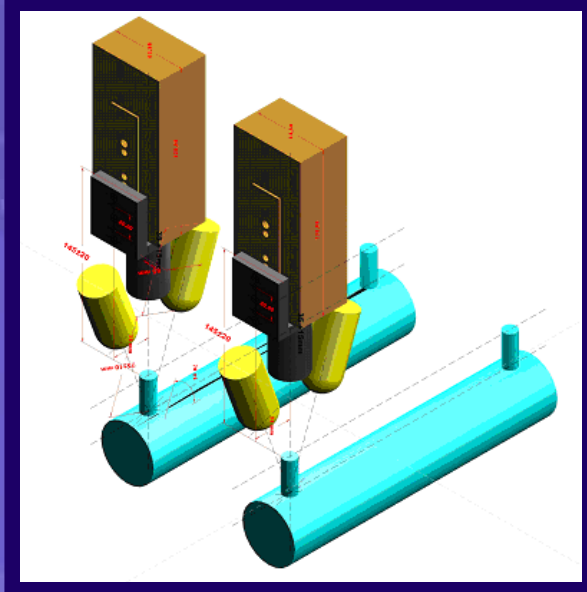


# APPLICATION NOTES

## IMPACT Solutions for Pharmaceutical Industry Dialysis Filter Inspection

### Two Cameras Checking for PU Materials on Dialysis Filters



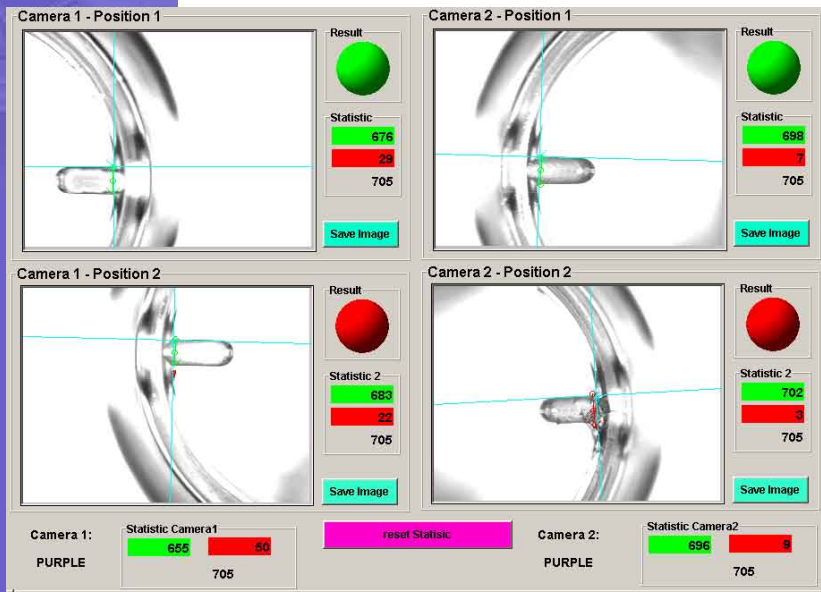
Two filters are handled in parallel pairs. Each camera inspects the filter at two different positions as there are two standpipes for each filter. A comprehensive control panel is designed so that the results from all four inspections can be displayed on the same panel. An individual setup panel is also available for each camera view.

### Application Description

Two IMPACT T20 Intelligent Cameras are used to inspect the standpipes of dialysis filters. The vision system is required to look for the presence of PU materials at the upper region of each standpipe. The main challenge for this application was to find a lighting solution that will light up the PU materials, which is a translucent object that looks similar to the filter itself. In addition, strobe lights are required to avoid blur images as the filters are moving at a line speed of 400 mm per seconds.

A back-lit effect image is generated using two telecentric strobe modules, positioned over each standpipe at a certain angle. The strobe lights are controlled by relays. The position and angle of the lighting module are critical as they need to be very specific in reference to the part in order for the vision system to see the PU materials.

Two filters are handled in parallel pairs. Each camera inspects the filter at two different positions as there are two



### Application Highlights

- Detects translucent PU materials on clear or purple dialysis filters
- A custom-designed lighting solution to illuminate the PU materials
- Inspection results from all four camera views are displayed on the same control panel
- Individual setup panel for each camera view