



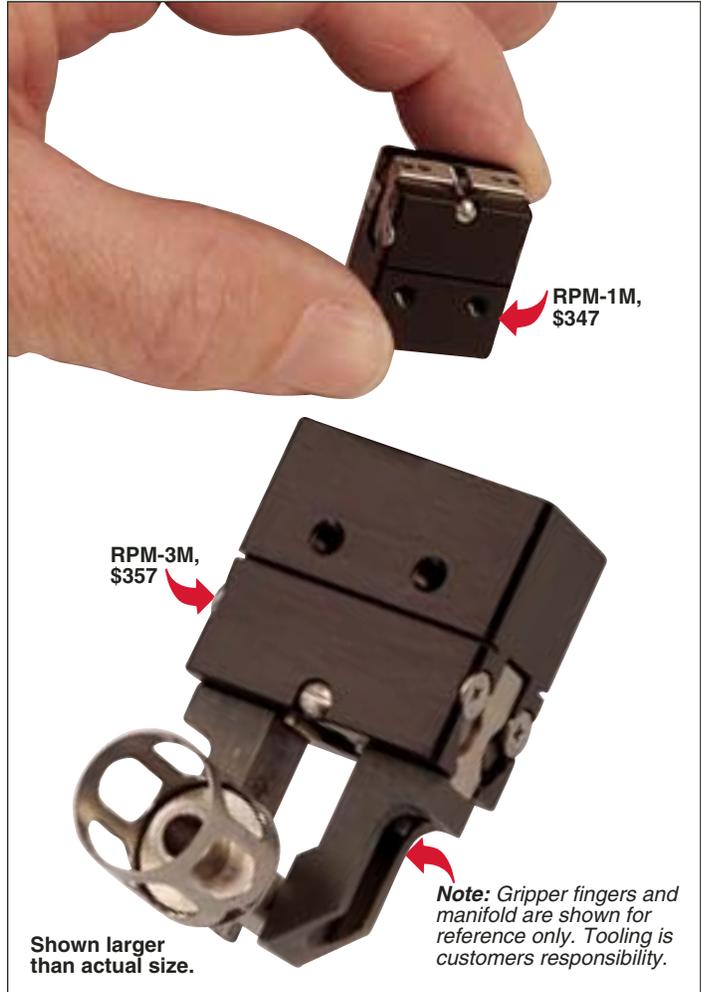
PARALLEL PNEUMATIC GRIPPERS MINIATURE SERIES DESIGNED FOR MANIFOLD MOUNTING

RPM Series
Starts at
\$352

Small Part
Handling



- Precision Gripping—Preloaded V Roller Bearings Eliminate Side Play Resulting in Excellent Part Positioning
- Accuracy of 0.05 mm (0.002") and Repeatability of 0.03 mm (0.001")
- Rated Grip Force @ 7 Bar (100 psi), 36 N (8 lbs)
- Compact Design for Gripping Small Parts in Small Places
- Rigid and Low Friction Design Allows for Longer Finger Lengths for Use on Delicate Parts
- Group Multiple Grippers in Close Array Using Top Manifold Mounting Surface
- Up to 5 Million Cycles in Typical Operation and 10 Million with Maintenance
- Operating Temperature -35 to 80°C (-30 to 180°F)
- System Requires 3 to 7 bar (40 to 100 psi) Dry Filtered (40 micron or Better) Air Supply
- Requires 4-Way, 2 Position Valve and Regulator for Delicate Parts



PRODUCT FEATURES

Slip Fit Dowel Pin Holes

Located in body and jaws

Adjustable Preload

Adjustable preload screw allows for adjustment of preload on roller bearings

One Piece Body

One piece lightweight aluminum body

Roller Bearings

Patented Dual-"V" roller bearings provide low friction rolling motion and maximum rigidity for fingers



