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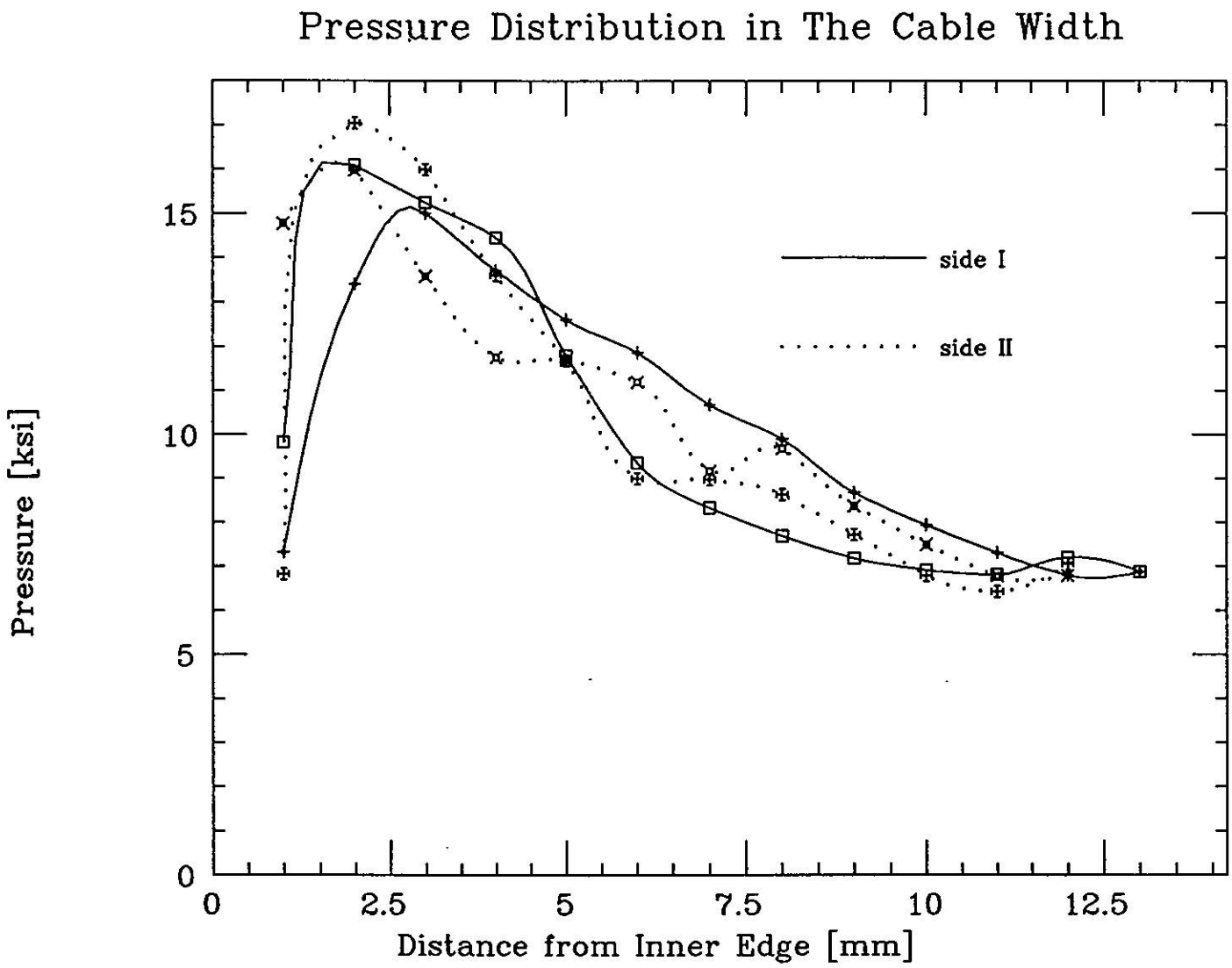
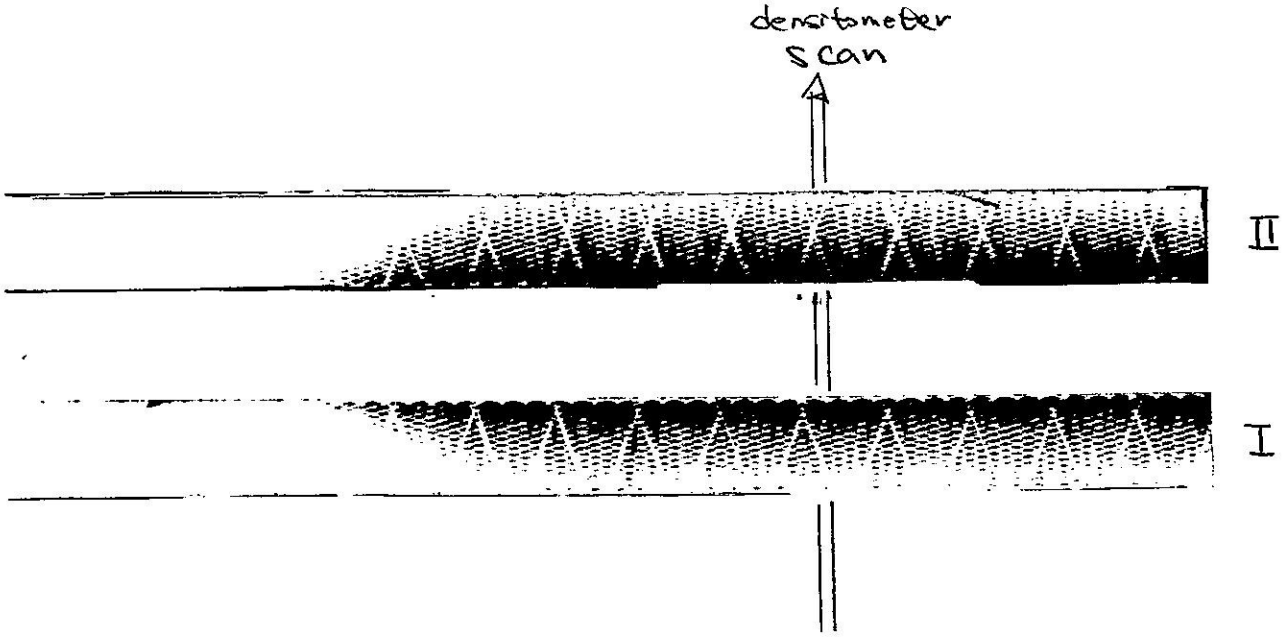
Subject: Pressure Distribution in The Width of The Cable.

PRESCALE measurement was made in the magnet DSA322 inner coil at the mid-plane. It seems like the mid-plane pressure is high in the inner edge and low in the outer edge. The pressure in the end part is very low. Attatched is a plot of the converted value from the colour of the film. Data were taken at 1 inches from the edge of the endclamp. Two runs were made in slightly different position. It looks like to have a peak at close position to the edge but this is due to the spot size of the densitometer. It measures an averaged pressure in 2mm diameter area. Therefore, the real maximum pressure may be 20 ksi at the inner edge. Beyond 13 mm position was not measurable due to the limitation of the dynamic range.


Pressure Distribution in The Cable Width
Pressure [ksi]
Distance from Inner Edge [mm]
side I
side II
0
5
10
15
0
2.5
5
7.5
10
12.5


densitometer scan
II
I