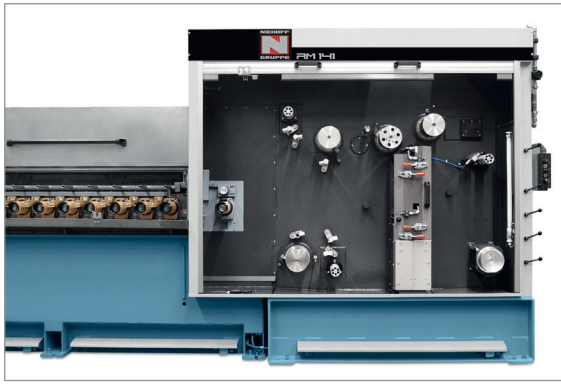
RM 121 / RM 141 / RM 301
Continuous Resistance Annealer

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

NIEHOFF
GRUPPE

RM 121 / RM 141 / RM 301

RM 121



RM 141

RM 301

www.niehoff.de

Maschinenfabrik NIEHOFF GmbH & Co. KG
Walter-Niehoff-Strasse 2 · 91126 Schwabach, Germany · Phone +49 9122 977-0 · info@niehoff.de

RM 121 / RM 141 / RM 301

Design:

- DC multi-wire resistance annealer with single-wire path for bare and coated Cu wires
- drawing machine and annealer forming a single unit
- ergonomic machine design with openly accessible wire paths

Increase in quality:

- consistently high finished wire quality achieved through single-wire drying
- speed-controlled uniform wire annealing at speeds from 0 m/s
- contact tube cleaning device for longer service life and high wire quality in the production of tinned wires
- wire oscillating device for longer life of the contact tubes
- optimum wire drying by patented 2/3-zone-system with reheating (RM 121, RM 141)

Increase in productivity:

- fast wire stringing-up with separately driven auxiliary pulley
- easy-to-change contact tubes with long service life
- driven haul-off capstan (contact pulley) for constant wire tension in the annealer and reduced wire tension to the downstream spooling system

Energy and cost efficiency:

- high machine availability
- low energy consumption
- reduced costs of production resources
- high product acceptance achieved by perfect quality
- quick return on investment by a high cost-benefit ratio

Optional:

- individually driven contact pulleys for high wire surface quality and longer service life of the contact tubes

Technical data

type		RM 121	RM 141	RM 301	
max. production speed	m/s	31.5	35	40	
	fpm	6,201	6,889	7,874	
possible no. of wires		8/16	8/16/24	8/16/24/28	AWG
finished dia.	mm	0.05 ... 0.25 (8-wire) 0.05 ... 0.25 (16-wire)	0.10 ... 0.52 (8-wire) 0.10 ... 0.41 (16-wire) 0.10 ... 0.33 (24-wire)	0.40 ... 1.35 (8-wire) 0.35 ... 1.15 (16-wire) 0.25 ... 0.90 (24-wire) 0.22 ... 0.73 (28-wire)	26 ... 15 ½ 27 ½ ... 17 30 ... 19 31 ½ ... 21
	AWG	44 ... 30	38 ... 24/26/28		
contact pulley dia.	mm	140	140	300	
max. annealing power	kW	23	60	350	
max. annealing current	A	500	2,000	7,000	
annealing principle		3 zones	2/3 zones	2 or 3 zones	
separately driven auxiliary pulley		–	standard	standard	
individual drives		–	optional	optional	
water-cooled slip rings		–	standard 2.000 A optional < 1.500 A	standard	
machine dimensions (W x D x H)	m	1.80 x 1.00 x 2.10	2.10 x 1.00 x 2.10	3.55 x 2.10 x 3.04	
weight (w/o transformer)	kg	approx. 2,200	approx. 2,500	approx. 7,000	

Overall integration for superior performance

The entire line delivers technically innovative solutions for your production targets:

- Convincing combinations of individual NIEHOFF components and the excellent quality standards guarantee superb line availability.
- By using a freely programmable PLC control and standardized interfaces, the line can be combined very effectively with different spooling and coiling systems.

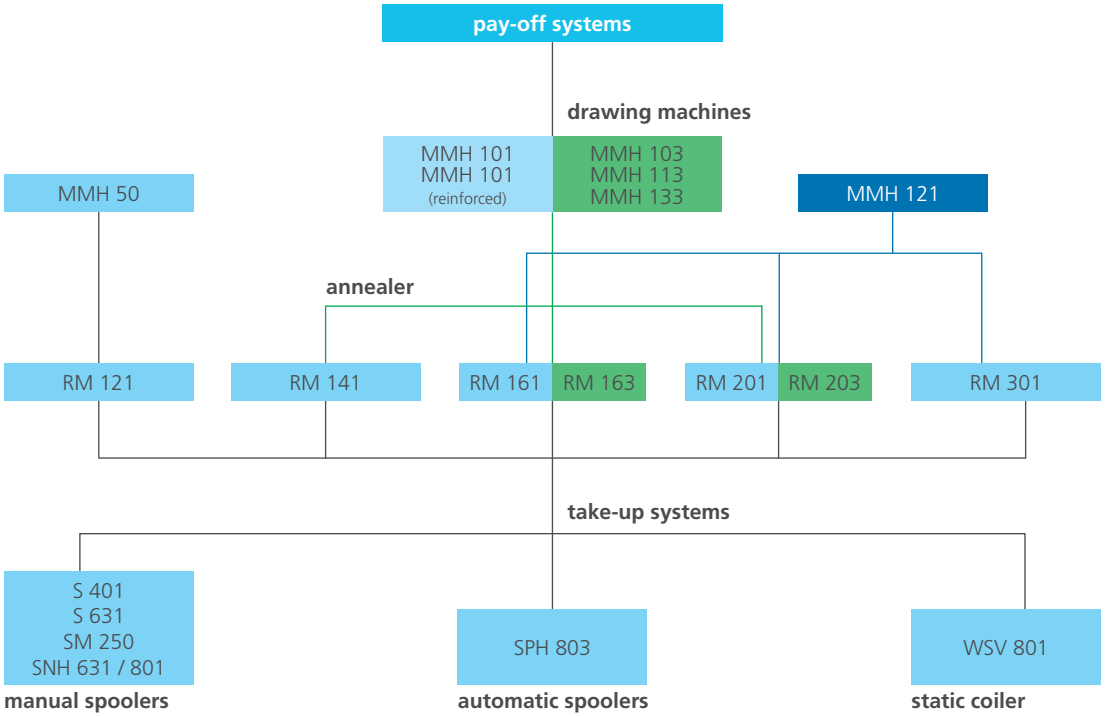
The MMH line concept already incorporates the potential for future integration of systems in overall production processes.

For example for areas such as:

- quality assurance
- operational data acquisition
- materials flow control

All possible combinations will deliver the ultimate in terms of quality and erformance!

Suitable for combination and integration



(Further take-up systems are available on request)