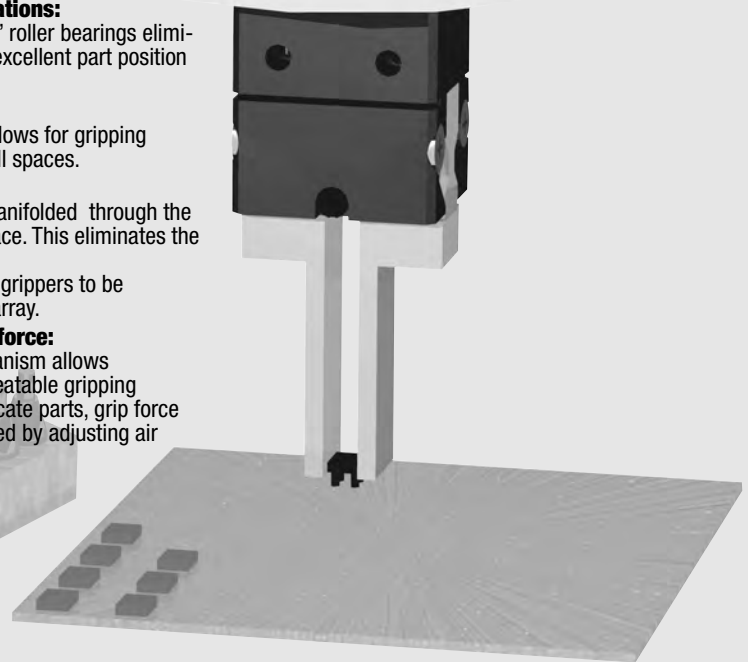


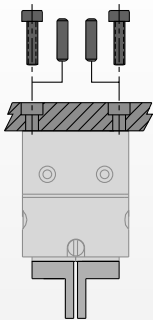
# Parallel Grippers - Miniature Series

- Precision applications:**  
 Preloaded dual-“V” roller bearings eliminate side play for excellent part position repeatability.
- Miniature size:**  
 Compact design allows for gripping small parts in small spaces.
- Top manifold:**  
 Grippers can be manifolded through the top mounting surface. This eliminates the need for air fittings and allows grippers to be mounted in close array.
- Repeatable grip force:**  
 Low friction mechanism allows for consistent, repeatable gripping forces. To grip delicate parts, grip force can be easily altered by adjusting air pressure.

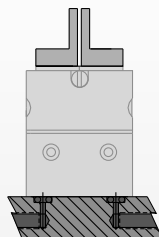


## Mounting Information:

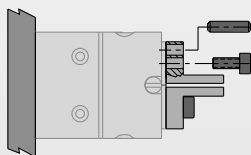
Gripper can be mounted and operated in any orientation



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:

<b>Pneumatic Specifications</b>	<b>Imperial</b>	<b>Metric</b>
Pressure Operating Range	40-100 psi	1.3-7 bar
Cylinder Type	Double Acting	
Dynamic Seals	Internally Lubricated Buna-N	
Valve Required to Operate	4-way, 2-position	

<b>Air Quality Requirements</b>	<b>40 Micron or Better</b>
Air Filtration	<b>Not Necessary*</b>
Air Lubrication	<b>Low Moisture Content (dry)</b>
Air Humidity	

<b>Temperature Operating Range</b>		
Buna-N Seals (standard)	-30°~180° F	-35°~80° C
Viton® Seals (optional)	-20°~250° F	-30°~120° C

<b>Maintenance Specifications†</b>	
Expected Life	<b>5 million cycles</b>
Normal Application	<b>10+ million cycles*</b>
w/ Preventative Maintenance	<b>Yes</b>
Field Repairable	<b>Yes</b>
Seal Repair Kits Available	<b>Yes</b>

**Application restrictions**  
 Dirty or gritty environments  
 Machining operations generating chips  
 Environments with loose particulate  
 Applications where mechanism lubricant could cause contamination

\*Addition of lubrication will greatly increase service life  
 †See Maintenance Section



## Product Features

### Slip Fit Dowel Pin Holes

Located in body and jaws

### Quality Components

Internal drive components are made from hardened bearing and tool steels

### One Piece Body

One piece lightweight aluminum body

### Adjustable Preload

Adjustable preload screw allows for adjustment of preload on roller bearings

### Roller Bearings

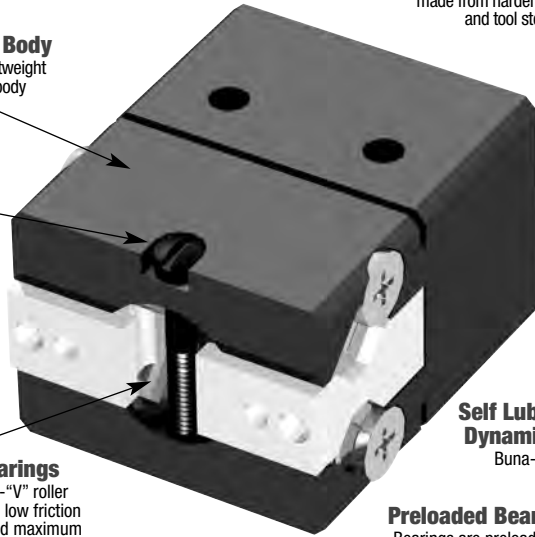
Patented Dual-"V" roller bearings provide low friction rolling motion and maximum rigidity for fingers

### Self Lubricating Dynamic Seals

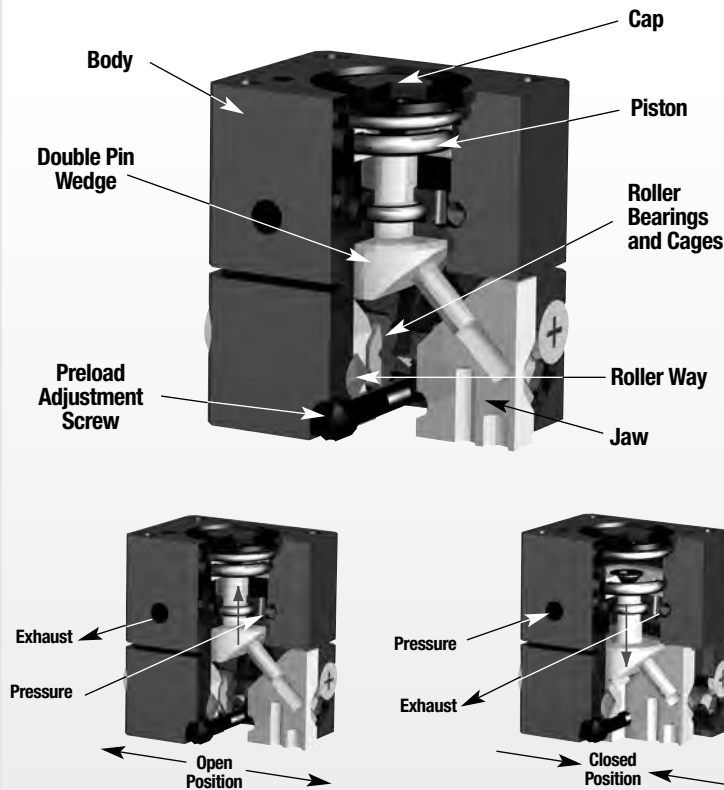
Buna-N only

### 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.

## Style -RPM Parallel Gripper

### Size -1M

Style:	■ RPM-1M
Stroke:	0.13 in. 3.2 mm
Grip Force:	8 lbs. 36 N
Weight:	0.052 lbs. .02 Kg



See Page **1.108**

## Style -RPM Parallel Gripper

### Size -2M

Style:	■ RPM-2M
Stroke:	0.19 in. 4.8 mm
Grip Force:	8 lbs. 36 N
Weight:	0.058 lbs. .03 Kg



See Page **1.109**

## Style -RPM Parallel Gripper

### Size -3M

Style:	■ RPM-3M
Stroke:	0.25 in. 6.3 mm
Grip Force:	8 lbs. 36 N
Weight:	0.074 lbs. .03 Kg



