

PRESYS®



Hydraulic Pump

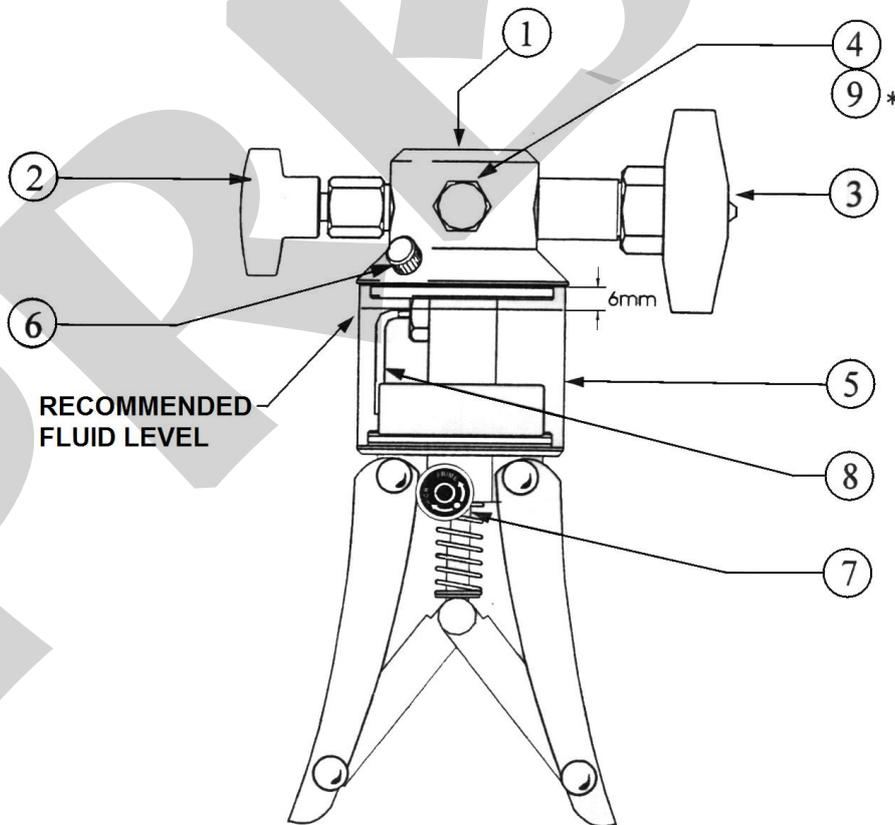
Model BY-8112-10000 or 15000

Technical Manual

HYDRAULIC PUMP – MODEL BY-8112-10000 or 15000



1. 3/8 "BSP female connection to connect to PC-507 or other instrument.
2. Pressure Drain Valve.
3. Pressure Fine adjustment.
4. 1/4" BSP Front Connection to connect to instrument to be calibrated.
5. 100cc Reservoir.
6. Reservoir filler plug.
7. "PRIME" (Preparation) / High Pressure Selector.
8. Fluid immersion tube.
9. Rear connection: Reserved only for pressure relief valve (* do not use for any other purpose).



Pump view with selector and handle in "PRIME" position.

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SPECIFICATIONS:

Pressure Range:	BY-8112-10000: 0 to 700 bar / 10,000 psi max. BY-8112-15000: 0 to 1000 bar / 15,000 psi max.
Pressurizing Fluid:	Low mineral viscosity based on hydraulic oil and / or distilled water.
Pressure Connectors:	3/8" BSP Female 1/4" BSP Female
Dimensions:	H 236mm x W 156mm x D 70mm;
Weight:	aproxx. 1.6 kg



SECURITY WARNING

High Pressure! Do not connect the pump to a pressurized line. High Pressure can cause damage to both operator and equipment.

1. Remove the filler plug (6) and fill the reservoir (5) to the recommended level of suitable fluid and replace the plug.
2. Connect the standard (PC-507) to the upper connection (1).
3. Connect the instrument to be calibrated the front connection (4).
4. Turn the fine pressure adjustment (3) to the middle stroke.
5. With the pressure drain valve (2) open (turn fully clockwise and then turn counterclockwise one full turn). Fully compress the handle and turn the selector switch (7) to the "PRIME" position.
6. Pump to expel pump air. (Ensure that the immersion tube (8) remains always immersed in the fluid).
7. Close the drain valve (2) completely (turn clockwise).
8. Pump a few times and open the drain valve (2). Close and repeat until pressure starts to up.

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9. Compress the handle and turn the selector (7) from "PRIME" to "HIGH".

NOTE: The smaller stroke makes the high pressure generation easier.

10. Adjust the desired pressure by fine pressure adjustment (3).

NOTE: Immediately after generation, the pressure drops slightly due to the thermodynamic effect, but will stabilize after a short time.

