



PDHonline Course G373 (2 PDH)

Writing Effective Work Instructions

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2020

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TABLE OF CONTENTS

INTRODUCTION	Page 3
BENEFITS	Page 4
FORMAT	Page 5
DIGITAL VS WRITTEN	Page 5
RECOMMENDED ELEMENTS	Page 6
Header	Page 6
Purpose	Page 6
Scope	Page 7
Responsibilities	Page 7
Definitions	Page 7
Supporting Documents	Page 7
Specialized Equipment Needed	Page 8
Safety Equipment Needed	Page 8
Safety Precautions	Page 8
Instructions	Page 9
Special Instructions and Comments	Page 9
SUMMARY	Page 9
APPENDIX	Page 10

INTRODUCTION:

Work Instructions (WI) are detailed steps in a process an employee can follow each time he or she performs a task. They provide critical and important links between engineering and manufacturing. Work instructions provide information relative to the assembly of components and/or the methodology for performing a process. Work Instructions organize steps in a logical format so an employee can follow independently. Procedures for a process can be very long with multiple steps, and Work Instructions enable removing unnecessary detail so an employee can better understand the overall process. The very same definition applies for non- assembly processes. Let us now take a look at several cases in which a work instruction would be extremely helpful.

- Assembly of an oven door used on a self-clean (pyrolytic) oven
- Proper methodology for conducting an MRI
- Instructions needed for packaging a laptop
- Instructions for properly sterilizing surgical instruments
- Methodology and steps required for application of heat tiles to a re-entry vehicle
- Assembly of an airbag into the steering column of an automobile
- Instructions needed for proper assembly of a Pratt and Whitney V2500 engine used on an Airbus A320
- Instructions on how to load fuel and oxidizer into tanks prior to the launch of a missile
- The assembly process for a flat plate solar collector

Work instructions are definitely different than “users’ manuals” or installation instructions. They address the fundamentals of assembly and process and are **NOT** available to the public. They are strictly for internal use only.

This document addresses the elements in a proper WI and the importance of each relative to the total effort. There are several “generalities” that may be stated at this time. These are as follows:

1. The work instruction can form the “backbone” around which training may be given. The very best approach is to use the WI as a primary training tool when describing tasks to be accomplished. Never give a work instruction to an employee without explanation. Discussion of the work to be done is best accomplished using the WI as the guide.
2. Record every step in the process. Every stage of the task should be represented by a bullet point. Verbal instructions certainly complement the training and remain a necessity.

3. Use photographs as much as possible to support written instructions. If an employee can look at the work instruction photograph AND hold the item or items the photographs depicts, some questions can be eliminated quickly.
4. Use language that is straightforward and devoid of slang and regional terminology. Only use terminology defined in the document. Do not use acronyms, abbreviations and confusing technical terms unless defined in the document.
5. If your workforce does not speak English, write the instructions in English AND their native language. (NOTE: This is not uncommon. For years the country of Canada has required bi-lingual, French and English, text.)
6. "Test" the work instruction prior to issuing. Let individuals read the document, follow the instructions and perform the tasks as given by the text. More than one individual should be allowed to read and follow the instructions and provide comments. Allow enough time to make all necessary corrections.
7. Check the document for legalities, making sure it cannot be used against you in court.
8. Revise the document as needed relative to modifications and revisions to product changes. If the product changes, examine the WI to make sure updates are necessary and if so, make them.
9. Use a consistent readable format.
10. Use a font type and size that allows for easy reading
11. To be effective, work instructions MUST be accessible. Generally, they are placed in the work cell so all can read and refer to.
12. Unfortunately, most companies write work instructions to the 5th grade level. The level of complexity is dependent upon the education and experience of the workforce.

BENEFITS:

There are several benefits to effective work instructions, as follows:

- Capture employee knowledge so that it becomes a corporate asset
- Enhanced productivity through reductions in "lost motion"
- Assurance that proper tools and safety equipment are being used in assembly process
- Maintenance and improvement of quality through standardization of methodology
- Reductions in waste
- Reductions in cost

- Reductions in variability due to change in operators over multiple shifts
- Easier training of new operators
- Reductions in injuries and strain
- Provision of a baseline for improvement activities
- Provide adherence to ISO requirements
- Captures information for a task that is performed infrequently
- Maintains continuity for a job in which employee turnover is considerable.
- Work instructions are mandatory for ISO certification

FORMAT:

Before we get into the actual discussion of producing a work instruction, let's talk about the format of the document. In my opinion, finding the right format and sticking with it, is very important when implementing a WI system. You may wish to have a company-wide format or one specific to a particular department, but consistency is a must, if for no other reason it simplifies training. In the appendix to this course, there are examples of three basic formats: 1.) Tabular (NASA), 2.) Excel and 3.) Linear, using a word document. The important thing is to choose a readable format that can be understood relative to product complexity and overall ability of those doing the work. Choose a format that allows insertion of digital photographs and provides a logical flow when discussing the actual work to be accomplished. If at all possible, avoid "flashbacks" that instruct the worker to "see page 11, paragraph 3 in this document". Going back to previous text is very confusing. It is not uncommon for a company to ask the worker to indicate the best format or recommend changes to an existing format. After all, they are doing the work.

Regardless of format, there are several "blocks" of information that should be included in every WI. These blocks represent the basic and minimum information a worker needs prior to performing a task.

