Introducing DOC...
A new FS200 series product from PLV Systems Inc.

DOC (short for Digital Optical Comparator) is an innovative type of 2D measurement system designed for manufacturers of extruded rubber profiles (or other pliable materials) typically used in the sealing industry.

Our Objectives for Designing DOC:

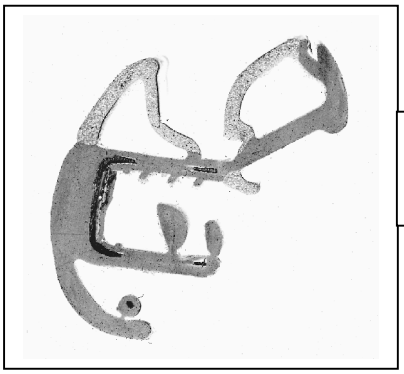
- easily identify the variance from nominal of critical features on extruded profile.
- address the challenges of the manufacturing and QA environments, specific to the sealing industry, by obtaining good production sample information.
- distribute the information in an innovative and easy to use format for managers, supervisors and engineers.

PLV Systems Inc. background:

Incorporated in 1992, PLV is celebrating 22 years in business. Since its inception, PLV has been an innovative developer of imaging inspection systems. Located in Concord, Ontario, Canada (just outside the city of Toronto) PLV products have been sold all over the world. In 1994 PLV began a line of products suitable for the measurement of extruded profile shapes in the manufacturing environment. The FS200 Scanning Profile Measurement System is our most popular offering serving both manufacturers and end users of profile extrusions with a state of the art cross sectional measurements system.

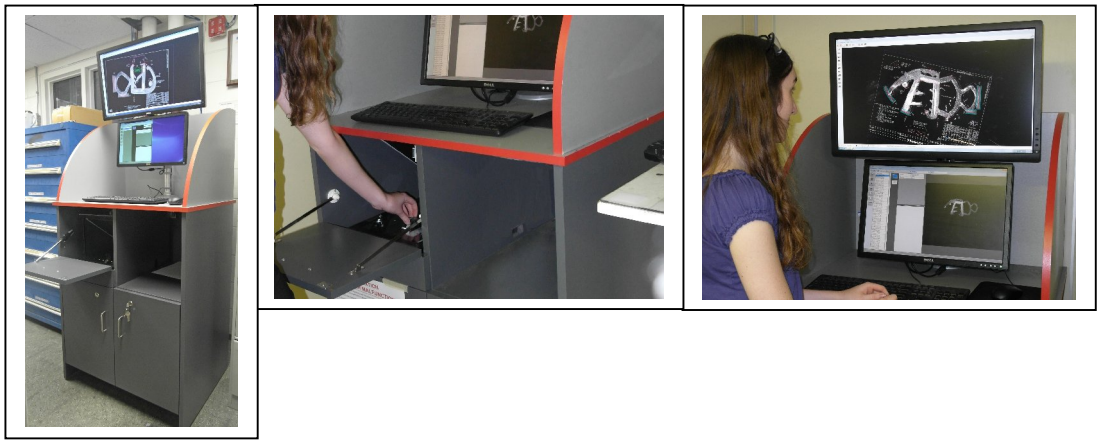
DOC A System Overview :

- We use state of the art scanners to capture excellent images of cut cross sections of extruded profiles.

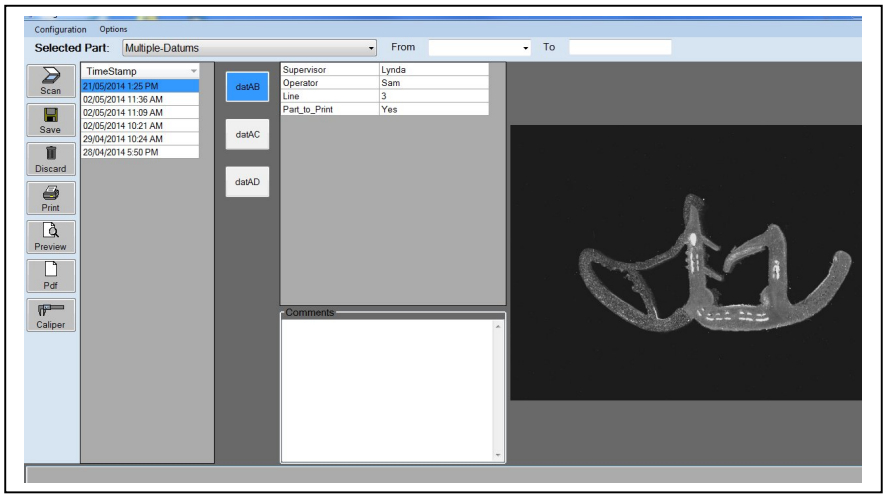


Clear view of rigid, foam, and metal materials.

