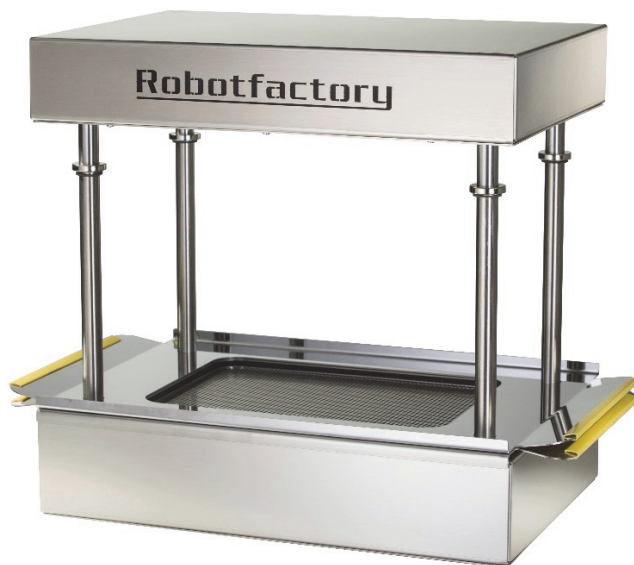




Description of activity in the Video

“3D FORMING ...at School”



The “3D FORMING ...at School”, our latest ambitious Project, was born to being able to expand a **field of study** not yet deliberately explored. While, in relation to other fields in which **thermoforming** is used, there are numerous articles and more or less technical books, this matter has never been addressed in a concrete manner in relation with **Teaching**, on the other hand, only now, using **3D FORMING system**, this technology appears very suitable for use in the Schools.

Therefore, this system is particularly innovative in a field of study, **Teaching**, that can easily take advantage of this **technology**.

With the introduction of the **3D FORMING** system in the **School**, **thermoforming** can be used in the learning environment to develop the pupil's interest, involving them for create 3D thermo-formed items, useful for learning purposes.

The project named “**3D FORMING ...at School**”, It has been done by **Robot Factory** in collaboration (and within) **Primary School** "Marco Polo" in Spinea (VENEZIA) - Italy, to test and document the educational value of the 3D Forming system (thermoforming for sheets of plastic material). **Main goal** of this project it was to demonstrate that, using the **3D FORMING system**, **thermoforming** can be used in the learning environment to develop pupil's interest.

As part of the **pilot project**, an activity carried out with the help of the **3D Forming system**, it was taken up in a **video**, documenting a concrete example of **use of '3D Forming' in the Classroom**. The activity was performed with the pupils of two Third classes of the **Primary School**.

Activity description - 'the Dinosaurs':

firstly the class was involved for the **topic**, as scheduled, after which the **children** were encouraged (and appropriately guided) by the teachers **to 'draw'** something that represents what they had learned in relation to the **dinosaurs**. The children produced some very imaginative and colorful designs, representatives of various species of dinosaurs.

Starting by the **2D drawing**, made by pupils, the Teachers have extrapolated some particularly significant **shapes** and they have copied these, to obtain some **wooden figures**.

At this point the **3D FORMING system** was introduced in the classroom and it was carried out the activity that you see in the video: the **Teacher**, after explaining to pupils the operation of the **thermoforming machine**, also highlighting the fact that the equipment produces heat, so it cannot be used directly by children, she made various molds using as template the **wooden figures**, previous made. Also, she used as **template** some other objects proposed by the children, since they had already understood the type of objects that can be used as a template. In fact the **objects**, better suited to this technique, must have flat shape on one side (technically, shapes in 2D and a half), because when the thermoplastic sheet it will be shaped, it must be possible to easily extract the template from the obtained mold.

Later, the children have shuffled the gypsum with water, to obtain a **plaster mixture** to pour into the **molds** obtained through the **use of 3D Forming**. So they created a **three-dimensional plaster reproduction** of drawings from which they had started...

Once dried all the gypsum forms thus obtained, the pupils were involved to the **'decoration'** of the same, using **tempera paints**.

The video also documents some labels obtained by **thermoforming alphabet letters** (the type of plastic that is normally used on whiteboards) and then the decoration of the same labels using indelible colored markers.