

ADPRON SK3 DEAERATION AND AERATION SYSTEMS



De **Lough**

PIPESYSTEMS B.V.

DEAERATION AND AERATION SYSTEMS

ADPRON SK3 deaerator

De Jongh Pipesystems B.V., the specialist in the field of PE-HD plastic piping systems for gas, water and pressure sewage systems, etc. has expanded its activities in the field of waste water pipes.

Close cooperation with Technisch Adviesbureau Hans van den Blink has resulted in an improved version of the ADPRON SK3 deaerator, which results in a longer lifespan of the pipes and pumps and less maintenance.

The public waste water pipe system can transport large volumes of industrial and household waste water. We give it hardly any thought, but the volume of liquid that is transported via this large, mainly underground, pipe system is immense. Although an obvious thought, it does not only consist of the pipe networks for our water supply and our waste water flows. Industry also pumps large volumes of liquid within its own pipe networks for various production processes. Not only the correct and trouble-free transport of finished and semi-finished products forms

the daily challenge of the relevant managers, but also the secondary processes, such as the transport of coolant.

What all these liquids have in common is that each and every one of them, without exception, has the tendency to form air or gas in the pipe network. Low flow rates, inclined pipe branches, complicated bends, unforeseen soil movements, the composition of the pumped liquids (e.g. sewer gases in waste water) and the air that is naturally present in water encourage the formation of air or gas and, therefore, give the managers of pipe networks numerous problems.

- In practice, the capacities of pipe networks turn out to be far less than the design capacities.
- The expected pump efficiencies appear to be a utopian dream.
- The maintenance costs for pumps and pumping stations are unexpectedly high and usually seem intangible.
- People are regularly confronted with damage as a result of water hammer and all of its consequences.

Operation

In the last few years, a lot of useful research has taken place into the formation of air in pipes, the behaviour of that air and its effect on the capacity of a pipe network. Using this knowledge, pipe networks are now being developed which, in theory, should be less susceptible to the negative effects of trapped air. Every professional concerned, however, is convinced that it is not possible to completely prevent these negative effects, because there are simply too many unmanageable parameters. Furthermore, many networks are still a long way from reaching the end of their technical or economic lifespan.



Test set-up

Regularly deaerating pipe networks in the correct location using an ADPRON SK3 is and remains a must for now. The public networks for both the supply of drinking water and the removal of waste water have many deaeration points. It is not uncommon for such networks to have over 200 deaeration points. The location of such a point is often determined by a problematic flow capacity. Most locations are made suitable for manual deaeration. However, increasing labour costs are the reason that a growing number of managers are choosing to install automatic deaerators, such as the ADPRON SK3.

An air bubble moving in a pressure pipe is also known as water hammer. Depending on the diameter of the pipe and the pump capacity, this air bubble can be compressed at a great force. As a result, unmeasurable forces are created locally, which can blow up parts of the network, resulting in serious financial damage. If pressure pipes are protected by an ADPRON SK3 deaerator or deaerator/aerator, financial damage can be avoided.



ADPRON SK3



Integrated system for Rotterdam has been functioning for 13 years

Advantages

In conclusion, the use of the ADPRON SK3 deaerator or deaerator/aerator on pressure lines has two large advantages:

- 1.** A financial advantage in the form of an energy saving.
- 2.** The prevention of damage to the installation and therefore also the prevention of financial damage.

By expanding its service, De Jongh Pipesystems B.V. has included the above-mentioned deaeration system in its delivery package and it is available as of now.

Thanks to this expansion of our delivery programme, we are able to offer our clients a more **complete system**, which meets their needs and requirements.



Would you like further information?

Feel free to call De Jongh Pipesystems B.V. An experienced, motivated and well-trained team will provide you with advice on aeration and deaeration systems.

Our wide range of high-quality and user-friendly products offers a practical and suitable solution to almost every problem.



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