

Set news

2019



Set Pipes

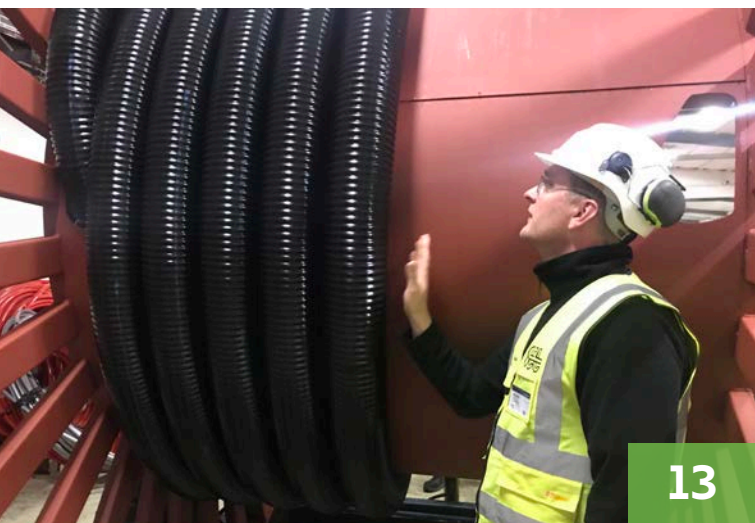
The newsletter contains information on some of the work carried out in the factories of Set in Selfoss and in Haltern am See in Germany.



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Continuous progress

This Set newsletter contains information on the work of the company and its main tasks in the field of product development and services and planned projects.

Set's operations have been quite eventful in the past few months. Succeeding in any given sphere is not a given, but it has certainly been so at Set. Innovations have been launched in product development, range of goods and manufactured products at the same time as new service options have been developed and unexpected opportunities have been created in gaining markets both in Iceland and overseas.

Set was selected in a number of important invitations to tender, as the company has been successful in preserving and ensuring the continuation of the operation of its subsidiary, Set Pipes GmbH in Germany, which serves the Icelandic market with the production of heavier and larger insulated steel pipes for Icelandic heating utilities.

Work has been carried out on the construction and installation of a production line for Elipex Premium district heating pipes in the plant of Set Pipes GmbH and, at the same time, the development of a jointing system and T-junctions for the pipes. This project is advancing apace. Set has been granted a patent for the Eli-Tee solution, and this product will be sent for testing in piping systems later in the year. It is an important

milestone in Set's history to receive a patent, the first to be registered to the company.

The Elipex Premium project enjoyed the support of the Technology Development Fund during its early stages when Set technicians announced a new production method and design of the shape of external protective pipes. The support of the Fund was symbolic, and it is pleasing to know that ahead is a much stronger market position as a result of the new product.

Services to the domestic market have been strengthened through the opening of a new warehouse at Klettagarðar 21 in Reykjavík. The goal is first and foremost to shorten delivery times and raise customer service levels. Efforts will continue on providing professional technical consultancy services and follow-up services, as the operation is based first and foremost on its own production goods together with imports of the best available connecting materials for all goods categories from reliable manufacturers and long-term Set partners.

It is very important for the domestic piping and utilities market to have a



BERGSTEINN EINARSSON
CEO Set Pipes

local manufacturer who is also involved in manufacturing overseas and stands on equal footing with their largest and best competitors as regards technology as well as the company's successful history in Iceland, where knowledge and infrastructure has been created in beneficial collaboration between the company's employees and its clients.



Set Pipes has a certified quality system according to ISO-EN 9001. Vottun ehf. is responsible for evaluating and monitoring the system.



Set Pipes has a quality recognition from the European District Heating Association, Euro Heat & Power



Nýsköpunarmiðstöð Íslands

Nýsköpunarmiðstöð Íslands supervises the internal registration for Set Pipes' quality system.



Sveriges Tekniska Forskningsinstitut is responsible for type testing the products from Set Pipes and audits for the Euro Heat & Power certification.



Fernwärme-Forschungsinstitut performs type testing for Set Pipes' products.



