

ThermoFlex Wide

Installation Procedure

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Revision History

Revision	Date	Author	Comments
A	4/15/99	CDudra	Initial draft
B	June 06, 2003	A.Blignaut	Add DVD testing procedure (pg. 12 – after step 18) Chiller temp. setting updated

creo

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1 ABOUT THIS DOCUMENT

This document is designed only to be a guide to assist a field engineer in a step by step manner. It is assumed that the person following this document has completed the service training course for the Creo Products' ThermoFlex series of CTP devices.

2 PREPARING FOR INSTALLATION

2.1 Presite Inspection

Before going to the site to do an installation:

1. Ensure that you have a copy of the latest version of the **ThermoFlex Wide Site Preparations & Requirements** document (73-3186A).
   The customer should have received a copy of this document and should have completed or partially completed the Site Preparation Checklist prior to installation.
   You should also have a copy of the Creo Installation Report form (see Customer Support Procedures Manual).
2. Ensure that the following site preparations have been completed according to the Site Preparations document:
   - Plant Air Supply
   - Dedicated phone line for CTP
   - Network connection
   - AC Power
   - ThermoFlex Work Area Dimensions
   - Floor flatness
   - Environmental conditions

2.2 Site Preparation

2.2.1 Floor Plan

1. Work with the customer to establish the floor plan for the ThermoFlex permanent location. Use the information on footprint and working area dimensions in the Site Preparations and Requirements document.
2. Verify the following:
   - shipping crates have not been unpacked
   - system location within the room with respect to the location of electrical, telephone, network, and air lines
   - workstation location
   - service access clearance around the ThermoFlex
   - plate storage area
   - processor location and clearances
   - size & type of plates/processor

2.2.2 Path from Loading Dock to Permanent Location

The customer is responsible for rigging and placement of the system (Site Preparations and Requirements document). Spend some time with the company

supervisor and riggers to explain how to properly move the ThermoFlex. Assist the customer and make use of the riggers to remove the ThermoFlex and Workstation from the shipping crates.

1. Make sure that an operator and forklift that meets the following criteria will be available to move the ThermoFlex to its permanent location:
   - 3500 lb. forklift minimum
   - fork width not to exceed 6 inches (15cm)
   - lateral fork movement capability if possible
2. Walk the path from the loading dock to the ThermoFlex location.
3. Check that there is adequate clearance for moving the boxes and equipment.
4. Ensure that there are no obstructions in the way.
5. Check height and width of any doorways in the path for clearance
6. Inspect the general area of the permanent location for any potential problems.
7. Confirm that the location has power, plates and solvent for the processor.

2.2.3 Site Preparation Checklist

1. Complete the Site Preparation Checklist.
2. Note details of any follow-up that is required before installation can occur.
3. Sign off the checklist if the site is ready for installation.
4. Forward the completed checklist to Creo Customer Service.

2.2.4 Gather Tools and Equipment

To ensure a successful, well-organized installation, you should have sufficient numbers of the proper tools for opening the cartons and positioning the equipment. The number of tools needed for these jobs will vary with the number of people involved in the setup of the system

Items Required for Installation:

- two or three ½" sockets for opening crates
- forklift (as specified above) and operator for removing the ThermoFlex from its crate
- metric hex key set
- metric and imperial wrenches
- screwdrivers
- multimeter
- grounding wrist strap
- razor knife
- LocTite
- Installation floor plan
- cleaning rags and solutions (99% Isopropyl alcohol, glass cleaner, and liquid soap)
- Thermal Head Installation Procedure for ThermoFlex (77-0061A)
- Vacuum for final cleanup

Optional items:

- Pallet Jack

3 UNPACKING

Carefully open all crates and boxes. Check for any signs of damage throughout the unpacking process and record any problems immediately on the Installation Report form and report them to Creo.

3.1 Crate Inspection

1. Inspect all delivered crates and boxes
2. Check shockwatches on the outside of crates. They should be white, not red.
3. Look for signs of damage from moisture, improper packing, tipping, dropping, stacking, etc. of crates, or any sign of mishandling.
4. Record any problems immediately on the Installation Report form and report them to both Creo Products and the delivery company.

