

TRAINING for CELLFUSION

CELLFUSION™
Lean Enterprise Innovation

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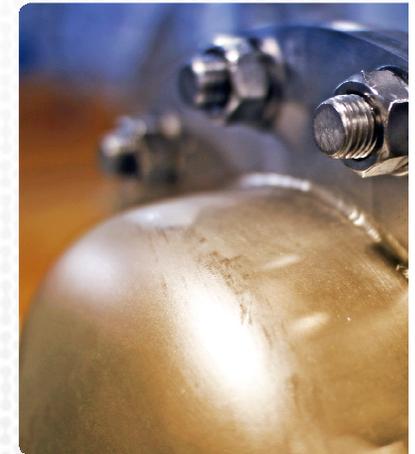
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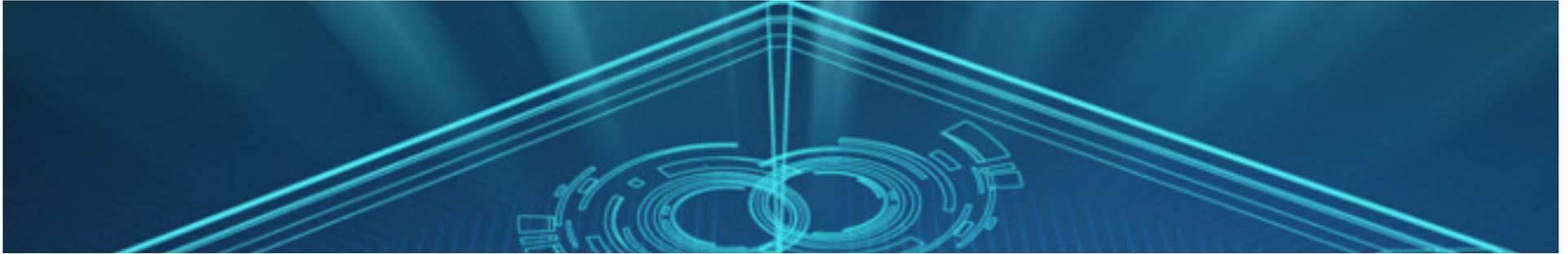
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1) Starting CELLFUSION “CF”



Using the Ichor INTRANET technique is better (more reliable) than using the DESKTOP icon

ichor

ichor intranet home

- self service / e-time
- expense reports
- corporate travel
- business objects
- agile
- oracle / ERP / IMAX
- cellfusion**
- human resources home
- service desk
- pure safety
- order business cards
- powerpoint presentations
- in-house printed collateral
- site locations

welcome to the ichor systems intranet

COMMUNITY & COMMUNICATION. Both words share their roots in the Latin word communis, which means "common". You can't have one without the other.

As the Ichor community expands and changes, the need for effective communication becomes even more important. Please take full advantage of our wide range of intranet services so we can keep our organization strong and competitive.

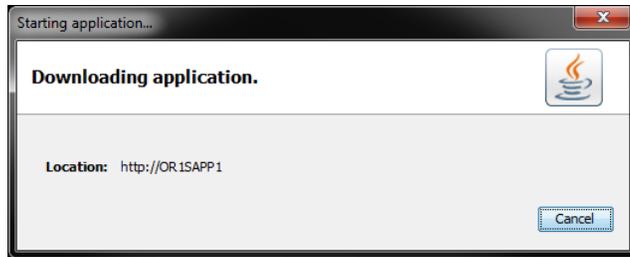
ichor systems

Define. Create. Enable.

DESKTOP icon



The screenshot shows the Ichor intranet home page. On the left is a dark grey navigation menu with the following items: 'ichor intranet home', 'self service / e-time', 'expense reports', 'corporate travel', 'business objects', 'agile', 'oracle / ERP / IMAX', 'cellfusion' (highlighted in white), 'human resources home', 'service desk', 'pure safety', 'order business cards', 'powerpoint presentations', 'in-house printed collateral', and 'site locations'. The main content area on the right has the Ichor logo at the top left, followed by the text 'please follow these instructions...' with a document icon. Below this is the instruction 'Please select Cell Fusion site :'. Two options are listed: 'Portland' and 'Singapore'. The 'Portland' option is highlighted with a red rounded rectangle and a red arrow points to it from the left.



wait patiently please.....

Fill in the **BLUE SQUARES** only !
Then hit the **GREEN CHECK** .

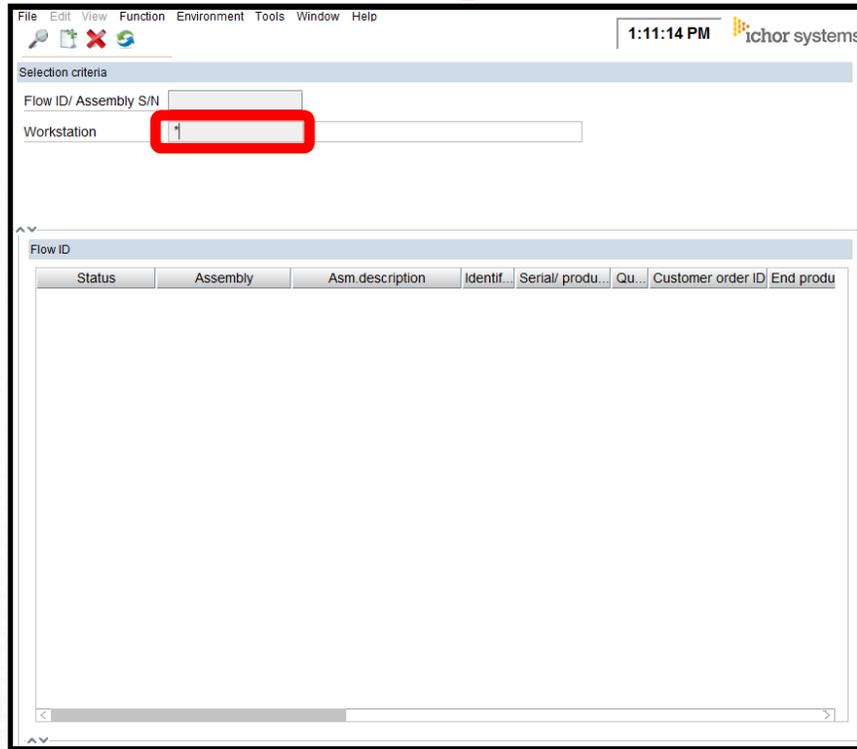
The first time you use your **PASSWORD**
it will be a lowercase z .



For MANUFACTURING use the “*Visual Factory Portal*” where shown...



Next to Workstation put * then ENTER



RESULTS from Workstations

The screenshot shows a list of workstations in a table format. A red arrow points to the 'Workstation' column header. The table has four columns: 'Workstation', 'Workstation description', 'Assembly line id', and 'Assembly line'. The rows list various workstations such as 'Decon', 'AFV-W1', '30 - Leak Check', etc.

Workstation	Workstation description	Assembly line id	Assembly line
Decon	Decon of Kitted Material	Decon	Decontamination
AFV-W1	AFV Workstation 1	LAM AFVI	Lam AFVI Assembly Line
30 - Leak Check	Helium Leak Check		
AFV-T1	AFV Test station 1		
60 - Final Inspection	Final Inspection		
BUW1	Button-up & Inspection WS#1	BU&FI	BUTTON-UP & FINAL INSPECTION
70 - Bagging	Bagging	BAGGING	CLEANROOM BAGGING
AFV-W2	AFV Workstation 2	LAM AFVI	Lam AFVI Assembly Line
AFV-W3	AFV Workstation 3	LAM AFVI	Lam AFVI Assembly Line
AFV-T2	AFV Test station 2		
AFV-T3	AFV Test station 3		
MFC CONFIG	MFC CONFIG	MFC Config	MFC Configuration / Manometer Testing
20-ASSEMBLY	Gas Box Assembly		
AMPDS ASSY WS	Assembly & Integration	AMPDS	LAM AMPDS Assembly Line
B & I - WS1	Button-up & Insp Work Station #1		
BUW2	Button-up & Inspection WS#2	BU&FI	BUTTON-UP & FINAL INSPECTION
TFX1	FUNCT TEST STATION #1	FUNCT TEST	FUNCTIONAL TEST
TFX2	FUNCT TEST STATION #2	FUNCT TEST	FUNCTIONAL TEST
TFX3	FUNCT TEST STATION #3	FUNCT TEST	FUNCTIONAL TEST
PDECAY1	PRESSURE DECAY STATION #1	P-DECAY	PRESSURE DECAY CELL
PDECAY2	PRESSURE DECAY STATION #2	P-DECAY	PRESSURE DECAY CELL
PDECAY3	PRESSURE DECAY STATION #3	P-DECAY	PRESSURE DECAY CELL
PDECAY4	PRESSURE DECAY STATION #4	P-DECAY	PRESSURE DECAY CELL
PDECAY5	PRESSURE DECAY STATION #5	P-DECAY	PRESSURE DECAY CELL
PDECAY6	PRESSURE DECAY STATION #6	P-DECAY	PRESSURE DECAY CELL
PARTICLE1	PURGE & PARTICLE #1	PURGE & PARTICLE	PURGE AND PARTICLE TESTING
PARTICLE2	PURGE & PARTICLE #2	PURGE & PARTICLE	PURGE AND PARTICLE TESTING
PARTICLE3	PURGE & PARTICLE #3	PURGE & PARTICLE	PURGE AND PARTICLE TESTING
PARTICLE4	PURGE & PARTICLE #4	PURGE & PARTICLE	PURGE AND PARTICLE TESTING
PARTICLE5	PURGE & PARTICLE #5	PURGE & PARTICLE	PURGE AND PARTICLE TESTING
INTEG1	INTEGRATION #1	INTEGRATION	GAS BOX INTEGRATION
INTEG2	INTEGRATION #2	INTEGRATION	GAS BOX INTEGRATION
INTEG3	INTEGRATION #3	INTEGRATION	GAS BOX INTEGRATION
INTEG4	INTEGRATION #4	INTEGRATION	GAS BOX INTEGRATION
PA1	PALLET ASSY #1	PALLET ASSEMBLY	PALLET ASSEMBLY
PA2	PALLET ASSY #2	PALLET ASSEMBLY	PALLET ASSEMBLY
PA3	PALLET ASSY #3	PALLET ASSEMBLY	PALLET ASSEMBLY
LC1	LEAK CHECK #1	LEAK CHECK	LEAK CHECK

Use the WORKSTATION ID that you are at. Here are some examples:

DECON PA1 LC1 INTEG1 TFX1
 PA2 LC2 INTEG2 TFX2
 PA3 LC3 INTEG3 TFX3
 PA4 LC4 INTEG4
 PA5

DOUBLE-CLICK the appropriate WORKSTATION that you are at.



For DECON....

Selection criteria

Flow ID/ Assembly S/N

Workstation **Decon** Decon of Kitted Material

1 "DECON" was selected...

2 BINDER WO #

3 Select the correct order #

4 THEN, put the CF FLOW ID # or the ICHOR SERIAL # here and hit ENTER

Status	Assembly	Asm.description	FlowID	Lot/se...	Qty	Cust.ord.	Start date.planned	Event	Operation code	Customer	Build version	ED.pln	Status	En flowid	...	Sales order	FCID
●	853-051190-626	ASSY,AFVI,W/L SIDE...	34	34	1	MJG2379932	05/03/17 06:00 AM	15	10				n process			MJG2379932	
●	853-051190-626	ASSY,AFVI,W/L SIDE...	35	35	1	MJG2379934	05/09/17 06:00 AM		10				n process			MJG2379934	
●	AFVI	AFVI Family (624/626)	36	36	1	MJG2385735	05/09/17 06:00 AM	10-1	10				n process			mjg2385735	
●	853-051190-626	AFVI Family (624/626)	43	43	1	H2381318	05/19/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	41	41	1	MJG2385751	05/20/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	42	42	1	MJG2385750	05/20/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	44	44	1	MJG2384253	05/20/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	45	45	1	H2381335	05/20/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	46	46	1	MJG2385757	05/20/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	47	47	1	MJG2395406	05/20/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	48	48	1	MJG2385756	05/20/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	52	52	1	MJG2402136	05/26/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	55	55	1	MJG2381855	05/26/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	56	56	1	MJG2395405	05/26/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	53	53	1	MJG2382929	05/31/17 12:00 AM		10								
●	853-051190-626	AFVI Family (624/626)	54	54	1	MJG2403751	05/31/17 12:00 AM		10								
●	853-051190-906	AFVI Family (624/626)	50	50	1	MJG2409107	06/07/17 12:00 AM	10-1	10								
●	AMPDS	AMPDS Family	57	57	1	WO123	08/23/17 06:00 AM	10-10	10								

Label: WO # H2329737, ASSEMBLY # 853-208255-701, GB,QSTRATA3,GF125F,KOR, 2/10/2017, 02/18/2017

Follow all **YELLOW BOX** instructions and then click the **GREEN FORWARD** button when complete.

