

STOCK RATIONALISATION

AN EXAMPLE FROM A MEDIUM API PLANT

Situation

A medium-sized API plant was tasked by the wider organisation to improve performance and efficiency through three specific goals:

- Reduce the cost of manufacturing
- Increase output
- Address FDA warnings due to graphite disc usage

Stock rationalisation

The plant asked OsecoElfab to inventory all the bursting discs used, with a view to identifying cost-saving opportunities. A plant survey found 137 different disc tags in use at the plant, comprising graphite, composite and metal discs. There were over 100 variants for these tags, each with different burst pressures or temperatures, and sizes ranging from 25mm to 150mm.

This wide variety of tags and variants was not only complex to manage, but meant there was a higher risk of disc fatigue, premature failure and spurious alarms, as well as the risk of contamination. These issues generated a high annual cost for replacing rupture discs.

Proposed Solutions

The plant survey process identified three possible solutions, each with different cost-benefit advantages:

Option 1: Do nothing

Costs remain at the same high level (plus potential additional costs and risk of downtime due to the risks identified above).

- Higher risk of unscheduled stoppages
- Higher risk of product waste
- High disc usage
- Requires high preventative maintenance

Option 2: Implement disc rationalisation only

Costs reduce by 10% over 3 years including costs for new holders. After year 3, all the holders have been purchased, and the cost reduces by a further 20% per annum.

- Reduces risk of process interruption due to fatigue or corrosion
- Reduces risk of contamination
- Annual disc spend reduction after year 3 of 30%

Option 3: Implement disc rationalisation and extend maintenance period to three years by using Pure-Gard

3-year costs immediately reduced by 27% including costs for new holders. After year 3, this reduces by a further 30% for significantly lower annual costs.

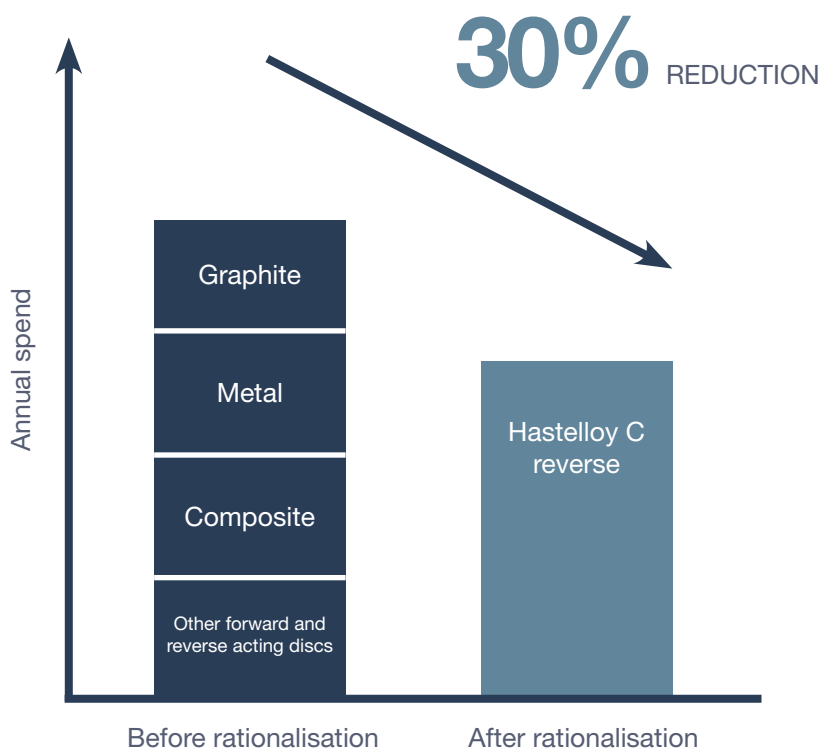
- All of the above benefits PLUS:
- Reduction in maintenance man hours
- Opportunity for increased uptime
- Reduced disc usage
- 57% less annual spend on rupture discs after year 3



Chosen solution: Option 2

The customer opted to rationalise their stock of bursting discs by using the reverse acting Opti-Gard disc in Hastelloy C throughout the plant. This enabled them to reduce the disc variants from 100 to 62, with complete removal of graphite discs.

After an initial investment in the holders required for the reverse acting discs, the annual spend on replacing rupture discs decreased by 30% as predicted.



Why OsecoElfab?

The manufacturer chose to work with OsecoElfab because of our ability to offer customised, innovative pressure management solutions at a global level, with a regional focus provided by our local, specialized partners.

In addition, we offer:

- A comprehensive portfolio of value-based solutions
- Multiple manufacturing locations
- Industry-specific resources
- 24/7 emergency support

**Let us help you with all
your pressure relief questions.**

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