

Pneumatic Toggle Grippers

OG 2-Finger

OG2 is a two-finger toggle gripper with a high grip force and non-reversible mechanism, suitable for heavy industrial applications.

Advantages

- High energy density.
- Capability to grip parts in opening and closing mode.
- Driving mechanism guided along the entire stroke giving high stability and precision.
- Large surface for finger mounting to guarantee extremely safe clamping of the workpiece.
- The toggle mechanism provides non-reversible gripping in the opening and closing positions – even without air pressure
- Air supply via screw connection.



SPECIFICATIONS

Model	Stroke Per Jaw	Air Consumption Per Cycle (Dual Stroke)	Closing Moment Per Jaw @ 6 bar	Total Closing Moment Per Jaw @ 6 bar	Recommended Workpiece Weight*	Repeat Accuracy	Weight
OG 510	7.5°	2.7 cm ³	6.5 Nm	13 Nm	0.31 kg	± 0.05 mm	0.17 kg
		0.16 in ³	57.5 in lb	115.1 in lb	0.70 lb	± 0.002 in	0.37 lb
OG 530	7.5°	5 cm ³	13 Nm	26 Nm	0.62 kg	± 0.05 mm	0.28 kg
		0.31 in ³	115.1 in lb	230.1 in lb	1.40 lb	± 0.002 in	0.62 lb
OG 550 - 7.5°	7.5°	11.5 cm ³	30 Nm	60 Nm	1.43 kg	± 0.05 mm	0.63 kg
		0.70 in ³	265.5 in lb	531.0 in lb	3.10 lb	± 0.002 in	1.38 lb
OG 550 - 12.5°	12.5°	16.5 cm ³	30 Nm	60 Nm	1.43 kg	± 0.05 mm	0.72 kg
		1.01 in ³	265.5 in lb	531.0 in lb	3.10 lb	± 0.002 in	1.58 lb
OG 565	7.5°	26 cm ³	48 Nm	96 Nm	2.29 kg	± 0.05 mm	1.20 kg
		1.59 in ³	424.8 in lb	849.7 in lb	5.00 lb	± 0.002 in	2.64 lb
OG 570 - 8.5°	8.5°	48.5 cm ³	105 Nm	210 Nm	5.00 kg	± 0.05 mm	2.55 kg
		2.96 in ³	929.3 in lb	1858.7 in lb	11.00 lb	± 0.002 in	5.61 lb
OG 570 - 12.5°	12.5°	65 cm ³	105 Nm	210 Nm	5.00 kg	± 0.05 mm	2.72 kg
		3.97 in ³	929.3 in lb	1858.7 in lb	11.00 lb	± 0.002 in	5.98 lb
OG 575 - 8°	8°	195 cm ³	440 Nm	880 Nm	20.95 kg	± 0.05 mm	6.50 kg
		11.90 in ³	3894 in lb	7788.7 in lb	46.10 lb	± 0.002 in	14.30 lb

* Recommended workpiece weight is calculated for force-fit gripping with a coefficient of static friction of 0.15 and a safety factor of 3 against workpiece slippage.

Operating Pressure **2 - 8 bar (29 - 116 psi)**

Working Temperature **5 - 60 °C (41 - 140 °F)**

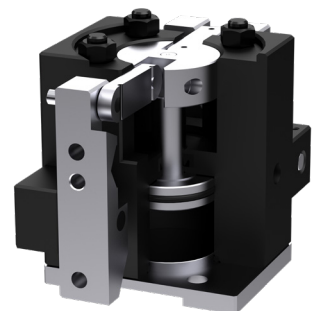
Noise Emission (Sound Pressure) **≤ 70 dB(A) in any direction**

SECTIONAL DIAGRAM



Guidelines for the selection of a gripper model

Selection of the correct gripper model depends on the workpiece's weight, the friction coefficient between the fingers and the workpiece and the required motion of the application. Due to inertial forces associated with motion, we recommend that the holding force of the gripper model should be from 10 to 20 times the workpiece's weight. If the application presents high acceleration/deceleration or impacts during the motion, then a further safety margin should be considered.



