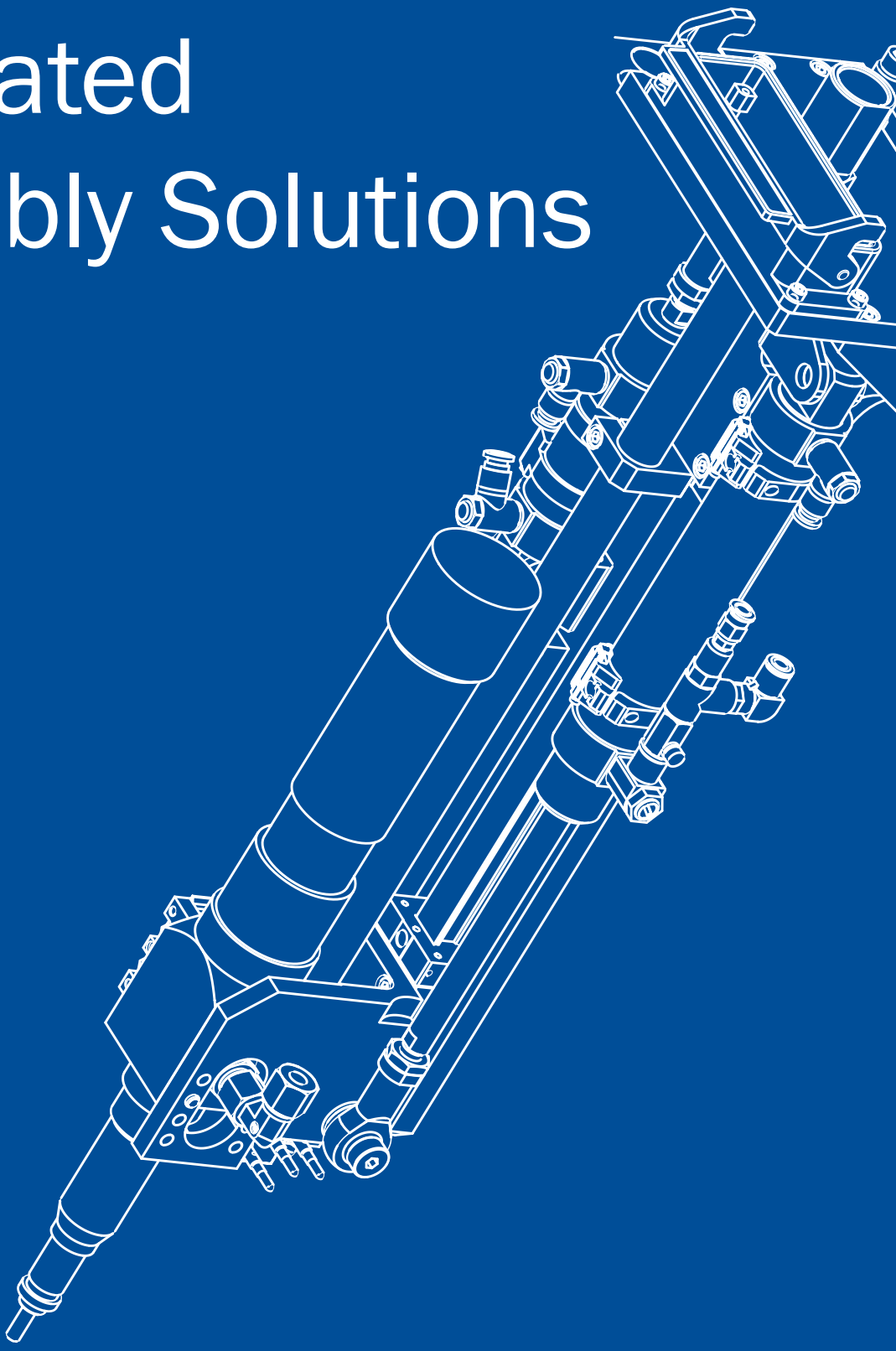
Avdel®

Automated Assembly Solutions



Since 1922 Since 1936 2010

infastech®
Our Technology, Your Success

Speed Fastening® Systems

Single-head Workstations

- For ergonomic workplace layout
- Simple to operate
- High mobility
- Easy integration into the production process

