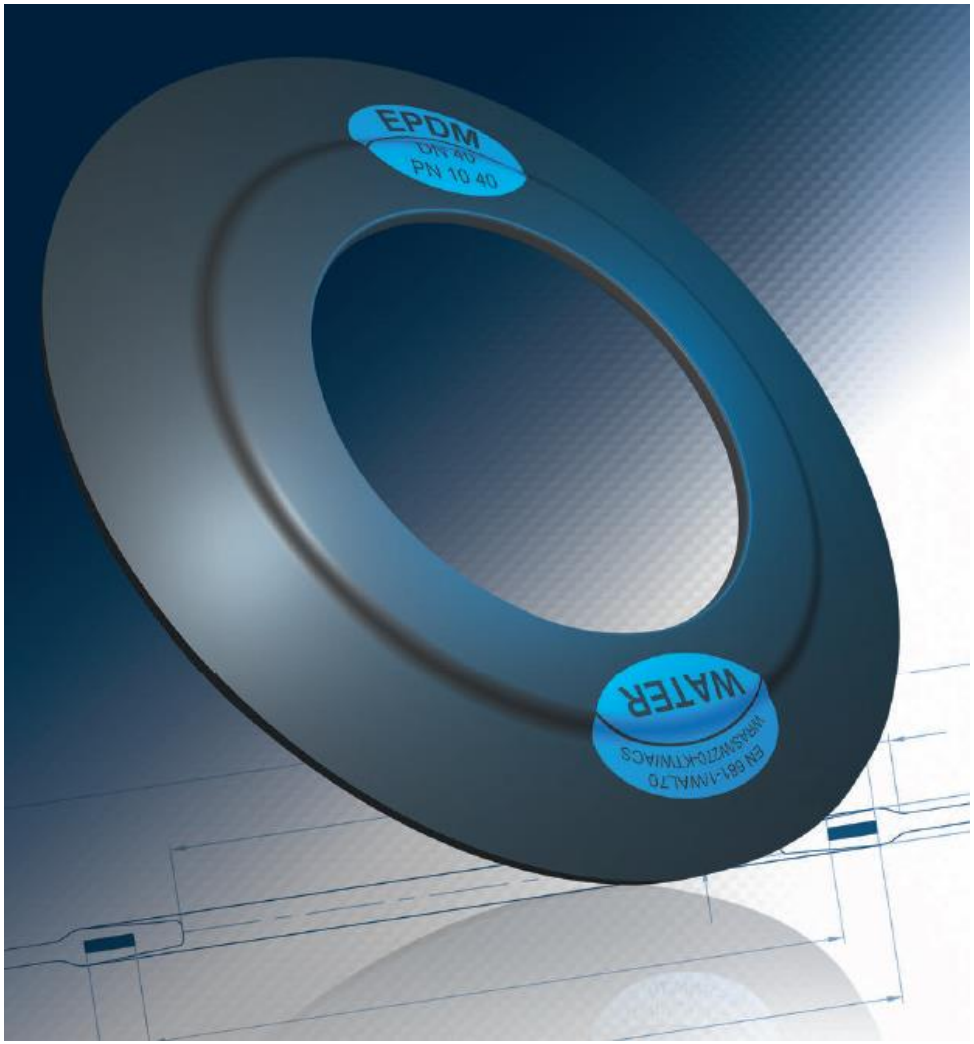
KLINGER KGS GII

Rubber-Steel-Gaskets – the new generation II



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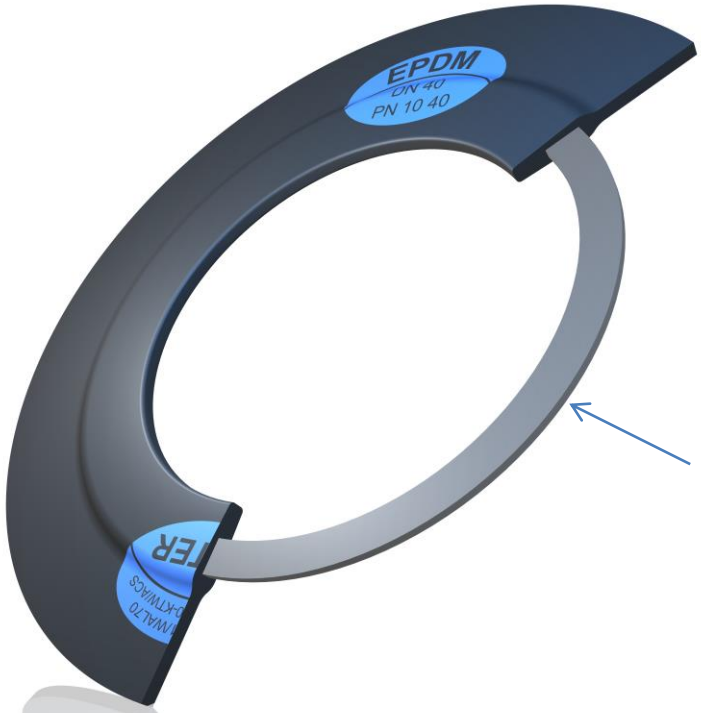
KLINGER KGS GII

Rubber-Steel-Gaskets – the new generation II

KLINGER Germany

KLINGER KGS GII:
Construction



Steel Ring –
made of carbon steel
(S235JR / 1.0037 / St37)

Rubber Profile:
made of elastomers
(NR / CSM / EPDM / NBR / FKM)

