

Parallel Grippers - Miniature Series Double Wedge

• General purpose:

This style gripper is the most widely used in the industry. It is a rugged design and supplies very high grip force.

• Small parts handling:

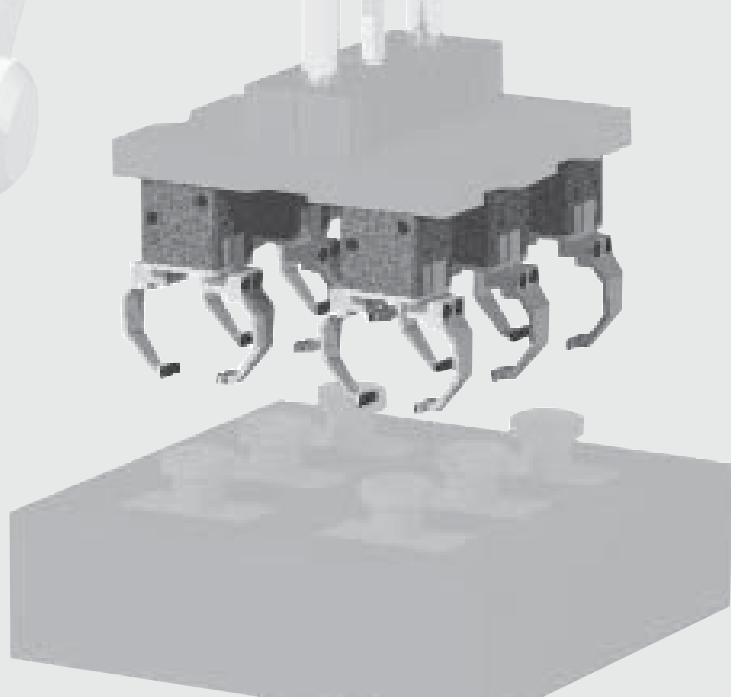
Compact size, high gripping force, and extended jaw design facilitates finger attachment for smaller parts.

• Robotic applications:

High grip force to weight ratio make these grippers very popular on small robots.

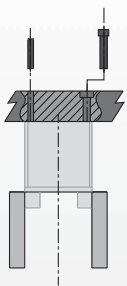
• Miniature Size:

Allows banks of grippers to be mounted in close proximity for multiple part picking and placing.



Mounting Information:

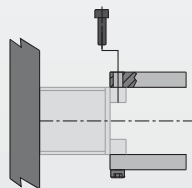
Gripper can be mounted and operated in any orientation



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



Warning! Protect jaw mechanism from falling debris when mounted upside down



Fingers attach to jaws with screws and locate by keying

Technical Specifications:

Pneumatic Specifications

Pressure Operating Range
Cylinder Type
Dynamic Seals
Valve Required to Operate

Imperial
40-100 psi
Double Acting
Internally Lubricated Buna-N
4-way, 2-position

Metric
3-7 bar

Air Quality Requirements

Air Filtration
Air Lubrication
Air Humidity

40 Micron or Better
Not Necessary*
Low Moisture Content (dry)

Temperature Operating Range

Buna-N Seals (standard)
Viton® Seals (optional)

-30°~180° F -35°~80° C
-20°~300° F -30°~150° C

Maintenance Specifications†

Expected Life
Normal Application
w/ Preventative Maintenance
Field Repairable
Seal Repair Kits Available

5 million cycles
10+ million cycles*
Yes
Yes

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

Self Lubricating Seals

Self lubricating dynamic seals (Buna-N only)

Quality Components

Dynamic components are hardened for wear resistance and long life

Sensors/ Mounting Kit

Read position of jaw (Sold Separately)

Dowel Holes

Slip fit dowel pin holes in body

Accessory Mounting Holes

(Mounts sensors to unit)

Rugged Construction

Jaws are supported throughout the length of the body and are precision ground for minimal jaw play

One Piece Body

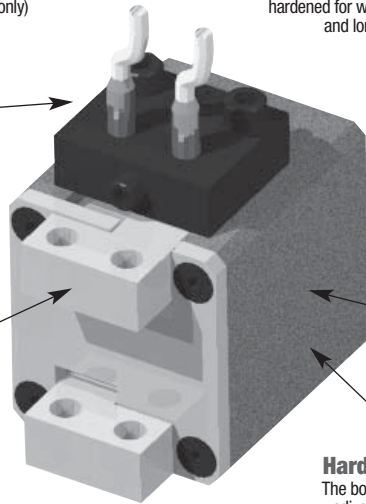
One piece 7075-T6 aircraft quality aluminum body

Optional RP-5 Spring Close

RP-5 has an optional spring closed feature for failsafe operation

Hard Coat Anodize

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



Style -RP Parallel Gripper

Size -5M

Style:	▲ RP-5	RP-5M
Stroke:	.16 in.	4.1 mm
Grip Force:	35 lb	156 N
Weight:	.18 lb	.08 Kg



See Page **1.172**

Style -RP Parallel Gripper

Size -5M-FS

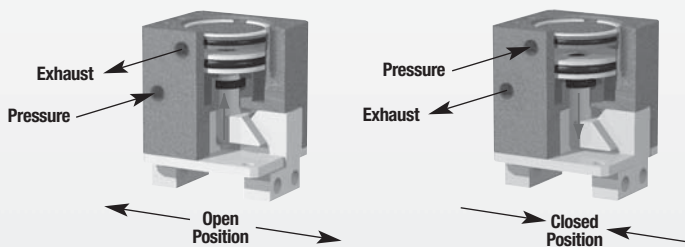
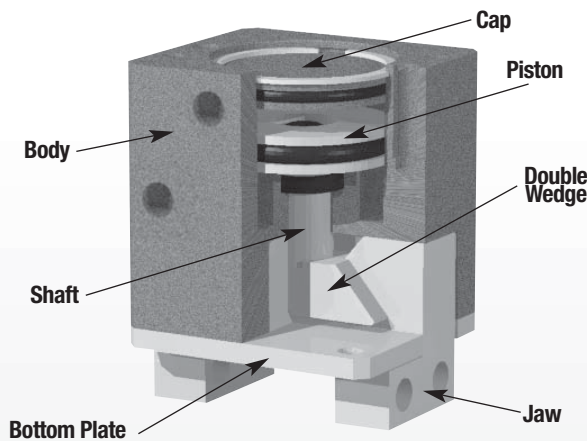
Style:	▲ RP-5	RP-5M
Stroke:	.16 in.	4.1 mm
Grip Force*:	40 lb	178 N
Weight:	.18 lb	.08 Kg

*Grip force with spring assist



See Page **1.172**

Operating Principle



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

Style -RP Parallel Gripper

Size -10M

Style:	■ RP-10	RP-10M
Stroke:	1/4 in.	6.4 mm
Grip Force:	40 lb	175 N
Weight:	.28 lb	.13 Kg

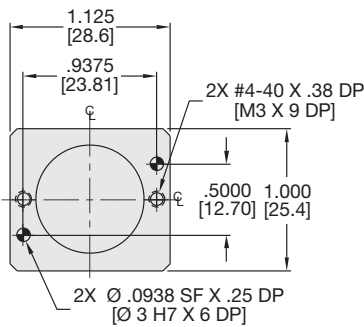
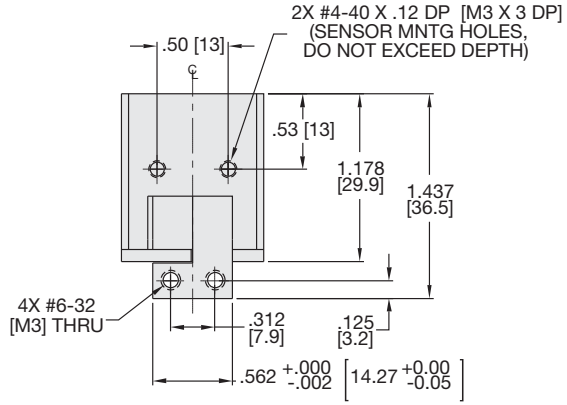
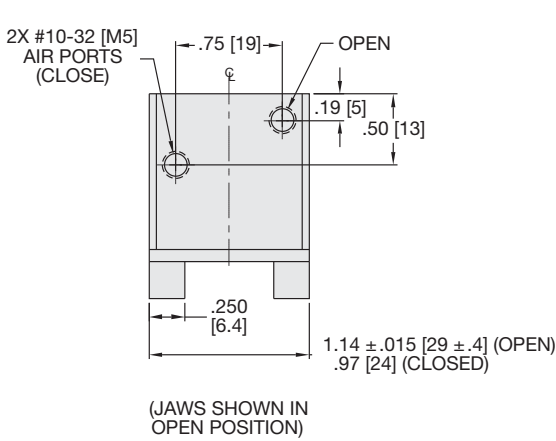


See Page **1.173**

Note: Please refer to our new DPDS/DPDL Series grippers found on pages 1.120-1.155. The RP Series is still available for sale and the related information remains available on our website but we encourage you to consider the new DPDS/DPDL Series grippers found on pages 1.120-1.155 for new projects.