WARNING:
Carefully unwrap the packaging from the system to minimize static discharge from tapes and plastic.

3.2 Unpacking the ThermoFlex

1. Open the shipping crate to allow access to the front and rear of the machine
2. Inspect the contents for damage and record any problems on the Installation Report.
3. Verify the contents of the crate according to the shipping label.
4. Remove the ThermoFlex front panel to gain access to the forklift rails in the engine casting. Remove the center rear panel for visibility.
5. Have the forklift operator insert the forklift forks through the rectangular cutouts in the aluminum engine casting. Take care when inserting the forks through the casting that the forks do not extend through the casting at the bottom of the cutout to avoid damaging the wiring or piping behind the engine

WARNING:
The front and rear center panels must be removed from the ThermoFlex to prevent damage to the panels or internal components while being lifted.

6. Have the forklift operator remove the ThermoFlex from the crate and place it on the floor.
7. Move the ThermoFlex to its permanent location using the forklift or by rolling it on its casters. Do not push on the flashcover, or pull on any of the exterior panels.
8. Roughly position the machine according to the floor plan.
9. Replace the front and rear panels

3.3 Unpacking the Workstation

1. Open the shipping crate.
2. Remove the workstation components.
3. Inspect the contents for damage and record any problems on the Installation Report.
4. Verify the contents of the crate according to the shipping label.

5. Move the workstation components to the permanent location using a dolly if available.
6. Unpack the workstation components.
7. Remove the packing material from the working area.

3.4 Unpacking the Imaging Head

1. Move the Imaging Head shipping container to the ThermoFlex permanent location using a dolly if available.
2. **DO NOT** uncrate the head at this time

3.5 Unpacking the Debris Removal Cabinet

1. Open the shipping crate and lower the hinged ramp attached to the crate.
2. Cut the strapping holding the debris removal cabinet in place in the crate.
3. Roll the cabinet out of the crate (this will require help from one two other people).
4. Move the Debris Removal Cabinet to the permanent location of the ThermoFlex.

3.6 Unpacking the Chiller

1. Remove the chiller carton from its crate.
2. Remove the chiller from its carton and place it on the floor.
3. Move the chiller to the permanent location of the ThermoFlex.
4. Remove the chiller packing material from the working area.

3.7 Unpacking the Drum Vacuum Pump and Starter Box

Note: The drum vacuum pump and starter box may have been shipped and installed in advance of the rest of the ThermoFlex system.

1. Remove the drum vacuum pump from its shipping crate.
2. Move the pump to its permanent location using a dolly
3. Remove the starter box from its shipping crate.
4. Move the starter to the permanent location of the ThermoFlex.
5. Remove the drum vacuum pump packing material from the working area.

4 ASSEMBLY

4.1 Initial Setup

1. Position the ThermoFlex in the location according to the floor plan.
2. Carefully remove the external wrapping to minimize static discharge.
3. Inspect the machine for damage caused during shipping.
4. Note any damage on the Installation Service Report
5. Remove the panels from the machine to access the engine, fan box and power box
6. Slide the flashcover fully open.
7. Unlatch and lift the table.
8. Remove all internal packing material.
9. Reposition the wire coolant hose tray at its correct height and location.
10. Perform a thorough check of all mechanical components, electrical/electronic connections to ensure all connections and assemblies are secure
11. Open the electronics card cage and check that all circuit boards are properly seated.

12. Have the rigger install an air fitting onto the ThermoFlex and connect the shop airline.
13. Set the ThermoFlex internal pressure regulator in the fan box to 80 psi
14. Check that the AC power at the customer-supplied receptacle is correctly wired (see Site Preparations & Requirements document) and on the same AC panel as the AC receptacle for the workstation.
15. Connect AC power to the ThermoFlex.

The casters are not removed from the ThermoFlex. The recorder is left on the casters to keep the table working surface at an ergonomic height.

4.2 Workstation Installation

Refer to the specific workstation installation document on the service CD for the complete procedure. The following is only a guide.

