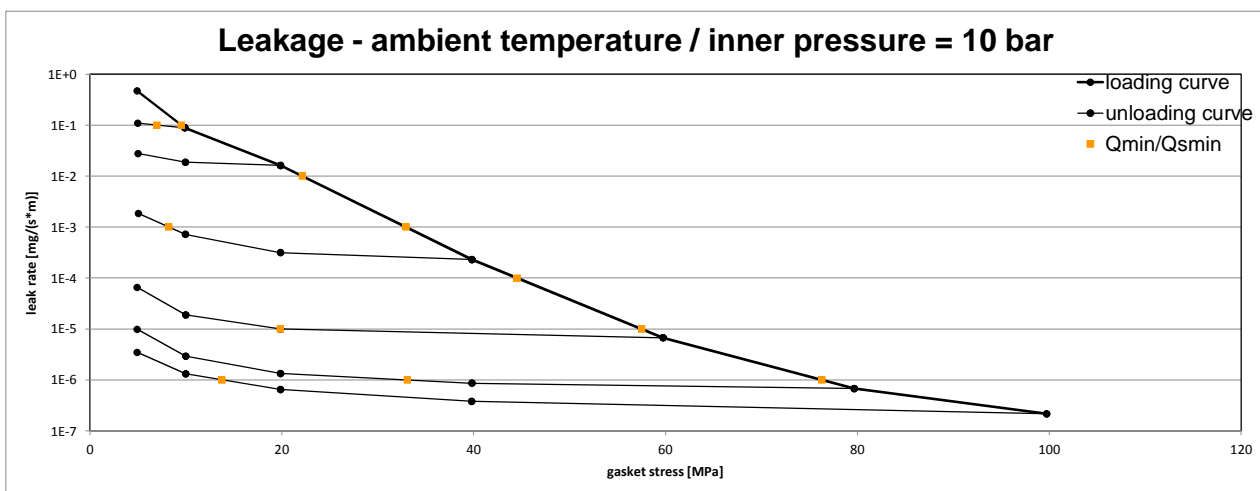
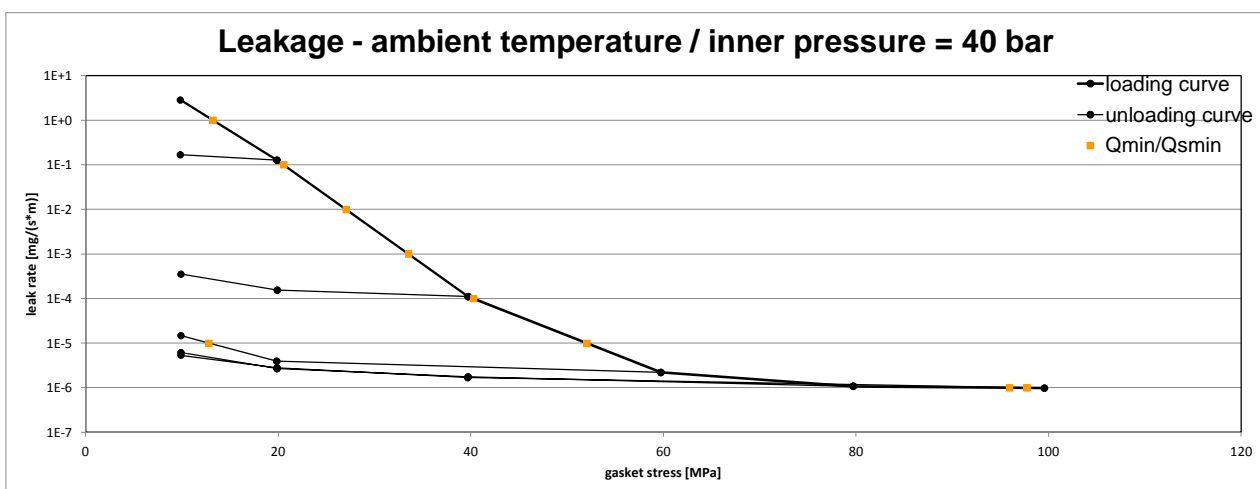


