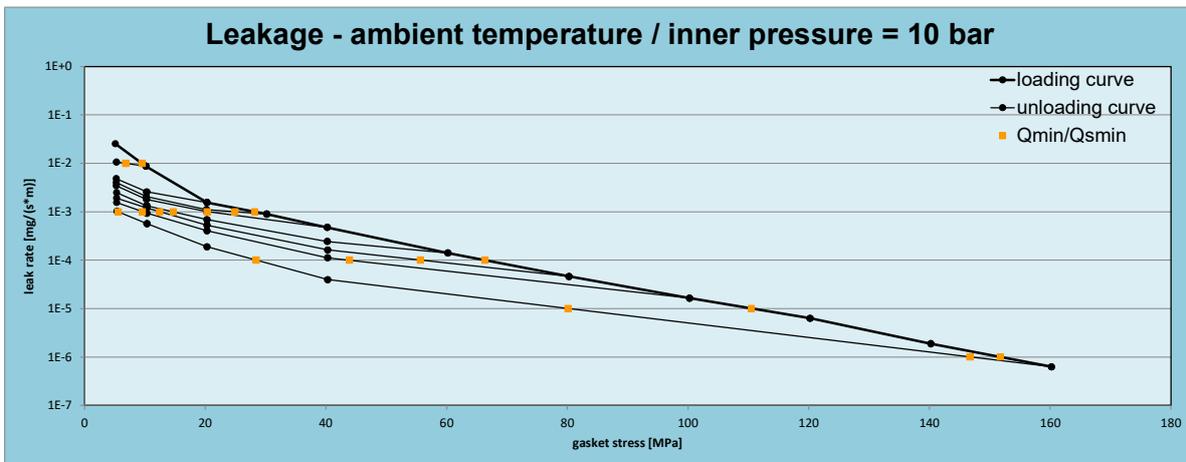
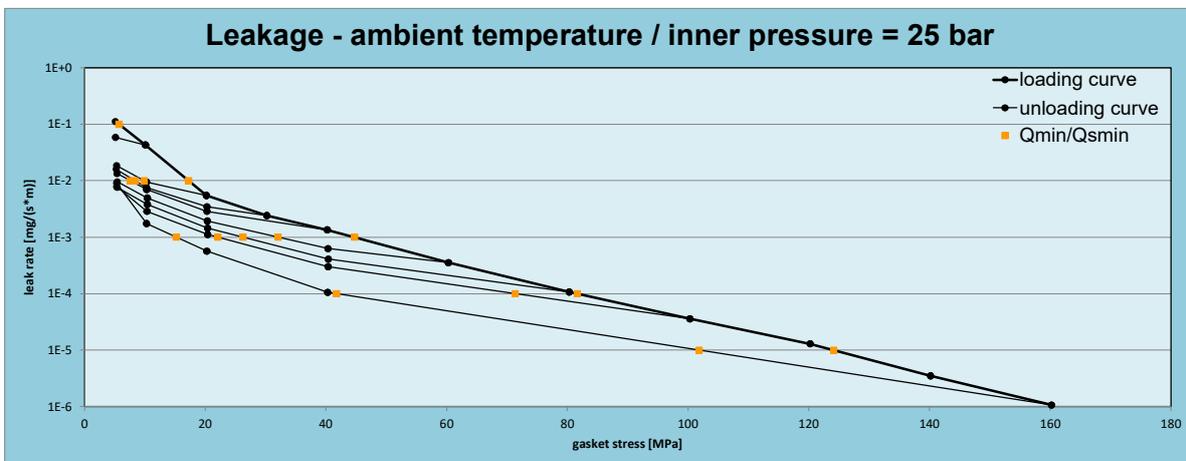


Company Address	IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerbering 6, 09456 Annaberg-Buchholz, Germany	According to DIN EN 13555 2021-04
Gasket Type	grooved gasket made of 1.4404 with SIGRAFLEX APX layer IDT-profile KD01-10-20-30 - 1.4404 - WS 3803 - LE-safe	
Sealing element dimensions [mm]	53 x 69 x 5.0	

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		5
10^{-2}	10	7	5	5	5	5	5	5	5		5
10^{-3}	28			25	20	15	12	10			6
10^{-4}	66						56	44			28
10^{-5}	110										80
10^{-6}	152										147
10^{-7}											
10^{-8}											

