

Parallel Grippers - Wide Body Series

- **Machining applications:**

Sealed design repels chips and other particulate from the internal drive mechanism.

- **Long gripper fingers:**

Jaw support thru the length of the body allows for long fingers to be attached to the jaws.

- **Large or wide parts:**

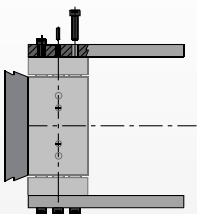
Wide body design provides secure gripping of large & wide parts.

- **Non synchronous motion:**

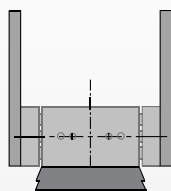
The unit can be made non-synchronous providing independent jaw motion allowing the gripper to pick or place at a point other than it's center.

Mounting Information:

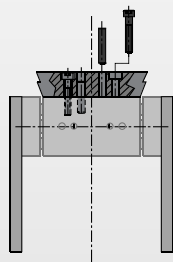
Grippers can be mounted & operated in any orientation



Fingers attach with screws and locate on jaws with dowel pins



Jaw design allows for simplified mounting of fingers



Body mounts on top or on side with screws and locates with slip fit dowel pin holes for accuracy

Technical Specifications:

Pneumatic Specifications

Pressure Operating Range
Cylinder Type
Dynamic Seals
Valve Required

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

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

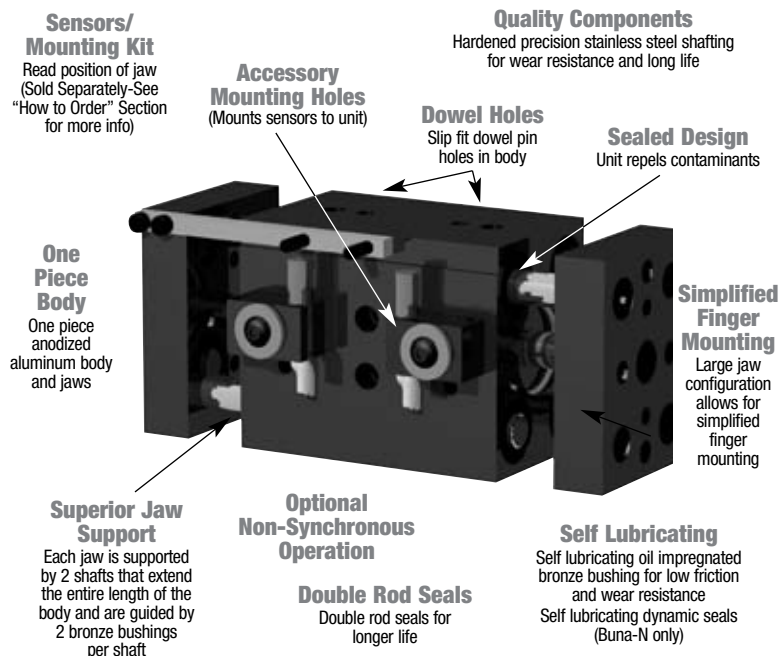
Maintenance Specifications†

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

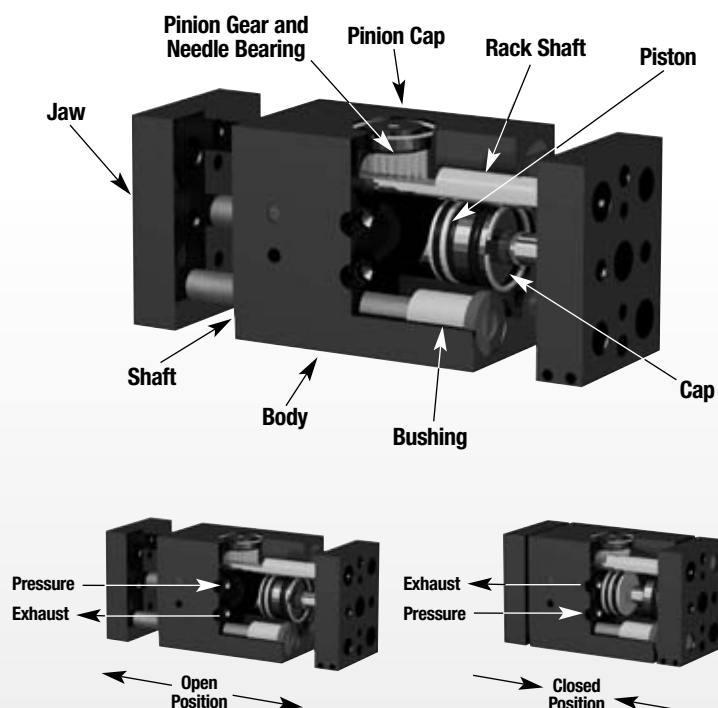
5 million cycles
10+ million cycles*
Yes
Yes

