



# ENERGY AND UTILITY INFRASTRUCTURE

## ADVANCED SOLUTIONS

**Gaskets for gas and water distribution, power generation, and power plants.**

Designed to meet the regulatory requirements of critical utility infrastructure and demanding operating conditions. With verified performance data, standard-compliant design, and project specific validation, we ensure permanent leak-tight connections in networks, facilities, and power plants.

**THE SMART  
GASKETEERS**

**IDT-GASKETS.COM**



# CHALLENGES IN UTILITY INFRASTRUCTURE

Gaskets in gas, water, and energy systems are not standard components, but rather safety-critical parts that must meet regulatory requirements, durability testing, and ensure complete batch traceability.

With increasing pressure from laws, gas and water regulations, verifiable quality is becoming a must.

## CRITICAL REQUIREMENTS IN PRACTICE

- Lightning current carrying capacity according to DIN 30691
- Batch traceability according to DIN 30690-1
- DVGW-G 491-compliant equipotential bonding
- Media resistance [natural gas, drinking water, H<sub>2</sub>]
- Suitability for corrosive and cryogenic media
- Test reports from accredited institutes [e.g., BAM]
- Gas tightness
- Standard-compliant labeling and documentation
- Risk reduction under alternating loads and/or pressure surges

## STANDARD-COMPLIANT. DOCUMENTED. READY TO SHIP.

We don't just supply the gasket—we provide complete verification: tested in accordance with current regulations, traceable down to the batch, and with the option for mathematical verification. For operators of critical infrastructure who require safety.

### Material Verification By Spectral Analysis

RTJ gaskets made of modified soft iron as documented alternative to galvanized 1.0335. Corrosion protection via a special oil as an alternative to galvanization/chromating.

### BAM Test Report

Batch-specific test reports from the Federal Institute for Materials Research and Testing for adhesive-free LE-Safe gaskets.

### DIN EN 1591-1 Engineering

Standard-compliant flange calculations with strength and leak-tightness verification available as a service—as well as in-house engineering for project-specific designs.

### DIN 30690-1 Traceability

Seamless batch traceability throughout the entire life cycle—for audits, operation, and in the event of damage.

### Leakage Characteristics H<sub>2</sub>

Advanced Products with leakage characteristics in accordance with DIN EN 13555, supplemented by H<sub>2</sub> values.

### DIN 30691 Lightning Current Carrying Capacity

Tested lightning current carrying capacity according to a newly developed standard procedure [Edition 2024-12]—reproducible and documented.\*

Note on marking: DIN 30691 does not prescribe a uniform marking system for gaskets capable of withstanding lightning currents. IDT relies on batch-based documentation and traceability in accordance with DIN 30690-1. Should the DIN Standards Committee for Gas Technology [NAGas] adopt a normative marking solution, it will be implemented.

# OUR SOLUTIONS



**UNISEAL®**



**AFM 34 CO ME®**



**RUBBER-STEEL GASKET**



**SIGRAFLEX® UNIVERSAL PRO**

## **UNISEAL®** **WS 3400 • FD01**

Aramid fiber gasket with inorganic fillers and elastomers—high-strength, homogeneously bonded, free of substances of physiological concern. Proven, cost-effective solution for standard gas connections as well as water and wastewater applications.

## **AFM 34 CO ME®** **WS 3133 • FD10**

Aramid fiber gasket with coating and metal reinforcement. Maximum gas tightness even at low contact pressures. FDA-compliant. Ideal for the most stringent leakage requirements in gas supply lines and connections.

⚡ Lightning Current Carrying Capacity

## **RUBBER-STEEL GASKET** **NBR / EPDM • GS15**

Rubber-Steel Gasket with a spherical rubber body and an internal steel ring. For gas [NBR] and drinking water [EPDM]. The newly developed double-lip profile on the inner diameter enables a defined, reproducible compression: The gasket makes controlled contact with the flange sealing surfaces, reduces microleaks, and increases operational safety compared to conventional designs without profiling. Easy to install, blow-out-proof, and stable—without compromising the proven ease of handling.

