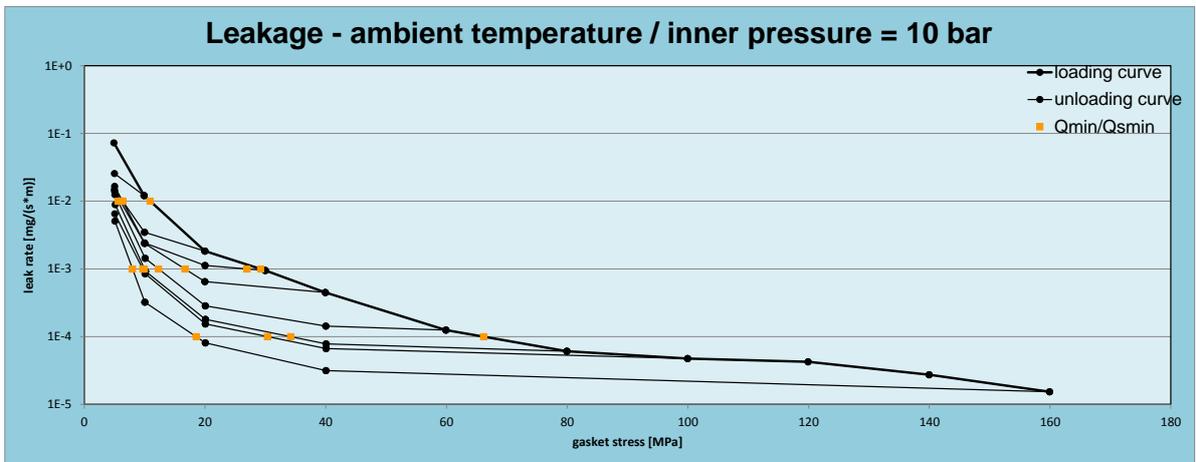
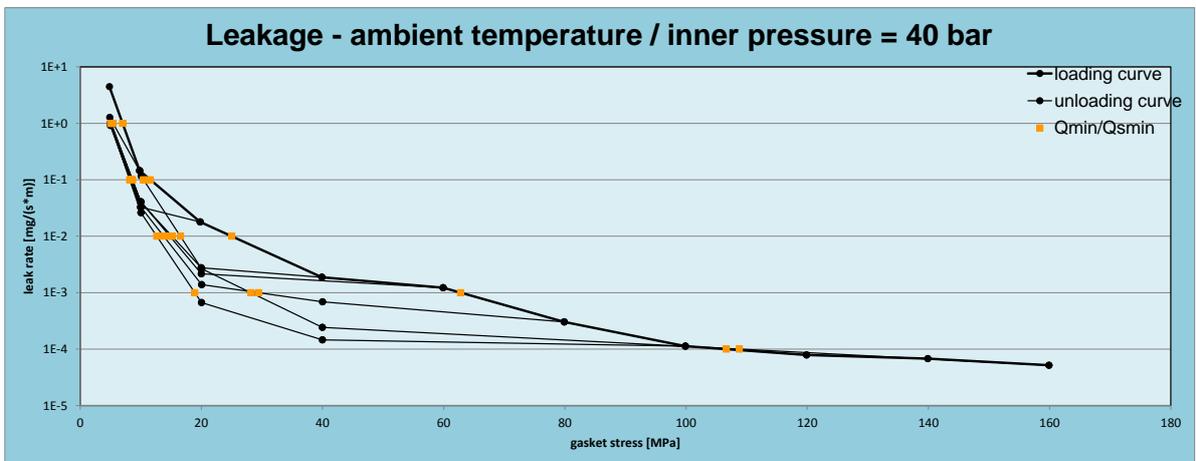


Company Address	IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerbering 6, 09456 Annaberg-Buchholz, Germany	According to DIN EN 13555 2014-07
Gasket Type	IDT-Spiraldichtung mit Grafit-Füllstoff, Außenring aus St 37 WS 1.4404/Grafit/St37; IDT-Profil SD10; LE	
Sealing element dimensions [mm]	50x56x68x92x4.5	

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
10^{-1}	5		5	5	5	5	5	5			5
10^{-2}	11		6	6	6	6	5	5			5
10^{-3}	29			27	17	12	10	10			8
10^{-4}	66						34	30			19
10^{-5}											
10^{-6}											
10^{-7}											
10^{-8}											