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

Product Features



Operating Principle



- Two shafts, one with a rack cut into it, are securely fastened to each of the jaws and are supported through the length of the body.
- Two double acting opposed pistons provide power to the jaws.
- The rack shafts of each jaw slide in opposite directions of one another and are synchronized by a pinion gear.
- This gripper is suitable for internal or external gripping.

U.S. Patent # 5,163,729
Designed and manufactured in the USA

Style-RPW Parallel Gripper

Size -625M-1

Stroke:	625-1 2.00 in.	625M-1 50.8 mm
Grip Force:	240 lb	1068 N
Weight:	6.5 lb	2.95 Kg



See Page **1.216**

Style-RPW Parallel Gripper

Size -625M-2

Stroke:	625-2 3.50 in.	625M-2 88.9 mm
Grip Force:	240 lb	1068 N
Weight:	7.8 lb	3.55 Kg



See Page **1.217**

Style-RPW Parallel Gripper

Size -750M

Stroke:	750 4.50 in.	750M 114.3 mm
Grip Force:	470 lb	2091 N
Weight:	14 lb	6.36 Kg

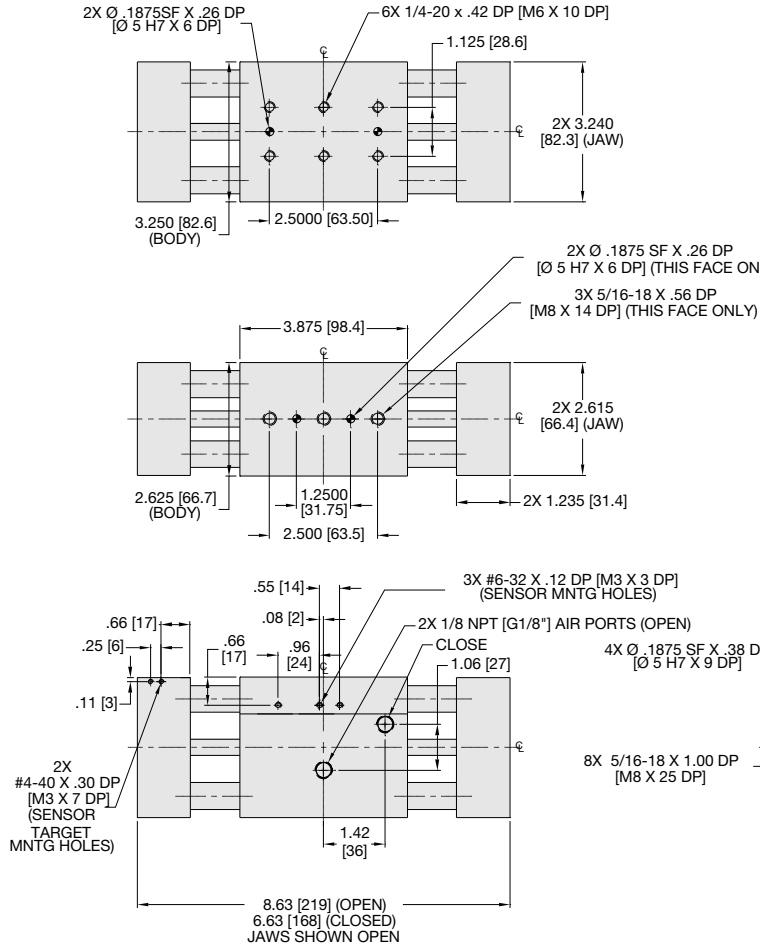


See Page **1.218**

Note: Please refer to the New DPW series for sizes of RPW-250 through RPW-500-2 on pages 1.196 to 1.209. The RPW series information on these sizes is still available on our website and are available for sale. We encourage you to consider the new DPW design for new projects.

