

MADDEN ORIFICE METER HOT TORQUE INSTRUCTIONS

The Madden Orifice Meter is assembled and tested for leaks at the factory before shipment. However, when the metal material of the Orifice Meter is placed in service and warms up to operating temperature leaks may develop. To help prevent leaks use the "hot torque" procedure that follows.

1. Retorque the six flange nuts while the unit is at operating temperature, 12-24 hours after the unit is placed in service.
2. Close the isolation valve to remove the boiler pressure from the Orifice Meter.
3. Retorque the nuts in a star pattern, first at 1/3 torque, then 2/3 and finally full torque per the following torque specifications:

Model	1/3 torque	2/3 torque	Full torque
Model OM250	20 ft. lbs.	40 ft. lbs.	60 ft. lbs.
Model OM650	40 ft. lbs.	80 ft. lbs.	120 ft. lbs.

4. After full torque is applied to all of the flange nuts open the isolation valve to put the Orifice Meter back in service.
5. If the Orifice Meter is taken out of service for repairs the reassembly must include a heavy graphite filled oil lubricant for the nuts and threaded studs. For "cold" bench assembly hand tighten the nuts and then torque the nuts per the specifications in item 3 above. Hot torque after 12-24 hours of service.
6. If leaks develop from under the geared index head, part number OM258, remove the index head by removing the acorn nut, p/n OM260. Tighten the packing nut, p/n OM257 until the leak is stopped. Replace the index head, key and nut. If a leak continues remove the Orifice Meter from service and replace the stem packing.

Call 1-800-369-6233 or e-mail maddenmfg@msn.com for additional assistance.

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