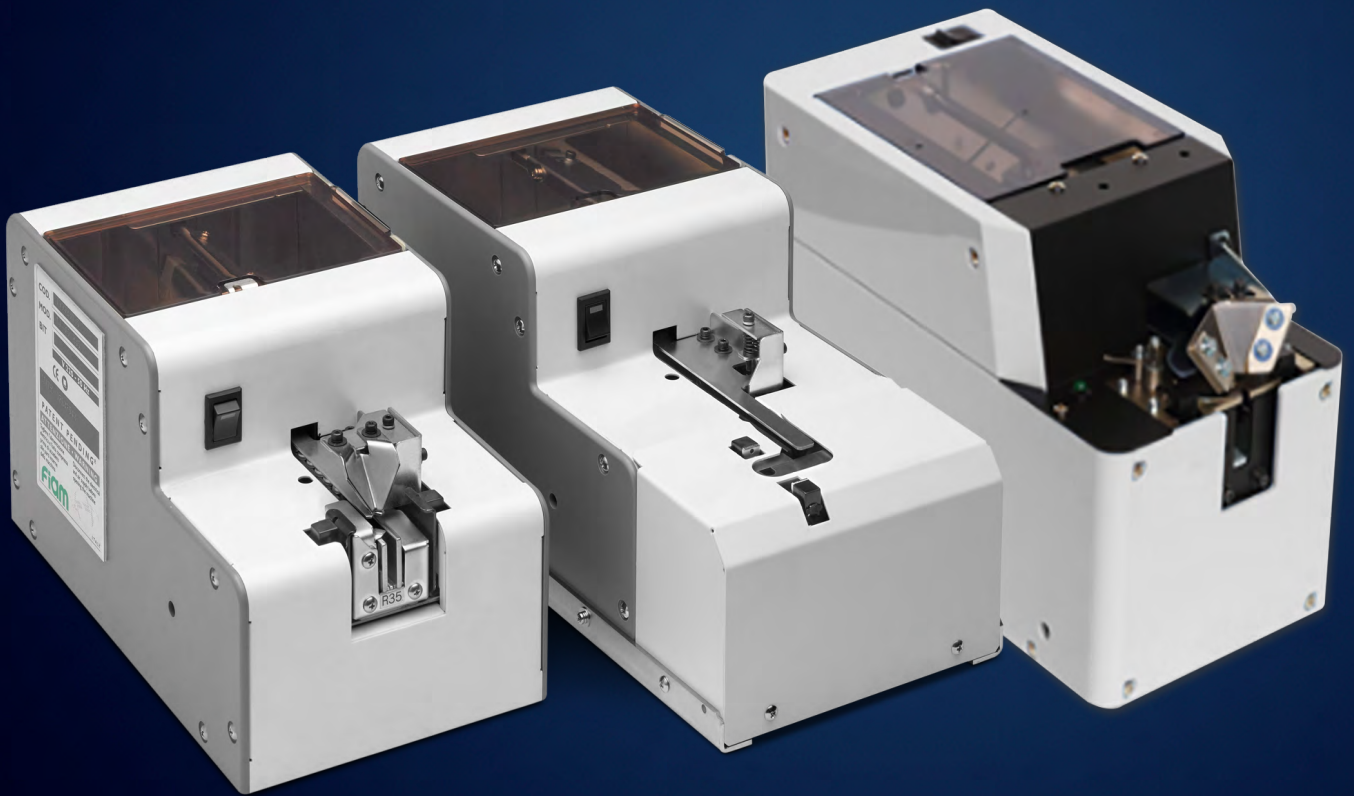


# Tightening automation

With the efficiency of pick and place.



**Automatic screw presenters**

**Screw suction systems**

- For automatic and manual use

**Fiam**®

PEOPLE AND SOLUTIONS

# Tightening systems with automatic for very fast and efficient tightening

When carrying out manual assembly with small screws on the bench or an automatic assembly line, **tightening time is essential to increase productivity.**

These automatic screw feed systems **significantly reduce cycle times** and can be used in both manual pick-and-place and automatic processes.

In fact the screws can be picked up easily by a **magnetic bit** or by a **screw suction system**, ready for immediate tightening.

The models offered provide a flexible solution to most application situations that can arise in normal industrial screwing operations: movement type, screw size and type, autonomous operation.

Productivity can be improved because they:

- provide an **EASY, CONTINUOUS AND RELIABLE SUPPLY OF SCREWS** to be tightened
- **ELIMINATE THE MANUAL STEPS** of screw pick-up and placement, **make the operators' work easier** as they can pick the screw up directly with the screwdriver without using both hands
- **ENSURE LESS OPERATOR FATIGUE** as they are easy to use and perfectly ergonomic, not just from a physical perspective, but from a cognitive one as well: reducing monotonous repetitive manual actions means less need for attention and therefore less mental fatigue while carrying out the various tasks, which leads to less operator stress
- **ARE ALSO IDEAL FOR AUTOMATIC TIGHTENING SYSTEMS:** in fact, they can be coupled with nutrunner motors installed on slides, or on anthropomorphic or collaborative robots.

## Screw presenters for tightening different screws very quickly and efficiently



| USE       | SCREW MATERIAL                      | MODEL  | SCREW SIZE SUPPORTED (SCREW DIAMETER) |           |           |         |           |         |         |         |
|-----------|-------------------------------------|--------|---------------------------------------|-----------|-----------|---------|-----------|---------|---------|---------|
|           |                                     |        | M2 (20)                               | M2.3 (23) | M2.6 (26) | M3 (30) | M3.5 (35) | M4 (40) | M5 (50) | M6 (60) |
| MANUAL    | MAGNETIZABLE                        | NJ-23  | ✓                                     | ✓         | ✓         | ✓       |           |         |         |         |
|           | MAGNETIZABLE                        | NJ-45  |                                       |           |           |         | ✓         | ✓       | ✓       |         |
|           | MAGNETISABLE STEEL ONLY             | OM-26M | ✓                                     | ✓         | ✓         | ✓       | ✓         | ✓       | ✓       | ✓       |
| AUTOMATIC | ANY MATERIAL (MAGNETIZABLE AND NOT) | NJR-23 | ✓                                     | ✓         | ✓         |         |           |         |         |         |
|           |                                     | NJR-45 |                                       |           |           | ✓       | ✓         | ✓       | ✓       |         |
|           | MAGNETISABLE STEEL ONLY             | OM-26R | ✓                                     | ✓         | ✓         | ✓       | ✓         | ✓       | ✓       | ✓       |

# ic screw presenter: ing.

## ASSEMBLY EXAMPLE WITH MANUAL PHASES

|  |      | TOTAL<br>TIME |
|--|------|---------------|
| PIECE LOADING                                    | 1,5s | <b>1,5s</b>   |
| ↓  |      |               |
| SCREW PICK-UP<br>SCREW POSITIONING<br>TIGHTENING | 3,5s | <b>5s</b>     |
| ↓  |      |               |
| SCREW PICK-UP<br>SCREW POSITIONING<br>TIGHTENING | 3,5s | <b>8,5s</b>   |
| ↓  |      |               |
| SCREW PICK-UP<br>SCREW POSITIONING<br>TIGHTENING | 3,5s | <b>12s</b>    |
| ↓  |      |               |
| SCREW PICK-UP<br>SCREW POSITIONING<br>TIGHTENING | 3,5s | <b>15,5s</b>  |
| ↓  |      |               |
| PIECE UNLOADING                                  | 1,5s | <b>17s</b>    |

## ASSEMBLY EXAMPLE WITH A SCREW PRESENTER

|   |      | TOTAL<br>TIME |
|---|------|---------------|
| PIECE LOADING                           | 1,5s | <b>1,5s</b>   |
| ↓                                       |      |               |
| SCREW PICK-UP<br>TRANSFER<br>TIGHTENING | 2,5s | <b>4s</b>     |
| ↓                                       |      |               |
| SCREW PICK-UP<br>TRANSFER<br>TIGHTENING | 2,5s | <b>6,5s</b>   |
| ↓                                       |      |               |
| SCREW PICK-UP<br>TRANSFER<br>TIGHTENING | 2,5s | <b>9s</b>     |
| ↓                                       |      |               |
| SCREW PICK-UP<br>TRANSFER<br>TIGHTENING | 2,5s | <b>11,5s</b>  |
| ↓                                       |      |               |
| PIECE UNLOADING                         | 1,5s | <b>13s</b>    |

**TIME SAVED:  
4 seconds  
- 24%**

The great productivity of these systems guarantees a **return on the investment** in a very short time.

