



***MAINTENANCE***

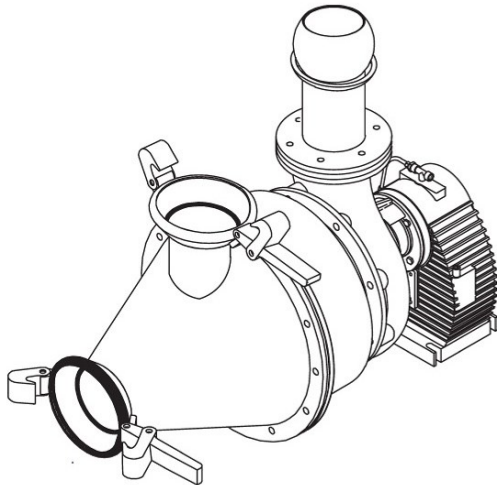
***A F I S E R I E S***

***MONOLITHIC SEAL REPLACING***

***JANUARY 2024***

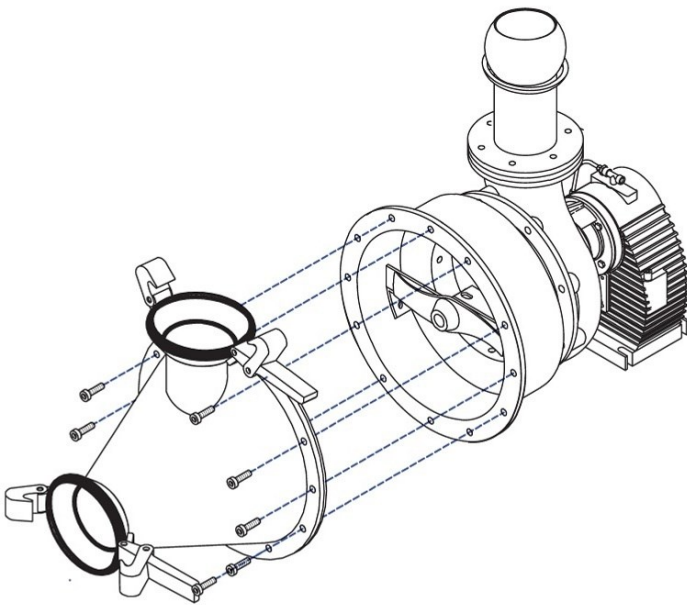


## ***DISASSEMBLY OF THE WIDIA SEAL***

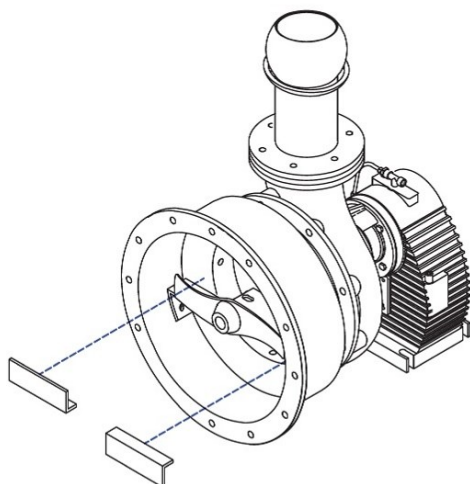


***To replace the seal, proceed as follows after disconnecting the pump from each connection.***

***A depth gauge is required to replace the seal.***



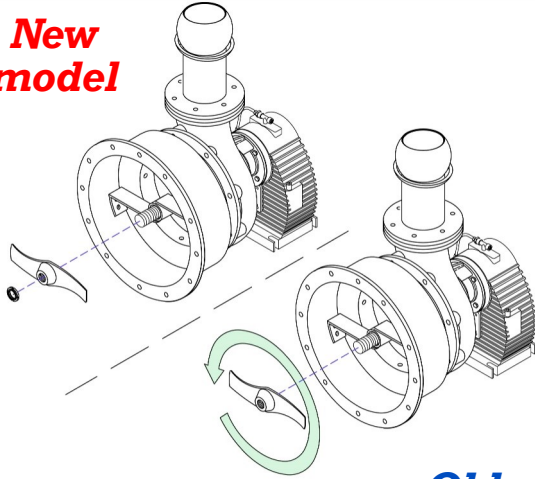
***Start by disassembling the pump cone.***



