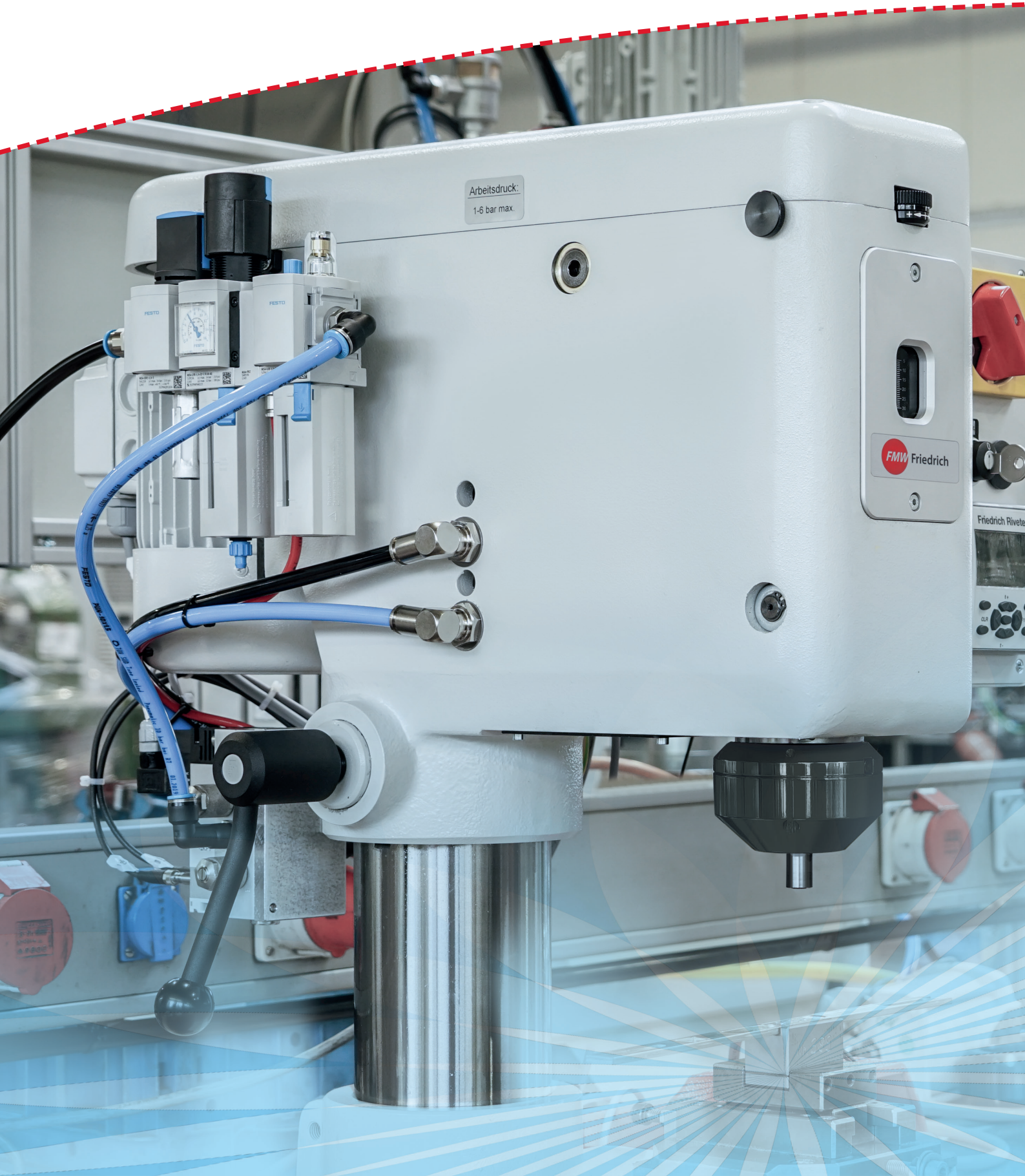


Riveting Machines Assembly Systems



Riveting Technology Pioneers

Riveting machines




Column-type riveting machines



N200 with FMW Nietcontrol and safe two-hand starting system as a manual workstation.

