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## **RIGHT ANGLE GEARBOX**

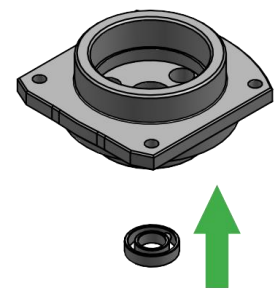


## PARTS LIST

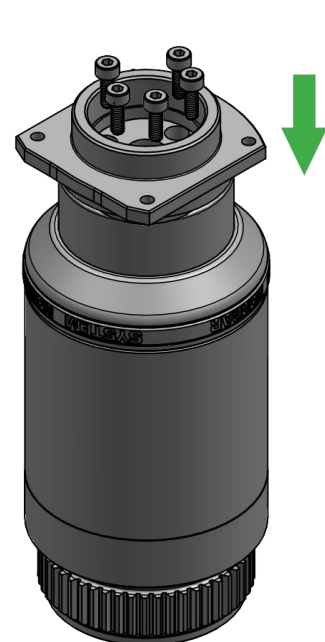
Part Number	Quantity	Description
19423	1	Right Angle Gearbox main body
27528	1	Needle roller
19400	1	Straight mitre gear
27525	1	6003-2Z ball race
19399	1	Gearbox output shaft
19397.BLK9005	1	Gearbox index plate
27308	1	Ball race SKF 618/8
25351.12	9	SHCS M4 x 12 – 12.9

## INSTRUCTIONS

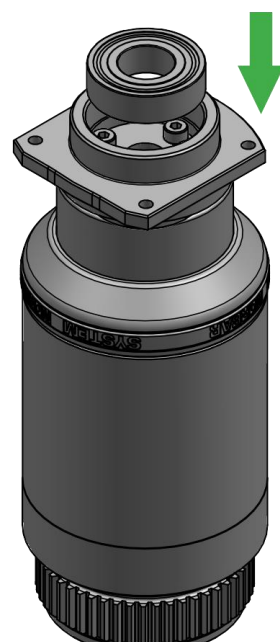
1. Insert the ball race SKF 618/8 into the large hole in the middle of the gearbox index plate. See figure 2.
2. Place the gearbox index plate over the top of the gearbox ensuring the 5 holes align correctly. See figure 3.
3. Fasten the gearbox index plate to the gearbox using 5 of the SHCS M4 x 12 – 12.9 screws and torque tighten to 4.2 N·m. See figure 3.



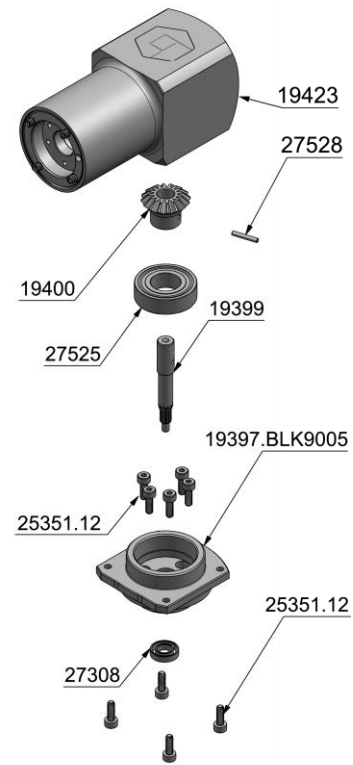
**FIGURE 2 – Inserting Ball Race SKF 618/8**



**FIGURE 3 – Attaching Gearbox Index Plate**

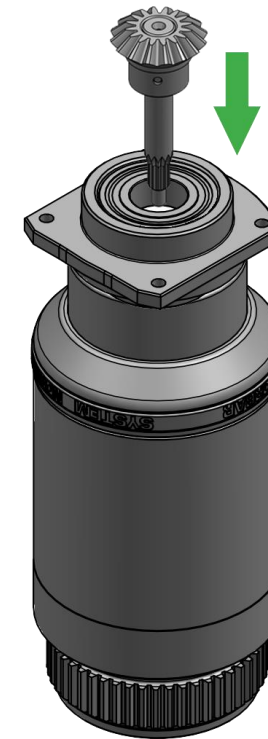


**FIGURE 4 – Inserting 6003-2Z Ball Race**

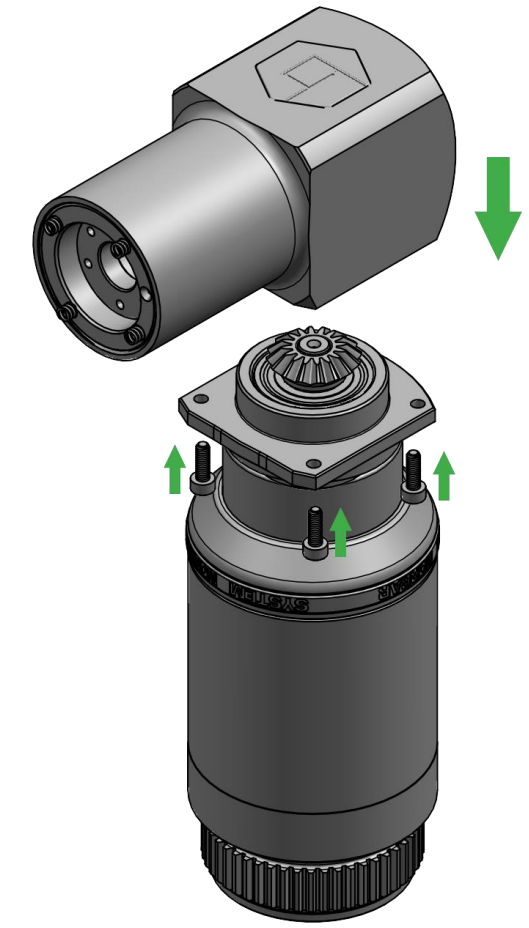


**FIGURE 1 – Right Angle Gearbox Parts**

5. The gearbox output shaft, needle roller and straight mitre gear come pre-assembled. Insert this assembly through the 6003-2Z ball race and make sure it is fully pressed down to ensure correct location. See figure 5.
6. Apply some grease to the protruding gear (Turmogrease Li 802 EP recommended).



**FIGURE 5 – Inserting Output Shaft and Straight Mitre Gear**



**FIGURE 6 – Attaching Right Angle Gearbox Main Body**

4. Insert the 6003-2Z ball race into the gearbox index plate. See figure 4.

7. Pack the Right Angle Gearbox main body with grease to ensure continuous lubrication and place over the gearbox index plate ensuring correct alignment. See figure 6.
8. Secure in place with the 4 remaining SHCS M4 x 12 – 12.9 screws and torque tighten to 4.2 N·m. See figure 6.
9. Before attaching to the relevant handle make sure the Right Angle Gearbox internals rotate freely.
10. Attach the Right Angle Gearbox to your relevant EvoTorque® or PneuTorque® handle in the same way as you would with a standard Norbar gearbox. Please refer to individual tool fitting or servicing instructions for further guidance if required.

**IMPORTANT: WE RECOMMEND THE FULLY ASSEMBLED TOOL SHOULD BE RECALIBRATED. ALTERNATIVELY, YOU SHOULD ASSUME AN EFFICIENCY OF 97%.**