ADC - Advanced Damper Cups Set

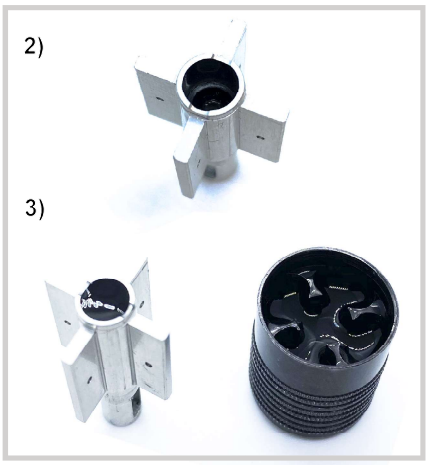
The ADC Set is designed to simplify the maintenance of D2.2 Dampers and reduce the amount of rebuild routines.
It offers the possibility to A) remove air and B) add oil into the damper without the need of full disassembling.
Suitable to be used with all D2.2 Dampers.

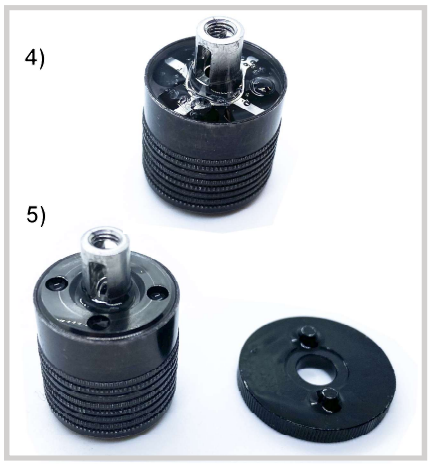
The Set contains:
4x AT40-ADC / 8x ST121 / 1x AT158 / 4x OR155V / 4x OR18V / 4x B85

Assembling of Dampers with ADC

Note: With ADC we recommend to use 200cst heavier pure silicon oil compared to the std. Damper Cups.
This is because of the additional cavity on the lower side of AT40-ADC.
We recommend 650cst / 50WT as starting point.

1) Stretch and place OR18V O-ring in the groove of the AT40-ADC Cup.
2) Insert P63 Piston into AT41-2 Vane cavity and push it fully up. Keep AT41-2 in vertical position and add silicon oil into the cavity till its completely full.
3) Stand AT42-1 Case up and fill ~1/2 of volume with the desirable silicone oil. Insert AT41-2 Vane into AT42-1 Case slowly full way down.
4) Add more silicone oil. The oil should cover the AT41-2 Vane completely. It is highly recommended the damper should be placed into a shock air remover. Otherwise let the damper sit for 30m+ to allow air bubbles to escape.
5) With the damper still exactly vertical (important !), screw AT40-ADC Cup (without ST121 ADC screws!) into the AT42-1 Case until fully threaded. Use the AT158 ADC Wrench for screwing. Do not force the AT40-ADC Cup - once aligned, it will screw on easily.
The excessive oil should go out through the gap and the holes of ST121 ADC screw
between AT40-1 and AT41-2 Vane. Please don't remove this oil from the bearing cavity of AT40-ADC Cup at this stage!
6) Place OR155V O-ring into AT40-ADC Cup. You can use a piece of an appropriate tube to press o-ring slowly and fully into cavity.
7) Place B85 bearing and one SH5X7X0.1 shim onto AT41-2 Vane output shaft.
8) Screw one (!) of the ST121 ADC screws into AT40-ADC Cup until fully threaded.
9) Use a dipstick (marked 1.5mm allen key wrench as example) and push down P63 inside the Vane to 12,50mm. This is needed to guarantee space for P63 movement into both directions. .
10) Screw the second ST121 ADC screw into the AT40-ADC Cup and close the Damper fully.
11) Clean up oil off the outer surface of damper.
For disassembling please do all steps in the reverse order.





Quick rebuild option 1

This option allows to remove “air” by pushing P63 further down.

1) Remove both ST121 ADC screws from AT40-ADC Cup. Make sure to hold the Damper always vertical during all steps.
2) Wait some minutes to allow the air bubbles to pile up in the top area of the Cup. During the recess area in the new Cup, the air will automatically find the right way .
3) Push down the P63 Piston with a dipstick by 1mm from the initial position. The concentrated airbubbles and some amount of silicon oil will flow out.
4) Screw both ST121 ADC screws back into the AT40-ADC Cup and close the Damper fully.
5) Clean up oil off the outer surface of damper.

Quick rebuild option 2

In case you used “option 1” more than twice, the position of P63 could be already to low to push more oil/airbubbles out. This “option 2” allows to add silicon oil into the shock case via small needle bottle without the need to open the Damper.

1) Remove both ST121 ADC screws from AT40-ADC Cup. Make sure to hold the Damper always vertical during all steps.
2) Use a small needle bottle to add few drops of silicon oil during the holes in the Cup. Hold the bottle vertical to avoid adding more air. In case you feelt “air bubbles” inside the damper before you opened it, push the oil with bigger force into the case, to flood out the bubbles and oil during the second hole.
3) Use a dipstick to check the P63 position isn’t higher than 12,5mm.
4) Screw both ST121 ADC screws back into the AT40-ADC Cup and close the Damper fully.
5) Clean up oil off the outer surface of damper.