Click to verify



```
Capsules are solid dosage forms in which medicine or a combination of drugs, with or without excipients, is enclosed in Hard Gelatin Shells, soft, soluble gelatin shells, or hard or soft shells of any other acceptable material, in a variety of shapes and capacities. Normally, they are meant for oral consumption and contain a single dose of active
ingredient(s). But capsules must be free from manufacturing defects during the manufacturing process. During manufacturing defects and Remedies are provided below to remove such types of defects. Loss of cap during transfer / Misalignment of cap and
body bushDents and pinholes (on tips)Cracks in Capsules Dusty Caps
Solutions are Provided Below in this entire article. Causes: High vacuumRemedies: Reduce vacuum but make sure that it is not so low that capsule separation is not observedKindly check the alignment of the Causes: Excess closing/lock length setting during the encapsulation process,
excessive lock length, excessive closing pressure, over-filling of capsules, incorrect pin size or pin configuration, and improper storage conditions (moisture). Remedies: Ensure the correct size disc is used and also ensure the correct size disc is used and also ensure the correct pin size or pin configuration, and improper storage conditions (moisture).
capsule shell to encapsulated components. 2. Misalignment of the upper and lower capsule segments incorrect setting of the cap hold-down pin in the joining station. Remedies 1. Store the capsule properly 2. Make a Proper setting of the station. Causes 1. Misalignment of cap and body bush 2. Closing pin not in the center of body bushes 3. Damage
the rubber sheet of the closing plateRemedies1. Align cap/body bush to bush gauge 2. Check pin straightness using a gauge pin If bent replaces it with a new one. 3. Wear of capsule closing units rubber sheet specifically at the point where the capsule strikes the sheet would lead to telescopic. Replace if required Causes1. Filling dusty fill. Remedies:
1. Use capsule polisher Causes 1. Malfunction in capsule filling machine which is preventing empty or under-filled capsules from reaching the exit chute (e.g. load cells, capacitive sensors, etc.). Remedies 1. Make the sure presence of safeguards in the capsule filling machine which is preventing empty or under-filled capsules from reaching the exit chute (e.g. load cells, capacitive sensors, etc.).
capacitive sensors, etc.). Causes1. Badly tuned banding process, such as improper wheel height and speed, improper processing temperature, improper band thickness, and poor/bad band wheel.Remedies1. Set all the parameters accurately. Causes1. Capsule stored overnight and without climatic control. 2. Magazine non-alignment with rectifier
block Remedies 1. This may be due to improper room conditions or the capsules having been affected by improper storage conditions. In this case, some of the capsules stick to each other preventing them to be transferred to the magazine slots. 2. Magazine alignment with the rectifier block could have shifted or not been set right. Align to the rectifier
block using a gauge. Read Also: Tablets Manufacturing Defects and remedies Cause 1. Insufficient vacuum or incorrect vacuum pump 2. Leakage through filters 3. Cap body
bush misalignment 4. Worn out bushes 5. Loss of spring tension at the top slide Remedies1. Proper capacity pump. 2. In case of vacuum drops kindly check the filters on the vacuum pump. Cleaned and/or replace it if required 3. A misalignment of cap and body bush can cause non-separation.4. If non-separation occurs in specific bushes and cleaning
does not help, replace these bushes with a new one. 5. Poor spring tension at the top side or sluggish movement of the top side probably caused by pin results in improper closing of cap/body bush holder plate. Replace it Causes1. Incorrect target weight with respect to selected capsule size 2. Improper slug formation due to incorrect setting
parameters 3. Insufficient binding selected capsule size 4. Poor flow of product Remedies 1. Check for the variation in physical parameters (Tapped density, moisture content, particle size distribution & Flow 2. Check for correct parameters setting 3. If a proper slug is not formed, part of the powder could be lost before delivery to the capsule 4. Poor
flow of the powder in the dosing disc will result in insufficient powder flowing disc and body bush Remedies: Kindly select the proper
dosing disc for filling of powder fully onto the capsule shellCorrect the Gap Between:dosing disc and supporting pad: NMT 0.1 mm Dosing disc and body bush: maintained at 0.8 to 1.0 mm CausesRemedies1. Excess joined length 2. Improper setting of
the closing plate 3. Damage the rubber sheet of the closing plate 4. Incorrect setting of the closing unit rubber sheet and capsules. The distance between the two points should be between 0.5 and 0.8 mm. 3. Wear off of capsule closing unit rubber sheet,
especially at the point where capsule strikes the sheet would lead to this problem. Replace it with a new one.4. The flap should be visually parallel to the capsule would fall off the edge and fail to lock properly.