# Manual pick-and-place systems

- For magnetisable screws with PHILLIPS or POZIDRIV recesses and lengths up to 18 mm
- For straight air and electric screwdrivers with lever start

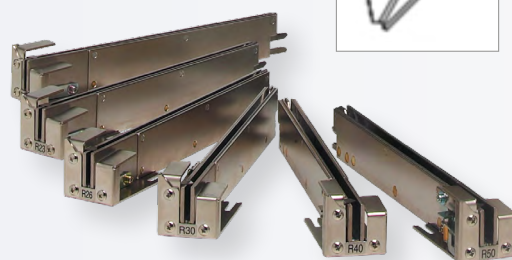
The pick-and-place systems for manual use consist of **NJ screw presenters** to ensure fast, smooth work cycles, helping to reduce production costs.

## The benefits:

- **No manual steps:** operators do not have to pick up screws manually and place them on the screwdriver bit, reducing cycle times by over 24%.
- **Very convenient to use:** just pick the screw in the pick-up "well" from the selection channel with the screwdriver, leaving the other hand free to hold the workpiece in position for assembly.
- **Feed speed:** they feed one screw per second, and the built-in electronics makes it easy to adjust the speed.
- Improved **finished product quality:** no screws lost inside components.
- **Prevents screws from jamming** at the pick-up point; presenting just one screw at a time prevents the error of picking up multiple screws.
- **They come with** an accessory to magnetise the screwdriver bit for convenient screw pick-up.



Pick-up  
"well"



Rails for NJ screw presenters



**FIND OUT  
HOW IT WORKS**

## For all models:

- They are versatile in use because they **can be used with different screws:** the **rails** are quick and easy to install/replace, and are interchangeable for use with screws of different shank diameters (shank diameters from 2 to 5 mm and maximum shank length of 18 mm).
- **High-capacity screw bowl:** operators rarely need to fill the bowl, since its capacity of 150 cc ensures a long operating uptime.





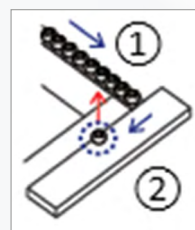
# Manual and automatic pick-and-place systems

- For screws made of any material, even non-magnetisable with lengths up to 18 mm
- For all recess types
- For screwdrivers with screw suction systems
- For nutrunner motors with screw suction systems and that are installed on slides or robots

**NJR screw presenters** are very versatile because the screw suction system with which the coupled tools must be equipped means they can be used in a multitude of manual and automatic applications.

## The benefits:

- They can be used with any screw type, including those with Torx or hexagonal recesses: the screw suction system can pick up effectively, eliminating the bit/screw head coupling problems that are common with these screw types.
- **Convenient pick-up point:** once it has been selected by the rail, the screw is moved to the pick-up point (1), where the suction head is located. The pick-up point has a screw detection sensor (2) with a signal output cable. The built-in cable provides a signal (on/off) that indicates if there is a screw in the pick-up area.
- **Operating time setting: the convenient built-in timer** sets the screw presenter operating time. The screw presenter stops after a certain time has lapsed while a screw is being held in the pick-up point. This time is set via a timer.



- A simple device is provided in order to **tilt the screw presenter** and help the screws slide down the rails to the pick-up point.
- There is an effective, strong brush for **removing excess screws** from the linear rail.



- Identical **high-capacity** bowl. 150 CC (by way of example, approx. 400 screws M3 x 12).

To choose the correct screw presenter, it is advisable to contact the **Fiam Technical Advice service**.



**FIND OUT  
HOW IT WORKS**

## Technical features

| NJ MODELS |           |                            | PHILLIPS BITS   |          |              |                        | POZIDRIV BITS   |          |              |           |
|-----------|-----------|----------------------------|-----------------|----------|--------------|------------------------|-----------------|----------|--------------|-----------|
| Model     | Code      | For screws with shank Ø mm | Phillips screws | Bit Ø mm | Imprint Ø mm | Bit code               | Pozidriv 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<br>4,5 | 3<br>2,6     | 605052031<br>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 |

**Bit dimensions in mm**

- 6.35 mm bits with hexagonal drive (ISO 1174) and Phillips/Pozidriv tip

| NJR MODELS |           |                            | BITS  | SCREW SUCTION SYSTEM   |
|------------|-----------|----------------------------|---|--|
| Model      | Code      | For screws with shank Ø mm |   |  |
| NJR23-RR20 | 199923120 | 2                          | <ul style="list-style-type: none"> <li>• With any recess</li> <li>• <b>Special bits</b> with lengths different from those in the drawing</li> </ul> | To choose the screw suction system and tool be paired with it, see pages 12 onwards. |
| NJR23-RR23 | 199923123 | 2,3                        |   |  |
| NJR23-RR26 | 199923126 | 2,6                        |   |  |
| NJR23-RR30 | 199923130 | 3                          |   |  |
| NJR45-RR35 | 199923135 | 3,5                        |   |  |
| NJR45-RR40 | 199923140 | 4                          |   |  |
| NJR45-RR50 | 199923150 | 5                          |   |  |

| Technical features  | Models available upon request  | Standard equipment (provided with the presenter)  |
|---|--|---|
| <ul style="list-style-type: none"> <li>• Feed voltage: 240 V, 50/60 Hz</li> <li>• Operating voltage: 15 Volt c.c.</li> <li>• Brushed DC motor</li> </ul> <p><b>Dimensions and weights</b></p> <ul style="list-style-type: none"> <li>- NJ Models (134W x 215D x 139H) Weight: 3.7 kg</li> <li>- NJR Models (134W x 274D x 139H) Weight: 4.4 kg</li> </ul> | <ul style="list-style-type: none"> <li>• Special models can be made available for screws with different recesses, following a thorough analysis of bit/ screw head coupling efficiency</li> <li>• Screws with washers can also be fed</li> </ul> | <ul style="list-style-type: none"> <li>• 15V 1A c.c. electrical power supply</li> <li>• Screwdriver and hexagonal key for adjustments</li> <li>• Earth connection cable</li> <li>• Bit magnetiser (code 611109116) - for NJ model only</li> <li>• Use and maintenance manual</li> <li>• Eco-friendly packaging</li> </ul> |

The supply includes: presenter, 1 rail and standard equipment.





No calibration operations are required: the screw presenter is supplied with the linear rail already installed and calibrated by Fiam, so it can be used immediately in production lines. It also operates at 120V with the adapter provided.

For further information about these models and other self-feeding assembly need, please contact [Fiam Technical Advice service](#).