Quality Components

Internal components are made from hardened bearing and tool steels

Self Lubricating Dynamic Seals

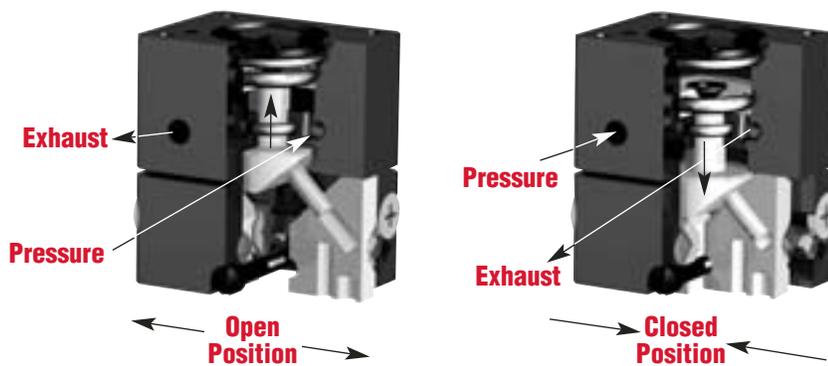
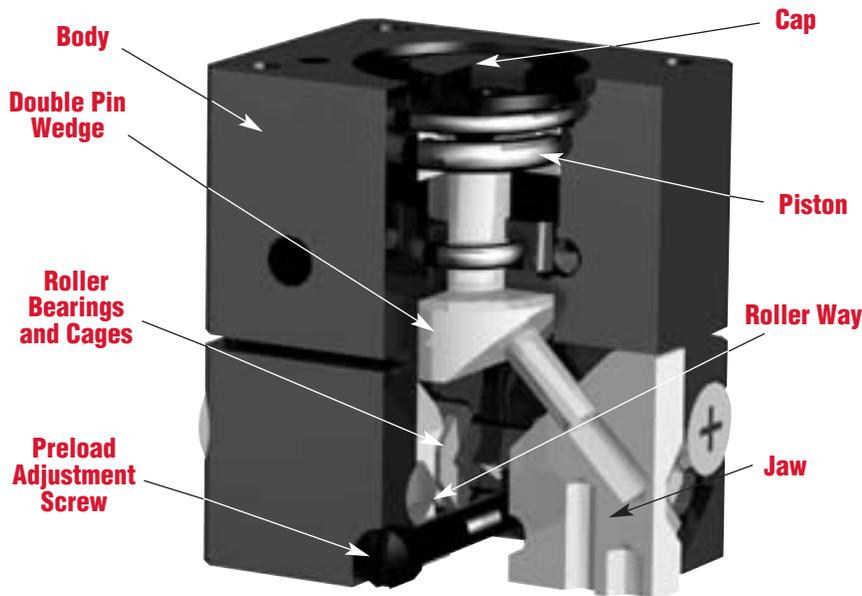
Buna-N only

Preloaded Bearings

Bearings are preloaded for maximum support and zero side play



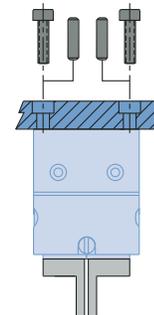
OPERATING PRINCIPLE



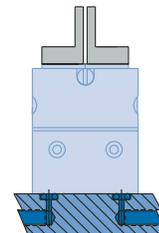
- A double acting piston is connected by a shaft to a double sided pin wedge.
- The pin wedge slides in a hole located in each of the jaws converting vertical motion of the wedge into horizontal synchronous motion of the jaws.
- This gripper is suitable for internal or external gripping.

MOUNTING INFORMATION

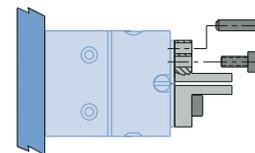
Grippers can be mounted and operated in any orientation.



Body mounts with screws and locates with slip-fit dowel pins for accuracy.



Unit has top manifold ports.



Fingers attach to jaws with screws and locate with dowel pins or by keying.

TECHNICAL SPECIFICATIONS

Pneumatic Specifications

Pressure Operating Range: 3 to 7 bar (40 to 100 psi)

Cylinder Type: Double acting

Dynamic Seals:

Internally lubricated Buna-N

Valve Required to Operate:

4-way, 2-position

Air Quality Requirements

Air Filtration: 40 micron or better

Air Lubrication: Not necessary*

Air Humidity: Low moisture content (dry)

Temperature Operating Range

Buna-N Seals (Standard): -35 to 80°C (-30 to 180°F)

Viton® Seals (Optional): -30 to 120°C (-20 to 250°F)

Maintenance Specifications*

Expected Life:

Normal Application: 5 million cycles

With Preventative Maintenance:

10+ million cycles*

Field Repairable: Yes

Seal Repair Kits Available: Yes

*Addition of lubrication will greatly increase service life.