PARALLEL GRIPPER RPW-625M-1 WIDE BODY SERIES





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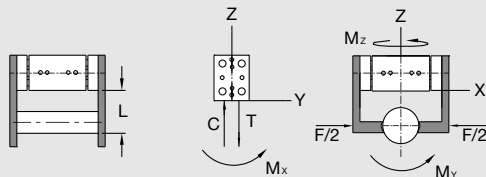
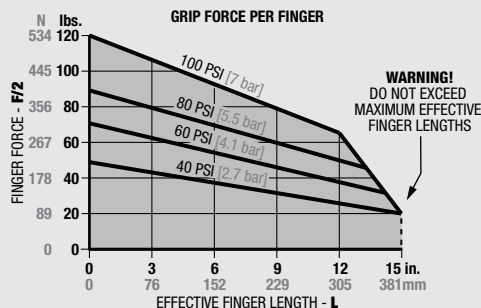
Specifications

	RPW-625-1	RPW-625M-1
Total Rated Grip Force F @ 100 psi, 7 bar	240 lb	1068 N
Stroke	2.00 in.	50.8 mm
Weight	6.5 lb	3.0 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore Ø	1.625 in.	41.3 mm
Displacement	1.320 in³	21.6 cm³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.52 sec.	0.52 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.	Metric [mm]		
		0.00 = ±.01	[0.] = ±.25		
		0.000 = ±.005	[0.0] = ±.13		
		0.0000 = ±.0005	[0.00] = ±.013		

Loading Information



Loading Capacity†

	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile T	1200 lbs.	5338 N	125 lbs.	556 N
Maximum Compressive C	1200 lbs.	5338 N	125 lbs.	556 N
Maximum Moment M_x	1000 in.-lbs.	113 Nm	100 in.-lbs.	11 Nm
Maximum Moment M_y	1500 in.-lbs.	170 Nm	125 in.-lbs.	14 Nm
Maximum Moment M_z	1000 in.-lbs.	113 Nm	100 in.-lbs.	11 Nm

†Capacities are per set of jaws and are not simultaneous

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

BASIC MODEL

NON-SYNCHRONOUS

RPW-625 **M** -1- **NS** - **V**

METRIC

VITON® SEALS

SENSOR ACCESSORIES

Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)

NPN Inductive Sensor with Quick Disconnect*

PNP Inductive Sensor with Quick Disconnect*

Quick Disconnect 2 Meter Cable Length*

Quick Disconnect 5 Meter Cable Length*

PNEUMATIC ACCESSORIES

Fail Safe Valve (Imperial)

Fail Safe Valve (Metric)

Standard Seal Repair Kit

Viton® Seal Repair Kit

*Sensor and cable sold separately.

ORDER # QTY/UNIT

OSMK-074 **1**

OISN-011 **1 or 2**

OISP-011 **1 or 2**

CABL-010 **1 or 2**

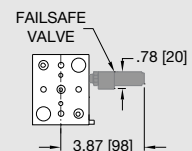
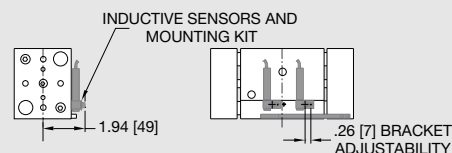
CABL-013 **1 or 2**