IMA in Dresden measures the thermal conductivity in the heating pipes for Set Pipes.



Teknologisk Institut handles measurements on pre-insulated pipes for Set Pipes.



Tæknipróunarsjóður supports product development and innovation at Set Pipes.

Set opens a warehouse in Reykjavík



Set's Warehouse

The establishment of the Set warehouse at Klettagarðar 21 in Reykjavík in the spring of 2019 creates a new image for the company, offering greater proximity to the market and higher service levels. All the company's re-sale goods will be stored therein, as will a proportion of its production goods.

The warehouse is intended to increase efficiency in deliveries as well as to open up room in the production facilities in Selfoss and to partly separate the sales operations from goods development, machine manufacture and production. Set's customers in the field of re-sales, contractors and utilities companies will experience the difference in speed of delivery, security and better services.

The opening of the warehouse means that Set's operations will, for the first time, be in three locations, in Selfoss, in Reykjavík and in Haltern am See in Germany.



Set employees in the warehouse

Sewage projects

The summer of 2018 saw a milestone project for Veitur ohf. in Mjódd in Reykjavík.

The project involved the first main pipes of Veitur made from Weholite plastic pipes due to the rerouting of surface water and sewage utilities during the construction of the sports hall and facilities of the ÍR sports club, as well as other projects. The principal contractor was Óskatak ehf. Set ehf. sold Veitur ohf. and its contractors all piping materials and was also responsible for their assembly. The largest pipes in this project had an internal diameter of

1,800 mm and an external diameter of a little more than 2 m, a total of half a kilometre in length, as well as pipes of various other widths, from 150 mm to 1,600 mm internal diameter. The work progressed well, and the collaboration between Set and the contractor was a success. The materials delivered by Set for the project consisted of more than 50 transportation loads of pipes, the largest in scope being the largest pipes, which were delivered in 16 m units.



Renewal of the main piping systems of Selfossveitur



Connections on a new main utilities pipe in Selfoss

In recent years, Selfossveitur have been working on the renewal of its main piping system from the pumping station south along the building. Extensive and fast growth in construction operations has been seen in the area, and the increase in the population of Árborg has been among the greatest in the growth areas in the municipalities around the Greater Reykjavík Area. Fortunately, excellent success has been achieved in water collection for the utility. The distribution system, moreover, also covers the residential areas by the sea – Stokkseyri and Eyrarbakki – and the rural areas in between.

It is a particular pleasure for Set to take part in this project in its own municipality and a lot of geothermal water has run through the residences of Árborg since Set participated in the manufacture of materials for the utilities of new geothermal district heating on the coast, Eyrarveitan in 1981. It was one of the first large projects the company undertook where the villages on the coast were geothermal energy sources.

New main piping for Norðurorka from Hjalteyri to Akureyri

Set's offer was selected in the invitation to tender issued by Norðurorka for insulated steel pipes for the main piping system from a new and powerful borehole at Hjalteyri. The project, executed over four years, from 2018–2021, involves the insulation of 16-metre-long 500 mm steel pipes in a 710 mm protective pipe.

The pipes are insulated in the factory of Set Pipes GmbH in Germany and then transported to Akureyri. The steel pipes

come from the factory of Mannesmann in Hamm, not far from Set Pipes' facilities in Haltern am See. Set insulated the first stage of the main pipe, 1.9 km, which was installed in Akureyri and out of the town in 2018, and was again selected in the invitation to tender for materials in the three later stages in 2019–2021. The Set Service Department is responsible for the insulation and finishing work on the joints of the pipes. The total length of this new and powerful main pipe to Akureyri from Hjalteyri is around 21 km.



500 mm pre-insulated steel pipes



Working on assembling the pipes

Rarik Höfn

Set has entered into an agreement for insulating steel pipes in the new main piping system and utilities system of Rarik in Höfn í Hornafirði following an invitation to tender. The pipes and the connectors are manufactured in the factories of Set in Germany and in Selfoss. The project in question involves materials for a new main piping system and the enlargement of the distribution system from it.

