

M 85 / MM 85

Tandem Rod Breakdown Machine

Proven quality, capable, reliable



NIEHOFF – worldwide
most advanced technology for
the wire and cable industry



The NIEHOFF Line Philosophy

Overall integration for superior performance

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

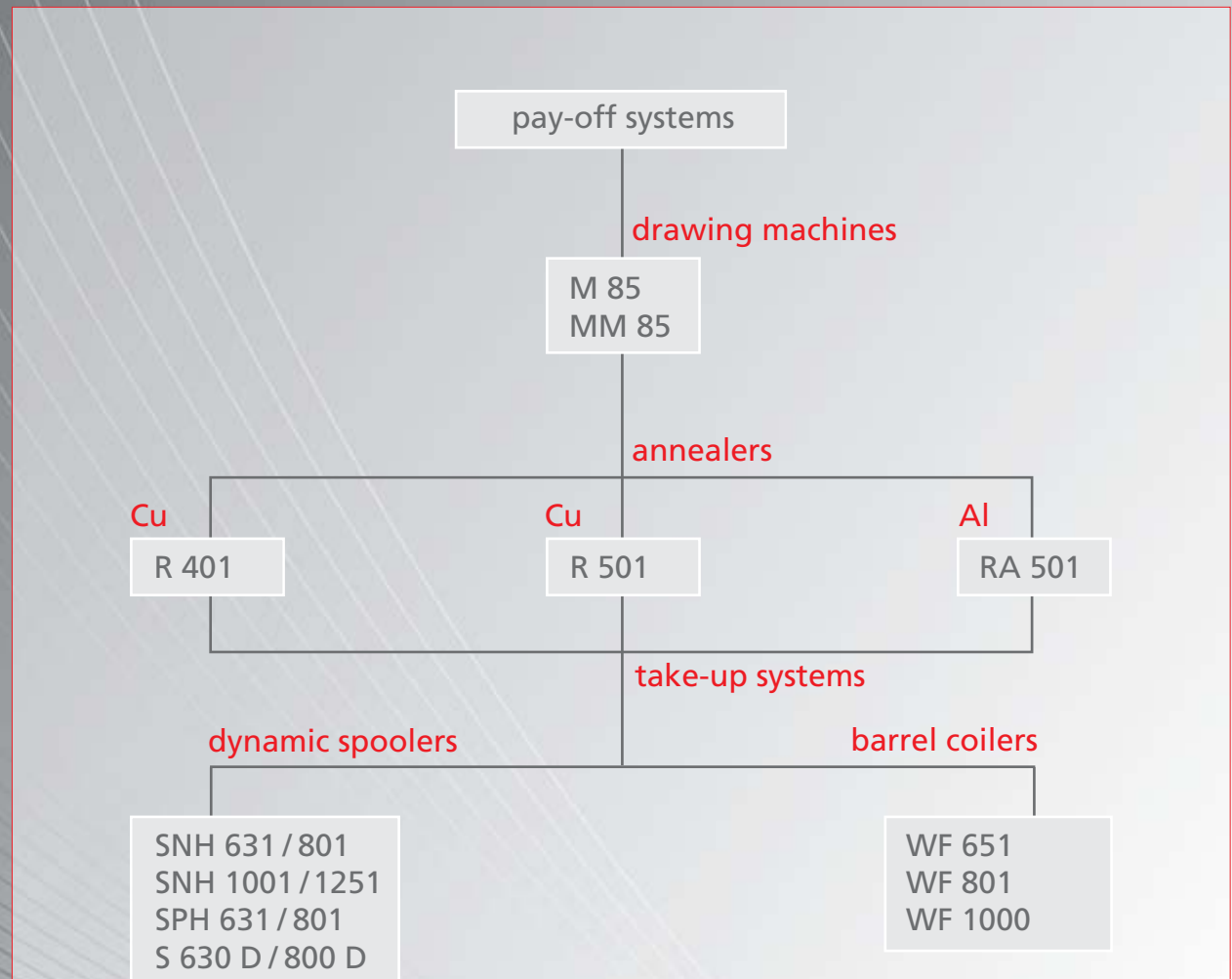
- Capable combinations of individual NIEHOFF components and the excellent quality standards guarantee superb line availability..
- Due to freely programmable control systems (PLCs) and standardized interfaces, the line can be combined very effectively with many spooling and coiling systems.