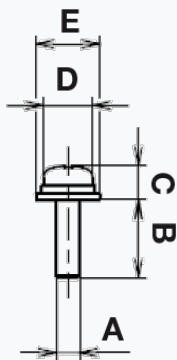
| Accessories available upon request   |   |                  |            |           |       |                  |            |           |
|--|---|------------------|------------|-----------|-------|------------------|------------|-----------|
| The screw presenter model can be changed just by replacing the rails. For example: the NJ/NJR 23 model can be configured with R/RR 20/23/26/30 rails while the NJ/NJR 45 model can be configured with R/RR 35/40/50 rails. | <ul style="list-style-type: none"> <li>• <b>Rails:</b> to use the same unit with different screws.</li> </ul> |                  |            |           |       |                  |            |           |
|  | Model   | Screw shank Ø mm | Rail model | Rail code | Model | Screw shank Ø mm | Rail model | Rail code |
|  | NJ23  | 2                | R 20       | 649021001 | NJR23 | 2                | RR 20      | 649021101 |
|  | NJ23  | 2,3              | R 23       | 649021002 | NJR23 | 2,3              | RR 23      | 649021102 |
|  | NJ23  | 2,6              | R 26       | 649021003 | NJR23 | 2,6              | RR 26      | 649021103 |
|  | NJ23  | 3                | R 30       | 649021004 | NJR23 | 3                | RR 30      | 649021104 |
|  | NJ45  | 3,5              | R 35       | 649021005 | NJR45 | 3,5              | RR 35      | 649021105 |
|  | NJ45  | 4                | R 40       | 649021006 | NJR45 | 4                | RR 40      | 649021106 |
|  | NJ45  | 5                | R 50       | 649021007 | NJR45 | 5                | RR 50      | 649021107 |

# How to choose the screw presenter

- 1** Check the screw type and geometry:
- the shank diameter must be in the range 2 mm to 5 mm
  - the shank maximum length must be less than/equal to 18 mm

| Types of screws      |   |                                       |   |
|----------------------|---|---------------------------------------|---|
| * Without washer     |    | * With washer                         |    |
| * With double washer |  | ** With flat or oval countersunk head |  |

- 2** Choose the model according to the screw diameter



|            | Nominal screw diameter | Screw diameter | Screw head diameter | Washer diameter | Screw head height | Screw shank length |
|------------|------------------------|----------------|---------------------|-----------------|-------------------|--------------------|
|            | ø [mm]                 | A [mm]         | D [mm]              | E [mm]          | C [mm]            | B [mm]             |
| NJ /NJR 23 | 2,0                    | 1,8 ÷ 2,1      | 3,0 ÷ 3,5           | 3,0 ÷ 8,0       | 0,5 ÷ 5,5         | 2,6 ÷ 18,0         |
|            | 2,3                    | 2,1 ÷ 2,4      | 3,0 ÷ 4,0           | 3,0 ÷ 8,0       | 0,5 ÷ 5,5         | 2,9 ÷ 18,0         |
|            | 2,6                    | 2,4 ÷ 2,7      | 3,6 ÷ 4,5           | 3,6 ÷ 8,0       | 0,5 ÷ 5,5         | 3,2 ÷ 18,0         |
|            | 3,0                    | 2,8 ÷ 3,1      | 4,0 ÷ 5,5           | 4,0 ÷ 8,0       | 0,5 ÷ 5,5         | 3,6 ÷ 18,0         |
| NJ /NJR 45 | 3,5                    | 3,3 ÷ 3,7      | 4,8 ÷ 8,0           | 4,8 ÷ 12,0      | 0,5 ÷ 8,0         | 4,1 ÷ 18,0         |
|            | 4,0                    | 3,8 ÷ 4,1      | 5,4 ÷ 8,0           | 5,4 ÷ 12,0      | 0,5 ÷ 8,0         | 4,6 ÷ 18,0         |
|            | 5,0                    | 4,8 ÷ 5,1      | 6,2 ÷ 10,0          | 6,2 ÷ 12,0      | 0,5 ÷ 8,0         | 5,6 ÷ 18,0         |

- 3** Decide if the process is manual or automatic and check whether the screw material is magnetisable or not.

| Use       | Screw material                  | Type | Model  | Screw size supported (screw diameter) |           |           |         |           |         |         |
|-----------|---------------------------------|------|--------|---------------------------------------|-----------|-----------|---------|-----------|---------|---------|
|           |                                 |      |        | M2 (20)                               | M2.3 (23) | M2.6 (26) | M3 (30) | M3.5 (35) | M4 (40) | M5 (50) |
| Manual    | Magnetizable                    | NJ   | NJ-23  | √                                     | √         | √         | √       |           |         |         |
|           |                                 |      | NJ-45  |                                       |           |           |         | √         | √       | √       |
| Automatic | Any material (non-magnetizable) | NJR  | NJR-23 | √                                     | √         | √         | √       |           |         |         |
|           |                                 |      | NJR-45 |                                       |           |           |         | √         | √       | √       |

To choose the most suitable presenter contact [Fiam Technical Advice service](#).

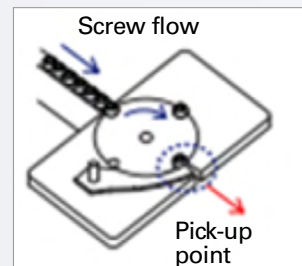
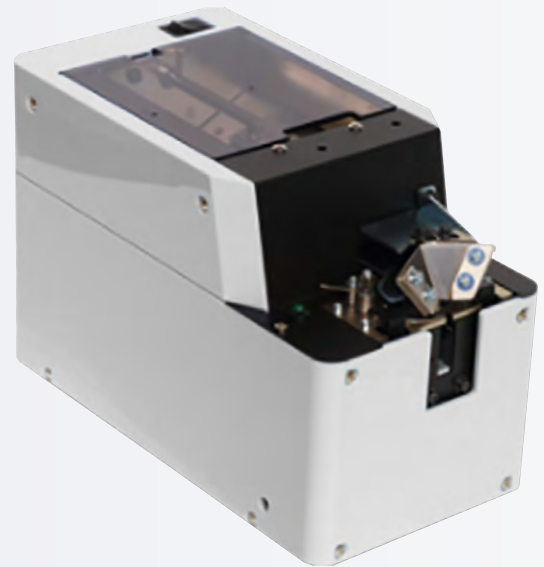
# Manual Pick-and-place with rotary screw selection system

- For exclusively magnetisable steel screws from M2 to M6, with under-head lengths up to 25 mm
- For air and electric screwdrivers with magnetised bits and lever start
- To pick and place screws with the magnetised bit

Manual pick-and-place systems that incorporate **OM26-M screw presenters** feature a rotary screw selection system that separates the screws one by one and positions them at the pick-up point.

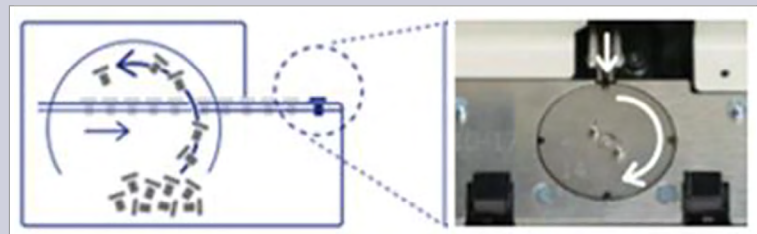
## The benefits:

- **Efficient pick-up** exploiting the magnetised bit, aided by the pick-up "well".
- **Ease of use** for the operator, who can easily remove the screw from the pick-up point, leaving the other hand free to hold the workpiece in position for assembly.
- **Prevents screws from jamming** at the pick-up point; presenting just one screw at a time prevents the error of picking up multiple screws.