OFSV-002 **1**

OFSV-005 **1**

SLKT-071 **1**

SLKT-071V **1**

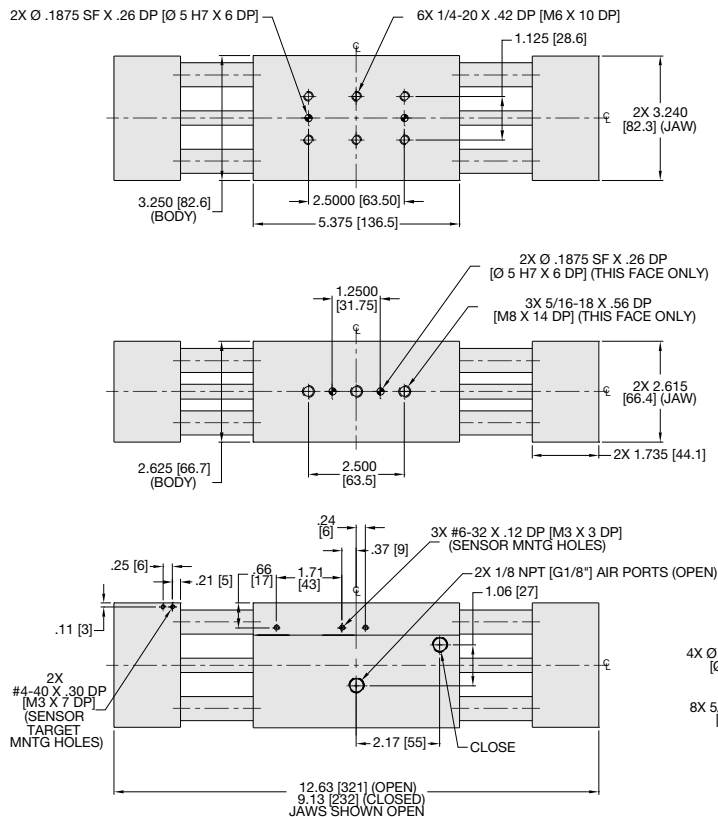




PARALLEL GRIPPER RPW-625M-2 WIDE BODY SERIES

RPW SERIES

1.217

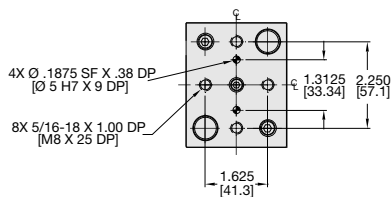


Specifications

	RPW-625-2	RPW-625M-2
Total Rated Grip Force F @ 100 psi, 7 bar	240 lb	1068 N
Stroke	3.50 in.	88.9 mm
Weight	7.8 lb	3.6 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore Ø	1.625 in.	41.3 mm
Displacement	2.310 in³	37.9 cm³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.69 sec.	0.69 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	

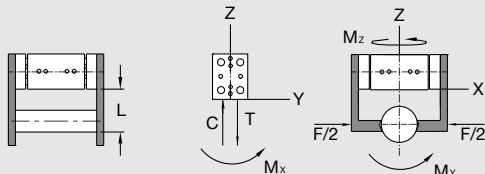
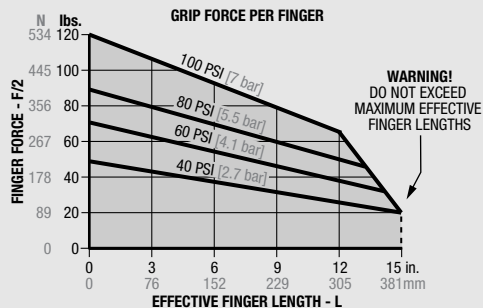
UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

	Dimensions are symmetrical about centerline		Third Angle Projection		All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]
	Metric Threads		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 T	1200 lb	5338 N	125 lb	556 N
Maximum Compressive C	1200 lb	5338 N	125 lb	556 N
Maximum Moment M_x	1000 in.-lb	113 Nm	100 in.-lb	11 Nm
Maximum Moment M_y	1500 in.-lb	170 Nm	125 in.-lb	14 Nm
Maximum Moment M_z	1000 in.-lb	113 Nm	100 in.-lb	11 Nm

