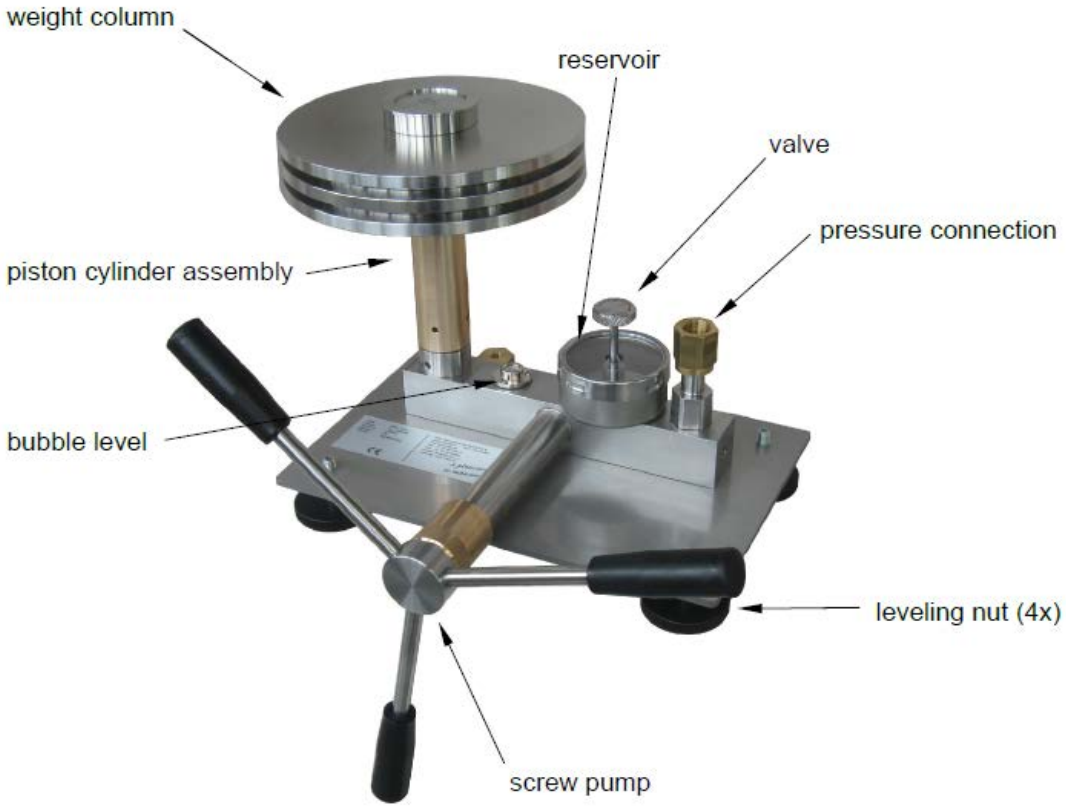
Oil Dead Weight Tester ODWT15

Changing the piston cylinder assembly

Instrument outline



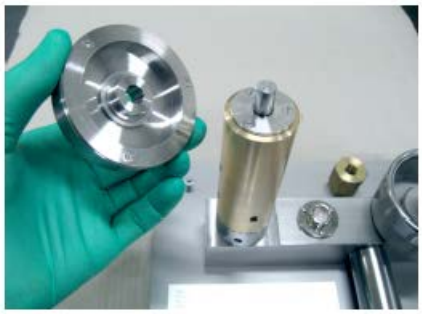
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To change from low pressure range to the high pressure range it is necessary to change the piston cylinder assembly.

1. Make sure there is no pressure in the unit, than close the valve.
2. Plug off the instrument under test connection.
3. The table is fixed with a cone. See picture. A small force is enough to loosen it. Make sure the table stays free of oil and grease.





4. Unscrew the piston cylinder assembly with the hook wrench.



5. The high pressure piston is combined with a guidance piston. When (un)screwing the brass part hold the guidance piston otherwise it might fall.



6. Take out the cylinder.

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7. Mount the other diameter cylinder. Make sure the o-ring / multi seal is in place under the cylinder.



O-ring / Multi seal

Note: Only for piston #1 (diameter = 10 mm) the O-ring seal is used, for all other pistons (piston #2, #3, #4, #5, pistons diameter < 10 mm) the Multi seal must be used.
If you use the O-ring seal in combination with a pressure > 70 bar, than a damage could happen.

The core of the Piston Assembly is the piston. The piston is suitable for all necessary parts incl. the cylinder. The diameter of the piston is the differentiation criteria.

Here the overview refer to the different piston diameters.
The different pistons causes different pressures according to the weight

piston #1 --> diameter 10 mm --> 1.25 bar / kg → O-ring seal
piston #2 --> diameter 7 mm --> 2.50 bar / kg → Multi seal
piston #3 --> diameter 5 mm --> 5.00 bar / kg → Multi seal
piston #4 --> diameter 3.2 mm --> 12.50 bar / kg → Multi seal
piston #5 --> diameter 2.25 mm --> 25.00 bar / kg → Multi seal



8. Turn the hand pump clockwise until oil comes out of the cylinder center hole.
9. Place the bearing on top of the cylinder. Put the measuring piston in the cylinder. Move the piston several times up and down to grease it.



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10. Mount the brass upper part and tighten it with the hook wrench. Because of the O-ring / Multi seal it is not necessary to tighten too much.

11. Mount the table as shown on photos see no.3. It is not necessary to fasten it. Because of the cone it will fix itself by the weights to put on later. Each piston (high and low) has their own table. The low table will only fit on the low piston, etc.



Piston assembly with small diameter = 2.25 mm



Piston assembly with large diameter = 10 mm

Note: Only for piston #1 (diameter = 10 mm) the O-ring seal is used, for all other pistons (piston #2, #3, #4, #5, pistons diameter < 10 mm) the Multi seal must be used.
If you use the O-ring seal in combination with a pressure > 70 bar, than a damage could happen.

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