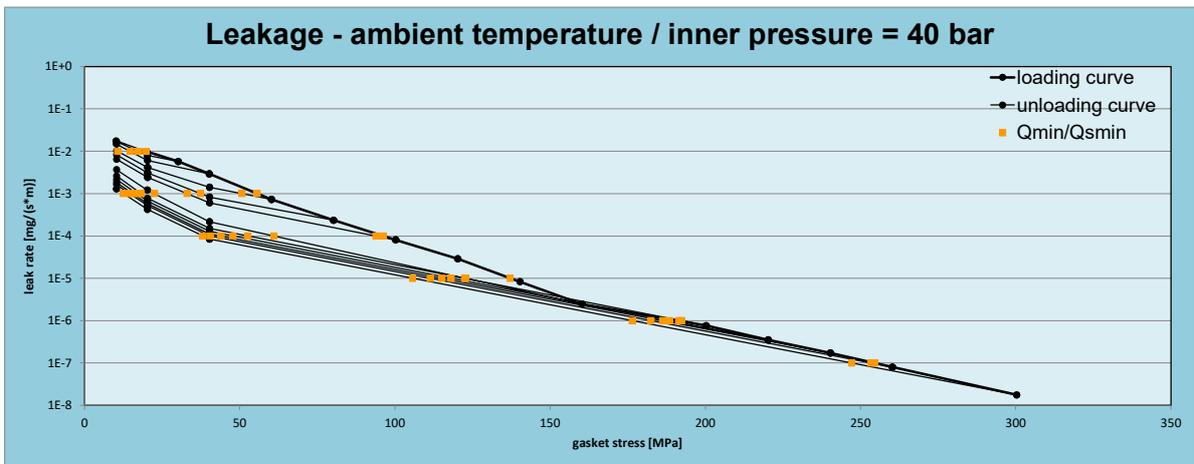


Minimum stress to seal $Q_{min,L}$ (at assembly), $Q_{Smin,L}$ (after off-loading) for $p = 25$ bar											
L [mg/(s*m)]	$Q_{min,L}$ [MPa]	$Q_{Smin,L}$ [MPa]									
		$Q_A = 10$ MPa	$Q_A = 20$ MPa	$Q_A = 30$ MPa	$Q_A = 40$ MPa	$Q_A = 60$ MPa	$Q_A = 80$ MPa	$Q_A = 100$ MPa	$Q_A = 120$ MPa	$Q_A = 140$ 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		5
10^{-2}	17		10	8	8	5	5	5			5
10^{-3}	45					32	26	22			15
10^{-4}	82							71			42
10^{-5}	124										102
10^{-6}											
10^{-7}											
10^{-8}											

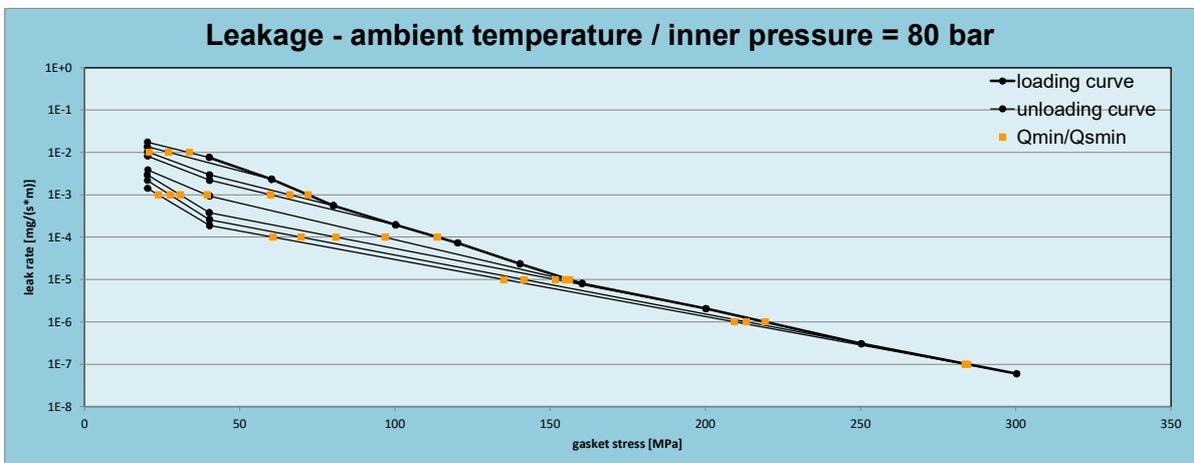


Company Address	IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerberg 6, 09456 Annaberg-Buchholz, Germany	According to DIN EN 13555 2021-04
Gasket Type	grooved gasket made of 1.4404 with SIGRAFLEX APX layer IDT-profile KD01-10-20-30 - 1.4404 - WS 3803 - LE-safe	
Sealing element dimensions [mm]	53 x 69 x 5.0	

