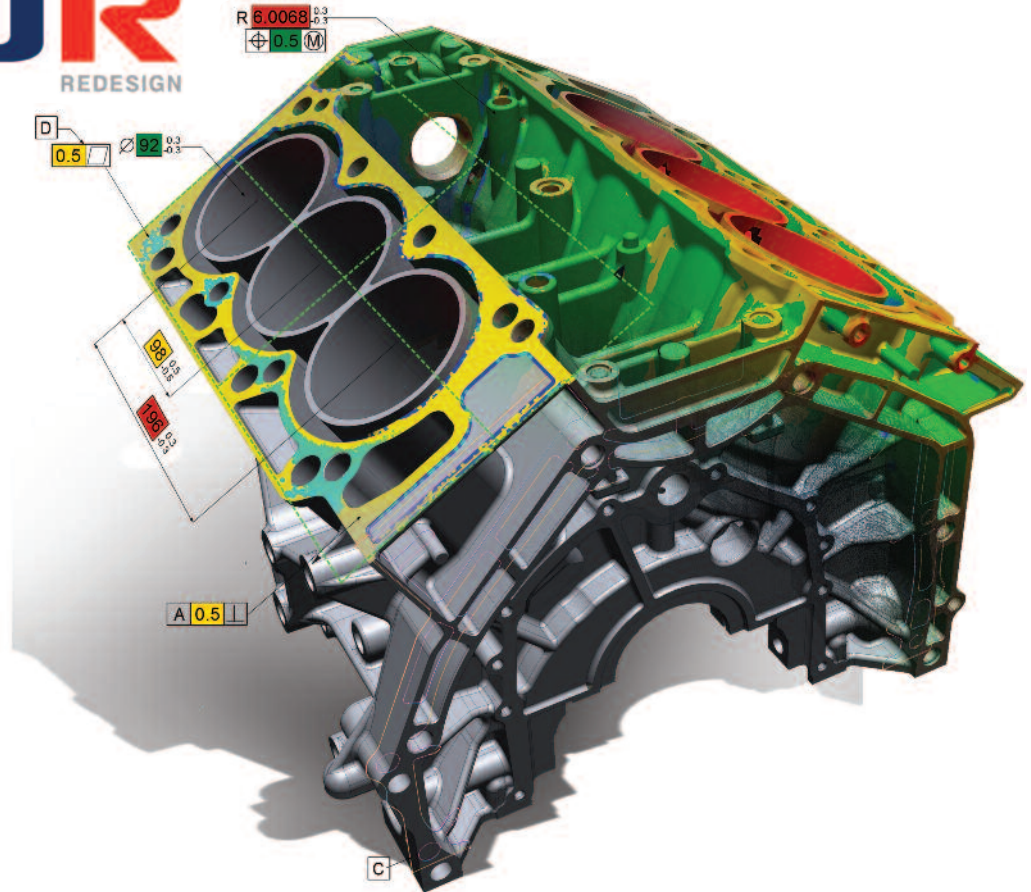


**RAPIDFORM**

**XOR**™  
REDESIGN



## RAPIDFORM XOR

Rapidform XOR makes the process of creating parametric CAD models from real world parts faster and easier by utilising a design process and user interface which are instantly familiar to CAD users. Capture design intent and design feature parameters, not just shapes.

