

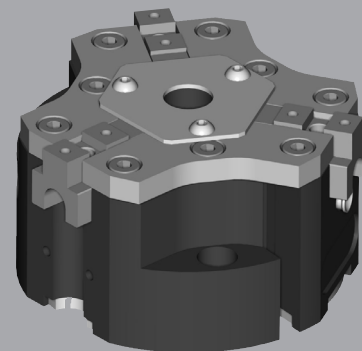
Pneumatic Parallel Grippers

QPGB 3-Finger

QPGB is a universal three-finger centric gripper, with a hollow center, featuring high reliability and a long service life, suitable for applications that require a center bore, (e.g. for workpiece feed, special sensor systems or optical recognition systems)

Advantages

- Robust lightweight housing made of hard-coated aluminum alloy.
- Sturdy T-slot with hardened steel gibs for effective jaw guidance, precise handling, and easy maintenance.
- Central through-hole which can be used for feed through of supply hoses and utilities.
- Mounting from one side in two screw directions for versatile and flexible integration.
- Integrated permanent magnets for direct monitoring of piston movement.
- Slots for mounting and positioning magnetic-field sensors.
- Air supply via hose-free direct connections or fitting screw connections.



SPECIFICATIONS

Model	Stroke Per Jaw	Air Consumption Per Cycle (Dual Stroke)	Closing Force Per Jaw @ 6 bar	Opening Force Per Jaw @ 6 bar	Total closing force @ 6 bar	Total Opening Force @ 6 bar	Recommended Workpiece Weight*	Weight	Repeatability
QPGB 307 K	4 mm	13.5 cm ³	165 N	194 N	495 N	582 N	1.65 kg	0.50 kg	± 0.01 mm
	0.16 in	0.82 in ³	37.1 lb	43.61 lb	111.3 lb	130.84 lb	3.64 lb	1.10 lb	± 0.0004 in
QPGB 309	6 mm	28.5 cm ³	230 N	265 N	690 N	796 N	2.30 kg	0.85 kg	± 0.01 mm
	0.24 in	1.74 in ³	51.7 lb	59.57 lb	155.1 lb	178.95 lb	5.10 lb	1.87 lb	± 0.0004 in
QPGB 309 S	3 mm	28.5 cm ³	455 N	530 N	1365 N	1590 N	4.55 kg	0.85 kg	± 0.01 mm
	0.12 in	1.74 in ³	102.3 lb	119.15 lb	306.9 lb	357.45 lb	10.00 lb	1.87 lb	± 0.0004 in
QPGB 311	8 mm	66 cm ³	385 N	452 N	1155 N	1358 N	3.85 kg	1.30 kg	± 0.01 mm
	0.31 in	4.03 in ³	86.5 lb	101.61 lb	259.6 lb	305.29 lb	8.50 lb	2.86 lb	± 0.0004 in
QPGB 311 S	4 mm	66 cm ³	770 N	905 N	2310 N	2715 N	7.70 kg	1.30 kg	± 0.01 mm
	0.16 in	4.03 in ³	173.1 lb	203.45 lb	519.3 lb	610.36 lb	16.90 lb	2.86 lb	± 0.0004 in
QPGB 313	10 mm	130 cm ³	610 N	716 N	1830 N	2148 N	6.10 kg	2.00 kg	± 0.01 mm
	0.39 in	7.93 in ³	137.1 lb	160.96 lb	411.4 lb	482.89 lb	13.40 lb	4.40 lb	± 0.0004 in
QPGB 313 S	5 mm	130 cm ³	1200 N	1415 N	3600 N	4245 N	12.00 kg	2.00 kg	± 0.01 mm
	0.20 in	7.93 in ³	269.8 lb	318.10 lb	809.3 lb	954.31 lb	26.40 lb	4.40 lb	± 0.0004 in

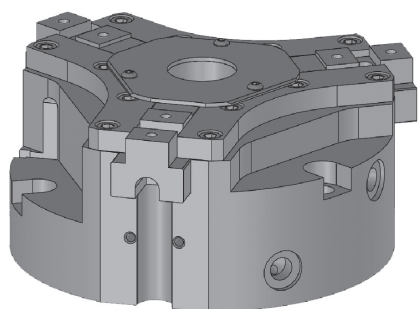
* Recommended workpiece weight is calculated for force-fit gripping with a coefficient of static friction of 0.15 and a safety factor of 3 against workpiece slippage.

Operating Pressure **2 - 8 bar (29 - 116 psi) - QPGB 307 K: 2 - 7 bar (29 - 101)**

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

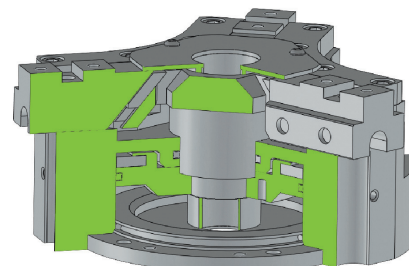
Noise Emission (Sound Pressure) **≤ 70 dB(A) in any direction**

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.

