

Technical Rule – Standard **DVGW G 452-2 (A)** August 2020

**Tapping and Shutting Off; Part 2: Squeezing off Plastic Pipelines
for Gas with Pressures up to 5 bar and Outer Diameters up to 315 mm**

Anbohren und Absperren; Teil 2: Abquetschen von Kunststoffrohrleitungen
für Gas mit Drücken bis 5 bar und Außendurchmesser bis 315 mm

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ISSN 0176-3512

Price group: 2

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Art.No.: 511684

Tapping and Shutting off; Part 2: Squeezing off Plastic Pipelines for Gas with Pressures up to 5 bar and Outside Diameters up to 315mm

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Foreword

This Standard has been elaborated by the project group “Squeezing off Plastic Pipelines” within the DIN/DVGW Joint Working Committee “Plastic Piping Systems Outside of Buildings” on behalf of the Technical Committee “Gas distribution”. It contains specifications on how to use the squeeze-off method as an alternative to bag setting to temporarily stop the flow of gas for tie-ins of live pipelines without unacceptably compromising the pipelines’ serviceability (service life). Generally, no additional measures will be required at the squeeze-off point with respect to the continued operation of the pipeline, except in cases when there is reason to suspect that the specifications that ensure the continued integrity of the pipeline have not been met, as is likely to be the case when squeeze-off is used in the exceptional case of having to stop a gas leak for emergency maintenance.

This Standard is based on practical experience as well as several research projects. During the preparation of DVGW Guideline GW 332:2001-09, it had become evident that 2nd and 3rd generation PE pipes (from approx. 1978 onwards) – but not 1st generation PE pipes – remain fully serviceable after squeeze-off if certain specifications for squeeze-off are met and if the pipes complied with the relevant DVGW test specifications. Gas composition changes caused by the energy transition do not pose fundamentally different challenges. Furthermore, other plastic materials and multilayer designs, higher pressures and larger diameters have been taken into account. This Standard covers those pressures and diameters the handling of which is similar to DVGW Guideline GW 332:2001-09. Applications beyond this scope are due to be covered separately (G 452-3).

DVGW Guideline GW 332:2001-09 had already been more specific and practically relevant for gas than for water. For its transposition into a standard its scope had to be limited to gas, as no comparably positive experience and research results have been available for water, and due to the lack of a comparable need. Squeezing off, therefore, is not applicable for tie-ins of water pipelines; it can still be used, however, in the exceptional case of having to stop a water leak for emergency maintenance, in which case protective measures will be mandatory because of the squeeze-off level (most probably well below 0.8) required for stopping off the pipe.

This Standard supersedes DVGW Guideline GW 332:2001-09.

Revisions

The following revisions have been made compared to DVGW Guideline GW 332:2001-09:

- a) Limitation to gas, but including other plastic materials and multilayer designs, larger diameters and higher operating pressures up to 5 bar (0.5 MPa)
- b) More precise specification of requirements, recommendations, remarks and application limits, taking into account the suitability of material and equipment for the individual application in question.

Earlier versions

DVGW GW 332 (M):2001-09