Deliquescent / Hygroscopic powders- Adsorbent [magnesium carbonate, heavy / light magnesium oxide] A small dose of drug Remedy-Addition of inert powder. Incompatibilities of materials -Use of two capsules - small in largeLack of adhesiveness difficult to fill by punch method-Moistened with alcohol, granules reduced to powders. Other inquiries
Related to Capsule filling Problems: Problems in capsule shells Naresh Bhakar is the Founder and Author at
Pharmaguddu.com, bringing his extensive expertise in the field of pharmaceuticals to readers worldwide. He has experience in Pharma manufacturing and has worked with top Pharmaceuticals to readers worldwide. He has experience in Pharma manufacturing and has worked with top Pharmaceuticals to readers worldwide. He has experience in Pharmaceuticals to readers worldwide.
collaborations, please don't hesitate to reach out via email at [email protected]. Department Capsule Manufacturing SOP No. SOP/CM/077/2025 Effective Date 01/02/2025 Review Date 01/02/2025 Review Date 01/02/2026 1. Purpose The purpose of this SOP is to provide a standardized procedure for
identifying and resolving issues encountered during the capsule filling process. This includes addressing problems related to capsule filling machines used in the manufacturing department. It covers the identification of
common machine malfunctions, troubleshooting techniques, and corrective actions to be taken to restore machine operation. 3. Responsibilities Machine Operators: Responsible for recognizing and reporting issues with the capsule filling machine, following this SOP to troubleshoot problems, and performing corrective actions under the supervision of
the maintenance team. Maintenance Team: Responsible for supporting the troubleshooting efforts, performing repairs, conducting preventive maintenance, and ensuring the capsule filling machine is in good working condition. Quality Control (QC) Team: Ensures that the troubleshooting does not compromise product quality and that any capsules
produced during maintenance or troubleshooting are thoroughly inspected for defects. Quality Assurance (QA) Team: Responsible for ensuring that all troubleshooting and corrective actions or corrective actions in the batch production record (BPR). 4. Accountability The Capsule
Manufacturing Supervisor is accountable for ensuring that the troubleshooting process is followed properly. The QA Manager is responsible for reviewing all corrective actions and ensuring compliance with quality standards. 5. Procedure 5.1 Initial Assessment The first step in troubleshooting capsule filling machine issues is to assess the situation to
identify the problem: Machine Stoppage If the capsule filling machine has stopped, check the control panel for any error messages or alarms that might indicate the cause of the stoppage. Record the error code, if available. Verify that all safety interlocks are engaged properly. Check the power supply, emergency stop buttons, and machine settings to
ensure they are correct. Unfilled or Misfilled Capsules If the machine is producing unfilled or misfilled capsules, check the following: The capsule shells are properly aligned in the machine. Capsule Shell Cracking or Damaging If the capsule
shells are cracking or damaged, inspect the filling needles, the capsule shell feed system, and the sealing equipment for any issues. Ensure that the capsules are not exposed to excessive pressure or temperature during the filling process. See also Capsules are not exposed to excessive pressure or temperature during the filling process.
assessment identifies the issue but does not provide a solution, follow these steps to troubleshoot the capsule filling machine: Inspect and Adjust Filling System For issues with unfilled or misfilled capsules, check the filling station for any blockage, jamming, or mechanical malfunction. Adjust the fill volume and ensure that the fill material is flowing
smoothly through the system. Calibrate the dosing system if necessary, and verify the settings are accurate for the formulation being used. Examine the Capsule Feed Mechanism for any misalignment or obstruction that could be preventing capsules from entering the filling machine correctly. Clean the capsule feed
and ensure that the capsules are moving smoothly through the sealing pressure and temperature settings to ensure a tight seal. Replace any worn or damaged
sealing components, such as rubber or silicone seals, to prevent leakage or incomplete sealing. Check for Air Leaks If air leaks are suspected, inspect the pneumatic system and seals for any visible cracks or wear. Ensure that all air pressure settings are correct and that no air leaks are affecting the operation of the machine. 5.3 Corrective Actions
Once the cause of the issue has been identified, the following corrective actions should be taken: Recalibrate Equipment Recalibrate the dosing system, filling machine is set to the correct parameters for the specific batch being produced. Replace
Worn or Damaged Parts If any parts of the capsule filling machine are worn or damaged, such as filling needles, seals, or valves, replace them with new, compatible components to restore the machine are worn or damaged, such as filling machine are taken, run the machine are taken, run the machine with a small batch or sample to verify that the issue has
been resolved. Monitor the machine closely during the test run to ensure the capsules are filled and sealed correctly. 5.4 Post-Troubleshooting Actions Document the troubleshooting process in the batch production record (BPR), including a
detailed description of the issue, the corrective actions taken, and any machine settings adjusted. This provides traceability for future reference and ensures compliance with regulatory requirements. Review and approve the corrective actions taken to ensure that the issue was resolved in
