

1. TIGHTENING TORQUE VALUES FOR STAINLESS STEEL SCREWS



Use only half of the values shown in heated-up condition!

maximal tightening torque [Nm] f. $\mu=0,20$									
metric regular thread ISO1502					metric fine thread ISO1502				
	Class 50	Class 70	Class 80			Class 50	Class 70	Class 80	
M 4	1,3	2,8	3,6			1,4	2,9	3,8	
M 5	2,1	4,5	6,0			2,2	4,7	6,3	
M 6	3,0	6,4	8,4		M 8 x1	3,2	6,7	8,8	
M 8	5,4	11,6	15,5		M 10 x1,25	5,7	12,2	16,3	
M 10	8,6	18,5	24,7		M 12 x1,25	9,0	19,4	25,9	
M 12	12,6	27,0	36,0		M 12 x1,5	13,2	28,4	37,8	
M 14	17,3	37,0	49,5		M 14 x1,5	18,2	38,9	52,0	
M 16	23,7	51,0	67,9		M 16 x1,5	24,9	53,6	71,3	
M 18	28,9	62,0	82,0		M 18 x1,5	30,3	65,1	86,1	
M 20	37,1	79,6	106		M 20 x1,5	39,0	83,6	111	
M 22	46,3	99,3	132		M 22 x1,5	48,6	104	138	
M 24	53,5	115	153		M 24 x2	56,2	120	160	
M 27	70,3	-	-		M 27 x2	73,8			
M 30	85,5	-	-		M 30 x2	89,8			



Tighten all screws in several steps and in crosswise (alternate) pattern.
 Retighten all screws and nuts after heating-up.
 Always use a torque wrench!
 Lubrication (anti-seize) is recommended on all threads.

2. ASSEMBLY ORDER FOR PATTERNED BOLT CONNECTIONS

- screw on bolts in the order shown below with 30% of required torque
- retighten bolts with 60% of required torque
- retighten bolts with 100% of required torque
- retighten bolts again with 100% of required torque and repeat procedure until all screws do not turn anymore.



**Retighten all screws, nuts and metal heaterbands after heating-up.
Always use a torque wrench!
Lubrication (anti-seize) is recommended on all threads.**

