INSTALLATION INSTRUCTIONS

Before mounting the calibration pot in the system, the purchaser is to check the calibration pot for damage possibly occurred during transport or handling at the purchaser’s works.

Possible damage is to be reported to MATEK before installing the calibration pot.

The material supplied is only to be used for the application and operating conditions as specified in the specification sheet. The specification sheet is issued as part of the order-documentation for each order.

After installing of the calibration pot, the calibration pot shall be incorporated in the final testing of the entire system under actual operating conditions using a harmless fluid.

Never install the calibration pot on pipeline systems with an operating pressure above the maximum allowable pressure, as specified on line 12 of the specification sheet.

Suggested hook-up

1. Connect to tank nozzle above max. tank fluid level or, when harmless fluids are used, provide a gooseneck vent.
2. When using a pressurized or purged tank, provide return line with shut off valve.
3. Select smallest diameter for the return line for quick emptying when overfilling the calibration pot.

1) Install at height to allow for calibration at low tank level.
2) Install close to pump, easy accessible and visible.
3) Provide an additional top valve for purged tanks

OPERATING INSTRUCTIONS

1. Open calibration inlet valve (V2) while the pump is running until the liquid level in the glass is above zero on the scale.
2. Close the pump suction valve (V1) and start timing when the liquid level passes the zero on the scale.
3. Empty the pot for at least one minute and read the capacity (right side) or volume (left side) from the scale.
4. Open the pump suction valve (V1) and close the calibration inlet valve (V2)
HINTS
When using positive displacement pumps, the changing of the liquid level while emptying the glass provides information about your pumpsystem.

**Table**: Pump performance and possible causes

<table>
<thead>
<tr>
<th>Fig</th>
<th>Pump performance</th>
<th>Possible cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pump function OK</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Pump suction valve leaking</td>
<td>suction valve seat worn or damaged or valve jammed</td>
</tr>
<tr>
<td>3</td>
<td>Pump discharge valve opened</td>
<td>discharge valve seat damaged or valve jammed</td>
</tr>
<tr>
<td>4</td>
<td>Pump suction choked</td>
<td>suction filter blocked, high liquid viscosity</td>
</tr>
</tbody>
</table>

**ASSEMBLY INSTRUCTIONS for model ss-X-2,5 / 5,5 / 9 / 20-N-N or F-F**

Always use eye- and hand protection when working with glass.

When replacing the glass, always renew the upper and bottom O-ring.
When mounting the glass, first clean all sealing surfaces. Use silicon oil on the O-ring when mounting the rings.
Mount the glass on the blocks, tighten the nuts and mount this assembly to the bracket.

**ASSEMBLY INSTRUCTIONS for model ss-X-45/100/220/500-N-N or F-F and measuring sections of calibration pots**

Always use eye- and hand protection when working with glass.

When replacing the glass, always renew the upper and bottom O-ring.
When mounting the glass, first clean all sealing surfaces. Use silicon oil on the O-ring when mounting the rings.
Mount the glass on the blocks by pushing the glass over the sealing ring and mount this assembly to the bracket.

**ASSEMBLY INSTRUCTIONS (balance of models)**

Always use eye- and hand protection when working with glass.

When replacing the glass, always renew the upper and bottom O-ring.
When mounting the glass, first clean all sealing surfaces. Use silicon oil on the O-ring when mounting the rings.
Place the O-rings in the groove of the flanges. Mount the rods on one flange with three bolts.
Place the glass and top flange and equally tighten the three bolts, thereby slowly pushing the glass over the O-rings.

**MAINTENANCE INSTRUCTIONS**

Check for glass damage and leakage periodically.

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