See Page **1.110**





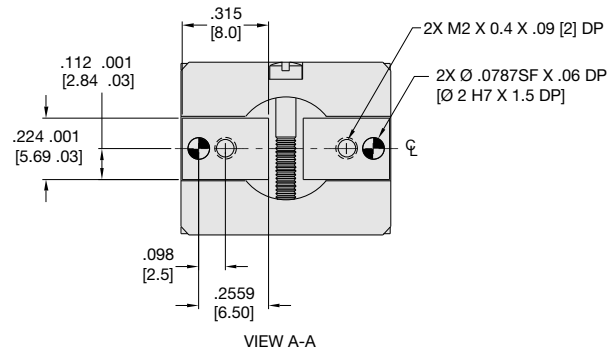
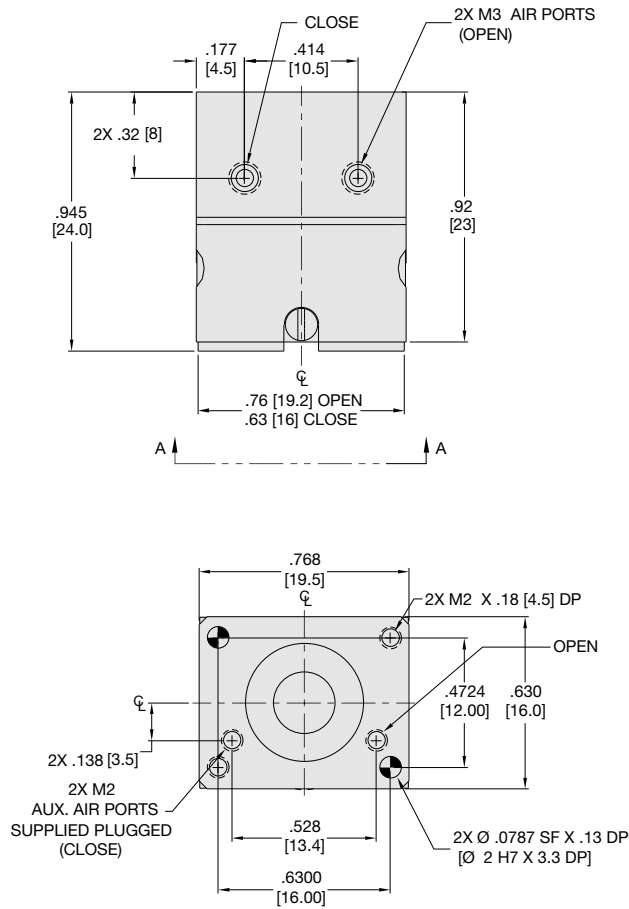
RPM SERIES

1.108

# PARALLEL GRIPPER RPM-1M MINIATURE SERIES

### Specifications

	RPM-1M	
Total Rated Grip Force <b>F</b> @ 100 psi, 7 bar	8 lbs.	36 N
Stroke	.13 in.	3.2 mm
Weight	0.052 lbs.	0.024 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore $\varnothing$	0.394 in.	10.0 mm
Displacement	0.008 in <sup>3</sup>	0.13 cm <sup>3</sup>
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~250° F	-30°~120° C
Accuracy	0.10 sec.	0.10 sec.
Repeatability	±0.002 in.	±0.05 mm
Valve required to actuate	±0.001 in.	±0.03 mm
		4-way, 2-position

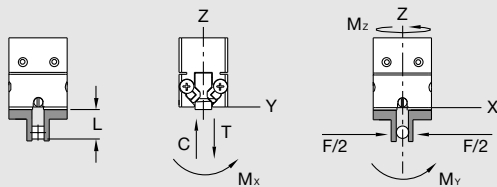
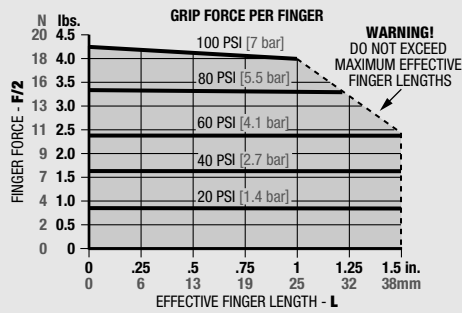


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

	Dimensions are symmetrical about centerline		Third Angle Projection		All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or ±.013mm
	Metric Threads		Imperial in.		Metric [mm]
	Course Pitch		0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005		[0.] = [±.25] [0.0] = [±.13] [0.00] = [±.013]

## Loading Information

## How to Order: (Order Accessories separately from Basic Model)



Loading Capacity†	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile <b>T</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Compressive <b>C</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Moment <b>M<sub>x</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm
Maximum Moment <b>M<sub>y</sub></b>	15 in.-lbs.	2 Nm	5 in.-lbs.	0.6 Nm
Maximum Moment <b>M<sub>z</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm

†Capacities are per set of jaws and are not simultaneous

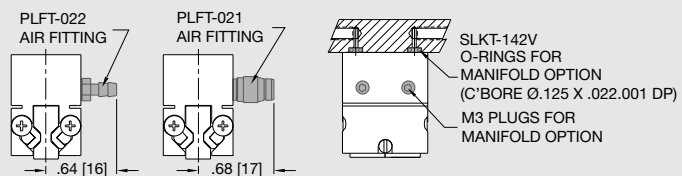
### BASIC MODEL

**RPM-1M-V**

VITON® SEALS

### PNEUMATIC ACCESSORIES

	Order #	QTY/UNIT
M3 Plumbing Fitting Push-in for 3mm O.D. Tube	PLFT-021	2
M3 Plumbing Fitting Barb for 2mm I.D. Tube	PLFT-022	2
Standard Seal Repair Kit	SLKT-121	1
Viton® Seal Repair Kit	SLKT-121V	1
Top Air Ports Manifold Seal Kit (available in Viton® only)	SLKT-142V	1





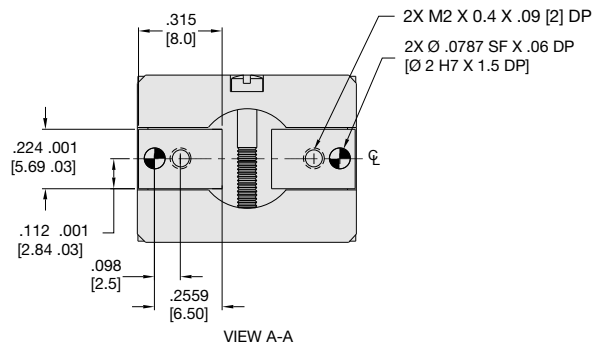
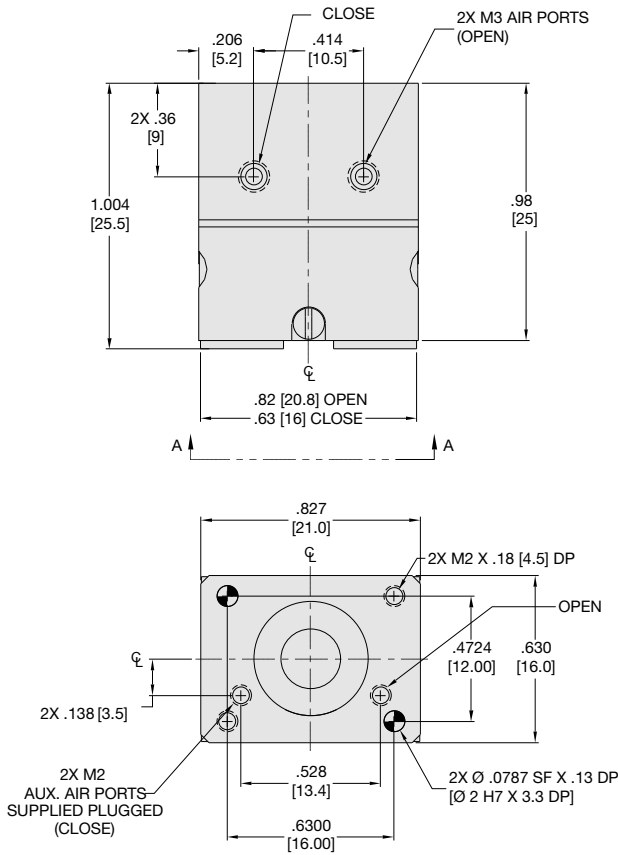
# PARALLEL GRIPPER RPM-2M MINIATURE SERIES

