SX2-5,8x38

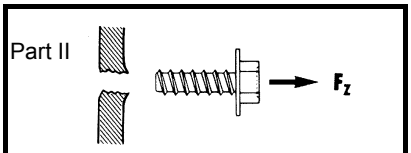
SX2
Ø 5,8

Material

Fastener: austenitic stainless steel A2
Material number 1.4301

Washer: austenitic stainless steel, A2
or aluminium with vulcanised EPDM sealant

Pull-out load F_z (N)



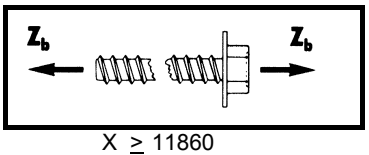
Part II (Subconstruction)			Part I		Washer	Test results (N)		
Material grade	$R_{m,min}$	t_{II} (mm)	Material grade	t_I (mm)	mat. ø (mm)	$F_{z,avg}$	s	R_k
Steel								
UK-steel	*480 N/mm²	1,20				3401	81	*2529*
UK-steel	*480 N/mm²	1,50				4620	113	*3825*
UK-steel	*480 N/mm²	2,00				**		*5798*
UK-steel	*480 N/mm²	2,50				9758	148	*7770*
S320GD	390 N/mm²	1,50				4218	117	3168
S235	360 N/mm²	2,00				5347	70	4544
S235Zn	360 N/mm²	2,00				6978	97	6332

** grade S420GD assumed* *** interpolated*

Head type

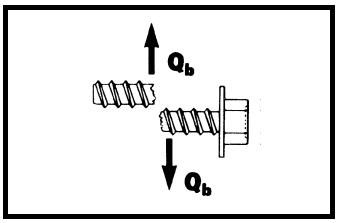
Hexagonal head, 8 mm A/F

Tensile breaking load Z_b (N)



X ≥ 11860

Shear breaking load Q_b (N)



X ≥ 7000

Evaluation of the characteristic value R_k for the F_z, F_u and F_q: equations (1) and (2)

$R_k = (F_{avg} - c * s) * \alpha$ (1)

, where F_{avg} is the mean of ultimate failure loads, and corresponds to tests: F_z, F_u and F_q
c is the statistical coefficient
s is the standard deviation
α is the material correction factor

- the sample size n for all tests is 12 pieces
- c = 2,04 with a sample size n = 12
- the maximum value of F_{avg} for shear load, is obtained between a displacement of 0,5-3,0mm
- Part 1 is considered critical for failure in shear unless otherwise marked

$\alpha = (R_{m,min}/R_m * t_{min}/t_{I,II})$ (2)

, where $R_{m,min}$ is the minimum standard tensile strength of Parts 1 or 2
R_m is the actual, tested tensile strength of Parts 1 or 2
t_{min} is the minimum standard steel thickness of Parts 1 or 2
t_I and t_{II} are the tested steel thicknesses of Parts 1 or 2

UK-steel is assumed to be of grade S420GD

source: EC 1993-1-3, CUAP 06.02/07 and ECCS 124