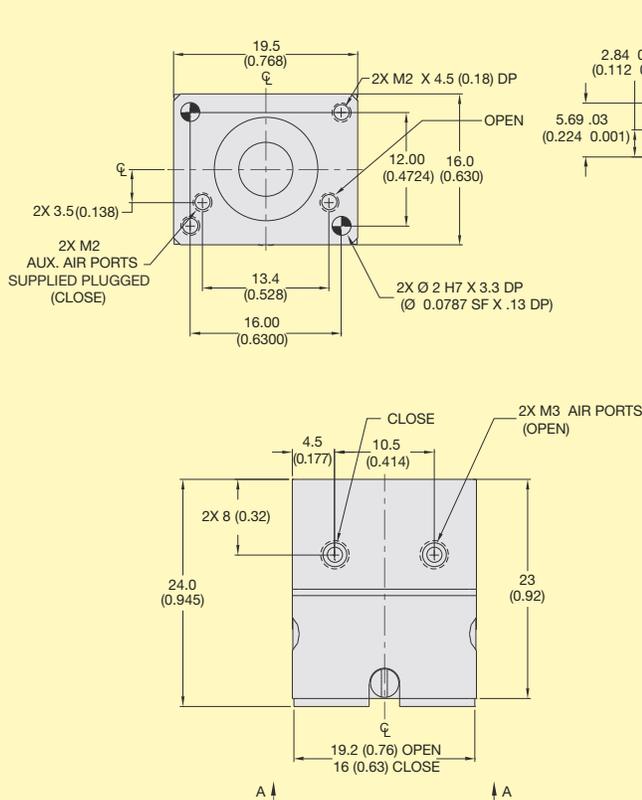
PARALLEL PNEUMATIC GRIPPER— MINIATURE SERIES RPM-1M



RPM-1M, \$347, shown larger than actual size.



Dimensions: mm (in)

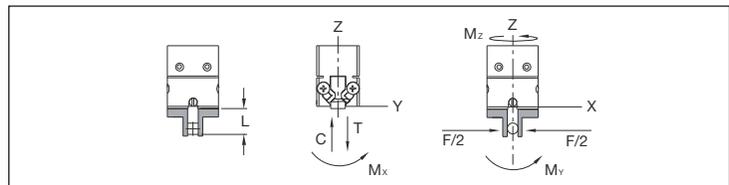
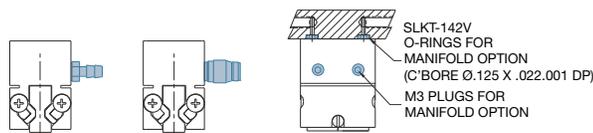
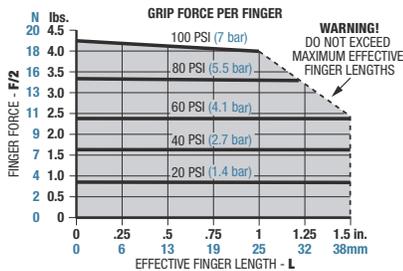


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

Dimensions are symmetrical about centerline
 Third Angle Projection
 All Dowel Holes are SF (Slip Fit). Locational Tolerance $\pm 0.005"$ or $\pm 0.13\text{mm}$

Metric mm **Imperial (in)**
 0. = $\pm .25$ 0.00 = $(\pm .01)$
 0.0 = $\pm .13$ 0.000 = $(\pm .005)$
 0.00 = $\pm .013$ 0.0000 = $(\pm .0005)$

