

Pneumatic Parallel Grippers

OPH 3-Finger

OPH is a sealed three-finger centric gripper featuring high reliability, that is suitable for handling of rough/dirty workpieces.

Advantages

- Robust lightweight housing made of hard-coated aluminum alloy.
- IP67 protection provided by lip seals at round jaws offer permanent, secure protection.
- Compact dimensions for minimal impact in space sensitive applications.
- Mounting from two sides in three screw directions for versatile and flexible integration.
- Integrated permanent magnets for direct monitoring of piston movement.
- Slots for mounting and positioning of magnetic-field sensors.
- Air supply via hose-free direct connections or fitting screw connections.



SPECIFICATIONS

Model	Stroke per jaw	Fluid consumption double 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*	Repeat accuracy	Weight
OPH 83-3	6 mm	23.4 cm ³	203 N	213 N	203 N	213 N	3.05 kg	± 0.01 mm	0.90 kg
	0.24 in	1.43 in ³	45.6 lb	47.9 lb	45.6 lb	47.9 lb	6.72 lb	± 0.0004 in	1.98 lb
OPH 98-3	8 mm	52.3 cm ³	340 N	360 N	340 N	360 N	5.10 kg	± 0.01 mm	1.20 kg
	0.31 in	3.19 in ³	76.4 lb	80.9 lb	76.4 lb	80.9 lb	11.24 lb	± 0.0004 in	2.64 lb
OPH 118-3	10 mm	108 cm ³	565 N	590 N	565 N	590 N	8.48 kg	± 0.01 mm	2.30 kg
	0.39 in	6.59 in ³	127.0 lb	132.6 lb	127.0 lb	132.6 lb	18.70 lb	± 0.0004 in	5.06 lb
OPH 148-3	12 mm	225 cm ³	983 N	1010 N	983 N	1010 N	14.75 kg	± 0.01 mm	3.80 kg
	0.47 in	13.73 in ³	221.0 lb	227.0 lb	221.0 lb	227.0 lb	32.52 lb	± 0.0004 in	8.36 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)**

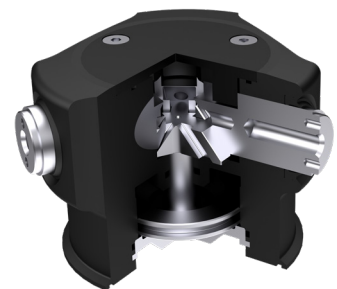
Noise Emission (Sound Pressure) **≤ 70 dB(A) in any direction**

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.

