

Bolt Torque Values - Standard Tank Container Equipment

Part number	description	Tank location	Bolt Size	Mounting Torque Nm	Valve Outlet Torque Nm
MX65F	2,5" BSP threaded Mega Superventix Relief Valve	Top	N/A	80 to 240 N.m $\pm 5^{(a)}$	N/A
MX80	3" Flanged Mega Superventix Relief Valve	Top	4x M16	87 N.m ± 5	N/A
MX80...	3" Flanged Mega Superventix Relief Valve with bursting disk	Top	4x M16	87 N.m ± 5	N/A
12 85 59 91 00	3" BSP Blank cap - PTFE seal	Top/Bottom	N/A	90 N.m ± 5	N/A
AFN8X	3" ATCO Ball valve	Top/Bottom	4x M16	87 N.m ± 5	N/A
AFN8X	3" ATCO Ball valve	Top/Bottom	6x M16	70 N.m ± 5	N/A
AFN8X	3" ATCO Ball valve	Top/Bottom	8x M16	60 N.m ± 5	N/A
1195900000	3" Blind flange for top discharge	Top	4x M16	50 N.m ± 5	N/A
1195900000	3" Blind flange for top discharge	Top	6x M16	70 N.m ± 5	N/A
1195900000	3" Blind flange for top discharge	Top	8x M16	60 N.m ± 5	N/A
1112620000D	3" TANKFLY Clamped Butterfly valve	Top/Bottom	N/A	70 N.m ± 5	70 N.m ± 5
1112310000D	3" TANKFLY Flanged Butterfly valve	Top/Bottom	M16/M12	70 N.m ± 5 / 50 N.m ± 5	M12/ 50 N.m ± 5
1190410000	3" Dished Blind flange for Butterfly valve	Top/Bottom	M16	60 N.m ± 5	N/A
1191150000	2" Safety valve	Top	M10	30 N.m ± 5	N/A
AFN5X	2" ATCO Ball valve	Top	4x M16	50 N.m ± 5	N/A
1195880000	2" Blind flange for Ball Valve	Top	M16	50 N.m ± 5	N/A
AD3X	1,5" BSP Threaded Airline Ball valve	Top	M10	30 N.m ± 5	N/A
AF3X	1,5" BSP Flanged Airline Ball valve	Top	M10	30 N.m ± 5	N/A
1195870000	1,5" Blind Flange	Top	M16	40 N.m ± 5	N/A
TF5	2" TANKFLY Airline Butterfly Valve	Top	M16	50 N.m ± 10	N/A
NT34	3" Neatco Footvalve	Bottom	M12	50 N.m ± 10	M16/ 70 N.m ± 5
NX34	3" Neatflow Footvalve	Bottom	M12	50 N.m ± 10	M16/ 70 N.m ± 5
VTCX	3" Twinco Combined Bottom Discharge	Bottom	M12	50 N.m ± 10	N/A
VTXS34	3" Twinflow Combined Bottom Discharge	Bottom	M12	50 N.m ± 10	N/A
MS3	ND300 Multido Manlid	Top	M18	60 N.m ± 5	N/A
MS5	ND500 Multido Manlid	Top	M18	60 N.m ± 5	N/A

Part number	description	Tank location	Bolt Size	Mounting Torque Nm	Valve Outlet Torque Nm
11197600 45/60	DN250 cover with flange for a rupture disc	Top	M16	200N.m $\pm$ 5	N/A
11947000 45/60	DN250 weld in flange with flange for a rupture disc	Top	M16	200N.m $\pm$ 5	N/A

^(a)Perbunan / PTFE gasket: 80 N.m $\pm$ 5 ; Composite / PTFE gasket: 230 N.m $\pm$ 5 ; PTFE gasket: 240 N.m $\pm$ 5

IMPORTANT:

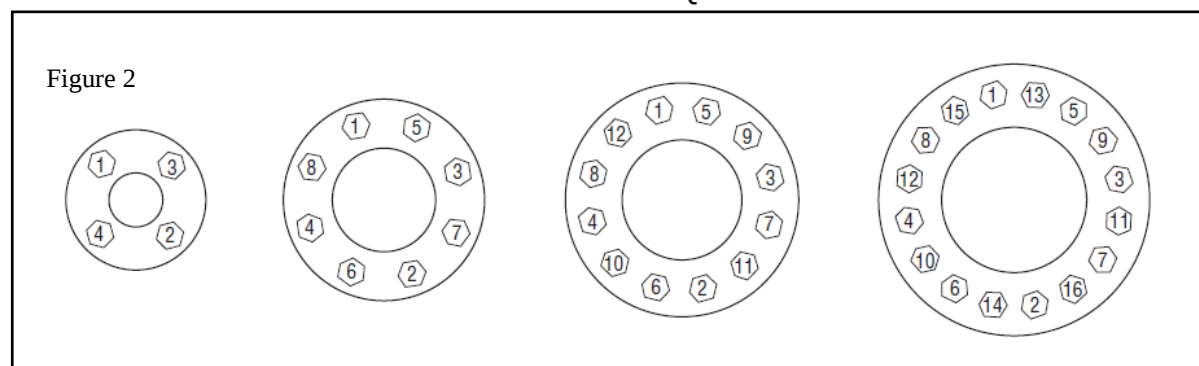
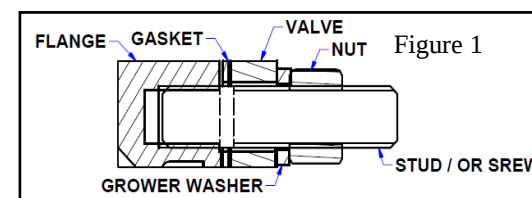
All torque values stated are based upon lubricated connection and it is assumed that Perolo original bolting kits and gaskets are used. Perolo recommended bolt torque procedure should be followed. (PWAGEN001). Perolo does not assume any responsibility concerning tightening torques when copy parts or non original Perolo spare parts are used.

NOTE 1: The maximum torque for manways should always be governed by the maximum recommended torque for the gasket material - exceeding the gasket torque may cause damage to the gasket and affect its sealing capabilities. Note that the gasket torque value may be lower than the torque value marked on the manlid cover.

NOTE 2: torque calculations have been done with CNAF/PTFE gasket, non-lubricant bolts

FLANGE BOLT TIGHTENING INSTALLATION INSTRUCTION

- 1- ENSURE THE CENTERING OF VALVES, SEAL & FLANGE.
- 2- USE PEROLO RECOMMENDED BOLTING KITS (A4-70 / A2-70 type bolts)
- 3- GET THE TIGHTENING TORQUE VALUE ON THE PRODUCT INSTALLATION SHEET. (available on our website www.perolo.com); TIGHTING TORQUES VALUE ARE GIVEN FOR PEROLO CNAF/PTFE GASKET
- 4- PUT PTFE OR MOLYBENUM DISULPHITE ADDED GREASE ON THE THREADS.
- 5- PUT A SPRING WASHER UNDER THE NUTS. (see figure 1)
- 6- TIGHTEN PER FOLLOWING SEQUENCE:
 - a. MANUALLY TIGHTEN NUTS.
 - b. CARRY OUT TIGHTENING, MAKING AT LEAST THREE COMPLETE DIAGONAL (see figure 2) TIGHTENING I.E. 30%, 60% & 100% OF FINAL TORQUE VALUE.
 - c. CONTINUE WITH ONE FINAL PASS – TORQUING THE BOLT / STUDS IN A DIAGONAL SEQUENCE (see figure 1).



- 7- AFTER 24h, APPLY ONE FINAL PASS-TORQUING TO THE RECOMMENDED TORQUE ON THE BOLT/ STUDS IN A DIAGONAL SEQUENCE (see figure 2).