SPECIFICATIONS	RPM-1M
Total Rated Grip Force F @ 100 psi, 7 bar	36 N (8 lb)
Stroke	3.2 mm (0.13")
Weight	0.024 Kg (0.052 lb)
Pressure Range	3 to 7 bar (40 to 100 psi)
Cylinder Bore ϕ	10 mm (0.394")
Displacement	0.13 cm ³ (0.008" ³)
Temp Range (Standard Seals)	-35 to 80°C (-30 to 180°F)
Temp Range (Viton® Seals)	-30 to 120°C (-20 to 250°F)
Actuation	0.10 sec
Accuracy	± 0.05 mm ($\pm 0.002"$)
Repeatability	± 0.03 mm ($\pm 0.001"$)
Valve Required to Actuate	4-way, 2-position



LOADING CAPACITY†	STATIC	DYNAMIC
Maximum Tensile T	89 N (20 lbs)	31 N (7 lbs)
Maximum Compressive C	89 N (20 lbs)	31 N (7 lbs)
Maximum Moment Mx	1 Nm (12"/lbs)	0.5 Nm (4"/lbs)
Maximum Moment My	2 Nm (15"/lbs)	0.6 Nm (5"/lbs)
Maximum Moment Mz	1 Nm (12"/lbs)	0.5 Nm (4"/lbs)

† Capacities are per set of jaws and not simultaneous.

