ACADEMY / TECHNICAL TRAINING SERIES

FINGER SPLICING

MODULE 08 / ASSESSOR GUIDE & ANSWER KEY

LEARNER NAME _____

DATE _____ TRAINER / ASSESSOR _____

ONLINE TRAINING / VIDEO LINK _____

TRAINING SCOPE Theory and awareness only. Finger splicing requires competent personnel, site-specific risk controls, manufacturer-approved methods, suitable tooling and supervised practical assessment.

Module Overview

This module introduces the principles of finger splicing for conveyor belts.

Finger splicing is a joining method where both belt ends are cut into matching “fingers” that interlock and are bonded together. The joint may then be cured, pressed or bonded depending on the belt type, splice system and manufacturer instructions.

Finger splices are often used where a smooth, flexible joint is required. They are commonly seen on lighter-duty belts, PVC belts, PU belts, food belts, package handling belts and some specialist belt types. In some cases, finger splicing may also be used on selected rubber or fabric belts where the belt design and splice system allow it.

Finger splicing requires accurate marking, careful cutting, clean preparation, good alignment and the correct bonding method. Poorly cut fingers, contamination, trapped air, wrong materials or incorrect curing can all lead to early splice failure.

This module is designed for engineers, fitters, belt technicians, maintenance teams, apprentices, supervisors and companies wanting to improve in-house conveyor belt splicing knowledge.

This module can be used as a classroom training guide, toolbox talk, apprentice handout or self-training document.

Important Safety and Training Notice

This module is for general training and awareness only.

Finger splicing should only be carried out by competent and trained people using the correct equipment, materials and method for the belt being joined.

Always follow:

- Site safety rules
- Risk assessments
- Method statements
- Permit-to-work systems
- Lock-off and isolation procedures
- Belt manufacturer instructions
- Splice material supplier instructions
- Press manufacturer instructions
- Adhesive or bonding system instructions
- Temperature, pressure and cure-time guidance for the specific belt and material system
- Electrical safety requirements
- Knife and cutting tool safety rules
- Company procedures
- Local health and safety requirements

Do not use a generic training guide as the only instruction for a live finger splice.

If you are unsure, stop and ask a competent supervisor.

Learning Objectives

By the end of this module, the learner should be able to:

1. Understand what a finger splice is.
2. Understand where finger splices may be used.
3. Explain the difference between finger splicing and stepped splicing.
4. Understand why accurate marking and cutting are critical.

5. Understand the importance of finger length, width, pitch and alignment.
6. Understand the basic preparation sequence for a finger splice.
7. Understand why clean, dry and contamination-free surfaces are essential.
8. Understand the purpose of bonding films, adhesives, tie materials or uncured materials.
9. Understand the basic press, cure, cooling and finishing stages.
10. Recognise common causes of finger splice failure.
11. Complete a basic finger splice checklist.

1. What Is a Finger Splice?

A finger splice is a belt joining method where both belt ends are cut into matching fingers. The fingers from one belt end fit into the spaces between the fingers on the other belt end.

The joint is then bonded together using the correct materials and process for the belt type.

Depending on the belt and splice system, the splice may be:

- Heat pressed
- Cold bonded
- Hot vulcanised
- Thermoplastic welded
- Bonded using film, adhesive or rubber materials

The correct method depends on the belt construction and manufacturer guidance.

Model answer

A finger splice joins two belt ends by cutting matching fingers into each end and bonding them together to create a smooth joint.

2. Why Finger Splicing Is Used

Finger splicing is used because it can create a smooth, flexible and low-profile joint.

It may be useful where:

- A smooth joint is required.
- Mechanical fasteners are not suitable.
- The belt runs over small pulleys.
- The belt runs at higher speed.
- Product transfer needs to be smooth.
- Scrapers, guides or product contact areas cannot tolerate metal fasteners.
- The belt is light-duty or thermoplastic.
- Hygiene or food processing requirements make mechanical fasteners unsuitable.
- Noise from a mechanical joint needs to be avoided.
- A flexible joint is required.