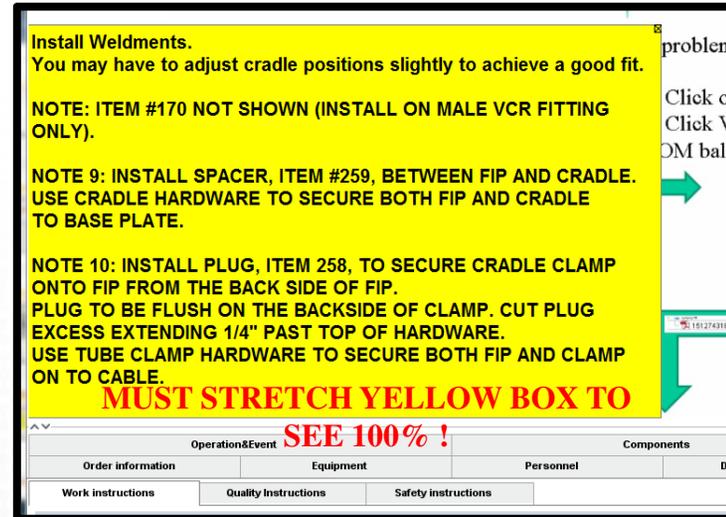
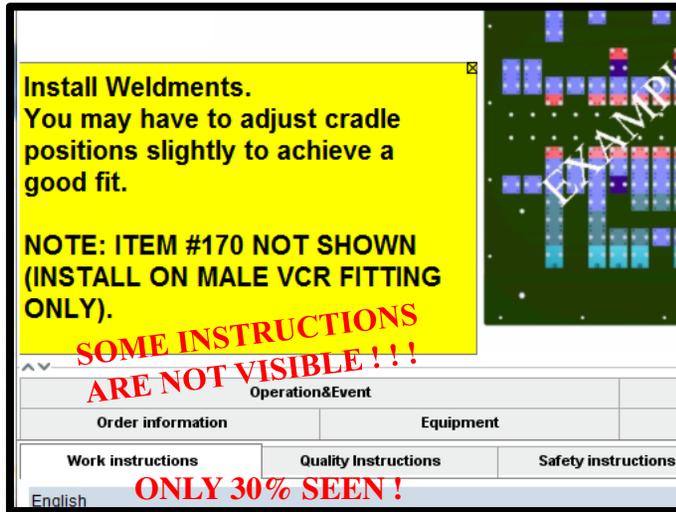
The **GREEN FORWARD** button will be described more in the next section *TOP MENU ICONS*.

In ORACLE, ensure that GAS ASSY has been started with RUN

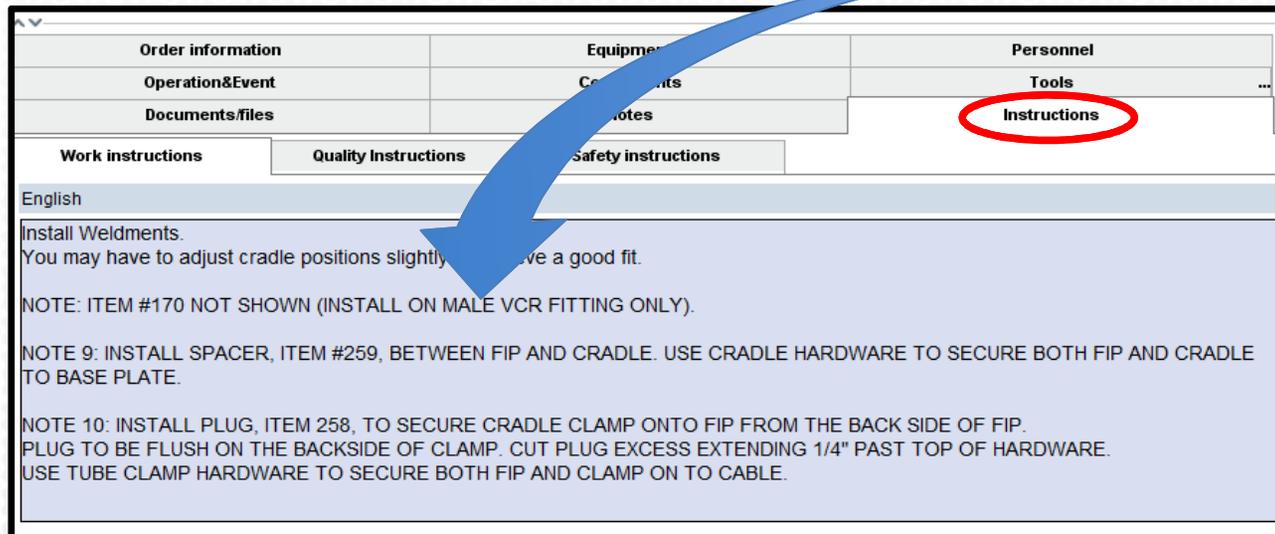
Operation&Event	Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation	Event code	Event description	Event c/t, planned	Operation c/t, ... UOM
	10	GLOBAL DECON	10-00	IN ORACLE, RUN STEP	3.00	18.00 Min



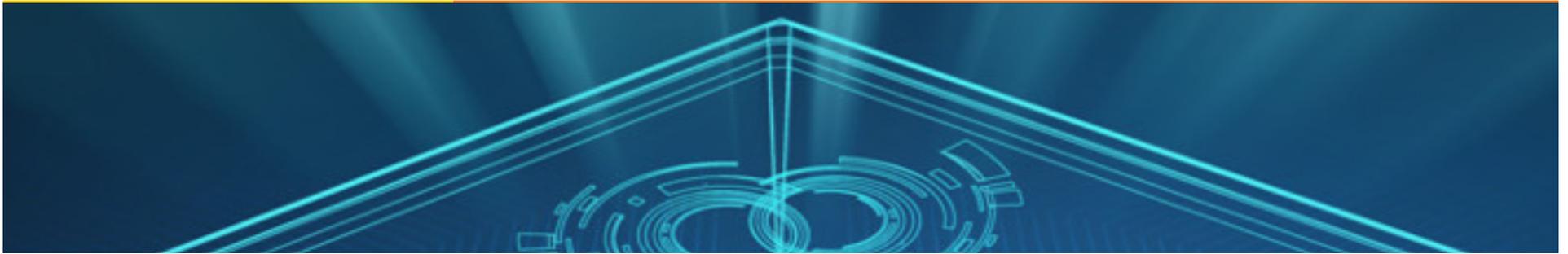
Regarding ALL YELLOW BOX instructions, be sure to stretch them & move them (EXPAND them) so that you can see ALL OF THE INSTRUCTIONS WITHIN.



OR check the INSTRUCTIONS TAB ...

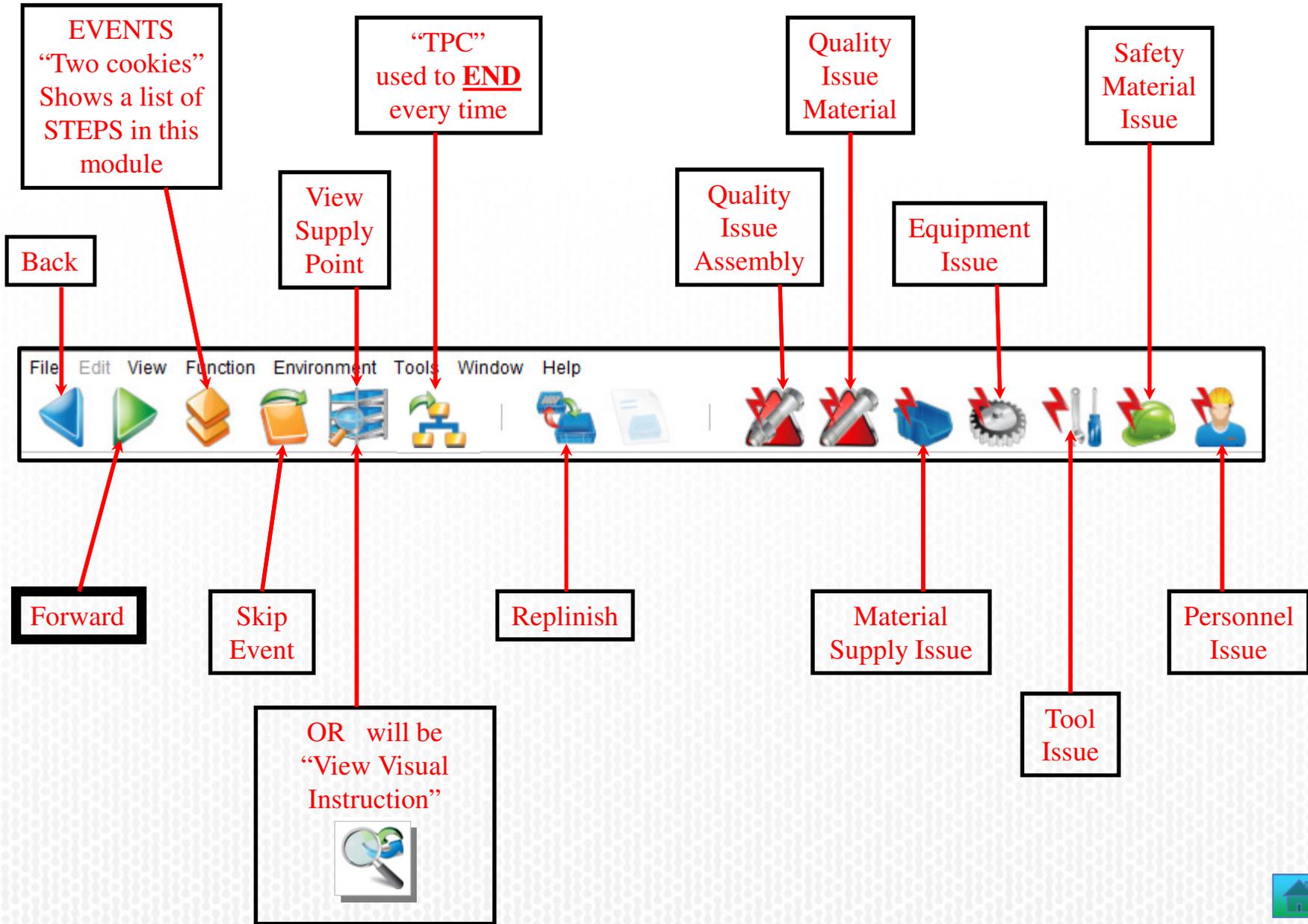


INSTRUCTIONS TAB?
See ALL Instructions 100% of the time !



2) TOP MENU ICONs





DEFINITIONS (alphabetical order)



Back = this button will move you to the previous step in EVENTS.



Equipment Issue = can report an issue with a piece of equipment. *(not being used yet)*



EVENTS = “Two cookies” Shows a list of all steps that need to be completed for that current module.
More details on the next page.



Forward = this button will COMPLETE this step (“making it green in EVENTS”) and then move you to the next step in EVENTS. ALL steps in the EVENTS should be green to be considered COMPLETE and ready for the “TPC”.



Material Supply Issue = can report an issue for some materials. *(not being used yet)*



Personnel Issue = can report an issue with other personnel issue. *(not being used yet)*



Quality Issue Assembly = can report a quality issue to a specific assembly. *(not being used yet)*



Quality Issue Material = can report a quality issue for some materials. *(not being used yet)*



Safety Material Issue = can report a quality issue to a specific assembly. *(not being used yet)*



Skip Event = can skip the current step. A “skipped” step will turn YELLOW (meaning *in-progress*) in the EVENTS and will remain YELLOW (still INCOMPLETE) until this step is completed with the FORWARD button (GREEN).



DEFINITIONS -cont- (alphabetical order)



Tool Issue = can report an issue with a tool (*not being used yet*)



“TPC” = This button is ALWAYS USED at the END of a module. This is what moves CellFusion forward from the current module to the next module.



View Supply Point = The **View Supply Point** is not being used by ICHOR at this time. If you see this button, just click it and it will change to the next **View Visual Instruction** button.

- OR -



View Visual Instruction = The **View Visual Instruction** button will display the visual instructions page.



EVENTS = (continued)

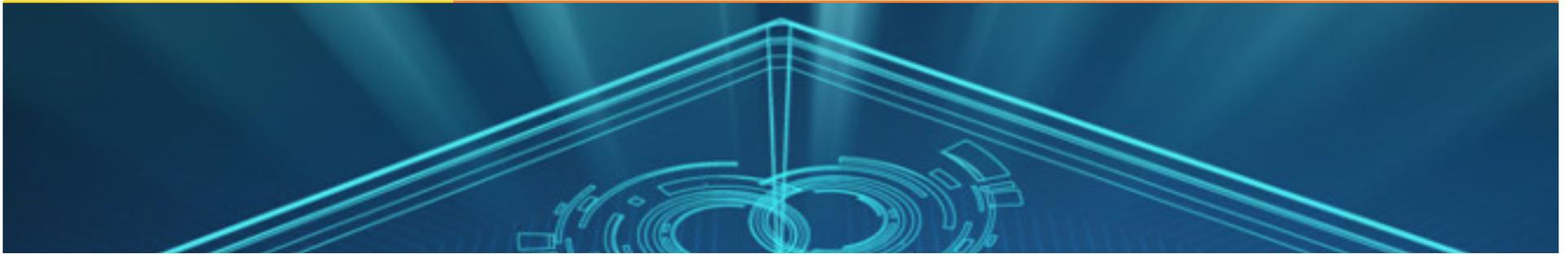
ID	Description	Review by	User(s)
10-10-00	IN ORACLE, RUN STEP	●	
10-10-10	SORT MATERIALS IN BINS	●	
10-10-20	ISOLATE LARGE ASSEMBLY ITEMS	●	Group 1 SCORDIER
10-10-30	STORE MFMS IN SEPARATE BIN	●	
10-10-40	TRANSACTION JOB	●	

GREEN is complete
(GOOD!)

YELLOW is
INCOMPLETE
Must revisit !

BLUE has not
been touched yet.
PENDING





3) How to SERIAL #s



SERIAL NUMBERS :

There are two types of SERIAL NUMBERS:

- 1) Those for SYSTEMS.
- 2) Those for COMPONENTS (MFCs, XDCRs, Pressure Transducers, sub-assemblies from suppliers, PCBs, etc, etc).

Meaning, there will be two different ways to input SERIAL NUMBERS into CELLFUSION.



SERIAL NUMBERS :

1) SN's for **SYSTEMS**. Follow the instructions step-by-step and be sure to input the serial number correctly. Do confirm the number in CELLFUSION is what it should be !

Record System Serial Number.

1. Order Information tab
2. Select edit icon
3. Double mouse click in Serial number field
4. Scan or type in system Serial number from shop routing sheet
5. Verify Serial number with routing sheet
6. Select the Save Icon
7. Select Next Step to continue

Flow Id: 1733
 Serial number:
 Production Order: T2541173
 Customer order: T2541173

Please note:
 The FLOW ID is **NOT** the same thing as a SERIAL NUMBER !

SERIAL NUMBERS :

2) SN's for **COMPONENTS**. Be sure to input the serial numbers correctly.

Again, do confirm that each number put into CELLFUSION is what it should be !

