

Company Address	IDT Industrie- und Dichtungstechnik GmbH IDT Werk Kupferring, Postfach 100 152, D-09441 Annaberg-Buchholz
Gasket Type	IDT-Wellringdichtung WS 1.4571/3800, IB 1.4571, WD 20 Dichtungsdicke 2,5mm, Dicke Grafitauflage 0,5mm Wellring 1.4571, Dicke 1,5mm, Teilung 3,0mm; Innenbördel 1.4571, Dicke 0,15mm
Thickness e_{GO} [mm]	2,5

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]							
		$Q_A = 20$ [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}	<10	<10	<10	<10	<10	<10			
10^{-2}	12	<10	<10	<10	<10	<10			
10^{-3}	19	<10	<10	<10	<10	12			
10^{-4}	27		16	14	15	25			
10^{-5}	40		26	17	24	16			
10^{-6}	54					27			
10^{-7}	80					43			
10^{-8}									

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm			
Gasket stress [MPa]	ambient temperature	temperature 1 [300 °C]	temperature 2 [400 °C]
Stress level 1 [80 MPa]	0,98	0,89	0,88
Stress level 2 [120 MPa]	0,99	0,91	0,88
Q_{Smax} [230 / 230 / 230 MPa]	1,00	0,96	0,95

Maximal applicable gasket stress Q_{Smax}		
Q_{Smax} [MPa] – ambient temperature	Q_{Smax} [MPa] – temperature 1 [300 °C]	Q_{Smax} [MPa] – temperature 2 [400 °C]
230	230	230

Sekant unloading modulus of the gasket E_G [MPa]			
Gasket stress [MPa]	ambient temperature	temperature 1 [300 °C]	temperature 2 [400 °C]
2,5	62	110	80
5	180	184	238
10	526	642	567
20	1083	1142	2529
30	1835	3231	2212
40	2786	2864	2493
50	2969	2495	2885
60	2460	3078	3225
80	2544	3346	2171
100	2981	2459	2280
120	3297	2821	2760
140	2897	2594	3874
160	2600	2786	1971
180	2153	2465	2106
200	2244	2735	1827
220	2454	2544	2203
240			

Note: the content of darkened cells was not determined respectively is unnecessary

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