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### **ME FOLDER PROCESSING GUIDE**

<u>PURPOSE:</u> This document has been prepared to help engineers and suppliers submit manufacturing drawings

in a complete, correct, and timely manner; and to answer frequently asked questions.

<u>SPECIFICATIONS REFERENCED:</u> SD-003 General Drawing and Manuals Specification

SD-010 Standard Equipment Specification Global Common.

<u>CONTACT FOR ASSISTANCE</u>: The Nexteer engineer in charge of your project.

Reprographics Center at nexteer.eng.repro.saginaw@nexteer.com.

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<sup>\*</sup> Information revised or added with this document revision.

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# ME FOLDER PROCESSING GUIDE Online Forms and Tools You Will Need

At nexteerdataexchange.com click on VENDOR DOCUMENTS:



Forms, Templates, Specifications and AutoCAD formats are located there.

Contact the engineer in charge of your project if you have any questions or need assistance with these items.



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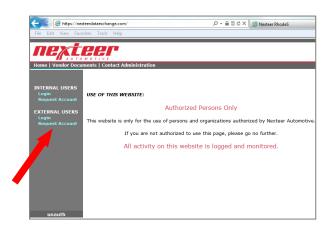
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### ME FOLDER PROCESSING GUIDE HOW TO Establish a Nexteer Data Exchange Account

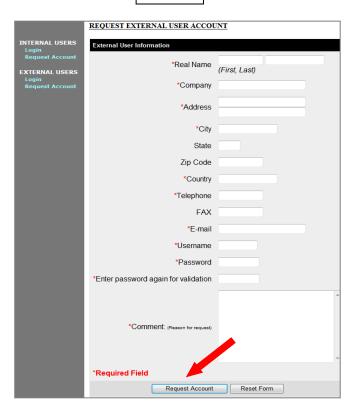
All manufacturing drawings must be uploaded to Nexteer via the Nexteer Data Exchange. To do this, you must first create an External User Account.

- Go to https://nexteerdataexchange.com.
- Under EXTERNAL USERS click on Request Account. (view #1)
- Complete the External User information required and click on Request Account. (view #2)
- You will receive an email with your login information, typically within 24 hours.
- As an External User you can upload ME drawing zip files to the Reprographics Center at any time.





VIEW #2



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# ME FOLDER PROCESSING GUIDE Manufacturing (ME) Drawings

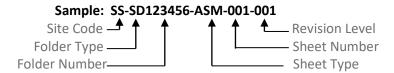
- Suppliers produce electronic drawing files and upload them to the Reprographics Center via the <u>nexteerdataexchange.com</u> web site for entry into the Nexteer system.
- Drawings are for
  - New machines, controls, tooling and gages submitted for the first time.
  - Existing equipment where drawings have never been submitted for review and processing.
  - Retooled / Revised machines, controls, tooling and gages.
- Suppliers work under the direction of the Nexteer Engineer to create drawings and must meet the requirements of Nexteer Specification SD-003 or SD-010.
- Nexteer drawing templates are provided at the Nexteer Data Exchange site.
- Suppliers must obtain approval from the Nexteer Engineer that the job is complete and ready for submission.
- Nexteer Engineers are responsible for and must approve drawing content prior to submitting for processing into the Nexteer system.

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# ME FOLDER PROCESSING GUIDE Nexteer Required Naming Conventions

■ **REQUIRED - NEXTEER DRAWING FILE NAME:** the upload system is automated. Files must show the required naming format to be read and processed.



 Drawings submitted with incorrect file naming will be rejected. A rejection notice will be sent to the contact email address on the X3386 form.

- **REQUIRED NEXTEER TITLE BLOCK:** specific naming convention is required to maintain a consistent format in our global system. The naming convention includes specific site and drawing identifiers.
- Title blocks do contain the site code. Title blocks do not contain the revision level. Revision levels are only shown in the Revision block.

PREFIX - DRAWING NUMBER - SHEET TYPE - SHEET NUMBER
$$SQ - TL123456 - ASM - 001$$

- Required naming conventions are shown in SD-003 (Appendix A) and SD-010 (Appendix D).
- Both drawing file names and title blocks contain the 6-digit asset number or tool/gage number.
   Nexteer engineers receive machine/controls asset numbers from the Purchasing Department.
   Tool/gage numbers are provided by the Reprographics Center.
- Different sites may use the same asset or tooling numbers because our global systems have merged and numbering systems have sometimes overlapped. The naming format is consistent globally, making site code the unique identifier.
- Drawings always retain the original site code and file naming even if the equipment is relocated to a different site.