## For all models:

- The pick-up point has a screw detection sensor (2) with a signal output cable. The cable provides a signal (on/off) that indicates if there is a screw in the pick-up area.



- **Bowl with a large screw capacity** since it has a volume of 300 cc.



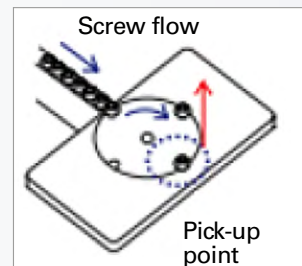
# Automatic Pick-and-Place with rotary screw selection system

- For exclusively magnetisable steel screws from M2 to M6, with under-head lengths up to 25 mm
- For all recess types
- For screwdrivers with screw suction systems
- For nutrunner motors with screw suction systems and that are installed on slides or robots

**OM-26R screw presenters** with rotary screw selection system, for positioning at the pick-up point, can be used in automatic pick-and-place processes.

## The benefits:

- Convenient pick-up point on the rotating escape: screws from the linear rail, are placed at the pick-up point one by one, preventing jamming.
- The pick-up point has a screw detection sensor with a cable for connection to the external output signal.



- The rail vibration amplitude and frequency can be set.
- The feeder operating time can be set via the **built-in timer**. The screw presenter stops if a screw has not been picked up from the pick-up point after a certain time. This time is set via a timer.
- The **linear rail** guides the screws from the bowl to the pick-up point in the rotary selection device; it is supplied by the screw presenter and is specific to the screw diameter. It is interchangeable and replaceable in order to **feed screws of different sizes**.
- There is an effective, strong brush for **removing excess screws** from the linear rail.

To choose the correct screw presenter, it is advisable to contact the **Fiam Technical Advice service**.

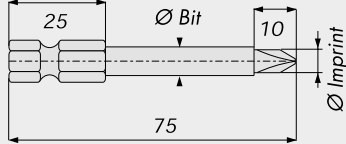
## Technical features

### Models for manual use

| OM-26M MODELS |              |                            | PHILLIPS BITS   |          |              |                        | POZIDRIV BITS   |          |              |           |
|---------------|--------------|----------------------------|-----------------|----------|--------------|------------------------|-----------------|----------|--------------|-----------|
| Model         | Code         | For screws with shank Ø mm | Phillips screws | Bit Ø mm | Imprint Ø mm | Bit code               | Pozidriv screws | Bit Ø mm | Imprint Ø mm | Bit code  |
| OM-26M20      | upon request | 2,0                        | PH1             | 3        | 3            | 605052031              | PZ1             | 3        | 3            | 605062031 |
| OM-26M23      | 199924023    | 2,3                        | PH1             | 3<br>4,5 | 3<br>2,6     | 605052031<br>605050041 | PZ1             | 3        | 3            | 605062031 |
| OM-26M26      | upon request | 2,6                        | PH1             | 4,5      | 2,6          | 605050041              | PZ1             | 3        | 3            | 605062031 |
| OM-26M30      | 199924030    | 3,0                        | PH1             | 4,5      | 2,6          | 605050041              | PZ1             | 3        | 3            | 605062031 |
| OM-26M35      | 199924035    | 3,5                        | PH2             | 6        | 4            | 605050036              | PZ2             | 6        | 4            | 605060006 |
| OM-26M40      | upon request | 4,0                        | PH2             | 6        | 4            | 605050036              | PZ2             | 6        | 4            | 605060006 |
| OM-26M50      | 199924050    | 5,0                        | PH2             | 6        | 5            | 605050043              | PZ2             | 6        | 5            | 605060009 |
| OM-26M60      | 199924060    | 6,0                        | PH3             | 8        | 8            | 605052103              | PZ3             | 8        | 8            | 605062103 |

**Bit dimensions in mm**

- 6.35 mm bits with hexagonal drive (ISO 1174) and Phillips/Pozidriv tip



### Models for automatic use

| OM-26R MODELS |              |                            | BITS  | SCREW SUCTION SYSTEM   |
|---------------|--------------|----------------------------|---|--|
| Model         | Code         | For screws with shank Ø mm |   |  |
| OM-26R20      | upon request | 2,0                        | <ul style="list-style-type: none"> <li>With any recess</li> <li><b>Special bits</b> with lengths different from those in the drawing</li> </ul> | To choose the screw suction system and tool be paired with it, see pages 12 onwards. |
| OM-26R23      | 199924123    | 2,3                        |   |  |
| OM-26R26      | upon request | 2,6                        |   |  |
| OM-26R30      | upon request | 3,0                        |   |  |
| OM-26R35      | upon request | 3,5                        |   |  |
| OM-26R40      | upon request | 4,0                        |   |  |
| OM-26R50      | 199924150    | 5,0                        |   |  |
| OM-26R60      | upon request | 6,0                        |   |  |

| Technical features   | Models available upon request   | Standard equipment (provided with the presenter)  |
|--|---|---|
| <ul style="list-style-type: none"> <li>Feed voltage: 240 V, 50/60 Hz</li> <li>Operating voltage: 15 Volt c.c.</li> <li>Brushed DC motor</li> </ul> Dimensions: 119W x 226D x 152H<br>Weights: 3,1 kg | <ul style="list-style-type: none"> <li>Special models can be made available for screws with different recesses, following a thorough analysis of bit/screw head coupling efficiency</li> <li>Screws with washers can also be fed</li> </ul> | <ul style="list-style-type: none"> <li>15V 1A c.c. electrical power supply</li> <li>Screwdriver and hexagonal key for adjustments</li> <li>Earth connection cable</li> <li>Bit magnetiser (code 611109116) - for OM26-M model only</li> <li>Use and maintenance manual</li> <li>Eco-friendly packaging</li> </ul> |

The supply includes: presenter, 1 rail and standard equipment.

No calibration operations are required: the screw presenter is supplied with the linear rail already installed and calibrated by Fiam, so it can be used immediately in production lines. It also operates at 120V with the adapter provided.





For further information about these models and other self-feeding assembly need, please contact [Fiam Technical Advice service](#).

#### Accessories available upon request

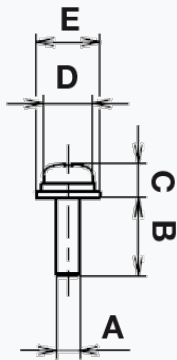
| The screw presenter model can be changed just by replacing the rails.<br>For example: the OM-26M30 model can be configured with different linear rails, depending on the screw size. | <ul style="list-style-type: none"> <li><b>Rails:</b> to use the same unit with different screws.</li> </ul> |                  |            |              |          |                  |            |              |
|--|---|------------------|------------|--------------|----------|------------------|------------|--------------|
|  | Model   | Screw shank Ø mm | Rail model | Rail code    | Model    | Screw shank Ø mm | Rail model | Rail code    |
|  | OM-26M20  | 2,0              | OMM20SET   | upon request | OM-26R20 | 2,0              | OMR20SET   | upon request |
|  | OM-26M23  | 2,3              | OMM23SET   | 649021042    | OM-26R23 | 2,3              | OMR23SET   | upon request |
|  | OM-26M26  | 2,6              | OMM26SET   | upon request | OM-26R26 | 2,6              | OMR26SET   | upon request |
|  | OM-26M30  | 3,0              | OMM30SET   | 649021044    | OM-26R30 | 3,0              | OMR30SET   | upon request |
|  | OM-26M35  | 3,5              | OMM35SET   | 649021045    | OM-26R35 | 3,5              | OMR35SET   | upon request |
|  | OM-26M40  | 4,0              | OMM40SET   | upon request | OM-26R40 | 4,0              | OMR40SET   | upon request |
|  | OM-26M50  | 5,0              | OMM50SET   | 649021047    | OM-26R50 | 5,0              | OMR50SET   | 649021147    |
|  | OM-26M60  | 6,0              | OMM60SET   | 649021048    | OM-26R60 | 6,0              | OMR60SET   | upon request |

