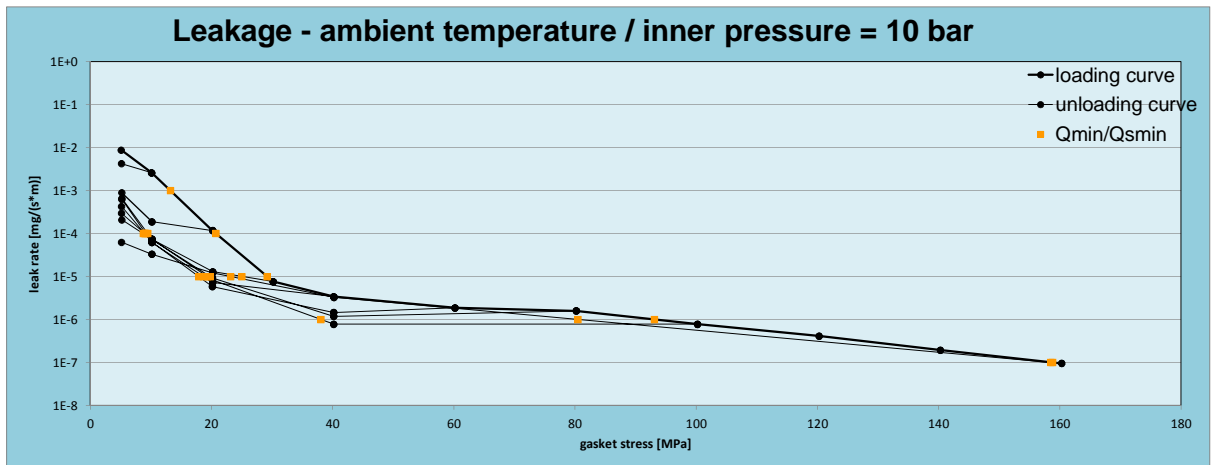
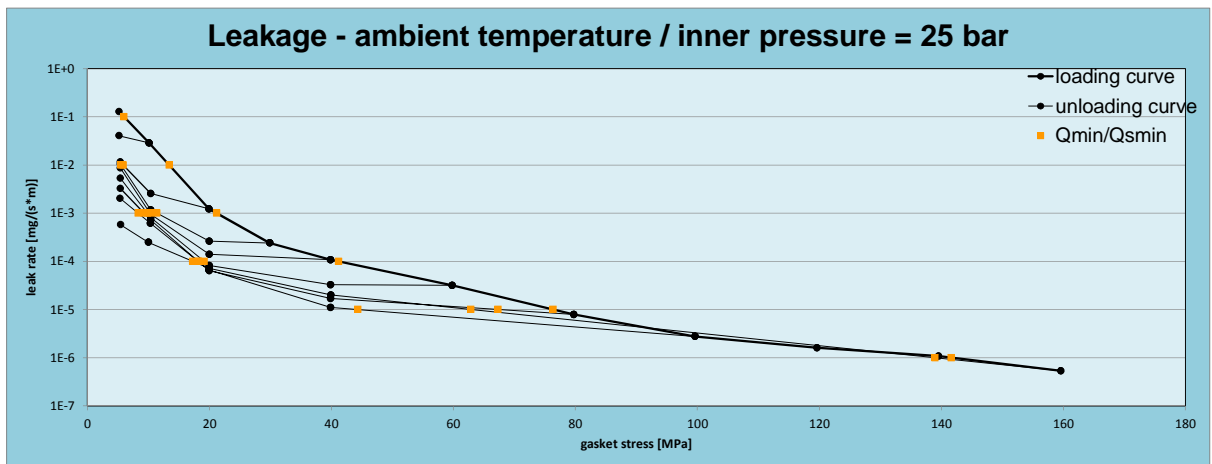


Company Address	IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerbering 6, 09456 Annaberg-Buchholz, Germany	According to DIN EN 13555 2014-07
Gasket Type	IDT – Wellringdichtung mit Graphitauflage; WS 1.4571/3803; IDT-Profil WD10; LE	
Sealing element dimensions [mm]	92x49x3.1	

