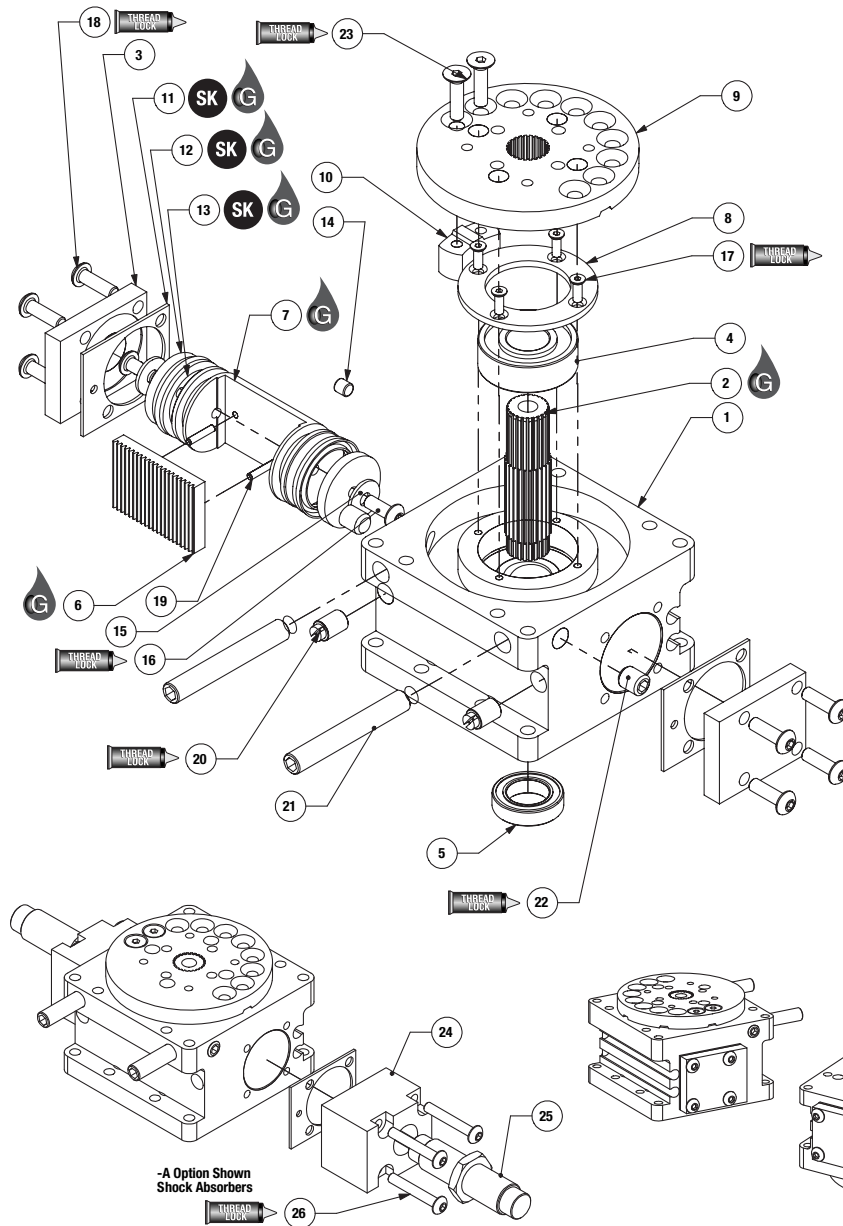


DRF SERIES EXPLODED VIEW



Item	Qty	Name
01	1	Body
02	1	Pinion Shaft
03	2	End Plates
04	1	Upper Bearing
05	1	Lower Bearing
06	1	Rack
07	1	Piston
08	1	Bearing Retainer
09	1	Hub
10*	1	Stop Puck
11	2	Gaskets
12	2	Urethane Bumpers
13	2	U-cups
14	1	Magnet
15	2	Bumper Washers
16	2	Bumper Screws
17	4	Retainer Screws
18	8	End Plate Screws
19	2	Roll Pins
20*	2	Fixed Orifices
21	2	Stop Screws
22	2	Stop Screw Locking Screws
23	2	Stop Puck Screws
24	2	Shock Block
25	2	Shocks
26	8	Shock Block Mounting Screws

***NOTES:**

- 1) Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.
- 2) Item #10 Quantity 1 for 180° rotations, all other rotations Quantity 2
- 3) Item #20 not in size -131

Assembly Procedure

- 1) Press the Upper Bearing #4 onto the Pinion #2.
- 2) Install the Bearing Retainer #8 onto the Pinion #2 and press the Hub #9 onto the pinion: install the Stop Puck #10 onto the Hub with the stop puck Screws #23.
- 3) Assemble the Rack #6 to the Piston #7 with Roll Pins #19.
- 4) Grease the U-Cups #13 and install them onto the Piston #7.
- 5) Press the Magnet #14 into the Piston #7.
- 6) Assemble the Bumper #12, Washers #15 and Bumper Screw #16 onto the Piston #7.
- 7) Lubricate the Body #1 bore and install the Piston Assembly into the body.
- 8) Press the Lower Bearing #5 into the Body #1.
- 9) Locate the Piston assembly so it is aligned with an outer edge of the body.

- 10) Lubricate the Pinion assembly and align the key with the same edge of the Body as the Piston and Press the Pinion into the Body.
- 11) Rotate the Hub Assembly through the full travels and insure that the Piston is correctly located in the Body, adjust the travel of the Piston if necessary.
- 12) Grease the Gasket #11 and install the End Plate #3 onto the Body #1.
- 13) Install the 2 Orifices #20 into the Body #1 screw them in until they bottom.
- 14) Install the Bearing Retainer Screws #17.