# How to choose the screw presenter

- 1** Check the screw type and geometry:
- the shank diameter must be in the range 2 mm to 6 mm
  - the shank maximum length must be less than/equal to 25 mm

| Types of screws      |   |                                       |   |
|----------------------|---|---------------------------------------|---|
| * Without washer     |    | * With washer                         |    |
| * With double washer |  | ** With flat or oval countersunk head |  |

- 2** Choose the model according to the screw diameter



|               | Nominal screw diameter | Screw diameter | Screw head diameter | Washer diameter | Screw head height | Screw shank length |
|---------------|------------------------|----------------|---------------------|-----------------|-------------------|--------------------|
|               | ø [mm]                 | A [mm]         | D [mm]              | E [mm]          | C [mm]            | B [mm]             |
| OM26M / OM26R | 2,0                    | 1,9 ÷ 2,1      | 3,0 ÷ 6,0           | 3,0 ÷ 10,0      | 0,35 ÷ 6,0        | 3,2 ÷ 25,0         |
|               | 2,3                    | 2,2 ÷ 2,4      | 3,3 ÷ 6,0           | 3,3 ÷ 10,0      | 0,35 ÷ 6,0        | 3,7 ÷ 25,0         |
|               | 2,6                    | 2,5 ÷ 2,7      | 3,6 ÷ 6,0           | 3,6 ÷ 10,0      | 0,35 ÷ 6,0        | 4,2 ÷ 25,0         |
|               | 3,0                    | 2,9 ÷ 3,2      | 4,0 ÷ 6,0           | 4,0 ÷ 11,0      | 0,35 ÷ 6,0        | 4,8 ÷ 25,0         |
|               | 3,5                    | 3,4 ÷ 3,7      | 4,8 ÷ 8,0           | 4,8 ÷ 11,0      | 0,35 ÷ 6,5        | 5,6 ÷ 25,0         |
|               | 4,0                    | 3,8 ÷ 4,2      | 5,4 ÷ 8,0           | 5,4 ÷ 12,0      | 0,35 ÷ 6,5        | 6,4 ÷ 25,0         |
|               | 5,0                    | 4,8 ÷ 5,2      | 6,2 ÷ 10,0          | 6,2 ÷ 12,0      | 0,35 ÷ 7,0        | 8,0 ÷ 25,0         |
|               | 6,0                    | 5,8 ÷ 6,2      | 7,2 ÷ 11,0          | 7,2 ÷ 12,0      | 0,35 ÷ 7,5        | 9,6 ÷ 25,0         |

- 3** Decide if the process is manual or automatic. The screw must be magnetisable.

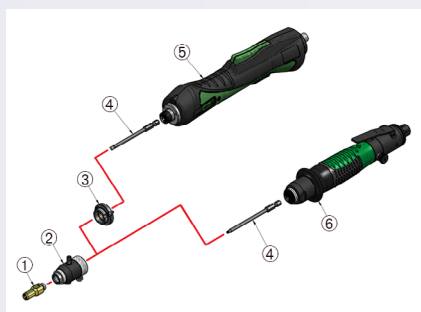
| Use       | Screw material     | Model  | Screw size supported (screw diameter) |           |           |         |           |         |         |         |
|-----------|--------------------|--------|---------------------------------------|-----------|-----------|---------|-----------|---------|---------|---------|
|           |                    |        | M2 (20)                               | M2.3 (23) | M2.6 (26) | M3 (30) | M3.5 (35) | M4 (40) | M5 (50) | M6 (60) |
| Manual    | Magnetisable steel | OM-26M | √                                     | √         | √         | √       | √         | √       | √       | √       |
| Automatic | Magnetisable steel | OM-26R | √                                     | √         | √         | √       | √         | √       | √       | √       |

To choose the most suitable presenter contact [Fiam Technical Advice service](#).

# Screw suction system

**This device makes the tool's hold on the screws and their positioning easier and more secure and can be fitted on straight screwdrivers and both pneumatic and electric eTensil nutrunner motors.**

This system holds the screw in contact with the tool bit using the vacuum created by the vacuum pump connected to it. This ensures that the screw is picked up and held firmly by its head while it is moved and positioned on the thread of the workpiece being assembled.



This system holds the screw in contact with the tool bit using the vacuum created by the vacuum pump connected to it.

This ensures that the screw is picked up and held firmly by its head while it is moved and positioned on the thread of the workpiece being assembled.

| Position | Type  | Code                   |
|----------|---|------------------------|
| 1        | <b>Nozzle</b>   | Standard or customized |
| 2        | <b>Screw suction head</b> (equipped with a suction hose to be connected to the SSU vacuum pump)                       | 682119050              |
| 3        | <b>Ring connection kit for eTensil E8C screwdrivers</b> (for connecting the suction head to the screwdriver)          | 681041036              |
|          | <b>Ring connection kit for eTensil E8MC nutrunner motors</b> (for connecting the suction head to the nutrunner motor) | 681041038              |
| 4        | <b>Bit</b>  | Standard or customized |
| 5        | <b>Electric tool type</b> (eTensil screwdriver or nutrunner motor)  | Codes at page 13       |
| 6        | <b>Pneumatic tool type</b> (15C /26C FT screwdriver or nutrunner motor – see the table)                               | Codes at pages 14/15   |
|          | <b>SSU - Vacuum pump (see below)</b>  | 676000120              |

The ring connection kit is NOT needed for pneumatic solutions.

## STANDARD NOZZLE

- For tightening applications on surfaces or without particular space restrictions
- Brass nozzle, dimensions L=20mm - and Ø=15mm
- For bits L=75 mm
- Nozzle customisation is limited to its tip size, based on the screw head size.

## CUSTOMISED NOZZLE

- For tightening applications with space restrictions and/or other specific conditions
- Nozzle made of custom material for screws with special dimensions
- For special bits
- Customisation extends from all nozzle dimensions to the bit to be used.

**When not combined with NJ/NJR presenters, the screw suction system can handle screws with the following geometries:**

MIN. HEAD Ø: 1.4 mm

MAX. HEAD Ø: 13 mm

For screws having a length higher than 18 mm, contact the Fiam Technical Advice Service.



SSU



SSU-E

## SSU - Vacuum pump

Designed and manufactured by Fiam. Necessary for the suction of the screws. Supplied with power cable.

## SSU-E - Vacuum pump

To be combined with eTensil TPU-2, TPU-M1, TPU-C1 and TPU-C3 units. In addition to the features of the SSU model, it features a screw presence detection system on the nozzle of the screw suction device to which it is connected and that automatically manages, via an external signal, the switch-on and switch-off, optimizing the energy saving and reducing noise. Is equipped with a LED device on the front which indicates the functioning when in the suction phase.

| Model   | Feed input  | Code      |
|---|-------------|-----------|
| Vacuum pump SSU   | 230Vac-50Hz | 676000132 |
| Vacuum pump SSU   | 120Vac-60Hz | 676000121 |
| Vacuum pump SSU-E   | 230Vac-50Hz | 676000133 |
| Vacuum pump SSU-E   | 120Vac-60Hz |           |
| <b>Connection cable DB15/M - L 3 mt</b>                           |             |           |
| • To connect SSU-E to TPU 2                                       |             | 686990058 |
| <b>Connection cable DB25/M - L 3 mt</b>                           |             |           |
| • To connect SSU-E to TPU-C1, TPU-C3, TPU-M1 or to the client PLC |             | 686990059 |

To choose the correct screw suction system, it is advisable to contact the [Fiam Technical Advice Service](#) and send Fiam samples of the screws and workpiece on which they will be tightened.

