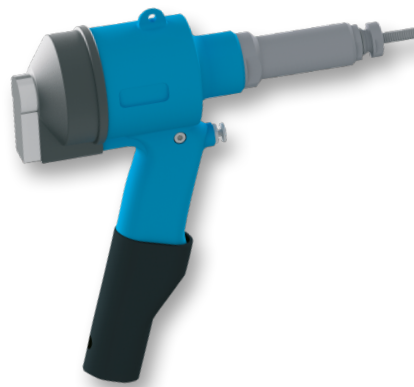


AUTORIV A210

- ▶ Flexible assembly with manual setting tools
- ▶ Systems for the free processing of fasteners with hand-held insertion units



- ▶ High flexibility – for components that are difficult to handle and difficult to access
- ▶ Monitoring of the integrity of set fasteners
- ▶ Independent force-displacement process monitoring of all connected manual setting tools via controller
- ▶ Processing of fasteners from all manufacturers
- ▶ Ergonomic, compact design
- ▶ Power station and control as a compact, easy-to-carry system with force-displacement monitoring
- ▶ Quick-change nose kits



A210	BI	LAN	VNC	FTP

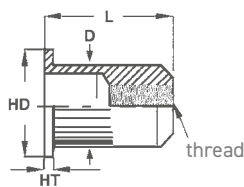
AUTORIV A210: Different manual setting tools and applications – function

- ▶ The separate booster of the **AUTORIV A210** system generates the needed amount of force to set the fasteners.
- ▶ Spinning is done by applying slight axial pressure from the fastener onto the spindle or by manually spinning.
- ▶ The setting process starts via the single-stage trigger and is controlled via the integrated process monitoring.
- ▶ Blind rivet nuts and studs are removed automatically after the setting process.
- ▶ Quick-change nose kits allow a fast working pace for different applications.

Processable fasteners – different types / sizes depending on the type of the manual setting tool

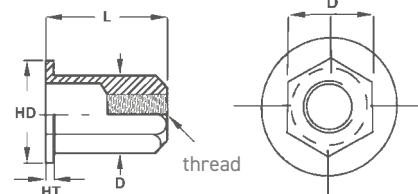
Blind rivet nut with round shank

HD \varnothing 10–22 mm L 13–30 mm



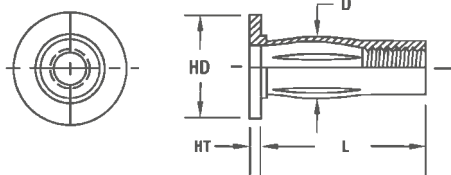
Blind rivet nut with hexagonal shank

HD \varnothing 10–22 mm L 13–30 mm



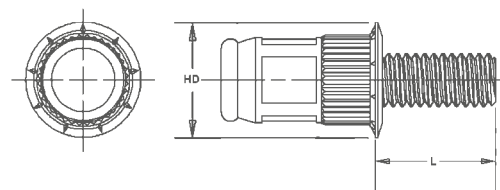
Blind rivet nut with slotted shank

HD \varnothing 10–22 mm L 13–30 mm



Blind rivet studs

HD \varnothing 10–22 mm L max 30 mm



Special adaptations of **AUTORIV 210** manual setting tools, as well as other sizes and shapes of fasteners, are available upon request.

AUTORIV A210: Manual setting tools: Technical data

AUTORIV A210-BI-N-Flex8-PG



Controller



Manual setting tool (pistol grip)



Pressure booster unit

A210-BI-N-Flex8-PG-Flex 8 / N-PG-Flex 8-25

for blind rivet nuts from M5 to M6

Pneumatic supply	5 to 7 bar
Air consumption per cycle	6 liters at 5 bar
Insertion stroke / setting force	max. 15 mm / max. 30 kN
Cycle time	3 to 3,5 s
Projecting edge / comp. depth	acc. to customer request
Working direction	freely selectable

AUTORIV A210-BI-N-PG-Flex 18



Controller



Manual setting tool (pistol grip)



