Copyright ©2001 Society of Manufacturing Engineers

FUNDAMENTAL MANUFACTURING PROCESSES

Plastics Finishing

SCENE 1.
CG: Deflashing
white text centered on black
tape 652, 01:04:52-01:07:07
peter carey narration,
deflashing segment

SCENE 2.
tape 424, 18:13:42-18:13:48
part ejected from mold
tape 632, 12:04:49-12:05:02
zoom out, part with flash
tape 632, 12:06:42-12:06:50
part with internal flash
tape 632, 12:08:10-12:08:18
part with external flash

NARRATION (VO):

DURING THE INJECTION MOLDING PROCESS, EXCESS

PLASTIC CAN LEAK BETWEEN MOLD HALVES FORMING

FLASH.

FLASH MAY OCCUR BOTH INTERNALLY...,

AND EXTERNALLY.

SCENE 3.
tape 641, 19:10:34-19:10:52
hand trimming of flash off part
CG, SUPER: Cutting & Trimming
tape 628, 07:22:23-07:22:27
zoom out, blasting flash off parts
CG, SUPER: Media Blasting
tape 622, 01:12:04-01:12:10
zoom in, cryogenic deflashing of parts
CG, SUPER: Cryogenic Deflashing

NARRATION (VO):

THE PRIMARY TYPES OF FLASH REMOVAL, OR DEFLASHING

INCLUDE:

CUTTING AND TRIMMING...,

MEDIA BLASTING...,

OR CRYOGENIC DEFLASHING.

--- TOUCH BLACK ---

SCENE 4.
CG, SUPER: Cutting & Trimming
tape 641, 19:09:55-19:10:26
trimming of flash

NARRATION (VO):

CUTTING AND TRIMMING ARE THE MOST COMMON METHODS

OF DEFLASHING MOLDED PARTS, AND ARE PERFORMED

MANUALLY USING KNIVES, OR OTHER CUTTING UTENSILS.

SCENE 5.
continue previous shot
tape 641, 19:01:56-19:02:13
trimming of plastic parts

NARRATION (VO):

CUTTING AND TRIMMING OPERATIONS ARE COST

EFFECTIVE, BUT SINCE THEY REQUIRE THE HANDLING OF

Copyright ©2001 Society of Manufacturing Engineers

SHARP CUTTING UTENSILS, CARE MUST BE TAKEN TO PREVENT OPERATOR INJURIES, DAMAGE TO EXPENSIVE MOLDS, AND DAMAGE TO THE PLASTIC PARTS.

--- TOUCH BLACK ---

SCENE 6.
CG, SUPER: Media Blasting
tape 628, 07:03:56-07:04:14
media blasting operation
tape 628, 07:15:50-07:16:00
zoom out, media used for blasting

NARRATION (VO):

MEDIA BLASTING INVOLVES BROADCASTING AN IMPACT MEDIA UNDER PRESSURE AGAINST PARTS THAT ARE BEING CONVEYED, ROTATED, OR TUMBLED. THIS IMPACT MEDIA IS USUALLY A PARTICULATE POLYMER, ALTHOUGH ORGANIC MATERIALS SUCH AS GROUND WALNUT SHELLS ARE ALSO USED.

SCENE 7.
tape 628, 07:10:35-07:10:50
zoom out, media blasting operation

NARRATION (VO):

AS THE MEDIA IMPACTS THE PARTS, IT BREAKS UP BOTH THE INTERNAL AND EXTERNAL FLASH.

SCENE 8.
tape 628, 07:25:45-07:25:55
parts being run through blasting operation

NARRATION (VO):

CARE MUST BE TAKEN TO SELECT A BLASTING MEDIA THAT WILL ADEQUATELY DEFLASH PARTS WITHOUT CAUSING DAMAGE.

--- TOUCH BLACK ---

SCENE 9.
CG, SUPER: Cryogenic Deflashing
tape 622, 01:05:24-01:05:34
zoom out, parts unloaded from cryogenic deflashing operation
tape 622, 01:07:50-01:07:57
parts loaded to cryogenic deflashing operation
tape 622, 01:10:28-01:10:34
liquid nitrogen tank
tape 622, 01:09:39-01:09:46
zoom in, carbon dioxide/media flow label on machine control panel

NARRATION (VO):

CRYOGENIC DEFLASHING INVOLVES QUICKLY FREEZING AND EMBRITTLING THE THIN FLASH ON PLASTIC PARTS. THE PARTS ARE FIRST LOADED TO THE CRYOGENIC DEFLASHING MACHINE AND THEN TUMBLED OR VIBRATED. LIQUID NITROGEN, CARBON DIOXIDE OR DRY ICE IS THEN ADDED. THE PARTS ARE THEN BLASTED WITH MEDIA TO BREAK UP

Copyright © 2001 Society of Manufacturing Engineers

AND REMOVE THE FLASH.

SCENE 10.
tape 622, 01:08:36-01:08:56
media used in cryogenic deflashing added to machine

NARRATION (VO):

THE TYPE OF MEDIA USED CAN INCLUDE GROUND WALNUT SHELLS, SOLID RUBBER BALLS, STAINLESS STEEL BALLS, CERAMIC MEDIA, AND SOMETIMES THE PARTS THEMSELVES.

SCENE 11.
tape 622, 01:04:46-01:04:57
zoom in, parts being removed from cryogenic deflashing operation

NARRATION (VO):

CRYOGENIC DEFLASHING CAN BE PERFORMED ON EITHER THERMOPLASTIC OR THERMOSET MATERIALS.

--- FADE TO BLACK ---