

Deposition Technology Datasheet

EVOFLO

There are many Varian 3290 Sputtering systems in the field estimated 500, playing a key part in metallization processes in many Semiconductor FABs and Laboratories around the world.

Most of the original configurations have a Proteus flywheel water flow switch as standard. Historically these switches have had some blocking issues which can cause issues with the magnetrons and the interlock circuit that can cost downtime and product scrap.



Issues with Proteus

The Proteus flow switch has a brittle plastic shell and can be damaged when Engineers work on the system. It is hard to adjust and has no display for flow, which can lead to temperature damage to the Magnetrons (cost to replace \$15 - \$20k). They are also prone to contamination/blockages from the water lines, when this happens the interlock circuit can trip and product could be scrapped.

DEPTEC TECHNICAL CENTRE

Fairmont House
21 Oakbank Park Way
Livingston
West Lothian
United Kingdom
EH53 0TH
TEL: +44 (0)1506239600
EMAIL: info@deptec.com
WEBSITE: deptec.com

OPENING HOURS

Monday – Friday
8:30am – 5pm

DEPTEC TECHNICAL CENTRE

Fairmont House
21 Oakbank Park Way
Livingston
West Lothian
United Kingdom
EH53 0TH

TEL: +44 (0)1506239600

EMAIL: info@deptec.com

WEBSITE: deptec.com

OPENING HOURS

Monday – Friday
8:30am – 5pm

Upgrade Kit

The EvoFlo contains 4 x DFM switches – one for each of the 3 Magnetrons and one for the front plate circuit, a custom bracket to secure the sensors where the Proteus flywheel sensors sit, plus a custom wire integration harness to allow the sensors to seamlessly plug into the existing control system electronics. The sensors have a physical display and can be set easily, both with warning and alarm points to make sure the flow will not drop to the Magnetrons and plate, preventing overheat in the magnetrons. The straight through s/s body (no flywheel) does not succumb to blockages and eliminates the interlock trip issue.

Sensor

The sensor has adopted the “eddy + ultrasonic” detection method. It ensures stable and accurate flow rate measurement by detecting eddies with an ultrasonic device instead of a piezo-electric device that is easily affected by vibration. The fluid passing section has a one-piece structure that makes maintenance easy. The bright, viewer-friendly 2-level display allows you to adjust the setting value while checking the current flow. Pressing the manual button enables direct access to the setting value for adjustment.