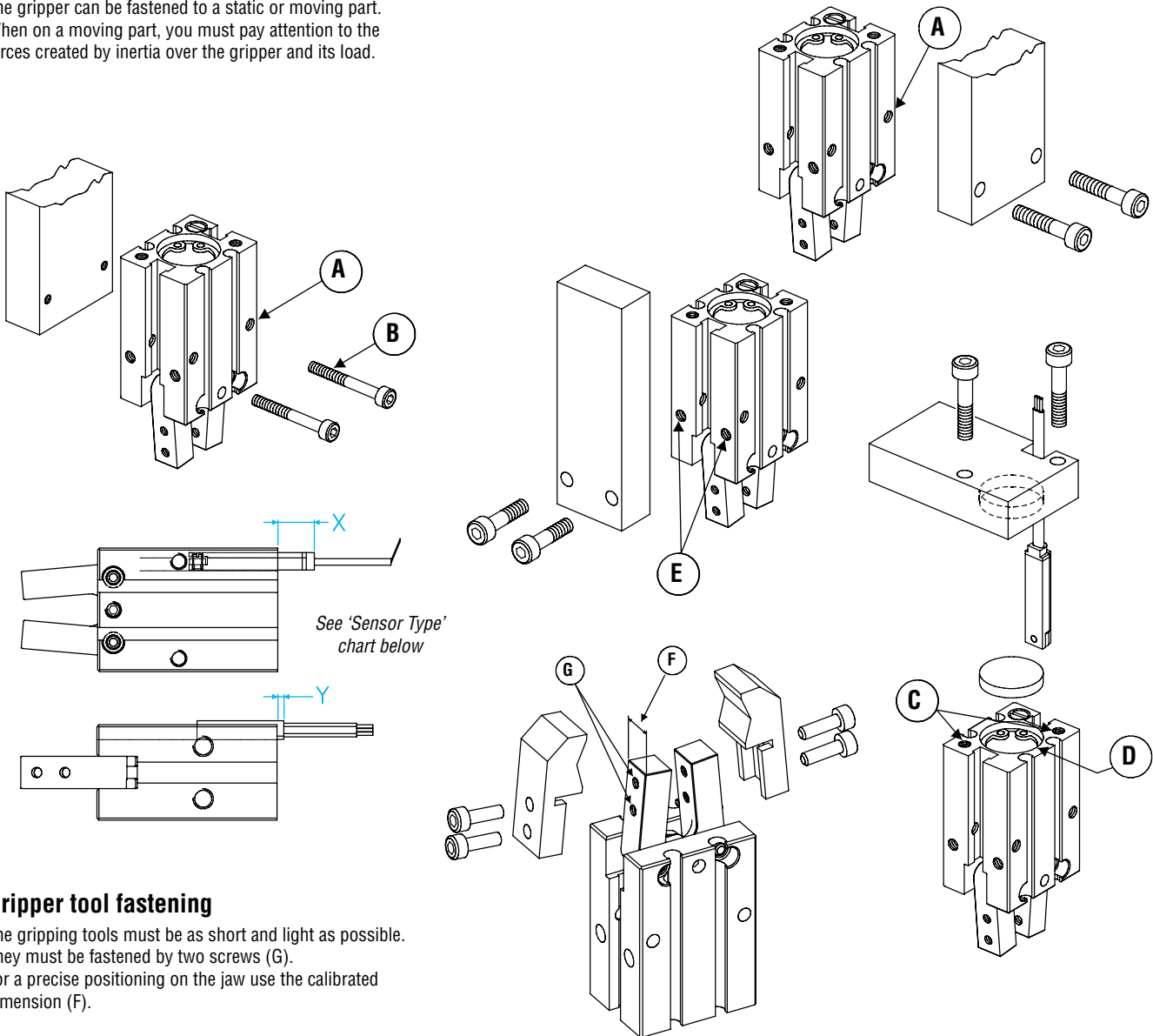
Use flow controllers (not supplied) to get the proper speed.



Angular Gripper – GW

Fastening

The gripper can be fastened to a static or moving part. When on a moving part, you must pay attention to the forces created by inertia over the gripper and its load.



Gripper tool fastening

The gripping tools must be as short and light as possible. They must be fastened by two screws (G). For a precise positioning on the jaw use the calibrated dimension (F).

	GW-10	GW-16	GW-20	GW-25
A	M3 x 5.5mm	M4 x 8mm	M5 x 10mm	M6 x 12mm
B	M2.5 x 22mm	M3 x 30mm	M4 x 35mm	M5 x 45mm
C	M3 x 6mm	M4 x 8mm	M5 x 10mm	M6 x 12mm
D	ø11H9 x 1.5mm	ø17H9 x 1.5mm	ø21H9 x 1.5mm	ø26H9 x 1.5mm
E	M3 x 6mm	M4 x 6.5mm	M5 x 8mm	M6 x 10mm
F	6.4 ^{-0.1} mm	8 ^{-0.1} mm	10 ^{-0.1} mm	12 ^{-0.1} mm
G	M2.5 x 4mm	M3 x 7mm	M4 x 8mm	M5 x 10mm

	GW-10	GW-16	GW-20	GW-25
Sensor Type	SC	-	X = 0mm	X = 0mm
	SL	X = 10mm + cable	X = 10mm + cable	X = 10mm + cable
	SN	X = 2mm	X = Y = 3mm	X = Y = 3mm
	SS	X = 2mm + cable	X = Y = 3mm + cable	X = Y = 3mm + cable

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Sensors

The operating position can be checked by sensors (optional), that detect the magnet on the piston inside. Proximity near a large mass of ferromagnetic material or intense magnetic fields may cause sensing troubles.



Quick#	Part#	Signal	Connection	Price	GW-10	All other GW Grippers	
3-wire SL & SS style magneto-resistive sensors					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
792	SL4N225G	PNP	with lead, 2.5m long	\$27.20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
793	SL4M225G	NPN	with lead, 2.5m long	\$27.20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6274	SL3N203G	PNP	M8 male connector, 0.3m long	\$31.16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6456	SL3M203G	NPN	M8 male connector, 0.3m long	\$31.16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1882	SS4N225G	PNP	with lead, 2.5m long	\$27.20	<input checked="" type="checkbox"/> (*)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (*)
1883	SS4M225G	NPN	with lead, 2.5m long	\$27.20	<input checked="" type="checkbox"/> (*)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (*)
6282	SS3N203G	PNP	M8 male connector, 0.3m long *	\$31.16	<input checked="" type="checkbox"/> (*)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (*)
1884	SS3M203G	NPN	M8 male connector, 0.3m long *	\$31.16	<input checked="" type="checkbox"/> (*)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (*)
7440	K-SENS	*Allows 'C' channel sensors to work in 'T' channel slots		\$4.82	*Must purchase separately		
90° Lead exit, 3-wire SC & SN style magneto-resistive sensors					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6273	SC4N225G	PNP	with lead, 2.5m long	\$30.30	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6455	SC3N203G	PNP	M8 male connector, 0.3m long	\$34.62	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6278	SN4N225G	PNP	with lead, 2.5m long	\$27.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6357	SN4M225G	NPN	with lead, 2.5m long	\$27.20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6277	SN3N203G	PNP	M8 male connector, 0.3m long	\$31.16	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6356	SN3M203G	NPN	M8 male connector, 0.3m long	\$31.16	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Note: M8 Extension cables Quick#s 2582 & 2583 available on page 985.

See Sensor Reference Guide on page 1010 for a complete list of sensors for GW Grippers.