PARALLEL GRIPPER RP-5M-FS MINIATURE DOUBLE WEDGE SERIES

1.172



Specifications

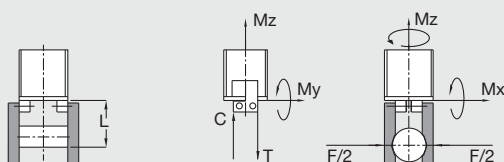
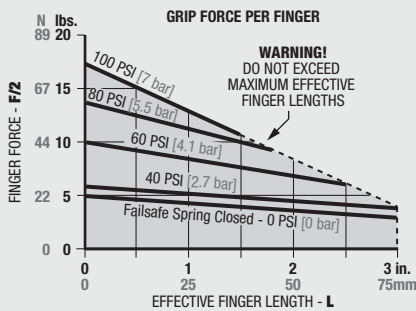
	RP-5	RP-5M
Total Rated Grip Force F @ 100 psi, 7 bar	35 lb	156 N
Stroke	.16 in.	4.1 mm
Weight	0.18 lb	0.08 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore Ø	0.750 in.	19.1 mm
Displacement	0.042 in ³	0.7 cm ³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.14 sec.	0.14 sec.
Accuracy	±0.001 in.	±0.03 mm
Repeatability	±0.0005 in.	±0.01 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 Course Pitch	Imperial in. 0.00 = ± .01 0.000 = ± .005 0.0000 = ± .0005	Metric [mm] [0.] = [±.25] [0.0] = [±.13] [0.00] = [±.013]
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Loading Information

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



Loading Capacity†

	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile T	50 lbs.	222 N	7 lbs.	31 N
Maximum Compressive C	75 lbs.	334 N	12 lbs.	53 N
Maximum Moment M_x	30 in.-lbs.	3.4 Nm	5 in.-lbs.	0.6 Nm
Maximum Moment M_y	30 in.-lbs.	3.4 Nm	5 in.-lbs.	0.6 Nm
Maximum Moment M_z	30 in.-lbs.	3.4 Nm	5 in.-lbs.	0.6 Nm

†Capacities are per set of jaws and are not simultaneous

BASIC MODEL FAIL SAFE CLOSED

RP-5 M-FS-V

METRIC VITON® SEALS

(Refer to Spring Assist Gripper section for more information)

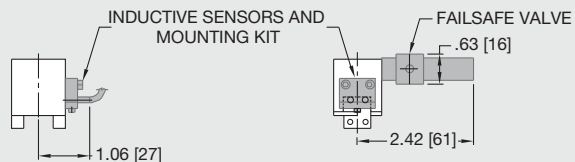
SENSOR ACCESSORIES

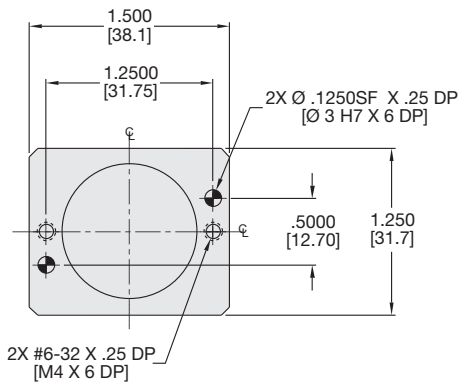
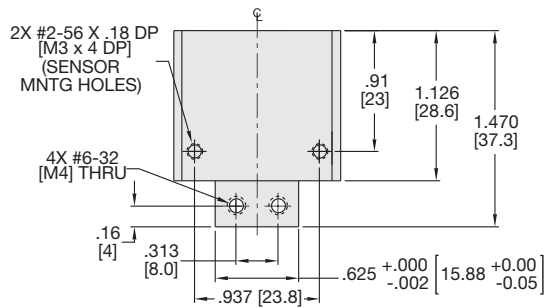
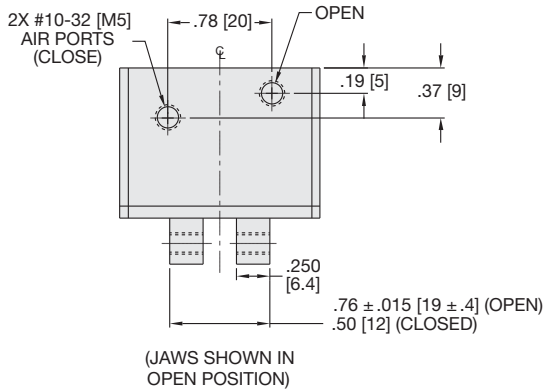
	ORDER #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-001	1
NPN Inductive Sensor with Quick Disconnect*	OISN-019	1 or 2
PNP Inductive Sensor with Quick Disconnect*	OISP-019	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

Fail Safe Valve (Imperial)	OFSV-001	1
Fail Safe Valve (Metric)	OFSV-004	1
Standard Seal Repair Kit	SLKT-052	1
Viton® Seal Repair Kit	SLKT-052V	1

*Sensor and cable sold separately.





Specifications

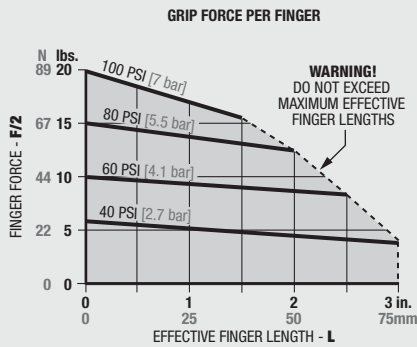
	RP-10	RP-10M
Total Rated Grip Force F @ 100 psi, 7 bar	40 lb	178 N
Stroke	0.25 in.	6.4 mm
Weight	0.28 lb	0.13 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore Ø	1.00 in.	25.4 mm
Displacement	0.098 in ³	1.6 cm ³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.13 sec.	0.13 sec.
Accuracy	±0.001 in.	±0.03 mm
Repeatability	±0.0005 in.	±0.01 mm
Valve required to actuate	4-way, 2-position	

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

Imperial in.	Metric [mm]
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)



BASIC MODEL METRIC
RP-10 M - V
VITON® SEALS

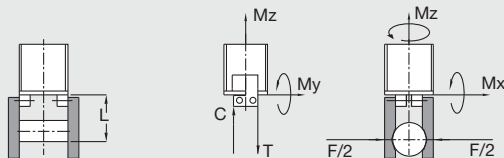
SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-002	1
NPN Inductive Sensor with Quick Disconnect*	OISN-019	1 or 2
PNP Inductive Sensor with Quick Disconnect*	OISP-019	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

	ORDER #	QTY/UNIT
Fail Safe Valve (Imperial)	OFSV-001	1
Fail Safe Valve (Metric)	OFSV-004	1
Standard Seal Repair Kit	SLKT-036	1
Viton® Seal Repair Kit	SLKT-036V	1

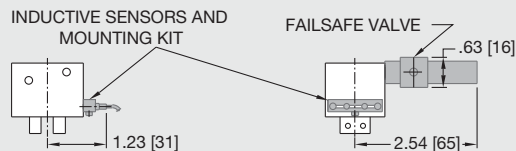
*Sensor and cable sold separately.



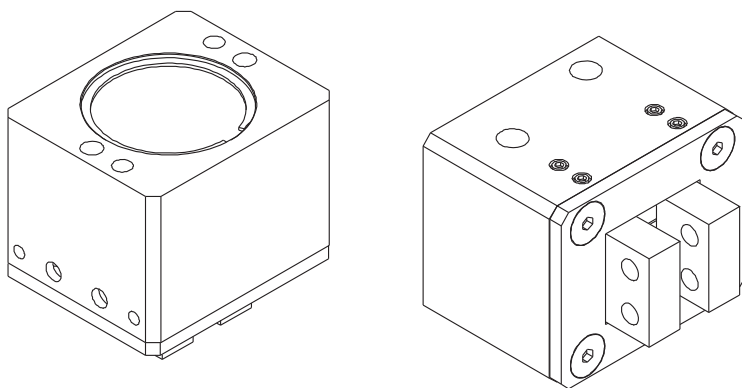
Loading Capacity†

	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile T	100 lbs.	445 N	15 lbs.	67 N
Maximum Compressive C	150 lbs.	667 N	25 lbs.	111 N
Maximum Moment M_x	90 in.-lbs.	10.2 Nm	15 in.-lbs.	1.5 Nm
Maximum Moment M_y	90 in.-lbs.	10.2 Nm	15 in.-lbs.	1.5 Nm
Maximum Moment M_z	90 in.-lbs.	10.2 Nm	15 in.-lbs.	1.5 Nm

†Capacities are per set of jaws and are not simultaneous



RP-5 &10 SERIES EXPLODED VIEW



Item	Qty	Name
01	1	Body
02	2	Jaw
03	1	Cap
04	1	Piston
05	1	Plate,Bottom
06	1	Shaft/Wedge
07*	1	Gib
30*	4	SSS,Cup Point

