Installation and Operating Instructions

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Lumiglas Sight Glass Wiper with Flexible Drive SW II BW

- **General description:**
  This wiper unit is designed for cleaning the glass discs in standard DIN 28120 circular sight glass fittings under pressure conditions up to 16 bar and/or vacuum.

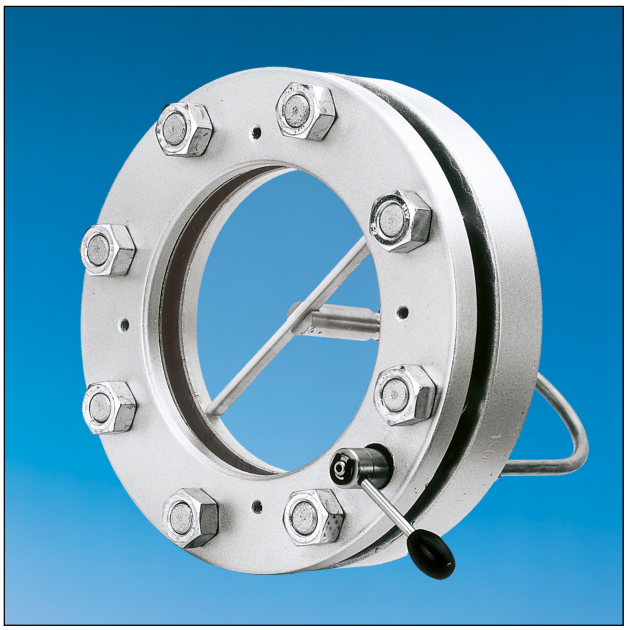
  The unit is made up of a hand-operated ratchet lever with freewheel which drives the wiper via a flexible, bendable shaft.

  The shaft passes through a gland system fitted into the base or cover flange and a U-shaped tube on which the wiper head with the wiper blade holder and inset wiper blade are rotationally fixed.

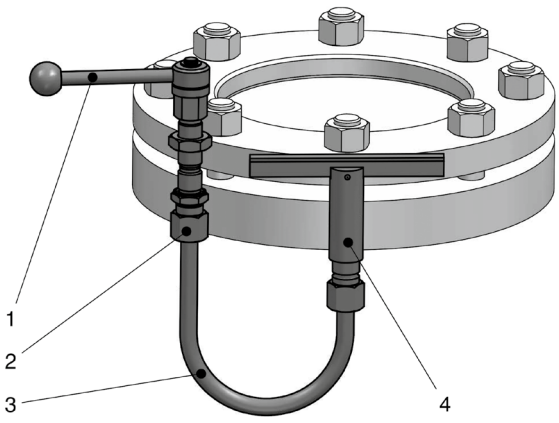
  A spring presses the wiper head against the sight glass to be cleaned.

- **Important installation note:**
  Please ensure that the length of the wiper blade holder corresponds to the inside diameter of the fitting.
  If necessary, the wiper blade holder and wiper blade can be trimmed prior to installation.

- **Safety warning:**
  It is essential to ensure that no metal parts of the wiper unit come in contact with the surface of the sight glass disc, e.g. as a result of inaccurate mounting, damaged or missing wiper blade, etc.
  Only designated, undamaged parts should be utilised.
  If there is any uncertainty, please consult the manufacturer or your supplier.



Lumiglas sight glass wiper SW II BW



Part	
1	Drive lever with freewheel
2	Threaded gland
3	Guide tube for flexible drive shaft
4	Wiper blade holder with wiper blade

