



ILM-E Servokit Integration Guideline



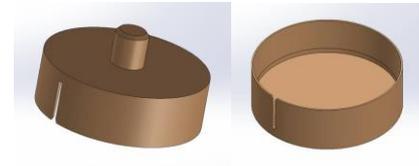


ILM-E Stator Shrink-fit Instructions

Required tools

Press fit tool

- Tolerance: js8
- Dimensions according to the outer diameter of the stator per size as specified in the drawings



Dowel pin

- Tolerance: H9
- Positioning and fixing the stator in the housing during integration
- Other dimensions according to the stator size as specified in the drawings



Hand gloves must be worn throughout the integration process!!!

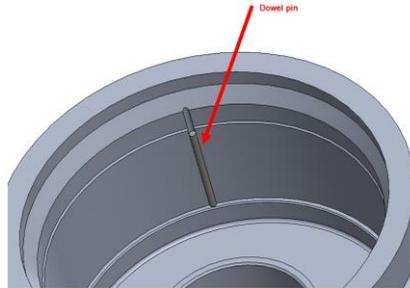
Shrink-fit instructions

Step 1:

Clean the stator housing with Isopropanol.

Step 2:

Apply a little amount of glue into the groove specified in the design guidelines for the dowel pin and insert the dowel pin into the groove.



Step 3:

Place the stator housing in an Oven and heat it up to 100° C for 45 minutes.

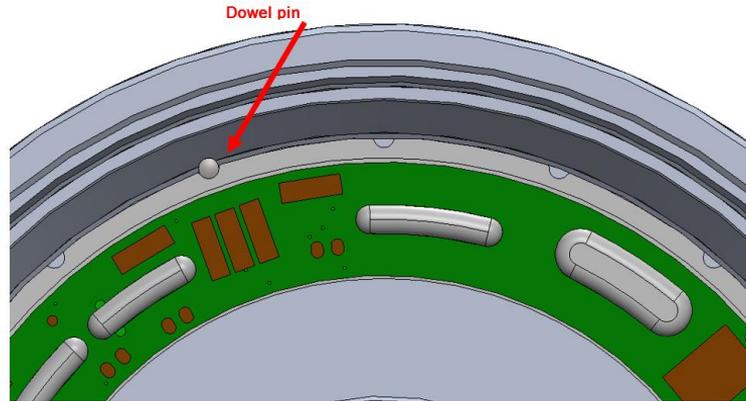


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Shrink-fit instructions

Step 4:

Take the housing out of the Oven and orientate the stator properly inside the housing according to the design guidelines.



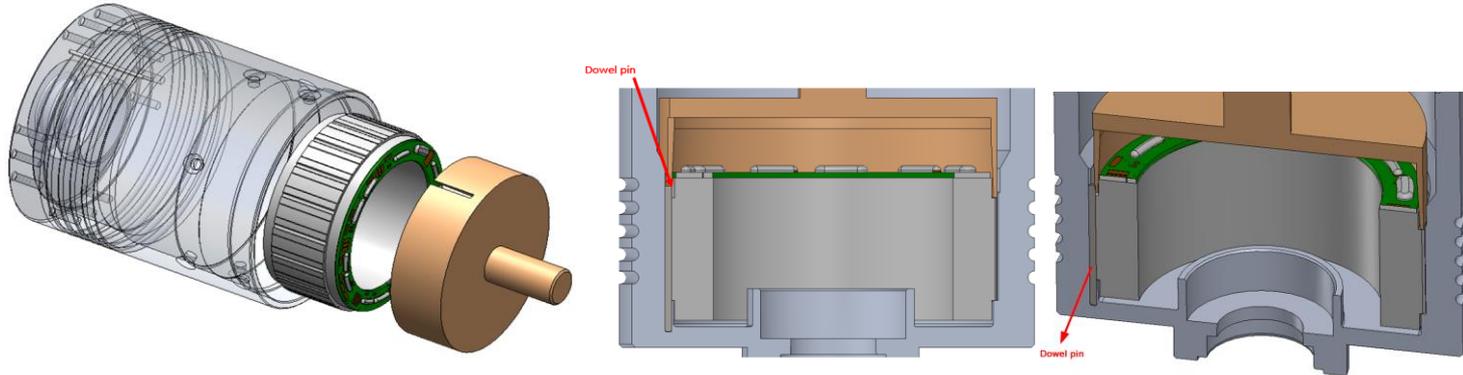
Hand gloves must be worn throughout the integration process!!!

Shrink-fit instructions

Step 5:

Using the Press fit tool, carefully press the stator into the housing till the pole cap/base of the stator touches the bottom surface of the housing.

Note: Care should be taken that the stator orientation/positioning is not changed while pressing!



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Shrink-fit instructions

Step 6:

Allow the housing with stator to cool down to room temperature.

Step 7:

After the housing is cooled down to room temperature, it should be checked that the stator is firmly fitted into the housing without any movement and gaps.