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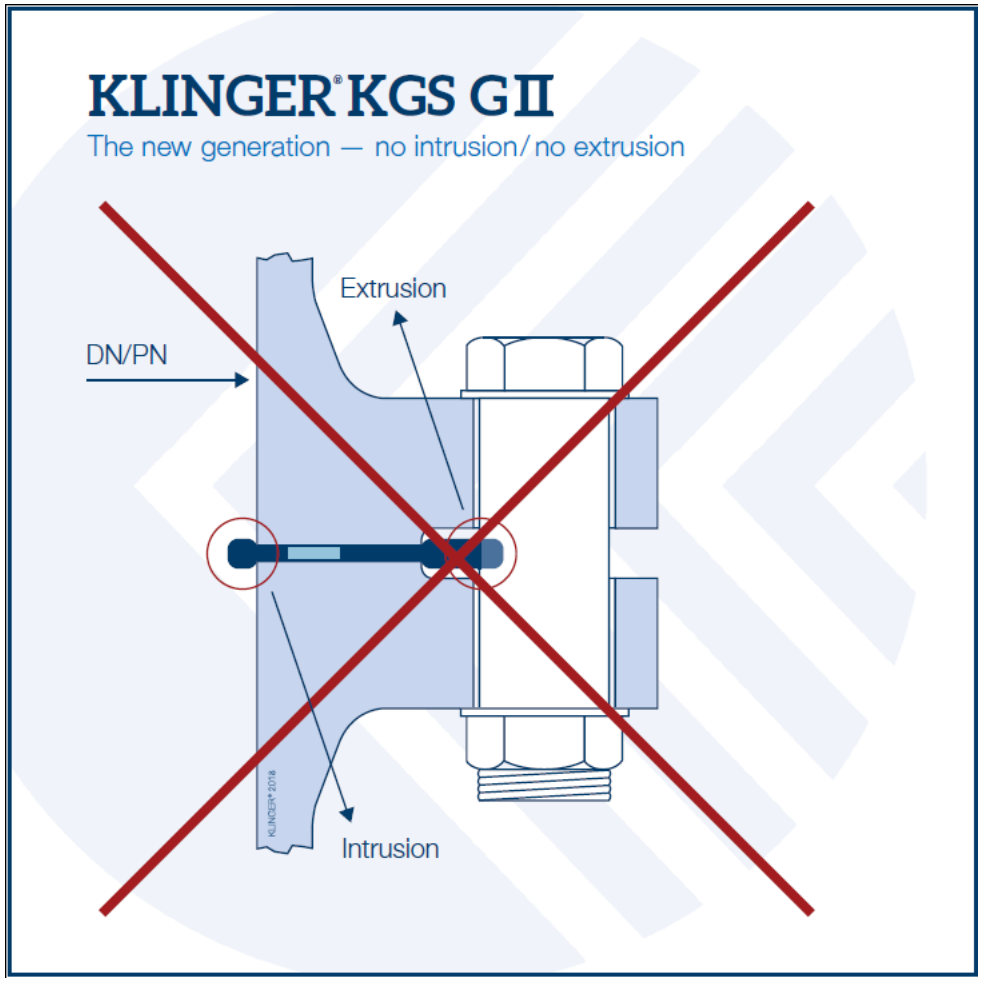

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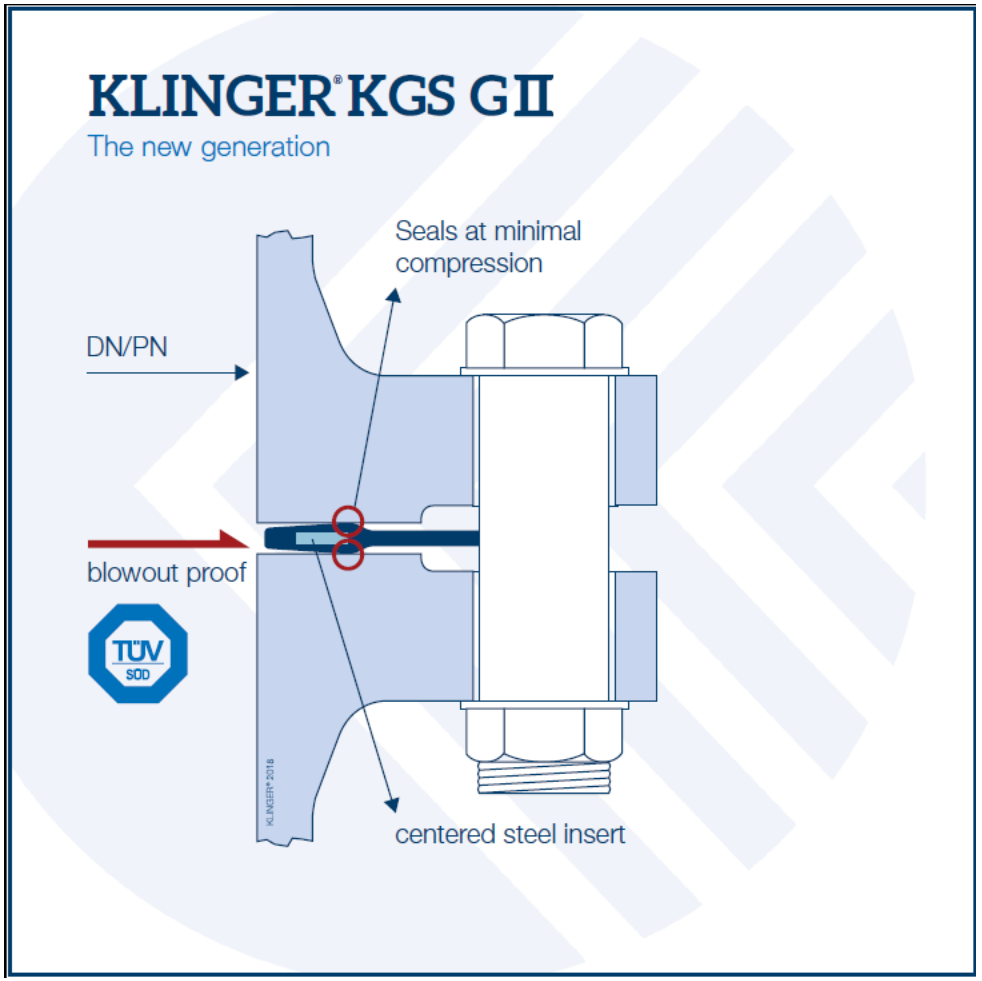
Rubber-Steel-Gaskets – the new generation II