- Modular, compact and robust
- Height-adjustable machine body
- Mechanically adjustable riveting spindle stroke
- Machining table with center hole and T-slot
- Two-hand actuation at the machining table

Area of application: Manual workstation for small-scale to mass production of high-quality products with low automation requirements. In laboratories/development centers for tests, process optimization and pre-production.



Technical specifications	N000	N100	N200
Riveting diameter (mm) (Rm=370 N/mm ²)	1 - 3	1 - 4 / 2 - 6	3 - 10
Maximum riveting force (kN)	1.8	3 / 6	12
Spindle stroke (mm)	5 - 30	5 - 30	5 - 30
Working pressure (bar)	1 - 6 pn.	1 - 6 pn.	1 - 6 pn.
Riveting motor 230/400 V, 50 Hz (kW)	0.25	0.74	0.74
Maximum double stroke volume (l)	0.25	0.35 / 0.7	1.45
Approx. weight (kg)	50	170	170
Working area (mm)	2.5 - 103	19.5 - 229.5 / 2.5 - 212.5	2.5 - 212.5 / 19.5 - 229.5
Projection (mm)	128	170	170
Clamping area (mm)	220 x 175	320 x 290	320 x 290
Riveting die diam. (mm)	8	10 / 14	14 / 10
Riveting die length (mm)	40 - 80	40 - 120 / 40 - 170	40 - 170 / 40 - 120

Design

- Radial point riveting machine
- Radial point riveting machine with compression and joining function
- Orbital riveting machine (GBA)
- Riveting machine with multiple spindle head
- With or without measuring system
- Column can be extended by up to 200 mm

Controller

- Riveting machine controller pressure/time
- FMW Nietcontrol with one or two measuring systems

Accessories

- Automatic riveting head lubrication
 - Slider mechanism
 - Riveting die length up to 220 mm
- More accessories available on request


Safety riveting machine



N200 as an FMW Friedrich radial point riveting machine with patented accident protection system, that enables operation by foot switch.

- GS-tested and BG-certified
- Patented accident prevention system
- Modular, compact and robust
- Height-adjustable machine body
- Mechanically adjustable riveting spindle stroke
- Machining table with center hole and T-slot

Area of application: Preferably used as a manual workstation for riveting manual fixed parts.



Technical specifications	N100	N200
Riveting diameter (mm) (Rm=370 N/mm ²)	2 - 6	3 - 10
Maximum riveting force (kN)	6	12
Spindle stroke (mm)	6 - 30	6 - 30
Usable working stroke (mm)	24	24
Working pressure (bar)	1 - 6 pn.	1 - 6 pn.
Riveting motor 230/400 V. 50 Hz (kW)	0.74	0.74
Max. double stroke volume (l)	0.7	1.45
Approx. weight (kg)	170	170
Working area (mm)	1 - 181.5	1 - 181.5
Projection (depth in mm)	170	170
Clamping area (table in mm)	320 x 290	320 x 290
Length of riveting die (mm)	65 - 120	65 - 120

Design

- Radial point riveting machine
- Radial point riveting machine with compression and joining

Controller

- Riveting machine controller pressure/time
- BG-certified safety controller

Accessories

- LED lighting in the working area
- Workpiece and carrier

More accessories available on request




Pedestal-type riveting machines



NM0-A with FMW-Nietcontrol, two-channel pneumatic release

- Modular, compact and robust
- Height-adjustable machine body
- Mechanically adjustable riveting spindle stroke
- Machining table with center hole and T-slot
- Two-hand actuation at the machine table

Area of application: Manual workstation for small-scale to mass production of high-quality products with low automation requirements. In laboratories/development centers for tests, process optimization and pre-production.