DIGITAL VS WRITTEN:

The work instruction will be written and formatted using a PC—no doubt about that. Obviously this is the quickest manner in which to embed the photographs you will be using and make corrections and re-writes quickly. The question becomes how best to control the document making absolutely sure the latest revision level gets to the work cell or process station. This would seem to negate the logic of a printed document but placing PCs in front of each worker is not very practical and is expensive. You need to designate an individual who is solely responsible for communication between the writer of the revision and the employees on the line—the ones who do the work. That person removes the printed version of the last revision and places the new revision in its place. One person, probably with a backup.

Let us look now at the various elements necessary for a complete work instruction. These are given below.

RECOMMENDED ELEMENTS TO EFFECTIVE WORK INSTRUCTIONS:

We begin with a “header” that identifies the document. The following items are recommended as minimum:

Document Identifiers; i.e. Header:

1. **Company**
2. **Document Control Number**—Assigning a document control number makes it easier to apply a “filter” so quick access can be accomplished. In cases where many WIs exist, this becomes a great aid to the document control specialists. You can filter in ascending order or descending order to find the document needed at the moment.
3. **Document Revision Number**—The REV number defines the latest revision to the product or process. In cases where a new document number is assigned when changes are made, no revision number is necessary.
4. **Date of Implementation**
5. **Document File Name**
6. **Author of Document**
7. **Approving Individuals**
8. If the work instruction is particular to a specific department, indicate that on the header.

(NOTE: The header must appear on each page of the WI. If you wish to insert a blank page for expansion of the document at a later date, indicate BLANK PAGE and number that page accordingly.)

Purpose:

This is where you define the work to be accomplished. Be specific! Be detailed! One example describing the purpose of a WI is as follows:

“The purpose of this document is to provide guidance and instructions for assembly of GE Backsplash, model number WB27K10157, Revision 4. Drawing number 164D3827G009 provides an exploded parts breakdown and a bill of materials indicating those components necessary for that assembly.”

(NOTE: You may list all drawing numbers and component part numbers in the Associated Documents section of the work instruction. I do recommend this reference be given some place in the document, preferably in the very first part of the WI. This will give an opportunity for checking and identifying individual parts before continuing to read the instruction.)

Scope:

The scope basically indicates what is to be accomplished. “These instructions cover component assembly, inspection, packaging and inventory of WB27K10157, Revision 4.” List every thing to be done in the work cell or the process.

Responsibilities:

If you wish, you can include a flow chart that shows the chain of command; i.e. plant manager, quality supervisor, line supervisor, assembly operator, etc. Of course, I would indicate the function and not the name of the individual. Some companies add phone numbers and even e-mail addresses. It is nice for an employee to know who is in charge and more importantly, who to call for questions and decisions.

Definitions:

This section is one of the most important sections in the work instruction. Its sole purpose is to eliminate ambiguity. Any abbreviations or acronyms used in the document should be defined here; the purpose being to eliminate doubt and define what component or what process the text is referencing. It is not uncommon for individuals to associate different names with the same component or process. I definitely recommend this potential problem be eliminated—up front. I also recommend this section be discussed with employees during the training session.

Supporting Documents:

Any supporting documents that may be necessary to solve a problem or answer questions during operation relative to the WI should be listed here. Examples might be:

1. The quality control document (manual) defining facility operating procedures.
2. Hazardous material data sheets. (Mandated by OSHA when needed)
3. Documents noting critical to quality dimensions for individual components.
4. Any applicable third party test standards; i.e. UL, CSA, IEC, National Electric Code, etc.
5. Applicable ISO documents.

We do not wish to burden an employee with unneeded supporting documents but availability, if needed, is important. As you know, in the life of an assembly or process, questions do arise, sometimes on a daily basis.

Specialized Equipment Needed:

This is where you list items and equipment needed for the actual operation. The list may include the following:

1. Specific dies
2. Fixtures
3. Hand tools
4. Measuring devices
5. Test equipment
6. Recording equipment
7. Work cell designations. (The area in which the work is to be accomplished.)
8. Mechanical devices such as robots, lasers, presses, etc.

I recommend you be specific. If the operation requires a 35 ton OBI (open-back inclined) press, indicate that fact but also list the press number if available.) The important thing here is to remove doubt on an employee's part prior to initiation of the task.

Safety Equipment Needed:

List all personal protection equipment (PPE) required; i.e. gloves, glasses, steel-toed boots, ear plugs, hard hat, protective aprons, etc. During the training phase, make sure your employees know what is expected and where to get the equipment. Also, make sure the PPE is usable and not damaged in any way. **This is a must.**

Safety Precautions:

All safety precautions must be listed prior to initiation of the work itself. Things such as:

1. Do not lift more than 40 pounds
2. Be aware of sharp edges
3. Interface "X" may be a "pinch-point"—caution must be taken
4. Chemicals "A" and "B" may cause skin damage—always wear gloves when coming in contact with them.
5. Spills must be cleaned up when occurring.

Make sure there are no questions regarding PPE and safety measures to be taken during operation and /or assembly. Make sure, prior to initiation of the operation, all exhaust fans, air handlers, evacuation pumps, fire extinguishers and related safety equipment are operating properly and available if needed.

THIS IS CRITICAL.