also Capsule: SOP for Cleaning Manual Capsule Filling Tools - V 2.05.5 Preventive Maintenance To prevent future issues with the capsule filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the capsule filling machine, perform the following preventive maintenance To prevent future issues with the capsule filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the capsule filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the capsule filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the capsule filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the capsule filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the capsule filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the capsule filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the capsule filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the capsule filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the capsule filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the filling machine, perform the following preventive maintenance actions: Regular Equipment Calibrate the filling machine, perform t
accurate filling and sealing during production. Routine Inspections of the machine, including checking all moving parts, pneumatic systems, and sealing components for signs of wear and tear. Replace worn components as needed before they cause machine malfunctions. Cleaning and Lubrication Clean the capsule filling
BPR: Batch Production Record 7. Documents Batch Production Record (BPR) (Annexure-2) Maintenance Log (Annexure-3) 8. References USP - Pharmaceutical Dosage Forms: Capsules FDA Guidelines for Pharmaceutical Dosage Forms: Capsules FDA Guidelines for Capsule Manufacturing International Conference on Harmonization (ICH) Guidelines for Pharmaceutical Dosage FORM (ICH) Guidelines for Pharmaceutica
standards, Capsule process validation, Capsule stealing methods, Capsule stealing methods, Capsule stability testing, Capsule sta
capsules, Soft gelatin capsules, Vegetarian capsules The automatic capsule filling machine is a equipment that contains machinery, electricity and gas. It uses microcomputer programmable counting device. This machine has the advantages
of sensitive action, accurate filling dose, novel structure, beautiful appearance and convenient operation, which can automatically complete the positioning, separation, filling and locking of capsules, reduce labor intensity, improve production efficiency and meet the requirements of pharmaceutical hygiene. It is an economical and practical equipment
for filling capsule drugs in pharmaceutical industry and it is suitable for all kinds of capsules. In today's article, we mainly discuss what methods you can take when the capsule filling machine in the future. First, the
capsule shell can not separate The capsular shell itself needs to be replaced. The vacuum is too small. If the reason of vacuum pump, find maintenance personnel, or replace the vacuum pump. The trachea separated from the vacuum pump connecting capsule shell is ruptured. So you
 should replace the trachea. The vacuum pump filter membrane is blocked, you need to clean the filter membrane. In addition, the water flow may be too small, so we need to replace a larger water pipe. Of course we'll have to see why. I'll just list a few here. The gap between the module and the capsule shell separator is too large, so you can adjust
the height of the capsule shell separator or the module, or there may be a troubleshooting with the telescopic rod in the module until it falls automatically.
Powder is too sticky to block the module, so you should clean the module. Second, the head and tail of the capsule are concave, sometimes the capsule shell. And then you can look at the thimble, whether the need to adjust the height of the thimble. Sometimes it can be solved by
there is too much difference between capsule cap and capsule body. The capsule body. The capsule shell needs to be replaced. There is too much residual powder on the module installation, align the modules again. Until the debugging lever can be automatically set. In fact
it is also related to the size of the powder particles. Whether the thimble is too high when the cap is locked. To solve the wipe split phenomenon, there is no fixed method for the difference of loading quantity. Adjust the
filling rod again. This reason is directly related to the powder. If it is related to the powder, for the sake of the equipment, please reject the filling directly and require the pelleting post to be reworked. Fifth, the distance between the powder scraper and the dose plate should be 0.5 mm, as long as the dose plate is not touched. Increasing or
shortening the distance can directly affect the loading capacity. Sometimes the load is low, you can try to adjust the distance, please directly request the pelleting post to be reworked. Cleaning and storage of capsule filling machine After the completion of the 
the standard operating procedures for capsule filling machine, how to ensure its cleanling machine; when changing variety, batch number and after each production. Second, cleaning place of capsule filling machine: production
site. Third, capsule filling machine cleaning tools: bucket, cloth, brush, cotton swabs, etc. Fourth, detergent of capsule filling machine: water, 75% alcohol. Fifth, cleaning method of capsule filling machine machine water, 75% alcohol. Fifth, cleaning method of capsule filling machine machine and the table once. Clean all the
folded and unloaded parts with alcohol, and scrub the table surface with alcohol. Sixth, evaluation of cleaning effect of capsule filling machine: Visual inspection of no visible foreign matter inside and outside the equipment. Seventh, cleaning and storage of capsule
filling machine cleaning tools: according to the cleaning procedures of cleaning procedures of cleaning tools, clean them in the designated place. Eighth, operating procedures for disinfection before production and after maintenance. Disinfection tools: rags, buckets. Disinfection place: Online
disinfection. Disinfection methods: After cleaning the device according to the standard operating procedures of the device properly. Wipe twice with a cloth dipped in 75% ethanol or 3% hydrogen peroxide. Evaluation of disinfection effect: Microbial sampling conforms to the regulations. Use 75% alcohol and 3% hydrogen peroxide.
