

**Tightening
automation.**
Only excellent solutions.



Automatic feeders for screws and nuts

- QUICHER
- AM

Fiam®

PEOPLE AND SOLUTIONS

Automatic feeders for screws and nuts efficient solutions for rapid and safe

When bench or line assembly requires the use of very small screws or nuts, **time is essential to increase production.**

The innovative systems for fastening with automatic screws/nuts feed notably **reduce the cycle-time** and thus **improve productivity.** This is why:

- They offer an easy and **CONTINUOUS SUPPLY OF SCREWS AND/OR NUTS** to be tightened
- The **MANUAL PHASES** involving picking up and positioning of the nut/screw are eliminated; these systems **make easier the operator work** because screws/nuts can be picked up directly from screwdriver without using the hands
- The **PICKING UP DEVICE FOR SCREWS/ NUTS ARE EXTREMELY RELIABLE** and reduce the tightening times
- They guarantee **REDUCED OPERATOR FATIGUE** because they are easy to use and perfectly ergonomic

These solutions guarantee **high reliability, long life and constant performance** and consequently a reduction of the maintenance / repair costs.



Feeders for nuts AM: efficacy 'pick and place' system

- For hexagonal nuts with each type of metal, self-locking nuts and nuts with flanged washer, from 5,5 up to 13 mm.

