

FUNDAMENTAL MANUFACTURING PROCESSES

PLASTIC BLOW MOLDING

SCENE 1.

CG: INJECTION BLOW MOLDING
white text centered on black

SCENE 2.

tape 412, 00:06:59-00:07:22
injection blow molding system

NARRATION (VO) :

INJECTION BLOW MOLDING INCORPORATES ELEMENTS OF
CONVENTIONAL THERMOPLASTIC INJECTION MOLDING WITH
BLOW MOLDING, AND IS GENERALLY MORE ECONOMICAL
THAN EXTRUSION BLOW MOLDING FOR CONTAINERS UNDER A
QUARTER LITER IN SIZE AND LARGE PRODUCTION RUNS.

SCENE 3.

tape 412, 00:04:34-00:04:40
three station injection molding
system
tape 399, 04:00:50-04:01:40
blue background
CG: INJECTION STATION
BLOW STATION
STRIP/EJECT STATION

NARRATION (VO) :

INJECTION BLOW MOLDING MACHINES TYPICALLY CONTAIN
THREE STATIONS:
THE INJECTION STATION,
THE BLOW STATION,
AND THE STRIP OR EJECT STATION.

SCENE 4.

tape 412, 00:11:21-00:11:26
injection station of the three
station injection blow molding
system
tape 413, 00:04:55-00:05:15
ANI: over head shot of injection
station, melt forced forward
into injection mold

NARRATION (VO) :

THE INJECTION STATION IS BASICALLY AN INJECTION
MOLDING MACHINE. A RAM, USUALLY A RECIPROCATING
SCREW, FORCES THE MELTED THERMOPLASTIC RESIN UNDER
PRESSURE ONTO A METAL CORE ROD HELD WITHIN A
CLOSED, SPLIT PARISON CAVITY INJECTION MOLD.

SCENE 5.

continue animation
tape 412, 00:11:56-00:12:02
parison mold opening, parison on
core rod indexed to blow mold

NARRATION (VO) :

AFTER THE OUTSIDE SKIN OF THE PARISON HAS SET, THE
PARISON MOLD OPENS, AND THE CORE ROD CARRYING THE

PARISON ROTATES TO THE BLOW STATION.

SCENE 6.

tape 412, 00:15:18-00:15:24

core rod dropping into blow mold

tape 413, 00:02:26-00:02:46

ANI: entering through core rod
air passage lifting the parison
from the core rod, except the
neck finish, and expands the
body of the hot parison to the
shape defined by the blow mold
cavity

NARRATION (VO) :

ONCE THE CORE ROD IS IN POSITION, THE BLOW MOLD
CLOSES. A TRIGGER BAR OPENS THE CORE ROD AIR
PASSAGE. THE AIR LIFTS THE PARISON FROM THE CORE
ROD, EXCEPT WHERE IT IS HELD AT THE NECK, AND
EXPANDS IT TO THE SHAPE DEFINED BY THE BLOW MOLD
CAVITY.

SCENE 7.

continue animation

tape 412, 00:17:22-00:17:52

blow mold opening, part indexed
to ejection/stripping station

NARRATION (VO) :

ONCE THE PART HAS COOLED SUFFICIENTLY, THE BLOW
MOLD OPENS AND THE PART IS INDEXED TO THE NEXT
STATION FOR STRIPPING OR EJECTION.

--- FADE TO BLACK ---