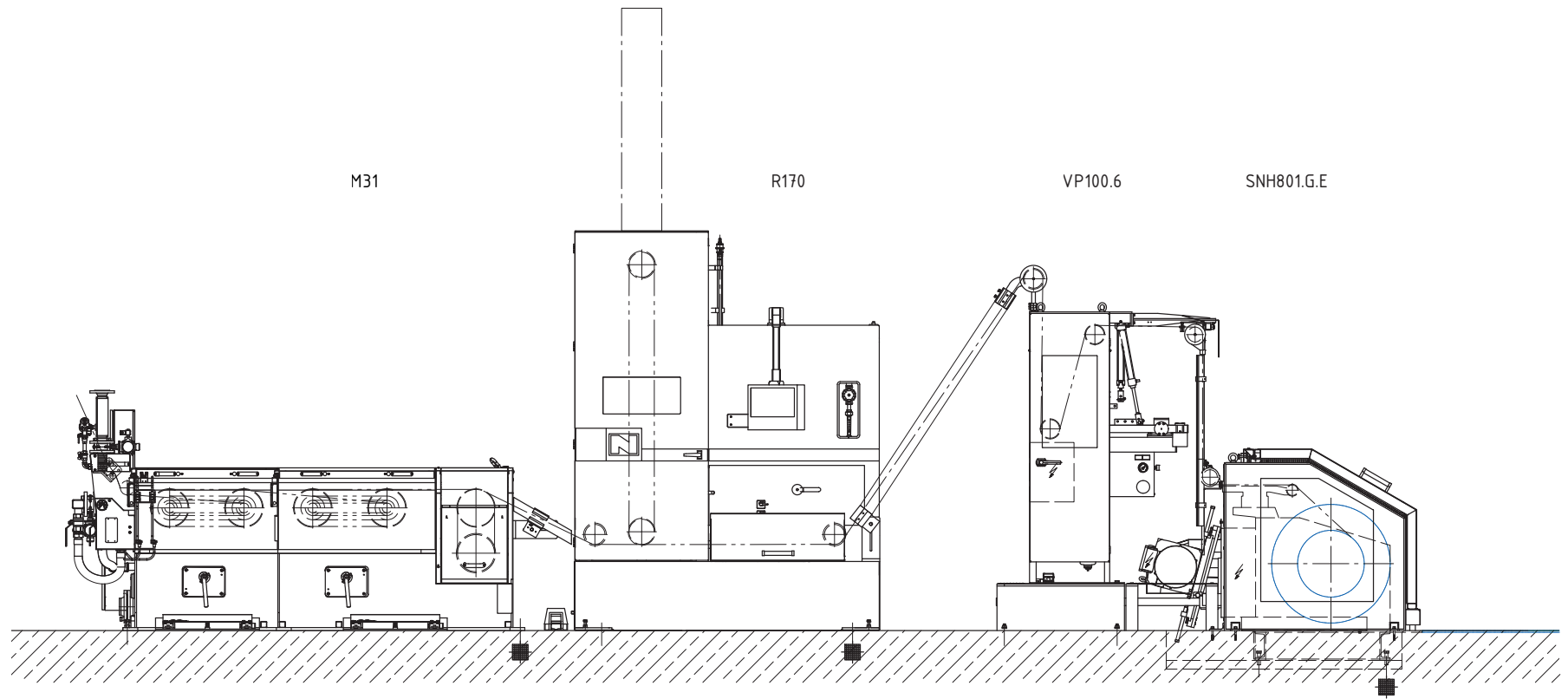




M 31 / RI 170 Cone-type Drawing Machine for the Intermediate Wire Range

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





We reserve the right to modify technical specifications according to technical improvement and advances. 03.2026

M 31

Design:

- optimum wire cooling/lubrication by fully submerged drawing basin
- extremely smooth operation and uniform load transmission by helical precision gear
- highly reliable separation of drawing emulsion and gear oil via mechanical seal (long service intervals)
- user-friendly design

Increase in quality:

- straight wire path caused by staggered cone pairs (very high wire surface quality)
- final die can be pivoted around 2 axes for the production of straight, twist-free wires

Increase in productivity:

- NMI (NIEHOFF Machine Interface) color touchscreen for data entry, display of production parameters and maintenance instructions

Energy and cost efficiencys:

- reduced consumption of electrical energy per ton of produced wire
- long service intervals and extended drawing die service life minimize costs and spare die stock levels
- reduced consumption of oil and drawing lubricant

Technical data

material		Cu
max. production speed	m/s fpm	40 7,874
no. of wires		1
max. inlet dia.	mm AWG	3,5 7 ½
for inlet strength:	N/mm ²	450
finished dia.	mm AWG	0,35 ... 1,6 27 ½ ... 14
max. no. of drafts		17
wire elongation per draft	%	26
drive technology		AC-Motor
machine dimensions (W x D x H)	m	3.40 x 1.80 x 1.20
weight	kg	approx. 3,200

RI 170

Design:

- contactless energy transfer

Increase in quality:

- wire path with only two deflections
- double contacting on the short circuit pulley for high surface quality
- excellent working and processing properties of the wire by rapid cooling in the efficient cooling section producing a fine-grained structure
- excellent surface quality by contactless energy transfer

Increase in productivity:

- flat and profile wire annealing possible
- the few wearing parts can be taken out quickly and easily with minimum use of tools
- few wearing parts (no carbon brushes)

Energy and cost efficiency:

- wearing parts with long service life
- high energy efficiency

Optional:

- RI 120 with reheating for reliable wire drying

Technical data

type

RI 170.3

material		Cu, Cu alloys (e.g. brass, tin bronze, German silver) low-alloyed Cu alloys (e.g. CuMg, CuBe, CuCr) heating and resistance wires (e.g. CuNi44Nm1, NiCr10, Ni)
max. production speed	m/s fpm	40* 4,921/7,874
min. round wire diameter	mm AWG	0.30 28 ½
max. round wire diameter	mm AWG	1.60* 16/14
min. cross section flat wire	mm ² AWG	0.10 36
max. cross section flat wire	mm ² AWG	4.00 11
min. height flat wire	mm	0.10
max. width flat wire	mm	8.00
short circuit pulley diameter	mm	170
max. annealing power	kW	50

*In use for copper