Identification no./ID	Description	SN	UOM	Cons ...	Mat lot/serial no.	SPE	Row	Column
20-10-60	PALLET BUILD-FLOW COMPONENTS INSTALLA...							
PT 4	S/N INFO	EA		1				
Serial number				1				
PT 1	S/N INFO	EA		1				
Serial number				1				
PT N2	S/N INFO	EA		1				
Serial number				1				
PT 6	S/N INFO	EA		1				
Serial number				1				
PT 9	S/N INFO	EA		1				
Serial number				1				
PT 7	S/N INFO	EA		1				
Serial number				1				
PT 5	S/N INFO	EA		1				
Serial number				1				
PT C	S/N INFO	EA		1				
Serial number				1				
PTMA	S/N INFO	EA		1				
Serial number				1				
PTMB	S/N INFO	EA		1				
Serial number				1				
REG H2	S/N INFO	EA		1				
Serial number				1				
REG SIH4	S/N INFO	EA		1				
Serial number				1				
REG N2	S/N INFO	EA		1				
Serial number				1				
REG NH3	S/N INFO	EA		1				
Serial number				1				
REG NF3	S/N INFO	EA		1				
Serial number				1				
REG N20	S/N INFO	EA		1				
Serial number				1				
REG HE	S/N INFO	EA		1				
Serial number				1				
REG AR	S/N INFO	EA		1				
Serial number				1				

Use a barcode scanner whenever possible !
It's easier & faster!!!



THEN BE SURE TO SAVE !

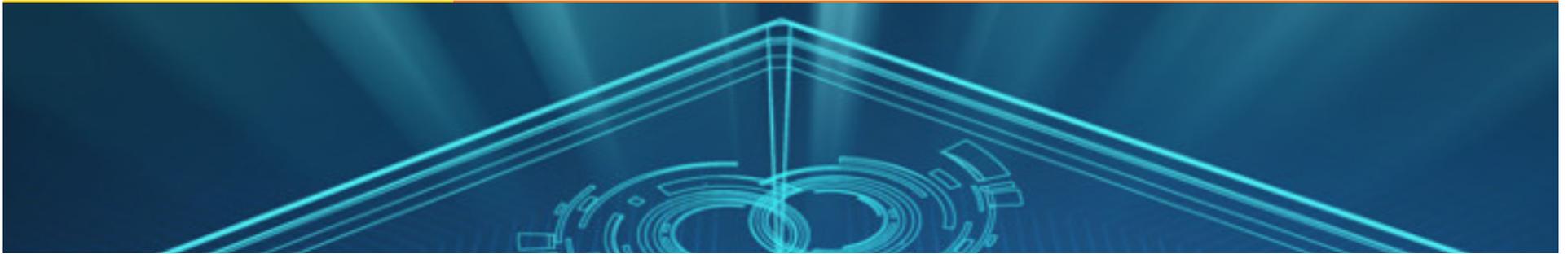


SERIAL NUMBERS :

If you encounter an issue with a **SERIAL NUMBER**, please consult with a

- 1) **Manufacturing Lead**
or
- 2) **Manufacturing Engineer**





4) 3D PDFs



When opening a 3D PDF, please click and wait (be patient). Some files are very big with lots of details. *Thank you!*

The BIG ICONS on the right are being disconnected temporarily.

Please, **DO NOT USE** at this time

Instead,

To open drawings/files/PDFs/3D PDFs, etc, *click the GREEN* check that is under the *Document/Files* tab.

Operation&Event		Components	
Document	WS Issues	Personnel	Documents/files
Operation no.	Open	Description	Usage type
		INSTALL CRADLES	
		Specification Document	Specification Document
74536881		853-166064-700REVB_CRADLE ASSEMBLY	Specification Document

a FULL SCREENSHOT EXAMPLE

Report your problems!

1. Click on sheet to activate 3D model.
2. Click Views, select the sheet to show BOM ball

Click Documents/Files to Open 3D PDF

Operation&Event	Personnel	Documents/files	Instructions
20-10-40-40		3-STICK PALLET PY-CO	
0004		Specification Document	Specification Document
1523364842521		DOC0001_853-049476-001_3 STICK PALLET ...	Specification Document

3D PDFs

File Edit View Window Help

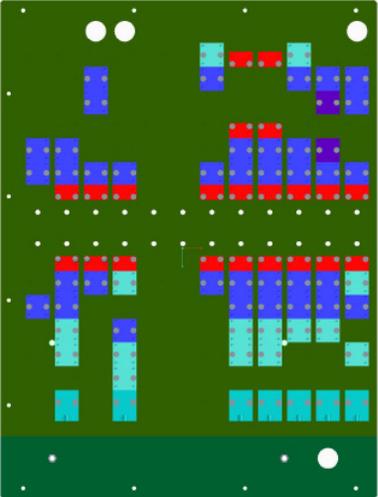
Home Tools 853-166064-700R... x Sign In

3D content has been disabled. Enable this feature if you trust this document. Options Help

Trust this document one time only

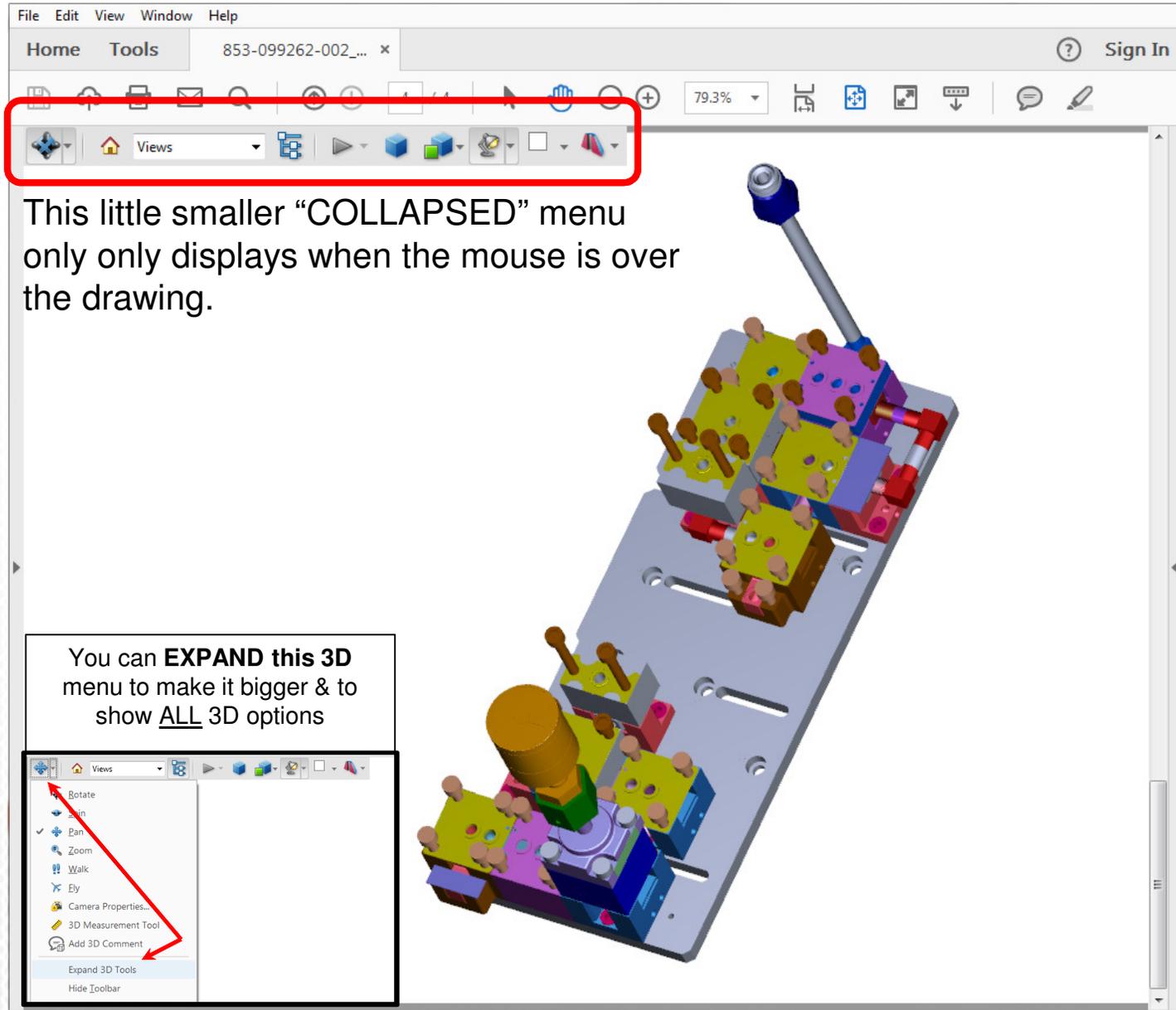
Trust this document always

Click inside WHITE to Activate then:



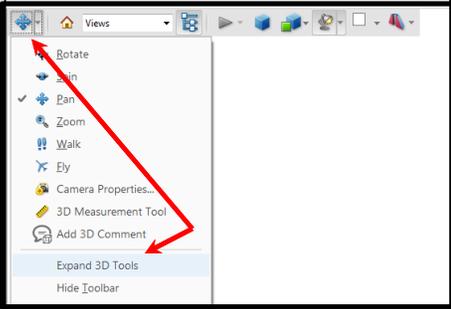
On-Demand Simp Rep CRADLES

3D PDFs



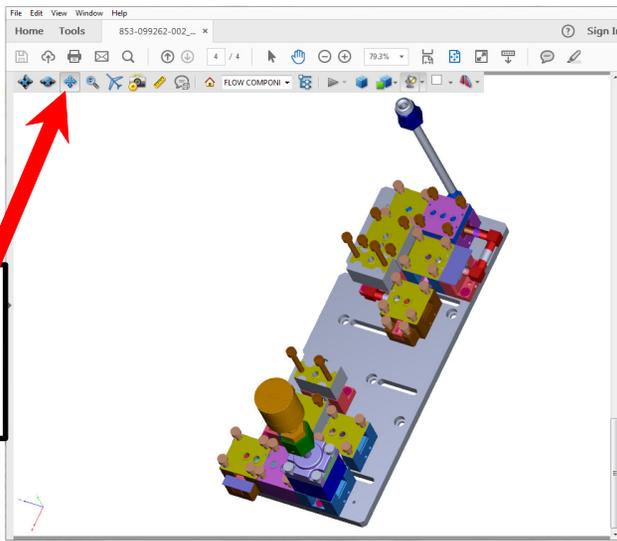
This little smaller “COLLAPSED” menu only displays when the mouse is over the drawing.

