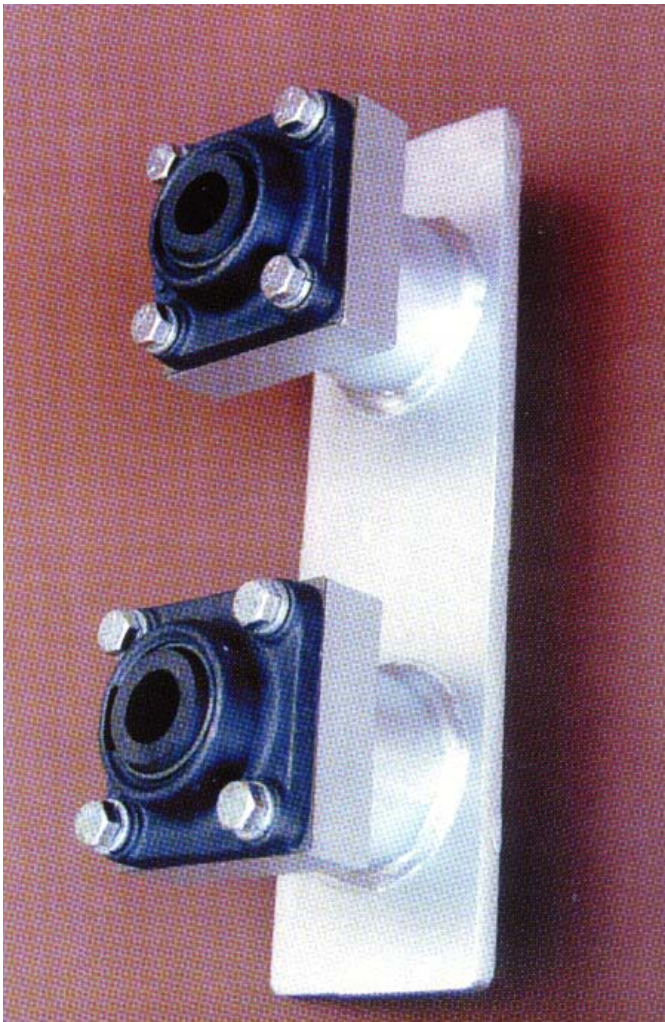




Design Update Bulletin

New damper upgrade improves air flow control reliability and reduces maintenance...

“Windbox Damper Upgrade”



