



NORBAR TORQUE TOOLS LTD

Wildmere Road, Banbury,
Oxfordshire, OX16 3JU
UNITED KINGDOM
Tel + 44 (0)1295 270333
Email enquiry@norbar.com



NORBAR TORQUE TOOLS PTE LTD

194 Pandan Loop
#07-20 Pantech Business Hub
SINGAPORE 128383
Tel + 65 6841 1371
Email enquires@norbar.sg



NORBAR TORQUE TOOLS

45–47 Raglan Avenue, Edwardstown,
SA 5039
AUSTRALIA
Tel + 61 (0)8 8292 9777
Email enquiry@norbar.com.au



NORBAR TORQUE TOOLS (SHANGHAI) LTD

91 Building-7F, No.1122 North Qinzhou Rd,
Xuhui District, Shanghai
CHINA 201103
Tel + 86 21 6145 0368
Email sales@norbar.com.cn



NORBAR TORQUE TOOLS INC

36400 Biltmore Place, Willoughby,
Ohio, 44094
USA
Tel + 1 866 667 2279
Email inquiry@norbar.us



NORBAR TORQUE TOOLS INDIA PVT. LTD

Plot No A-168, Khairne Industrial Area,
Thane Belapur Road, Mahape,
Navi Mumbai – 400 709
INDIA
Tel + 91 22 2778 8480
Email enquiry@norbar.in

www.norbar.com

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.

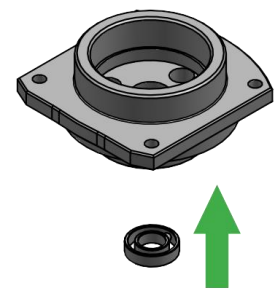


FIGURE 2 – Inserting Ball Race SKF 618/8

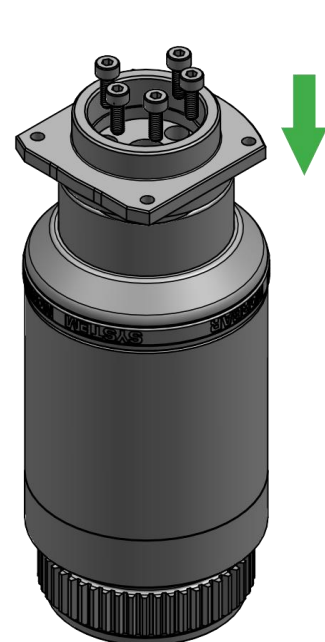


FIGURE 3 – Attaching Gearbox Index Plate

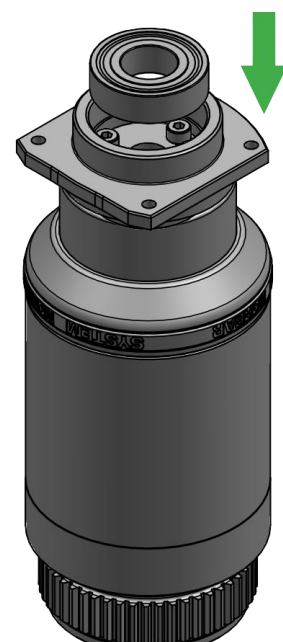


FIGURE 4 – Inserting 6003-2Z Ball Race

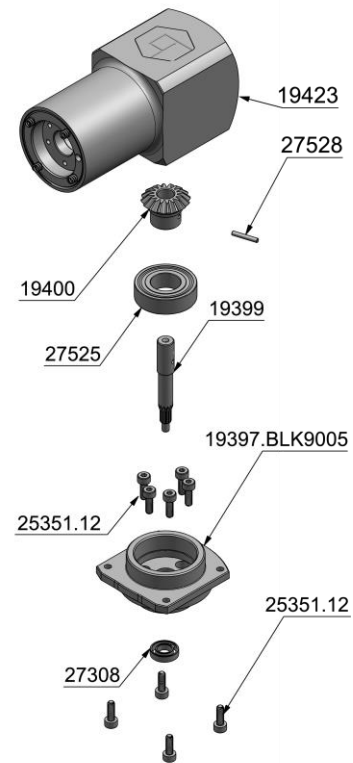


FIGURE 1 – Right Angle Gearbox Parts

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).

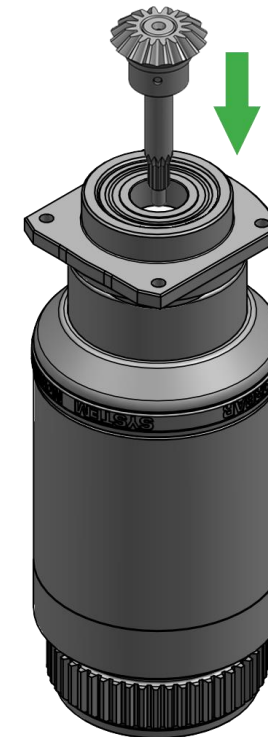


FIGURE 5 – Inserting Output Shaft and Straight Mitre Gear

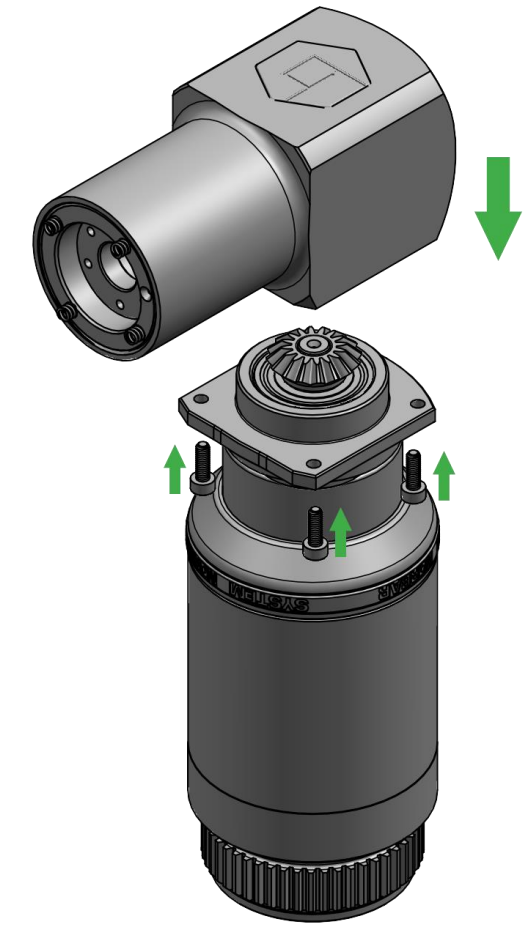


FIGURE 6 – Attaching Right Angle Gearbox Main Body

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%.