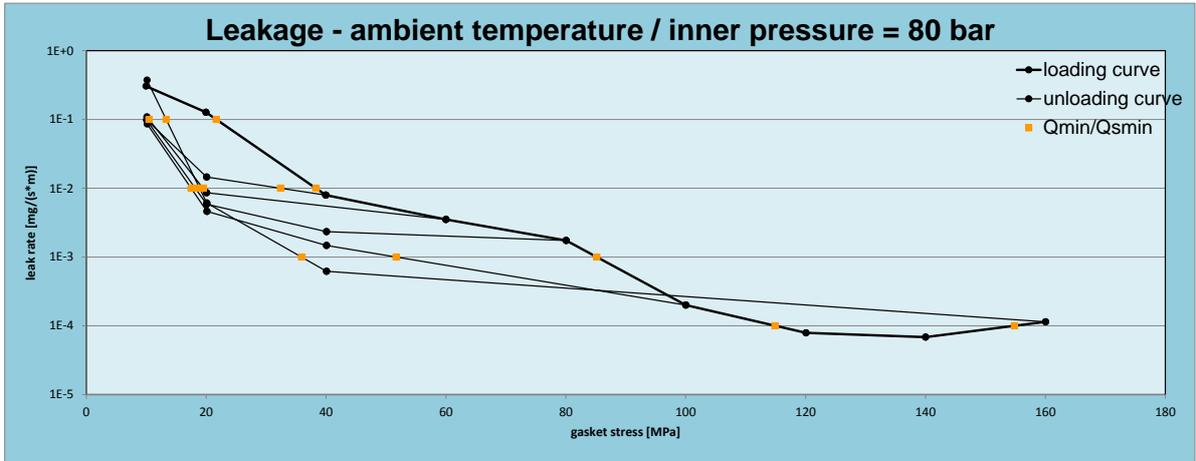


Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for $p = 40$ bar											
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [MPa]									
		$Q_A=10$ MPa	$Q_A=20$ MPa	$Q_A=40$ MPa	$Q_A=60$ MPa	$Q_A=80$ MPa	$Q_A=100$ MPa	$Q_A=120$ MPa	$Q_A=140$ MPa	$Q_A=160$ MPa	
10^0	7	5	5	5	5	5	5			5	
10^{-1}	12		8	9	9	8	8			10	
10^{-2}	25			15	15	14	13			17	
10^{-3}	63					29	19			28	
10^{-4}	107									109	
10^{-5}											
10^{-6}											
10^{-7}											
10^{-8}											

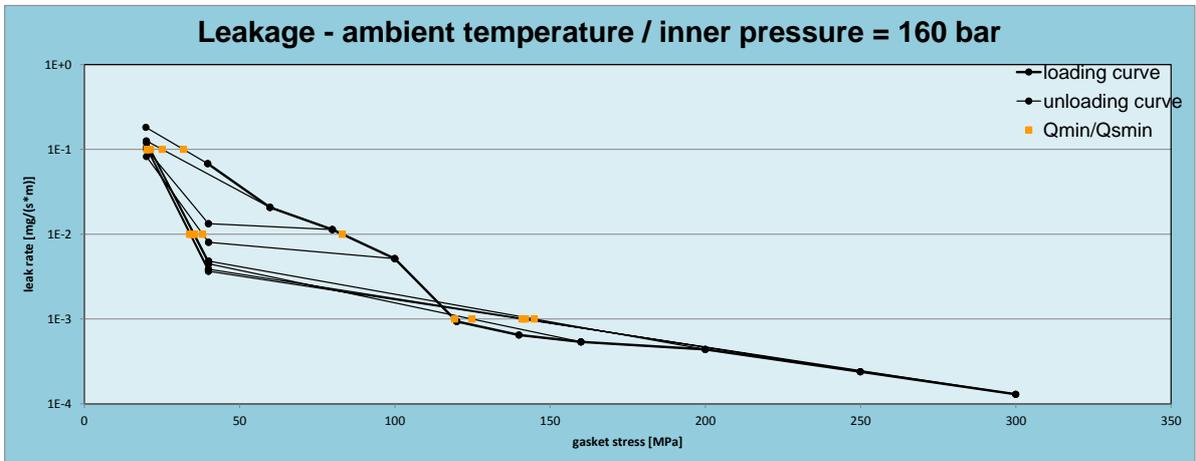


Company Address	IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerbering 6, 09456 Annaberg-Buchholz, Germany	According to DIN EN 13555 2014-07
Gasket Type	IDT-Spiraldichtung mit Grafit-Füllstoff, Außenring aus St 37 WS 1.4404/Grafit/St37; IDT-Profil SD10; LE	
Sealing element dimensions [mm]	50x56x68x92x4.5	

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]									
		$Q_A = 20$ 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	10		10	10	10	10			10		
10^{-1}	22		10	10	10	10			13		
10^{-2}	38		32	19	18	17			19		
10^{-3}	85					52			36		
10^{-4}	115										
10^{-5}											
10^{-6}											
10^{-7}											
10^{-8}											



Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for $p = 160$ bar											
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [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	$Q_A = 200$ MPa	$Q_A = 250$ MPa	$Q_A = 300$ MPa	
10^0	20	40	40	40			40	40	40	40	
10^{-1}	32	25	20	40			21	21	20	20	
10^{-2}	83			38			35	36	34	34	
10^{-3}	119						125	145	142	141	
10^{-4}											
10^{-5}											
10^{-6}											
10^{-7}											
10^{-8}											

