

'Emerald' GEM Trap Set

'Emerald' GEM Traps are designed for any 'quick fit' pipeline connector.

Features

- Universal quick fit connection – no fitting costs with existing inline connectors
- Fully compatible with connectors from other manufacturers
- Integral strainers
- All Stainless Steel construction – body and strainer 316L Stainless Steel
- Integral Gaskets
- High pressure rating up to 100 bar (1450 psi)
- Temperatures up to 500°C (935°F)



'Topaz' GEM Trap Set

'Topaz' GEM Traps are designed specifically for all clean steam applications.

Features

- Smooth design with minimal crevices
- Designed to be used with 'Tri-clover' hygienic fittings and gaskets (not supplied with trap)
- Available in 15mm, 20mm and 25mm
- 316L Stainless Steel Body
- Internal and external body surfaces machined to 0.2-0.8 microns
- Pressures up to 10 bar (145 psi) at 200°C due to rating of Tri-clover clamps



GEM Insulation Bags

Two sizes of tailor made Insulation Bags for 'Sapphire' and 'Diamond' GEM Trap sets.

Features

- Bright orange cover, easily located
- Fire & weather proof
- Highly Durable
- Easy to read location badge
- Year on year savings – short payback periods
- No fitting costs



Tom-Pac® Valve Sealing Compound

Tom-Pac® is a unique fibrous, flexible compound that evenly seals and lubricates valve stems indefinitely.

Features

- Safer self-lubricating packing, stops valves sticking
- Energy saving – stops steam losses past/through dried out valve packing
- Prolongs life of valves as steam loss 'tracks' valve stems
- Cuts maintenance – only requires small additions to the existing compound
- Improves system reliability and reduces downtime
- Minimizes inventory



For more information on any of our products please see our technical data sheets, or contact us on +44 (0)117 9177 010, www.gemtrap.com

GEM Traps are UK Government ECA approved so GEM Traps and their fitting costs qualify for UK tax relief.



Published by:

Gardner Energy Management, 1 Tailor's Court, Broad Street, Bristol, BS1 2EY, UK

Tel: +44 (0)117 9177 010 Fax: +44 (0)117 9177 011 Email: enq@gemtrap.co.uk www.gemtrap.com



GEM Customer News

Contract News

Since the last newsletter, GEM have been busy supplying GEM Traps for all, or the majority, of traps on the following sites:

- Coopers Brewery, Adelaide, Australia
- Michelin, Ballymena, Northern Ireland
- Fruit of the Loom, Ireland
- Charles Wells Brewery, Bedfordshire
- Scottish Courage Breweries, Edinburgh & Newcastle

A major refinery has also fitted over 2,000 GEMs to their mains drainage and trace heating!

DSM Collect 50% Steam Savings Against New Buckets!

Lee Wardell of DSM 'bucket tested' an inverted bucket trap and then a GEM Trap to measure the relative efficiency of the two traps. He collected half as much discharge from the GEM Trap than from the bucket trap, indicating a 50% saving with GEMs. Lee stated that, furthermore, the test was carried out on a new inverted bucket trap, and "it could be assumed that older steam traps could yield even bigger savings."

DSM were also impressed that the GEMs handled the initial warm up smoothly, whilst the mechanical trap emitted a largely erratic flow. Once at the optimum running load, the drop off in flow from the GEM Trap gave a clear example of how the back pressure generated within the trap controls the flow of condensate, enabling the GEM Trap to work effectively under variable loads.

Bucket tests are a very simple and effective way of quickly measuring the comparative efficiency of traps on low pressure small capacity applications. If you would like to conduct some tests we have a simple guide sheet to assist you, or contact your local GEM Engineer for more information.

Croda Cut Downtime and Steam Consumption

Croda were having major problems on their glycerine distillation plant with air entrapment within the steam space that could not be properly vented with their existing traps. This meant the plant operator had to perform manual blow-downs in order to vent the system resulting in loss of production, as during the blow-down the steam feed had to be shutdown.