Pressure booster unit

A210-BI-N-PG-Flex 18 / N-PG-Flex 18-25

for blind rivet nuts from M8 to M16

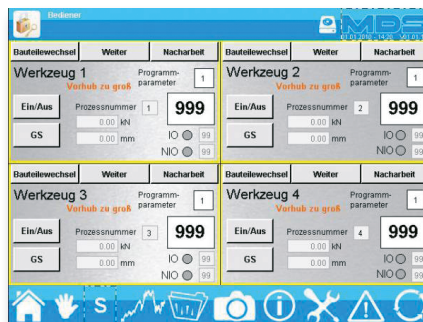
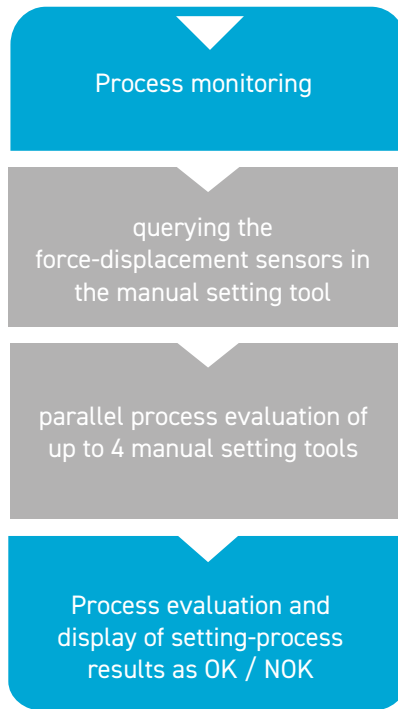
Pneumatic supply	5 to 7 bar
Air consumption per cycle	9 liters at 5 bar
Insertion stroke / setting force	max. 15 mm / max. 65 kN
Cycle time	3 to 3,5 s
Projecting edge / comp. depth	acc. to customer request
Working direction	freely selectable

Special adaptations of **AUTORIV 210** manual setting tools are possible upon request at any time. "N" stands for the **AUTORIV** system solution nuts. "S" stands for the **AUTORIV** system solution bolts. All data based on a standard fastener under ideal conditions – depending on the manual setting tool.

Other variants, e.g. for breakaway rivets are possible upon request at any time.

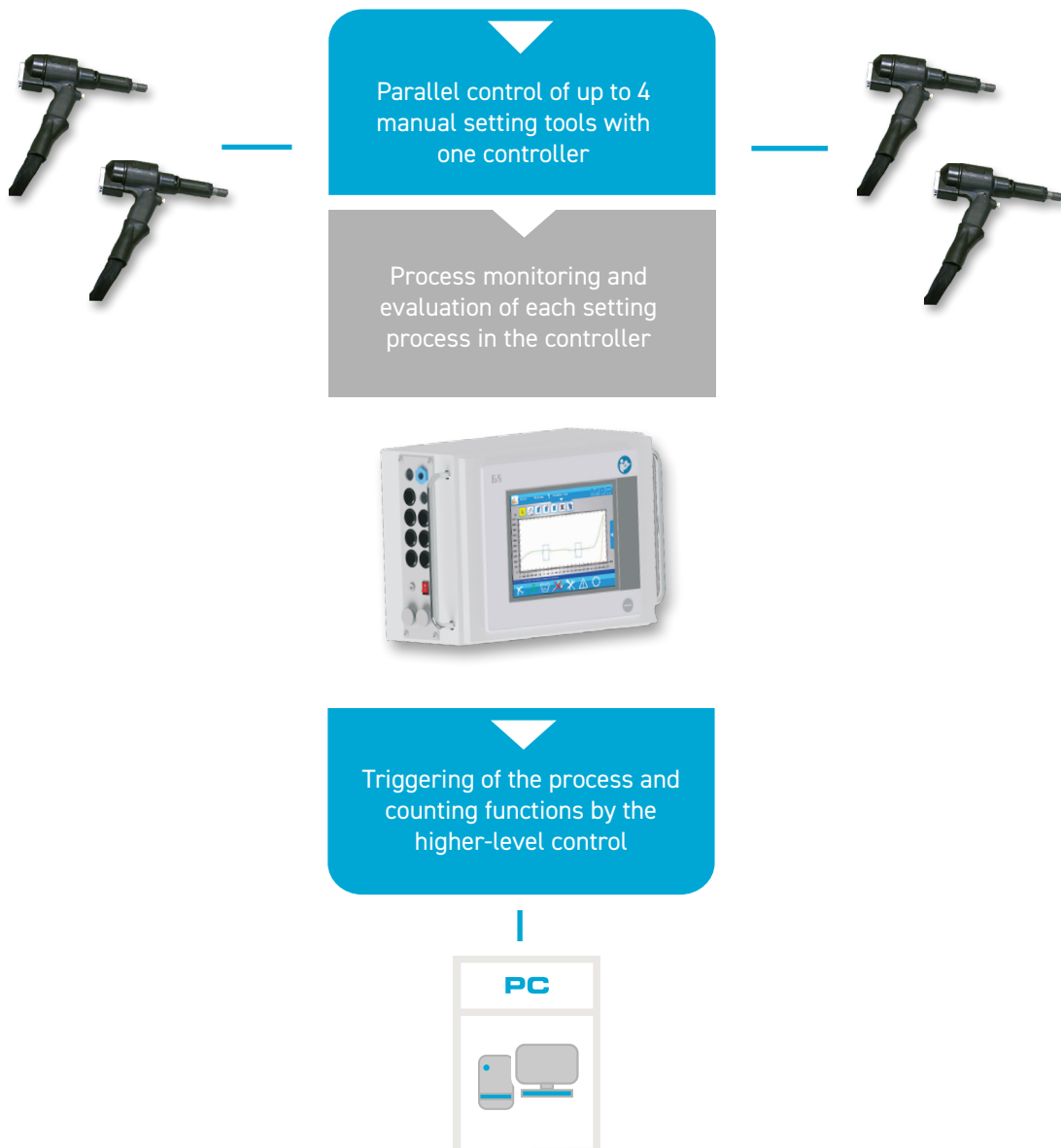
AUTORIV A210: Force-displacement process monitoring and evaluation

