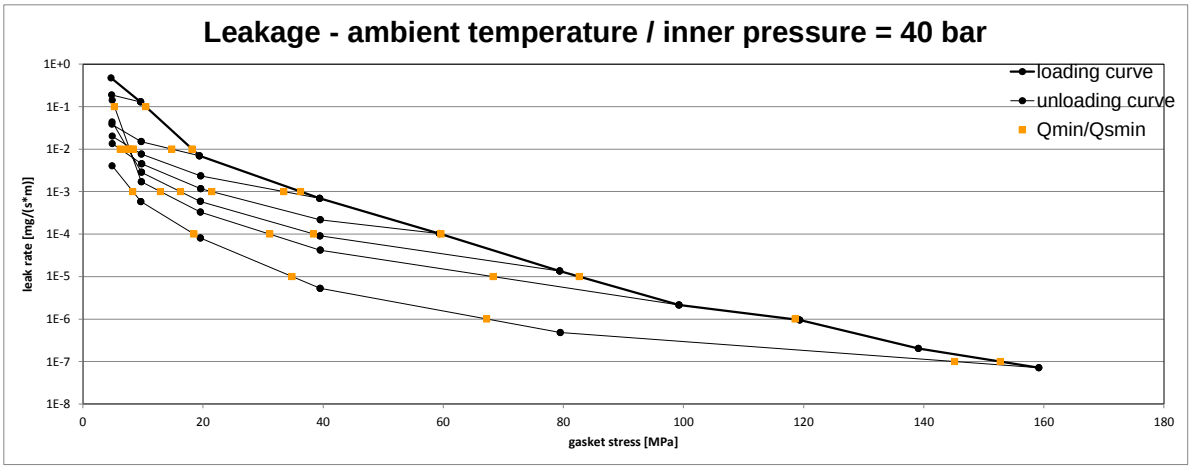
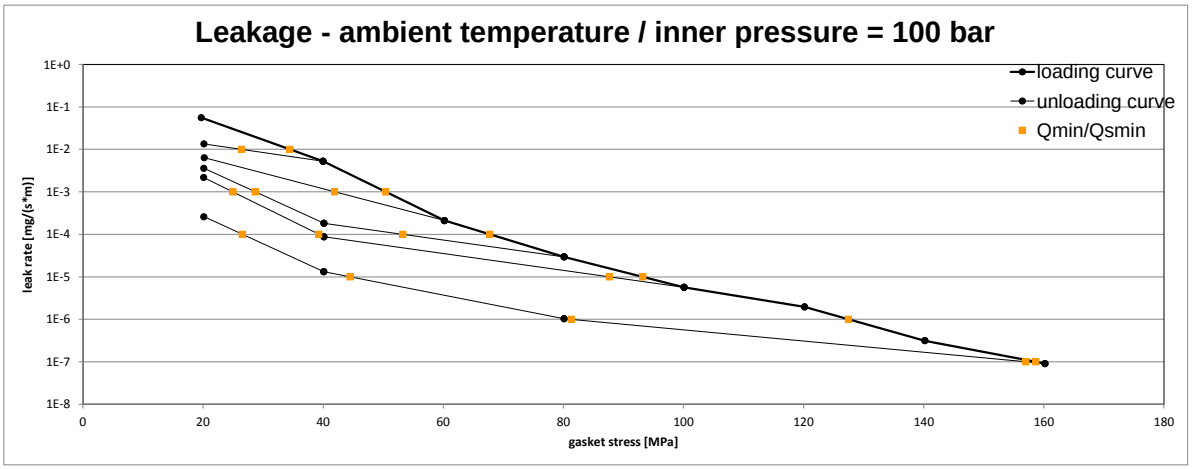
Company Address	Möller Metalldichtungen GmbH, Brunnenweg 10, 39444 Hecklingen, Germany	According to DIN EN 13555 2014-07
Gasket Type	MMKBZ (convex kammprofile gasket with graphite layers)	
Sealing element dimensions [mm]	69 x 53 x 4.8	

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= 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}	5	5	5	5	5	5	5			5	
10^{-1}	10		5	5	5	5	5			5	
10^{-2}	18		15	8	6	7	8			5	
10^{-3}	36			33	21	16	13			8	
10^{-4}	60					38	31			18	
10^{-5}	83						68			35	
10^{-6}	119									67	
10^{-7}	153									145	
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 = 100 bar $Q_{Smin/L}$ [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	20	20	20	20			20			
10^{-1}	20	20	20	20	20			20			
10^{-2}	34	26	20	20	20			20			
10^{-3}	50		42	29	25			20			
10^{-4}	68			53	39			27			
10^{-5}	93				88			44			
10^{-6}	127							81			
10^{-7}	159							157			
10^{-8}											