hydrogen peroxide alternately, change once a week. If sterilized with hydrogen peroxide, scrub twice with purified water after disinfection time. If used after more than three days, it should be disinfected again. Cleaning and storage of disinfection tools: Wash and
dry them in the cleaning tool room according to the cleaning procedures, and store them in the designated place. Capsules are solid dosage forms in which medicine or a combination of drugs, with or without excipients, is enclosed in Hard Gelatin Capsules are solid dosage forms in which medicine or a combination of drugs, with or without excipients, is enclosed in Hard Gelatin Capsules are solid dosage forms in which medicine or a combination of drugs, with or without excipients, is enclosed in Hard Gelatin Capsules are solid dosage forms in which medicine or a combination of drugs, with or without excipients, is enclosed in Hard Gelatin Capsules are solid dosage forms in which medicine or a combination of drugs, with or without excipients, is enclosed in Hard Gelatin Capsules are solid dosage forms in which medicine or a combination of drugs, with or without excipients, is enclosed in Hard Gelatin Capsules are solid dosage forms in which medicine or a combination of drugs, with or without excipients, and the capsules are solid dosage forms in which medicine or a combination of drugs, with or without excipients are solid dosage forms are solid dosage forms.
variety of shapes and capacities. Normally, they are meant for oral consumption and contain a single dose of active ingredient(s). But capsules may get different types of defects that can be identified at the same time. Capsule Defects and
Remedies are provided below to remove such types of defects. Loss of cap during transfer / Misalignment of cap and body bushDents and pinholes (on tips)Cracks in CapsulesDamaged bandThe capsulesDamaged bandThe capsule does not enter the rectifier blockCapsule getting damaged during loadingCapsule non
visually to remove the Misalignment of the Causes: Excess closing/lock length setting during the encapsulation process, excessive lock length, excessive lock length, excessive closing pressure, over-filling of capsules, incorrect pin size or pin configuration, and improper storage conditions (moisture). Remedies: Ensure the correct pin size or pin configuration, and improper storage conditions (moisture).
amount of dose is filled in the capsule Causes 1. Improper (storage) conditions favor the transfer of moisture from the capsule segments incorrect setting of the cap hold-down pin in the joining station. Remedies 1. Store the capsule properly 2. Make a Proper setting of
the station. Causes1. Misalignment of cap and body bush 2. Closing pin not in the center of body bushes 3. Damage the rubber sheet of the closing plateRemedies1. Align cap/body bush 2. Closing pin not in the center of body bushes 3. Damage the rubber sheet specifically at the point
where the capsule strikes the sheet would lead to telescopic. Replace if required Causes1. Filling dusty fill.Remedies: 1. Use capsule polisher Causes1. Malfunction in capsule filling machine which is preventing empty capsules from reaching exit chute (e.g. load cells, capacitive sensors, etc.).Remedies: 1. Use capsule filling machine which is preventing empty capsules from reaching exit chute (e.g. load cells, capacitive sensors, etc.).Remedies: 1. Use capsule filling machine which is preventing empty capsules from reaching exit chute (e.g. load cells, capacitive sensors, etc.).Remedies: 1. Use capsule filling machine which is preventing empty capsules from reaching exit chute (e.g. load cells, capacitive sensors).
capsule filling machine which is preventing empty or under-filled capsules from reaching the exit chute (e.g. load cells, capacitive sensors, etc.). Causes 1. Badly tuned banding process, such as improper wheel height and speed, improper band thickness, and poor/bad band wheel. Remedies 1. Set all the parameters
magazine slots. 2. Magazine alignment with the rectifier block could have shifted or not been set right. Align to the rectifier block with bushesRemedies 1 Verify visually if the rectifier block is in alignment with the cap/body bush. Use
alignment gauge if any doubt. Causes 1. Insufficient vacuum or incorrect vacuum pump 2. Leakage through filters 3. Cap body bush misalignment 4. Worn out bushes 5. Loss of spring tension at the top slide Remedies1. Proper capacity pump. 2. In case of vacuum drops kindly check the filters on the vacuum pump. Cleaned and/or replace it if required
3. A misalignment of cap and body bush can cause non-separation.4. If non-separation occurs in specific bushes and cleaning does not help, replace these bushes with a new one. 5. Poor spring tension at the top slide probably caused by pin results in improper closing of cap/body bush holder plate. Replace it
Causes1. Incorrect target weight with respect to selected capsule size 2. Improper slug formation due to incorrect setting parameters 3. Insufficient binding selected capsule size 4. Poor flow of product Remedies1. Check for the variation in physical parameters (Tapped density, moisture content, particle size distribution & Flow 2. Check for correct
parameters setting 3. If a proper slug is not formed, part of the powder could be lost before delivery to the capsule 4. Poor flow of the powder in the dosing disc will result in insufficient powder flowing in the dosing disc and supporting
padTamping pin and body bushDosing disc and wiper block Dosing disc and supporting pad: NMT 0.1 mm Tamping pin and body bush: maintained at 0.2 to 0.4 mm Dosing disc and wiper block: NMT 0.1
mmDosing disc and body bush: maintained at 0.8 to 1.0 mm CausesRemedies1. Excess joined length 2. Improper setting of the closing plate 4. Incorrect setting of the closing plate 3. Damage the rubber sheet of the standard locking length 2. Check for the gap between the closing unit rubber sheet and
capsules. The distance between the two points should be between 0.5 and 0.8 mm. 3. Wear off of capsule closing unit rubber sheet, especially at the point where capsule strikes the sheet would lead to this problem. Replace it with a new one.4. The flap should be visually parallel to the cap bush lock plate. Check to ensure that capsules are hitting the
