

RELY ON EXCELLENCE

New eMG elastomer bellows seal series replaces MG seal at Grundfos pumps

Real success is when everyone benefits

INTERVIEW

The partnership between Grundfos and EagleBurgmann in mechanical seals has a long tradition. Over the decades, innovative solutions have been developed which are unparalleled and have established themselves as an industrial standard. This is also true for the product development of the new eMG series - an elastomer bellows seal based on the legendary MG seal from EagleBurgmann. Thanks to a design revision and the use of new high-performance materials, this seal not only enters a new dimension of technology, but also sets new records in terms of supply chain and complexity reduction.



Grundfos is a pump manufacturer based in Bjerringbro, Denmark. As a global leader in pump solutions and water technology the company produces around 16 million pumps each year.



Jens, when was the new eMG first presented to you?

I was informed about the eMG project in October 2015. However, four years ago I had already discussed the possibility of using the new face material eSiC-Q7/eSiC-Q7 with Peter Haselbacher, the former senior expert at EagleBurgmann, Technical Sales Support, who recommended this as a valuable solution for water/glycol mixtures. Immediately after our discussion I began tests in our laboratories in Bjerringbro, Denmark and discovered that eSiC-Q7/eSiC-Q7 performed excellently

in hot water applications. Based on these experiences we began to use the new face material in our high-runner MG seals in 2013-2014 and had very good response from the Group Service and Sales since we achieved a single solution for many applications and a longer service life. Based on this I was ready to take the next steps using a hard/hard combination, moving in the direction of A- and B-carbon when I went to visit EagleBurgmann in Wolfratshausen in late 2015, taking advantage of our history of very fruitful cooperation with EagleBurgmann.

What was your first thinking when the new eMG series was presented to you?

To be honest, my first reaction was not so enthusiastic. Internally, we were already prepared to continue implementing the MG series with eSiC-Q7 in our pumps. The presentation of the new eMG series by EagleBurgmann came as a surprise to us. Of course, I could immediately see the additional advantages of the new eMG designs - especially the PEEK-PTFE-Disc. However, since I was responsible for the engineering side I was much more interested in seeing the advantages of the new design implemented in the shaft seals we already were buying, mainly MG13.



Our interview partner

Jens Kaasgaard Kristensen, B.Sc. Mech. Engineering, graduated 1980.

Kristensen started working for Grundfos Holding A/S in 1987. Since 2008 he has been Senior Shaft Seal Specialist, responsible for maintenance of tests, documentation and support for Grundfos's own produced mechanical shaft seals. He also supported Group Purchase for sourced mechanical shaft seals and provided worldwide support to Grundfos factories and service organization.

What are the main reasons that prompted you to change the product? Who else was involved?

As already described, at the technological level we were ready to update our portfolio, so it was mainly a task for our Group Purchase to ensure that the prices were acceptable.

What qualification steps did eMG have to go through before series production was released?

We have carried out all the necessary tests to qualify for series production. We had a great advantage in that we already knew the eSiC-07 material very well. In addition, our partnership with EagleBurgmann meant that we were able to view in advance the design details and test series of the new seal. During a factory visit, our team was able to review the various development and qualification processes and convince ourselves regarding its performance. All in all, the qualification process at Grundfos was very fast and lean, because of this advantageous constellation.

How did you organize the switch from MG to eMG seals and how many of the possible products have already been converted?

The ongoing implementation of the new eMG1/12/13 in our products is handled by the engineering departments that are responsible for the different product lines. The first series application was in our single-stage centrifugal pumps. What I have been hearing through within the organization, it is running quite well.

What experiences have you had with EagleBurgmann during the conversion process so far – in technical and organizational terms? Is there anything in particular that you would like to mention?

I have learned that changes in companies with the size of EagleBurgmann and Grundfos take time, often more than expected and dedicated people with good personal cooperation are necessary if you want to go quickly. If you look closely, it is clear not only that delivery quantities have been replaced one-by-one at great speed, but also that a process that has been in place for several years is being changed. This requires contributions from different departments and must be coordinated over several process steps – on the customer and supplier side. If special effects with bundling and identical parts strategies are added, this increases the complexity and the time required.

Were there additional advantages for you when you worked together with EagleBurgmann to define the new variants and material combinations for the eMG?

The common goal for our project team with support from EagleBurgmann and Grundfos was to use this implementation to clean up our portfolio to make it as simple as possible for our sales organization. In addition, for Grundfos, as for EagleBurgmann, this means that the new eMG series has reduced the variety of parts while at the same time improving performance. Customers and the sales organization, as well as supply chain management and production, benefit from this. A real win-win situation for all parties.



EagleBurgmann – at the leading edge of industrial sealing technology

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