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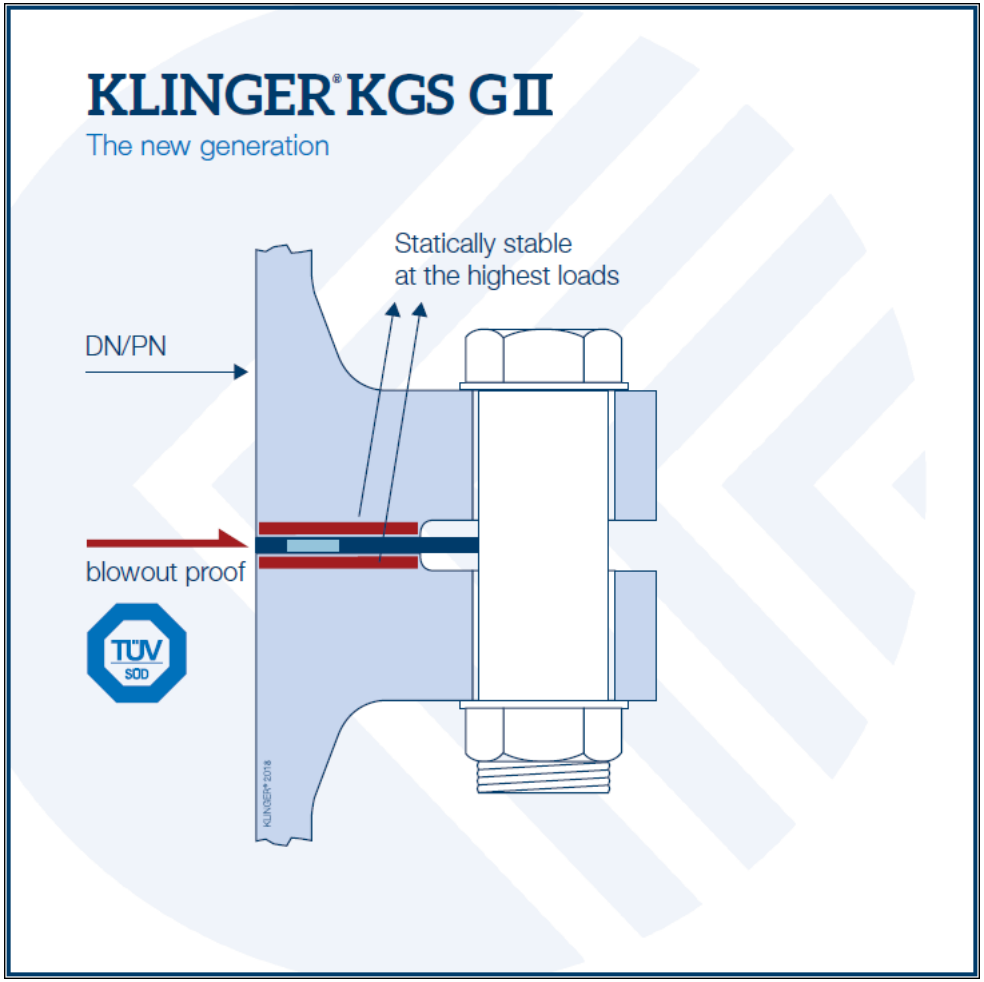
Rubber-Steel-Gaskets – the new generation II



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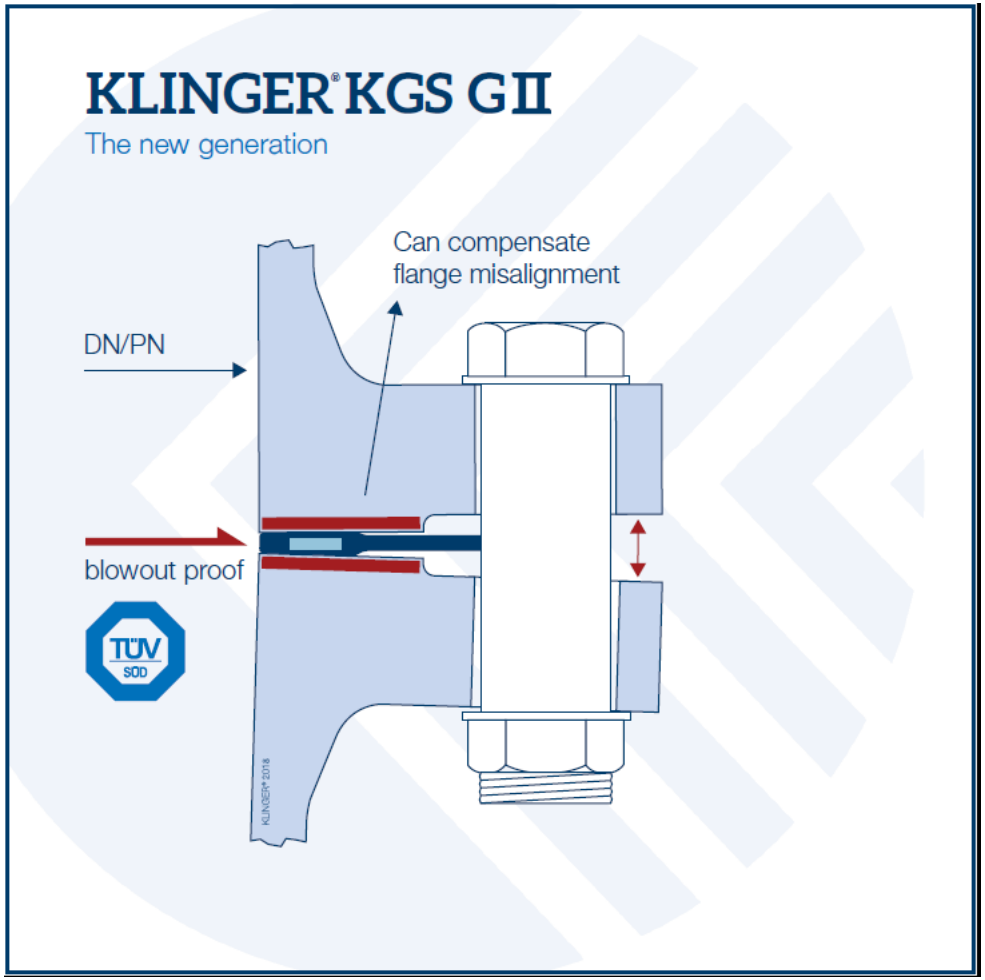
Rubber-Steel-Gaskets – the new generation II



