

Test methods

Relative pressure method

With the relative pressure method, the test piece is filled with compressed air or vacuum during an adjustable filling time. The filling process is followed by a damping period. During this time the temperature between test piece and test medium equalizes. Before the subsequent test period, the measurement display must be tared. If the test piece is leaking, the pressure will be different at the beginning and end of the test period, which can be measured and evaluated. Since this method measures the absolute change of pressure, measuring accuracy is directly dependent on the test pressure. By connecting to a test leak, an equivalent volume flow can be assigned to the resulting pressure difference.

Differential-pressure method

With the differential-pressure method, the test piece and a comparison volume are filled with compressed air or vacuum during the filling time. The filling process is followed by a damping period. During this time the temperature between test piece and test medium equalizes. At the end of the damping period, test and comparison volume are sealed from each other. Before the subsequent test period, the measurement display must be tared. If the test piece is leaking, there will be a difference in pressure between it and the comparison volume that can be measured and evaluated. Thus the measuring accuracy is independent of the absolute test pressure since only the difference between reference volume and test piece is measured. By connecting to a test leak, an equivalent volume flow can be assigned to the resulting pressure difference.