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]									
		QA= 30 MPa	QA= 60 MPa	QA= 80 MPa	QA= 100 MPa	QA= 160 MPa	QA= 200 MPa	QA= 220 MPa	QA= 240 MPa	QA= 260 MPa	QA= 300 MPa
10^0	10	10	10	10	10	10	10	10	10	10	10
10^{-1}	10	10	10	10	10	10	10	10	10	10	10
10^{-2}	20	17	11	10	10	10	10	10	10	10	10
10^{-3}	56		51	37	33	23	18	17	16	15	13
10^{-4}	96				94	61	53	48	44	40	38
10^{-5}	137					123	122	118	115	111	106
10^{-6}	191						192	188	186	182	176
10^{-7}	255									253	247
10^{-8}											

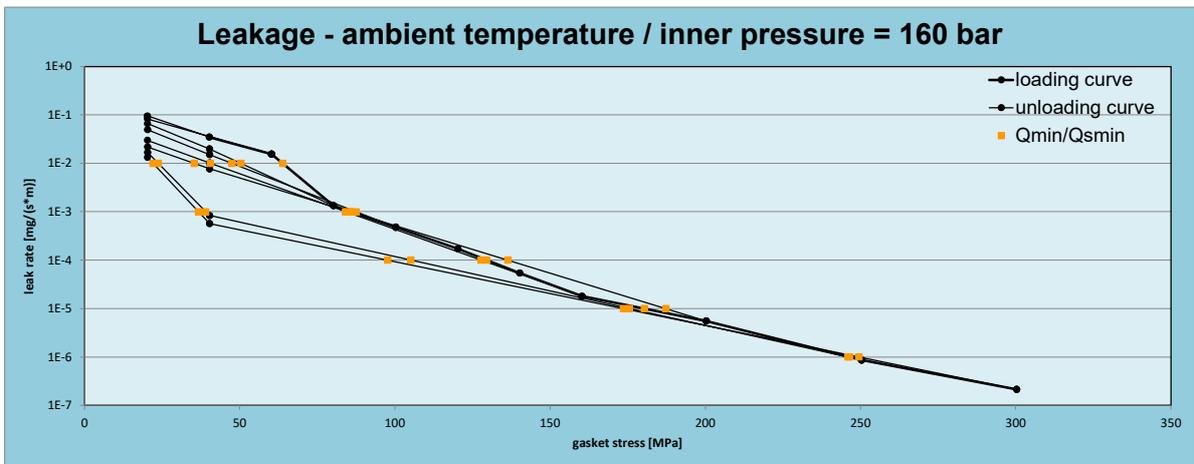


Minimum stress to seal $Q_{min,L}$ (at assembly), $Q_{Smin,L}$ (after off-loading) for $p = 80$ bar											
L [mg/(s*m)]	$Q_{min,L}$ [MPa]	$Q_{Smin,L}$ [MPa]									
		QA= 60 MPa	QA= 80 MPa	QA= 100 MPa	QA= 120 MPa	QA= 140 MPa	QA= 160 MPa	QA= 200 MPa	QA= 250 MPa	QA= 300 MPa	
10^0	20	20	20	20			20	20	20	20	
10^{-1}	20	20	20	20			20	20	20	20	
10^{-2}	34	27	21	20			20	20	20	20	
10^{-3}	72		66	60			39	31	28	24	
10^{-4}	114						97	81	70	61	
10^{-5}	156						155	152	142	135	
10^{-6}	219								213	209	
10^{-7}	284									284	
10^{-8}											

