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1 Scope of application

This technical code applies to the determination of the angular deviation of welded joints executed by means of sleeve welding with an incorporated heating element (HM) and heated tool sleeve welding (HD). It applies to rod products.

2 Tests and inspections

The angular deviation is measured with an angle measuring device which uses the front faces of the sleeves as the reference point. The angle measuring device must be designed in such a way that it can be adjusted to the different sleeve geometries and diameters. Fig. 1 shows the principle of the structure of an angle measuring device. The distance between both measuring points (M1 and M2) must be min. 100 mm. Measuring Point M1 must be chosen as close as possible to the front side of the sleeve but outside the peeled region. The measuring accuracy must be min. ± 0.1 mm.

During the measurement, the maximum angular deviation around the pipe circumference must be established and documented on both sides of the welding sleeve for the sleeve welding with an incorporated heating element. The measurement may only be taken with calibrated measuring devices.

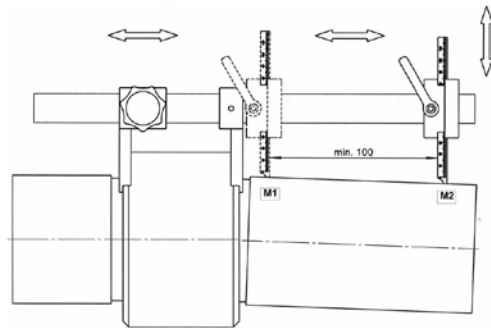


Figure 1. Principle of the structure of an angle measuring device with the measuring points.

3 Testing and inspection report and evaluation

It is necessary to draw up a testing and inspection report. An example is specified in the appendix.

4 Bibliography

- DVS 2202-1 Defects in welded joints between thermoplastics – Characteristics, description and assessment

This publication has been drawn up by a group of experienced specialists working in an honorary capacity and its consideration as an important source of information is recommended. The user should always check to what extent the contents are applicable to his particular case and whether the version on hand is still valid. No liability can be accepted by the Deutscher Verband für Schweißen und verwandte Verfahren e.V., and those participating in the drawing up of the document.

DVS, Technical Committee, Working Group "Joining of Plastics"

Appendix: Specimen testing and inspection report

Testing and inspection report: Angle measurement according to DVS 2206-5							
Firm:							
Name of the welder:							
Sampling							
Sampling location / building site:							
Pipes: Marking							
Pipes: Material							
Moulding: Marking							
Moulding: Material							
Welding process:							
Diameter of the pipes in mm: (nominal dimension)							
Wall thickness of the pipes in mm: (nominal dimension)							
Testing and inspection							
Distance between the measuring points in mm:							
Distance between the first measuring point and the front side of the sleeve in mm:							
Testing and inspection results							
Position of the measurement (time):							
Dimensions in mm	Dimension 1	1.	2.	3.	4.	5.	6.
	Dimension 2	1.	2.	3.	4.	5.	6.
Difference between M1 and M2 in mm:							
Maximum difference between M1 and M2 (Δ max) in mm:							
Result:							
Remarks:							
Date and signature of the tester/inspector:							