JPCA Training sheet for hazard prediction

Kiken Yochi Training Sheet | Japan Electronics Packaging and Circuits Association

vol.
01
2008

Introduction

What Kiken Yochi Training is. (KYT: Training for Hazard Prediction)

Kiken Yochi Training aims to detect and to take preventive measures against potential errors or hazards utilizing the Kiken Yochi Training Sheets, which depict the workplace situation with potential accidents and danger.

This training is to develop the workers' attention to maintain safe working conditions, so as to prevent such circumstances.

Application of Kiken Yochi Training (example)

In Kiken Yochi Training, it is important to be able to sense the potential hazards around you, rather than to learn about each type of hazard and its countermeasures.

Personal Use

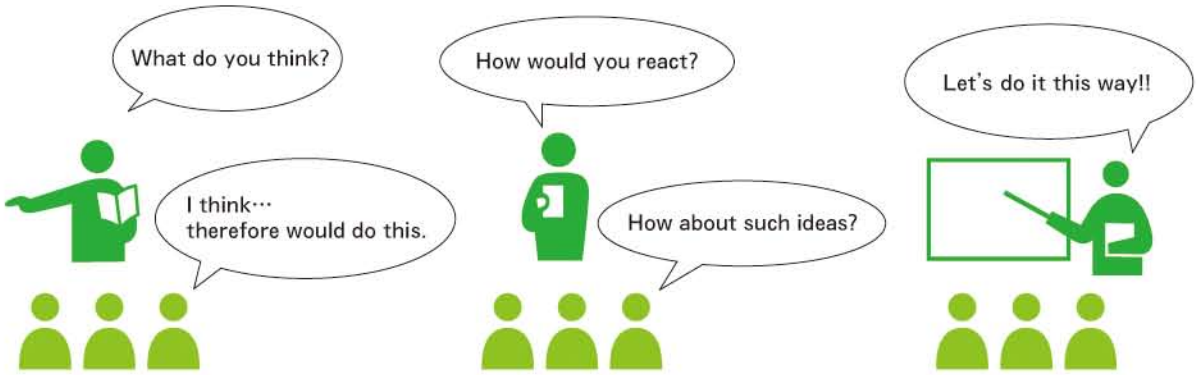
- Before Starting the Week's Work
- Before Starting New Work, or GettingBack to Work that has not been Experienced for Some While
- During a Break
- Before Training Someone Else (as a Trainer)

Group Use

- During Morning/Evening Assemblies
- When New Equipment or Employees have been Introduced
- When Training New Employees

Method of Kiken Yochi Training

It is important to discuss specifics to understand and prevent potential hazards



①Predicting Hazards

What are the existing potential hazards?

②Preventative Measures

How would you react ?

③Confirm Safety Objectives

We will follow Safety Objectives.

Training sheet for hazard prediction

～ Kiken Yochi Training Sheet ～

vol.
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Exchanging Drill Bits

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Scene Drill/Router, etc.

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Starting up from a Choko-tei
(Short Term Breakdown),
(Including Maintenance Operations)

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Replenishing Solution

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Sheet 01

Scene Drill/Routers, etc.

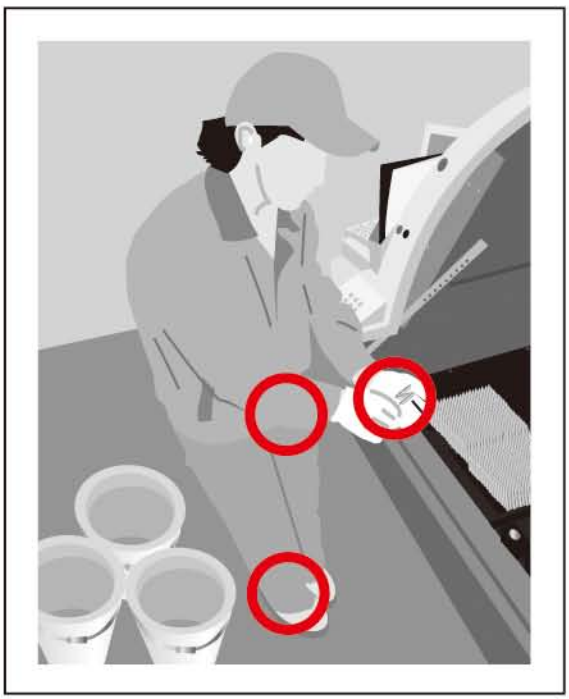
Exchanging Drill Bits

Exchanging Drill Bits

1 Drill/Routers, etc.

Exchanging Drill Bits

Exchanging Drill Bits



Examples of Potential Hazards

- drop the drill bits on foot
- fall down due to collision with equipment, etc
- cut fingers with drill bits

Scene Drill/Routers, etc.