center of the rubber sheet and not the edge. If this were the case, the capsule would fall off the edge and fail to lock properly. Deliquescent / Hygroscopic powders. Adsorbent [magnesium carbonate, heavy / light magnesium oxide] A small dose of drug Remedy-Addition of inert powder. Incompatibilities of materials - Use of two capsules - small in
largeLack of adhesiveness difficult to fill by punch method-Moistened with alcohol, granules reduced to powders. Other inquiries Related to Capsule defects and remedies Capsule defects and remedies Capsule defects and remedies Capsule filling Problems: Problems in capsule filling and remedies Capsule defects and remedies Capsules defects and remedies defects are remedies defects and remedies defects and remedies defects are remedies defects and remedies defects and remedies defects are remedies defects are remedies defects and remedie
Which of the following is not the defects of hard gelatin capsule shells Naresh Bhakar is the Founder and Author at Pharmaguddu.com, bringing his extensive expertise in the field of pharmaceuticals. He has rich knowledge and provides
valuable insights and data through his articles and content on Pharmaguddu.com. For further inquiries or collaborations, please don't hesitate to reach out via email at [email protected]. Capsules are solid dosage forms in which medicine or a combination of drugs, with or without excipients, is enclosed in Hard Gelatin Capsule Shells, soft, soluble
gelatin shells, or hard or soft shells of any other acceptable material, in a variety of shapes and capsules must be free from manufacturing defects during the manufacturing process. During manufacturing, capsules may get different types of
defects that can be identified at the same time. Capsule Defects and Remedies are provided below to remove such types of defects. Loss of cap during transfer / Misalignment of cap and body bushDents and pinholes (on tips)Cracks in CapsulesDusty CapsulesD
blockCapsule getting damaged during loadingCapsule non-separationTarget weight not achievedWeight variation Details of Capsule filling Problems and Solutions are Provided Below in this entire article. Causes: High vacuumRemedies: Reduce vacuum but make sure that it is not so low that capsule separation is not
observedKindly check the alignment of the cap and body bush visually to remove the Misalignment of the Causes: Excess closing/lock length, excessive lock length setting during the encapsulation process, excessive lock length, excessive lock length, excessive lock length, excessive lock length setting during the encapsulation process, excessive lock length, excessiv
Ensure the correct size disc is used and also ensure the capsule shell to encapsulated components. 2. Misalignment of the upper and lower capsule segments incorrect setting of the cap hold-down pin in the joining
station. Remedies 1. Store the capsule properly 2. Make a Proper setting of the station. Causes 1. Misalignment of cap and body bush 2. Closing pin not in the center of body bush 2. Closing pin not in the capsule properly 2. Make a Proper setting of the station. Causes 1. Misalignment of cap and body bush 2. Closing pin not in the center of body bush 2. Closing pin not in the capsule properly 2. Make a Proper setting of the station. Causes 1. Misalignment of cap and body bush 2. Closing pin not in the center of body bush 3. Damage the rubber sheet of the closing pin not in the capsule properly 2. Make a Proper setting of the station.
one. 3. Wear of capsule closing units rubber sheet specifically at the point where the capsule strikes the sheet would lead to telescopic. Replace if required Causes1. Filling dusty fill.Remedies: 1. Use capsule strikes the sheet would lead to telescopic. Replace if required Causes1. Malfunction in capsule filling machine which is preventing empty capsules from reaching exit chute (e.g. load cells, capacitive
sensors, etc.). Remedies 1. Make the sure presence of safeguards in the capsule filling machine which is preventing empty or under-filled capsules from reaching the exit chute (e.g. load cells, capacitive sensors, etc.). Causes 1. Badly tuned banding process, such as improper wheel height and speed, improper processing temperature, improper band
thickness, and poor/bad band wheel. Remedies 1. Set all the parameters accurately. Causes 1. Capsule stored overnight and without climatic control. 2. Magazine non-alignment with rectifier block Remedies 1. This may be due to improper storage conditions. In this case, some of the
capsules stick to each other preventing them to be transferred to the magazine slots. 2. Magazine alignment with the rectifier block could have shifted or not been set right. Align to the rectifier block with bushesRemedies 1 Verify visually if
the rectifier block is in alignment with the cap/body bush. Use alignment gauge if any doubt. Causes 1. Insufficient vacuum or incorrect vacuum pump 2. Leakage through filters 3. Cap body bush. Use alignment 4. Worn out bushes 5. Loss of spring tension at the top slide Remedies1. Proper capacity pump. 2. In case of vacuum drops kindly check the
filters on the vacuum pump. Cleaned and/or replace it if required 3. A misalignment of cap and body bush can cause non-separation occurs in specific bushes and cleaning does not help, replace these bushes with a new one. 5. Poor spring tension at the top side or sluggish movement of the top slide probably caused by pin results
in improper closing of cap/body bush holder plate. Replace it Causes1. Incorrect target weight with respect to selected capsule size 4. Poor flow of product Remedies1. Check for the variation in physical parameters (Tapped density, moisture
content, particle size distribution & Flow 2. Check for correct parameters setting 3. If a proper slug is not formed, part of the powder could be lost before delivery to the capsule 4. Poor flow of the powder in the dosing disc
thicknessIncorrect gap betweendosing disc and supporting pad and body bush Dosing disc and supporting pad: NMT 0.1 mm Tamping pin and body bush.
