

VACUUM FORMING

V.Ryan © 2000 - 2009

On behalf of The World Association of Technology Teachers

W.A.T.T.



World Association of Technology Teachers

This exercise can be printed and used by teachers and students. It is recommended that you view the website (www.technologystudent.com) before attempting the design sheet .

THESE MATERIALS CAN BE PRINTED AND USED BY TEACHERS AND STUDENTS.
THEY MUST NOT BE EDITED IN ANY WAY OR PLACED ON ANY OTHER MEDIA INCLUDING WEB SITES AND INTRANETS.
NOT FOR COMMERCIAL USE.
THIS WORK IS PROTECTED BY COPYRIGHT LAW.
IT IS ILLEGAL TO DISPLAY THIS WORK ON ANY WEBSITE/MEDIA STORAGE OTHER THAN www.technologystudent.com

SEQUENCE DRAWING - VACUUM FORMING - BLISTER PACKAGING

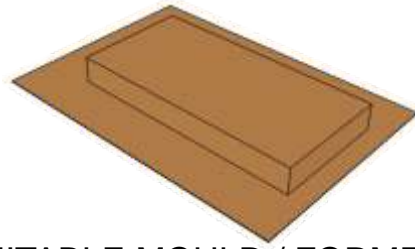
V.Ryan © 2009 World Association of Technology Teachers

Add the missing text or missing diagram, to complete the information sheet below.

The first stage of vacuum forming is to manufacture a precise mould. This is a skilled job as any imperfections to the mould will show up every time it is used to form plastic such as high density polystyrene.

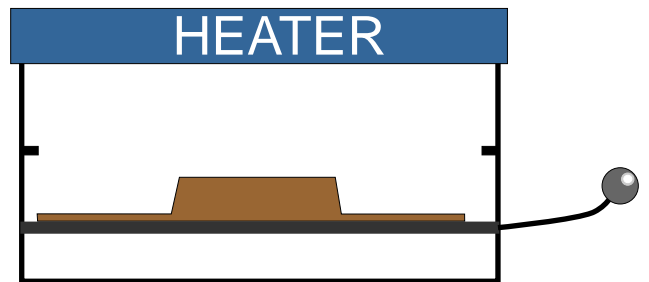
The mould can be used hundreds and even thousands of times to produce the same plastic part. Each part will be exactly the same.

1.



A SUITABLE MOULD / FORMER IS CAREFULLY MANUFACTURED

2.

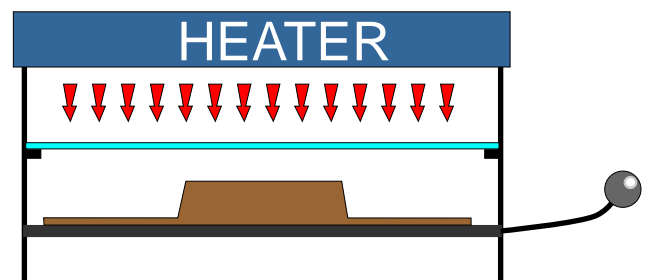


THE MOULD IS PLACED IN THE VACUUM FORMER

3.

A sheet of high density polystyrene is placed above the mould and clamped in position. Various thicknesses are available. Usually material 1mm thick is the most suitable for this type of vacuum forming.

4.

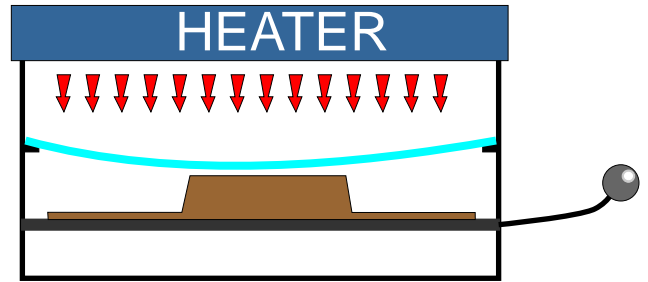


THE ELECTRIC HEATER IS TURNED ON TO WARM THE PLASTIC SHEET.

SEQUENCE DRAWING - VACUUM FORMING - BLISTER PACKAGING

V.Ryan © 2009 World Association of Technology Teachers

5.



THE PLASTIC BECOMES FLEXIBLE
WHEN HEATED

6.

When the polystyrene is ready the shelf is then lifted up towards the polystyrene sheet. The air underneath the former is pumped out and the polystyrene takes the form of the mould.