

## SCHUCK DRINKING WATER INSULATING JOINT

Patented corrosion protection included

Operational safety and maximum effectiveness are the guiding principles of the Schuck insulating element for drinking water in order to ensure long-term efficient protection against corrosion. Decades of experience in the area of gas and water have led to a fundamental development of the existing concept. All existing parameters were comprehensively analyzed and implemented.

The inside of the insulating element for drinking water has a permanent, vulcanized hard rubber lining along its entire length. The material used meets the high demands in accordance with KTW and DVGW W 270, and is thus fully suitable for use with the medium drinking water. This material is based on synthetic rubber. After being cured, this shows no delamination phenomena or wear even in the case of abrasive ingredients, and ensures optimum operating results.

The hard rubber lining, with a minimum thickness of 3 mm, ensures safe and non-porous insulation between the drinking water medium and the actively-protected steel pipe. This prevents the protective current from being transferred to the drinking water. In addition to the actual insulation section joint between the metal parts, the hard rubber lining acts as an additional barrier over the entire length of the insulation element.

The safely processed vulcanized hard rubber lining has extreme advantages over traditional epoxy coatings, both in terms of electrical throughput resistance, elasticity in the event of bending stresses and wear, as well as for higher flow velocities and abrasive media.

### ADDITIONAL PRODUCTS OF THE SCHUCK GROUP

- » House lead-ins for gas & water
- » Insulating joints & insulating flange connections for gas



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**SCHUCK DRINKING WATER INSULATING JOINT**  
The perfect insulating joint with two levels of safety for all types of water.

We manufacture and distribute components for connecting pipeline systems in more than 50 countries, with 7 international offices and over 35 years of experience.

Do you want to find out more about a specific product?  
Give us a call, or visit to our website at [www.schuck-group.com](http://www.schuck-group.com).

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DESIGN  
ENGINEERING  
MANUFACTURING  
MADE IN GERMANY

# SCHUCK DRINKING WATER INSULATING JOINT

The perfect insulating joint with two levels of safety for all types of water.

## SYMMETRY

Symmetrical or asymmetrical design possible



**INSULATING JOINT**  
For sustained insulation of the pipeline network

## FLANGE ENDS

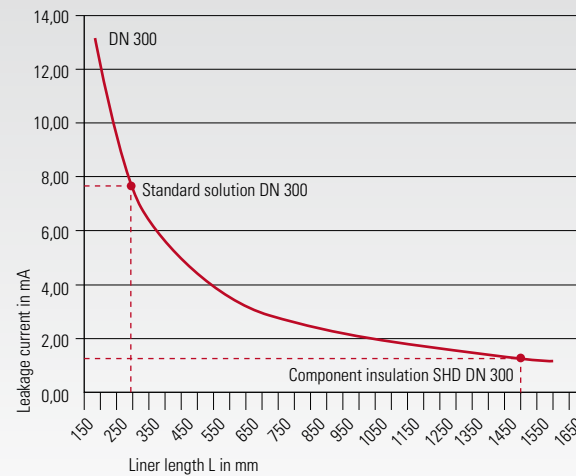
For connection to the pipeline network

## INTERIOR COATING

Optionally with dual-component paint, electrostatic powder spraying, gumming and cement mortar

## STANDARD INSULATION SOLUTION

at  $U = 0,5 \text{ V} / \rho = 16.129 \text{ } \Omega\text{mm}$



$$L = 30 \cdot U \cdot \sqrt{r/\rho}$$

L = length of inner liner in [m]

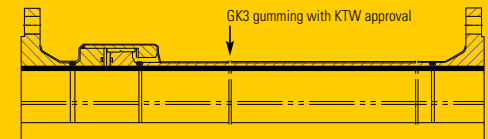
U = voltage on insulating element in [V]

r = inner radius of pipeline in [mm]

$\rho$  = specific resistance in [ $\Omega\text{mm}$ ]

## PRODUCT FEATURES

- » Maximum effectiveness
- » Robust
- » Long lifetime
- » Extreme strength
- » 100% protection against corrosion guaranteed
- » Optimum operational safety
- » High degree of insulation



Length = BL = IS

## APPLICATIONS

Insulating element for drinking water, water, sewage, salt water, for above- and below-ground use

Pipes up to DN 1600 / PN 4 to PN 64

Temperature range up to 50° C

## DESIGN

Symmetric/asymmetric

Optionally with dual-component paint, electrostatic powder spraying, gumming, cement mortar

Flange connections DIN, ANSI and customer specification

## MANUFACTURING

Component testing VdTÜV sheet 1066

Calculated according to AD sheets

Visual, dimensional, electrical testing

Acceptance acc. to EN 10 204

## MATERIALS

Steel materials according to DIN/EN

Materials suitable for temperature/media

Outer corrosion protection either shrinkage tubing (DIN 30672) or polyurethane coating

## STRUCTURAL MASS

The length of the inner coating depends on the diameter of the insulating joint, the specific electrical resistance of the medium and the electrical voltage applied to the insulating joint.

Without values, an electrically insulating inner coating of at least 200 mm or 3x DN is recommended. Some of the components are therefore asymmetric in order not to make the element too large.