You can **EXPAND** this 3D menu to make it bigger & to show ALL 3D options

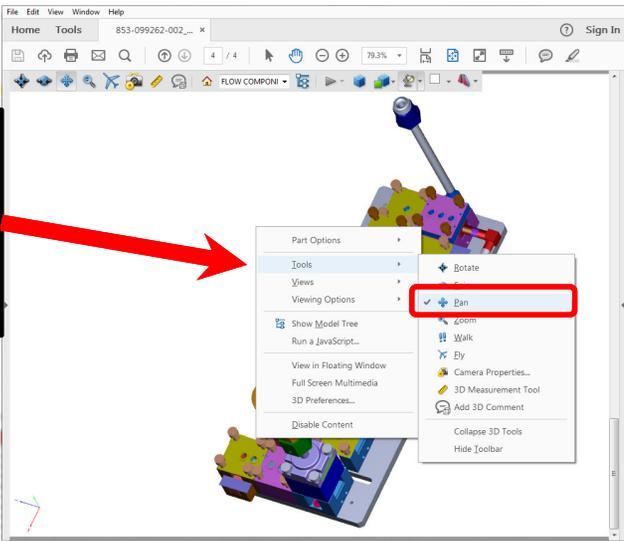


3D PDFs

1) Icon from the 3D MENU

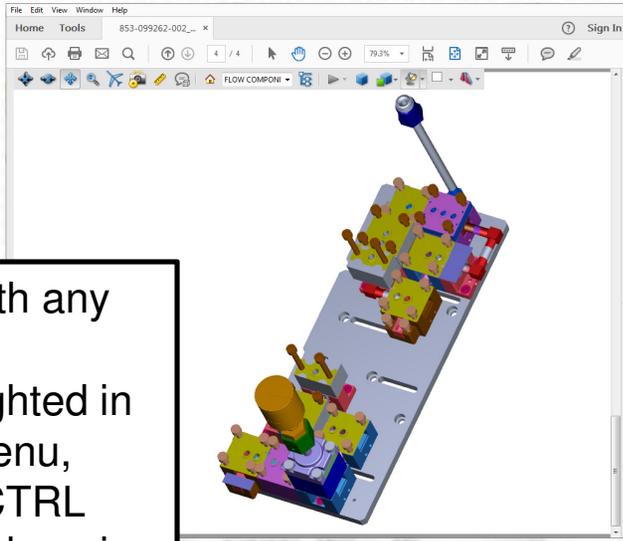


2) RT CLICK on the paper for menu



**3 ways
to PAN!**

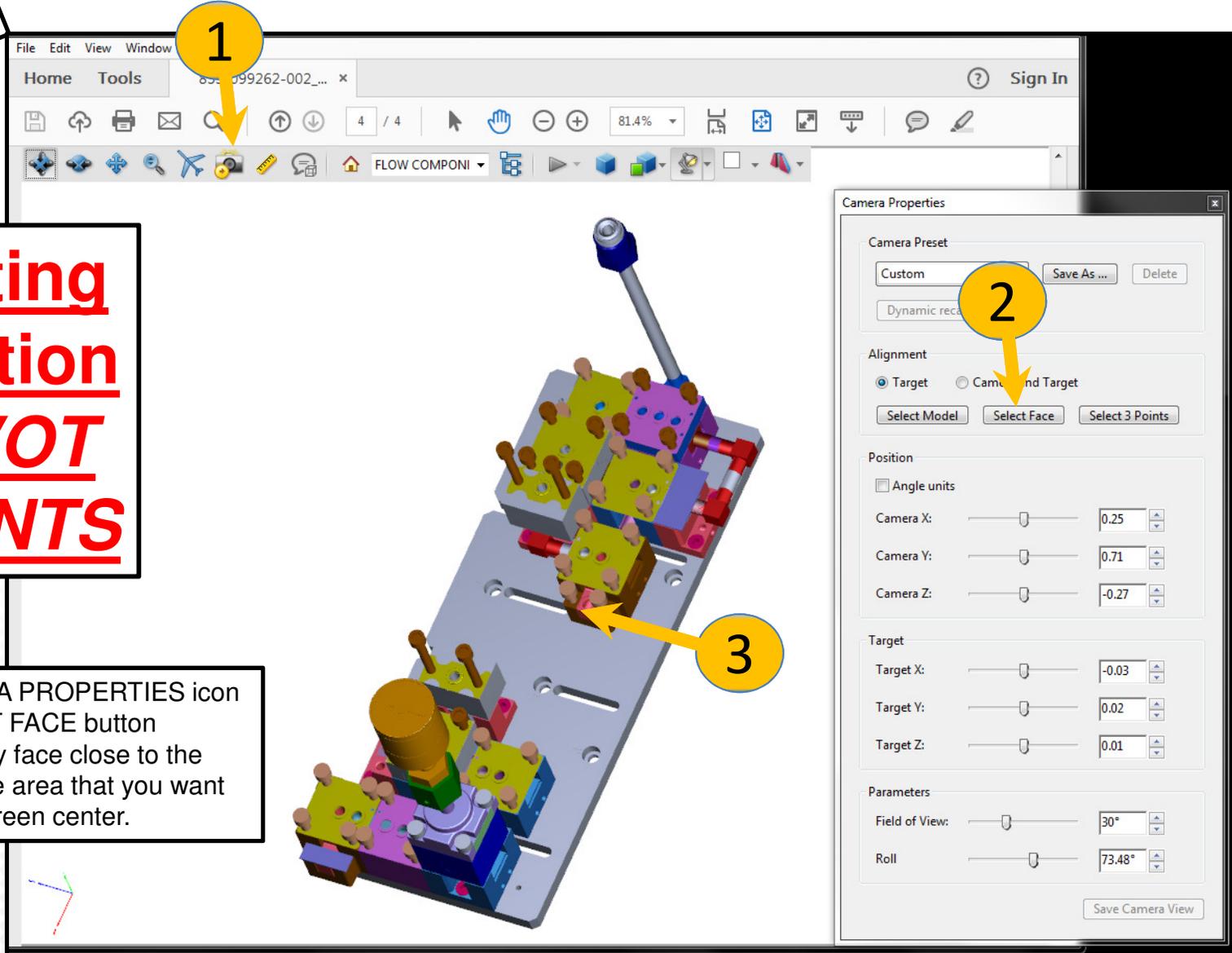
3) With any button highlighted in the menu, hold CTRL while dragging



3D PDFs

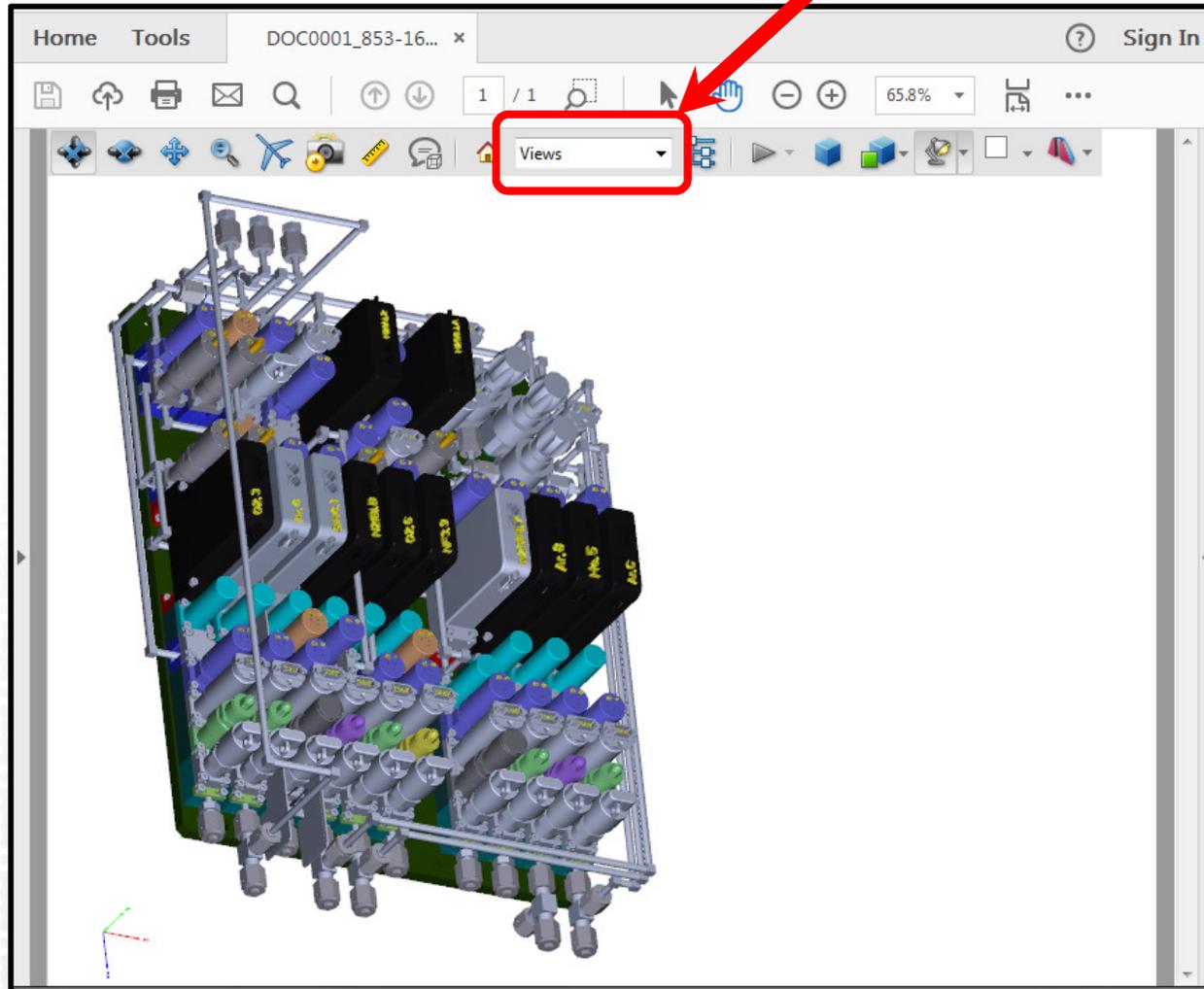
Setting rotation PIVOT POINTS

- 1) CAMERA PROPERTIES icon
- 2) SELECT FACE button
- 3) Click any face close to the middle of the area that you want to stay in screen center.



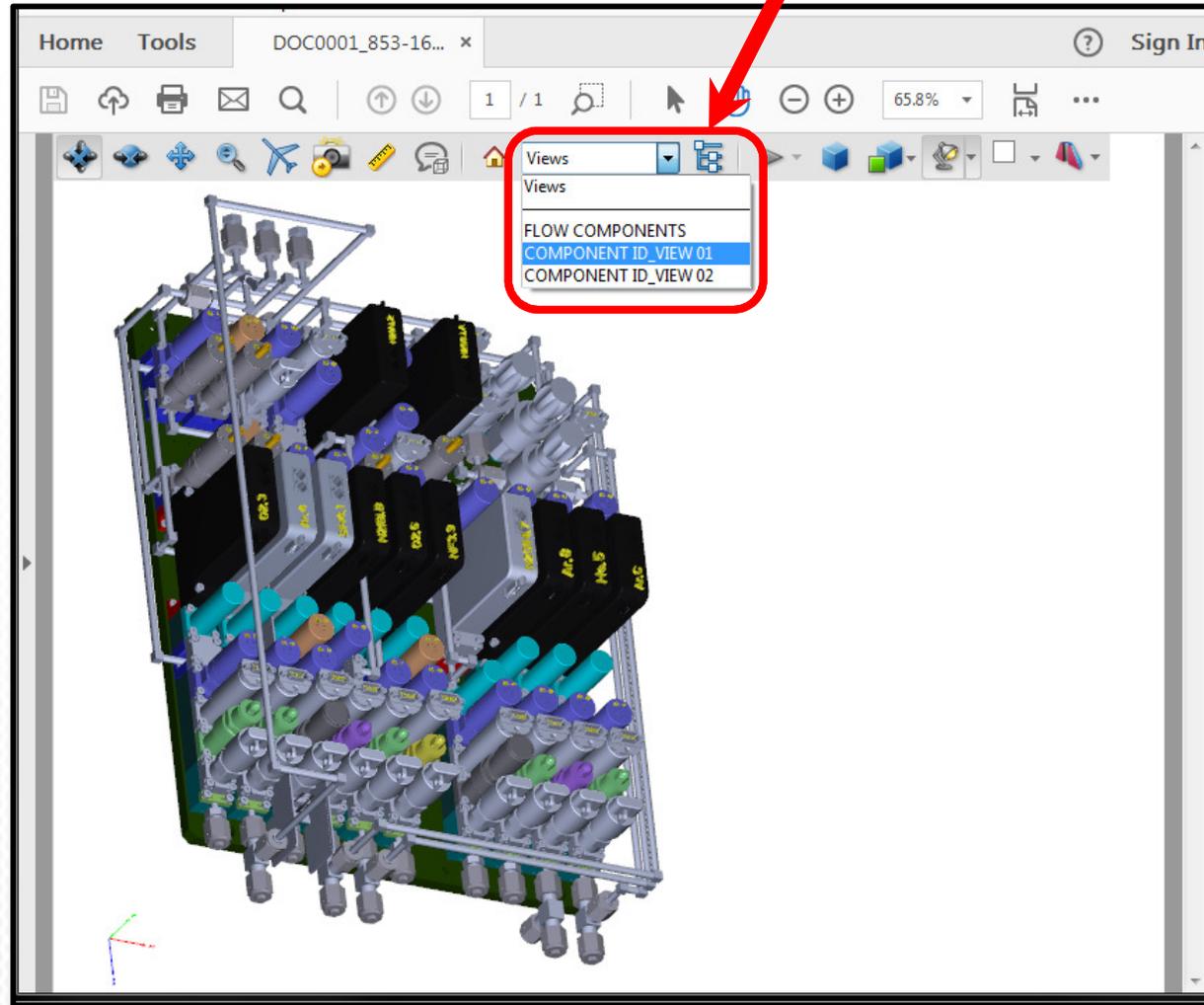
3D PDFs

This VIEWS pull-down should always be checked because it may provide more useful information.

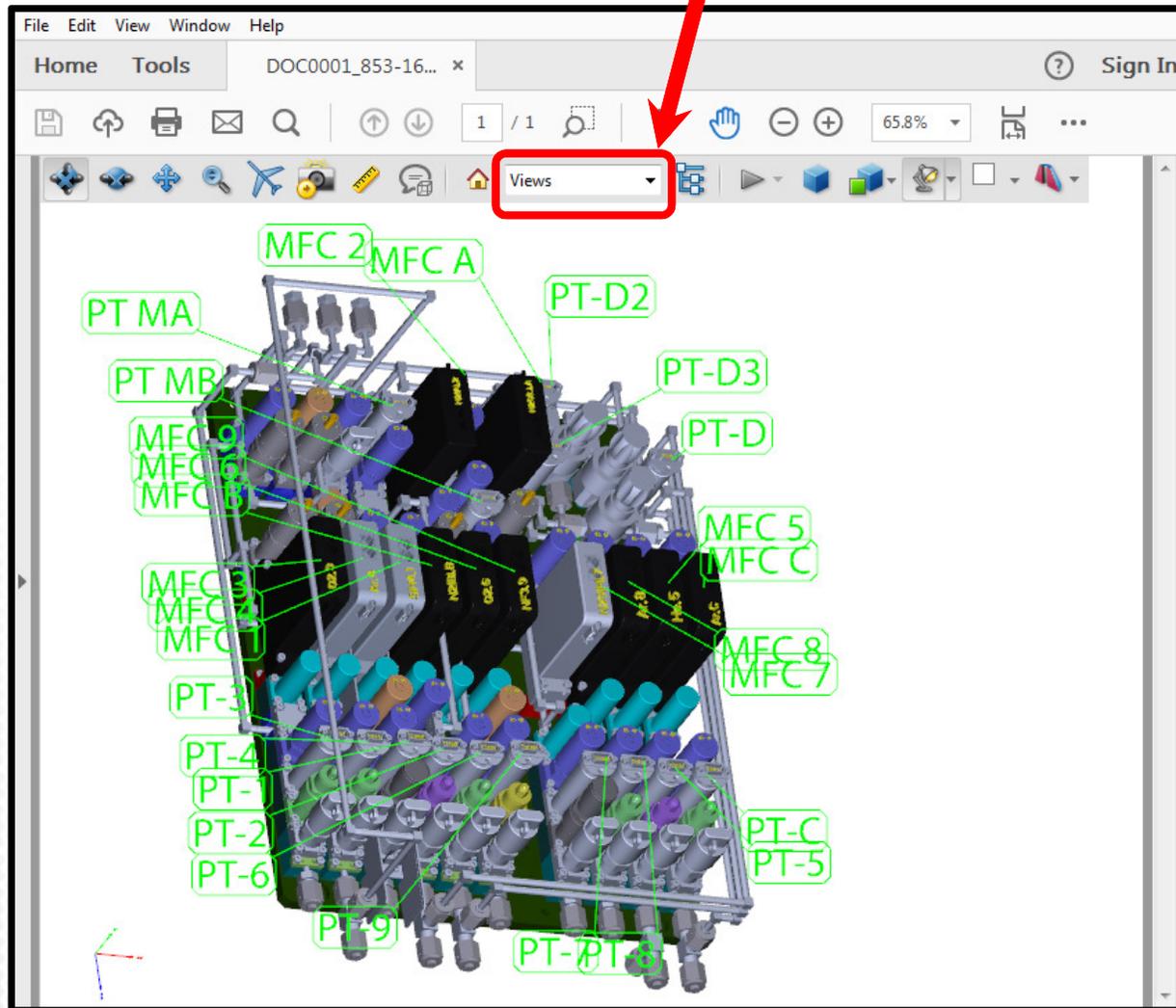


3D PDFs

This 3D PDF has 3 different views with information !