Instructions:

This is where you tell the operators how to do the job. Again, a picture is worth a thousand words, so use photographs as much as possible to support the text and detail the progressive steps in the process. I would also make sure the WI indicates the following:

1. Bill of materials; i.e. ;part number and quantity needed for completion of the task
2. List of literature to be included
3. Packaging; i.e. bar codes, RFID attachments, etc.
4. All assembly sequences
5. Any special storage instructions for assembled product
6. If a work order is necessary, have it prior to initiation of the process. Have the workers check to make sure that document is available.
7. Indicate in the WI the disposition of any off-quality components
8. Highlight any inspection and / or test necessary during the operation or after the operation.

Special Instructions and Comments:

This last block is where you indicate instructions that do not fit the categories above. It is basically a “catch-all” and may not be necessary relative to the total WI. This, of course, is your call.

SUMMARY:

I have included with this training course several examples of work instructions being used in various industries today. The best rule—use one that suits your purposes AND provides the best training for your personnel. Take time to ask your employees, the ones who will do the work, to comment on the document. TEST THE TEXT, GRAPHICS AND FORMAT TO SEE IF IT IS READABLE. I would run this test multiple times using different individuals. Get their feedback. Make the necessary modifications when necessary. This should be a “living document”.

APPENDIX

- Figure 1 Template showing example of “Linear Work Instruction”
- Figure 2 Template showing example of “Tabular Work Instruction (NASA)”
- Figure 3 Template showing example of “Excel Work Instruction”

NOTE: Figures 1,2 and 3 give examples of possible templates that may be used to decided upon the best format. Figures 4,5 and 6 give actual work instructions now used to give instruction.

- Figure 4 Example of Work Instruction for Spray Booth
- Figure 5 Example of Work Instruction for Laser Etching Control Panels
- Figure 6 Example of Work Instructions for Staffing Requirements

Document Type: Work Instruction

ISO Reference(s):

Element Owner: *Plant Manager* _____

Approver: Management Representative _____

File Name: C:\My Documents\Univeral\Q_system\BlankWK.do

Date:

Part Number:

Revision Number

1.0 PURPOSE:

2.0 SCOPE:

3.0 RESPONSIBILITIES:

4.0 DEFINITIONS:

5.0 ASSOCIATED DOCUMENTS:

6.0 SPECIALIZED EQUIPMENT:

7.0 SPECIAL SAFETY PRECAUTIONS:

8.0 INSTRUCTIONS:

9.0 SPECIAL INSTRUCTIONS & COMMENTS:

FIGURE 1—LINEAR WORK INSTRUCTION TEMPLATE

 Independent Verification & Validation Program	Work Instruction Template	T2003 Revision: D Effective Date: January 27, 2010
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Verify that this is the correct version before use.

APPROVAL SIGNATURES		DATE
Gregory Blaney (original signature on file)	IMS Representative	01/27/2010

REVISION HISTORY			
Revision	Description of Change	Author	Effective Date
Basic	Initial Release – conversion of IVV 05-3 to T2003	Paige Eckard	04/13/2007
A	Updated process flow diagrams to align with Facility Management paradigm	Stephanie Ferguson	02/04/2008
B	Updated Shared Network Drive links	Stephanie Ferguson	06/13/2008
C	Changed “IV&V Facility” to “IV&V Program”; updated Shared Drive path	Stephanie Ferguson	12/11/2008
D	Updated verbiage in Section 6.0, <i>Records</i>	Sara Cain	01/27/2010

REFERENCE DOCUMENTS	
Document	Title
IVV QM	NASA IV&V Quality Manual
IVV 05	Document and Data Control

 <p>Independent Verification & Validation Program</p>	<h2>Work Instruction Template</h2>	<p>T2003 Revision: D Effective Date: January 27, 2010</p>
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Purpose of the Work Instruction Template

This template is designed to provide a standard outline and format for work instructions (WIs). This template is also designed to provide standard sections that are used in all or most WIs, and direction to provide tailoring and section-content guidance for those who generate or update WIs.

Work Instruction Template Conventions

Three different styles of text are used in this template:

1. [Text included in square brackets]

This text represents WI-specific information to be provided. Examples are [WI name] for the name of the WI, and [purpose] for the purpose of the WI. Where this text appears, insert the WI-specific information between the brackets, and then delete the brackets.

2. *{Italic text in braces}*

This text is guiding or explanatory in nature. It will include tailoring guidance and descriptions of the kinds of information to be included in each section. Therefore, this text should be deleted from the WI.


3. Normal text

This is standard text that should be copied verbatim into the WI as necessary. It represents any text that does not fit into either of the above categories.

Instructions for Using the Work Instruction Template

Copy the following template into a new document, enable the "Track Changes" feature of Microsoft Word, and follow the conventions above.

After completion, save a copy of the document in the S:\NASA Shared\Operations - Ferguson\Institutional Services\IV&V Management System\Documentation\Working directory for review. The document shall be named "IVV [WI number] - WORKING mmddyy", where "mmddyy" represents the month, date, and year on which the draft was last modified.