-A Option Assembly Procedure:

- 1) Install the Shock Absorber #25 into the Shock Blocks #24, use Teflon® tape to seal and tighten the lock nut if shock comes with one.
- 2) Screw the Shock Block onto the Body using the Mounting Screws #26.



Seal Kit Items



Thread Locker



Krytox™ Lubricant



Lightweight Machine Oil



Teflon™ Based Grease



Super Bonder

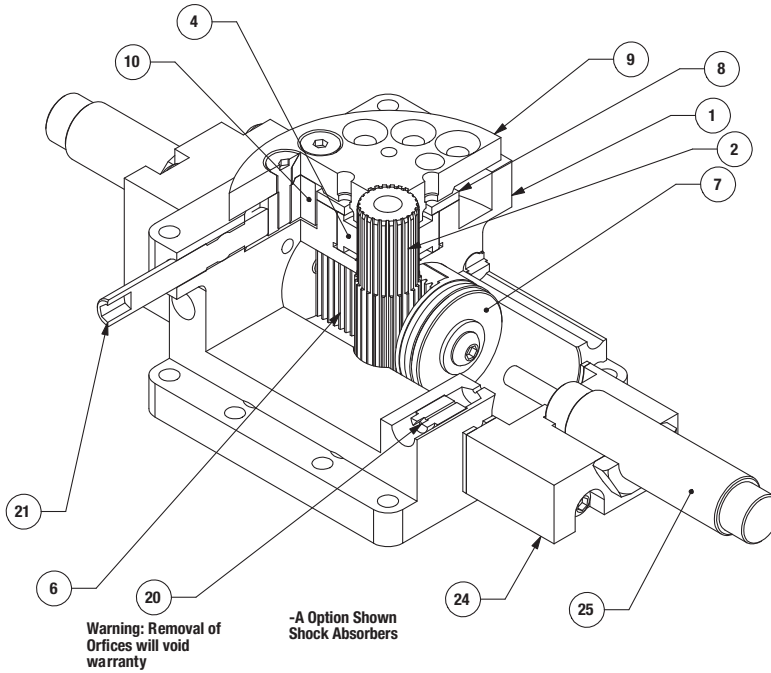


Third Angle Projection



Robohand

DRF SERIES ASSEMBLED VIEW



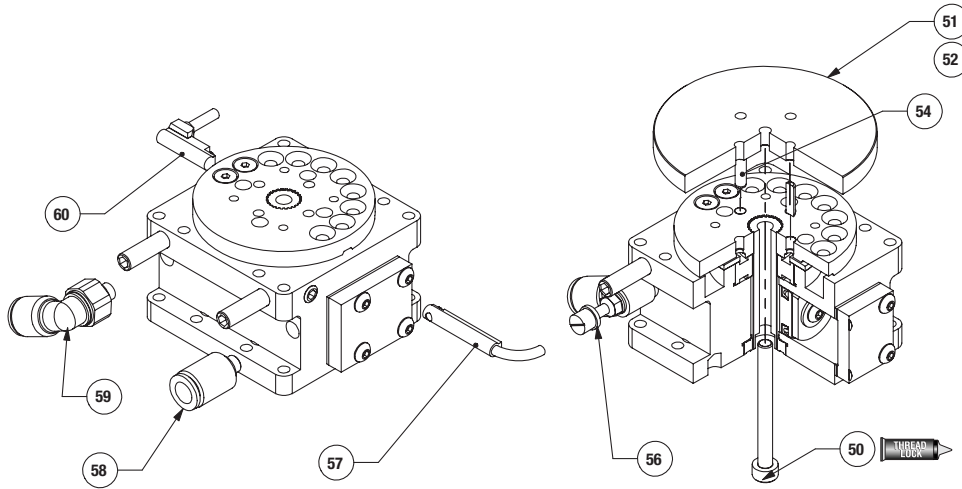
Item	Qty	Name
01	1	Body
02	1	Pinion Shaft
04	1	Upper Bearing
06	1	Rack
07	1	Piston
08	1	Upper Bearing Retainer
09	1	Hub
10*	2	Stop Pucks
20	2	Fixed Orifices
21	2	Stop Screws
24	2	Shock Blocks
25	2	Shocks

*NOTES:

- 1) Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.
- 2) Item #10 Quantity 1 for 180° rotations, all other rotations Quantity 2.

DRF SERIES MAINTENANCE 3.25

Accessory Installation & Adjustment Instructions



Item	Qty	Name
50	1	Soc Head Cap Screw
51	1	Blank Turntable
52	1	DIRECTCONNECT Turntable
54	2	Dowel Pins
56	1 or 2	Adjustable Flow Control
57	1 or 2	Magneto Resistive Sensor, with Quick Disconnect
58	1 or 2	Plumbing Fitting, Push-in straight
59	1 or 2	Plumbing Fitting, Push-in 90° Elbow
60	1 or 2	Magneto Resistive Sensor, 90° barrel, with Quick Disconnect

Magneto Resistive Sensors

- 1) Insert sensors #57 or #60 from either end of the profile slots and set the sensor with the integrated slotted screw set.

Plumbing Fittings

- 1) Plumbing fittings #58 & #59 can be used in an y airport.
- 2) Flow controls #56 can be inserted and used in an y airport.

Turntable

- 1) Insert the two Dowel Pins #54 into the hub (slip fit).
- 2) Attach the turntable #51 or #52, onto the dowel Pins.
- 3) Put thread lock on the Socket Head Screw #50, insert it through the Pinion and tighten.



Seal Kits



Thread Locker



Krytox™ Lubricant



Lightweight Machine Oil



Teflon™ Based Grease



Super Bonder



Third Angle Projection