Hi James

Please see below an overview of the sequence for the program, relating to the control system and design of the physical and application-based interfaces:

1. I**nitial State**:

* Chamber A is "On-Line" (green light), Differential Pressure (DP) "OK" (green).
* Chamber B is in "Standby" (amber).
* Equalisation valve indicator is closed (green).
* Pause 30 seconds (variable).

1. **DP High in Chamber A**:

* Red lights indicate DP is high, and Chamber A needs cleaning (red).
* ‘Maintenance/depressurise’ lights up.
* ‘Prime’ lights up to indicate that offline chamber is to be primed.
* Indicators for the changeover process (on/yellow) and equalisation valve operation (on/yellow) activate.
* Pause 15 seconds (variable).

1. **Chamber Switch**:

* Valve rotates to chamber B.
* Cautionary/ flashing lights whilst gate valves swing over.  App to show an image with status of changeover.
* Chamber B transitions to "On-Line" (green), and Chamber A goes to "Off-Line" (red) as maintenance (cleaning) now required.
* DP & equalisation lights go back to green.

1. **Pause for Interaction**:

* A 1-minute pause allows observer engagement.

1. **Cycle Repeat**:

* Chamber A goes to “Standby” (amber) as assume cleaning has taken place.
* The sequence repeats with adjustable timing.  5-minute default pause.

1. **Manual and Automatic Modes**:

* Automatic mode runs independently; manual mode allows control panel operation. Light for auto/manual indication.
* Reset = back to start.
* Manual Changeover button.

1. **Safety Features**:

* Transparent Perspex for visibility and safety, with internal lighting for clear viewing​.
* Emergency stop button.
* System fault light. I.e. changeover mechanism error.`````

Below are the images for the control panel we looked at.  I believe you made some notes during the meeting for changes we discussed, for example an auto/manual switch to be added at the top for switching between modes.  The points above in purple text are also additional, as discussed in the meeting.

* The unit looks bulky, is this the smallest it can be to house the actuator etc?
* Can we have a plan and front view of the Strainer please?
* Apologies I didn’t include the header piece of the strainer on the STEP file I provided you, so I will update this and re send as we would like to see how it looks with that in situ.  Can you provide the dimensions of protrusion of the unit please?
* The chamber A/B switch should be Auto/Manual selection.
* Can the panel be split into two sections so that chambers A and B have their own lighting, similar to our initial concepts?
* Sequence of lighting for each chamber as follows:
  1. “Differential Pressure (warning triangle or similar)”
  2. “Equalisation Valve Open”
  3. “Chamber Priming” (delay)
  4. “Changeover Active”. With additional light somewhere for safety.
  5. “Maintenance Required” (delay)
* The following lights can be towards the bottom of the panel:

1. System Fault
2. Solar Power
3. External Power

* Wording changes for the nameplate as below please:

1. “DUPLEX ROTAGATE STRAINER®”
2. “Warning (warning triangle), refer to Installation, Operating & Maintenance manual before use.”
3. “Personal Protective Equipment should be worn when operating equipment.”
4. “Contains electrical equipment, do not open enclosure without taking appropriate precautions.”
5. “For service & warranty please contact [spares@bartonfirtop.co.uk](mailto:spares@bartonfirtop.co.uk)”
6. “PED 2014/68/EU, ASME B16.5, EN 10204/NACE, ASME VIII, Div.1”

* With regards to the nameplate and company logos can we discuss this further in our upcoming meeting please, we feel the RIFT logo is currently too prominent.
* Does the unit need to comply with any specific electrical standards, as it will be on display at an exhibition.  Is it fused when running with the solar panel?

A white paper with black text

Description automatically generatedA grey control panel with buttons and dials

Description automatically generated

Look forward to seeing a first off/draft version from yourself that we can further develop.

Let me know if you need anything else.  Happy to discuss further as and when required.