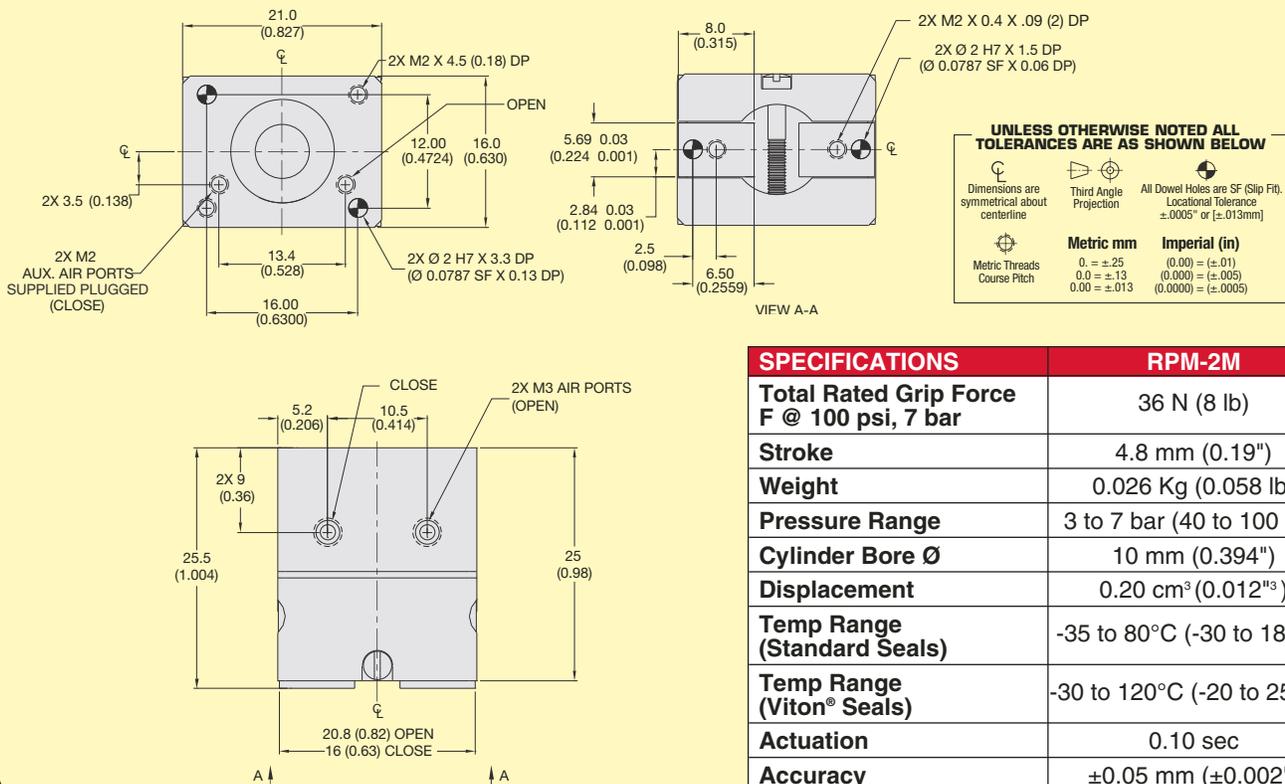
PARALLEL PNEUMATIC GRIPPER— MINIATURE SERIES RPM-2M



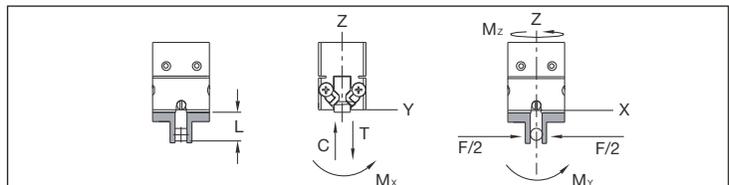
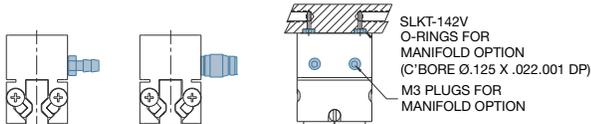
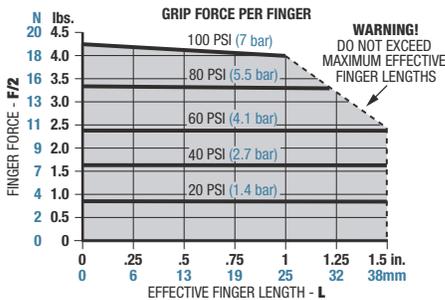
RPM-2M, \$352, shown larger than actual size.



Dimensions: mm (in)



SPECIFICATIONS	RPM-2M
Total Rated Grip Force F @ 100 psi, 7 bar	36 N (8 lb)
Stroke	4.8 mm (0.19")
Weight	0.026 Kg (0.058 lb)
Pressure Range	3 to 7 bar (40 to 100 psi)
Cylinder Bore ϕ	10 mm (0.394")
Displacement	0.20 cm ³ (0.012"³)
Temp Range (Standard Seals)	-35 to 80°C (-30 to 180°F)
Temp Range (Viton® Seals)	-30 to 120°C (-20 to 250°F)
Actuation	0.10 sec
Accuracy	± 0.05 mm (± 0.002 ")
Repeatability	± 0.03 mm (± 0.001 ")
Valve Required to Actuate	4-way, 2-position



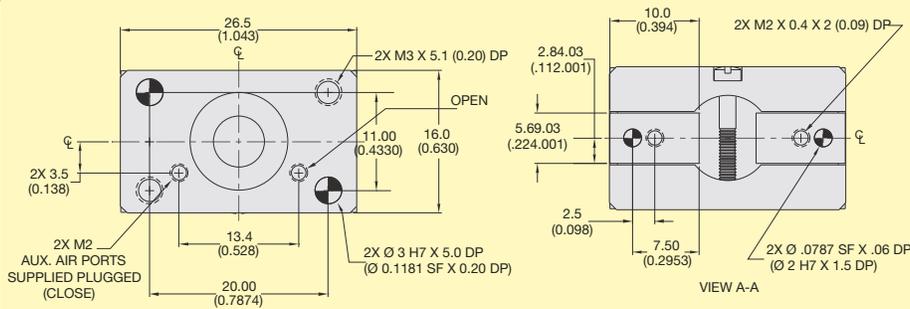
LOADING CAPACITY†	STATIC	DYNAMIC
Maximum Tensile T	89 N (20 lbs)	31 N (7 lbs)
Maximum Compressive C	89 N (20 lbs)	31 N (7 lbs)
Maximum Moment M _x	1 Nm (12"/lbs)	0.5 Nm (4"/lbs)
Maximum Moment M _y	2 Nm (15"/lbs)	0.6 Nm (5"/lbs)
Maximum Moment M _z	1 Nm (12"/lbs)	0.5 Nm (4"/lbs)

† Capacities are per set of jaws and not simultaneous.



