

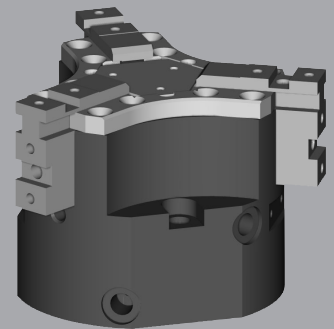
Pneumatic Parallel Grippers

OPE 3-Finger

OPE is a universal three-finger centric gripper featuring high reliability and long service life, suitable for a wide range of industrial applications.

Advantages

- Robust lightweight housing made of hard-coated aluminum alloy.
- Sturdy C-slot with hardened steel gibs for effective jaw guidance, precise handling, and easy maintenance.
- 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 of magnetic-field sensors.
- Air supply via fitting screw connections or hose-free direct connections (optional version "X").



SPECIFICATIONS from OPE60-3 to OPE105-3

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
OPE 60-3	5 mm	8 cm ³	80 N	90 N	240 N	270 N	1.20 kg	0.36 kg	± 0.05 mm
	0.20 in	0.49 in ³	18.0 lb	20.2 lb	54.0 lb	60.7 lb	2.65 lb	0.79 lb	± 0.002 in
OPE 60-3 S	3 mm	8 cm ³	135 N	152 N	405 N	456 N	2.03 kg	0.30 kg	± 0.05 mm
	0.12 in	0.49 in ³	30.3 lb	34.2 lb	91.0 lb	102.5 lb	4.48 lb	0.66 lb	± 0.002 in
OPE 65-3	7.5 mm	18 cm ³	126 N	138 N	378 N	414 N	1.89 kg	0.57 kg	± 0.05 mm
	0.30 in	1.10 in ³	28.3 lb	31.0 lb	85.0 lb	93.1 lb	4.17 lb	1.25 lb	± 0.002 in
OPE 65-3 S	3.75 mm	18 cm ³	247 N	272 N	741 N	816 N	3.71 kg	0.50 kg	± 0.05 mm
	0.15 in	1.10 in ³	55.5 lb	61.1 lb	166.6 lb	183.4 lb	8.18 lb	1.10 lb	± 0.002 in
OPE 80-3	10 mm	26 cm ³	126 N	138 N	378 N	414 N	1.89 kg	0.90 kg	± 0.05 mm
	0.39 in	1.59 in ³	28.3 lb	31.0 lb	85.0 lb	93.1 lb	4.17 lb	1.98 lb	± 0.002 in
OPE 80-3 S	5 mm	26 cm ³	247 N	272 N	741 N	816 N	3.71 kg	0.85 kg	± 0.05 mm
	0.20 in	1.59 in ³	55.5 lb	61.1 lb	166.6 lb	183.4 lb	8.18 lb	1.87 lb	± 0.002 in
OPE 90-3	12 mm	36.5 cm ³	155 N	172 N	465 N	516 N	2.33 kg	1.30 kg	± 0.05 mm
	0.47 in	2.23 in ³	34.8 lb	38.7 lb	104.5 lb	116.0 lb	5.14 lb	2.86 lb	± 0.002 in
OPE 90-3 S	6 mm	36.5 cm ³	310 N	344 N	930 N	1032 N	4.65 kg	1.20 kg	± 0.05 mm
	0.24 in	2.23 in ³	70 lb	77.3 lb	209.1 lb	232.0 lb	10.25 lb	2.64 lb	± 0.002 in
OPE 105-3	15 mm	57 cm ³	195 N	211 N	585 N	633 N	2.93 kg	2.10 kg	± 0.05 mm
	0.59 in	3.48 in ³	43.8 lb	47.4 lb	131.5 lb	142.3 lb	6.46 lb	4.62 lb	± 0.002 in
OPE 105-3 S	7.5 mm	57 cm ³	390 N	422 N	1170 N	1266 N	5.85 kg	1.85 kg	± 0.05 mm
	0.30 in	3.48 in ³	87.7 lb	94.9 lb	263.0 lb	284.6 lb	12.90 lb	4.07 lb	± 0.002 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.

