

Service Manual

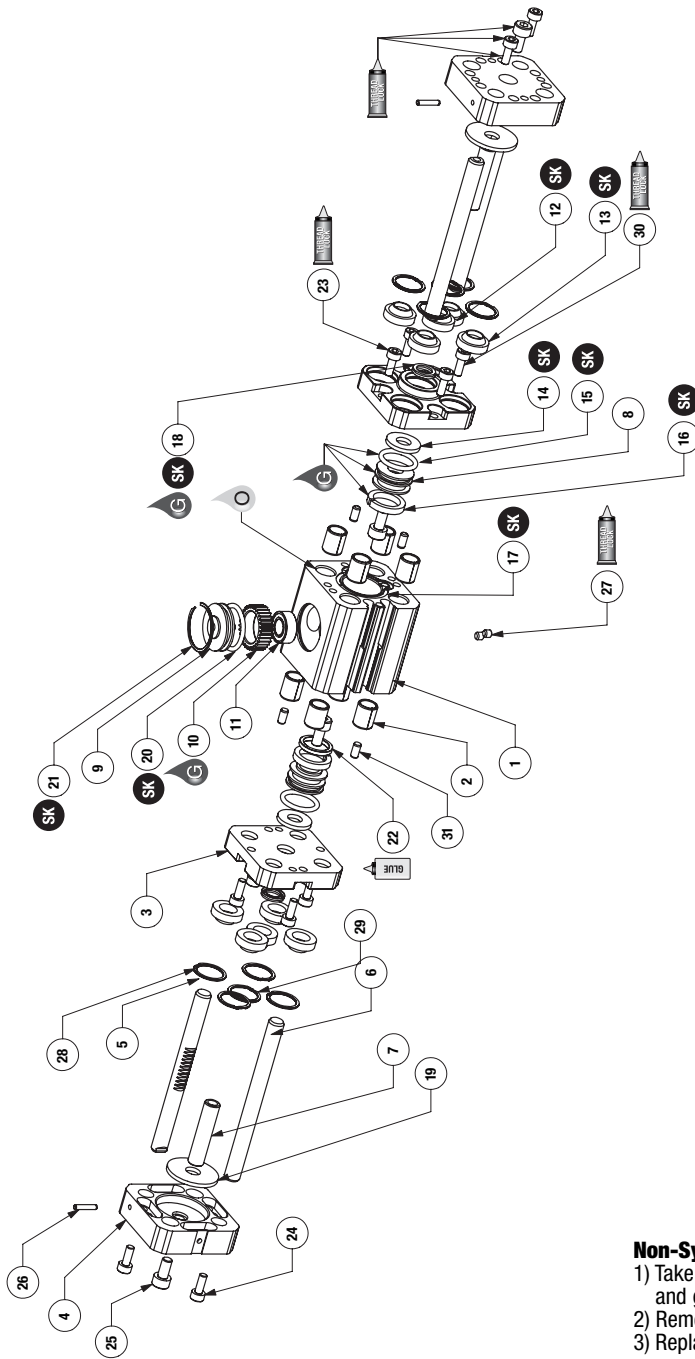
ROBOHAND | DPW Series



WARNING: This is a controlled document. It is your responsibility to deliver this information to the end user of the Destaco Robohand product. Failure to deliver this could result in your liability for injury to the user or damage to the machine. For copies of this manual, call your Customer Service Representative at 1.248.836.6700

DPW SERIES

Parallel Grippers | Maintenance and Assembly Procedure



Assembly Procedure:

- 1) Lubricate and install seals on piston.
- 2) Install pistons and shafts.
- 3) Mount end caps to enclose piston assembly.
- 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 gear shafts with teeth facing syncing gear. Use dowel to align gear shafts in correct position.

