KAMMPROFILE GASKETS

TBJ SEALING TECHNOLOGIES

TBJ-UTEX INDUSTRIES

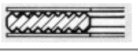
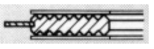
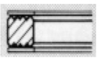
"High integrity seals for most demanding environments"

Characteristics

- Solid core with machined grooves and soft material facing (graphite, PTFE, others)
- Pass partition bars with the same profile.
- SS304L, SS316L, SS321 and other materials available.
- **Low seating stress, excellent tightness** and **extraordinary stability**
- **Ability to cope with fluctuating temperatures and pressures: heat exchanger's services**

Kammprofile Gaskets, or Grooved Gaskets are suitable for the most difficult applications such as superheated steam, high pressure hydrocarbon or chemical service. These gaskets can be find from conventional Electric Power Plants as well as in the Nuclear Power Plants, chemical and petrochemical industries.

Gasket Profiles and limiting values

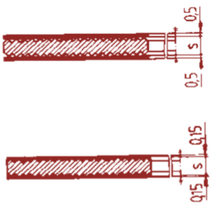
Profile	Cross-section	Materials/ Coating	K_O [N/mm]	K_1 [mm]	R_z * (µm)
TA 1		**Graphite** **PTFE** **A.F.** **A1** **Silver**	15 b_D	1,0 b_D	25 to 50
TA 2					
TA 3			15 b_D	1,0 b_D	50 to 100
TA 4					
TA 5			50 b_D	1,0 b_D	25 to 50
TA 6			70 b_D	1,0 b_D	12,5 to 25
TA 7					
TA 8			100 b_D	1,0 b_D	12,5 to 25

* Recommended surface roughness of flange sealing surfaces

bsi. ISO 9001 Quality Management
Certificate Number: FM 646287
ISO 9001:2008

STANDARDS MALAYSIA ACCREDITED LABORATORY
MS ISO/IEC 17021: 2011
QS26122016 CB 16

Characteristics and Details



In order to avoid damage to the flanges with the metal core of grooved gaskets, they are generally used with layers of graphite, PTFE, aluminium or silver, providing total protection to the flanges and a secure seal even at low minimum surface pressures.

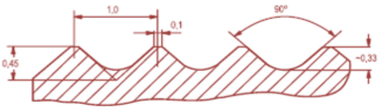
A triaxial stress is created in the profiling of the metallic carrier which has been filled with the layer material. The stability of this combination is therefore significantly higher than with a pure PTFE, graphite, or aluminium seal.

Grooved gaskets can be manufactured in wide range of sizes: from a few millimeters to a diameter of 3,600 mm. For gaskets in heat exchangers with pass partition bars, it is necessary to insert partitions with grooves of the same profile.

Kammprofile gaskets with standard profiling

In the standard profile, the peaks of the groove are on one level and the troughs are parallel to them. This profiling is designed in accordance with DIN EN 1514-6. The layer thickness should be 0.5 mm and for PTFE 0.35 mm.

This profiling should be used with gaskets for flange connections with male or female faces or tongue and groove flanges.



Surface Pressure

In order to avoid collapse, the sealing surface pressure must be between σ_{min} and σ_{max}:

Profile	Materials	Surface Pressure (N/mm2)			
		T = 20ºC		T = 300ºC	
		σ_{min}	σ_{max}	σ_{min}	σ_{max}
B7A, B9A B15A E7A	Carbon Steel/Graphite Carbon Steel/PTFE	15	350	30 (1)	210 (1)
	1.4541/Graphite 1.4541/PTFE	15	500	30 (1)	420 (1)
	1.4541/Aluminium	80	500	95	420
	1.4541/silver	125	500	140	420
B27A B29A B25A E27A	Carbon Steel/Graphite Carbon Steel/PTFE	15	350	20 (1)	210 (1)
	1.4541/Graphite 1.4541/PTFE	15	500	20 (1)	420 (1)
	1.4541/Aluminium	70	500	80	420
	1.4541/silver	100	500	110	420