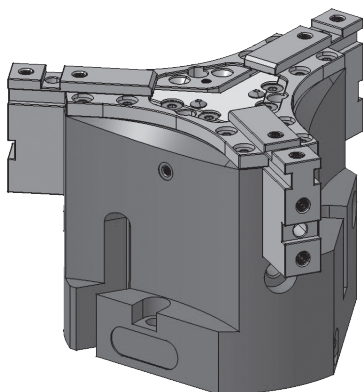
** Further OPE 2-finger dimensions in the following pages

Operating Pressure **2 - 12 bar (29 - 174 psi)**

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

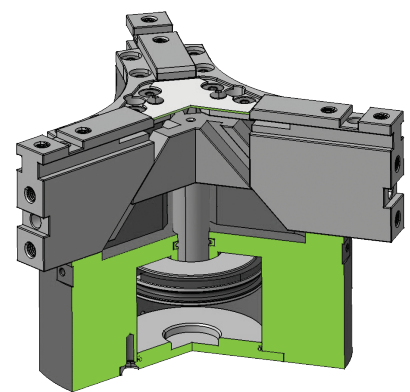
Noise Emission (Sound Pressure) **≤ 70 dB(A) in any direction**

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.

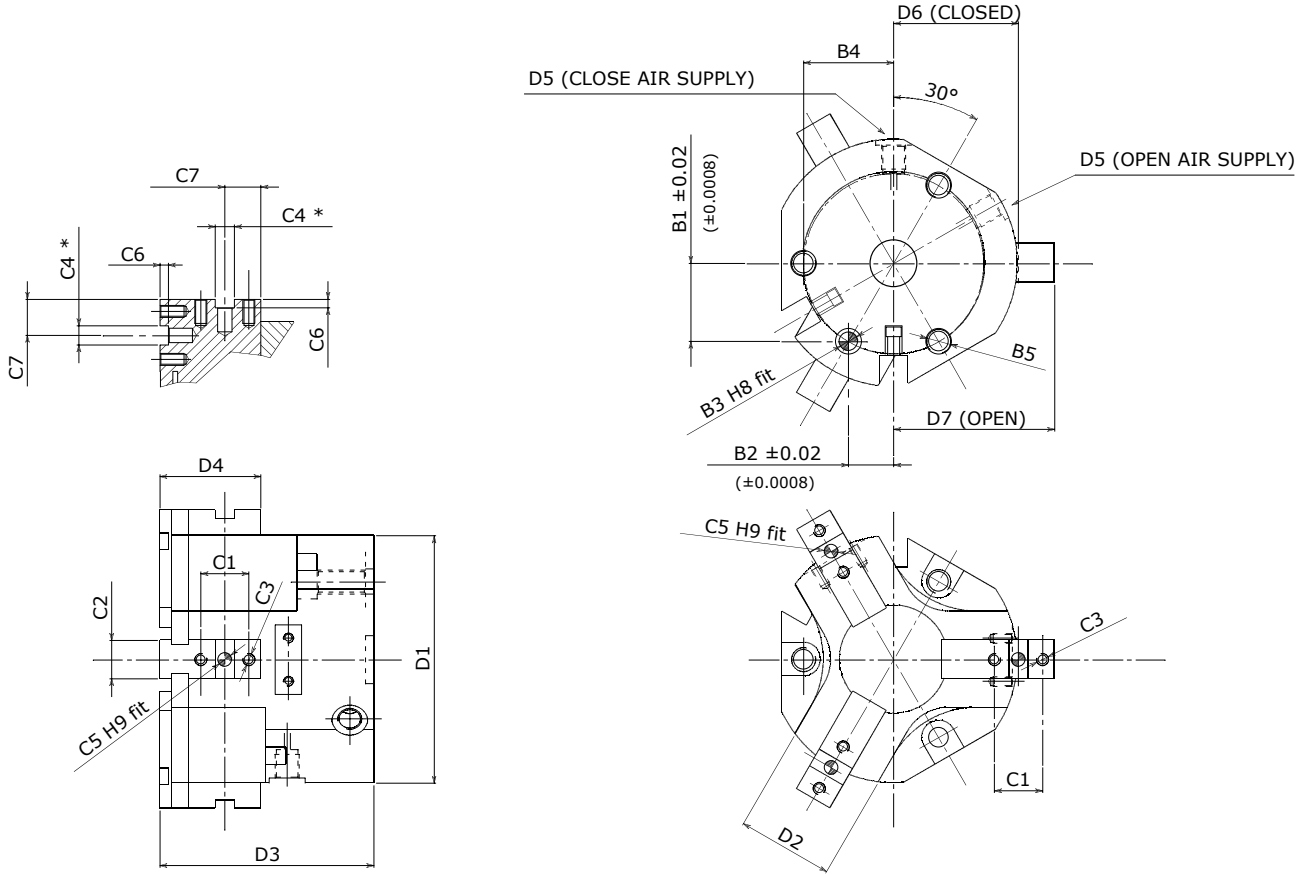


PRODUCT INFORMATION

OPE 3-Finger

Dowel hole depth: Body $\geq 1.5 d$ - Jaws $\geq 1 d$

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)
- Hose-free direct connections (X 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
OPE 60 -3	20.35	11.75	4	11.75	M5	12	12	M4	4	3	3	10	57	30	57	23.5	M5	29	34
OPE 60-3 S	(0.80)	(0.46)	(0.16)	(0.46)		(0.47)	(0.47)		(0.16)	(0.12)	(0.12)	(0.39)	(2.24)	(1.18)	(2.24)	(0.93)		(1.14)	(1.34)
OPE 65 -3	23.82	13.75	5	13.75	M6	13	14	M4	5	4	3	10.5	66	32	61	25	M5	33.5	41
OPE 65-3 S	(0.94)	(0.54)	(0.20)	(0.54)		(0.51)	(0.55)		(0.20)	(0.16)	(0.12)	(0.41)	(2.60)	(1.26)	(2.40)	(0.98)		(1.32)	(1.61)
