

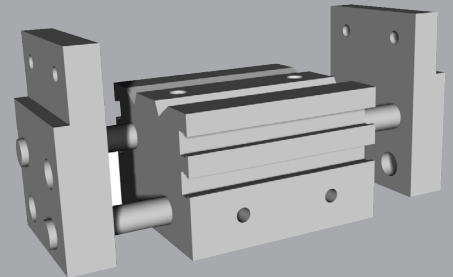
Pneumatic Parallel Grippers

VRG 2-Finger

VRG is a long stroke two-finger parallel gripper for lighter duty applications.

Advantages

- Compact design and wide range of strokes available.
- Double piston design with finger synchronization by a rack and pinion mechanism.
- All shafts equipped with self-lubricating bearings.
- Long stroke, round guidance system protected from dirt and debris.
- Side finger mounting.
- Slots for mounting and positioning of magnetic-field sensors.
- Air supply via 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
VRG 16 - 30	15 mm	9.1 cm ³	60 N	60 N	120 N	120 N	0.60 kg	0.59 kg	± 0.01 mm
	0.59 in	0.56 in ³	13.5 lb	13.5 lb	27.0 lb	27.0 lb	1.30 lb	1.29 lb	± 0.004 in
VRG 16 - 60	30 mm	18.2 cm ³	60 N	60 N	120 N	120 N	0.60 kg	0.80 kg	± 0.01 mm
	1.18 in	1.11 in ³	13.5 lb	13.5 lb	27.0 lb	27.0 lb	1.30 lb	1.75 lb	± 0.004 in
VRG 16 - 80	40 mm	24.2 cm ³	60 N	60 N	120 N	120 N	0.60 kg	0.94 kg	± 0.01 mm
	1.57 in	1.48 in ³	13.5 lb	13.5 lb	27.0 lb	27.0 lb	1.30 lb	2.06 lb	± 0.004 in
VRG 20 - 40	20 mm	17.6 cm ³	100 N	100 N	200 N	200 N	1.00 kg	1.03 kg	± 0.01 mm
	0.79 in	1.07 in ³	22.5 lb	22.5 lb	45.0 lb	45.0 lb	2.20 lb	2.26 lb	± 0.004 in
VRG 20 - 80	40 mm	35.2 cm ³	100 N	100 N	200 N	200 N	1.00 kg	1.50 kg	± 0.01 mm
	1.57 in	2.15 in ³	22.5 lb	22.5 lb	45.0 lb	45.0 lb	2.20 lb	3.29 lb	± 0.004 in
VRG 20 - 100	50 mm	44 cm ³	100 N	100 N	200 N	200 N	1.00 kg	1.69 kg	± 0.01 mm
	1.97 in	2.68 in ³	22.5 lb	22.5 lb	45.0 lb	45.0 lb	2.20 lb	3.72 lb	± 0.004 in
VRG 25 - 50	25 mm	38 cm ³	170 N	170 N	340 N	340 N	1.70 kg	1.69 kg	± 0.01 mm
	0.98 in	2.32 in ³	38.2 lb	38.2 lb	76.4 lb	76.4 lb	3.70 lb	3.72 lb	± 0.004 in
VRG 25 - 100	50 mm	76 cm ³	170 N	170 N	340 N	340 N	1.70 kg	2.56 kg	± 0.01 mm
	1.97 in	4.64 in ³	38.2 lb	38.2 lb	76.4 lb	76.4 lb	3.70 lb	5.63 lb	± 0.004 in
VRG 25 - 120	60 mm	91.2 cm ³	170 N	170 N	340 N	340 N	1.70 kg	2.78 kg	± 0.01 mm
	2.36 in	5.56 in ³	38.2 lb	38.2 lb	76.4 lb	76.4 lb	3.70 lb	6.11 lb	± 0.004 in
VRG 32 - 70	35 mm	84.5 cm ³	300 N	300 N	600 N	600 N	3.00 kg	2.91 kg	± 0.01 mm
	1.38 in	5.15 in ³	67.4 lb	67.4 lb	134.9 lb	134.9 lb	6.60 lb	6.39 lb	± 0.004 in
VRG 32 - 120	60 mm	145 cm ³	300 N	300 N	600 N	600 N	3.00 kg	3.82 kg	± 0.01 mm
	2.36 in	8.85 in ³	67.4 lb	67.4 lb	134.9 lb	134.9 lb	6.60 lb	8.40 lb	± 0.004 in
VRG 32 - 160	80 mm	193 cm ³	300 N	300 N	600 N	600 N	3.00 kg	4.66 kg	± 0.01 mm
	3.15 in	11.77 in ³	67.4 lb	67.4 lb	134.9 lb	134.9 lb	6.60 lb	10.24 lb	± 0.004 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.

