

**FXS 2020**

Filling and sealing machine for presterilized syringes



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Invented for life



## FXS 2020 at a glance

- A fully automatic filling and sealing machine for presterilized nested syringes in a tub such as BD Hypak SCF™
- Performance goes up to 4800 syringes per hour
- Specifically designed for filling syringes with volumes between 0,5 ml up to 50 ml
- All product contacting parts are made out of AISI 316L
- Operated by means of a touch panel
- Transportation system and each pump are individually controlled by servo motors

### **Nest feeding**

The nest with empty syringes is manually removed from a tub and inserted into the nest holder of the machine. With complete automation, the nest of syringes is filled and sealed. Then the nest is manually removed from the nest holder to allow for insertion of another nest.

Optional supplementary equipment:

As an option, a second loading station can be added. The advantage of this additional station is that a filled nest can be removed and an empty one inserted while another nest is being filled and sealed. This way the cycle time can be reduced allowing for higher output.

### **Filling**

The filling is done with two rotary slide valve piston pumps which are each separately driven by a servo motor. The filling needle motion follows a cam movement which is height adjustable. The cam movement is adjustable to adapt the filling stroke according to the size of the syringes being processed. The filling needles have a monitored overload mechanism.

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## Excellent cost-performance ratio and **Bosch quality**



### **Stopper feeding**

The stopper sorting and orientation is done by a 300 mm diameter vibratory bowl. The stoppers are then fed in multiple lanes to the stopper insertion device. All stopper contact parts are made from AISI 316L.

### **Stopper insertion**

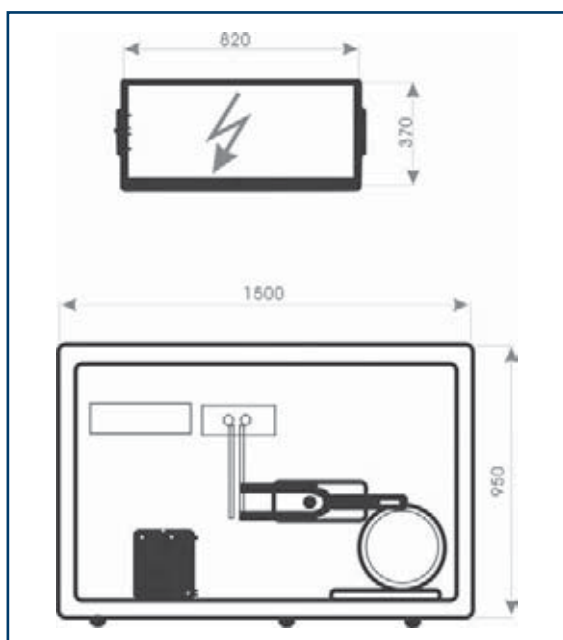
The stoppers are inserted into the syringes by the use of the tube and rod method. The motion of these devices follows a cam movement. The depth of the stopper inside the syringe can be set or changed with the height adjustable device. The maximum depth is 50 mm. The insertion tubes have a monitored overload mechanism.

### **Stopper presence:**

The presence of each stopper is monitored by a sensor.

## Technical Specifications

Syringe	Syringes per nest	Cycle time	Time per nest	Nest changing time	Nests per hour	Output	Theoretical Output
		s	s	s	1/h	1/h	(syringes per nest / time per nest x 3600)
<b>0,5ml</b>	160	1,20	108	12	30	<b>4800</b>	5333
<b>0,5ml</b>	100	1,20	72	12	43	<b>4300</b>	5000
<b>1ml-long</b>	160	1,20	108	12	30	<b>4800</b>	5333
<b>1ml-long</b>	100	1,20	72	12	43	<b>4300</b>	5000
<b>1-3ml</b>	100	1,20	72	12	43	<b>4300</b>	5000
<b>5ml</b>	64	1,50	60	12	50	<b>3200</b>	3840
<b>10ml</b>	42	3,00	72	12	43	<b>1800</b>	2100
<b>20ml</b>	30	5,00	90	12	35	<b>1100</b>	1200



# A perfect packaging solution

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Bosch Packaging Technology is the worldwide leader of packaging industry, specialized in providing perfect packaging solutions for worldwide customers, especially in pharmaceutical, food and cosmetics industry.

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