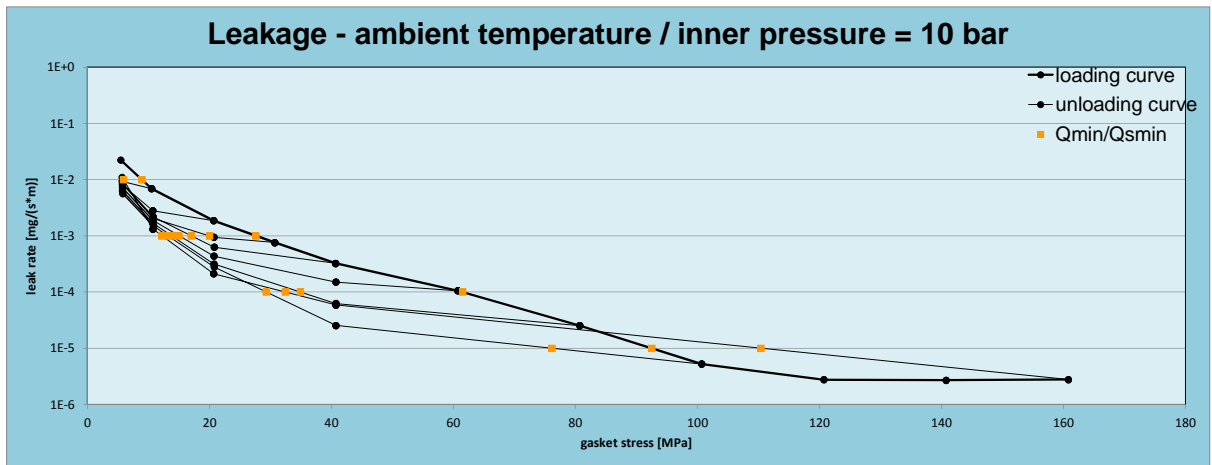
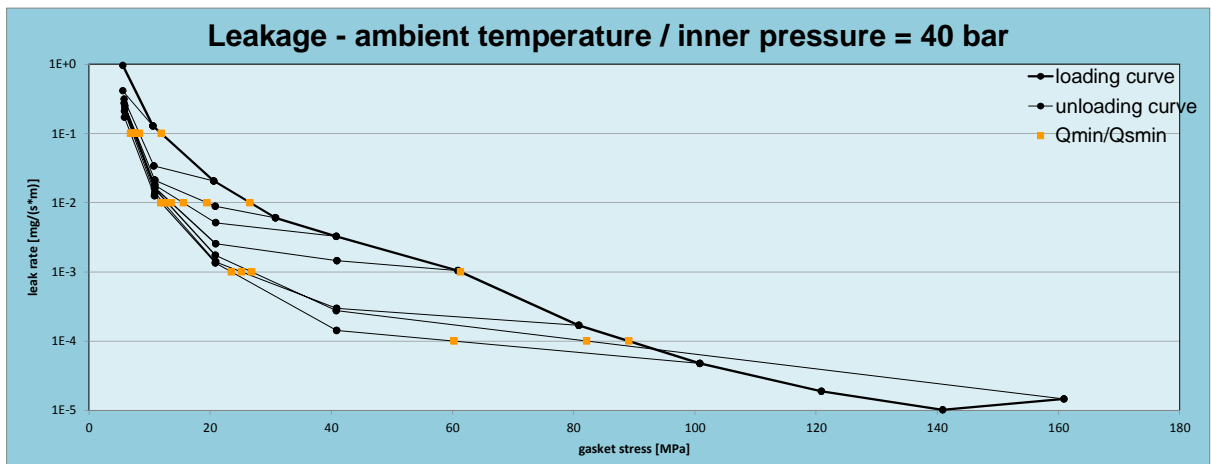


Company Address	IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerbering 6, 09456 Annaberg-Buchholz, Germany	According to DIN EN 13555 2014-07
Gasket Type	IDT – Spiraldichtung ; WS 1.4301/Graphit/St37 beschichtet; IDT-Profil SD10; LE	
Sealing element dimensions [mm]	50x56x68x92	

		Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for p = 10 bar									
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [MPa]									
		$Q_A=10$ MPa	$Q_A=20$ MPa	$Q_A=30$ MPa	$Q_A=40$ MPa	$Q_A=60$ MPa	$Q_A=80$ MPa	$Q_A=100$ MPa	$Q_A=120$ MPa	$Q_A=140$ MPa	$Q_A=160$ MPa
10^{-0}	5	5	5	5	5	5	5	5	5		5
10^{-1}	5	5	5	5	5	5	5	5			5
10^{-2}	9	5	5	5	5	5	5	5			6
10^{-3}	28			20	17	15	14	13			12
10^{-4}	62						35	29			32
10^{-5}	93							76			110
10^{-6}											
10^{-7}											
10^{-8}											