		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}	5	5	5	5	5	5	5	5			5
10^{-3}	13		5	5	5	5	5	5			5
10^{-4}	21			9	9	9	9	9			5
10^{-5}	29			25	19	18	20	19			23
10^{-6}	93							38			80
10^{-7}	159										159
10^{-8}											

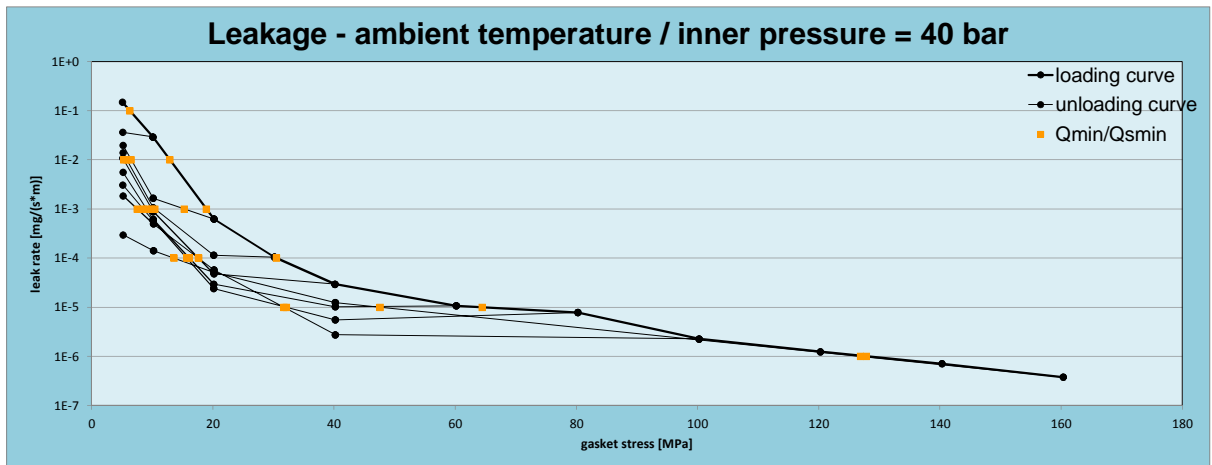


		Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for p = 25 bar									
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [MPa]									
		$Q_A=10$ MPa	$Q_A=20$ MPa	$Q_A=30$ MPa	$Q_A=40$ MPa	$Q_A=60$ MPa	$Q_A=80$ MPa	$Q_A=100$ MPa	$Q_A=120$ MPa	$Q_A=140$ MPa	$Q_A=160$ MPa
10^{-0}	5	5	5	5	5	5	5	5	5		5
10^{-1}	6	5	5	5	5	5	5	5			5
10^{-2}	13		6	6	5	5	5	5			5
10^{-3}	21			11	10	10	9	8			5
10^{-4}	41					19	18	18			17
10^{-5}	76						67	44			63
10^{-6}	142										139
10^{-7}											
10^{-8}											

