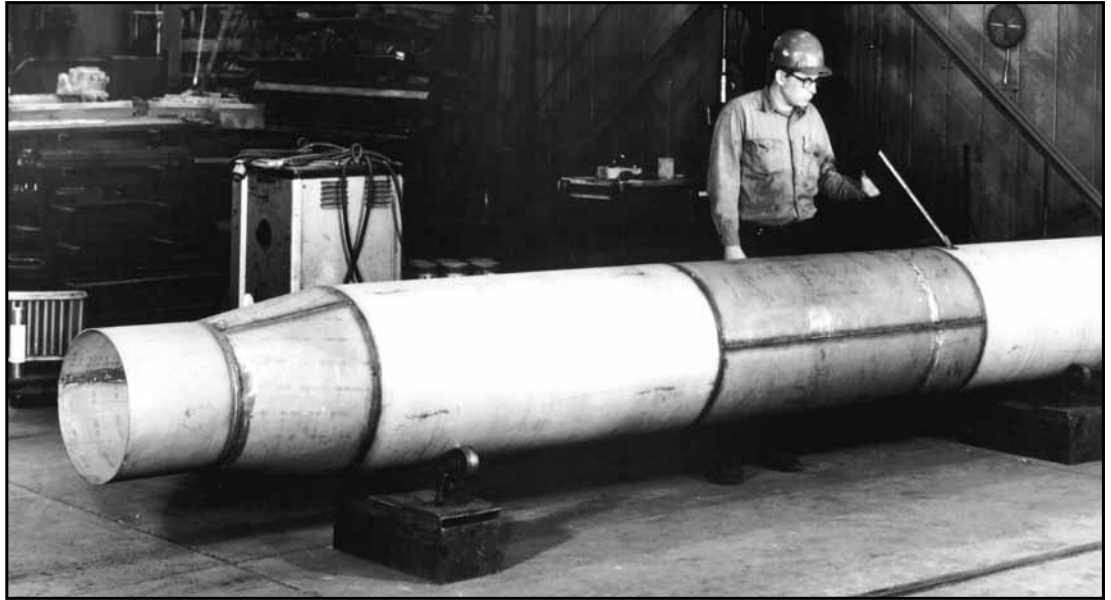


## RA330® Chosen for Perlite Expansion Tube



### Specifications

UNS: N08330 W. Nr./EN: 1.4886, 10095 AMS: 5592, 5716 ASTM: B 536, B 511, B 512, B 535, B 546, B 710, B 739  
ASME: SB-536, SB-511, SB-535, SB-710

### Chemical Composition, %

	Cr	Ni	Mn	Si	Cu	P	S	C	Fe
MIN	18.0	34.0	—	1.0	—	—	—	0.04	—
MAX	20.0	37.0	2.0	1.5	1.0	0.03	0.03	0.08	balance

### Application

A cylindrical tube was fabricated to be placed into service for the purposes of perlite expansion. In this process, the fabricated tube is vertically oriented and externally heated to temperatures slightly above 1800°F. For this to happen, the temperature on the outside of the tube may reach temperatures in excess of 1900°F. This operation requires that perlite be poured into the top of the tube which gravity feeds the perlite to the exit below. While inside, the perlite begins to soften to a plastic state where water that is trapped inside is superheated allowing the perlite particles to expand from 4 to 20 times their original size. Once cooled, the perlite can be used as granular insulation.

### Bill of Materials

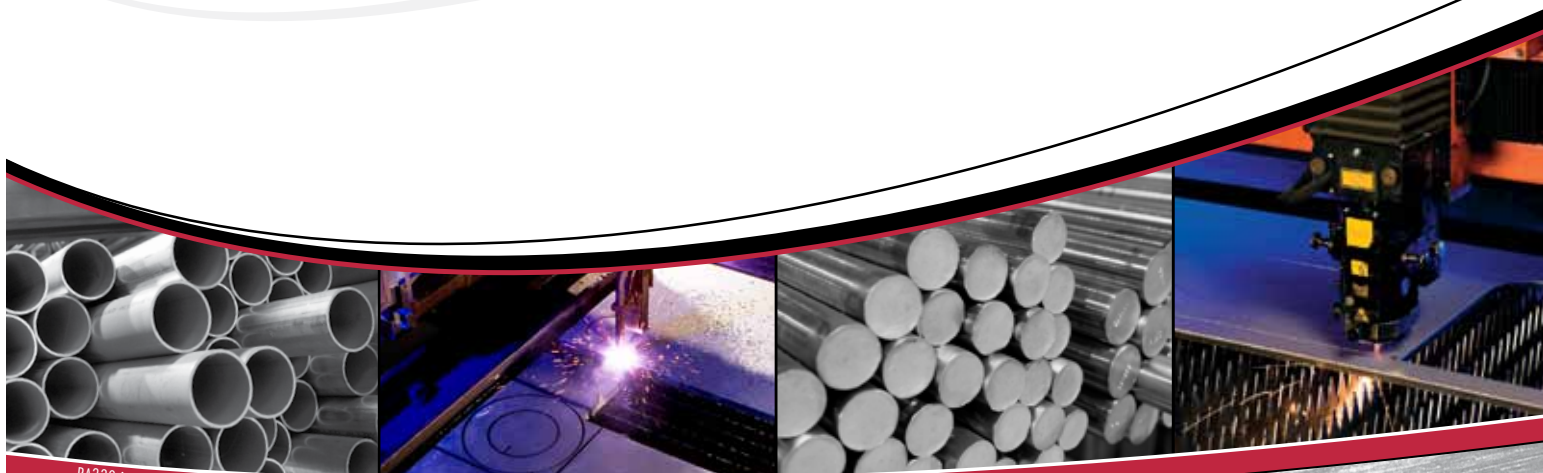
This tube was fabricated to a length of 224 inches (18.67 feet) with an outer diameter of 24 inches using 10ga material (0.135 inch). The tube was welded using RA330-04 weld wire. The fabrication used a total of over 3000 lbs. of sheet and welding consumables.

### Conclusion

Service life can vary from tube to tube based on operating conditions and how the material is treated. The tube above was last seen in working condition after 5 years of service.



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