maintained at 0.2 to 0.4 mm Dosing disc and wiper block: NMT 0.1 mmDosing disc and body bush: maintained at 0.8 to 1.0 mm CausesRemedies 1. Excess joined length 2. Improper setting of the closing plate 3. Damage the rubber sheet of the closing plate 4. Incorrect setting of the closing plate 3. Damage the rubber sheet of the closing plate 3. Damage the rubber sheet of the closing plate 4. Incorrect setting of the closing plate 3. Damage the rubber sheet of the closing plate 3. Damage the rubber sheet of the closing plate 4. Incorrect setting of the closing plate 3. Damage the rubber sheet of the closing plate 4. Incorrect setting of the closing plate 3. Damage the rubber sheet of the closing plate 4. Incorrect setting of the closing plate 3. Damage the rubber sheet of the closing plate 4. Incorrect setting of the closing plate 4. Incorrect setting of the closing plate 3. Damage the rubber sheet of the closing plate 4. Incorrect setting setti
Check for the gap between the closing unit rubber sheet and capsules. The distance between 0.5 and 0.8 mm. 3. Wear off of capsule closing unit rubber sheet, especially at the point where capsule strikes the sheet would lead to this problem. Replace it with a new one.4. The flap should be visually parallel to the cap
bush lock plate. Check to ensure that capsules are hitting the center of the rubber sheet and not the edge and fail to lock properly. Deliquescent / Hygroscopic powders- Adsorbent [magnesium carbonate, heavy / light magnesium oxide] A small dose of drug Remedy-Addition of inert
powder.Incompatibilities of materials -Use of two capsules - small in largeLack of adhesiveness difficult to fill by punch method-Moistened with alcohol, granules reduced to powders. Other inquiries Related to Capsule filling and remedies Capsules defects and remedies Capsules are capsules of two capsules defects and remedies Capsules are capsules are capsules of two capsules defects and remedies capsules defects and remedies capsules defects and remedies capsules are 
defects Capsule defects with images Telescoping capsule defect Which of the following is not the defects of hard gelatin capsule shells Naresh Bhakar is the Founder and Author at Pharmaguddu.com, bringing his extensive expertise in the field of pharmaceuticals to readers worldwide. He has experience in Pharma manufacturing and has worked
with top Pharmaceuticals. He has rich knowledge and provides valuable insights and data through his articles and content on Pharmaguddu.com. For further inquiries or collaborations, please don't hesitate to reach out via email at [email protected]. Capsules are solid dosage forms in which medicine or a combination of drugs, with or without
excipients, is enclosed in Hard Gelatin Capsule Shells, soft, soluble gelatin shells, or hard or soft shells of any other acceptable material, in a variety of shapes and capacities. Normally, they are meant for oral consumption and contain a single dose of active ingredient(s). But capsules must be free from manufacturing defects during the manufacturing the manufacturing defects during the manufacturing during the manufactur
process. During manufacturing, capsules may get different types of defects that can be identified at the same time. Capsules During transfer / Misalignment of cap and body bushDents and pinholes (on tips)Cracks in Capsules Dustyles Dusty
CapsulesEmpty CapsulesDamaged bandThe capsule does not enter the rectifier blockCapsule getting damaged during loadingCapsule filling Problems and Solutions are Provided Below in this entire article. Causes: High vacuumRemedies:
size or pin configuration, and improper storage conditions (moisture). Remedies: Ensure the correct size disc is used and also ensure the correct amount of dose is filled in the capsule shell to encapsulated components. 2. Misalignment of the upper and lower
capsule segments incorrect setting of the cap hold-down pin in the joining station. Remedies 1. Store the capsule properly 2. Make a Proper setting of the station. Causes1. Misalignment of cap and body bush to bush gauge
preventing empty capsules from reaching exit chute (e.g. load cells, capacitive sensors, etc.). Remedies from reaching the exit chute (e.g. load cells, capacitive sensors, etc.). Causes from reaching empty or under-filled capsules from reaching the exit chute (e.g. load cells, capacitive sensors, etc.). Causes from reaching empty or under-filled capsules from reaching the exit chute (e.g. load cells, capacitive sensors, etc.).
