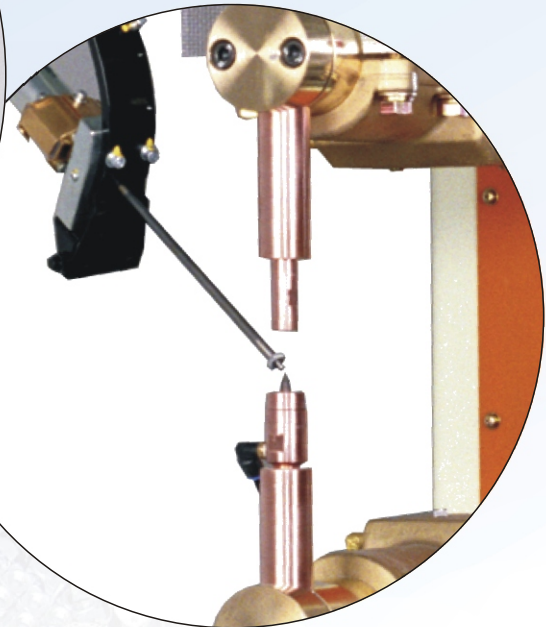
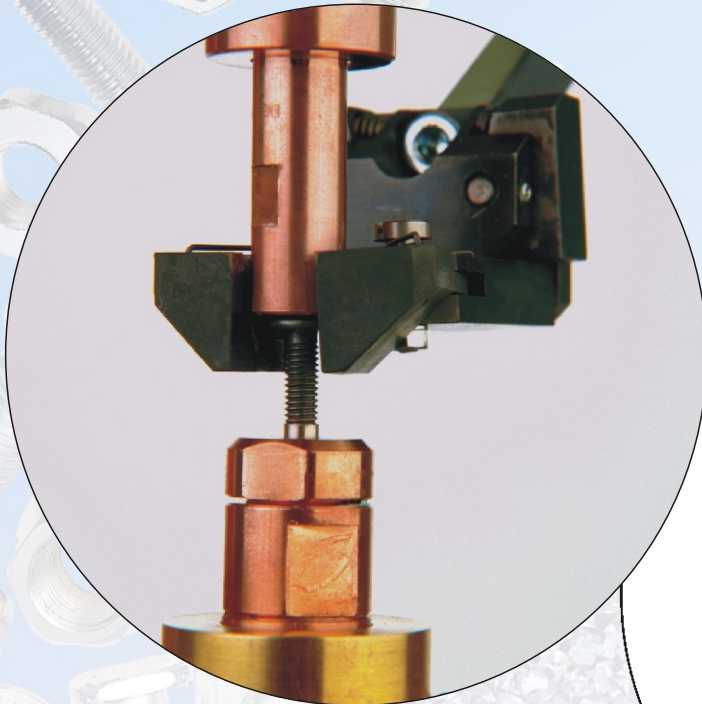




**DENGENSHA
EUROPE**



RESISTANCE WELDING ■ AUTOMATIC NUT & BOLT FEEDERS



Automatic Nut & Bolt Feeding

www.dengensha.co.uk

Dengensha's PLC controlled Automatic Nut Feeders are designed and manufactured to be the most reliable and durable Nut Feeders in industry. Using the latest technology, Dengensha engineers design and build nut feeders using customers' specific nut

samples to ensure selection and feeding is right first time from its installation. From the standard rotating bowl to the unique magnetic feed unit, the Dengensha system will boost productivity as well as ensure quality and safety.

Automatic Rotary Nut Feeder AFR-N for Square Nuts only

Features

Low Noise

- Rotary Nut Feeders are quieter than a vibratory bowl feeder.

High Capability

- Excellent separating function using mini cylinders to accurately and reliably separate the nuts one by one.
- Flexible feeding methods make it easy to feed a nut to a distant point up to 10m from the separator consistently, as the separated nut is fed to the feed unit by air through a vinyl tube.
- Nut is held firmly at the end of the magnetized spindle and fed positively to a guide pin.