The project means that the distribution system will be connected to the geothermal area at Hoffell in Nesjar by means of a main pipe. The heating station that has been operated in Höfn, where the water is heated using electricity or oil, will be discontinued. A 21.5 km main pipe will be laid from the geothermal area at Hoffell to Höfn. The plan is to finish the link between Höfn and the new piping system in the new year.

The district heating utility at Höfn is more than 30 years old and has been heated using an electrode boiler with an oil-run back-up boiler. RARIK purchased the utility in 1991. In recent years, efforts have been made to find hot water at the Hoffell farm for the built-up area in Höfn and its environs. It became clear two years ago that sufficient hot water had been found



to make it feasible to begin the construction of the main pipe to Höfn.

Minimal changes need be made by the residents of Höfn who are connected to the district heating utility today, and approximately a quarter of the residents have direct electrical heating. It is estimated that the installation of the distribution system in the electrical heating area of Höfn will be carried out next year, or in 2020.

Ecobuild

Set participated in the Ecobuild exhibition that was held in the ExCel exhibition area in London on 6 to 8 March 2018 and in the same exhibition, entitled Futurebuild, the following year on 5 to 7 March 2019. The exhibitions are construction sector exhibitions in the UK where the focus is on new methods and more efficient energy use, building insulation, piping materials and more eco-friendly energy providers.

The development of district heating utilities using heating stations and the district heating utilities has a long way to go in the UK in comparison with what is the norm in the Scandinavian countries, where the technology is most widely used, and the European mainland. The district heating technology, however, is considerably common in the Eastern European countries, particularly in former Soviet states. By participating in the exhibition, the intention was to get to know the UK market and ways to introduce the company's products in that market.



Exhibition stall of Set in the ExCel venue

AGFW Enn+Eff

Set Pipes presented its operation and goods at the Enn+Eff exhibition of the German utility's association AGFW in Frankfurt on 17 to 19 in April 2018. There are ambitious plans in Europe to increase district heating utilities use. The policies of Set and Set Pipes GmbH call for their full participation in this project over the coming years.

The installation of the new production line of Set Pipes and the Premium pipe will create even stronger opportunities on the mainland, in Scandinavia and in the UK.

Set is now considered to be among the world's three most technically advanced manufacturers of steel and plastic pipes. Potential in overseas markets will, as before, be based on this wealth of experience.

Technology based on the decades of experience of the Icelandic geothermal market and an excellent team of technicians, equipment development and manufacture.



Verk & Vit

Set participated in the sector exhibition Verk og Vit in Laugardalshöll on March 8th to 11th 2018. At the exhibition, the company focused on the diverse range of piping materials that is manufactured for and sold in the domestic market, goods in the field of geothermal energy, water utilities, sewage systems, electrical and fibre-optic cables. The exhibition was well attended, and it is clear that there is considerable interest in the construction industry among the general public.



Samorka in Hveragerði

Samorka, the association of district heating companies, hosted a sector-based conference and exhibition for the heating, water and sewage sectors at Hótel Örk in Hveragerði on 23 to 25 May 2018. The conference covered a lot of ground, and a large number of excellent lectures were held about the various aspects of utilities operations. Set had an exhibition stand during the conference and took part in the events on offer.

Among these was participation in presenting the welding of plastic pipes. Valdimar Hjaltason presented the goods of the company, together with Andreas Heindl from Rehau AG in Germany, who showed the advantages of using PEX-a plastic pipes in heating utilities. He did this by means of mobile laboratory equipment, i.e. a Mini-Lab, where he showed the different characteristics of different plastic materials using distortion, tensile strength and breaking strength tests. Set also introduced the new Elipex Premium flexible plastic pipes with internal transportation pipes from Rehau AG.



Valdimar Hjaltason and Andreas Heindl

Diverse projects

Various pictures from Set activities.



Water utilities



Finish of joints on insulated valves for Norðurorka



Assembly of main pipes for water utility



Insulated utilities for HS Orka



Utilities in connections with the doubling of Suðurlandsvegur road



Sewage main pipe in Árborg

Economical shipping

Set's collaboration with the Faeroese shipping company Smyril Line has resulted in new and diverse opportunities for the transport of piping materials between Iceland and mainland Europe.

