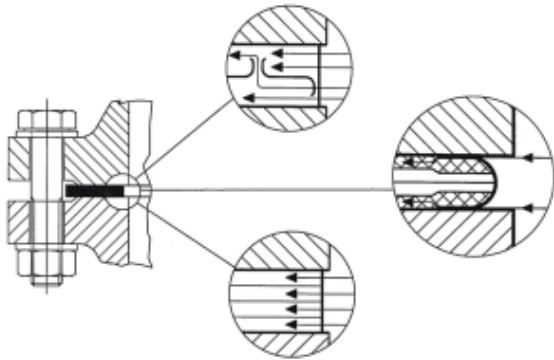


Improved product Characteristics by Optimised Flanging Technology

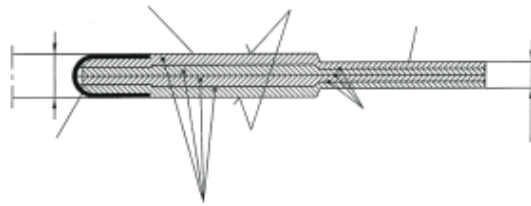


Advantages of eyelet seals

- Use at high working pressures and temperatures
- Meeting of high demands placed on the tightness by low cross-section diffusion
- Operational safety
- Highly pure products or media are not soiled
- Fire safe

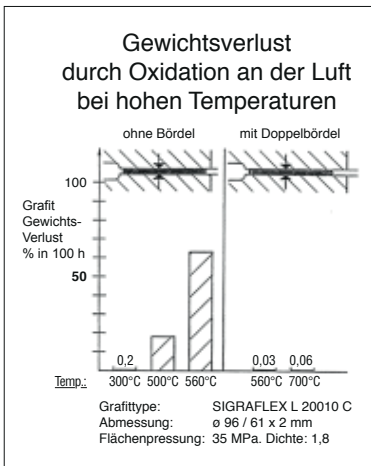


SIGRAFLEX-Hochdruck with inner eyelet and compressed centring recess IDT WS 3885-HB



Area of Use / Characteristics

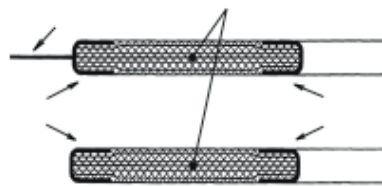
- max. continuous temperature: 450
- max. working pressure: 250 bar
- use in flange with level sealing strip
- high-quality seal within the meaning of the German "TA-Luft" (limits for emissions)



Dr. Hubert Hilbrand, Klinger AG
Haus der Technik, Dezember 1992

SIGRAFLEX-Hochdruck with double eyelets and centring ring for flanges with even sealing strip, IDT WS 3885-DB (Profile FD 33)

Sigraflex-Hochdruck with double eyelets for groove and tongue flanges, IDT WS 3885-DB (Profile FD 30)



Area of Use

- max. continuous temperature: 600 °C
- max. working pressure: 160 bar

Technical parameters for various seal designs



Releases / Test reports

- German "TA-Luft" (limits for emissions) certificate for FD 11
- Fire Safe Test according to British Standard 6755
- BAM reports concerning the test: (BAM = Federal Institute for Materials Testing, Berlin)
 - from **WS 3885** with regard to reactivity with oxygen (200 °C, 130 bar)
 - the chemical resistance of ethylene oxide and propylene oxide with the presence of **WS 3885**
- Suitable as sealing material for food manufacture (Baden Württemberg Land Trade Supervision Department, Chemical-Technical Testing Department)
- DVGW-Official registration decisions for gas supply and drinking water, No. 92.01e618 (3885) (DVGW = German Association of Gas and Water Men)
- TIA (TÜV) release: FD 30 also as steam boiler seal in accordance with TÜV-Datasheet Seal 100 or. TRD 401, Appendix 1

- In case of fire, the environment of the sealing connection remains tight for at least 30 min. (Fire Safe Test)
- Can be used with extremely high working pressure, full utilisation of the screwing forces recommended
- High compressibility and good adaptability across a wide temperature range, this also leading good sealing reactions in old plants.
- Good temperature change reaction, good transverse sliding resistance
- Very good handling during transport and assembly, insensitive to scratching
- Mechanically stable due to the reinforcing flange or high-sealing centring edge (HB)
- No special demands placed on the flanged seal areas, flange form C is sufficient
- High-quality reinforced seal within the meaning of the accident prevention regulations, high operational safety
- Especially used in pipelines and tanks in the chemical, petrochemical and thermal power stations together with heat transfer oil and heating systems
- No ageing or brittleness, not even at high temperatures

Characteristics

- Preferred by sealing requirements (TA-Luft), as high gas and liquid tightness
- Excellent temperature resistance, Constant temperature: - 200 °C – ca. 450 °C. At WS 3885-DB / FD 33 max. 600 °C
- Very good media resistance, especially against corrosive materials and chemicals (resistance table SIGRAFLEX upon request)
- Consistently low diffusion rates even at high temperatures

Design in accordance with IDT-Profile

WS 3885-HB, FD 11



For flanges with a even sealing strip

WS 3885-DB/ZR, FD 33



For flanges with a even sealing strip

WS 3885-DB, FD 30



For groove / tongue flange

Sealing materials	SIGRAFLEX Hochdruck , impregnated, with adhesive-free inserts of special steel foil 1.4401, standard thickness 2.0 mm	
eyelet materials	Standard: 1.4571 , special materials, e.g.: Hastelloy C 276 or C 4, nickel, Inconell 600, titanium, fine silver available, others upon request	
Design of the eyelet	Seamless up to DN 400, > DN 400 the eyelet is butt-welded, plate thickness: 0.15 mm	Seamless max. DN 300 interior, exterior max. DN 200, > DN 300 or 200 the eyelet is butt-welded, plate thickness: 0.15 mm
Max. consistent temperature	450 °C	600 °C
Max. working pressure	250 bar	160 bar
σ_{vu}	20 N/mm²	50 N/mm²
σ_{vo}	340 N/mm²	250 N/mm²
σ_{BO} at 300 °C	260 N/mm²	200 N/mm²

© IDE Scheibenberg

Werk Kupferring

Gewerbering 6, D-09456 Annaberg-Buchholz
Postfach 10 01 52, D-09441 Annaberg-Buchholz
Tel.: (03733) 505-0, Fax: (03733) 505101
E-Mail: annaberg@idt-dichtungen.de
Internet: www.idt-dichtungen.de

Werk Essen

Adlerstraße 18, D-45307 Essen
Postfach 13 02 70, D- 45292 Essen
Tel.: (0201) 85511-0, Fax: (0201) 8553555
E-Mail: essen@idt-dichtungen.de
Internet: www.idt-dichtungen.de

Werk Kirchheim

Liebigstraße 5, D-85551 Kirchheim
Postfach 13 29, D-85543 Kirchheim
Tel.: (089) 991883-0, Fax: (089) 9043967
E-Mail: kirchheim@idt-dichtungen.de
Internet: www.idt-dichtungen.de