Finger splicing is common on many PVC, PU, light-duty and process conveyor belts.

Model answer

Finger splicing is used to create a smooth, flexible joint, especially where mechanical fasteners are not suitable or where the belt needs to run cleanly over pulleys and transfer points.

3. Finger Splice vs Stepped Splice

A stepped splice normally overlaps fabric plies in steps. It is commonly used on multi-ply rubber fabric belts.

A finger splice uses interlocking fingers cut into both belt ends.

The main difference is:

- Stepped splice: plies overlap in layers.
- Finger splice: belt ends interlock in a finger pattern.

Finger splices can be very smooth and flexible, but they require accurate cutting and correct bonding.

The correct splice method depends on belt type, belt strength, pulley size, conveyor duty and manufacturer recommendations.

Model answer

A stepped splice overlaps the belt plies in steps. A finger splice interlocks matching fingers cut into both belt ends.

4. When Finger Splicing May Be Suitable

Finger splicing may be suitable for:

- PVC belts
- PU belts
- Light-duty belts
- Food belts
- Package handling belts
- Process belts
- Airport and logistics belts
- Light incline belts
- Belts running over small pulleys
- Belts needing smooth transfer
- Certain specialist belts approved for finger splicing

Finger splicing may not be suitable for every heavy-duty rubber conveyor belt.

Before selecting finger splicing, always check the belt manufacturer's splice recommendation.

Model answer

Finger splicing may be suitable for PVC, PU, food, process, package handling and other belts where a smooth, flexible joint is required and the belt manufacturer allows the method.

5. Limits of Finger Splicing

Finger splicing has limitations.

It may not be suitable if:

- The belt is too damaged.
- The belt is badly contaminated.
- The belt type is unknown.
- The belt is too heavy-duty for the method.
- The splice pattern is not suitable.
- The fingers cannot be cut accurately.
- The correct press is not available.
- The correct bonding materials are not available.
- The working area cannot be kept clean and dry.
- The team is not trained.

- The conveyor duty requires a different splice method.
- The manufacturer does not approve finger splicing for that belt.

A finger splice that is not suitable for the belt may fail quickly.

Model answer

Finger splicing is not suitable for every belt. It needs the correct belt type, correct splice pattern, correct materials, clean conditions and trained people.

6. Main Parts of a Finger Splice

A finger splice may include:

Belt Ends

The two ends of the belt that will be joined.

Fingers

The tapered or shaped sections cut into each belt end.

Finger Root

The base of each finger where it meets the main belt body.

Finger Tip

The end of each finger.

Finger Pitch

The distance between fingers.

Finger Length

The full length of each finger.

Bonding Material

This may be adhesive, bonding film, thermoplastic film, tie gum, skim rubber or other approved splice material.

Pressed Joint Area

The area covered by the press during bonding or curing.

Model answer

The main parts of a finger splice include the belt ends, fingers, finger tips, finger roots, finger length, finger pitch, bonding material and pressed joint area.

7. Finger Length and Pattern

Finger length and finger pattern must follow the belt and splice specification.

The finger design may depend on:

- Belt type
- Belt thickness
- Belt strength
- Belt material
- Pulley diameter
- Conveyor duty
- Belt speed
- Manufacturer guidance
- Splice equipment available

Do not guess finger size.

If the fingers are too short, the splice may be weak.

If the fingers are too narrow, they may tear.

If the fingers are poorly matched, the splice may not align correctly.

Model answer

Finger length and pattern must follow the approved splice specification. Incorrect finger size or pattern can weaken the joint.

8. Single Finger and Double Finger Splices

Finger splices may be designed in different ways.

Single Finger Splice

A single finger splice uses one interlocking finger pattern between the two belt ends.

It may be used on some lighter-duty belts or where the approved method allows it.

Double Finger Splice

A double finger splice uses two layers or two sets of interlocking finger patterns, depending on belt type and splice design.

It may provide increased strength or flexibility for certain belts.