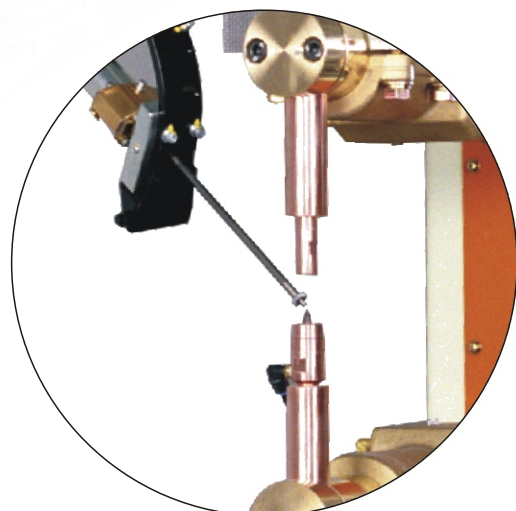
Other Features

- Rotary nut selection for nuts M4 to M14
- High feed and reliability rates typically >1 second
- Single or dual (simultaneous) feeding
- Special dual (left, right, both) option on independent models
- Siemens controls (standard)
- Easy to use in manual or robotic systems
- Bulk hopper 7 litres (M6 DIN = 8,000)
(M8 DIN = 4,000)
- CE specification
- Trained support network
- Onboard programming
- Program back-up and recover



Rotary Nut Feeder

Selection capability	up to 40 per min
Feeding stroke	200mm (standard)
Feeding angle	30° - 60° (adjustable)
Power supply	110V 50Hz or 230V 50Hz
Control voltage	24V DC
Air supply	5 bar
Standard	bulk hopper
Options	300mm stroke vinyl dust cover tube length up to 10m orientation guide



Automatic Vibratory Nut Feeder AFV-N

Dengensha's Vibratory Feeders are designed and built to feed all kinds of weld nuts such as hexagon, circular, collared, flanged and T nuts.

Features

- High - feed rates
- Purpose designed separators for reliability
- Flexible feeding methods make it easy to feed a nut to a distant point up to 10m from the separator consistently, as the separated nut is fed by air through a vinyl tube to the feed unit.
- Nut is held firmly at the end of the magnetized spindle and fed positively to a guide pin.



Other Features

- Vibratory nut selection for all kinds of nuts
- High feed and reliability rates >1 second
- Single or dual (simultaneous) feeding
- Special dual (left, right, both) option on independent models
- Siemens controls (standard)
- Easy to use in manual or robotic systems
- Bulk hopper 7 litres (M6 square DIN = 8,000)
(M8 square DIN = 4,000)
- CE specification
- Trained support network
- Onboard programming
- Program back-up and recover

Vibratory Nut Feeder

Selection capability	up to 60 per min
Feeding stroke	200mm
Feeding angle	30° - 60° adjustable
Power supply	110V 50Hz or 230V 50Hz
Control voltage	24V DC
Air supply	5 bar
Standard	bulk hopper
Options	300mm stroke vinyl dust cover tube length up to 10m orientation guide

Cassette Type Nut Feeder

Dengensha's Vibratory Cassette Feeder is ideal for improving manufacturing flexibility. It is specifically designed to feed square weld nuts and can be changed from M6 to M8 nuts very quickly - simply change the cassette, tube and feed unit. The bowl and the control unit are designed to feed a wide range of square nuts rather than being dedicated to production using one size nut.

When ordering, the user can specify whether they wish to feed several sizes and types of square nuts or specify a particular size, M6, M8 or M10 and add components at a later date to feed a different nut size or type from M6 to M10 DIN or JIS. (Japanese Industrial Standard)

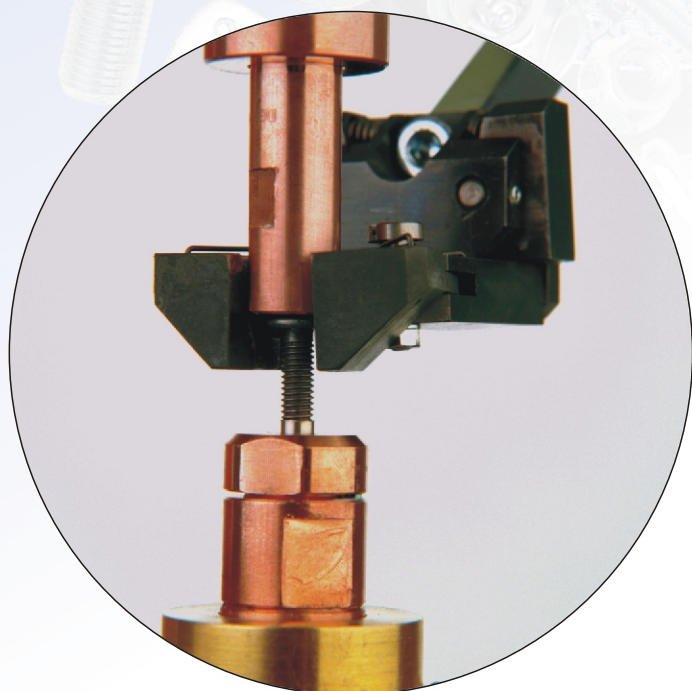


Automatic Vibratory Bolt Feeder AFV-B

In automated production lines, Dengensha Bolt Feeders offer the user the best reliability, safety and high - speed production