The geothermal utilities pipes from the factory of Set Pipes come in transport trailers that are loaded at the factory and driven directly to the installation site in Iceland without being restacked. The same applies to deliveries of goods from Set in Selfoss on transportation trailers to the factories overseas. The sailing route between Rotterdam and Þorlákshöfn or Seyðisfjörður is much shorter in distance and time than to Reykjavík, and the driving distance from Þorlákshöfn to Selfoss or Reykjavík is short, or approximately 30 minutes.



Mykines, Smyril line's ferry in Þorlákshöfn

Transportation trailers

Set bought new transportation trailers from the German company Schmitz Cargobull last year. The trailers have been used for the company's goods transportation between

Selfoss and Haltern am See, although most of the transport has been within Iceland.



Trailer from Schmitz Cargobull

Set tournament

The Set tournament was held in Selfoss during the Whitsun weekend, 7-9 June '19.

The tournament, which is for Boys' Category 6, was first held in 2014 and matches were held in three divisions. This time, 104 teams competed in ten divisions, and participants totalled 630. The matches were played on 8 fields. The number of participants has been steadily increasing each year, and almost three thousand people stayed in Selfoss during the tournament. The summer festival Kótiletan that was held during the tournament was a resounding success, and good weather over the whole weekend made the visit to Selfoss even more memorable for participants and their families.

The Selfoss Football Association and Set hf. wish to thank the participants, parents, supporters and all those involved in the execution of the tournament for a most enjoyable weekend.

Go Selfoss!



Air temperature gauge in the outdoor area at Selfoss Swimming pool

A new air temperature gauge in the outside area of Sundhöll Selfoss was installed last year, 2018. Set sponsored the creation of an advertisement in the outdoor area of the swimming pool where the temperature gauge was installed.

Set has been among the many supporters of the UMFS swimming division in recent years as in so many other sports divisions within the association. The swimming pool is among the most popular stops for travellers in Árborg, both Icelandic and also, increasingly, foreign travellers.



ElipeX Premium pipe for sale in the domestic market

With the introduction of the new ElipeX Premium plastic district heating pipes, a continuation of Set's processing of ElipeX pipes with smooth protective coats ever since 2006, sales of Set for the domestic market have changed. Icelandic district heating utilities have thereby been moving toward the purchase of the new pipes. They have all had similar experiences; the pipe in question is much more flexible and comfortable to work with and install.

As before, it is important that the experience of well established district utilities in Iceland become the company's beacon in their marketing of the product in Europe.



New production line in Haltern

The important milestone was reached in autumn 2019 that the new production line of Set Pipes in Germany for ElipeX Premium pipes were launched in the company's factory.

Set has been manufacturing the machinery in Selfoss over the past two years, and at the same time, agreements between Set and foreign machine manufacturers have been finalised

for other machinery. The production capacity and facilities for the new line in Set is much better than in Selfoss. A side product of the new ElipeX Premium pipe of Set is a new type of joiner and T-joint. The idea is the product of Set's technicians. A prototype has now been manufactured by a partner of Set, and the first pressure and load tests have been carried out.



First production; Jóhann Valdimarsson, Róbert Karel Guðnason, Rafal Pikiewicz and Frank Müller

Greenland

This summer, four Set employees travelled to Greenland for a demanding work-related trip.

The goal of the trip was to install a potable water and sewage system for a new neighbourhood on the island of Uummannaq. The origin of the project can be traced to 18 June 2017 when a tidal wave took 11 homes in Nuugaatsiaq and washed them out to sea; the disaster killed four people.

The residents of Nuugaatsiaq were invited to relocate to Uummannaq in new houses. The project partly involved the renewal of piping that Set manufactured, as an unforeseen defect had been found. The representatives of Set had previously visited the place to assess the quality of the pipes. In continuation, the decision was made that Set would undertake certain improvements and renewal of the piping system since the company was known to deliver only perfect goods. It was a matter of some note for the partners of Set in Greenland that the company immediately accepted this task, admitted liability and promised to ensure that everything was as it should be in this remote location. The speed at which this elite team of key personnel in the operation of Set completed the work also drew admiration.