### PARAMETRIC CAD MODELS FROM 3D SCAN DATA

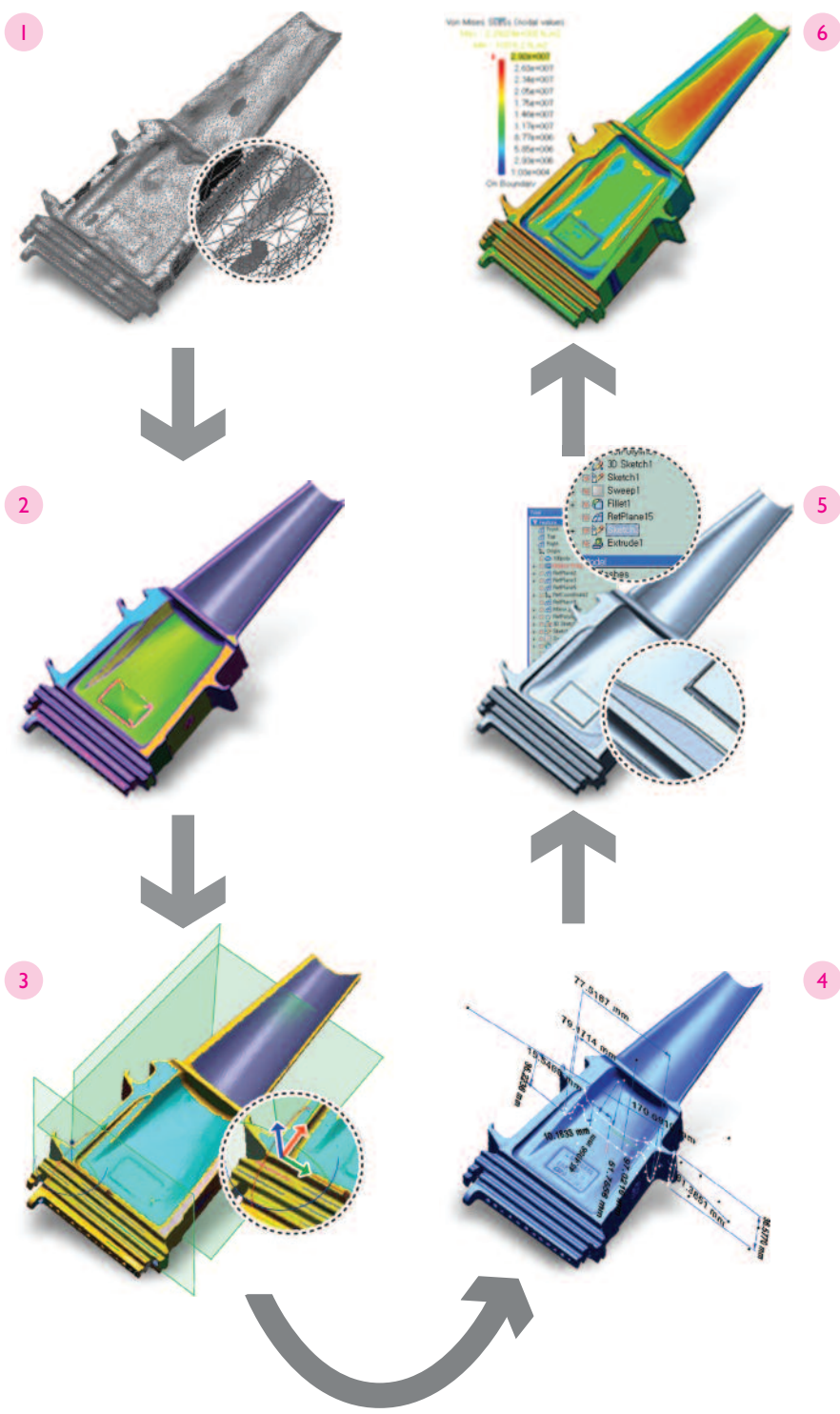
Rapidform XOR allows engineers to capture the design intent and design parameters of real world parts which may have lost their defining features during the manufacturing process or may not have ever had a CAD model. 3D scanning technology and Rapidform XOR provide manufacturers with the freedom and flexibility to extract the design parameters of any real world part, including prismatic features and free form surfaces. Because the CAD models created in Rapidform XOR are fully parametric, designers and engineers are able to modify the design parameters of the real world part to perfect the model for mass production within Rapidform XOR or in a downstream CAD system.

### IMMEDIATELY REALISE THE BENEFITS OF 3D SCANNING

The design tools used to create models in Rapidform XOR are immediately recognisable to those already familiar with CAD applications. Engineers capable of designing with SolidWorks, CATIA, Pro/ENGINEER or USG NX can immediately begin modelling in Rapidform XOR. The design process in Rapidform XOR utilises

common CAD modelling features, user interfaces and processes such as extrude, round, revolve, sweep and loft. These features serve to make both Rapidform XOR and 3D scanning technology readily accessible to engineers, while the ease of use of the product allows 3D scan-based design to be institutionalised within the manufacturing process to increase the overall quality of products.

- Intelligent design process which eliminates the need for complete scans of parts
- Create high quality CAD models from imperfect scan data
- Save processing time by eliminating the need for polygon mesh cleanup and surfacing
- Models are instantly editable in both Rapidform XOR and major CAD systems
- Update existing CAD models to reflect changes in the as-built part – CAD **correct**™



## RAPIDFORM XOR REDESIGN WORKFLOW

### 1. 3D Scan Data/STL

Import triangulated 3D scan data or a polygon mesh model.

### 2. Segmentation

Automatically or interactively segment the mesh model based on feature regions.

*Align Wizard™*

### 3. Alignment

Find out main coordinate system.

*Redesign Assistant™*

### 4. Exploring design intent

Identify and define a variety of feature modelling parameters.

### 5. Feature Modelling

Design a CAD model by building feature parameters from the mesh model.

*Accuracy Analyser™*

### 6. Checking accuracy

The accuracy analyser provides real time deviation analysis throughout the design process to ensure that the CAD model is built within user-defined tolerances.