



DOSATRON®

An Ingersoll Rand Business

Extend the Life of Your Dosatron

Rebuild Kit MKD40MZ1000



**GENUINE
DOSATRON
PARTS**

Dosatron D40MZ1000 Rebuild Kit

Part #: MKD40MZ1000AF • MKD40MZ1000K
• MKD40MZ1000VF

- **Part 1** - Piston Kit
- **Part 2** - Seal Kit

Part 1 - Piston Kit Contents:

PDI1216 - Omega Spring	
PDI1086 - Connecting Rod	
PDI1085 - Push Rod Seal	
PDI1093 - Upper Flange	
PDI1092 - Lower Flange	

Part 2 - Seal Kit Contents:

PJDI118 - Check Valve	
JDI100 - Injection Sleeve O-ring	
JDI120 - Injection Stem O-ring	
J009 - Plunger Seal	



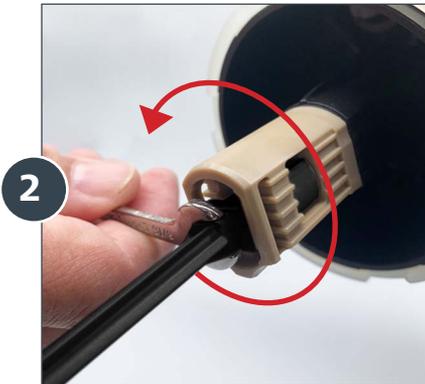
Remember to wear proper protection when performing maintenance such as gloves, eyewear, and apron.

Part 1: Piston Kit Instructions

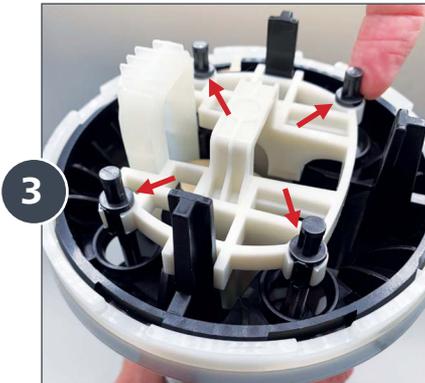


Unscrew and remove the bell housing, you may use a universal strap wrench.

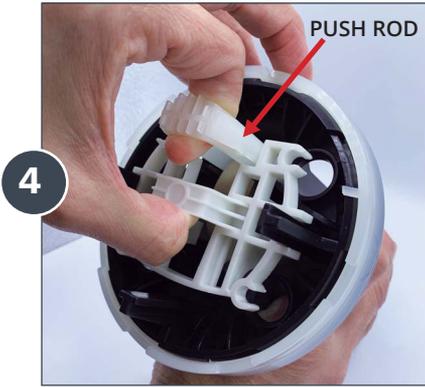
Pull the piston out of the body and set the bell housing and body aside.



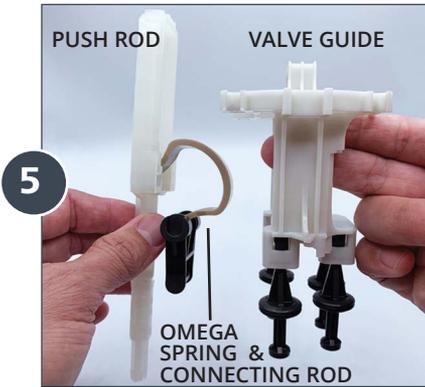
Remove the plunger from the piston by rotating it a quarter of a turn counterclockwise.



Dislodge the 4 black upper valves by pushing out on the top tab of each valve.



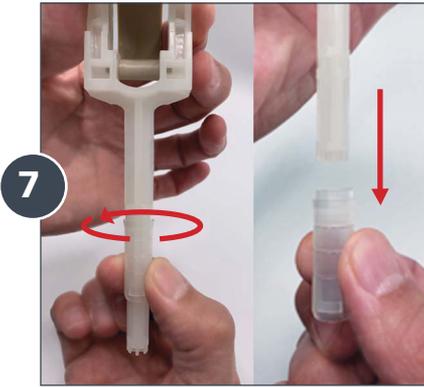
Raise the push rod carefully and pull the piston's mechanism up and out of black piston shell.



It will probably come out in either two or three pieces. The first is the valve guide and the others are the push rod, Omega Spring and Connecting Rod.

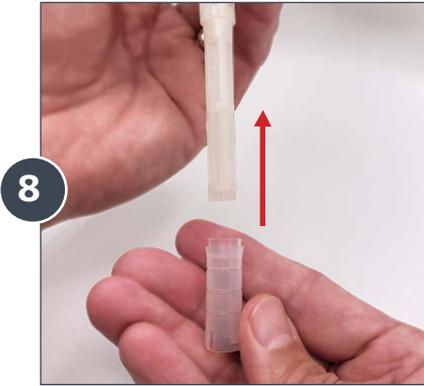


Remove the **Piston Maintenance Kit (PPDI065)** items from the bag and set aside.



CHANGING THE PUSH ROD SEAL, OMEGA SPRING AND CONNECTING ROD:

Locate the Push Rod Seal and twist it a quarter turn counterclockwise and slide down and off the push rod.