wheel height and speed, improper processing temperature, improper band thickness, and poor/bad band wheel. Remedies 1. Capsule stored overnight and without climatic control. 2. Magazine non-alignment with rectifier block Remedies 1. This may be due to improper room conditions or the capsules having
been affected by improper storage conditions. In this case, some of the capsules stick to each other preventing them to be transferred to the magazine slots. 2. Magazine alignment with the rectifier block could have shifted or not been set right. Align to the rectifier block using a gauge. Read Also: Tablets Manufacturing Defects and remedies Cause1
Misalignment of rectifier block with bushesRemedies 1. Insufficient vacuum or incorrect vacuum pump 2. Leakage through filters 3. Cap body bush misalignment 4. Worn out bushes 5. Loss of spring tension at the top slide
 Remedies 1. Proper capacity pump. 2. In case of vacuum drops kindly check the filters on the vacuum pump. Cleaned and/or replace it if required 3. A misalignment of cap and cleaning does not neip, replace these busines with a new one. 5. Poor spring
top side or sluggish movement of the top slide probably caused by pin results in improper closing of cap/body bush holder plate. Replace it Causes1. Incorrect target weight with respect to selected capsule size 4. Poor flow of product
Remedies 1. Check for the variation in physical parameters (Tapped density, moisture content, particle size distribution & Flow 2. Check for correct parameters setting 3. If a proper slug is not formed, part of the powder flowing in
the disc cavity properties of the formulation ) Causes Wrong selection of dosing disc and supporting pin and body bush Remedies: Kindly select the proper dosing disc for filling of powder fully onto the capsule shellCorrect the Gap
Between:dosing disc and supporting pad: NMT 0.1 mm Tamping pin and body bush: maintained at 0.2 to 0.4 mm Dosing disc and wiper block: NMT 0.1 mmDosing disc and body bush: maintained at 0.8 to 1.0 mm CausesRemedies1. Excess joined length 2. Improper setting of the closing plate 3. Damage the rubber sheet of the closing plate 4
Incorrect setting of the closing plate Remedies: 1. Check for the gap between the two points should be between the closing unit rubber sheet, especially at the point where capsule strikes the sheet would lead
to this problem. Replace it with a new one.4. The flap should be visually parallel to the cap bush lock plate. Check to ensure that capsules are hitting the center of the rubber sheet and not the edge and fail to lock properly. Deliquescent / Hygroscopic powders- Adsorbent [magnesium carbonate,
heavy / light magnesium oxide]A small dose of drug Remedy-Addition of inert powder. Incompatibilities of materials -Use of two capsules - small in largeLack of adhesiveness difficult to fill by punch method-Moistened with alcohol, granules reduced to powders. Other inquiries Related to Capsule filling Problems: Problems in capsule filling and
remedies pdf Capsules defects and remedies Capsule defects and remedies Capsule defects with images Telescoping capsule defects and remedies Capsule defects and remedies Capsule defects with images Telescoping capsule defects with images Telescop
readers worldwide. He has experience in Pharma manufacturing and has worked with top Pharmaceuticals. He has rich knowledge and provides valuable insights and data through his articles and content on Pharmaguddu.com. For further inquiries or collaborations, please don't hesitate to reach out via email at [email protected]. Capsules are solid
dosage forms in which medicine or a combination of drugs, with or without excipients, is enclosed in Hard Gelatin Capsule Shells, or hard or soft shells of any other acceptable material, in a variety of shapes and capacities. Normally, they are meant for oral consumption and contain a single dose of active ingredient(s). But
capsules must be free from manufacturing defects during the manufacturing defects during transfer / Misalignment of cap and body bushDents and
pinholes (on tips)Cracks in CapsulesTelescopic CapsulesDusty CapsulesDus
Below in this entire article. Causes: High vacuumRemedies: Reduce vacuum but make sure that it is not so low that capsule separation is not observedKindly check the alignment of the Causes: Excess closing/lock length setting during the encapsulation process, excessive lock length,
excessive closing pressure, over-filling of capsules, incorrect pin size or pin configuration, and improper storage conditions (moisture). Remedies: Ensure the correct size disc is used and also ensure the capsule shell to
encapsulated components. 2. Misalignment of the upper and lower capsule properly 2. Make a Proper setting of the station. Remedies 1. Store the capsule properly 2. Make a Proper setting of the station. Causes 1. Misalignment of cap and body bush 2. Closing pin not in the center of body bushes 3. Damage the rubber sheet
of the closing plateRemedies1. Align cap/body bush to bush gauge. 2. Check pin straightness using a gauge pin If bent replaces it with a new one. 3. Wear of capsule strikes the sheet would lead to telescopic. Replace if required Causes1. Filling dusty fill.Remedies: 1. Use capsule
polisher Causes 1. Malfunction in capsule filling machine which is preventing empty or under-filled capsules from reaching exit chute (e.g. load cells, capacitive sensors, etc.). Remedies 1. Make the sure presence of safeguards in the capsules from reaching empty or under-filled capsules from reaching empty capsules from reaching empty capsules from reaching empty or under-filled capsules from reaching empty capsules from reaching empty or under-filled capsules from reaching empty capsules from reaching empty or under-filled capsules from reaching empty or under-filled capsules from reaching empty capsules from reaching empty or under-filled capsules from reaching empty capsules from reaching empty or under-filled capsules from reaching empty capsules from reaching empty or under-filled empty or under-filled empty empty or under-filled empty empty or under-filled empty emp
sensors, etc.). Causes1. Badly tuned banding process, such as improper wheel height and speed, improper processing temperature, improper band thickness, and poor/bad band wheel.Remedies1. Set all the parameters accurately. Causes1. Capsule stored overnight and without climatic control. 2. Magazine non-alignment with rectifier block
Remedies 1. This may be due to improper room conditions or the capsules having been affected by improper storage conditions. In this case, some of the capsules stick to each other preventing them to be transferred to the magazine slots. 2. Magazine alignment with the rectifier block could have shifted or not been set right. Align to the rectifier block
using a gauge. Read Also: Tablets Manufacturing Defects and remedies Cause 1. Insufficient vacuum or incorrect vacuum pump 2. Leakage through filters 3. Cap body bush
misalignment 4. Worn out bushes 5. Loss of spring tension at the top slide Remedies1. Proper capacity pump. 2. In case of vacuum drops kindly check the filters on the vacuum pump. Cleaned and/or replace it if required 3. A misalignment of cap and body bush can cause non-separation.