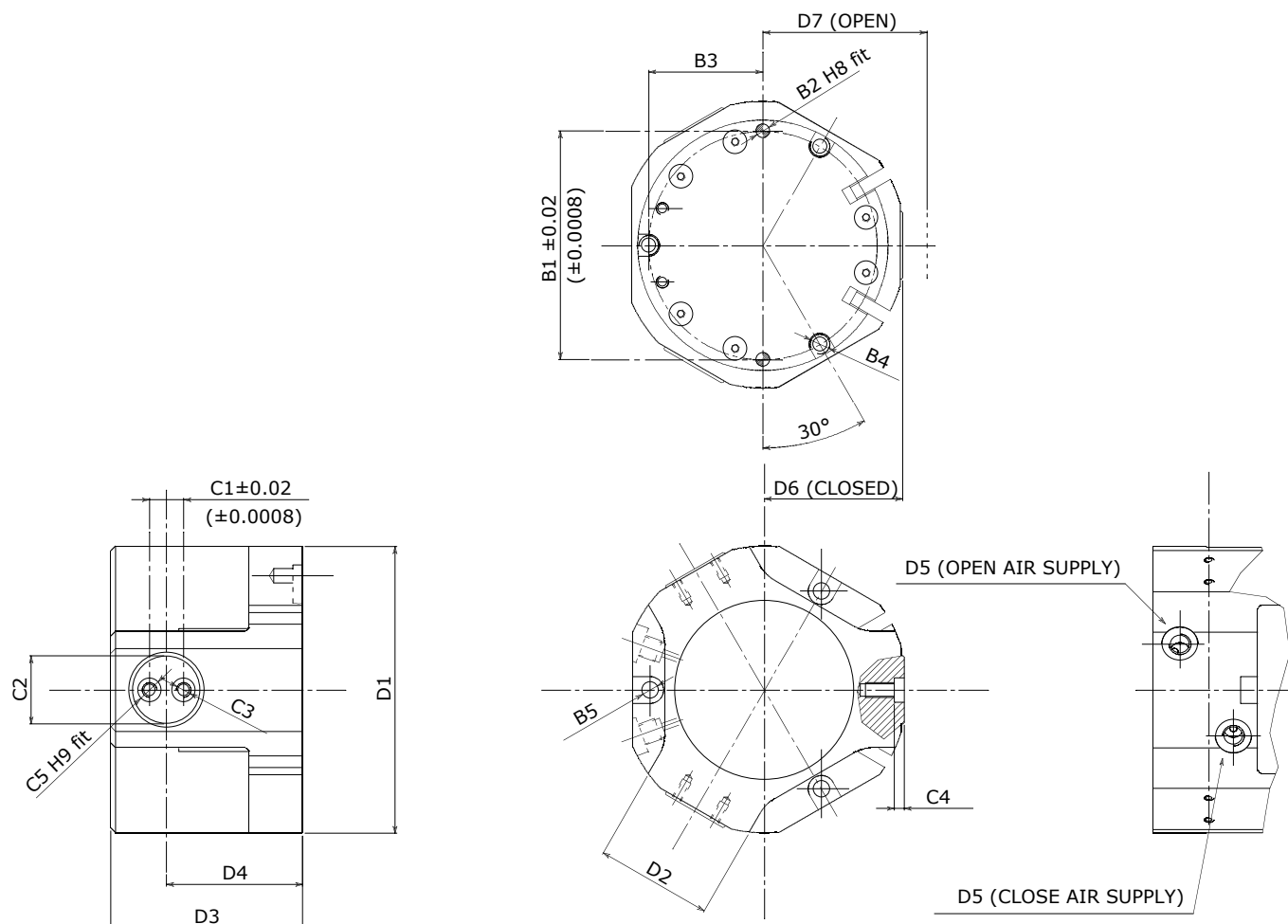


PRODUCT INFORMATION



03.2.5_Rev.07

Body dowel hole depth $\geq 1.5 d$



Options

- Magnetic switches

	Mounting - Option # 2					Finger Application					Informational Dimensions						
	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5	D6	D7
OPH 83-3	63.00 (2.48)	4 (0.16)	31.5 (1.24)	M6	5.2 (0.20)	10 (0.39)	18 (0.71)	M4	3 (0.12)	6 (0.24)	83 (3.27)	40 (1.57)	57 (2.24)	40.5 (1.59)	M5	40 (1.57)	46 (1.81)
OPH 98-3	76.00 (2.99)	6 (0.24)	38 (1.50)	M8	6.5 (0.26)	12 (0.47)	22 (0.87)	M5	3 (0.12)	8 (0.31)	98 (3.86)	40 (1.57)	66 (2.60)	47.5 (1.87)	G1/8	47.5 (1.87)	55.5 (2.19)
OPH 118-3	94.00 (3.70)	6 (0.24)	47 (1.85)	M8	6.5 (0.26)	14 (0.55)	28 (1.10)	M6	4 (0.16)	10 (0.39)	118 (4.65)	48 (1.89)	79 (3.11)	56 (2.20)	G1/8	57.5 (2.26)	57.5 (2.26)
OPH 148-3	122.00 (80.00)	8 (0.31)	61 (2.40)	M10	8.5 (0.33)	16 (0.63)	32 (1.26)	M8	4 (0.16)	12 (0.47)	148 (5.83)	54 (2.13)	94 (3.70)	68 (2.68)	G1/8	71 (2.80)	71 (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



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