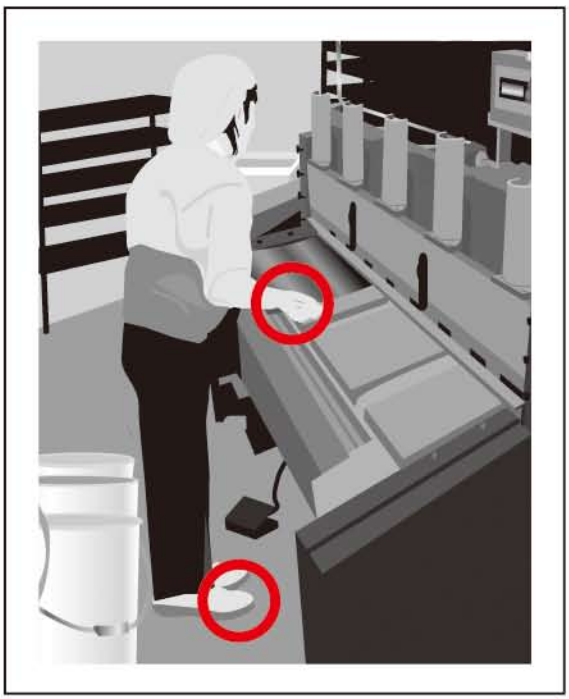
Working on Initial Setups

Setting the Shirring

2 Drill/Routers, etc.

Working on Initial Setups

Setting the Shirring



Examples of Potential Hazards

- get cuts on the hand/fingers with the work
- get your hand injured from operational error with equipment
- fall down due to collision with work, tools, or equipment

Sheet 03

Scene Plating

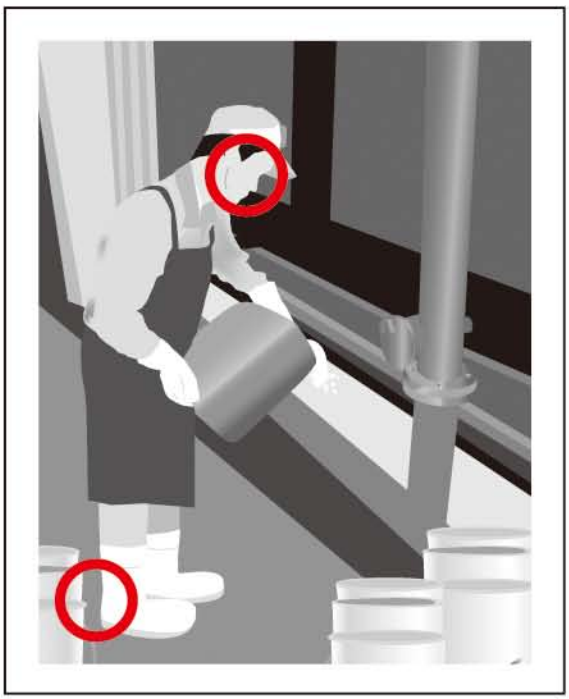
Replenishing Solution

Replenishing Plating Solution into the Equipment

3 Plating

Replenishing solution

Replenishing Plating Solution into the Equipment



Examples of Potential Hazards

- get your body/eye injured from splashing of solution
- fall down due to tumbling on work, tools, equipment, containers, etc.
- fall down due to collision with equipment

Sheet 04

Scene Plating

Starting up from a Choko-tei

(Short Term Breakdown), (Including Maintenance Operations)

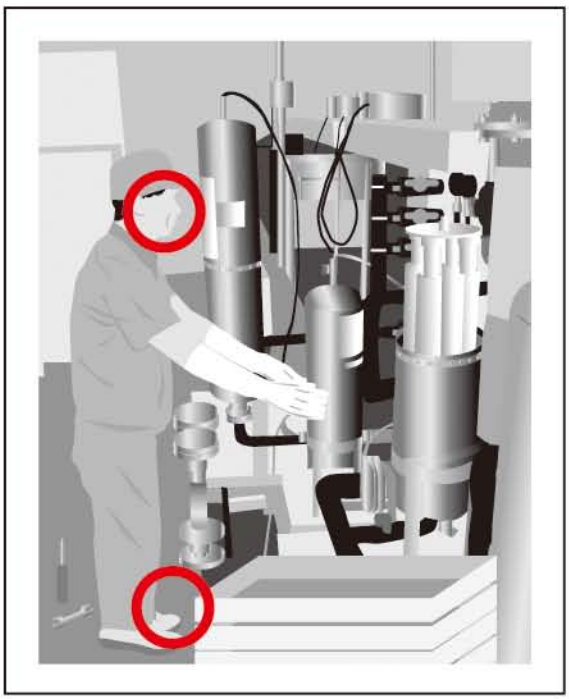
Exchanging Filters during Maintenance Operation

4 Plating

Starting up from a Choko-tei

(Short Term Breakdown), (Including Maintenance Operations)

Exchanging Filters during Maintenance Operation



Examples of Potential Hazards

- get your body/eye injured from splashing of solution
- fall down due to tumbling on the work, tools, equipment, containers, etc.
- fall down due to collision with equipment