Technical specifications	NM0-A	R100	NM2-K
Riveting diameter (mm) (Rm=370 N/mm ²)	0.4 - 3.5	1 - 3 / 2 - 6 / 2 - 7	3 - 10
Maximum riveting force (kN)	1.8	2.5 / 6.5 / 8.2	6 / 12
Spindle stroke (mm)	5 - 50	5 - 30	5 - 50
Working pressure (bar)	1 - 6 pn./el.	1 - 6 pn.	1 - 6 pn.
Riveting motor 230/400 V, 50 Hz (kW)	0.36 / 0.3	0.37	0.56
Maximum double stroke volume (l)	0.6	0.58 / 0.78	1.06 / 1.67
Approx. weight (kg)	110	110	285
Working area (mm)	15 - 135	30 - 180 / 13 - 163	30 - 380
Projection (mm)	176	159	200
Clamping area (mm)	230 x 160	240 x 247	360 x 335
Riveting die diam. (mm)	8	10 / 14	14
Riveting die length (mm)	50 - 140	40 - 120 / 40 - 170	40 - 170

Design

- Radial point riveting machine
- Radial point riveting machine with compression and joining function
- Orbital riveting machine (GBA)
- Optional change-over of force ranges
- With or without measuring system

Controller

- Riveting machine controller pressure/time
- FMW Nietcontrol with one or two measuring systems

Accessories


- Automatic riveting head lubrication
- Slider mechanism

More accessories available on request

Pedestal-type riveting machines



N510 with FMW-Nietcontrol and two-hand release as a manual workstation



Technical specifications	N300	N400	N430	N510
Riveting diameter (mm) (Rm=370 N/mm ²)	3 - 11	4 - 13	4 - 16	4 - 18
Maximum riveting force (kN)	16	25	30	40
Spindle stroke (mm)	5 - 40	5 - 40	5 - 40	5 - 50 / 5 - 72
Working pressure (bar)	1 - 6 pn.	1 - 6 pn.	1 - 8 pn.	10 - 70 hy.
Riveting motor 230/400 V, 50 Hz (kW)	0.74	0.74	1.9	1.9
Maximum double stroke volume (l)	1.86	2.08	2.08	0.45 / 0.65
Approx. weight (kg)	320	325	335	420
Working area (mm)	1 - 252	1 - 247	1 - 247	20 - 348 / 1 - 348
Projection (mm)	200	200	200	200
Clamping area (mm)	360 x 335	360 x 335	360 x 335	360 x 335
Riveting die diam. (mm)	14	14	30	30
Riveting die length (mm)	70 - 170	70 - 170	75 - 200	75 - 200

Design

- Radial point riveting machine
- Radial point riveting machine with compression and joining function
- Orbital riveting machine (GBA)
- Roll-forming machine
- With or without measuring system
- Column can be extended by up to 250 mm

