



Sonotron NDT

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Measurement of Acrylic Proton Lenses for Proton Therapy Equipment

In the proton therapy equipment there are used acrylic lenses providing:

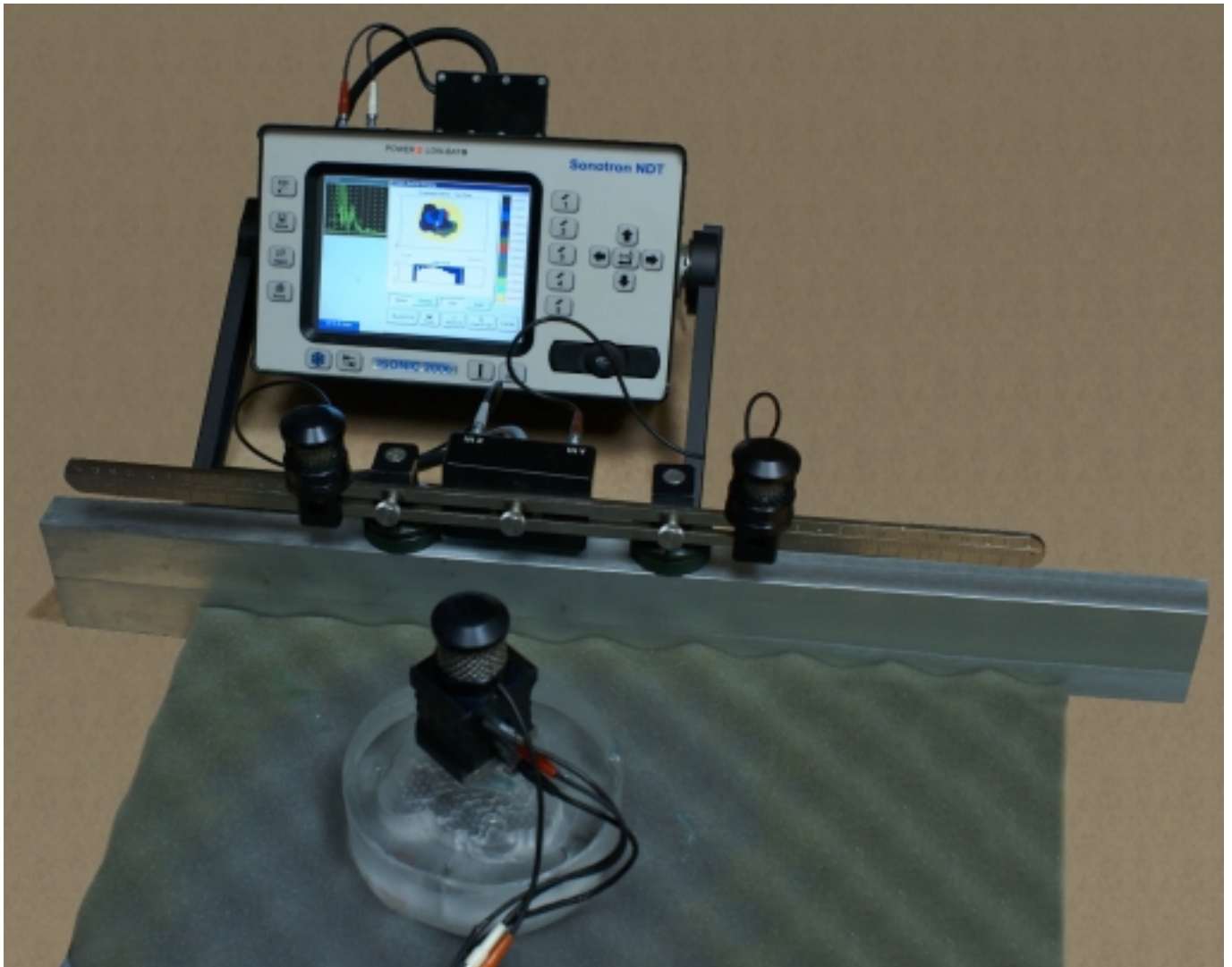
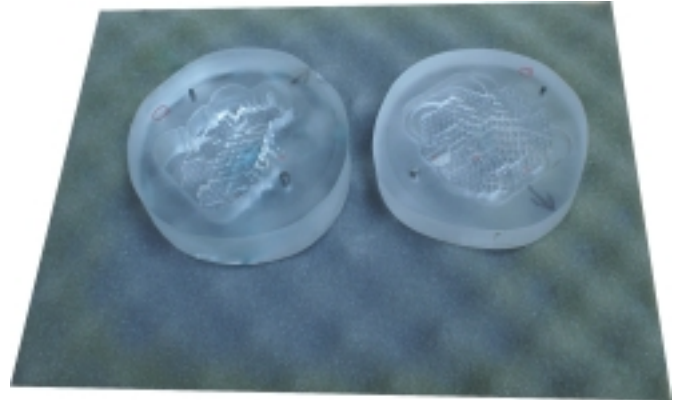
- Focusing energy to a specific spot
- Attenuating of protons in the areas where treatment is not required

Lenses are manufactured in hospitals individually per patient. Each hospital is required to measure lenses one by one prior to use to meet liability policies and to document thickness distribution map for each lens

So far said operation was performed in each hospital manually with a depth gauge and there was a demand for easier way of doing this

Ultrasonic C-Scan thickness mapping looks to be efficient solution resolving the problem however use of bulky immersion testing machine may not be justified here due to the relatively small size of acrylic lenses manufactured from disks with 140...200 mm diameter

Sonotron NDT proposal to use ISONIC 2006 equipped with CORROMAP SW Package and dual 4 MHz probe was accepted by world leading organization dealing with proton therapy – Boston General Hospital



Rapid scanning with C-Scan thickness map and cross sectional quantitative imaging of one lens takes 3...7 minutes. It is very important that lens thickness scanning results may be automatically converted into MS Excel®



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spreadsheet using ISONIC D-SHEET software package – such way of data presentation and storage is accepted by insurance companies