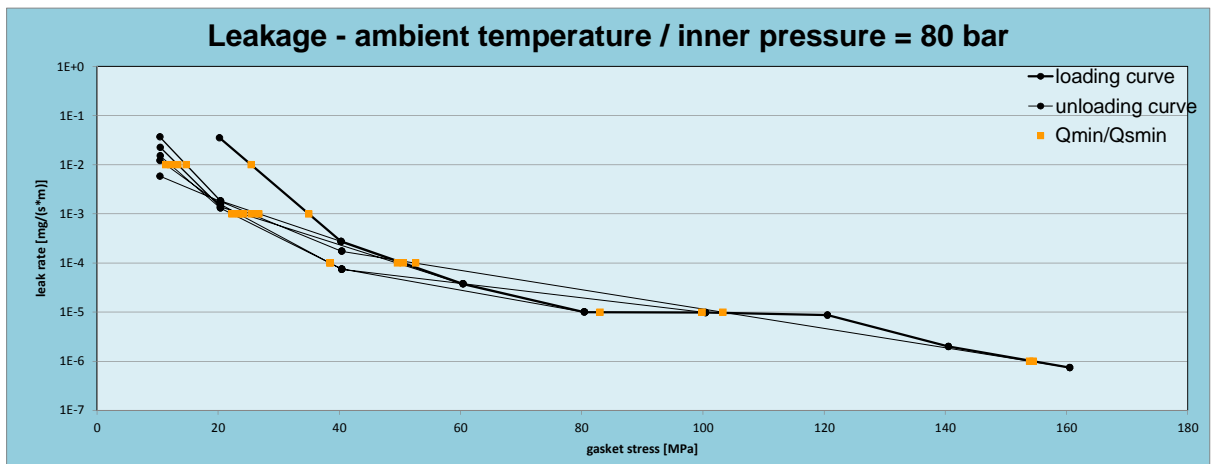


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Sealing element dimensions [mm]	92x49x3.1	

		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	5	5	5
10^{-1}	6		5	5	5	5	5	5			5
10^{-2}	13		7	6	5	5	5				5
10^{-3}	19		15	10	10	9	8				5
10^{-4}	30				18	16	16	18			14
10^{-5}	64						32	32			48
10^{-6}	128										127
10^{-7}											
10^{-8}											



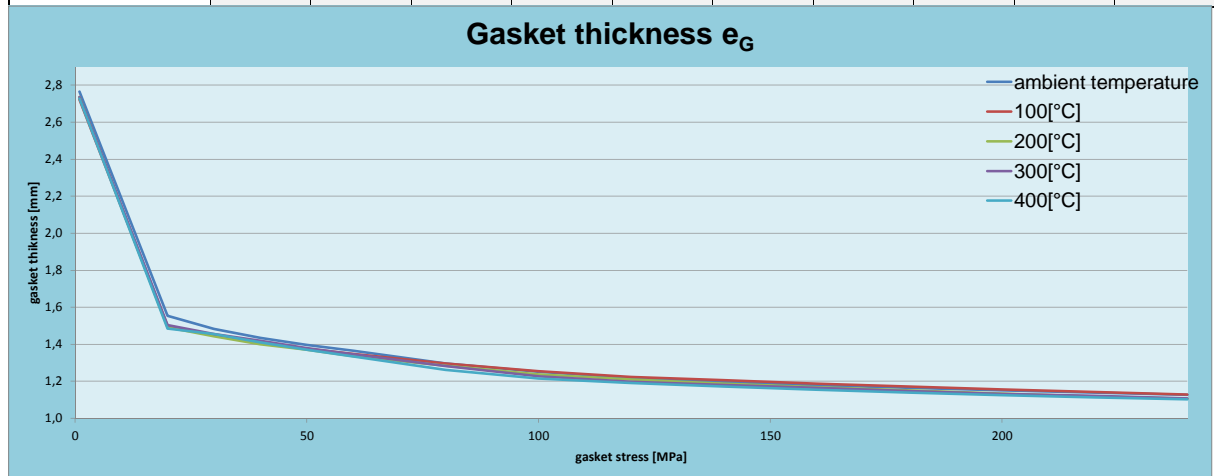
		Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for p = 80 bar						
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [MPa]						
		$Q_A=40$ MPa	$Q_A=60$ MPa	$Q_A=80$ MPa	$Q_A=100$ MPa	$Q_A=120$ MPa	$Q_A=140$ MPa	$Q_A=160$ MPa
10^{-0}	20	10	10	10	10			10
10^{-1}	20	10	10	10	10			10
10^{-2}	25	15	13	12	11			10
10^{-3}	35	27	24	22	23			25
10^{-4}	51		50	38	38			53
10^{-5}	83				100			103
10^{-6}	155							154
10^{-7}								
10^{-8}								