* RP-10 Only

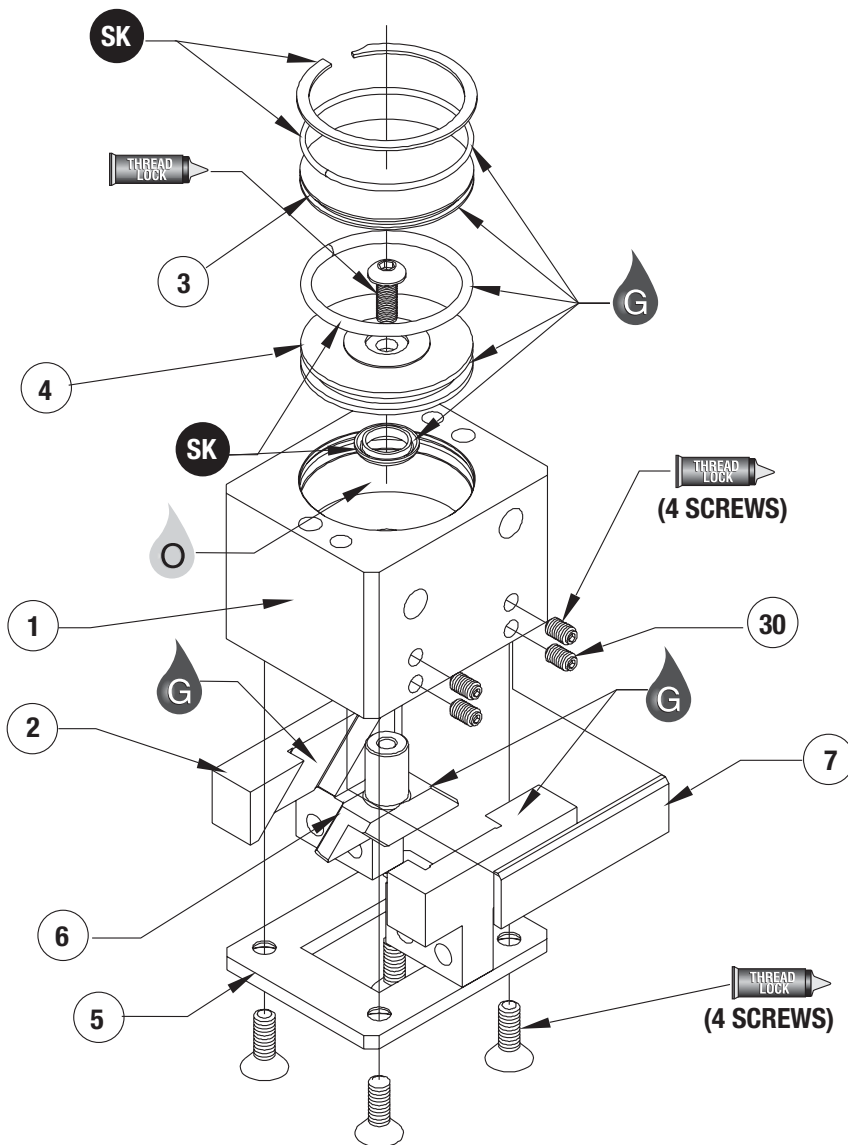
NOTE: Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

Assembly Procedures

- 1) Lubricate and install seals.
- 2) Install piston into body.
- 3) Place wedge, jaws, and gib plate into body.
- 4) Attach bottom plate to body.
- 5) Install cap and retaining ring.

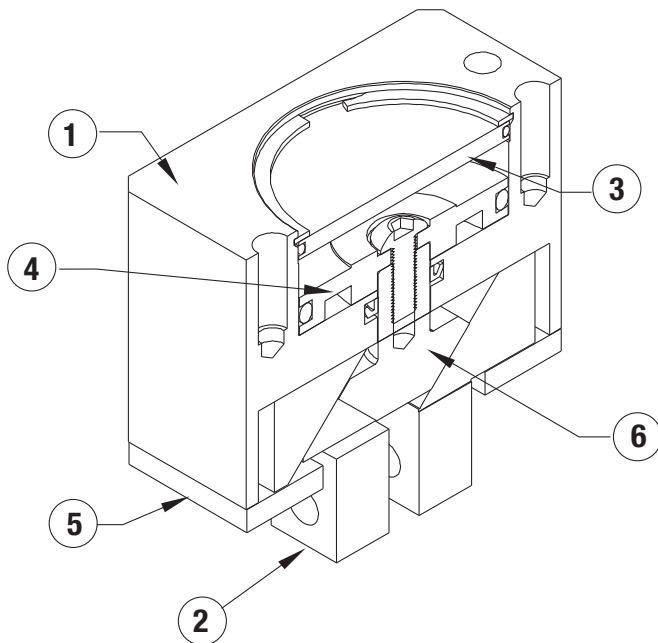
Gib Adjustment Procedure

- 1) Tighten set screws (#30) so that they just touch the gib plate.
- 2) Cycle the gripper.
- 3) Adjust screws so that there is no play in jaws.



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

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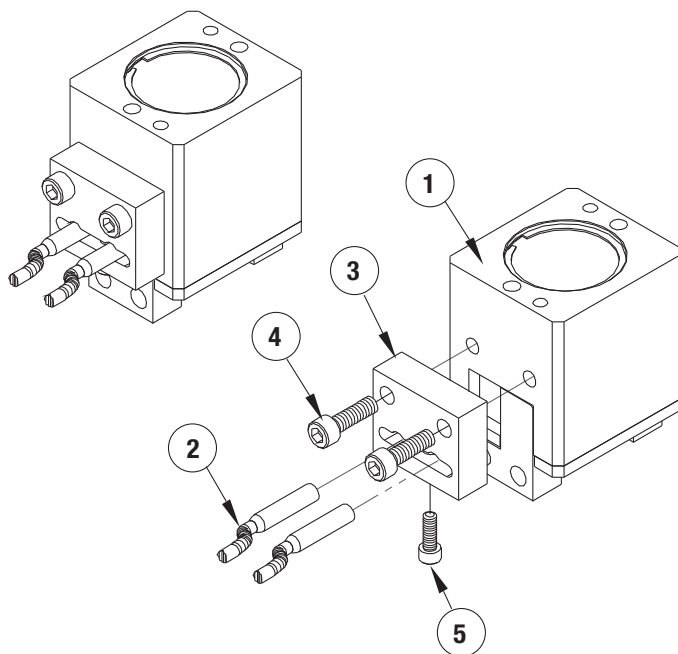


Item	Qty	Name
01	1	Body
02	2	Jaw
03	1	Cap
04	1	Piston
05	1	Plate, Bottom
06	1	Shaft/Wedge
07*	1	Gib
30*	4	SSS,Cup Point