The correct style must follow the belt manufacturer or splice system recommendation.

Model answer

A single finger splice uses one finger pattern. A double finger splice uses a more developed finger arrangement where the approved belt design requires it.

9. Splice Planning

Before starting a finger splice, plan the job properly.

Check:

- Belt type
- Belt width
- Belt thickness
- Belt material
- Belt rating if known
- Existing splice type

- Pulley diameter
- Conveyor duty
- Finger splice suitability
- Finger length
- Finger pitch
- Splice pattern
- Press size
- Press temperature range
- Press pressure capability
- Bonding materials
- Shelf life of materials
- Working conditions
- Cleanliness
- Power supply
- Cooling requirements if applicable
- Competence of the person completing the splice

Do not start cutting until the splice pattern and method are confirmed.

Model answer

Splice planning confirms that the belt, finger pattern, materials, press, power supply and working conditions are suitable before cutting begins.

10. Work Area Setup

A finger splice needs a clean and controlled work area.

Check:

- Conveyor is isolated and locked off.
- Belt is clamped and supported.
- Stored energy is controlled.
- Work area is clean.
- Lighting is suitable.
- Tools are organised.
- Cutting surface is stable.
- Splice materials are clean and dry.
- Press can be positioned correctly.
- Power supply is suitable.
- Cables are routed safely.
- Dust, moisture and contamination are controlled.
- No one is in the line of belt tension.

Finger splicing is accuracy work. A poor working area leads to poor results.

Model answer

The work area must be clean, safe and organised. The belt must be isolated, clamped and supported, and the splice materials must be protected from contamination.

11. Tools and Equipment Required

A finger splice may require:

- Tape measure
- Steel rule
- Straight edge
- Belt square
- Finger splice template
- Marker or chalk
- Cutting board or safe cutting surface
- Belt knife
- Hook knife
- Skiving knife
- Spare blades
- Blade disposal container
- Belt clamps
- Hand roller
- Stitcher roller
- Buffing tool where required
- Cleaning cloths
- Approved solvent where required
- Bonding film or adhesive
- Tie gum, skim rubber or approved splice material where required
- Release paper or silicone cloth
- Press platens
- Press control box
- Temperature probes
- Power cables
- Cooling method if required
- PPE

The exact equipment depends on the belt and splice system.

Model answer

Finger splicing needs measuring tools, a finger template, cutting tools, cleaning materials, bonding materials, rollers, a suitable press and PPE.

12. Inspecting the Belt Before Finger Splicing

Before marking or cutting, inspect the belt.

Check:

- Belt type
- Belt thickness
- Belt surface condition
- Belt edge condition
- Existing splice condition
- Ply or fabric condition if visible
- Oil contamination
- Grease contamination
- Moisture
- Product contamination
- Heat damage

- Cracking
- Delamination
- Wear
- Holes or tears

If the belt is badly damaged, contaminated or worn, a finger splice may not be reliable.

Model answer

The belt must be inspected to confirm it is suitable for finger splicing. Damage, contamination, wear or delamination may affect splice quality.

13. Marking the Finger Splice

Marking must be accurate.

Before marking:

- Confirm the splice pattern.
- Confirm finger length.
- Confirm finger width or pitch.
- Confirm the belt centre line.
- Confirm belt end alignment.
- Use a proper template where available.
- Check the pattern before cutting.

The fingers on both belt ends must match.

Poor marking can cause gaps, overlaps, weak fingers or misalignment.

Model answer

Accurate marking ensures the fingers match correctly. Poor marking can cause gaps, poor alignment and weak splice areas.

14. Using a Finger Template

A finger template helps mark consistent fingers.

Templates may be:

- Metal
- Plastic
- Printed
- Laser cut
- Manufacturer supplied
- Workshop made to an approved pattern

A template helps control:

- Finger length
- Finger width
- Finger pitch
- Finger angle
- Finger shape
- Repeat accuracy

The template must match the belt and splice specification.

Do not use an unknown template without confirming it is suitable.