# Tools that can be coupled with the screw suction system

## eTensil electric screwdrivers

|   | Type of screwdriver |           | Grip | Tightening torque |           | Idle speed range | Starting system | Reversibility | Weight | Dimensions L x Ø | DC power supply | Accessories | Unit to use                                    |
|---|---------------------|-----------|------|-------------------|-----------|------------------|-----------------|---------------|--------|------------------|-----------------|-------------|--|
|   | Model               | Code      |      | Nm                | in lb     |                  |                 |               |        |                  |                 |             |  |
| WITH MECHANICAL CLUTCH AND AUTOMATIC SHUT OFF | E8C1A-1200          | 111712011 | █    | 0,3÷1,6           | 2,6÷14,1  | 590÷1180         | *               | ↻             | 0,78   | 275x39           | 32              | ⊕ F1/4"     | TPU-1<br>TPU-2<br>TPU-M1                       |
|   | E8C1A-900           | 111712012 | █    | 0,3÷1,6           | 2,6÷14,1  | 435÷870          | *               | ↻             | 0,78   | 275x39           | 32              | ⊕ F1/4"     |  |
|   | E8C1A-650           | 111712013 | █    | 0,3÷1,6           | 2,6÷14,1  | 320÷640          | *               | ↻             | 0,78   | 275x39           | 32              | ⊕ F1/4"     |  |
|   | E8C2A-2000          | 111712000 | █    | 0,6÷2,5           | 5,3÷22,1  | 1000÷2000        | *               | ↻             | 0,78   | 275x39           | 32              | ⊕ F1/4"     |  |
|   | E8C3A-1200          | 111712001 | █    | 0,6÷3,0           | 5,3÷26,5  | 590÷1180         | *               | ↻             | 0,78   | 275x39           | 32              | ⊕ F1/4"     |  |
|   | E8C3A-900           | 111712002 | █    | 0,6÷3,5           | 5,3÷30,98 | 435÷870          | *               | ↻             | 0,78   | 275x39           | 32              | ⊕ F1/4"     |  |
|   | E8C4A-650           | 111712003 | █    | 0,6÷4,0           | 5,3÷35,4  | 320÷640          | *               | ↻             | 0,78   | 275x39           | 32              | ⊕ F1/4"     |  |
|   | E8C5A-350           | 111712004 | █    | 0,6÷4,5           | 5,3÷39,8  | 170÷340          | *               | ↻             | 0,78   | 275x39           | 32              | ⊕ F1/4"     |  |
| WITH TORQUE/ANGLE CURRENT CONTROL             | E8CC2A-2000         | 111712100 | █    | 0,6÷2,0           | 5,3÷17,7  | 500÷2000         | *               | ↻             | 0,76   | 275x39           | 32              | ⊕ F1/4"     | TPU-C1<br>TPU-C3<br>TPU-C1-120V<br>TPU-C3-120V |
|   | E8CC3A-1200         | 111712101 | █    | 0,7÷3,0           | 6,2÷26,5  | 300÷1200         | *               | ↻             | 0,76   | 275x39           | 32              | ⊕ F1/4"     |  |
|   | E8CC4A-900          | 111712102 | █    | 0,7÷4,0           | 6,2÷35,4  | 225÷900          | *               | ↻             | 0,76   | 275x39           | 32              | ⊕ F1/4"     |  |
|   | E8CC5A-650          | 111712103 | █    | 0,7÷5,0           | 6,2÷44,2  | 160÷650          | *               | ↻             | 0,76   | 275x39           | 32              | ⊕ F1/4"     |  |
|   | E8CC7A-350          | 111712104 | █    | 0,8÷7,0           | 7÷61,9    | 90÷350           | *               | ↻             | 0,76   | 275x39           | 32              | ⊕ F1/4"     |  |

## eTensil electric nutrunner motors

|   | Type of nutrunner motor |           | Grip | Tightening torque |           | Idle speed range | Reversibility | Weight | Dimensions L x Ø | Accessories | Unit to use                                    |
|---|-------------------------|-----------|------|-------------------|-----------|------------------|---------------|--------|------------------|-------------|--|
|   | Model                   | Code      |      | Nm                | in lb     |                  |               |        |                  |             |  |
| WITH MECHANICAL CLUTCH AND AUTOMATIC SHUT OFF | E8MC1A-1200             | 111712706 | █    | 0,3÷1,6           | 2,6÷14,1  | 590÷1180         | ↻             | 0,87   | 295x36           | ⊕ F1/4"     | TPU-1<br>TPU-2<br>TPU-M1                       |
|   | E8MC1A-900              | 111712707 | █    | 0,3÷1,6           | 2,6÷14,1  | 435÷870          | ↻             | 0,87   | 295x36           | ⊕ F1/4"     |  |
|   | E8MC1A-650              | 111712708 | █    | 0,3÷1,6           | 2,6÷14,1  | 320÷640          | ↻             | 0,87   | 295x36           | ⊕ F1/4"     |  |
|   | E8MC2A-2000             | 111712700 | █    | 0,6÷2,5           | 5,3÷22,1  | 1000÷2000        | ↻             | 0,87   | 295x36           | ⊕ F1/4"     |  |
|   | E8MC3A-1200             | 111712701 | █    | 0,6÷3,0           | 5,3÷26,5  | 590÷1180         | ↻             | 0,87   | 295x36           | ⊕ F1/4"     |  |
|   | E8MC3A-900              | 111712702 | █    | 0,6÷3,5           | 5,3÷30,98 | 435÷870          | ↻             | 0,87   | 295x36           | ⊕ F1/4"     |  |
|   | E8MC4A-650              | 111712703 | █    | 0,6÷4,0           | 5,3÷35,4  | 320÷640          | ↻             | 0,87   | 295x36           | ⊕ F1/4"     |  |
|   | E8MC5A-350              | 111712704 | █    | 0,6÷4,5           | 5,3÷39,8  | 170÷340          | ↻             | 0,87   | 295x36           | ⊕ F1/4"     |  |
| WITH TORQUE/ANGLE CURRENT CONTROL             | E8MCC2A-2000            | 111712710 | █    | 0,6÷2,0           | 5,3÷17,7  | 500÷2000         | ↻             | 0,68   | 233x36           | ⊕ F1/4"     | TPU-C1<br>TPU-C3<br>TPU-C1-120V<br>TPU-C3-120V |
|   | E8MCC3A-1200            | 111712711 | █    | 0,7÷3,0           | 6,2÷26,5  | 300÷1200         | ↻             | 0,68   | 233x36           | ⊕ F1/4"     |  |
|   | E8MCC4A-900             | 111712712 | █    | 0,7÷4,0           | 6,2÷35,4  | 225÷900          | ↻             | 0,68   | 233x36           | ⊕ F1/4"     |  |
|   | E8MCC5A-650             | 111712713 | █    | 0,7÷5,0           | 6,2÷44,2  | 160÷650          | ↻             | 0,68   | 233x36           | ⊕ F1/4"     |  |
|   | E8MCC7A-350             | 111712714 | █    | 0,8÷7,0           | 7÷61,9    | 90÷350           | ↻             | 0,68   | 233x36           | ⊕ F1/4"     |  |

\* Starting system: 4 modalities availables.