OPE 80 -3	28.15	16.25	5	16.25	M6	16	14	M4	5	4	3	12.5	80	32	69	30.5	M5	40.5	50.5
OPE 80-3 S	(1.11)	(0.64)	(0.20)	(0.64)		(0.63)	(0.55)		(0.20)	(0.16)	(0.12)	(0.49)	(3.15)	(1.26)	(2.72)	(1.20)		(1.59)	(1.99)
OPE 90 -3	30.31	17.5	6	17.5	M8	18	16	M5	6	5	3.5	14	89	40	78	35.5	M5	45	57
OPE 90-3 S	(1.19)	(0.69)	(0.24)	(0.69)		(0.71)	(0.63)		(0.24)	(0.20)	(0.14)	(0.55)	(3.50)	(1.57)	(3.07)	(1.40)		(1.77)	(2.24)
OPE 105 -3	32.48	18.75	8	18.75	M10	20	16	M5	8	6	3.5	15	103	40	89	42	G 1/8	52	67
OPE 105-3 S	(1.28)	(0.74)	(0.31)	(0.74)		(0.79)	(0.63)		(0.31)	(0.24)	(0.14)	(0.59)	(4.06)	(1.57)	(3.50)	(1.65)		(2.05)	(2.64)
																			59.50
																			67
																			59.50
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* Dimensions are in millimeters (inches).

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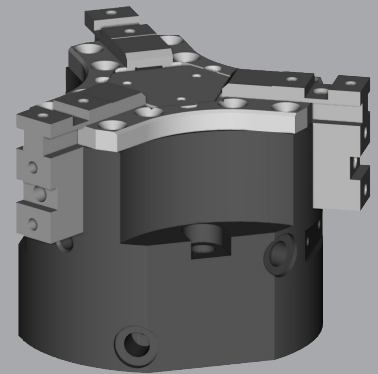
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SPECIFICATIONS from OPE110-3 to OPE205-3

