

### What is International Standard 2941

ISO 2941 specifies the verification method of the collapse and burst rating of a hydraulic filter element. In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure within an enclosed circuit. The filters maintain fluid cleanliness by removing insoluble contaminants.

### What are the procedures of verification

1. Subject the filter element to a fabrication integrity test in accordance with ISO 2942.
2. Disqualify from further testing any element failing to exhibit a minimum bubble pressure as specified by the manufacturer.
3. Install the filter housing in a collapse/burst test stand
4. Determine the pressure drop across the empty filter housing at the manufacturer's rated nominal flow at the test temperature in the range of 15° to 40° C.
5. Install the filter element in test filter housing.
6. Subject the filter element to the manufacturer's rated nominal flow at the test temperature selected in
7. Inject into the system a controlled (continuous or intermittent) amount of any inert particulate contaminant that does not add to the strength of the test element, while maintaining the rated nominal flow and test temperature.
8. Record the pressure drop across the filter as a function of contaminant added until the pressure drop across the element reaches collapse/burst pressure rating.
9. Subject the filter element, after removing it from the test filter housing, to a further fabrication integrity test in accordance with ISO 2942.
10. Report operation conditions, type of contaminant and type of pump.
11. Void the test if the contaminant fills the filter housing.

### What are the acceptance criteria

1. No evidence of structural seal, or filter medium failure when tested by ISO 2942.
2. No decrease in slope of the pressure drop versus contaminant added curve