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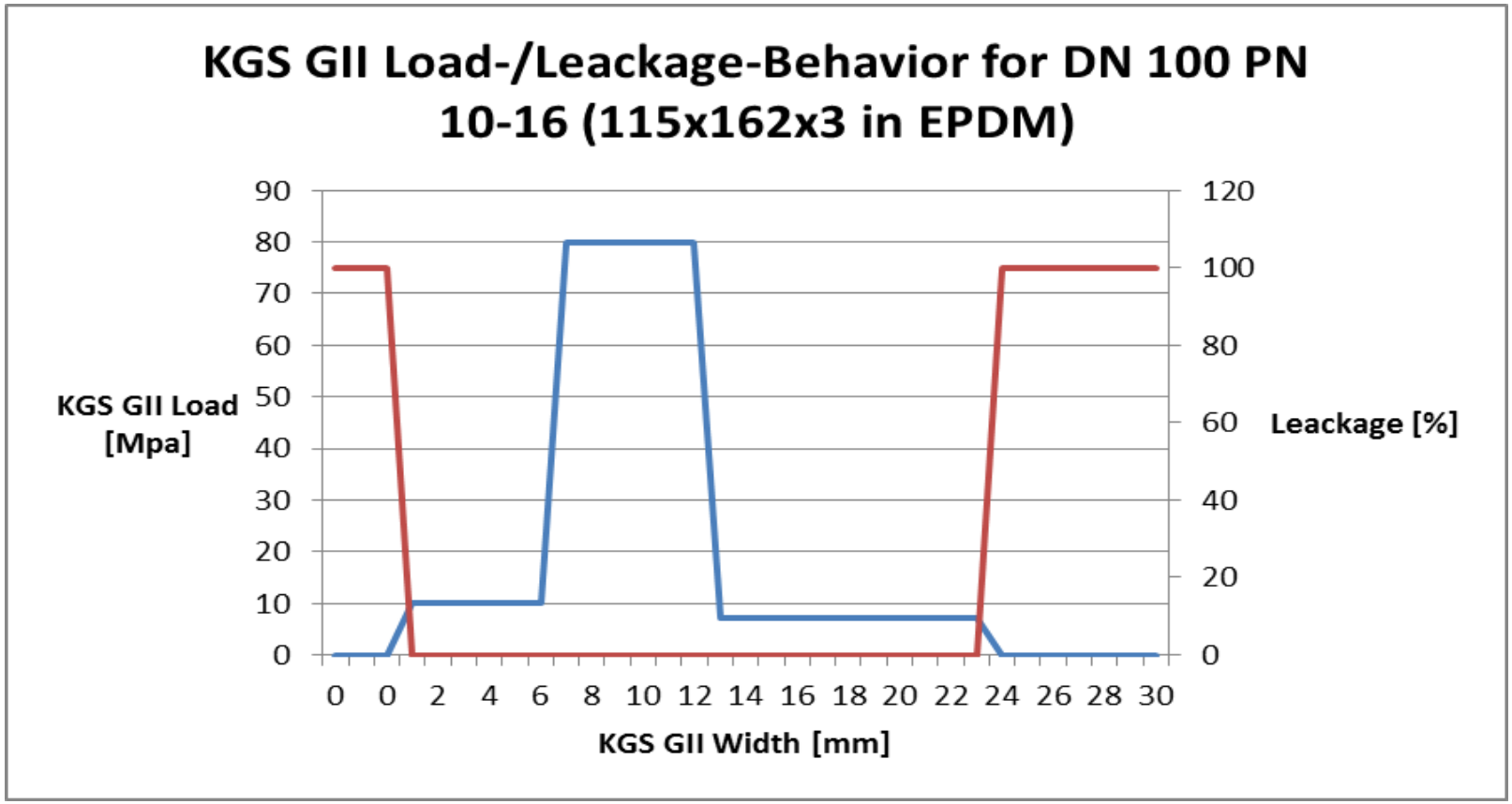
Rubber-Steel-Gaskets – the new generation II

Calculations:



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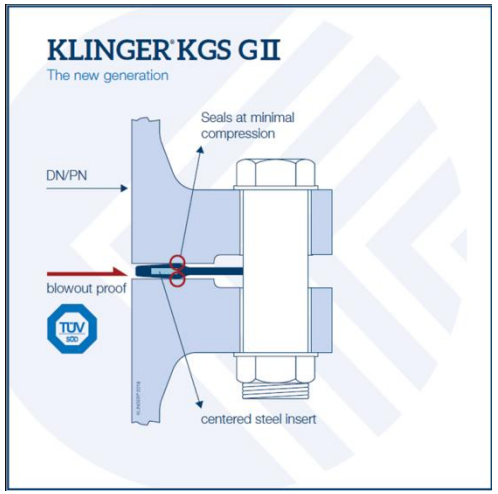
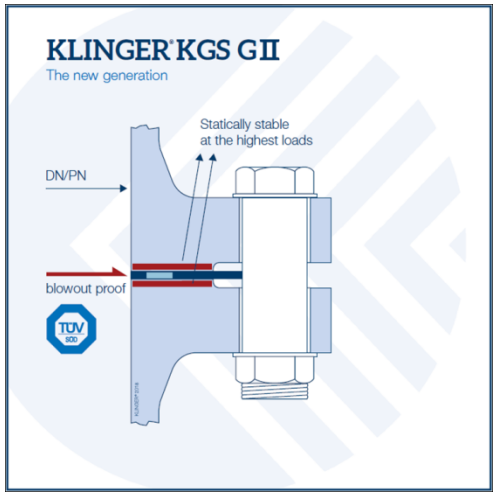
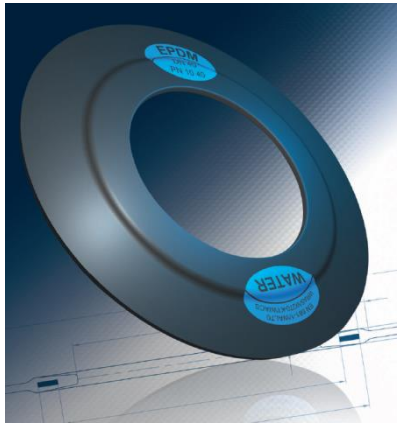
Rubber-Steel-Gaskets – the new generation II

Function-Load of Gaskets from min stress to seal to max. stress to seal

DN	KGS GII min. Load [Mpa]	KGS GII max. Load [Mpa]	KGS min. Load [Mpa]	KGS max. Load [Mpa]	RSG-min. Load [Mpa]	RSG-max. Load [Mpa]
50	0,5	80	3	30	5	10
65	0,5	80	3	30	5	10
80	0,5	80	3	30	5	10
100	0,5	80	3	30	5	10
125	0,5	80	3	30	5	10
150	0,5	80	3	30	5	10
200	0,5	80	3	30	5	10
250	0,5	80	3	30	5	10
300	0,5	80	3	30	5	10
350	0,5	80	3	30	5	10
400	0,5	80	3	30	5	10
500	0,5	80	3	30	5	10
600	0,5	80	3	30	5	10
800	0,5	80	3	30	5	10
1000	0,5	80	3	30	5	10







