TEKLA STRUCTURES / ARC-TRACK

Export from Tekla. Upload once.

Prepare one ZIP for the exact project phase and issued revision. Arc-Track links the material list, assemblies, PDF drawings and optional 3D models from that package.

File	Required content	Limit
KSS / Required	Exactly one .kss. Metric Tekla KISS 1.0 material and assembly records.	4 MB
PDF / Required	One PDF per active mark. Text-based, one-page shop drawing with a readable material table and totals.	20 MB each
IFC / Optional for 3D	One phase .ifc. Assembly geometry matching the same marks, revision and piece counts.	32 MB

Use one phase and one revision throughout. Export every occurrence of each included mark, not just one example. Separate phases such as H1 and H2 into their own ZIPs and upload each to its matching Arc-Track phase.

01 / Prepare the issued model

Freeze the scope before exporting any files.

1. Complete numbering and update the shop drawings. Confirm the project, phase and issued revision with the detailer.
2. Use the same selected steelwork for KSS, PDF and IFC. Include loose shipping items; avoid unrelated phases, concrete and reference models.
3. Keep assembly and part marks unchanged between exports. If the model or drawing changes, regenerate the affected package and review the revision before importing.

KSS + PDFs are required by this ZIP importer. Add one IFC for 3D models. KSS-only and KSS + IFC packages are not sufficient. Excel remains available for other systems.

EXPORT THE LIST AND DRAWINGS

KSS + shop drawing PDFs

02 / Export the KSS material list

Tekla: File > Export > MIS; select KISS / FabTrol KISS.

1. For a selected export, use the Select objects in components selection switch. Tekla warns that Select assemblies can produce an empty MIS file.
2. Create the list for the chosen phase. Use Create all only when the complete model is the intended import scope. Save one .kss file.
3. Arc-Track requires Tekla KISS 1.0 with metric units: lengths in millimetres and masses in kilograms. Have the detailer check the export; do not change a unit flag or rename another format to .kss to force acceptance.

03 / Print the shop drawing PDFs

Tekla Document manager > select drawings > Print drawings > PDF file.

1. Turn Output to single file off so each drawing is exported separately. Print current drawings, with fonts embedded where available.
2. Arc-Track currently accepts one page per PDF and one PDF per active assembly or loose shipping mark. Scans, photographs, combined drawing books and multi-page drawings need a reviewed alternative workflow.
3. Keep selectable text and the full material table: marks, quantities, profiles, lengths, grades, masses, paint areas and drawing totals. The reader currently expects its supported English Tekla table layout; another template must be checked with a sample.
4. Use the filename patterns below. Keep the mark exactly as it appears in the KSS and title block. General arrangement, erection and unrelated single-part drawings belong in the project's documents, outside this import ZIP.

Drawing type	Required filename example
Assembly	A - H1-BM10 - Assembly.pdf
Loose shipping item	W - H1-L1 - Angle.pdf

The spaces around each separating hyphen matter. In Tekla, configure the assembly and single-part print naming settings (XS_DRAWING_PLOT_FILE_NAME_A and XS_DRAWING_PLOT_FILE_NAME_W), or rename exported copies. Check the filename preview: the mark format must match your model, including hyphens and underscores. A bare MARK.pdf is not accepted by this ZIP reader.

EXPORT FABRICATION DETAIL

The IFC model

Recommended Arc-Track handover: plain IFC2x3 with Steel fabrication view.

1. In Tekla's IFC export, choose IFC2x3, file format IFC and Steel fabrication view. This view carries assembly information and exports bolt holes as voids.
2. Retain assemblies: older dialogs use Advanced > Object types > Assemblies; newer dialogs use Include assembly information. Keep Exclude single part assemblies off so loose single-piece items remain represented.
3. Export complete assemblies and all required occurrences for the same phase. Retain their assembly marks and hierarchy; Arc-Track matches IfcElementAssembly tags to the shipping marks and checks piece counts.
4. Include bolts when fasteners should be visible. Choose a consistent model origin / agreed base point. Export plain .ifc rather than .ifcZIP or .ifcXML. IFC4 can be read by the converter, but its export settings require a sample check; use the IFC2x3 recipe for the standard handover.

IFC setting	Arc-Track handover
Schema / format	IFC2x3 / plain .ifc
Export type	Steel fabrication view
Assembly information	On; retain the assembly hierarchy
Exclude single part assemblies	Off
Selection	Complete chosen phase; every required occurrence
Bolts	On when visible fasteners are needed
Revision and marks	Match the KSS and issued PDFs

Missing holes? Check the exported file.

Check the exact exported IFC in an independent viewer, with the channel selected and bolts hidden if needed. If the cut is absent there too, compare the Tekla model, revision and Steel fabrication view export. If it is present there but absent in Arc-Track, retain that IFC and matching PDF for a converter check. The PDF cannot create missing IFC geometry.

Visible bolts are separate from the member's cut geometry. Use the issued PDF dimensions for fabrication.

ONE UPLOAD / ONE REVIEW

Package, upload and verify

05 / Build one clean ZIP

Put the KSS, matching PDFs and optional IFC in one ordinary ZIP archive.