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### ME FOLDER PROCESSING GUIDE HOW TO: Request New Tooling and Gage Numbers

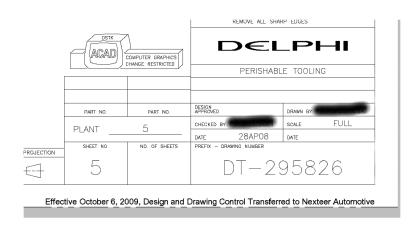
- A Nexteer engineer can request new tooling or gage numbers at any time by placing an email request with the Reprographics Center.
- Reprographics Center Email Address: nexteer.eng.repro.saginaw@nexteer.com
- Email requests should include
  - o the number of tooling/gage numbers needed,
  - o the name of the supplier receiving the number(s).
- The Reprographics Center will reply to the email providing the requested number(s).

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# ME FOLDER PROCESSING GUIDE HOW TO: Use and Place the Nexteer Control Statement

- The Nexteer Control statement is used on drawing formats created prior to 2009. Formats include Delphi and Saginaw Steering Gear drawings.
- Specified control statement wording: "Effective October 6, 2009, Design and Drawing Control Transferred to Nexteer Automotive".
- In 2010 the Nexteer IT department added this statement to drawings that existed in the system.
- When suppliers check out existing ME folders containing older drawings, they will see the control statement has been added.
- Suppliers may submit electronic drawings created with older authorized title blocks, but the supplier must add the control statement to the drawings.
- The control statement must be placed a) beneath the title block; b) as editable text (not blocked);
   c) Standard style; d) Arial font.
- Example title block with control statement position:



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# ME FOLDER PROCESSING GUIDE Preparing Zip Files for Upload

Collect drawings into individual zip files by folder type. Include sheet type as shown in SD-003:

## Machine:

Key for (CCC) - Sheet Type

MCH - Machine, layout, utility, and foundation drawings

VEN – Ventilation drawings

ASM – Assembly drawings SUB – Sub-assembly drawings

SPA – Standard purchased altered parts

CHT – Chart

DPL – Drawing parts list

DET - Detail

GDS – All instruction guides

OSM – Operation & Service Manual

3DD – 3D Dimensional Math Data

#### Controls:

Key for (CCC) - Sheet Type

ELE - Electrical diagrams

HYD – Hydraulic diagrams

PNU – Pneumatic diagrams

LUB – Machine lubrication diagrams

COL - Coolant / quench diagrams

WAT – Water, gas, etc. diagrams

DPL – Drawing parts list

Tool, Die Gage, etc.

Key for (CCC) - Sheet Type

ASM - Assembly drawing

 ${\color{red}{\sf SUB-Sub-assembly}}\ {\color{red}{\sf drawings}}$ 

SPA - Standard purchased altered parts

CHT - Chart

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DPL – Drawing parts list

DET – Detail

3DD - 3D Dimensional Math Data Model

- All 3D files must be collected in one zip file. File name example: SS-SDxxxxxxx-3DD-000-001.
   The 3D zip file can be uploaded separately from 2D drawings using the preferred file naming shown below.
  - Zip file size should not exceed 500MG.
- Preferred zip file naming includes the date you uploaded to the Data Exchange. Examples:
  - ST-SD123456-C 15-Jan-2020
  - o SQ-SD123456-M 20-Feb-2020
  - o SH-TL123456 06-Mar-2020
  - o SB-GA123456 27-Sep-2020
  - Do not use commas ", " in file names we are unable to download these zip files.

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# ME FOLDER PROCESSING GUIDE The X3386 ME Folder Request for Change Form

- All drawing zip files must include a X3386 ME Folder Request for Change Form.
- X3386 form contains information needed to create the ME folder, supplier and Nexteer engineer contact information.
- A template of this form is available at the Nexteer Data Exchange site.
- Zip files uploaded without this form will be rejected. An email notification will be sent to the person who uploaded the zip file.
- The X3386 supplier and contact information must be updated as needed with ME folder revisions.
- Note: In the past the X-3386 was a tab included in the Detailed Parts List (DPL-DS2518).
  - o Suppliers can continue to use this X3386 in existing DPL files.
  - o Supplier contact and Nexteer engineer information must be updated as ME folders are revised.