Model answer

A finger template helps mark the fingers accurately and consistently. It must match the approved splice pattern for the belt.

15. Cutting the Fingers

Cutting the fingers is one of the most important parts of the splice.

Before cutting:

- Confirm the conveyor is isolated and locked off.
- Confirm belt tension is controlled.
- Confirm the belt is clamped.
- Check the marking.
- Use a sharp blade.
- Use a safe cutting surface.
- Keep hands out of the cutting line.
- Cut with controlled pressure.
- Do not rush.
- Keep the blade upright where required.
- Avoid tearing the belt.
- Avoid cutting beyond the marked root line.

Poor finger cutting can weaken the splice.

Model answer

The fingers must be cut accurately and safely. Poor cutting can create weak fingers, gaps, poor alignment or early splice failure.

16. Finger Root Quality

The finger root is the base of the finger.

The root area is important because stress can concentrate there.

Poor root quality may include:

- Over-cutting past the root
- Sharp cuts into the belt body
- Tearing
- Ragged edges
- Uneven cut depth
- Cuts that do not match the template
- Damaged fabric or reinforcement

Some splice designs may require a rounded or controlled root shape to reduce stress.

Follow the approved splice method.

Model answer

The finger root must be cut cleanly and correctly because stress can concentrate at the root. Over-cutting or tearing can weaken the splice.

17. Dry Fitting the Fingers

Before applying bonding material, the two belt ends should be checked together.

This is often called dry fitting.

Check:

- Fingers interlock correctly.
- No fingers are missing.
- No fingers are twisted.
- No gaps are excessive.
- Belt edges align.
- Centre lines align.
- Joint is flat.
- No finger overlaps incorrectly.
- No finger is too long or too short.
- Belt is not stretched or forced into position.

Dry fitting helps find problems before bonding starts.

Model answer

Dry fitting checks that the fingers interlock and align correctly before bonding materials are applied.

18. Surface Preparation

The amount of surface preparation depends on the belt and splice system.

Preparation may include:

- Light buffing
- Cleaning
- Removing gloss
- Removing loose material
- Preparing fabric or backing
- Applying primer
- Applying bonding film
- Applying adhesive
- Preparing thermoplastic surfaces
- Keeping surfaces clean and dry

Do not over-buff or damage the belt.

Do not touch prepared surfaces with dirty gloves.

Model answer

Surface preparation makes the belt suitable for bonding. The method depends on the belt type and splice system, but surfaces must be clean, dry and correctly prepared.

19. Cleaning the Fingers

The finger area must be clean before bonding.

Check for:

- Dust

- Moisture
- Oil
- Grease
- Cutting debris
- Loose fibres
- Loose rubber
- Dirty glove marks
- Dirty tools
- Product residue

Use only the cleaning method approved for the belt and splice material.

Allow surfaces to dry before bonding.

Model answer

The fingers must be clean because contamination can stop the bond forming correctly.

20. Applying Bonding Material

Bonding material depends on the belt and splice system.

It may include:

- Adhesive
- Primer
- Bonding film
- Thermoplastic film
- Tie gum
- Skim rubber
- Uncured rubber
- Cover material
- Other approved splice material

Before applying:

- Check the product is correct.
- Check shelf life.
- Follow application instructions.
- Keep material clean.
- Cut material accurately.
- Avoid wrinkles.
- Avoid trapped air.
- Avoid touching bonding surfaces.
- Apply evenly.
- Follow drying or open-time requirements where applicable.

Wrong material or poor application can cause splice failure.

Model answer

Bonding material joins the finger splice together. It must be the correct product, clean, in date and applied according to the approved method.

21. Aligning and Closing the Splice

When the bonding materials are ready, the belt ends are brought together.

Check:

- Centre lines align.
- Belt edges align.
- Fingers interlock correctly.
- No fingers are folded.
- No fingers are trapped.
- No bonding material has moved.
- No contamination has entered.
- The joint is flat.
- No excessive gaps are present.
- No excessive overlap is present.