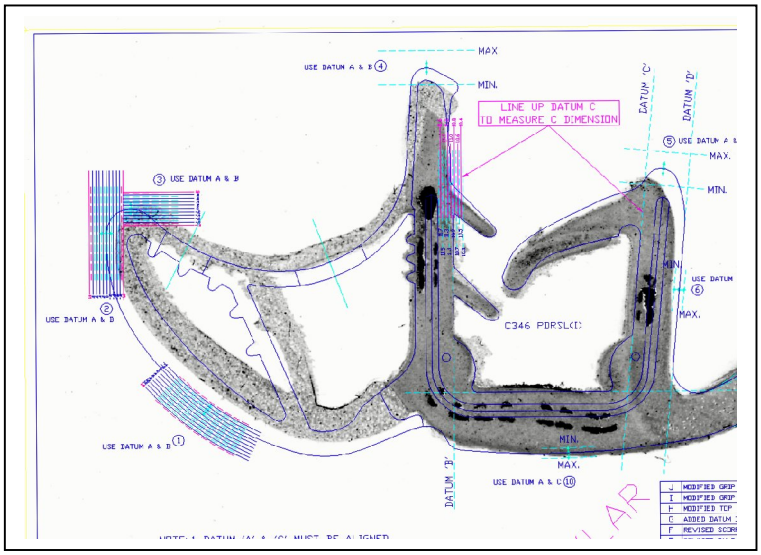
- Ergonomically designed stand up workstation for ease of use by plant personnel.



- Easy to use on screen commands.
- Supports multiple datum positions

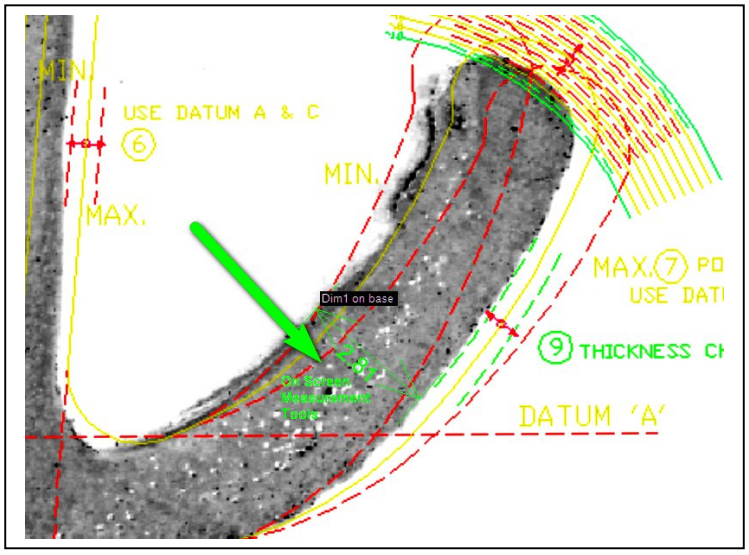


- Clearly visible Cad File on the sample image.