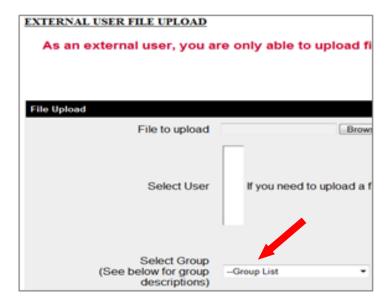
ME FOLDER REQUEST FOR CHANGE FORM							
FOLDER PREFIX:			DRAWING NUMBER:			SITE:	
PLANT(s):			PROD. LINE/FOLDER	DES	C.:		
SUBFOLDER TYPE			AUTHORIZING ENGIN				
DRAWING DESCRIPTION:							
SUBMITTED BY:							
COMPANY:							
EMAIL ADDRESS:							
PHONE:							
FOLDER WILL BE RETURNED IF NOT COMPLETELY FILLED OUT (Yellow fields above should be filled in)							
Sheet No.	Туре	Rev Sym	Obs/New/Rev	M	E		

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### ME FOLDER PROCESSING GUIDE HOW TO: Upload Zip Files at the Data Exchange Site

- Upload individual zip files to the Reprographics Group using the <u>nexteerdataexchange.com</u> web site.
- If your drawings have been created per Spec SD-010 (using your title block template), please state that in the comment section.
- Log on to <u>nexteerdataexchange.com</u> to upload zip files
  - Click "Upload File";
  - o "Browse" to select the zip file being submitted;
  - Click on 'Select Group' and select "Reprographics Center SAG";
  - Add a comment;
  - o Click "Upload File".
- The ME Gatekeeper receives an email notification each time a new folder has been uploaded.
- New zip file uploads are collected daily. They are processed in the order received.



Remember: When uploading you must select the "Reprographics Center – SAG" group. Disregard any name in the Select User block and choose only from the Group List.

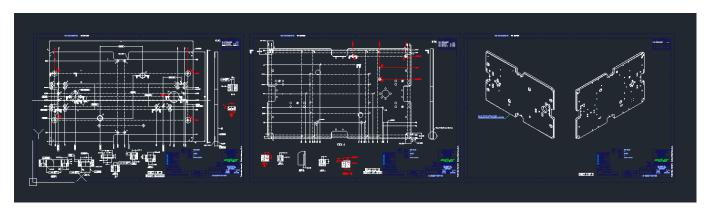
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# ME FOLDER PROCESSING GUIDE Review and Processing of Your Uploaded Drawings

- The ME Gatekeeper is responsible for pulling and processing upload zip files of ME drawings. Zip files are pulled from the Data Exchange and processed in order received.
- ME Gatekeeper checks <u>zip files</u> for:
  - A completed X3386 form.
  - o Contents of the zip file are for a single folder type.
  - Drawing files have the required naming conventions.
- ME Gatekeeper checks individual drawing files for:
  - o Folder number and name matches information on the drawing.
  - o Revision level is noted and follows the required formatting
  - o Image exists and is clear and readable.
  - All drawing objects are within the drawing boarder.
  - o \*\*Multiple templates do not appear on one drawing (example of this is shown below).
  - Title block is complete using the required naming convention.
  - o New drawings are submitted using Nexteer title block.
  - Nexteer control statement is included with older approved title blocks.
- If no errors are detected during the review process, the data is sent to the bulkloader for processing into the Nexteer system.
- ME Gatekeepers make every effort to process drawings the first time they are submitted and when quidelines are followed.
- At their discretion, the ME Gatekeeper may send an email asking the supplier to make minor repairs to selected drawings. Repair and return the drawings promptly, via the same email, for continued processing of the upload.
- Rejected zip files are deleted from the system. Drawings must be repaired and the zip file uploaded again to be processed in the order received.

\*\* Example: combining multiple templates in one drawing is not accepted. All content must be placed on one template and drawing size enlarged as needed.