1. Inspect all workstation components for shipping damage and note on the Installation Service Report
2. Assemble the workstation as per the vendor installation document provided with the workstation.
3. Check that the customer AC receptacle is wired correctly (see Site Preparations & Requirements) and on the same AC panel as the AC receptacle for the ThermoFlex.
4. Plug the UPS into the AC main and connect the workstation to the UPS
5. Connect the workstation to the network and phone line.
6. Power up the workstation.
7. Log into Windows NT under the Administrator account.
8. Create a new directory E: \Service for Notepad text files for service performed on the ThermoFlex.
9. Use this directory to log service calls, firmware upgrades, workstation upgrades and NVS backups.
10. On the workstation under Windows NT, set the present time for the local time zone.
11. Verify that the phone connection and modem work by dialing the modem number from another phone or by using RAS from a laptop and another line.
12. Start the Diagnostic Interface serial communications program (Terminal or other).
13. Run the setup utility to set the correct baud rate, port, etc.
14. Power down the workstation.
15. Connect the serial cables from the workstation to the Computer Serial Interface and Diagnostics ports on the ThermoFlex.
16. Connect the differential SCSI cable from the workstation to the ThermoFlex.
17. Make sure all cables are secure at both ends.

4.3 Imaging Head Installation

1. Carefully unpack the head from its shipping container.
2. Inspect for any shipping damage and note on the Installation Service Report.

WARNING:
Be sure to handle the head carefully at all times. Do not bump it.

3. Refer to the Head Installation Procedure for instructions for the specific type of head:
   - 77-0061A - Thermal Head Installation Procedure for ThermoFlex
4. Complete the head installation procedure to the end of "Installing the head on the carriage"
5. Make sure that:
   - the head mounting system holds the head tightly in place
   - all cables, hoses and the cable carrier are connected to the head

4.4 Debris Removal Cabinet Installation

1. Roll the debris removal cabinet into its final position.
2. Connect the short 1 ¾" vacuum hose with the 1 ¾" to ¾" hose adapter to the inlet port on the cabinet.
3. Connect the ¾" vacuum hose to the recorder bulkhead and to the 1 ¾" to ¾" hose adapter.
4. Connect the 15' 15 pin serial cable from the "Chiller/Filter" port on the recorder bulkhead to the first serial port on the cabinet.
   Note: The serial ports at the debris removal cabinet are connectorized, so the cable will only plug into the correct port.
5. Connect the 10' 15 pin serial cable to the second serial port on the cabinet, and route it to the final location of the chiller. Do not connect it to the chiller at this time.
6. Plug the power cord into the debris removal cabinet, and into its wall outlet.

4.5 Chiller Installation

Note: Consult the Neslab CFT33D Chiller Installation and Operation document (77-3238A) for more detailed instructions.

1. Roll the chiller to its final position. The preferred location is generally under the table at the back of the recorder.
2. Connect the external chiller hoses to the brass fittings at the recorder bulkhead, and to the chiller.
   Note: The hoses can be connected to either fitting at both the bulkhead and the chiller: the direction of coolant flow is not important.
3. Ensure the coolant hoses inside the recorder are connected to the head.
4. Plug the power cord into the chiller and into the wall outlet.
5. Remove the access plate on the top of the chiller to expose the coolant reservoir filler tube.
6. Fill the chiller coolant reservoir to about half full with coolant (about ½ gallon). If premixed coolant is not available, distilled water can be used.
7. Locate the serial cable simulator jig (normally strapped to the back of the chiller). Disconnect the small 2 pin Molex connector in the jig.
8. Ensure the main power switch on the front of the chiller is switched on. Plug the simulator jig into the 15 pin Dsub serial port in the back of the chiller. This will start the coolant flow.
9. Continue filling the chiller reservoir until full (coolant will remain visible at the bottom of the filler tube).

10. Replace the coolant reservoir filler tube cap and access cover.
11. Ensure the temperature setpoint of the chiller is set to 23°C.
12. Remove the simulator jig from the back of the chiller, and connect the 15 pin serial cable from the debris removal cabinet.

4.6 Drum Vacuum Pump and Starter Box Installation

Note: The drum vacuum pump and starter box may have been installed by the customer prior to the arrival of the full system.