RPM SERIES

1.109

### Specifications

	RPM-2M	
Total Rated Grip Force <b>F</b> @ 100 psi, 7 bar	8 lbs.	36 N
Stroke	.19 in.	4.8 mm
Weight	0.058 lbs.	0.026 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore $\varnothing$	0.394 in.	10.0 mm
Displacement	0.012 in <sup>3</sup>	0.20 cm <sup>3</sup>
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~250° F	-30°~120° C
Actuation	0.10 sec.	0.10 sec.
Accuracy	±0.002 in.	±0.05 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate	4-way, 2-position	

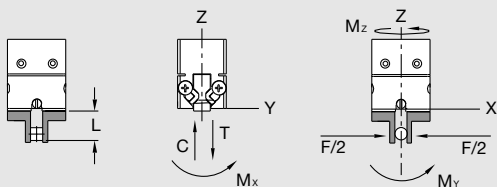
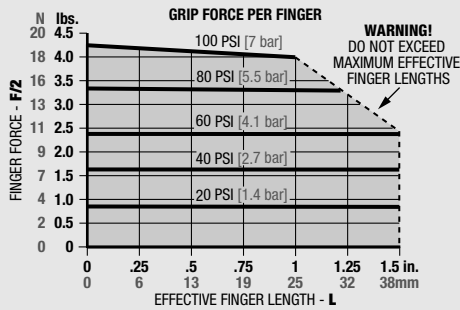


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

	Dimensions are symmetrical about centerline		Third Angle Projection		All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]
	Metric Threads	<b>Imperial in.</b>	<b>Metric [mm]</b>		
	Course Pitch	0.00 = ±.01	[0.] = [±.25]		
		0.000 = ±.005	[0.0] = [±.13]		
		0.0000 = ±.0005	[0.00] = [±.013]		

## Loading Information

## How to Order: (Order Accessories separately from Basic Model)



Loading Capacity <sup>†</sup>	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile <b>T</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Compressive <b>C</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Moment <b>M<sub>x</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm
Maximum Moment <b>M<sub>y</sub></b>	15 in.-lbs.	2 Nm	5 in.-lbs.	0.6 Nm
Maximum Moment <b>M<sub>z</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm

<sup>†</sup>Capacities are per set of jaws and are not simultaneous

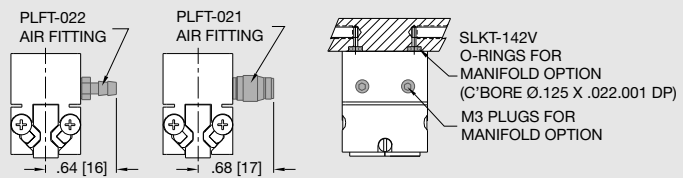
BASIC MODEL

RPM-2M - V

VITON® SEALS

### PNEUMATIC ACCESSORIES

	Order #	QTY/UNIT
M3 Plumbing Fitting Push-in for 3mm O.D. Tube	PLFT-021	2
M3 Plumbing Fitting Barb for 2mm I.D. Tube	PLFT-022	2
Standard Seal Repair Kit	SLKT-121	1
Viton® Seal Repair Kit	SLKT-121V	1
Top Air Ports Manifold Seal Kit (available in Viton® only)	SLKT-142V	1





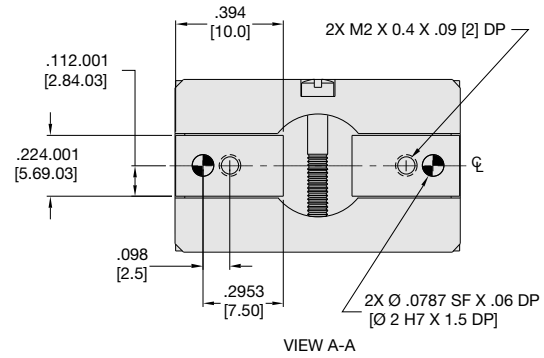
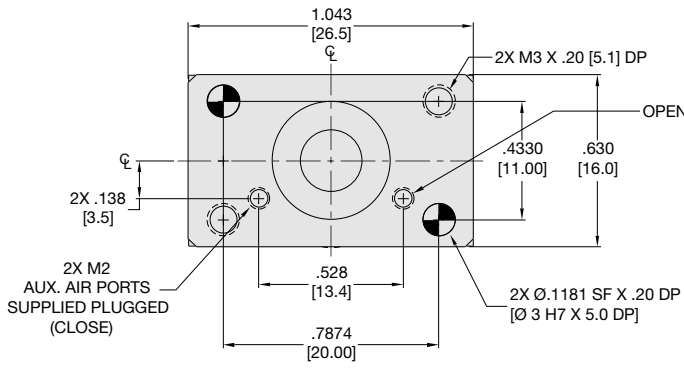
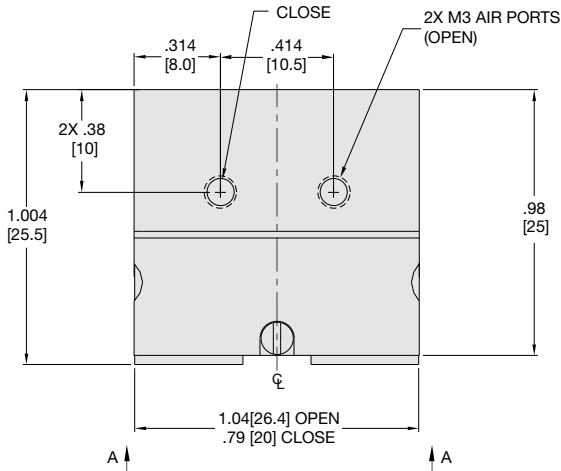
RPM SERIES

1.110

# PARALLEL GRIPPER RPM-3M MINIATURE SERIES

### Specifications

	RPM-3M	
Total Rated Grip Force <b>F</b> @ 100 psi, 7 bar	8 lbs.	36 N
Stroke	.25 in.	6.3 mm
Weight	0.074 lbs.	0.034 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore $\varnothing$	0.394 in.	10.0 mm
Displacement	0.015 in <sup>3</sup>	0.25 cm <sup>3</sup>
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~250° F	-30°~120° C
Actuation	0.10 sec.	0.10 sec.
Accuracy	±0.002 in.	±0.05 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate	4-way, 2-position	

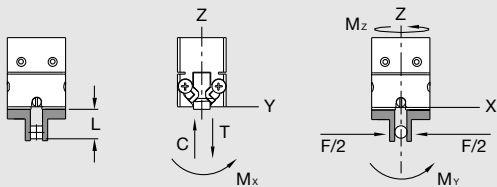
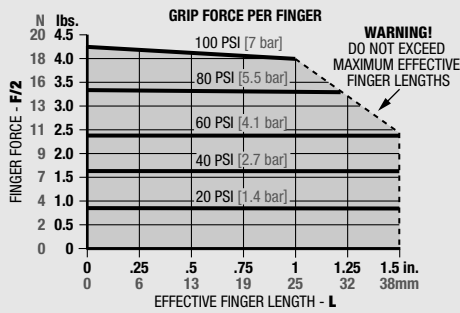


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

	Dimensions are symmetrical about centerline		Third Angle Projection		All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]
	Metric Threads	<b>Imperial in.</b>	<b>Metric [mm]</b>		
	Course Pitch	0.00 = ±.01	[0.] = [±.25]		
		0.000 = ±.005	[0.0] = [±.13]		
		0.0000 = ±.0005	[0.00] = [±.013]		

## Loading Information

## How to Order: (Order Accessories separately from Basic Model)



Loading Capacity†	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile <b>T</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Compressive <b>C</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Moment <b>M<sub>x</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm
Maximum Moment <b>M<sub>y</sub></b>	15 in.-lbs.	2 Nm	5 in.-lbs.	0.6 Nm
Maximum Moment <b>M<sub>z</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm

