



# SCREW FEEDING AND SELECTOR UNIT

Fiam proposes screw feeding systems which are being supplied **already assembled and commissioned**. Their features allow to rationalize working posts, thanks to the continuous screw feeding and to the high bowl feeder capacity, allowing **faster and more productive assembly operations**. Such solutions, designed and built by Fiam, are ideal for customers wanting to **integrate such systems in their existing or future production** (on machines and/or semi-automatic or automatic assembly lines).

Screw feeding units can be of **two types**, namely one or two ways, or from three ways or more, depending on the number of screws that are to be fed.

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## STANDARD EQUIPMENT

### 1-2 way screw feeding unit

- Nr. 1 circular feeder (modd. ALC 150 or ALC 300)
- Nr. 1 overload sensor (mod. STP)
- Nr. 1 electronic controller (mod. CNT)
- Nr. 1 selector (1 or 2-way) complete with air feeding inlets and air flow governors (modd. SL1v or SL2v)
- Screw passage sensor for each screw shooting hose (modd. SPV or SPV-100SM or SPV-S):
  - nr. 1 for 1-way selector
  - nr. 2 for 2-way selector
- Nr. 1 limit switch position sensor for each cylinder
- Nr. 1 steel plate (base for fixing all components)
- Screw shooting hose mt. 5:
  - nr. 1 for 1-way unit
  - nr. 2 for 2-way unit



2-way screw feeding unit

### Screw feeding unit with 3-way and more

- Nr. 1 circular feeder (modd. ALC 150 or ALC 300)
- Nr. 1 overload sensor (mod. STP)
- Nr. 1 electronic controller (mod. CNT)
- Nr. 1 2-way selector complete with air feeding inlets and air flow governors (mod. SL2v)
- Nr. 1 adequate distributor (mod. RP..V)
- Screw passage sensor for each screw shooting hose (modd. SPV or SPV-100SM or SPV-S)
- Nr. 1 limit switch position sensor for each cylinder
- Nr. 1 steel plate (base for fixing all components)
- Screw shooting hose mt. 5:
  - nr. 3 for 3-way unit
  - nr. depending on number of ways



4-way screw feeding unit

Component	Model	Description
23	GR. AL... - 150/300	1-2 way screw feeding unit
23	GR. AL... - 150/300	Screw feeding unit with 3-way and more

For order supply screw and/or drawing of screw complete with reference legislation for customized versions

## 1-WAY SELECTOR

The 1-way selector is an **important component** positioned at the outlet of the duct next to the circular screw feeder, **used to separate and send the screws singly** from the feeder. Once the screw falls into the hose, it is shot to the tightening point.

It guarantees **high productivity** and **efficient tightening cycle** thanks to the high proposed supply rate: a total of **120 medium-sized screws per minute**.

Completely **designed and manufactured by Fiam** with high quality materials, they guarantee high reliability and long lifetime also with high productive rhythms.

Component	Model	Description
5	SL 1V	1-way selector

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### STANDARD EQUIPMENT

- 1 pneumatic magnetic cylinder and 1 limit switch position sensor
- 2 air feeding inlets complete with air flow governors
- 1 support column and relative bracket for positioning the sensor at different heights



The configuration shows a 1-way selector with a circular screw feeder

*This component can also be ordered singularly: in case of order, please always supply screw and screw drawing complete with reference legislation for customized versions.*

## 2-WAY SELECTOR

The 2-way selector is an **important component** positioned at the outlet of the duct next to the screw feeder, **used to separate and send the screws singly from the feeder and send them in two different ways**.

A particularly interesting feature is the extreme compactness of this solution; in respect to the 1-way selector, it has one additional pneumatic cylinder and relevant sensors.

Besides from a great versatility of use, the system guarantees a high efficiency of the tightening cycle for a higher productivity. The selector can **be combined with a divider following the screw output ways requie by the application**.

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Component	Model	Description
6	SL 2V	2-way selector

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### STANDARD EQUIPMENT

- 2 magnetic pneumatic cylinders and 2 limit switch position sensors
- 4 air feeding inlets complete with air flow governors
- 1 support column and relative bracket for positioning at various heights



The configuration shows a 2-way selector

*This component can also be ordered singularly: in case of order, please always supply screw and screw drawing complete with reference legislation for customized versions.*

# DISTRIBUTOR

This unit is positioned just **after the 2-way screw selection system**. It enables to feed and **shoot from 3 up to 8 screws at a time** guaranteeing high productivity. In fact more tightening systems can be feed and more components can be assembled at the same time.

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Component	Model	Description
7	RP 3V	3-way distributor
8	RP 4V	4-way distributor
9	RP 5V	5-way distributor
10	RP 6V	6-way distributor
11	RP 7V	7-way distributor
12	RP 8V	8-way distributor

## STANDARD EQUIPMENT

- 2 Magnetic pneumatic cylinders
- 2 Limit switch position sensors
- 4 Air feeding inlets complete with air flow governors



The photo shows a 2-way selector with a 8-way distributor

This component **can also be ordered singularly together with the 2-way screw selector**: in case of order, please always supply screw and screw drawing complete with reference legislation for customized versions.

## EXAMPLE OF "TURNKEY SOLUTION"

A "turnkey solution" example is represented by this configuration allowing **fast and productive manual autofed assembly operations**.

The system is composed by a **screw feeding unit** and an **automatic screw pick and place device**.

The layout is extremely versatile because more than one pick and place devices can be connected to the same screw feeding unit; moreover its overall dimensions make it adaptable to the logistic needs of the work-place. It can be used with pistol grip screwdrivers and, upon request, with straight screwdrivers equipped with magnetic bit.

The system can be installed in existing production lines.

The solution comprises:

- 1-way screw feeding unit
- Screw pick & place device with constant screw feeding enabling the screw to be continuously available
- Fiam air screwdriver



The photo shows the automatic screw picking with a Fiam air tool



The photo shows the screw feeding unit with screw pick and place device

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