***Remove the counter-knives by unscrewing the appropriate nuts and bolts.***

## DISASSEMBLY OF THE WIDIA SEAL

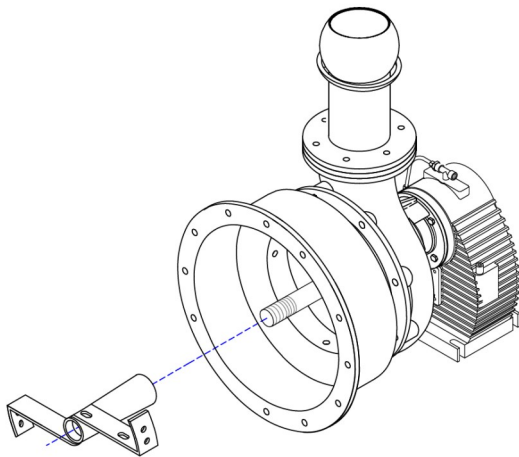
**New  
model**



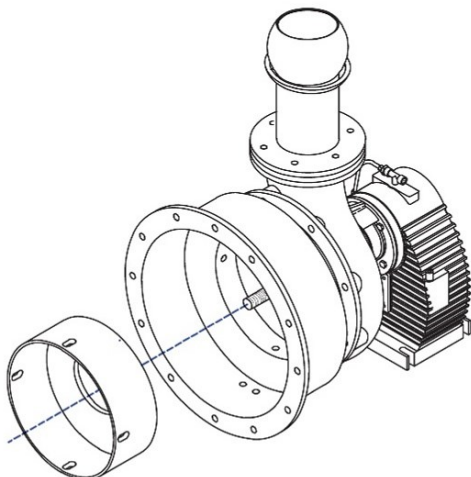
**Old  
model**

***After removing the counter-knives,  
the knife must be removed,  
unscrewing it from the shaft. [for  
older models]***