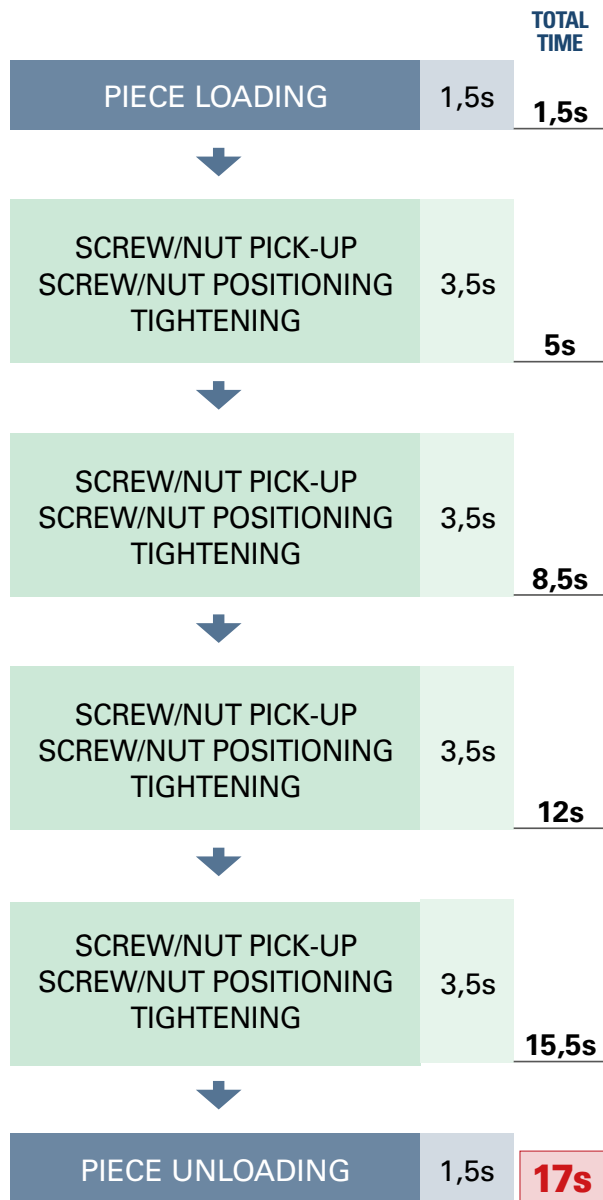


Feeders for screws QUICHER: to tighten with great rapidity different screws

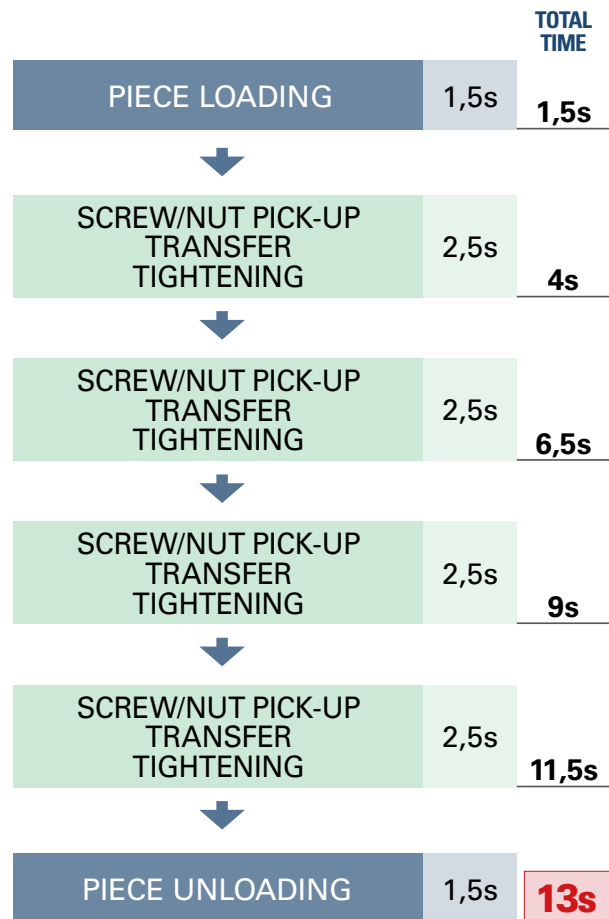
- For magnetisable screws from 2-5 mm shank diameter and PHILLIPS (or POZIDRIVE) head.

Nuts: e assembly applications

EXAMPLE OF ASSEMBLY WITH MANUAL PHASES



EXAMPLE OF ASSEMBLY WITH FEEDER



**TIME SAVED:
4 seconds
– 24%**

The great productivity of these systems guarantees a **RETURN ON THE INVESTMENT** in a very short time.

**For hexagonal nuts, self-locking nuts,
nuts with flanged washer**

'Pick and place' tightening systems AM

The 'pick and place' systems guarantee greater speed in the work cycles with concrete reduction of the production costs.

These are their different advantages:

- The manual phases (picking up the nut and positioning it) are eliminated with a reduction of the cycle times over 24%
- Increase of the productivity
- Reduced fatigue for operator
- Higher quality of the assembled products: no nut remains into the component

EASY SUPPLY OF NUTS

A high capacity vibrating loader unit equipped with a transparent cover for a good view of the bowl

FEED SPEED

It can be easily adjusted through a built-in electronic unit

NUT SUCTION STATION

A pneumatic cylinder positioned into feeder pushes the nut upwards to insert it in the special socket of the screwdriver (to be ordered separately)

NUT RETAINING ALWAYS GUARANTEED

The picked up nut is transferred by operator to be tightened onto the component

VERSATILITY OF USE

The AM feeder can be used with:

- **straight air or electric screwdrivers with lever start**
- **air and electric nutrunner motors** adequately fixed on cartesian arms or fastening slides.

To choose the most suitable feeder, the tool and the special sockets please contact **Fiam Technical Consultancy Service**.



AM models		HEXAGONAL NUTS		
Model	Code	Weight kg	Height mm	Hexagon mm
AM55B	199971001	23	2,4	5,5
AM60B	199971002	23	3	6
AM70B	199971003	23	3,2	7
AM80B	199971004	23	4	8
AMB100B	199971005	23,5	5	10
AMB110B	199971006	23,5	5,5	11
AMB130B	199971007	23,5	6,5	13

- Recommended working pressure: 6,3 bar
- 1/4" gas air inlet
- Mains supply: 220 V, 50 Hz
- The code number must be used when ordering
- Special socket for screwdriver to be ordered separately (see Accessories available upon request)

Standard equipment (provided with the feeder)

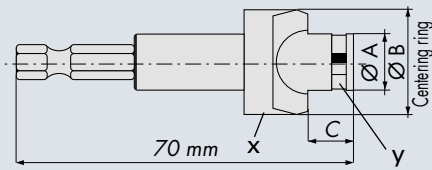
- Electronic unit for adjusting operating speed
- Use and maintenance manual
- Eco-friendly packaging

Models available upon request

- Models for self-locking nuts or with flanged washer

Accessories available upon request

- **Special sockets for screwdrivers** for hexagonal head nuts shown in the table.
- Customised sockets



C dimension: minimum measure to avoid that the centering ring (Ø B) touches the components to be assembled during the tightening phase.

