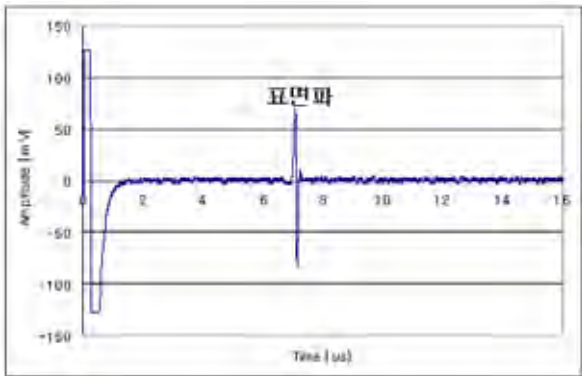
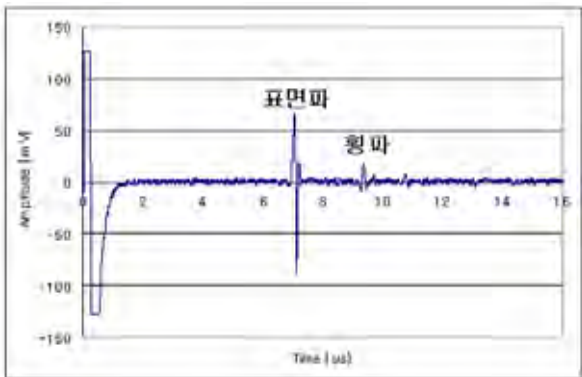


(a) before passing a defect



(b) while passing a defect



(c) after passing a defect

Fig. 4 Received laser ultrasonic signals

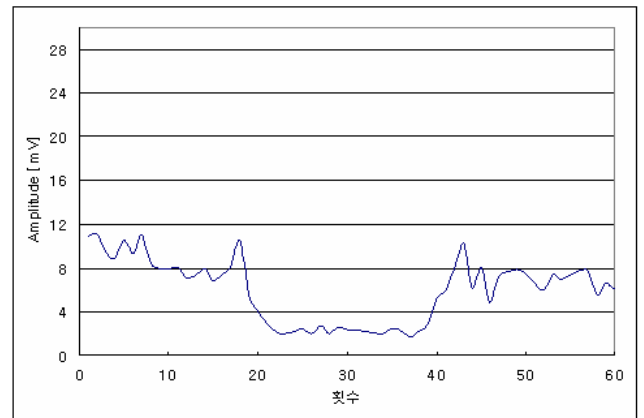


Fig. 5 Averaged amplitude of laser shear wave

peak to peak ,  
 . Fig. 5 600  
 peak to peak  
 10  
 가 20 40  
 4.

- 가 ,  
 가 가  
 ,  
 1. , “ ”  
 , Vol. 22, No. 1, pp. 74-87, 2002  
 2. C. B. Scruby and L. E. Drain, "Laser ultrasonics: techniques and applications," Adam-Kilger, New York, 1990.  
 3. Toshiba Review, "Laser based maintenance technology for PWR power plants, p. 20, 2005.  
 4. , , , “ ”  
 , pp. 59-63, 2002.  
 5. , , “ ” 가 , pp. 46-54, 2004.  
 6. T. Miura, H. Kuroda, M. Ochiai and K. Naruse "Applications of laser-ultrasonic technique for nuclear power plants," J. of JSNDI, Vol. 51, NO. 4, pp. 194-199, 2002.  
 7. S. Kenderian, T. P. Berndt and R. E. Green, "Ultrasonic monitoring of dislocations during fatigue of pearlitic rail steel," Materials Science and Engineering, A348, pp. 90-99, 2003.  
 8. , , , , “ ”  
 , Vol. 25, No. 5, pp. 391-399, 2005.  
 9. , , , , , “ ”  
 , Vol. 26, No. 2, pp. 84-89, 2006.

20 mm . Generation Detection  
 . 30 mm 0.05 mm 30 mm  
 , 40 600  
 . Fig. 4  
 , 9-10μs 가 7μs 가  
 . Fig. 4(a)  
 가  
 Fig. 4(b) , Fig. 4-(c)  
 가