 <p>Independent Verification & Validation Program</p>	<p>Work Instruction Template</p>	<p>T2003 Revision: D Effective Date: January 27, 2010</p>
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WI creators or modifiers shall employ the following general guidelines when creating and/or modifying WIs:

- a. The font for all sections of the WI shall be Arial.
- b. The body text shall be 12-point font.
- c. The font family for the header shall be Arial, case shall be proper, and font weight shall be bold. Font size shall be 12-point in the right corner, and 14-point in the center.
- d. The footer shall appear exactly as represented in this document; once copied into the new document, no modifications to the footer are necessary.
- e. Drafts should be watermarked "DRAFT" on the Approval Page of the WI.
- f. With the exception of section headers, all text shall be full-justified.
- g. WI headings and subheadings shall use the point numbering system. All headings and subheadings shall be bold.
 - i. First-level headings (e.g., Section 1.0 and Section 2.0) shall be left-justified in 12-point font and specified in proper case.
 - ii. Subheadings shall be formatted in 12-point font, specified in proper case, and indented as appropriate in half-inch increments from the last superior section.
- h. Ensure that all references to the NASA IV&V Program read "NASA IV&V Program."

- i. Verify that all hyperlinks and file paths in the WI are valid.
- j. Verify that all references to sections within the WI are qualified with italicized titles set off by commas.
 - Example: "Refer to Section 3.0, *Definitions and Acronyms*, for additional information."
- k. Verify that all references to other documents are qualified with italicized titles set off by commas.
 - Example: "Refer to IVV 09-4, *Project Management*, for additional information."
- l. Verify that all documents specifically mentioned in the text of the WI are listed in the "Reference Documents" table on the Approval Page. Also verify that the "Reference Documents" table contains any parent/child documents associated with the WI.
- m. Ensure that Section 3.0, *Definitions and Acronyms*, contains the proper reference to the Quality Manual.
- n. Verify that all records contained in the table in Section 6.0, *Records*, are complete and accurate, and that all fields in the table (e.g., Record Name, Original, Responsible Person, Location, etc.) are complete and accurate for each

 Independent Verification & Validation Program	Work Instruction Template	T2003 Revision: D Effective Date: January 27, 2010
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record. (For a new record, verify that the Record Name and Responsible Person fields are complete and accurate; the Document Control Custodian [DCC] will complete the remaining fields for new records.)

FIGURE 2 TABULAR WORK INSTRUCTION TEMPLATE

Standardized Work Sheet				Part: MSM-1001		Sheet: 2																																											
Bill of Materials <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Number</th> <th>Rev</th> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>HDW-0110</td> <td>A</td> <td>M5x14 Socket Head Cap Screw</td> <td>4.00</td> </tr> <tr> <td>HDW-0130</td> <td>A</td> <td>M2X8 Socket Head Cap Screw</td> <td>2.00</td> </tr> <tr> <td>HDW-0141</td> <td>B</td> <td>M3X8 Socket Head Cap Screw</td> <td>4.00</td> </tr> </tbody> </table>				Number	Rev	Description	Qty	HDW-0110	A	M5x14 Socket Head Cap Screw	4.00	HDW-0130	A	M2X8 Socket Head Cap Screw	2.00	HDW-0141	B	M3X8 Socket Head Cap Screw	4.00	Operation: Station 1		Operation Cycle Time: 214																											
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6	5	White Wires		15.00	0.00	78.3																																											
Icon: Meaning: Safety Instruction Alert Quality Environmental Objective Scope Flow																																																	
				1 Remove Cover 2 Limit Switch Cover Removed 3 Center Limit Switch Cable 4 Cut Limit Switch Wires 5 Strip Insulation 6 Cut off White Wire																																													

Standardized Work Sheet				Part: MSM-1001		Sheet: 4																													
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Version:		1																																	
Approval Date:		11/7/2008																																	
Approval By:		Ryan O'Hagan																																	
				1 Secure the Wires 2 Solder Crimp Pins 3 Molex 4 Plate Orientation																															

FIGURE 3 EXCEL WORK INSTRUCTION TEMPLATE

FIGURE 4 EXAMPLE OF WI FOR CHANGING FILTERS IN SPRAY BOOTH

This document is **NOT** controlled unless it has a "RED" *CONTROLLED DOCUMENT* stamp on it!

UNIVERSAL SPRINGS/ASSEMBLIES

Document: W	Page 1 of 4
Document Title: PROCEDURE FOR CHANGING FILTER(S) IN SPRAY BOOTH	
	Revision: --
	Date of Rev: 1/25/2012

Document Type: Work Instruction
ISO Reference(s):
Element Owner: <i>Plant Manager</i> _____
Approver: Management Representative _____
File Name: <i>C:\My Documents\Universal\Q_system\BlankWK.doc</i>

1.0 PURPOSE: The purpose of this document is to provide guidance on when and how to change the filter(s) on the spray booth.

2.0 SCOPE: The spraying operation is needed to coat specific portions of stainless steel components prior to laser etching. The paint used is applied around the area that will receive the laser graphics. Even though the paint is not toxic, it is necessary to evacuate any and all overspray into the paint booth and through the filter bank to remove as much airborne particulate as possible. We monitor the downstream static pressure to determine when to change the filter. This document will detail when to make that change.

3.0 RESPONSIBILITIES:

Plant Manager, Universal Assemblies
Spray Booth Operator
Engineer

4.0 DEFINITIONS:

Static Pressure—This is the pressure measured by the static pressure port of a pitot tube located in the airflow downstream of the spray booth filter. The static pressure is independent from the velocity pressure.