Use hand rollers or stitcher rollers where required to improve contact and remove trapped air.

Model answer

The splice must be closed carefully so the fingers interlock, the centre lines align and the joint remains flat and clean.

22. Removing Trapped Air

Trapped air can create weak areas in the splice.

Air may be trapped between:

- Fingers
- Bonding film
- Adhesive layers
- Rubber layers
- Belt surfaces
- Cover materials

Use a hand roller or stitcher roller where required.

Roll from the centre outwards where suitable.

Do not trap wrinkles or folded fingers.

Model answer

Trapped air must be removed because it can create voids and weak points in the splice.

23. Press Setup for Finger Splicing

A finger splice normally requires a suitable press.

The press must match the belt and splice system.

Check:

- Platen length
- Platen width
- Temperature capability
- Pressure capability

- Control box
- Temperature probes
- Power supply
- Cables
- Surface condition
- Release materials
- Cooling if required
- Press alignment over the splice

The press must apply even heat and pressure across the full finger splice area.

Model answer

The press must cover the full finger splice and apply the correct heat and pressure evenly.

24. Temperature, Pressure and Time

Temperature, pressure and time must follow the belt and splice material specification.

There is no single universal setting for all finger splices.

The correct settings depend on:

- Belt material
- Belt thickness
- Belt construction
- Bonding system
- Press type
- Manufacturer instructions
- Site conditions

Do not guess settings.

Incorrect temperature, pressure or time can cause:

- Weak bonding
- Belt damage
- Melt damage
- Poor cure
- Blisters
- Surface marks
- Delamination
- Early failure

Model answer

Temperature, pressure and time must match the belt and bonding system. Guessing settings can damage the belt or create a weak splice.

25. Curing, Pressing or Bonding Stage

During the pressing or curing stage:

- Maintain correct temperature.
- Maintain correct pressure.
- Follow correct time.
- Do not disturb the press.

- Keep the area controlled.
- Watch for abnormal issues.
- Keep unauthorised people away.
- Follow the approved procedure.

The joint must be allowed to bond properly before handling.

Model answer

The pressing or curing stage bonds the splice together. The correct time, temperature and pressure must be maintained without disturbance.

26. Cooling the Splice

Cooling may be required before the press is opened or the belt is handled.

Opening or moving the splice too early can cause:

- Distortion
- Weak bonding
- Finger movement
- Surface damage
- Blisters
- Edge opening
- Poor finish

Follow the press and belt manufacturer's cooling instructions.

Model answer

Cooling is important because the splice may be weak or unstable while still hot. Moving it too early can damage the joint.

27. Removing the Press and Release Materials

After cooling, remove the press carefully.

Check:

- Pressure has been released safely.
- Press parts are safe to handle.
- Hot surfaces are controlled.
- Release paper or cloth is removed carefully.
- The splice surface is not damaged.
- Cables and press parts are controlled.
- No dirt is dragged over the splice.

Press parts may be heavy and hot.

Model answer

The press should be removed only after safe cooling and pressure release. The splice surface should not be damaged during removal.

28. Trimming and Finishing

After pressing, the splice should be inspected and finished.

This may include:

- Removing release material
- Trimming excess material
- Checking belt edges
- Checking surface finish
- Checking finger outline
- Checking for blisters
- Checking for voids
- Checking for open fingers
- Checking for high spots
- Checking for low spots
- Checking joint flexibility

Do not cut into the splice when trimming.

Model answer

Finishing removes excess material and checks that the splice is smooth, aligned, sealed and free from obvious defects.

29. Final Finger Splice Inspection

Before returning the belt to service, inspect the splice.

Check:

- Fingers are fully bonded.
- No fingers are lifting.
- No open edges.
- No blisters.
- No visible voids.
- No contamination.
- No excessive high spots.
- No excessive low spots.
- Belt edges align.
- Centre line alignment is correct.
- Splice is flexible.
- Splice thickness is acceptable.
- Surface finish is acceptable.
- Tools and materials are removed.
- Guards are refitted.