1. Have an electrician mount the starter box to a wall near the recorder (within 15' of the recorder connection bulkhead).
2. Inspect the location the drum vacuum pump will be installed in.
   If the pump is to be installed outside the building, it must be installed in a weather-tight enclosure with sufficient venting (including forced air cooling) to prevent overheating of the pump. The exhaust air from the pump should be vented directly outside the enclosure to reduce the possibility of overheating the pump.
   If the pump is installed in a remote room inside the building, ensure there is adequate acoustic insulation in the walls to reduce the noise to an acceptable level for long-term exposure. Ensure the room is sized and cooled adequately to keep the ambient temperature of the room below 35°C with all equipment operating at peak load.
   If the pump is to be installed into a custom enclosure, contact Creo engineering.
3. Mount the pump inside its enclosure onto rubber feet.
4. Inspect the PVC vacuum piping, if installed by the customer. The piping must be 2" or greater schedule 40 PVC tubing, and all joints must be cemented. The total length of hard piping should not exceed 50'. If the customer requires a vacuum line between the recorder and the pump of more than 50', contact Creo Engineering.
5. Blow the PVC vacuum piping out with compressed air prior to connecting the piping to the pump or the recorder.
6. Have the customer's plumber fabricate the connection from the pre-installed piping to the pump. Alternatively, a short length of 2" flexible tube can be used.
7. String a power cable for the drum vacuum pump along with the 50' 15 pin serial cable from the pump through the building to the starter box.
8. Remove the cover to the control box on the drum vacuum pump. Loosen the large cable strain relief on the side of control box.
9. Route the pump power cable into the control box through the strain relief.
10. Connect the power cable to the terminals marked L1, L2, L3 on the terminal block inside the drum vacuum pump control box. Connect the ground wire to the marked ground stud.
11. Tighten the strain relief on the pump power cable.
12. Have the electrician route the power cable from the pump into the starter box. The power cable is connected to the bottom of the main circuit breaker/relay inside the starter box.
13. Have the electrician run the mains feed cable into the starter box and connect it to the top of the main circuit breaker/relay.

14. Ensure the ground wires from the AC mains feed and the pump are securely connected to the ground bar inside the starter box.
15. Check that the AC mains power is correctly wired and is the correct voltage at the circuit breaker/relay inlet terminals.
16. Connect the 20’ 15 pin serial cable to the “Spare” port at the recorder bulkhead, and route it to the starter box.
17. Connect the drum vacuum pump/starter box breakout cable (15-9/15 pin Dsub “Y” cable) to the serial cable from the recorder. Connect the 9 pin connector from the breakout cable to the starter box, and the remaining 15 pin connector to the 15 pin serial cable from the drum vacuum pump. Secure all cable connections.
18. Connect the drum vacuum line to the recorder using the 2” flexible hose.

Note: Before turning on the power, the wiring continuity to the overheat thermistor inside the drum vacuum pump must be checked. Using a multimeter, measure the resistance between the terminals "SC" (RED wire) and "S4" (BROWN wire) inside the inverter (15-1323), and ensure the resistance is around 200 ohms. If this reading is infinite (open circuit), then there is a break in the wiring somewhere, and must be checked. The DVD system will not operate correctly if there is an open circuit condition across these two terminals (the LCD will read "EF4", or External Fault 4).

19. Close the starter box and switch on the power using the breaker switch.
20. Turn the 3-position toggle switch to “Hand”, and listen for the “clunk” of the relay making contact. Listen for sounds of airflow inside the recorder (this will take several seconds to build up, as the pump as a long initialization and windup cycle).
21. Turn the toggle switch to “Auto”

5 CONFIGURATION

5.1 Network

1. Power up the ThermoFlex.
2. Power up the workstation.
3. Verify that the network is configured and the connection is working.

   If this has not been done, contact the applications specialist to configure the network.

5.2 Recorder

Configuration of the Recorder includes setting the media type and head-dependent parameters according to the type(s) of plate the customer uses.

1. Refer to the Configuring New Flexo Media Procedure (Service CD-Media-General Media Documents) for complete instructions on configuring media. A maximum of 8 media types can be configured.

