

Filling machine F-35



Technical data

format range:

Tube length:	60 - 220 mm
Tube diameter:	16 - 42 mm
Tablet diameter:	10 - 36 mm
Tube material:	Plastic or Aluminium
Tablet thickness:	3 - 10 mm

Please observe that the above mentioned intervals can be handled only with more than one set of format parts.

At request the machine can be equipped to handle tablets with a diameter up to 36 mm. This however will result in drawbacks on machine speed, i.e. capacity.

Machine data:

capacity:	Nominal up to 35 tubes a minute or 40000 tablets an hour, depending on the number of tablets per tube.
voltage:	220 and earth, 50 Hz
power:	appr. 1 kW.
compressed air:	7 bar, appr. 600 L/minute.
weight:	appr. 225 kg.

The above mentioned capacity can only be reached at proper production conditions and at a minimum of broken tablets. Ideal production conditions are temperatures of ca 20 °C and a relative humidity of 20-25%.

General Description

The GORDIC F-35 is an utterly compact and flexible machine, which may be customised. It is equipped with a SIEMENS S7 PLC which is operated from a control panel where operating instructions, error messages and tube speed, etc. are displayed. The machine is fully automated and protected against personal injuries according to the valid CE-norm.

The PLC in combination with pneumatics and replaceable format parts, reduces set-up time for the GORDIC F-35 to an absolute minimum and provides flexibility in terms of possible product formats. The ROTAFILL®- system, a unique technology for gentle counting and filling of cylindrical tablets in tubes, is especially suitable for fragile products like effervescent tablets.

The basic F-35 includes one set of format parts for one tube type, one cap type and tablet size.

Function

Empty tubes are fed automatically into filling position from the tube hub on the machine. One or two boxes of orientated tubes can be loaded while the machine is operating. From the hub tubes are guided in one channel and brought into filling position to be filled four by four.

The tablets are fed either directly from the tablet press outlet, eventually via a conveyor, over a chute to a tablet table with a distributor. The distributor provides an even distribution of tablets into a four channels cassette. From this cassette a controlled number of tablets are let into the tubes via the rotation filling tubes. The filling time for 4 tubes is about 1 second.

As an option the chutes can be replaced by an AIRSLIDE®. This system is multi-functional and provides gentle distribution, dedusting and online buffering of tablets.

The GORDIC F-35 is equipped with 2 dust suction points in the tablet-feeding unit, one under the chute to the tablet table and one at the filling point and one under the tablet table. If an AIRSLIDE® is implemented one additional dust exhaust must be included as a part of the air supply system.

Rejected tubes are not capped

Caps are fed from a cap feeder, via a channel, to the capping station where the tubes are capped with a pneumatic jack. The cap feeder can be loaded with up to 350 caps at the time, depending on cap size.

After capping, the tubes are discharged and can be taken care of manually or as an option transported away on a conveying unit. Rejected tubes and significant badly capped tubes are ejected. Ink jet printing is preferably made during transport on a conveying unit.

The F-35 can be equipped with format parts for different tablets, tubes and caps. Change from one format to another is normally done within 30 minutes. Simple format changes, like changing from one tube length to another, are done much faster.