†Capacities are per set of jaws and are not simultaneous

BASIC MODEL

NON-SYNCHRONOUS

RPW-625 M-2-NS-V

METRIC

VITON® SEALS

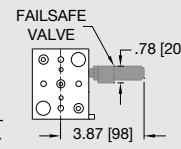
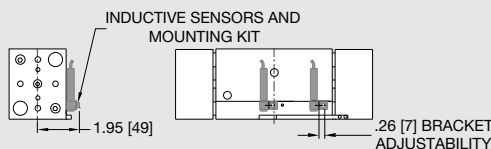
SENSOR ACCESSORIES

Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-074	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-071	1
Viton® Seal Repair Kit	SLKT-071V	1

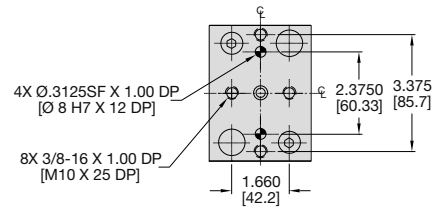
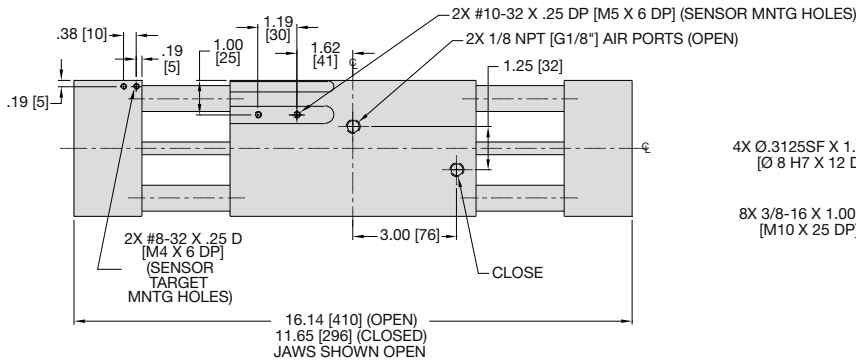
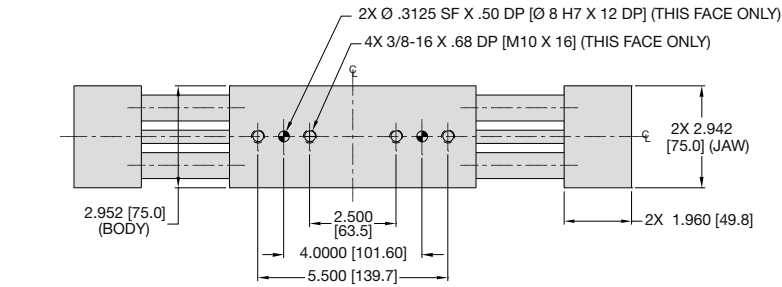
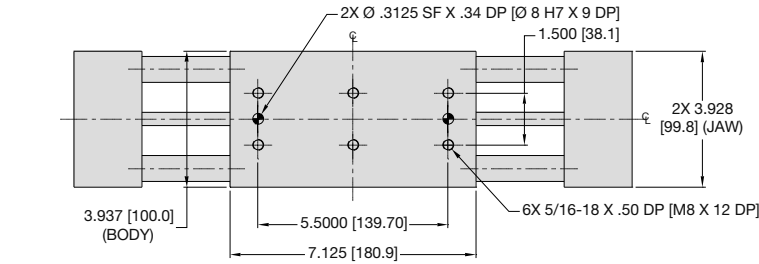
*Sensor and cable sold separately.