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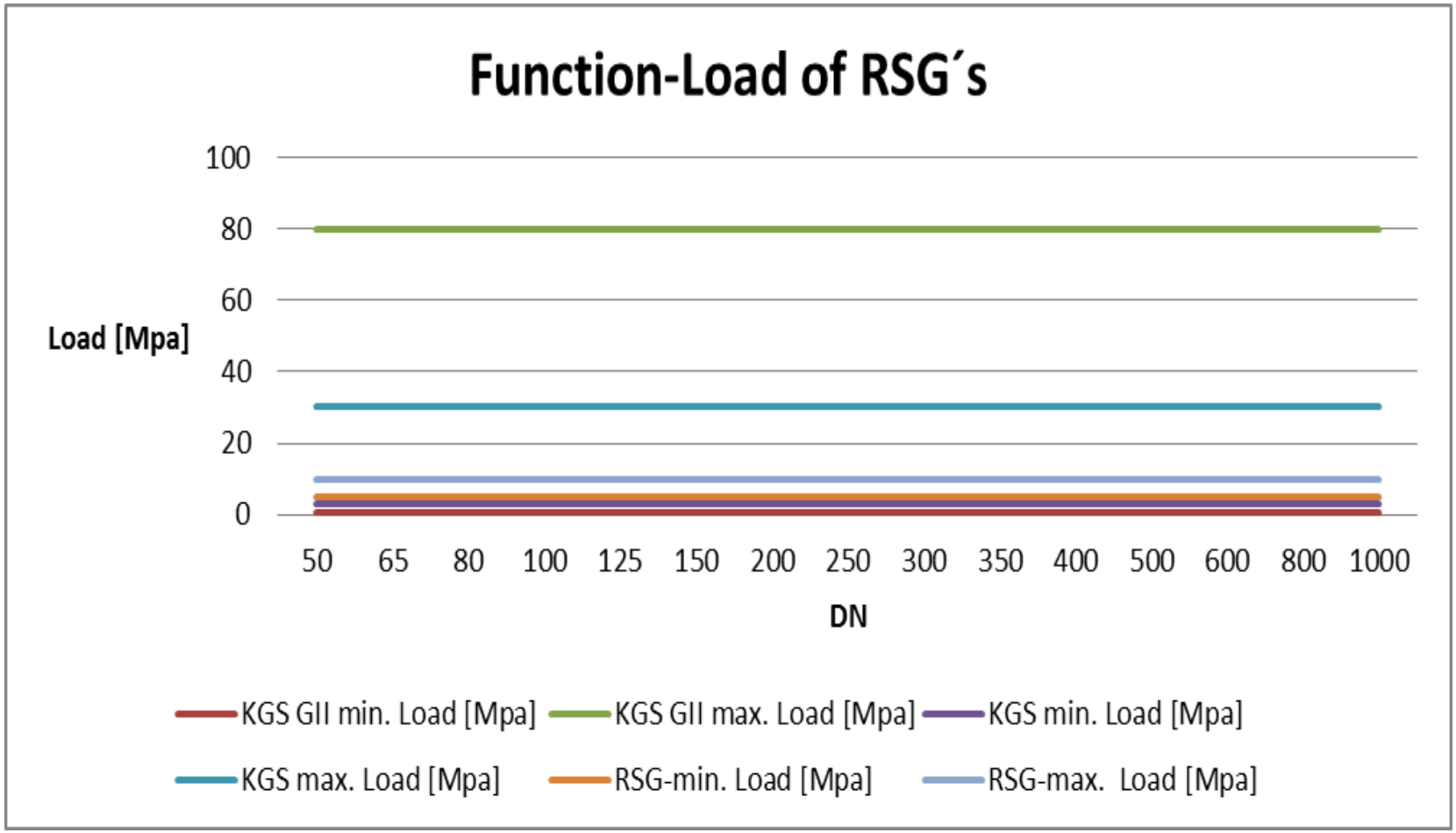
Rubber-Steel-Gaskets – the new generation II

KLINGER Germany

Function-Load of Gaskets from min stress to seal to max. stress to seal



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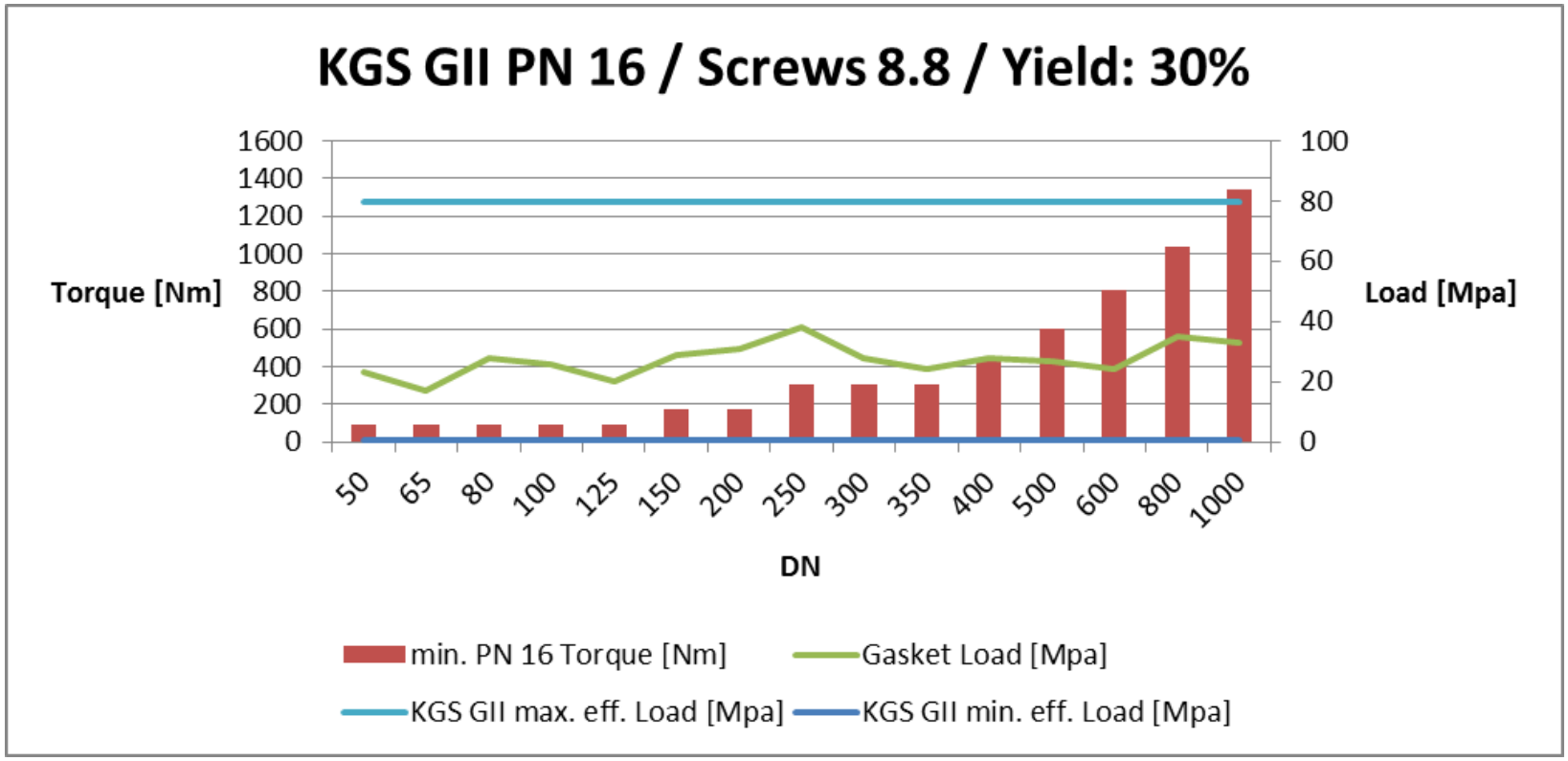
Rubber-Steel-Gaskets – the new generation II