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Gasket Type	IDT – Wellringdichtung mit Graphitauflage; WS 1.4571/3803; IDT-Profil WD10; LE	
Sealing element dimensions [mm]	92x49x3.1	

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm										
Gasket stress	ambient temperature		temperature 1 [100 °C]		temperature 2 [200 °C]		temperature 3 [300 °C]		temperature 4 [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 [10 MPa]	0.955	0.004	0.820	0.026	0.685	0.024	0.690	0.019	0.710	0.015
Stress level 2 [20 MPa]	0.950	0.010	0.805	0.039	0.780	0.032	0.790	0.032	0.710	0.048
Stress level 3 [30 MPa]	0.965	0.009	0.845	0.038	0.835	0.040	0.815	0.041	0.795	0.047
Stress level 4 [40 MPa]	0.965	0.012	0.890	0.038	0.870	0.039	0.855	0.042	0.830	0.051
Stress level 5 [80 MPa]	0.990	0.006	0.950	0.032	0.930	0.041	0.940	0.039	0.915	0.306
P_{QR} and Δe_{Gc} at maximal applicable gasket stress Q_{Smax}										
P_{QR} at Q_{Smax}	1.00	0.003	0.99	0.020	0.98	0.032	0.97	0.057	0.96	0.085
Q_{Smax}	230 MPa		230 MPa		230 MPa		230 MPa		230 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 [200 °C]		temperature 3 [300 °C]		temperature 4 [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		3.000		3.000		3.000		3.000		3.000
1		2.764		2.721		2.735		2.735		2.727
20	1056	1.554	966	1.498	803	1.492	1193	1.504	1359	1.484
30	1818	1.483	1509	1.449	1540	1.443	1027	1.456	2226	1.455
40	1399	1.434	1697	1.409	1867	1.400	2515	1.418	2013	1.410
50	2962	1.397	2530	1.375	2689	1.370	1786	1.380	2489	1.370
60	2634	1.365	2487	1.347	2364	1.336	4068	1.346	3133	1.335
80	3311	1.297	3223	1.295	2988	1.284	3891	1.282	3250	1.261
100	4391	1.250	3782	1.255	3372	1.237	3243	1.227	3474	1.215
120	5554	1.218	5280	1.224	5548	1.209	5686	1.198	5505	1.190
140	6905	1.198	7985	1.206	5169	1.187	7355	1.179	6086	1.171
160	6574	1.178	6755	1.187	6458	1.168	6937	1.165	5833	1.155
180	6957	1.164	6344	1.171	6219	1.150	6131	1.146	5274	1.139
200	7070	1.150	6107	1.155	5543	1.134	5603	1.132	5691	1.125
220	7829	1.138	6190	1.141	5975	1.118	5826	1.121	5308	1.113
240										
260										
280										
300										
320										
340										
360										
380										
400										
420										
440										
460										
480										
500										
940										



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Sealing element dimensions [mm]	92x49x3.1	

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm										
Gasket stress	temperature 5 [500 °C]		temperature 6 [600 °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 [10 MPa]	0.86	0.03	0.77	0.04						
Stress level 2 [20 MPa]	0.91	0.010	0.91	0.03						
Stress level 3 [30 MPa]										
Stress level 4 [40 MPa]										
Stress level 5 [80 MPa]										
P _{QR} and Δe_{Gc} at maximal applicable gasket stress Q_{Smax}										
P _{QR} at Q_{Smax}	0.95	0.03	0.96	0.03						
Q_{Smax}	80 MPa		80 MPa							

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]										
Gasket stress [MPa]	temperature 5 [500 °C]		temperature 6 [600 °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		3.020		3.040						
1		2.805		2.786						
20	1646	1.500	Die E-Module sind messtechnisch nicht zu erfassen.	1.502						
30	2534	1.472		1.488						
40	3678	1.435		1.458						
50	4864	1.399		1.419						
60	5882	1.368		1.374						
80	7774	1.303		1.300						
100										
120										
140										
160										
180										
200										
220										
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