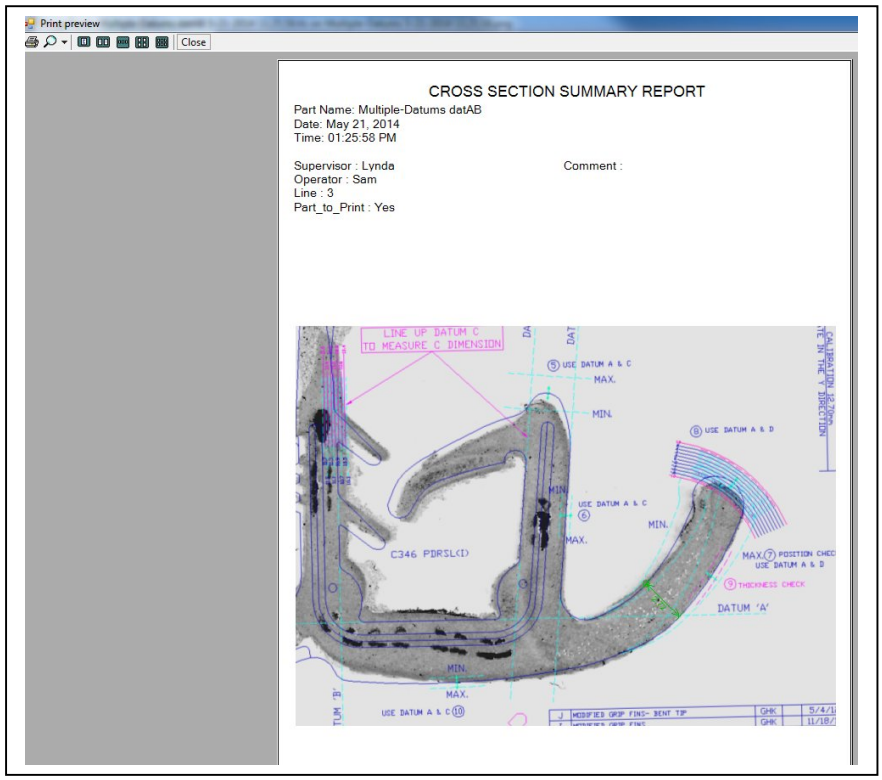


DOC A System Overview (cont.)

- Viewer software distribution to managers supervisors and engineers for direct access to the scanned samples and Cad files.
- Viewers can manipulate the position of the overlays and can place on screen measurement tools.



- Produce print or pdf reports with comment fields and images that are the same as the view you have on your screen.



A Chart Outlining the Purpose of the use of a comparator and how DOC addresses the purposes.

Comparator Purpose	**PLV FS200-DOC**
Sample image size or Field of View	Images samples up to 80mm x 80mm approx.
View variance from nominal	The Image of a sample is displayed with a Cad image overlaid on the sample image to view variance.
Record variance data	Selected data points may be automatically recorded to a database
Good visualisation of the profile	Images on the workstation are displayed on 2560 x 1440 27" display monitor
Allow Orientation to multiple datums	Up to 5 orientations may be recorded per part name. The orientations can be done manually, automated or semi automated.
Longer cut samples improve free state view.	Reflective scan does not require sliver thin cuts. Typically 25mm length cut (or more depending on the profile shape and size).
Ease of Operator Use 1-10 (10=difficult)	3
Determine internal material positions for rigid, foam and metal.	Sample Images provide good contrast to view these 3 materials for visual separation on a CAD file.
Evaluating effectiveness/accuracy of an operators inspection techniques.	The original sample image is recorded with the final position the operator left the CAD file in as well as the name of the operator who performed the inspection. The overlay position can still be "repositioned" on a temporary basis when viewing history, allowing operators to learn appropriate inspection techniques.

A Chart Outlining the Purpose of the use of a comparator and how DOC addresses the purposes (cont.).

Comparator Purpose	**PLV FS200-DOC**
Spot measurements at random locations.	The system allows for an onscreen measurement tools to be added at the time of inspection or post inspection using desktop viewers.
SPC on Data fields	Through 3rd party software.
Ergonomically designed	The DOC Stand Up workstation is designed for comfortable operation of all aspects of the inspection
Improve the manufacturing process by allowing access to different plant personnel to view production samples to better understand production needs.	An easy to use desktop viewer module, can be installed on multiple desktop computers for Quality Supervisors, Production Engineers, and others. The viewers can retrieve the images of the production samples collected by the operators and have the ability to position the CAD overlay on a sample and perform on screen measurements.

Contact Information:

PLV Systems Inc.
116 Viceroy Road
Concord, Ontario
L4K2M4

Sam Melamed
sm@plv.com

Off: (905) 761-7234 ext.24
Fax: (905) 760-1473

PLV would be please to provide an interactive internet based demonstration of DOC.