* RP-10 Only

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

ACCESSORY INSTALLATION & ADJUSTMENT INSTRUCTIONS



Seal Kit Items



Thread Locker



Krytox™ Lubricant



Lightweight Machine Oil



Teflon™ Based Grease

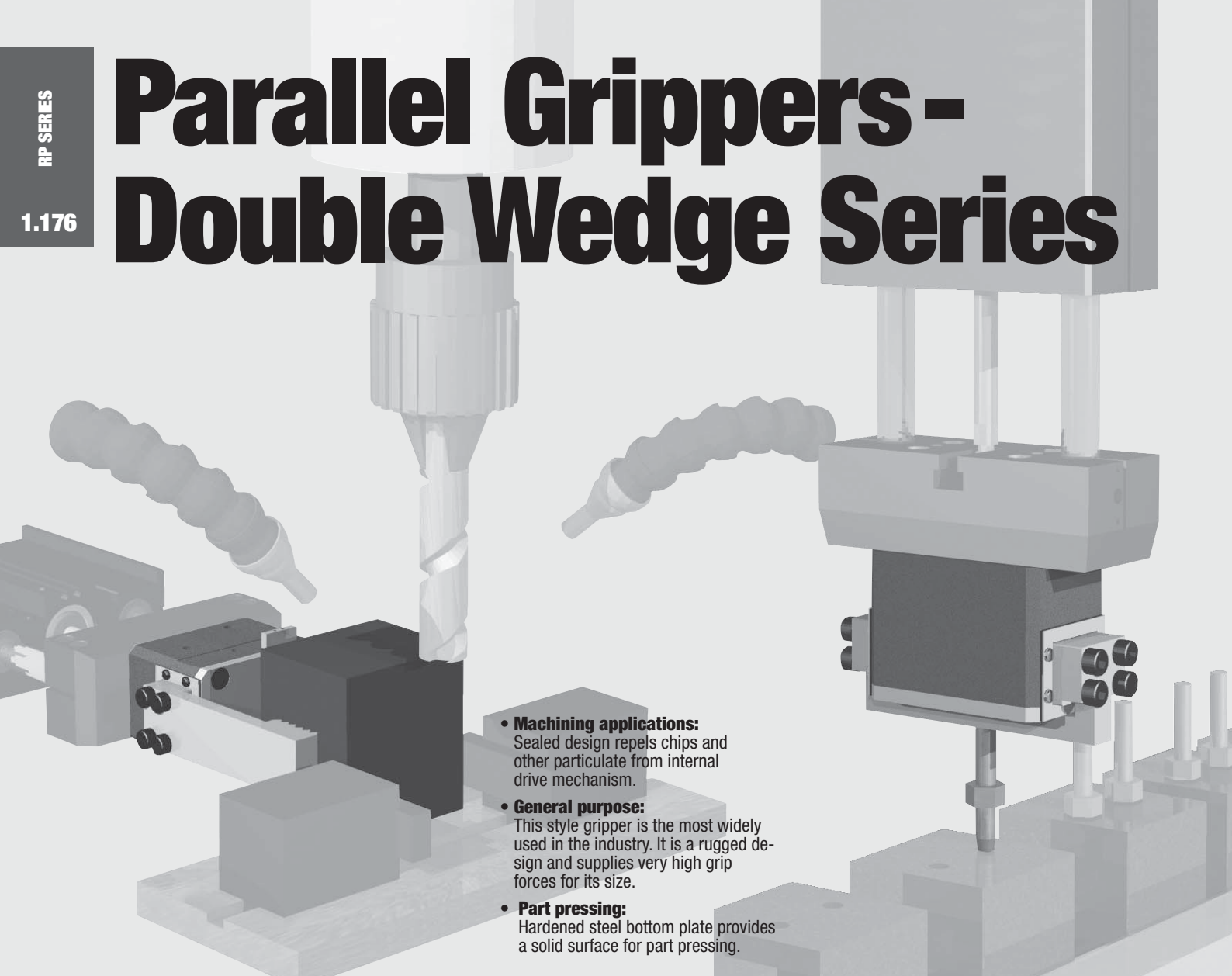


Super Bonder



Third Angle Projection

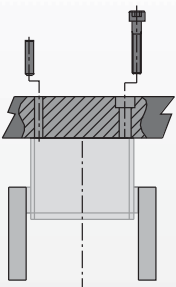
Parallel Grippers - Double Wedge Series



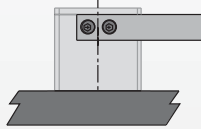
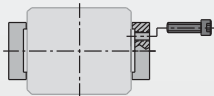
- Machining applications:**
 Sealed design repels chips and other particulate from internal drive mechanism.
- General purpose:**
 This style gripper is the most widely used in the industry. It is a rugged design and supplies very high grip forces for its size.
- Part pressing:**
 Hardened steel bottom plate provides a solid surface for part pressing.

Mounting Information:

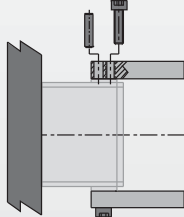
Gripper can be mounted and operated in any orientation



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



Unit can be mounted and operated upside down



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

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	
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)	-30°~180° F	-35°~80° C
Viton® Seals (optional)	-20°~300° F	-30°~150° C
Maintenance Specifications †		
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

Self Lubricating Seals
Self lubricating dynamic seals (Buna-N only)

Quality Components
Dynamic components are hardened for wear resistance and long life

Accessory Mounting Holes
(Mounts sensors to unit)

Sensors/Mounting Kit
Read position of jaw (Sold Separately-See "How to Order" Section for more info)

Rugged Construction
Jaws are supported throughout the length of the body and are precision ground for minimal jaw play

Compact Design
Extremely compact and robust package

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

Dowel Holes
Slip fit dowel pin holes in body and jaws

One Piece Body
One piece 7075 -T6 aircraft quality aluminum body

Sealed Design
Unit repels contaminants (not available on RP-11&12)

Operating Principle

Cap

Piston

Body

Double Wedge

Shaft

Jaw

Bottom Plate

Centering Pin

Jaw Seal

Exhaust

Pressure

Pressure

Exhaust

Closed Position

Open Position

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

Style -RP Parallel Gripper

Size -11M

Style:	■ RP-11	RP-11M
Stroke:	0.25 in.	6.4 mm
Grip Force:	40 lbs.	178 N
Weight:	.25 lbs.	.11 Kg



See Page **1.178**

1.177

Style -RP Parallel Gripper

Size -12M

Style:	■ RP-12	RP-12M
Stroke:	0.38 in.	9.5 mm
Grip Force:	40 lbs.	178 N
Weight:	.56 lbs.	.25 Kg



See Page **1.179**

Style -RP Parallel Gripper

Size -15M

Style:	■ RP-15	RP-15M
Stroke:	0.50 in.	12.7 mm
Grip Force:	70 lbs.	310 N
Weight:	1.25 lbs.	.57 Kg



See Page **1.180**

Style -RP Parallel Gripper

Size -17M

Style:	■ RP-17	RP-17M
Stroke:	0.75 in.	19.1 mm
Grip Force:	220 lbs.	979 N
Weight:	2.2 lbs.	1.0 Kg



See Page **1.181**

Style -RP Parallel Gripper

Size -18M

Style:	■ RP-18	RP-18M
Stroke:	1.25 in.	31.8 mm
Grip Force:	400 lbs.	1779 N
Weight:	7.7 lbs.	3.5 Kg

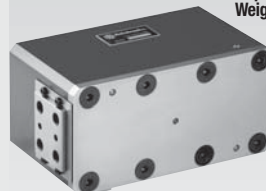


See Page **1.182**

Style -RP Parallel Gripper

Size -19M

Style:	■ RP-19	RP-19M
Stroke:	2.00 in.	50.8 mm
Grip Force:	600 lbs.	2669 N
Weight:	21 lbs.	9.5 Kg



See Page **1.183**

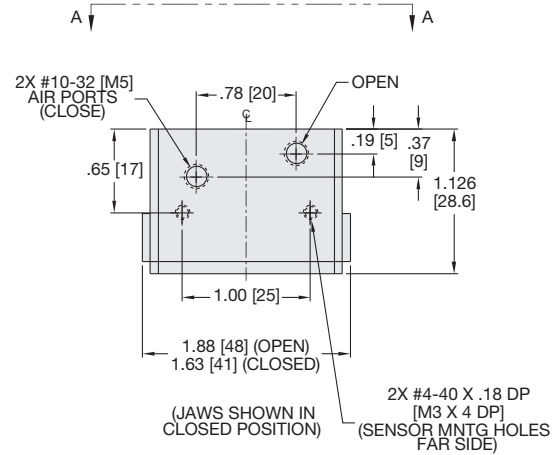
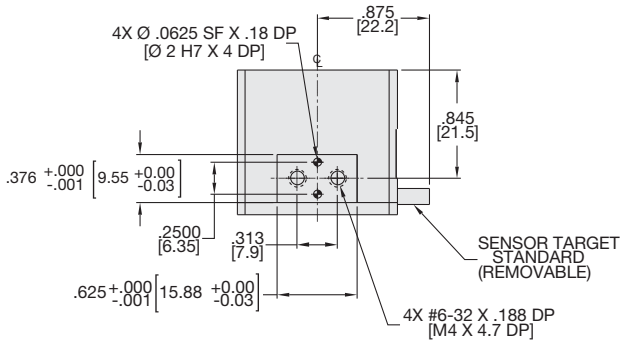
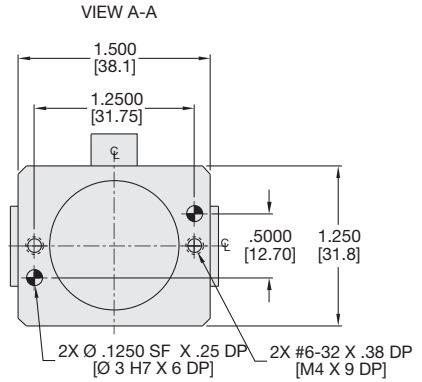
Xpress Preferred Market: ▲ NA ■ SA ● Europe

Note: Please refer to our new DPDS/DPDL Series grippers found on pages 1.120-1.155. The RP Series is still available for sale and the related information remains available on our website but we encourage you to consider the new DPDS/DPDL Series grippers found on pages 1.120-1.155 for new projects.

PARALLEL GRIPPER RP-11M DOUBLE WEDGE SERIES



Specifications	RP-11	RP-11M
Total Rated Grip Force F @ 100 psi, 7 bar	40 lbs.	178 N
Stroke	.25 in.	6.4 mm
Weight	0.26 lbs.	0.12 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore \varnothing	1.000 in.	25.4 mm
Displacement	0.098 in ³	1.6 cm ³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.13 sec.	0.13 sec.
Accuracy	±0.002 in.	±0.05 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate double acting	4-way, 2-position	

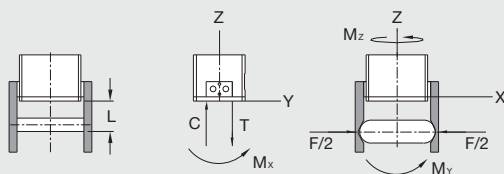
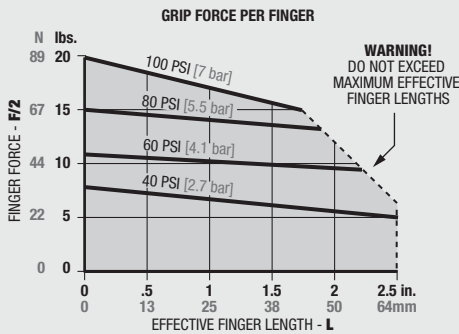


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

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

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



Loading Capacity†	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile T	100 lbs.	445 N	25 lbs.	111 N
Maximum Compressive C	200 lbs.	890 N	25 lbs.	111 N
Maximum Moment M_x	100 in.-lbs.	11 Nm	17 in.-lbs.	2 Nm
Maximum Moment M_y	100 in.-lbs.	11 Nm	17 in.-lbs.	2 Nm
Maximum Moment M_z	100 in.-lbs.	11 Nm	17 in.-lbs.	2 Nm