Diagram

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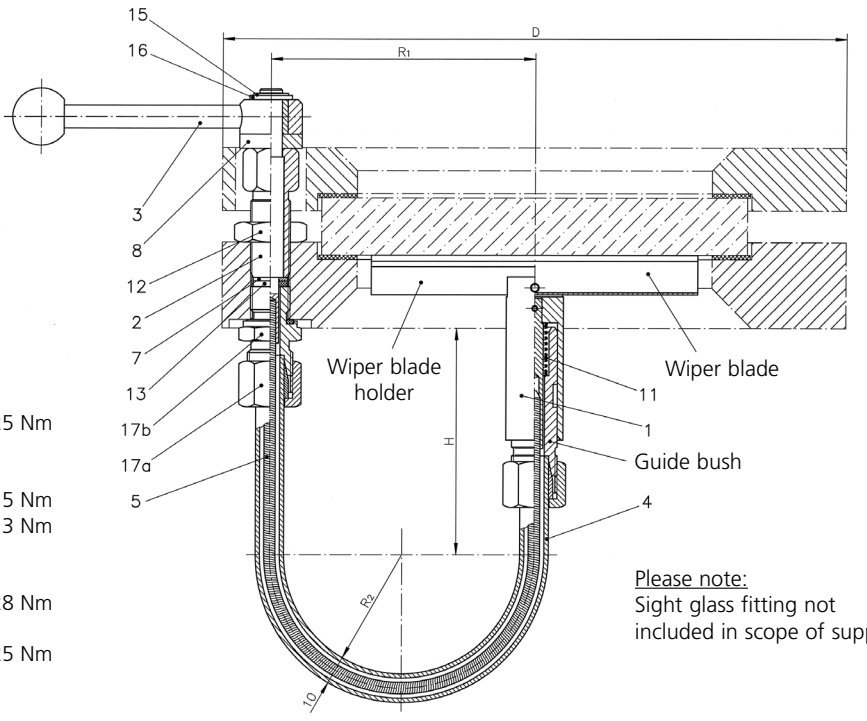
Mounting the Lumiglas sight glass wiper SW II BW:

Once the base flange has been welded into the vessel according to the relevant specifications and our drawing, the wiper unit is installed as follows:

1. Pull the flexible shaft (5) out of the guide tube (4).
2. Loosen the gland nut (17a) from the gland bush (17b).
3. Screw the gland bush (17b) into the threaded hole on the underside of the base flange and tighten.
4. Insert the long end of the pre-assembled guide tube (4) into the gland bush (17b). Screw the gland nut (17a) tightly onto the gland bush (17b), ensuring that the guide tube is precisely centred in the base flange.
5. Insert the flexible shaft (5) – which is fully works-assembled and comprises parts 2, 3, 7, 8, 12, 13, 15 and 16 – into the guide tube (4) and tighten slightly by screwing in the threaded bush (2) using a 17 mm spanner. Before tightning it fully, check whether the gland seal (13) is correctly positioned between the gland bush and the threaded bush (17b and 2).
6. Insert the springs (11) into the guide bush of the guide tube (4) (if the springs are not already properly positioned in the wiper head).
7. Mount the wiper arm (1) on the guide bush of the guide tube (4) in such a way that the square end of the wiper arm axis can be easily positioned over the square hub of the flexible shaft (5).
8. The function is tested by operating the handle of the operating lever (3): turning it clockwise will rotate the wiper blade in the anti-clockwise direction (when viewed from above). Always make sure the wiper blade holder runs concentrically within the base flange. The gland nut (17a) can be loosened and adjusted if necessary.
9. If the drive shaft runs too freely or too stiffly, the threaded bush (2) can be loosened or tightened at the hexagon nut (17 mm a/f) and then locked by tightening the flat hexagon nut (12).
10. Once testing is complete, remove the circlip (15) and the washer (16) with the operating lever (3) from the drive shaft, leaving the spacer sleeve (8) in place. The assembly of the cover flange is then prepared.
11. Place the lower gasket into the base flange, insert the sight glass disc and position the top gasket and the cover flange on top. The gaskets and sealing surfaces must be absolutely clean and free of any particles. The hole for the wiper in the cover flange must be positioned so as to ensure that the operating lever and the drive shaft can function smoothly and without obstruction.
12. The operating lever (3) is remounted and the washer (16) and circlip (15) replaced.
    The lettering on the ratchet lever must face downwards. This ensures that the wiper blade always rotates clock-wise when viewed from above.

Tightening torques

Part 17b:	20-25 Nm
Part 2:	
with PTFE gasket	5 Nm
with Viton gasket	max. 3 Nm
Part 17a:	
with clamping ring (to counter part 17b)	28 Nm
with NC gland (to counter part 17b)	25 Nm



Please note:
Sight glass fitting not included in scope of supply

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