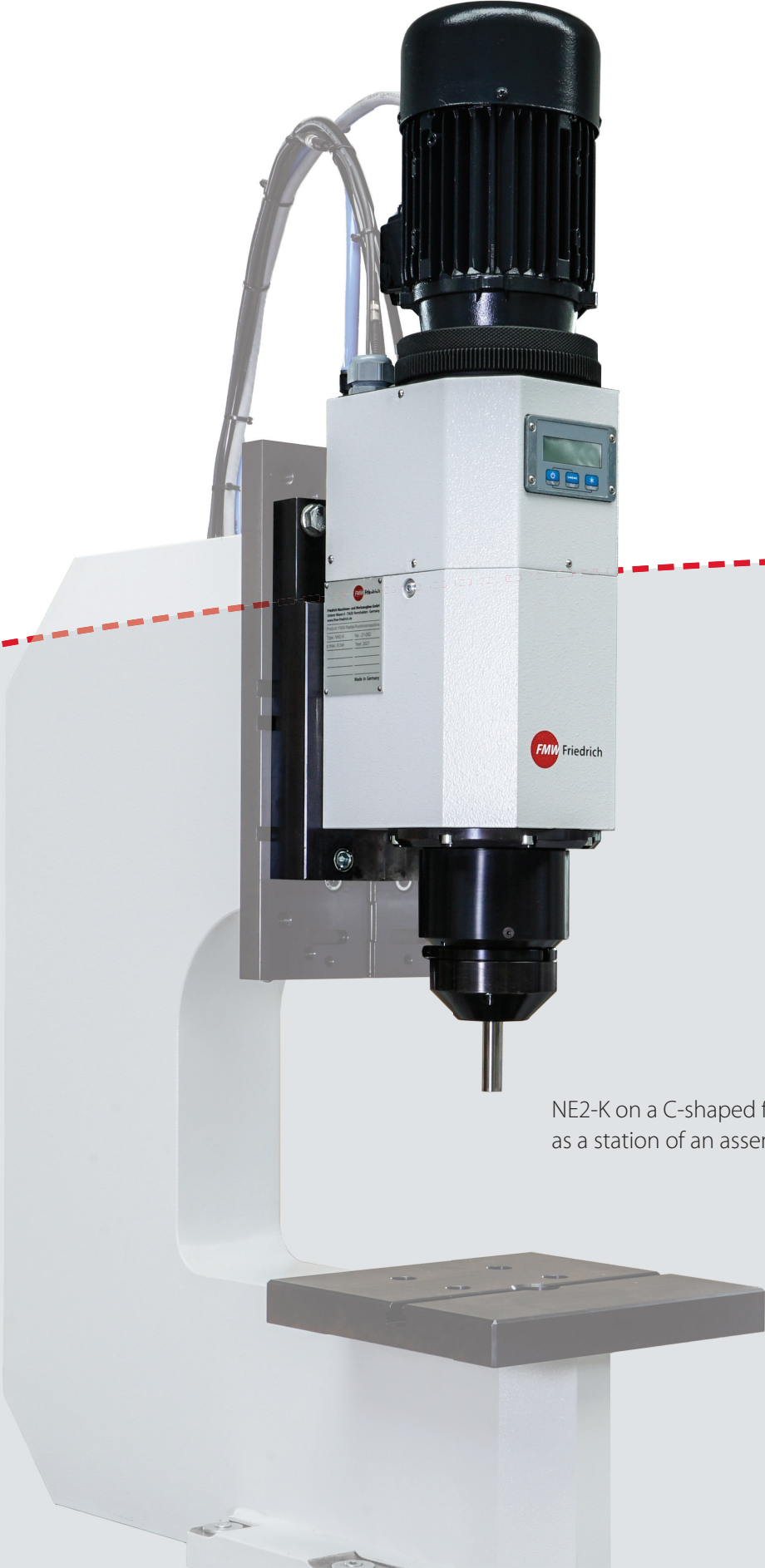
Controller

- Riveting machine controller pressure/time
- FMW Nietcontrol with one or two measuring systems

Accessories

- Automatic riveting head lubrication
 - Slider mechanism
 - Riveting die length up to 220 mm
- More accessories available on request


Riveting units



NE2-K on a C-shaped frame
as a station of an assembly line

- Modular structure in a compact design
- Various installation positions possible due to variable lubrication
- Portable drive motor for confined adaptations
- Mechanically adjustable riveting spindle stroke
- Also available as a complete workstation with C-shaped frame

Area of application: Integration in conveyor and rotary indexing systems. Proven use in assembly lines and complete systems.



Technical specifications	NE0-A	RE100	NE100	NE200	NE2-K
Riveting diameter (mm) (Rm=370 N/mm ²)	0.4-3.5	1-3 / 2-6 / 2-7	1-4 / 2-6	3-10	3-10
Maximum riveting force (kN)	1.8	2.5 / 6.5 / 8.2	3 / 6	12	6 / 12
Spindle stroke (mm)	5-50	5-30	5-30	5-30	5-50
Working pressure (bar)	1-6 pn./el.	1-6 pn.	1-6 pn.	1-6 pn.	1-6 pn.
Riveting motor 230/400V, 50 Hz (kW)	0.36 / 0.3	0.37	0.74	0.74	0.56
Maximum double stroke volume (l)	0.6	0.58 / 0.78	0.35 / 0.7	1.45	1.06 / 1.67
Approx. weight (kg)	35	35	55	55	50
Riveting die diam. (mm)	8	10 / 14	10 / 14	14 / 10	14
Riveting die length (mm)	50-140	40-120 / 40-170	40-120 / 40-170	40-170 / 40-120	40-170

Design

- Radial point riveting unit
- Radial point riveting machine with compression and joining function
- With optional electric controller
- With optional electric controller
- With or without measuring system

Controller

- Riveting machine controller pressure/time
- FMW Nietcontrol with one or two measuring systems


Accessories

- Mechanical downholder for pretensioning multilayer assemblies
 - Automatic riveting head lubrication
- More accessories available on request

Riveting units



NE430 at the rotary indexing table of an assembly system.