Pitot Tube—A pitot tube is a mechanical device that measures static pressure and velocity pressure, sums those two measurements and provides a total pressure reading. This pressure reading is then entered into the proper chart to determine the velocity of

C:\Documents and Settings\engineering\My Documents\Work Instructions\Work Instruction for Spray Booth.doc Last printed 4/29/2005 12:52:00 PM

the air stream flowing across the filter bank. We will be using only the static pressure reading to determine how much of the filter is blocked by the paint overspray.

Dwyer Manometer—The Dwyer Manufacturing Company produces a mechanical device that measures pressure in inches of water column (Inches W.C.) This device is mounted on the left side of our spray booth and is used to aid our efforts in determining when to change the filter.

5.0 ASSOCIATED DOCUMENTS:

[The Universal Springs/Universal Assemblies Quality Manual](#)

6.0 SPECIALIZED EQUIPMENT

Pitot Tube
Dwyer Manometer
Associated Tubing

7.0 SPECIAL SAFETY PRECAUTIONS

Wear safety glasses at all times when working around the spray booth.
Wear gloves when working around the spray booth.
Do not lift more than 40 pounds.

8.0 INSTRUCTIONS:

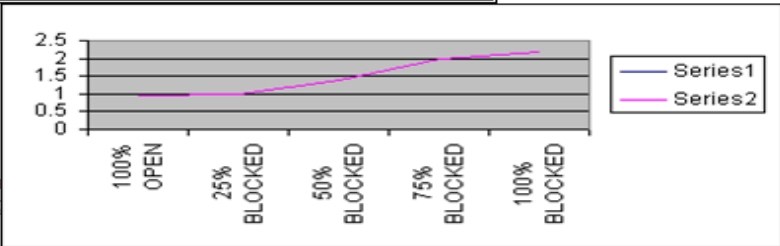
The following chart will show the static pressure vrs percentage of total filter area blocked by the paint overspray. As you can see, an increase in static pressure is an indication of increasing build-up of paint in the filter. A new filter will exhibit a downstream static pressure reading of approximately 0.85 inches W.C. As more of the paint is deposited on the filter, the static pressure increase will become evident. When the static pressure reaches approximately 1.40 inches W.C., the filter will need to be changed. This represents approximately 50 % blockage. To do so, please use the following steps:

- 1.) Make sure all safety equipment is in use.
- 2.) Cut off the fan exhausting air through the filter.
- 3.) On the left side of the spray booth, just behind the Dwyer Manometer, there are two wing nuts. These wing nuts hold the access panel, to the filters, on the spray booth body. The spray booth body houses the filter. Remove the wing nuts. Pull the filter out of the "U" channel.
- 4.) Discard the old filter in the proper container.
- 5.) Install new filter. **NOTE:** Make sure the arrow on the filter is pointing downstream of the air flow. The filters are back loading. It is necessary to replace the filter so that the "weave" is oriented properly relative to the direction of air flowing through the spray booth. Place the filter in the FIRST "U" channel.
- 6.) Replace the access panel and the wing nuts. Tighten securely.
- 7.) Turn the spray booth fan on. Monitor the static pressure on the Dwyer Manometer. It should read 0.85 inches W.C. or slightly less. If this is not the case, turn the fan off and notify the operator or the engineer.
- 8.) Fill out the sheet attached to the left side of the spray booth with date and the static pressure AFTER replacing the filter.

⊕+ STATIC PRESSURE DROP FOR VARIOUS FILTER CONDITIONS
 16 November 2005: 0900 hrs.

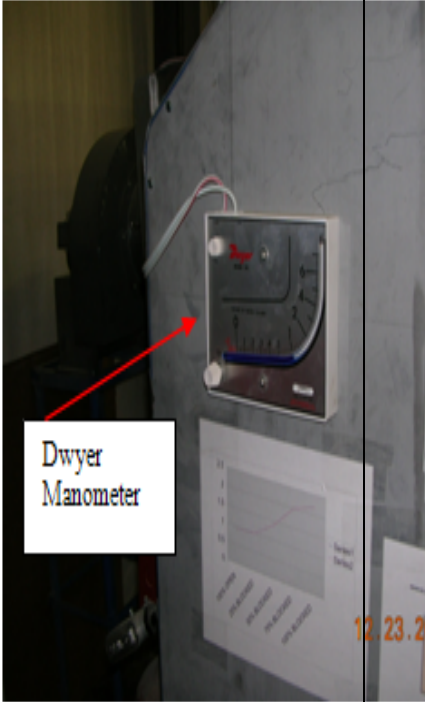
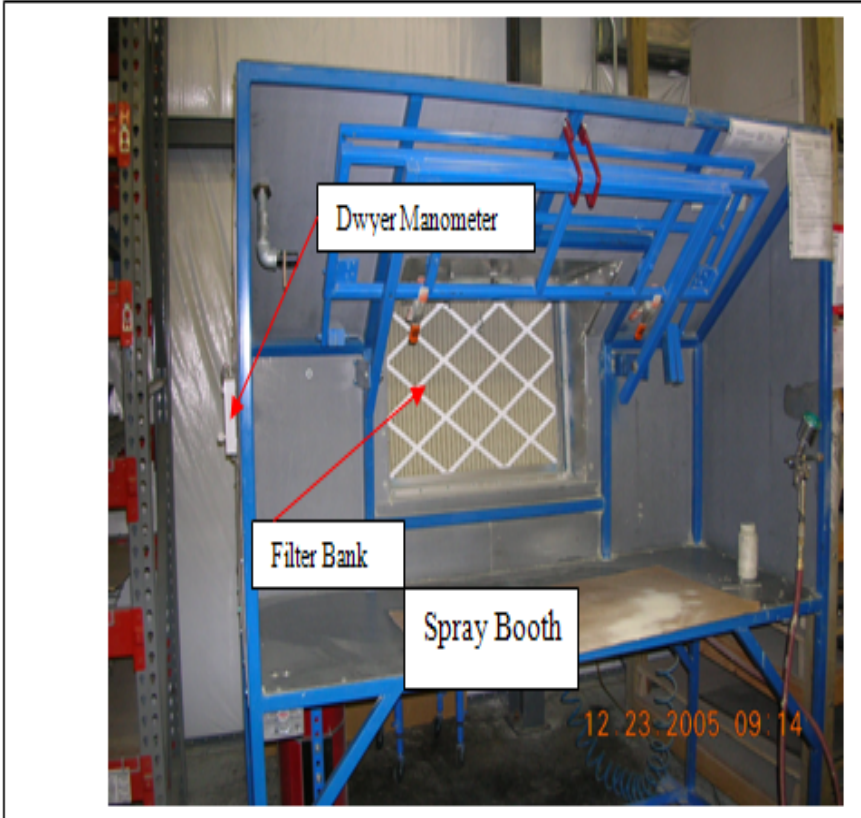
% BLOCKED	STATIC PRESSURE
100% OPEN	0.95
25% BLOCKED	1.00
50% BLOCKED	1.40
75% BLOCKED	2.00
100% BLOCKED	2.20