Please see back cover for DE-STA-CO Global Locations. www.destaco.com

www.comoso.com

PARALLEL GRIPPER RPW-750M WIDE BODY SERIES



Specifications

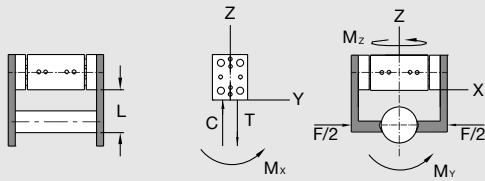
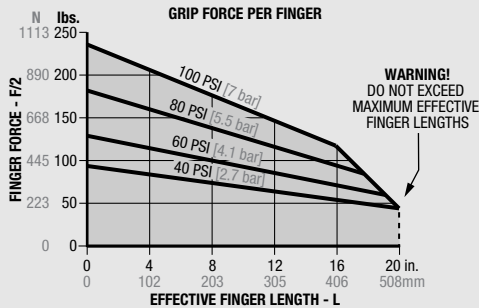
	RPW-750	RPW-750M
Total Rated Grip Force F @ 100 psi, 7 bar	470 lb	2091 N
Stroke	4.50 in.	114.3 mm
Weight	14 lb	6.4 Kg
Pressure Range	40-100 psi	3-7 bar
Cylinder Bore Ø	2.000 in.	50.8 mm
Displacement	14.200 in³	232.7 cm³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	1.00 sec.	1.00 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]

Loading Information

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



Loading Capacity†

	Static		Dynamic	
	Imperial	Metric	Imperial	Metric
Maximum Tensile T	2500 lb	11121 N	250 lb	1112 N
Maximum Compressive C	2500 lb	11121 N	250 lb	1112 N
Maximum Moment M_x	2000 in.-lb	226 Nm	200 in.-lb	22 Nm
Maximum Moment M_y	3000 in.-lb	339 Nm	250 in.-lb	28 Nm
Maximum Moment M_z	2000 in.-lb	226 Nm	200 in.-lb	22 Nm

†Capacities are per set of jaws and are not simultaneous

BASIC MODEL

NON-SYNCHRONOUS

RPW-750 M - NS - V

METRIC

VITON® SEALS

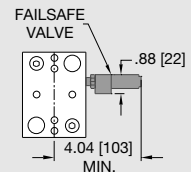
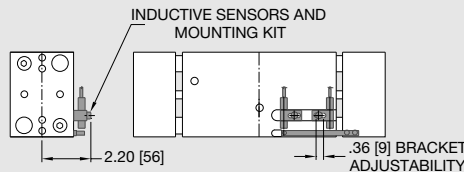
SENSOR ACCESSORIES

Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-014	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-060	1
Viton® Seal Repair Kit	SLKT-060V	1

*Sensor and cable sold separately.



Item	Qty	Name
01	1	Body
03	2	Piston
04	2	Cap
05	2	Shaft
06	1	Gear Cover
07	1	Gear
09	2	Shaft, Piston
10	2	Shaft, Gear
20	2	Block, End W/ Target Holes
21	1	Bearing, Needle
22	1	Dowel Pin
23	1	Ball