†Capacities are per set of jaws and are not simultaneous

BASIC MODEL
RP-11 M - V
METRIC

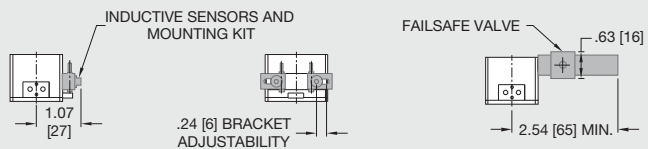
SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-003	1
NPN Inductive Sensor with Quick Disconnect*	OISN-019	1 or 2
PNP Inductive Sensor with Quick Disconnect*	OISP-019	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

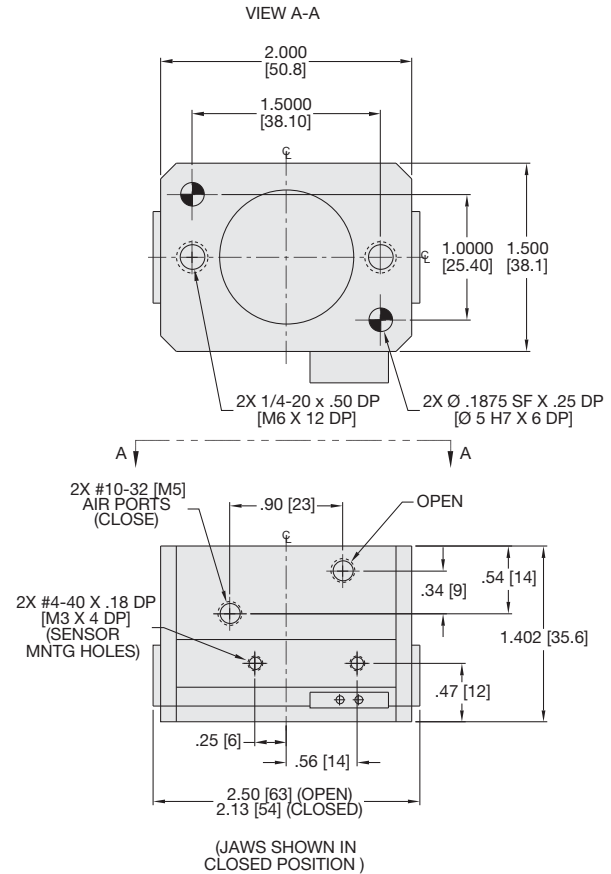
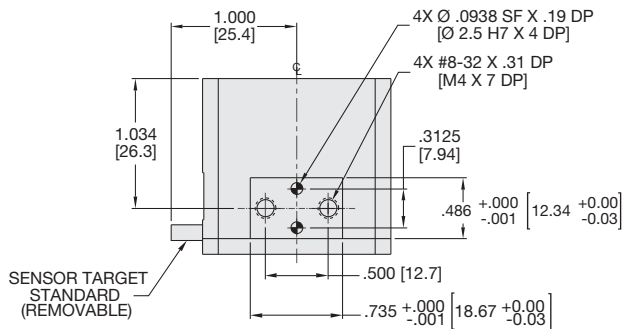
PNEUMATIC ACCESSORIES

Fail Safe Valve (Imperial)	OFSV-001	1
Fail Safe Valve (Metric)	OFSV-004	1
Standard Seal Repair Kit	SLKT-036	1
Viton® Seal Repair Kit	SLKT-036V	1

*Sensor and cable sold separately.



Specifications	RP-12	RP-12M
Total Rated Grip Force F @ 100 psi, 7 bar	40 lbs.	178 N
Stroke	.38 in.	9.5 mm
Weight	0.56 lbs.	0.25 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore \varnothing	1.000 in.	25.4 mm
Displacement	0.150 in ³	2.5 cm ³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.13 sec.	0.13 sec.
Accuracy	±0.002 in.	±0.05 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate double acting	4-way, 2-position	

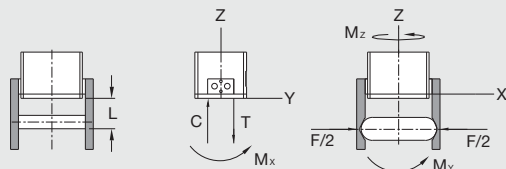
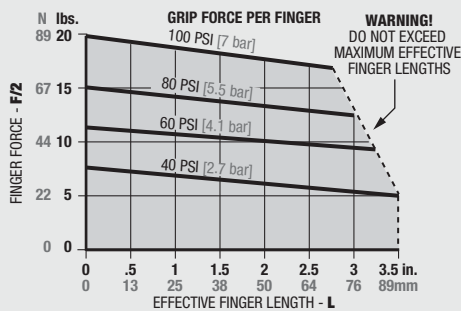


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

Symbol	Imperial in.	Metric [mm]
\varnothing	0.00 = ± .01	[0.] = [± .25]
\varnothing	0.000 = ± .005	[0.0] = [± .13]
\varnothing	0.0000 = ± .0005	[0.00] = [± .013]
\varnothing	0.00 = ± .01	[0.] = [± .25]
\varnothing	0.000 = ± .005	[0.0] = [± .13]
\varnothing	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 T	200 lbs.	890 N	25 lbs.	111 N
Maximum Compressive C	400 lbs.	1779 N	25 lbs.	111 N
Maximum Moment M_x	150 in.-lbs.	17 Nm	25 in.-lbs.	3 Nm
Maximum Moment M_y	150 in.-lbs.	17 Nm	25 in.-lbs.	3 Nm
Maximum Moment M_z	150 in.-lbs.	17 Nm	25 in.-lbs.	3 Nm

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

BASIC MODEL VITON® SEALS

RP-12 M - V

METRIC

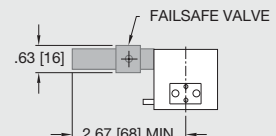
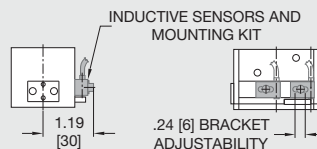
SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-003	1
NPN Inductive Sensor with Quick Disconnect*	OISN-019	1 or 2
PNP Inductive Sensor with Quick Disconnect*	OISP-019	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

	ORDER #	QTY/UNIT
Fail Safe Valve (Imperial)	OFSV-001	1
Fail Safe Valve (Metric)	OFSV-004	1
Standard Seal Repair Kit	SLKT-040	1
Viton® Seal Repair Kit	SLKT-040V	1

*Sensor and cable sold separately.



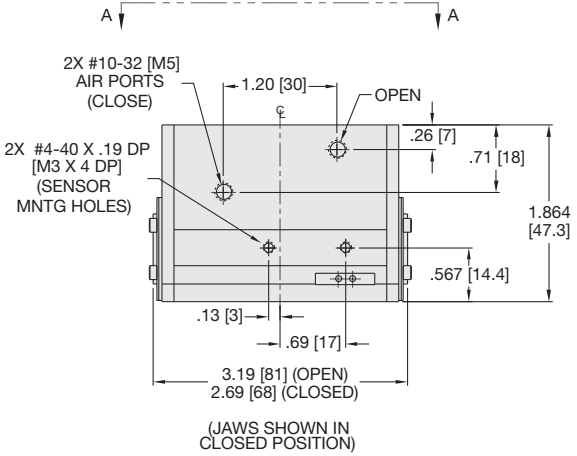
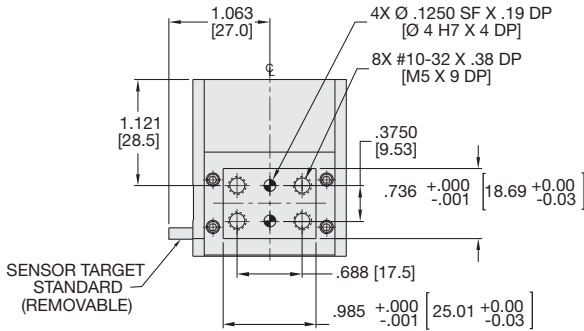
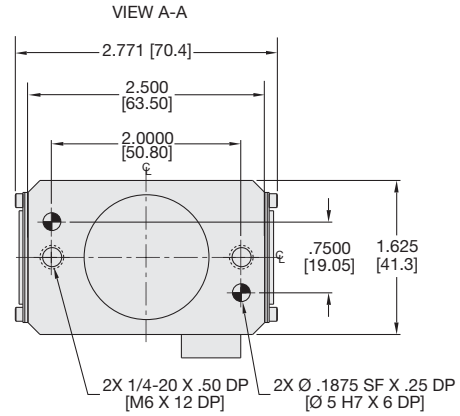
PARALLEL GRIPPER RP-15M DOUBLE WEDGE SERIES



Specifications

	RP-15	RP-15M
Total Rated Grip Force F @ 100 psi, 7 bar	70 lbs.	311 N
Stroke	.50 in.	12.7 mm
Weight	1.25 lbs.	0.57 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore \varnothing	1.25 in.	31.8 mm
Displacement	0.300 in ³	4.9 cm ³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.20 sec.	0.20 sec.
Accuracy	±0.002 in.	±0.05 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate double acting	4-way, 2-position	