Atmospheric conditions for 16 N
 Relative Humidity: 76%
 Ambient Temperature: 4
 Barometric Pressure: 30
 Dew Point: 41 F



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 Booth.doc Last printed 4/29/2

Spray



This document is **NOT** controlled unless it has a "RED" *CONTROLLED DOCUMENT* stamp on it!

UNIVERSAL SPRINGS/ASSEMBLIES

Document: W	Page 1 of 3
Document Title: LASER ETCHED CONTORL PANELS	Revision: --
	Date of Rev: 1/25/2012

Document Type: Work Instruction
ISO Reference(s):
Element Owner: <i>Plant Manager</i> _____
Approver: Management Representative _____
File Name: <i>C:\My Documents\Universal\Q_system\BlankWK.doc</i>

1.0 PURPOSE: The purpose of this work instruction is to detail the use of fixtures required for laser etching Maytag 304 stainless steel control panels.

2.0 SCOPE: The Maytag panel part numbers are as follows:

7720P506-60
7720P493-60
7720P494-60
7720P495-60

There is one fixture per part number with the BASE ASSEMBLY being common to all four.

3.0 RESPONSIBILITIES:

Plant Manager, Universal Assemblies
Assembly Operator
Quality Manager

4.0 DEFINITIONS:

Base Assembly: The base assembly has a sliding platform that slides from side to side. It is the platform upon which the control panel fixture assemblies are mounted.

Control Panel Fixture: The fixture upon which the SS control panels are located. The control panel fixtures are fabricated from tube stock and are spring loaded to obtain registration relative to inside of the control panels.

Ball Locking Mechanism—This mechanical stop engages the ball stops mounted on the Base Assembly. When engaged, the movable platform is locked in position relative to the laser head.

5.0 ASSOCIATED DOCUMENTS

The Universal Springs/Universal Assemblies Quality Manual

6.0 SPECIALIZED EQUIPMENT: NONE

7.0 SPECIAL SAFETY PRECAUTIONS:

Don't lift over 40 pounds. (NOTE: The Base Assembly weighs well over 40 pounds therefore, it is necessary for two (2) people to move the platform from the racks to Laser Number 1 for installation.)