To make the right choice, see all the specifications in catalogues [105](#) and [106](#), or contact the [Fiam Technical Assistance Service](#).



## Power supply units / Monitoring unit / Control units

| Type of unit |           | Speed       | Nr of connectable tools | Tool feed tension | Feed input               | I/O  | Visual indicators | Weight | Dimensions<br>L x Width x H |
|--------------|-----------|-------------|-------------------------|-------------------|--------------------------|--|-------------------|--------|-----------------------------|
| Model        | Code      |             |                         | VDC               |                          |  |                   | kg     | mm                          |
| TPU-1        | 686200100 | Slow / Fast | 1                       | 32                | 230 Vac ±10%<br>50-60 Hz | -  | 6 LED             | 0,6    | 185 x 150 x 63              |
| TPU-2        | 686200101 | Slow / Fast | 1                       | 32                | 230 Vac ±10%<br>50-60 Hz | 5 inputs<br>5 outputs                        | 6 LED             | 0,6    | 185 x 150 x 63              |
| TPU-1-120V   | 686200102 | Slow / Fast | 1                       | 32                | 230 Vac ±10%<br>50-60 Hz | -  | 6 LED             | 0,6    | 185 x 150 x 63              |
| TPU-2-120V   | 686200103 | Slow / Fast | 1                       | 32                | 230 Vac ±10%<br>50-60 Hz | 5 inputs<br>5 outputs                        | 6 LED             | 0,6    | 185 x 150 x 63              |
| TPU-M1       | 686200109 | Adjustable  | 1                       | 32                | 230 Vac ±10%<br>50-60 Hz | 8 inputs - 8 outputs<br>21 + 22 signal types | 7 LED<br>DISPLAY  | 0,8    | 185x150x105                 |
| TPU-C1       | 686200105 | Adjustable  | 1                       | 32                | 230 Vac ±10%<br>50-60 Hz | 8 inputs - 8 outputs<br>9 + 11 signal types  | 7 LED<br>DISPLAY  | 0,8    | 185x150x105                 |
| TPU-C3       | 686200107 | Adjustable  | 1                       | 32                | 230 Vac ±10%<br>50-60 Hz | 8 inputs - 8 outputs<br>21 + 22 signal types | 7 LED<br>DISPLAY  | 0,8    | 185x150x105                 |
| TPU-C1-120V  | 686200106 | Adjustable  | 1                       | 32                | 120 Vac ±10%<br>50-60 Hz | 8 inputs - 8 outputs<br>9 + 11 signal types  | 7 LED<br>DISPLAY  | 0,8    | 185x150x105                 |
| TPU-C3-120V  | 686200108 | Adjustable  | 1                       | 32                | 120 Vac ±10%<br>50-60 Hz | 8 inputs - 8 outputs<br>21 + 22 signal types | 7 LED<br>DISPLAY  | 0,8    | 185x150x105                 |

To make the right choice, see all the specifications in catalogues [105](#) and [106](#), or contact the [Fiam Technical Assistance Service](#).

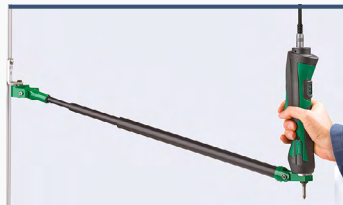
## Air screwdrivers

| Type of screwdriver |           | Grip | Tightening torque on soft joint<br>Min. / Max. |            | Idle speed | Starting system | Reversibility | Weight | Dimensions (mm) | Air consumption | Accessories | Noise level | Vibrations       |
|---------------------|-----------|------|--|------------|------------|-----------------|---------------|--------|-----------------|-----------------|-------------|-------------|------------------|
| Model               | Code      | Type | Nm   | in lb      | rpm        | Type            | Type          | kg     | Øxh             | l/s             | Drive       | dBA         | m/s <sup>2</sup> |
| 15C2A-FT            | 112509919 |      | 0,4÷2,0  | 3,54÷17,70 | 2000       |                 |               | 0,58   | 38x230          | 4,0             | F 1/4"      | 73          | <2,5             |
| 15C3A-FT            | 112509920 |      | 0,4÷3,5  | 3,54÷30,98 | 1400       |                 |               | 0,59   | 38x230          | 5,5             | F 1/4"      | 73          | <2,5             |
| 15C4A-FT            | 112507013 |      | 0,4÷4,5  | 3,54÷39,83 | 950        |                 |               | 0,59   | 38x230          | 5,5             | F 1/4"      | 73          | <2,5             |
| 15C5A-FT            | 112509913 |      | 0,4÷5,0  | 3,54÷44,25 | 650        |                 |               | 0,59   | 38x230          | 5,5             | F 1/4"      | 73          | <2,5             |
| 15C5A250-FT         | 112509956 |      | 0,4÷5,0  | 3,54÷44,25 | 250        |                 |               | 0,65   | 38x240          | 5,5             | F 1/4"      | 73          | <2,5             |
| 15C5A150-FT         | 112507072 |      | 0,4÷5,0  | 3,54÷44,25 | 150        |                 |               | 0,65   | 38x240          | 5,5             | F 1/4"      | 73          | <2,5             |
| 15C2AL-FT           | 112507073 |      | 0,4÷2,0  | 3,54÷17,70 | 2000       |                 |               | 0,59   | 38x228          | 4,0             | F 1/4"      | 73          | <2,5             |
| 15C3AL-FT           | 112507074 |      | 0,4÷3,5  | 3,54÷30,98 | 1400       |                 |               | 0,60   | 38x228          | 5,5             | F 1/4"      | 73          | <2,5             |
| 15C4AL-FT           | 112507047 |      | 0,4÷4,5  | 3,54÷39,83 | 950        |                 |               | 0,60   | 38x228          | 5,5             | F 1/4"      | 73          | <2,5             |
| 15C5AL-FT           | 112509949 |      | 0,4÷5,0  | 3,54÷44,25 | 650        |                 |               | 0,60   | 38x228          | 5,5             | F 1/4"      | 73          | <2,5             |
| 15C5AL250-FT        | 112507075 |      | 0,4÷5,0  | 3,54÷44,25 | 250        |                 |               | 0,66   | 38x242          | 5,5             | F 1/4"      | 73          | <2,5             |
| 15C5AL150-FT        | 112507076 |      | 0,4÷5,0  | 3,54÷44,25 | 150        |                 |               | 0,66   | 38x242          | 5,5             | F 1/4"      | 73          | <2,5             |
| 26C4A- FT           | 114807634 |      | 0,4÷4,0  | 3,54÷35,40 | 2000       |                 |               | 0,80   | 40x235          | 4,5             | F 1/4"      | 75          | <2,5             |
| 26C5A- FT           | 114807635 |      | 0,4÷5,0  | 3,54÷44,25 | 1350       |                 |               | 0,80   | 40x235          | 6,0             | F 1/4"      | 75          | <2,5             |
| 26C4AL- FT          | 114807636 |      | 0,4÷4,0  | 3,54÷35,40 | 2000       |                 |               | 0,85   | 40x234          | 6,0             | F 1/4"      | 75          | <2,5             |
| 26C5AL- FT          | 114807383 |      | 0,4÷5,0  | 3,54÷44,25 | 1350       |                 |               | 0,85   | 40x234          | 6,0             | F 1/4"      | 75          | <2,5             |