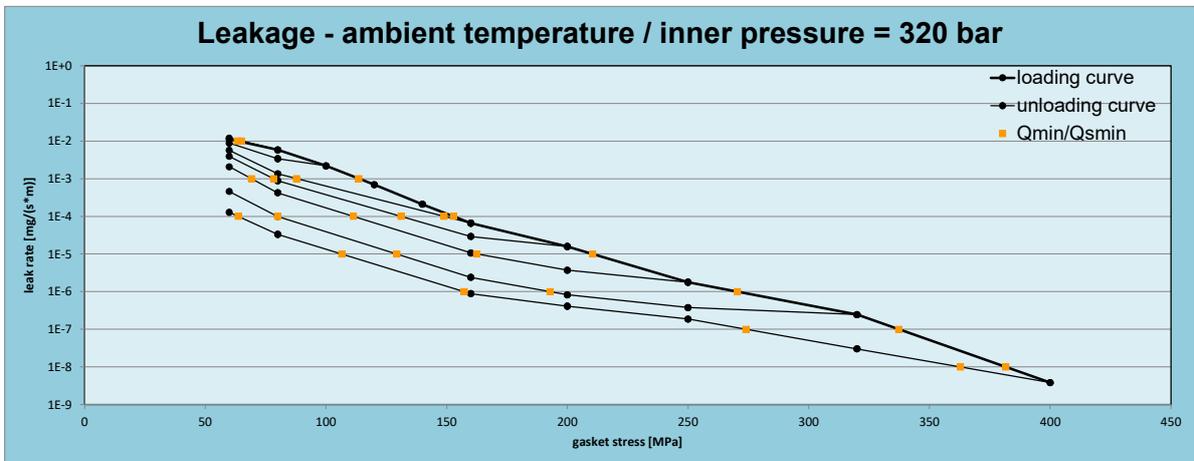


Company Address	IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerberg 6, 09456 Annaberg-Buchholz, Germany	According to DIN EN 13555 2021-04
Gasket Type	grooved gasket made of 1.4404 with SIGRAFLEX APX layer IDT-profile KD01-10-20-30 - 1.4404 - WS 3803 - LE-safe	
Sealing element dimensions [mm]	53 x 69 x 5.0	

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	20	20	20			20	20	20	20
10^{-1}	20	20	20	20			20	20	20	20
10^{-2}	64		50	48			41	35	24	22
10^{-3}	86			87			84	85	39	37
10^{-4}	129						128	136	105	98
10^{-5}	180							187	176	174
10^{-6}	247								246	250
10^{-7}										
10^{-8}										

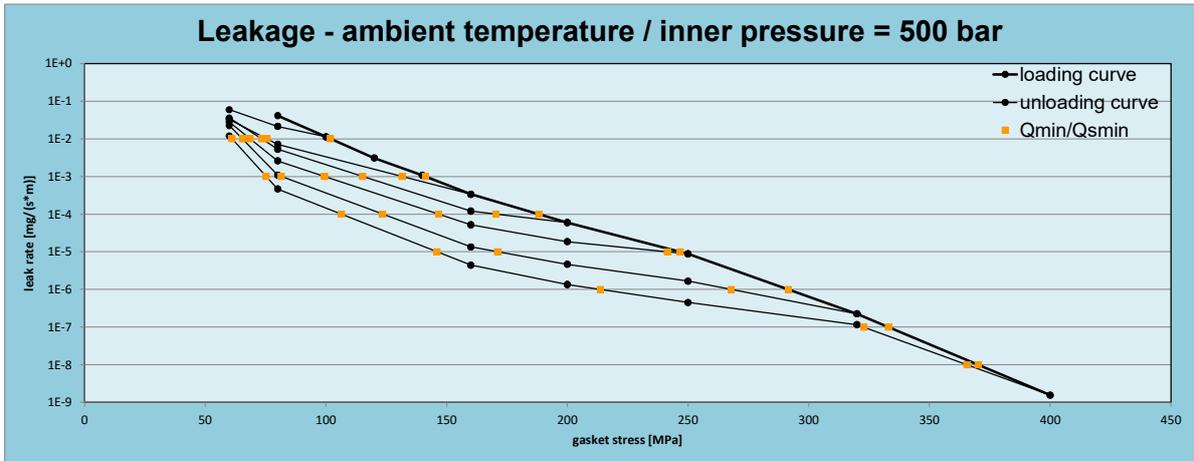


Minimum stress to seal $Q_{min,L}$ (at assembly), $Q_{Smin,L}$ (after off-loading) for $p = 320$ bar										
L [mg/(s*m)]	$Q_{min,L}$ [MPa]	$Q_{Smin,L}$ [MPa]								
		$Q_A = 80$ MPa	$Q_A = 100$ MPa	$Q_A = 120$ MPa	$Q_A = 140$ MPa	$Q_A = 160$ MPa	$Q_A = 200$ MPa	$Q_A = 250$ MPa	$Q_A = 320$ MPa	$Q_A = 400$ MPa
10^0	60	60	60			60	60	60	60	60
10^{-1}	60	60	60			60	60	60	60	60
10^{-2}	63	65	60			60	60	60	60	60
10^{-3}	114					88	78	69	60	60
10^{-4}	153					149	131	111	80	64
10^{-5}	211							162	129	107
10^{-6}	270								193	157
10^{-7}	337									274
10^{-8}	382									363