Scene Etching

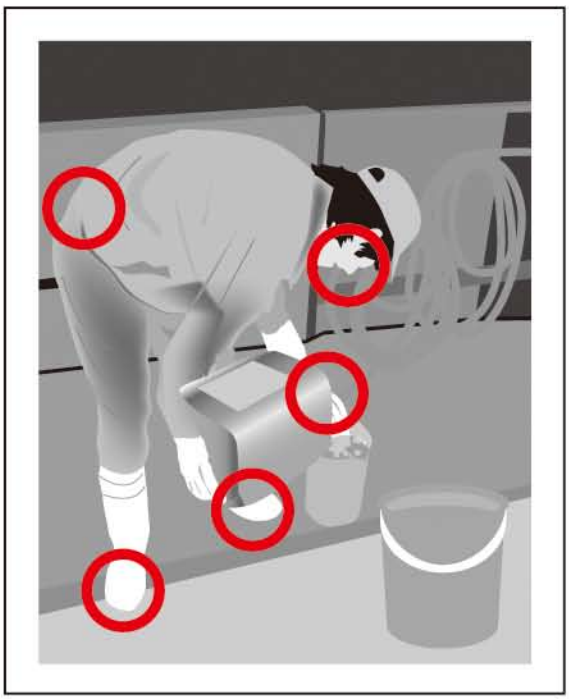
Replenishing Solution

Preparing Etching Solution in Smaller Quantities

5 Etching

Replenishing Solution

Preparing Etching Solution in Smaller Quantities



Examples of Potential Hazards

- get your body/eye injured from splashing of solution
- fall down due to tumbling on work, tools, equipment, containers, etc.
- fall down due to collision with equipment
- hurt lower back
- misstep and fall

Sheet
06

Scene Etching

Starting up from a Choko-tei

(Short Term Breakdown), (Including Maintenance Operations)

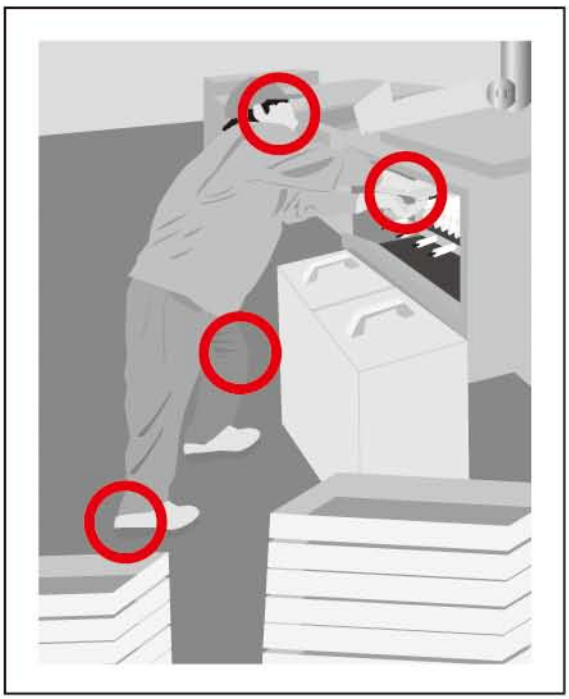
Removing Jammed Products to Start up from a Choko-tei (Short Term Breakdown).

6 Etching

Starting up from a Choko-tei

(Short Term Breakdown), (Including Maintenance Operations)

Removing Jammed Products to Start up from a Choko-tei (Short Term Breakdown.)



Examples of Potential Hazards

- get your body/eye injured from splashing of solution
- fall down due to tumbling on work, tools, equipment, containers, etc.
- fall down due to collision with equipment

Sheet 07

Scene Molding Press

Working on Initial Setups

Mounting Jig on Roller Conveyer to be Processed by the Molding Press.

7 Molding Press

Working on Initial Setups

Mounting jig on roller conveyer to be processed by the molding press.

Examples of Potential Hazards

- get cuts on the hands with the jigs
- drop jigs on foot
- hurt lower back when trying to lift jigs
- fall down due to collision with equipment

Scene Molding Press

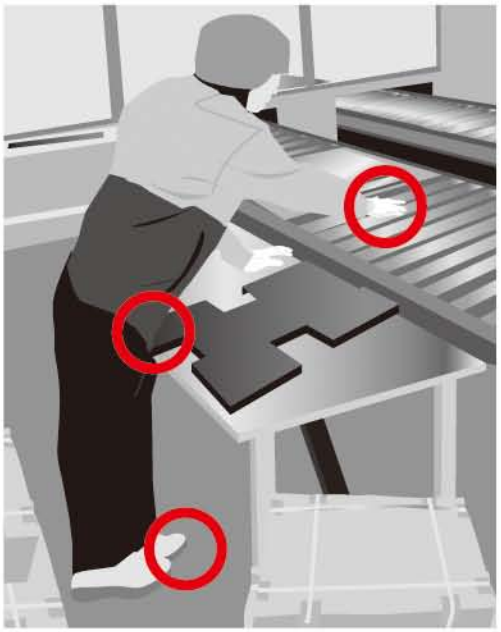
Extracting the Work

Removing Jigs from Roller Conveyer of Molding Press

8 Molding Press

Extracting the Work

Removing Jigs from Roller Conveyer of Molding Press



Examples of Potential Hazards

- get burns from heated work
- get hands/fingers caught between works
- get cuts on the hands with the work or jigs, etc.
- drop work or jigs on foot
- fall down due to collision with equipment

Sheet 09

Scene Punching Press

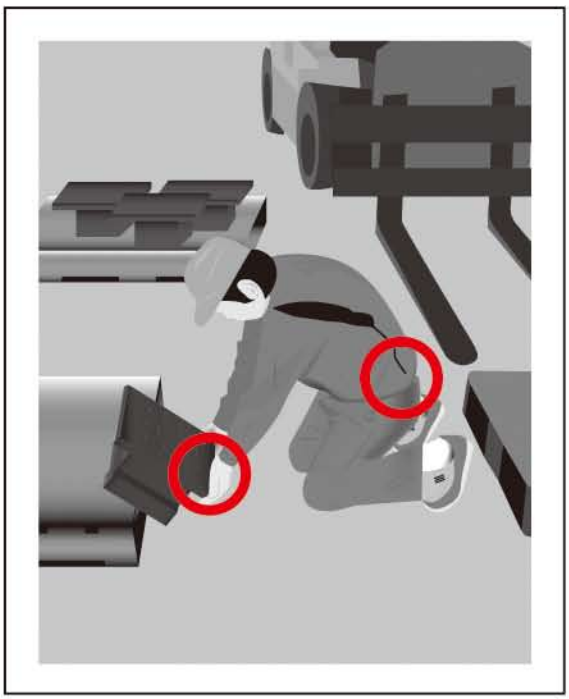
Working on Initial Setups

Lifting up the Metal Mold.