## **SIGRAFLEX® UNIVERSAL PRO** **WS 3865 • FD01**

Graphite gasket with tanged metal insert—electrically conductive, low oxidization rate, higher operational reliability, and longer service life. Improved performance thanks to an innovative nonstick coating and properties that facilitate compliance with low emission requirements [e.g. TA-LUFT]. Direct option for retrofitting lightning current carrying solutions in existing systems.



**KAMMPROFILE GASKET**



**RTJ GASKET, SOFT IRON MOD.**



**CORRUGATED METAL GASKET**

⚡ Lightning Current Carrying Capacity

## **KAMMPROFILE GASKET**

**WS 1.4571 • KD01, KD20, KD30**

Grooved stainless steel carrier with graphite coating on both sides. Defined contact area for reliable current dissipation. Designed for very high contact pressures and high operating pressures. Low minimum surface stress, low leakage rate.

⚡ Lightning Current Carrying Capacity

## **CORRUGATED METAL GASKET**

**WS 1.4571 • WD10**

Corrugated stainless steel carrier with graphite layer on both sides. Electrically conductive by design—high sealing performance and excellent adaptability even at low surface stresses.

## **RTJ GASKET SOFT IRON MOD.**

**RJ01 oval, RJ10 octagonal**

Metal gasket in accordance with ASME B16.20 and API 6A, with material certification. Optional spectral analysis to confirm material composition and suitability for corrosive service environments (e.g., H<sub>2</sub>S/sour gas)—crucial for gas supply systems subject to documentation requirements.

Modified soft iron as documented alternative to galvanized 1.0335. Corrosion protection via a special oil as an alternative to galvanization/chromating.

# APPLICATION OVERVIEW

| Application                                    | Medium                         | IDT Product Recommendation                  | Properties                                                |
|------------------------------------------------|--------------------------------|---------------------------------------------|-----------------------------------------------------------|
| High-pressure pipelines, transfer stations     | Natural gas, H <sub>2</sub>    | Corrugated metal gasket WD10                | ⚡ Lightning current carrying capacity · DVGW [DIN 3535-6] |
|                                                |                                | Kammprofile gasket KD01, KD20, KD30         | ⚡ Lightning current carrying capacity · DVGW [DIN 3535-6] |
| Low-pressure distribution, service connections | Natural gas, Biogas            | AFM 34 CO ME®                               | DVGW [DIN 3535-6, DIN 30653] · FDA                        |
|                                                |                                | Rubber-steel gasket · NBR I GS15            | EN 682                                                    |
|                                                |                                | Sigraflex® Universal Pro FD01               | ⚡ Lightning current carrying capacity · DVGW [DIN 3535-6] |
| Gas regulating stations, valve connections     | Natural gas, H <sub>2</sub>    | Uniseal® FD01                               | WRAS · DVGW [DIN 3535-6, DIN 30653] · FDA                 |
|                                                |                                | RTJ Soft Iron mod.                          | Material verification by spectral analysis · API 6A       |
| Water distribution, pumping stations           | Drinking water, wastewater     | Rubber-steel gasket EPDM I GS15             | EN 681-1 · FDA · W270 · WRAS · KTW-BWGL                   |
|                                                |                                | Uniseal® FD01                               | WRAS · DVGW [DIN 3535-6, DIN 30653] · FDA                 |
| FRP flanges, piping accessories                | Drinking water                 | Rubber-steel gasket EPDM I GS15             | EN 681-1 · FDA · W270 · WRAS · KTW-BWGL                   |
| High-pressure flanges, cryogenic               | Gas, cryogenic, O <sub>2</sub> | Kammprofile Gasket LE-Safe KD01, KD20, KD30 | ⚡ Lightning current carrying capacity · DVGW [DIN 3535-6] |
|                                                |                                | RTJ Soft Iron mod.                          | Material verification by spectral analysis · API 6A       |
| Pig traps, shut-off valves                     | Natural gas, H <sub>2</sub>    | Corrugated metal gasket WD10                | ⚡ Lightning current carrying capacity · DVGW [DIN 3535-6] |

We are happy to provide you with expert guidance on standard-compliant design in accordance with DIN EN 1591-1.  
All listed products meet the requirements according to DIN 30690-1 [e.g., batch traceability, labeling, etc.]

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