1.180

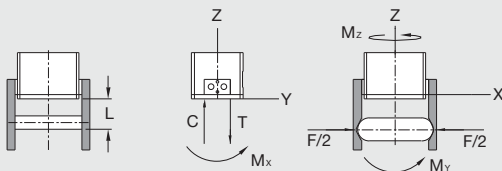
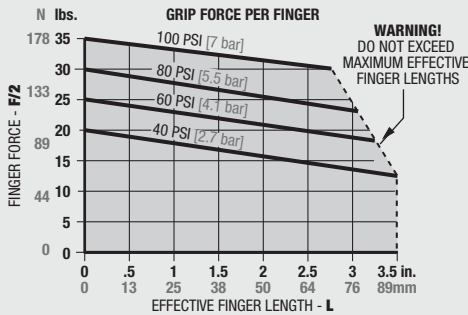


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

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

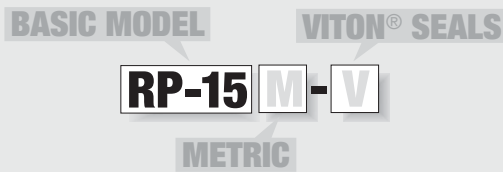
How to Order: (Order Accessories separately from Basic Model)



Loading Capacity†

	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile T	400 lbs.	1779 N	50 lbs.	222 N
Maximum Compressive C	750 lbs.	3336 N	50 lbs.	222 N
Maximum Moment M_x	300 in.-lbs.	34 Nm	50 in.-lbs.	6 Nm
Maximum Moment M_y	300 in.-lbs.	34 Nm	50 in.-lbs.	6 Nm
Maximum Moment M_z	300 in.-lbs.	34 Nm	50 in.-lbs.	6 Nm

†Capacities are per set of jaws and are not simultaneous



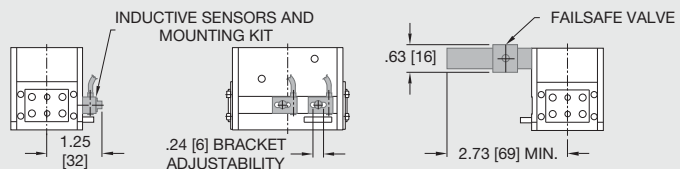
SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-003	1
NPN Inductive Sensor with Quick Disconnect*	OISN-019	1 or 2
PNP Inductive Sensor with Quick Disconnect*	OISP-019	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

Fail Safe Valve (Imperial)	OFSV-001	1
Fail Safe Valve (Metric)	OFSV-004	1
Standard Seal Repair Kit	SLKT-041	1
Viton® Seal Repair Kit	SLKT-041V	1

*Sensor and cable sold separately.





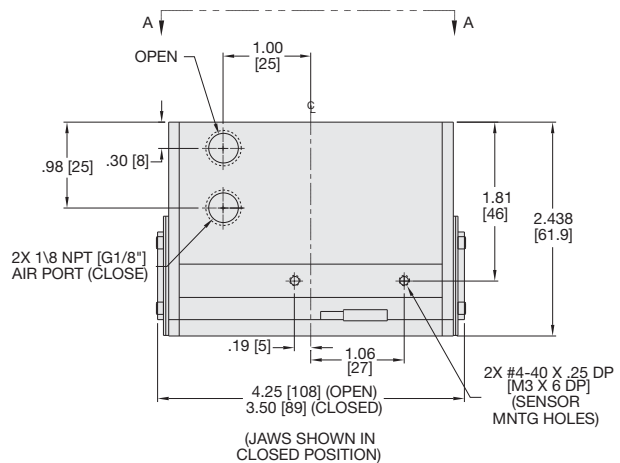
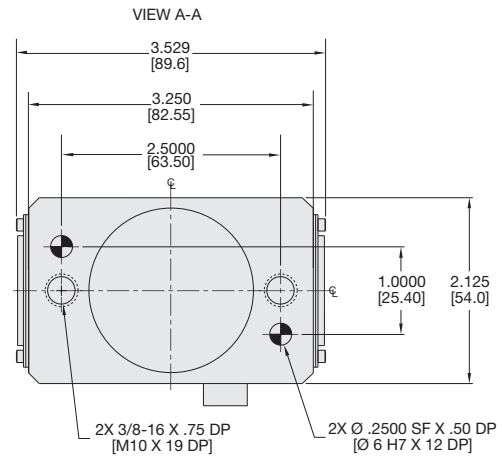
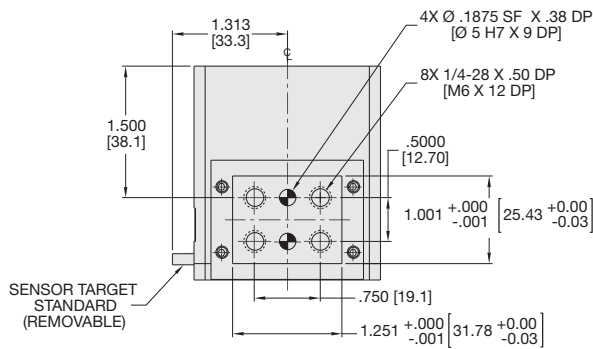
PARALLEL GRIPPER RP-17M DOUBLE WEDGE SERIES

RP SERIES

1.181

Specifications

	RP-17	RP-17M
Total Rated Grip Force F @ 100 psi, 7 bar	220 lbs.	979 N
Stroke	.75 in.	19.1 mm
Weight	2.2 lbs.	1.0 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore \varnothing	1.813 in.	46.1 mm
Displacement	1.400 in ³	22.9 cm ³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.18 sec.	0.18 sec.
Accuracy	±0.003 in.	±0.08 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate double acting	4-way, 2-position	

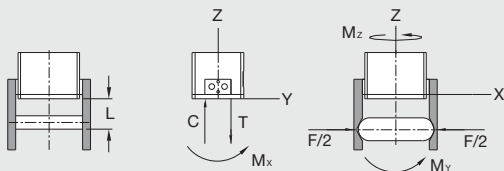
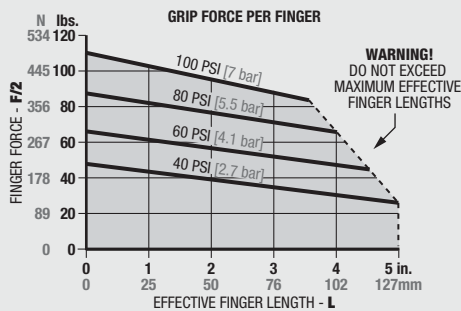


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

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

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



Loading Capacity†

	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile T	750 lbs.	3336 N	100 lbs.	445 N
Maximum Compressive C	1500 lbs.	6672 N	100 lbs.	445 N
Maximum Moment M_x	750 in.-lbs.	85 Nm	125 in.-lbs.	14 Nm
Maximum Moment M_y	750 in.-lbs.	85 Nm	125 in.-lbs.	14 Nm
Maximum Moment M_z	750 in.-lbs.	85 Nm	125 in.-lbs.	14 Nm

†Capacities are per set of jaws and are not simultaneous

BASIC MODEL

VITON® SEALS

RP-17 **M** - **V**

METRIC

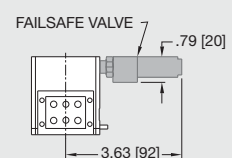
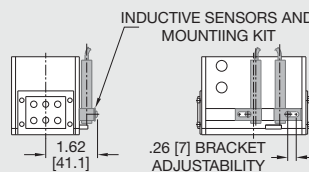
SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-072	1
NPN Inductive Sensor with Quick Disconnect*	OISN-011	1 or 2
PNP Inductive Sensor with Quick Disconnect*	OISP-011	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

Fail Safe Valve (Imperial)	OFSV-002	1
Fail Safe Valve (Metric)	OFSV-005	1
Standard Seal Repair Kit	SLKT-042	1
Viton® Seal Repair Kit	SLKT-042V	1

*Sensor and cable sold separately.



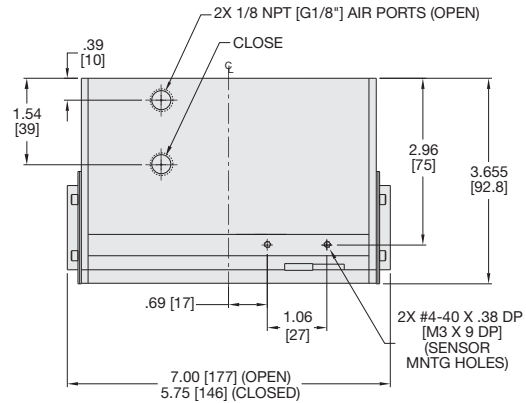
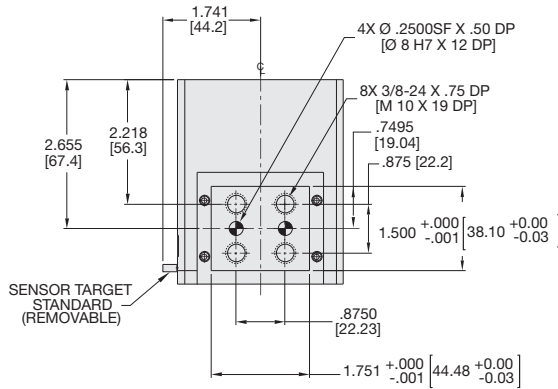
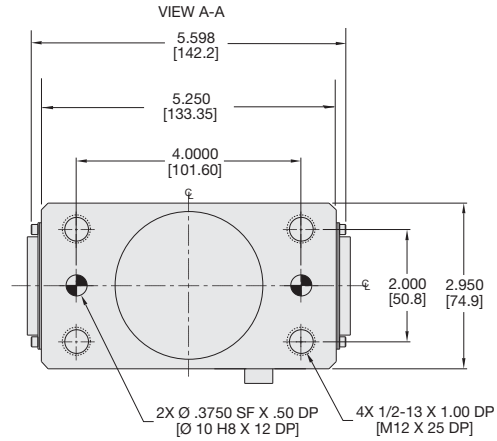
PARALLEL GRIPPER RP-18M DOUBLE WEDGE SERIES