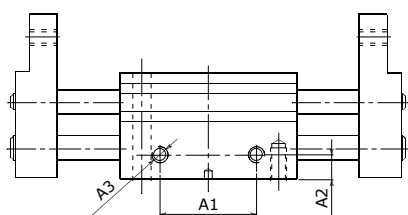
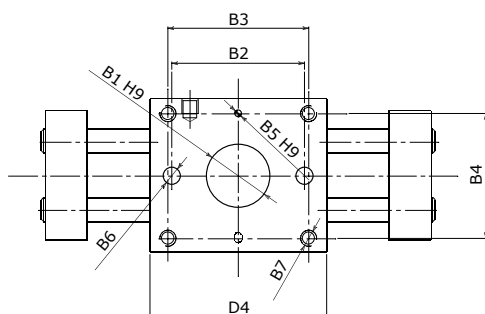
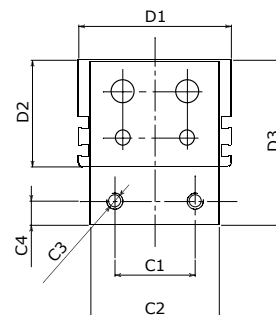
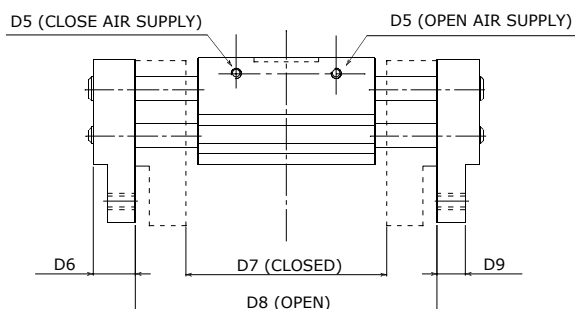
Operating Pressure **1 - 6 bar (14.5 - 87 psi)**