9 Punching Press

Working on Initial Setups

Lifting up the Metal Mold



Examples of Potential Hazards

- get cuts on the hands with the mold
- drop the mold on foot
- hurt lower back when trying to lift the mold
- fall down due to collision with equipment

Scene Punching Press

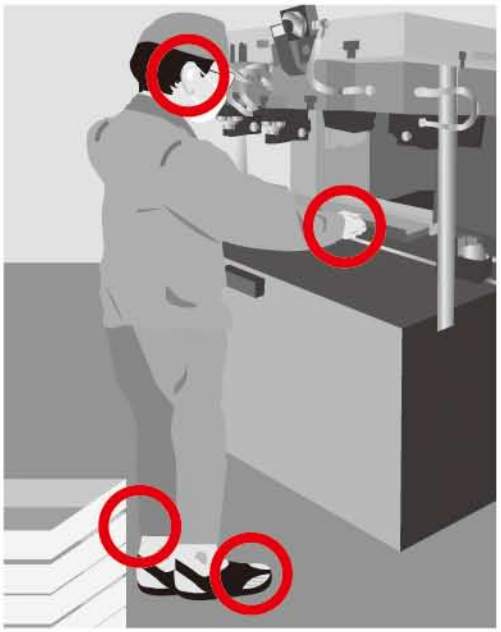
Extracting the Work

Taking the Work out from the Punching Press

10 Punching Press

Extracting the Work

Taking the Work out from the Punching Press



Examples of Potential Hazards

- get cuts on the hands with the work or jigs
- drop work or jigs on foot
- fall down due to collision with equipment
- develop a hearing loss due to failure to wear ear plugs

Sheet 11

Scene Printing

Working on Initial Setups
(Setting the Work)

Setting the Work to the Printing Machine

11 Printing

Working on Initial Setups
(Setting the Work)

Setting the Work to the
Printing Machine

Examples of Potential Hazards

- get caught in the equipment
- cut your hand when cutting the base/protective film
- cut your hand when cutting the base/protective film

Scene Exposure

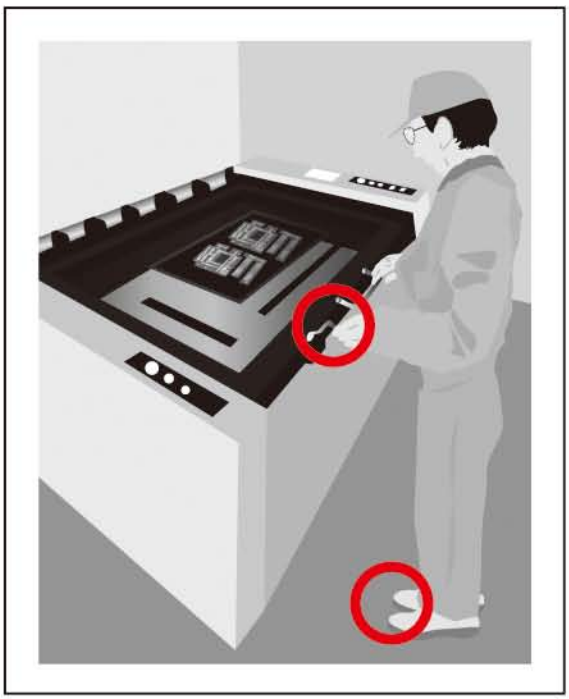
Working on Initial Setups
(Setting the Work)

Setting the Work

12 Exposure

Working on Initial Setups
(Setting the Work)

Setting the Work



Examples of Potential Hazards

- get caught in the equipment
- get cuts on the hands with the work

Scene Exposure

Starting up from a Choko-tei

(Short Term Breakdown), (Including Maintenance Operations)

Trying to take out the work that has jammed, despite in the middle of exposure.

13 Exposure

Starting up from a Choko-tei

(Short Term Breakdown), (Including Maintenance Operations)

Trying to take out the work that has jammed, despite in the middle of exposure.