1. Use a clear archive name such as JOB-076_H1_Rev-A.zip. Subfolders are allowed, but the PDF basenames must still follow the required pattern. Keep one current drawing for each mark.
2. The ZIP must be at most 32 MB. KSS plus PDFs may expand to at most 64 MB; all selected files together may expand to at most 96 MB. Split a larger job into matching phases instead of lowering drawing readability.
3. Do not nest ZIPs. Leave NC1, STEP, DXF, spreadsheets, duplicate revisions and unrelated attachments outside this package. Other extensions are ignored; another PDF is still checked as a drawing and can stop the import.
4. Before sending, open the ZIP and check its contents. Missing PDFs may only be excluded during Arc-Track review when their marks were genuinely cancelled in the issued revision.

Example ZIP: JOB-076_H1_Rev-A.zip
JOB-076_H1.kss
A - H1-BM10 - Assembly.pdf
A - H1-BK1 - Assembly.pdf
W - H1-L1 - Angle.pdf
JOB-076_H1.ifc

Illustrative filenames only. A real ZIP needs a PDF for every active mark in its KSS, not just these examples.

06 / Upload, review and verify

Arc-Track: Projects > exact phase > Import project ZIP.

1. Select the ZIP once on the project overview. There is no separate IFC upload in Production > 3D models.
2. Compare Import target with KSS source. Review material and assembly counts, PDF previews, reconciliation messages, and the IFC model previews and model reference when included.
3. PDF quantities and readable drawing values take priority in this importer; review every reported difference. Confirm genuine revisions through the revision review, then tick the final review confirmation and select Import project & link all files.
4. Keep the window open until the Completed receipt appears. Files are verified before the lists and links save together. Reopen the pending preview or select the same ZIP to resume checked uploads. Review routing separately before procurement or work allocation.

RESOLVE THE SOURCE / THEN RETRY

Troubleshooting

Holes appear in the PDF but not in 3D

Check the exact exported IFC in an independent viewer, with the channel selected and bolts hidden if needed. If the cut is absent there too, compare the Tekla model, revision and Steel fabrication view export. If it is present there but absent in Arc-Track, retain that IFC and matching PDF for a converter check. The PDF cannot create missing IFC geometry.

KSS is empty or rejected

Check the MIS selection switch, selected phase, .kss format, Tekla KISS 1.0 header and metric export. A different KISS variant needs a reviewed mapping; do not edit records to bypass validation.

A drawing cannot be read or matched

Check the A / W filename pattern, exact mark, one-page count, selectable text, English material-table headings and complete totals. Remove superseded drawings and extra PDF documents from the ZIP.

IFC marks or quantities do not match

Retain assembly hierarchy and tags, include loose single-part assemblies, and export all occurrences for the same phase. Do not use an IFC containing only one sample of a repeated assembly.

Package or geometry exceeds the limits

Export smaller, separately registered phases with matching KSS and PDFs. Do not remove required occurrences from the IFC while keeping their KSS quantities.

An upload stops or the window closes

Reopen the pending import or choose the same ZIP to resume. A preview is not a completed import. Wait for the verified Completed receipt before using the new lists or models.

About export plugins

The linked FabStation TSEP tool is a FabStation export tool. Arc-Track does not currently supply its own Tekla plugin, and that plugin's ZIP output has not been certified for Arc-Track. This guide uses Tekla's manual exports. If a detailer supplies a plugin-generated ZIP, verify every Arc-Track requirement and review a sample before using it for production.

KEEP THIS WITH THE HANDOVER

Checklist + detailer request

- Same project phase and issued revision in all files
- One metric Tekla KISS 1.0 KSS
- One current, readable, one-page PDF per active mark
- Required A / W filenames and exact marks
- Optional plain IFC with assembly hierarchy and all occurrences
- A known channel or plate checked for holes in the exported IFC
- ZIP within the stated size limits
- Arc-Track previews reviewed and Completed receipt verified

Send this to your detailer

Please prepare one Arc-Track project ZIP for the agreed phase and issued revision. Include exactly one metric Tekla KISS 1.0 .kss file and one text-based, one-page shop drawing PDF for every active assembly or loose shipping mark. Name PDFs A - MARK - Assembly.pdf or W - MARK - Description.pdf, preserving the exact mark. Include one plain IFC2x3 exported with Steel fabrication view, assembly information retained, Exclude single part assemblies off, and every required assembly occurrence. Include bolts if fasteners should be visible. Check a known hole in the exported IFC. Keep all exports on the same scope/revision; exclude unrelated drawings and superseded files. ZIP maximum 32 MB.
Arc-Track export guide: https://arctrack.co.za/training/tekla-export

References and version notes

Reviewed 11 November 2026. Written for Arc-Track's current importer. Tekla menu labels vary by version and environment. Check a representative export when the model, drawing layout or Tekla version differs.

Trimble: MIS / KISS export

Trimble: Print drawings to PDF

Trimble: Customize drawing filenames

Trimble: IFC export, 2025 dialogs

Trimble: IFC export, 2026 dialogs

FabStation: TSEP export reference

FabStation: Manual export reference

Web guide: https://arctrack.co.za/training/tekla-export