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
OPE 110-3	10 mm	60.5 cm ³	320 N	342 N	960 N	1026 N	4.80 kg	2.35 kg	± 0.05 mm
	0.39 in	3.69 in ³	71.9 lb	76.9 lb	215.8 lb	230.6 lb	10.58 lb	5.17 lb	±0.0020 in
OPE 110-3 S	5 mm	60.5 cm ³	629 N	671 N	1887 N	2013 N	9.44 kg	2.20 kg	± 0.05 mm
	0.20 in	3.69 in ³	141.4 lb	150.8 lb	424.2 lb	452.5 lb	20.81 lb	4.84 lb	±0.0020 in
OPE 125-3	20 mm	150 cm ³	400 N	422 N	1200 N	1266 N	6.00 kg	3.15 kg	± 0.05 mm
	0.79 in	9.15 in ³	89.9 lb	94.9 lb	269.8 lb	284.6 lb	13.23 lb	6.93 lb	±0.0020 in
OPE 125-3 S	10 mm	150 cm ³	787 N	830 N	2361 N	2490 N	11.81 kg	2.95 kg	± 0.05 mm
	0.39 in	9.15 in ³	176.9 lb	186.6 lb	530.8 lb	559.8 lb	26.04 lb	6.49 lb	±0.0020 in
OPE 175-3	30 mm	293 cm ³	520 N	555 N	1560 N	1665 N	7.80 kg	6.50 kg	± 0.05 mm
	1.18 in	17.87 in ³	116.9 lb	124.8 lb	350.7 lb	374.3 lb	17.20 lb	14.30 lb	±0.0020 in
OPE 175-3 S	15 mm	293 cm ³	1047 N	1089 N	3141 N	3267 N	15.71 kg	6.00 kg	± 0.05 mm
	0.59 in	17.87 in ³	235.4 lb	244.8 lb	706.1 lb	734.4 lb	34.63 lb	13.20 lb	±0.0020 in
OPE 205-3	35 mm	533 cm ³	805 N	859 N	2415 N	2577 N	12.08 kg	12.00 kg	± 0.05 mm
	1.38 in	32.51 in ³	181.0 lb	193.1 lb	542.9 lb	579.3 lb	26.63 lb	26.40 lb	±0.0020 in
OPE 205-3 S	17.5 mm	533 cm ³	1580 N	1686 N	4740 N	5058 N	23.70 kg	11.50 kg	± 0.05 mm
	0.69 in	32.51 in ³	355.2 lb	379.0 lb	1065.6 lb	1137.0 lb	52.25 lb	25.30 lb	±0.0020 in