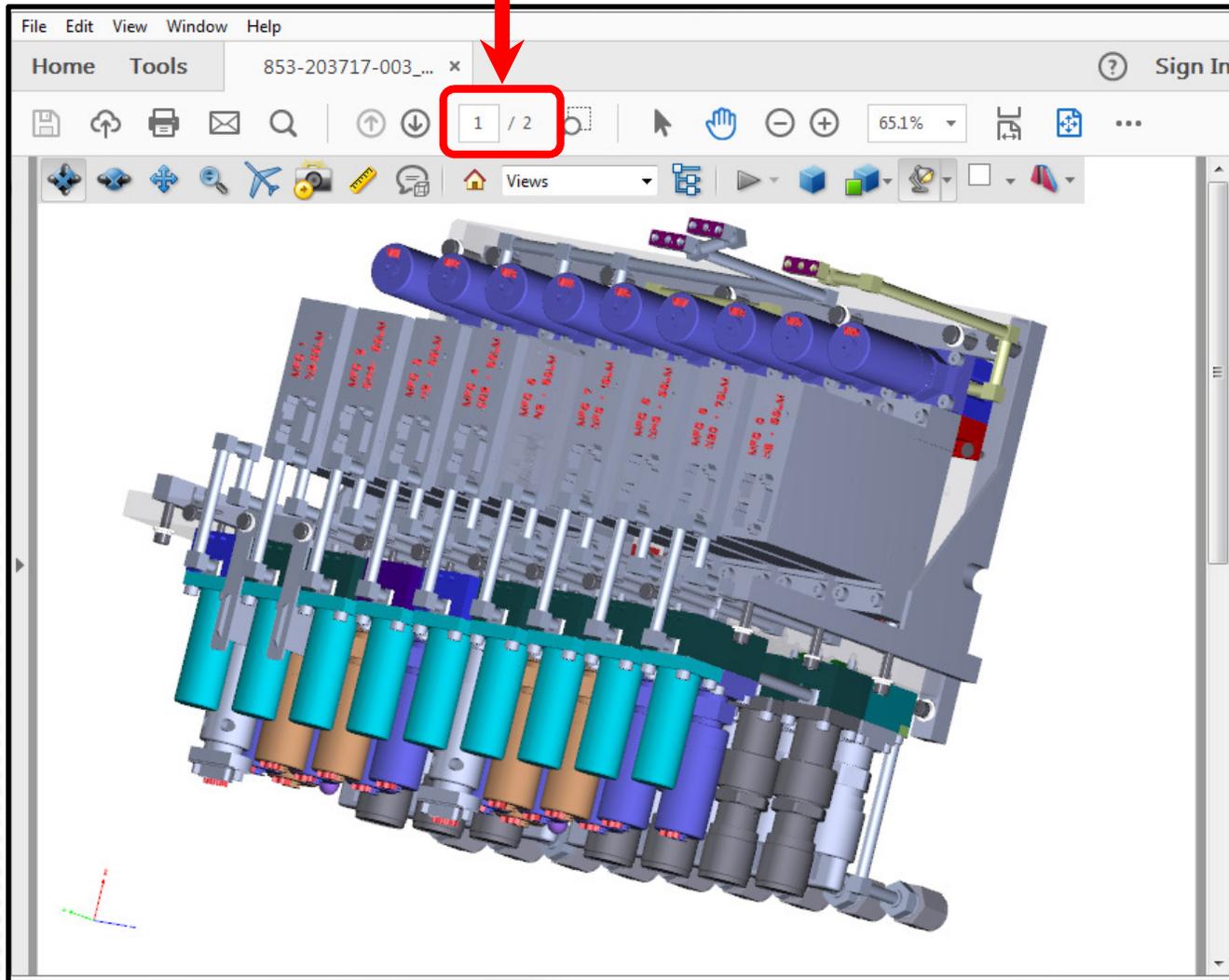


The previously selected view **COMPONENT_ID_VIEW_01** turned ON important information for COMPONENTS.

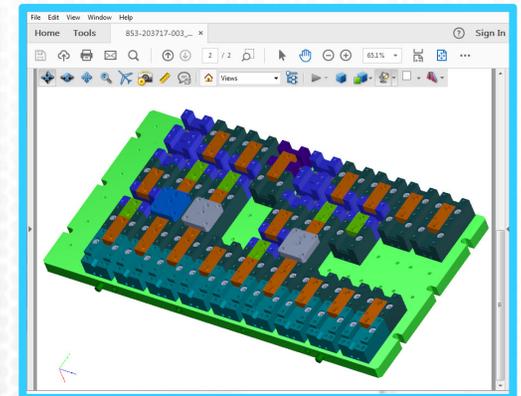


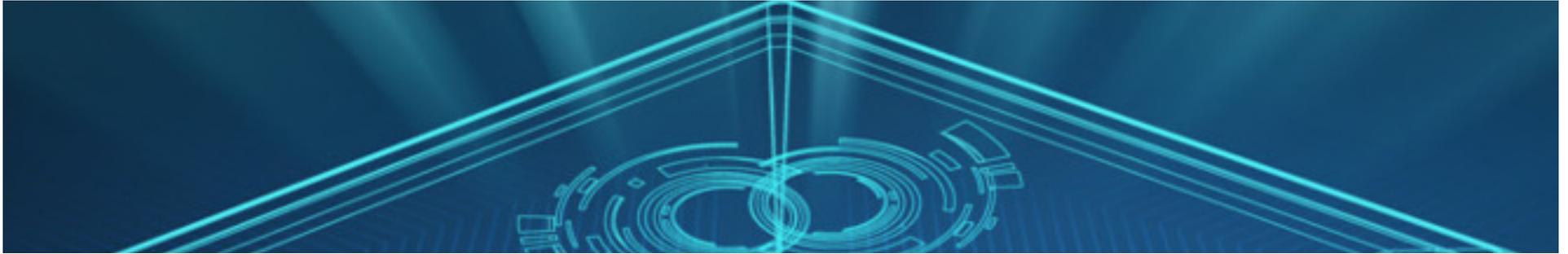
COMPONENTS will be covered in detail in the next section.

Also, be sure to **ALWAYS** check the number of pages available !
This 3D PDF has 2 pages.



PAGE 2
looks like this !





5) COMPONENTS



When you open the 3D PDF, notice the COMPONENTS tab located here.

Report your problems!

Views

SHEET 02_01

Click on this Component to add additional views

Click on sheet to activate 3D model.

Click Views, select the sheet to show

BOM ball

Click Documents/Files to Open 3D PDF

Components

Operation&Event		Equipment	Personnel	Documents/files	Notes	Tools	Instructions	
Order information	Open	Description	Usage type	Extension	Duration	Path	Custom parameters	Media ty...
20-10-70		PALLET BUILD-FLOW COMPONENTS I...						
0004		Specification Document	Specification Document					
1522068294665	✓	DOC0001_853-161277-108_FLOW CO...	Specification Document	PDF		WOR1SAPP1\FileLI...		Acrobat...

The COMPONENTS tab

1

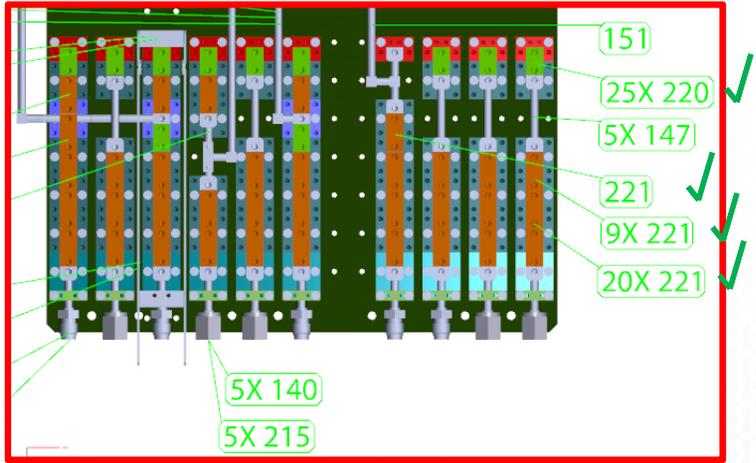
Use the **Material** column from the COMPONENTS tab to determine the part number and then find that part.

2

From the **Pos** column, determine that component's **Position number**. That same **Position number** should then be found on the 3D PDF which tells you where the component goes (and vice versa).

3

3D PDF



4

PLEASE NOTE: If you are unable to find the **Position number** on the 3D PDF (or vice versa) then create a **REDLINE** in CELLFUSION to help get this issue fix/corrected.

REDLINES will be covered more in detail during the next section.

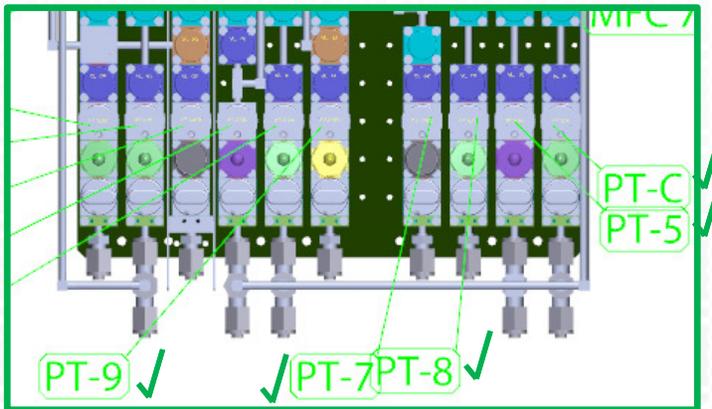
Order information		Equipment		Personnel		Documents/files	
RL/BL	Pos	Material	Description	Material group	Qty	Used qty	UOM
220		220-34854-000	FTG.IGS.C.TALON,1.125 INS...	OEM	25	25	EA
221		220-34855-000	FTG.IGS.C.TALON,1.125 INS...	OEM	39	39	EA
233		138-30359-000	C-SEAL,K1S,MANF.,624,.85...	OEM	1	1	EA
253		115-32420-000	SCR,M4 X 0.7 X 20,SKT HD ...	HARDWARE	2	2	EA
258		22-418009-00	PLUG,PULL THROUGH,ROU...	OEM	2	2	EA
259		15-419756-00	SPACER,1/4" OD X .180 ID X ...	PLASTIC/SHEET MET	2	2	EA



Some components like *MFCs, LFCs, Pressure Transducers, Regulators, & some Sub-assemblies*, require their **SERIAL NUMBERS** be recorded into **CELLFUSION**.

Be sure to record the **SERIAL NUMBER** in CELLFUSION correctly.

Order information		Equipment		Personnel		Docu...		
Operation&Event				Components				
RL/ BL	Pos	Material	Description	Material group	Qty	Used qty	UOM	SPE
	9015	PT C	S/N INFO	NON-PARTS	1	1	EA	
	9016	PT 5	S/N INFO	NON-PARTS	1	1	EA	
	9017	PT 8	S/N INFO	NON-PARTS	1	1	EA	
	9018	PT 7	S/N INFO	NON-PARTS	1	1	EA	
	9019	PT 9	S/N INFO	NON-PARTS	1	1	EA	
	9020	PT 6	S/N INFO	NON-PARTS	1	1	EA	



Workstation: PA1 | PALLET ASSY #1

Assembly: 853-161277-108 | GB,ALD OXIDE,VXT,KEY CUSTOMER

Flow Id: 1355

Through-put qty.: 1 EA

Verification: []

Verification and traceability

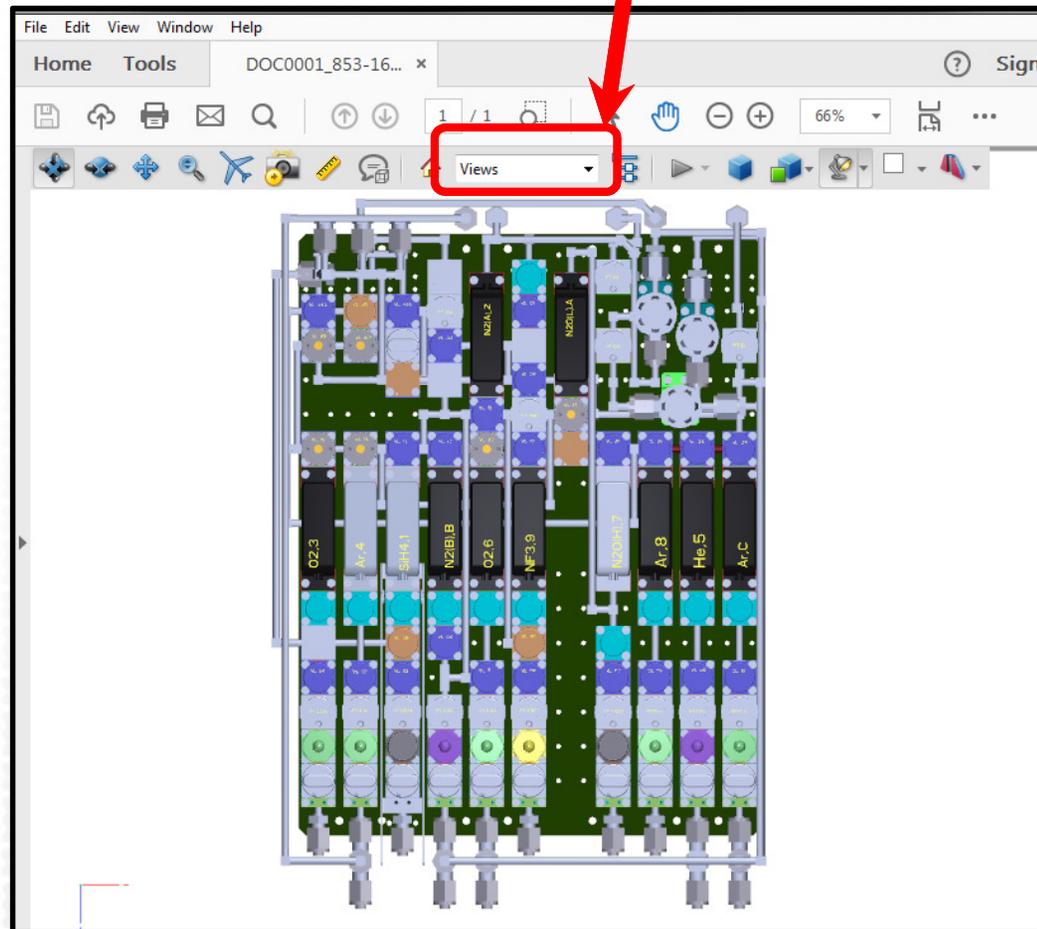
Identification no./ ID	Description	SN	UOM	Cons ...	Mat.lot/serial no.	SP
PT C	S/N INFO		EA	1		
Serial number					1234567890	
PT 5	S/N INFO		EA	1		
Serial number					2345678901	
PT 8	S/N INFO		EA	1		
Serial number					3456789012	
PT 7	S/N INFO		EA	1		
Serial number					4567890123	
PT 9	S/N INFO		EA	1		
Serial number					5678901234	
PT 6	S/N INFO		EA	1		
Serial number					6789012345	

