

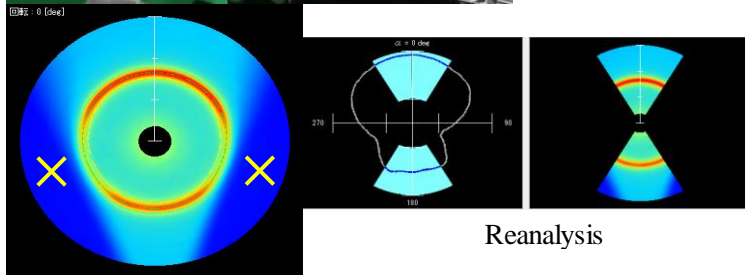
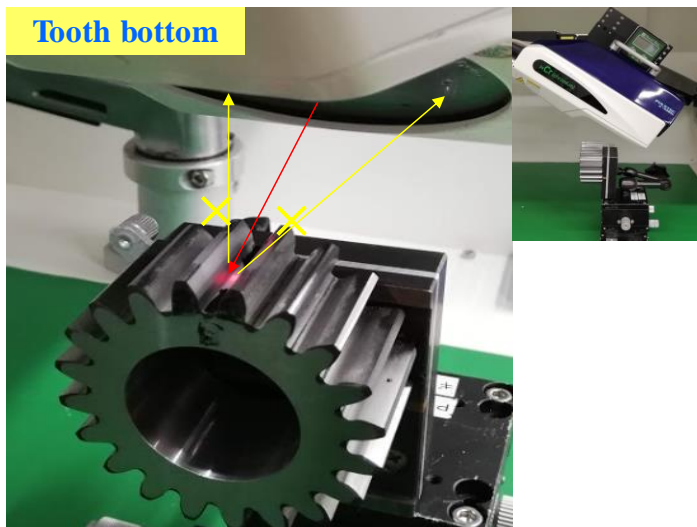
Application

Residual Stress Measurement of Gear

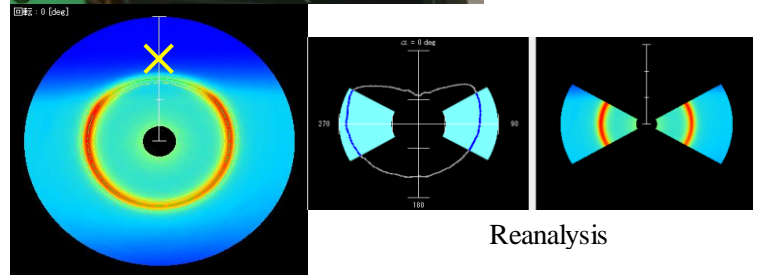
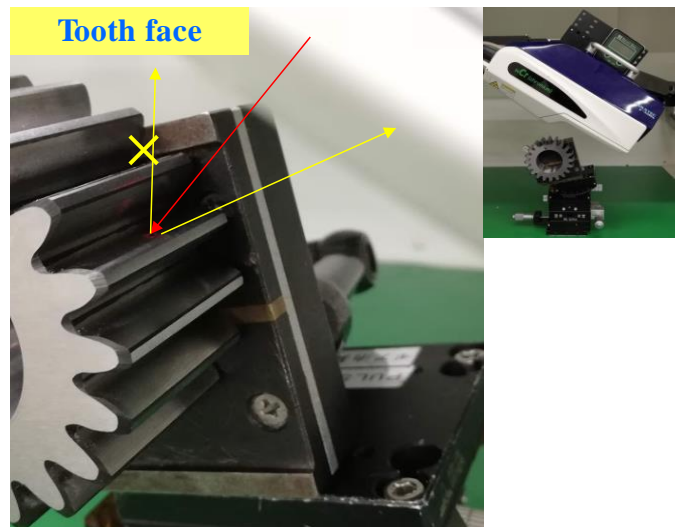
Gear tooth is generally cut when measuring the residual stress using X-ray diffraction technique.

Residual stress measurement without cutting is possible by single incident angle X-ray exposure and 2D detector.

Application



Part of Diffracted X-rays are missing due to the side tooth.
Select the area and re-analyze by the software



Part of Diffracted X-rays are missing due to the upper tooth.
Select the area and re-analyze by the software

Acquisition of full X-ray diffraction ring by 2D detector and Use of “Reanalysis function”.
Reliable residual stress measurement is possible by selecting effective area.