†Capacities are per set of jaws and are not simultaneous

### BASIC MODEL

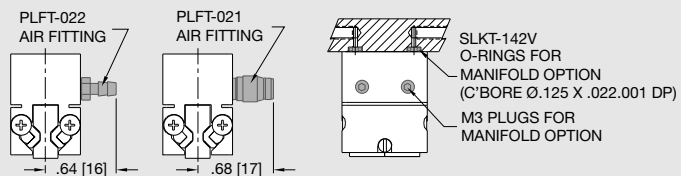
**RPM-3M - V**

VITON® SEALS

### PNEUMATIC ACCESSORIES

- M3 Plumbing Fitting Push-in for 3mm O.D. Tube
- M3 Plumbing Fitting Barb for 2mm I.D. Tube
- Standard Seal Repair Kit
- Viton® Seal Repair Kit
- Top Air Ports Manifold Seal Kit (available in Viton® only)

ORDER #	QTY/UNIT
PLFT-021	2
PLFT-022	2
SLKT-121	1
SLKT-121V	1
SLKT-142V	1

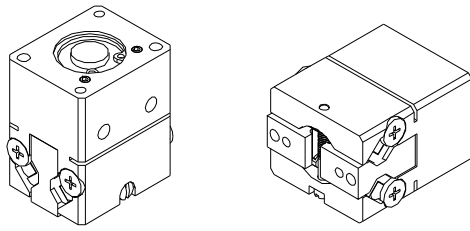




# RPM SERIES EXPLODED VIEW

RPM SERIES  
MAINTENANCE

1.111



Item	Qty	Name
01	1	Body
02	2	Jaw
03	1	Wedge
04	1	Piston
05	1	Cap
06	2	Way
07	4	Kit,Roller Bearings And Cage
08	1	Preload
12	2	Dowel Pin
15	4	Stop Screw

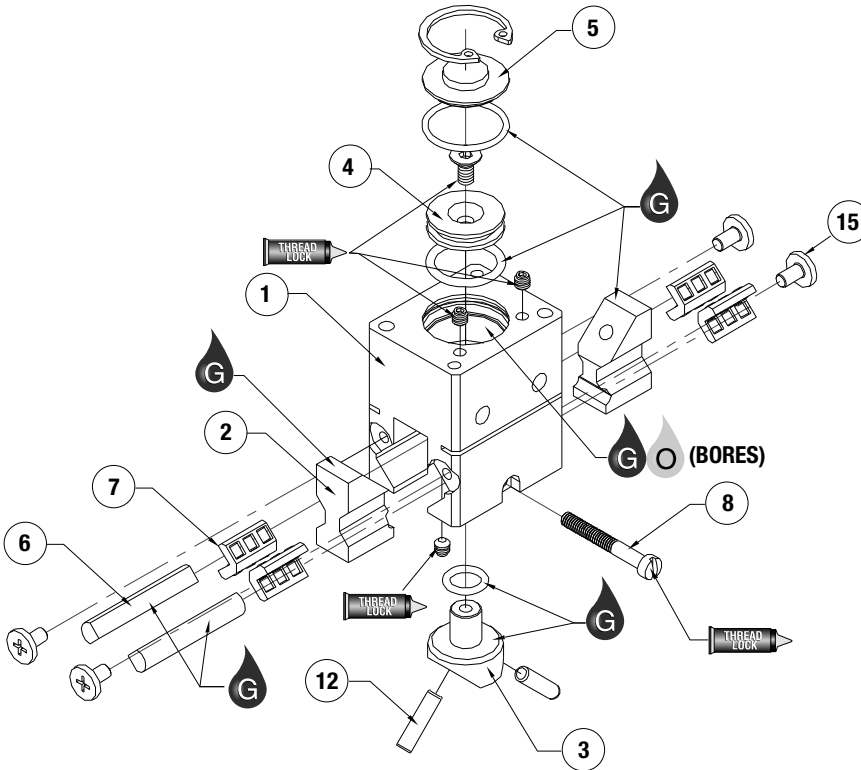
**NOTE:** Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

**Assembly Procedure**

- 1) Lubricate and install seals
- 2) Install pins (12) and wedge (3) into body
- 3) Install piston (4), screw, cap (5), & retaining ring
- 4) Install set screws for airport plugs
- 5) Install jaws (2) over pins
- 6) Install ways (6), cages (7), & screws (15)

**Preload Adjustment**

- 1) Install preload screw (8) w/Loctite on 1st 6-8 threads
- 2) Tighten until there is no side-pay in the jaws
- 3) Cycle gripper (w/fingers preferably)
- 4) Recheck for play in jaws & tighten or loosen as needed



**SK Seal Repair Kit Order #'s  
See Product Data Sheets**

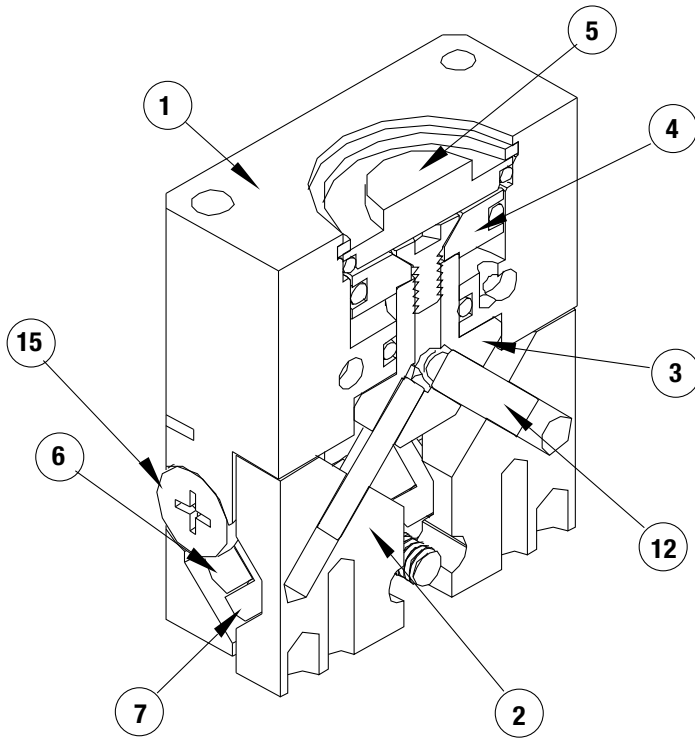
Seal Kit Items	Thread Locker	Krytox™ Lubricant	Lightweight Machine Oil	Teflon™ Based Grease	Super Bonder	Third Angle Projection



RPM SERIES  
MAINTENANCE

1.112

## RPM SERIES ASSEMBLED VIEW



Item	Qty	Name
01	1	Body
02	2	Jaw
03	1	Wedge
04	1	Piston
05	1	Cap
06	2	Way
07	4	Kit, Roller Bearings And Cage
08	1	Preload
12	2	Dowel Pin
15	4	Stop Screw

**NOTE:** Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

**Non-Repairable Items List**  
NONE

<p>SK Seal Kit Items</p>	<p>Thread Locker</p>	<p>Krytox™ Lubricant</p>	<p>Lightweight Machine Oil</p>	<p>Teflon™ Based Grease</p>	<p>Super Bonder</p>	<p>Third Angle Projection</p>
----------------------------------	--------------------------	------------------------------	------------------------------------	---------------------------------	-------------------------	-----------------------------------

Please see back cover for DE-STA-CO Global Locations. [www.destaco.com](http://www.destaco.com)