***[Splined shaft models: remove the  
nut and the blade sides off.]***

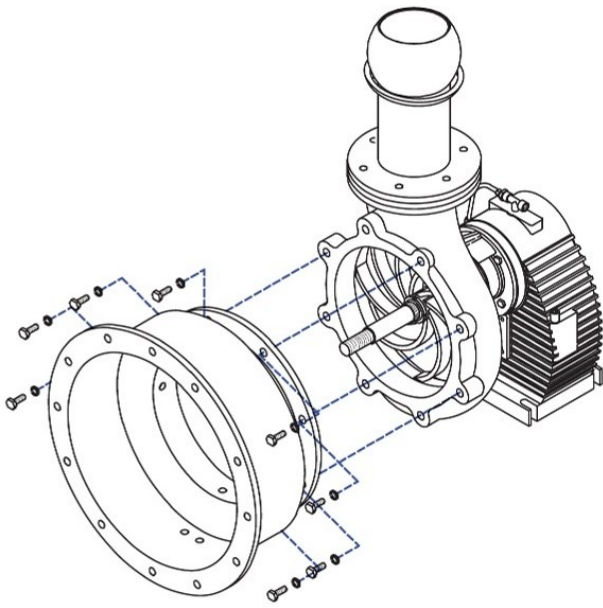


***Remove the shearbar.***

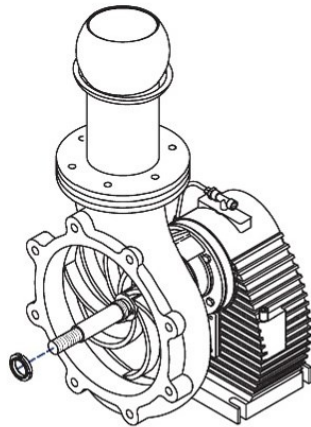


***Remove the counter-impeller.***

## DISASSEMBLY OF THE WIDIA SEAL



***Now remove the conveyor housing.***



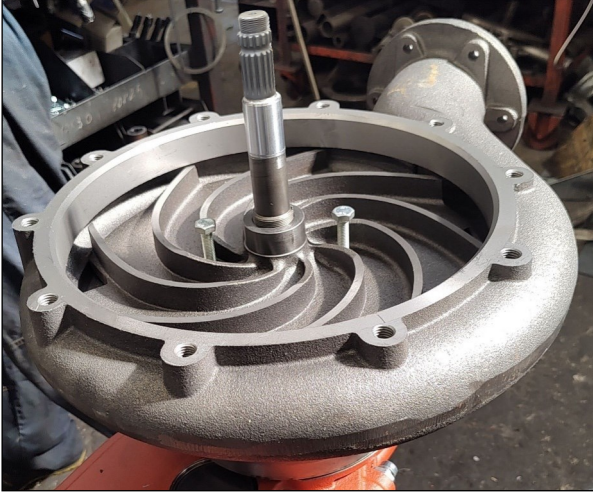
***Remove impeller lock ring.***



***The pump may be placed vertically or horizontally to carry out the procedure.***

***Unscrew the grub screws of the impeller extraction holes.***

## DISASSEMBLY OF THE WIDIA SEAL



***Insert 2 bolts of sufficient length into the holes in the impeller to be able to push on the bottom of the pump casing and thus extract the impeller from the shaft.***