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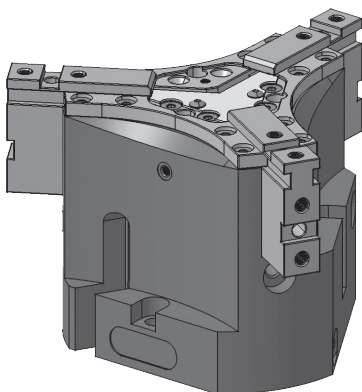
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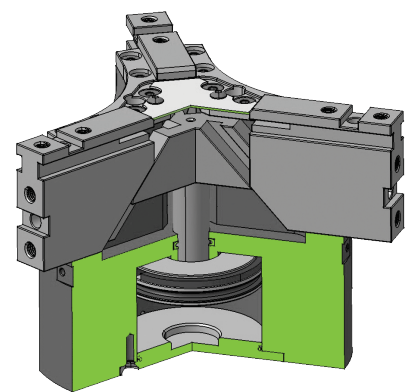
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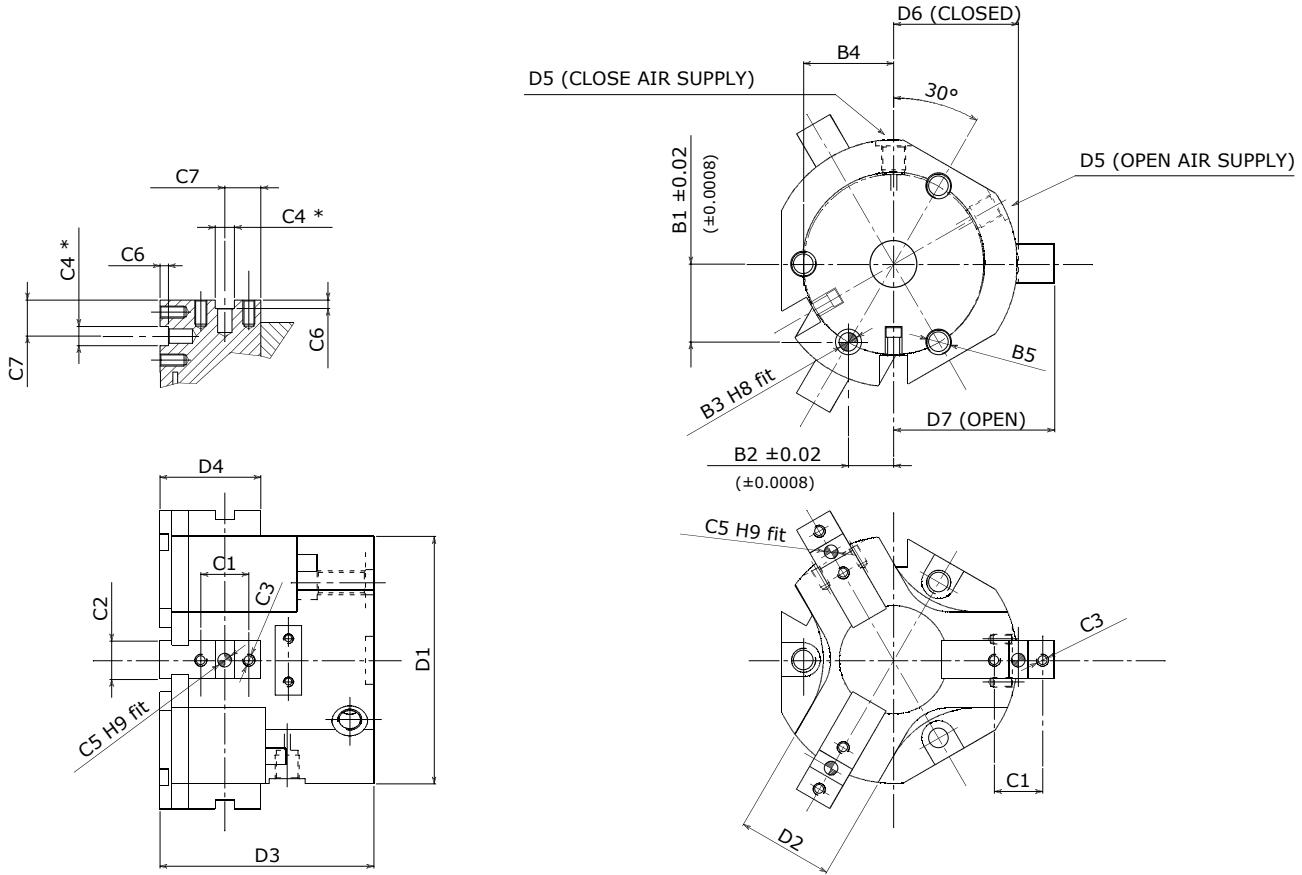


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	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	C6	C7	D1	D2	D3	D4	D5	D6	D7
OPE 110-3	36.81	21.25	8	21.25	M10	24	20	M6	8	6	3.5	16.5	110	48	91.5	45	G 1/8	55.5	65.5
OPE 110 -3 S	(1.45)	(0.84)	(0.31)	(0.84)		(0.94)	(0.79)		(0.31)	(0.24)	(0.14)	(0.65)	(4.33)	(1.89)	(3.60)	(1.77)		(2.19)	(2.58)
OPE 125 -3	38.97	22.5	8	22.5	M10	24	18	M6	8	6	3.5	18.5	125	44	105.5	52.5	G 1/8	63	83
OPE 125-3 S	(1.53)	(0.89)	(0.31)	(0.89)		(0.94)	(0.71)		(0.31)	(0.24)	(0.14)	(0.73)	(4.92)	(1.73)	(4.15)	(2.07)		(2.48)	(3.27)
OPE 175 -3	51.96	30	10	30	M12	30	22	M8	10	8	4	24	174	48	140	64	G 1/8	87.5	117.5
OPE 175-3 S	(2.05)	(1.18)	(0.39)	(1.18)		(1.18)	(0.87)		(0.39)	(0.31)	(0.16)	(0.94)	(6.85)	(1.89)	(5.51)	(2.52)		(3.44)	(4.63)
OPE 205 -3	64.95	37.5	12	37.5	M14	35	25	M8	12	10	4.5	29	206	61	170	72	G 1/4	103.5	138.5
OPE 205-3 S	(2.56)	(1.48)	(0.47)	(1.48)		(1.38)	(0.98)		(0.47)	(0.39)	(0.18)	(1.14)	(8.11)	(2.40)	(6.69)	(2.83)		(4.07)	(5.45)
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