Pantograph workstation

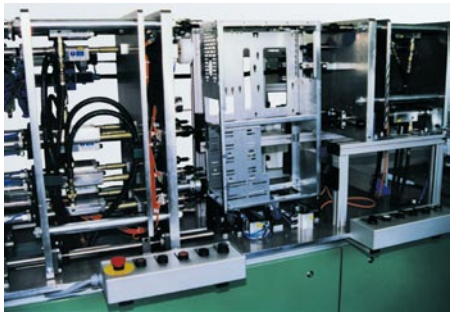
Underbench workstation

Suspended tool

Workstation with process control

Multi-head Assembly Stations - Hydra® 1000

- Simultaneous installation of multiple fasteners maximises productivity and throughput
- Integrated component take-up devices reduce assembly time
- Component is loaded manually
- Virtually limitless configuration options
- May be used in combination with other riveting systems
- Modular system reduces maintenance costs
- Diagnostics provide quality control



Hydra 1000 offers e.g. for complete assembly of computer chassis

Adjustable 4-head MAS assembles two types of seat belt retractors; on two positions modules are adjustable against stopper

The Mini-MAS offers twin-head parallel assembly and linear adjusting for riveting pitches of 29 - 120 mm

Full Automation - MIRS & PMP Systems

- Automatic assembly machines suitable for integration into new or existing production lines
- MIRS system designed for continuous riveting
- PMP system loads, parallel to riveting of the component, a second mandrel and presents it for exchange
- Rivet supply via bowl feeder
- Operator-free assembly solution
- Modular design with simple maintenance processes
- Diagnostic capability through operator interface

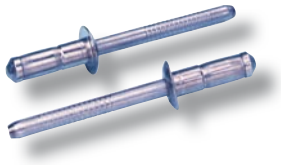
MIRS system with two riveting heads to assemble vacuum pump

PMP system - Speed Fastening® technology allows for cycle times of approx. 1 sec.

Autoload Tool

Speed fasteners are installed with 753 tool. When all fasteners are spent the pistol is placed in the nest and the system automatically inserts a fully loaded replacement.

Breakstem Systems



Single-head Workstations

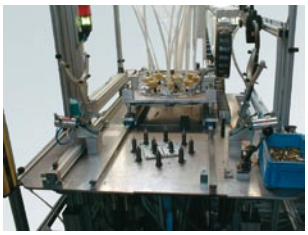
- Power tools can be suspended or mounted on a pantograph arm
- Other options include integration into the work bench and foot pedal operation
- Stem extraction system remotely collects the stems and eliminates the need for emptying the stem collector bottle
- Easy integration into production process
- Ergonomic design

Multi-head Assembly Stations - Hydra® 2000

- Simultaneous installation of multiple fasteners maximises productivity and throughput
- Direction, type and number of riveting modules can be customised to customers requirements
- Components are loaded by hand
- Integrated fixtures reduce assembly time
- Process diagnostics can be easily integrated

Multiple riveting with automatic rivet feed and process monitoring

8-head station with adjustable rivet modules for the assembly of transformer and starter to base plate of a fluorescent lamp

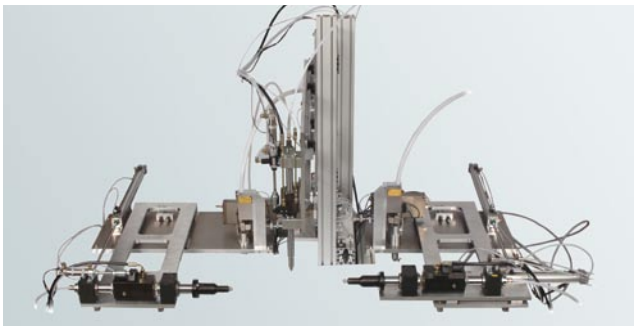


12-head station for the assembly of laundry dryer components; automatic fastener feed

