

## Hydrostatic Pressure Test

Rev: 001

Approved by:

Customer PO number:

0371122

Flangeguards PO number: 98863

Summary

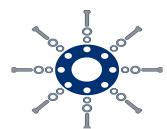
All five PTFE-Clear shields were tested at a pulsating pressure, averaging at 25Bar for one minute each.

Every shields stopped direct spray and mist formation with no sections of the PTFE or ECTFE compromised.

Test Shield No. 3 was tested beyond the average 25Bar pressure, up to 60Bar. Only at this point did the ECTFE material create a 'pimple' but even then, no hole was created.

All test shields passed this Hydrostatic Pressure Test

| Test date:         | 9th AUGUST 2016 |  |  |
|--------------------|-----------------|--|--|
| Test performed by: | NJOH HARWOOD    |  |  |
| Signature :        |                 |  |  |



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<u>Disclaimer</u>

Please note, failure to select the correct materials or products we supply ("the Products") may result in damage to plant, equipment or property. In some instances, it may cause death or personal injury. We are not designers and do not give advice about design related matters concerning the Products. We can help and assist with the technical specifications for the Products. In specific applications, particularly where critical conditions exist, we will try to assist you within the limitations of the services that we offer. All information supplied by us is intended as technical co-operation outlining the specifications of the different Products which we supply. To the extent permitted in law, no warranty is given in respect of any information supplied by us. The customer must satisfy themselves as to the suitability of the Products for their intended application and use. The correct fitting of Products is the responsibility of the customer. Your statutory rights remain unaffected. Save in respect of death, personal injury or fraud, our entire liability to you, however arising from the supply of Products shall be limited to the £10M indemnity amount provided by our insurers.



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Date : (

9th AUGUST 2016

| Customer PO number: 0371122   |                    |              |               |               |             |
|-------------------------------|--------------------|--------------|---------------|---------------|-------------|
| Flangeguards PO number: 98863 |                    |              |               |               |             |
| Sample #                      | Part number        | Material     | Size          | Test pressure | Pass / Fail |
| 1                             | FE-PIFE. (L-600-2" | PTF6 + ECTF6 | boolb 2' wide | 25 BAR        | PASS        |
| 2                             | FG-1996-02 600-2"  | PTF6+ECTFE   | 6001 2" WIDE  | 25 BAR        | PASS        |
| 3                             | FG-PIRE.CL-600-2"  | PIFE + ECTPE |               | 25BAR         | PASS        |
| 4                             | FG-PTFE, a-600-2"  |              | book 2" WIDE  | 25BAR         | Pass        |
| 5                             | FG-PTF6.cL-600-2"  | PIFE+ ECTF6  | bodl 2" WIDE  | 25BAR         | PASS        |
|                               |                    |              |               |               |             |
|                               |                    | 5            |               |               |             |
|                               |                    |              |               |               |             |
|                               |                    |              |               |               |             |
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|                               |                    |              |               |               |             |

Leak design: We use a 3mm Ø hole in a st/st ring. This would cause the highest velocity leak path for a given pressure. A jet at this size has the capacity to do physical harm (at higher pressures) as well as create a jet spray over the largest distance. Thus causing a large cloud / mist of flammable, toxic (or at worst both) liquid which could cause harm to employees, fires, risk of explosion, etc, etc. A small high velocity leak also creates the greatest challenge for the shield as it has to withstand the physical nature of a high pressure jet trying to cut through the material. And it also demonstrates the flange guard's ability to control the leak path and contain it to a specific area.

We certify that the goods supplied for the above referenced order have been manufactured, inspected and tested in accordance with the specification contained in your above referenced Purchase Order and/or the applicable Flangeguards Quotation.

| Flangeguards certifies that the referenced items were hydrostatically to the limits specified below |                        |  |  |  |
|---|------------------------|--|--|--|
| All units were tested for a period of :   | 60, SEGNIDS PER SHIKED |  |  |  |
| Test date :   | 9th AUGUST 2016        |  |  |  |
| Test performed by :   | Jeff HARWOD            |  |  |  |