Examples of Potential Hazards

- get caught in the equipment
- fall down due to collision with equipment
- expose yourself to harmful beams

Scene Exposure

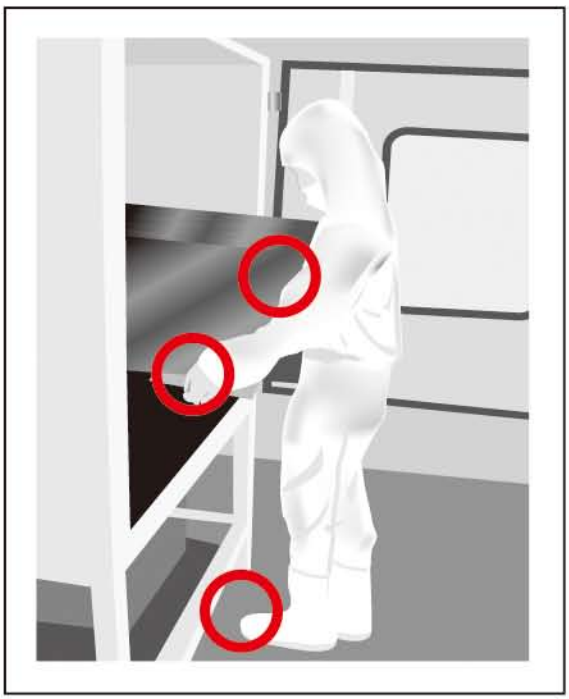
Extracting Work

Taking the Work out and Carrying out

14 Exposure

Extracting Work

Taking the Work out and Carrying out



Examples of Potential Hazards

- get cuts on the hands with the work
- drop the work on foot
- fall down due to collision with the door, etc

Sheet 15

Scene Development

Using Chemicals (Acid, Alkaline)

Filling the Equipment with Chemicals

15 Development

Using Chemicals
(Acid, Alkaline)

Filling the Equipment with Chemicals

Examples of Potential Hazards

- get your body/eye injured from splashing of solution
- inhale gas emitted from the chemicals
- fall down due to tumbling on work, tools, equipment, containers, etc.

Sheet 16

Scene Development

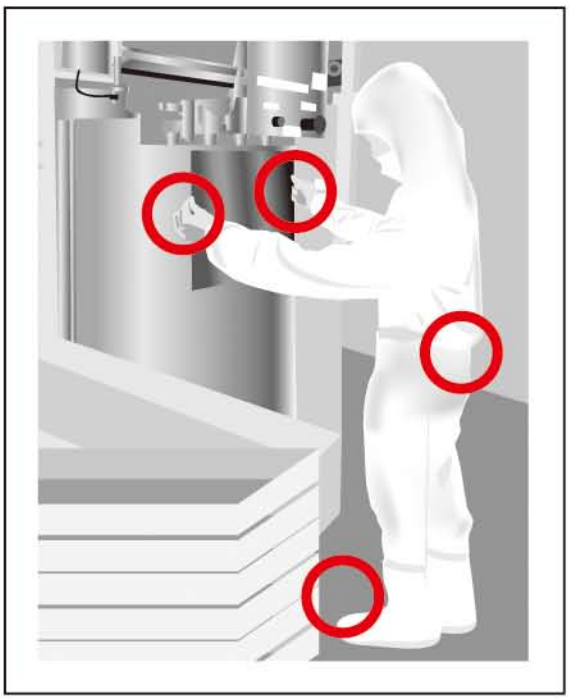
Working on Initial Setups
(Setting the Work)

Setting the Work to Develop

16 Development

Working on Initial Setups (Setting the Work)

Setting the Work to Develop



Examples of Potential Hazards

- get cuts on the hands with the work
- drop the work on foot
- hurt lower back when lifting the work
- fall down due to collision with equipment

Sheet 17

Scene Development

Starting up from a Choko-tei

(Short Term Breakdown), (Including Maintenance Operations)

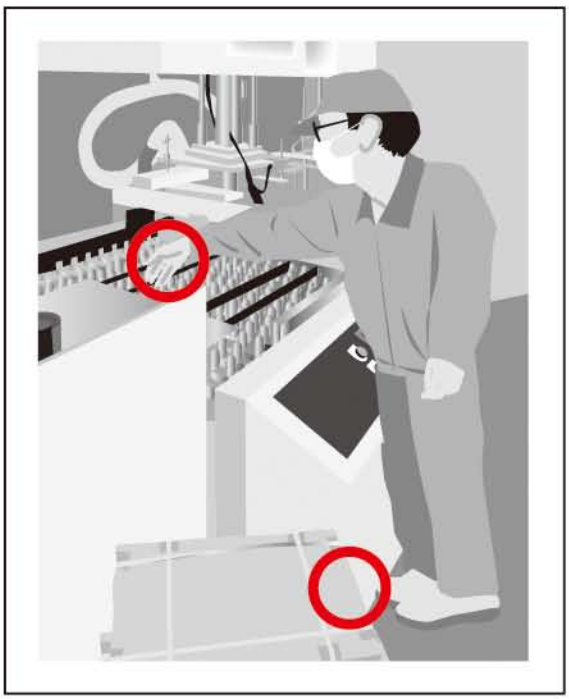
Starting up from a Choko-tei (Short Term Breakdown)
in Circuit Assembly Process

17 Development

Starting up from a Choko-tei

(Short Term Breakdown), (Including Maintenance Operations)

Starting up from a Choko-tei (Short Term Breakdown) in Circuit Assembly Process



Examples of Potential Hazards

- get body/eye injury from splashing of solution
- lose balance from tumbling on work, tools, equipment, containers, etc.
- lose balance from contact with equipment

Scene Moving/Hauling

Using Wagons

Carrying Packages with Wagon

18 Moving/Hauling

Using Wagons

Carrying Packages with Wagon

Examples of Potential Hazards

- get trapped under falling packages due to overload or by tumbling over
- get the wheels caught in gullies, causing the packages to lose balance and collapse
- collide with other workers or to the wall