- ▶ The process monitoring of **AUTORIV A210** manual setting tools is performed by querying the sensors in the pressure booster unit.
- ▶ In addition to that, a process evaluation is possible via the control software of the operating panel. Here, a successful insertion process is set as a reference via the special monitoring-window function.
- ▶ As soon as another setting process matches the specified reference values, it is assessed as successful.
- ▶ Optionally, the **AUTORIV A210** handheld devices are available without a controller, process monitoring, or evaluation.



AUTORIV A210 Manual setting tools: Integration into external control system

- ▶ **AUTORIV A210** manual setting tools, which are connected by a controller, can optionally be integrated into a higher-level system with external control.
- ▶ The data transfer between controller and external control is optionally performed via a ProfiNet interface or Ethernet/IP.
- ▶ When **AUTORIV A210** manual setting tools are integrated into a higher-level system, the “counting intelligence” is transferred from the controller to the higher-level system control, which then assumes all tasks.
- ▶ The evaluation of the setting processes remains with the controller even when integrated into / controlled by a higher-level system and can be evaluated from there.



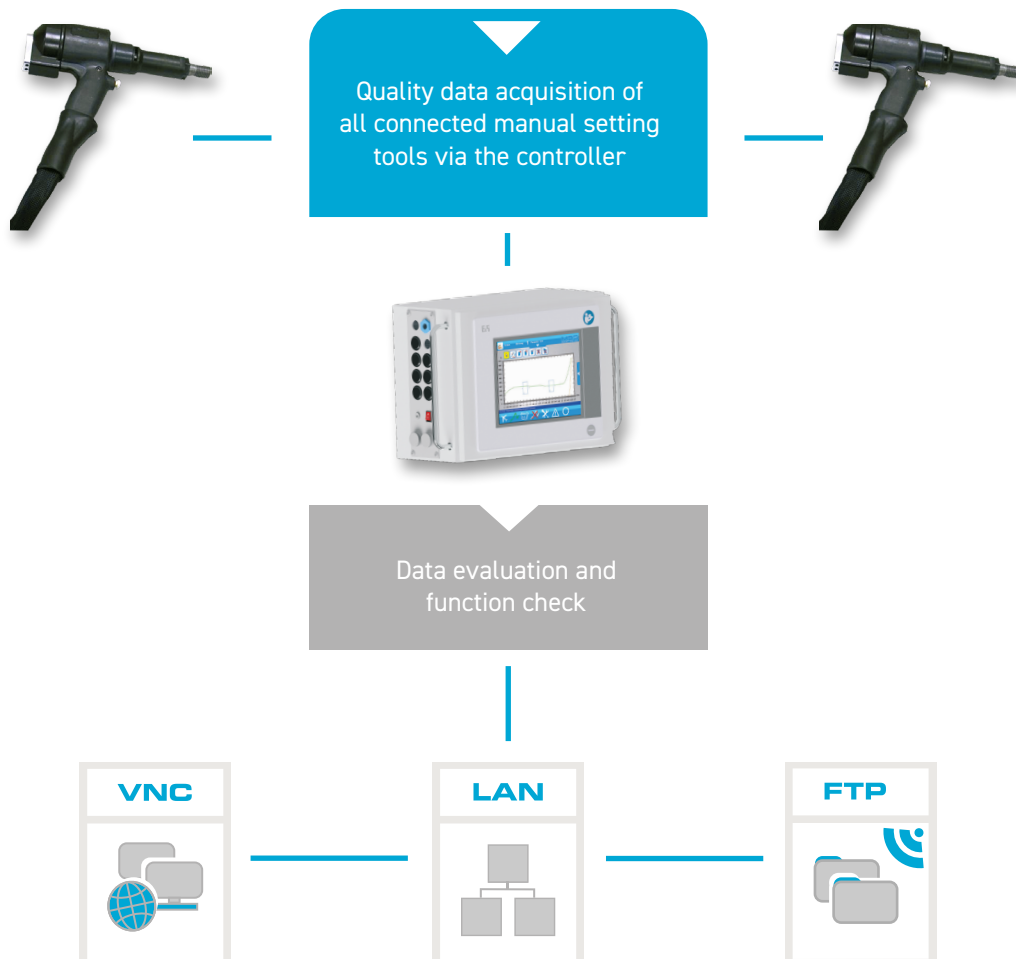
AUTORIV A210 Manual setting tools: Quality data storage and remote service

Quality data storage

- ▶ The quality data of **AUTORIV A210** manual setting tools connected via the controller can optionally be stored and called up.
- ▶ A 500 GB hard disk compliant with MDS standards provides permanently traceable quality data of completed projects and setting processes.
- ▶ The quality data can optionally be diverted (connection via LAN, FTP, according to MDS standards).

Remote service

