



Transparency and Trust

ShibataFenderTeam (SFT) talks to WPD about their holistic approach to fender system design.

What makes your fenders stand-out from the crowd? Why would a customer opt for your fenders?

At SFT we adopt a holistic approach to fender design and manufacturing.

Can you explain what you mean by 'holistic approach' in regard to fender design and manufacture?

At SFT our holistic approach means that our engineers design high-quality fender solutions taking into account all the individual elements of a fender system (rubber unit, steel panel, chains, fixings etc.) while other manufacturers can get lost as they only focus on the rubber unit.

Although the rubber unit is a very important part of the fender system, it works only as well as the design of the system. Often you can see premature failure of fender systems where the rubber unit shows damage. In most cases this damage does not happen because the rubber fender has a low quality or mistakes have been made during manufacturing- it happens because the design of the overall system is wrong. For SFT, it is paramount that the fender system has a holistic design, valuing all the individual requirements of the project.

With our engineering expertise, we view beyond what looks good in a drawing, because it might not work in the field. Each project has diverse requirements that are all equally important when designing a fender system and we are highly committed to increasing

the industry's awareness of the relevance of a comprehensive concept. The consequences of overall design problems and typical failures should never be underestimated which is why we at SFT make it our mission to clear up common misconceptions about fender system design.

With the overall target to protect people, ships and port infrastructures, engineering excellence and project-specific solutions are crucial in the fender industry. The focus on customised and ideally balanced fender system designs is one of SFT's main strengths, improving the fender systems' performance as well as its service life. In short, our holistic approach reduces maintenance, replacement, and consequential costs at the terminal and improves the service life of fender systems.



SFT is pleased about its contribution to Panama's tourism sector and the sustainable development to the country.

In your opinion, why do clients continue to choose SFT's fenders?

We are our client's partner throughout the entire project including for example support, close cooperation, cost efficient solution, and engineering specially targeted to project specifications. Fender design and manufacturing is our core competence with all available resources used for excellence in design and product quality. Furthermore, we are always at our client's side with worldwide offices and a network of sales agents offering local support.

We value transparency and trust. With our White Paper Series on fender manufacturing, for example, we continuously advocate more transparency in fender production in order to ensure quality standards that are driven by a commitment to high-performance

products and a clear sense of responsibility. Our experience and proven track record with several thousand references worldwide speaks a language of its own and proves that we are successful with what we are doing and that clients can rely on our expertise and experience as the the largest marine fender manufacturer globally. We offer product liability insurance with at least EUR5million coverage as well as extended warranties backed up with corresponding bonding.

What kind of new fender design features would you like to highlight for our readers?

Wave fenders: Different applications require different fenders and a design concept that is often not a simple off-the-shelf solution. While most terminals require as little friction as possible between the vessel and the fender, others are actually in favour of high friction levels. This is particularly of interest where small ferries berth head on to mooring posts to let passengers walk off and on the ferry.

Our wave fenders are offering nothing short but that very feature. With their alternating trough and peak design they are providing mechanical resistance due to their shape and physical resistance by the nature of the rubber properties. A solution well accepted by operators and proven in practice throughout years in service with calls every hour.

We took the good advice from installation crews and ports with respect to an installation as easy and fast as possible and most importantly having the executing works crew in mind who has to carry out lifting and drilling operations close to water. At the Port of Stockholm, a modular system was developed whereby the individual wave fenders are pre-mounted to a solid steel backing plate in a safe workshop environment. The pre-fitted modules then feature significantly less anchors to be cast or drilled and will make installation safer, quicker and more economic.

A random number of pre-fitted wave fender modules can be placed next to each other as they all fit nicely into each other by overlapping and inter-connecting links, just like a puzzle. And should there still be the need for a replacement, all wave fenders can be easily removed from the modules and individually replaced.

You could say that this example reflects our approach: highly customised designs taking into account the client's requirements and the uniqueness of the project. We undertake new design challenges due to unusual existing substructures, e.g. for upgrading of berths or duplex coating systems for steel panels.

With a large number of manufacturers competing for business, how do you view the market for 2020 and how competitive is it going to be?

There are only two true global players on the market with SFT leading the field. Small or new manufacturers often cannot achieve the experience of long-established manufacturers such as ourselves as they have very few reference projects, and limited design and manufacturing expertise. Additionally, if a manufacturer is financially unstable, contractors face major risks to source the materials; this risk can be avoided when choosing a manufacturer who has demonstrated long term financial stability.

