

The Atlas Copco logo is displayed in white text within a teal rectangular box in the top right corner of the image. The logo consists of the company name "Atlas Copco" in a serif font, flanked by two horizontal white bars above and below the text.

Atlas Copco

A technical drawing overlay is positioned in the bottom left corner, partially overlapping the teal background. It features various circular and rectangular shapes with dimension lines and numerical values such as 1380, 1630, 10.8, 18.5, 30.8, 41.8, 10.5, 10.2, and 10.5. The drawing is rendered in white lines on a teal background.

Supporting seafood industry needs

Atlas Copco dry vacuum pumps make fish evisceration efficient

Region: Turkey

Sector: Food processing

Benefit: Higher vacuum capacity, easier maintenance

Noordzee, a leading Turkish fish aquaculture producer, is responsible for supplying the freshest seafood delights to the world. Specializing in fish food production and fish evisceration, they are top exporters of sea bream, sea bass, meagre and salmon trout. Atlas Copco Vacuum recently partnered with them to enhance their fish evisceration process. By solving operational concerns and introducing them to our dry vacuum pumps and systems, we aimed to bring a higher level efficiency to their new facility.

Challenge:

Noordzee processes large amounts of fresh fish daily and fish evisceration is a vital step. Evisceration is the process through which the innards and bones of the fish is extracted without cutting or puncturing them. Complete and efficient evisceration ensures in better quality final product.

Vacuum pumps are the best tool to ensure a clean and effective evisceration process. While Noordzee had the same process in their other facilities, their new site was larger and required a higher level of vacuum capacity and piping. The other challenge they were concerned with was the issue of the fish bones and heads getting stuck in the piping. Additionally, if the vacuum pressure and capacity was not on the mark, it would affect the transportation of fish bones and heads to the drain chamber.

Solution:

To solve their process challenges, our sales engineer conducted several site visits to get a clear understanding of the vacuum capacities needed, pipe diameters and other components to provide the right solutions. We introduced them to our dry multi-claw vacuum pumps - two units of the Atlas Copco DZM 1200 VSD⁺ and one unit DZM 1200 VSD⁺ A.

The DZM VSD⁺ is the perfect centralized high capacity dry vacuum pump. The pumps house a stack of reliable claw elements to increase pumping capacity while maintaining a process set pump with clean, dry variable vacuum performance. This vacuum pumping package offers a controllable system ranging from 24 to 1,560 m³/h integrated into one platform with a **'plug & play'** concept. At the heart of this system is the DZS 300A claw vacuum pump providing **efficiency, robustness and better ultimate performance. The noise-reducing canopy and modular design ensures flexibility and efficiency in terms of maintenance and life cycle costs.**

The fish bones and heads are vacuumed with DZM 1200 VSD⁺ and thanks to its capacity and design, the vacuum per cycle is significantly increased. There is also no risk of fish bones or heads getting stuck in the piping. The bones are collected in a bucket and every 10 seconds valves open, and the vacuum sucks the bones to the drain tanks. The other uses for the vacuum pumps are during the filtration and separation processes, drain systems and valves automation. The timings for opening and closing valves is important as it ensures proper conveyance of the particles.

Outcome:

While oil injected vane vacuum pumps are a conventional choice, **Noordzee found the use of dry vacuum much more suitable to manage the pressure fluctuations during every cycle. The dry technology also meant less oil consumption and easier maintenance.**

Though the DZM VSD⁺ dry vacuum system was their choice for fish evisceration, they do have hope to someday start their packaging processes with Atlas Copco liquid ring pumps. Our dependable technical support, accurate analysis of vacuum capacities and quick after-sales service has created a fruitful partnership that is poised to grow steadily through the years.



Noordzee facility with DZM 1200 VSD⁺ pump

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Overview of benefits:

-  Increased vacuum capacity
-  High process efficiency
-  Expert technical guidance and support
-  Easy maintenance
-  Dependable after sales