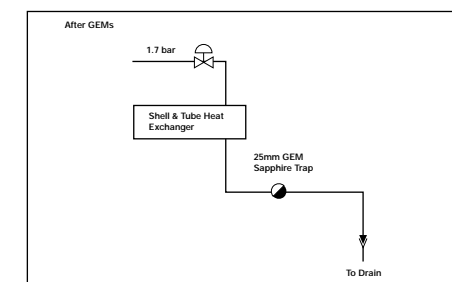
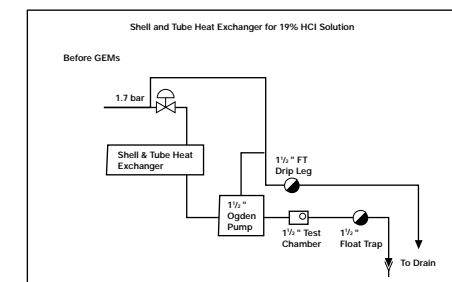
Before fitting GEMs, the operator was performing a manual blow-down every two and a half hours. After Engineer Richard Town changed over to GEMs, this was reduced to once every 30 hours, a twelve-fold increase in time between blow-downs. In addition, Croda measured a significant drop in steam consumption per tonne of product, saving over £2,900 in steam costs per year at the present feed rate (if run for 330 days per year), with an expected saving of £4,500 per year if the plant is run at design capacity. If this was not enough, Richard estimates a saving between £540 and £750 in annual maintenance giving an overall simple payback of less than two years.

Dow Corning Will Waste No More!

Dow Corning have recently been able to throw away a 1½" Ogden pump, test chamber, drip leg trap and float trap, as well as significantly reducing their steam consumption on a shell & tube heat exchanger! Was it a miracle? Or just all in a day's work for GEM Engineer Terry Redgers!

Terry suggested to Dow Corning that they should replace their current equipment with one small 25mm Sapphire GEM Trap and the steam savings just couldn't stop flowing. And of course the added bonus is that no further repairs or replacements will be needed.

The Maintenance Engineer commented that the GEM Traps have a real advantage in terms of savings in maintenance costs and improved reliability, "from having a trap system that continually had problems with failing linkages, washers, floats etc. to one that has no maintenance costs and no failure mechanisms is a delight".



Graham Benwell, Sunlight Services Wellingborough Branch Manager and Engineer John Wright are pictured with their GEM Energy Certificate. The Certificate was presented to them on the completion of the changeover to GEMs.

Steam Savings Make Sunlight Smile

Site Engineer John Wright at Sunlight, Wellingborough has tried every make of mechanical steam trap over the last 30 years. He found they all failed and continually required testing, new parts or total replacement.

In November 2001 John fitted a couple of GEMs on an ironer and a drier, replacing mechanical traps. An immediate improvement on equipment performance was noted with better temperatures than ever before. John continued to replace all Sunlight's failing mechanical traps with GEM's throughout 2002, and each time noted an improvement in performance. By the end of 2002 Branch Manager Graham Benwell had noticed an average £200/week reduction in his gas bill through reduced steam trap losses. The management was so impressed they ordered GEMs for the rest of the laundry!

On fitting out the whole plant Sunlight were even happier to see their gas bills drop by more than expected, exceeding the projected savings of £10,000 per year. The GEMs will now pay for themselves within 8 months.

Graham Benwell said "that from the beginning it was noticed that with GEM traps installed, supply steam was drier than ever". The laundry no longer needs to hold expensive spares in stock, nor ever spend time testing and replacing failed traps. The system is now much more reliable and productivity markedly improved.

Trapping Steam Is Not Enough!

GEM customers can now also cut steam losses from valve stems using Tom-Pac® sealing compound. Tom-Pac® is a unique fibrous, flexible valve packing that evenly seals and lubricates - indefinitely. No more jammed valves leaking untold amounts of steam. It is simple to use and, like GEM Traps, permanently improves the safety and efficiency of steam systems.



The Vanishing GEMs...

Often over the last seven years, when we call our customers to ask how their GEMs are performing, they say what GEMs? Then during site inspection we find the GEMs are performing fine - so fine that the operators have forgotten about them!

On occasions though, the GEMs have been difficult to locate because they have been covered in pipework insulation! We now supply Sapphire and the smaller Diamond GEM Traps with Velcro fixed tailor made Insulation Bags. In bright orange, with location badge, these bags ensure you always know where you have installed GEM Traps, as well as proving an efficient energy saving mechanism.

GEMs Approved For Enhanced Capital Allowance

GEMs are the only non-pumped steam trap to be listed as qualified for the UK Government's Energy Technology List. Being listed means that customers can offset the entire cost of their GEMs and their installation costs, against tax under the Enhanced Capital Allowance Scheme.

ECA Approval of GEM Traps has proved beneficial to users when dealing with IPCC regulators as GEMs give year on year savings, enabling users to permanently cut emissions and meet targets. With rising fuel prices and the need to meet Climate Change Levy Targets, why not see how you can benefit from the savings made by changing over to GEMs?