Specifications

	RP-18	RP-18M
Total Rated Grip Force F @ 100 psi, 7 bar	400 lbs.	1779 N
Stroke	1.25 in.	31.8 mm
Weight	7.7 lbs.	3.5 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore \varnothing	2.500 in.	63.5 mm
Displacement	4.400 in ³	72.1 cm ³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.22 sec.	0.22 sec.
Accuracy	±0.003 in.	±0.08 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate double acting	4-way, 2-position	

1.182



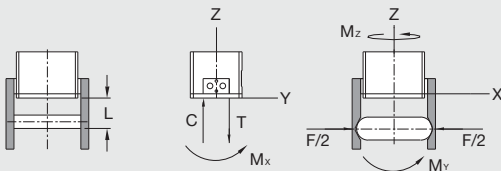
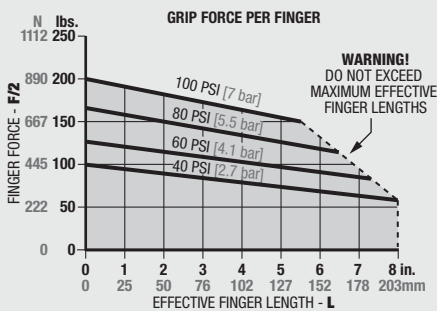
(JAWS SHOWN IN CLOSED POSITION)

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 Course Pitch	Imperial in. 0.00 = ± .01 0.000 = ± .005 0.0000 = ± .0005	Metric [mm] [0.] = [±.25] [0.0] = [±.13] [0.00] = [±.013]
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Loading Information

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



Loading Capacity†

	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile T	1500 lbs.	6672 N	250 lbs.	1112 N
Maximum Compressive C	3000 lbs.	13345 N	250 lbs.	1112 N
Maximum Moment M_x	1500 in.-lbs.	170 Nm	250 in.-lbs.	28 Nm
Maximum Moment M_y	1500 in.-lbs.	170 Nm	250 in.-lbs.	28 Nm
Maximum Moment M_z	1500 in.-lbs.	170 Nm	250 in.-lbs.	28 Nm

†Capacities are per set of jaws and are not simultaneous

BASIC MODEL

VITON® SEALS

RP-18 **M** - **V**

METRIC

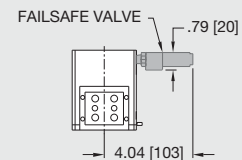
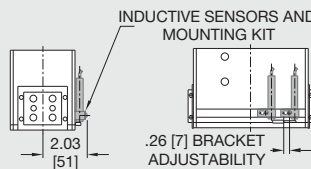
SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-072	1
NPN Inductive Sensor with Quick Disconnect*	OISN-011	1 or 2
PNP Inductive Sensor with Quick Disconnect*	OISP-011	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

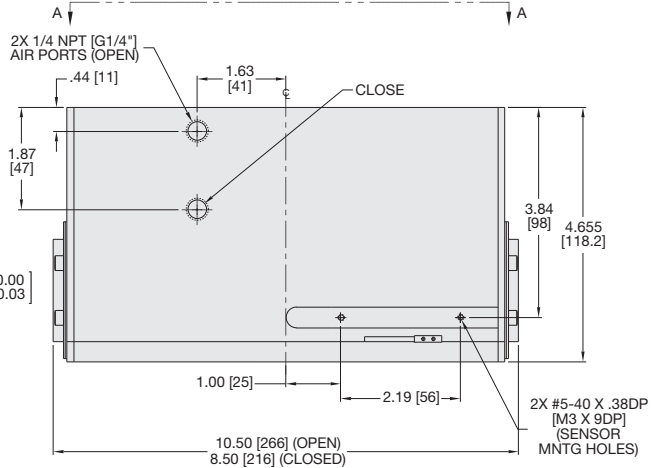
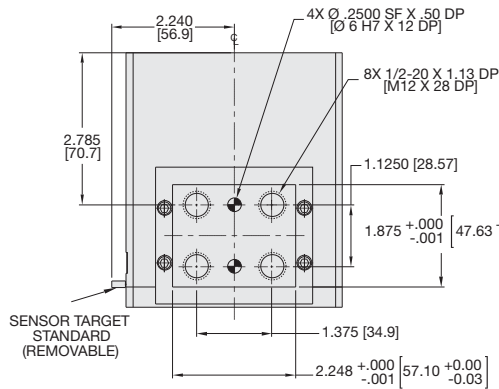
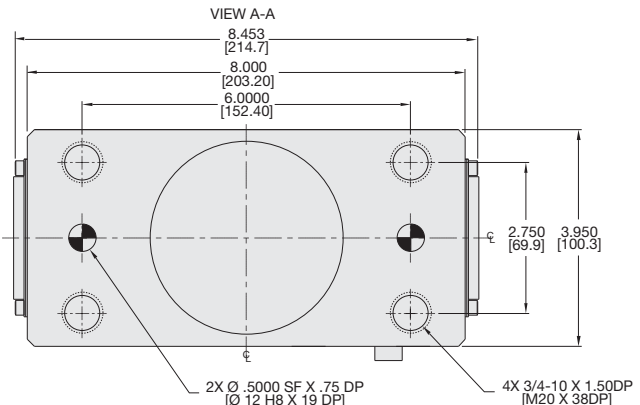
Fail Safe Valve (Imperial)	OFSV-002	1
Fail Safe Valve (Metric)	OFSV-005	1
Standard Seal Repair Kit	SLKT-043	1
Viton® Seal Repair Kit	SLKT-043V	1

*Sensor and cable sold separately.



Specifications

	RP-19	RP-19M
Total Rated Grip Force F @ 100 psi, 7 bar	600 lbs.	2669 N
Stroke	2.00 in.	50.8 mm
Weight	21 lbs.	9.5 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore \varnothing	3.500 in.	88.9 mm
Displacement	9.600 in ³	157.3 cm ³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.50 sec.	0.50 sec.
Accuracy	±0.003 in.	±0.08 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate double acting	4-way, 2-position	



(JAWS SHOWN IN CLOSED POSITION)

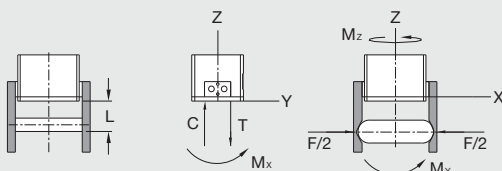
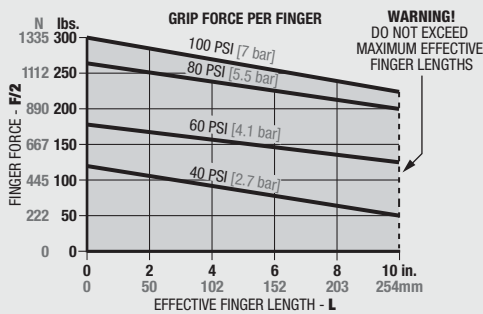
UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

Symbol	Imperial in.	Metric [mm]
\varnothing	0.00 = ± 01	[0.] = [±.25]
\pm	0.000 = ± 005	[0.0] = [±.13]
\pm	0.0000 = ± 0005	[0.00] = [±.013]

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

Loading Information

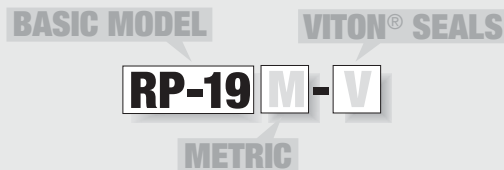
How to Order: (Order Accessories separately from Basic Model)



Loading Capacity†

	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile T	3000 lbs.	13345 N	300 lbs.	1334 N
Maximum Compressive C	6000 lbs.	26689 N	300 lbs.	1334 N
Maximum Moment M_x	5000 in.-lbs.	565 Nm	500 in.-lbs.	56 Nm
Maximum Moment M_y	5000 in.-lbs.	565 Nm	500 in.-lbs.	56 Nm
Maximum Moment M_z	5000 in.-lbs.	565 Nm	500 in.-lbs.	56 Nm

†Capacities are per set of jaws and are not simultaneous



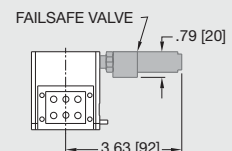
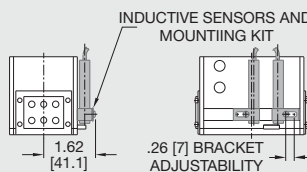
SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-073	1
NPN Inductive Sensor with Quick Disconnect*	OISN-011	1 or 2
PNP Inductive Sensor with Quick Disconnect*	OISP-011	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

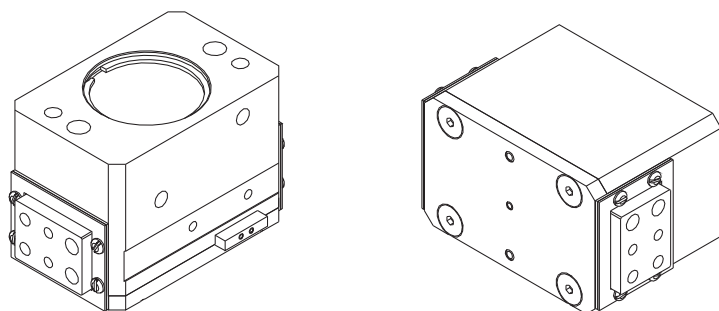
PNEUMATIC ACCESSORIES

Fail Safe Valve (Imperial)	OFSV-003	1
Fail Safe Valve (Metric)	OFSV-006	1
Standard Seal Repair Kit	SLKT-044	1
Viton® Seal Repair Kit	SLKT-044V	1

*Sensor and cable sold separately.