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

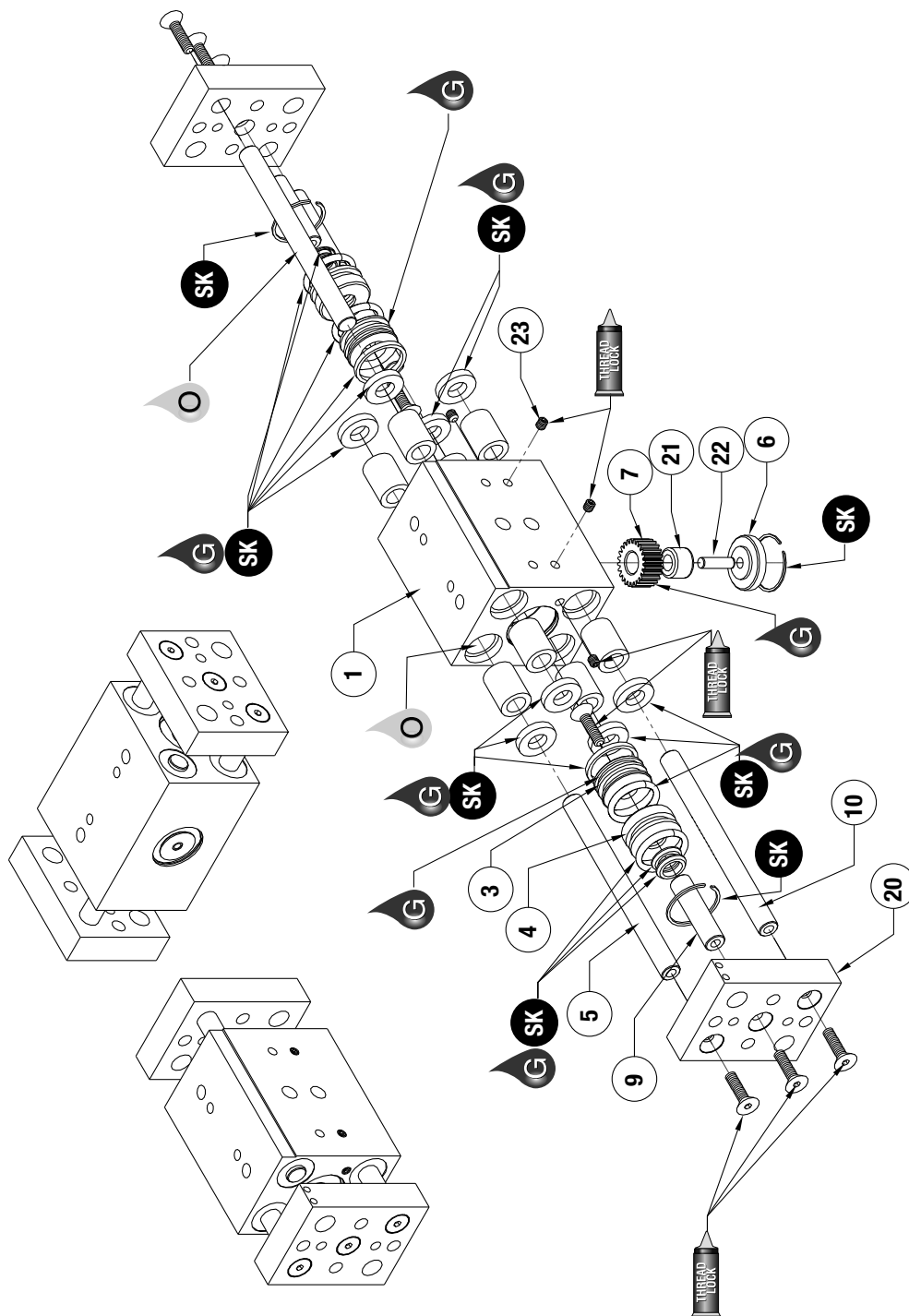
Assembly Procedure

- 1) Lubricate and install seals.
- 2) Install pistons and shafts.*
- 3) Place piston caps and retaining rings into body
- 4) Install tooling plates and shafts
- 5) Place bearing, shaft, and gear** into body and install cap and retaining ring for sync. version:
 - a) For disassembly, use magnet to pull gear out of body.
 - b) Install 2 rack shafts with teeth facing syncing gear.

Non-Synchronous Procedure

- 1) Take RPW synchronous gripper and remove the retainer ring and gear cover.
- 2) Slide out dowel pin and bearing.
- 3) Remove gear from gripper. (a magnet is often very helpful in removing the gear.)
- 4) Replace the dowel pin, gear cover, and retainer ring. The gripper is now non-synchronous.