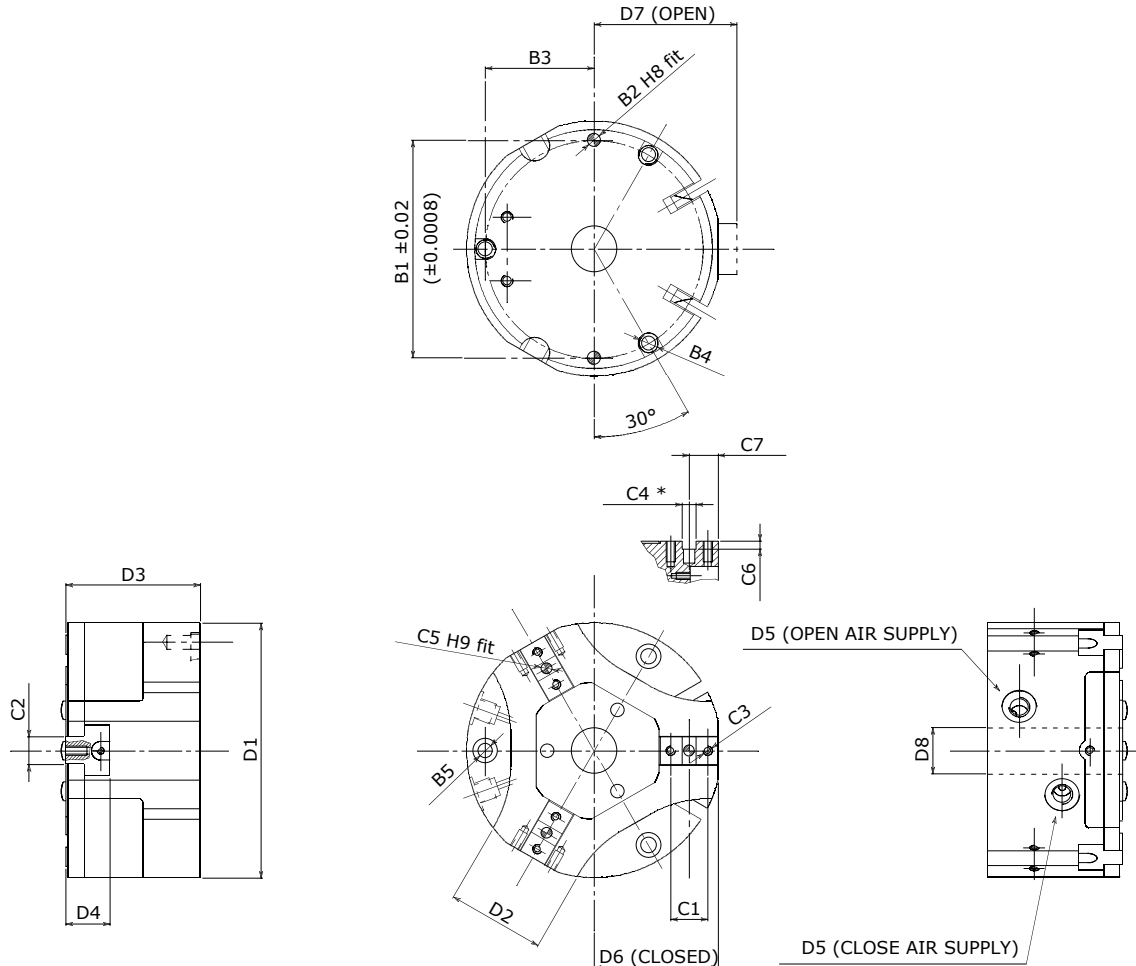


PRODUCT INFORMATION

QPGB 3-Finger

Dowel hole depth: Body $\geq 1.5 d$ - Jaws $\geq 1.2 d$

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



Options

- High force version (S version)
- Mounting brackets for inductive proximity switches
- Magnetic switches

	Mounting - Option # 2					Finger Application							Informational Dimensions							
	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	C6	C7	D1	D2	D3	D4	D5	D6	D7	D8
QPGB 307 K	63 (2.48)	4 (0.16)	31.5 (1.24)	M6	5.2 (0.20)	12 (0.47)	8 (0.31)	M3	5 (0.20)	4 (0.16)	2.5 (0.1)	9 (0.35)	75 (2.95)	40 (1.57)	43 (1.69)	15 (0.59)	M5	35 (1.38)	39 (1.54)	11 (0.43)
QPGB 309	76 (2.99)	6 (0.24)	38 (1.50)	M8	6.5 (0.26)	13 (0.51)	10 (0.39)	M4	5 (0.20)	4 (0.16)	3 (0.12)	10.5 (0.41)	90 (3.54)	80 (3.15)	48 (1.89)	16.5 (0.65)	G1/8	42.5 (1.67)	48.5 (1.91)	12 (0.47)
QPGB 309 S																			45.50 (1.79)	
QPGB 311	94 (3.70)	6 (0.24)	47 (1.85)	M8	6.5 (0.26)	16 (0.63)	12 (0.47)	M4	6 (0.24)	5 (0.20)	3.5 (0.14)	12.5 (0.49)	110 (4.33)	84 (3.31)	58 (2.28)	19 (0.75)	G1/8	53.5 (2.11)	61.5 (2.42)	20 (0.79)
QPGB 311 S																			57.50 (2.26)	
QPGB 313	122 (4.80)	8 (0.31)	61 (2.40)	M10	8.5 (0.33)	20 (0.79)	16 (0.63)	M5	8 (0.31)	8 (0.31)	4 (0.16)	16 (0.63)	138 (5.43)	110 (4.33)	67 (2.64)	22.5 (0.89)	G1/8	66 (2.60)	76 (2.99)	25 (0.98)
QPGB 313 S																			71.00 (2.80)	

* 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



Applied Robotics
648 Saratoga Road
Glennville, NY 12302 USA
Tel. +1 518 384 1000 Fax +1.5183841200
info@appliedrobotics.com
www.appliedrobotics.com



EFFECTO GROUP S.p.A.
Via Roma, 141/143
28017 San Maurizio d'Opaglio (NO) - Italy
Tel. +39 0322 96142 Fax +39 0322 967453
info@effecto.com
www.effecto.com