PARALLEL PNEUMATIC GRIPPER— MINIATURE SERIES RPM-3M

Dimensions: mm (in)

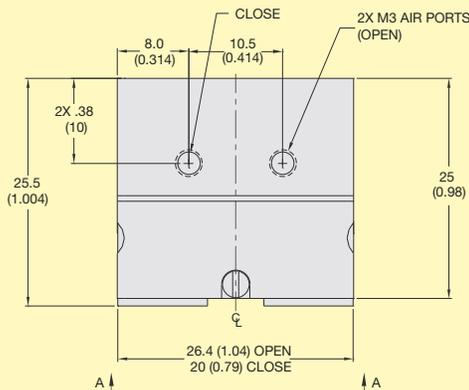


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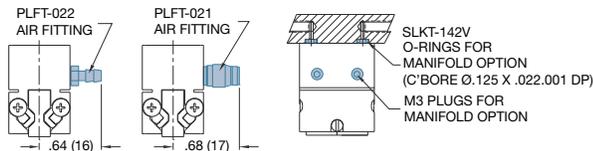
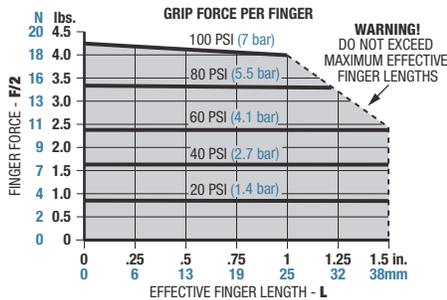
Dimensions are symmetrical about centerline
 Third Angle Projection
 All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or (±.013mm)

Metric mm **Imperial (in)**
 0. = ±.25 (0.00) = (±.01)
 0.0 = ±.13 (0.000) = (±.005)
 0.00 = ±.013 (0.0000) = (±.0005)

Metric Threads
 Course Pitch



SPECIFICATIONS	RPM-3M
Total Rated Grip Force F @ 100 psi, 7 bar	36 N (8 lb)
Stroke	6.3 mm (0.25")
Weight	0.034 Kg (0.074 lb)
Pressure Range	3 to 7 bar (40 to 100 psi)
Cylinder Bore Ø	10 mm (0.394")
Displacement	0.25 cm ³ (0.015 in ³)
Temp Range (Standard Seals)	-35 to 80°C (-30 to 180°F)
Temp Range (Viton® Seals)	-30 to 120°C (-20 to 250°F)
Actuation	0.10 sec
Accuracy	±0.05 mm (±0.002")
Repeatability	±0.03 mm (±0.001")
Valve Required to Actuate	4-way, 2-position



LOADING CAPACITY [†]	STATIC	DYNAMIC
Maximum Tensile T	89 N (20 lbs)	31 N (7 lbs)
Maximum Compressive C	89 N (20 lbs)	31 N (7 lbs)
Maximum Moment M_x	1 Nm (12"/lbs)	0.5 Nm (4"/lbs)
Maximum Moment M_y	2 Nm (15"/lbs)	0.6 Nm (5"/lbs)
Maximum Moment M_z	1 Nm (12"/lbs)	0.5 Nm (4"/lbs)

[†] Capacities are per set of jaws and not simultaneous.

To Order (Specify Model Number)

AVAILABLE FOR FAST DELIVERY!

MODEL NO.	PRICE	LENGTH mm (in)	DEPTH mm (in)	HEIGHT mm (in)	STROKE mm (in)
RPM-1M	\$347	19.5 (0.768)	16 (0.630)	23 (0.92)	3.2 (0.13)
RPM-2M	352	21.0 (0.827)	16 (0.630)	25 (0.98)	4.8 (0.19)
RPM-3M	357	26.5 (1.043)	16 (0.630)	25 (0.98)	6.3 (0.25)

ACCESSORIES

MODEL NO.	PRICE	DESCRIPTION
SLKT-121	\$16	Standard seal repair kit
SLKT-142V	27	Top air port manifold seal kit (Viton® only)

Ordering Example: RPM-1M, pneumatic powered mini gripper with maximum stroke of 3.2 mm (0.13"), \$347. Recommended accessories SLKT-142V, top air port manifold seal kit for remote air fitting use, \$27.

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• Heaters

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