

Training Within Industry

JI - Job instruction

J Cards

HOW TO INSTRUCT

Step 1 – PREPARE THE WORKER

- Put the person at ease
- State the job
- Find out what the person already knows
- Get the person interested in learning the job
- Place the person in the correct position

Step 2 – PRESENT THE OPERATION

- Tell, show and illustrate one **Important Step** at a time
- Do it again stressing **Key Points**
- Do it again stating **reasons for Key Points**

Instruct clearly, completely and patiently, but don't give them more information than they can master at one time

Step 3 – TRY-OUT PERFORMANCE

- Have the person do the job—correct errors
- Have the person explain each **Important Step** to you as they do the job again
- Have the person explain each **Key Point** to you as they do the job again
- Have the person explain **reasons for Key Points** to you as they do the job again

*Make sure the person understands
Continue until you know they know*

Step 4 – FOLLOW UP

- Put the person on their own
- Designate who the person goes to for help
- Check on the person frequently
- Encourage questions
- Taper off extra coaching and close follow-up

**IF THE WORKER HASN'T LEARNED,
THE INSTRUCTOR HASN'T TAUGHT**

004Rev04

Jl Job Instruction

HOW TO HANDLE A PROBLEM

DETERMINE OBJECTIVES

STEP 1 – GET THE FACTS

Review the record.
What policies, rules, and regulations apply?
Talk with individuals concerned and get opinions and feelings.

Be sure you have the whole story

STEP 2 – WEIGH AND DECIDE

Fit the facts together and consider their bearing on each other.
What possible actions are there?
Check practices and policies.
Check each action against objectives weighing effect on individual, group, and production.
Select the best actions.

Don't jump to conclusions

STEP 3 – TAKE ACTION

Should I handle this myself?
Who can assist me?
Should I refer this to my supervisor?
Consider proper time and place.
Explain and get acceptance.

Don't pass the buck

STEP 4 – CHECK RESULTS

How soon and how often will I check?
Watch for changes in output, attitudes, and relationships.
Did my actions help production?

WERE MY OBJECTIVES ACCOMPLISHED?

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JR Job Relations

**How to Improve
JOB METHODS POCKET CARD**

A practical plan to help you produce
**GREATER QUANTITIES of QUALITY
PRODUCTS in LESS TIME**, by making the
**best use of manpower, machines and
materials, now available.**

Step 1 – BREAK DOWN the job

1. List all details of the job exactly as done by the Present Method.
2. Be sure details include all:
 - Material Handling
 - Machine Work
 - Hand Work

Step 2 – QUESTION every detail

1. Use these type questions:
 - WHY is it necessary?
 - WHAT is its purpose?
 - WHERE should it be done?
 - WHEN should it be done?
 - WHO is best qualified to do it?
 - HOW is the 'best way' to do it?
2. Also question the:
 - Materials, machines, equipment, tools,
 - product design, layout, work-place, safety,
 - housekeeping.

JM Job Methods

JOB SAFETY POCKET CARD

The meaning of safety is to consider measures and take action **BEFORE** a safety incident. It is **NOT** to handle the aftermath.

STEP 1 – SPOT THE CAUSES OF DANGER

Check the situation. Check the record. Talk to people. Consider both things and people. Check regulations and standards. Always be aware. Foresee risks of incidents and injuries

Dig down deep

STEP 2 – DECIDE ON COUNTERMEASURES

Fit the causes together; consider their bearings on each other. Ask people who have detailed knowledge. Think of several countermeasures. Make sure of alignment with policies, regulations and standards. Decide on back-up measures, too.

Are you yourself the cause?

STEP 3 – ENFORCE COUNTERMEASURES

Can you handle this yourself? Do you need support from your supervisor? Whose cooperation should you get?

Put into effect immediately

STEP 4 – CHECK RESULTS

Check and check again. Was it carried out for certain? Were the causes eliminated? *Have any new causes arisen?*

Safety Incidents Are Caused – Break the Chain

JS Job Safety

TWI HELPED WIN WWII

We Can Do It!



With a gun to their heads (literally), the TWI founders had to find solid principles of human nature that:

- Work every time
- Inspire dedication
- Create performance results
- Build leadership
- Strengthen teamwork

If the worker hasn't learned the
instructor hasn't taught!



Job Instruction Card

JOB INSTRUCTION POCKET CARD

How to Get Ready to Instruct

Before instructing people on how to do a job:

1. HAVE A TRAINING TIMETABLE

Determine **who** to train...

On **what** tasks...

By **what** date.

