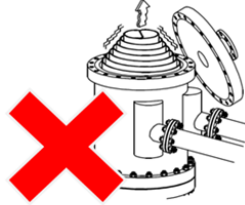


KUROSE Recommended method to use the spiral in long period.

1 Don't open a unit if one or both channels are pressurized. That may cause personal injury and/or damage the unit.

WARNING

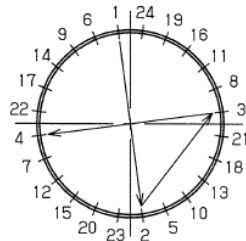


圧力保持状態でのカバー開放厳禁
**Before opening a cover,
the pressure on both
sides be shut down.**

2 Ensure that key operating conditions (temperatures and flow rates) match the original specifications sheet. Please maintain flow rates at the designed values. At lower velocities, pressure losses are reduced as is thermal efficiency. Flow rates much lower than design values may also result in accelerated fouling.

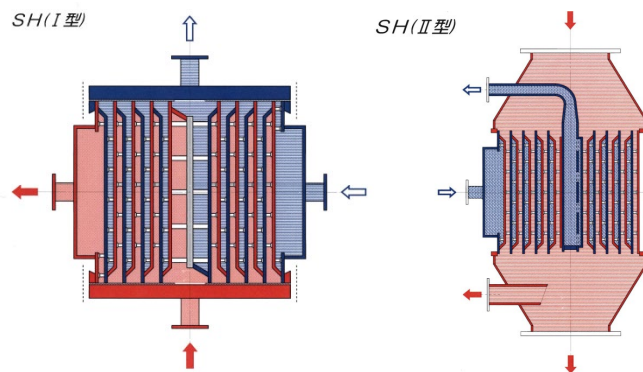
3 Lift the unit by dody lifting lugs and not by the connections or the cover lug.

4 During transportation or periods of shutdown, cover gaskets and/or hook bolts may loosen, so please tighten in a diagonally opposite sequence.



ORDER FOR TIGHTENING BOLTS

5 Make sure all residual air has been removed from the unit before start up.

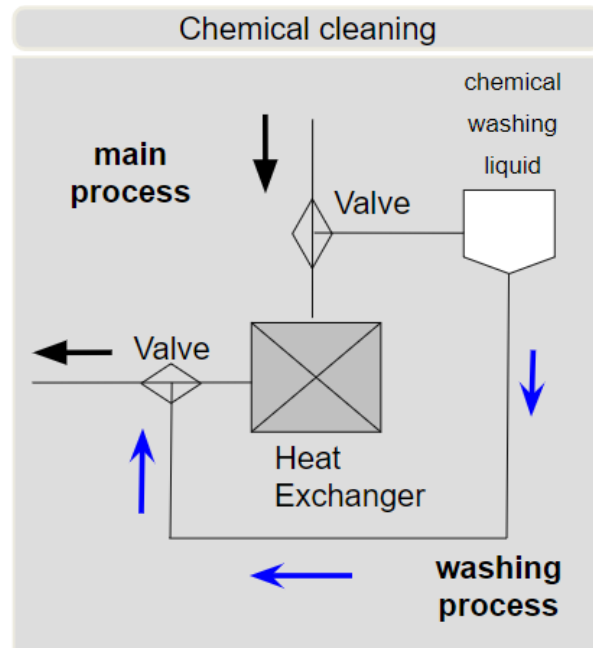


6 Open and close valves slowly to avoid water hammer from pressure surges up during start-up and shutdown. Avoid sudden changes in the rate of flow so as to avoid hydraulic water h

hammer shocks and the effects of fatigue caused by thermal expansion and contraction of fluids.

7 For fluids which contain solid particles, keep operate in accordance with the design rate to avoid erosion and corrosion.

8 Use Cleaning-In-Place (CIP) or backflushing to reduce the need to open the cover for cleaning. Recommend to monitor the heat exchanger's performance and pressure drop in order to better plan cleaning and maintenance i.e. to find out the best cleaning intervals for your specific conditions.



9 Recommend cover gasket be changed after opening.

10 In case of shut down for a long period, using corrosive fluid or threat of a freezing risk, flush and/or drain the heat exchanger.

If you need any advice, please contact us or our local partner, we shall immediately execute in accordance with your requirements in a diligent and professional manner.