- The position of the bolt must be oriented correctly when inserting it into the work-piece. Our chucking method, with the chuck opened by pushing down the bolt, is superior to any other method.
- The lower electrode assembly is an integral part of the Dengensha Bolt Feeder and ensures a perfect alignment of the panel and the bolt every time.
- Bolt insertion is monitored by a proximity switch mounted on the lower tooling.
- Being specially designed for projection welding and forming an integral part of the process, makes these feeders highly reliable for use in automated production.
- High - speed feeding.
- The bulk hopper can be fitted with a level switch to indicate re-filling is required, when the feeder is used in automated cells.

Special designs are available, including direct connection of guide pin to the air cylinder in lower electrode, together with extend and retract position proximity switches and additional solenoid, which allow positive control of the guide pin location in the workpiece.



Vibratory Bolt Feeder

Selection capability	up to 60 per min
Feeding stroke	200mm (standard)
Feeding angle	30° (standard) 45° (optional)
Power supply	110V 50Hz or 230V 50Hz
Control voltage	24V DC
Air supply	5 bar
Standard	bulk hopper
Options	300mm stroke bulk hopper level switch vinyl dust cover tube length up to 10m

Special Machines

Pneumatic Separator Type Feeder

Dengensha has a version of Nut Feeder which does not use a separator. Instead, the stock of nuts is maintained in the chute track on the feed unit, separating the feeding from the supply of nuts. This method of feeding allows for a faster rate of feed and can reduce wear on consumable parts in the feeding unit. Please ask for details.

All feeders

Control Systems for all feeders

All standard feeders are now supplied with a *Siemens PLC* to control the feeding cycle. A feature of this PLC is a memory chip for data protection, program up and downloading, eliminating the need to change operating parameters or back up programs via a laptop.

Power Supply

To meet the requirements of the European market, a 230V 50Hz power supply option is available on all nut and bolt feeders.

Options

Custom build controls with Siemens S7, Omron CPM1A and Keyence PLC's are also available.

Non Magnetic Feeding

Dengensha has designed a nut feeding head specifically to allow the reliable feeding of non-magnetic stainless steel nuts. It is designed for M6 and M8 nuts. During the feeding cycle, it does not use a magnet to hold the nut to the spindle. Please ask for details.



Machine Specifications (all bowl feeders)

Power supply	-	single phase 110/230V AC,50Hz
Amperage	-	5A
Power consumption	-	500W
Service air pressure range	-	0.4 to 0.6 Mpa
Air flow rate	-	70 litres/minute
Sorting capacity	-	more than 40 pieces/minute
Feed stroke	-	200mm or 300mm

Scope of supply

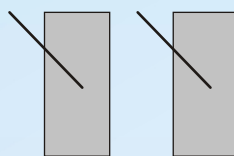
- Rotary or vibrating bowl
- Bulk hopper and vinyl dust cover
- Feeding unit
- Documentation
- Frame and control panel
- Vinyl feed tube
- Universal mounting bracket
- Lower tooling (bolt feeder only)

Feeding Patterns for Twin Machines



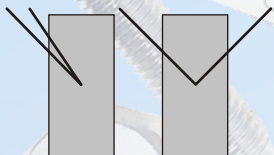
1-1

Feed two same size nuts (bolts)
to one specially designed welder



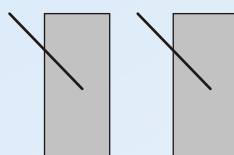
1-2

Feed two same size nuts (bolts)
separately to two welders



2-1

Select two different size nuts
and feed them to one welder



2-2

Select two different size nuts
and feed them separately to two welders

Dengensha Tooling

Dengensha tooling for nut welding is based on an air retained location pin. The material of the guide pins, through its combination of high durability and high surface resistance eliminates the need for additional insulation.



Ask about other Dengensha products:

- Stationary Spot Welders
- Three Phase DC Projection Welders
- Portable Transformers AC/DC
- Weldscopes
- Transformer Weld Guns
- Guide Pins
- Pressure Mates
- Single Phase DC Welders
- Seam Welding Machines
- Welding Controls
- Portable Weld Guns
- Servo-Spot Weld Guns
- Welding Electrodes
- Pactran-Portable Transformer with Timer/Contactor



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