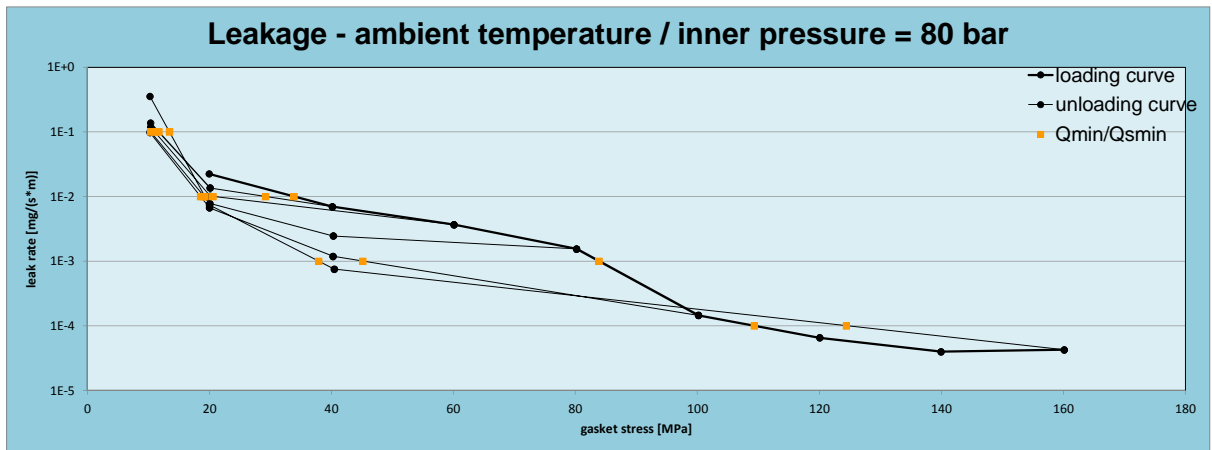


		Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for p = 40 bar									
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [MPa]									
		$Q_A=10$ MPa	$Q_A=20$ MPa	$Q_A=30$ MPa	$Q_A=40$ MPa	$Q_A=60$ MPa	$Q_A=80$ MPa	$Q_A=100$ MPa	$Q_A=120$ MPa	$Q_A=140$ MPa	$Q_A=160$ MPa
10^{-0}	5		5	5	5	5	5	5			5
10^{-1}	12		8	8	8	7	7	7			8
10^{-2}	27			19	16	14	12	12			13
10^{-3}	61						25	23			27
10^{-4}	89							60			82
10^{-5}											
10^{-6}											
10^{-7}											
10^{-8}											



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Gasket Type	IDT – Spiraldichtung ; WS 1.4301/Graphit/St37 beschichtet; IDT-Profil SD10; LE	
Sealing element dimensions [mm]	50x56x68x92	

		Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for p = 80 bar							
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [MPa]							
		$Q_A=40$ MPa	$Q_A=60$ MPa	$Q_A=80$ MPa	$Q_A=100$ MPa	$Q_A=120$ MPa	$Q_A=140$ MPa	$Q_A=160$ MPa	
10^{-0}	20	10	10	10	10			10	
10^{-1}	20	12	11	10	20			13	
10^{-2}	34	29	21	19	19			19	
10^{-3}	84				45			38	
10^{-4}	109							124	
10^{-5}									
10^{-6}									
10^{-7}									
10^{-8}									



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Gasket Type	IDT – Spiraldichtung ; WS 1.4301/Graphit/St37 beschichtet; IDT-Profil SD10; LE	
Sealing element dimensions [mm]	50x56x68x92	

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm										
Gasket stress	ambient temperature		temperature 1 [150 °C]		temperature 2 [300 °C]		temperature 3 [400 °C]		P_{QR}	Δe_{Gc} [mm]
	P_{QR}	Δe_{Gc} [mm]	P_{QR}	Δe_{Gc} [mm]	P_{QR}	Δe_{Gc} [mm]	P_{QR}	Δe_{Gc} [mm]		
Stress level 1 [50 MPa]	0.98	0.003	0.91	0.011	0.85	0.018	0.72	0.033		
Stress level 2 [130 MPa]	0.97	0.009	0.89	0.033	0.82	0.056	0.78	0.068		
Stress level 3 [200 MPa]	0.98	0.009	0.93	0.033	0.89	0.051	0.90	0.047		
P_{QR} and Δe_{Gc} at maximal applicable gasket stress Q_{Smax}										
P_{QR} at Q_{Smax}	1.00	0.003	0.98	0.013	0.98	0.013	0.88	0.079		
Q_{Smax}	280 MPa		280 MPa		280 MPa		280 MPa			

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]										
Gasket stress [MPa]	ambient temperature		temperature 1 [150 °C]		temperature 2 [300 °C]		temperature 3 [400 °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]	E_G [MPa]	e_G [mm]		
0		5.200		5.200		5.200		5.200		
1		5.185		5.131		5.140		5.185		
20	1737	4.822	1778	4.774	1725	4.747	2766	4.737		
30	2733	4.662	3679	4.638	5743	4.644	4461	4.633		
40	4966	4.578	3755	4.542	5859	4.573	8507	4.559		
50	5278	4.509	5391	4.464	8419	4.512	8828	4.499		
60	7032	4.454	6379	4.381	8609	4.453	10054	4.437		
80	8644	4.343	8460	4.223	11355	4.339	14800	4.308		
100	7987	4.229	10002	4.102	15646	4.234	17420	4.197		
120	8085	4.082	8926	3.812	22612	4.127	24038	4.067		
140	8888	3.850	8065	3.621	20801	3.978	20122	3.865		
160	8428	3.629	11575	3.541	29200	3.804	16987	3.671		
180	8731	3.497	14194	3.456	23264	3.653	20323	3.566		
200	10186	3.391	18062	3.389	24739	3.553	21053	3.500		
220	13232	3.303	19254	3.324	27062	3.468	23516	3.453		
240	13302	3.229	25097	3.279	35171	3.431	46284	3.417		
260	19605	3.174	25184	3.237	40594	3.400	38321	3.382		
280	24562	3.123	30256	3.198	40993	3.367	76682	3.345		
300										
320										
340										
360										
380										
400										
420										
440										
460										
480										
500										
940										