Scene Moving/Hauling

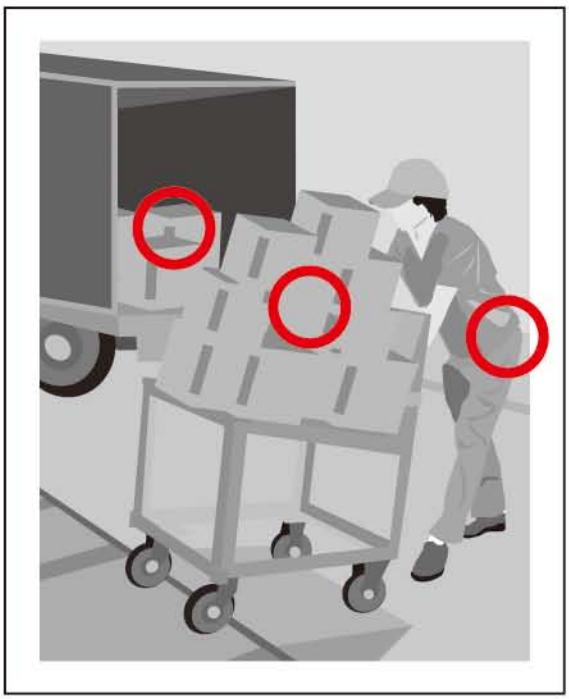
Loading in/out from the Vehicle

Loading in/out from the Vehicle

19 Moving/Hauling

Loading in/out from the Vehicle

Loading in/out from the Vehicle



Examples of Potential Hazards

- get trapped under falling packages
- hurt lower back when lifting packages
- get caught between packages and vehicle
- collide with the vehicle

Sheet 20

Scene Moving/Hauling

Operating Forklifts

Using Forklift for Hauling Packages

20 Moving/Hauling

Operating Forklift

Using Forklift for Hauling Packages

Examples of Potential Hazards

- collide with or encounter other workers, etc
- get trapped under falling packages
- get injured due to overturn of the forklift

Sheet 21

Scene Moving/Hauling

Using Stairs

Descending the Stairs

21 Moving/Hauling

Using Stairs

Descending the Stairs

Examples of Potential Hazards

- drop the package and get injured
- slip off the stairs and fall

Sheet 22

Scene Moving/Hauling

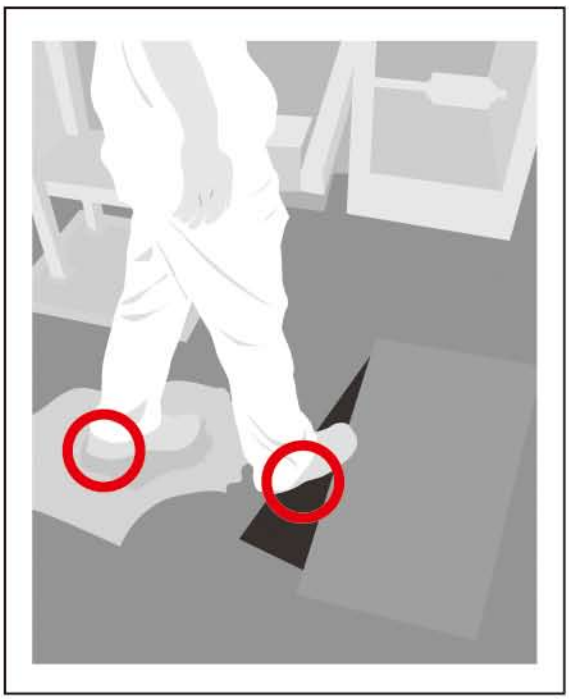
Walking through Corridors

Walking through Corridors

22 Moving/Hauling

Walking through Corridors

Walking through Corridors



Examples of Potential Hazards

- fall down or tumble due to stepping in the ditch
- slip and fall on wet floor

Sheet 23

Scene Working in High Places

Using Stepladders

Using a Stepladder to Reach up

23 Working in High Places

Using Stepladders

Using a Stepladder to Reach up

Examples of Potential Hazards

- fall from the ladder
- get injured due to the falling stepladder
- collide with or encounter other workers while moving on the ladder, and fall

Scene Working on High Places

Using Power Lifts

Mounting Metal Mold on the Power Lift

24 Working in High Places

Using Power Lifts

Mounting Metal Mold on the Power Lift

Examples of Potential Hazards

- slip and fall from the power lift
- fall off from the power lift
- collide with or encounter other workers while operating the power lift
- get your hand caught between the metal mold and the power lift

Sheet 25

Scene Using Blades

Unpacking

Unpacking with Cutter Knife

25 Using Blades

Unpacking

Unpacking with Cutter Knife

Examples of Potential Hazards

- drop the cutter knife on foot
- break the blade and get injured with the broken pieces
- collide with or encounter other workers while moving with the cutter knife in hand
- cut the other hand during use

