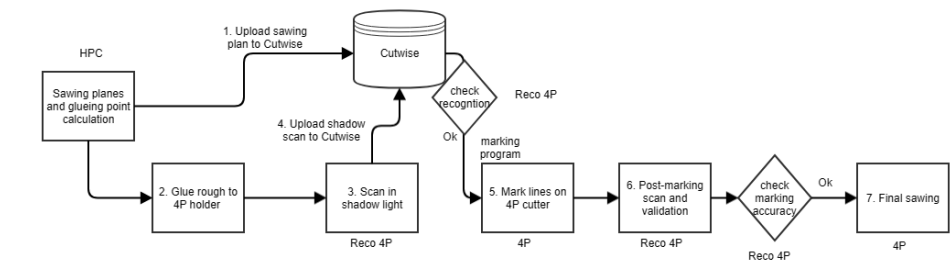


Reco 4P workflow

Current Workflow Overview for Transferring Sawing Planes for Carbon Projects to a Specific 4P Cutter

This page outlines the general workflow for transferring sawing planes for Carbon projects to a specific 4P cutter. The process involves using an additional Vibox Reco4P scanner and the Cutwise service (which serves as a cloud platform for storing projects, setups, their interconnections, and performing calculations on its servers).



Workflow Steps:

1. HPC Software Calculation

- The operator calculates the sawing plan for the selected solution using HPC software.
- HPC suggests a rough glueing point during the sawing calculation.
- The operator then uploads the resulting project to Cutwise.

2. Material Attachment to the 4P Holder

- The rough is glued to the 4P holder, preferably following the HPC plan.

3. Scanning in Vibox Reco4P (see [Scanning object for 3D model registration](#))

- The stone (now attached to the holder) is placed in the Vibox Reco4P scanner.
- The corresponding project and solution are located in Cutwise.
- The stone is scanned in **shadow lighting**.

4. Cutwise Processing

- The scan results are uploaded to Cutwise, where:
 - The 3D model is registered in the Vibox Reco4P system.
 - Programs for marking lines (on the stone surface) and final sawing (on the 4P cutter) are calculated.

5. Marking Line Application (Verification Step)

- Before applying the marking lines, the operator checks the registration (recognition) report to ensure accuracy.
- If registration is correct, the marking lines are applied on the 4P cutter.
- This step verifies that the coordinate transformation between Vibox Reco4P and the 4P cutter is accurate.

6. Post-Marking Scan & Validation (see [Testing accuracy of laser marking](#))

- The object is placed back into the Vibox Reco4P and scanned under another lighting to inspect the markings.
- The operator marks the applied planes on the photos.
- The software compares the planned planes with the actual ones (marked by the operator) and calculates linear and angular errors.

7. Final Sawing

- If the error margin is within tolerance, the planes are cut using the previously generated program.