AXEL LARSSON

THE THREE MAINTENANCE POINTS FOR A RUBBER EXPANSION JOINT

Detect problems early. Plan replacements. Avoid breakdowns.

STENFLEX®

Replace expansion joint ≥ Shore A 83

1

Shore-A-hardness measurement:

Assess the condition of the material objectively, make replacement plannable

Technical observation:
The Shore A hardness of the elastomer is an objective indicator of the degree of ageing of the rubber material. We recommend that, once a reading of 83 Shore A or higher is recorded, plans should be made to replace the compensator.

Economic benefits:
Shore A testing makes maintenance planning possible. It provides a reliable, documented threshold value on the basis of which replacement decisions can be justified internally and integrated into maintenance cycles. No speculation. No surprises. Clear metrics for clear decisions.

2

Visual inspection:

What the eye perceives before it becomes critical

Technical observation:
Check the outer surface of the expansion joint for cracks, porosity, blistering, and any constrictions or bulges. Deposits, chemical damage to the surface or mechanical damage to the sealing surface and the fabric are also relevant indicators.

Economic benefits:
Visible changes usually provide early warning of a breakdown. By documenting and assessing these signs, you can plan for replacement — rather than simply reacting. This reduces procurement costs, avoids rush orders and enables targeted budget planning.

Risk avoided:
Leaks resulting in the release of process media, pressure drops in the system, consequential damage to sealing surfaces and flange connections, and unplanned plant shutdowns.

3

Syntax check:

Geometry as a leading indicator of system faults

Technical observation
Check whether the compensator shows any unauthorised swelling, deformation or axial misalignment during operation. Any indications of excessive movement or operation outside the specified limits must also be recorded.

Economic benefits:
Geometric deviations are often not a material defect — they are a sign that the expansion joint has been fitted incorrectly, is operating under incorrect conditions, or that the permissible movement limits have been exceeded. Identifying this at an early stage protects not only the component itself, but the entire pipework. This saves on the costs of consequential damage, which can affect several system components.

Risk avoided:
Structural failure under operating pressure, damage to adjacent pipework, pumps and valves, and production stoppages caused by a systemic loss of pressure.