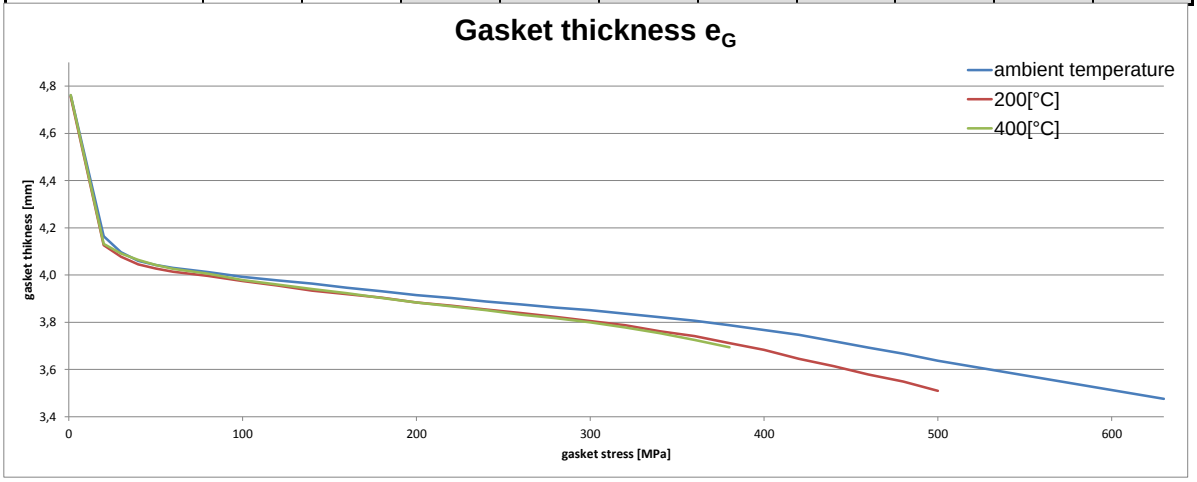


Note: the content of darkened cells was not determined respectively is unnecessary	Rev - No: 2	Creation date of this sheet:	2023-10-19

Company Address	*Möller Metalldichtungen GmbH, Brunnenweg 10, 39444 Hecklingen, Germany*	According to **DIN EN 13555 2014-07**
Gasket Type	*MMKBZ (convex kammprofile gasket with graphite layers)*	
Sealing element dimensions [mm]	*69 x 53 x 4.8*	

Relaxation ratio P_{QR} for stiffness **C** = 500 kN/mm										
Gasket stress	ambient temperature		temperature 1 [200 °C]		temperature 2 [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]	0.96	0.004	0.95	0.005	0.87	0.012				
Stress level 2 [100 MPa]	0.99	0.003	0.99	0.003	0.98	0.008				
P_{QR} and Δe_{Gc} at maximal applicable gasket stress Q_{smax}										
P_{QR} at Q_{Smax}	0.99	0.019	0.95	0.077	0.93	0.082				
Q_{Smax}	630 MPa		500 MPa		380 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 [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										
1		4.761		4.756		4.763				
20	3069	4.165	6170	4.126	2280	4.132				
30	4674	4.097	4920	4.078	3957	4.091				
40	4409	4.060	5990	4.045	6070	4.064				
50	7605	4.042	6911	4.027	5327	4.042				
60	10101	4.030	10344	4.013	6880	4.026				
80	11647	4.013	13765	3.997	11384	4.006				
100	9734	3.992	10207	3.974	9042	3.979				
120	11120	3.977	11491	3.955	12676	3.959				
140	15137	3.963	13084	3.934	15900	3.941				
160	15033	3.945	16304	3.919	17057	3.923				
180	16183	3.931	17933	3.904	16514	3.903				
200	17796	3.915	15984	3.884	15931	3.884				
220	18608	3.903	17795	3.870	17261	3.867				
240	21722	3.888	19559	3.854	19101	3.851				
260	21085	3.875	20623	3.839	20064	3.833				
280	20849	3.862	22183	3.822	*22824*	3.818				
300	26325	3.850	23392	3.805	27171	3.799				
320	26060	3.837	26929	3.788	25347	3.778				
340	25366	3.821	23640	3.762	23471	3.753				
360	25554	3.806	27174	3.741	25918	3.725				
380	24964	3.787	25543	3.711	23706	3.693				
400	25199	3.766	27821	3.683						
420	27919	3.746	23567	3.646						
440	28563	3.720	28552	3.614						
460	27946	3.693	27342	3.578						
480	28486	3.666	31390	3.548						
500	31694	3.636	25579	3.509						
630	30185	3.476								



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