To choose the most suitable socket for the screwdriver, we recommend verifying the dimensions above indicated in respect to the piece to be tightened with the nut.

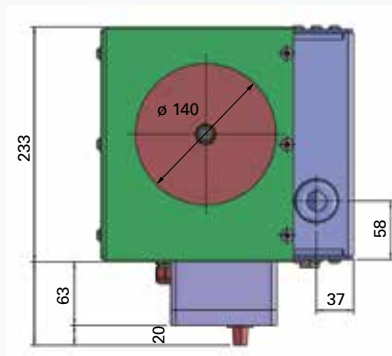
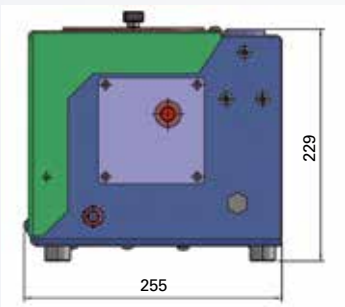
SPECIAL SOCKETS FOR SCREWDRIVERS

Special socket mm	Code	Socket with hexagonal drive 1/4"			Retaining spring code (y)
		"C" dimension	Ø A mm	Ø B mm	
5,5	605181055	9,5	8,8	20	528505500
6	605181060	9,5	9,8	20	528506000
7	605181070	9,5	11,5	21,5	528507000
8	605181080	9,5	13	23	528508000
10	605181100	8,5	14,8	25	528510000
11	605181110	8,5	18	29	528511000
13	605181130	8,5	19,8	29	528513000

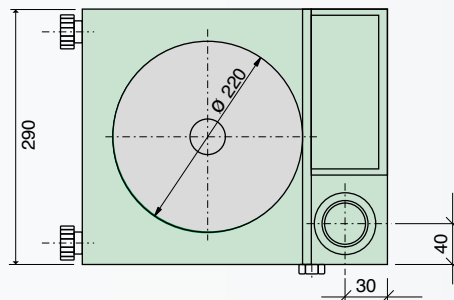
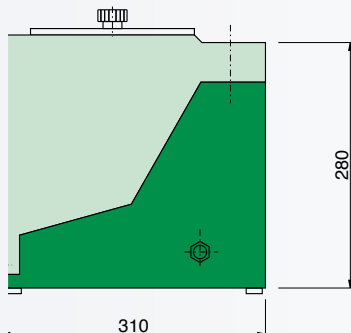
SPARE PARTS

Dimensions of automatic feeders

- **AM models:** mm 255x233x229 (width x depth x height)



- **AMB models:** mm 310x290x280 (width x depth x height)

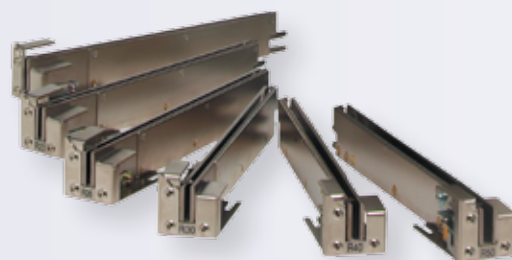


For PHILLIPS (or POZIDRIVE)
magnetised screws

QUICHER automatic feeder

Extremely versatility because **it can be used with different screws** with a simple replacement of the rails.