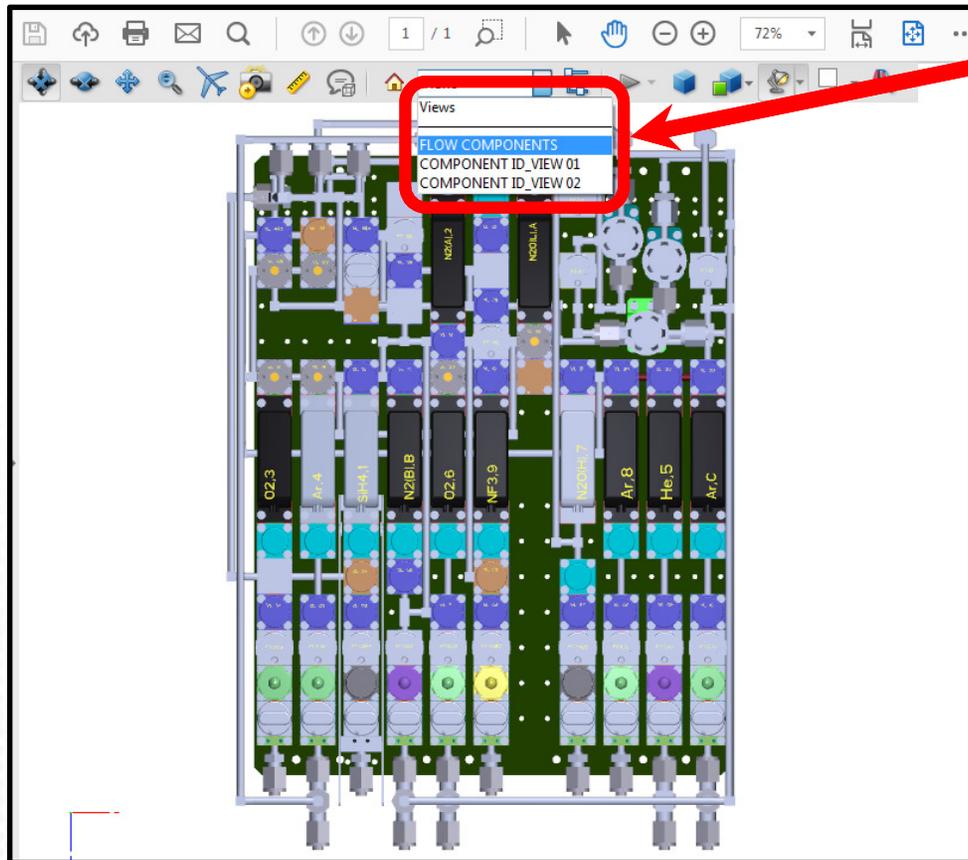
If you encounter an issue with a **SERIAL NUMBER**, please consult with a **Manufacturing Lead** or **Manufacturing Engineer**





From the 3D PDF you will instantly see 3D model components but you will need more information about them. Under the VIEWS pulldown, select a different view.



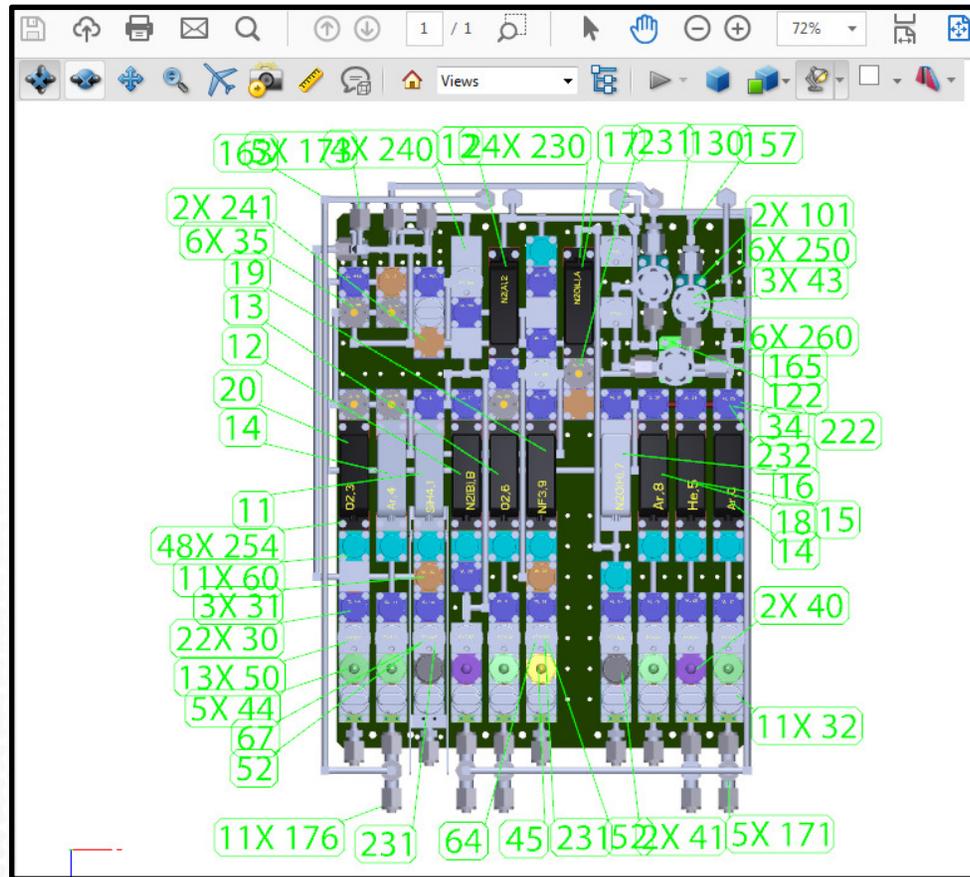


Each one of these views from this 3D PDF has useful information.

The **FLOW COMPONENTS** view pertains to the item #'s and part numbers found on the COMPONENTS tab.

The **COMPONENT ID_VIEW 01 & 02** has information that pertains to the labels (stickers) that goes onto each component.

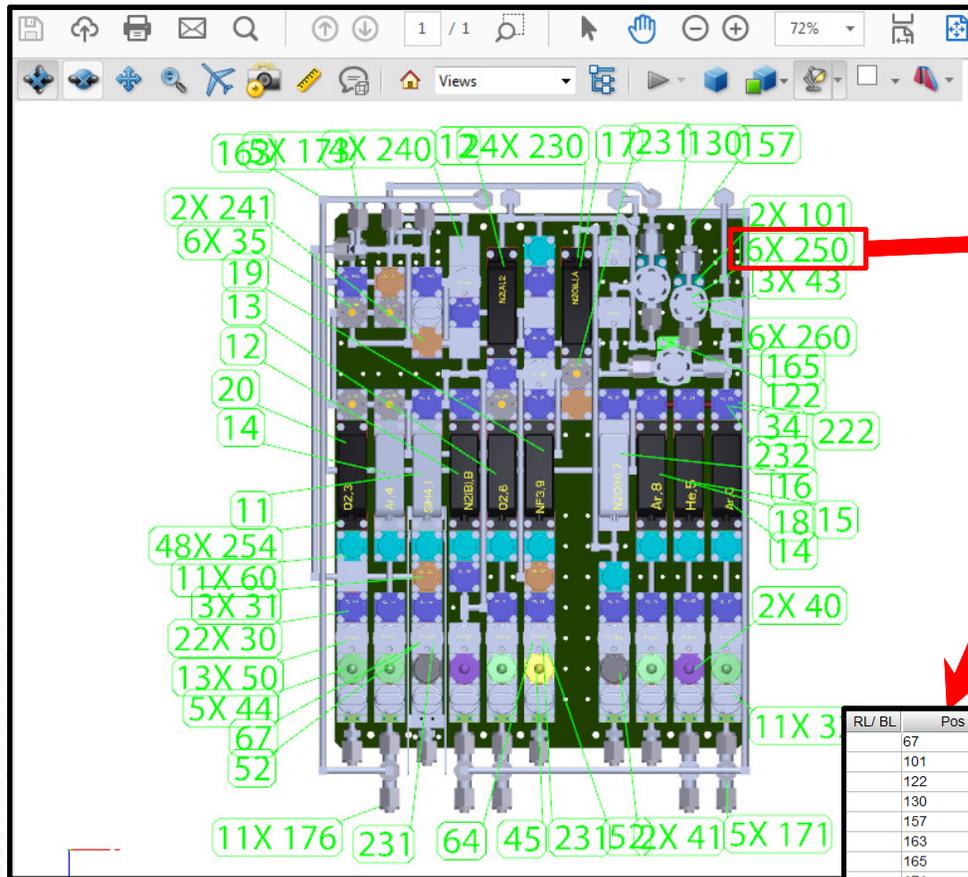




RESULTS of the FLOW COMPONENTS view

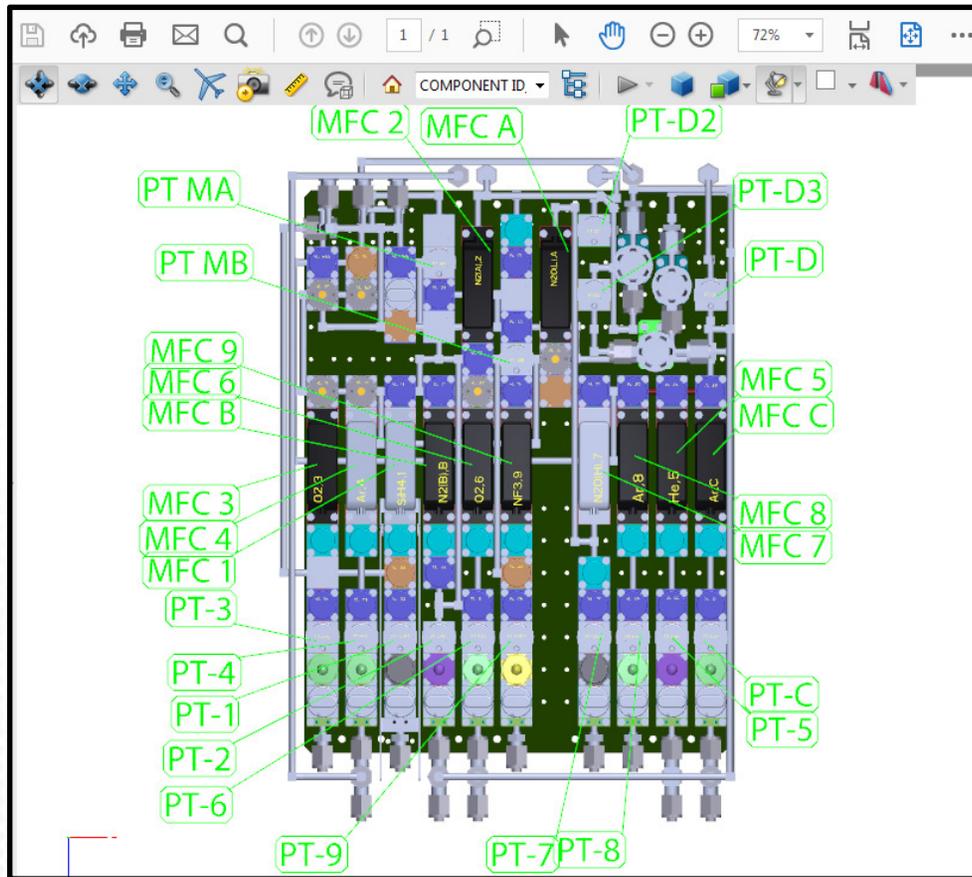


FLOW COMPONENTS view cont.



ALL item numbers provided with the 3D PDF should work with the Pos column from the COMPONENTS tab.