# DESIGN NOTES

RPM SERIES

1.113

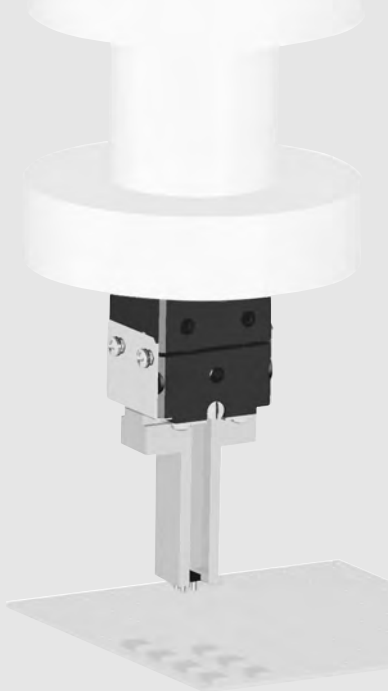




RPMC SERIES

1.114

# Parallel Grippers - Miniature Clean Room Series

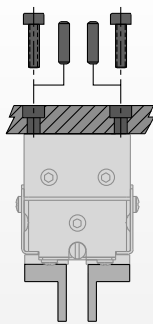


- Precision applications:**  
 Preloaded dual-"V" roller bearings eliminate side play for excellent part position repeatability.
- Miniature size:**  
 Compact design allows for gripping small parts in small spaces.
- Top manifold:**  
 Grippers can be manifolded through the top mounting surface. This eliminates the need for air fittings and allows grippers to be mounted in close array.
- Clean room rated:**  
 A corrosion resistant shield protects the drive and bearing mechanism. All internal components are lubricated with clean room grade grease. The scavenge port can be used with vacuum pressure to prevent escape of particulate generated by the internal mechanism.
- Harsh environments:**  
 All moving components are located within the corrosion resistant cover. The body has a purge port which can expel contaminants from the mechanism using low pressure compressed air.

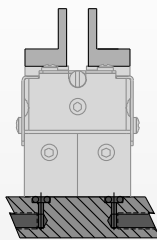


## Mounting Information:

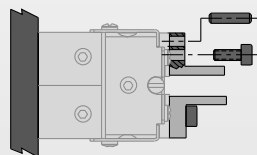
Gripper can be mounted and operated in any orientation



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	Imperial	Metric
Pressure Operating Range	40-100 psi	3-7 bar
Cylinder Type	Double Acting	
Dynamic Seals	Internally Lubricated Buna-N	
Valve Required to Operate	4-way, 2-position	
<b>Air Quality Requirements</b>		
Air Filtration	40 Micron or Better	
Air Lubrication	Not Necessary*	
Air Humidity	Low Moisture Content (dry)	
<b>Temperature Operating Range</b>		
Buna-N Seals (standard)	-30°~180° F	-35°~80° C
Viton® Seals (optional)	-20°~250° F	-30°~120° C
<b>Maintenance Specifications†</b>		
Expected Life	5 million cycles	
Normal Application w/ Preventative Maintenance	10+ million cycles*	
Field Repairable	Yes	
Seal Repair Kits Available	Yes	

\*Addition of lubrication will greatly increase service life  
 † See Maintenance Section



## Product Features

### Preload Bearings

Bearings are preloaded for maximum support and zero side play

### Hard Coat Anodize

The body has hard-coat anodize 60 RC with Teflon® impregnation

### Quality Components

External components are made from corrosion resistant materials for resistance to de-ionized water or for use in FDA & medical parts handling applications

### Clean Room Contaminants

Units are lubricated with a clean-room grade grease

### Purge/Scavenge Port

Purge/Scavenge port for extreme environments from dirty & gritty to clean-room Class 10 or better

### Adjustable Preload Screw

Adjustable preload screw allows for adjustment of preload on roller bearings

### Roller Bearings

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

### Slip Fit Dowel Pin Holes

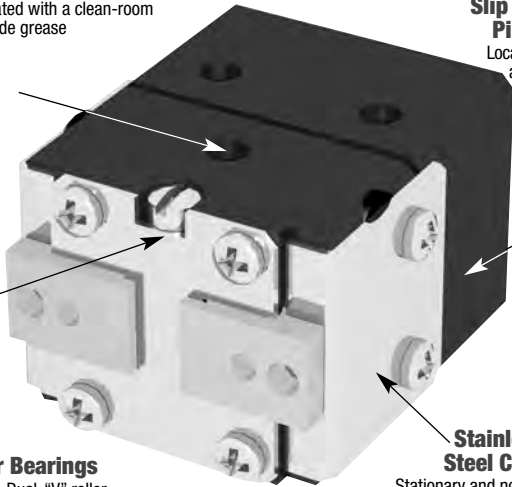
Located in body and jaws

### One Piece Body

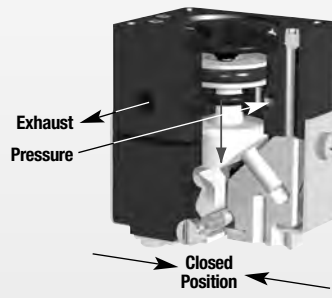
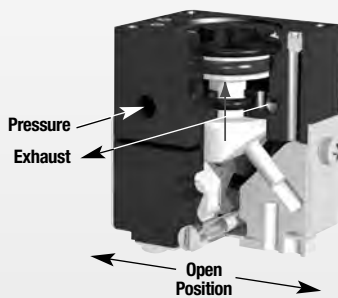
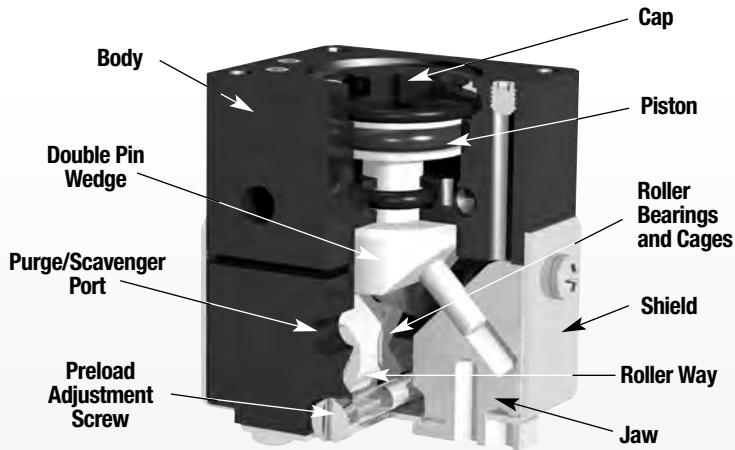
One piece lightweight aluminum body

### Stainless Steel Cover

Stationary and non-contacting cover eliminates the possibility of particle generation



## 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.

## Style -RPMC Parallel Gripper

### Size -1M

Style:	■ RPMC-1M
Stroke:	0.13 in. 3.2 mm
Grip Force:	8 lb 36 N
Weight:	0.052 lb .02 Kg



See Page **1.116**

## Style -RPMC Parallel Gripper

### Size -2M

Style:	■ RPMC-2M
Stroke:	0.19 in. 4.8 mm
Grip Force:	8 lb 36 N
Weight:	0.058 lb .03 Kg



See Page **1.117**

## Style -RPMC Parallel Gripper

### Size -3M

Style:	■ RPMC-3M
Stroke:	0.25 in. 6.3 mm
Grip Force:	8 lb 36 N
Weight:	0.074 lb .03 Kg