WARNING: Never exceed the maximum pressure indicated on the label of the pump.

11. Drain the pressure completely through the valve (2) and turn the selector to "PRIME".

NOTE: Careful use of the valve (2) and fine adjustment (3) for pressure control is essential for pressure calibration.

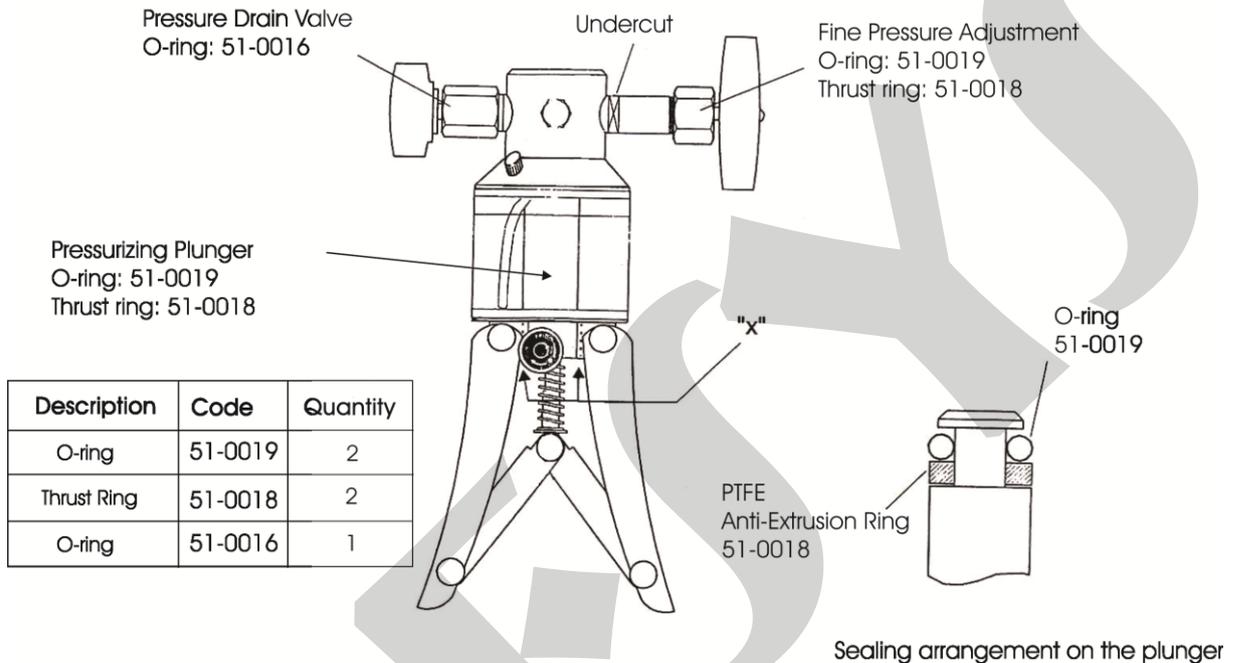
12. **Reservoir Level:** If the reservoir level drops considerably during use, a partial vacuum may have been created affecting pump performance. Break the vacuum by loosening the filler plug (6).

13. **Change of Seals:** Depending on the frequency of use, the plunger (and other) seals need to be replaced. The BY-8112-10000 or 15000 is supplied with a set of seals and instructions for exchange them.

14. **Reservoir Fluid:** Low viscosity hydraulic oil or distilled water.

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INSTRUCTIONS FOR CHANGING THE PUMP SEALS BY-8112-10000 / 15000



Before any action proceed as follows: disconnect the pump from the external system and discharge any residual pressure.

Pressurizing plunger seal:

1. Remove the two M5 "Allen" bolts, marked "X" above, to remove the plunger / cable assembly.
2. Clean the plunger/cylinder oil and grease and remove the o-ring and thrust ring.
3. Fit new seal: o-ring and thrust ring (see detail above).
4. Lubricate the seal and plunger using silicone grease.
5. Mount the plunger/cable assembly and tighten the screws ("X").

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Pressure Fine adjustment:

1. Remove the fine pressure adjustment from the pump body using a 19mm spanner in the undercuts.
2. Attach the fine pressure adjustment to a bench vice in the undercuts, loosen the large nut, and disassemble the plunger assembly.
3. Clean the plunger/cylinder oil and grease and remove the o-ring and plunger ring.
4. Place the new seal, "O-ring" and thrust ring. Lubricate them lightly with silicone grease.
5. Refit the assembly.

Pressure Drain Valve:

1. Turn the pressure drain valve fully counterclockwise by unscrewing the valve from its body. Take care not to lose the steel ball that is under the bolt.
2. Remove the old seal from its housing in the valve screw, and change it for the new one.
3. Lubricate lightly with silicone grease and when assembling ensure that the steel ball is properly in place.

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