Item	Qty	Name
01	1	Body
02	8	Bushing, Oil Impregnated Bronze
03	2	End Cap
04	2	Jaw
05*	2	Guide Shaft, Rack
06*	2	Guide Shaft (Qty 4 for -NS)
07	2	Piston Rod
08	2	Piston
09	1	Cap, Gear
10*	1	Gear
11*	1	Bearing, Radial
12*	2	Piston Rod Wiper (Shaft Wiper "-W" option only)
13*	8	Shaft Wiper (Shaft Wiper "-W" option only)
14	2	Piston Bumper
15	2	Piston O-ring
16	2	Teflon Ring
17*	2	Body O-ring
18	2	U-cup
19	2	Jaw Bumper
20	1	Gear Cap O-ring
21	1	Retaining Ring
22	1	Magnet
23	8	End Cap Mntg Screw
24	4	Guide Shaft Mntg Screw
25	4	Piston Shaft Mntg Screw
26*	2	Guide Shaft Alignment Dowel
27	2	Manifold Port Plug
28	8	Retainer Ring (Shaft Wiper "-W" Option only)
29	2	Retainer Ring (Shaft Wiper "-W" Option only)
30*	2	End Cap Mntg Screw
31	4	End Cap Dowel Pins

*Notes:

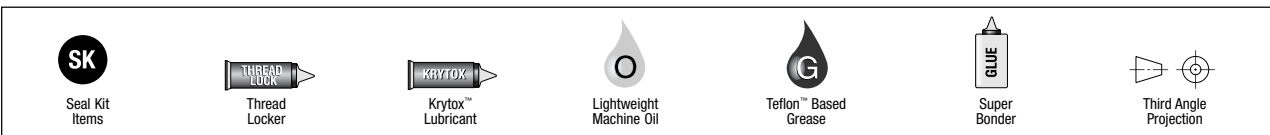
- 1) Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.
- 2) Quantity of #6 is 4 when ordering a Non-synchronous gripper.
- 3) Items #5, #10, #11, and #26 are for synchronous grippers only.
- 4) Items #12 and #13 are for -W option only.
- 5) Item #17 (Body O-ring) shown in body groove.
- 6) Item #23 Quantity is 6 for 375-1.
- 7) Item #30 is only used in 375-1.

Non-Synchronous Procedure:

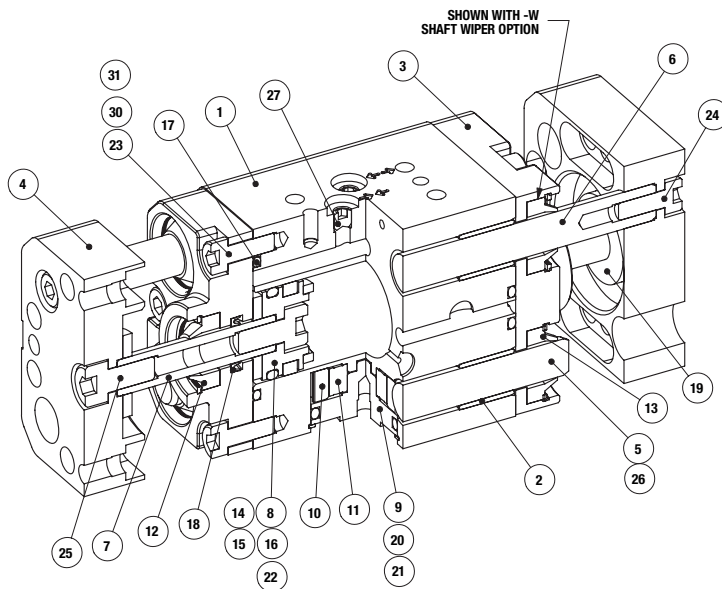
- 1) Take DPW synchronous gripper and remove the retaining ring and gear cap.
- 2) Remove gear from gripper.
- 3) Replace gear and retaining ring. The gripper is now non-synchronous

-W Option Assembly Procedure:

- 1) Take out guide shaft and piston rod mounting screws.
- 2) Remove jaws from guide shafts and piston rods.
- 3) Take out end cap mounting screws and pull off end caps. Take out piston.
- 4) Slide out shafts and press wipers in pockets thru front side.
- 5) Replace shafts, pistons, and end caps.
- 6) Be sure to apply thread locker to mounting screws. The gripper now has shaft wipers.