Sheet
26

Scene Using Blades

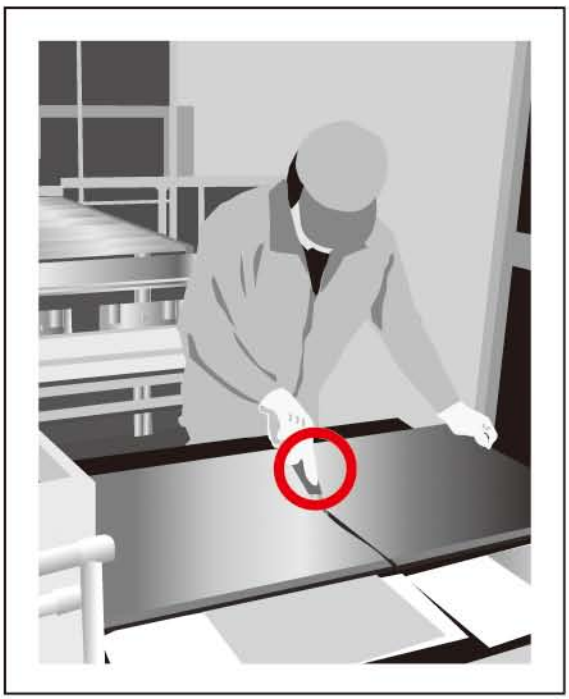
Cutting Sheets/Films

Cutting Sheet with Cutter Knife

26 Using Blades

Cutting Sheets/Films

Cutting Sheet with Cutter Knife



Examples of Potential Hazards

- drop the cutter knife on foot
- break the blade and get injured with the broken pieces
- collide with or encounter other workers while walking with the cutter knife in hand