- **Productivity is increased** because screws do not have to be taken by hand and positioned on the screwdriver bits;
- **Use is very practical:** the screw is taken by the screwdriver from the selection channel leaving the other hand free to hold the assembly piece;
- The operator only sometimes has to fill the screw bowl with **high capacity of screw** stocking in the feeder;
- **Rails**, easy and quick to replace, can feed up to 2 screws per second; they are interchangeable with the aim to use screws having different shank diameter (shank diameter from 2 to 5 mm and max shank length 18 mm);
- **Wide standard equipment** includes an accessory for magnetizing the screw for a practical screw picking up



Rails

We advise using straight air and electric screwdrivers with lever start (consult the Fiam Screwdrivers Catalogue).

To choose the most suitable feeder contact **Fiam Technical Consultancy Service**.

A simple device for screw-feeder inclination is part of the standard supply, with the aim to ease screws sliding on the rail up to the pick-up point



A strong and effective brush for cleaning for screws being in excess on the rail

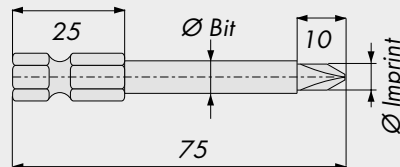


QUICHER MODELS			PHILLIPS BITS				POZIDRIVE BITS			
Model	Code	For screws with shank Ø mm	Phillips screws	Bit Ø mm	Imprint Ø mm	Bit code	Pozidrive screws	Bit Ø mm	Imprint Ø mm	Bit code
NJ23-R20	199923020	2	PH1	3	3	605052031	PZ1	3	3	605062031
NJ23-R23	199923023	2,3	PH1	3 4,5	3 2,6	605052031 605050041	PZ1	3	3	605062031
NJ23-R26	199923026	2,6	PH1	4,5	2,6	605050041	PZ1	3	3	605062031
NJ23-R30	199923030	3	PH1	4,5	2,6	605050041	PZ1	3	3	605062031
NJ45-R35	199923035	3,5	PH2	6	4	605050036	PZ2	6	4	605060006
NJ45-R40	199923040	4	PH2	6	4	605050036	PZ2	6	4	605060006
NJ45-R50	199923050	5	PH2	6	5	605050043	PZ2	6	5	605060009

The supply includes feeder, 1 rail and standard equipment

- Feed voltage: 220 V, 50 Hz
- Operating voltage: 12 Volt c.c.
- Weight: 3,2 kg (enclosing rail)
- Dimensions: L 130 x H 136 x P 215 mm

Bit dimensions in mm

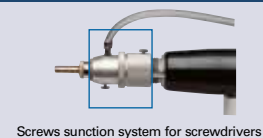


Standard equipment (provided with the feeder)

- 12 Volt DC electrical power supply (code 490331015)
- 1 hexagonal adjustment spanner
- 1 magnetiser for bits (code 611109116)
- Use and maintenance manual
- Eco-friendly packaging

Models available upon request

- **Models with screw suction system**
In presence of non magnetisable screws, Quicher can be equipped with a special screw selection system which selects and presents the screw for further pick up with air or electric screwdrivers with screw suction system.
- **Models with screws with different imprints.**



For further information about these models and other self-feeding assembly need, please contact Fiam Technical Consultancy Service.





Accessories available upon request

- 6.35 mm **bits** with hexagonal drive (ISO 1174) and Phillips/Pozidrive tip
- **Special bits** with lengths different from those in the drawing.
- **Rails** models R... to use the same unit with different screws.

Rails

Screw shank Ø mm	Rail model	Rail code
2	R 20	649021001
2,3	R 23	649021002
2,6	R 26	649021003
3	R 30	649021004
3,5	R 35	649021005
4	R 40	649021006
5	R 50	649021007

Types of screws to use with shank diameter and minimum length (maximum length 18 mm)

Shank Ø mm	Ø 2,0	Ø 2,3	Ø 2,6	Ø 3,0	Ø 4,0	Ø 5,0
Type of screw	Minimum length (* of shank - **total) in mm					
* Without washer 	1,8	2,5	2,8	3,0	6,0	7,0
* With washer 	3,0	4,0	4,0	4,0	6,0	8,0
* With double washer 	5,0	5,0	6,0	6,0	8,0	10,0
** With flat or oval countersunk head 	2,5	2,8	3,5	4,0	7,0	8,0

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