## Air nutrunner motors

| Type of nutrunner motor |           | Tightening torque on soft joint<br>Min. / Max. |               | Idle speed | Starting system | Reversibility | Weight | Air consumption | Accessories | Noise level |
|-------------------------|-----------|--|---------------|------------|-----------------|---------------|--------|-----------------|-------------|-------------|
| Model                   | Code      | Nm   | in lb         | r.p.m.     | Type            | Type          | Kg     | l/s             | Drive       | dBA         |
| 20MC2A                  | 112314706 | 0,6 ÷ 2,5                                      | 5,31 ÷ 22,125 | 2700       | █               | ↻             | 0,750  | 5,5             | ⊕ F1/4"     | 75          |
| 20MC3A                  | 112314707 | 0,4 ÷ 3  | 3,54 ÷ 26,55  | 1400       | █               | ↻             | 0,770  | 5,5             | ⊕ F1/4"     | 75          |
| 20MC4A                  | 112314708 | 0,4 ÷ 4  | 3,54 ÷ 35,4   | 1000       | █               | ↻             | 0,770  | 5,5             | ⊕ F1/4"     | 75          |
| 20MC5A                  | 112314709 | 0,4 ÷ 5  | 3,54 ÷ 44,25  | 650        | █               | ↻             | 0,770  | 5,5             | ⊕ F1/4"     | 75          |
| 20MC5A-250              | 112307260 | 0,4 ÷ 5  | 3,54 ÷ 44,25  | 250        | █               | ↻             | 0,850  | 5,5             | ⊕ F1/4"     | 75          |
| 20MCS2A                 | 112314226 | 0,6 ÷ 2,5                                      | 5,31 ÷ 22,125 | 2700       | █↓              | ↻             | 0,750  | 5,5             | ⊕ F1/4"     | 75          |
| 20MCS3A                 | 112314227 | 0,4 ÷ 3  | 3,54 ÷ 26,55  | 1400       | █↓              | ↻             | 0,770  | 5,5             | ⊕ F1/4"     | 75          |
| 20MCS4A                 | 112314228 | 0,4 ÷ 4  | 3,54 ÷ 35,4   | 1000       | █↓              | ↻             | 0,770  | 5,5             | ⊕ F1/4"     | 75          |
| 20MCS5A                 | 112314229 | 0,4 ÷ 5  | 3,54 ÷ 44,25  | 650        | █↓              | ↻             | 0,770  | 5,5             | ⊕ F1/4"     | 75          |
| 20MC2RA                 | 112514716 | 0,6 ÷ 2,5                                      | 5,31 ÷ 22,125 | 2700       | █               | ↻             | 0,760  | 5,5             | ⊕ F1/4"     | 77          |
| 20MC3RA                 | 112514717 | 0,4 ÷ 3  | 3,54 ÷ 26,55  | 1400       | █               | ↻             | 0,780  | 5,5             | ⊕ F1/4"     | 77          |
| 20MC4RA                 | 112514718 | 0,4 ÷ 4  | 3,54 ÷ 35,4   | 1000       | █               | ↻             | 0,780  | 5,5             | ⊕ F1/4"     | 77          |
| 20MC5RA                 | 112514719 | 0,4 ÷ 5  | 3,54 ÷ 44,25  | 650        | █               | ↻             | 0,780  | 5,5             | ⊕ F1/4"     | 77          |
| 20MC5RA-250             | 112507021 | 0,4 ÷ 5  | 3,54 ÷ 44,25  | 250        | █               | ↻             | 0,860  | 5,5             | ⊕ F1/4"     | 77          |
| MCSEZ4A                 | 114613734 | 0,9 ÷ 4  | 7,97 ÷ 35,4   | 2500       | █               | ↻             | 0,930  | 9               | ⊕ F1/4"     | 76          |
| MCSE5A                  | 114613735 | 2,5 ÷ 5  | 22,13 ÷ 44,25 | 1500       | █               | ↻             | 0,980  | 9               | ⊕ F1/4"     | 76          |
| MSCSEZ4A                | 114613234 | 0,9 ÷ 4  | 7,97 ÷ 35,4   | 2500       | █↓              | ↻             | 0,910  | 9               | ⊕ F1/4"     | 76          |
| MSCSE5A                 | 114613235 | 2,5 ÷ 5  | 22,13 ÷ 44,25 | 1500       | █↓              | ↻             | 0,990  | 9               | ⊕ F1/4"     | 76          |
| MCSEZ4RA                | 114813734 | 0,9 ÷ 4  | 7,97 ÷ 35,4   | 2500       | █               | ↻             | 0,940  | 9               | ⊕ F1/4"     | 76          |

## Work station accessories



### BT-MG Magnesium telescopic arms and BC, BCA and TOP Cartesian Arms

Designed and manufactured by Fiam, they completely counteract the reaction on the operator's hand, the force required to support the tool and the vibrations to the hand-arm system and make it possible to keep the wrist in a good position. It is also available with clamping from above (TOP). Also available with position sensing devices to make tightening processes "Poka Yoke". Available also with clamping from above (TOP) and also with linear slide rails to make the operating layout even more ergonomic. For all specifications, accessories and choices, see the [Fiam Ergonomic Accessories Catalogue](#).



| Model                           | Code      | Max torque (Nm) | (in lb) | Max work range (mm) | Min work range (mm) | Ø max tool (mm) |
|---------------------------------|-----------|-----------------|---------|---------------------|---------------------|-----------------|
| BT-MG 10 800                    | 692071420 | 10              | 88.50   | 650                 | 470                 | 26.5-50         |
| BT-MG 10 1000                   | 692071421 | 10              | 88.50   | 790                 | 540                 | 26.5-50         |
| BT-MG 15 800                    | 692071409 | 15              | 132.70  | 860                 | 505                 | 26.5-50         |
| BT-MG 15 1000                   | 692071401 | 15              | 132.70  | 1070                | 575                 | 26.5-50         |
| BT-MG 15 1500                   | 692071404 | 15              | 132.70  | 1580                | 745                 | 26.5-50         |
| BC5 Cartesian arm               | 692031030 | 5               | 44.25   | 285-445             | 600-760             | 50              |
| BC12 Cartesian arm              | 692031031 | 12              | 106.20  | 285-445             | 600-760             | 50              |
| BCA5 Articulated Cartesian arm  | 692031034 | 5               | 44.25   | 110-260             | 610-730             | 50              |
| BCA12 Articulated Cartesian arm | 692031035 | 12              | 106.20  | 110-260             | 610-730             | 50              |



### Fastening slides SL 15

Entirely **designed and manufactured by Fiam**, they are small in size and light in weight and are equipped with: **Shielded screw transit sensor**, **Convenient ducting**, that encloses the wiring between the slide, nutrunner motor and presenter, **Pneumatic cylinders** with built-in pneumatic decelerators.

Multiple models available:

- **single-stroke slides** - suitable in situations where the approach movement is made by a robot arm or a manipulator with Z axis
- **dual-stroke slides** - they feature an additional approach stroke to bring the head down to the component
- **dual-stroke slides with offset device** - they reach tightening points with very short centre-to-centre distances.
- with the "visible screw" function to help insert the tip into the screw recess
- compact models are ideal for layouts with space constraints or for tightening from the bottom upwards.

For more information about the features of the fastening slides refer to the [Catalogue 73: Automatic tightening modules](#).

**NUT presenter:  
Discover how it works!**



## REQUEST A FREE QUOTATION!

To choose a tightening system with automatic screw feeding, we have to consider:

- **Material to tighten** (plastic, wood, steel, etc.)
  - **Dimensions and encumbrance** of component to assemble
  - Tightening **torque and speed**
- But the most important element to consider is the **screw**.

<https://facasap.com/contact-us/>



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