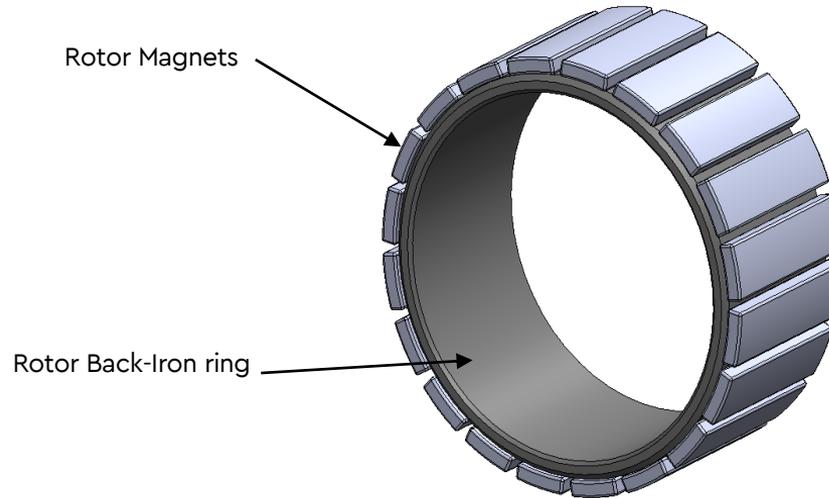


Hand gloves must be worn throughout the integration process!!!



ILM-E Rotor Gluing Instructions

ILM-E rotor structure



Hand gloves must be worn throughout the integration process!!!

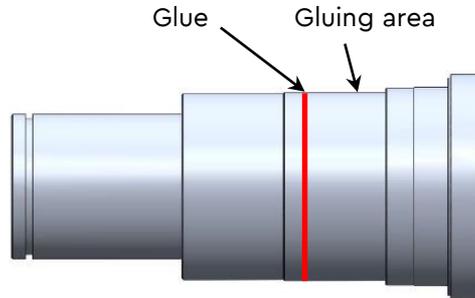
Gluing instructions

Step 1:

Clean the rotor and the shaft according to the instructions of the glue manufacturer of your choice.

Step 2:

Put the shaft for 5 min. at 60° C into the oven. Then apply the glue as recommended by the glue manufacturer on the rear part of the gluing area of the shaft as a thin circle.

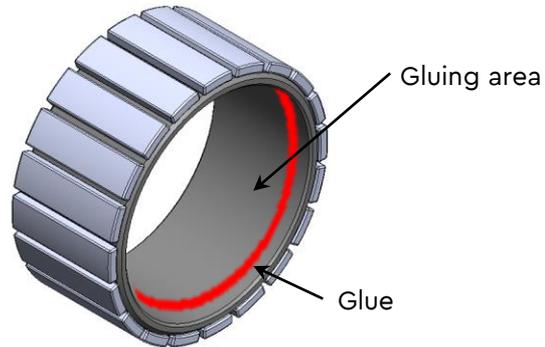


Hand gloves must be worn throughout the integration process!!!

Gluing instructions

Step 3:

Apply the glue as recommended by the glue manufacturer on the Back-Iron ring of the rotor as a thin circle.



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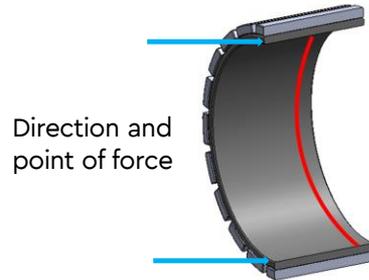
Gluing instructions

Step 4:

Slide the rotor onto the shaft and press the rotor gently in its position. Try not to press on the faces of the magnets!!

Important Note:

While sliding the rotor onto the shaft, force must be applied only on the Back-Iron ring of the rotor using a press tool with same thickness as that of the ring.

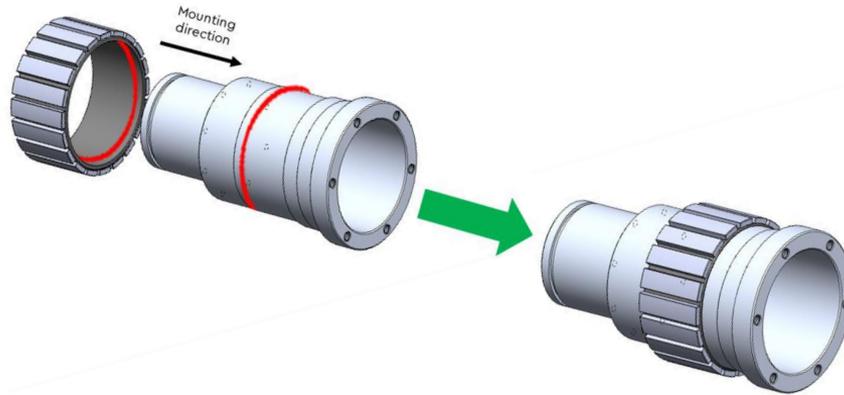


Hand gloves must be worn throughout the integration process!!!

Gluing instructions

Step 5:

Remove unused glue very quickly with a dry cloth without using solvents (shaft and magnets).



Hand gloves must be worn throughout the integration process!!!



Gluing instructions

Step 6:

Proceed with the curing process as described in the glue manufacturer's instructions.

Suggestion (not evaluated)

LOCTITE® 648



Hand gloves must be worn throughout the integration process!!!