CAUTIONARY NOTICE
Faulty Burst Disc
February 2011

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Divex Caution Notice No. DVX001-2011-CAU Faulty Burst Disc

PRODUCTS AFFECTED: **Divex HYFEX Hyperbaric Fire Extinguishers, 3 Litre and 7.5 Litre capacity, CE marked units only.**

DIVEX PART NUMBERS:

SE480AA	**HYFEX, 7.5L x 140mm od cyl. inc. refill, CE marked**
SE480AB	**HYFEX, 7.5L x 168mm od cyl. inc. refill, CE marked**
SE481AA	**HYFEX, 3.0L x 114mm od cyl. inc. refill, CE marked**

PART AFFECTED: **DIVEX PN SE4800339 - Burst Disc Assembly, CE PED**

INCIDENTS REPORTED: **No injury or harm to personnel and no damage to property.**

ACTION REQUIRED: **Replacement of faulty burst discs**

This cautionary notice is issued to alert users and owners of the Divex HYFEX Hyperbaric Fire Extinguishers (CE marked units only) of potentially faulty burst discs.

Burst discs manufactured with batch numbers 62813 and 64908, as per Figures 2 and Figure 3 below, may be faulty and could potentially rupture at a lower pressure than certified for.

GLOBAL LOCATIONS
Aberdeen
Chertsey
Bremen
Dubai
Cape Town
Perth
Sydney

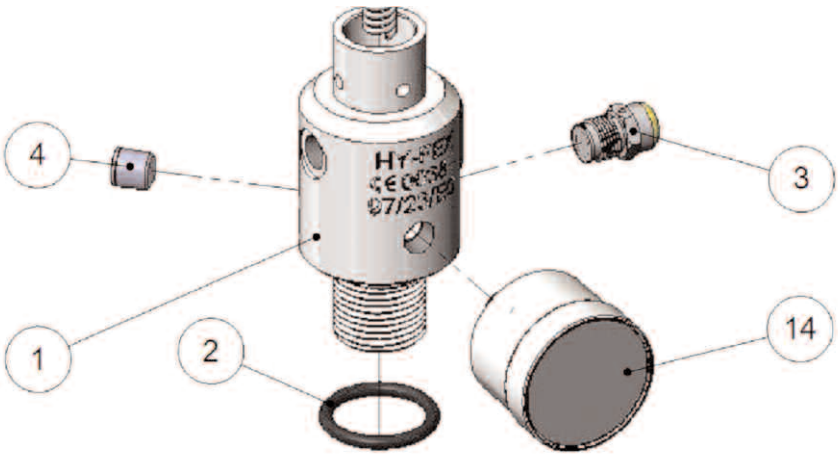

Figure 1

Figure 2

Figure 3

To date, one incident of a premature failure of a burst disc has been reported to Divex. No injury or harm to personnel was experienced and only minor damage to the burst disc resulted.

During tests at Divex, burst discs from the affected batches failed between 150 Bar and 165 Bar. For the causes and more information refer to the attached report by ELFAB.

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The burst discs fitted to the Divex CE marked HYFEX Hyperbaric Fire Extinguishers are designed to rupture at 186 Bar (±5%).

To ensure continued serviceability of the Divex HYFEX Hyperbaric Fire Extinguishers (CE marked units only) in your possession, Divex recommends the replacement of affected burst discs. Please review your stock of HYFEX Fire Extinguishers and if any should be identified with the highlighted batch numbers please contact Divex Sales Department who will arrange replacements. Faulty burst discs are to be returned to Divex at the earliest opportunity.

To replace a faulty burst disc, please follow instructions below.

WARNING

HYFEX HYPERBARIC FIRE EXTINGUISHERS ARE CHARGED TO 133 BAR.

FOLLOW OPERATING AND MAINTENANCE INSTRUCTIONS DETAILED IN THE OPERATING AND MAINTENANCE MANUAL TO SERVICE AND REFILL.

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1. Ensure that the HYFEX Hyperbaric Fire Extinguisher is fully discharged and cleaned before disassembly.
2. Remove Valve and Dip tube assembly (Figure 4, Item 7 and Item 9) from Cylinder.
3. Ensure cylinder interior is clean and free from contamination.
4. Remove and safely discard existing burst disc (Figure 1, Item 3).
5. Apply a small amount of DC4 Silicone grease to the external thread of the replacement burst disc and tighten to a torque of 20 lbf.ft. (27.12 Nm).
6. For refilling, reassembly and recharging of the HYFEX Hyperbaric Fire Extinguisher, follow the instructions as detailed within the operating and maintenance manual.

