

RA 602 CA $^{\otimes}$ Chosen for Heat Treat Baskets for Extreme High Temperature Vacuum Heat Treating



Alloy 600 Baskets after 5 cycles

RA 602 CA Baskets after 30 cycles

Specifications

UNS: N06025 W. Nr./EN: 2.4633 ASTM: B 168, B 166 ASME: SB-168, SB-166, Code Case 2359

Chemical Composition, %

	Cr	Ni	Cu	Р	S	Fe	C	Al	Ti	Y	Zr	Si	Mn
MIN	24.0	-	-	-	-	8.0	0.15	1.8	0.1	0.05	0.01	-	-
MAX	26.0	Balance	0.1	0.02	0.01	11.0	0.25	2.4	0.2	0.12	0.1	0.5	0.15

Case History

Solar Atmospheres of Souderton, PA, evaluated fabricated RA 602 CA® wire rod baskets for vacuum heat treating of heavy parts at temperatures approaching 2300°F, the most extreme cycle in that facility for high temperature components. All other alloys including RA330®, 600, HR-120® were only usable for 5 to 10 cycles, after which time the basket had to be manually straightened and reassembled for continued use. The straightening process is a time consuming and costly operation. A typical alloy 600 basket with only 5 cycles is shown above on the left. It is very twisted to the point that it cannot be used without straightening. An RA 602 CA basket with 30 cycles is shown above on the right. The baskets are lasting more than 30 cycles before there is a need to straighten.

In President Roger Jones' words, "RA 602 CA has proven to be an exceptional alloy for this basket construction as compared to the aforementioned basket alloys. Furthermore, future baskets will be designed and purchased to replace existing RA330 and Inconel 600 for these high temperature applications."

RA 602 CA is stocked by Rolled Alloys in plate, sheet, round bar, and welding consumables. A full data sheet (Bulletin 1602) on RA 602 CA is available by request from Rolled Alloys or can be downloaded at the www.rolledalloys.com website.



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