Both Brexit and the Coronavirus are having a knock-on effect on trade around the world - what are your expectations for 2020 world-wide? Have you adjusted your expectations for 2020?

SFT has not reduced expectations for 2020. We stick with our planning; there might be delays due to the tense economic situation worldwide but our outlook for 2020 stays strong. Brexit has an influence but more in the logistic than the actual business; the UK



Wave fenders in Stockholm.

market has a huge potential. It might be more complicated but the market is still strong; the gap that missing EU subventions leave might be closed by the UK government and pushing investments. With regard to the coronavirus pandemic the development and consequences resulting cannot be estimated at the moment. It is influencing the supply chain of manufacturing and shipping for the parts which are produced in Asia.

The SFT Group has a unique position that we are able to use the capacity of our state-of-the-art production facility in Germany where we can offer short term solutions, improve delivery times and make sure that target construction schedules are met. This flexibility is a great advantage which we offer our clients. Additionally, we take into account travel restrictions and have therefore developed a successful online seminar session which is individual and customised for our clients' requirements.

What is your view on how the market for fenders will develop over the next couple of years?

Keeping an eye on a company's environmental carbon footprint will grow in importance, such as for example, how to dispose of fenders after their life cycle; it should be noted that it is absolutely no solution to use recycled rubber in the fender manufacturing process. We believe there will be strong development in certain regions. Also, international trade will further increase even if some countries are protecting their markets, but with a long-term view, international trade will not decline. With strong interactions of world markets, the majority of trade will be processed through ports and harbours which, coupled with further growth of the cruise industry and the upgrading of ports to be prepared for larger ships, provides opportunities for us.

Were there any interesting order(s)/delivery last year and how is 2020 shaping up so far?

There are a few highlights we can share for this feature. For example, with the new Cruise Terminal in Amador, Panama is seeking to increase cruise tourism with an eye to potentially serving as a home port for cruise vessels. Subsequent to dredging the navigation canal and terminal area, the new terminal consists of a pier with two berths and a total length of 366m and can accommodate two mega cruise ships and handle all their passengers simultaneously.

SFT successfully developed a customised solution to accommodate the fenders to a broad range of tides and delivered 18 Ocean Guard Fenders of the size of 3300 x L 6500mm within a short time frame. Ocean Guard Fenders are foam fenders which are the perfect choice for cruise terminals since their urethane skin does not leave marks on the white hull of cruise vessels. SFT is pleased about this contribution to Panama's tourism sector and the sustainable development to the country.




SFT provided hinged fender panels for a pier head at Sjøllands Odde.

In another project SFT provided hinged fender panels for a pier head at Sjøllands Odde, a small village on the northwest coast of the Danish island Zealand. Its ferry connection to Aarhus, operated by ferry company Molslinjen A/S, marks an important hub for commuters who rely on a timely and reliable connection between these two parts of Denmark. With up to 24 departures, the port is highly frequented and used by some of the world's fastest ferries. The operator Molslinjen A/S recently commissioned the refurbishment of the pier head in Sjøllands Odde to keep up with the new ferries.

ShibataFenderTeam equipped the pier head with 30 CSS 800 Cell Fenders and steel panels in 9 different sizes, each with a height of 4700mm and widths from 1500mm to 3100mm. The engineering aspect of the design was probably the most challenging, as the pier head was not completely smooth and the specification required that every panel should be hinged together. Through great cooperation with the client Molslinjen, ShibataFenderTeam delivered a perfectly fitting system.

Being located in the middle of the Kattegat, the weather can get rough and the visibility is not always the best. To make sure that the vessel's captains can locate the pier head regardless of the weather conditions, yellow UHMW-PE for the top of the steel panels was used. An individual solution for a challenging design, ensuring safe travel for the commuters of the region and a safe and secure berthing throughout the year - an order perfectly solved by ShibataFenderTeam.

Last but not least in Singapore, one of the first orders for SFT's new factory in Malaysia has already been the most comprehensive one for the company to date: 199 CSS 1700 Cell Fenders with 6100mm x 3370mm steel panels for the new mega port in Tuas in the West Region of Singapore are scheduled for final delivery and installation in 2021.

For the production of the fenders, 645t of rubber compound will be produced in-house in the new factory. Next to the rubber compound production, all the other fender manufacturing steps from compounding to curing and testing will be taking place on-site pursuant to the SFT Group's high quality standards. 



Rubber fenders for the new mega port Tuas.