The scope was considerable, and installed were pipes in the sizes



160/315, 110/250 and 90/250. Conditions in this area are quite demanding, as the photos show.

All pipes are anchored to supports that are bored into the rock. To transport the piping material to the installation site required the assistance of a helicopter from Air Greenland.

These pipes are specifically designed to withstand such difficult conditions. They must, e.g., be heated so that their contents do not freeze during winter. The electricity used to heat the pipes is produced by diesel generators. The entire operation of these systems, therefore, is extremely costly under the severe living conditions experienced in Greenland. This demanding project

shows, better than most, how well coordinated a team Set has, i.e. that these key managers and excellent

employees are willing to undertake this difficult and demanding project to ensure that the old values of Set are maintained, i.e. "Quality for the future".



Those who undertook this demanding project for Set were Þórarinn Jóhannsson, loading manager; Elvar Már Ölvesson, maintenance manager; Guðjón Viðarsson, plastic smith; and Benedikt Rafnsson, quality manager.

An outstanding company



For the fourth year in a row, Set has been acknowledged by credit assessment company Creditinfo as one of Iceland's outstanding companies.

In order to gain this acknowledgement, companies must pass a strict quality assessment based on Creditinfo's professional standards and analysis.

Set holds the 485th position of the 880 companies that received the recognition this year.

To be among the top 2.0% of companies in Iceland is a pleasing confirmation of the successful operation of the company in past years.

Creditinfo places companies in one of three categories: small, medium sized and large companies, and Set is analysed as a large company.

A company is considered 2019 Outstanding Company if it fulfils the following conditions:

1. Has submitted its annual financial statements for 2016–2018
2. Has a credit rating of 1, 2 or 3
3. Its operating profits (EBIT) were positive during the operating years of 2016–2018
4. Its annual results were positive during the operating years of 2016–2018
5. The Equity ratio was at least 20% during the operating years of 2016–2018
6. The managing director is registered in the RSK Companies Registry
7. The company is active according to the definition of Creditinfo
8. Operating revenue was at least ISK 50m during the operating years 2018 and 2017
9. Assets were at least ISK 100m during the operating years 2018, 2017 and ISK 90m in 2016

Skagafjörður utilities

The installation of district utilities along Óslandshlíð to Neðra-Ás and Ásgarðsbæjir on behalf of Skagafjörðurveitur utilities had been ongoing this summer. The work is expected to finish before the end of the year. The main contractors for the project are Vinnuvélar Símonar ehf. Skagafjörður utilities are owned by the municipality of Skagafjörður and operates today a dynamic and extensive distribution system for heating utilities in the built-up areas and rural areas of the Skagafjörður municipality.

All the built-up areas in Skagafjörður are connected to the heating facilities; Sauðárkrúkur, Varmahlíð, Hofsó, Hólar and Steinsstaðir. Skagafjörður utilities currently operate 7 high-temperature areas in Skagafjörður, i.e. the borehole areas that are used for distribution of hot water are a total of 7 in number – Langhús in Fljótum, Hrolleifsdalur in Sléttuhlíð, Reykir in Hjaltadalur, Sauðarmýrar near Sauðárkrúkur, Reykjarhóll in Varmahlíð, Steinsstaðir and Hverhólar in Lýtingsstaðahreppur the ancient (region).

Ever since 1998, Skagafjörður utilities have been responsible for the dynamic development of district utilities in rural areas, and at present, around 90% of homes in Skagafjörður are connected to hot water. Household heating costs in Skagafjörður are among the lowest in Iceland, and the customers of Skagafjörður utilities pay the same price per energy unit of hot water wherever they live in the municipality.

A total of 350 km of heating utilities pipes have been laid underground in rural areas during these development years, and the number of households in rural areas that have been connected are 330.