   A summary of the command sequence (where # = media number) is:
   - set media # name <“*name*”> assign name to media - i.e.: “DuPont Cyrel”

- set media # mcode <0,1,2> assign plate type to media
  - 0 – generic aluminum (not used on ThermoFlex)
  - 1 – thermal film ie Kodak Volcano DITF
  - 2 – digital flexographic plates
- set media # inv 0 0 for all current medias
- set hdm # name <"*name*"> assign name to hdm parameters - i.e. "DuPont Cyrel"
- set hdm # ds <"*speed*"> drum speed in RPM
- set hdm # wpower <"*power*"> laser power in watts
- NVS save media # saves media parameters
- NVS save hdm saves hdm parameters
- Backup changed NVS parameters (NVS Dump Diff) and save the file to E: \Service

5.3 Workstation

A general overview of the workstation setup procedure is included here. Refer to the following documents for detailed instructions on how to configure the Allegro Workstation:

- ThermoFlex Operator Manual (03-4094A)
- ThermoFlex Workstation Release Notes (06-0302A)
- Allegro RIP Reference Guide (03-4002B)
- Creo Recorder Interface Release Notes (06-3180B)
- Creo TIFF Downloader Release Notes (06-3144B)

5.3.1 Plate Type Configuration

1. Start the Creo Allegro software.
2. From the Trendsetter menu, select Plate Configuration
3. In the Plate Configuration dialog box, select New.
4. In the Plate Type Specifications dialog box:
   - select the Media Type
   - enter the Plate Name
   - enter Around Drum, Along Drum and Thickness values for the plate type
5. Repeat steps 3 and 4 for each plate type and size commonly used at this customer site.
6. After any changes are made to the Media or Plate Configuration, restart the Creo Allegro software twice for the changes to be recognized.

5.3.2 PPD Generation

After all the plate types have been entered, or after any change to the plate type configuration, a PPD file must be generated. The PPD file is used by an imposition program to define the configuration of the ThermoFlex and its output sizes and formats.

1. From the Trendsetter menu, select Create Trendsetter PPD File.
2. Click the Configure button.

3. In the Configure PPD dialog box, change the information as required.
4. Save the .PPD file on a network drive and/or floppy disk so it can be read into an imposition program on another workstation.
5. Inform whoever maintains the imposition software of the PPD file's location.

5.3.3 Remote Workstation Setup

1. Confirm that the services RCTP.SVC and RCMD.SVC are installed on the Workstation, as follows.

   Check Start Menu, Settings, Control Panel, Services:
   - status of "Remote CMD Service" and "Remote CTP Service" should be **Started**
   - Startup should be set to **Auto**.

   If the services are not installed, refer to the Services Documentation (99-0029 to 99-0032) to configure and activate remote services.
2. Call Creo Response Center to report the modem phone line number, and room phone line number.
3. Have the Response Center dial up the workstation to ensure the remote services are functioning properly.
4. Start the Diagnostic Interface serial communications program (Terminal or other).

6 HEAD ALIGNMENT

Below is a brief summary of the procedure to complete the thermal head alignment. The head and debris removal nozzle shipped with the system will have been aligned and configured at the factory prior to shipment. refer to the Thermal Head Installation for ThermoFlex document (77-0061A) for full instructions.

Note: Head imaging parameters and debris removal nozzle setup are determined in a much different manner than for offset litho plate. Consult the latest technical Bulletin on Configuring Flexo Media from the Media web-page of the Technical Library.

1. Remove the power box panel
2. Insert the key into the SIO keyswitch and turn the key up to the "Laser/Mechanical Hazards" position. The LEDs will begin to flash.
3. Fully open the flashcover.
4. Lift the table.
5. Remove the debris removal nozzle from the head (the nozzle mounting plate remains bolted to the head).
6. Initialize the head stage, carriage, and drum, then position them appropriately with the following commands: (wait for each command to complete before entering the next)

```
>>stage init
>>carriage init
>>drum init
>>mode media <n> (where <n> is the preconfigured media number corresponding to the drum surface)
>>drum moveto 3000 h
>>drum soft
```

```
>>carriage moveto 3000
>>stage install
```