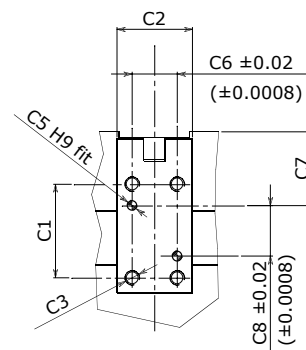
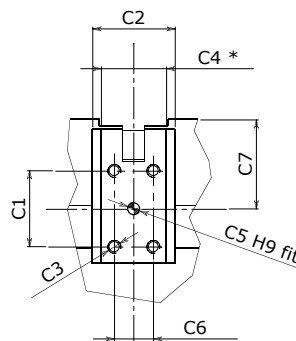
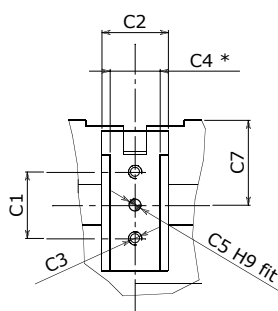
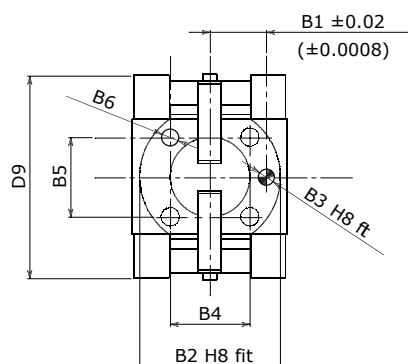
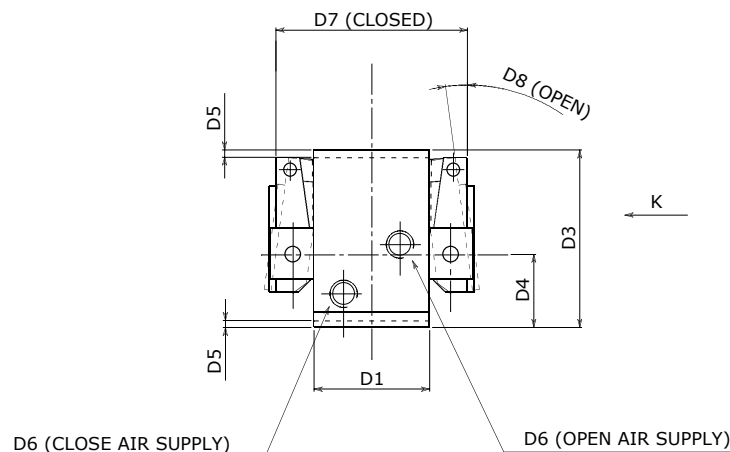
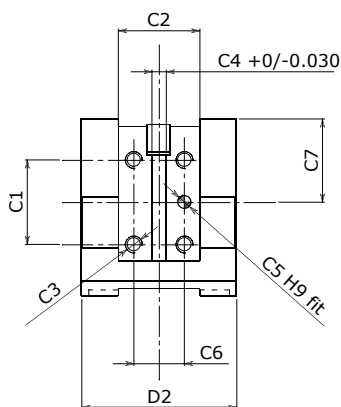
PRODUCT INFORMATION



03.2.5_Rev.07

Dowel hole depth: Body $\geq 1 d$ - Jaws $\geq 0.5 d$ (from OG510 to OG530) - $\geq 1 d$ (OG550-OG565-OG570-OG575)
 C4* Up to 6 mm = $0/+0.025$ mm - From 6 mm to 10 mm = $0/+0.030$ mm - Over 10 mm = $0/+0.040$ mm

View "K" (OG550, OG575)



View "K" (OG510, OG530)

View "K" (OG565)

View "K" (OG570)