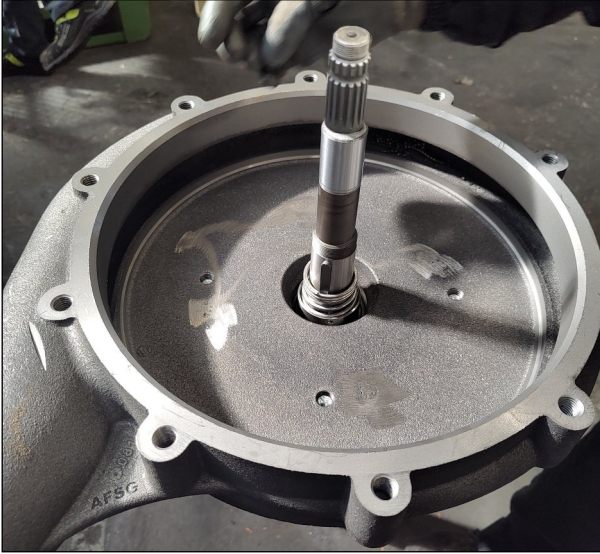


***Alternately tighten the two bolts so that the impeller is gradually pulled out.***



***When you notice that the impeller has come out of the seat on the conical shaft, pull it out of the pump body.***

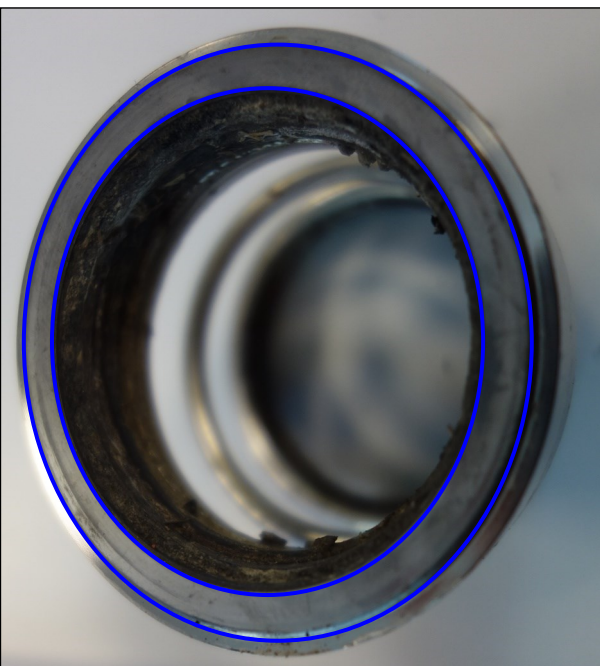
## DISASSEMBLY OF THE WIDIA SEAL



***At this point, the rotating seal is visible: remove the impeller locking key from the shaft.***



***Pull the rotary seal off the shaft.***



***Already by checking the state of the rotating ring, it is possible to understand the actual wear of the seal.***

## DISASSEMBLY OF THE WIDIA SEAL



***Similarly, check the condition of the fixed seal at the bottom of the pump body.***



***To continue with seal replacement, unscrew the 4 bolts securing the pump body to the gear box mount.***



***Remove the pump body from the shaft and place it on the bench on the access side of the fixed seal.***

## DISASSEMBLY OF THE WIDIA SEAL



***Unscrew the two bolts securing the fixed seal holder.***



***Inspect the condition of the stationary seal, checking as for the rotary seal for scratches, signs of overheating and streaks, remove the seal and check the condition of the round rubber gasket and the seal cover gasket.***

***Note: On the new monolithic 2024 seal, the holder will need to be replaced with the new type one (code.0608034)***



***On the left you can see a worn seal and on the right the pair of new seals that will be installed: the rings must be mirrored and free of scratches and the seal new.***



