



RA 502 Continuous Resistance Annealer

Expertise, Customer Driven, Service – in Good Hands with NIEHOFF



RA 502

Design:

- DC resistance annealer in single or two-wire version for aluminium and aluminium alloys
- 2-zone annealing system, electrically neutral (no current flow to other machines)
- freely accessible slip rings and carbon brushes
- internally cooled contact pulley K3
- single wire path with no crossover

Increase in quality:

- encapsulated protective gas zone up to the end of the annealing process in order to avoid oxidation of the wire surface and smoke emission
- automatic contact pulley cleaning and oscillating wire movement (K1 and K2)
- effective single-wire drying
- digital annealing voltage control for consistent wire annealing quality

Increase in productivity:

- increased production output by means of 480 kW annealing power

Energy and cost efficiency:

- individual drives for all contact pulleys for long service life of the contact rings and best wire surface quality

Technical data

| type | | single-wire | | | | two-wire | | |
|--|-----|--------------------|-------|-------|-------|--------------------|-------|-------|
| material | | Al / Al alloy* | | | | Al / Al alloy* | | |
| max. single wire dia. | mm | 1.2 ... 2.0 | 3.0 | 4.0 | 5.0 | 1.2 ... 2.0 | 3.00 | 4.0 |
| | AWG | 16 ... 12 | 9 ½ | 6 | 4 | 16 ... 12 | 9 ½ | 6 |
| at max. production speed | m/s | 40.0 | 23.5 | 13.0 | 8.5 | 40.0 | 19.0 | 6.5 |
| | fpm | 7,873 | 4,625 | 2,559 | 1,673 | 7,873 | 3,740 | 1,279 |
| finished dia. (for Al 99.5) | mm | 1.2 ... 5.0 | | | | 1.2 ... 4.0 | | |
| | AWG | 16 ... 4 | | | | 16 ... 6 | | |
| contact pulley dia. | mm | 500 | | | | 500 | | |
| max. annealing power (without transformer) | kW | 300 | | | | 480 | | |
| | HP | 402 | | | | 643 | | |
| max. annealing current | A | 8,000 | | | | 9,000 | | |
| max. annealing voltage | V | 83 | | | | 83 | | |
| water-cooled slip rings | | standard | | | | standard | | |
| machine dimensions (W x D x H) (without transformer) | m | 5.25 x 1.58 x 2.30 | | | | 5.25 x 1.58 x 2.30 | | |
| weight: (without transformer) | kg | approx. 7,800 | | | | approx. 8,000 | | |

* values for Al-alloy available on request

We reserve the right to modify technical specifications according to technical improvement and advances. 05.2022