Full Automation - Viking® & Avimat®

- Especially designed for use in automatic production processes
- Can be used in combination with robots, NC-axis or other transfer systems
- Fully automatic fastener feed
- The riveting cycle is completely montitored by SPC and visualised on the operator interface
- Process diagnostic options by monitoring system

Avimat® automated assembly system
The compact, lightweight placing head can be mounted separately and work in any positon - for maximum production flexibility



Viking® system for installation of Avseal® II sealing plugs from three sides

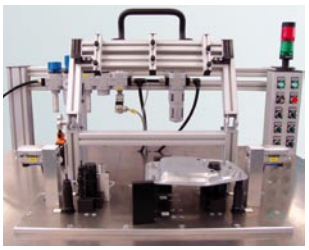
Station with automatic Rivet Presenter

Rivet dispenser for easy reload of hand tools - up to 6 loading stations can be connected. The rivet need not be fed by hand.

Blind Threaded Inserts Systems

Multi-head Assembly Stations - Hydra® 3000

- Simultaneous placement of multiple threaded inserts maximises productivity and throughput
- Inserts are fed by hand and automatically threaded onto the drive screw
- The inserts provide practical jig points for the components
- Integrated component take-up devices reduce assembly time
- Diagnostics provide quality control
- Process monitoring or clamping devices can be easily integrated



Station for installation of 6 blind threaded inserts in retaining plate for window lifter motor. Protection cover with integrated clamping device and riveting release. Inductive sensor identifies if it is a right or left component. Process diagnostics check if an insert is present and was installed.

Full Automation - Autosert®

- The modular design of placing head and blow feed unit with PLC control cabinet of the Autosert® automated assembly system allows for fast and easy integration into assembly lines
- Will work as a stand alone unit
- The low weight and compact design of the placing head simplify handling
- Due to the large insertion depth the inserts can also be used in difficult to access areas of the component
- Self-correcting programme functions, e.g. the evacuation system that automatically senses and ejects inserts with damaged threads in a separate collecting box.
- Also availabe as multi-head machine for simultaneous fastener placing

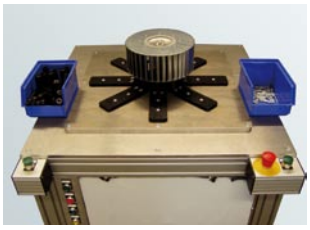
The unit consists of placing head and supply unit with integrated control unit

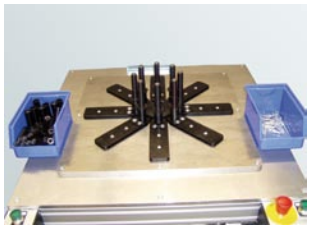
Autosert® placing head mounted on robot arm

Lockbolt Systems

Multi-head Assembly Stations

- Even while using two-piece lockbolt systems a simultaneous installation of multiple fasteners is possible
- Direction, type and number of placing heads is customised to the requirements of the application
- Collars and bolts are fed by hand and the components are placed on the riveting modules, all parts are manually loaded
- Hydraulic power units provide simultaneous installation of the bolts





8-head machine with bimanual control for assemly of fan wheels. The riveting modules are rapidly adjustable in a pitch circle ø of 145 - 225 mm. Quick resetting to different pitch cirlce diameters.

Avdel UK Limited
Pacific House, 2 Swiftfields
Welwyn Garden City, Hertfordshire AL7 1LY
Tel. +44 (0)1707 292-000 · Fax -199
enquiries@infastech.com

Avdel®

www.avdel-global.com