See Page **1.118**

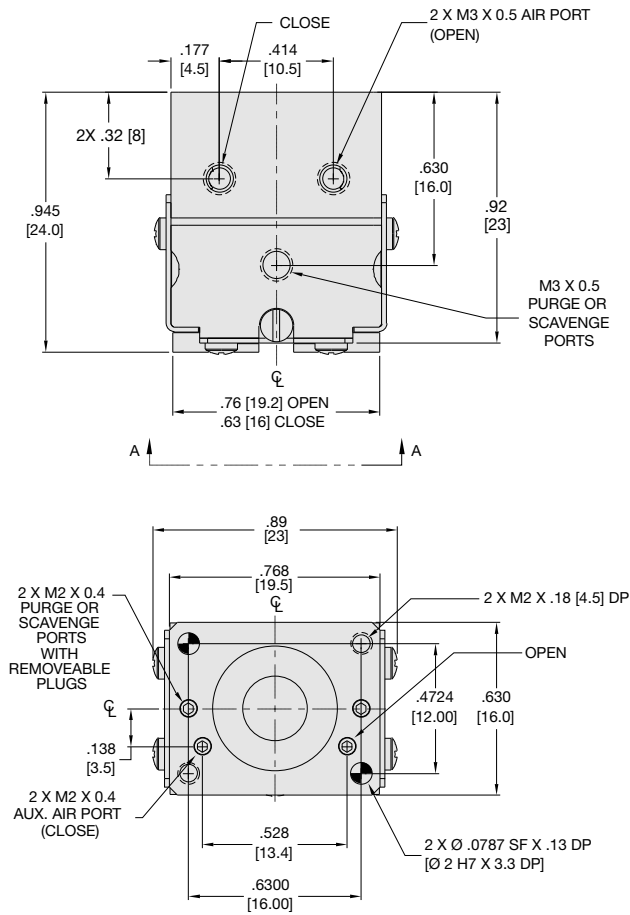




RPMC SERIES

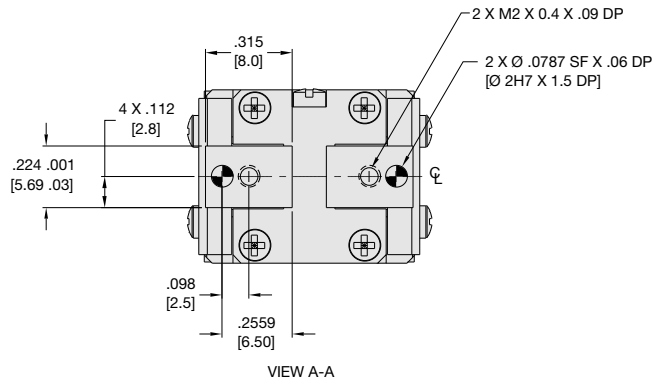
1.116

# PARALLEL GRIPPER RPMC-1M MINIATURE CLEAN ROOM SERIES



### Specifications

	RPMC-1M	
Total Rated Grip Force <b>F</b> @ 100 psi, 7 bar	8 lb	36 N
Stroke	.13 in.	3.2 mm
Weight	0.052 lb	0.024 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore Ø	0.394 in.	10.0 mm
Displacement	0.008 in <sup>3</sup>	0.13 cm <sup>3</sup>
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~250° F	-30°~120° C
Actuation Time	0.10 sec.	0.10 sec.
Accuracy	±0.002 in.	±0.05 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate	4-way, 2-position	

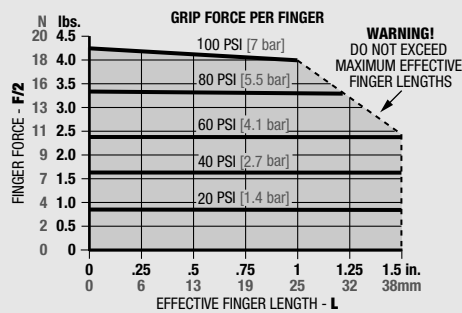


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

	Dimensions are symmetrical about centerline		Third Angle Projection		All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]
	Metric Threads	<b>Imperial in.</b>	0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005	<b>Metric [mm]</b>	[0.] = [±.25] [0.0] = [±.13] [0.00] = [±.013]
	Course Pitch				

## Loading Information

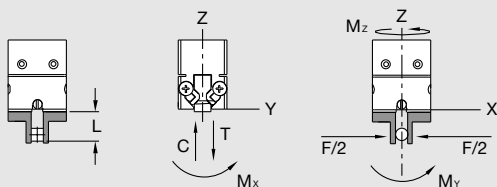
## How to Order: (Order Separately)



BASIC MODEL

**RPMC-1M-V**

VITON® SEALS



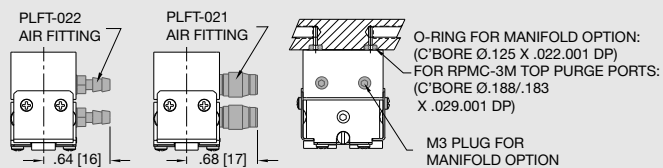
Loading Capacity†	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile <b>T</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Compressive <b>C</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Moment <b>M<sub>x</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm
Maximum Moment <b>M<sub>y</sub></b>	15 in.-lbs.	2 Nm	5 in.-lbs.	0.6 Nm
Maximum Moment <b>M<sub>z</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm

†Capacities are per set of jaws and are not simultaneous

### PNEUMATIC ACCESSORIES

	ORDER #	QTY/UNIT
M3 Plumbing Fitting Push-in for 3mm O.D. Tube	PLFT-021	2
M3 Plumbing Fitting Barb for 2mm I.D. Tube	PLFT-022	2
Standard Seal Repair Kit	SLKT-121	1
Viton® Seal Repair Kit	SLKT-121V	1
Top Air Ports Manifold Seal Kit (available in Viton® only)	SLKT-143V	1

For Detailed Accessory Mounting Technical Data Refer to Accessories Section





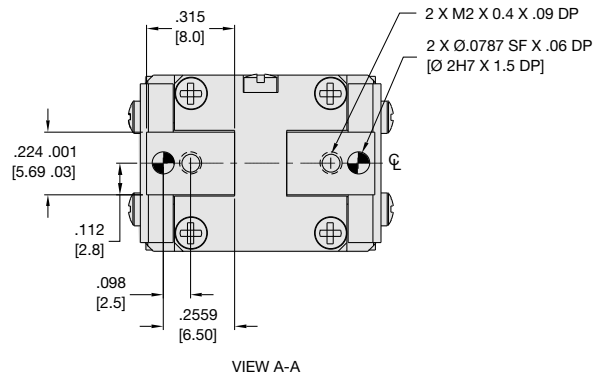
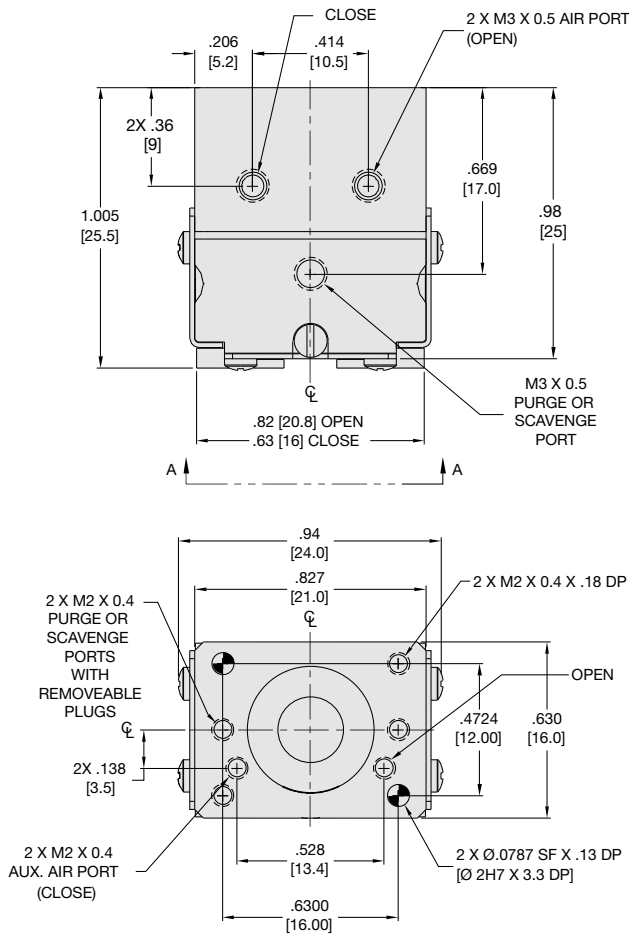
# PARALLEL GRIPPER RPMC-2M MINIATURE CLEAN ROOM SERIES

RPMC SERIES

1.117

### Specifications

	RPMC-2M	
Total Rated Grip Force <b>F</b> @ 100 psi, 7 bar	8 lb	36 N
Stroke	.19 in.	4.8 mm
Weight	0.058 lb	0.026 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore $\varnothing$	0.394 in.	10.0 mm
Displacement	0.012 in <sup>3</sup>	0.20 cm <sup>3</sup>
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~250° F	-30°~120° C
Actuation Time	0.10 sec.	0.10 sec.
Accuracy	±0.002 in.	±0.05 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate	4-way, 2-position	