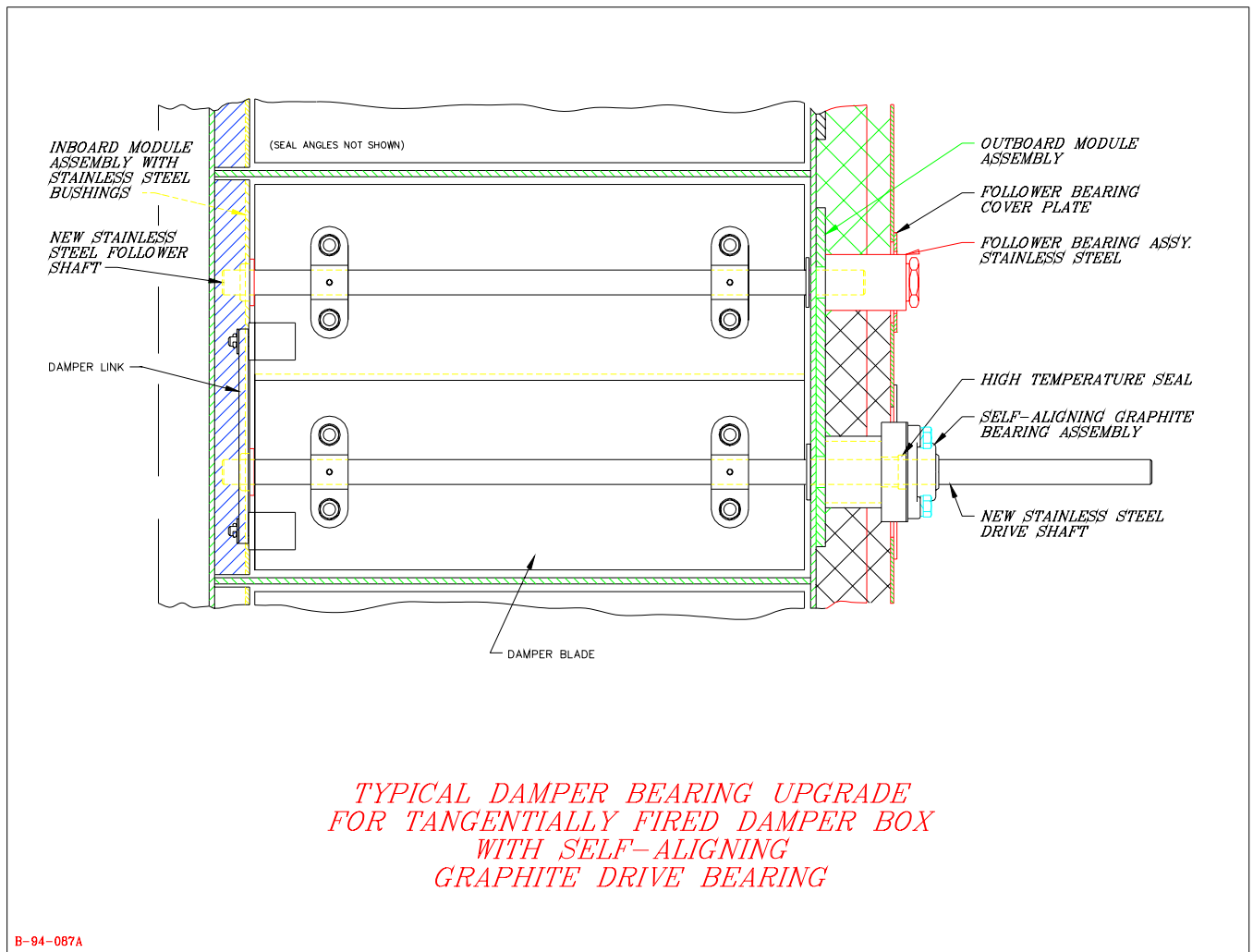
[Photo Courtesy of RV Industries](#)

New FWEC damper upgrades for tangentially-fired units can replace worn/inoperable secondary air damper assemblies in the main windbox.

- Provides restored control of secondary air flow.
- Opposed dampers improve flow profile over parallel damper designs.
- Shop-fabricated modules guarantee tolerance control, and speed field installation.
- Extended module design reduces bending moment on driven damper shafts to reduce bearing friction.
- Self-aligning graphite bearing assembly on driven shafts to prevent seizing.
- High temperature stainless steel follower bushings resist corrosion.
- Upgrade compliments replacement of worn pneumatic or electric damper positioners.

With time, the operating condition of original equipment damper shafts and bearings can degrade due to operating at sustained high temperatures in a corrosive atmosphere. Increased system-wide bearing friction combined with worn pneumatic or electric positioners can lead to loss of secondary air flow control, a primary combustion tuning parameter for controlling NOx and CO emissions.

Our self-aligning graphite and stainless steel bearing modules are shop-fabricated and tested, and can be readily stitch welded into inboard and outboard damper channels. The extended bearing design reduces the bending moment imposed by the positioner on the bearing by decreasing the unsupported shaft length; and is self-aligning to compensate for thermal expansion. The upgrade benefits from material selections that are self-lubricating and that resist corrosion by fly ash. The end-result is a complete windbox damper upgrade that restores accurate air flow control, at a benefit to emissions and maintenance operations.



The information presented above is continually updated. Please contact your local Foster Wheeler Power Group office for specific details.

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