7. Turn on the autofocus laser and the head install routine with the following commands:
```
>>focus init
>>head install on
```
8. Zero the head to the drum using the adjustment setscrew as per normal procedure. Clamp the head securely once zeroed. Leave the head install routine running.
9. Note the average values for "sum" and "error" streaming from the head install routine.
10. Insert the debris removal nozzle, and recheck the "sum" and "error" values. The "sum" must not decrease by more than 50 units, otherwise the debris nozzle will need to be adjusted for vertical alignment.
11. Turn off the head install routine and idle the drum
```
>>head install off
>>drum idle
```
12. Rotate the drum by hand to ensure the debris removal nozzle clears the side and leading edge register keystocks on the drum. If either of the keystocks contacts the nozzle, radial adjustment shim will have to be removed from the debris removal nozzle mounting plate. Consult the Technical Library for detailed instructions on adjusting the ThermoFlex debris removal nozzle setup.
13. Return the head stage and carriage to their home positions.
```
>>stage home
>>carriage home
```
14. Close the table
15. Return the keyswitch to its default position and remove the key.
16. Close the flashcover.

7 SYSTEM TESTING

With the system all connected and powered up, it is worthwhile to spend some time checking the operation of each subsystem before trying to image a plate. The following is a sequence of diagnostic commands that will check that each system of the ThermoFlex is functioning.

The workstation and recorder should be powered up, and the drum vacuum starter box toggle switch should be set to "Auto" before starting the sequence.

Command	Action/Result
`stage init`	Initialize stage
`stage moveto 1500`	Head stage moves to position 1500
`stage`	Polls the current stage position
`stage home`	Move stage home
`carriage init`	Initialize carriage
`carriage moveto 78000`	Carriage moves to position 78000 at full speed

`carriage home`	Move carriage home at full speed
`drum init`	Initialize drum
`drum spin 100`	Spin drum at 100 rpm
`drum spin 50`	Spin drum at 50 rpm
`drum stop`	Stop drum
`drum moveto 23000 h`	Move drum to tach tick 23000 and hold position
`drum idle`	Idle the drum
`drumvac on`	Start the drum vacuum pump
`drumvac flow on`	Switches vacuum flow to the drum
`drumvac`	Polls the status of the drum vacuum system
`drumvac relief on` (5280 model only)	Opens the drum vacuum relief valve
`drumvac relief off` (5280 model only)	Closes the drum vacuum relief valve
`drumvac flow off`	Switches vacuum flow to the relief muffler
`drumvac off`	Stops the drum vacuum pump
`dr on`	Starts the debris removal blower
`dr`	Polls the status of the debris removal system
`dr off`	Stops the debris removal blower
`chiller pump on`	Turns the chiller pump on
`chiller on`	Turns the chiller compressor on
`chiller`	Polls the status of the head cooling system
`chiller off`	Turns the chiller compressor off
`chiller pump off`	Turns the chiller pump off
`chiller pump on`	Turns the chiller pump on
`flashcvr unlock`	Unlocks the flashcover
`flashcvr lock`	Locks the flashcover
`flashcvr unlock`	Unlocks the flashcover
`act tvac on`	Starts the table vacuum
`act tvac off`	Stops the table vacuum system
`act tfloat on`	Starts the table air floatation system
`act tfloat off`	Stops the table air floatation system

8 CLEANUP

1. Vacuum inside of recorder.
2. Replace all panels.
3. Clean exterior of machine.
4. Clean the load table with glass cleaner.
5. Clean the drum with a 50% isopropyl alcohol and water solution.
6. Remove all packing material.
7. Vacuum surrounding area.

9 OPERATOR TRAINING

1. Ensure that the operator(s) are clear on how to use and maintain the ThermoFlex including:
   - powering up the ThermoFlex and workstation
   - removing and replacing panels
   - location of abort switch and air shutoff valve
   - changing RIP mode, plate types, page setup information, spool folder locations
   - generating PPD files
   - selecting plate size manually
   - loading, removing plates
   - aborting files during imaging
   - responding to a suspend condition
   - regular maintenance procedures
   - changing filters
   - cleaning edge detect strip, drum roller
   - troubleshooting procedures
2. Before leaving the customer site, complete the Operator Training Checklist in Appendix A.