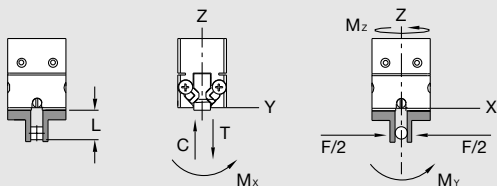
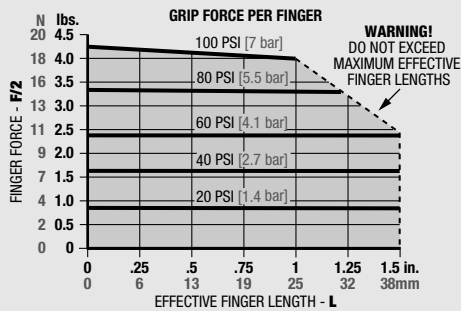


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

Dimensions are symmetrical about centerline	Third Angle Projection	All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]
Metric Threads	Imperial in. 0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005	Metric [mm] [0.] = [±.25] [0.0] = [±.13] [0.00] = [±.013]
Course Pitch		

## Loading Information

## How to Order: (Order Separately)



Loading Capacity <sup>†</sup>	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile <b>T</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Compressive <b>C</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Moment <b>M<sub>x</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm
Maximum Moment <b>M<sub>y</sub></b>	15 in.-lbs.	2 Nm	5 in.-lbs.	0.6 Nm
Maximum Moment <b>M<sub>z</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm

<sup>†</sup>Capacities are per set of jaws and are not simultaneous

### BASIC MODEL

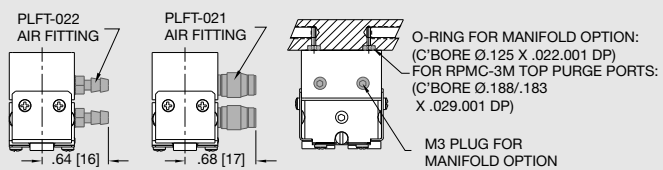
# RPMC-2M - V

### VITON® SEALS

### PNEUMATIC ACCESSORIES

	ORDER #	QTY/UNIT
M3 Plumbing Fitting Push-in for 3mm O.D. Tube	PLFT-021	2
M3 Plumbing Fitting Barb for 2mm I.D. Tube	PLFT-022	2
Standard Seal Repair Kit	SLKT-121	1
Viton® Seal Repair Kit	SLKT-121V	1
Top Air Ports Manifold Seal Kit (available in Viton® only)	SLKT-143V	1

For Detailed Accessory Mounting Technical Data Refer to Accessories Section

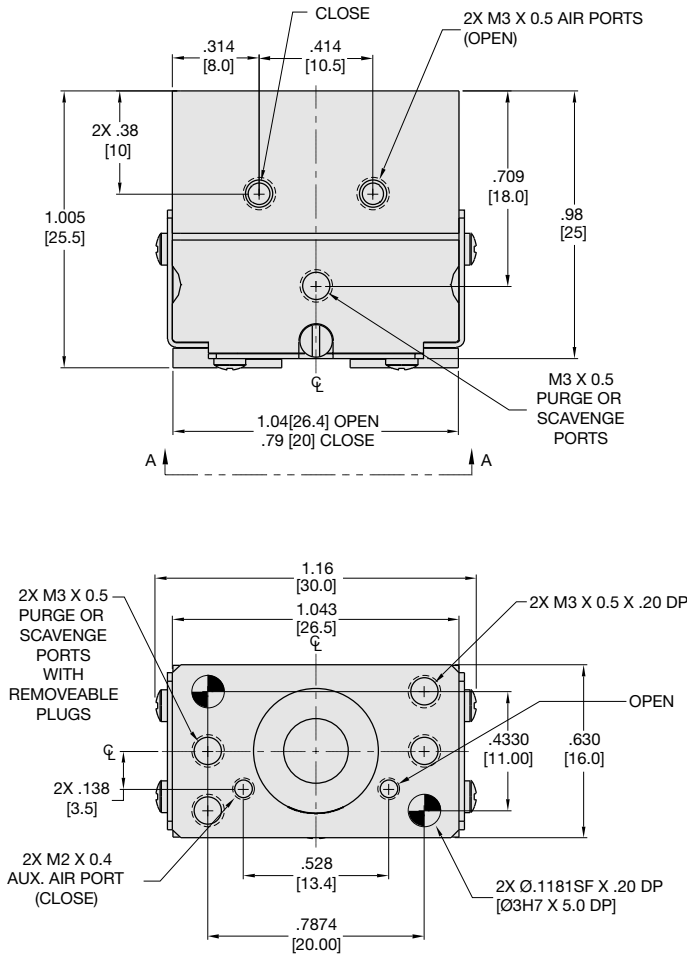




RPMC SERIES

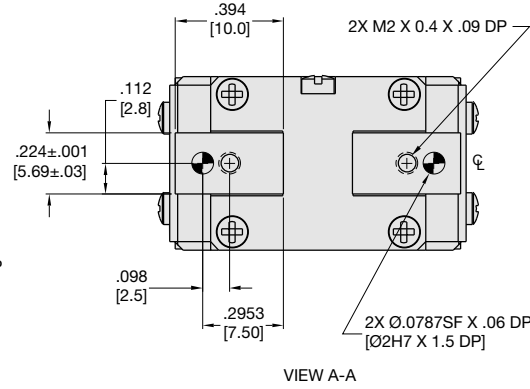
1.118

# PARALLEL GRIPPER RPMC-3M MINIATURE CLEAN ROOM SERIES



### Specifications

	RPMC-3M	
Total Rated Grip Force <b>F</b> @ 100 psi, 7 bar	8 lb	36 N
Stroke	.25 in.	6.3 mm
Weight	0.074 lb	0.034 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore Ø	0.394 in.	10.0 mm
Displacement	0.015 in <sup>3</sup>	0.25 cm <sup>3</sup>
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~250° F	-30°~120° C
Actuation Time	0.10 sec.	0.10 sec.
Accuracy	±0.002 in.	±0.05 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate	4-way, 2-position	

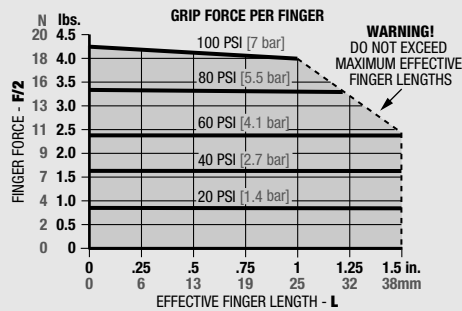


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

Dimensions are symmetrical about centerline	Third Angle Projection	All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]
Metric Threads	Imperial in. 0.00 = ±.01 0.000 = ±.005	Metric [mm] [0.] = [±.25] [0.0] = [±.13] [0.00] = [±.013]
Course Pitch	0.0000 = ±.0005	

## Loading Information

## How to Order: (Order Separately)



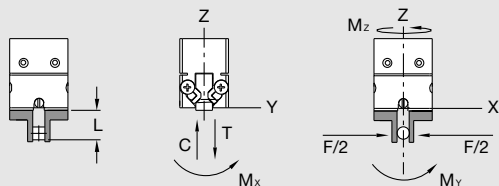
BASIC MODEL

**RPMC-3M - V**

VITON® SEALS

### PNEUMATIC ACCESSORIES

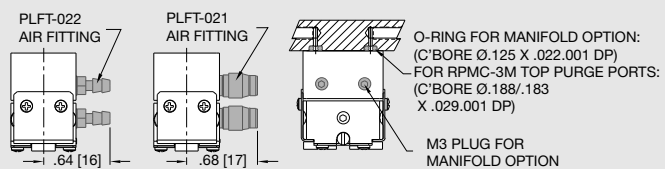
	ORDER #	QTY/UNIT
M3 Plumbing Fitting Push-in for 3mm O.D. Tube	PLFT-021	2
M3 Plumbing Fitting Barb for 2mm I.D. Tube	PLFT-022	2
Standard Seal Repair Kit	SLKT-121	1
Viton® Seal Repair Kit	SLKT-121V	1
Top Air Ports Manifold Seal Kit (available in Viton® only)	SLKT-143V	1