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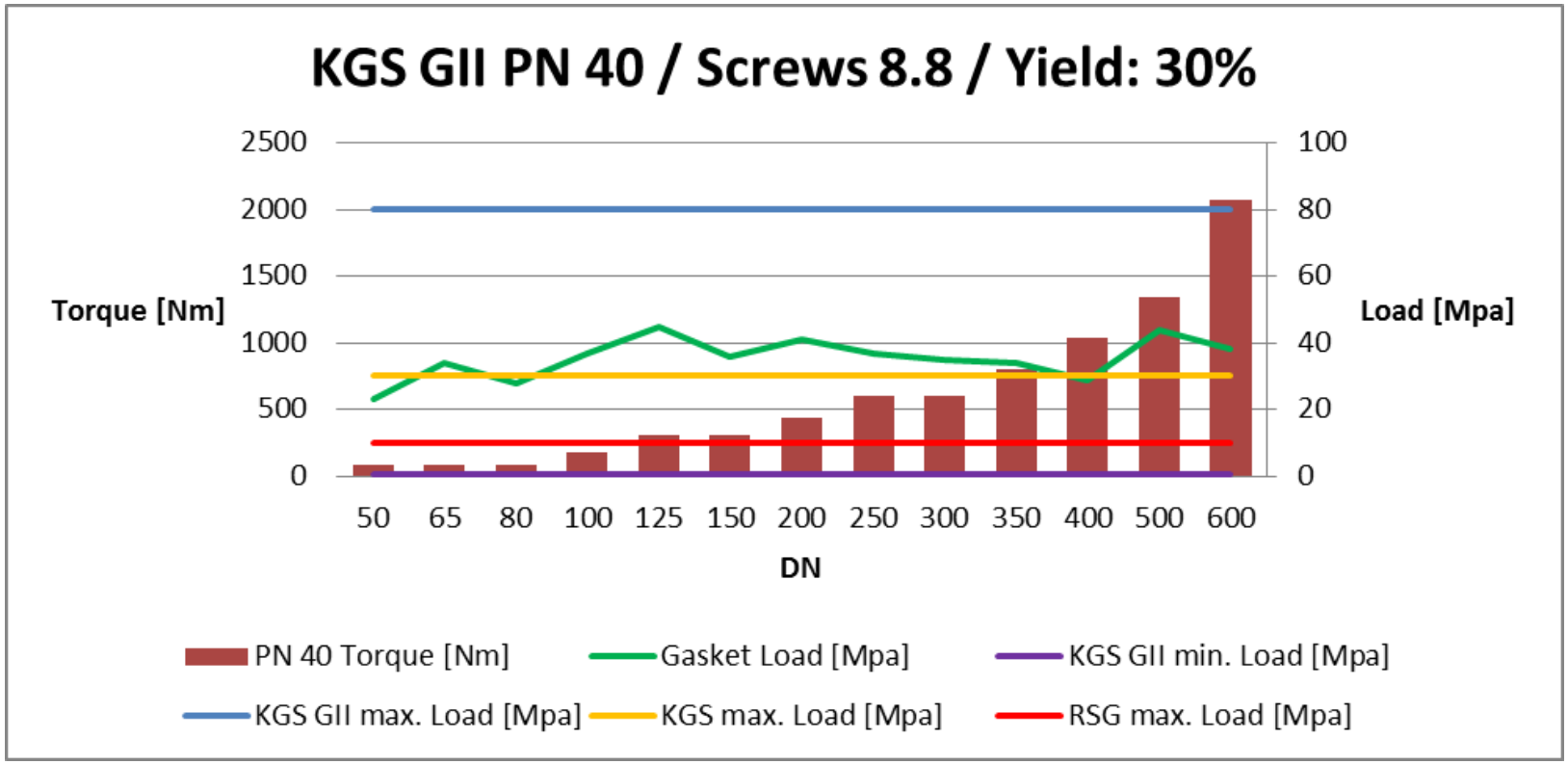
Rubber-Steel-Gaskets – the new generation II



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Rubber-Steel-Gaskets – the new generation II

KLINGER Germany

KLINGER® KGS GII– the advantages:

- Stable centering of the steel reinforcement in the sealing ring for a homogeneous force distribution and sealing effect in the flange connection
- High load-bearing capacity of the bond between steel ring and rubber
- Safe sealing possible even at the lowest surface pressures
- Very high static loads such as pipe and bolt forces can be absorbed
- No intrusion into the open pipe diameter (DN)

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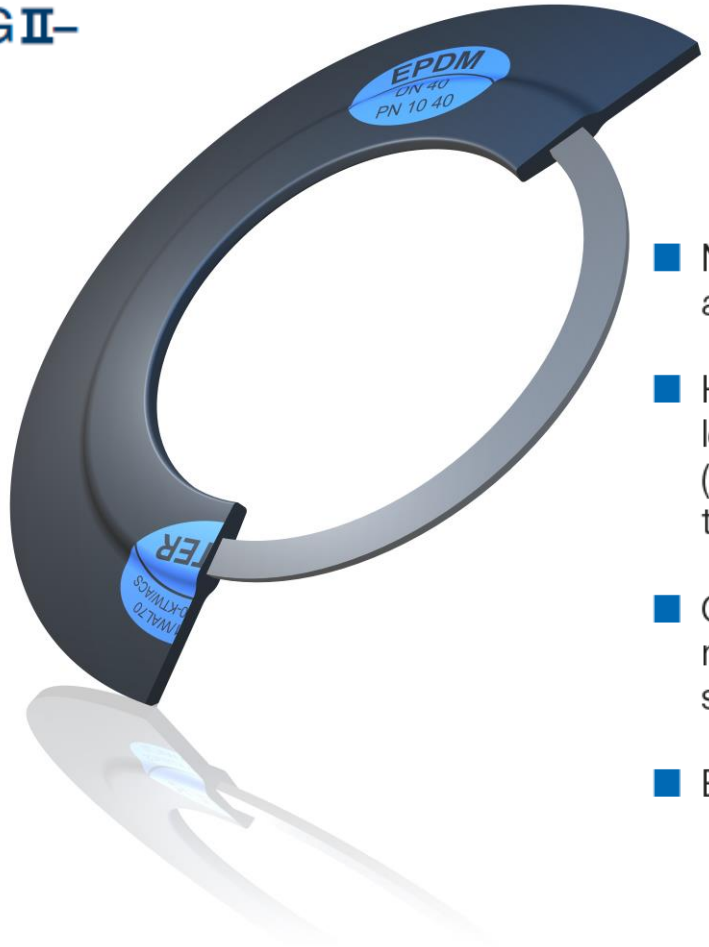
Rubber-Steel-Gaskets – the new generation II

KLINGER® KGS GII– the advantages:



- No extrusion into the centering area (IBC)
- Highly efficient material usage leads to lower weight (easier handling and lower transport costs)
- Compensation of defects and misalignments of the flange surface possible
- Europapatent No. 3492784

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KLINGER® KGS GII– the advantages:

→ ***Fully certified***
→ ***Service Gasket***
→ ***More safety in mounting***
→ ***TÜV approved***

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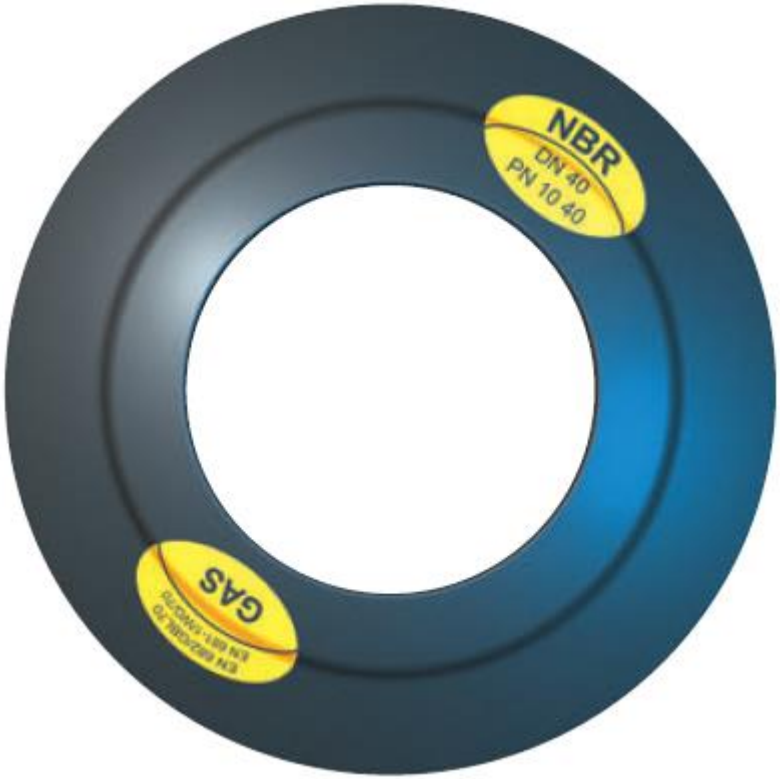

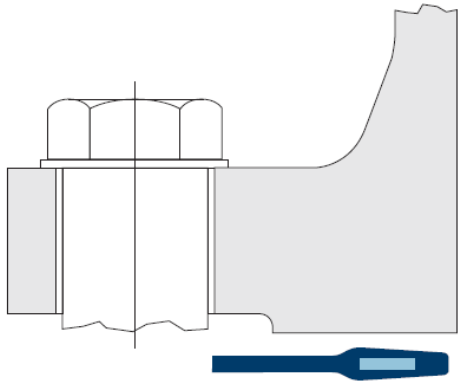

from -15°C to +100°C

Approvals and Certificates:

DVGW-Certificate according to
EN 682 GBL
EN 681-1 WG Class 70
EN 682 GBL Class 70
TA-Luft (Clean Air Act)

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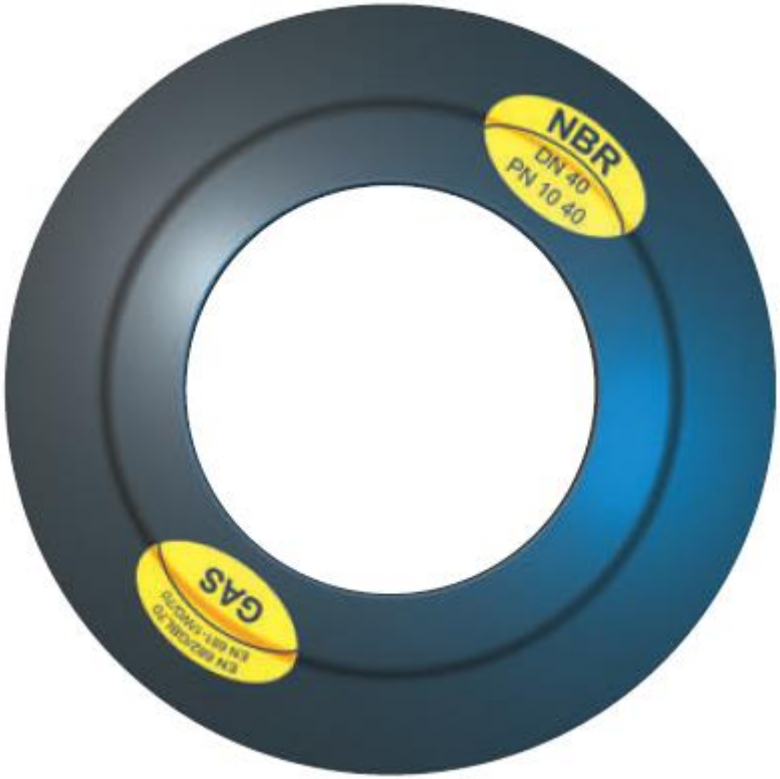

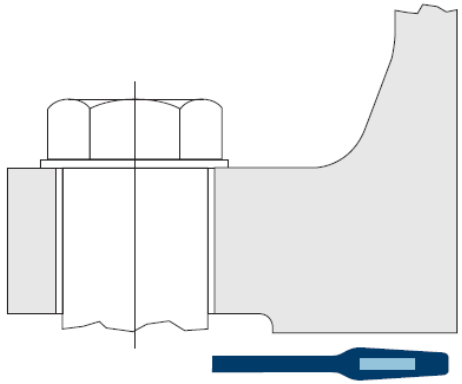

Approved and certified for Hydrogen!

TÜV SÜD Industrie Service GmbH
Institut für Kunststoffe

i. A. Schweizer

TÜV SÜD Industrie Service GmbH

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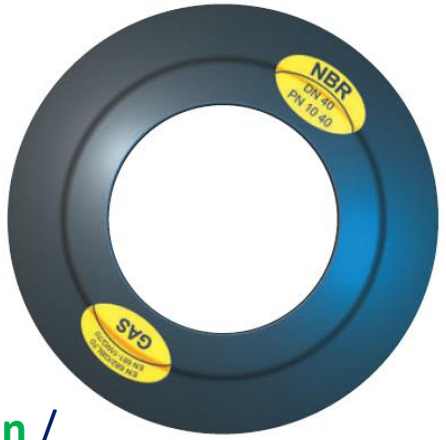
Rubber-Steel-Gaskets – the new generation II

KLINGER Germany

Markets / Applications:



Infrastructure Gas / Methane / Carbo-Hydrogens /
Mixtures of Hydrogen and Methane at any Concentration /
pure (100 %) Hydrogen

