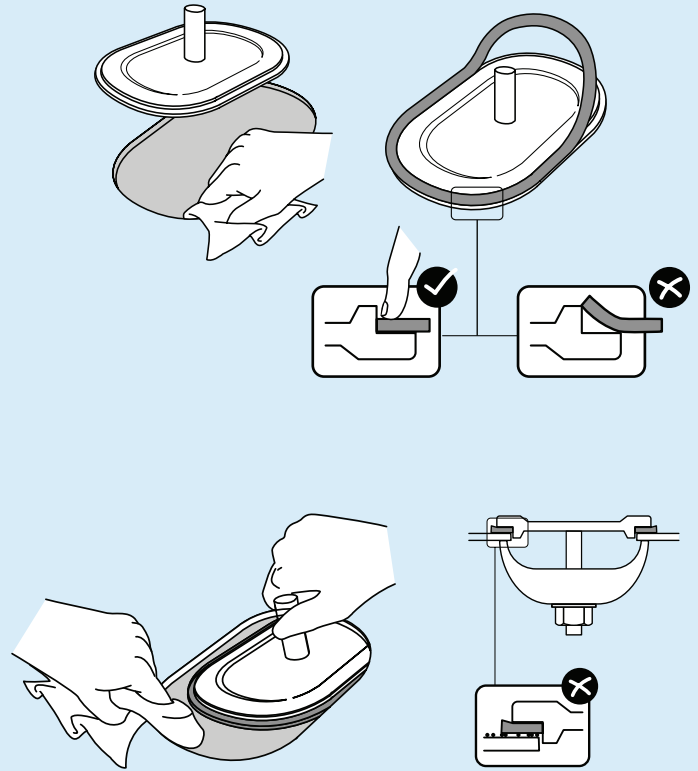


Topog-E® Series 450 gaskets

Installation Guide for Gaskets in Steam Boilers

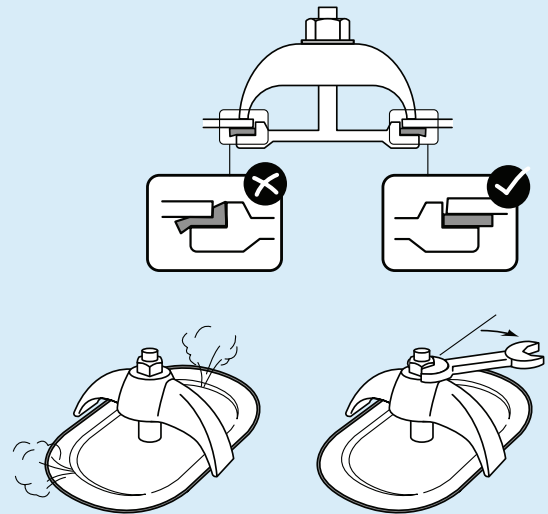
STEP 1 - PREPARATION

- **Removal of Existing Gasket:** Remove the existing gasket and meticulously clean the sealing surfaces on both the boiler shell and the cover plate. When replacing gaskets other than the **Topog-E® Series 450**, abrasive cleaning or buffing of the surfaces may be required to ensure a smooth and clean seal, which is essential for optimal gasket performance.
- **New Gasket Installation:** Place the new **Topog-E® Series 450** gasket onto the inspection cover plate, ensuring it is uniformly seated and correctly positioned without gaps. Avoid the use of any lubricants, adhesives, or greases. Before the final assembly, perform a meticulous cleaning of the mating surface inside the boiler using a clean rag to remove any residual debris or particulates. Gaskets installed on the lower sections of the boiler shell are particularly vulnerable to leaks due to trapped particles; if leakage is observed, drain the boiler and re-install the gasket to extend service life and maintain sealing integrity.



STEP 2 - INSTALLATION

- **Alignment and Tightening:** Align the cover plate precisely with the boiler opening, position the retaining crab, and tighten the nut until it is snug. Begin by tightening manually, then use a wrench to apply an additional quarter turn, ensuring adequate compression of the gasket. Excessive tightening should be avoided to prevent over-compression, which can damage the gasket material and reduce its operational lifespan. Torque lubricated bolts between 90-120 ft. lbs. Alternate between crabs 60-90-120 ft. lbs.



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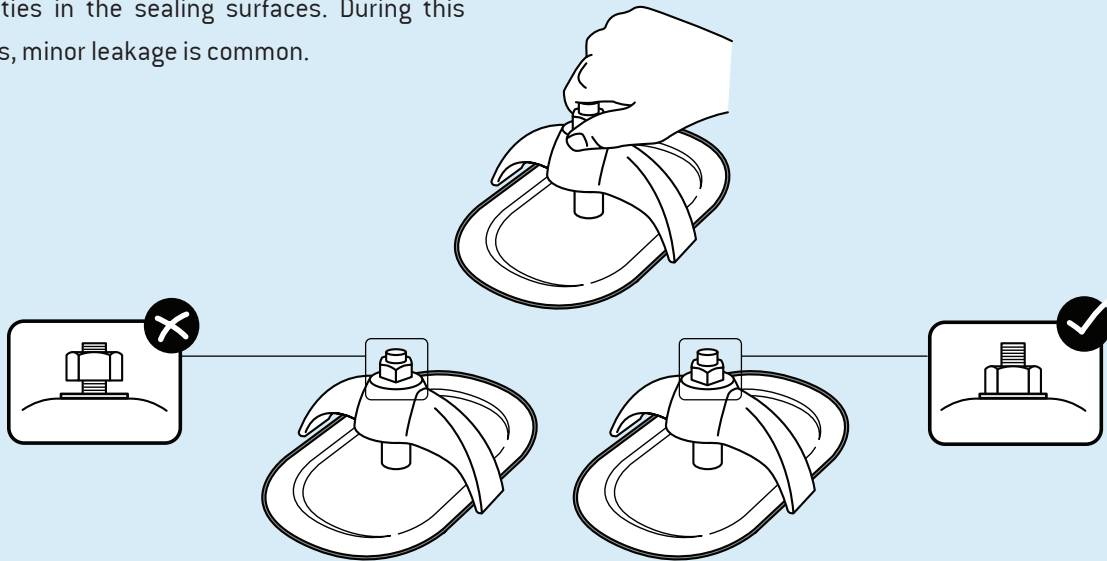
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STEP 3 - GASKET ADJUSTMENT

- **Controlled Tightening:** Avoid over-tightening the gasket, as this can induce excessive compression, leading to gasket degradation or failure. If leakage occurs during pressure build-up, adjust the nut incrementally, tightening just enough to stop the leakage. The soft rubber compound beneath the PTFE layer cures when exposed to heat, allowing the rubber to conform to pits and irregularities in the sealing surfaces. During this curing process, minor leakage is common.
- **Pressure Adjustments:** As the boiler reaches its standard operating pressure, the retaining nut and crab may experience slight loosening due to ongoing gasket compression. Maintain the nut at least finger-tight until the gasket has fully seated and stabilized, ensuring the sealing remains intact.



STEP 4 - CRITICAL CONSIDERATIONS

- **Single Use:** Topog-E® Series 450 gaskets are designed for single-use only. Reinstallation of used gaskets is strictly prohibited as it compromises the sealing integrity and overall performance.
- **Application Range:** Topog-E® Series 450 gaskets are specifically designed for use in steam and are not recommended for water, air, and other incompatible applications. Despite extensive testing and customer feedback, performance guarantees cannot be provided due to the variability of installation conditions outside of Topog-E® LLC's control.



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