NOTE:
If the extinguisher is to be left uncharged, dry the cylinder with breathing quality air and refit the valve assembly hand tight only.

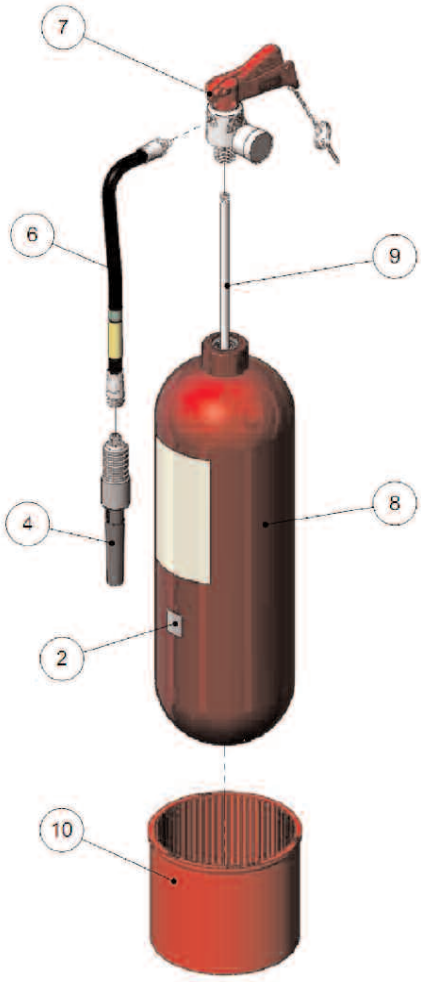

Figure 4

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Annex A

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e: sales@elfab.com
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Customer : Divex

Purchase order number : 101362 and 110847

Elfab Ltd
Contract number : 62813 and 64908

Complaint reference : CA5268

Date of report : 2 February 2011

Complaint : Low burst pressure

Burst specification 186 bar +/-5% (range 176.7 – 195.3 barg)
Customer tests giving bursts between 150 and 159 barg

73 assemblies received.

Initial tests in Elfab test tooling gave burst results within with the product specification, and in keeping with the original certified test results.

A close examination of the Elfab test tooling indicated wear. A valve was obtained from Divex for the purpose of examination and testing, pending receipt of replacement tooling.

Testing in the Divex valve, and subsequently in new tooling, verified the burst pressure obtained on Divex tests.

A new batch of discs was made to assemble using the 73 off returned holder units (following removal of the capped discs). Comparison tests were made using the new Elfab test tool, and the Divex valve, with the following results:

In Elfab new tool:		In Divex test valve:
1) 187 Barg	4) 191 Barg	1) 192 Barg
2) 184 Barg	5) 192 Barg	2) 189 Barg
3) 186 Barg	6) 189 Barg	3) 191 Barg

These results show no significant difference. On the basis of these tests I am satisfied that we are now supplying discs which satisfy our test requirements and will burst correctly in your assembly.

One holder unit was damaged within Elfab; the remaining 72 have been despatched to Divex.

The problem we have had has arisen through the gradual deterioration of test tooling used on this part. The tooling was not hardened, and wear seems to have taken place resulting in the errors seen. We are confident that the first batch will be correct; the biggest problem will have occurred on the third batch. As all batches are made solely to order, each batch can be considered in isolation.

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You state your fill pressure to be between 133 and 140 bar. The burst pressure of discs tested appea be generally between 155 and 160 bar. At these pressures, if the disc has held to this time expectatio is that it will not give a problem. That said, if you do have any bursting disc assemblies remaining fron your orders 101362 and 110847 not already on filled extinguishers, please return them and I will arrar for new bursting discs to be installed on to the plug holder component.

Actions taken for the future
We have replaced the original test tooling with hardened steel tooling which has been confirmed (as above) as giving the same burst pressure result as your valve assembly
We have instigated a procedure whereby the foils used will be tested using a standard hardened stee test orifice, prior to any discs being burst of the dedicated test tooling. Changes in any recorded differences between these tests will be investigated, with a view to the early detection of any deterioration of the dedicated test tooling. It is this tool deterioration which is the cause of the problem

David Abernethy
Quality Manager

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Please send any queries or need for further information for the attention of myself and as General Manager – QHSE I will endeavour to provide you with a suitable response.

Signed:  Date: 18th February 2011

Kevin Smith
General Manager – QHSE
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