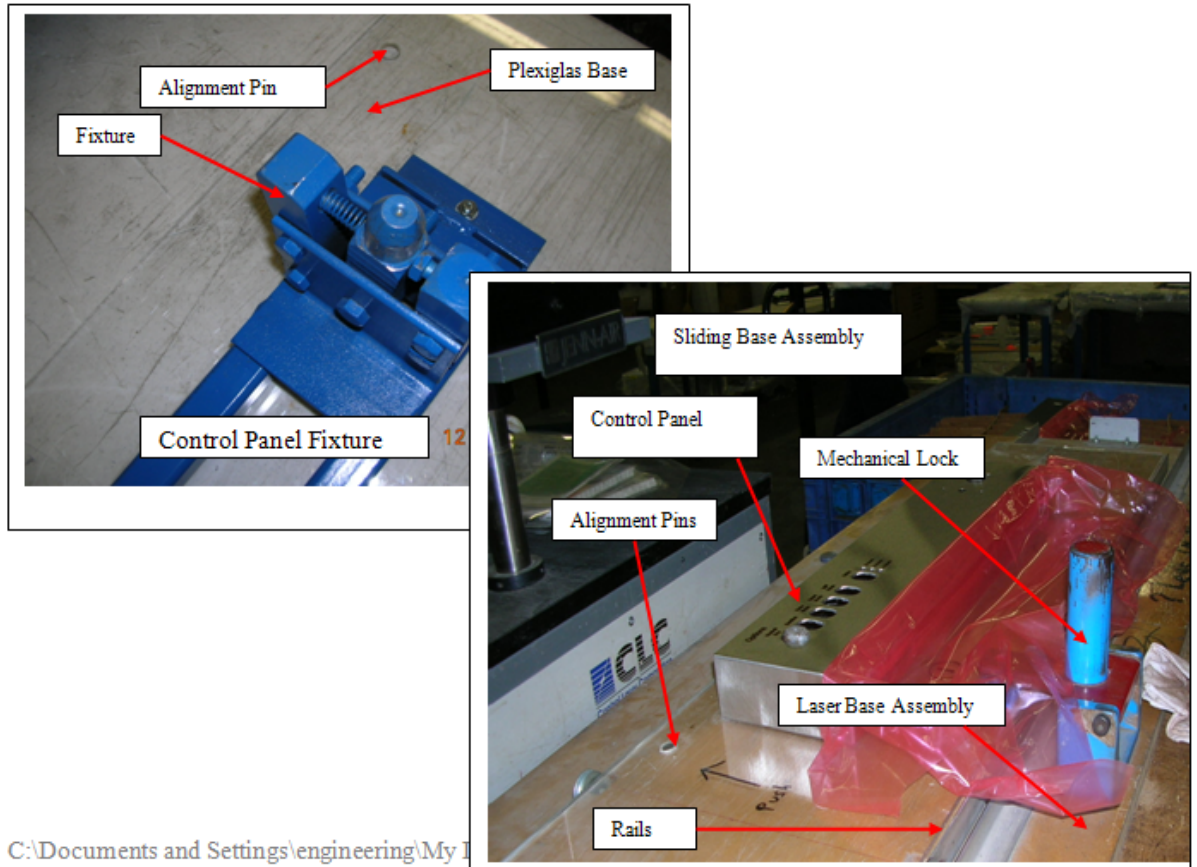
Always wear safety glasses

Wear gloves when moving and installing the fixtures.

8.0 INSTRUCTIONS:

The four Maytag SS control panels are etched using Laser number 1. Each fixture needed for this operation will be installed on the base platform mounted to the Laser bed. This base platform has two "registration" pins, one left one right for aligning the sliding base assembly. The sliding base assembly must be firmly affixed, engaging these pins, to the laser platform. The fixtures are mounted on a Plexiglas base that is installed on the sliding base platform. The fixtures are marked in accordance with the Maytag model number. Even though the fixtures are not interchangeable, please make sure the proper fixture is used relative to the Maytag part number to be etched. The individual fixtures are spring loaded so that the control panels are pushed against a "backstop". This "fixes" the panels so that any small imperfection in the panel form is compensated for.

- a.) Mount the sliding Base Assembly to the laser bed by engaging the two registration pins, and secure.
- b.) Mount the fixture / Plexiglas assembly to the Base Assembly by inserting the two hardened pins on the sliding Base Assembly through the two holes in the Plexiglas. This will secure the fixture to the movable Base.
- c.) The fixture can be moved from side to side by disengaging the locking mechanism, sliding the platform and reengaging the locking mechanism.
- d.) Begin the etching process by locating the left side of the control panel under the laser head. Make sure the locking mechanism is engaged in the left ball stop.
- e.) Actuate the palm switch to start the etching process.
- f.) Repeat for all of the graphic icons required.
- g.) Follow the procedure for performing the quality control checks for the etched graphics on the control panel. Check each set-up using the template provided. These are provided with the work instructions for etching the control panels. This is procedure number W 9.7.02, Laser Marking Stainless Tops/Trims.



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FIGURE 5—LASER ETCHING CONTROL PANELS

Work Instruction	Document Number	Revision
	W10118	H
File: CHC example for pt acuity and staffing requirements.doc		
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Guidelines for Floating Staff (SCMC - Bend)

PURPOSE/SCOPE: To provide optimal care for patients and to provide guidelines for floating or sharing of staff.

REFERENCE DOCUMENTS:

Professional Agreement between Oregon Nurses Association and Cascade Healthcare Community, Inc., dba St. Charles Medical Center – Bend

DEFINITIONS:

Floating of staff is assigning a unit staff member to another unit to cover patient care needs.

REQUIREMENTS:

ORS (Oregon Revised Statutes) 441.162 and 441.166
OAR (Oregon Administrative Rules) 333-500-0057, 333-510-0002, 333-510-0030, 333-510-0045, 333-510-046, and 333-510-0047

INSTRUCTIONS:

1. When needing extra caregivers on any unit, the following steps will be followed:
 - A. Assign qualified caregivers from the float pool and the relief pool when available.
 - B. Refer to W09048, Staff Call-Offs and Call-Off Script for order of floating, which parallels order of call-offs.
 - C. General units with extra caregivers, will float that caregiver to another nursing unit or a specialty unit if caregiver is oriented to that unit.
 - D. Float unit-based relief caregivers by date, from a unit which has more staff than needed.
 - E. Float regular caregivers from a unit which has extra staff on a rotation basis, by dates of last episode of floating or HR.
 - F. Assign caregivers (i.e. FBC staff), who have not been oriented to assist in patient care. Non-oriented caregivers will only be asked to do tasks (basic nursing care), which they are competent to do. They will work under the direct supervision of a qualified RN. Use F10039, Unit Orientation Checklist for People Floated to Units for Which they are not Regular Staff.
2. Floating out specialty unit staff:
 - A. If requested, specialty unit caregivers will float to another unit.
 - B. Specialty unit RN's are assigned as part of a team, working under the supervision of a RN who is qualified for that unit. They cannot serve as a Primary Nurse nor take a full patient assignment on that unit.

