

PILL MAKING

1) Tick what you expect to see in the video, and then watch it once to check your predictions.

A press ✓ plastic tubes ✓ a tray✓ grooves ✓
 discs ✓ pills , tablets gelatin casing ✓ nozzles✓ emboutd
 bottles ✓ stampers✓ a shoot ✓ a coating unit ✓
 capsules✓ dryer ✓ an interface ✓ a counter ✓
 aluminum foil sheet ✓ a drum ✓ a die

a press: machine for moulding pills

a tray: to carry samples (food etc) grooves : as in vinyl records gelatin casing: to encapsulate medicine

stampers: to form tablets and pills a shoot: tube sorting out product interface: electronic

programming a drum: to tumble pills for sticking prevention

Now label the pictures below:



2) What different stages are there? They are mentioned below; put them back in their chronological order.

Quality testing _4_

Grinding process _1_

Bottle filling _6_

Coating ___5_

Drying _2_

Moulding __3_

3) Now match each stage with its purpose/timing or main apparatus:

Quality testing

to prevent pills from crumbling **(coating)**

Interface

to mix the active ingredient with a binding agent **(grinding process)**

Moulding

After grinding and before transforming the mix into a tablet **(drying)**

Drying

to program the t° of the dryer and the air flow **(interface)**

Bottle filling

It is done by a press **(moulding)**

Grinding process

It is facilitated by grooves **(bottle filling)**

Coating

The pills' hardness is checked (**quality testing**)

4) More details:

- What is the solution made of? **Water and coloring**
- Are the pills sprayed ***in motion/on a tray?*** (circle the correct answer)
- Is the solution sprayed ***as a mist/as a solid stream?*** (circle the correct answer)
- Why?

5) Now, using the words from the box below, complete the gaps in this summary of the end of the video. You may need to modify them to form correct sentences.

emboss	fill	sheet	last	encapsulate	join
count	seal	weight	casing	capsule	

The spraying operation ___lasts_____ 40 minutes. Before filling bottles, the pills are ___counted_____ ; there will be 500 in each. This plant also makes ___capsules_____ where the API is ___encapsulated_____ in a gelatin ___casing_____. When well ___filled_____ the 2 halves of the capsule are ___joined_____ together. After ejection, the capsules are positioned for the packaging process. Then the ___weight_____ of each is verified before packaging. A sheet of PVC is heat ___embossed_____ forming an impression to receive capsules. Then a pre-glued aluminum foil ___sheet_____ is adhered to the back side, ___sealing_____ everything.

Language work DESCRIBING PHARMACEUTICAL EQUIPMENT

Using the toolbox on the screen, complete the sentences below (using different verbs each time):

The dryer is designed/intended to remove all moisture from the mix.

It is equipped/fitted/provided with an interface aimed at programming the temperature.

The press features molds made of stainless steel.

It is also equipped with stampers that are intended to crush the powder so as to make the pills.

An apparatus is fitted with jaws that crush the pill in order to verify its hardness.

The machine is provided with a coating unit that can hold 350 pounds of pills.

Coating is aimed at ensuring that pills do not crumble. That coating unit features plastic tubes designed to spray the solution onto the pills in motion.

It is also equipped with a drum that tumbles the pills and also features nozzles that spray the solution in the form of a mist.

That process prevents the pills from sticking to each other.

Grooves ensure proper filling.