not help, replace these bushes with a new one. 5. Poor spring tension at the top slide probably caused by pin results in improper closing of cap/body bush holder plate. Replace it Causes1. Incorrect target weight with respect to selected capsule size 2. Improper slug formation due to incorrect setting parameters 3.
Insufficient binding selected capsule size 4. Poor flow of product Remedies1. Check for the variation in physical parameters setting 3. If a proper slug is not formed, part of the powder could be lost before delivery to the capsule 4. Poor flow of the
powder in the dosing disc will result in insufficient powder flowing in the disc cavity properties of the formulation ) Causes Wrong selection of dosing disc and wiper block Dosing disc and body bush Remedies: Kindly select the proper dosing disc for
filling of powder fully onto the capsule shellCorrect the Gap Between:dosing disc and supporting pad: NMT 0.1 mm Dosing disc and body bush: maintained at 0.8 to 1.0 mm CausesRemedies1. Excess joined length 2. Improper setting of the closing
plate 3. Damage the rubber sheet of the closing plate 4. Incorrect setting of the closing unit rubber sheet and capsules. The distance between the two points should be between 0.5 and 0.8 mm. 3. Wear off of capsule closing unit rubber sheet, especially
at the point where capsule strikes the sheet would lead to this problem. Replace it with a new one.4. The flap should be visually parallel to the cap bush lock plate. Check to ensure that capsules are hitting the center of the rubber sheet and not the edge. If this were the capsule would fall off the edge and fail to lock properly. Deliquescent /
Hygroscopic powders- Adsorbent [magnesium carbonate, heavy / light magnesium oxide] small dose of drug Remedy-Addition of inert powder. Incompatibilities of materials - Use of two capsules - small in largeLack of adhesiveness difficult to fill by punch method-Moistened with alcohol, granules reduced to powders. Other inquiries Related to
Capsule filling Problems: Problems in capsule filling and remedies pdf Capsules defects and remedies Capsule defects and remedies Capsules defects and remedies Capsules defects and remedies pdf Capsules defects and remedies Capsules defects and remedies pdf Capsules defects and remedies defect
his extensive expertise in the field of pharmaceuticals to readers worldwide. He has experience in Pharma manufacturing and has worked with top Pharmaceuticals. He has rich knowledge and provides valuable insights and data through his articles and content on Pharmaceuticals. He has experience in Pharmaceuticals. He has experience in Pharmaceuticals. He has experience in Pharmaceuticals to readers worldwide.
reach out via email at [email protected]. During capsule production, are you noticing capsule defects such as body dents or cap dents? Are you seeing nicks and scratches on dosing bores or rounded noses and/or deep scratches tamping pins? A sticky product formulation might be the culprit! We asked our encapsulation expert, Jon Carlisle, to put
together a guide that will walk you through the common issues seen when dealing with sticky product formulation is one of the most common causes of encapsulation issues during capsule filling. A capsule filler requires tight tolerances between
the machine's tooling components, including the dosing disks, tamping pins, and sealing plate, as well as between the capsules and the segments' bores, which hold the capsules during filling. Friction between the formulation and these tooling components during high-speed operation can cause a sticky formulation to cake and glaze onto the tooling
surfaces, restricting the components' movement and leading to inconsistent capsule weights, capsule splits, non-separation, and even machine crashes. All of which can lead to costly downtime while making repairs. Manufacturers often hope for a silver-bullet approach—one single solution that will fix every sticky formulation issue—but the solution is
rarely that simple. Several factors often combine to cause a material to stick, and the problem is best solved using a systematic approach. Sticking problems are common in encapsulation processes, and there is no one-size-fits-all solution. Often a combination of solutions is required. This guide provides a best-practices approach to troubleshooting
capsule-filling problems when handling a sticky product formulation. Following the suggestions discussed in this guide will help to eliminate many of the common root causes of sticking and increase your odds of successfully encapsulating sticky formulations. GET THE GUIDE NOW:
```