Parallel Grippers | Maintenance and Assembly Procedure

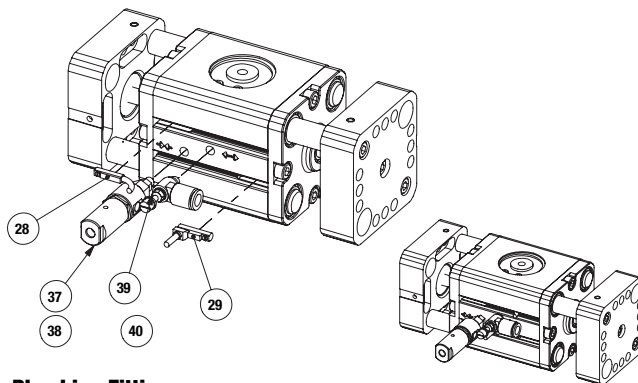


Item	Qty	Name
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***Notes:**

- 1) Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.
- 2) Quantity of #6 is 4 when ordering a Non-synchronous gripper.
- 3) Items #5, #10, #11, and #26 are for synchronous grippers only.
- 4) Items #12 and #13 are for -W option only.
- 5) Item #17 (Body O-ring) shown in body groove.
- 6) Item #23 Quantity is 6 for 375-1 only.
- 7) Item #30 is only used in 375-1.

Accessory Installation & Adjustment Instructions



Plumbing Fittings:

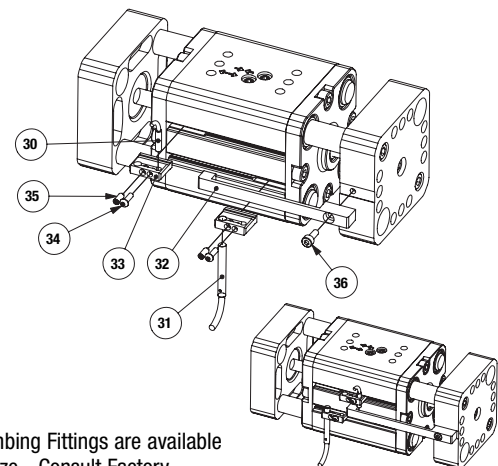
- 1) Flow Controls #39 or #40 can be inserted and used in any open or closed airport to help control the stroke actuation.
- 2) Fail-Safe Valve #37 or #38 can be used in either the open or closed airport to help limit the possibility of dropping the part if air pressure is lost.

Magneto-Resistive Sensors:

- 1) Insert sensors #28 or #29 into the opening at the end of the profile slot and lock the sensor into position with the integrated screw.

