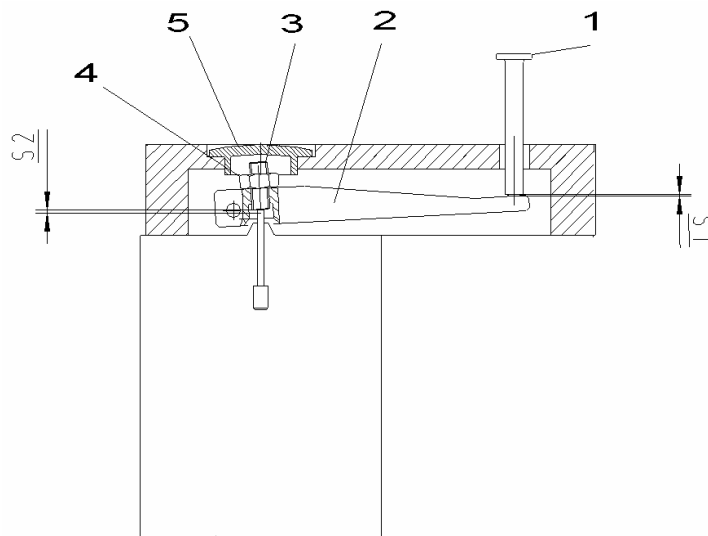


# Adjustment manual

As a rule, the Dr. Breit DN2, DN3, DN6 valves have to be readjusted to the stroke of the actuator plunger after reinstallation and repair, in order to:

- a) Prevent damage to the valve based on excessive shifting forces in the case of hydraulic and pneumatic actuations, and
- b) Fully exploit the magnetic forces in the case of electromagnetic actuation, which reach their maximum stopping force at the end stroke position.



This is done using the adjustment tools provided by the manufacturer and in accordance with the above adjustment sketch.

## Procedure:

1. The valve to be adjusted is mounted on a manifold base plate with the following connections: P = pump (pressure connection), A = load (pressure gauge) and T = tank (open connection).
2. After mounting the actuator (1) and removing the plastic cap (5) as well as loosening the lock nut (4), the lever (2) is set to a small amount of play (S1, S2) using the setting screw (3).  
In the case of a normally closed valve –N.C.– pressure is applied to the P port, A is pressureless and no medium should exit T.  
In the case of a normally open valve –N.O.– pressure should flow from P to A port, again no medium should exit T.

# *Adjustment manual*

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3. After actuating the corresponding actuator, i.e. the shifting of the valve, first a check is made as to whether medium is exiting connection T.
  - a. If this is the case, the setting point at which the valve closes, i.e. no more medium exits, is sought by carefully turning the setting screw.

In the case of normally closed valves –N.C.- pressure flows from P to A ports.  
In the case of normally open valves –N.O.- pressure from P to A ports is blocked.  
Now the setting screw is turned not more than 1/4 turn further to the right. Using the nut (4) this setting (safety tolerance) is ensured by locking the setting screw.
  - b. If this is not the case, the setting screw is turned carefully to the left to find the point at which the valve becomes slightly untight, i.e. medium exits T.

Now the setting screw is turned not more than 1/4 turn to the right until the valve closes, i.e. no more medium exits T.  
Using the nut (4) this setting (safety tolerance) is ensured by locking the setting screw.
4. De-energize or de-pressurize the actuator, check whether medium is exiting connection T.

In the case of a normally closed valve –N.C.- when pressure is applied to P, A is pressureless and no medium should exit T.  
In the case of normally open valves –N.O.- when pressure is applied to P, A will have flow, no medium must exit T.

If these conditions are not satisfied, the setting procedure must be repeated. If the valve leaks after this setting procedure, look for other causes (refer to the trouble-shooting manual). Subsequently, the valve play (S1, S2) is checked. The play must absolutely be present for the valve to function properly. The size of the valve play can be tolerance dependent.
5. After several shifting operations, check the functioning of the valve and determine whether the actuation lever (2) still has the set play.