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# ME FOLDER PROCESSING GUIDE Revise Existing ME Folders and Drawings

- Drawings in the Nexteer system are made available to Nexteer Engineers and Suppliers for revision.
- ME Folders selected for revision must be checked out by the Engineer/Supplier and flagged in Teamcenter by the Reprographics Center.
- The check-out flags alert everyone that review/revision is taking place at a Nexteer engineer's request.
- Existing ME folders are checked out by submitting the X3012 Request for Folder Form.
- No changes can be processed by others while the ME folder is checked out.
- If revised and/or new drawings are uploaded prior to the ME folder being checked out, the upload will be rejected. An email notification will be sent to the contact person listed on the X3386 form.
- Revised and/or new drawings must meet the requirements of Nexteer Standard Spec SD-003 or SD-010.
- Revised drawings must show a revision update in the revision block. They cannot be submitted to replace drawings at the same revision level (drawing exchanges are not allowed).
- Revised and/or new drawing added to an existing ME folder must be reviewed and approved by the Nexteer engineer prior to uploading.
- Upload only revised (and/or new) drawings once changes are complete and approved. Do not return drawings that have not revised.

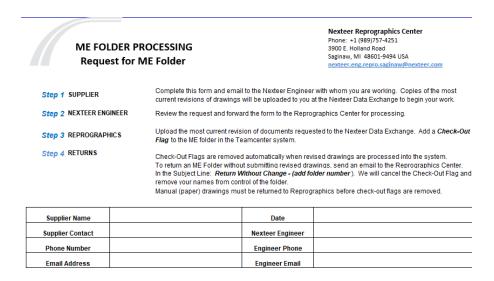
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#### ME FOLDER PROCESSING GUIDE

#### **HOW TO: Check Out Existing ME Folders to Revise or Add Drawings**

The X3012 Request for Folder Form is used to check-out existing ME folders. Checking out and revising ME folders has four (4) steps as shown on the X3012 form.



#### Step 1: Supplier

Complete the Request for Folder Form (X3012). Email a copy to the Nexteer engineer working with you on the project. You can request more than one ME folder when using this form.

#### Step 2: Nexteer Engineer

Forward the completed form to the Reprographics Center for processing. <u>This action confirms your knowledge and approval for release of drawings to the supplier.</u>

#### Step 3: Reprographics Center

Zip together a copy of the most current revision of every drawing in the folder, including the DPL.

Upload the zip file to the supplier using the nexteerdataexchange.com site.

Suppliers download requested zip files from the data exchange.

Pull manual folders (paper drawings) if needed.

Reply to the email request stating the request has been processed.

#### Step 4: Returns

ME Folders remain checked out until revised drawings are uploaded to the Data Exchanged and processed into the system by the ME Gatekeeper.

ME Folders can be returned without changes by following instructions on the X3012 form.

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#### ME FOLDER PROCESSING GUIDE

Legacy Drawings - Defined, Check-Out, Revise and Repair

- Legacy drawings are defined as drawings for older equipment that were not uploaded to Teamcenter when the equipment was purchased. Legacy drawings have now been added to the system.
- Legacy drawings were uploaded as submitted. They did not pass through the standard ME Gatekeeper correction process. Legacy folders have been identified in PLM with a notation in their Properties Description.
- Individual Legacy drawings must be repaired as they are revised to meet current SD-003 and SD-010 drawing standards.
  - o It is not necessary to correct the Legacy problem on every drawing when the ME folder is checked out.
  - o Only drawings being revised at the Nexteer engineer's request must have their Legacy issue corrected.
  - New drawings added to the folder must meet current drawings standards.
  - All revised and/or new drawings will be reviewed by the ME Gatekeeper.
  - If the only change to a drawing is a Legacy correction it must show a revision change to document the correction.
- The most frequently identified legacy problems include standard naming and format requirements:
  - Incorrect naming convention in the title block.
  - Missing revision block and/or lack of information in the revision block.
  - o Drawing file name does not match the title block information.
- The Reprographics Center has created and is maintaining a list of ME folders with Legacy issues. Nexteer
  engineers and suppliers will be alerted to ME folders' Legacy status when Reprographics staff responds to
  the email check-out request. The following statement will be included in the email reply:

NOTE: Legacy drawings are included in your upload(s). You are required to make corrections to any Legacy drawings you revise.

The Legacy description will remain in place until all problem drawings are repaired.

