

# Assembly and disassembly instructions for WP-Dynamic 40 ... 125

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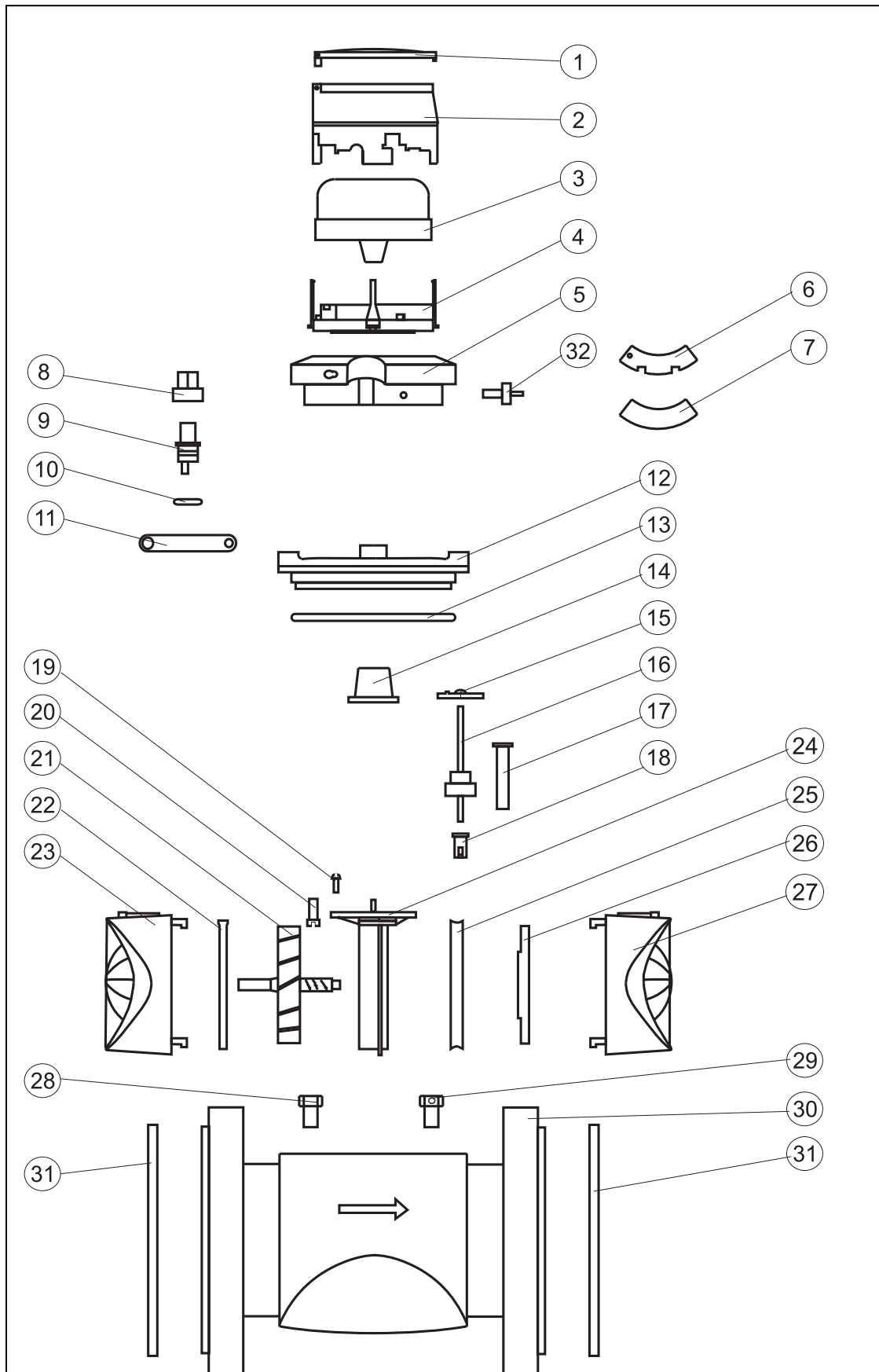
## Tools required:

Size 19 open-ended or ring spanner (WPD DN40 – 125)  
Size 7 open-ended spanner  
Size 4 Allen key  
Flat screw-driver with 4mm blade  
Phillips screw-driver (Size 1)