Ice baths

The ice baths that Set has designed and constructed have enjoyed increasing popularity since the first one was installed a few years ago. Swimming pools, fitness centres, sportsmen and -women and individuals have increasingly sent enquiries to the company regarding this product, which is not exactly one of its conventional goods. It has been enjoyable to see the responses that we have had after the product was introduced into the market and the unexpected demand that followed.

Among those who have purchased ice baths from Set are the Mjöltnir sports association and Gunnar Nelson. Mjöltnir is a sports association that has the goal of strengthening attendance and competition in living martial arts, a field in which Gunnar has achieved incredible successes worldwide. This photograph shows Gunnar next to the ice bath that Mjöltnir received from Set. The head craftsman of the goods at Set is Guðjón Ingi Viðarsson, plastic smith, who has decades-long experience in the construction of various connection wells, tanks and piping solutions made of Weholite pipes manufactured by Set.

X-Stream sewage systems

Set has, for a number of years, marketed sewage pipes and connecting systems from the Dutch company Wavin. The pipes have double walls, a smooth inner surface and a grooved outer surface, which increases their load capacity. A characteristic of the excellent design of the X-Stream system is how easy it is to connect the pipes together (low push-in force), which speeds up assembly, save time and makes all handling of the material easier.

Wavin manufactures the pipes in several countries, together with conventional connectors and a wide range of other accessories, such as connection wells, bottom parts of extensions, cone pieces and oil traps, which have enjoyed growing popularity. Wavin also produces suitable connection saddles for side analysis.

The X-Stream piping system fulfils all the requirements of the EN 13476-3 standard for utilities. The system is suitable for main piping in the size range of 150 mm to 600 mm and will, therefore, replace conventional sewage pipes from buildings.

Set has a technology development agreement with Wavin and has adapted the material to various custom construction solutions. Numerous projects have been carried out by the Set sewage division in recent years.