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### ME FOLDER PROCESSING GUIDE Saginaw Site Only - About Manual (Paper) Drawings

- The Reprographics Center or Plant Engineers may be storing folders of manual (*paper*) drawings that have never been processed into the system.
- Drawing folders may be all manual (all paper) or a combination of paper and electronic.
- Engineers or Suppliers can deliver folders of manual drawings to the Reprographics Center at any time for review and processing into the Teamcenter system.
- Manual (paper) drawings are scanned into the Teamcenter system and viewable in a PDF format.
- Once scanned and processed into the system, paper drawings are maintained in the Reprographics Center

   they are not returned to the Engineer or Supplier.
- Manual sheets that have been redrawn electronically need not be plotted.
- All paper drawings must be submitted to Reprographics do not discard paper drawings that have been redrawn electronically. Reprographics will do this once the electronic replacements have been processed.
- If a folder contains both electronic and manual (paper) drawings, the manual drawings are delivered to the Reprographics Center for processing and electronic drawings are uploaded at the <a href="mailto:nexteerdataexchange.com">nexteerdataexchange.com</a> web site. Electronic and manual drawings are processed into the system at the same time as one folder.

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#### ME FOLDER PROCESSING GUIDE

#### Saginaw Site Only - Submitting Manual or Manual/Electronic Folders for the First Time

- Submitting manual folders of drawings for first-time entry into the Nexteer system:
  - Collect manual (paper) drawings in a paper jacket and label the jacket. The Reprographics Center will
    provide instructions or assistance with this as needed.
  - Complete an ME Folder Request for Change Form (X-3386) and staple it to the outside of the drawing jacket. The X-3386 must list every drawing and DPL sheet in the manual folder.
  - Deliver the folder of manual drawings to the Reprographics Center for processing. If you are a supplier that
    does not have access to the Reprographics Center, ask the Nexteer Engineer working on the project to
    deliver the folder for you.
  - The manual drawings are scanned and processed into the Nexteer system and maintained in the Reprographics Center.
- Submitting manual/electronic folders of drawings for first time entry into the Nexteer system:
  - o Follow the steps above to prepare and submit the manual (paper) portion of the folder.
  - Upload the electronic portion of the folder via the Nexteer Data Exchange.
  - Only one ME Request for Change Form (X-3386) is required listing all of the drawings. It should be
    included in the zip file with the electronic drawings and a copy stapled to the outside jacket of the manual
    folder.
  - All paper drawings must be submitted to Reprographics do not discard paper drawings converted to electronic format.
  - o Manual sheets that have been redrawn electronically need not be plotted.

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#### ME FOLDER PROCESSING GUIDE

#### Saginaw Site Only - Revising and Returning Existing Manual or Manual/Electronic Folders

- Manual and Manual/Electronic folders are checked out using the same method used for all-electronic folders.
  - o The supplier is notified that a manual folder is pulled and ready for pick up.
  - o Suppliers with access to the Reprographic Center can pick up drawings at any time.
  - o Suppliers without access can have the Nexteer Engineer collect the drawings for them.
- When returning revised manual drawings for review and processing:
  - o A completed copy of the X-3386 must be stapled to the outside of the manual folder;
  - All drawings must be returned, including those redrawn electronically or made obsolete;
  - o Manual sheets that have been redrawn electronically need not be plotted;
  - o An electronic copy of the X-3386 must be uploaded using the nexteerdataexchange.com web site;
  - When uploading the electronic portion of the folder, return only those drawings that have been revised or are new to the folder;
  - It is not necessary to return any electronic drawings that have not been revised.
- Manual/electronic folders will not be reviewed and processed until the manual folder is returned.
- If a supplier and engineer have checked out a manual or manual/electronic folder and no revisions or additions are made:
  - o It can be returned and checked in by using the same process for all-electronic folders.
  - o The check-out flag will not be removed from the system until the manual folder is returned.

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# ME FOLDER PROCESSING GUIDE REVISION RECORD

DATE	SECTION	REVISION LOG DESCRIPTION
21-Apr-2015		Initial release
02-Sept-2015	1-A	Update Functional Contacts
	2-E	OSM second language file naming convention
26-Oct-2015	2-B	Site code added to title block required naming convention
09-Dec-2015	2-B	Updated title block naming sample box
15-Feb-2016	2-B	Original site code retained in the event of equipment relocation.
	2-B	Optional format of naming convention.
	2-D	Adding a comment for SD-010 drawings
17-Feb-2021	All	Format Change
		Add Assignment of New Tool/Gage Numbers, new
		3-D drawing submission and maximum zip file size, new
04-Apr-2022	All	Content review. Format refresh.
	11	Multiple templates on one drawing.

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