Loading Capacity†	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile <b>T</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Compressive <b>C</b>	20 lbs.	89 N	7 lbs.	31 N
Maximum Moment <b>M<sub>x</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm
Maximum Moment <b>M<sub>y</sub></b>	15 in.-lbs.	2 Nm	5 in.-lbs.	0.6 Nm
Maximum Moment <b>M<sub>z</sub></b>	12 in.-lbs.	1 Nm	4 in.-lbs.	0.5 Nm

†Capacities are per set of jaws and are not simultaneous

For Detailed Accessory Mounting Technical Data Refer to Accessories Section

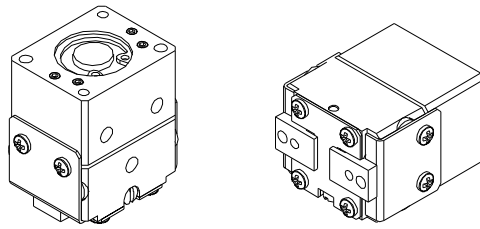




# RPMC SERIES EXPLODED VIEW

RPMC SERIES  
MAINTENANCE

1.119



Item	Qty	Name
01	1	Body
02	2	Jaw
03	1	Wedge
04	1	Piston
05	1	Cap
06	2	Way
07	4	Kit, Roller Bearings And Cage
08	1	Screw, Preload
10	2	Shield, Side
11	1	Shield, Top
12	2	Dowel Pin
15	4	Stop Screw

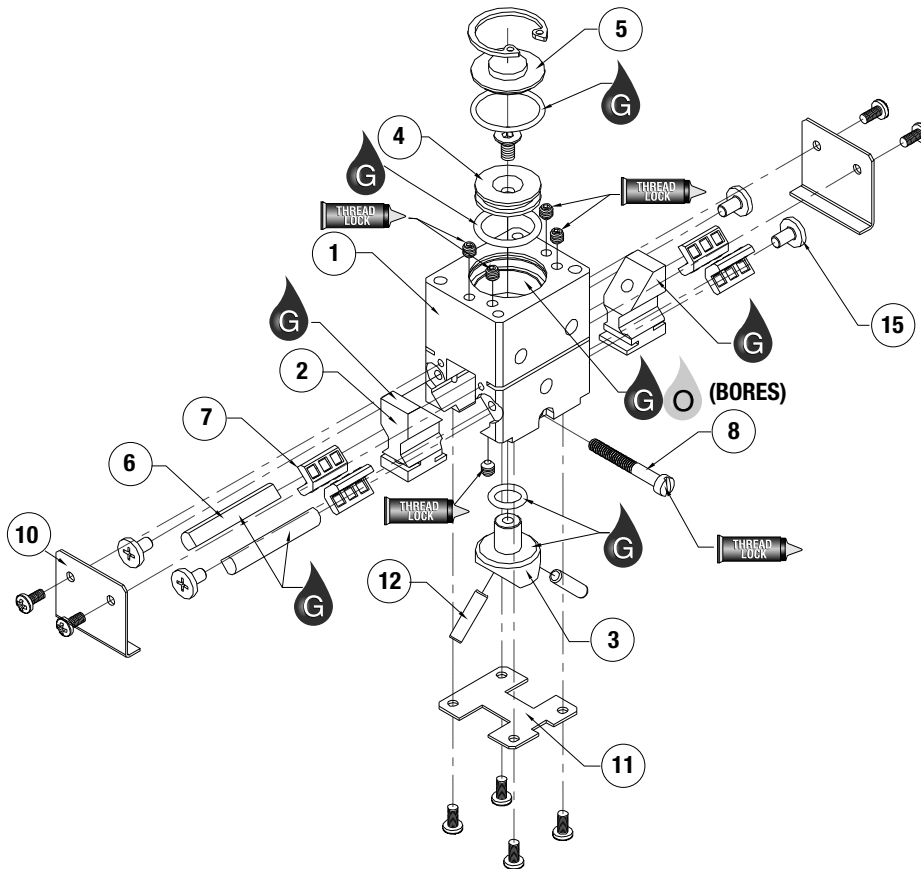
**NOTE:** Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

**Assembly Procedures**

- 1) Lubricate and install seals.
- 2) Install pins (12) and wedge (3) into body.
- 3) Install piston (4), screw, cap (5), & Retaining Ring.
- 4) Install set screws for air port plugs.
- 5) Install jaws (2) over pins.
- 6) Install ways (6), cages (7), & screws (15).

**Preload Adjustment**

- 1) Install preload screw (8) with Loctite on first 6 -8 threads.
- 2) Tighten until there is no side play in the jaws.
- 3) Cycle gripper(w/finger assembly)
- 4) Recheck for play in jaws & tighten or loosen as needed.



**SK Seal Repair Kit Order #'s  
See Product Data Sheets**

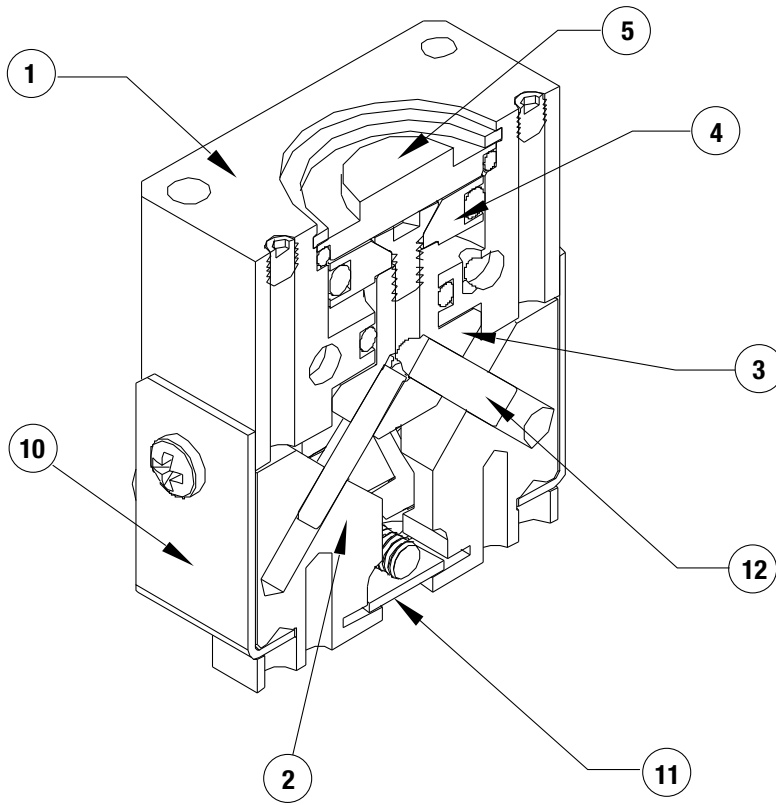
Seal Kit Items	Thread Locker	Krytox™ Lubricant	Lightweight Machine Oil	Teflon™ Based Grease	Super Bonder	Third Angle Projection



RPM SERIES  
MAINTENANCE

1.120

# RPMC SERIES ASSEMBLED VIEW



Item	Qty	Name
01	1	Body
02	2	Jaw
03	1	Wedge
04	1	Piston
05	1	Cap
06	2	Way
07	4	Kit, Roller Bearings And Cage
08	1	Screw, Preload
10	2	Shield, Side
11	1	Shield, Top
12	2	Dowel Pin
15	4	Stop Screw

**NOTE:** Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

Seal Kit Items	Thread Locker	Krytox™ Lubricant	Lightweight Machine Oil	Teflon™ Based Grease	Super Bonder	Third Angle Projection

Please see back cover for DE-STA-CO Global Locations. [www.destaco.com](http://www.destaco.com)



# DESIGN NOTES

RPMC SERIES

1.121



Please see back cover for DE-STA-CO Global Locations. [www.destaco.com](http://www.destaco.com)