ROEMHELD

A 0.110

Bleeding of the Spring Area
of Clamping Elements and Work Supports

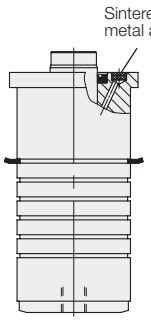
Introduction

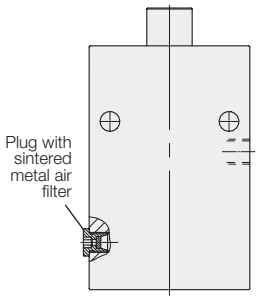
Due to increased use of coolants and cutting fluids in metal cutting machining there is also an increased danger that some very aggressive fluids penetrate into the spring areas of single-acting clamping elements and work supports, causing malfunctions.

It is important to realize these problems already in the period of design. The following versions show possible solutions to the above problems.

Catalogue elements with bleeding of the spring area

Single-acting clamping elements		Work supports
without bleeding port	with bleeding port	





See data sheets:			
	B 1.310 B 1.372 B 1.458 B 1.459 B 1.7441	B 1.509 B 1.570 B 1.849 B 1.881 B 1.883 B 1.885 B 1.891 B 1.892	B 1.900 B 1.910 B 1.911 B 1.913 B 1.914 B 1.921 B 1.950

Why bleeding has to be made?

Excess pressure or depression in the spring area change the spring forces which leads to malfunctions.

Formation of condensation water promotes rust formation and can lead to a complete failure of the elements.

Leakages of hydraulic seals must drain off to the exterior without pressure, otherwise there will be malfunctions.

Dust and swarf are retained by sintered metal air filters.

Liquids are the real problem, because they are drawn off through the air filter. Thereby the breathing spring area is reduced, a higher excess pressure or depression is caused and the function is impaired.

What happens during bleeding?