2. BREAK DOWN THE JOB

- List Important Steps
- Pick out key points and reasons
- Safety is always a key point

3. HAVE EVERYTHING READY

Have the right equipment, tools, materials, and supplies – everything needed to instruct

4. ARRANGE THE WORK AREA

Just as in actual working conditions



JOB

How to Get Ready to Instruct

STEP

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STEP

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- Ha
- PC
- Mak
- Cont

STEP

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- Ch
- En
- Taj

Have a Timetable -

how much skill you expect him to have, by what date.

Break Down the Job -

list important steps.

pick out the key points. (Safety is always a key point)

Have Everything Ready -

the right equipment, materials, and supplies.

Have the Workplace Properly Arranged -

Just as the worker will be expected to keep it.

Job Instruction Training

TRAINING WITHIN INDUSTRY

Bureau of Training

War Manpower Commission

KEEP THIS CARD HANDY

GPO 16-35140-1



TRAINING WITHIN INDUSTRY

Title		
I/N	Customer Name	Date

Tools needed:

Description of the Training:

Step	Review	Process Step	Key Point	Reasons
		A logical segment of the operation when something happens to advance the work.	Anything in a step that might- 1. Make or break the job 2. Injure the worker 3. Make the work easier to do. I.e. "Knack" "Trick". Special timing, bit of special information	Reasons for the key points
0	<input type="checkbox"/>	-O- Anything that repeats or safety	1.	1.
1	<input type="checkbox"/>		1.	1.
2	<input type="checkbox"/>		2.	2.
3	<input type="checkbox"/>		3.	3.
4	<input type="checkbox"/>		4.	4.
5	<input type="checkbox"/>		5.	5.
6	<input type="checkbox"/>		6.	6.
7	<input type="checkbox"/>		7.	7.
8	<input type="checkbox"/>		8.	8.
9	<input type="checkbox"/>		9.	9.
10	<input type="checkbox"/>		10.	10.
11	<input type="checkbox"/>		11.	11.
12	<input type="checkbox"/>		12.	12.
13	<input type="checkbox"/>		13.	13.

REFERENCE MATERIALS

<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
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Step	Review	Process Step	Key Point	Reasons
		A logical segment of the operation when something happens to advance the work.	Anything in a step that might- 1. Make or break the job 2. Injure the worker 3. Make the work easier to do. I.e. "Knack" "Trick". Special timing, bit of special information	Reasons for the key points
	<input type="checkbox"/>	-O- Anything that repeats, Safety or Calibration	1. Check k card for information	1. This is done for safety and cleanliness

Desiccant Dryers

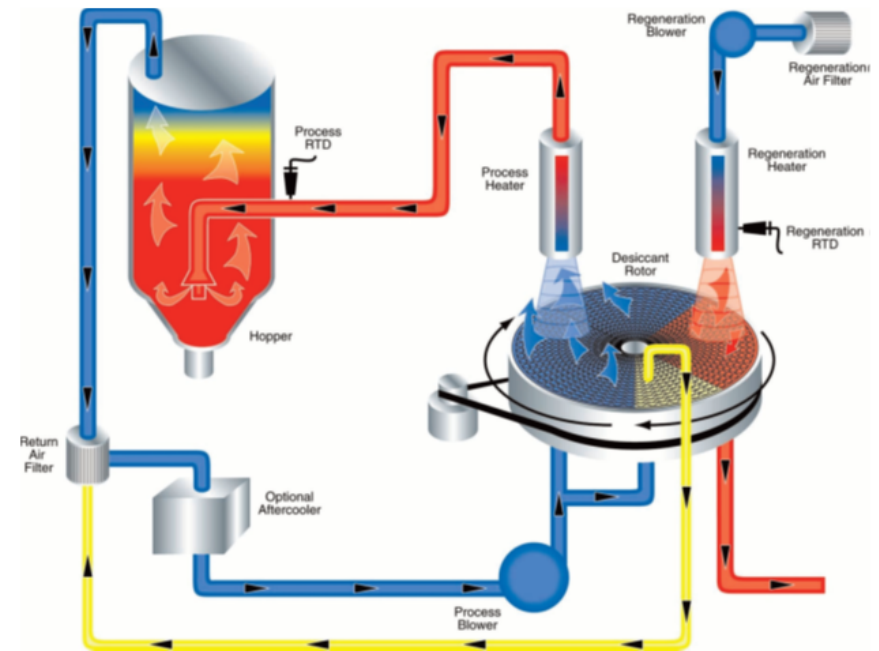
Tools needed: Tote of desiccant

Description of the Training: Training is on the operation of a desiccant dryer and how they remove moisture from a hygroscopic resin.

moisture from a hygroscopic resin.