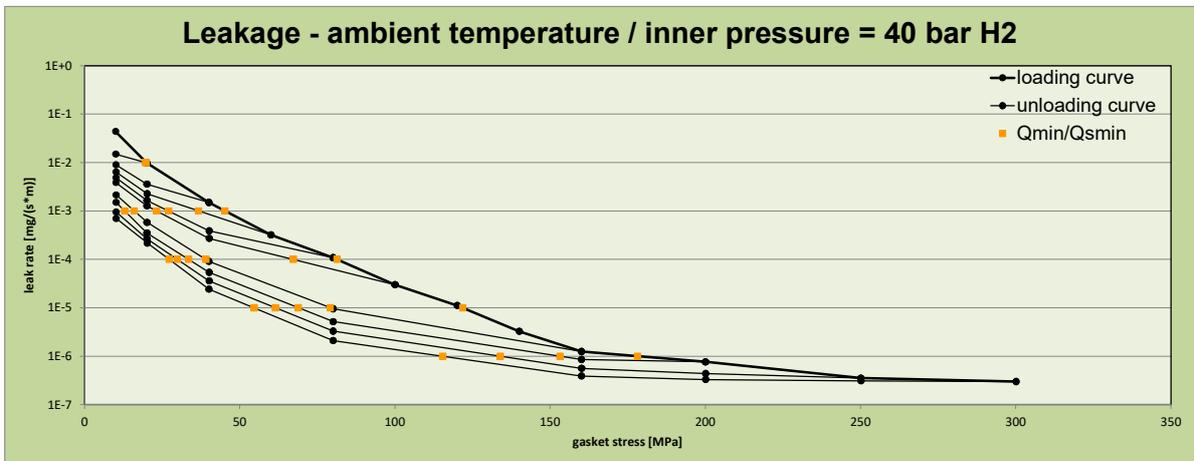


Company Address	IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerbering 6, 09456 Annaberg-Buchholz, Germany	According to DIN EN 13555 2021-04
Gasket Type	grooved gasket made of 1.4404 with SIGRAFLEX APX layer IDT-profile KD01-10-20-30 - 1.4404 - WS 3803 - LE-safe	
Sealing element dimensions [mm]	53 x 69 x 5.0	

Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for $p = 500$ bar											
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [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	$Q_A = 320$ MPa	$Q_A = 400$ MPa		
10^0	60	60			80	80	80	80	80		
10^{-1}	60	60			80	80	80	80	80		
10^{-2}	102				76	73	69	65	61		
10^{-3}	141				132	115	99	82	75		
10^{-4}	188					170	147	123	106		
10^{-5}	247						241	171	146		
10^{-6}	292							268	214		
10^{-7}	333								323		
10^{-8}	370								366		



Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for $p = 40$ bar H2											
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	$Q_A = 140$ MPa	$Q_A = 160$ MPa	$Q_A = 200$ MPa	$Q_A = 250$ MPa	$Q_A = 300$ MPa
10^0	10	10	10	10	10	10		10	10	10	10
10^{-1}	10	10	10	10	10	10		10	10	10	10
10^{-2}	20	20	10	10	10	10		10	10	10	10
10^{-3}	45			37	27	23		16	13	10	10
10^{-4}	81					67		39	34	30	27
10^{-5}	122							79	69	61	55
10^{-6}	178								153	134	115
10^{-7}											
10^{-8}											