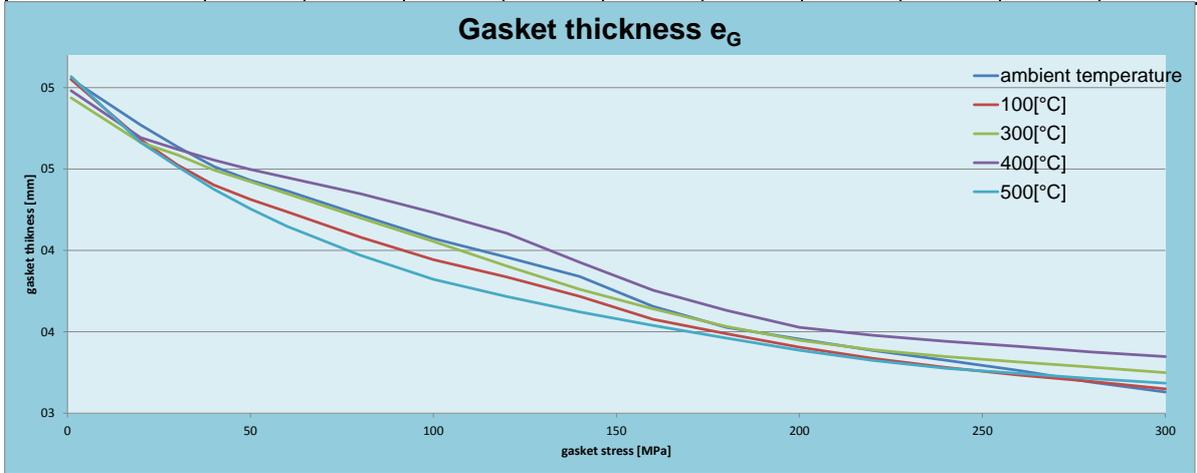


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Company Address	IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerbering 6, 09456 Annaberg-Buchholz, Germany	According to DIN EN 13555 2014-07
Gasket Type	IDT-Spiraldichtung mit Grafit-Füllstoff, Außenring aus St 37 WS 1.4404/Grafit/St37; IDT-Profil SD10; LE	
Sealing element dimensions [mm]	50x56x68x92x4.5	

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm										
Gasket stress	ambient temperature		temperature 1 [100 °C]		temperature 2 [300 °C]		temperature 3 [400 °C]		temperature 4 [500 °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 [30 MPa]	0,97	0,002	0,89	0,008	0,75	0,018	0,80	0,014	0,81	0,013
Stress level 2 [50 MPa]	0,99	0,002	0,79	0,025	0,68	0,037	0,82	0,022	0,85	0,018
Stress level 3 [130 MPa]	0,98	0,008	0,88	0,036	0,85	0,047	0,74	0,081	0,83	0,052
Stress level 4 [200 MPa]	0,99	0,005	0,92	0,037	0,90	0,049	0,86	0,065	0,88	0,058
P_{QR} and Δe_{Gc} at maximal applicable gasket stress Q_{Smax}										
P_{QR} at Q_{Smax}	0,99	0,007	0,95	0,039	0,92	0,056	0,91	0,067	0,91	0,067
Q_{Smax}	300 MPa		300 MPa		300 MPa		300 MPa		300 MPa	

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 [300 °C]		temperature 3 [400 °C]		temperature 4 [500 °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		5,190		5,180		5,095		5,110		5,170
1		5,152		5,150		5,037		5,081		5,168
20	1826	4,870	1983	4,780	2473	4,764	1917	4,793	4739	4,764
30	2412	4,737	2529	4,626	3008	4,687	2897	4,721	3599	4,616
40	2856	4,615	4322	4,501	3874	4,593	4261	4,655	4739	4,476
50	5007	4,530	5066	4,413	4533	4,522	5021	4,597	6551	4,355
60	5984	4,466	6526	4,337	5592	4,449	6578	4,547	7996	4,248
80	6574	4,318	7840	4,181	6788	4,300	8425	4,448	11609	4,070
100	8034	4,174	10240	4,043	10011	4,155	11434	4,333	16299	3,923
120	11004	4,059	14141	3,937	10747	4,005	12562	4,206	19061	3,817
140	10604	3,940	13106	3,817	10260	3,861	14678	4,027	23546	3,722
160	10248	3,756	14327	3,677	10951	3,741	16049	3,856	23240	3,640
180	12451	3,627	18405	3,589	13158	3,633	16359	3,732	29904	3,562
200	15404	3,555	17375	3,506	14291	3,548	19108	3,628	29801	3,486
220	18762	3,486	24952	3,438	15729	3,490	19721	3,578	32097	3,424
240	23252	3,425	26049	3,381	20014	3,448	23814	3,541	30221	3,376
260	21916	3,362	30494	3,335	19193	3,415	26938	3,510	34140	3,344
280	27792	3,290	42467	3,295	20773	3,383	22033	3,476	34158	3,313
300	31174	3,230	34601	3,250	20285	3,349	25097	3,448	41167	3,285
320										
340										
360										
380										
400										
420										
440										
460										
480										
500										
940										



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