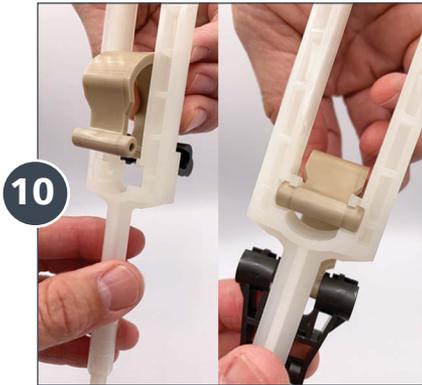


Slide the **NEW Push Rod Seal (PDI1085)** onto the push rod with the tapered end on the push rod. When in position, rotate the Push Rod Seal a quarter turn clockwise to lock into place.



Next, pick up the beige **Omega Spring (PDI1216)** and black **Connecting Rod (PDI1086)** from the new kit.

Slide one end of the Omega Spring into the channel on the Connecting Rod (parts in the kit may already be connected).



Snap the other end of the Omega Springs into the push rod as shown. Set the parts aside and pick up the piston assembly.



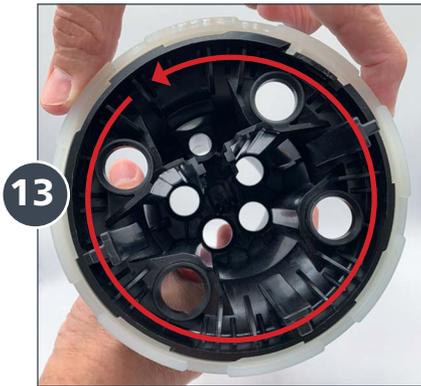
TO CHANGE THE PISTON FLANGES:

UPPER FLANGE

On the Upper Flange, locate the white tooth on the inside of the lock ring.



Press down on the lock lever directly next to the tooth.



Rotate the white lock ring about $\frac{3}{4}$ of an inch counterclockwise to unlock, making sure the white tooth slides above the black lever.



Slide the white lock ring and Upper Flange up and off the black piston shell.



Pick up the **NEW Upper Flange (PDI1093)** and slide it onto the piston shell with the **V** shape opening facing downward, and flat edge facing up. Push down until it sits on the ledge of the black piston shell.



Hold the white lock ring with the flat edge facing down towards the piston, and place the lock ring on top of the NEW Upper Flange.

The tabs on the inside of the lock ring should align with the gaps around the edge of the piston Shell; and the white tooth and black lock lever should be close together.



Push down on the lock ring so that the flat edge touches the top of the white Flange.

Then, rotate the lock ring $\frac{3}{4}$ of an inch turn clockwise to lock it into place.



LOWER FLANGE

Hold the piston upside down. On the Lower Flange, locate the white tooth on the inside of the lock ring.

19



Press down on the lock lever directly next to the tooth.

20



Rotate the lock ring about $\frac{1}{2}$ of an inch clockwise to unlock, making sure the white tooth slides on top of the lever.

21



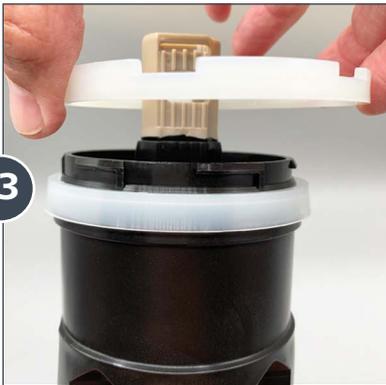
Slide the lock ring and Lower Flange up and off the black piston shell.

22



Pick up the **NEW Lower Flange (PDI1092)** and slide it onto the piston shell, with the **V** shape opening facing downward and flat edge facing up. Push down until it sits on the edge of the black piston shell.

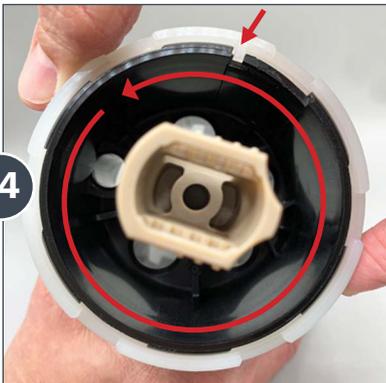
23



Hold the white lock ring with the flat edge facing down towards the Piston, and place the lock ring on top of the **NEW Lower Flange**.

The tabs on the inside of the lock ring should align with the gaps around the edge of the piston shell; and the white tooth and black lock lever should be close together.

24



Push down on the lock ring so that the flat edge touches the top of the white Flange.

Then, rotate the lock ring 1/2 of an inch turn counterclockwise to lock it into place.

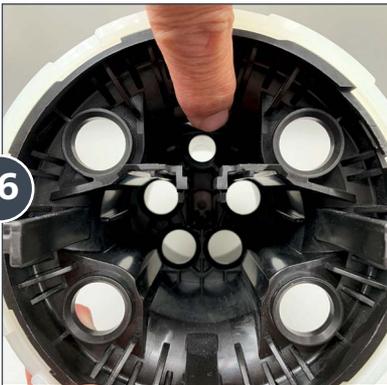
25



TO ASSEMBLE THE INSIDE OF THE PISTON

Inside the piston shell are 8 holes the same size, 4 for the Lower valves (center holes) and 4 for the upper valves (top holes).