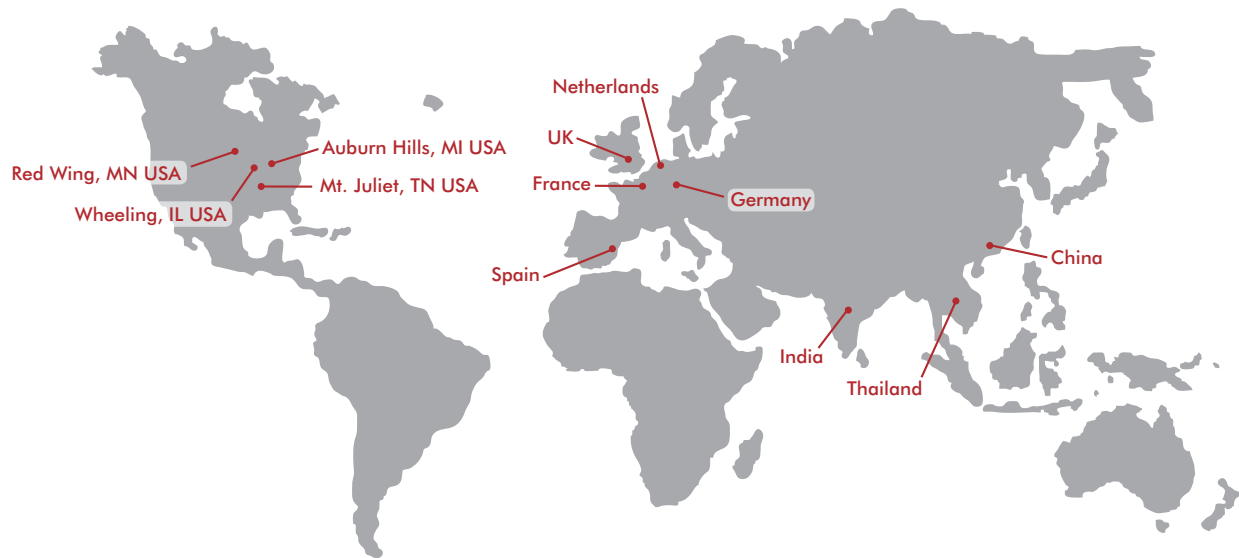
Inductive Sensors:

- 1) Mount inductive sensor target (#32) to jaw using mounting screw (#36).
- 2) Insert sensor bracket (#33) into slot of body.
- 3) Insert sensor (#30 or #31) into appropriate 3mm or 4mm opening in bracket and adjust sensor depth so that sensor light indicates target (#32).
- 4) Tighten sensor locking screw (#34).
- 5) Position sensor bracket for desired stroke detection.
- 6) Tighten sensor bracket with set screw (#35) to lock stroke detection position.



Other Plumbing Fittings are available for each size - Consult Factory

Item	Qty	Name
28	1,2	Magneto Resistive Sensor (short barrel) w/Qk. Disconnect
29	1,2	Magneto Resistive Sensor (90° barrel) w/Qk. Disconnect
30	1,2	Inductive Sensor (3mm) w/Qk. Disconnect
31	1,2	Inductive Sensor (4mm) w/Qk. Disconnect (DPW-375 & 500 only)
39	1,2	Adjustable Flow Control (Imperial) #10-32 elbow - 1/4" OD Push-in Style
40	1,2	Adjustable Flow Control (Metric) M5 elbow - 6mm OD Push-in Style
37	1	Fail Safe Valve (Imperial) #10-32
38	1	Fail Safe Valve (Metric) M5



GLOBAL LOCATIONS

NORTH AMERICA

Corporate Headquarters

Auburn Hills, Michigan
Toll Free: 1.888.DESTACO
Marketing: marketing@destaco.com

Global Technology Center

Auburn Hills, Michigan
Tel: 1.248.836.6700
Customer Service: customerservice@destaco.com

Mt. Juliet, Tennessee
Tel: 1.888.DESTACO
Customer Service: customerservice@destaco.com

Wheeling, Illinois
Tel: 1.800.645.5207
Customer Service: camco@destaco.com

Red Wing, Minnesota (Central Research Laboratories)
Tel: 651.385.2142
Customer Service: sales@centres.com

ASIA

Bangkok, Thailand
Tel: +66-2-326-0812
Customer Service: info@destaco.com

Shanghai, China
Tel: +86-21-6081-2888
Customer Service: china@destaco.com

Bangalore, India
Tel: +91-80-41123421-426
Customer Service: india@destaco.com

EUROPE

Oberursel, Germany
Tel: +49-6171-705-0
Customer Service: europe@destaco.com

Sainte Florine, France
Tel: +33-4-73545001
Customer Service: france@destaco.com

Wolverhampton, United Kingdom
Tel: +44-1902-797980
Customer Service: uk@destaco.com

Sant Boi de Llobregat, Spain
Tel: +34-936361680
Customer Service: spain@destaco.com

Uithoorn, Netherlands
Tel: +31-297285332
Customer Service: benelux@destaco.com