The M 85 line concept already incorporates the potential for future integration of NIEHOFF machine systems in overall production processes – i.e. the automation of different production areas, including:

- quality assurance
- operational data acquisition
- materials flow control

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

Combination and integration capability



(Further take-up systems available on request)

High-Tech Standard and Possible Variants

Technical data

type	M 85		MM 85		M 85		MM 85	
material:	Cu		Cu		Al / Al-alloy		Al / Al-alloy	
max. production speed (m/s):	38 (7480 fpm)		38 (7480 fpm)		38 25 (7480 fpm) (4921 fpm)		38 25 (7480 fpm) (4921 fpm)	
production output (t/a): (7000 h and 80 % utilization)	25000		31000		9500/8000		18000/16000	
no. of wires:	1		2		1		2	
max. inlet dia. (mm)(AWG):	8.0 (1/0)	10.0 (3/0)	8.0 (1/0)	10.0 (3/0)	12.5 (5/0)	9.5 (2/0)	12.5 (5/0)	9.5 (2/0)
at max. inlet strength (N/mm2):	450	250	450	250	120	220	120	220
finished dia. (mm):	1.0 ... 4.5 (18 ... 5 AWG)		1.0 ... 4.5 (18 ... 5 AWG)		1.0 ... 5.5/1.2 ... 4.5 (18 ... 3 1/2) (16 1/2 ... 5 AWG)		1.0 ... 5.5/1.2 ... 4.5 (18 ... 3 1/2) (16 1/2 ... 5 AWG)	
number of drafts:	7 ... 15		7 ... 15		7 ... 15		7/8 ... 15	
wire elongation per draft (%):	55 ... 26 (tapered)		55 ... 26 (tapered)		33/26		33/26	
drive technology / DC motors:	2 motors		2 motors		2 motors		2 motors	



Advantages of this safe investment choice

Design:

- optimized wire cooling/lubrication (fully-immersed drawing basin)
- helically geared precision gearing for extremely smooth operation and uniform load transmission
- vibration-damping grey cast iron housing for long service life
- highly reliable separation of drawing emulsion and gear oil via mechanical seal (long service intervals)

- user-friendly design

Increase in quality:

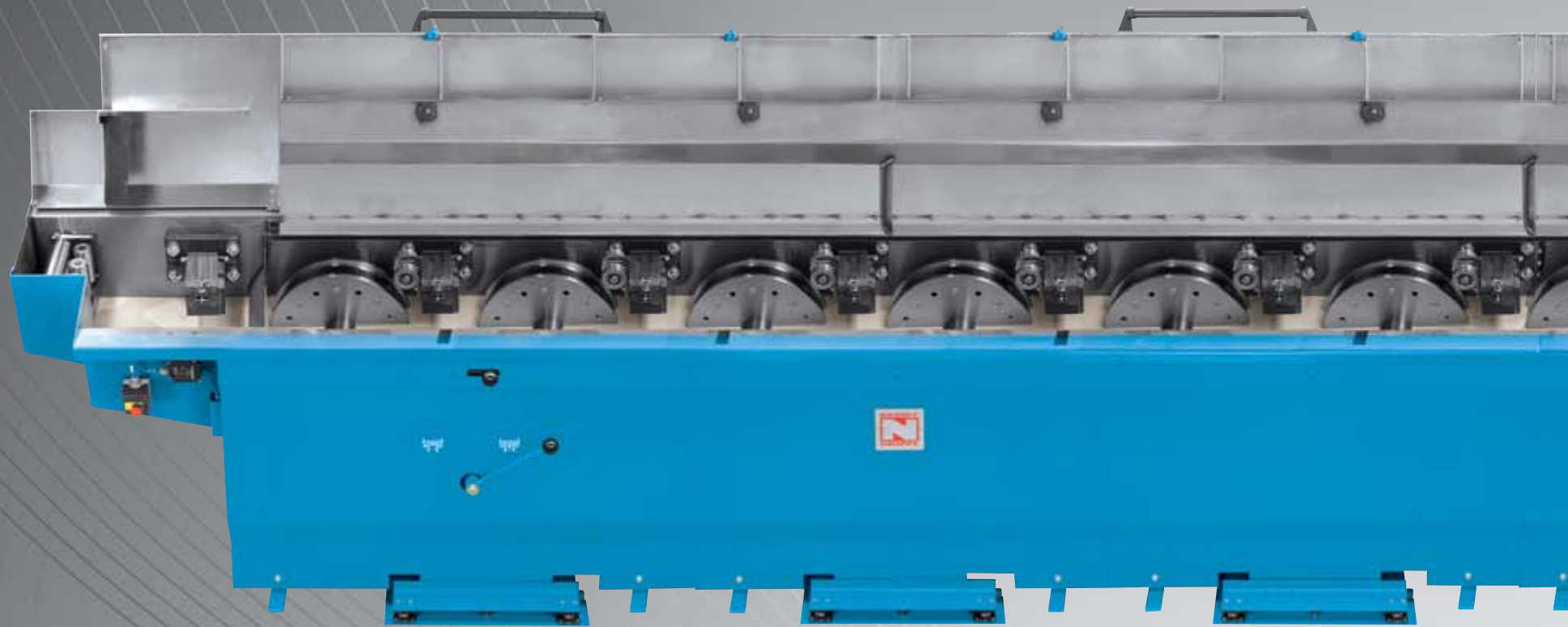
- high surface quality of the wires due to the optimized wire path (2° inclination of the gearing/drawing capstans)

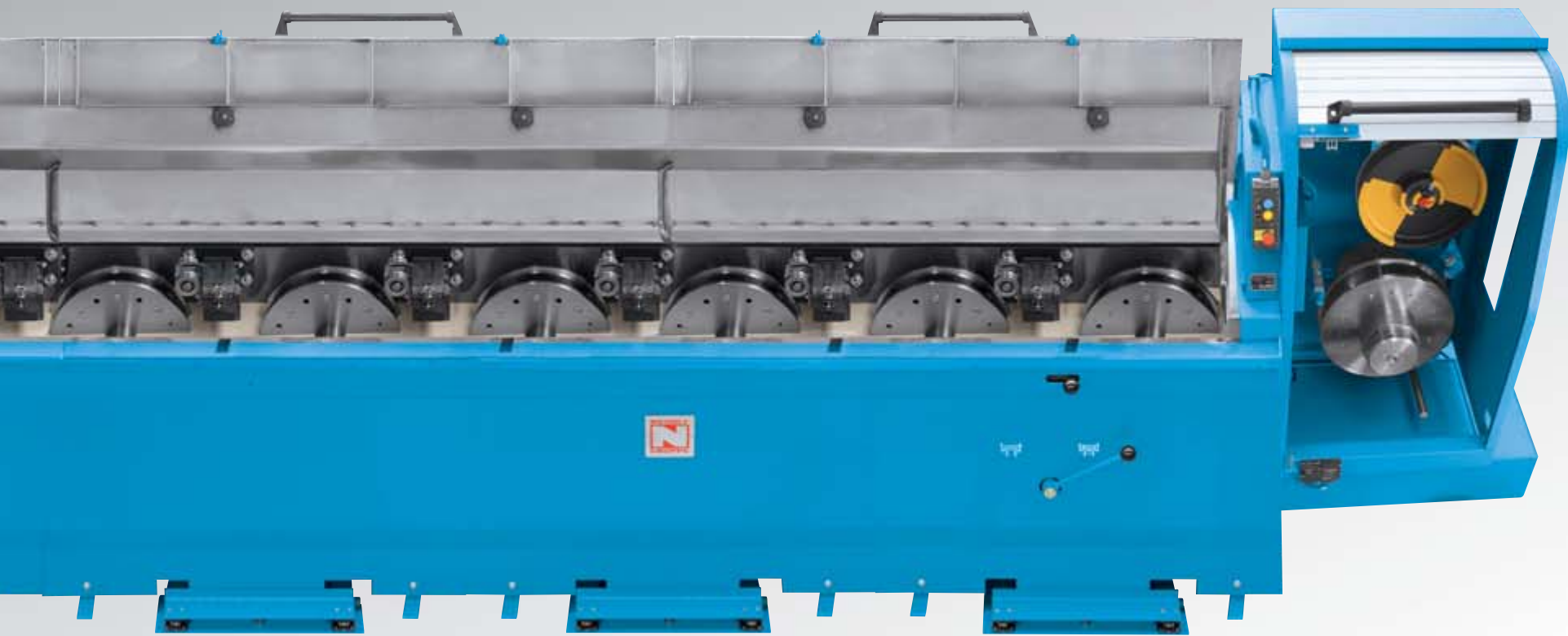
Increase in productivity:

- reduced downtime when changing the machine setup for different dimensions via multi-motor drive technology (quick drawing die change system)
- reduced downtime due to touchscreen-based user guidance and fault display

Cost-effectiveness:

- production of wires with different finished diameters
- reduced consumption of electric energy per ton of produced wire
- long service intervals and extended drawing tool service life minimize the requirement to stock and use spare parts
- reduced consumption of oil and drawing lubricant





An Example of Sophisticated Manufacturing Diversity

The modular NIEHOFF system

This drawing machine is designed for maximum flexibility – the modular system enables all variations required in practice.

Future-oriented machine construction technology for optimized system availability and reliability.



NIEHOFF – your partner with a worldwide service and sales network. Our experienced customer support team is always on hand.

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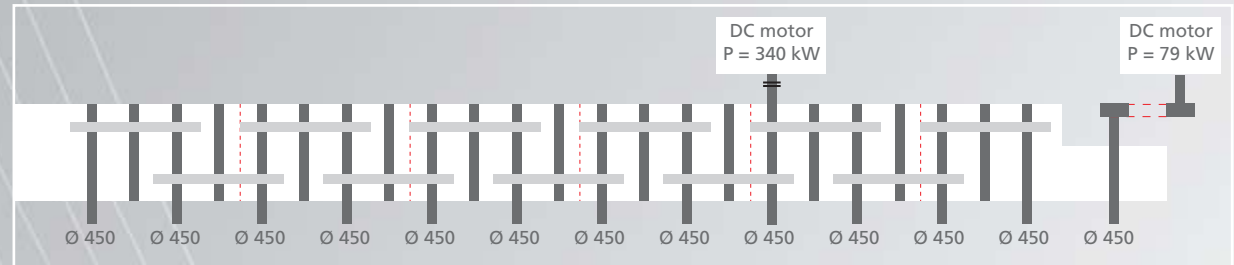
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Variable number of wires with:

- 2 to 14 wires per level

M 85 / version with 2 motors:

material: Cu (250 N/mm²)
max. inlet dia. (mm): 8.0
no. of drafts: 13
wire elongation: tapered



draft	51.4	48.0	44.0	41.5	38.0	35.5	32.5	30.0	28.0	27.0	26.0	26.0	recommended wire elongation (%)		
Ø (mm)	6.5	5.34	4.45	3.74	3.18	2.73	2.37	2.08	1.84	1.63	1.45	1.29	finished dia.	v (m/s)	v* (m/s)
1													1.15	38.0	
2													1.30	38.0	
3													1.45	38.0	
4													1.63	38.0	
5													1.83	33.0	(38.0)
6													2.05	26.0	(36.0)
7													2.30	21.0	(32.0)
8													2.59	17.0	(28.0)
9													2.90	13.5	(22.0)
10													3.50	9.5	(15.0)
11													4.11	7.0	(11.0)
12													4.50	6.0	(9.0)

* drafts 1 and 2 free on the inlet side

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