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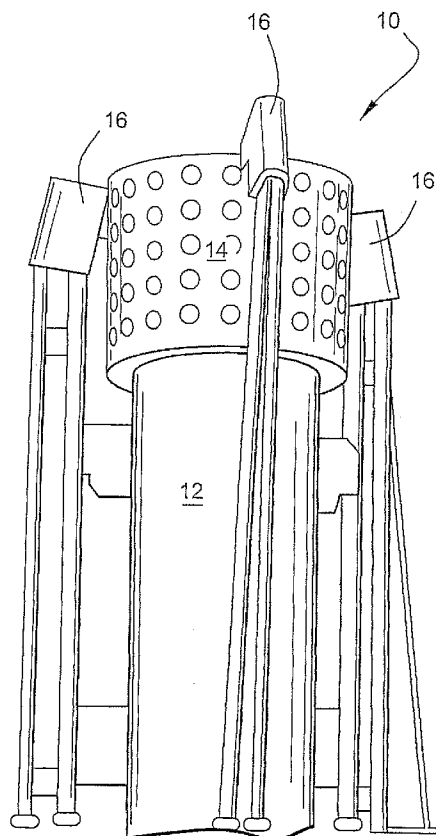
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(54) Title: LONGEVITY AND PERFORMANCE IMPROVEMENTS TO FLARE TIPS



(57) Abstract: Low emissivity (low-E) coatings are applied onto surfaces of flare tips to achieve longer flare tip service life, improved flare tip structural integrity and/or a more stable flame pattern under a wide range of operating conditions. In accordance with some embodiments of the present invention, low-E coatings may be applied to the flare tip burner as well as associated internal and/or external component surfaces to reduce direct flame radiation and also conductive heat transfer. The low-E coating material preferably has an emissivity of less than about 0.80, more preferably between about 0.20 to about 0.78. The coating thickness of the low-E material is preferably between about 1 mil to about 25 mils, and more preferably between about 2 mils to about 8 mils. Coating densities of the low-E material in the coating will preferably be at least about 65%, more preferably between about 80% to about 100%.

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