If there is a serious defect, do not restart until it has been assessed.

Model answer

The final inspection confirms that the fingers are bonded, aligned, smooth and free from defects before the conveyor is restarted.

30. Restarting the Conveyor

Restart must be controlled.

Before restart:

- Remove tools and materials.
- Refit guards.
- Remove waste and offcuts.
- Confirm everyone is clear.
- Follow site restart procedure.
- Run slowly or jog where possible.
- Watch the splice pass over pulleys.
- Check belt tracking.
- Check scraper or guide contact.
- Check transfer points.
- Check for unusual noise.
- Recheck after running under load.

Do not leave a new finger splice unchecked.

Model answer

The conveyor should be restarted carefully and the splice should be monitored as it passes over pulleys, rollers, guides, scrapers and transfer points.

31. Common Causes of Finger Splice Failure

Common causes include:

- Wrong splice method
- Wrong finger pattern
- Fingers too short
- Fingers too narrow
- Poor cutting
- Over-cut finger roots
- Poor alignment
- Contamination
- Moisture
- Dust
- Oil or grease
- Wrong bonding material
- Expired material
- Trapped air
- Poor rolling
- Incorrect temperature
- Incorrect pressure
- Incorrect pressing time
- Poor cooling
- Belt moved too early
- Belt unsuitable for finger splicing
- Pulley diameter too small
- Scraper, guide or transfer point catching the splice
- Conveyor tracking problem

Model answer

Finger splice failure is often caused by poor cutting, poor alignment, contamination, wrong materials, incorrect pressing or using the method on an unsuitable belt.

32. Finger Splice Record

A finger splice should be recorded.

Record:

- Date
- Customer or site
- Conveyor number
- Technician name
- Belt width
- Belt type
- Belt thickness
- Belt material
- Splice pattern
- Finger length
- Finger pitch if required
- Bonding material used
- Material batch numbers if available
- Press used
- Temperature setting
- Pressure setting
- Pressing or cure time
- Cooling method
- Final inspection result
- Photos before and after
- Any follow-up action required

A splice record helps with quality control, future maintenance and training.

Model answer

A finger splice record provides evidence of the method, materials, settings and inspection result. It helps with quality control and fault finding.

Practical Exercise

Use a belt sample, finger splice drawing, workshop demonstration or training photograph and complete the following exercise.

1. Identify the Belt Type

Suggested learner response

Check the belt marking, material, thickness and construction. Example: PVC belt, PU belt or light-duty process belt.

2. Decide Whether Finger Splicing Is Suitable

Suggested learner response

Finger splicing is suitable only if approved for the belt type, conveyor duty, pulley size and bonding system.

3. Mark the Belt Centre Line

Suggested learner response

Measure the belt width, mark the centre at several points and draw a straight centre line for alignment.

4. Select the Finger Pattern

Suggested learner response

The finger pattern must be selected from the approved splice specification or manufacturer guidance.

5. Mark the Fingers

Suggested learner response

Use a suitable template to mark finger length, pitch and shape accurately on both belt ends.

6. Dry Fit the Belt Ends

Suggested learner response

Interlock the fingers before bonding to check alignment, gaps, finger fit, belt edge position and centre line position.

7. Inspect the Prepared Surface

Suggested learner response

Check the surface is clean, dry, correctly prepared, free from dust, free from oil and not damaged.

8. Apply Bonding Material

Suggested learner response

Use the correct bonding film, adhesive or splice material according to the approved method. Keep it clean and avoid wrinkles or trapped air.

9. Check the Press Setup

Suggested learner response

Check platen size, temperature, pressure, control box, cables, probes, release material and cooling method if required.

10. Complete the Final Inspection

Suggested learner response

Check the fingers are bonded, the splice is smooth, edges align, no blisters are present, no fingers are lifting and the joint is ready for controlled restart.

Knowledge Check

Question 1

What is a finger splice?