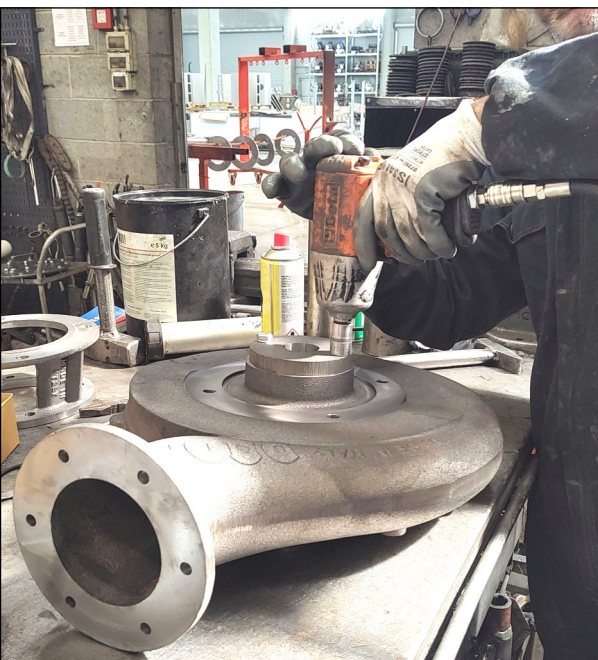
## REASSEMBLY OF THE WIDIA SEAL



***For reassembly, insert the new seal into the seal holder.***



***Replace the cover and secure it with the two bolts.***



## REASSEMBLY OF THE WIDIA SEAL



**Refit the pump housing to the unit and secure it with the four bolts.**

**NOTE: Each bolt should be sealed around the threads with some sealant to prevent leakage.**

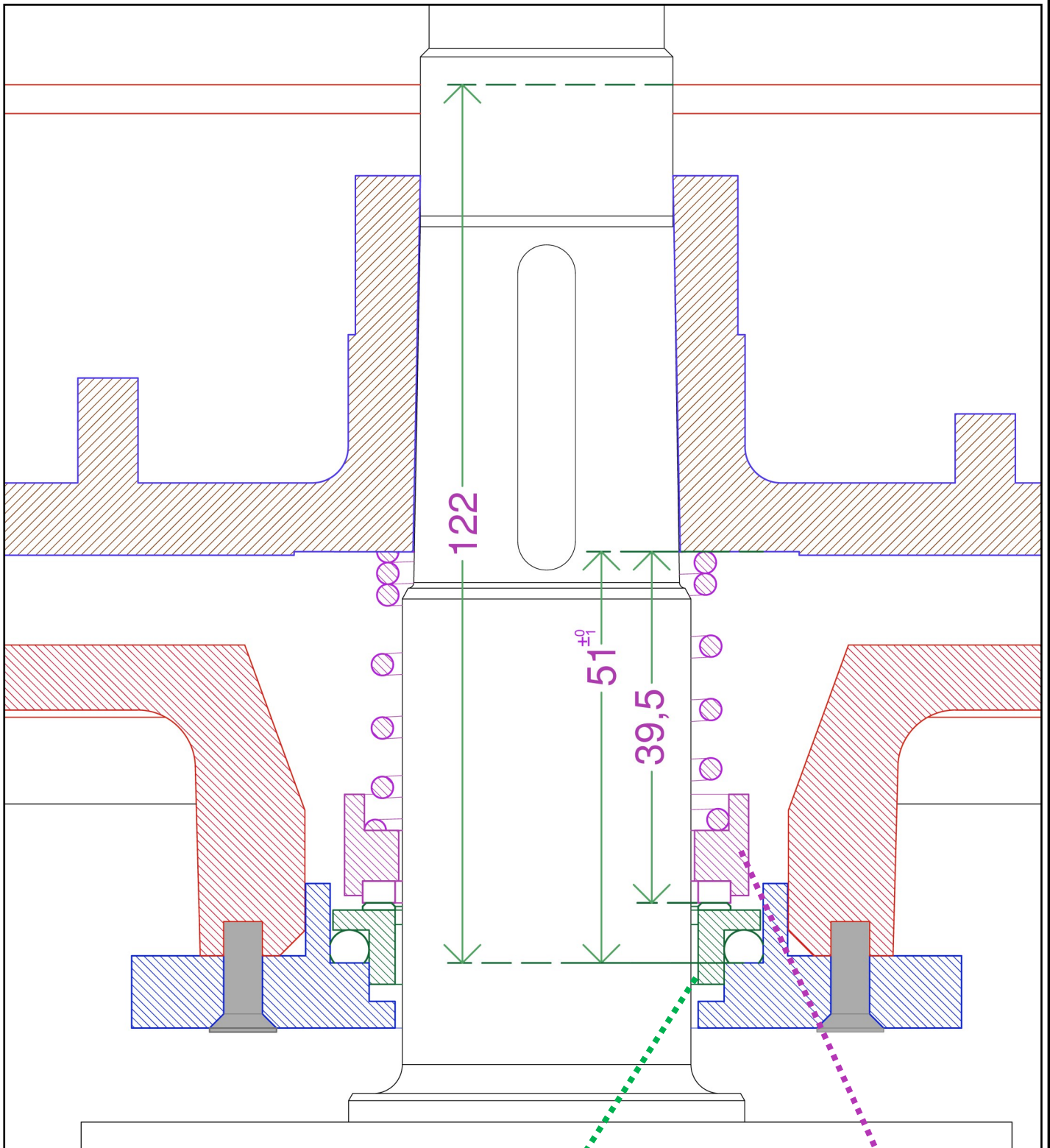


**Once the pump casing is fixed, take a depth gauge and measure the distance (A) of the fixed seal ring with the edge of the pump casing; the measurement will then be used to check the height of the impeller and establish the correct packing of the seal spring.**