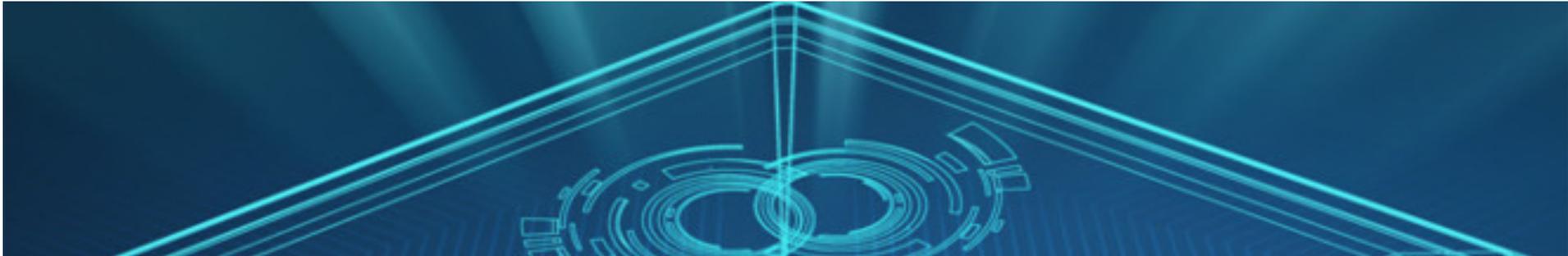
RL/BL	Pos	Material	Description	Material group	Qty	Used qty	UOM	SPE	Row	Col	Event
67		22-455777-00	FTG.RESTRCT,1.875 SLM.SIH4,15PSI...	OEM	1		1 EA				20-10-70
101		17-417965-00	BRKT.REGULATOR,H=1.03H,W=1.13.V...	PLASTIC/SHEE...	2		2 EA				20-10-70
122		714-214558-...	BRKT.SUPPORT.VCR,N2 REG,OXIDE	PLASTIC/SHEE...	1		1 EA				20-10-70
130		839-214134-...	WLDMT,O2 BURST,INLET,OXIDE	PLASTIC/SHEE...	1		1 EA				20-10-70
157		839-214135-...	WLDMT,AR BURST,INLET,OXIDE	PLASTIC/SHEE...	1		1 EA				20-10-70
163		839-173853-...	TUBE ASSY,AMPDS ARGON,CFD OXIDE	PLASTIC/SHEE...	1		1 EA				20-10-70
165		839-213907-...	WLDMT,N2 HVCR-REG,OXIDE	PLASTIC/SHEE...	1		1 EA				20-10-70
171		132-30354-000	FTG,1/4,UNION TEE,7RA	OEM	5		5 EA				20-10-70
173		130-30147-000	FTG,TUBE,PLUG,1/4MVCR,SST,SWGK	OEM	5		5 EA				20-10-70
176		130-30143-000	FTG,TUBE,CAP,1/4VCR,SST	OEM	8		8 EA				20-10-70
222		765-084531-	CRADLE MANE 03-10-0036	OEM	1		1 EA				20-10-70
250		115-30980-000	SCR,M4 X 0.7 X 12,SKT HD CAP,N/PT...	HARDWARE	6		6 EA				20-10-70
260		417-29101-004	SCR,10-32 X 1/4,SKT HD CAP,SST	HARDWARE	6		6 EA				20-10-70
231		138-30130-000	C-SEAL,K1S,2 PORT,SS,W/RETAINER	OEM	3		3 EA				20-10-70
232		138-30131-000	SEAL,3P,1.125C,SS,MSA-028-311	OEM	1		1 EA				20-10-70
241~1		220-41346-000	PLUG,MODULAR TOP,1.125C	OEM	2		2 EA				20-10-70
241~2		115-30980-000	SCR,M4 X 0.7 X 12,SKT HD CAP,N/PT...	HARDWARE	8		8 EA				20-10-70
241~3		138-30130-000	C-SEAL,K1S,2 PORT,SS,W/RETAINER	OEM	2		2 EA				20-10-70



RESULTS of the COMPONENT ID_VIEW 01 view

This view displays many of the labels that should be printed from a label printer and applied to each component as shown.

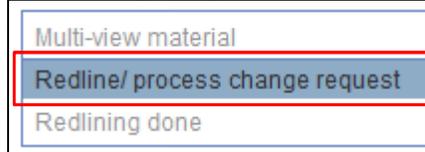




6) How to REDLINE



REDLINES : Here's a quick run-through of the steps.

- 1) Make sure you're on the Operation&Event tab.
- 2) Make sure the appropriate item to change is selected and highlighted below.
- 3) Now, RT CLICK anywhere on the page and select the  **Redline/ process change request**
- 4) Drrrrrrrrrrrrrag a box over the issue then pull it down to make the box bigger & EASIER TO SEE!
A: The REDLINE DESCRIPTION tab is for text only. Be as descriptive as possible by giving as much detail as you can to help others understand what to do.
B: The Document Overview tab is for uploading attachments to help with explaining the issue and fixing the problem (JPGs, DOCs, redlined PDFs, etc) .
- 5) Hit SAVE !
- 6) Still no **GREEN FORWARD** arrow to move forward so RT CLICK anywhere again and select REDLINE DONE to complete the REDLINE.
- 7) The REDLINE box stays !
- 8) Click the **GREEN FORWARD** arrow moves you forward.



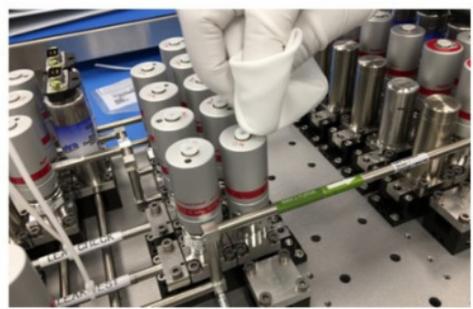
FIND THE ISSUE !!!

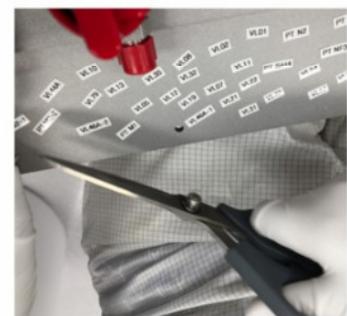


1:13:22 PM

ichor system







**CLEEN EECH & EVERE LOCATION
2 PREPERE FER LABELS.**

**PRINT AND CUT LABELS
APPLY PER ASSEMBLY DRAWING**

Operation&Event

Order information

Equipment

Personnel

Documents/files

Notes

Instructions

Identification no.

Open

Description

Usage type

Extension

Duration

Path

Custom param

20-10-90		CLEAN & INSTALL LABELS					
----------	--	------------------------	--	--	--	--	--



**Now that the issue has been found,
go to the Operation&Event tab**

The screenshot displays the Ichor system software interface. At the top is a toolbar with various icons and a clock showing 1:15:13 PM. Below the toolbar is a grid of five images: two showing gloved hands working on a machine with cylindrical components, one showing a printer, one showing hands using scissors on a label, and one showing a close-up of machine components with labels like VL30, VL39-1, VL39-2, PT M2-1, and PT M2-2. A large red arrow points from the top text box to the 'Operation&Event' tab in the table below. A yellow box contains the following instructions:

**CLEAN EACH & PREPARE LOCATION
2 PREPARE FEEDER LABELS.
PRINT AND APPLY LABELS
APPLY PER ASSEMBLY DRAWING**

Operation&Event		Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation		Event code	Event description	Event c/t, planned	Operation c/t, ... UOM
	20-10	GLOBAL ASSEMBLY		20-10-90	CLEAN & INSTALL LABELS	20.00	49.00 Min



Select and highlight the appropriate item below.
It turns gray or blue when selected.

The screenshot shows a software interface with a toolbar at the top containing various icons for navigation and editing. Below the toolbar is a grid of six images illustrating different steps in a process:

- Top-left: A gloved hand using a green tool to clean a component.
- Top-right: A gloved hand using a red tool to clean a component.
- Middle-left: A gloved hand using a measuring tape on a blue surface.
- Middle-right: A gloved hand using scissors to cut a label.
- Bottom-right: A gloved hand applying a label to a component with various ports labeled (VL30, VL39-1, VL39-2, PT M2-1, PT M2-2).

 A yellow instruction box is overlaid on the bottom-left image, containing the following text:

CLEAN EACH & EVERY LOCATION
2 PREPARE PER LEVELS.

PRINT AND CUT LABELS
APPLY PER ASSEMBLY DRAWING

 At the bottom of the interface is a table with the following data:

Operation&Event	Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation	Event code	Event description	Event s/t planned	Operation s/t
20-10	GLOBAL ASSEMBLY		20-10-90	CLEAN & INSTALL LABELS	20.00	49.00 Min



RIGHT CLICK anywhere and then select REDLINE PROCESS CHANGE REQUEST

The screenshot shows a software interface with a grid of images and a data table at the bottom. A red arrow points from a text box to a right-click context menu.

Context Menu:

- Multi-view material
- Redline/process change request
- Redlining done

Yellow Instruction Box:

CLEEN EECH & EVERE LOCATION
2 PREPERE FER LABELS.
PRINT AND CUT LABELS
APPLY PER ASSEMBLY DRAWING

Operation&Event		Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation	Event code	Event description	Event c/t, planned	Operation c/t, ...	UOM
	20-10	GLOBAL ASSEMBLY	20-10-90	CLEAN & INSTALL LABELS	20.00	49.00 Min	

Select and Drrrrrrrag a box over the issue

The screenshot shows a software interface with a task list at the bottom and several photographs of a manufacturing process. A red arrow points from the instruction box to the photographs.

Operation&Event	Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation	Event code	Event description	Event c/t, planned	Operation c/t, ... UOM
	20-10	GLOBAL ASSEMBLY	20-10-90	CLEAN & INSTALL LABELS	20.00	49.00 Min

CLEAN EACH & EVERY LOCATION
2 PREPARE PER LABELS.
PRINT AND CUT LABELS
APPLY PER ASSEMBLY DRAWING



Once you release, this NEW box will open up.

The screenshot shows the Ichor systems software interface. A 'Redline' window is open, displaying a text editor with the following content:

ICR-QAS-C - RA.2T - Redline - Scott Cordier - 05/14/18 01:34 PM

File View Environment Tools Window Help

ichor systems CELLFUSION

Redline

Id. no. 122571

Redline dscr. Document overview

Redline dscr.

Arial 14 B I U

English

CLEAN EACH & EVERY LOCATION
2 PREPARE FOR LABELS.

PRINT AND CUT LABELS
APPLY PER ASSEMBLY DRAWING

Operation&Event		Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation	Event code	Event description	Event c/t, planned	Operation c/t, ...	UOM
	20-10	GLOBAL ASSEMBLY	20-10-90	CLEAN & INSTALL LABELS	20.00	49.00 Min	

- A** The REDLINE DESCRIPTION tab is for text only. Be as descriptive as possible by giving as much detail as you can to help others understand what to do.
- B** The Document Overview tab is for uploading attachments to help with explaining the issue and fixing the problem.

The screenshot displays the Ichor Systems software interface. The main window is titled "ICR-QAS-C - RA.2T - Redline - Scott Cordier - 05/14/18 01:34 PM". The interface includes a menu bar (File, View, Environment, Tools, Window, Help) and a toolbar with various icons. The main workspace shows a redline form with the following fields:

- Redline Id. no.: 122571
- Redline descr. (selected tab)
- Document overview (tab)

The redline description field contains the text: "Type your detailed description about the issue and how to fix it here." A yellow callout box highlights the following instructions:

**CLEAN EACH & EVERY LOCATION
2 PREPARE FOR LABELS.
PRINT AND CUT LABELS
APPLY PER ASSEMBLY DRAWING**

At the bottom of the interface, there is a table with the following data:

Operation&Event	Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation	Event code	Event description	Event c/t, planned	Operation c/t, ... UOM
20-10	GLOBAL ASSEMBLY	20-10-90	CLEAN & INSTALL LABELS	20.00	49.00 Min	

A In the REDLINE DESCRIPTION tab, create a good description with what needs to be fixed and please provide as much detail as possible.

ICR-QAS-C - RA.2T - Redline - Scott Cordier - 05/14/18 01:49 PM

File View Environment Tools Window Help

ichor systems CELL FUSION

Redline

Id. no. 122571

Redline dscr. Document overview

Redline dscr.

Arial 14 B I U

English

The instructions have lots of typos. It should say
 "CLEAN EACH & EVERY LOCATION
 TO PREPARE FOR LABELS."
 Please fix.

CLEEN EECH & EEVERE LOCATION
 2 PREPERE FER LABELS.
 PRINT AND CUT LABELS
 APPLY PER ASSEMBLY DRAWING

Operation&Event	Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation	Event code	Event description	Event c/t, planned	Operation c/t, ... UOM
	20-10	GLOBAL ASSEMBLY	20-10-90	CLEAN & INSTALL LABELS	20.00	49.00 Min

- B** The Document Overview tab will not be used at this time for this redline. The need to upload an attachment is not necessary right now but it can definitely provide great information !

ICR-QAS-C - RA.2T - Redline - Scott Cordier - 05/14/18 01:53 PM

File View Environment Tools Window Help

Redline

Id. no. 122571

Redline dscr. Document overview **B**

Document overview

Identification no.	Open	Description	Usage type	Extension
Redline				

CLEEN EECH & EVERE LOCATION
2 PREPERE FER LABELS.
PRINT AND CUT LABELS
APPLY PER ASSEMBLY DRAWING

Operation&Event		Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation	Event code	Event description	Event c/t, planned	Operation c/t, ...	UOM
	20-10	GLOBAL ASSEMBLY	20-10-90	CLEAN & INSTALL LABELS	20.00	49.00 Min	

Be sure to SAVE your REDLINE ! When you do, this BIG box will disappear and IT IS THEN SAVED !

The screenshot shows the Ichor Systems software interface. A red arrow points to the save icon (a floppy disk) in the 'File' menu of a redline window titled 'ICB_QAS-C - RA.2T - Redline - Scott Cordier - 05/14/18 01:49 PM'. The redline window has a text editor with the following content:

Redline Id. no. 122571

Redline dscr. Document overview

Redline dscr.

Arial 14 B I U [text formatting icons]

English

The instructions have lots of typos. It should say
 "CLEAN EACH & EVERY LOCATION
 TO PREPARE FOR LABELS."
 Please fix.

Below the redline window, there is a yellow sticky note with the following text:

**CLEEN EECH & EEVERE LOCATION
 2 PREPERE FER LABELS.
 PRINT AND CUT LABELS
 APPLY PER ASSEMBLY DRAWING**

At the bottom of the interface, there is a table with the following data:

Operation&Event	Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation	Event code	Event description	Event c/t, planned	Operation c/t, ... UOM
	20-10	GLOBAL ASSEMBLY	20-10-90	CLEAN & INSTALL LABELS	20.00	49.00 Min

The **GREEN** "FORWARD" arrow is still not selectable because the REDLINE is not complete. **RIGHT CLICK** anywhere again and then select REDLINE DONE .