Model answer

A finger splice is a belt joint where matching fingers are cut into both belt ends and bonded together.

Question 2

Why is finger splicing used?

Model answer

Finger splicing is used to create a smooth, flexible and low-profile joint, often where mechanical fasteners are not suitable.

Question 3

Name three belt types where finger splicing may be used.

Model answer

Finger splicing may be used on PVC belts, PU belts, food belts, process belts, package handling belts and other suitable specialist belts.

Question 4

What is the difference between a finger splice and a stepped splice?

Model answer

A finger splice interlocks fingers cut into the belt ends. A stepped splice overlaps fabric plies in steps.

Question 5

Why must the finger pattern follow approved guidance?

Model answer

The finger length, width and pitch must suit the belt and duty. Incorrect finger design can weaken the splice.

Question 6

Why is accurate cutting important?

Model answer

Accurate cutting ensures the fingers fit correctly. Poor cutting can cause gaps, weak areas, misalignment and early failure.

Question 7

What is the finger root?

Model answer

The finger root is the base of the finger where it meets the main belt body.

Question 8

Why is dry fitting useful?

Model answer

Dry fitting checks that the fingers interlock and align correctly before bonding materials are applied.

Question 9

Why must the finger area be clean and dry?

Model answer

Dust, moisture, oil and contamination can prevent the splice from bonding correctly.

Question 10

Can the same temperature, pressure and time be used for every finger splice?

Model answer

No. Temperature, pressure and time must follow the belt and bonding system specification.

Question 11

Why is cooling important?

Model answer

Cooling allows the splice to stabilise before the belt is moved or the press is removed.

Question 12

Name three causes of finger splice failure.

Model answer

Common causes include wrong finger pattern, poor cutting, poor alignment, contamination, trapped air, wrong materials, incorrect temperature, incorrect pressure or moving the belt too early.

Self-Assessment

Tick each statement once you understand it.

- I understand what a finger splice is.
- I understand where finger splicing may be used.
- I understand that finger splicing is not suitable for every belt.
- I understand the difference between finger splicing and stepped splicing.
- I understand why the finger pattern must follow approved guidance.
- I understand why accurate marking is important.
- I understand why accurate cutting is important.
- I understand why finger roots must not be over-cut.
- I understand why dry fitting is useful.

- I understand why the splice area must be clean and dry.
- I understand why bonding material must be correct and in date.
- I understand why trapped air must be removed.
- I understand why press settings must not be guessed.
- I understand why the splice must cool before handling.
- I understand why final inspection and restart monitoring are required.

Model answer

Trainer Notes

This module should be delivered only as awareness unless the learner is being supervised by a competent belt splicer.

Where possible, use:

- PVC belt sample
- PU belt sample
- Light-duty belt sample
- Finger splice template
- Correct finger splice sample
- Failed finger splice sample
- Bonding film sample
- Adhesive sample
- Hand roller
- Press platen example
- Temperature probe
- Photos of good and poor finger splices

The trainer should show the difference between:

- Correct and poor finger marking
- Clean and contaminated surfaces
- Correct and over-cut finger roots
- Good dry fit and poor dry fit
- Correctly bonded fingers and lifting fingers
- Smooth finished splice and blistered splice

The key message in this module is:

Finger splicing is all about accuracy, cleanliness and alignment.

For self-training, the learner should read each section, review the self-study answers, complete the practical exercise and check their understanding using the knowledge check.

Module Summary

Finger splicing is a belt joining method where matching fingers are cut into both belt ends and bonded together.

It is commonly used on suitable PVC, PU, food, process and light-duty belts where a smooth, flexible joint is required. It may also be used on other specialist belts where approved by the manufacturer.

Finger splicing requires accurate templates, clean cutting, correct bonding materials, controlled press settings, proper cooling and careful inspection.

Most finger splice failures are caused by poor cutting, wrong finger pattern, contamination, poor alignment, wrong materials, incorrect press settings or moving the belt too early.

This module prepares the learner for Module 9, which introduces steel cord splicing awareness.