**Before measuring, clean the edges of the pump body perfectly.**



# HOW TO MEASURE SEAL COMPRESSION



## REASSEMBLY OF THE WIDIA SEAL



***Now take the new rotary seal and slide it onto the pump shaft until it makes contact with the fixed seal.***

**Lubricate the faces of the seal with a small amount of oil before fitting.**



***After positioning the seal, the key must be re-inserted on the shaft.***

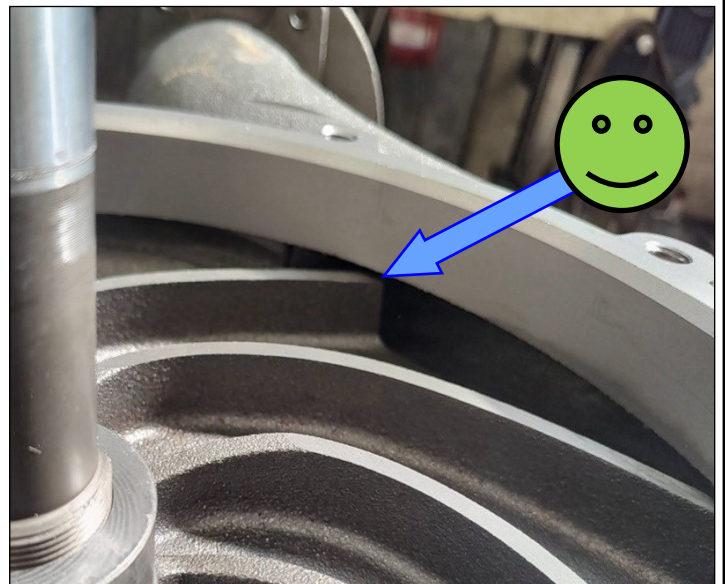
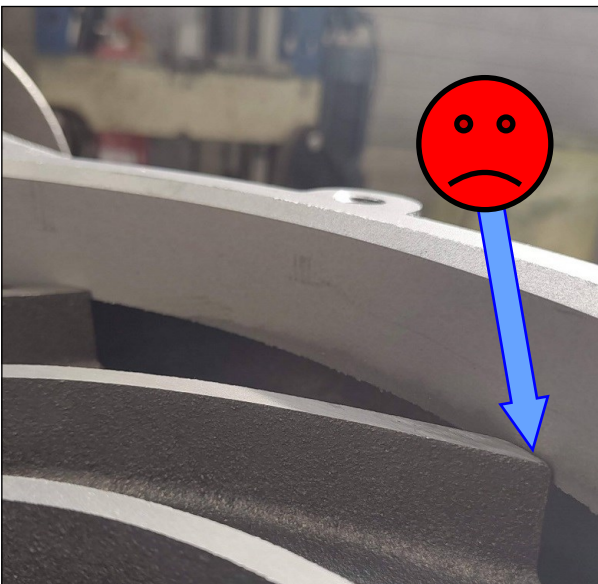
## REASSEMBLY OF THE WIDIA SEAL