## Auxiliary materials:

Non-toxic grease

# Exploded view: WP-Dynamic 40 ... 125



## Disassembly of the *WP-Dynamic 40 ... 125*

01. Remove the lead seal and wire from screw (29).
02. Remove screws (28) and (29) from the meter body (30).
03. Remove the measuring insert from the meter body (30).
04. Remove the lead seal and wire from the sliding ring (5).
05. Remove the locking pin (32) from the sliding ring (5).  
Push the centre part of the locking pin inwards about 10mm with a 1mm Jeweller's screwdriver. Then lever out the outer part of the pin with the screwdriver. The locking pin can be re-used.
06. Hold the head ring (2) firmly and turn the sliding ring (5) all the way to the right.
07. Turn the entire register assembly until head ring (2), register (3) and the centre ring (4) can be lifted off vertically.
08. Push register (3) on the glass out of the head ring (2).
09. Remove the register (3) from the centre ring (4) by gently pulling the clips apart.
10. Turn the sliding ring (5) until it can be lifted off the cover flange (13).
11. Remove the calibration lock nut (8) with a size 7 spanner
12. Push the adjusting bolt (9) out from the bottom of the cover flange (12).
13. Remove the measuring chamber securing screw M3 (20) from the underside of the cover plate
14. Turn the measuring chamber to the left to release it from the bayonet fitting and remove
15. Remove the labiate seal (25) from the cage (24) (does not apply to DN 125)
16. Remove the screws (19) from the top of the measuring chamber (24)
17. Push the calibration linkage (11) in all the way in.
18. Remove the front nose cone (23) (calibration vane side) by turning clockwise and gently pulling away from the cage (24)
19. Remove the calibration vane (22) from the nose cone (23) by turning it all the way to the left and pulling it off.
20. Remove the linkage (11)
21. Remove the turbine (21)
22. Remove the magnetic coupling (14)
23. Remove the gear (15) from the transmission shaft (16)
24. Push the protection tube (17) out of the nose cone (27) and pull from below to remove
25. Remove the transmission shaft (16)
26. Remove the rear nose cone (27) by turning clockwise and gently pulling it away from the cage (24)
27. Remove the retarding disc (26) from the rear nose cone (27)
28. Remove the transmission shaft bearing pin (18) by pushing it out of the nose cone (27) from below with a screw driver

## Assembly of the *WP-Dynamic 40 ... 125*

01. Insert the bearing pin (18) for the transmission shaft (16) in the rear nose cone (27)
02. Fit the retarding disc (26) in to the rear nose cone (27)  
Note:           - Align the lip of the retarding disc with the slot on the nose cone  
              - The retarding disc part number must be visible after assembly
03. Fit the rear nose cone (27) to the cage (24) by turning anti-clockwise – on side of the cage where the securing screw is fitted to the cover flange
04. Insert the transmission shaft (16) into the rear nose cone (27) from the underside
05. Slide the protection tube (17) over the transmission shaft (16) in the cage (24)
06. Fit the gear (15) to the transmission shaft (16) making sure it seats properly
07. Fit the turbine (21) with the worm gear first into the rear nose (27)
08. Fit the calibration ring (22) into the front nose cone (23)  
Note:           - The circular indentations on the calibration ring should be visible after installation  
              - The linkage nib must be turned all the way to the left to align correctly  
              - After installation turn halfway to the right
09. Insert the linkage (11) with the larger hole first all the way into the cage (24)
10. Fit the front nose cone (23) into the cage (24) and turn anti-clockwise to lock  
Note:   The nib on the calibration ring must align with the large hole on the linkage
10. Lock the front and rear nose cones to the cage (24) with screws (19)
11. Turn the calibration vane (22) so that it is completely hidden behind the nose cone ribs (23) (zero setting). The linkage will now protrude from the cage
12. Fit the magnetic coupling (14) to the bearing pin on the cage (24)
13. Fit the cage onto the cover flange (12) and lock by turning to clockwise  
Note:   The hole for the M3 locking screw (20) must align with the M3 thread in the cover plate
14. Screw in the M3 screw (20)
15. Push the adjusting bolt (9) all the way in from the top of the cover flange (5)  
Note:   The pin must align with the linkage
16. Fit the lock nut (counter screw) (8)
17. Fit the register (3) to the centre ring (4).  
Note:           the nibs on the copper register cup must correspond with the holes on the centre-ring.
18. Fit the register (3) and centre ring (4) into the head ring (2).  
Note:           The lid hinge must be positioned at the top of the register
19. Fit the sliding ring (5) onto the cover flange (12) and turn until the nibs on the sliding ring (5) catch on the grooves of the cover flange (12).
20. Fit the serial number plate (6) into the sliding ring (5).

21. Fit the head ring (2) with the register (3) into the sliding ring (5).  
Note: The triangles on the sliding ring and head ring must align
22. Turn the sliding ring (5) clockwise until it stops while firmly holding the head ring (2)
23. Insert the locking pin (32) into the sliding ring (5) and push the centre part of the locking pin in until flush with the locking pin head
24. Seal the measuring element
25. Fit the labiate seal (25) to the cage (does not apply to the DN 125)  
Note: The ends of the seal must be inserted into the slot on the cage to secure it  
Lightly lubricate the seal to ease assembly into the body
26. Fit the O-Ring (13) into the seat on the cover flange (12)  
Note: Lightly lubricate the seal to ease assembly into the body
27. Insert the measuring element into the meter body (30)  
Note:
  - Do not pinch or misalign the O-Ring
  - To prevent damage to the o-ring, fit the o-ring to the cover flange before inserting the measuring element into the meter body
  - Ensure that the arrow on the body and on the cover flange correspond
28. Screw the bolts (28) and (29) into the body (30) and tighten in a cross formation to a torque of approx. 80 – 120 Nm
29. Seal the meter between the cover flange (12) and bolt (29) with a lead or aluminium seal and sealing wire

Note: The parts (23) and (27) are identical. In the instructions they are referred to as front and rear nose cones.

Bearings must **NOT** be lubricated!