Multi-view material
Redline/process change request
Redlining done

**CLEEN EECH & EVERE LOCATION
2 PREPERE FER LABELS.
PRINT AND CUT LABELS
APPLY PER ASSEMBLY DRAWING**

Operation&Event		Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation	Event code	Event description	Event c/t, planned	Operation c/t, ...	UOM
	20-10	GLOBAL ASSEMBLY	20-10-90	CLEAN & INSTALL LABELS	20.00	49.00 Min	



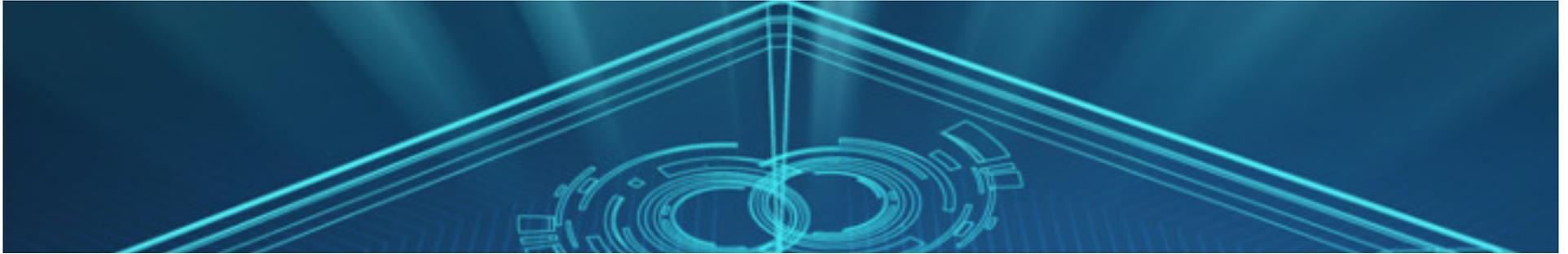
This REDLINE REQUEST is now complete and submitted !
 Engineering will see & review this REQUEST soon and evaluate the best approach. The more detailed information that you provide with this request can help ensure a quicker implementation of your REDLINE REQUEST.

**CLEEN EECH & EVERE LOCATION
2 PREPERE FER LABELS.
PRINT AND CUT LABELS
APPLY PER ASSEMBLY DRAWING**

This REDLINE box will remain until addressed by Engineering.

Operation&Event	Order information	Equipment	Personnel	Documents/files	Notes	Instructions
CM	Operation Id	Operation	Event code	Event description	Event c/t, planned	Operation c/t, ... UOM
	20-10	GLOBAL ASSEMBLY	20-10-90	CLEAN & INSTALL LABELS	20.00	49.00 Min



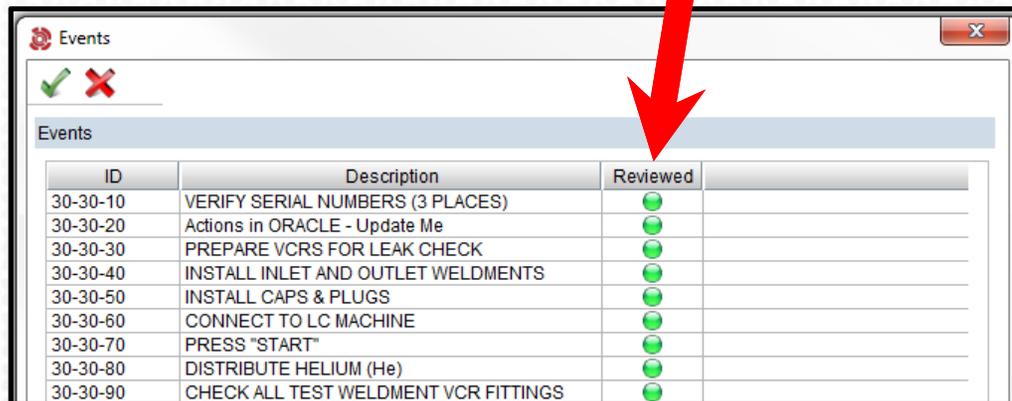


7) TQC QUALITY CHECKS



TQC QUALITY CHECKS are used to improve the quality of our products.

- 1) That step (and that system) are considered **INCOMPLETE** if the TQC is not checked correctly.
- 2) The **EVENTS** list will show a **GREEN** if the TQC has been completed 100%.



ID	Description	Reviewed
30-30-10	VERIFY SERIAL NUMBERS (3 PLACES)	●
30-30-20	Actions in ORACLE - Update Me	●
30-30-30	PREPARE VCRS FOR LEAK CHECK	●
30-30-40	INSTALL INLET AND OUTLET WELDMENTS	●
30-30-50	INSTALL CAPS & PLUGS	●
30-30-60	CONNECT TO LC MACHINE	●
30-30-70	PRESS "START"	●
30-30-80	DISTRIBUTE HELIUM (He)	●
30-30-90	CHECK ALL TEST WELDMENT VCR FITTINGS	●

A good example of a TQC is the system's serial number. Many modules start with checking (confirming) the binder matches that system and all of that matches what is in CELLFUSION.

The screenshot shows the CELLFUSION software interface. At the top, there is a menu bar (File, Edit, View, Function, Environment, Tools, Window, Help) and a toolbar with various icons. The main window is divided into several sections:

- Label:** A physical label with the following text: "Lam P/N: XXX-XXXXX-XXX", "Rev: B", "Vendor S/N: 1034181", and "Vendor Code: XXXXXXXXXX". A red arrow points from the label to the "Serial number" field in the software.
- Binder:** A physical binder with a red circle around a specific entry. A red arrow points from the binder to the "Order information" tab in the software.
- Software Interface:**
 - Order information tab:** Contains fields for "Flow Id" (85), "Serial number" (BXXXXXXXX), "Production Order" (MJG2403637), "Customer order" (MJG2403805), and "Manufacturing date" (06/23/17). A red box highlights the "Serial number" field.
 - Quality metrics tab:** Contains a table with the following data:

Identification no.	Description	Measurement	M	Done	MC	MP	Target	Targ...	Targ...	Actual value
30-30-10	VERIFY SERIAL NUMBERS (3 PLACES)			<input type="checkbox"/>		<input checked="" type="checkbox"/>				
30-10-QC1	ALL 3 Serial Numbers match. DONE?	Checklist	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

If you try to use the GREEN FORWARD button without checking the TQC then this BOX pops up. Hit the red **X** to close this box & take care of the TQC.

The screenshot displays the CellFusion software interface. At the top, there is a menu bar (File, Edit, View, Function, Environment, Tools, Window, Help) and a toolbar with various icons. The main window is divided into several sections:

- Top Left:** An image of a label with fields for "Lam P/N:", "Rev: B", "Vendor S/N:", and "Vendor Code: 1034181". A red arrow points to the label.
- Top Right:** An image of a binder with a red arrow pointing to a specific section.
- Center:** A data entry form with tabs for "Operation&Event", "Order information", "Equipment", "Personnel", and "Documents/files". The "Order information" tab is active, showing fields for "Flow Id" (85), "Serial number" (BXXXXXXXX), "Production Order" (MJG2403637), "Customer order" (MJG2403805), and "Manufacturing date" (06/23/17). A red box highlights the "Serial number" field.
- Bottom:** A table with columns for "Operation&Event", "Quality metrics", "Order information", "Equipment", "Personnel", and "Documents/files". It contains two rows of data related to "VERIFY SERIAL NUMBERS (3 PLACES)".
- Bottom Right:** A "Message" dialog box with a red border and a red 'X' icon. It contains the text: "Message No. MSID000327" and "You are required to enter actual values due to mandatory target value definition in metrics or check the checklist type metrics". A large red arrow points from the top right towards this dialog box.

If this TQC has been addresses then give it a GREEN check under the DONE column. Then you can use the GREEN FORWARD button to move forward.

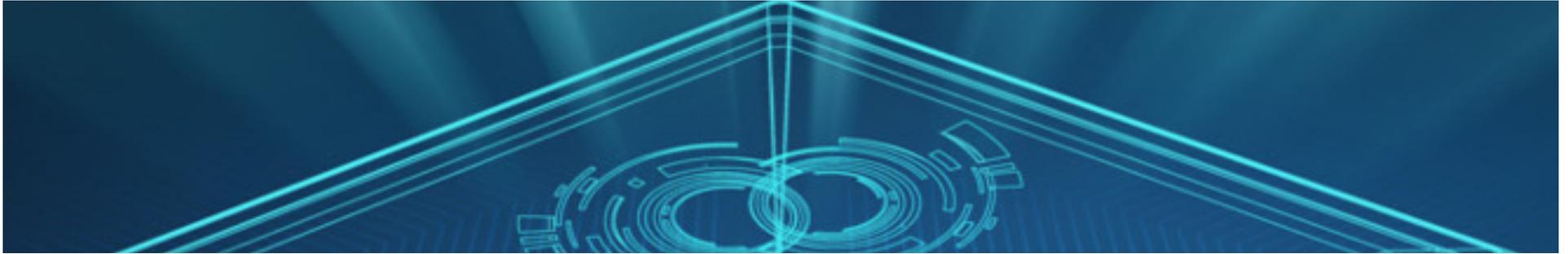
The screenshot displays the Ichor software interface. At the top, there is a menu bar (File, Edit, View, Function, Environment, Tools, Window, Help) and a toolbar with various icons. The main area is divided into several sections:

- Operation&Event**: Contains a 'Flow Id' field with the value '85'.
- Order information**: Contains fields for 'Serial number' (BXXXXXXXX), 'Production Order' (MJG2403637), 'Customer order' (MJG2403805), and 'Manufacturing date' (06/23/17).
- Equipment**: Empty field.
- Personnel**: Empty field.
- Documents/files**: Empty field.

A 'CellFusion' logo is overlaid on the 'Order information' section. Below this, there is a table with the following structure:

Operation&Event	Quality metrics	Order information	Equipment	Personnel	Documents/files	Notes	Instructions			
Identification no.		Description		Measurement	Done	MP	Target	Targ...	Targ...	Actual value
30-30-10		VERIFY SERIAL NUMBERS (3 PLACES)			<input type="checkbox"/>	●				
30-10-QC1		ALL 3 Serial Numbers match. DONE?		Checklist	<input checked="" type="checkbox"/>	●				

Red arrows and a question mark highlight the 'Done' column in the table and the 'BINDER' photograph. A red arrow also points to the 'Serial number' field in the 'Order information' section.

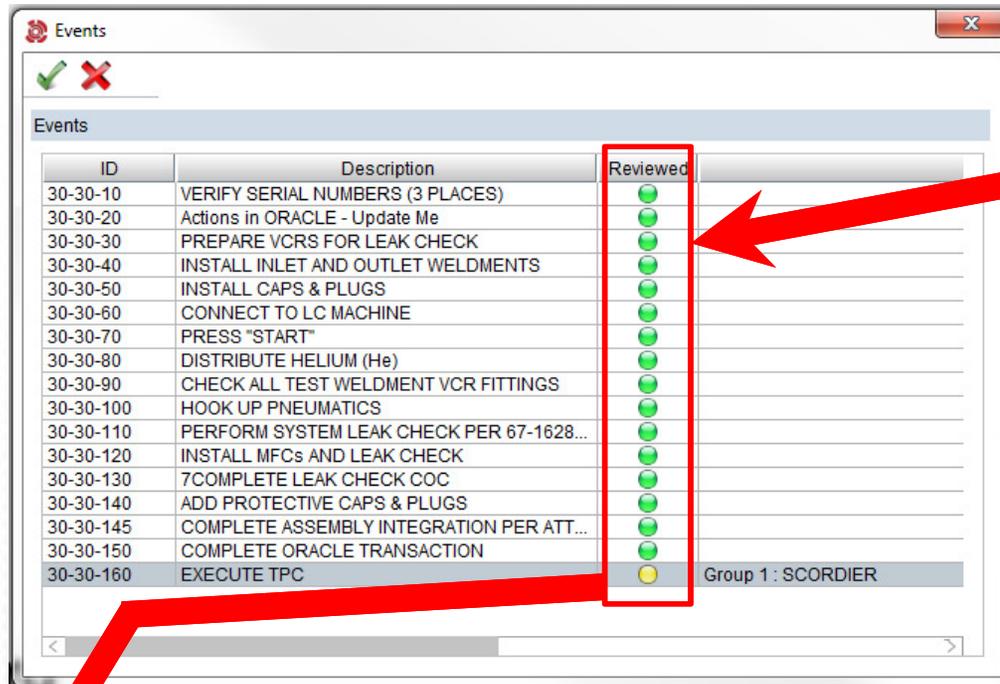


8) HOW TO FINISH



HOW TO FINISH a module:

Once ALL of the steps have been completed and ALL of the EVENTS are **GREEN**, that is when the TPC icon should be used to move this system forward in CELLFUSION to the next module.



ID	Description	Reviewed
30-30-10	VERIFY SERIAL NUMBERS (3 PLACES)	●
30-30-20	Actions in ORACLE - Update Me	●
30-30-30	PREPARE VCERS FOR LEAK CHECK	●
30-30-40	INSTALL INLET AND OUTLET WELDMENTS	●
30-30-50	INSTALL CAPS & PLUGS	●
30-30-60	CONNECT TO LC MACHINE	●
30-30-70	PRESS "START"	●
30-30-80	DISTRIBUTE HELIUM (He)	●
30-30-90	CHECK ALL TEST WELDMENT VCR FITTINGS	●
30-30-100	HOOK UP PNEUMATICS	●
30-30-110	PERFORM SYSTEM LEAK CHECK PER 67-1628...	●
30-30-120	INSTALL MFCs AND LEAK CHECK	●
30-30-130	7COMPLETE LEAK CHECK COC	●
30-30-140	ADD PROTECTIVE CAPS & PLUGS	●
30-30-145	COMPLETE ASSEMBLY INTEGRATION PER ATT...	●
30-30-150	COMPLETE ORACLE TRANSACTION	●
30-30-160	EXECUTE TPC	●

**IS COMPLETE
100%
and is ready to use
the TPC icon.**



“TPC”

= This button must ALWAYS BE USED at the END of a module.
This is what moves CELLFUSION forward from the current module to the next module.



END .