**We now insert the impeller onto the conical shaft.**

**For fitting the impeller, it is necessary to have a pipe and a hammer for inserting the impeller under pressure.**

**To confirm correct insertion of the impeller, check that the wings are below the edge of the pump casing.**



## REASSEMBLY OF THE WIDIA SEAL



***Fit the impeller***



***Beat it with a pipe and hammer so that it goes in.***



***Screw in the ring nut, taking care to spread threadlock (loctite or similar) on it.***

## REASSEMBLY OF THE WIDIA SEAL



***Tighten the impeller locking ring with a suitable spanner.***

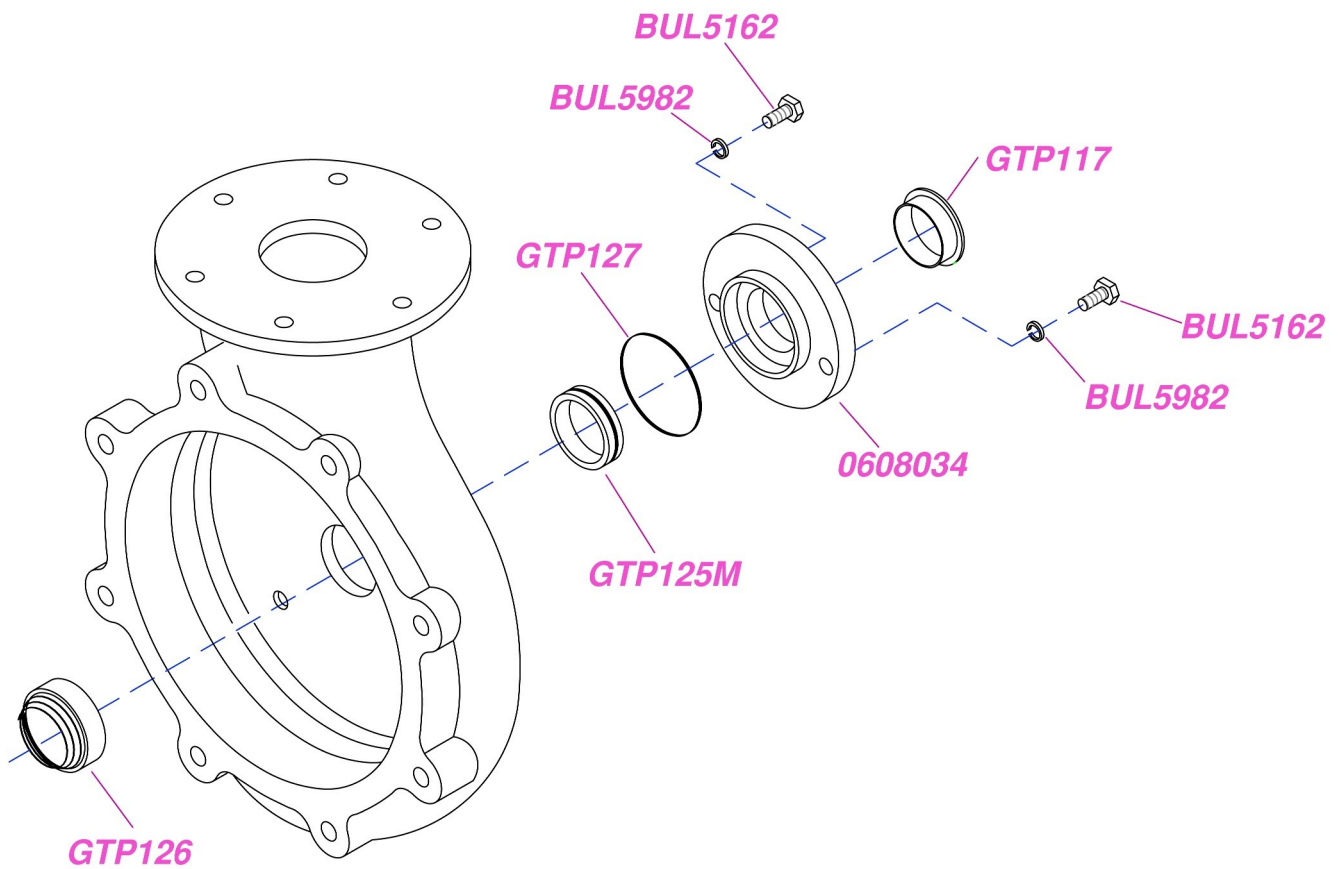


***Close the extraction holes of the impeller with the grub screws.***

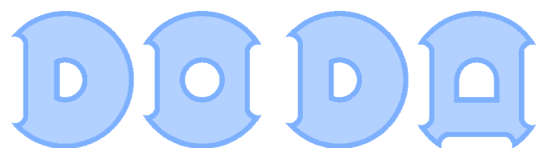
***Now mount the conveyor housing between pump body and cone;  
Now refit the counter-knife support, counter-knives and knife;  
Reassemble the cone.***

***(Reverse of procedure on page 4)***

**If you have any other questions, please call Doda's customer service at:  
write to [doda@doda.com](mailto:doda@doda.com)**



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