Working Temperature **10 - 60 °C (50 - 140 °F)**

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

PRODUCT INFORMATION

VRG 2-Finger



Options

- Magnetic switches

	Mounting - Option # 1			Mounting - Option # 2							Finger Application				Informational Dimensions								
	A1	A2	A3	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D1	D2	D3	D4	D5	D6	D7	D8	D9
VRG 16-30	28.0 (1.10)	10 (0.39)	M5	23.00 (0.91)	40 (1.57)	45 (1.77)	42 (1.65)	3 (0.12)	5.5 (0.22)	M5	25 (0.98)	44.5 (1.75)	M5	8 (0.31)	55 (2.17)	40 (1.57)	59 (2.32)	60 (2.36)	M5	13 (0.51)	68 (2.68)	98 (3.86)	9 (0.35)
VRG 16-60	58.0 (2.28)	10 (0.39)	M5	23.00 (0.91)	70 (2.76)	75 (2.95)	42 (1.65)	3 (0.12)	5.5 (0.22)	M5	25 (0.98)	44.5 (1.75)	M5	8 (0.31)	55 (2.17)	40 (1.57)	59 (2.32)	90 (3.54)	M5	13 (0.51)	110 (4.33)	170 (6.69)	9 (0.35)
VRG 16-80	78.0 (3.07)	10 (0.39)	M5	23.00 (0.91)	90 (3.54)	95 (3.74)	42 (1.65)	3 (0.12)	5.5 (0.22)	M5	25 (0.98)	44.5 (1.75)	M5	8 (0.31)	55 (2.17)	40 (1.57)	59 (2.32)	110 (4.33)	M5	13 (0.51)	130 (5.12)	210 (8.27)	9 (0.35)
VRG 20-40	38.0 (1.50)	11 (0.43)	M6	24.00 (0.94)	54 (2.13)	58 (2.28)	52 (2.05)	4 (0.16)	6.6 (0.26)	M6	30 (1.18)	54 (2.13)	M6	10 (0.39)	65 (2.56)	46 (1.81)	70 (2.76)	71 (2.80)	M5	17 (0.67)	82 (3.23)	122 (4.80)	12.5 (0.49)
VRG 20-80	80.0 (3.15)	11 (0.43)	M6	24.00 (0.94)	96 (3.78)	100 (3.94)	52 (2.05)	4 (0.16)	6.6 (0.26)	M6	30 (1.18)	54 (2.13)	M6	10 (0.39)	65 (2.56)	46 (1.81)	70 (2.76)	113 (4.45)	M5	17 (0.67)	142 (5.59)	222 (8.74)	12.5 (0.49)
VRG 20-100	100.0 (3.94)	11 (0.43)	M6	24.00 (0.94)	116 (4.57)	120 (4.72)	52 (2.05)	4 (0.16)	6.6 (0.26)	M6	30 (1.18)	54 (2.13)	M6	10 (0.39)	65 (2.56)	46 (1.81)	70 (2.76)	133 (5.24)	M5	17 (0.67)	162 (6.38)	262 (10.31)	12.5 (0.49)
VRG 25-50	48.0 (1.89)	12.5 (0.49)	M8	32.00 (1.26)	66 (2.60)	70 (2.76)	62 (2.44)	4 (0.16)	9 (0.35)	M8	40 (1.57)	64 (2.52)	M8	12 (0.47)	76 (2.99)	53 (2.09)	82 (3.23)	88 (3.46)	M5	21 (0.83)	100 (3.94)	150 (5.91)	14 (0.55)
VRG 25-100	102.0 (4.02)	12.5 (0.49)	M8	32.00 (1.26)	120 (4.72)	124 (4.88)	62 (2.44)	4 (0.16)	9 (0.35)	M8	40 (1.57)	64 (2.52)	M8	12 (0.47)	76 (2.99)	53 (2.09)	82 (3.23)	142 (5.59)	M5	21 (0.83)	182 (7.17)	282 (11.10)	14 (0.55)
VRG 25-120	120.0 (4.72)	12.5 (0.49)	M8	32.00 (1.26)	138 (5.43)	142 (5.59)	62 (2.44)	4 (0.16)	9 (0.35)	M8	40 (1.57)	64 (2.52)	M8	12 (0.47)	76 (2.99)	53 (2.09)	82 (3.23)	160 (6.30)	M5	21 (0.83)	200 (7.87)	320 (12.60)	14 (0.55)
VRG 32-70	60.0 (2.36)	22 (0.87)	M8	35.00 (1.38)		86 (3.39)	64 (2.52)	6 (0.24)		M8	50 (1.97)	70 (2.76)	M10	15 (0.59)	82 (3.23)	68 (2.68)	100 (3.94)	110 (4.33)	RC 1/8	24 (0.94)	150 (5.91)	220 (8.66)	15 (0.59)
VRG 32-120	108.0 (4.25)	22 (0.87)	M8	35.00 (1.38)		134 (5.28)	64 (2.52)	6 (0.24)		M8	50 (1.97)	70 (2.76)	M10	15 (0.59)	82 (3.23)	68 (2.68)	100 (3.94)	158 (6.22)	RC 1/8	24 (0.94)	198 (7.80)	318 (12.52)	15 (0.59)
VRG 32-160	152.0 (5.98)	22 (0.87)	M8	35.00 (1.38)		178 (7.01)	64 (2.52)	6 (0.24)		M8	50 (1.97)	70 (2.76)	M10	15 (0.59)	82 (3.23)	68 (2.68)	100 (3.94)	202 (7.95)	RC 1/8	24 (0.94)	242 (9.53)	402 (15.83)	15 (0.59)
VRG 40-100	80.0 (3.15)	28 (1.10)	M10	40.00 (1.57)		116 (4.57)	76 (2.99)	6 (0.24)		M10	60 (2.36)	86 (3.39)	M12	18 (0.71)	98 (3.86)	80 (3.15)	118 (4.65)	148 (5.83)	RC 1/8	28 (1.10)	188 (7.40)	288 (11.34)	18 (0.71)
VRG 40-160	138.0 (5.43)	28 (1.10)	M10	40.00 (1.57)		174 (6.85)	76 (2.99)	6 (0.24)		M10	60 (2.36)	86 (3.39)	M12	18 (0.71)	98 (3.86)	80 (3.15)	118 (4.65)	206 (8.11)	RC 1/8	28 (1.10)	246 (9.69)	406 (15.98)	18 (0.71)

* 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
Glenville, 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@effectogroup.com
www.effecto.com