Step	Review	Process Step	Key Point	Reasons												
1	<input type="checkbox"/>	Air drying	<ul style="list-style-type: none">Air is blown through the desiccant stripping the moisture from the air (Show desiccant)The air is heated to the material suppliers specified temperature (typically 150 – 375F) (What temp do we dry ABS and PC)	<ul style="list-style-type: none">The temperature of the air before it enters the desiccant should be below 125 F. For maximum efficacyThis information can be found on the BOM <table><tr><th>Polymer</th><th>Drying Temp., F</th><th>Softening Temp., F</th></tr><tr><td>ABS, SAN, ASA</td><td>170-180</td><td>200-220</td></tr><tr><td>Acrylic</td><td>170-180</td><td>200-220</td></tr><tr><td>Polycarbonate</td><td>250</td><td>290</td></tr></table> <ul style="list-style-type: none">	Polymer	Drying Temp., F	Softening Temp., F	ABS, SAN, ASA	170-180	200-220	Acrylic	170-180	200-220	Polycarbonate	250	290
Polymer	Drying Temp., F	Softening Temp., F														
ABS, SAN, ASA	170-180	200-220														
Acrylic	170-180	200-220														
Polycarbonate	250	290														
2	<input type="checkbox"/>	Air flow	<ul style="list-style-type: none">Hot dry air is blown in the bottom of the hopper raising the temperature of the pellets to break the bond between the pellets and the water	<ul style="list-style-type: none">This temperature will make the mat'l release the moisture and then the air can take it to the desiccantThought the filter for the larger particulates and then thought the after cooler then the desiccant												
3	<input type="checkbox"/>	Return Air	<ul style="list-style-type: none">The air is returned to desiccant where it is prepared for another pass through the drying hopperDew point of the air after going through the desiccant	<ul style="list-style-type: none">If the air temp is over 125 F the moisture will not release from the mat'l as wellThe industry standard is -40F any higher than that should cause you to look over the system												
4	<input type="checkbox"/>	Time	<ul style="list-style-type: none">The time is given to us from the manufacture for the Min time it will take to dry a mat'l	<ul style="list-style-type: none">Time is one of the 3 things you need to dry mat'l (What are the other 2, Air, Temp)Mat'l can be over dried as well 8 hour may be the max need to add up the time as well												

Desiccant Dryer Operation



Simulation



video

Folding a T-shirt

I/N 0001

Customer Name Gary

Date 2-13-2020

Tools needed: T shirt

Description of the Training: LEI way to fold a t shirt

Review	Process Step	Key Point	Reasons
	A logical segment of the operation when something happens to advance the work.	Anything in a step that might- 1. Make or break the job 2. Injure the worker 3. Make the work easier to do. I.e. "Knack" "Trick". Special timing, bit of special information	Reasons for the key points
<input type="checkbox"/>	-O- Anything that repeats or safety	1. N/A	1. N/A
<input type="checkbox"/>	Lay Flat	1. Facing up with the top to the right	1. Consistent starting point
<input type="checkbox"/>	Pinch top	1. Half way between the collar and the sleeve 2. Thought both layers 3. Left hand make a vertical crease	1. Proper alinement 2. Hold the shrirt togetht 3. Visual aid
<input type="checkbox"/>	Pinch middle	1. Left hand half way down vertical crease	1. Proper alignment
<input type="checkbox"/>	Pinch bottom	1. Right hand over left hand along vertical crease	1. Proper alinement
<input type="checkbox"/>	Uncross arms	1. Holding pinches and shake out	1. Remove wrinkles
<input type="checkbox"/>	Flop and fold	1. Facing down 2. Fold over the exposed sleeve	1. Expose the final fold 2. Completes the fold

REFERENCE MATERIALS

<input type="checkbox"/>	LEI https://www.youtube.com/watch?v=dNV4mOK5gW4
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004Rev04

Your turn to make a
TWI
break down

How to use TWI

1. We need to train the people that will be doing the training
2. Train people that have worked at your company for several years, get their buy in and have them involved with making the job breakdowns
3. Train new employees
4. If there is Standard Work, WI's or SOP's, read them prior to making TWI documents - TWI should align with your policies
5. When you have a customer return, the first thing you should do is review your training
6. If you make a change to your job breakdown, only train the changes, don't re-train the entire break down
7. Breakdown the work into 15 to 30-minute segments or 6 to 8 steps