26



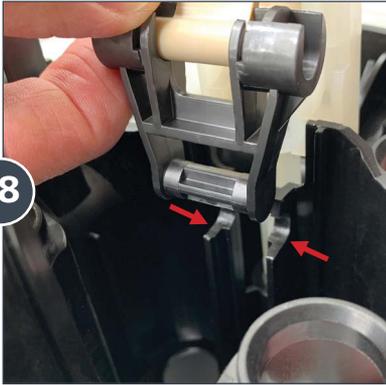
There is also a single smaller hole for the push rod assembly.

27



Insert the push rod assembly inside the smaller hole with the top curved portion facing outward (following the curve of the piston).

28



Make sure the Connecting Rod drops into the notches inside the piston shell.

29



Align the valve rack next to the push rod assembly making sure the guide aligns with the black posts on the piston shell, and the lower valves align with the 4 center openings.

NOTE: You may have to lift the push rod assembly and reposition both assemblies inside the piston shell simultaneously. Make sure the Connecting Rod drops into the notches inside the piston shell again.

30



Carefully begin pressing the mechanism (both assemblies) into place inside the piston shell and double check the alignment of both sections.

31



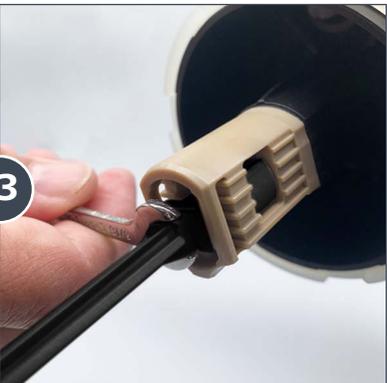
Snap one of the upper valves into the valve guide.

32



Now, test the piston assembly by carefully pulling the push rod up until you hear a click, then snap the last 3 Valves back on.

33



Insert the plunger back into the piston and rotate it a quarter of a turn clockwise to lock it into place.

34



Insert the piston back into the Dosatron injector and screw the bell housing back on.

35



You have completed the steps to replace the Piston Flange Kit on your D40 Dosatron injector.

Continue with Part 2 - Seal Kit instructions.

If you have any questions, call **1-800-523-8499** or to **CHAT** visit **www.dosatron.com**.

Part 2: Seal Kit Instructions - PJDI236



Unscrew the suction hose nut and remove the suction hose.



Unscrew the injection stem nut, slide it down and set aside.



Pull the injection stem straight down from the body of the injector.

4



Unscrew and remove the check valve nut.

5



Grab the barb and pull the check valve assembly straight out and discard.

6



Unscrew and remove the lock nut.



Remove the **C** clamp by spreading the opening and sliding it down over the threads.



Unscrew and remove the adjusting nut.



Push the white injection stem up and out of the injection sleeve.

10



Remove and replace the **Injection Sleeve O-Ring (Part #: JDI100)**.

11



Remove and replace the **Injection Stem O-Ring (Part #: JDI120)**.

12



Align the groove in the white stem with the tooth inside the lower portion of the injection sleeve. Slide the stem down as far as possible.

13



Thread the adjusting nut back onto the injection sleeve.

14



Replace the **C** clamp by sliding it over the threads. Rotate until it clicks into place.

15



Thread on the lock nut and hand tighten.

16



Install the new **Check Valve Assembly (Part #: PJD1232)** into the stem.

17



Reinstall the check valve nut.

18



Set the stem aside and pick up the blue body. Remove the Plunger Seal by pinching and rolling it off the plunger.

Install the new **Plunger Seal (Part #: J009)** into the groove on the plunger.



Insert the plunger inside the top of the stem in a vertical motion to avoid bending the plunger.

Align the notches in the lower part of the blue body with the teeth on the top of the injection stem assembly.



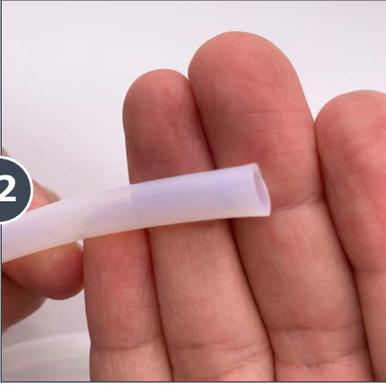
Reinstall the nut hand tight.



If the scale you prefer is not facing out, just loosen the stem nut and remove.

Pull the stem down slightly, rotate 180 degrees and push it back up, then reinstall the nut hand tight.

22



Before installing the suction hose, inspect it. If it flares out, cut an inch or so off and reinstall.

If the suction hose is cracked, rigid, or looks really old, just replace it.

23



Thread the suction hose nut onto the hose. Slide the hose onto the barb. Reattach the hose nut.

NOTE: Make sure to set your Dosatron unit to the desired setting.

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