Sheet 27

Scene Using Blades

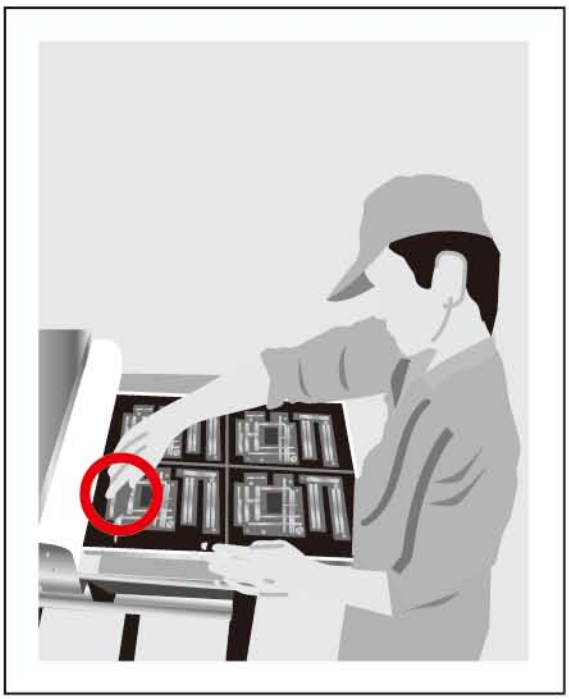
Working with Serigraphs

Cutting the Cover Sheet with Cutter Knife while Working with Serigraph

27 Using Blades

Working with Serigraphs

Cutting the Cover Sheet with Cutter Knife while Working with Serigraph

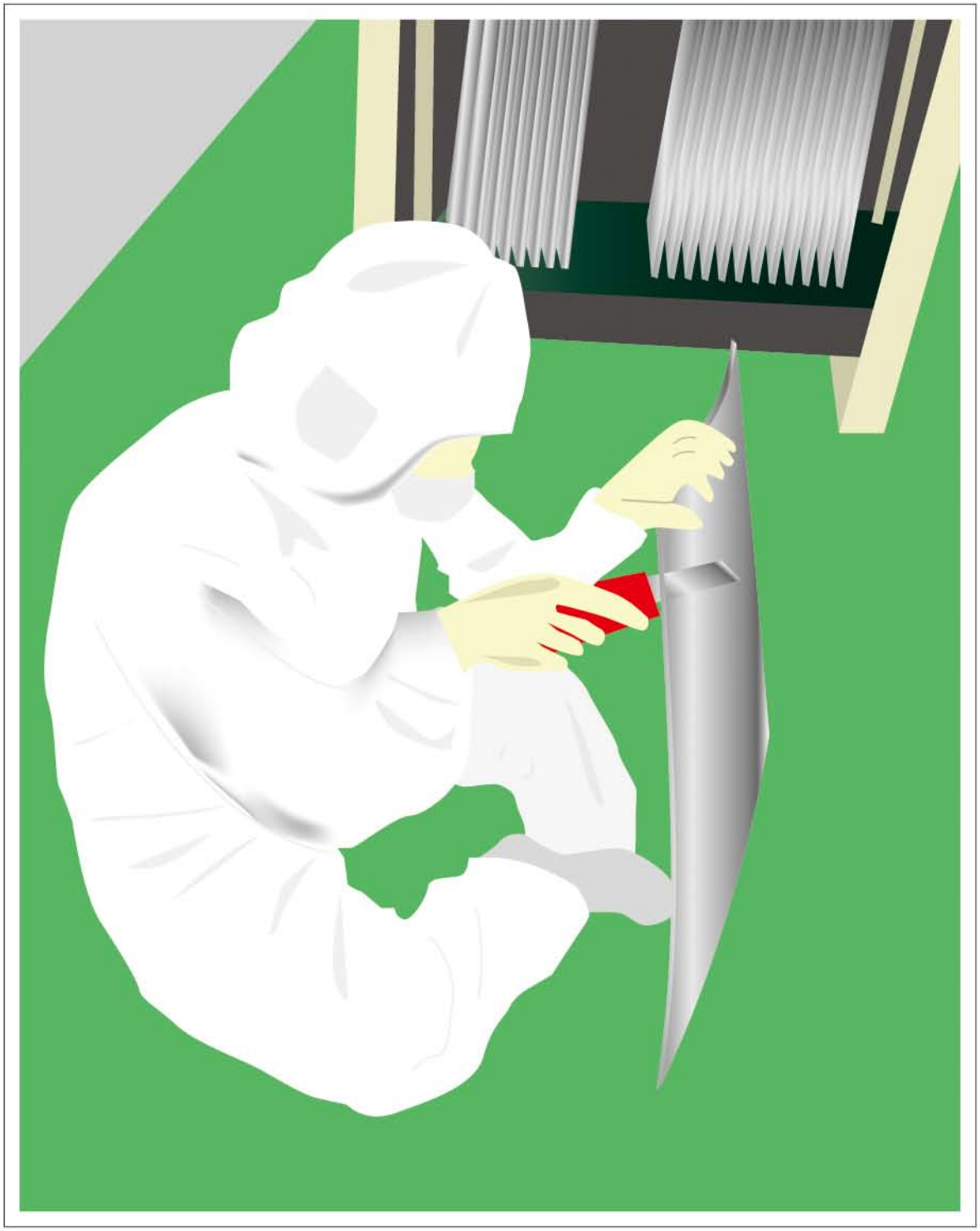


Examples of Potential Hazards

- cut your hand with the cutter knife
- drop the cutter knife on foot and get injured
- break the blade and get injured with the broken pieces
- collide with or encounter other workers while walking with the cutter knife in hand

Scene Using Blades

Cutting Green Mats

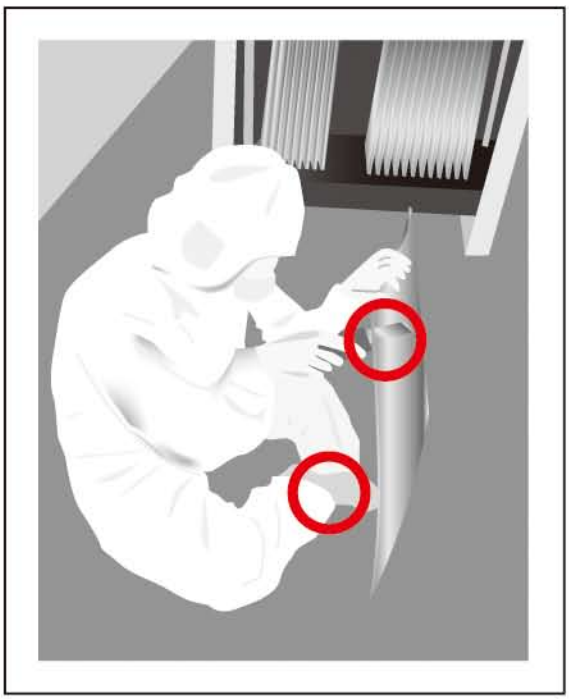


Cutting Green Mat with Cutter Knife

28 Using Blades

Cutting Green Mats

Cutting Green Mat with
Cutter Knife



Examples of Potential Hazards

- drop the cutter knife on foot and get injured
- get injured during cutting into downwards
- cut your hand during use
- break the blade and get your hand stuck with the broken pieces

Scene Using Blades

Unpacking

Unpacking with the Scissors

29 Using Blades

Unpacking

Unpacking with the Scissors

Examples of Potential Hazards

- drop the scissors on foot and get injured
- get injured while cutting towards yourself
- collide with or encounter other workers while moving with the scissors in hand
- cut your hand during use

Sheet
30

Scene Using Blades

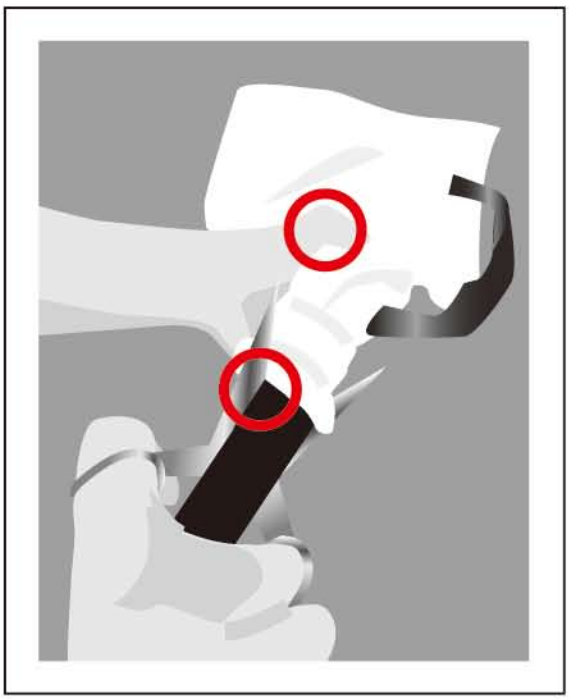
Cutting Hose Band Sheets

Cutting Hose Band Sheets

30 Using Blades

Cutting Hose Band Sheets

Cutting Hose Band Sheets



Examples of Potential Hazards

- slip scissors and shank your hand
- get injured when cutting towards yourself
- collide with or encounter other workers while walking with the scissors in hand
- cut your hand during use