10 INSTALLATION TEST PROCEDURE

1. Complete a formal ITP with the customer by following document 73-3237A - Installation Acceptance Test Procedure for Creo ThermoFlex 5067/5280. Send the signed ITP form to Creo for confirmation of machine acceptance.

APPENDIX A - Operator Training Checklist

After system installation and before leaving the customer site, ensure that the operators have been thoroughly trained and can successfully demonstrate or describe the following procedures to Creo personnel.

Fill in this checklist and submit to Creo for customer history file when completed.

Before you begin:

- ATP Test files (ATP7a.ps - ATP7e.ps) should be on the Allegro workstation
- three files should be available for imaging purposes.

1. Start with the recorder powered down and the workstation software not running.

Have operator:

- ☐ Indicate where the system power switch is located and power up the ThermoFlex.
- ☐ Start the workstation software.
- ☐ Explain why ThermoFlex won't accept jobs for 3 minutes after powering up. (Laser initializing).
- ☐ Demonstrate how to properly open and remove door panels.
- ☐ Show the location of the air cutoff valve and abort switch
- ☐ Demonstrate how to switch between "RIP to disk" mode and "RIP to plate" mode. For this test, leave system in "RIP to disk" mode
- ☐ Show how to add and edit plate types.
- ☐ Demonstrate how to generate a PPD file.
- ☐ Set workstation for manual plate selection.
- ☐ Set proper page setup information.
- ☐ Demonstrate how to change spool folder locations.
- ☐ Submit and queue 2 Creo .PS files locally from workstation.
- ☐ Load first plate into ThermoFlex.
- ☐ Remove plate from ThermoFlex after imaging plate 1.
- ☐ Abort second file during imaging by dragging job from active image box to held queue and remove plate from ThermoFlex.

2. For this section, set up a plate size in Allegro that is slightly larger around the drum than the plates you are testing. Submit a job for this plate size and load the smaller plate into the machine. This will create a plate size mismatch error condition. Ensure the operator:
   - ☐ Does not power down recorder or software as a means of error recovery.
   - ☐ Correctly responds to workstation error dialogue boxes.
   - ☐ Is able to follow the procedure to "back out" of the load prior to imaging.
3. With the recorder on and the workstation software running, have operator:
   - ☐ Install PPD on front end computer and submit file to TS.
4. For maintenance purposes:
   - ☐ Customer has 2 copies of the ThermoFlex Operator Manual.
   - ☐ Designate customer maintenance person or electrician as qualified to access power box to check and replace fuses.

Have operator:

- ☐ Demonstrate how to change both the high pressure and fans filters and explain the importance of effective maintenance and replacement procedures.
- ☐ Show how to clean encoder disk, drum, and table working surface, and explain what can be used to clean each one.

5. For troubleshooting:

Have operator:

- ☐ Describe the process to follow when a problem occurs.

Customer name: _____

Recorder S/N: _____

Operator names: _____

_____

_____

_____

_____

_____

Creo Representative: _____

Customer Rep: _____

Date: _____

APPENDIX B - Related Creo Documentation

Document	Creo Part Number
Creo ThermoFlex Site Preparations and Requirements	73-3186A
ThermoFlex Service Manual	Service CD
Thermal Exposure Head Installation Procedure for ThermoFlex	77-0061A
Workstation Installation Procedures	Service CD
Creo ThermoFlex Installation Acceptance Test	73-3237A
ThermoFlex Operator's Manual	03-4094A
Allegro RIP Reference Guide	03-4002B
ThermoFlex Workstation Release Notes	06-0302A
Creo Recorder Interface Release Notes	06-3180A
Creo TIFF Downloader Release Notes	06-3144B
Configuring New Flexo Media	Service CD
SERVICE.EXE Managing Services Over Networks	99-0029A
SC.EXE Managing Services Over Networks	99-0030A
Service Utility User's Guide	99-0031A
RCMD.EXE Executing Commands on a Remote Workstation	99-0032A
Remote CTP Utility User's Guide	99-0033A
Neslab CFT33D Chiller Installation and Operation	77-3238A