



1. Detection of the welding line in the core retainer

The position of the welding line should be detected in inner pipes. For this purpose a color sensor type **SPECTRO-3-FIO-SL** in connection with an optical fiber type **R-S-R2.1-(6x1)-1200-67°** and an optical front end type **KL-M34-XL-R2.1** will be used. At this, the distance of the front end to the inner tube is approximately 80mm and the angle of the optical axis of the front end to the horizontal axis of the tube is around 50°. Furthermore the spot size is roughly 10mm x 1.5mm. The welding line can be proper detected as shown in the screen shots.