Company Address	KLINGER® GmbH & Co. KG, Richard-Klinger-Straße 37, 65510 Idstein, Germany
Gasket Type	KLINGER® Quantum
Sealing element dimensions [mm]	92 x 49 x 2

L [mg/(s*m)]	Q _{min/L} [MPa]	Minimum stress to seal Q _{min/L} (at assembly), Q _{Smin/L} (after off-loading) for p = 10 bar						Q _{Smin/L} [MPa]					
		Q _A = 10 MPa	Q _A = 20 MPa	Q _A = 40 MPa	Q _A = 60 MPa	Q _A = 80 MPa	Q _A = 100 MPa						
		10 ⁰	5	5	5	5	5	5	5				
10 ⁻¹	10	7	5	5	5	5	5						
10 ⁻²	22			5	5	5	5						
10 ⁻³	33			8	5	5	5						
10 ⁻⁴	45				5	5	5						
10 ⁻⁵	57				20	5	5						
10 ⁻⁶	76					33	14						
10 ⁻⁷													
10 ⁻⁸													



L [mg/(s*m)]	Q _{min/L} [MPa]	Minimum stress to seal Q _{min/L} (at assembly), Q _{Smin/L} (after off-loading) for p = 40 bar					Q _{Smin/L} [MPa]					
		Q _A = 20 MPa	Q _A = 40 MPa	Q _A = 60 MPa	Q _A = 80 MPa	Q _A = 100 MPa						
		10 ⁰	13	10	10	10	10	10				
10 ⁻¹	21		10	10	10	10						
10 ⁻²	27		10	10	10	10						
10 ⁻³	34		10	10	10	10						
10 ⁻⁴	40			10	10	10						
10 ⁻⁵	52			13	10	10						
10 ⁻⁶	96					98						
10 ⁻⁷												
10 ⁻⁸												



Note: the content of darkened cells was not determined respectively is unnecessary Rev - No: 1 Creation date of this sheet: 03.07.2012



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Gasket Type	KLINGER® Quantum
Sealing element dimensions [mm]	92 x 49 x 2

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm					
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [200 °C]	temperature 3 [300 °C]	
Stress level 1 [40 MPa]	0,93	0,83	0,82	0,72	
Stress level 2 [60 MPa]	0,94	0,89	0,84	0,72	
PQR at Q_{Smax}	0,98 at 230 MPa	0,76 at 140 MPa	0,76 at 100 MPa	0,67 at 80 MPa	

Maximal applicable gasket stress Q_{Smax}				
Q_{Smax} [MPa] ambient temperature	Q_{Smax} [MPa] – temperature 1 [100 °C]	Q_{Smax} [MPa] – temperature 2 [200 °C]	Q_{Smax} [MPa] – temperature 3 [300 °C]	
230	140	100	80	

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]									
Gasket stress [MPa]	ambient temperature		temperature 1 [100 °C]		temperature 2 [200 °C]		temperature 3 [300 °C]		
	E_G [MPa]	e_G [mm]	E_G [MPa]	e_G [mm]	E_G [MPa]	e_G [mm]	E_G [MPa]	e_G [mm]	
0									
1		1,94		1,97		1,93		1,94	
20	2972	1,80	2118	1,77	4236	1,71	2850	1,73	
30	3106	1,76	2558	1,74	4998	1,70	2732	1,72	
40	3794	1,74	4781	1,72	4558	1,69	2418	1,71	
50	5590	1,71	4649	1,71	6924	1,68	3161	1,70	
60	6664	1,69	7069	1,70	5951	1,67	4983	1,68	
80	7442	1,67	7365	1,66	5154	1,64	4549	1,61	
100	9619	1,65	9164	1,58	6298	1,55			
120	9775	1,63	10067	1,47					
140	9550	1,62	8049	1,35					
160	10861	1,61							
180	14055	1,60							
200	15574	1,59							
220	15264	1,58							
230	13557	1,58							