Options

- Mounting brackets for inductive proximity switches
- Magnetic switches

	Mounting - Option # 2						Finger Application								Informational Dimensions							
	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	C6	C7	C8	D1	D2	D3	D4	D5	D6	D7	D8
OG 510	12.00 (0.47)	32 (1.26)	4 (0.16)	20.8 (0.82)	12 (0.47)	4.5 (0.18)	20 (0.79)	16 (0.63)	M4	12 (0.47)	4 (0.16)		25.52 (1.00)		20 (0.79)	34 (1.34)	45.8 (1.80)	25.28 (1.00)	2 (0.08)	M5	35 (1.38)	7.5°
OG 530	15.00 (0.59)	38 (1.50)	5 (0.20)	26 (1.02)	15 (0.59)	5.2 (0.20)	20 (0.79)	20 (0.79)	M4	15 (0.59)	4 (0.16)		25.55 (1.01)		24 (0.94)	40 (1.57)	53.4 (2.10)	27.85 (1.10)	2 (0.08)	M5	42 (1.65)	7.5°
OG 550-7,5°	20.00 (0.79)	50 (1.97)	6 (0.24)	28.28 (1.11)	28.28 (1.11)	6.5 (0.26)	30 (1.18)	29 (1.14)	M6	5 (0.20)	5 (0.20)	18 (0.71)	29.5 (1.16)		41 (1.61)	55 (2.17)	63 (2.48)	26 (1.02)	2.5 (0.10)	G1/8	68 (2.68)	7.5°
OG 550-12,5°	20.00 (0.79)	50 (1.97)	6 (0.24)	28.28 (1.11)	28.28 (1.11)	6.5 (0.26)	30 (1.18)	29 (1.14)	M6	5 (0.20)	5 (0.20)	18 (0.71)	34 (1.34)		41 (1.61)	55 (2.17)	73.5 (2.89)	32.35 (1.27)	2.5 (0.10)	G1/8	74 (2.91)	12.5°
OG 565	25.00 (0.98)	60 (2.36)	6 (0.24)	35.36 (1.39)	35.36 (1.39)	6.5 (0.26)	35 (1.38)	38 (1.50)	M6	30 (1.18)	6 (0.24)	18 (0.71)	41.04 (1.62)		51 (2.01)	68 (2.68)	82 (3.23)	32.46 (1.28)	3 (0.12)	G1/8	96 (3.78)	7.5°
OG 570-8,5°	30.00 (1.18)	75 (2.95)	8 (0.31)	42.42 (1.67)	42.42 (1.67)	8.5 (0.33)	52 (2.05)	42 (1.65)	M8		6 (0.24)	25 (0.98)	41 (1.61)	28 (1.10)	64 (2.52)	84 (3.31)	97 (3.82)	38 (1.50)	3.5 (0.14)	G1/8	118 (4.65)	8.5°
OG 570-12,5°	30.00 (1.18)	75 (2.95)	8 (0.31)	42.42 (1.67)	42.42 (1.67)	8.5 (0.33)	52 (2.05)	42 (1.65)	M8		6 (0.24)	25 (0.98)	45 (1.77)	28 (1.10)	64 (2.52)	84 (3.31)	111 (4.37)	48 (1.89)	3.5 (0.14)	G1/8	124 (4.88)	12.5°
OG 575-8°	42.50 (1.67)	105 (4.13)	8 (0.31)	60.1 (2.37)	60.1 (2.37)	10.5 (0.41)	70 (2.76)	55 (2.17)	M10	10 (0.39)	8 (0.31)	35 (1.38)	70 (2.76)		100 (3.94)	115 (4.53)	135 (5.31)	47.5 (1.87)	3.5 (0.14)	G1/4	170 (6.69)	8°

* Dimensions are in millimeters (inches).

** All dimensions are descriptive and subject to variation for technical upgrading. We reserve the right to make variations without prior notification



Effecto Group S.p.A.

Via Roma, 141/143
 28017 San Maurizio d'Opaglio (NO) - IT
 Tel. +39 0322 96142
 info@effecto.com

Effecto, Inc.

648 Saratoga Road
 Glenville, NY 12302 - US
 Tel. +1 518 384 1000
 info@us.effecto.com

Effecto GmbH

Liegnitzer Str. 6
 82194 Gröbenzell - DE
 Tel. +49 8142 59397 0
 info@de.effecto.com

www.effecto.com