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Rubber-Steel-Gaskets – the new generation II

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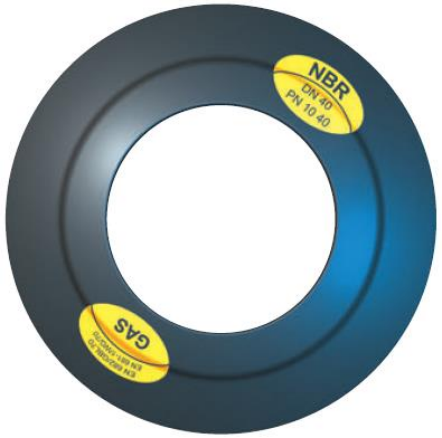
Markets / Applications:

Oilindustry and Petrochemistry



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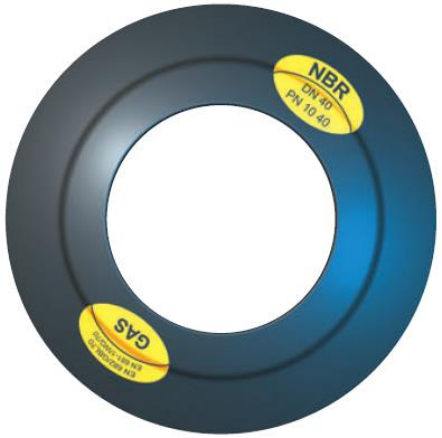
Rubber-Steel-Gaskets – the new generation II

Markets / Applications:

Waste Water Processes



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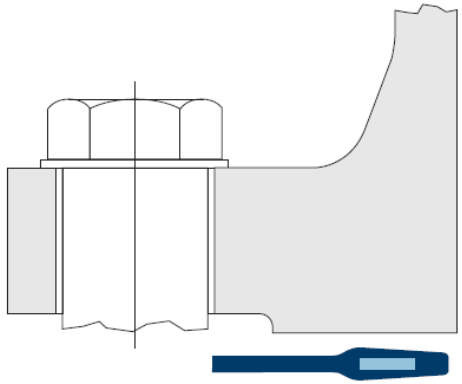
Rubber-Steel-Gaskets – the new generation II

from -40°C to +110°C,
short-term up to +130°C



Approvals and Certificates:

EN 681-1 WA
UBA ELASTOM
DVGW W270 microbiol. Growth
ACS, WRAS (BS6920-1 : 2000)
TA-Luft (Clean Air Act)

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Markets / Applications:

Drinking Water

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Markets / Applications:

Process Water / acidic or alkaline pH / dissolved Ozone

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Markets / Applications:

Cooling Water Processes

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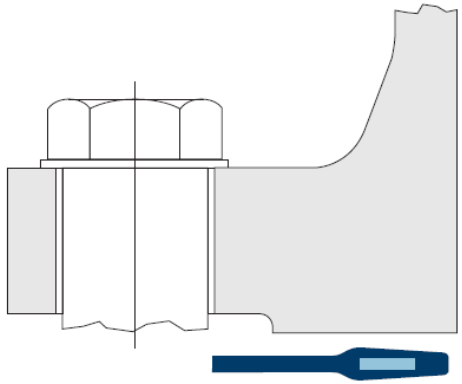

from -20°C to +200°C

Approvals and Certificates:

TA-Luft (Clean-Air-Act)

EN 10204 Certificates

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Markets / Applications:

Toxical Chemicals / Railway – tank wagon

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Markets / Applications:

Chemical Industry / aggressive Chemicals

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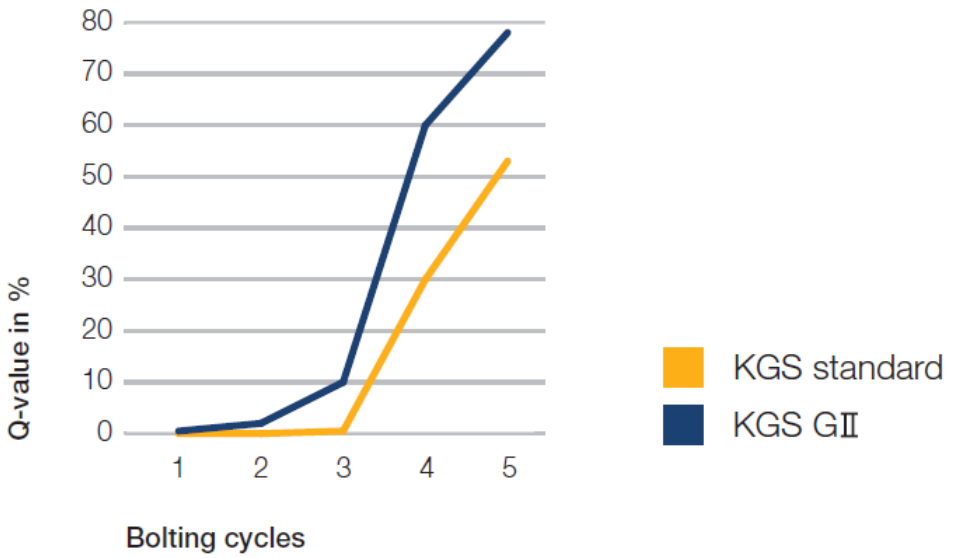
Rubber-Steel-Gaskets – the new generation II

Factor of mounting quality Q:

To evaluate the characteristics of the new development KGS GII regarding assembly, the behaviour of gasket assembly in comparison to the standard version KGS has been checked by using the test stand FM20 of the company GAIST.

To obtain a quick evaluation of the assembly quality with the test stand the Q-factor is used. It is the product of bolt force target divided by the effective bolt force, difference of the minimum and maximum forces of the individual bolts and the standard deviation to bolt force target.

Comparison Q-Factor:



>> **The quality gain after five bolting cycles can be clearly recognised in the diagram**

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KLINGER KGS GII

Rubber-Steel-Gaskets – the new generation II

Certified and approved to be BLOW-OUT-PROOF at a pressure of 100 bar Class „C“!

means highest classification and tightness at a gasket load of 4 Mpa only!

TÜV-QUALITY APPROVED

The German institute TÜV SÜD performed tests of the gasket in the size DN 40 PN 40 at a pressure up to 100 bar regarding the leakage, blow-out and ageing behaviour—the gasket passed with flying colours!

TÜV SÜD Industrie Service

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Rubber-Steel-Gaskets – the new generation II

KLINGER KGS GII

the answer for

→ ***INNOVATION***

→ ***HIGH GRADE ENGINEERING***

→ ***ENVIRONMENT SAFETY***

→ ***TOTAL REDUCING OF COSTS OF OWNERSHIP***

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the answer

COMMITTED

FOR

THE FUTURE!

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