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



Seal Kit
Items



Thread
Locker



Krytox™
Lubricant



Lightweight
Machine Oil



Teflon® Based
Grease

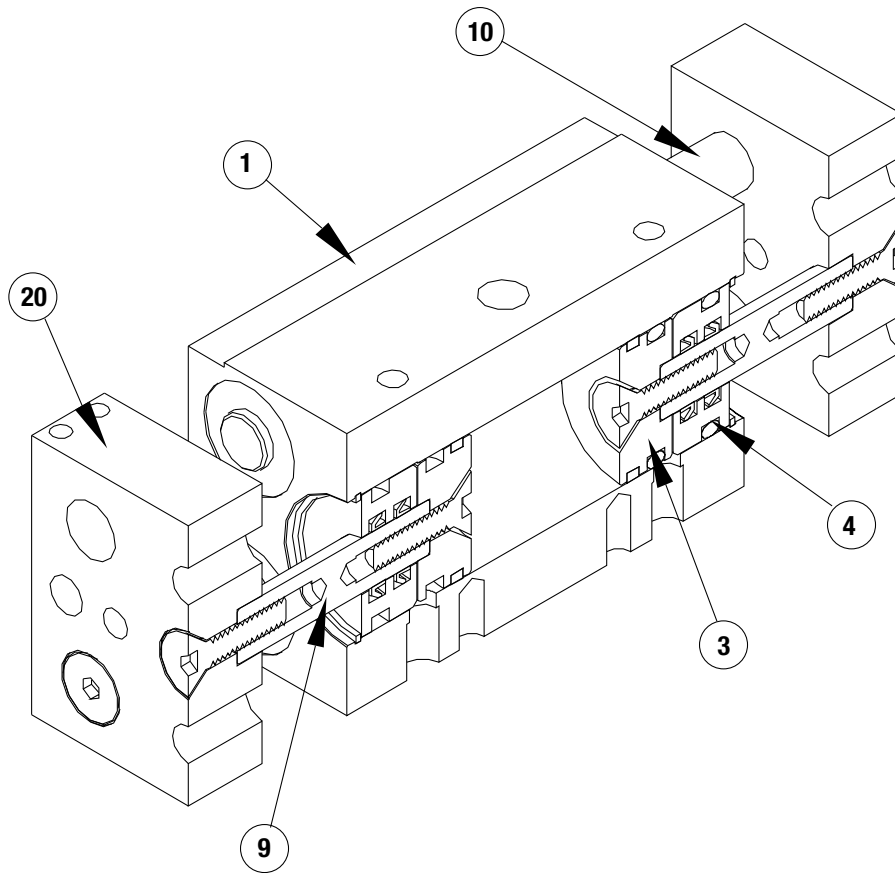


Super
Bonder



Third Angle
Projection

RPW Series Assembled View

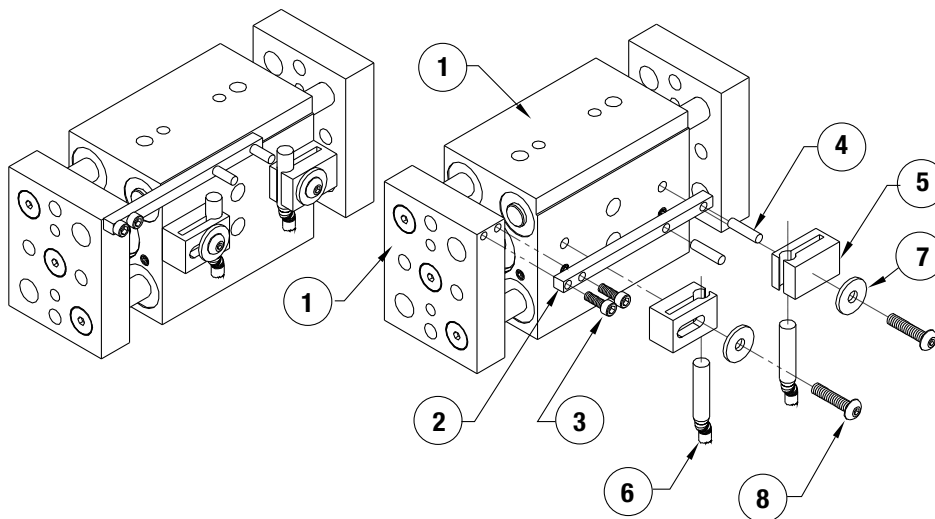


Item	Qty	Name
01	1	Body
03	2	Piston
04	2	Cap
05	2	Shaft
06	1	Gear Cover
07	1	Gear
09	2	Shaft, Piston
10	2	Shaft, Gear
20	2	Block, End W/ Target Holes
21	1	Bearing, Needle
22	1	Dowel Pin
23	1	Ball

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

Accessory Installation & Adjustment Instructions

Install target as shown, install sensors as shown, adjust for proper end of stroke sensing.



Seal Kit
Items



Thread
Locker



Krytox™
Lubricant



Lightweight
Machine Oil



Teflon® Based
Grease



Super
Bonder



Third Angle
Projection

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