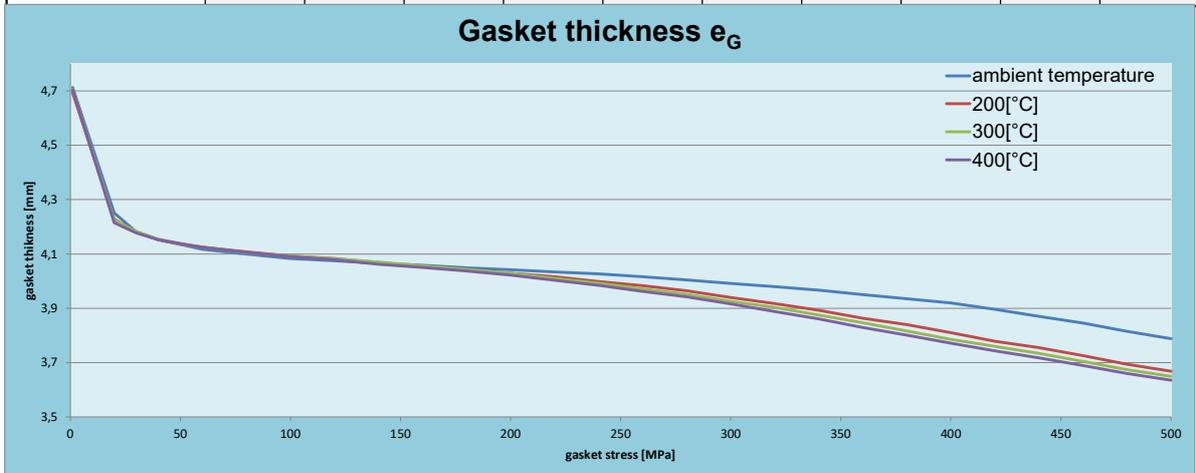


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Company Address	IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerberg 6, 09456 Annaberg-Buchholz, Germany	According to DIN EN 13555 2021-04
Gasket Type	grooved gasket made of 1.4404 with SIGRAFLEX APX layer IDT-profile KD01-10-20-30 - 1.4404 - WS 3803 - LE-safe	
Sealing element dimensions [mm]	53 x 69 x 5.0	

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm										
Gasket stress	ambient temperature		temperature 1 [200 °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 [30 MPa]	0.99	0.001	0.93	0.007	0.86	0.013	0.86	0.013		
Stress level 2 [50 MPa]	0.99	0.002	0.97	0.005	0.96	0.007	0.97	0.005		
Stress level 3 [90 MPa]	1.00	0.001	0.98	0.006	0.99	0.004	0.97	0.008		
Stress level 4 [150 MPa]	1.00	0.000	0.99	0.005	0.99	0.005	1.00	0.002		
P_{QR} and Δe_{Gc} at maximal applicable gasket stress Q_{Smax}										
P_{QR} at Q_{Smax}	0.99	0.015	0.95	0.077	0.94	0.092	0.94	0.092		
Q_{Smax}	500 MPa		500 MPa		500 MPa		500 MPa			

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]											
Gasket stress [MPa]	ambient temperature		temperature 1 [200 °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		4.730		4.720		4.720		4.725			
1		4.713		4.693		4.707		4.704			
20	3713	4.251	5357	4.227	7904	4.224	4638	4.215			
30	6098	4.180	6317	4.179	7927	4.183	6907	4.177			
40	11111	4.152	11086	4.152	11665	4.155	11520	4.152			
50	14832	4.135	14751	4.136	15681	4.137	18595	4.138			
60	12198	4.117	23725	4.125	21537	4.125	17710	4.124			
80	31266	4.100	29526	4.108	26885	4.104	26011	4.105			
100	27775	4.083	27025	4.093	35204	4.092	35590	4.090			
120	44358	4.075	30773	4.083	44448	4.082	36268	4.078			
140	50812	4.066	23639	4.067	36724	4.070	24099	4.062			
160	45610	4.058	21767	4.054	28878	4.056	27395	4.050			
180	42061	4.049	28841	4.043	30453	4.043	37035	4.036			
200	39695	4.042	39217	4.028	35844	4.029	48506	4.022			
220	47497	4.034	41864	4.016	33699	4.010	33459	4.003			
240	55513	4.026	44737	3.998	39204	3.993	36379	3.984			
260	62401	4.016	47905	3.983	47335	3.972	41613	3.961			
280	51884	4.004	67822	3.965	49311	3.951	48376	3.941			
300	53876	3.992	45292	3.940	46005	3.925	59561	3.916			
320	66498	3.980	50854	3.917	66359	3.902	43528	3.887			
340	80091	3.966	69773	3.892	61439	3.875	47903	3.860			
360	79258	3.950	48603	3.864	49678	3.847	41248	3.828			
380	115383	3.935	78614	3.839	49896	3.816	48371	3.801			
400	269683	3.919	83576	3.810	54489	3.785	64512	3.772			
420	208899	3.896	64550	3.779	83968	3.760	85058	3.744			
440	90837	3.870	103729	3.755	124430	3.733	117228	3.718			
460	102677	3.845	109256	3.725	117673	3.705	89756	3.689			
480	93777	3.815	108652	3.695	77080	3.673	66212	3.660			
500	108635	3.787	100932	3.668	85738	3.649	82628	3.635			
940											



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