- ▶ All functions of **AUTORIV A210** manual setting tools, which are connected via the controller, can optionally be called up via a remote-service module and can be checked for correct function.
- ▶ Prerequisite: Internet access via the operator network, minimum DSL 1000. Practicability must be checked on an individual basis.



AUTORIV A210 Manual setting tools for hand-held assembly: Advantages

-  **Very short cycle time**
 Depending on the design and the fastener to be processed, the cycle time is 1.5 to 4 s.
-  **Compact design**
 Both the manual setting tool as well as the controller and the supply unit have compact dimensions and can therefore be conveyed to the processing location in a very flexible manner.
-  **System technology from one source**
 Tried-and-true technology as well as experience from over 45 years of market presence ensure the high quality of the whole system. The robust implementation guarantees minimal susceptibility to failure.
-  **High degree of process visualization and evaluation**
 All processes around the setting cycle are visible and usable via the controller as well as via remote evaluation.
-  **Integration into automated processes**
 Integration into automated processes is simple and practical.

AUTORIV A210 – Fasteners – Standard



ALM
 Large flange,
 knurled body



AKM
 Small flange,
 knurled body



AFM
 Large flange,
 hexagonal body



AFSM
 Small flange,
 hexagonal body



AHM
 Large flange,
 half hex body



AHSM
 Small flange,
 half hex body



APN
 Straight shank,
 slotted body



APB
 Prebulbed,
 slotted body



AFH
 Large flange,
 fully hexagonal body



AAL
 Large flange,
 knurled body



AAK
 Middle-size flange,
 knurled body



AAH
 Large flange,
 half hex body



AAO
 Small flange,
 smooth body



AFW
 Diamond knurled 360°



AFT
 Knurled 360°



AFK / AFL
 Floating rivet nut
 (cage nut)



