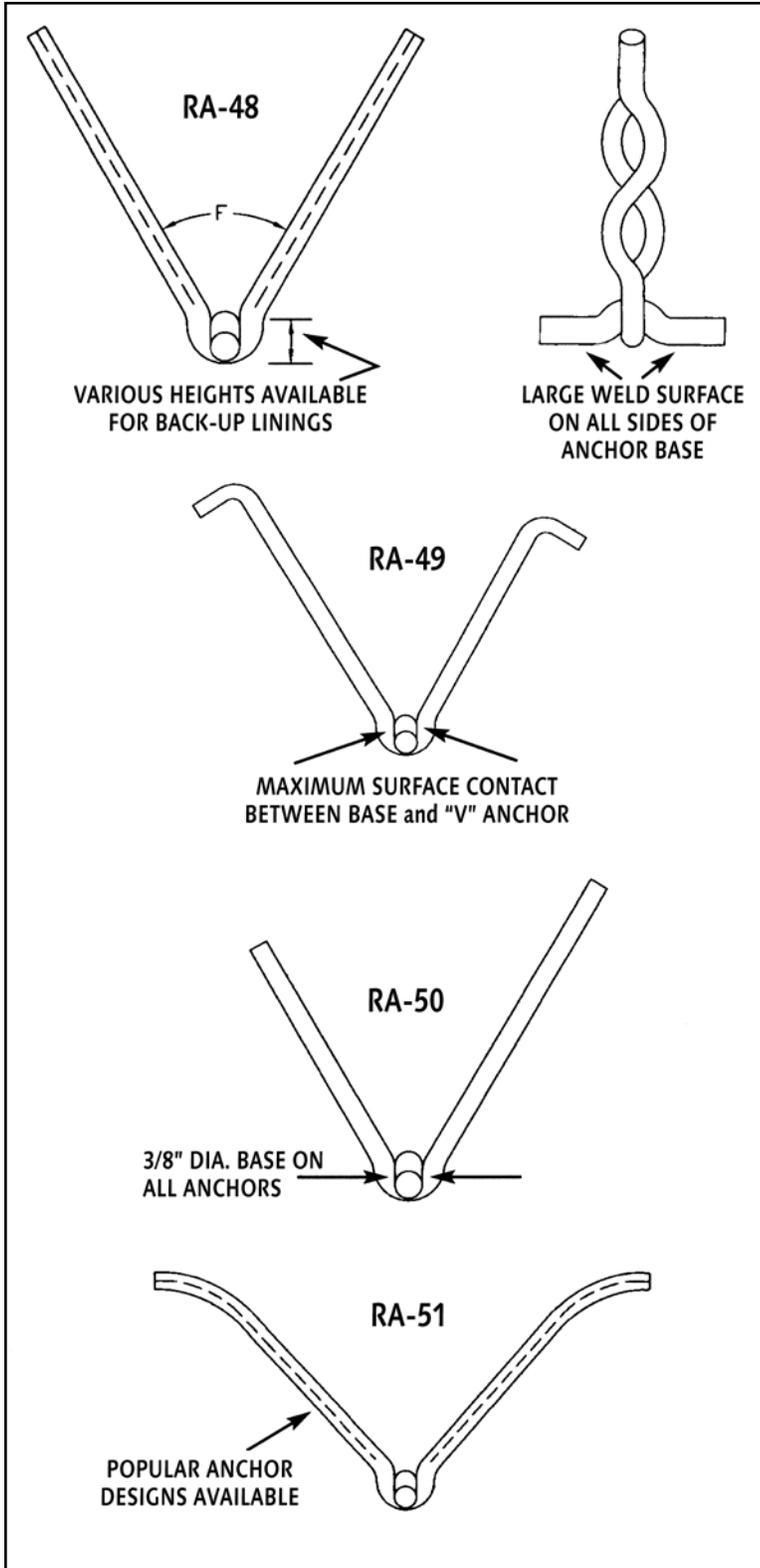




REFRACTORY
ANCHORS, INC.



RA-48/49 50 51 Flexi-Base® Metallic Anchoring System

For years "Break Away Anchors" have been used in rotary kilns. Traditional wire anchors are prone to work hardening when refractory moves during kiln rotation. Anchor failure can also result from expansion differentials between ceramics and metallic in applications such as burner pipe where air cooled metal interfaces with refractory exposed to calcining temperatures. The most popular design of "Break Away Anchors" incorporates a "V" anchor tac welded to a square nut. The square nut is welded to the vessel allowing the tac weld to break after installation. The separation of the two anchor components permits refractory movement without work hardening the anchor. This traditional design has two weaknesses. First, metallic refractory anchors need to be kept as cool as possible to slow oxidation. Complete separation of the "Nutted V" system reduces the heat loss from the anchor tips where they are most vulnerable. Second, the point of contact between the square nut and wire anchor is sharp focusing all the stresses on the single point of contact.

RAI's new family of FLEXIBLE refractory anchors outperforms other "break away" designs for the following reasons:

1. Flexibility without work hardening the anchor
2. Withstands movement from expansion and contraction
3. Excellent thermal conductivity to the vessel
4. Combination of alloys available
5. Withstands cast vibration refractory installation
6. Large weld surface for attachment to vessel
7. Wide variety of anchor configurations
8. No sharp edges that cause wear on metal contact points
9. Can be substituted for any wire anchor

This design is patented.
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