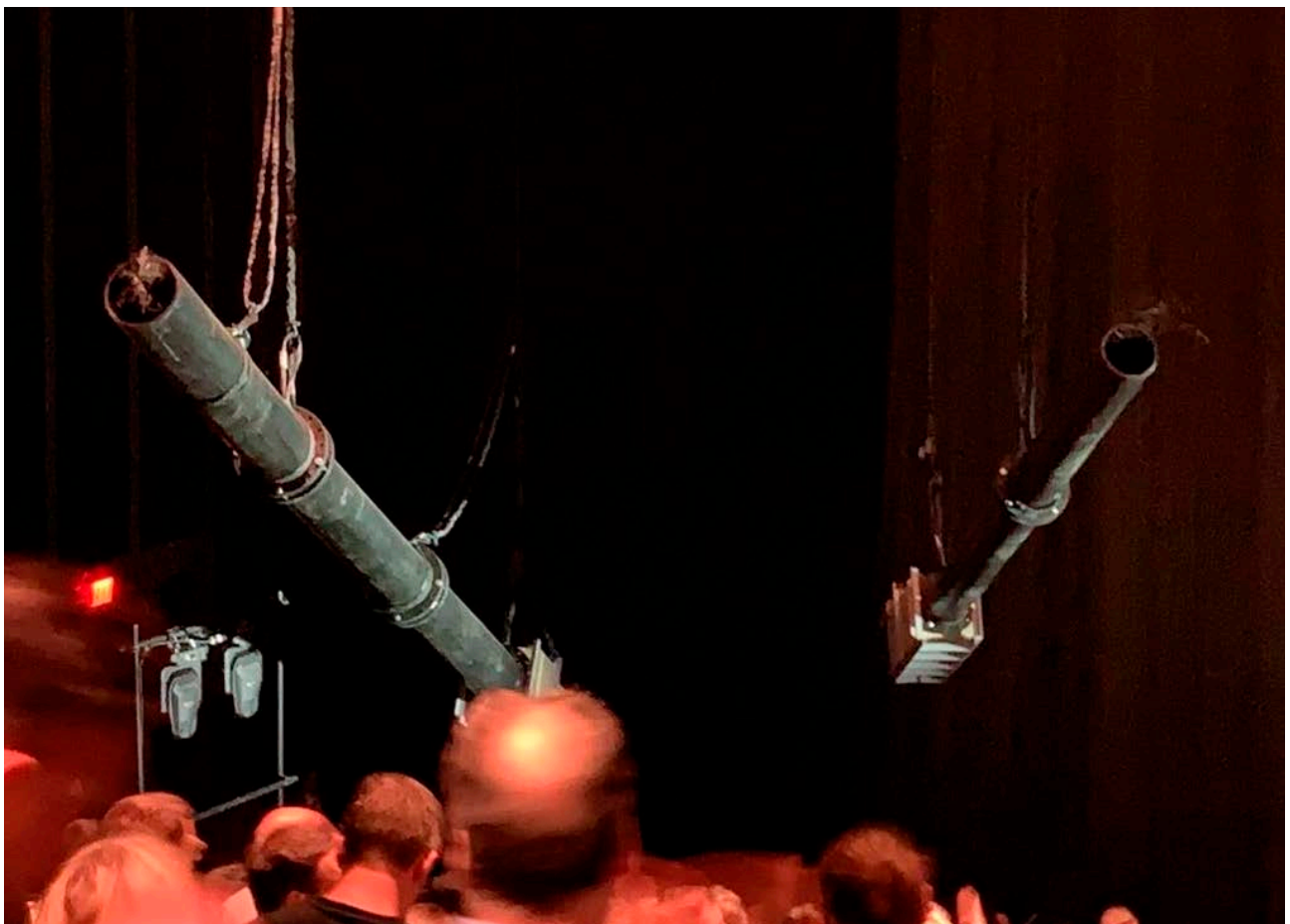


Björk on tour with a pipe organ made from Set plastic pipes

"Cornucopia" Hornspeglun is the tenth tour and the first theatrical production of the musician Björk Guðmundsdóttir. The first eight shows took place this spring in Shed, a new cultural centre in Manhattan that was opened in April 2019.

The shows that took place in May were among the first events there. The idea for the concert and the show is based on the concepts of Björk's ninth record, Utopia from 2017. The show is directed by the Argentinian director Lucrecia Martel and is described as the "highest quality stage concert of the artist to date".

The shows continued in Mexico in August and will be in Europe in November and December 2019. Björk is supported on stage by an orchestra, numerous artists and technicians. These include the Hamrahlíðarkór, a 50-member Icelandic choir, which also opens the show. Among the equipment onstage are organ pipes that were designed by the organ builder Björgvin Tómasson in Stokkeyri, wherein he used, among other things, 315 mm and 400 mm water pipes from Set ehf. Set is highly pleased to know that it plays a part in the creative process of this highly acclaimed artist.



Set's anniversary

Set's 40th anniversary was celebrated in Grand Hotel Reykjavík on December 1st '18

This was considered eminently appropriate, as it coincided with the 100th anniversary of Icelandic sovereignty. The company's 40-year history spans a large proportion of the sovereignty period and the period from when the country gained full independence in 1944.

The celebration was held in Grand Hotel Reykjavík as a Christmas celebration for the staff.

The partners and suppliers of Set celebrated the event with gifts donated to the evening's raffle, which shows the enormous goodwill that the company enjoys among them. Domestic and foreign employees from Set Pipes joined together for this festive evening, with the foreign staff having been welcomed the evening before.

Stuðlabandið, a band that has its practice facilities in the company's facilities, was responsible for the music, just as it has been at Christmas celebrations in recent years. During the dinner, Magnús Þór Sigmundsson and Jóhann Helgason played and sang for guests. The highlight of the evening was when the secret guests of the Stuðlabandið, Björgvin Halldórsson and Sigríður Beinteinsdóttir, appeared and played highlights from their long and successful careers. They are among the best-loved Icelandic performers for decades in which Set has operated, and their presence was certainly a unique experience at such a milestone event.

Einar Elíasson, the founder of Set, was among the guests. At the same time as the 40th anniversary of Set was celebrated; it was noted that it had been 50 years since he began the operations of Steypuiðjan in 1968 and 60 years since he came as a young man to Selfoss from Vestmannaeyjar in 1958.





Set ehf • Pipe production