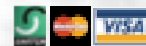
For more details on the scheme and how to get your money back from the taxman visit www.eca.gov.uk.



UK SMEs Get Money For Nothing!

If you are a small or medium sized business and would like a helping hand when purchasing your GEM Traps then why not apply for an Interest Free Loan from Action Energy for £5,000 to £50,000? Action Energy offer these loans to cover capital investment to reduce energy costs - and what could be more energy saving than a GEM Steam Trap? For more information ask your local GEM Engineer, contact our head office or call Action Energy direct on 0800 58 57 94, www.actionenergy.org.uk/energyloans.

Speed And Ease By Credit Card



If you need some GEMs in a hurry, and have not got time to raise a purchase order, simply call us on +44 (0)117 9177 010 with your requirements and company card details and we will do the rest!

Crushed Balls?

Stressed out maintaining your mechanical traps? Steaming from the ears? Why not relax with your very own GEM stress ball? Simply call Claire or Zoe on +44 (0)117 9177 010 or fax back the section below to start relieving your pressure.



Published by:

Gardner Energy Management, 1 Tailor's Court, Broad Street, Bristol, BS1 2EY, UK
Tel: +44 (0)117 9177 010 Fax: +44 (0)117 9177 011 Email: enq@gemtrap.co.uk www.gemtrap.com

Fax Back +44 (0)117 9177 011

- | | |
|--|--|
| <input type="checkbox"/> Please send me a GEM stress ball | <input type="checkbox"/> Please visit me and survey my steam trapping needs |
| <input type="checkbox"/> Please send me a brochure about GEM Traps | <input type="checkbox"/> Put me in touch with a steam trap user in my industry |
| <input type="checkbox"/> Please send me a GEM Trap price list | <input type="checkbox"/> Stop sending me GEM News now |

Name: _____
 Job Title: _____
 Company: _____
 Address: _____
 Telephone: _____
 Fax: _____
 Email: _____

Solutions For Water



Treatment
 GEMchem Ltd., a new subsidiary of GEM, was launched in 2002 to provide the UK with a proven new 'simple and efficient' state-of-the-art water treatment service. Traditional water treatment methods of adding salts to the boiler frequently increase blow down, water costs and heat loss.

GEMchem uses environmentally-friendly organic compounds which simply dose the make-up water and efficiently care for the whole water, steam and condensate system. This advanced treatment protects condensate pipelines and associated equipment, avoiding corrosion, debris build up and blockages.

GEMchem also treat HWS systems and cooling towers, providing customers with a complete service. Contact David Green on +44 (0)117 922 5544.

Tim's Topical Tip

Many people think that to size a drip leg trap we need to know the flow of steam within the steam main. This flow does not affect the mains drainage or 'drip leg' trap as it is normally required to drain the condensate formed in the main due to heat loss. We therefore size the GEM Trap by calculating the maximum heat loss from the length of steam main drained.

Tim Gardner

Benefits of GEM Traps

- Minimal maintenance - no moving parts
- No spares, testing or monitoring equipment required
- Corrosion resistant
- Easy to clean
- Guaranteed for 10 years



'Sapphire' GEM Trap Set

'Sapphire' GEM Traps are designed for all medium pressure steam applications.

Features

- Available in 15mm, 20mm and 25mm, all supplied with tailor made Insulation Bags
- All Stainless Steel construction - body 303 Stainless Steel, strainer 316L Stainless Steel
- Integral Unions
- Pressures up to 10.3 bar (150 psi)
- Temperatures up to 185°C (365°F)



'Diamond' GEM Trap Set

'Diamond' GEM Traps are designed for all medium to high pressure steam applications. The three smaller traps are supplied with high pressure strainers.

Features

- Available in 15mm, 20mm, 40mm and 50mm. The three smaller sizes are supplied with tailor made Insulation Bags
- All Stainless Steel construction - body 303 Stainless Steel, strainer 316L Stainless Steel
- Gaskets made from Annealed Copper
- Integral Unions
- Pressures up to 50 bar (800 psi)
- Temperatures up to 265°C (500°F)



'Ruby' GEM Trap Set

'Ruby' GEM Traps are designed for all flanged applications.

Features

- Available in 15mm, 20mm, 25mm, 40mm and 50mm
- Compact and easily fitted on the outlet of a flanged strainer
- All Stainless Steel construction - body 303 Stainless Steel
- Pressures up to 100 bar (1450 psi) including superheated steam as standard