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	W10118	H
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- C. The home unit's Charge Nurse/Supervisor/Manager, in collaboration with the House Supervisor, will make the decision if a caregiver must be available to return to their unit. Specialty units or the House Supervisor will communicate this staffing decision to the home unit's on-coming Charge Nurse. The House Supervisor must communicate to the receiving unit the need for this caregiver to be available to return to the home unit. Agreements from the previous shift will be honored by the on-coming Charge Nurse and House Supervisor. Replacement caregivers will be provided through the staffing office if possible.
- D. If a specialty unit nurse is to be available to return to their unit as needed, their assignment outside the unit must reflect this.
- E. FBC caregivers who must remain available to return to their unit may not take care of infectious patients, per ACOG and AWHONN nursing practice guidelines.
- F. Caregivers who have floated to another unit will not be expected to do procedures to which they have not been oriented. Examples of appropriate assignments for FBC RNs would be to the Surgical Unit to care for Endometriosis patients. The FBC nurse must work under the direct supervision of a RN in a team assignment. The FBC RN should review her assignment with the RN.
- G. Staff who will float with some regularity (Critical Care/Specialty Floats) will be provided one or two days of orientation to the general medical-surgical units. A one-day re-orientation may be requested by RNs who have not floated to a unit for 6 months or more and feel the need for updating skills. The time for orientation will be assigned to the caregiver's home unit.
- H. Caregivers who will rarely float out of their own units will not be oriented to the general units. They will be assigned only as supplemental staff.
- I. Certified Nursing Assistants can be floated from their home unit to another without orientation. Their task lists are consistent in most areas. Use F10039 to document orientation to the receiving unit, if they have not worked there in the past six months. The Charge Nurse on the receiving unit should review the task list for that unit to assure the CNA understands expectations.
- J. Any regular part time or full time caregivers who have been requested by the hospital to work extra hours or shifts will not be floated to another unit unless they are agreeable to this. Caregivers who have scheduled themselves to work an extra shift may be asked to float to another unit if their unit does not need them and there are urgent staffing needs in another area.
- L. Nurses who have been hired as relief for one department only may be required to float to another unit, but RNs will not be asked to carry an independent patient assignment (i.e., will not be primary nurse or care managers). They will be assigned as described in H, above.
- M. Intensive Care RN's will not be required to float outside of Critical Care Services. They may float to other units on a volunteer basis. The ICU RN will float to IMCU if the ICU is overstaffed, and the RN can be pulled back if necessary to admit patients to the ICU. The IMCU RN will not be expected to float to Medical/Surgical units to allow ICU RNs to work on IMCU except in situations

Work Instruction	Document Number	Revision
	W10118	H
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where patient safety may be at risk as determined by the House Supervisor.
IMCU RNs will float to Medical/Surgical units as needed.

3. Stand-by Personnel

- A. Caregivers who are on standby for one unit cannot be called in to work for another unit.
- B. In general, standby caregivers should not be called in to work on their own unit while regular caregivers are pulled to work elsewhere. They are on standby only in case of a need for their own units.
- C. In an urgent staffing situation, the standby person may get called in while a regular caregiver is floated.
 - 1. The House Supervisor, the unit Manager or designee, or the Staffing Analyst will contact the leadership person on call for that unit and the standby nurse and notify them of the urgent staffing situation which is necessitating floating that individual or another individual on their unit.
 - 2. If the Manager or designee is not in the hospital, the House Supervisor will notify the Manager or designee as soon as possible of the urgent staffing situation.
 - 3. The decision to float the standby person or another individual on their unit, and the communication that occurred related to that will be documented as a memo in OneStaff by the House Supervisor or Staffing Analyst.

4. Preparation of caregivers who are assigned to a unit to which they are not oriented:

- A. If the floated caregiver has never worked on the unit, the House Supervisor or Staffing Analyst will escort or insure that the caregiver is taken to the unit and introduced to the Charge Nurse.
- B. The caregiver will be given a Unit orientation introduction checklist for people floated to units for which they are not regular staff, F10039, to take with them to their assignment.
- C. The floated caregiver will complete the unit introduction checklist with a designated caregiver from the assigned unit.
- D. The completed check list will be returned to the Charge Nurse on the unit where the caregiver is floated. After reviewing, the Charge Nurse will send the completed checklist to the staffing office.

QUALITY RECORD

Quality Record	Location Kept	Filing Order	Duration Kept	Disposition	Comments
Unit Orientation Checklist, F10039	Staffing Office	By date	6 months	purged	
OneStaff database	Staffing Office	By date or by caregiver	current data minimum of two years, archives indefinitely		

CHANGE HISTORY

Page 3 of 4

Work Instruction	Document Number W10118	Revision H
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Date	Revision	Comments
3/5/03	E	Received from Carol Velasquez; sent on approval route
6/28/05	F	Clarified process, identified correlation to call-offs process
6/29/05	F	Received from Carol Velasquez; sent on approval route
1/6/07	G	Updated job titles
1/8/07	G	Received from Carol Velasquez; sent on approval route
1/14/08	H	Updated job titles and revised according to ICU/IMCU floating parameters.
1/14/08	H	Received from Carol Velasquez; sent on approval route

FIGURE 6: EXAMPLE OF WORK INSTRUCTION FOR STAFFING REQUIREMENTS