Technical specifications	NE210	NE300	NE400	NE430	NE510
Riveting diameter (mm) (Rm=370 N/mm ²)	3 - 10	3 - 11	4 - 13	4 - 16	4 - 18
Maximum riveting force (kN)	12	16	25	30	40
Spindle stroke (mm)	5-50 / 5-80	5 - 40	5 - 40	5 - 40	5-50 / 5-72
Working pressure (bar)	10 - 70 hy.	1 - 6 pn.	1 - 6 pn.	1 - 8 pn.	10 - 70 hy.
Riveting motor 230/400V, 50 Hz (kW)	0.74	0.74	0.74	1.9	1.9
Maximum double stroke volume (l)	0.2 / 0.3	1.86	2.08	2.08	0.45 / 0.65
Approx. weight (kg)	55	85	90	95	70
Riveting die diam. (mm)	14	14	14	30	30
Riveting die length (mm)	40 - 170	70 - 170	70 - 170	75 - 200	75 - 200

Design

- Radial point riveting unit
- Radial point riveting machine with compression and joining function
- Roll-forming unit
- With optional electric controller
- With or without measuring system

Controller

- Riveting machine controller pressure/time
- FMW Nietcontrol with one or two measuring systems

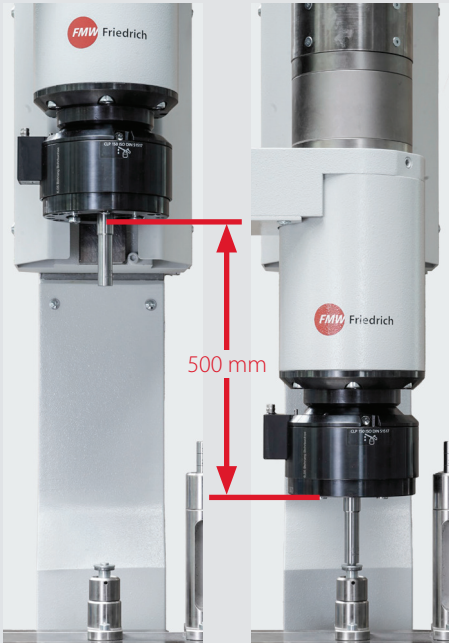
Accessories

- Mechanical downholder for pretensioning multilayer assemblies
 - Automatic riveting head lubrication
- More accessories available on request

Electric riveting units




Servo-NE with projection and length measurement



A maximum riveting force of 18 kN, a **unique spindle stroke of up to 500 mm** and an **idle stroke speed of up to 250 mm/s** are the core features of this highly versatile riveting unit.

- Integrated speed control and torque limitation
- Extensive criteria for switch-off of the riveting process
- Integrated length measurement including center position check
- Enhanced Nietcontrol functions thanks to the latest servo technology
- No emissions, suitable for clean room applications

Area of application: As a riveting machine: comfortable and variable manual workstation. As a riveting unit: for integration into conveyor systems, assembly lines and automated production facilities.



Technical specifications	Servo-NE	Servo-NE
Riveting diameter (mm) (Rm=370 N/mm ²)	1 - 7	2 - 11
Maximum riveting force (kN)	7	18
Spindle stroke (mm)	5 - 300 expandable to 500	5 - 300 expandable to 500
Force generation	elektric servo	elektric servo
Riveting motor 230/400 V, 50 Hz (kW)	0.74	0.74
Servo motor (kW)	2.07	4.62
Approx. weight (kg)	140	150
Riveting die diam. (mm)	14	14
Length of riveting die (mm)	40 - 170	40 - 170

Design

- Radial point riveting unit
- Radial point riveting machine with compression and joining function
- Riveting unit with joining function
- Roll-forming unit

Control

- FMW Nietcontrol based on Codesys V3 Basis
- Operation via 10" touch panel
- Interfaces: CanOpen, Ethernet and EtherCat

Servo drive

- Electric drive
- Without hydraulics or pneumatics
- Clean and energy-efficient work process
- Stroke up to 500 mm:
Reduces setup and cycle times
High flexibility of application

Accessories

Wide range of accessories available on request