RP DOUBLE WEDGE SERIES EXPLODED VIEW



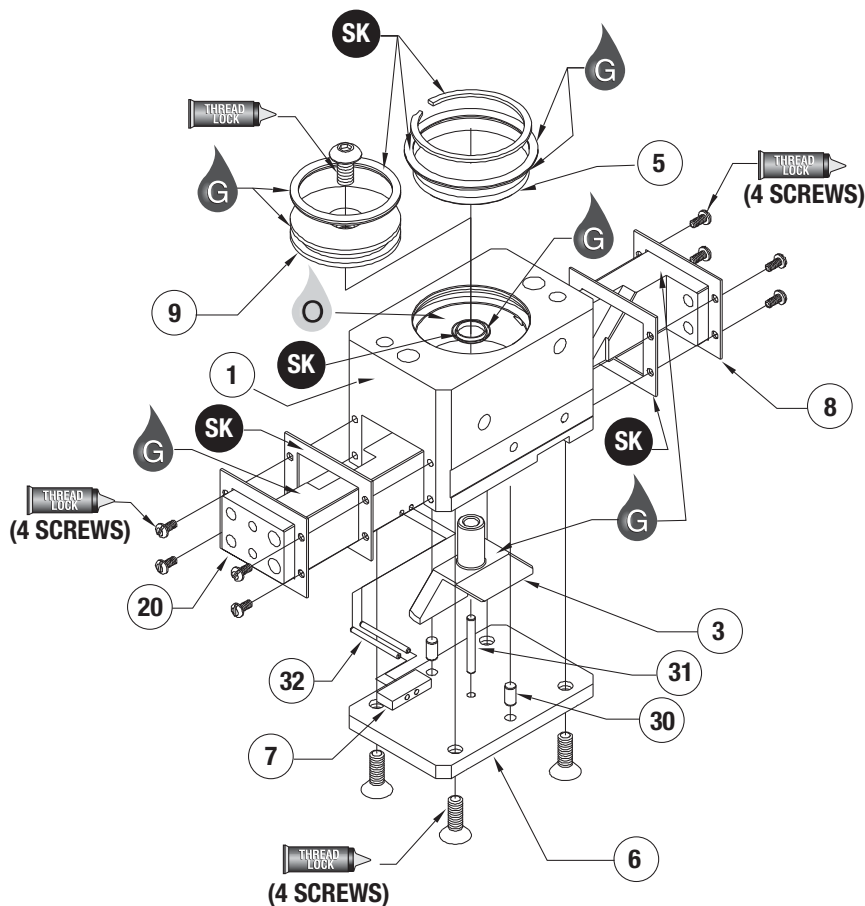
Item	Qty	Name
01	1	Body
03	1	Shaft/Wedge
05	1	Cap
06	1	Plate, Bottom
07	1	Target
08	2	Plate, Seal
09	1	Piston
20	2	Jaw, Target Ready
30	2	Dowel Pin
31	1	Dowel Pin
32	2	Roll Pin

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

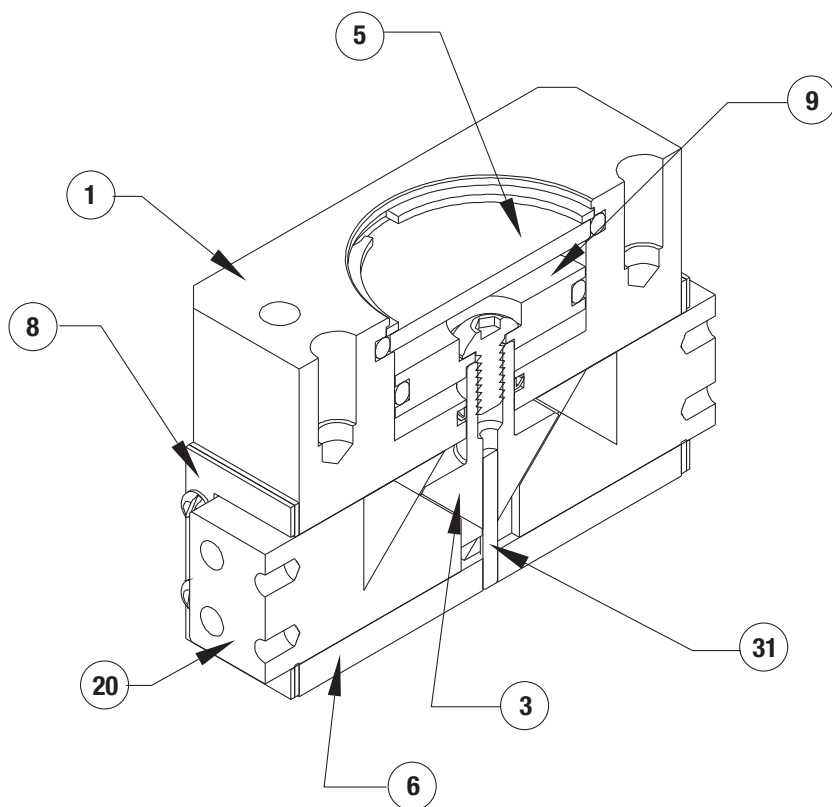
Assembly Procedure

- 1) Lubricate and install seals.
- 2) Install target on one jaw.
- 3) Place wedge, shaft and jaws into body.
- 4) Install piston into body.
- 5) Install cap and retaining ring.
- 6) Attach bottom plate to body.

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



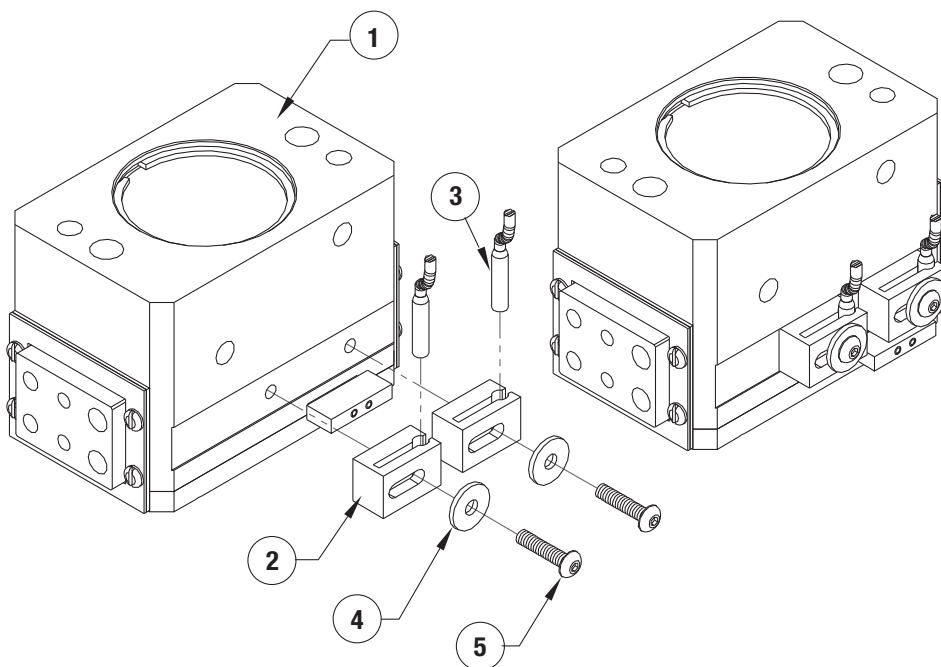
Seal Kit Items	Thread Locker	Krytox™ Lubricant	Lightweight Machine Oil	Teflon™ Based Grease	Super Bonder	Third Angle Projection
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Item	Qty	Name
01	1	Body
03	1	Shaft/Wedge
05	1	Cap
06	1	Plate, Bottom
07	1	Target
08	2	Plate, Seal
09	1	Piston
20	2	Jaw, Target Ready
30	2	Dowel Pin
31	1	Dowel Pin
32	2	Roll Pin

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

ACCESSORY INSTALLATION & ADJUSTMENT INSTRUCTIONS



Installation

- 1) Install sensors as shown.
- 2) Adjust for desired end of stroke detection.



Seal Kit Items



Thread Locker



Krytox™ Lubricant



Lightweight Machine Oil



Teflon™ Based Grease



Super Bonder



Third Angle Projection