

During winter months in Poland I had the possibility of doing series of divers using the system of heated scrubbers in KISS Spirit Sidewinder. Of course the main goal was to improve my personal thermal comfort and duration time of absorbent – which means to eliminate unfavorable factors influencing safety during long dives in water 2-4 °/36-39° F. At the same time the secondary goal was to test if perceptibility of getting cold after diving will be smaller than when using classic scrubbers (only with Syntactic Foam Lining). In the testing phase I did about 20 dives in the range of depth 10-40m / 30-130 ft and time 60-120 minutes with temperature of air from 10° C/ 50 °F to 2° C/36° F, some dives took place under ice. Additionally, during some of dives, I did not use heated underwear, gloves and socks on purpose. I would like to mark that my feelings might be subjective. The first issue which wondered me before the first use was if I would be able to feel higher temperature of breathing air. Indeed, during the first few minutes gas was clearly warmer and more humid than usually. However this feeling wore off together with the time of diving. Then I did not feel any differences in comparison to diving without heated scrubbers. The effect of being cold after diving was much smaller. In my case symptoms mainly relate to peripheral circulation so it was easy to check the degree of coldness of my feet and hands to see the difference. I can say that thermal comfort after diving with heated scrubbers and without heating of drysuit is comparable with the comfort after the same diving with heated vest and classic scrubbers. However the most optimum for me and suggested option for long dives in cold water is the usage of full dry suit heating with gloves, socks and the usage of heated scrubbers. In this option a two hour dive did not cause thermal discomfort and even the smallest symptoms of being cold. Parallely I used also the second advantage of heated scrubbers – prolonging duration time of absorbent (100 % time prolonging than written in a manual).

Summing up, I highly recommend heated scrubbers as they are perfect tool to improve security of diving in very cold water.