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Press Release

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Freely programmable tablet press for galenic developments

The freely programmable single-stroke FlexiTab tablet press, made by Röltgen GmbH & Co.KG, enables all the standard tablet shapes required for galenic developments and small-run series to be pressed.

Whether it is tabs for the washing machine or the dishwasher, or a magnesium tablet for your health or just standard medicines to be taken regularly, most people regularly have to come into contact with various kinds and shapes of tablets. However, before they can be mass produced, they have to be developed and the various production options tried out.

"Quality impresses"



Frontansicht mit Haube offen.jpg

This aluminium framework made from item GmbH products forms the machine base of the FlexiTab tablet press made by Röltgen for galenic developments

Röltgen, a family firm, has been making marking and coding tools as production machines for decades under its "Quality impresses" slogan and has now developed a new tablet press called the FlexiTab.

This patented tablet press enables developments optimised for galenic applications. In contrast to the eccentric presses used hitherto, which did not allow the pressure, filling quantity or work sequences to be individually programmed, this machine enables all the key parameters to be individually set. By means of a specially programmed Windows program, developed in cooperation with Hucke Software, the various parameters of this press can be freely selected via a touchscreen or using a keyboard. This makes the sequence for test runs and small batches extremely flexible.

Base frame made from item MB modular system elements

The 500 kg press unit made of stainless steel is mounted on a sturdy frame made from aluminium profiles taken from the item MB Building Kit System. item Industrietechnik & Maschinenbau GmbH in Solingen is the inventor of the MB Building Kit System. The Building Kit System is based on a series of aluminium profiles, a series of matching fastening techniques and numerous functional elements. "The high load-bearing capacity of the closed profiles in Line 8 (80x40 and 40x40 light) of the MB Building Kit System in conjunction with 4

mm solid plastic panels provide not only excellent safety but also ideal adaptability to meet the customer's requirements while the heavy-duty, lockable castors ensure the mobility of the machine. A 50 litre compressed air tank made of stainless steel was attached with ease to the struts making up the frame. All the profiles have closed profile grooves on the visible sides, which makes the machine ideal for use in a totally clean environment ", explains Marc Baehr, Managing Director of Röltgen GmbH.

Pressing three-stage tablets

The range of applications for which the new press is suitable covers single- and even three-stage tablets, where tiny amounts of powder or granules, in particular with expensive medicines, are poured into the three hoppers manually before being pressed into tablets.

Ralph Gerhards, Master Fitter at Röltgen: "Before we begin pressing tablets, a fine jet adds a dusting of magnesium to the plunger and the die to prevent the finished tablet sticking. Only after that has been done can the feed shoe attached to the hoppers move over the die where it releases the required amount of granules. A fine laser monitors the amount of material in the die to prevent damage to the tablet press. A hydropneumatic pressing cylinder lowers the upper plunger with a force of between 2 kN and 100 kN and presses the first layer of the tablet. If there are several layers, this is repeated two or three times.

Once the tablet has been pressed, it is ejected from the die by the ejector rod with a force of up to 7 kn. In this way, the FlexiTab can produce approx. 15 single-layer tablets per minute or approx. 8 two-layer tablets or approx. 5 three-layer tablets.

Finally, any excess powder is extracted by air nozzles. The process is kept very quiet by sound absorbent systems and the Plexiglas housing and pneumatic control system ensure the required level of work safety."

A series of adapters make it possible to use EURO-B, EURO-D, TSM-B, TSM-D and EK0 tools and dies. Although the new machine has only just been launched, Röltgen can already quote a number of renowned customers in the chemicals industry and is exporting the FlexiTab worldwide.



Presstation Detailaufnahme.jpg
Detail view of the die, plunger and feed shoe.

item Industrietechnik und Maschinenbau GmbH, based in Solingen, Germany, is the developer and supplier of the MB Building Kit System which provides individually designed solutions to all aspects of industrial equipment engineering. The Building Kit System is based on a series of aluminium profiles, a series of matching fastening techniques and numerous functional elements.