AAS
 Blind rivet studs,
 round shaft, knurled

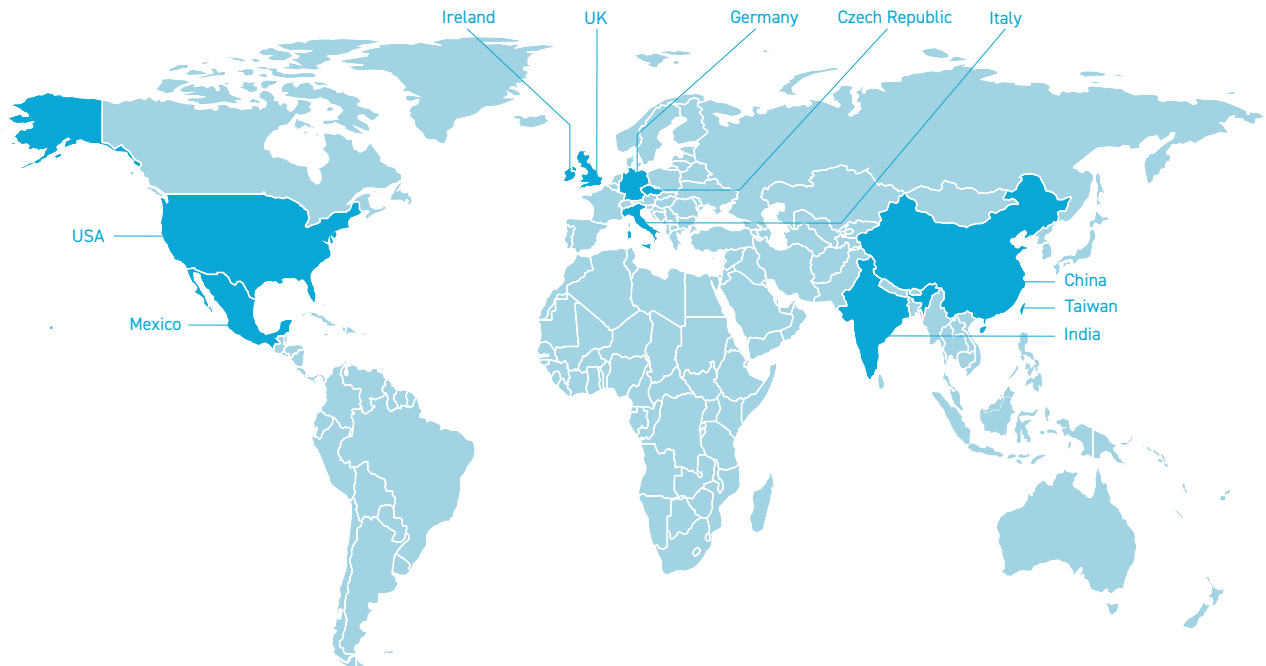
AUTORIV: About Our Company

MDS Maschinen- und Werkzeugbau GmbH & Co. KG has now become MDS Germany GmbH and joined the PennEngineering® Group.

This acquisition represents a key milestone in our long-term global growth strategy, enabling us to expand our product portfolio and offer an even wider range of tailored solutions and services.

Our customers are from the sheet metal processing industry, mostly from the automotive sector. We supply automotive manufacturers (OEMs), Tier1, smaller tiers and suppliers.

We are also present with our production automation systems in the industries of trucks, white goods, heating, ventilation and air conditioning systems (HVAC), electronics, and agricultural machinery. Our main markets are Europe, North and Central America.



AUTORIV: A Brand of the MDS Fastening Systems

MDS Germany GmbH

Ditthornstraße 22
 93055 Regensburg
 GERMANY

Phone: +49 941-6042-210
 Fax: +49 941-6042-162
 E-Mail: vertrieb@mds-r.de
 Web: www.autoriv.com

MDS Fastening Systems, LLC

P.O. Box 417
 Washington, MI 48094
 USA

E-Mail: inquiries@mds-fs.com
 Web: www.autoriv.com